



Locality Plan

Bellbridge Boathouse

Towong Shire

Landscape Concept Locality Plan, Cover Sheet



















project no: 3509
 drawing no: LC1
 issue: DD1
 sheet no: 1 of 8
 designed by: GM
 date: 25.10.2023
 scale: not to scale

Drawing Index			
Drawing number	Sheet number	Drawing Title	Revision
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LS1	2	Landscape Site Plan	DD1
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Existing Trees and Vegetation

1. Contractor is to protect all trees and vegetation to be retained - in accordance with AS4970 Protection of trees on development sites.
2. Contractor is to confirm retention of trees with Towong Shire prior to commencement of works.
3. Architect to confirm availability of Arborist report.

Legend - Layout Plan

-  Tree planting within mulched garden bed area.
-  Tree planting within mulched circle.
-  Shrub planting within mulched garden bed area.
-  Groundcover and tussock planting within mulched and topsoiled garden bed area.
-  Groundcover and tussock 'pocket' planting under existing trees, mulch applied to surface only.
-  Mulched and topsoiled garden bed.
-  Grass.
-  Existing trees to be retained. Architect to confirm if arborist report is available.
-  Tree protection zones. (refer Architect's drawings)
-  Dug/spade edge.
-  Steel edge.
-  Topping compacted gravel paving.
-  Concrete paving - finish to be confirmed by Architect
-  Paving -refer Architectural documentation
-  Gravel paving (suitable for vehicular traffic) -refer Civil Engineering documentation
-  Asphalt paving (for vehicular traffic) - refer Civil Engineering documentation

Bellbridge Boathouse

Towong Shire







Landscape Concept Site Plan

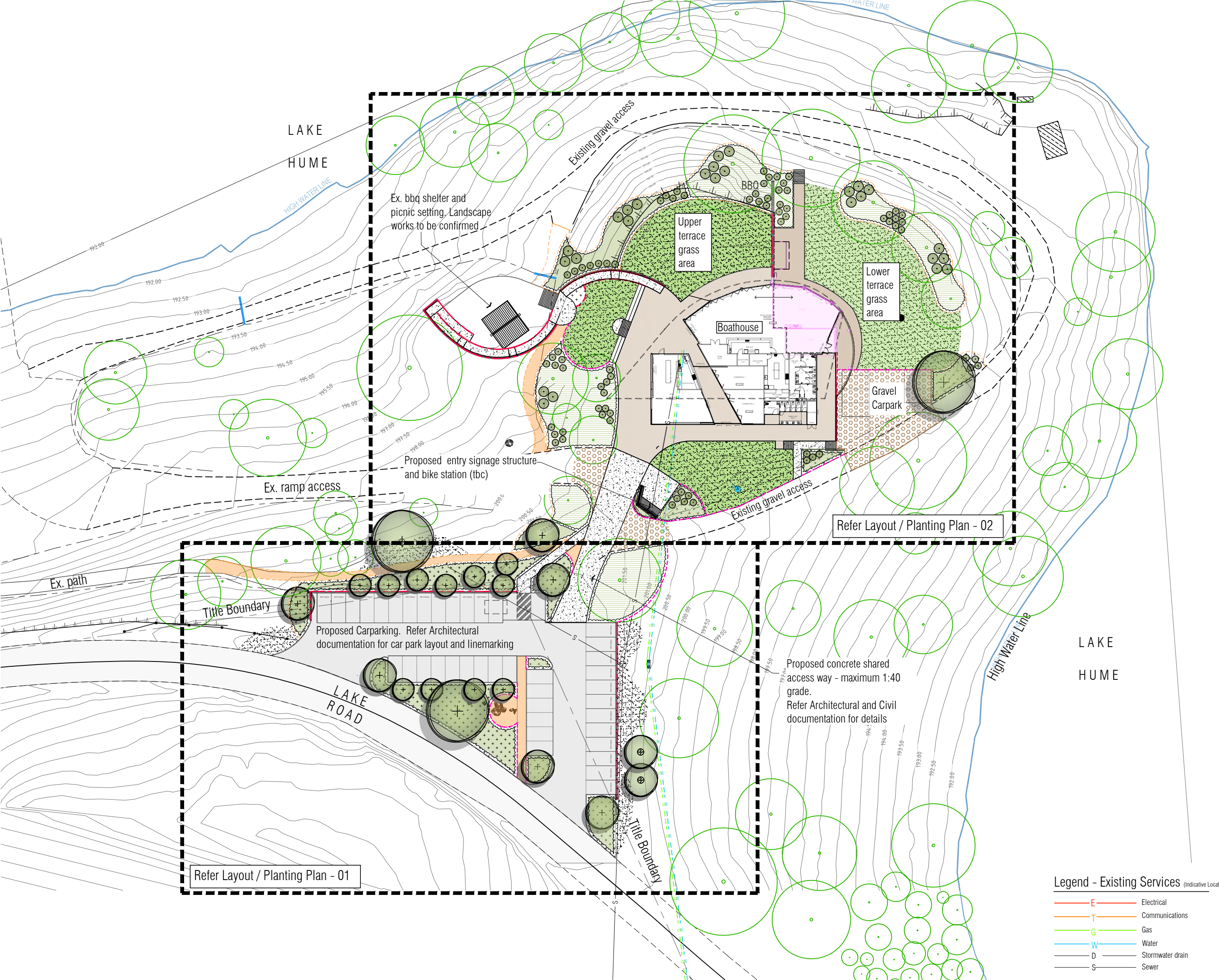
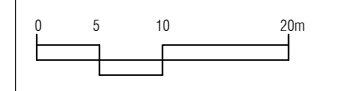
MEXTED RIMMER
LANDSCAPE ARCHITECTS

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project no: 3509
drawing no: LS1
issue: DD1
sheet no: 2 of 8
designed by: GM
date: 25.10.2023
scale: 1:600 @ A3

Legend - Existing Services (Indicative Locations)






-  Electrical
-  Communications
-  Gas
-  Water
-  Stormwater drain
-  Sewer

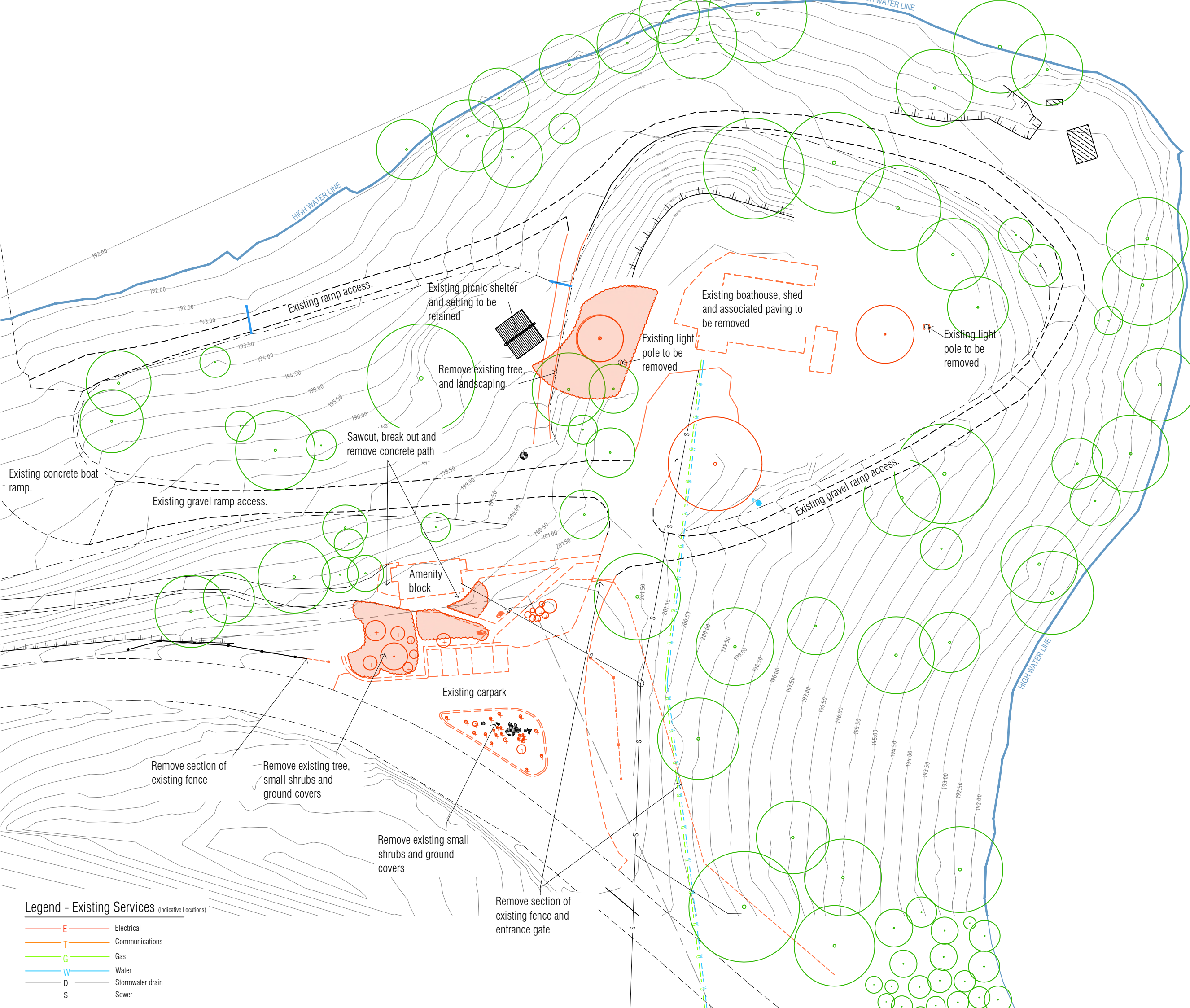


Refer Layout / Planting Plan - 01

Refer Layout / Planting Plan - 02

Legend - Demolition Works

-  Garden Bed or landscape area to be removed
-  Existing trees to be removed
-  Existing trees to be retained. Architect to confirm if arborist report is available.
-  Tree protection zones. (refer Architect's drawings)
-  Existing structure, building or paving to be removed. Refer Architectural and Civil Documentation for full extent of demolition and removal works.









Bellbridge Boathouse

Towong Shire

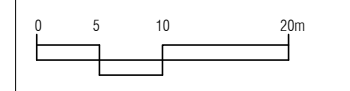
Landscape Concept Existing Conditions and Demolition Plan



Legend - Existing Services (Indicative Locations)

-  E Electrical
-  T Communications
-  G Gas
-  W Water
-  D Stormwater drain
-  S Sewer

project no: 3509
 drawing no: LD1
 issue: DD1
 sheet no: 3 of 8
 designed by: GM
 date: 25.10.2023
 scale: 1:600 @ A3



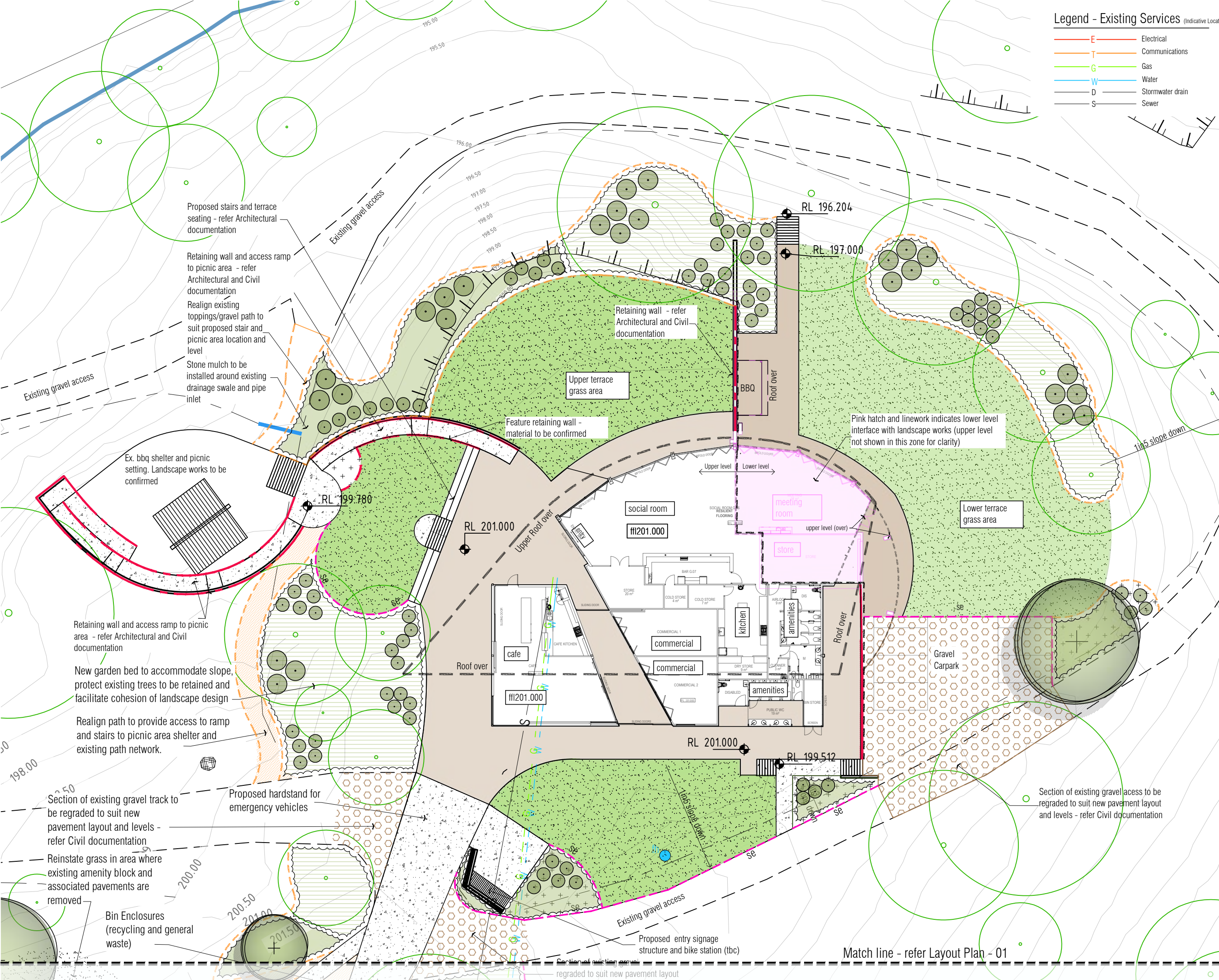
Legend - Existing Services (Indicative Locations)

E	Electrical
T	Communications
G	Gas
W	Water
D	Stormwater drain
S	Sewer

No.	Issue	Drawn by	Date
DD1	Design Development for review	ik	25.10.2023

Legend - Layout Plan

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	Tree planting within mulched circle.
	Shrub planting within mulched garden bed area.
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	Groundcover and tussock 'pocket' planting under existing trees, mulch applied to surface only.
	Mulched and topsoiled garden bed
	Grass
	Existing trees to be retained. Architect to confirm if arborist report is available.
	Tree protection zones. (refer Architect's drawings)
	Dug/spade edge.
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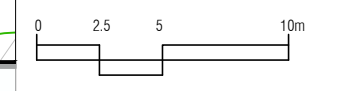
Bellbridge Boathouse
Towong Shire

Landscape Concept Layout Plan - 02










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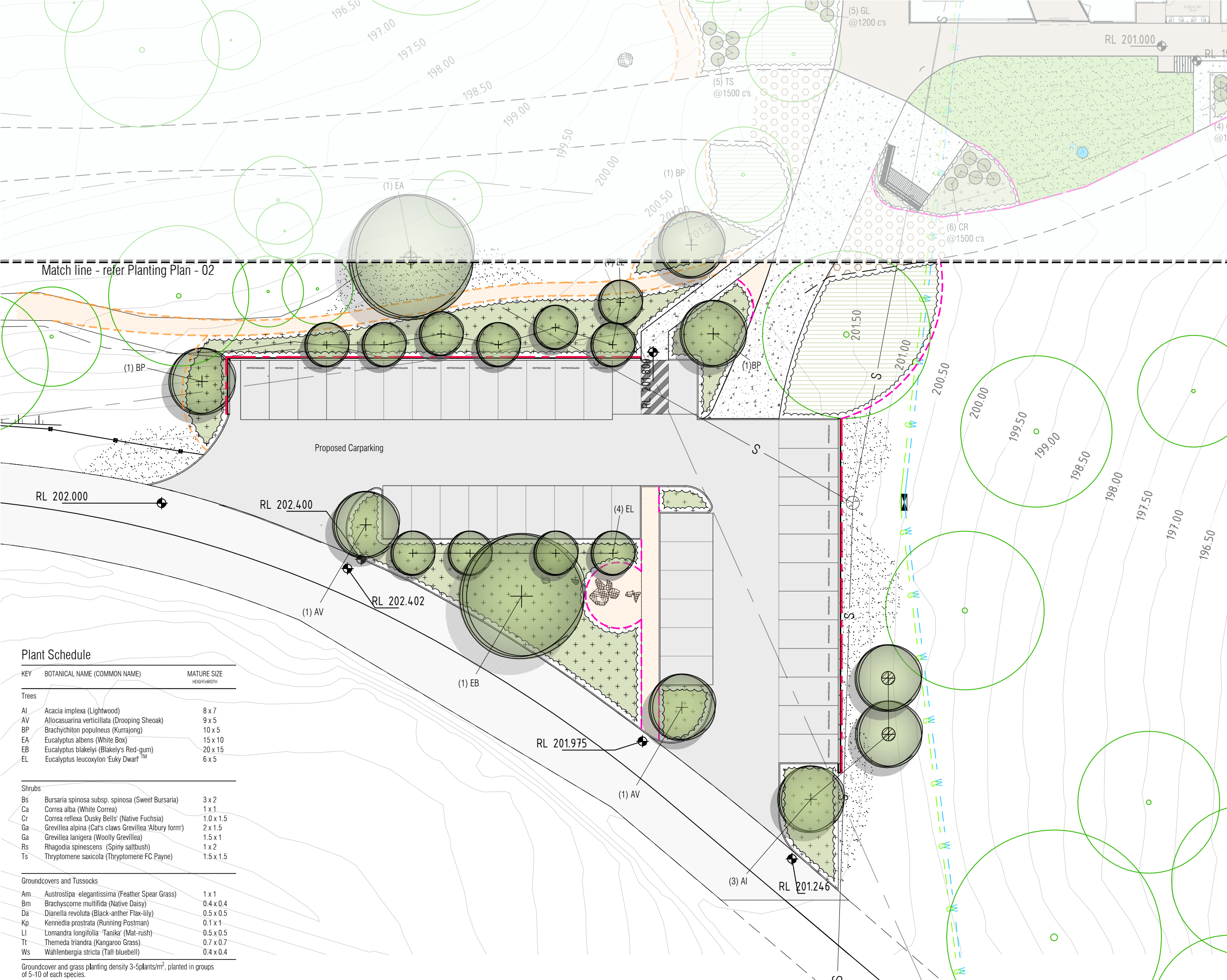
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project no:	3509
drawing no:	LL02
issue:	DD1
sheet no:	5 of 8
designed by:	GM
date:	25.10.2023
scale:	1:300 @ A3



Legend - Planting Plan

-  Tree planting within mulched garden bed area.
-  Tree planting within mulched circle.
-  Shrub planting within mulched garden bed area.
-  Groundcover and tussock planting within mulched and topsoiled garden bed area. Planting density 3-5plants/m², planted in groups 5-10 of each species.
-  Groundcover and tussock 'pocket' planting under existing trees, mulch applied to surface only. Planting density 3-5plants/m², planted in groups 5-10 of each species.
-  Mulched and topsoiled garden bed
-  Grass
-  Existing trees to be retained. Architect to confirm if arborist report is available.
-  Tree protection zones. (refer Architect's drawings)



Plant Schedule

KEY	BOTANICAL NAME (COMMON NAME)	MATURE SIZE HEIGHT/WIDTH
Trees		
AI	Acacia implexa (Lightwood)	8 x 7
AV	Allocasuarina verticillata (Drooping Sheoak)	9 x 5
BP	Brachychiton populneus (Kurrajong)	10 x 5
EA	Eucalyptus albens (White Box)	15 x 10
EB	Eucalyptus blakelyi (Blakely's Red-gum)	20 x 15
EL	Eucalyptus leucoxylon 'Euky Dwarf'™	6 x 5
Shrubs		
Bs	Bursaria spinosa subsp. spinosa (Sweet Bursaria)	3 x 2
Ca	Correa alba (White Correa)	1 x 1
Cr	Correa reflexa 'Dusky Bells' (Native Fuchsia)	1.0 x 1.5
Ga	Grevillea alpina (Cat's claws Grevillea 'Albury form')	2 x 1.5
Ga	Grevillea lanigera (Woolly Grevillea)	1.5 x 1
Rs	Rhagodia spinescens (Spiny saltbush)	1 x 2
Ts	Thryptomene saxicola (Thryptomene FC Payne)	1.5 x 1.5
Groundcovers and Tussocks		
Am	Austrostipa elegantissima (Feather Spear Grass)	1 x 1
Bm	Brachyscome multifida (Native Daisy)	0.4 x 0.4
Da	Dianella revoluta (Black-anther Flax-lily)	0.5 x 0.5
Kp	Kennedia prostrata (Running Postman)	0.1 x 1
LI	Lomandra longifolia 'Tanika' (Mat-rush)	0.5 x 0.5
Tt	Themeda triandra (Kangaroo Grass)	0.7 x 0.7
Ws	Wahlenbergia stricta (Tall bluebell)	0.4 x 0.4

Groundcover and grass planting density 3-5plants/m², planted in groups of 5-10 of each species.

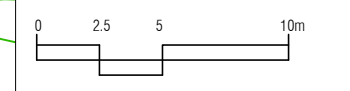
Bellbridge Boathouse
 Towong Shire

Landscape Concept
 Planting Plan - 01

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drawing no:	LP01
issue:	DD1
sheet no:	6 of 8
designed by:	GM
date:	25.10.2023
scale:	1:300 @ A3



Plant Schedule

KEY	BOTANICAL NAME (COMMON NAME)	MATURE SIZE HEIGHT x WIDTH
Trees		
AI	Acacia implexa (Lightwood)	8 x 7
AV	Allocasuarina verticillata (Drooping Sheoak)	9 x 5
BP	Brachycthon populneus (Kurrajong)	10 x 5
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EL	Eucalyptus leucoxylon 'Euky Dwarf'™	6 x 5

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Rs	Rhagodia spinescens (Spiny saltbush)	1 x 2
Ts	Thryptomene saxicola (Thryptomene FC Payne)	1.5 x 1.5

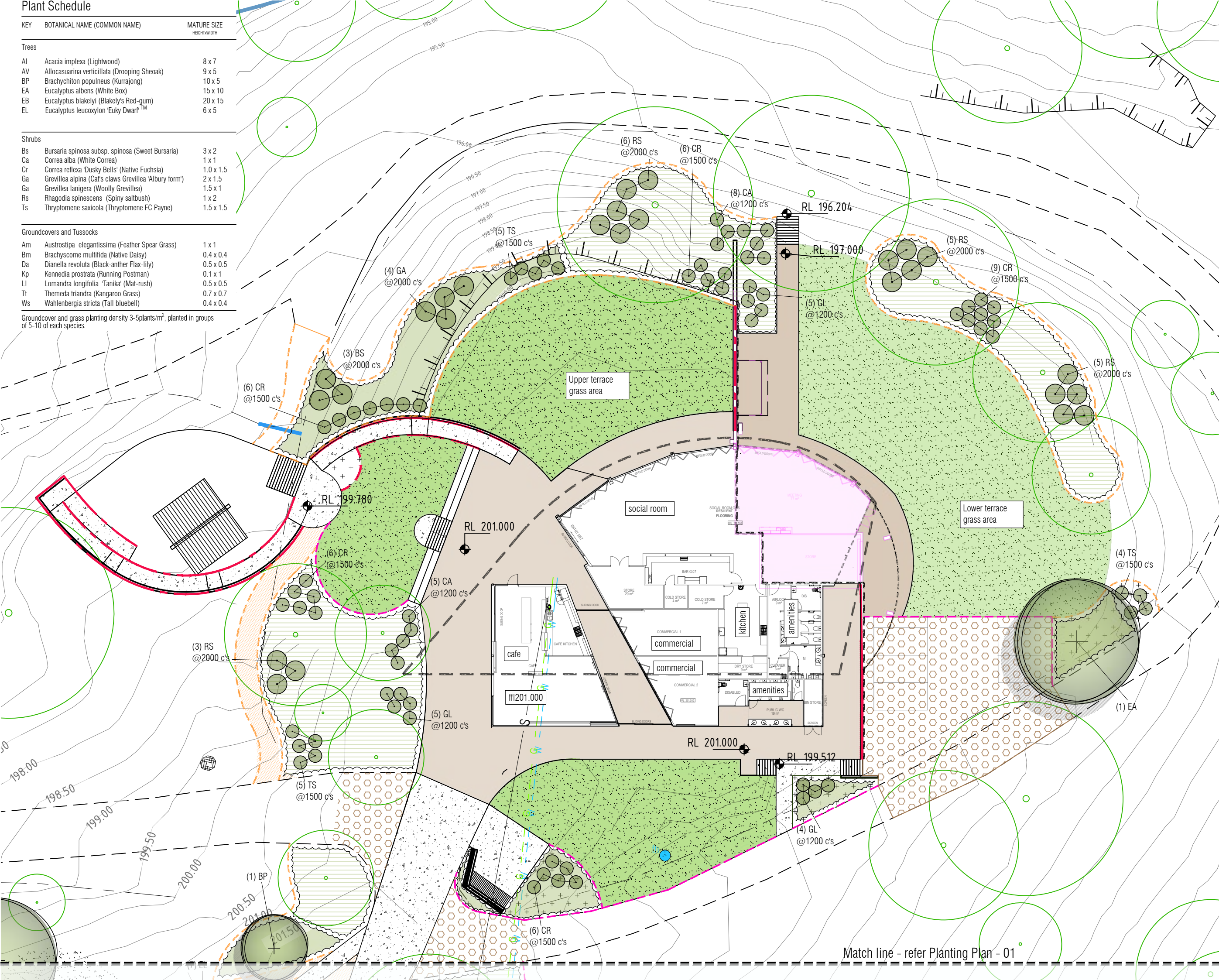
Groundcovers and Tussocks		
Am	Austrostipa elegantissima (Feather Spear Grass)	1 x 1
Bm	Brachycome multifida (Native Daisy)	0.4 x 0.4
Da	Dianella revoluta (Black-anther Flax-lily)	0.5 x 0.5
Kp	Kennedia prostrata (Running Postman)	0.1 x 1
LI	Lomandra longifolia 'Tanika' (Mat-rush)	0.5 x 0.5
Tt	Themeda triandra (Kangaroo Grass)	0.7 x 0.7
Ws	Wahlenbergia stricta (Tall bluebell)	0.4 x 0.4

Groundcover and grass planting density 3-5plants/m², planted in groups of 5-10 of each species.

No.	Issue	Drawn by	Date
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Legend - Planting Plan

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- Mulched and topsoiled garden bed.
- Grass.
- Existing trees to be retained. Architect to confirm if arborist report is available.
- Tree protection zones. (refer Architect's drawings)



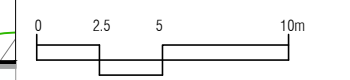
Bellbridge Boathouse
Towong Shire

Landscape Concept
Planting Plan - 02

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drawing no:	LP02
issue:	DD1
sheet no:	7 of 8
designed by:	GM
date:	25.10.2023
scale:	1:300 @ A3



Match line - refer Planting Plan - 01

TREES



Acacia implexa (Lightwood)



Allocasuarina verticillata (Drooping Sheoak)



Brachychiton populneus (Kurrajong)



Eucalyptus albens (White Box)



Eucalyptus blakelyi (Blakely's Red Gum)



Eucalyptus leucoxyylon 'Euky Dwarf'™

No.	Issue	Drawn by	Date
DD1	Design Development for review	ik	25.10.2023

SHRUBS



Bursaria spinosa subsp. spinosa (Sweet Bursaria)



Correa alba (White Correa)



Correa reflexa 'Dusky Bells' (Native Fuchsia)



Grevillea alpina (Cat's claws Grevillea 'Albury form')



Grevillea lanigera (Woolly Grevillea)



Rhagodia spinescens (Spiny saltbush)



Thryptomene saxicola (Thryptomene FC Payne)

GROUNDCOVERS AND TUSSOCKS



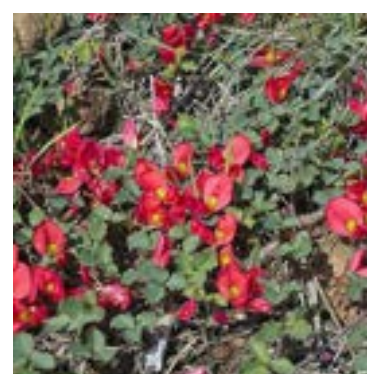
Austrostipa elegantissima (Feather Spear Grass)



Brachyscome multifida (Native Daisy)



Dianella revoluta (Black-anther Flax-lily)



Kennedia prostrata (Running Postman)



Lomandra longifolia 'Tanika' (Mat-rush)



Themeda triandra (Kangaroo Grass)



Wahlenbergia stricta (Tall bluebell)

Bellbridge Boathouse
Towong Shire

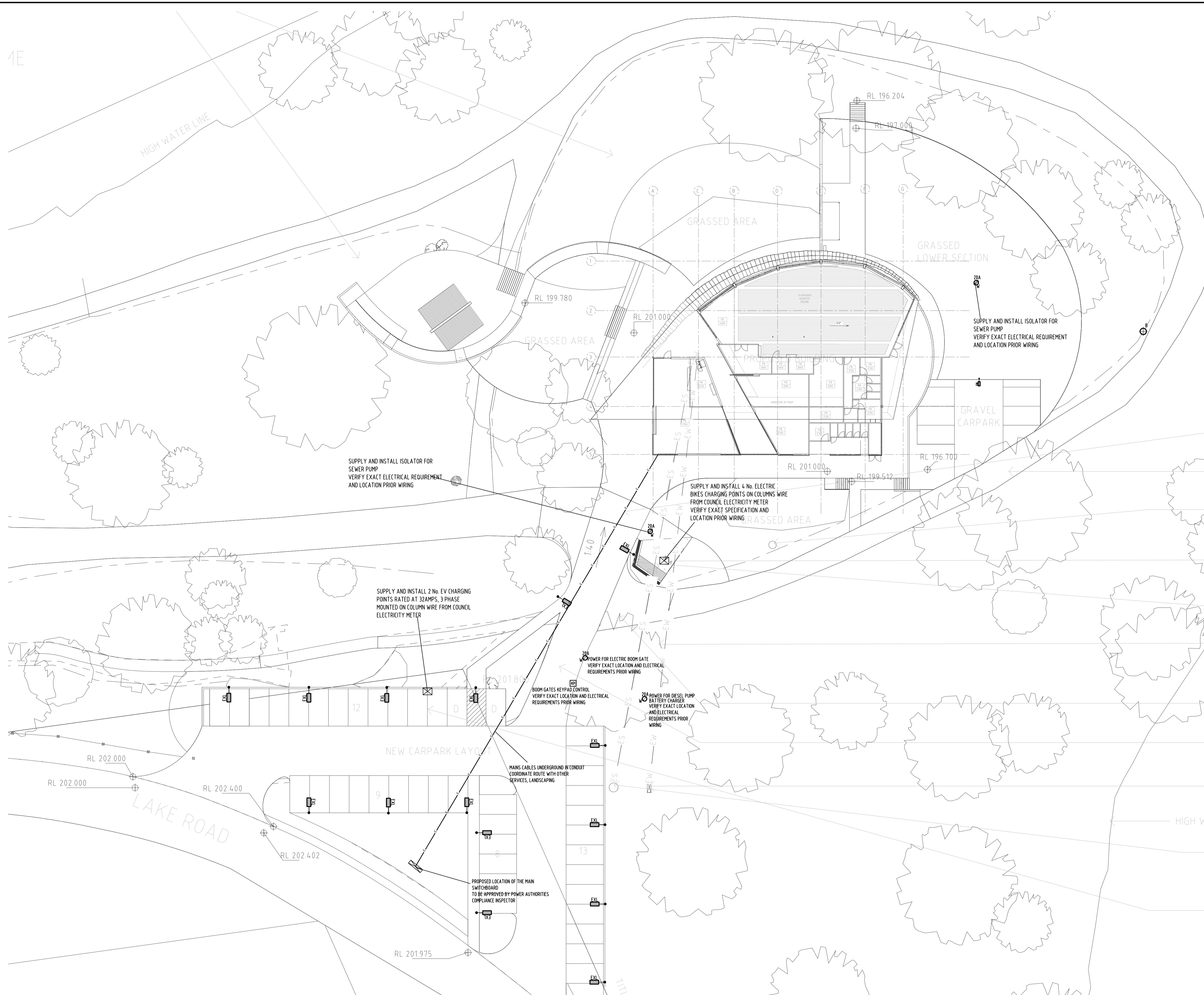
Landscape Concept
Planting Images

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A B N 8 1 0 0 6 0 8 0 8 2
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project no:	3509
drawing no:	LPI
issue:	DD1
sheet no:	8 of 8
designed by:	GM
date:	25.10.2023
scale:	NOT TO SCALE

1E



LEGEND:

- 30W LED POLE MOUNTED LED LIGHT CAT. LPA-SL-FALS-30-740-1.75x150-SL 7.5 DEG TILT, 4 M OCTAGONAL POLE 295x110 CLEAR ACCESS DOOR BASE PLATE MOUNTED
- LED WALL MOUNTED IP/DOWN LIGHT FITTING 4.6 W LPA LIGHTING CAT.5412-0-3-980-BLACK LPA LIGHTING
- LPA LIGHTING 24W 4000K SUSPENDED DIMMABLE LIGHT WHITE FINISH CAT.LNSP-EVA8767-24-840 OPAL DIFFUSER
- LPA LIGHTING 22W 4000K PLASTER NON DIM CAT. TR-GARR-22, D= DIMMABLE
- LPA LIGHTING 42W 4000K PLASTER NON DIM CAT. LPA-INDR II 4.414 LM D= DIMMABLE
- LPA LIGHTING 13W 4000K RECESSED DOWNLIGHT NON DIM CAT. DR-HAL3-13
- LPA LIGHTING 13W 4000K RECESSED DOWNLIGHT NON DIM CAT. DR-AQU-13
- LED LINEAR LIGHT
- LED LINEAR LIGHT EXTERNAL
- DOWNLIGHT
- LOUDSPEAKER INTERNAL CAT. SSC8M SULLY SOUND, W= EXTERNAL WATERPROOF
- SINGLE PHASE DIRECT WIRED CONNECTION VIA IP56 ISOLATOR, RATING AS INDICATED, OV= FOR OVEN, CT= COOKTOP, PROVIDE ISOLATOR SWITCH AS PER AS3000,
- THREE PHASE DIRECT WIRED CONNECTION VIA IP56 ISOLATOR, RATING AS SHOWN
- 10 AMP SINGLE SOCKET OUTLET (GPO)
- HD= HAND DRYER, DIRECT WIRED, PROVIDE ISOLATION SWITCH AT 2500 AFLL, EF= EXHAUST FAN CONTROLLED BY TWO CHANNEL MOVEMENT DETECTOR, RH= RANGE HOOD, DW= DISHWASHER, MW= MICROWAVE OVEN, FR= FRIDGE, SF= SUPPLY AIR FAN, AC= POWER FOR INDOOR AC UNIT, DW= DISHWASHER, FR= FRIDGE
- 10 AMP DOUBLE SOCKET OUTLET (DGPO), C= CEILING MOUNTED, AV FOR AUDIO VISUAL EQUIPMENT, COORDINATE BEFORE INSTALLATION, WP= WATERPROOF, S= SOFT WIRED POWER OUTLET
- DUAL CAT 6A RJ45 VOICE/DATA POINTS & CABLES C= CEILING MOUNTED, ALL COMMUNICATION CABLEING IS CAT.6A
- CAT 6A NEW WI-FI POINT VERIFY EXACT LOCATION PRIOR CABLING TO ACHIEVE THE BEST COVERAGE
- 133W LED PENDANT LIGHT FITTING LPA LIGHTING CAT. CALED A-P3-0-W-E-8-40-M-0950-K DIMMABLE
- MICROPHONE OUTLET
- PROXIMITY CARD READER (THE ACCESS CONTROL SYSTEM BY COMTEL)
- ELECTRONIC LOCK
- CLOSED CIRCUIT TELEVISION CAMERA, D= DOME, W= WEATHERPROOF
- DURESS ALARM BUTTON
- 10W 100# CEILING SPEAKER FOR PA SYSTEM

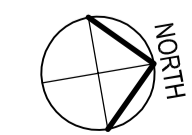
NOTE
ALLOW TO PROVIDE DATASHEETS FOR ALL LIGHT FITTING FOR REVIEW AND APPROVAL PRIOR ORDERING
VERIFY COLOUR FINISH

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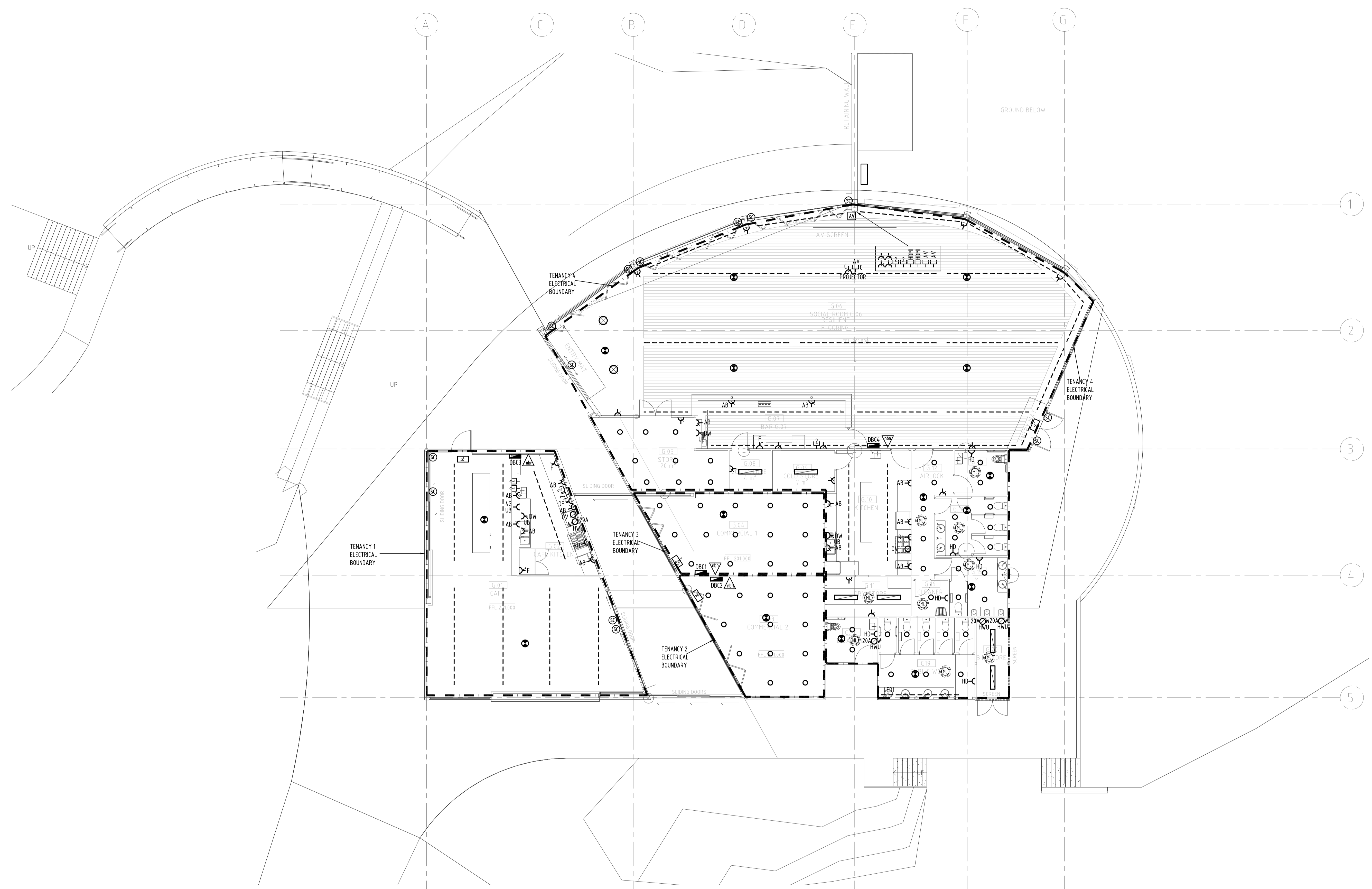


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 Fax: (03) 9690 7899
 Email: spa@sps-consulting.com.au

PRELIMINARY ISSUE
BELLBRIDGE BOATHOUSE
 32 TOWONG STREET,
 TALLANGATTA, VIC-3700

ELECTRICAL SERVICES
SITE PLAN

DRAWN	ENGINEER	CHECKED	SCALE	DATE	JOB NUMBER	DRAWING NUMBER	REVISION
XX	BP	BP	1:250	AUG 2023	223022	E01 of X	P



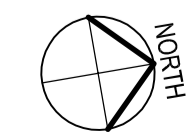
GROUND FLOOR PLAN

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PRELIMINARY ISSUE

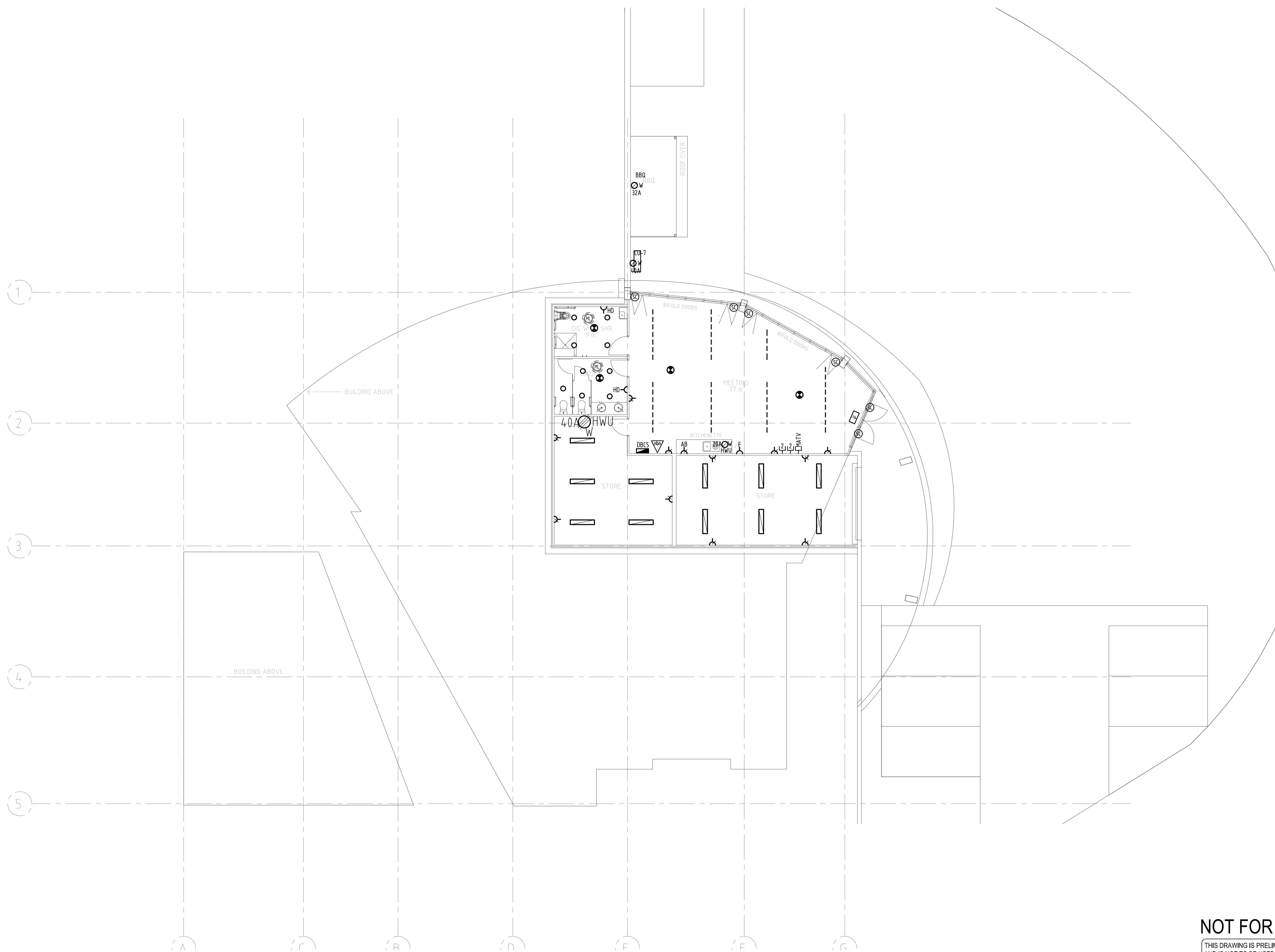
BELLBRIDGE BOATHOUSE
32 TOWONG STREET,
TALLANGATTA, VIC-3700

DRAWN	ENGINEER	CHECKED	SCALE	DATE
XX	BP	BP	1:100	AUG 2023

ELECTRICAL SERVICES

FLOOR PLAN
LIGHTING AND POWER LAYOUT

JOB NUMBER	DRAWING NUMBER	REVISION
223022	A1 E02 of X	P

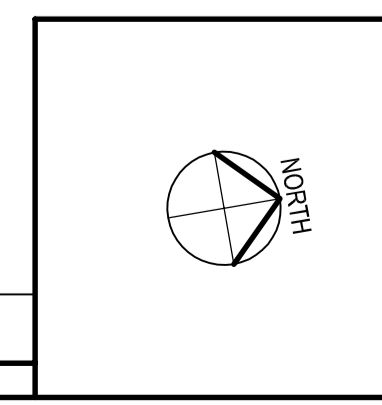


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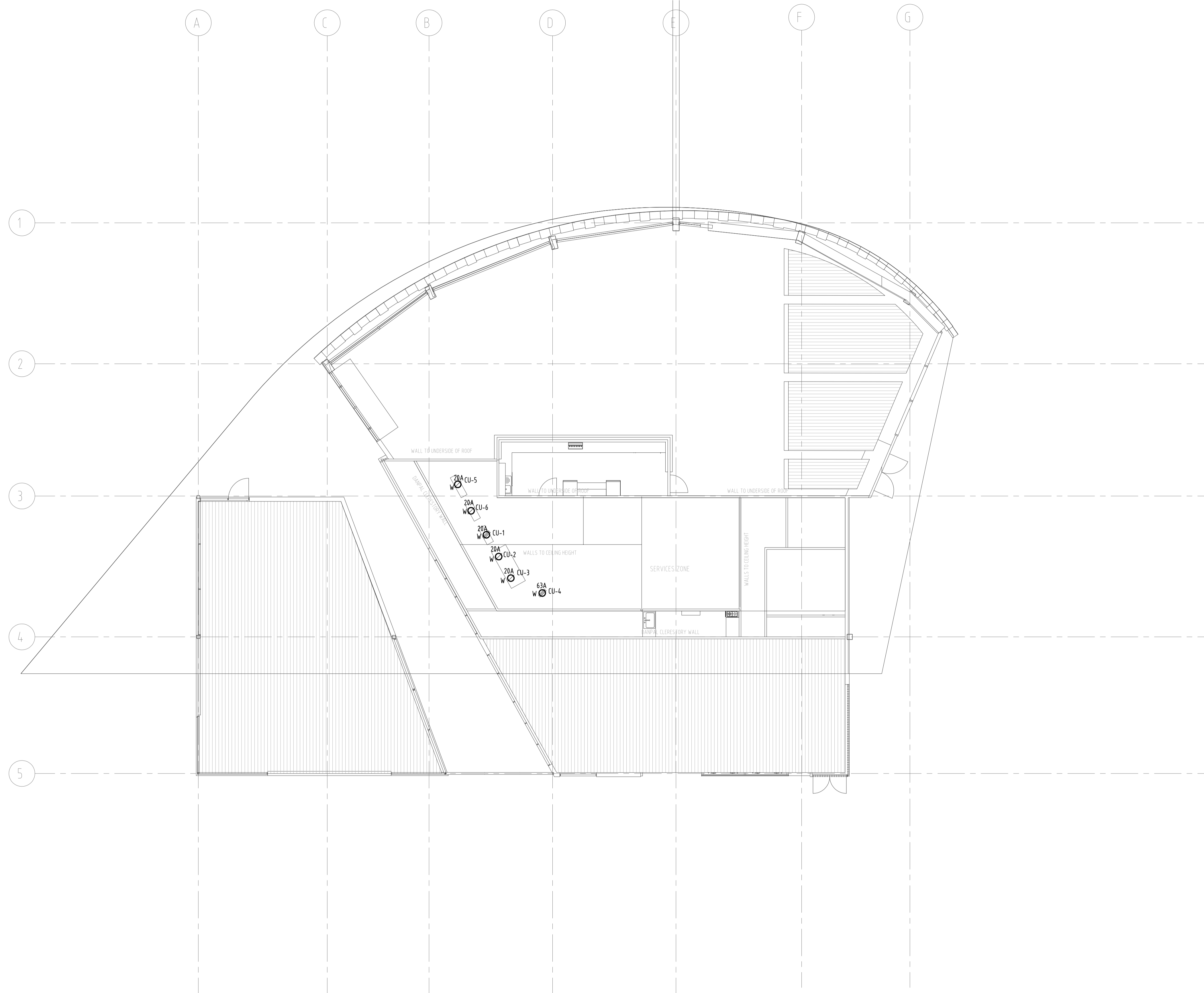
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PRELIMINARY ISSUE
 BELLBRIDGE BOATHOUSE
 32 TOWONG STREET,
 TALLANGATTA, VIC-3700

ELECTRICAL SERVICES
 LOWER GROUND
 LIGHTING AND POWER LAYOUT

DRAWN	ENGINEER	CHECKED	SCALE	DATE
XX	BP	BP	1:100	AUG 2023

JOB NUMBER	DRAWING NUMBER	REVISION
223022	A1 E03 of X	P



CLERESTORY LEVEL

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NO.	DATE	DRAWN	REVISION



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PRELIMINARY ISSUE

BELLBRIDGE BOATHOUSE
32 TOWONG STREET,
TALLANGATTA, VIC-3700

DRAWN	ENGINEER	CHECKED	SCALE	DATE
XX	BP	BP	1:100	AUG 2023

ELECTRICAL SERVICES

CLERESTORY LEVEL
POWER LAYOUT

JOB NUMBER	DRAWING NUMBER	REVISION
223022	A1 E04 of X	P

BELLBRIDGE BOATHOUSE HYDRAULIC SERVICES

GENERAL NOTES

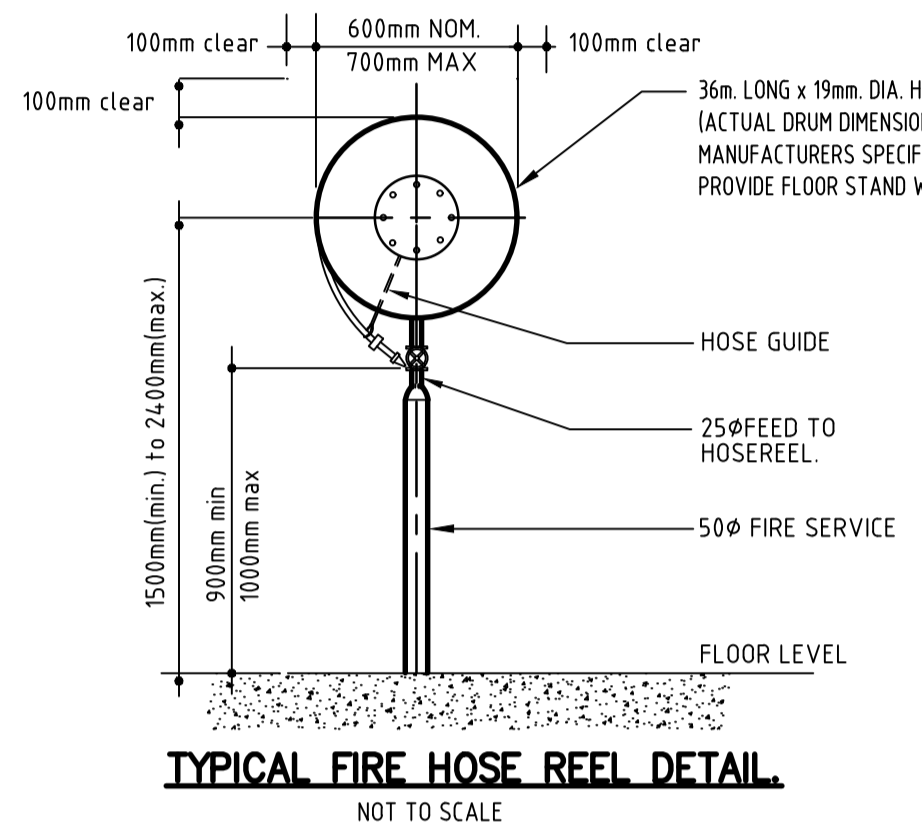
- ALL SERVICES INFORMATION SHOWN IS BASED ON PLANS SUPPLIED BY AUTHORITIES. THE TENDERERS TO INSPECT SITE, CHECK LOCATION, LEVEL AND SIZE OF ALL EXISTING SERVICES BEFORE SUBMITTING THEIR TENDER. REFER TO ARCHITECTURAL AND SURVEY DRAWINGS FOR SITE PROFILE, LAND FORMS, BUILDING DIMENSIONS, LAYOUTS, SANITARY FIXTURES AND FITTINGS, POSITIONS, ETC.
- ALL HYDRAULIC PIPES THAT PENETRATE FIRE RATED WALLS, FLOORS, OR INTER TENANCY FIRE RATED WALL SHALL HAVE FIRE COLLARS FITTED. THE COLLARS ARE TO BE LOCATED WITHIN THE WALL OR FLOOR SLAB AND TO HAVE SIMILAR FIRE RATING TO THE BUILDING CONSTRUCTION.
- ALL WORKS REQUIRED BY THIS CONTRACTOR SHALL BE IN ACCORDANCE WITH ALL AUTHORITIES REQUIREMENTS AND COMPLY TO A.S. 3500.
- REFER TO ARCHITECTURAL SPECIFICATIONS AND DRAWINGS, INCLUDING SECTIONS AND ELEVATIONS FOR FINAL LOCATIONS OF FIXTURES, FITTINGS, OUTLETS, ETC.
- THESE DRAWINGS ARE SCHEMATIC ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CO-ORDINATE AND LOCATE ALL SERVICES AND EQUIPMENT TO MEET ACTUAL BUILDING CONDITIONS.
- FLOOR WASTE GULLY (FWG) NOT SERVICED BY ANY FIXTURES TO BE PRIMED WITH #6 BLEED PIPE FROM NEAREST FLUSH PIPE OR BY MAG MIFAB TRAP SEAL PRIMER MODEL MR-500 (OR EQUAL).
- CONTRACTOR SHALL CONFIRM THE FINAL CONNECTION SIZE TO EQUIPMENT AND MAKE THE APPROPRIATE ALLOWANCE.
- SUPPLY AND INSTALL THERMOSTATIC CONTROL VALVE / THERMOSTATIC MIXING VALVE IN HOT WATER SYSTEM TO DELIVER HOT WATER NOT EXCEEDING 45° C. OR 50° C. TO A.S. 3500.4.2003 : CLAUSE 19.2 & 19.3.
- PROVIDE BACKFLOW PREVENTION DEVICE IN WATER SERVICES TO REQUIREMENT OF A.S. 3500.1.2003 : CLAUSE 4.4.
- FIRE/STC RATED WALLS SHALL NOT BE CHASED TO ACCOMMODATE PIPED SERVICES.
- ALL VENT PIPES RISING TO ATMOSPHERE TO A.S. 3500.2.2003 CLAUSE 6.8.
- ALLOW #20 CONNECTION TO ALL BASIN WASTE ABOVE WATER SEAL WITH SELF SEALING DEVICE FOR MECH. CONTRACTOR WHERE SHOWN ON THE DRAWINGS. A JUNCTION AND DEVICE IS INSTALLED BY THE SANITARY PLUMBER IN THE VERTICAL SECTION OF DISCHARGE PIPE (50mm DR10MM) BELOW THE TRAP SEAL OF THE FIXTURE AND THE SELF SEALING DEVICE IS INSTALLED IN THE VERTICAL POSITION AS HIGH AS IS PRACTICAL TO THE UNDERSIDE OF THE BENCHTOP. THE DISCHARGE PIPE, DEVICE AND CONDENSATE DRAIN MUST BE ADEQUATELY SUPPORTED. A TUNDISH IS REQUIRED ON THE TOP OF THE DEVICE TO PROVIDE A PHYSICAL AIR GAP (20MM) IN THE CONDENSATE DRAIN.
- CLOTHES WASHING MACHINE OUTLET TO DISCHARGE OVER TROUGH OR TUNDISH.
- DISH WASHING MACHINE OUTLET TO LOOP U/B, CONNECT TO SINK TRAP ABOVE WATER SEAL UNLESS NOTED OTHERWISE.
- HYDRAULIC SERVICES CONTRACTOR IS TO COORDINATE WITH ALL OTHER SERVICES.
- ALLOW #20 H&CW CONNECTIONS TO ALL SHOWERS, BATHS AND KITCHEN SINKS. ALLOW #15 H&CW CONNECTIONS FOR BASINS.

LEGEND

EXISTING	PROPOSED	
---	---	SOIL AND WASTE PIPE (S)
---	---	VENT PIPE (V)
---	---	GREASY WASTE PIPE (GW)
---	---	COLD WATER PIPE (CW)
---	---	HOT WATER PIPE (HW)
---	---	HYDRANT PIPE (FH)
---	---	TRADE WASTE PIPE
---	---	GAS PIPE
---	---	FIRE SPRINKLER PIPE (FS)
---	---	RAIN WATER (RW)
---	---	GREY WATER (GW)
---	---	STORMWATER DRAIN (SWD)
---	---	PIPE TO BE ABOLISHED & REMOVED
		FIRE HYDRANT (FH)
		FIRE HOSE REEL (FHR)
		GATE VALVE OR STOP VALVE OR STOP TAP
		MONITORED FIRE SERVICE VALVE
		AIR ADMITTANCE VALVE (AAV)
		TEMPERING OR THERMOSTATIC MIXING VALVE (TPV OR TMV)
		CHECK VALVE (CV)
		HOSE COCK (HC)
		BACK FLOW PREVENTER (BFP)
		PRESSURE LIMITING/REDUCING VALVE (PLV/PRV)
		FIRE EXTINGUISHER

ABBREVIATION

A/F	ABOVE FLOOR	HWR	HOT WATER RETURN
AAV	AIR ADMITTANCE VALVE	I.O.	INSPECTION OPENING
AP	ALTERING PIPE	I.O.S.	INSPECTION OPENING TO SURFACE
BAL V	BALANCING VALVE	JU	JUMP UP
BFV	BUTTERFLY VALVE	LS	LINE STRAINER
BPD	BACK FLOW PREVENTION DEVICE	NRV	NON RETURN VALVE OR CHECK VALVE
BSN	BASIN	ORG	OVERFLOW RELIEVE GULLY
BTH	BATH	RV	RELIEVE VENT
BV	BALL VALVE	RW	RAIN WATER
BT	BOUNDARY TRAP	SCV	SINGLE CHECK VALVE
BR	BRANCH	SHR	SHOWER
CLG	CEILING	SLV	SLOUCE VALVE
C/W	COMPLETE WITH	SK	SINK
C/E	CUT AND CONNECT	SP	STRAIGHT PIECE
CW	COLD WATER	S/S	STAINLESS STEEL
CWM	CLOTHES WASHING MACHINE	ST V	STACK VENT
DB	DIRTY BOX	ST	STACK
DCV	DETECTOR CHECK VALVE	SV	STOP VALVE OR STOP TAP
DG	DISCONNECTOR GULLY	SWD	STORM WATER DRAIN
DWM	DISH WASHING MACHINE	T/A	TO ABOVE
DV	DRAINAGE VENT	T/B	TO BELOW
EK	EXISTING	TC/HW	THERMOSTATIC CONTROL HOT WATER
F/A	FROM ABOVE	TD	TUNDISH
F/B	FROM BELOW	TMV	THERMOSTATIC MIXING VALVE
F/C	FALSE CEILING	TF	TESTING FERRULE
FHR	FIRE HOSE REEL	TFS	THROUGH FLOOR SLAB
FL	FLOOR LEVEL	TR	TROUGH
FLL	FINISHED FLOOR LEVEL	U/B	UNDER BENCH
FW	FLOOR WASTE	UFS	UNDER FLOOR SLAB
FWG	FLOOR WASTE GULLY	U/G	UNDER GROUND
FE	FIRE EXTINGUISHER	V	VENT
G/V	GROUND VENT	VV	VERTICAL VENT
GV	GATE VALVE	VW	VERTICAL WASTE
H&CW	HOT & COLD WATER	W	WASTE
HW	HOT WATER	WC	WATER CLOSET
HC	HOSE COCK	WM	WATER METER
HWU	HOT WATER UNIT		



NOTE:

INSTALL SEWER AND TRADE WASTE IN ACCORDANCE WITH THE FOLLOWING:

THE BASE OF TRENCHES SHALL BE SLOPED AWAY FROM THE BUILDING. TRENCHES SHALL BE BACKFILLED WITH CLAY IN THE TOP 300 MM WITHIN 15 M OF THE BUILDING. THE CLAY USED FOR BACKFILLING SHALL BE COMPACTED. WHERE PIPES PASS UNDER THE FOOTING SYSTEM, THE TRENCH SHALL BE BACKFILLED FULL DEPTH WITH CLAY OR CONCRETE TO RESTRICT THE INGRESS OF WATER BENEATH THE FOOTING SYSTEM. WHERE PIPES PASS UNDER THE FOOTING SYSTEM, THE TRENCH SHALL BE BACKFILLED FULL DEPTH WITH CLAY TO ACT AS A BARRIER TO THE INGRESS OF WATER BENEATH THE FOOTING SYSTEM. ALTERNATIVELY, A PLASTIC MEMBRANE ACROSS THE CROSS-SECTION OF THE TRENCH, TAPED TO THE PIPE AND KEED INTO THE SIDES AND BASE OF THE TRENCH MAY BE USED.

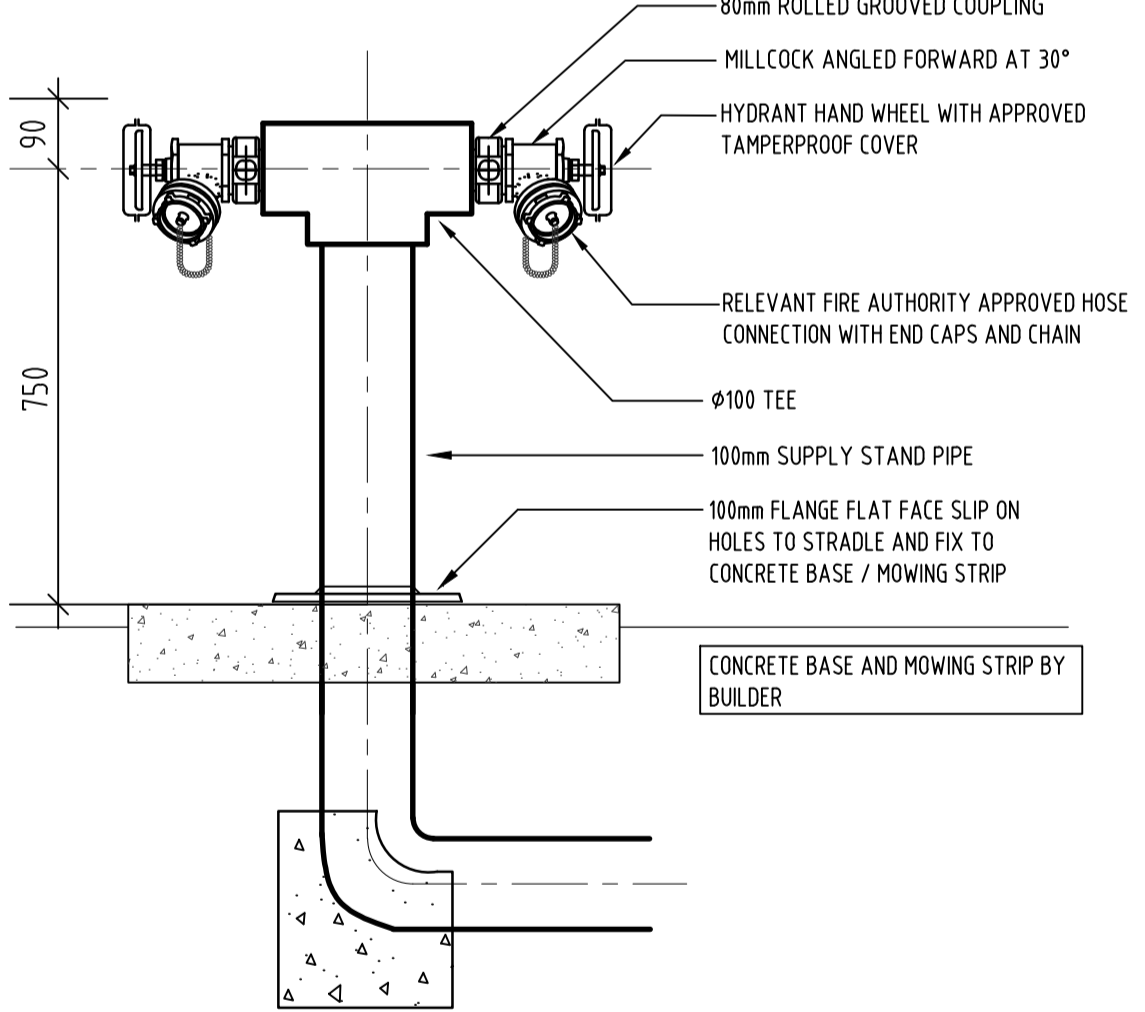
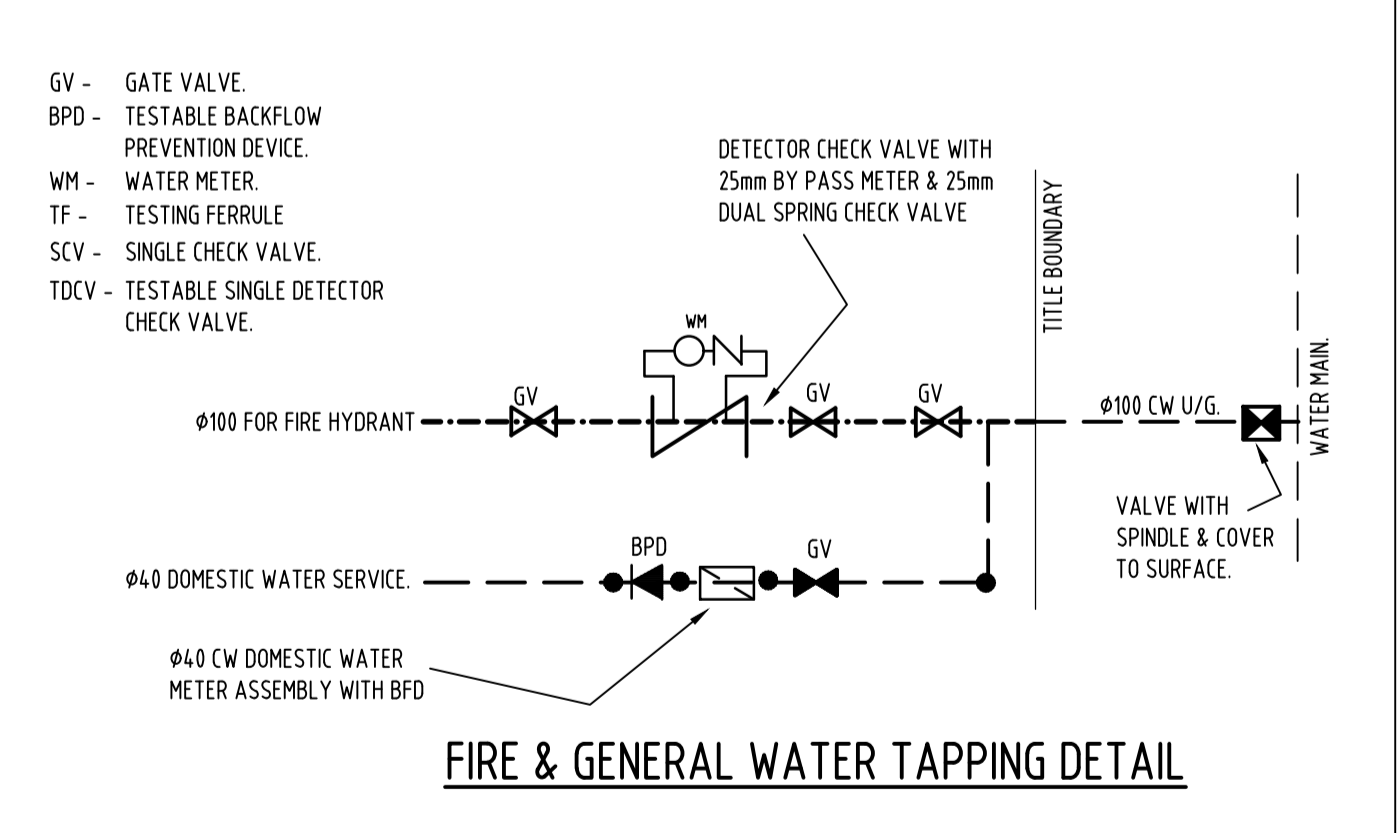
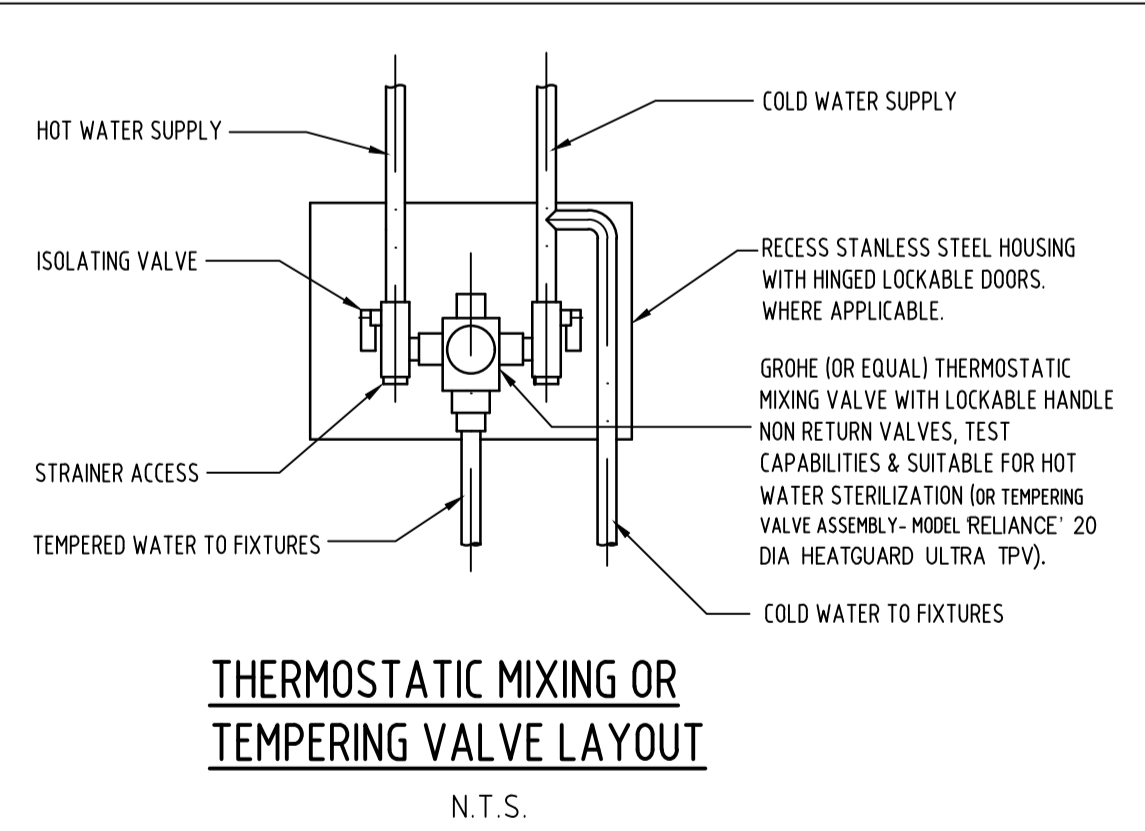
DRAINS ATTACHED TO OR EMERGING FROM UNDERNEATH THE BUILDING SHALL INCORPORATE FLEXIBLE JOINTS IMMEDIATELY OUTSIDE THE FOOTING AND COMMENCING WITHIN 1 M OF THE BUILDING PERIMETER TO ACCOMMODATE A TOTAL RANGE OF DIFFERENTIAL MOVEMENT IN ANY DIRECTION EQUAL TO THE ESTIMATED CHARACTERISTIC SURFACE MOVEMENT OF THE SITE (YS). IN THE ABSENCE OF SPECIFIC DESIGN REQUIREMENTS, THE FITTINGS OR OTHER DEVICES THAT ARE PROVIDED TO ALLOW FOR THE MOVEMENT SHALL BE SET AT THE MID POSITION OF THEIR RANGE OF POSSIBLE MOVEMENT AT THE TIME OF INSTALLATION, SO AS TO ALLOW FOR MOVEMENT EQUAL TO 0.5Y, IN ANY DIRECTION FROM THE INITIAL SETTING. THIS REQUIREMENT APPLIES TO ALL STORMWATER AND SANITARY PLUMBING DRAINS AND DISCHARGE PIPES. IF THE SEWER PIPES INSTALLED IN FILL GROUND, INSTALL STAINLESS STEEL PIPE CLIP WITH BRACKETS AND HANGERS AT THE FOLLOWING SPACING:
FOR PVC PIPES MAXIMUM SPACING IS 12 M, FOR HDPE PIPES 1 METER.

WHERE A DRAIN PASS THROUGH BELOW-GROUND EXTERNAL WALLS--
INSTALL TWO FLEXIBLE JOINTS EXTERNALLY WITHIN 800 MM OF THE EXTERNAL FACE OF THE WALL, AND SUCH JOINTS ARE NOT LESS THAN 600 MM APART;
THE PENETRATION OF THE WALL IS MADE WATERTIGHT.

AVOID LOOPS OR DROPS IN PIPE WORK AND LAY ALL HORIZONTAL RUNS WITH FALLS TO DRAIN. ALL PIPE WORK SHALL BE INSPECTED AND APPROVED BY THE ARCHITECT, PRIOR TO THE INSTALLATION OF FINISHES.

CFA FIRE PROTECTION NOTES

- ALL FIRE HYDRANT SYSTEM WORKS SHALL BE IN ACCORDANCE WITH AS 2419.1-2005 AND LOCAL AUTHORITY REQUIREMENTS. REFER TO CFA 309 REPORT.
- ALL WATER SUPPLY WORK SHALL BE IN ACCORDANCE WITH AS 3500 AND WATER AUTHORITY REQUIREMENTS.
- NEW BELOW GROUND FIRE SERVICE PIPING TO BE COPPER TYPE 'B' TO AS1432 OR MINIMUM CLASS 16 HDPE. FIRE SERVICE PIPING BELOW GROUND UNDER BUILDINGS SHALL BE COPPER TYPE 'B' TO AS1432.
- ALL NEW EXTERNAL FIRE HYDRANTS SHALL BE DUAL VALVE, DUAL DEAD TYPES.
- ALL PIPE SIZES ARE NOMINAL INTERNAL DIAMETER.
- PROVIDE ALL BELOW GROUND WATER SERVICE VALVES WITH CAST IRON VALVE BOXES WITH REMOVABLE COVERS SET IN CONCRETE FLUSH WITH SURROUNDING SURFACES.
- HYDRANT TO BE MINIMUM 10M FROM BUILDING.
- THE NEW HYDRANTS SHALL BE PROVIDED WITH NETHERLANDS STANDARD NEN 3374 COMPLIANT FORGED 65 MM STORZ CONNECTIONS COMPLETE WITH BLANKING CAPS.



NOTE: WHERE HYDRANT IS LOCATED CLOSER THAN 10m TO A BUILDING, A FIRE RATED WALL WITH MINIMUM FIRE RATING OF 90/90/90 SHALL BE PROVIDED BEHIND THE HYDRANT. THE FIRE RATED WALL SHALL EXTEND 2m ON BOTH SIDES OF THE HYDRANT AND 3m ABOVE THE HYDRANT, AS PER AS 2419 REQUIREMENTS.

TYPICAL DUAL HEAD EXTERNAL HYDRANT DETAIL
NOT TO SCALE

NOT FOR TENDER

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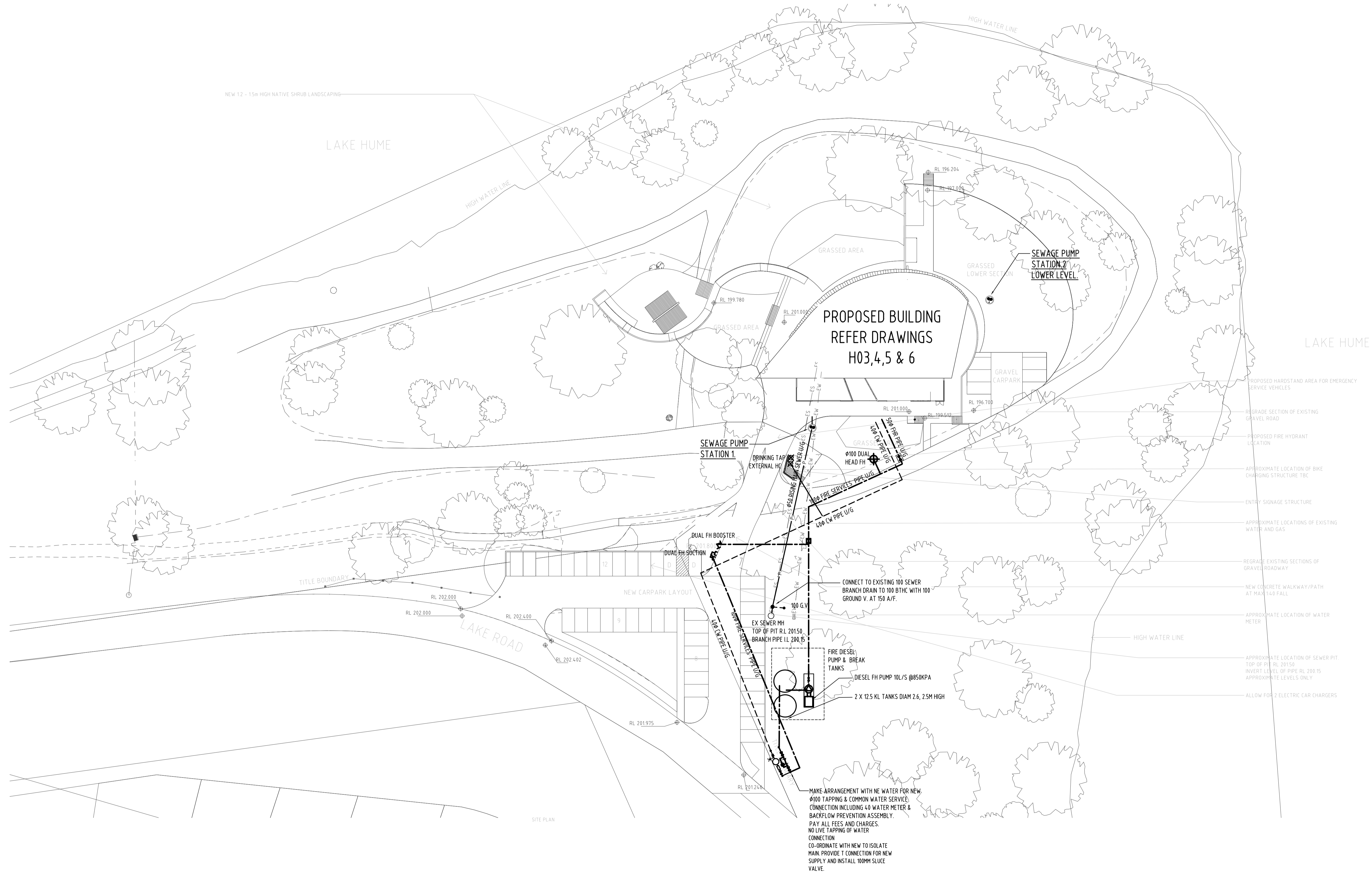
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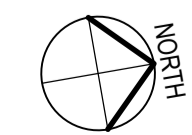


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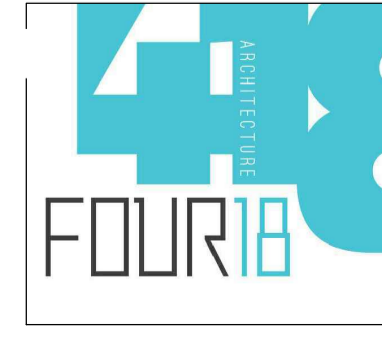
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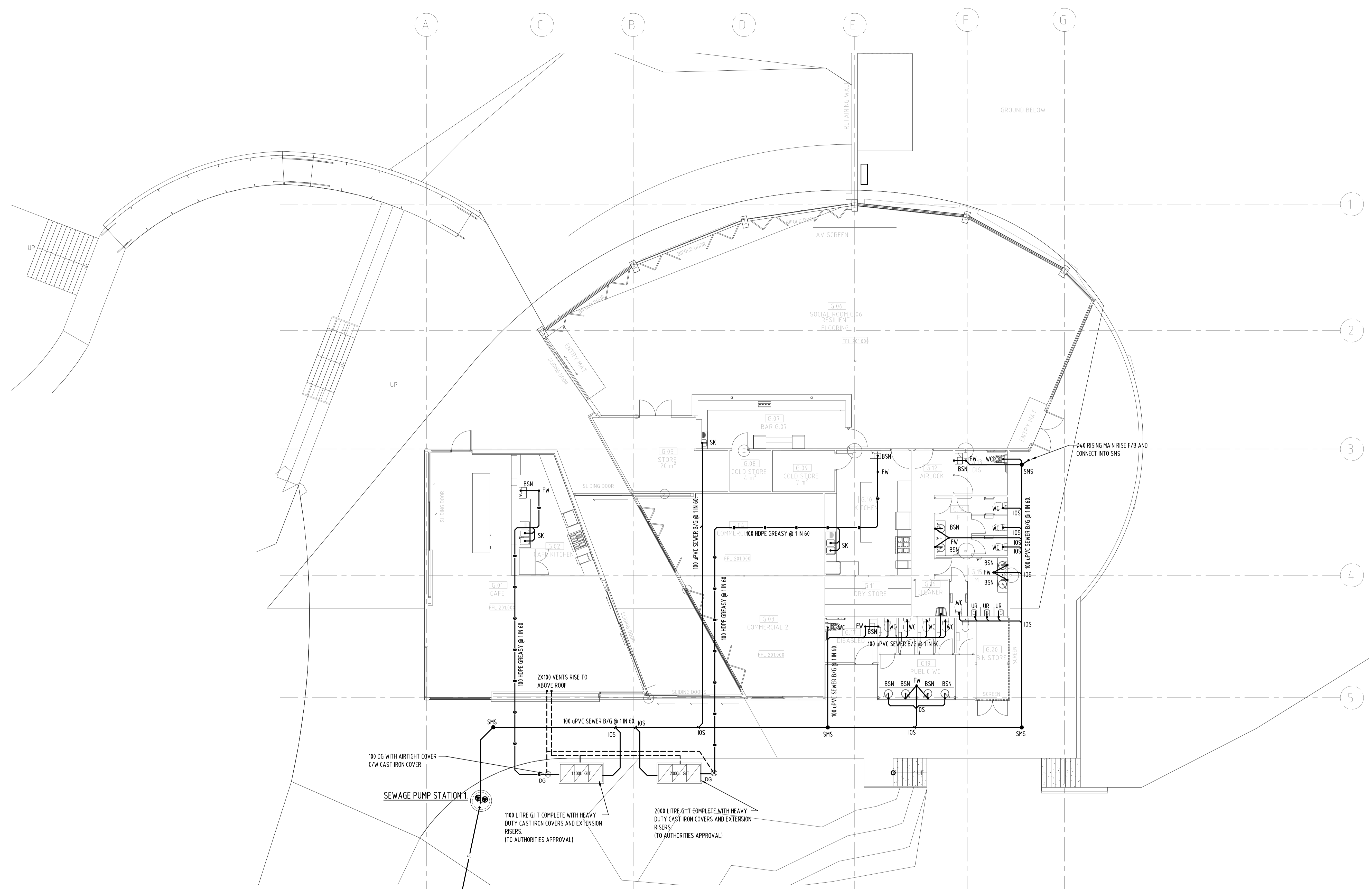
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DRAWN	ENGINEER	CHECKED	SCALE
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DATE		AUG 2023	

HYDRAULIC SERVICES		
SITE PLAN WATER, SEWER & FIRE SERVICES		
JOB NUMBER	DRAWING NUMBER	REVISION
223022	H02 of 06	P1



GROUND FLOOR PLAN

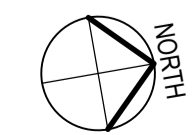
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REFER SITE PLAN H02

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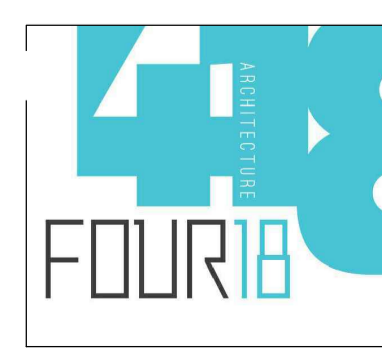
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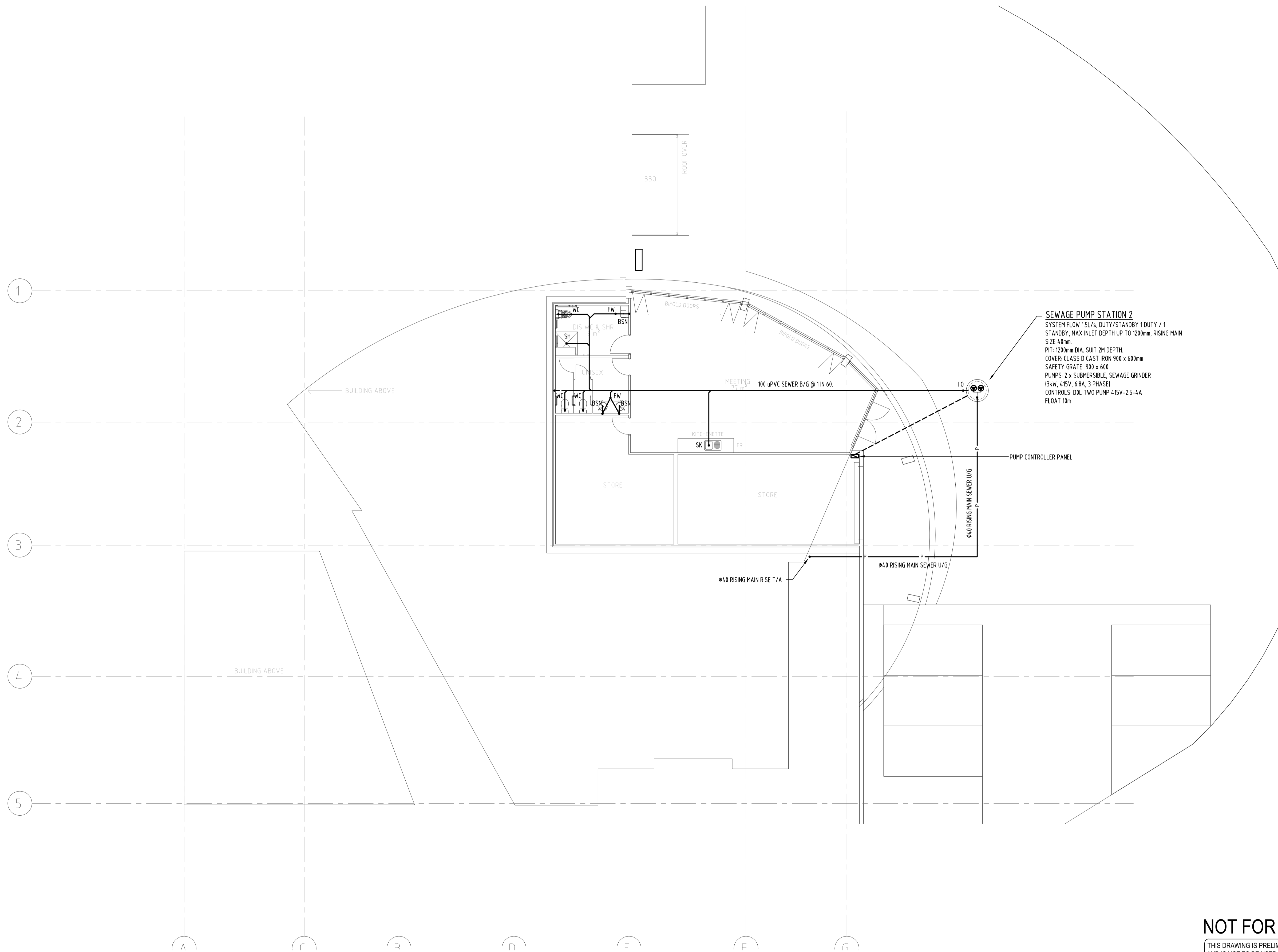
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HYDRAULIC SERVICES		
GROUND FLOOR PLAN SANITARY PLUMBING LAYOUT		
JOB NUMBER	DRAWING NUMBER	REVISION
223022	H03 of 06	P1



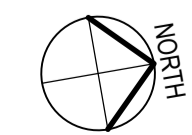
SEWAGE PUMP STATION 2
 SYSTEM FLOW 15L/s, DUTY/STANDBY 1 DUTY / 1
 STANDBY, MAX INLET DEPTH UP TO 1200mm, RISING MAIN
 SIZE 40mm
 PIT: 1200mm DIA. SUIT 2M DEPTH
 COVER: CLASS D CAST IRON 900 x 600mm
 SAFETY GRATE 900 x 600
 PUMPS: 2 x SUBMERSIBLE, SEWAGE GRINDER
 (3kW, 4.15V, 6.8A, 3 PHASE)
 CONTROLS: DDL TWO PUMP 4.15V-25-4A
 FLOAT 10m

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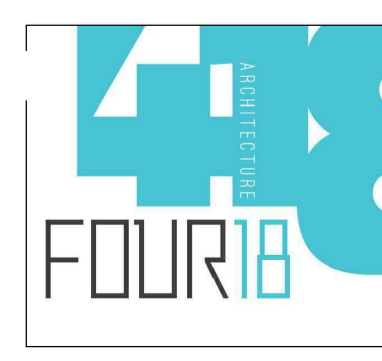
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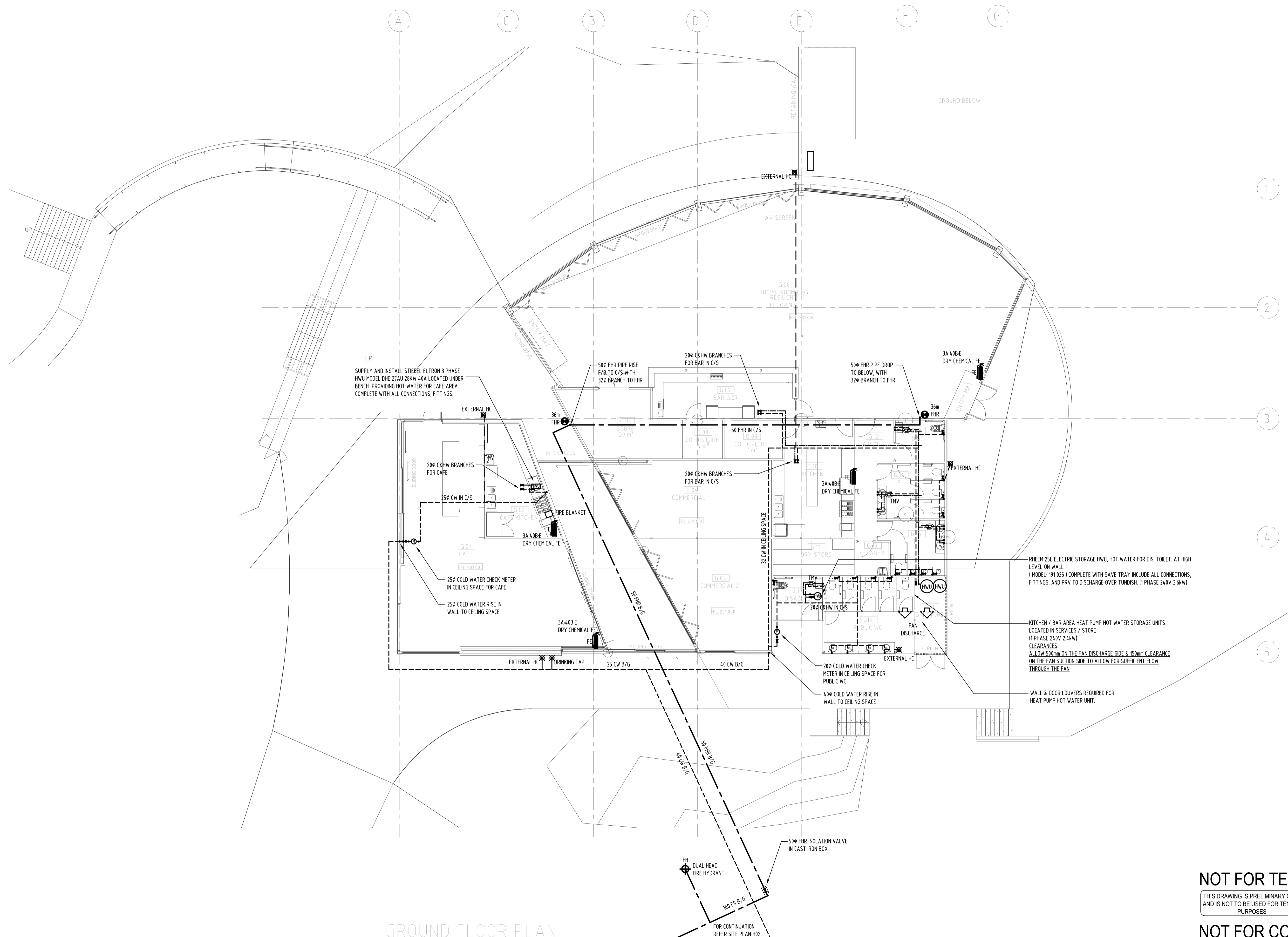
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HYDRAULIC SERVICES
 LOWER GROUND
 SANITARY PLUMBING LAYOUT

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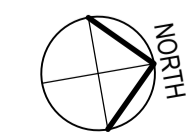
GROUND FLOOR PLAN

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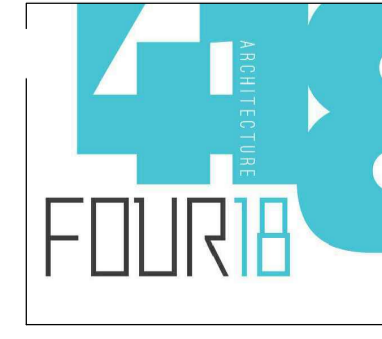
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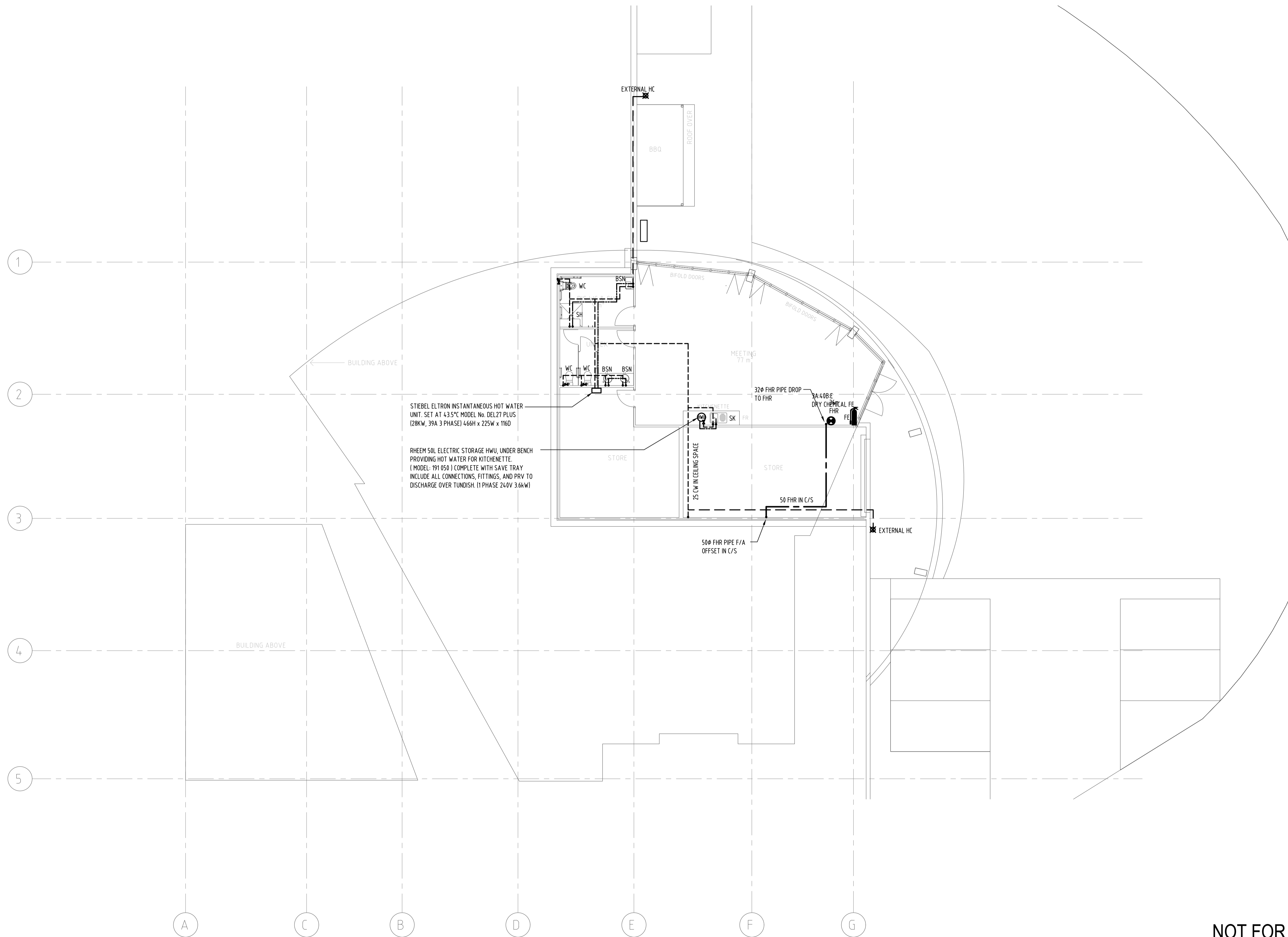
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HYDRAULIC SERVICES
 FLOOR PLAN
 FIRE SERVICES, HOT & COLD
 WATER LAYOUT
 JOB NUMBER: 223022 DRAWING NUMBER: H05 of 06 REVISION: P1



STIEBEL ELTRON INSTANTANEOUS HOT WATER UNIT. SET AT 43.5°C MODEL No. DEL27 PLUS (28kW, 39A 3 PHASE) 466H x 225W x 116D

RHEEM 50L ELECTRIC STORAGE HWU UNDER BENCH PROVIDING HOT WATER FOR KITCHENETTE (MODEL: 191 050) COMPLETE WITH SAVE TRAY INCLUDE ALL CONNECTIONS, FITTINGS, AND PRV TO DISCHARGE OVER TUNDISH. (1 PHASE 240V 3.6kW)

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HYDRAULIC SERVICES
 LOWER GROUND
 FIRE SERVICES, HOT & COLD
 WATER LAYOUT

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223022	A1 H06 of 06	P1

SCHEDULE OF REVERSE CYCLE SPLIT / VRV SYSTEM AIR CONDITIONING UNITS

AC UNIT No.	SERVING	CONFIGURATION/COMMENTS	TOTAL COOLING CAP. kW (min)	AIR ENTERING		SUPPLY AIR FLOW l/s	OUTSIDE AIR FLOW l/s	HEATING CAP.kW (APPROX)	RESISTANCE WITH FILTER Pa	INDOOR UNIT DIMENSIONS (HxWxD in mm) / WEIGHT (kg) / NOISE LEVEL (dBA)	CONDENSER	CONDENSER UNIT DIMENSIONS (HxWxD in mm) / WEIGHT (kg) / NOISE LEVEL (dBA)	ELEC PHASES/ RUNNING AMPS
				*COB	*CWb								
AC1a	CAFE	CEILING CASSETTE MULTITHEAD SYSTEM	10	27	19	480	50	11	-	298x840x840 / 25 / 51	CU-1 REVERSE CYCLE INVERTER DRIVEN	1338x1050x330 / 140 / 61	3Φ/10A
AC1b	CAFE	CEILING CASSETTE MULTITHEAD SYSTEM	10	27	19	480	50	11	-	298x840x840 / 25 / 51			
AC2	COMMERCIAL TENANCY 1	CEILING CASSETTE SPLIT SYSTEM	7	27	19	350	50	8	-	258x840x840 / 23 / 48	CU-2 REVERSE CYCLE INVERTER DRIVEN	880x840x330 / 55 / 51	1Φ/10A
AC3	COMMERCIAL TENANCY 2	CEILING CASSETTE SPLIT SYSTEM	7	27	19	350	50	8	-	258x840x840 / 23 / 48	CU-3 REVERSE CYCLE INVERTER DRIVEN	880x840x330 / 55 / 51	1Φ/10A
AC4a	SOCIAL ROOM	CEILING DUCTED VRV SYSTEM	10	27	19	560	100	11	125	250x1400x732 / 40 / 42			
AC4b	SOCIAL ROOM	CEILING DUCTED VRV SYSTEM	10	27	19	560	100	11	125	250x1400x732 / 40 / 42			
AC4c	SOCIAL ROOM	CEILING DUCTED VRV SYSTEM	10	27	19	560	100	11	125	250x1400x732 / 40 / 42	CU-4 REVERSE CYCLE INVERTER DRIVEN	1710x1900x740 / 140 / 65	3Φ/26A
AC4d	SOCIAL ROOM	CEILING DUCTED VRV SYSTEM	10	27	19	560	100	11	125	250x1400x732 / 40 / 42			
AC4e	SOCIAL ROOM	CEILING DUCTED MULTITHEAD SYSTEM	10	27	19	560	100	11	125	250x1400x732 / 40 / 42			
AC5	BAR	CEILING CASSETTE SPLIT SYSTEM	3.5	27	19	175	50	4	-	245x570x570 / 15 / 39	CU-5 REVERSE CYCLE INVERTER DRIVEN	550x800x285 / 35 / 46	1Φ/6A
AC6	KITCHEN	CEILING CASSETTE SPLIT SYSTEM	5	27	19	190	50	6	-	245x570x570 / 15 / 39	CU-6 REVERSE CYCLE INVERTER DRIVEN	714x800x285 / 41 / 49	1Φ/8A
AC7a	MEETING ROOM	CEILING CASSETTE MULTITHEAD SYSTEM	7	27	19	350	50	8	-	258x840x840 / 23 / 48			
AC7b	MEETING ROOM	CEILING CASSETTE MULTITHEAD SYSTEM	10	27	19	480	50	11	-	298x840x840 / 25 / 51	CU-7 REVERSE CYCLE INVERTER DRIVEN	1338x1050x330 / 125 / 53	1Φ/20A

NOTE:
 ALL AC UNITS TO BE OF DAIKIN OR MITSUBISHI MANUFACTURE & COMPLY WITH MEPS (MINIMUM ENERGY PERFORMANCE STANDARDS). AIR FILTERS TO BE PANEL TYPE V-FORM.
 ALL UNITS TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS. ALL UNITS TO BE COMPLETE WITH WIRELESS WALL MOUNTED REMOTE CONTROLS. HEATING & COOLING CAPACITIES SHOWN ARE MINIMUM REQUIRED. AIR QUANTITIES CAN BE ADJUSTED TO SUIT MAKE OF EQUIPMENT USED. CONTRACTOR TO ENSURE EQUIPMENT SELECTED FITS INTO SPACE AS SHOWN ON DRAWING PRIOR TO ORDERING.
 ISOLATORS FOR POWER TO ALL EQUIPMENT TO BE SUPPLIED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR TO WIRE FROM ISOLATORS PROVIDED TO ALL EQUIPMENT INCLUDING ALL CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. FINAL LOCATION OF ISOLATORS AND EQUIPMENT TO BE ADVISED ON SITE TO THE ELECTRICAL CONTRACTOR PRIOR TO WIRING & INSTALLATION OF ISOLATORS.
 ELECTRICAL LOAD INFORMATION BASED ON FIGURES QUOTED IN MANUFACTURERS CATALOGUE. MECH CONTRACTOR TO VERIFY FINAL LOADS & PROTECTIVE DEVICE CURRENT RATING BASED ON EQUIPMENT SELECTED AND ADVISE ELECTRICAL CONTRACTOR PRIOR TO ORDERING ANY ITEMS.

SCOPE OF WORKS

THIS CONTRACT PROVIDES FOR THE SUPPLY, INSTALLATION AND TESTING OF SERVICES AS DETAILED ON THIS DRAWING. ANY DISCREPANCIES OR DEFICIENCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSULTING ENGINEERS DURING THE TENDER PERIOD.

THE CONTRACTOR SHALL PROVIDE FOR ALL NEW MATERIALS AND SHALL INCLUDE ALL LABOUR, POWER, CARTAGE, TOOLS, PLANT, CRANE HIRE, ETC REQUIRED TO COMPLETE THE INSTALLATION. INCLUDING ALL MINOR AND INCIDENTAL WORK NECESSARY THOUGH NOT SPECIFICALLY MENTIONED HEREIN TO COMPLETE THE SERVICES TO THE TRUE INTENT AND MEANING OF THIS DRAWING. THE WORK WILL BE COMPLETED TO THE ENTIRE SATISFACTION OF THE ARCHITECT.

ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH NCC (BCA) AND ALL RELEVANT AUSTRALIAN STANDARDS. CONTRACTOR SHALL SUBMIT SAMPLES OF ALL MATERIALS AND EQUIPMENT FOR APPROVAL PRIOR TO ORDERING. TENDER SUBMISSIONS SHALL INCLUDE SCHEDULES OF PROPOSED EQUIPMENT MANUFACTURERS.

1. SUPPLY & INSTALLATION OF REVERSE CYCLE SPLIT / VRV AIR CONDITIONING SYSTEMS AS SHOWN ON THE DRAWING INCLUDING BUT NOT LIMITED TO INDOOR UNITS, OUTDOOR UNITS, INSULATED REFRIGERANT PIPING, CONDENSATE DRAINAGE, CONTROLS, POWER WIRING, MOUNTING, ETC. AS REQUIRED FOR THE FULL AND COMPLETE OPERATION OF THE AC UNITS. AC UNITS TO BE 'DAIKIN', 'MITSUBISHI', 'TOSHIBA', 'SAMSUNG' MANUFACTURE OR APPROVED EQUAL.

2. SUPPLY & INSTALLATION OF VENTILATION SYSTEMS AS SHOWN ON THE DRAWING INCLUDING BUT NOT LIMITED TO DUCTWORK, DAMPERS, FANS, WIRING, CONTROLS, ETC. AS REQUIRED FOR THE FULL AND COMPLETE OPERATION OF THE VENTILATION SYSTEMS.

ALLOW FOR ALL NECESSARY POWER AND CONTROLS WIRING. BUILDERS ELECTRICIAN TO PROVIDE POWER TERMINATING ADJACENT TO CONDENSING UNITS IN WEATHERPROOF ISOLATOR. MECHANICAL CONTRACTORS ELECTRICIAN TO WIRE BETWEEN CONDENSING UNITS AND WEATHERPROOF ISOLATORS. PROVIDE WALL MOUNTED CONTROLLERS FOR EACH AC UNIT. FINAL LOCATIONS TO BE CONFIRMED WITH ARCHITECTS. ALL AC UNITS TO COMPLY WITH 'MEPS' AND SECTION JS OF THE BCA AND ALL AMENDMENTS.

ALL WIRING TO BE IN ACCORDANCE WITH AC MANUFACTURERS INSTALLATION REQUIREMENTS. BUILDERS ELECTRICIAN TO TERMINATE POWER ADJACENT TO EXHAUST FANS WITH GPO. EXHAUST FANS TO BE PROVIDED WITH FLEX AND 3 PIN PLUG. ALL FANS TO INCORPORATE LOCAL ON OFF SWITCHES OR BE CONTROLLED BY MOTION SENSORS. MECHANICAL CONTRACTOR TO PROVIDE MINIMUM 5 MINUTES RUN TIMER TO EXHAUST FANS.

INSTALLATION: REFRIGERATION PIPE WORK TO BE INSTALLED IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS RECOMMENDATIONS COVERED WITH 'ARMAFLEX' OR SIMILAR INSULATION. ALL PIPING TO RUN WITHIN WALL AND CEILING SPACE WHERE POSSIBLE. FLASHINGS/ESCUTCHEON PLATES TO BE PROVIDED FOR EXPOSED WALL PENETRATIONS. EACH AC UNIT TO BE PROVIDED WITH A CONDENSATE DRAIN GRADED TO WASTE. WASTE POINTS TO BE AS SHOWN ON DRAWING COORDINATION WITH ALL OTHER TRADES DURING INSTALLATION.

MATERIALS: DUCTWORK: GALVANISED SHEET METAL ALL IN ACCORDANCE WITH AS4524. REFRIGERATION PIPEWORK: COPPER PIPE WORK TO AS1432 TABLE B, ALL EXPOSED PIPING TO BE ENCASED WITH COLORBOND GALVANISED SHEET METAL CLADDING TO APPROVAL.

STANDARDS: REFRIGERATION PIPEWORK: TO MANUFACTURES RECOMMENDATIONS. ELECTRICAL: TO AS3000

MISCELLANEOUS: PRIOR TO ORDERING THE EQUIPMENT THE MECHANICAL SERVICES CONTRACTOR SHALL VERIFY THAT THERE IS SUFFICIENT SPACE WITHIN THE AREA WHERE IT IS TO BE INSTALLED. VERIFY LOCATIONS OF ALL EQUIPMENT WITH THE ARCHITECT PRIOR TO INSTALLATION. MECHANICAL CONTRACTOR TO ENSURE ALLOWANCE HAS BEEN MADE FOR ALL WORKS. SHOP DRAWINGS: 'AS INSTALLED' DRAWINGS AND OPERATING AND MAINTENANCE MANUALS TO BE PROVIDED. MECHANICAL SUB CONTRACTOR TO PROVIDE AS INSTALLED DRAWINGS, MANUFACTURERS DATA TOGETHER WITH OPERATING AND MAINTENANCE INSTRUCTIONS, COMMISSIONING AND BALANCING DATA. (3 COPIES REQUIRED - USB STICK) ALLOW TO REVISIT SITE DURING THE 12 MONTH WARRANTY PERIOD TO CHECK OPERATION EQUIPMENT INSTALLED UNDER THIS CONTRACT. MECHANICAL CONTRACTOR TO PROVIDE 12 MONTHS WARRANTY MAINTENANCE ON THE AIR CONDITIONING & VENTILATION SYSTEMS.

TYPICAL KITCHEN EXHAUST HOOD

NOTES:

- HOOD TO BE MANUFACTURED FROM 304 GRADE 1.2mm THICK STAINLESS STEEL (SATIN FINISH).
- EXHAUST DUCTWORK TO BE GALVANISED STEEL TO A.S. STANDARDS.
- HOOD AND DUCTWORK DIMENSIONS ARE TO BE CHECKED FOR SITE SUITABILITY BEFORE MANUFACTURE TO ENSURE NO CLASHES.
- EXHAUST FLOW RATE FOR HOOD IS TO BE 0.4 M/SEC. MINIMUM.
- DUCT SEAMS AND FLANGES MUST BE OF A NEAT SOLDER SMOOTH FINISH.
- FAN ON/OFF ILLUMINATED CONTROL SWITCH TO BE LOCATED ADJACENT TO HOOD IN A CLEARLY VISIBLE LOCATION. SWITCH IS NOT TO BE LOCATED BEHIND OR UNDER THE LINE OF THE HOOD. REFER TO ELECTRICAL LAYOUT.
- PROVIDE CLEAN OUT ACCESS PANELS AT 3M SPACING ON SIDE OF DUCTWORK AND AT CHANGE OF DIRECTION IN DUCTWORK.
- HOOD DUCT & FAN TO COMPLY WITH AS. 1668.2 AND LOCAL AUTHORITY REGULATIONS.
- NOISE BELOW FAN TO BE LESS THAN NR45.
- NO POWER, WATER OR DRAINAGE SERVICES TO BE LOCATED BEHIND EQUIPMENT.

SYMBOLS FOR AIR SYSTEMS			
SYMBOL INDICATES	SYMBOL	SYMBOL INDICATES	SYMBOL
EXTERNALLY INSULATED DUCTWORK (SEE NOTE 3)		MOTORISED DAMPER	
INTERNALLY INSULATED DUCTWORK MINIMUM R2.0		MANUALLY ADJUSTABLE VOLUME CONTROL DAMPER	
INTERNALLY INSULATED DUCTWORK MINIMUM R3.0		4 WAY FLOW SUPPLY AIR DIFFUSER WITH ACOUSTICALLY LINED CUSHION HEAD MINIMUM FACE SIZE 400mm	
DUCT MOUNTED ELECTRIC HEATING ELEMENT EHE		AS ABOVE EXCEPT 3 WAY BLOW	
ACOUSTICALLY INSULATED FLEXIBLE DUCTWORK		AS ABOVE EXCEPT 2 WAY BLOW	
CIRCULAR DUCTWORK		SMOKE DETECTOR	
CONDENSATE PIPING		EXHAUST AIR GRILLE	
DUCT SET UP		SUPPLY AIR REGISTER	
DUCT SET DOWN		SUPPLY AIR DIFFUSER	
DUCT FIRST DIMENSION IS DUCT FACE VEWE		EXHAUST AIR GRILLE	
RECTANGULAR TO ROUND DUCT TRANSITION		RETURN AIR GRILLE	
BUTTERFLY DAMPER IN FLEX. DUCT TAKE OFF		WEATHER PROOF GRILLE	
FIRE DAMPER WITH DUCT ACCESS PANEL		TEMPERATURE SENSOR	
SQUARE BACKED BEND WITH TURNING VANES		HUMIDISTAT	
TAKE OFF WITH SCOOP DAMPER (ADJUST)		AIR FLOW DIRECTION	
TAKE OFF WITH SPLITTER DAMPER		DOOR GRILLE WITH SIZE (REFER TO NOTE 5)	
FLEXIBLE CONNECTION		TO ABOVE / TO BELOW	
REFRIGERANT PIPING		FROM ABOVE/FROM BELOW	
ACCESS PANEL		CARBON DIOXIDE SENSOR	
CARBON MONOXIDE SENSOR			

GENERAL NOTES

- DUCTWORK SIZES SHOWN ARE CLEAR INTERNAL DIMENSIONS.
- ROOM THERMOSTATS SHALL BE INSTALLED 1700mm ABOVE FINISHED FLOOR LEVEL UNLESS NOTED.
- ALL SUPPLY AND RETURN AIR DUCTWORK TO BE EXTERNALLY INSULATED UNLESS SHOWN AS INTERNALLY LINED. INSULATION TO BE MINIMUM R2.0 REFER TO MECHANICAL SPECIFICATION. DUCTS TO BE SEALED AND INSULATED IN ACCORDANCE WITH THE B.C.A. (J5.2) KITCHEN & TOILET EXH. DUCTWORK NOT TO BE INSULATED UNLESS NOTED.
- ALL SPIGOTS FOR SUPPLY, RETURN AND EXHAUST AIR GRILLES TO BE PROVIDED WITH VOLUME CONTROL DAMPERS. ALL AIR OUTLETS TO BE BALANCED. AIR BALANCING DATA SHEETS TO BE PROVIDED.
- DOOR AIR RELIEF GRILLE SIZES SHALL BE AS TABULATED BELOW.
DOOR GRILLE SCHEDULE
SIZE WIDTH x HEIGHT SIZE WIDTH x HEIGHT
A 600 x 150 D 600 x 600
B 600 x 300 E 600 x 750
C 600 x 450 F 600 x 900
- FLEXIBLE DUCT SIZES TO BE BASED ON THE FOLLOWING AIR QUANTITIES. ALL FLEXIBLE DUCTWORK TO BE ACOUSTIC TYPE.
DIAMETER mm MAXIMUM AIR FLOW l/s
200 75 NOTE
250 150 MAX. LENGTH OF
300 220 FLEX. DUCT TO BE
350 320 3000mm
400 450
- BUILDER TO PROVIDE CEILING ACCESS PANELS FOR FIRE DAMPERS, VOLUME DAMPERS AND EQUIPMENT TO BE SERVICED. ACCESS PANELS ARE TO BE LOCATED BY THE MECHANICAL SUB CONTRACTOR.
- ALL TOILET EXHAUST GRILLES TO BE 200x200 EGG CRATE TYPE UNLESS NOTED.
- PAINIT ALL INTERNALS OF VISIBLE PLENUMS MATT BLACK.
- ALL EXTERNAL LOUVRES TO HAVE VERMIN PROOF SCREENS.
- ALL GRILLE DIMENSIONS TO BE VERIFIED WITH ARCHITECTURAL DETAILS AND SITE CHECKED BEFORE PLACING EQUIPMENT ORDERS.

SCHEDULE OF VENTILATION FANS

FAN No	AREA SERVED	AIR FLOW l/s	EXTERNAL STATIC PRESS.Pa	FAN TYPE	MAX. R.P.S.	MOTOR kW	No OF PHASES	dBa MAX.
EF-1	MALE / FEMALE / CLR / DIS	300	150	INLINE DUCTED	16	0.3	1	44
EF-2	DIS / PUBLIC	180	150	INLINE DUCTED	33	0.1	1	44
EF-3	WC / DIS WC & SHR	190	150	INLINE DUCTED	36	0.15	1	42
KEF-1	CAFE KITCHEN	1150	250	ROOF MOUNTED	12	1.1	3	49
KMAF-1	CAFE KITCHEN	920	250	INLINE DUCTED	22	0.9	3	49
KEF-2	COMMERCIAL KITCHEN	1150	250	ROOF MOUNTED	12	1.1	3	49
KMAF-2	COMMERCIAL KITCHEN	920	250	INLINE DUCTED	22	0.9	3	49

ALL OUTSIDE AIR SUPPLY FANS (SF)- INLINE DUCTED ,50l/s @ 100Pa, 32R.P.S, 0,05kW, 40dBA.

NOTE:
 ALL FANS TO BE FITTED WITH A BACKDRAFT DAMPER.
 ALL FANS TO BE PROVIDED WITH VARIABLE SPEED DRIVES OR SPEED CONTROLLERS
 ALL FANS TO BE IN ACCORDANCE WITH NCC/BCA.
 MECHANICAL CONTRACTOR TO VERIFY FANS STATIC PRESSURE WITH ACTUAL INSTALLED CONDITIONS.
 FANS TO BE SELECTED FOR QUIET OPERATION.
 FANS TO BE RESILIENTLY MOUNTED.

LEGEND

- 150x150 EGG CRATE CEILING EXHAUST GRILLE c/w PLENUM WITH 150Φ SPIGOT & DAMPER. 80 l/s EXHAUST UNLESS NOTED.
- EF INLINE MIXED FLOW EXHAUST AIR FAN c/w SPEED CONTROLLER AND BACKDRAFT DAMPER. ELECTRICAL CONTRACTOR TO SUPPLY AND WIRE RUN ON TIMER TERMINATING WITH GPO FOR FAN. FAN TO BE PROVIDED WITH FLEX AND 3 PIN PLUG.
- SF INLINE MIXED FLOW FRESH AIR SUPPLY FAN c/w SPEED CONTROLLER AND BACKDRAFT DAMPER.
- FLUSH METAL FACED TYPE CEILING ACCESS PANELS BY BUILDER. EXACT LOCATIONS TO SUIT FINAL INSTALLATION POSITION OF EQUIPMENT. THIS CONTRACTOR TO PROVIDE DETAILS TO BUILDER. COORDINATE WITH ARCHITECTS REFLECTED CEILING PLANS.
- RE ROOF EXHAUST DISCHARGE COWL EQUAL TO 'FANTECH' MRV c/w PLENUM, DIVIDERS & VERMIN PROOF SCREENS
- ACOUSTIC FLEXIBLE DUCT (REFER TO DWG M01 NOTES FOR SIZES)

- CU OUTDOOR VRV HEAT PUMP CONDENSING UNIT MOUNTED ON PLATFORM WITH VIBRATION ISOLATORS. PROVIDE CONDENSATE DRAIN RUN TO SUIT STORM WATER DRAINAGE. OUTDOOR UNITS TO BE SELECTED BASED ON TOTAL OF CONNECTED INDOOR UNITS. INSTALLATION TO COMPLY WITH MANUFACTURERS REQUIREMENTS. ALL UNITS TO HAVE THREE PHASE POWER SUPPLY.
- OUTDOOR MULTITHEAD HEAT PUMP CONDENSING UNIT MOUNTED ON PLATFORM WITH VIBRATION ISOLATORS. PROVIDE CONDENSATE DRAIN RUN TO SUIT STORM WATER DRAINAGE. OUTDOOR UNITS TO BE SELECTED BASED ON TOTAL OF CONNECTED INDOOR UNITS. INSTALLATION TO COMPLY WITH MANUFACTURERS REQUIREMENTS. ALL UNITS TO HAVE SINGLE PHASE POWER SUPPLY.

- CEILING CASSETTE TYPE AIR CONDITIONING INDOOR UNIT c/w CONDENSATE DRAIN PIPED TO NEAREST WASTE POINT WITH SELF SEALING DEVICE. PROVIDE CONDENSATE PUMPS IN UNITS WHERE REQUIRED. AIR CONDITIONING UNITS TO BE INSTALLED TO MANUFACTURERS RECOMMENDATIONS.
- CONDENSATE DRAIN PIPING RUN CONCEALED TO SUITABLE WASTE POINT. COORDINATE WASTE POINTS WITH HYDRAULICS CONTRACTOR.
- INSULATED REFRIGERATION PIPING RUN CONCEALED IN CEILING SPACE AND WALL CAVITIES. INSTALLATION TO BE IN ACCORDANCE WITH AC MANUFACTURERS RECOMMENDATIONS.
- WALL MOUNTED CONTROLLER. EXACT LOCATIONS TO BE CONFIRMED WITH ARCHITECT ON SITE
- MINIMUM 30mm DOOR UNDER CUT.
- 600 x 150 DOOR GRILLE.

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P1	25.10.2023	DJ	PRELIMINARY ISSUE				
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MECHANICAL SERVICES

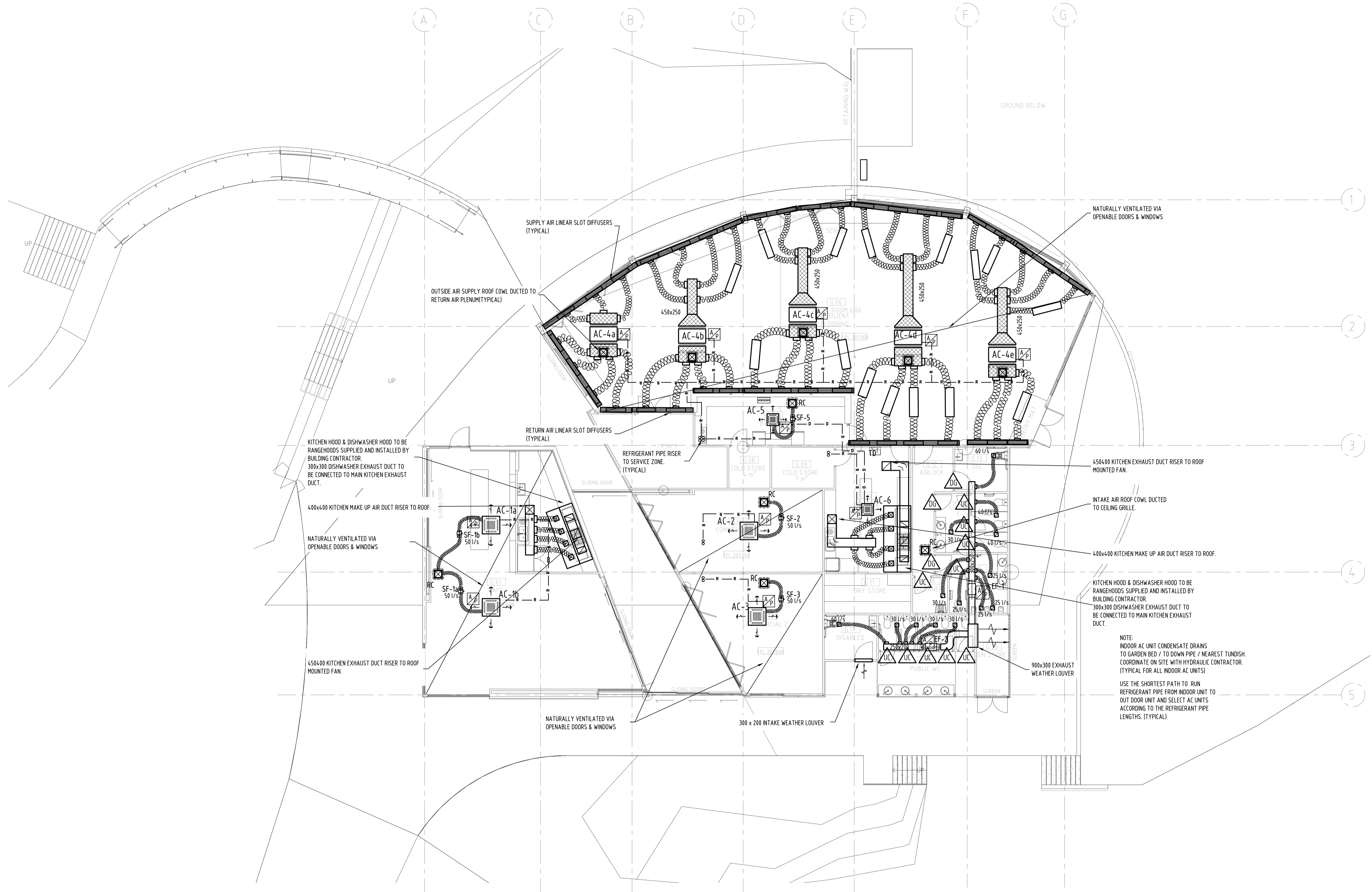
SCOPE OF WORK
 SCHEDULES
 LEGEND

JOB NUMBER	DRAWING NUMBER	REVISION
223022	A1 M01 OF 05	P1

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GROUND FLOOR PLAN

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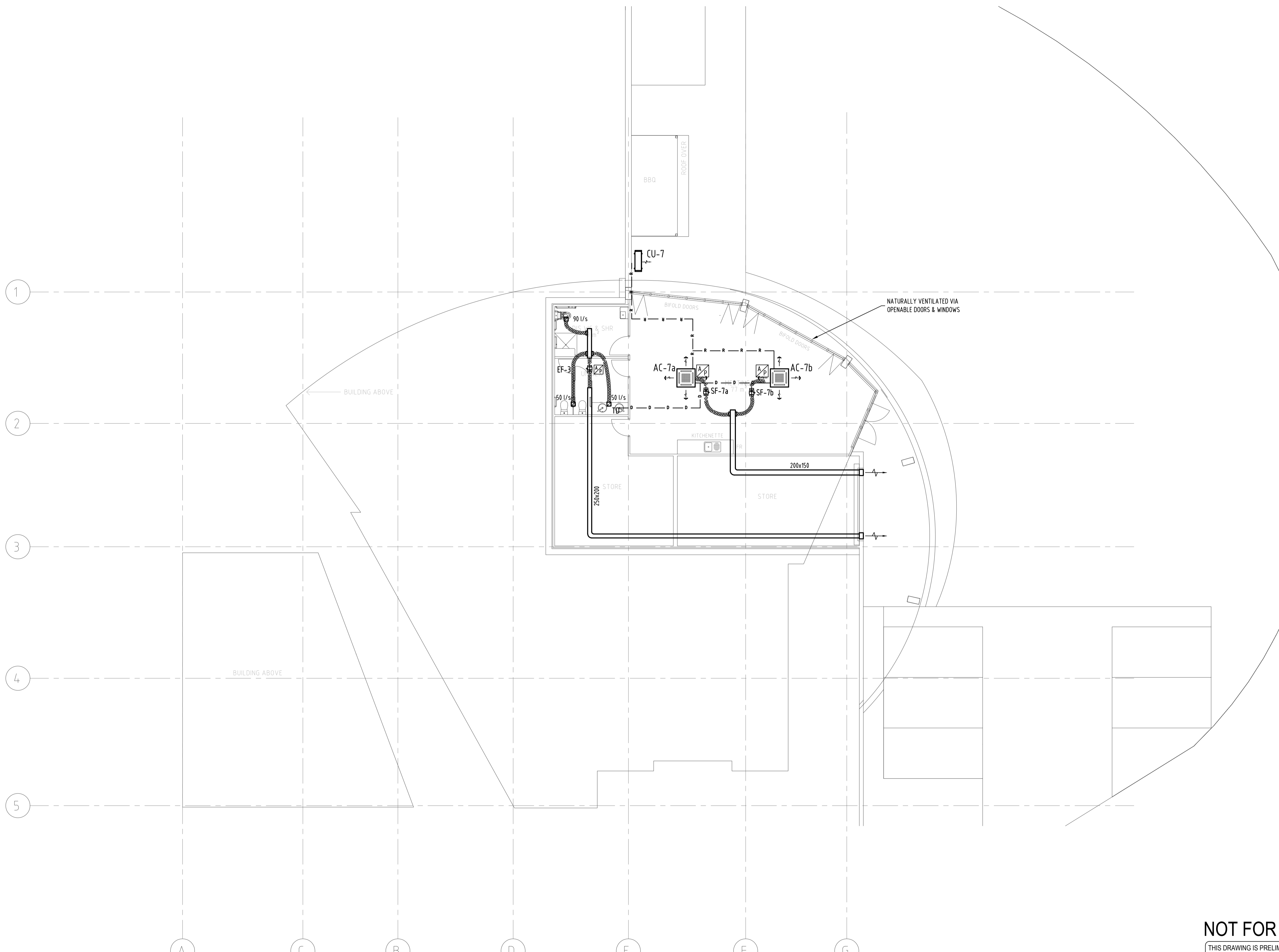
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MECHANICAL SERVICES

FLOOR PLAN
AIR CONDITIONING & VENTILATION

JOB NUMBER	DRAWING NUMBER	REVISION
223022	M02 OF 05	P1

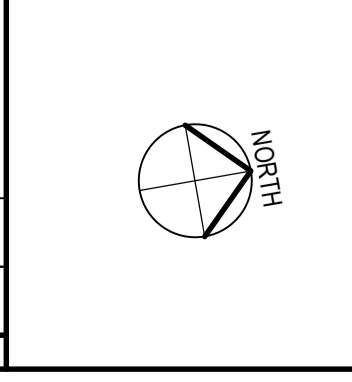


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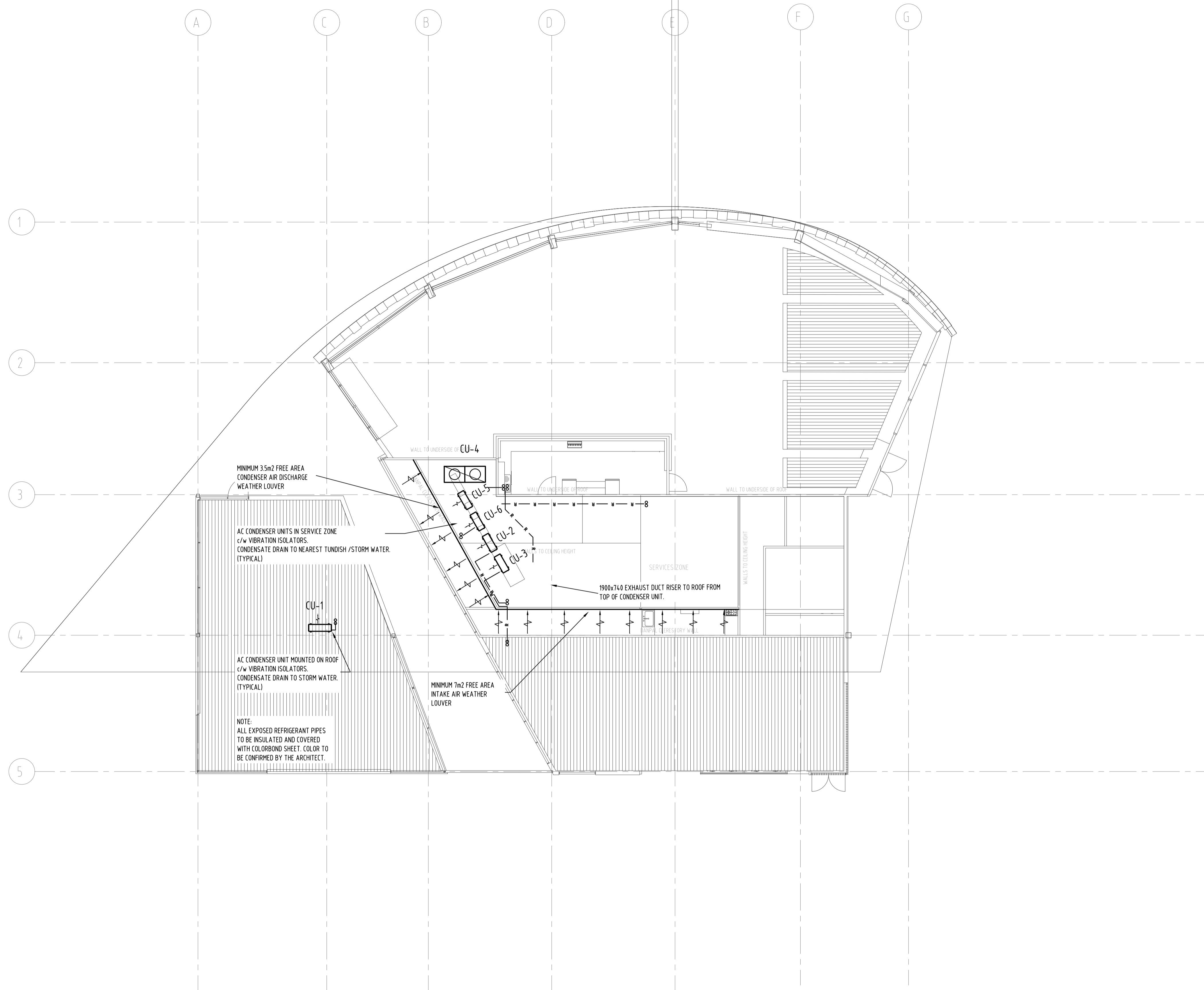
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MECHANICAL SERVICES
 LOWER GROUND
 AIR CONDITIONING & VENTILATION

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CLERESTORY LEVEL

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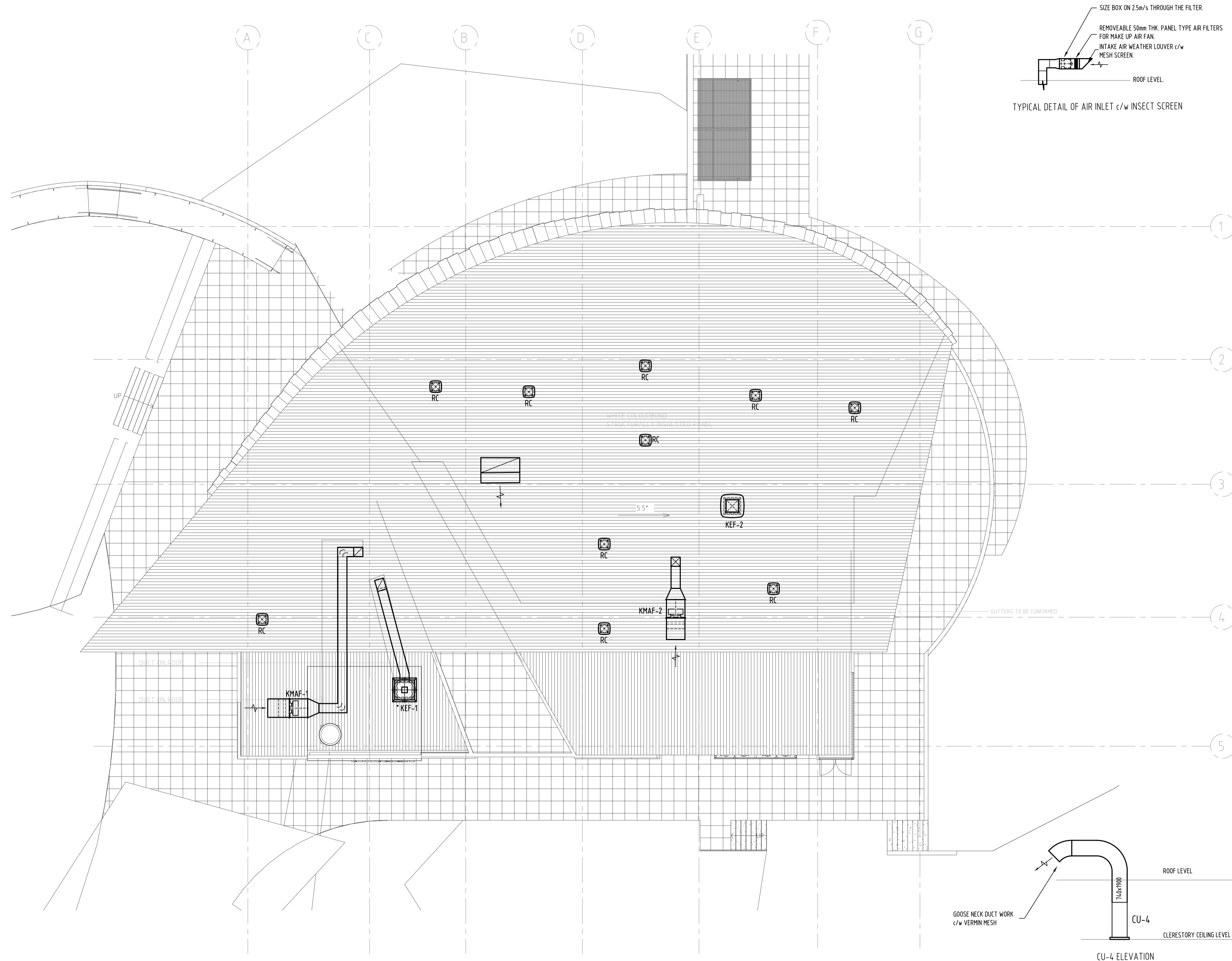
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MECHANICAL SERVICES

CLERESTORY LEVEL
AIR CONDITIONING & VENTILATION

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ROOF PLAN

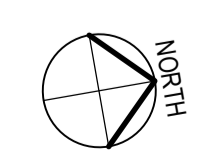
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SIZE BOX ON 2.5m/s THROUGH THE FILTER.
 REMOVEABLE 50mm THK. PANEL TYPE AIR FILTERS FOR MAKE UP AIR FAN.
 INTAKE AIR WEATHER LOUVER c/w MESH SCREEN.
 ROOF LEVEL.
 TYPICAL DETAIL OF AIR INLET c/w INSECT SCREEN

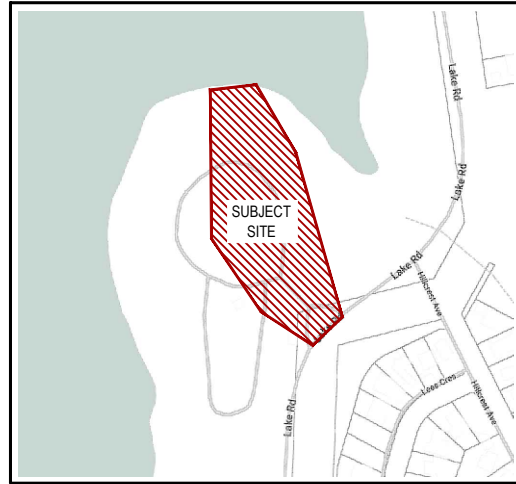
GOOSE NECK DUCT WORK c/w VERMIN MESH
 ROOF LEVEL
 CLEARESTORY CEILING LEVEL
 CU-4
 CU-4 ELEVATION

SIZE BOX ON 2.5m/s THROUGH THE FILTER.
 REMOVEABLE 50mm THK. PANEL TYPE AIR FILTERS FOR MAKE UP AIR FAN.
 INTAKE AIR WEATHER LOUVER c/w MESH SCREEN.
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 TYPICAL DETAIL OF AIR INLET c/w INSECT SCREEN

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PRELIMINARY ISSUE				
BELLBRIDGE BOATHOUSE 32 TOWONG STREET, TALLANGATTA, VIC-3700				
DRAWN	ENGINEER	CHECKED	SCALE	DATE
DJ	DJ	SN	1:100	AUG 2023

MECHANICAL SERVICES		
ROOF PLAN AIR CONDITIONING & VENTILATION		
JOB NUMBER	DRAWING NUMBER	REVISION
223022	A1 M05 OF 05	P1



LOCALITY PLAN

NOT TO SCALE



BELLBRIDGE BOATHOUSE LAKE RD, BELLBRIDGE, VIC, 3691 DRAINAGE WORKS

NOTE:
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DRAWING INDEX

C01 OF 07	GENERAL NOTES, DRAWING INDEX, STANDARD DETAILS TABLE & LOCALITY PLAN
C02 OF 07	LOWER FLOOR DRAINAGE LAYOUT PLAN
C03 OF 07	UPPER FLOOR DRAINAGE LAYOUT PLAN
C04 OF 07	CAR PARK DRAINAGE LAYOUT PLAN
C05 OF 07	CAR PARK DRAINAGE LAYOUT PLAN
C06 OF 07	DRAINAGE PIT SCHEDULE
C07 OF 07	TYPICAL DETAIL

STANDARD DETAILS TABLE

DESCRIPTION	AUTHORITY	STANDARD DETAIL REFERENCE
B3 BARRIER KERB & CHANNEL	I.D.M	SD 100
B1 BARRIER KERB	I.D.M	SD 100
END WALL TO SUIT 300Ø RCP	VICROADS	300 - 525 SD 1851
GRATED PIT	I.D.M	SD 441
STORMWATER PIPE TRENCH BACKFILL	I.D.M	SD 310
JUNCTION PIT	I.D.M	SD 425 & SD 426
GRATED SIDE ENTRY PIT	VICROADS	SD 1322 (B KERB) / SD 1321 (SM KERB)
DRIVABLE CULVERT ENDWALL	VICROADS	SD 1991 (TYPE 1) / SD 1992 (TYPE 2)

BENCHMARK LOCATIONS				
▲	TBM 1	E: TBC	N: TBC	RL: TBC
▲	TBM 2	E: TBC	N: TBC	RL: TBC
▲	TBM 3	E: TBC	N: TBC	RL: TBC

GENERAL NOTES

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL OTHER RELEVANT CONSULTANTS DRAWINGS, SPECIFICATIONS, CLIENT INSTRUCTIONS, AND ANY WRITTEN INSTRUCTIONS ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER FOR DISCUSSION BEFORE PROCEEDING WITH WORK.

DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
SUBSTITUTES WILL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.

DURING CONSTRUCTION THE SITE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART OF THE SITE SHALL BE UNSAFE AS A RESULT OF THE CONSTRUCTION PROCEDURE.

MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATION AND TOWONG SHIRE COUNCIL STANDARDS, THE CURRENT REVISION OF ALL RELEVANT SAA CODES, THE REQUIREMENTS OF THE VICTORIA BUILDING REGULATIONS, THE BUILDING CODE OF AUSTRALIA AND THE RELEVANT AUTHORITIES.

UNLESS NOTED OTHERWISE ON A PARTICULAR DRAWING THESE NOTES SHALL APPLY.

THE TERM 'ENGINEER' SHALL MEAN A REPRESENTATIVE APPOINTED BY THE TOWONG SHIRE COUNCIL.

CONSTRUCTION HOLD POINTS

THE CONTRACTOR IS TO BE AWARE OF THE TOWONG SHIRE COUNCIL CONSTRUCTION REQUIREMENTS AND CONTACT THE TOWONG SHIRE COUNCIL AT EACH OF THEIR REQUIRED HOLD POINTS TO ARRANGE APPROPRIATE TESTING AND INSPECTIONS.

SUB-GRADE INSPECTION - NO CRUSHED ROCK OR OTHER PAVEMENT MATERIAL IS TO BE PLACED UNTIL THE SUBGRADE HAS BEEN INSPECTED AND APPROVED BY THE COUNCIL OFFICER.

TEST ROLLING - SHALL BE CARRIED OUT IN THE PROCESS OF AND TO THE SATISFACTION OF THE COUNCIL OFFICER.

PRIMER COAT - THE COUNCIL OFFICER IS TO GIVE APPROVAL PRIOR TO THE PLACEMENT OF THE PRIMER COAT.

BITUMINOUS CONCRETE WEARING COURSE - (PLACING AND COMPACTION). NO LAYER SHALL BE SPREAD UNTIL THE COUNCIL OFFICER GIVES CONSENT TO PROCEED.

PLACING - CONCRETE SHALL NOT BE PLACED UNTIL THE COUNCIL OFFICER HAS EXAMINED FORMWORK AND REINFORCEMENT IN PLACE AND GIVEN HIS CONSENT TO PROCEED.

FORMS - THE FORMS SHALL BE INSPECTED BY THE COUNCIL OFFICER IMMEDIATELY BEFORE CONCRETE IS PLACED.

PREPARATION BEFORE PLACING FRESH CONCRETE - THE SURFACE PREPARATIONS WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE COUNCIL OFFICER BEFORE CONCRETING PROCEEDS.

BACKFILLING - NO JOINTS ARE TO BE COVERED OR TRENCHES BACKFILLED UNTIL PIPE LAYING HAS BEEN APPROVED BY THE COUNCIL OFFICER.

DRAINAGE PITS - COVERS SHALL NOT BE PLACED UNTIL THE PITS HAVE BEEN INSPECTED AND APPROVED BY THE COUNCIL OFFICER.

CONCRETE NOTES

REFER VICROADS SPECIFICATION STANDARD SECTION 703 'GENERAL CONCRETE PAVING' FOR CONSTRUCTION DETAILS AND ASSOCIATED REFERENCES.

ALL CONCRETE AND CONCRETE PRACTICE SHALL BE GENERALLY IN ACCORDANCE WITH AS 3600 CONCRETE STRUCTURES CODE.

ALL INSITU CONCRETE SHALL HAVE A CHARACTERISTIC STRENGTH AT 28 DAYS (F_{cd}) OF 25 MPa UNLESS NOTED OTHERWISE.

CONCRETE ELEMENTS SHOWN ON THESE DRAWINGS MUST NOT BE REDUCED IN ANY WAY WITHOUT THE ENGINEER'S APPROVAL. NO HOLES, CHASES, OR EMBEDMENTS, OTHER THAN THOSE SHOWN WILL BE PERMITTED IN ANY CONCRETE ELEMENTS WITHOUT THE ENGINEER'S APPROVAL.

REINFORCEMENT NOTATION

R - DENOTES STRUCTURAL GRADE PLAIN ROUND BARS TO AS 1302

N - DENOTES HOT ROLLED DEFORMED BARS TO AS 1302 (410Y)

SL72 - DENOTES REINFORCEMENT FABRIC TO AS 1304 (72 DENOTES SIZE OF FABRIC)

LAPPING REINFORCEMENT



TRENCH MESH 500mm FULL WIDTH AT INTERSECTION

BAR SIZE	TOP BARS (300mm OR MORE CONCRETE BELOW)	OTHER BARS
N12		300
N16	700	400
N20		600

COVER

CLEAR COVER TO REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS.

CONCRETE COVER SHALL BE MAINTAINED BY THE USE OF APPROVED CHAIRS AND/OR CONCRETE BLOCKS. CONDUITS, PIPES ETC. ARE NOT TO BE PLACED IN CONCRETE COVER.

THE SLUMP OF ALL CONCRETE AT THE TIME OF PLACING AT THE JOB SHALL BE 75mm +/- 15mm TOLERANCE U.N.O.

ALL CONCRETE PLACED IN POSITION SHALL BE ADEQUATELY VIBRATED.

ALL CONCRETE SHALL BE CURED TO THE APPROVAL OF THE ENGINEER.

ALL PIPEWORK CAST INTO CONCRETE IS TO BE SLEEVED OR LAGGED WITH APPROPRIATE COMPRESSIBLE MATERIAL FOR THE FULL LENGTH OF EMBEDMENT.

ASPHALT NOTES

REFER VICROADS SPECIFICATION STANDARD SECTION 407 'HOT MIX ASPHALT' FOR CONSTRUCTION DETAILS AND ASSOCIATED REFERENCES.

CIVIL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

ALL LEVELS SHOWN ARE BASED ON SITE DATUM. REFER TO SITE TBMS

COORDINATES ARE GROUND DISTANCES BASED ON SITE DATUM. REFER TO SITE TBMS

UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE ENGINEER, LAYING OF ALL PIPES OR CULVERTS SHALL COMMENCE AT THE DOWNSTREAM END.

PRIOR TO ANY WORKS COMMENCING THE CONTRACTOR SHALL COMPLETE A CHECK OF ANY EXISTING CONNECTING STORMWATER DETAILS, INCLUDING INVERTS, DIAMETERS, DEPTHS, MATERIAL ETC. TO CONFIRM ANY EXISTING DETAILS SHOWN ON THE DRAWINGS. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.

STORMWATER DRAINS ARE TO BE PVC SEWER QUALITY PIPES OR REINFORCED CONCRETE AS NOTED.

RC PIPES ARE TO BE RUBBER RING JOINTED CLASS 3 UNDER VEHICLE PAVEMENTS. ALL RC PIPES ELSEWHERE ARE TO BE CLASS 2 WITHOUT RUBBER RING JOINTS.

DRAINAGE PIPES MUST BE BEDDED IN ACCORDANCE WITH THESE DRAWINGS.

DRAINAGE, SERVICES AND CONDUIT TRENCHES UNDER PAVEMENTS, FOOTPATHS AND PAVING ARE TO BE BACKFILLED TO THE UNDERSIDE OF THE PAVEMENT WITH AN APPROVED CONSOLIDATED MATERIAL IN ACCORDANCE WITH THE RELEVANT MUNICIPALITIES CONDITIONS.

ANY CLASH OF THE WORKS WITH A SERVICE IS TO BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL ENSURE THAT SERVICES ARE FULLY PROTECTED DURING CONSTRUCTION. ANY SERVICES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

SERVICES OTHER THAN THOSE SHOWN ON THE DRAWINGS MAY EXIST. THE CONTRACTOR IS TO ALLOW FOR THE ALTERATION TO SERVICES WITHIN THE SITE, INCLUDING THE ADJUSTMENT OF PIT COVER LEVELS AND THE REMOVAL AND SEALING OF UNWANTED SERVICES & ASSOCIATED PITS & FITTINGS.

EXPPOSED SUBGRADE AREAS SHALL BE PROOF ROLLED UNDER THE SUPERVISION OF THE ENGINEER USING A 10 TONNE AXLE LOAD. SOFT AREAS DETECTED SHALL BE EXCAVATED AND BACKFILLED AS DIRECTED BY THE ENGINEER.

THE PAVEMENT SUB-BASE COURSE IS TO BE COMPACTED TO 97% MODIFIED MAXIMUM DRY DENSITY COMPACTION. THE PAVEMENT BASE COURSE TO 98% MODIFIED MAXIMUM DRY DENSITY. TESTING LOCATIONS IN ACCORDANCE WITH VICROADS SPECIFICATIONS RC316.10. ALL PAVEMENT TESTING TO NATA STANDARDS.

ALL WORKS ADJACENT TO THE SITE ARE TO BE APPROVED INSPECTED BY TOWONG SHIRE COUNCIL.

THE LOCATION OF UNDERGROUND SERVICES SHOWN ARE INDICATIVE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL AUTHORITIES TO DETERMINE THE LOCATION OF UNDERGROUND SERVICES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION WORK. ANY CLASH OF WORKS WITH A SERVICE IS TO BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL ENSURE THAT ALL SERVICES ARE FULLY PROTECTED DURING CONSTRUCTION. ANY SERVICES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

PROVIDE TOOLED JOINTS IN KERBS, KERB AND CHANNEL AT 2.0m MAXIMUM CENTRES.

PROVIDE 0.3m RADIUS TO KERBS AT INTERNAL CORNERS UNLESS NOTED OTHERWISE.

SAW CUT EXISTING KERBS & PAVEMENTS WHERE REQUIRED FOR INSTALLATION OF NEW KERBS AND WHERE NEW WORK IS TO MATCH EXISTING.

THE CONTRACTOR SHALL AT ALL TIMES DURING THE CURRENCY OF THE WORK PROTECT THE PUBLIC FROM THE WORKS, PLANT, TRENCHES ETC. OCCASIONED BY THE WORKS BY THE USE OF APPROVED BARRICADES AND BARRIERS. SUCH PROTECTIVE MEASURES WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND A REPRESENTATIVE FROM TOWONG SHIRE COUNCIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY ARISING FROM THE NEGLIGENCE OR INSUFFICIENCY OF SUCH PRECAUTIONS.

THE CONTRACTOR IS ADVISED THAT THE MINES (TRENCHES) REGULATIONS 1962 WILL APPLY TO THIS PROJECT. THE CONTRACTOR IS REQUIRED TO SATISFY AND/OR PUT INTO EFFECT ALL REQUIREMENTS OF THOSE REGULATIONS AND THOSE OF THE OFFICE OF MINERALS AND ENERGY.

THE WORKS SHOWN HEREIN ARE SUBJECT TO THE SUPERVISION OF THE PRINCIPALS APPOINTED SUPERINTENDENT.

CARE IS TO BE TAKEN TO PROTECT EXISTING FENCES, BUILDINGS, FITTINGS, SERVICES, FURNITURE, SIGNAGE, TREES AND OTHER ITEMS TO BE RETAINED FROM ANY DAMAGE.

UNWANTED PITS, PIPES SERVICES ECT. IN PAVEMENT AREAS ARE TO BE REMOVED AND THE HOLE BACKFILLED WITH AN APPROVED CONSOLIDATED MATERIAL IN ACCORDANCE WITH THE RELEVANT MUNICIPALITIES CONDITIONS.

THE CONTRACTOR SHALL INSPECT THE SITE AND DETERMINE THE EXISTING ASPHALT PAVING, PITS, PIPES, SERVICES, TREES, KERBS, DRAINS, BUILDINGS, FITTINGS, FURNITURE, SIGNAGE, ETC. THAT ARE TO BE REMOVED AND THE CONTRACTOR SHALL ALLOW IN THE TENDER PRICE FOR ALL COSTS ASSOCIATED WITH THE NECESSARY REMOVAL.

IN AREAS WHERE THERE IS TO BE FILLING UNDER PAVEMENT AREAS, THE SUBGRADE SHALL BE CLEARED OF ANY ROOT MATTER AND LOOSE MATERIAL TO THE DESIGN LEVELS. THE SUBGRADE AREA SHALL BE PROOF ROLLED UNDER THE ENGINEERS SUPERVISION USING A 10 TONNE AXLE LOAD TO LOCATE ANY SOFT SPOTS. ANY SOFT SPOTS SHALL BE EXCAVATED AND REPLACED WITH AN APPROVED MATERIAL IN 150mm COMPACTED LAYERS TO A MODIFIED DRY DENSITY OF 95% COMPACTION.

THE CONTRACTOR SHALL ALLOW TO PROVIDE TEMPORARY SHUTTERS FOR ALL TRENCHES AS NECESSARY.

SURPLUS SPOIL NOT REQUIRED BY THE DEVELOPER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE, TO THE MUNICIPAL TIP OR A SITE APPROVED UNDER THE COUNCIL PLANNING & ENVIRONMENT ACT AND THE EPA ACT.

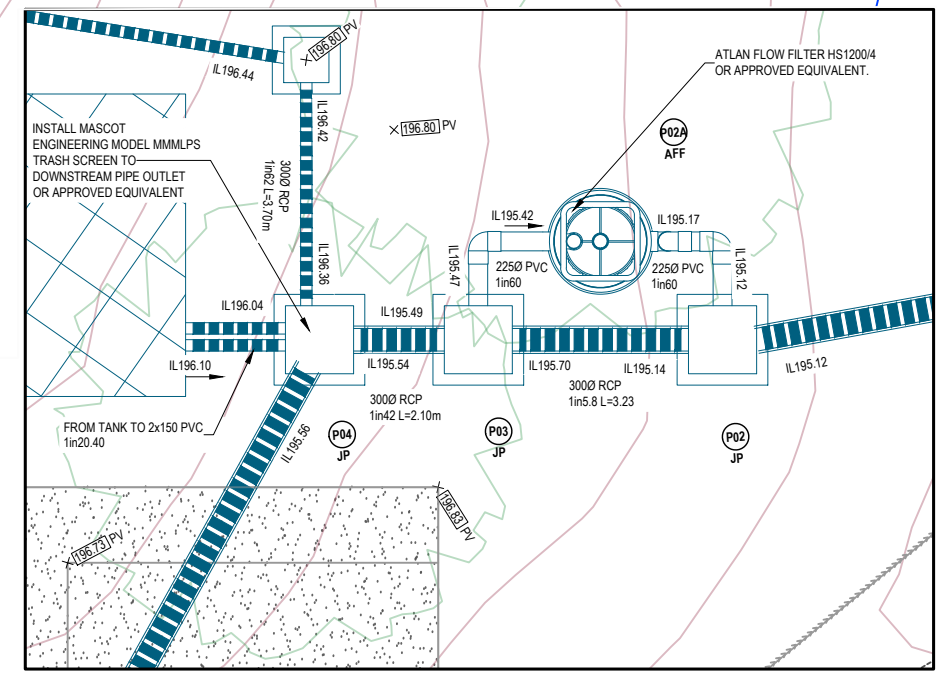
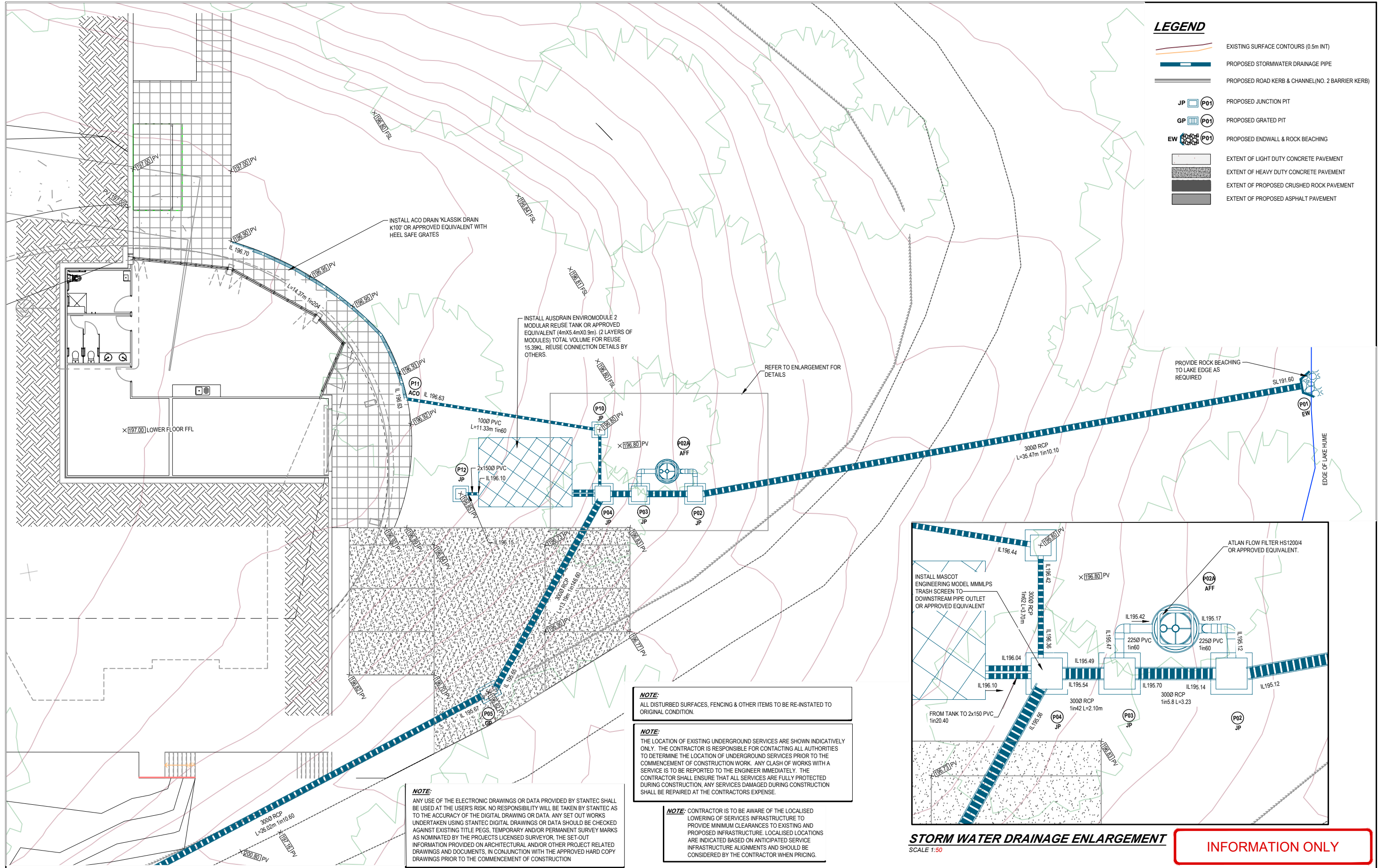
THE CONTRACTOR SHALL DEVELOP AND ENSURE THE STRICT IMPLEMENTATION OF AN APPROVED SITE ENVIRONMENT MANAGEMENT SYSTEM GENERALLY IN ACCORDANCE WITH THE EPA PUBLICATION 'CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL, PUBLICATION No. 275.'

THE ORIENTATION OF ALL STORMWATER DRAINAGE ACCESS COVERS & GRATES ARE SHOWN INDICATIVELY AND ARE TO BE MANUFACTURED & INSTALLED IN ACCORDANCE WITH AS3996-2006.

ALL DISTURBED SURFACES, FENCING & OTHER ITEMS TO BE RE-INSTATED TO ORIGINAL CONDITION.

INFORMATION ONLY

ISSUE	ISSUED FOR	DATE	DRAWN	APPROVED	ISSUE	ISSUED FOR	DATE	DRAWN	APPROVED	DESIGNED: M.ANTON	DATE: OCTOBER 2023	 Stantec Australia Pty Ltd ABN 17 007 820 322 1315 Sturt Street Ballarat, VIC 3350 Tel: 03 5330 8888 Web: www.stantec.com/au		PROJECT: BELLBRIDGE BOATHOUSE LAKE ROAD, VIC 3691 TOWONG SHIRE	CIVIL DRAWING
01	FOR INFORMATION	24.10.2023	S.T.							DRAWN: S.THAPA	SCALE: NTS				DRAWING TITLE: GENERAL NOTES, TABLES & LOCALITY PLAN
										CHECKED: --	SHEET SIZE: A1 / A3				
										APPROVED:					
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STORM WATER DRAINAGE ENLARGEMENT
SCALE 1:50

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FOUR18

PROJECT:











**BELLBRIDGE BOATHOUSE
LAKE ROAD, VIC 3691
TOWONG SHIRE**

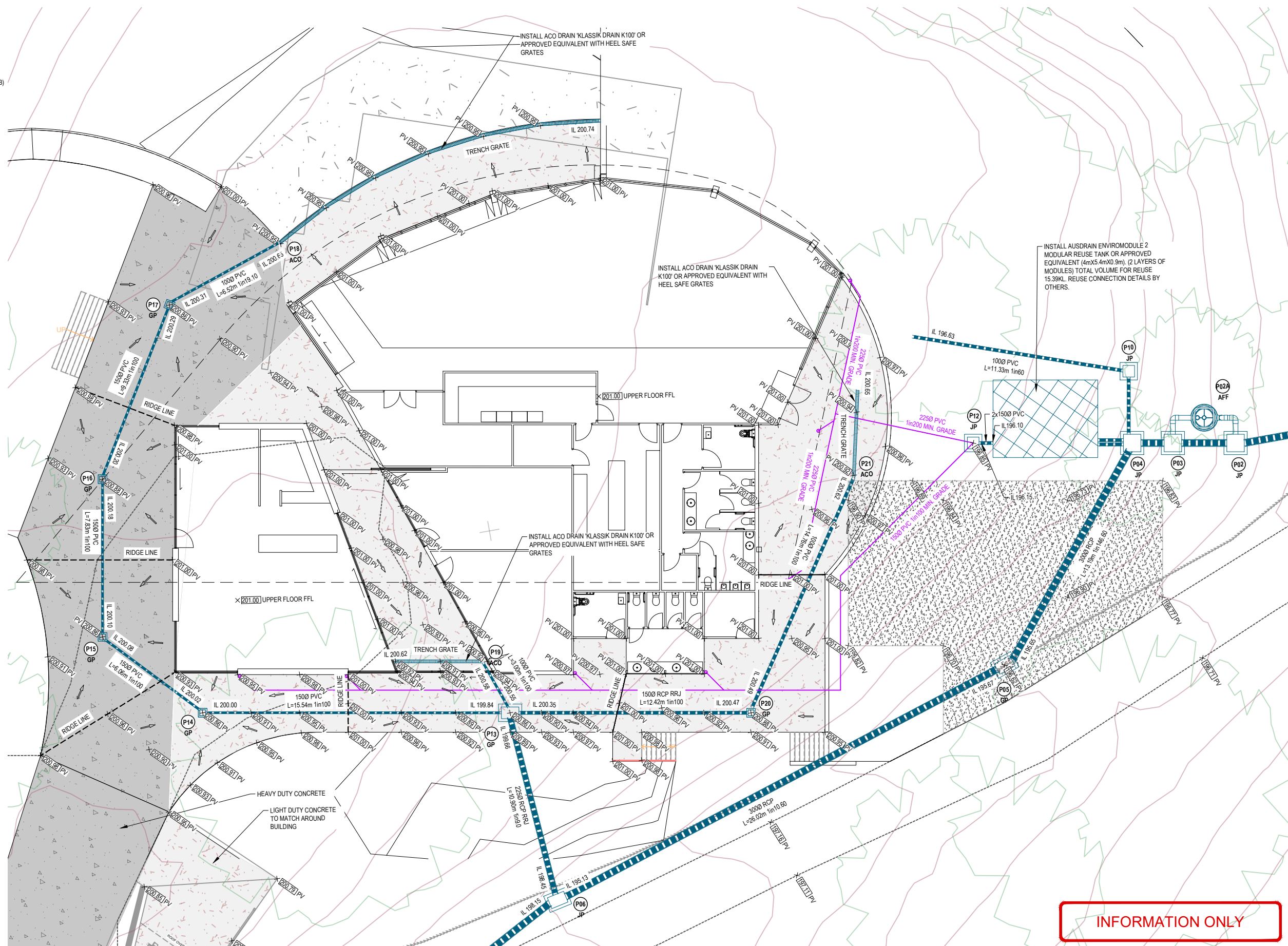
CIVIL DRAWING

DRAWING TITLE:
**LOWER FLOOR DRAINAGE
LAYOUT PLAN**

REF. No. 301151577 SHEET C02 OF 07 REV. 01

LEGEND

-  EXISTING SURFACE CONTOURS (0.5m INT)
-  PROPOSED STORMWATER DRAINAGE PIPE
-  PROPOSED ROAD KERB & CHANNEL (NO. 2 BARRIER KERB)
-  PROPOSED JUNCTION PIT
-  PROPOSED GRATED PIT
-  PROPOSED ENDWALL & ROCK BEACHING
-  EXTENT OF LIGHT DUTY CONCRETE PAVEMENT
-  EXTENT OF HEAVY DUTY CONCRETE PAVEMENT
-  EXTENT OF PROPOSED CRUSHED ROCK PAVEMENT
-  EXTENT OF PROPOSED ASPHALT PAVEMENT



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01	FOR INFORMATION	24.10.2023	S.T.						

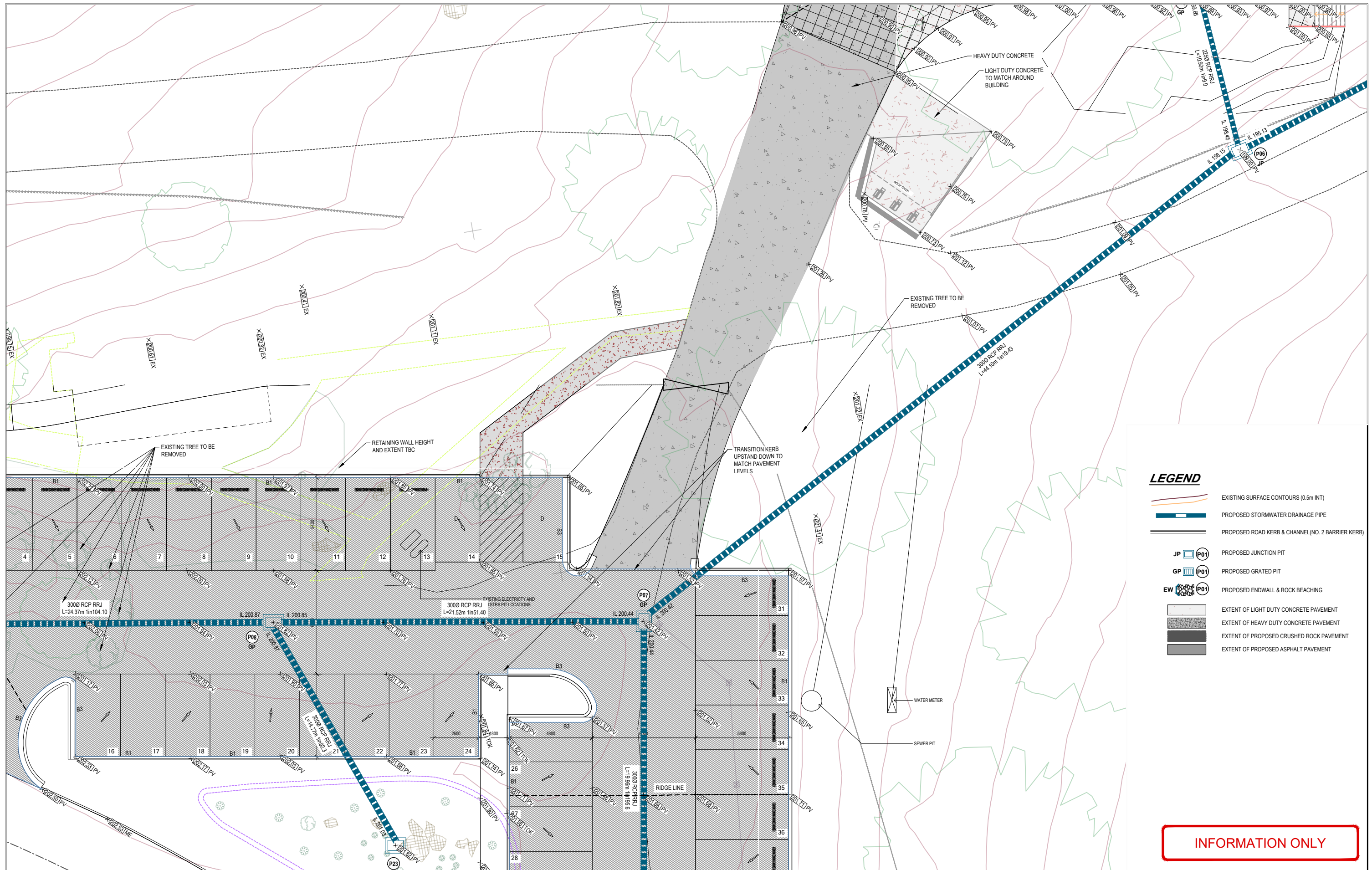
DESIGNED: M.ANTON	DATE: OCTOBER 2023
DRAWN: S.THAPA	SCALE: A1: 1:100, A3: 1:200
SURVEY: --	SHEET SIZE: A1 / A3
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CLIENT: **FOUR18**

PROJECT: **BELLBRIDGE BOATHOUSE
 LAKE ROAD, VIC 3691
 TOWONG SHIRE**

CIVIL DRAWING	
DRAWING TITLE: UPPER FLOOR DRAINAGE LAYOUT PLAN	
REF. No. 301151577	SHEET C03 OF 07 REV. 01



LEGEND

- EXISTING SURFACE CONTOURS (0.5m INT)
- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED ROAD KERB & CHANNEL (NO. 2 BARRIER KERB)
- JP P01 PROPOSED JUNCTION PIT
- GP P01 PROPOSED GRATED PIT
- EW P01 PROPOSED ENDWALL & ROCK BEACHING
- EXTENT OF LIGHT DUTY CONCRETE PAVEMENT
- EXTENT OF HEAVY DUTY CONCRETE PAVEMENT
- EXTENT OF PROPOSED CRUSHED ROCK PAVEMENT
- EXTENT OF PROPOSED ASPHALT PAVEMENT

INFORMATION ONLY

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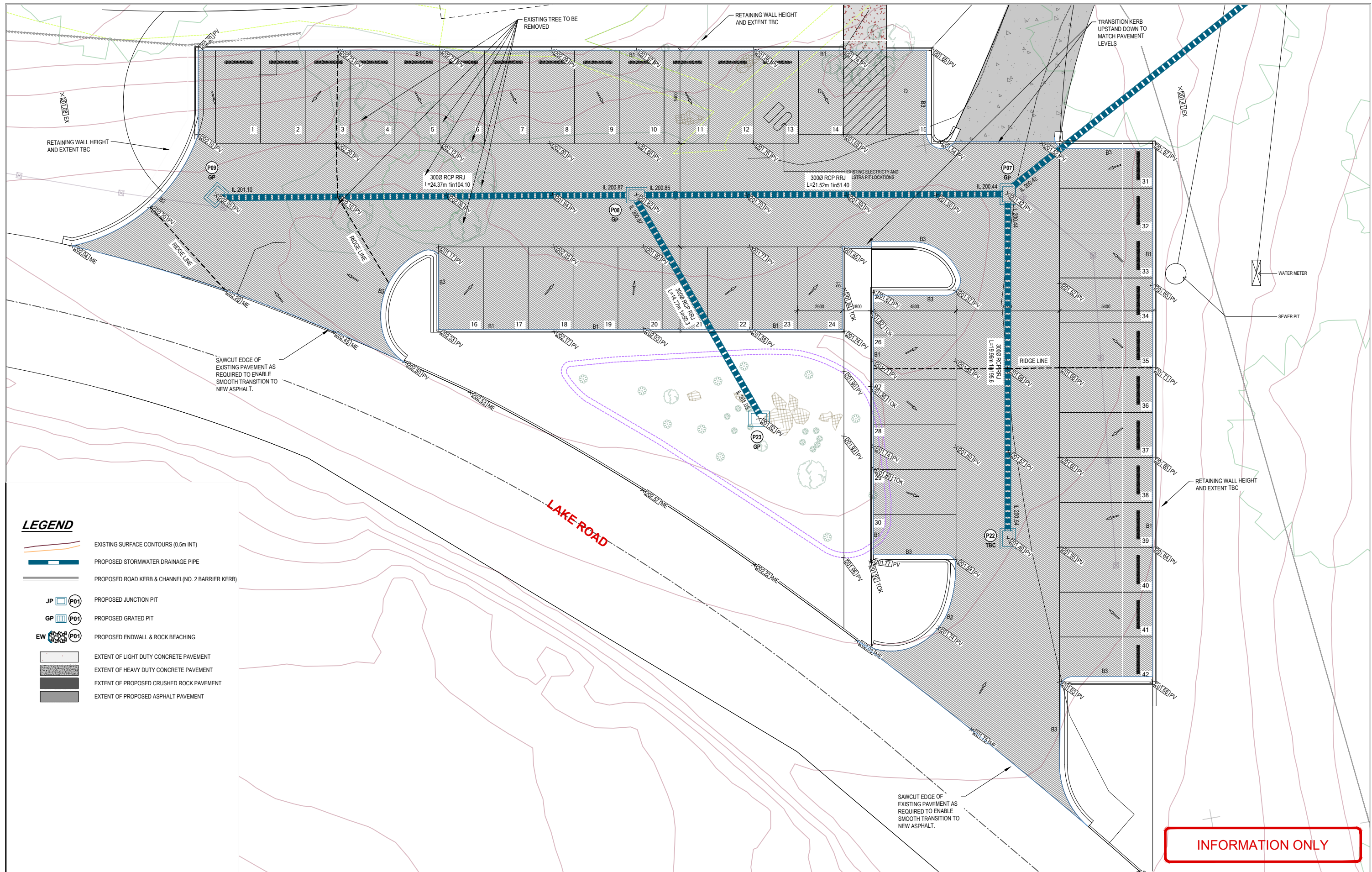


CLIENT:
 PROJECT: BELLBRIDGE BOATHOUSE
 LAKE ROAD, VIC 3691
 TOWONG SHIRE

CIVIL DRAWING

DRAWING TITLE:
CAR PARK DRAINAGE LAYOUT PLAN

REF. No. 301151577 SHEET C04 OF 07 REV. 01



LEGEND

- EXISTING SURFACE CONTOURS (0.5m INT)
- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED ROAD KERB & CHANNEL (NO. 2 BARRIER KERB)
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED ENDWALL & ROCK BEACHING
- EXTENT OF LIGHT DUTY CONCRETE PAVEMENT
- EXTENT OF HEAVY DUTY CONCRETE PAVEMENT
- EXTENT OF PROPOSED CRUSHED ROCK PAVEMENT
- EXTENT OF PROPOSED ASPHALT PAVEMENT

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DESIGNED: **M.ANTON** DATE: **OCTOBER 2023**
 DRAWN: **S.THAPA** SCALE: **A1: 1:100, A3: 1:200**
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 PROJECT: **BELLBRIDGE BOATHOUSE LAKE ROAD, VIC 3691 TOWONG SHIRE**

CIVIL DRAWING
 DRAWING TITLE: **CAR PARK DRAINAGE LAYOUT PLAN**
 REF. No: **301151577** SHEET: **C05 OF 07** REV: **01**

CIVIL DRAWING DRAWING TITLE: CAR PARK DRAINAGE LAYOUT PLAN	REF. No: 301151577 SHEET: C05 OF 07 REV: 01
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PIT SCHEDULE

PIT NAME	PIT TYPE	INTERNAL DIMENSIONS		INLET			OUTLET		FSL	DEPTH	REMARKS
		LENGTH	WIDTH	FROM PIT	INLET DIA	INVERT RL	OUTLET DIA	INVERT RL			
P01	EW	-	-				3000	191.60	192.20	0.60	END WALL TO SUIT 300dia, PROVIDE ROCK BEACHING TO LAKE EDGE
P02	JP	900	900	P02A	2250	195.12	3000	195.12	196.70	1.58	PROVIDE CLASS B LID
				P03	3000	195.14					
P02A	AFF	-	-	P03	2250	195.42	2250	195.17	196.75	1.58	ATLAN FLOWFILTER HS1200I4 (OR APPD EQUIV), PROVIDE CLASS B LID
P03	JP	900	900	P04	3000	195.49	2250	195.47	196.80	1.33	PROVIDE CLASS B LID
							3000	195.70			
P04	JP	900	900	P05	3000	195.56	3000	195.54	196.80	1.26	PROVIDE CLASS B LID
				TANK	2x150	196.04					
				P10	1000	196.14					
P05	GP	900	600	P06	3000	195.67	3000	195.65	196.62	0.97	PROVIDE CLASS D GRATED LID
P06	JP	900	600	P07	3000	198.15	3000	198.13	199.00	0.87	PROVIDE CLASS B LID
				P13	2250	198.45					
P07	GP	900	600	P08	3000	200.44	3000	200.42	201.42	1.00	PROVIDE CLASS D GRATED LID
				P22	3000	200.44					
P08	GP	900	600	P09	3000	200.87	3000	200.85	201.82	0.97	PROVIDE CLASS D GRATED LID
				P23	3000	200.87					
P09	GP	900	600				3000	201.10	202.05	0.95	PROVIDE CLASS D GRATED LID
P10	JP	600	600	P10	1000	196.22	1000	196.20	196.80	0.60	PROVIDE CLASS B LID
P11	ACO	-	-				1000	196.63	196.93	0.30	ACO DRAIN KLASSIKDRAIN K100 (OR APPD EQUIV), HEELSAFE GRATES
P12	JP	600	600	ROOF	2250	196.15	2x150	196.15	196.85	0.70	
				ROOF	1500	196.15					
P13	GP	900	600	P14	1500	199.84	2250	199.66	200.86	1.20	PROVIDE CLASS A GRATED LID
				P19	1000	200.55					
				P20	1500	200.35					
P14	GP	600	600	P15	1500	200.02	1500	200.00	200.86	0.86	PROVIDE CLASS A GRATED LID
P15	GP	600	600	P16	1500	200.10	1500	200.08	200.86	0.78	PROVIDE CLASS B GRATED LID
P16	GP	600	600	P17	1500	200.20	1500	200.18	200.88	0.70	PROVIDE CLASS B GRATED LID
P17	GP	450	450	P18	1000	200.31	1500	200.29	200.86	0.57	PROVIDE CLASS B GRATED LID
P18	ACO	-	-				1000	200.65	200.95	0.30	ACO DRAIN KLASSIKDRAIN K100 (OR APPD EQUIV), HEELSAFE GRATES
P19	ACO	-	-				1000	200.58	200.92	0.34	ACO DRAIN KLASSIKDRAIN K100 (OR APPD EQUIV), HEELSAFE GRATES
P20	GP	450	450	P21	1000	200.49	1500	200.47	200.88	0.41	PROVIDE CLASS A GRATED LID
P21	ACO	-	-				1000	200.49	200.92	0.43	ACO DRAIN KLASSIKDRAIN K100 (OR APPD EQUIV), HEELSAFE GRATES
P22	GP	900	600				3000	200.54	201.49	0.95	PROVIDE CLASS D GRATED LID
P23	GP	900	600				3000	201.03	201.82	0.79	PROVIDE CLASS B GRATED LID

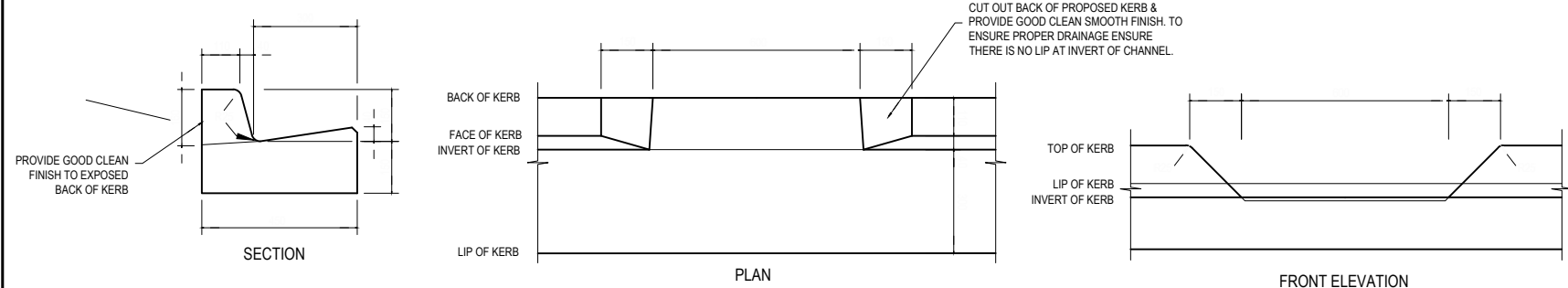
NOTES:

AFF DENOTES ATLAN FLOWFILTER, ACO DENOTES ACO DRAIN, EW DENOTES END WALL, JP DENOTES JUNCTION PIT, GP DENOTES GRATED PIT

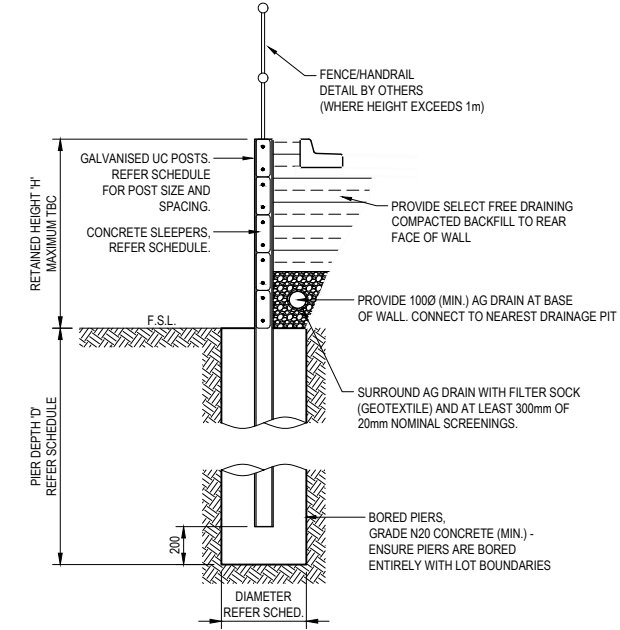
ALL PITS & PIPES TO BE INSTALLED IN ACCORDANCE WITH AS3500, IDM SD400 AND MANUFACTURER'S SPECIFICATIONS

INFORMATION ONLY

ISSUE	ISSUED FOR	DATE	DRAWN	APPROVED	ISSUE	ISSUED FOR	DATE	DRAWN	APPROVED	DESIGNED: M.ANTON	DATE: OCTOBER 2023	 <p>Stantec Australia Pty Ltd ABN 17 007 820 322 1315 Sturt Street Ballarat, VIC 3350 Tel: 03 5330 8888 Web: www.stantec.com/au</p>		CLIENT: PROJECT: BELLBRIDGE BOATHOUSE LAKE ROAD, VIC 3691 TOWONG SHIRE	CIVIL DRAWING	
01	FOR INFORMATION	24.10.2023	S.T.							DRAWN: S.THAPA	SCALE: A1: 1:100, A3: 1:200				DRAWING TITLE:	
										SURVEY: --	SHEET SIZE: A1 / A3				<i>DRAINAGE PIT SCHEDULE</i>	
										CHECKED:	APPROVED:				REF. No. 301151577	
										DATE:	DATE:				SHEET C06 OF 07	
 COPYRIGHT STANTEC											REV: 01					



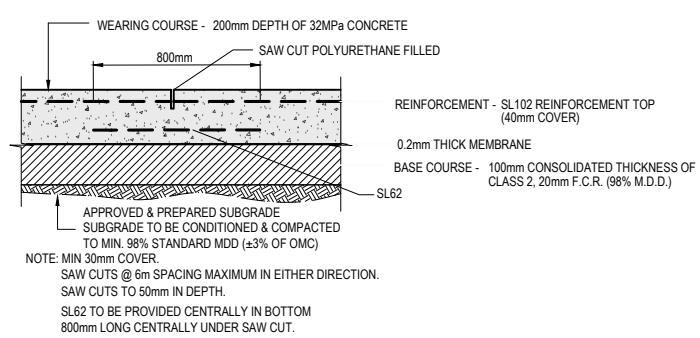
KERB CUTOUT DETAILS
SCALE N.T.S



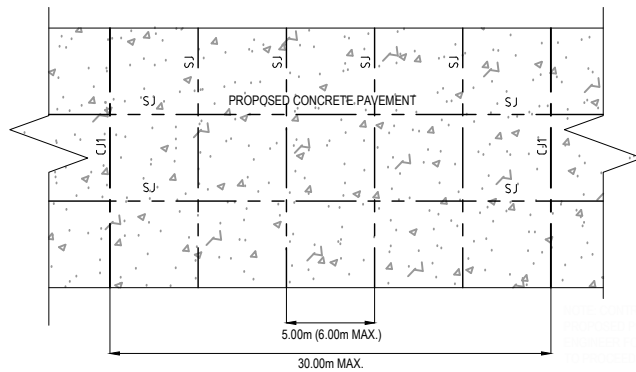
TYPICAL RETAINING WALL DETAIL
NOT TO SCALE

SLEEPER RETAINING WALL SCHEDULE						
HEIGHT 'H'	POST SIZE	1800mm MAX. POST SPACING PIER DEPTH 'D'		2400mm MAX. POST SPACING PIER DEPTH 'D'		SLEEPER SIZE
		Ø 450	Ø 600	Ø 450	Ø 600	
0-400	150 UC 23.4	TBC	TBC	TBC	TBC	TO MANUFACT. SPECS
400-800	150 UC 23.4	TBC	TBC	TBC	TBC	TO MANUFACT. SPECS
800-1000	150 UC 23.4	TBC	TBC	TBC	TBC	TO MANUFACT. SPECS
1000-1200	150 UC 23.4	TBC	TBC	TBC	TBC	TO MANUFACT. SPECS
1200-1400	150 UC 23.4	TBC	TBC	TBC	TBC	TO MANUFACT. SPECS
1400-1600	150 UC 23.4	TBC	TBC	TBC	TBC	TO MANUFACT. SPECS

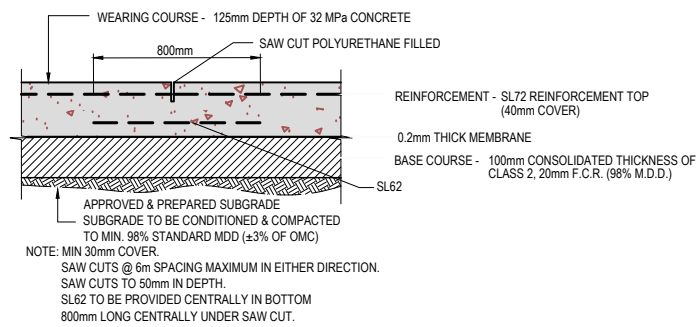
- NOTES:
- RETAINING WALL HAS BEEN DESIGN TO RETAIN HORIZONTAL BACKFILL WITH A MAXIMUM SURCHARGE OF (TBC).
 - STEEL POSTS TO BE HOT-DIP GALVANISED.
 - CONCRETE SLEEPERS TO BE GRADE N40 (f_c = 40MPa) MINIMUM.
 - CONCRETE SLUMP TO BE 80mm ± 15mm MAXIMUM.
 - CHAIN WIRE FENCE POST FIXING DETAIL BY OTHERS.



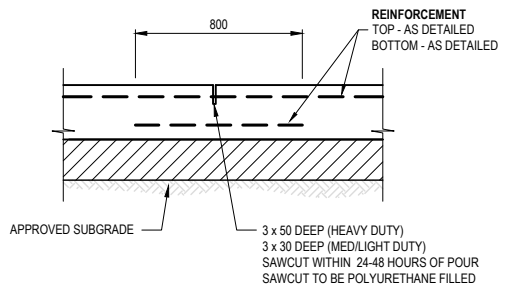
TYPICAL HEAVY DUTY CONCRETE (REINFORCED) PAVEMENT
SCALE N.T.S



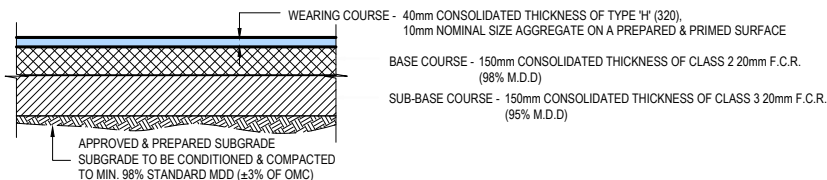
TYPICAL SAWCUT / CONSTRUCTION JOINT LAYOUT



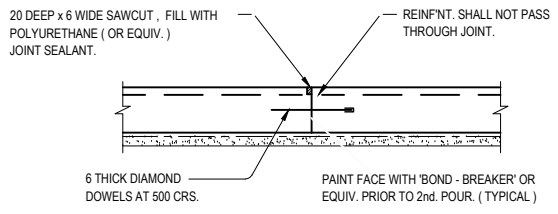
TYPICAL CONCRETE LIGHT DUTY (REINFORCED) PAVEMENT
SCALE N.T.S



SAWCUT JOINT (S.J)



TYPICAL ASPHALT PROFILE - CAR PARKING
SCALE N.T.S



CONSTRUCTION JOINT (CJ1)

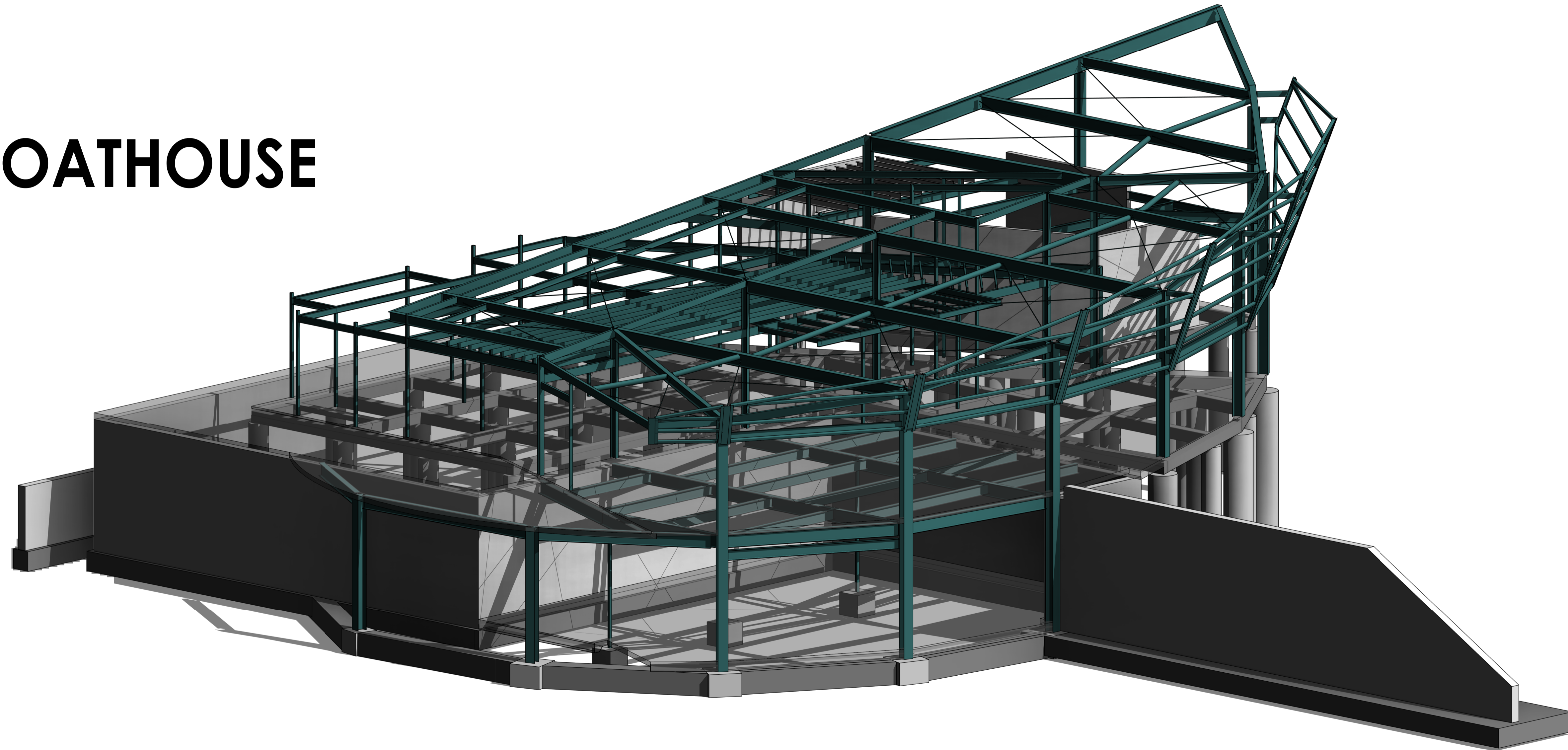
INFORMATION ONLY

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ISSUE</th> <th>ISSUED FOR</th> <th>DATE</th> <th>DRAWN</th> <th>APPROVED</th> <th>ISSUE</th> <th>ISSUED FOR</th> <th>DATE</th> <th>DRAWN</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>FOR INFORMATION</td> <td>24.10.2023</td> <td>S.T.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	ISSUE	ISSUED FOR	DATE	DRAWN	APPROVED	ISSUE	ISSUED FOR	DATE	DRAWN	APPROVED	01	FOR INFORMATION	24.10.2023	S.T.							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DESIGNED: M.ANTON</td> <td>DATE: OCTOBER 2023</td> </tr> <tr> <td>DRAWN: S.THAPA</td> <td>SCALE: A1: 1:100, A3: 1:200</td> </tr> <tr> <td>SURVEY: --</td> <td>SHEET SIZE: A1 / A3</td> </tr> <tr> <td>CHECKED:</td> <td>APPROVED:</td> </tr> <tr> <td>DATE:</td> <td>DATE:</td> </tr> </table>	DESIGNED: M.ANTON	DATE: OCTOBER 2023	DRAWN: S.THAPA	SCALE: A1: 1:100, A3: 1:200	SURVEY: --	SHEET SIZE: A1 / A3	CHECKED:	APPROVED:	DATE:	DATE:	<p>Stantec Australia Pty Ltd ABN 17 007 820 322 1315 Sturt Street Ballarat, VIC 3350 Tel: 03 5330 8888 Web: www.stantec.com/au</p>		<p>CLIENT:</p> <p>PROJECT: BELLBRIDGE BOATHOUSE LAKE ROAD, VIC 3691 TOWONG SHIRE</p>	<p>CIVIL DRAWING</p> <p>DRAWING TITLE: TYPICAL DETAILS</p> <p>REF. No. 301151577 SHEET C07 OF 07 REV. 01</p>
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BELLBRIDGE BOATHOUSE

SHEET LIST	
DRG No.	NAME
ST-000-00	COVER SHEET
ST-000-01	GENERAL NOTES SHEET 1
ST-000-02	GENERAL NOTES SHEET 2
ST-098-10	LOWER GROUND FOUNDATION & RETAINING PLAN
ST-099-10	GROUND FLOOR FOUNDATION PLAN
ST-099-20	SLAB AND FOUNDATION DETAILS SHEET 1
ST-099-21	SLAB AND FOUNDATION DETAILS SHEET 2
ST-100-10	GROUND FLOOR FRAMING PLAN
ST-100-20	GROUND FLOOR SLAB REINFORCEMENT PLAN
ST-101-10	LOWER ROOF FRAMING PLAN
ST-102-10	UPPER ROOF FRAMING PLAN
ST-102-60	STEELWORK FRAMING ELEVATIONS
ST-102-70	STEELWORK FRAMING DETAILS SHEET 1
ST-102-71	STEELWORK FRAMING DETAILS SHEET 2



PRELIMINARY ISSUE
2023.10.18

Stantec Project Number: 301151577
Client Project Number: #####

The professional's seal on the cover sheet represents that the information on the cover sheet is accurate in designer's professional opinion but does not assume professional responsibility for documents sealed by others that are referenced on the cover sheet. All professionals sealing drawings as a part of the design are professionally responsible for their own sealed documents.

MASONRY

- WHERE WALLS OVER SLABS ARE NOT SITUATED DIRECTLY OVER WALLS UNDER, REINFORCE WALLS WITH 2NO-R7 RIBBED WIRE RODS (GRADE 500RW) FOR FIRST THREE BED JOINTS ABOVE SLABS. USE GALVANIZED RODS IN EXTERNAL WALLS. ENSURE 25mm COVER UNO.
- WHERE MASONRY ANCHORS ARE SPECIFIED, THE SIZE SHOWN REFERS TO THE STUD THREAD DIAMETER.
- ALL MASONRY IS TO BE BONDED WITH MORTAR CLASS AS FOLLOWS UNO:
 - i) **M3 CLASS MORTAR (1 CEMENT:1 LIME:6 SAND)** UNO.
- MINIMUM UNFINISHED COMPRESSION STRENGTHS OF MASONRY TO BE AS FOLLOWS UNO:
 - i) BRICKWORK: Mpa
 - ii) BLOCKWORK: Mpa
- THE MASONRY TO ADJACENT TILT UP COLUMNS WITH APPROVED PROPRIETARY TIES AT 350mm MAX VERTICAL CRS AND 600mm MAX CRS HORIZONTALLY (IF APPLICABLE). VERTICAL CENTRES MAY BE INCREASED TO 400 mm IN THE CASE OF BLOCKWORK.
- IN DOUBLE SKIN MASONRY CONSTRUCTION, TIE THE OUTER LEAF TO THE INNER LEAF WITH GALVANIZED, TYPE 'A', MEDIUM DUTY WALL TIES IN ACCORDANCE WITH THE FOLLOWING:
 - i) UP TO 75mm CAVITY: 600mm HORIZONTALLY, 520mm VERTICALLY
 - ii) OVER 75mm CAVITY: 800mm HORIZONTALLY, 350mm VERTICALLY
 - iii) WITHIN 300mm OF LATERAL SUPPORTS OR VERTICAL JOINTS: 300mm VERTICALLY
- CONFIRM MINIMUM ACOUSTIC REQUIREMENTS FOR MASONRY TIES PRIOR TO WORKS.
- TREATMENT OF WALL TIES TO BE AS FOLLOWS:
 - i) **GALVANIZED STEEL**
- LOAD-BEARING MASONRY TO BE BUILT TO THE UNDERSIDE OF SLABS OVER PROVER DOUBLE LAYER OF GREASED GP OR APPROVED MULTILAYER PROPRIETARY BOND BREAKER BETWEEN TOP OF MASONRY AND UNDERSIDE OF SLAB.
- NON LOAD-BEARING MASONRY BUILT TO THE UNDERSIDE OF SLABS OVER SHALL BE LATERALLY RESTRAINED VIA PROPRIETARY MASONRY FLEXIBLE ANCHORS (MFA'S) AT 500mm MAX. CRS FIXED TO THE SOFFIT OF THE SLAB OVER AND BUILT INTO THE PERPENDS. PROVIDE APPROVED COMPRESSIBLE JOINT FILLER BETWEEN UNDERSIDE OF SLAB AND TOP OF MASONRY. GAP TO BE 15mm MINIMUM UNO.
- ALL JOINTS ARE TO BE FULLY BONDED WITH MORTAR.
- MAXIMUM VERTICAL WALL JOINT SPACING TO COMPLY WITH THE FOLLOWING GENERAL REQUIREMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR PRECISE LOCATIONS UNO. JOINTS ARE TO BE 10mm WIDE, PROVIDED WITH MFA'S AT 300mm MAX VERTICAL CRS (400mm MAX VERTICAL CRS FOR BLOCKWORK) PER LEAF AND SEALED WITH A COMPRESSIBLE AND U.V RESISTANT MASTIC SEALANT OVER BACKING ROD.

SITE CLASSIFICATION TO AS2870	WALL CONSTRUCTION	JOINT SPACING (m)
A, S	ALL	8.0
M, H1, H2	MASONRY VENEER	7.0
	SHEETED AND/OR FACE FINISHED FULL MASONRY	6.5
	RENDERED OR PAINT FINISHED MASONRY	5.5
E, P	MASONRY VENEER	6.0
	SHEETED AND/OR FACE FINISHED FULL MASONRY	5.5
	RENDERED OR PAINT FINISHED MASONRY	5.0

- PROVIDE 15mm HORIZONTAL JOINTS AT 9m MAX. VERTICAL CTS SUPPORTED BY AN APPROVED PROPRIETARY SUPPORT ANGLE SYSTEM IN EXTERNAL WALLS. UNO SEAL WITH A COMPRESSIBLE AND U.V RESISTANT MASTIC SEALANT OVER BACKING ROD.
- UNO ALLOW FOR GALVANIZED LINTELS TO ALL MASONRY OPENINGS IN ACCORDANCE WITH NCC DEEMED TO COMPLY TABLES. PROVIDE 250mm BEARING UNO.
- SUSPENDED SLABS SHALL BE EVENLY LOADED WITH ALL BRICKS NEEDED FOR WALLS ON FLOOR IMMEDIATELY ABOVE (ONLY PRIOR TO CONSTRUCTION OF THE SAME WALLS. MASONRY SUPPORTED BY THE SLAB SHALL ONLY BE CONSTRUCTED AFTER FORMWORK HAS BEEN STRIPPED AND ALL PROPS REMOVED.
- NO HORIZONTAL OR DIAGONAL CHASING OF WALLS IS PERMITTED WITHOUT PRIOR ENGINEER APPROVAL. THE CONTRACTOR IS TO SUBMIT A PLAN ILLUSTRATING REQUIRED CHASING LOCATIONS FOR APPROVAL PRIOR TO ANY WORKS. VERTICAL CHASING IS ACCEPTABLE WITHOUT REVIEW IN INTERNAL WALLS ONLY. MAXIMUM DEPTH OF VERTICAL CHASING IS TO BE 20mm AND LOCATIONS RESTRICTED TO ONE FACE. SEEK APPROVAL OTHERWISE.

RETAINING

- ALL PROPRIETARY RETENTION SYSTEMS NOT EXPLICITLY SHOWN/DETAILED ON THESE DRAWINGS ARE TO BE DESIGNED, CERTIFIED AND INSTALLED BY THE SPECIALIST SUPPLIER/SUB-CONTRACTOR COMMISSIONED BY THE MAIN CONTRACTOR OR CLIENT.
- NO HEAVY DUTY PLATE COMPACTORS OR SELF-PROPELLED VIBRATORY ROLLERS TO BE USED WITHIN 'HEIGHT OF RETAINING' METRES OF THE WALL.
- ALL WALLS TO BE FULLY PROPPED PRIOR TO BACKFILLING. THE SPECIFICATION OF PROPPING REQUIREMENTS IS THE CONTRACTOR'S RESPONSIBILITY. TEMPORARY PROPPING TO BE DESIGNED TO CATER FOR ANY COMPACTION INDUCED LOADS. TEMPORARY PROPPING MAY BE OMITTED ONLY IN THE CASE OF PROPPED CANTILEVER WALLS WHERE THE SLAB TIED IN TO THE TOP OF THE WALL AND THE GROUND SLAB PROPPING THE BOTTOM OF THE WALL (IF PRESENT) HAS FULLY CURED PRIOR TO BACKFILLING.
- FOOTINGS ARE TO BE CURED FOR 3 DAYS MINIMUM PRIOR TO CONSTRUCTION OF THE WALL. WALLS ARE TO REMAIN UNDISTURBED FOR 7 DAYS PRIOR TO BACKFILL AND COMPACTION.
- REFER 'FOUNDATION' NOTES FOR BACKFILL AND COMPACTION REQUIREMENTS. UNLESS RECOMMENDATIONS IN THE GEOTECHNICAL REPORT OR SEPARATE ENGINEERING INSTRUCTIONS ADVISE OTHERWISE, ALL RETAINING WALL BACKFILL SHALL BE TAKEN TO BE A CLEAN, FREE DRAINING, NO FINES, NON-REACTIVE GRANULAR MATERIAL.
- PROVISION FOR DRAINAGE MUST BE MADE BEHIND ALL RETAINING WALLS. UNO ALLOW FOR WEEPHOLES AT 2.0m CRS AND FULL LENGTH SUB-SOIL DRAINS. WRAPPED IN GEOTEXTILE AND FALLING TO DISCHARGE POINT AT 1 IN 100 MIN. SUB-SOIL DRAINS TO BE FLOWED BY A CONTINUOUS 400mm X 400mm ZONE OF CLEAN, 20mm COURSE AGGREGATE, WRAPPED IN GEOTEXTILE UNLESS BACKFILL IS A CLEAN, FREE DRAINING, NO FINES, NON-REACTIVE GRANULAR MATERIAL.
- COMPACT GROUND IN FRONT OF WALL PRIOR TO BACKFILLING AND COMPACTION FOR A DISTANCE OF 'HEIGHT OF RETAINING' UNO.
- REFER 'MASONRY' NOTES FOR BRICK/BLOCK STRENGTH AND MORTAR COMPOSITION.
- CAVITIES AND CORES ARE TO BE FILLED WITH AN ADEQUATELY RODDED OR SELF-COMPACTING, HIGH SLUMP CONCRETE COMPLYING WITH THE STRENGTH REQUIREMENTS SHOWN. CAVITIES/VOIDS ARE TO BE CLEANED OUT DOWN TO FOOTING LEVEL (INCLUDING MORTAR ACCUMULATIONS ON TIES) PRIOR TO FILLING. PROVIDE CLEAN-OUT BLOCKS IN BLOCK WALL CONSTRUCTION.
- UNO, LIMESTONE BLOCKS TO BE RECONSTITUTED WITH A MIN. DRY DENSITY OF 1800kg/m³.
- LOAD-BEARING FOOTINGS ARE NOT TO BE BUILT WITHIN 'HEIGHT OF RETAINING' METRES FROM THE BACK OF THE WALL WITHOUT APPROVAL FROM THE ENGINEER.
- THE MAIN (HIGHEST STEEL AREA) BARS OF ANY SPECIFIED MESH ARE TO BE LAID VERTICALLY UNO.
- EXCAVATIONS ARE NOT PERMITTED AT THE FRONT OF WALLS WITHIN A ZONE PRESCRIBED BY A 30° LINE PROJECTED DOWN FROM THE LOWER FRONT CORNER OF THE FOOTING.
- THE DESIGN OF TEMPORARY ANCHORED OR SOIL NAILED SHEET PILE WALLS SHALL BE BY A SPECIALIST SUPPLIER/SUB-CONTRACTOR. THE BOUNDARY WALL SHALL INCORPORATE A METHODOLOGY TO ENSURE THE SAFETY AND STABILITY OF THE SITE AND ADJACENT STRUCTURES THROUGHOUT ALL STAGES OF INSTALLATION, EXCAVATION AND CONSTRUCTION.
- UNO, BRICK TIES TO BE 6mm WIRE OR APPROVED EQUIVALENT AT 3 COURSES VERTICALLY (275 MAX.) AND 600mm CRS HORIZONTALLY, IN CAVITY RETAINING WALLS SITUATIONS.
- REAR OF ALL RETAINING WALLS TO BE WATERPROOFED USING A PROPRIETARY BITUMEN TREATMENT TO ENSURE A WATERPROOF COATING.

PRECAST/TILT UP CONCRETE

- THE PANELS HAVE BEEN DESIGNED FOR THE PERMANENT CONDITION AND THE CONTRACTOR MUST MAKE THEIR OWN ASSESSMENT AS TO ANY EXTRA REQUIREMENTS, INCLUDING BUT NOT LIMITED TO ADDITIONAL REINFORCEMENT, LIFTING LUGS, EARLY STRENGTH REQUIREMENTS AND THE LIKE, TO SUIT THE PROPOSED TRANSPORTATION, HANDLING AND ERECTION METHODS. THESE ANCHORS ARE TO BE DESIGNED AND CHECKED BY THE CONTRACTOR'S SPECIALIST CONSULTANT AND INCORPORATED WITHIN THE TENDER PRICE.
- CONSTRUCTION AND ERECTION OF PANELS SHALL CONFORM TO THE REQUIREMENTS OF AS 3850 PARTS 1 & 2 AND ANY OTHER RELEVANT INDUSTRY BEST PRACTICE GUIDELINES. THE CONTRACTOR IS ENTIRELY RESPONSIBLE FOR THE SAFE HANDLING AND TEMPORARY SUPPORT OF ALL PRECAST CONCRETE ELEMENTS.
- THE CONTRACTOR SHALL ENGAGE THEIR OWN ERECTION DESIGN ENGINEER (EDE), TO SATISFY THE ROLE AND RESPONSIBILITIES DEFINED WITHIN THE CURRENT VERSIONS OF THE 'NATIONAL CODE OF PRACTICE FOR PRECAST, TILT-UP AND CONCRETE ELEMENTS IN BUILDING CONSTRUCTION', STATE BASED WORKSAFE 'PRECAST AND TILT-UP CONCRETE CONSTRUCTION' GUIDELINES AND AS3850 PARTS 1&2. THE EDE IS RESPONSIBLE FOR PROVIDING A CERTIFIED DESIGN PACK CO-ORDINATING ALL PRECAST LIFTING, HANDLING, ERECTION AND TEMPORARY STABILITY ITEMS, AS REQUIRED.
- WHERE POSSIBLE, TEMPORARY PRECAST PROPS ARE TO BE LOCATED SUCH THAT THERE IS NO REQUIREMENT FOR BOXING OUT OF THE CONCRETE FLOOR ELEMENT OVER. IN THE EVENT THAT THIS IS UNAVOIDABLE, PROPOSED BOX-OUT LOCATIONS ARE TO BE SUBMITTED TO STANTEC IN ADVANCE FOR REVIEW, APPROVAL AND INSTRUCTION OF ANY ADDITIONAL REQUIREMENTS IN RELATION TO THE FLOOR ELEMENT INVOLVED. STANTEC IS NOT LIABLE FOR THE COST OF STRENGTHENING REQUIREMENTS OR THE TIME INVOLVED IN RESOLVING IN THIS CIRCUMSTANCE.
- ALL PANELS SHALL BE HANDLED, STACKED AND ERECTED IN SUCH A WAY THAT THE PANELS INTEGRITY AND FINISH IS NOT, IN ANY WAY, ADVERSELY AFFECTED. CRACKING, WARPING, SPALLING, HONEYCOMBING, NON-COMFORMANCE TO TOLERANCE LIMITS AND THE LIKE MAY BE CAUSE FOR REJECTION. ERECTION OF SUCH PANELS WITHOUT SPECIFIC APPROVAL IS AT THE CONTRACTOR'S RISK.
- THE CONTRACTOR SHALL SUPPLY AND CAST-IN PROPRIETARY LIFTING FIXINGS AS REQUIRED. CAST-IN LIFTING LUGS SHALL NOT BE LOCATED IN AN EXPOSED FACE UNLESS APPROVED BY THE ARCHITECT. CAST-IN LIFTING FIXTURES SHALL BE GALVANIZED AND PROTECTED TO ELIMINATE THE POSSIBILITY OF FUTURE CORROSION AND STAINING.
- UNO, THE PRIMARY (HIGHEST STEEL AREA) REINFORCING BARS SHALL BE CENTRALLY PLACED IN PANELS WHERE PANELS ARE UP TO 180mm THICK. PANELS GREATER THAN 180mm TO HAVE REINFORCEMENT PLACED EVENLY TO EACH FACE, MAINTAINING COVER, UNO, LAP REINFORCEMENT IN ACCORDANCE WITH THE 'REINFORCEMENT NOTES OF THIS SHEET, UNO, PROVIDE N16 PERIMETER, CORNER, TRIMMING AND RE-ENTRANT BARS TO EACH GRID OF REINFORCEMENT. SHOP DRAWINGS TO BE REVIEWED FOR COMPLIANCE WITH DOCUMENTATION BY ENGINEER PRIOR TO FABRICATION. ALLOW 5 WORKING DAYS FOR REVIEW. THIS IS A COURTESY REVIEW ONLY (NOT AN APPROVAL) AND DOES NOT RELIEVE OTHER PARTIES OF THEIR RESPONSIBILITIES.
- UNO, ALL FIXINGS SHOWN ON DRAWINGS SHALL BE TAKEN TO BE CAST-IN PROPRIETARY FERRELLS WITH THE FOLLOWING CROSS BARS:
 - i) N16 AND BELOW N10, 200 LONG
 - ii) M20 AND ABOVE, N12, 400 LONG
- ALL BOLTS USED IN PRECAST CONCRETE CONSTRUCTION ARE TO BE 8.8'S.
- MIN. WELD CONTACT LENGTH BETWEEN LUGS AND CAST-IN STEELWORK ELEMENTS TO BE 150mm MINIMUM. UNO, LUGS ARE TO BE FABRICATED WITH STANDARD COGS. DO NOT ERECT PRECAST ON TOP OF CONCRETE WHICH IS BACKSTOPPED, UNLESS APPROVED BY THE ENGINEER.
- CAST-IN BRACKETS, FIXINGS AND CORBELS SHALL BE CAST MONOLITHICALLY WITH THE PANEL.
- MIN. GROUT REFERRED TO ON DRAWINGS SHALL BE A PROPRIETARY 50Mpa (20 DAY STRENGTH) PRODUCT.
- RIGID, HIGH-IMPACT PVC LEVELING PADS WITH A MINIMUM DIMENSION OF 100mm SHALL BE PROVIDED UNDER ALL WALL PANELS. LEVELING PADS SHALL BE LOCATED AS REQUIRED TO ENSURE STABILITY BUT NOT WITHIN 300mm OF THE PANEL CORNERS. THE UNDERSIDE OF ALL WALL PANELS IS TO BE FILLED WITH A HIGH STRENGTH (50Mpa MIN.) PROPRIETARY GROUT TO ENSURE EVEN, FULL DEPTH BEARING.
- ALL JOINTS SHALL BE SEALED IN ACCORDANCE WITH THE ARCHITECTS DOCUMENTS.
- ALL PRECAST CONCRETE TO COMPLY WITH THE 'CONCRETE' SECTION OF THESE NOTES.

FORMWORK

- DESIGN AND CERTIFICATION OF FORMWORK & SUPPORTING STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- FORMWORK CONSTRUCTION TO ACCOUNT FOR ALL ITEMS AFFECTING SURFACE SHAPE AND FINISH INCLUDING BUT NOT LIMITED TO PLUMBING FINES, RECESSES, SET DOWN AREAS, DRIP GROOVES, FALLS, CHAMFERS, STEPS, REGLES & BUILT IN FIXINGS.
- STRIPPING TIMES SHALL BE THE GREATER OF THOSE REQUIRED UNDER CI 17.6 OF AS3600 OR THE FOLLOWING MINIMUM STRIPPING TIMES:
 - i) WALLS AND COLUMNS: 3 DAYS
 - ii) SLABS AND STAIRS: 7 DAYS
- STRIPPING TIMES MAY BE REDUCED AT THE DISCRETION OF THE ENGINEER UPON RECEIPT OF STRENGTH TEST RESULTS.
- SLABS SHALL REMAIN BACK PROPPED FOLLOWING STRIPPING. BACK PROPPING SHALL BE PROVIDED FOR 28 DAYS AS A MINIMUM AND SUCH THAT ALL CONSTRUCTION LOADING (INCLUDING WET WEIGHT OF CONCRETE) IS ACCOMMODATED. THE CONTRACTOR'S TEMPORARY WORKS ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN, CERTIFICATION AND PERFORMANCE OF THE PROPPING ARRANGEMENT. FINAL PROPPING PROPOSALS ARE TO BE SUBMITTED TO THE ENGINEER FOR COMMENT AND/OR RECORD PURPOSES.
- ENSURE ALL DEBRIS IS REMOVED FROM FORMWORK PRIOR TO CONCRETING.

POST FIXED ANCHORS

- POST FIXED ANCHORS SHALL ONLY BE USED IF SPECIFICALLY NOMINATED ON DRAWINGS.
- THE CONTRACTOR SHALL ALLOW IN THE TENDERED PRICE FOR INDEPENDENT TESTING OF A MINIMUM OF 10% OF THE INSTALLED ANCHORS TO A LOAD OF 15 kN. AGREED LOCATIONS OF TESTS WITH ENGINEER. RESULTS TO BE SUBMITTED TO ENGINEER FOR REVIEW. THE TESTING REPORT SHALL MAKE CLEAR DETAILS OF THE TESTING PROCEDURE USED, INCLUDING PASS AND FAIL CRITERIA.
- ALL TESTING OF ANCHORS TO BE IN ACCORDANCE WITH AUSTRALIAN ENGINEERED FASTENERS AND ANCHORS COUNCIL (AEFAC) GUIDELINES.
- POST FIXED ANCHORS ARE TO BE ETA (EUROPEAN TECHNICAL ASSESSMENT) CERTIFIED. THE PRODUCTION OF FASTENERS SHALL COMPLY WITH AS 5216:2018. THE CONTRACTOR SHALL MAKE AVAILABLE SUPPORTING DOCUMENTATION UPON REQUEST.
- ALL ANCHORING SYSTEMS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS 5216:2018.
- THE CONTRACTOR SHALL ENSURE THAT ANCHORS ARE INSTALLED BY INFORMED, EXPERIENCED AND COMPETENT PERSONNEL. INDIVIDUALS INSTALLING ANCHORS IN SAFETY CRITICAL APPLICATIONS (DEFINED IN AS 5216:2018) SHALL BE CERTIFIED TO DO SO VIA THE AEFAC INSTALLER CERTIFICATION PROGRAM AND/OR SPECIFIC TRAINING FROM THE SUPPLIER OF THE FASTENER BEING INSTALLED.
- THE STRUCTURAL DESIGN HAS RELIED ON THE ASSUMPTION THAT ANCHOR INSTALLATION DOES NOT INCLUDE GROSS ERRORS, INCLUDING BUT NOT LIMITED TO INCORRECT HOLE SIZE, INCORRECT DRILLING SYSTEM, USE OF AN INCORRECT SETTING TOOL, INADEQUATE HOLE CLEANING AND INCORRECT FASTENER LOCATION/ALIGNMENT.
- HOLES ARE TO BE DRY AND THOROUGHLY CLEANED PRIOR TO INSTALLATION OF THE FASTENER. IN PARTICULAR, HOLES MUST BE COMPLETELY BRUSHED AND BLOWN OUT TO ENSURE A DUST-FREE SURFACE. USING AN APPROVED SOURCE OF COMPRESSED AIR OR SUPPLIER RECOMMENDED DEVICE.
- MINIMUM FASTENER SPACING AND EDGE DISTANCE TO BE 150mm UNO. PARAMETERS SPECIFIED ON THE STRUCTURAL DRAWINGS, INCLUDING MINIMUM EMBEDMENT DEPTH HAVE A ZERO NEGATIVE TOLERANCE.
- THE CONTRACTOR SHALL ALLOW IN THE TENDERED PRICE FOR USE OF THE SPECIFIC PROPRIETARY FASTENERS NOMINATED UNLESS AGREED OTHERWISE. IN THE EVENT THAT THE ENGINEER IS PREPARED TO CONSIDER ALTERNATIVES, THE ONUS IS ON THE CONTRACTOR TO PROVIDE SUPPORTING INFORMATION DEMONSTRATING EQUAL OR IMPROVED STATUS.
- FROM A REUSED SOURCE

PILING

- THE DESIGN, CERTIFICATION AND INSTALLATION OF ALL PILED FOUNDATION SYSTEMS SHALL BE UNDERTAKEN BY A SPECIALIST SUB-CONTRACTOR COMMISSIONED BY THE MAIN CONTRACTOR OR CLIENT. PILED FOUNDATION SYSTEMS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO BORED PIERS, SECANT WALL PIERS, DRIVEN PILES, CAST PILES, UNDERPIRS, SHEET PILES AND CAISSONS. ALSO INCLUDE THE DESIGN AND INSTALLATION OF PILING SYSTEMS WITH PILE TESTING SHALL BE IN STRICT ACCORDANCE WITH PROCEDURES OUTLINED IN AS2159 AND THE PROJECT SPECIFICATION.
- DETAILS OF THE INTERFACE BETWEEN THE PILE AND PILECAP/FOOTINGS SHALL BE CONFIRMED BY THE PILING CONTRACTOR IN CONSULTATION WITH THE ENGINEER PRIOR TO CONSTRUCTION.
- FOUNDATION SYSTEMS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED BY THE SPECIALIST PILING SUB-CONTRACTOR. THE CONTRACTOR SHALL PROVIDE THE CITY COUNCIL AN OPPORTUNITY TO REVIEW THE PROPOSED PILING ARRANGEMENT AND ASSOCIATED DESIGN PACKAGE PRIOR TO PROCUREMENT. THIS IS A COURTESY REVIEW ONLY (NOT AN APPROVAL) AND DOES NOT RELIEVE OTHER PARTIES OF THEIR RESPONSIBILITIES.
- THE SPECIALIST PILING SUB-CONTRACTOR'S SUBMISSION MUST BE A DETAILED PROPOSAL, ACCOMPANIED BY FINALIZED DESIGN CALCULATIONS. CALCULATIONS SHALL APPROPRIATELY ACCOUNT FOR THE REQUIREMENTS OF AS2159. THE STABILITY OF THE PILING CONTRACTOR, LOADS SHOWN ON THESE DRAWINGS AND THE PROJECT SPECIFICATION.
- THE DESIGN OF PROPRIETARY BOUNDARY RETENTION SYSTEMS SHALL ENSURE THE SAFETY & STABILITY OF THE SITE AND ADJACENT STRUCTURES THROUGHOUT ALL STAGES OF INSTALLATION, EXCAVATION AND CONSTRUCTION.
- THE PILING CONTRACTOR IS TO MAINTAIN AND MAKE AVAILABLE ALL PILE TESTING AND AS-CONSTRUCTED SURVEY RECORDS.
- AS-BUILT PILE POSITIONS ARE TO BE SURVEYED AND SET OUT ON A DRAWING ALIGNED WITH THE PROPOSED GRID SYSTEM. FOUNDATION WORKS ARE NOT TO COMMENCE UNTIL THE SURVEYED PILE POSITIONS ARE REVIEWED AND APPROVED. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE PRESENCE OF ALL UNDERGROUND SERVICES PRIOR TO ANY WORKS. RELIANCE IS NOT TO BE PLACED ON UNVERIFIED INFORMATION IN RELATION TO EXISTING SERVICES.
- PILES ARE TO BE LOCATED CENTRALLY UNDER LOAD-BEARING STRUCTURAL ELEMENTS ABOVE UNO ON DRAWINGS.
- LOADS SHOWN ON DRAWINGS SHALL BE TAKEN AS BEING WORKING LOADS UNO.

PREFABRICATED ROOF TRUSSES (TIMBER/COLD FORMED)

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, FABRICATION, ERECTION, CERTIFICATION AND PERFORMANCE OF PREFABRICATED TRUSSES. THE CONTRACTOR MAY SUBCONTRACT THE WORK TO A CERTIFIED AND SUITABLY QUALIFIED ORGANIZATION. THE DESIGN OF THE ROOF SYSTEM SHALL INCORPORATE THE TRUSSES, CONNECTOR PLATES, CAMBER, BRACING, CONNECTIONS AND ANY OTHER ELEMENTS REQUIRED IN ORDER FOR THE ROOF TO PERFORM UNDER IN-SERVICE LOADS.
- THE DESIGN SHALL COMPLY WITH RELEVANT CODES IN TERMS OF STRENGTH, SERVICEABILITY AND DURABILITY. IT IS THE TRUSS DESIGNER'S RESPONSIBILITY TO INFORM THEMSELVES OF ALL LOADS LIKELY TO BE IMPOSED ON THE ROOF SYSTEM BEYOND ANY LOADS SPECIFICALLY SHOWN ON THESE DRAWINGS. ASSUME THE NEED TO CATER FOR INTERNAL PRESSURES IN CYCLONIC REGIONS UNLESS SPECIFICALLY NOTED OTHERWISE.
- TRUSSES ARE TO INCLUDE TRANSMISSION OF HORIZONTAL WIND LOADS FROM WALLS AND COLLUMS UNO.
- ALL TRUSSES ARE TO BE DESIGNED TO CLEAR SPAN BETWEEN LOAD BEARING ELEMENTS ONLY AS SHOWN ON THE DRAWINGS, UNLESS SPECIFIC REFERENCE IS MADE. ASSUME TRUSSES ARE REQUIRED TO SPAN BETWEEN EXTERNAL WALLS.
- PROPRIETARY METAL BRACKET, BRACING AND CONNECTION PRODUCTS USED IN TIMBER FRAMING ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION. SUCH PRODUCTS MAY BE GALVANIZED TYPICALLY. STAINLESS STEEL PRODUCTS AND FIXINGS MUST BE USED WITHIN 1km OF THE COAST/INDUSTRIAL AREA IN EXPOSED SITUATIONS. ROOF CAVITIES IN THESE AREAS SHALL BE ASSUMED TO BE EXPOSED UNLESS IT IS AGREED THAT THE EFFECTIVE SEALING OF SUCH CAVITIES WILL BE ACHIEVED.
- MANUFACTURER TO SUBMIT FOR REVIEW, AT LEAST 14 DAYS PRIOR TO COMMENCEMENT OF TRUSS FABRICATION:
 - i) ROOF PLAN WITH LAYOUT OF TRUSSES AND ALL SUPPORT LINES.
 - ii) ALL TRUSS MEMBER SIZES, OVERALL DIMENSIONS AND CONNECTOR PLATE TYPES.
 - iii) LOCATION OF CONNECTOR PLATES RELATIVE TO MEMBERS.
 - iv) ALL DETAILS, FIXINGS, BRACING AND ERECTION PROCEDURES.
 - v) WIND UPLIFT REACTIONS.
 - vi) HOLDING DOWN LOCATIONS.
 - vi) DESIGN CRITERIA USED.
- UNO, THE COMPLETED TRUSS SYSTEM SHALL COMPLY WITH THE FOLLOWING TOLERANCE CRITERIA:
 - i) RELATIVE DIFFERENTIAL LEVEL DIFFERENCE BETWEEN TRUSSES:
 - 1) LESS THAN 3mm.
 - ii) MAXIMUM LONG-TERM DIFFERENTIAL DEFLECTION BETWEEN ADJACENT TRUSSES LESS THAN 5mm.
 - iii) MAXIMUM LONG-TERM DEAD LOAD DEFLECTION WITHIN SPAN/700.
- PRECAMBER TRUSSES TO ACCOMMODATE LONG-TERM DEFLECTION.
- ROOF BRACING INDICATED ON DRAWINGS IS FOR OVERALL STABILITY OF THE BUILDING. THE TRUSS MANUFACTURER IS TO DESIGN ANY ADDITIONAL BRACING AS REQUIRED TO ENSURE THE STABILITY OF THE ROOF TRUSS SYSTEM.
- ALL POST-FIXED BRACING IS TO BE INSTALLED IN A TAUT FASHION FREE FROM DEVIATION, SLACK AND DISTORTION. USE A PROPRIETARY TENSIONING MECHANISM WITH ALL METAL STRAP BRACES AND FIX TO EACH TRUSS.
- THE TRUSS SUPPLIER SHALL INSPECT THE ROOF STRUCTURE AT THE COMPLETION OF TRUSS ERECTION AND SUBMIT A WRITTEN CERTIFICATION CONFIRMING THAT THE TRUSS ROOF CONSTRUCTION IS IN ACCORDANCE WITH THE NCC, AUSTRALIAN STANDARDS AND TRADE JUDICIAL DOCUMENTS.
- ANY TRUSS MEMBERS SHOWN ARE INDICATIVE ONLY.

ESD

- CONCRETE STRUCTURES: AT LEAST 60% (BY MASS) OF ALL REINFORCING BAR AND MESH IS PRODUCED USING ENERGY-REDUCING PROCESSES IN ITS MANUFACTURE (MEASURED BY AVERAGE MASS BY STEEL MAKER ANNUALLY).
- A 30% REDUCTION OF THE ABSOLUTE QUANTITY BY MASS OF PORTLAND CEMENT ACROSS ALL CONCRETE USED IN THE PROJECT SHALL BE ACHIEVED BY SUBSTITUTION WITH LATROBE VALLEY FLY-ASH AND/OR BLAST FURNACE SLAG, OR (AS APPROPRIATE).
- AT LEAST 25% OF THE ABSOLUTE QUANTITY BY MASS OF FINE AGGREGATE (SAND) INPUTS USED ACROSS THE PROJECT SHALL BE MANUFACTURED SAND OR OTHER ALTERNATIVE MATERIALS. THE USE OF SUCH MATERIALS MUST NOT INCREASE THE USE OF PORTLAND CEMENT BY OVER 5kg/m³ OF CONCRETE.
- AT LEAST 40% OF THE ABSOLUTE QUANTITY BY MASS OF COARSE AGGREGATE USED ACROSS THE PROJECT SHALL BE CRUSHED SLAG AGGREGATE OR ANOTHER ALTERNATIVE MATERIALS. THE USE OF SUCH MATERIALS MUST NOT INCREASE THE USE OF PORTLAND CEMENT BY OVER 5kg/m³ OF CONCRETE.
- A 5% REDUCTION IN MASS OF REINFORCING STEEL USED IN THE BUILDING WHEN COMPARED TO STANDARD PRACTICE SHALL BE ACHIEVED BY OPTIMAL FABRICATION OR BY INNOVATIVE STRUCTURAL DESIGN. QUALIFIED STRUCTURAL ENGINEER TO PREPARE A SHORT REPORT DEMONSTRATING HOW THIS HAS BEEN ACHIEVED IN ACCORDANCE WITH SECTION 19.8.2 OF THE GREEN STAR DESIGN AND AS BUILT STEEL CREDIT.
- A REDUCTION IN MASS OF STEEL FRAMINGS USED ACROSS THE PROJECT WHEN COMPARED TO STANDARD PRACTICE SHALL BE ACHIEVED THROUGH THE USE OF HIGH STRENGTH STEEL. A MINIMUM OF 95% OF CATEGORY A PRODUCTS AND 25% OF CATEGORY B PRODUCTS MUST MEET THE STRENGTH GRADES SPECIFIED IN TABLE 19.8.2.1 AND TABLE 19.8.2.2 OF THE GREEN STAR DESIGN AND AS BUILT STEEL CREDIT.
- STEEL STRUCTURES, AT LEAST 95% OF THE BUILDING'S STEEL SHALL BE SOURCED FROM A RESPONSIBLE STEEL MAKER.
- STEEL STRUCTURES, AT LEAST 60% OF THE FABRICATED STRUCTURAL STEELWORK SHALL BE SUPPLIED BY A STEEL FABRICATOR/STEEL CONTRACTOR ACCREDITED TO THE ENVIRONMENTAL SUSTAINABILITY CHARTER OF THE AUSTRALIAN STEEL INSTITUTE (ASI).
- TIMBER STRUCTURES, AT LEAST 95% (BY COST) OF ALL TIMBER USED IN THE BUILDING AND CONSTRUCTION WORKS SHALL BE EITHER
 - i) CERTIFIED BY A FOREST CERTIFICATION SCHEME THAT MEETS THE GBCA'S 'ESSENTIAL' CRITERIA FOR FOREST CERTIFICATION
 - ii) FROM A REUSED SOURCE

POST TENSIONED (DESIGN BY OTHERS)

- IN THIS PROJECT, THE CONTRACTOR'S SPECIALIST PT DESIGNER IS RESPONSIBLE FOR THE DESIGN, CERTIFICATION AND PERFORMANCE OF ALL POST TENSIONED ELEMENTS. THE INSTALLATION MAY BE SUBCONTRACTED TO THE SAME FIRM OR A DIFFERENT FIRM. IN THIS SCENARIO, THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE PERFORMANCE OF THE PT ELEMENTS AND ALL WORK SHOWN AND INSTALLED IN ACCORDANCE WITH THE DESIGN IS TO PROVIDE A FIT FOR PURPOSE OUTCOME.
- THE PT DESIGNER IS RESPONSIBLE FOR SPECIFYING ALL POST TENSIONED AND CONVENTIONAL, LOOSE BAR REINFORCEMENT REQUIRED TO ENSURE THE SATISFACTORY PERFORMANCE OF THE PT ELEMENTS IN TERMS OF STRENGTH, SERVICEABILITY, FIRE, VIBRATION, ACOUSTIC AND DURABILITY. THE PT DESIGNER HAS FULL RESPONSIBILITY FOR THE SPECIFICATION AND PERFORMANCE OF ALL ELEMENTS INTERFACING WITH THE PT ELEMENT INCLUDING BUT NOT LIMITED TO: TENDONS FROM TENDON BEDS, MOVEMENT JOINTS, DELAY FOUR STRIPS, SLAB/BASE CONNECTIONS, GROUTED DUCTS AND THE LIKE.
- ANY INFORMATION RELATING TO PT ELEMENTS SHOWN ON STANTEC DRAWINGS (INCLUDING PT RATES, SCHEMATIC LAYOUTS, CONNECTIONS, JOINTS AND THE LIKE) IS INDICATIVE ONLY OR PROVIDED FOR EARLY SCHEMATIC PRICING UNLESS EXPRESSLY DESCRIBED OTHERWISE. THE PT DESIGNER TAKES ON FULL CONTROL AND RESPONSIBILITY FOR THE DESIGN BEYOND THIS.
- THE PT DESIGNER IS TO BE IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS IN THE NCC, AS1170, AS3850, AS5100, ANY OTHER RELEVANT STANDARDS AND INDUSTRY BEST PRACTICE GUIDELINES.
- ALL OPEN OR EXPOSED SLABS, POTENTIALLY SUBJECT TO WATER, SHALL BE DESIGNED TO BE WATERTIGHT SUCH THAT MOISTURE CANNOT PASS FROM THE EXPOSED FACE TO THE UNDERSIDE DURING IN-SERVICE CONDITIONS. THE PT DESIGNER SHALL ENSURE THAT A 'STRONG' DEGREE OF CRACK CONTROL IS PROVIDED AS A MINIMUM IN OPEN OR EXPOSED SLABS, POTENTIALLY SUBJECT TO WATER. SIMILARLY, IT IS A PERFORMANCE REQUIREMENT THAT PONDING DOES NOT OCCUR.
- THE DESIGN OF THE PT ELEMENT IS TO ACCOUNT FOR AND ENSURE THE PERFORMANCE OF ASSOCIATED FINISHES AND DRAINAGE REQUIREMENTS, INCLUDING BUT NOT LIMITED TO TILING, BONDED MEMBRANES, LOCATION OF DRAINAGE OUTLETS AND THE LIKE.
- DESIGN LOADS ARE TO COMPLY WITH CURRENT STANTEC, ARCHITECTURAL, TEMPORARY LOADING AND SERVICES CONSULTANT DRAWINGS ALONG WITH AS1170 (WHICHEVER IS GREATER), PATTERN LOADING IS TO BE INCLUDED AS REQUIRED BY AS3600 AND AS1170.
- IT IS THE PT DESIGNER'S RESPONSIBILITY TO SOURCE AND USE THE MOST RECENT VERSIONS OF PROJECT TEAM DRAWINGS. IN PARTICULAR, REFERENCE SHALL BE MADE TO THE LATEST ARCHITECTURAL, MECHANICAL AND HYDRAULIC DRAWINGS FOR INFORMATION AFFECTING THE PT DESIGN, INCLUDING BUT NOT LIMITED TO CAST-IN ELEMENTS, STEP-DOWNS, RECESSES, PLANT LOCATIONS, PLANT WEIGHTS, PENETRATIONS, PROPPED DRAINS, ETC.
- THE PT DESIGNER IS RESPONSIBLE FOR DETERMINING APPROPRIATE SERVICEABILITY LIMITS SUCH THAT PERFORMANCE OUTCOMES ARE ACHIEVED AND FINISHES OVER PT ELEMENTS REMAIN UNCRACKED AND UNDAUNAGED IN ANY WAY. DEFLECTION LIMITS APPLY TO BOTH UPWARD AND DOWNWARD DIRECTIONS. THE LIMITS SELECTED BY THE PT DESIGNER MUST ENSURE THAT TOTAL LONG-TERM DEFLECTIONS ARE LESS THAN:
 - i) LESSER OF SPAN/1000 OR 10mm FOR TRANSFER ELEMENTS OR ELEMENTS SUPPORTING BRITTLE FINISHES.
 - ii) LESSER OF SPAN/300 OR 25mm FOR NON-TRANSFER ELEMENTS SUPPORTING NON-BRITTLE FINISHES.
- THE PT DESIGNER SHALL MAKE AVAILABLE DOCUMENTATION, CALCULATIONS AND OTHER SUPPORTING INFORMATION FOR REVIEW PURPOSES UPON REQUEST. THIS REVIEW IS A COURTESY REVIEW ONLY AND DOES NOT RELIEVE THE PT DESIGNER OF LIABILITY.
- THE CONTRACTOR SHALL SUBMIT COMPREHENSIVE SHOP DRAWINGS FOR EACH FLOOR FOR REVIEW PURPOSES. THIS REVIEW IS A COURTESY REVIEW ONLY (NOT AN APPROVAL), WHICH WILL ONLY ASSESS HIGH LEVEL INTERFACE WITH THE STRUCTURES SHOWN ON STANTEC DRAWINGS AND PRESENCE OF LOAD-BEARING ELEMENTS DOCUMENTED BY STANTEC. STANTEC WILL NOT BE ASSESSING ADEQUACY OF THE DESIGN OR COMPLIANCE WITH THE PERFORMANCE CRITERIA. SPECIFICALLY, STANTEC WILL NOT BE REVIEWING REINFORCEMENT (CONCRETE) OR STRESSING (STEEL) WORK.
- THE CONTRACTOR IS TO UNDERTAKE ALL TESTING REQUIRED BY THE PT DESIGNER. REFER 'CONCRETE' SECTION FOR STANTEC'S MINIMUM TESTING REQUIREMENT EXPECTATIONS.
- GROUTING SHALL BE FINISHED TO ENSURE UNIFORMITY WITH THE SURROUNDING CONCRETE. TO THE SATISFACTION OF THE ARCHITECT/SUPERINTENDENT.

PREFABRICATED WALL FRAMES (TIMBER/COLD FORMED)

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, FABRICATION, ERECTION, CERTIFICATION AND PERFORMANCE OF PREFABRICATED TIMBER & COLD FORMED WALL FRAMING SYSTEMS. THE CONTRACTOR MAY SUBCONTRACT THE WORK TO A CERTIFIED AND SUITABLY QUALIFIED ORGANIZATION. THE DESIGN OF THE WALL SYSTEM SHALL INCORPORATE THE STUDS, LINTELS, TOP AND BOTTOM PLATES, BRACING, CONNECTIONS AND ANY OTHER ELEMENTS REQUIRED IN ORDER FOR THE WALL TO PERFORM UNDER IN-SERVICE LOADS.
- THE DESIGN SHALL COMPLY WITH RELEVANT CODES IN TERMS OF STRENGTH, STABILITY, SERVICEABILITY, AND DURABILITY. IT IS THE SUB-CRACK DESIGNER'S RESPONSIBILITY TO INFORM THEMSELVES OF ALL LOADS LIKELY TO BE IMPOSED ON THE WALLS BEYOND ANY LOADS SPECIFICALLY SHOWN ON THESE DRAWINGS. ASSUME THE NEED TO CATER FOR INTERNAL PRESSURES IN CYCLONIC REGIONS UNLESS SPECIFICALLY NOTED OTHERWISE.
- METAL STUD FRAMING SYSTEMS ARE TO BE SHOP WELDED UNLESS APPROVED OTHERWISE. CONTRACTOR'S TO MAKE APPROPRIATE ALLOWANCE WITHIN THE TENDER PRICE.
- UNO, ALL TIMBER IS TO BE TREATED FOR TERMITE RESISTANCE AND DURABILITY UNLESS IT CAN BE SHOWN THAT THE NATURAL TIMBER PROVIDES SUCH RESISTANCE.
- TIMBER STUD WALLS ARE TO COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE TIMBER FRAMING CODE (AS1684).
- PROPRIETARY METAL BRACKET, BRACING AND CONNECTION PRODUCTS USED IN TIMBER FRAMING ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION. SUCH PRODUCTS MAY BE GALVANIZED TYPICALLY. STAINLESS STEEL PRODUCTS AND FIXINGS MUST BE USED WITHIN 1km OF THE COAST/INDUSTRIAL AREA IN EXPOSED SITUATIONS.
- WALL FRAMES ARE TO BE DESIGNED TO CLEAR SPAN BETWEEN RESTRAINT ELEMENTS AS SHOWN ON THE DRAWINGS.
- MANUFACTURER TO SUBMIT FOR REVIEW, AT LEAST 14 DAYS PRIOR TO COMMENCEMENT OF WALL MANUFACTURE:
 - i) WALL LAYOUT PLAN.
 - ii) ALL FRAMING STUD MEMBER SIZES/TYPES AND OVERALL DIMENSIONS.
 - iii) CLEAR INDICATION OF ELEMENT CONNECTION INTENTIONS.
 - iv) ALL DETAILS, FIXINGS (TOP AND BOTTOM), BRACING AND ERECTION PROCEDURES.
 - v) LATERAL LOADS IMPOSED ON SUPPORT ELEMENTS.
 - vi) DESIGN CRITERIA USED.
- ALL POST-FIXED BRACING IS TO BE INSTALLED IN A TAUT FASHION FREE FROM DEVIATION, SLACK AND DISTORTION. USE A PROPRIETARY TENSIONING MECHANISM WITH ALL METAL STRAP BRACES AND FIX TO EACH STUD.
- THE BRACING INCORPORATED WITHIN THE WALL SYSTEM SHALL BE TAKEN AS BEING INTEGRAL TO THE STABILITY OF THE OVERALL STRUCTURE. UNO, BRACING INCORPORATED WITHIN THE WALLS TO BE CAPABLE OF ACCOMMODATING FOR IN-SERVICE LATERAL LOADS.
- THE CONTRACTOR SHALL SOURCE OR SUPPLY A WRITTEN CERTIFICATION CONFIRMING THAT THE WALL FRAMING CONSTRUCTION IS IN ACCORDANCE WITH THE NCC, AUSTRALIAN STANDARDS AND TRADE JUDICIAL DOCUMENTS.
- ANY WALL FRAMING DETAILS SHOWN ARE PROVIDED TO INDICATE THE ANTICIPATED ARRANGEMENT AND FOR INFORMATION PURPOSES. IT SHALL NOT BE INTERPRETED THAT INFORMATION ON DRAWINGS RELATING TO PREFABRICATED TIMBER / METAL STUD WALLS IS ANYTHING OTHER THAN THIS.

TIMBER

- ALL TIMBER SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. DEFECTS SUCH AS SPRINGS, SPLITS, KNOTS, HEARTWOOD, UNTREATED SAPWOOD AND EXCESSIVE TWISTS AND WARPS MAY BE CAUSE FOR REJECTION.
- TIMBER MUST BE AT LEAST THE SPECIFIED FINISHED SIZE AS SHOWN ON THE STRUCTURAL DRAWINGS.
- ALL TIMBER MEMBERS SHALL HAVE A LEVEL OF DURABILITY APPROPRIATE FOR THEIR EXPOSURE. ENVIRONMENTAL AND PRESERVATIVE TREATMENT IS TO BE IN ACCORDANCE WITH AS 1604. INDICATIVE MIN. LEVELS OF TREATMENT ARE SHOWN BELOW:

SPECIES	EXPOSURE		
	INTERNAL	EXTERNAL ABOVE GROUND	EXTERNAL IN GROUND
MACHINE GRADED PINE (MGP)	S	NS (H3)	NS (H5)
JARRAH	S	S	S
KARRI	S	NS (H3)	NS (H5)
MARRI	S	NS (H3)	NS (H5)
OREGON	S	NS (H3)	NS (H5)
LAMINATED VENEER LUMBER (LVL)	S	NS (H3)	NS (H5)
CYPRESS PINE	S	S	S
WESTERN RED CEDAR	S	S	S
VICTORIAN ASH (KDHW)	S	NS (H3)	NS (H5)

S = SUITABLE
 NS (H3) = NOT SUITABLE IF UNTREATED (LOSP OR CCA TREAT TO H3 LEVEL)
 NS (H5) = NOT SUITABLE IF UNTREATED (CCA TREAT TO H5 LEVEL)

- MINIMUM TIMBER TO STEEL CONNECTION TO BE VIA 10 PL. CLEAT, 2-M16 BOLTS, UNO.
- ALL FIXINGS INTO TIMBER ARE TO BE GALVANIZED, MIN. USE STAINLESS STEEL. COUNTERPARTS WITHIN 1km OF THE COAST/INDUSTRIAL AREAS. USE WASHERS WITH ALL BOLTS. SCREW FIXINGS TO BE TYPE 17 COUNTERSINK/BULGE HEAD UNO. USE ONLY CCA RESISTANT PROPRIETARY FIXINGS IN CCA PRESERVATIVE TREATED TIMBER.
- TIMBER STRESS GRADES TO COMPLY WITH THE FOLLOWING MINIMUM REQUIREMENTS:

SPECIES	SEASONED	UNSEASONED
MACHINE GRADED PINE (MGP)	MGP10	DO NOT USE
JARRAH	F14	F8
KARRI	F22	F11
MARRI	F17	F11
OREGON	F7	DO NOT USE
LAMINATED VENEER LUMBER (LVL)	F17	DO NOT USE
CYPRESS PINE	F8	DO NOT USE
WESTERN RED CEDAR	F17	DO NOT USE
VICTORIAN ASH (KDHW)	F17	DO NOT USE

- UNLESS SPECIFICALLY REFERRED TO ON DRAWINGS, ALL TIMBER IS TO BE SEASONED.
- ALL TIMBER SHALL BE STRESS GRADED IN ACCORDANCE WITH AS 2082, AS 2858, AS 1748 OR AS 3619 AS APPROPRIATE. ALL TIMBER TO BE MARKED AS SUCH.
- TIMBER SURFACES DIRECTLY EXPOSED TO THE GROUND SHALL BE TREATED WITH A PROPRIETARY PRISMATIC BITUMEN BASED COATING IN ADDITION TO THE PRESSURE TREATMENT REQUIRED.
- ALL PLYWOOD USED FOR STRUCTURAL PURPOSES SHALL BE BRANDED WITH THE PLYWOOD ASSOCIATION OF AUSTRALIA (P.A.A.) TEST TRADEMARK AND MANUFACTURED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND UNDER P.A.A. QUALITY.
- ALL EXPOSED STEEL/METAL COMPONENTS TO BE FIRE TREATED IN ACCORDANCE WITH THE FIRE ENGINEERING REPORT OR BCA CONSULTANTS' ADVICE.

PERMANENT FORMWORK (METAL DECK) FLOOR SYSTEMS

- ALL PERMANENT FORMWORK (METAL DECK) UNITS SHALL BE SUPPLIED BY A COMPANY LICENSED TO MANUFACTURE THE APPROVED SYSTEM EG BONDEK, FIELDSERS, KINGFLOOR ETC.
- ALL UNITS SHALL BE MANUFACTURED AND INSTALLED STRICTLY IN ACCORDANCE WITH THE SUPPLIER'S SPECIFICATIONS AND DETAILS.
- ALL UNITS SHALL BE HOT DIPPED, ZINC-COATED, PROFILED STEEL DECKING TO AS 1387 MINIMUM G550 - Z450, WHICH ACTS AS BOTH PERMANENT FORMWORK AND POSITIVE TENSILE REINFORCING STEEL IN ONE-WAY REINFORCED CONCRETE SLAB CONSTRUCTION. LYSAGHT

WORK IN PROGRESS:
THE INFORMATION ON THIS DRAWING IS BASED UPON CURRENT ARCHITECTURAL INFORMATION. THIS INFORMATION IS SUBJECT TO CHANGE THROUGHOUT THE DESIGN DEVELOPMENT PHASE BY, BUT NOT LIMITED TO, ADJUSTMENT OF THE CLIENT BRIEF, SCOPE CHANGE, SUB CONTRACTOR DESIGN DEVELOPMENT REQUIREMENTS ETC.. ANY PRICING WORKS ARE TO APPLY A CONTINGENT APPROACH WITH RESPECT TO STRATEGIC DECISION MAKING AND COST MANAGEMENT.

NOTE:
SIZE OF STRUCTURAL MEMBERS SUBJECT TO CHANGE DURING THE DESIGN DEVELOPMENT PHASE.

GENERAL NOTES:

- ALL DEPTHS SHOWN ON PLAN ARE MINIMUM DEPTHS. RIDGE, VALLEY AND FALL LOCATIONS AS PER ARCHITECT DETAILS.
- REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATIONS OF FALLS, HOBS PLINTHS AND KERBS
- REFER TO STANTEC SPECIFICATION FOR ALL DETAILING AND DEFLECTION REQUIREMENTS
- ALL SLABS AND BEAMS TO BE POST TENSIONED U.N.O (EXCLUDING SOG)
- FOR LOADING PLANS REFER TO XXXX SERIES FOR ALL SURFACE LOADING
- SERVICE CO-ORDINATION IS SUBJECT TO ONGOING CO-ORDINATION AND SERVICE PENETRATION SIZES AND LOCATIONS ARE STILL BEING CO-ORDINATED. CONTRACTOR TO MAKE DUE ALLOWANCE FOR ADDITIONAL REINFORCEMENT IN THESE AREAS

SLAB ON GROUND NOTES:

- SLAB ON GROUND LAID ON WATERPROOF MEMBRANE ON 50mm SAND BLINDING LAYER. COMPACTED SUBGRADE DRAINAGE LAYER TO GEOTECHNICAL AND HYDRAULIC ENGINEER'S DETAIL. COMPACTION TO BE 95% MDD.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE GENERAL NOTES DRAWING ON ST-000-01 AND/OR ST-000-02.
- REFER TO DRAWING ST-000-01 FOR CONCRETE STRENGTH (U.N.O)
- REFER TO DRAWING ST-000-01 FOR COVER TO REINFORCEMENT (U.N.O)
- 1-N16 RE-ENTRANT BAR FIXED TO BOTTOM OF REINFORCEMENT FOR ALL SLAB RE-ENTRANT CORNERS (U.N.O).
- ADOPT TYPICAL DETAILS SHOWN (U.N.O).
- FOUNDATION DESIGNED FOR 0kPa HYDROSTATIC PRESSURE.
- DE-WATERING DESIGN AND DRAW-DOWN ASSESSMENT TO BE UNDERTAKEN BY SPECIALIST CONSULTANT AND COORDINATED WITH HYDRAULIC CONSULTANT TO ENSURE NO HYDROSTATIC PRESSURE ON THE GROUND SLAB.
- REFER TO GEOTECHNICAL ENGINEER AND HYDRAULIC ENGINEER FOR DRAINAGE DETAILS.

LEGEND:

- ### DENOTES SLAB THICKNESS
- /// DENOTES SLAB STEP
- S.C.J. DENOTES SAW CUT JOINT, REFER DWG ST-XXX-XX (TBC)
- D.D.J. DENOTES DANLEY DOWEL JOINT, REFER DWG ST-XXX-XX (TBC)
- C.J. DENOTES CONSTRUCTION JOINT, REFER DWG ST-XXX-XX (TBC)
- [Cross-hatch] DENOTES WET AREA. SLAB LAID TO FALLS REFER TO ARCHITECTURAL DRAWINGS FOR SET-OUT AND DEPTH.
- [Dotted] DENOTES LOADBEARING VERTICAL ELEMENT BELOW.
- [Dashed] DENOTES LOADBEARING VERTICAL ELEMENTS ABOVE.
- [Solid] DENOTES LOADBEARING VERTICAL ELEMENTS ABOVE AND BELOW.

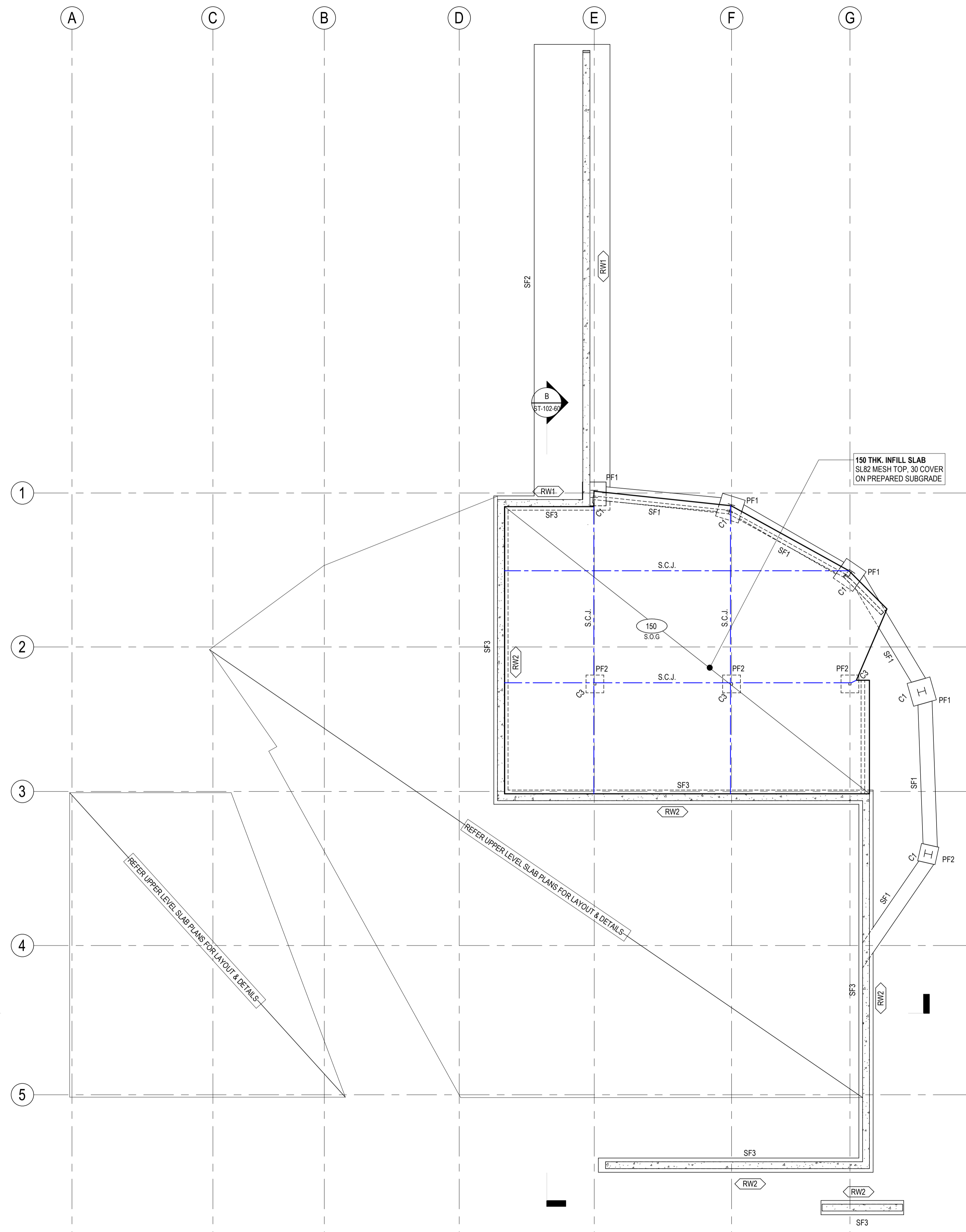
PILE SCHEDULE				
MARK	SIZE	REINFORCEMENT		COMMENTS
		VERTICAL	LIGS	
BP1	6000			
BP2	7500			ALIGN WITH COLUMN C5 OVER
BP3	9000			ALIGN WITH COLUMN C1 OVER

STRIP FOOTING SCHEDULE					
MARK	SIZE	REINFORCEMENT			COMMENTS
		TOP	BOTTOM	LIGS	
SF1	600x700 DP.	2 x 3-L12 TM	2 x 3-L12 TM	R10-300	STRIP FOOTING
SF2	3200x600 DP.	3-L12 TM	3-L12 TM	R10-300	STRIP FOOTING
SF3	600x600 DP.	2 x 3-L12 TM	2 x 3-L12 TM	R10-300	STRIP FOOTING

GROUND BEAM SCHEDULE					
MARK	SIZE	REINFORCEMENT			COMMENTS
		TOP	BOTTOM	LIGS	
EB1	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	EDGE BEAM
EB2	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	EDGE BEAM WITH STEP
IB1	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	INTERNAL BEAM
IB2	300x300 DP.	-	3-L12 TM	-	SLAB THICKENING

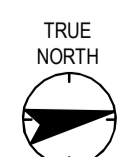
WALL SCHEDULE				
MARK	WALL TYPE	REINFORCEMENT		COMMENTS
		VERTICAL	HORIZONTAL	
IW1	180	INSITU	INSITU	SL81 MESH EACH FACE. N16 STARTER BARS 200 CRS. HYDROTITE AT BASE. XYPEX WATERPROOF ADDITIVE TO CONCRETE MIXTURE. CONCRETE TO BE IMPRINTED WITH ROUGH FORMWORK APPEARANCE (OR OTHER AGREED PATTERN)
RW1	300	BLOCKWORK	REO VERT	RETAINING - REFER DETAIL
RW2	290	BLOCKWORK	REO VERT	RETAINING

PAD FOOTING SCHEDULE			
MARK	SIZE	REINFORCEMENT	
		TOP	BOTTOM
PF1	1000x1000x700 DP.	N16-200	N16-200
PF2	750x750x700 DP.	N16-200	N16-200



LOWER GROUND FOUNDATION & RETAINING PLAN

SCALE - 1 : 100



Issue/Revision	By	Appd	YYYY.MM.DD
B PRELIMINARY ISSUE		ID	KB 2023.10.27
A PRELIMINARY ISSUE		ID	KB 2023.10.24
Issue/Revision		By	Appd
File Name: N/A		SJ	ID KB 2023.10.27
		Dwn.	Dsgn. Chkd. YYYT.MM.DD

Issue Status

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Client/Project
TOWONG SHIRE
BELLBRIDGE BOATHOUSE

Title
LOWER GROUND FOUNDATION & RETAINING PLAN

Project No. 301151577	Scale 1 : 100
Revision B	Drawing No. ST-098-10



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27-31 Myers Street
Geelong, VIC 3220
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Colour Disclaimer

This drawing has been documented in colour. This drawing is required to be printed in colour. Failure to do so may result in loss of information. Black and white printing may be used if specific black and white documents have been obtained from Stantec.

Notes

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NOTE:

SIZE OF STRUCTURAL MEMBERS SUBJECT TO CHANGE DURING THE DESIGN DEVELOPMENT PHASE.

GENERAL NOTES

- ALL DEPTHS SHOWN ON PLAN ARE MINIMUM DEPTHS. RIDGE, VALLEY AND FALL LOCATIONS AS PER ARCHITECT DETAILS.
- REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATIONS OF FALLS, HOBS PLINTHS AND KERBS
- REFER TO STANTEC SPECIFICATION FOR ALL DETAILING AND DEFLECTION REQUIREMENTS
- ALL SLABS AND BEAMS TO BE POST TENSIONED U.N.O (EXCLUDING SOG)
- FOR LOADING PLANS REFER TO XXXX SERIES FOR ALL SURFACE LOADING
- SERVICE CO-ORDINATION IS SUBJECT TO ONGOING CO-ORDINATION AND SERVICE PENETRATION SIZES AND LOCATIONS ARE STILL BEING CO-ORDINATED. CONTRACTOR TO MAKE DUE ALLOWANCE FOR ADDITIONAL REINFORCEMENT IN THESE AREAS

SLAB ON GROUND NOTES:

- SLAB ON GROUND LAID ON WATERPROOF MEMBRANE ON 50mm SAND BLINDING LAYER. COMPACTED SUBGRADE DRAINAGE LAYER TO GEOTECHNICAL AND HYDRAULIC ENGINEER'S DETAIL. COMPACTION TO BE 95% MDD.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE GENERAL NOTES DRAWING ON ST-000-01 AND/OR ST-000-02.
- REFER TO DRAWING ST-000-01 FOR CONCRETE STRENGTH (U.N.O)
- REFER TO DRAWING ST-000-01 FOR COVER TO REINFORCEMENT (U.N.O)
- 1-N16 RE-ENTRANT BAR FIXED TO BOTTOM OF REINFORCEMENT FOR ALL SLAB RE-ENTRANT CORNERS (U.N.O).
- ADOPT TYPICAL DETAILS SHOWN (U.N.O).
- FOUNDATION DESIGNED FOR 0kPa HYDROSTATIC PRESSURE.
- DE-WATERING DESIGN AND DRAW-DOWN ASSESSMENT TO BE UNDERTAKEN BY SPECIALIST CONSULTANT AND COORDINATED WITH HYDRAULIC CONSULTANT TO ENSURE NO HYDROSTATIC PRESSURE ON THE GROUND SLAB.
- REFER TO GEOTECHNICAL ENGINEER AND HYDRAULIC ENGINEER FOR DRAINAGE DETAILS.

LEGEND:

- ### DENOTES SLAB THICKNESS
- //// DENOTES SLAB STEP
- _ S.C.J. _ DENOTES SAW CUT JOINT, REFER DWG ST-XXX-XX (TBC)
- _ D.D.J. _ DENOTES DANLEY DOWEL JOINT, REFER DWG ST-XXX-XX (TBC)
- _ C.J. _ DENOTES CONSTRUCTION JOINT, REFER DWG ST-XXX-XX (TBC)
- DENOTES WET AREA. SLAB LAID TO FALLS REFER TO ARCHITECTURAL DRAWINGS FOR SET-OUT AND DEPTH.
- DENOTES LOADBEARING VERTICAL ELEMENT BELOW.
- DENOTES LOADBEARING VERTICAL ELEMENTS ABOVE.
- DENOTES LOADBEARING VERTICAL ELEMENTS ABOVE AND BELOW.

PILE SCHEDULE

MARK	SIZE	REINFORCEMENT		COMMENTS
		VERTICAL	LIGS	
BP1	6000			
BP2	7500			ALIGN WITH COLUMN C5 OVER
BP3	9000			ALIGN WITH COLUMN C1 OVER

GROUND BEAM SCHEDULE

MARK	SIZE	REINFORCEMENT			COMMENTS
		TOP	BOTTOM	LIGS	
EB1	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	EDGE BEAM
EB2	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	EDGE BEAM WITH STEP
IB1	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	INTERNAL BEAM
IB2	300x300 DP.	-	3-L12 TM	-	SLAB THICKENING

WALL SCHEDULE

MARK	WALL TYPE	REINFORCEMENT		COMMENTS
		VERTICAL	HORIZONTAL	
IW1	180 INSITU	REO VERT	REO HORZ	SL81 MESH EACH FACE. N16 STARTER BARS 200 CRS. HYDROTITE AT BASE. XYPEX WATERPROOF ADDITIVE TO CONCRETE MIXTURE OF CONCRETE TO BE IMPRINTED WITH ROUGH FORMWORK APPEARANCE (OR OTHER AGREED PATTERN)
RW1	300 BLOCKWORK	REO VERT	REO HORZ	RETAINING - REFER DETAIL
RW2	290 BLOCKWORK	REO VERT	REO HORZ	RETAINING

PAD FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT	
		TOP	BOTTOM
PF1	1000x1000x700 DP.	N16-200	N16-200
PF2	750x750x700 DP.	N16-200	N16-200

B PRELIMINARY ISSUE	TD	KB	2023.10.27
A PRELIMINARY ISSUE	TD	KB	2023.10.24
Issued/Revision	By	Appd	YYYY.MM.DD
File Name: N/A	SJ	TD	KB
	Dwn.	Dsgn.	Chkd.
			2023.10.27
			YYYY.MM.DD

Issue Status

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Client/Project Logo

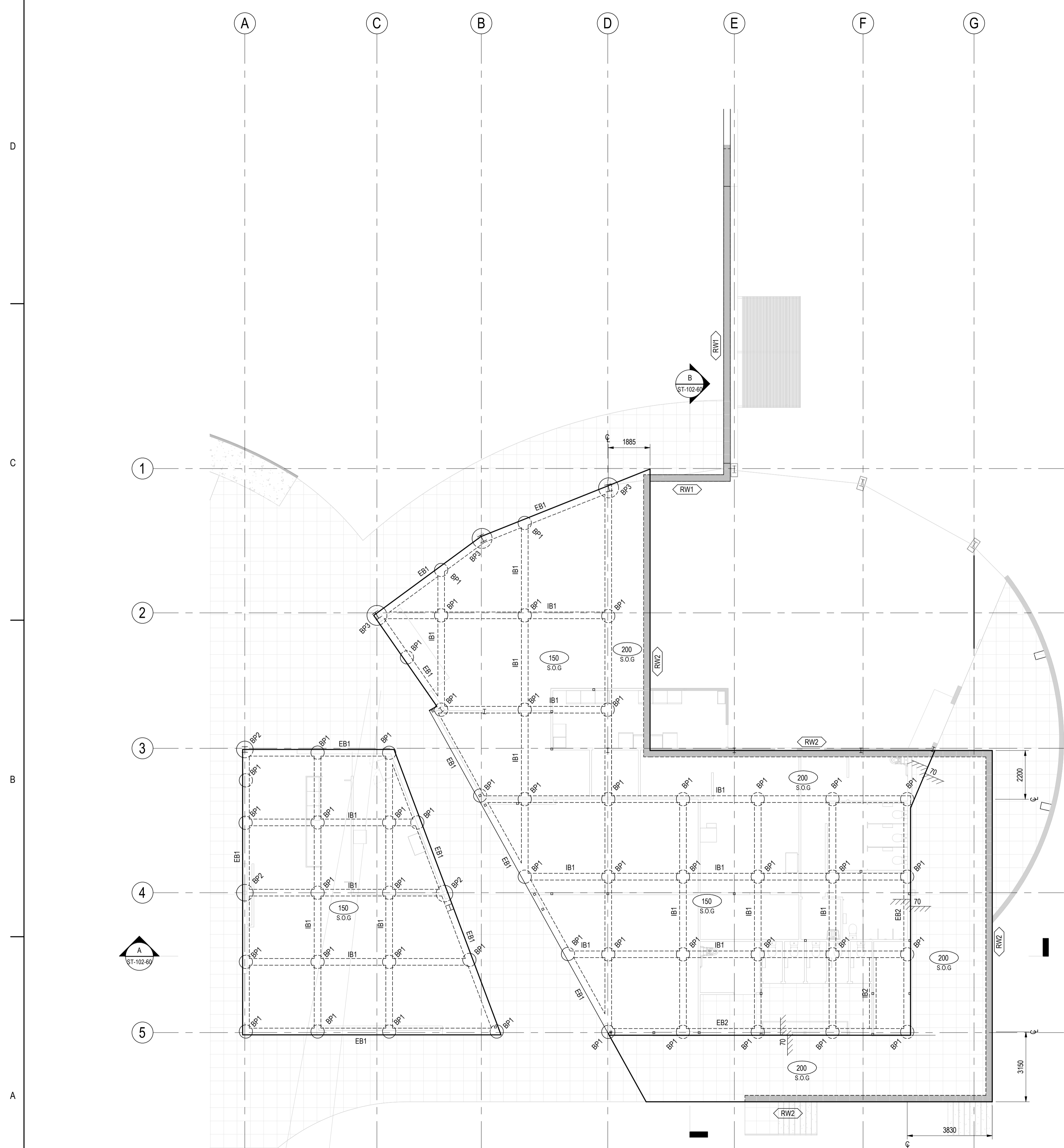


Client/Project
TOWONG SHIRE

BELLBRIDGE BOATHOUSE

Title
GROUND FLOOR FOUNDATION PLAN

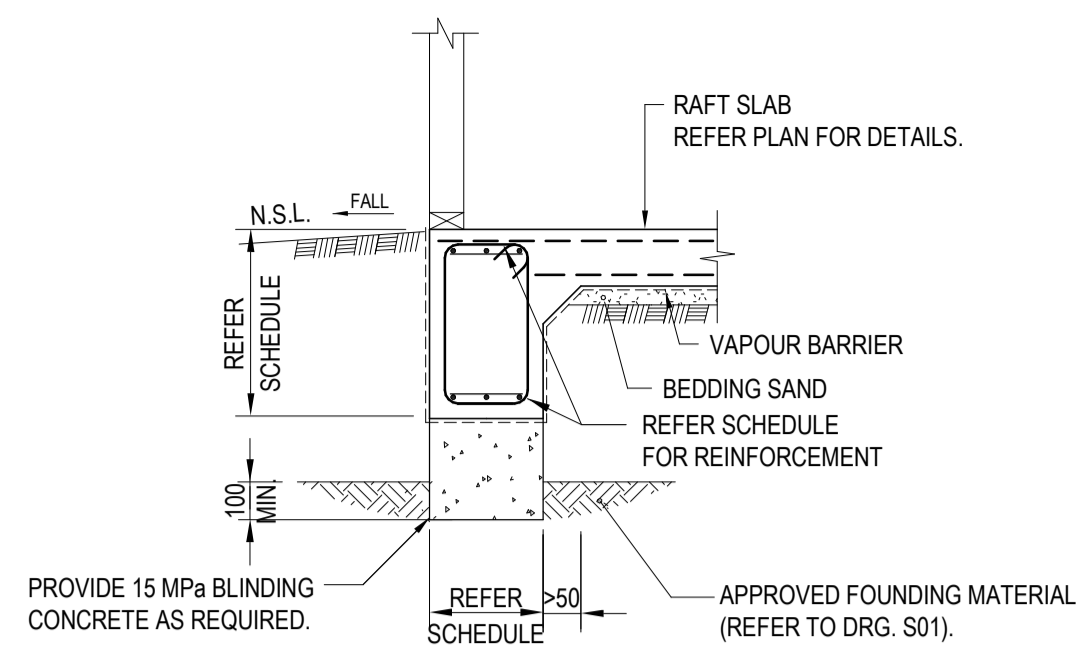
Project No. 301151577	Scale 1 : 100
Revision B	Drawing No. ST-099-10



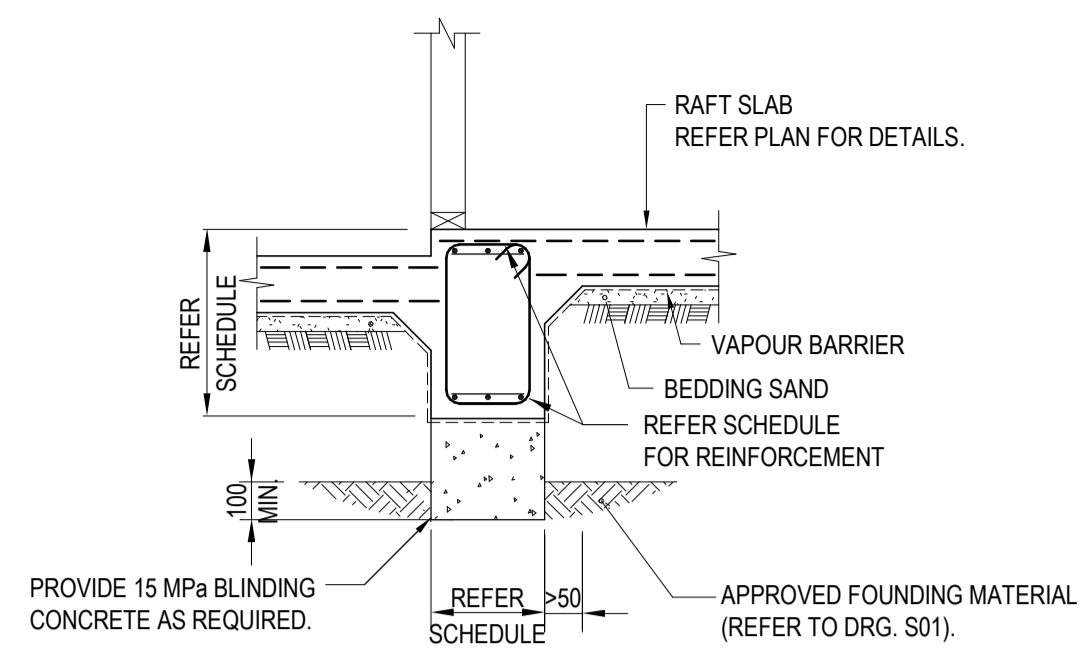
GROUND FLOOR FOUNDATION PLAN

SCALE - 1 : 100

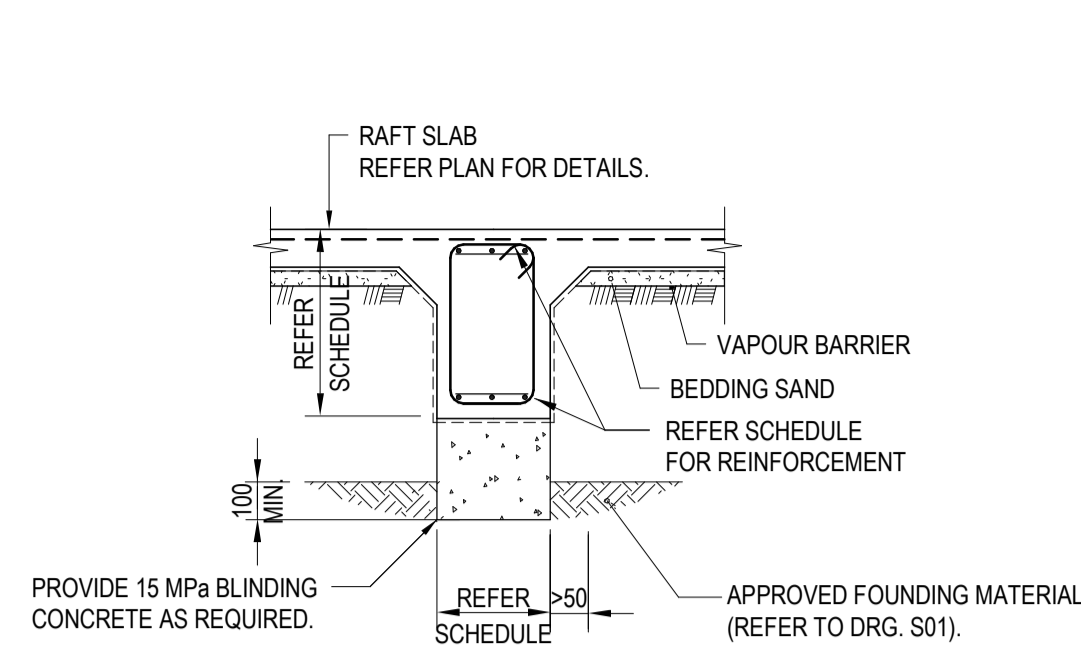




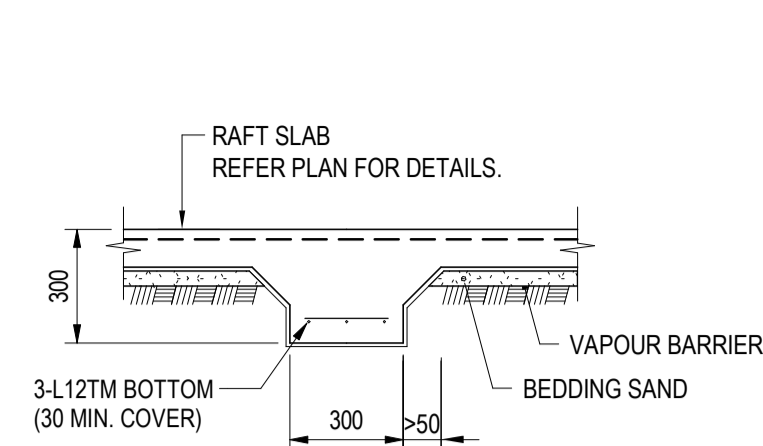
TYPICAL EB1 DETAIL
 SCALE 1 : 20



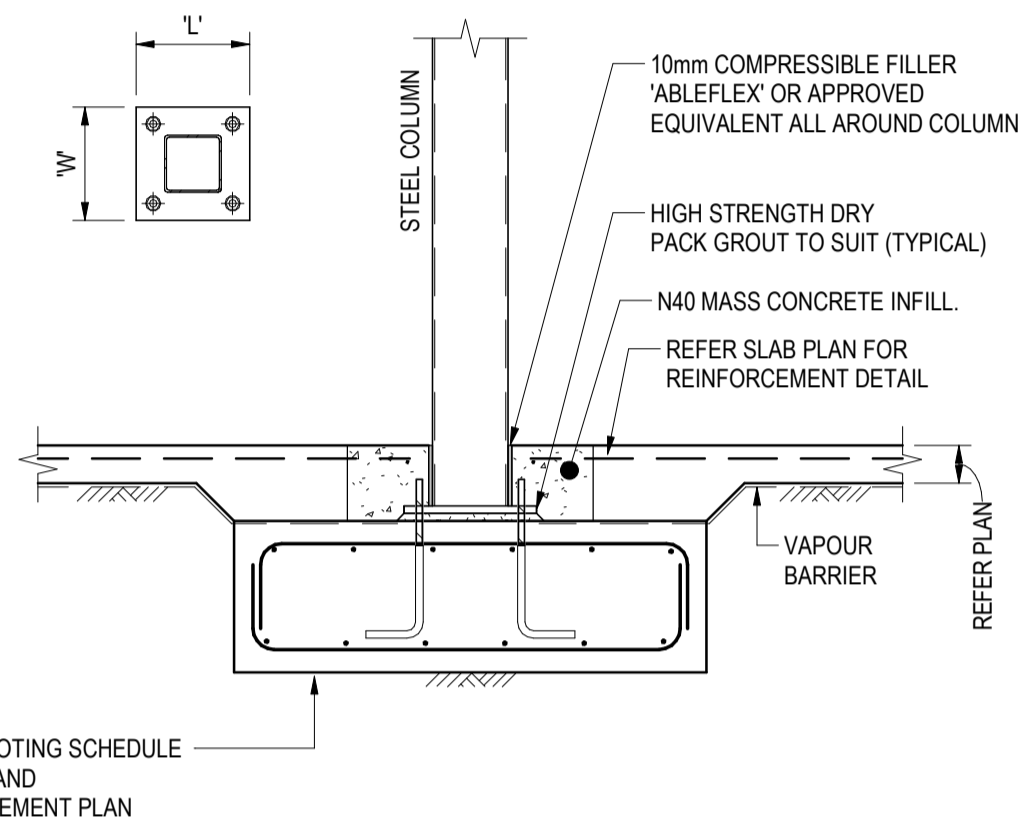
TYPICAL EB2 DETAIL
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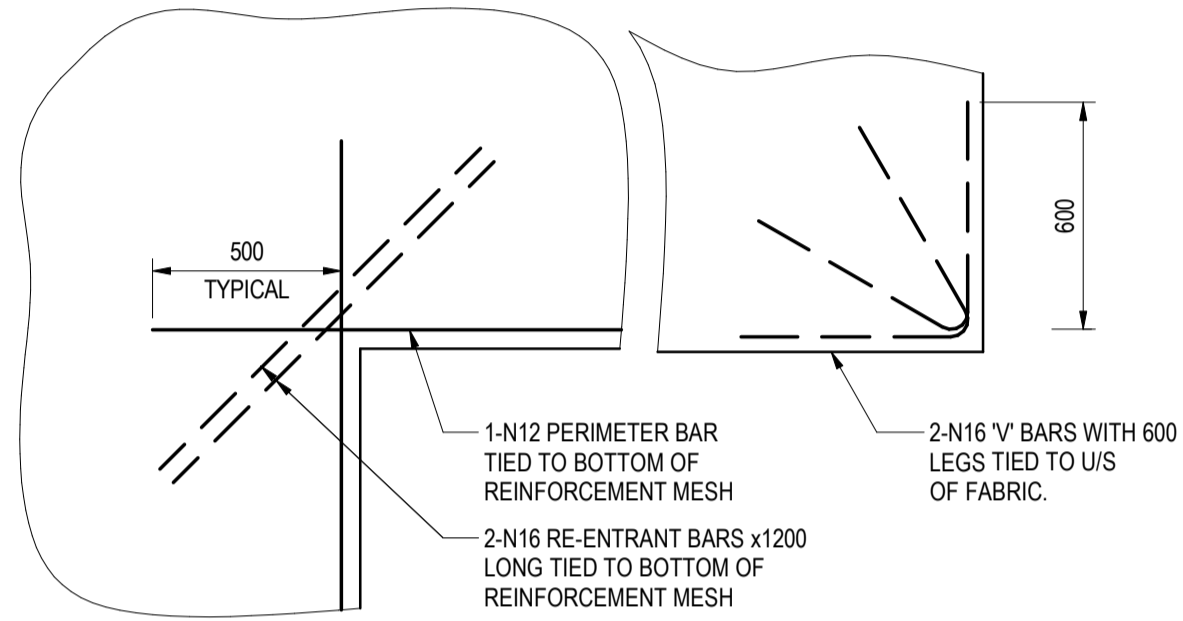
TYPICAL IB1 DETAIL
 SCALE 1 : 20
 NOTE: S-IB1 DETAIL SIMILAR.



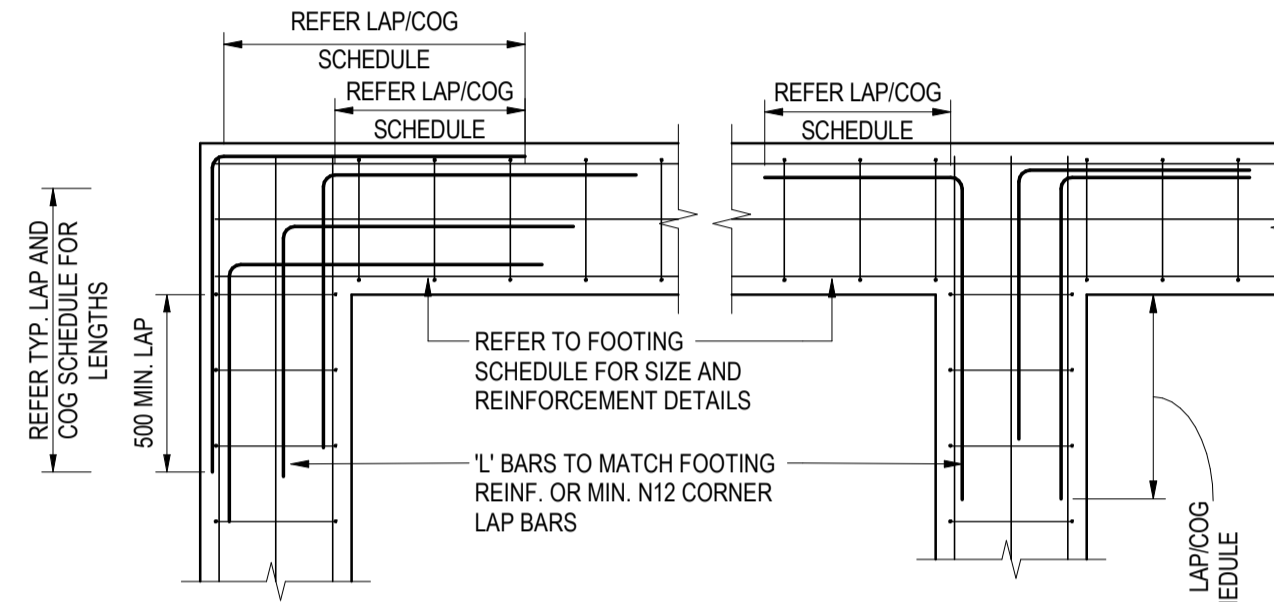
TYPICAL SLAB THICKENING DETAIL
 SCALE 1 : 20



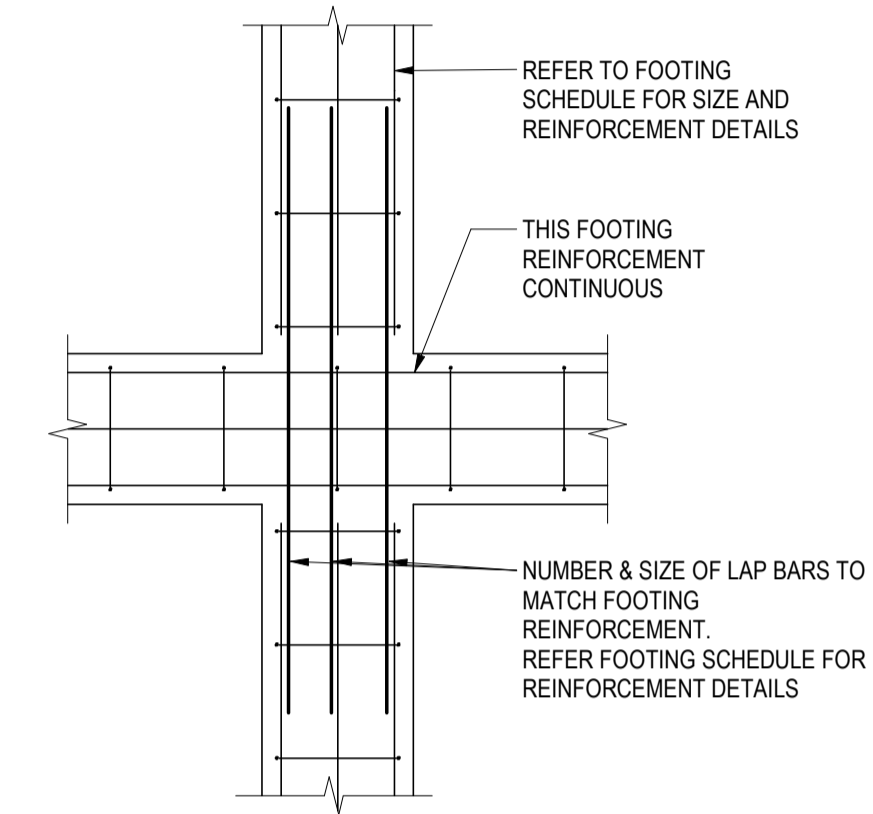
TYPICAL STEEL COLUMN TO FOOTING DETAIL
 SCALE 1 : 20



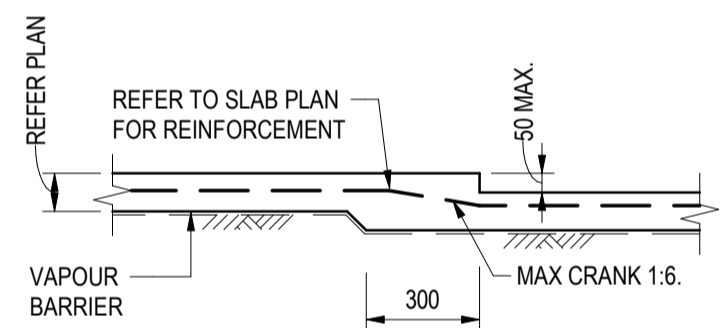
TYPICAL RE-ENTRANT CORNER DETAIL
 SCALE - 1:20



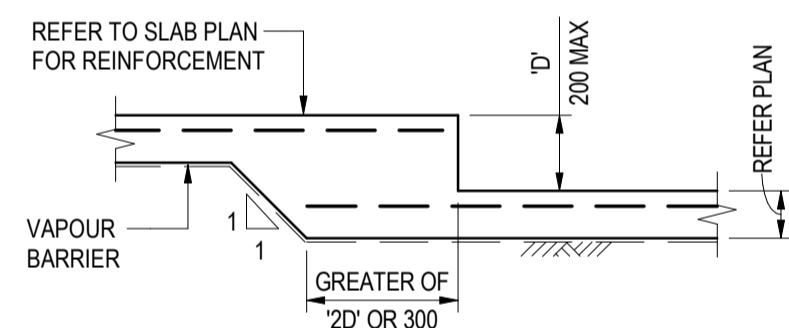
TYPICAL FOOTING CORNER & 'T' JUNCTION DETAILS
 SCALE - 1:20



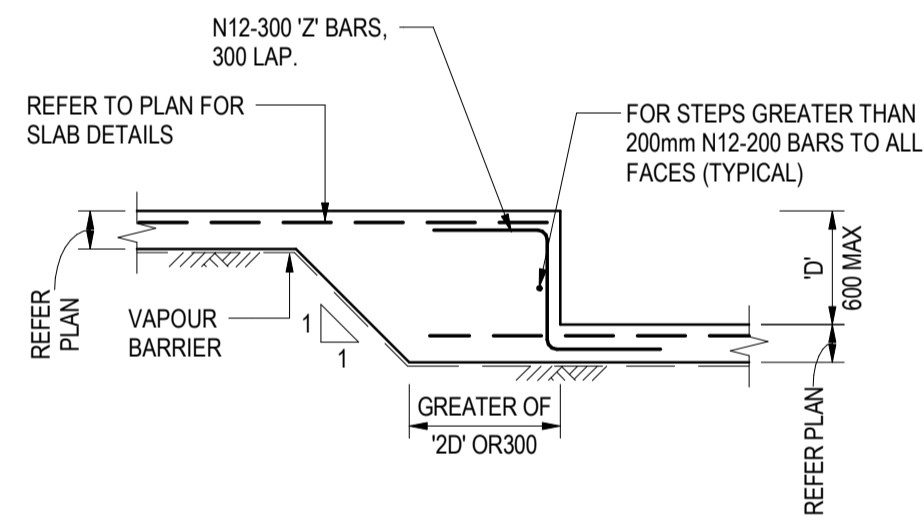
TYPICAL FOOTING INTERSECTION DETAIL
 SCALE - 1:20



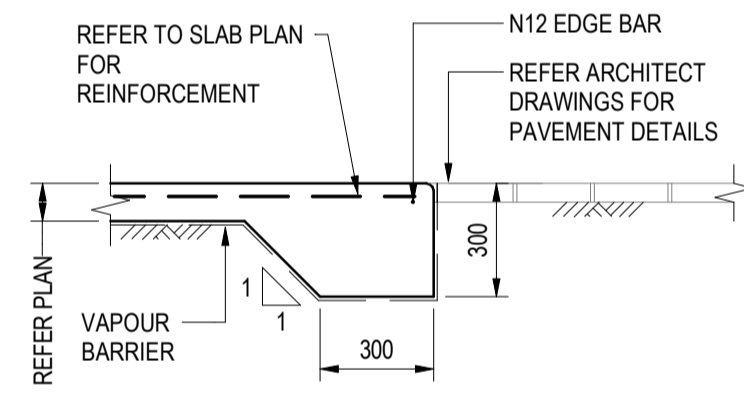
TYPICAL SLAB SET DOWN DETAIL (50 MAX.)
 SCALE - 1:20



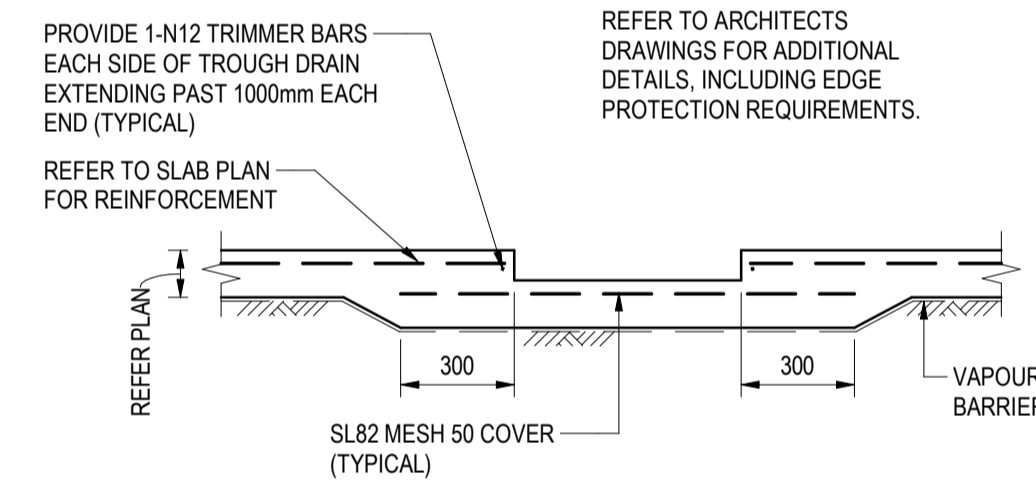
TYPICAL SLAB STEP DETAIL (200 MAX.)
 SCALE - 1:20



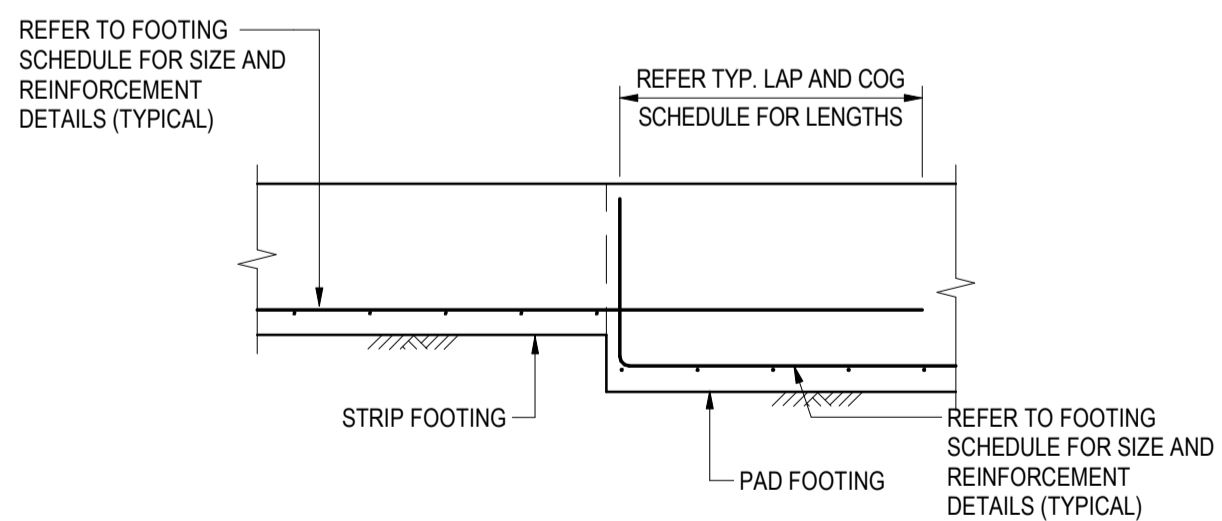
TYPICAL INTERNAL SLAB STEP DETAIL (600 MAX.)
 SCALE - 1:20



TYPICAL EDGE THICKENING DETAIL
 SCALE - 1:20



TYPICAL FLOOR EAS SYSTEM SETDOWN DETAIL
 SCALE - 1:20
 REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION, EXTENT AND ADDITIONAL DETAILS (TYPICAL)



TYPICAL STRIP FOOTING TO PAD FOOTING DETAIL (LAPPED STRIP FOOTING REINFORCEMENT)
 SCALE - 1:20

A PRELIMINARY ISSUE	ID	KB	2023.10.27
Issued/Revision	By	Appd	YYYY.MM.DD
File Name: N/A	Author Dwn.	Designer Dsgn.	Checker Chkt.
			10/26/23
			YYYY.MM.DD

Issue Status
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Client/Project Logo

Client/Project
TOWONG SHIRE
 BELLBRIDGE BOATHOUSE

Title
SLAB AND FOUNDATION DETAILS SHEET 1

Project No. 301151577	Scale 1 : 20
Revision A	Drawing No. ST-099-20

WORK IN PROGRESS:

THE INFORMATION ON THIS DRAWING IS BASED UPON CURRENT ARCHITECTURAL INFORMATION. THIS INFORMATION IS SUBJECT TO CHANGE THROUGHOUT THE DESIGN DEVELOPMENT PHASE BY, BUT NOT LIMITED TO, ADJUSTMENT OF THE CLIENT BRIEF, SCOPE CHANGE, SUB CONTRACTOR DESIGN DEVELOPMENT REQUIREMENTS ETC. ANY PRICING WORKS ARE TO APPLY A CONTINGENT APPROACH WITH RESPECT TO STRATEGIC DECISION MAKING AND COST MANAGEMENT.

NOTE:

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SLAB ON GROUND NOTES:

- SLAB ON GROUND LAID ON WATERPROOF MEMBRANE ON 50mm SAND BLINDING LAYER. COMPACTED SUBGRADE DRAINAGE LAYER TO GEOTECHNICAL AND HYDRAULIC ENGINEER'S DETAIL. COMPACTION TO BE 95% MDD.
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- REFER TO DRAWING ST-000-01 FOR COVER TO REINFORCEMENT (U.N.O)
- 1-N16 RE-ENTRANT BAR FIXED TO BOTTOM OF REINFORCEMENT FOR ALL SLAB RE-ENTRANT CORNERS (U.N.O).
- ADOPT TYPICAL DETAILS SHOWN (U.N.O).
- FOUNDATION DESIGNED FOR 0kPa HYDROSTATIC PRESSURE.
- DE-WATERING DESIGN AND DRAW-DOWN ASSESSMENT TO BE UNDERTAKEN BY SPECIALIST CONSULTANT AND COORDINATED WITH HYDRAULIC CONSULTANT TO ENSURE NO HYDROSTATIC PRESSURE ON THE GROUND SLAB.
- REFER TO GEOTECHNICAL ENGINEER AND HYDRAULIC ENGINEER FOR DRAINAGE DETAILS.

LEGEND:

- ### DENOTES SLAB THICKNESS
- /// DENOTES SLAB STEP
- _S.C.J._ DENOTES SAW CUT JOINT, REFER DWG ST-XXX-XX (TBC)
- _D.D.J._ DENOTES DANLEY DOWEL JOINT, REFER DWG ST-XXX-XX (TBC)
- _C.J._ DENOTES CONSTRUCTION JOINT, REFER DWG ST-XXX-XX (TBC)
- DENOTES WET AREA. SLAB LAID TO FALLS REFER TO ARCHITECTURAL DRAWINGS FOR SET-OUT AND DEPTH.
- DENOTES LOADBEARING VERTICAL ELEMENT BELOW.
- DENOTES LOADBEARING VERTICAL ELEMENTS ABOVE.
- DENOTES LOADBEARING VERTICAL ELEMENTS ABOVE AND BELOW.

GROUND BEAM SCHEDULE

MARK	SIZE	REINFORCEMENT			COMMENTS
		TOP	BOTTOM	LIGS	
EB1	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	EDGE BEAM
EB2	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	EDGE BEAM WITH STEP
IB1	300x500 DP.	3-L12 TM	3-L12 TM	R10-300	INTERNAL BEAM
IB2	300x300 DP.	-	3-L12 TM	-	SLAB THICKENING

WALL SCHEDULE

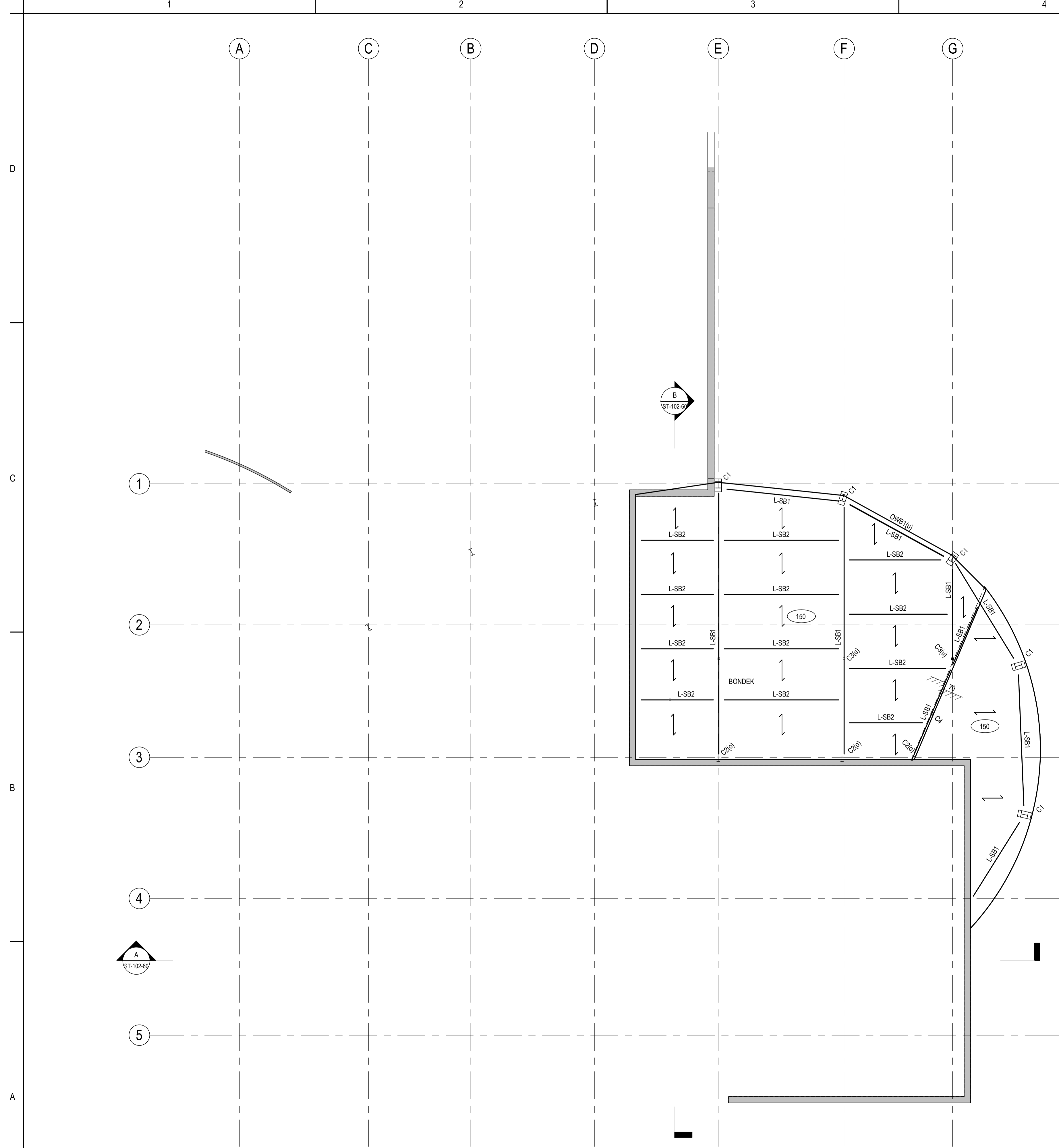
MARK	WALL TYPE	REINFORCEMENT		COMMENTS
		VERTICAL	HORIZONTAL	
IW1	180 INSITU	REO VERT	REO HORZ	SL81 MESH EACH FACE. N16 STARTER BARS 200 CRS. HYDROTITE AT BASE. XYPEX WATERPROOF ADDITIVE TO CONCRETE MIXFACE OF CONCRETE TO BE IMPRINTED WITH ROUGH FORMWORK APPEARANCE (OR OTHER AGREED PATTERN)
RW1	300 BLOCKWORK	REO VERT	REO HORZ	RETAINING - REFER DETAIL
RW2	290 BLOCKWORK	REO VERT	REO HORZ	RETAINING

COLUMN MEMBER SCHEDULE

MARK	SIZE	COMMENT
C1	310UC96.8	COLUMN
C2	200UB29.8	COLUMN
C3	89x89x5.0SHS	COLUMN
C4	89x89x3.5SHS	COLUMN
C5	250UC72.9	COLUMN
P-C1	200PFC	RAKED COLUMN

GROUND FLOOR FRAMING MEMBER SCHEDULE

MARK	SIZE	COMMENT
L-SB1	410UB53.7	
L-SB2	310UB32.0	
OWB1	310UB32.0	OPERABLE WALL BEAM



GROUND FLOOR FRAMING PLAN

SCALE - 1 : 100



Client/Project Logo



Client/Project

TOWONG SHIRE

BELLBRIDGE BOATHOUSE

Title

GROUND FLOOR FRAMING PLAN

Project No.
301151577

Scale
1 : 100

Revision
B

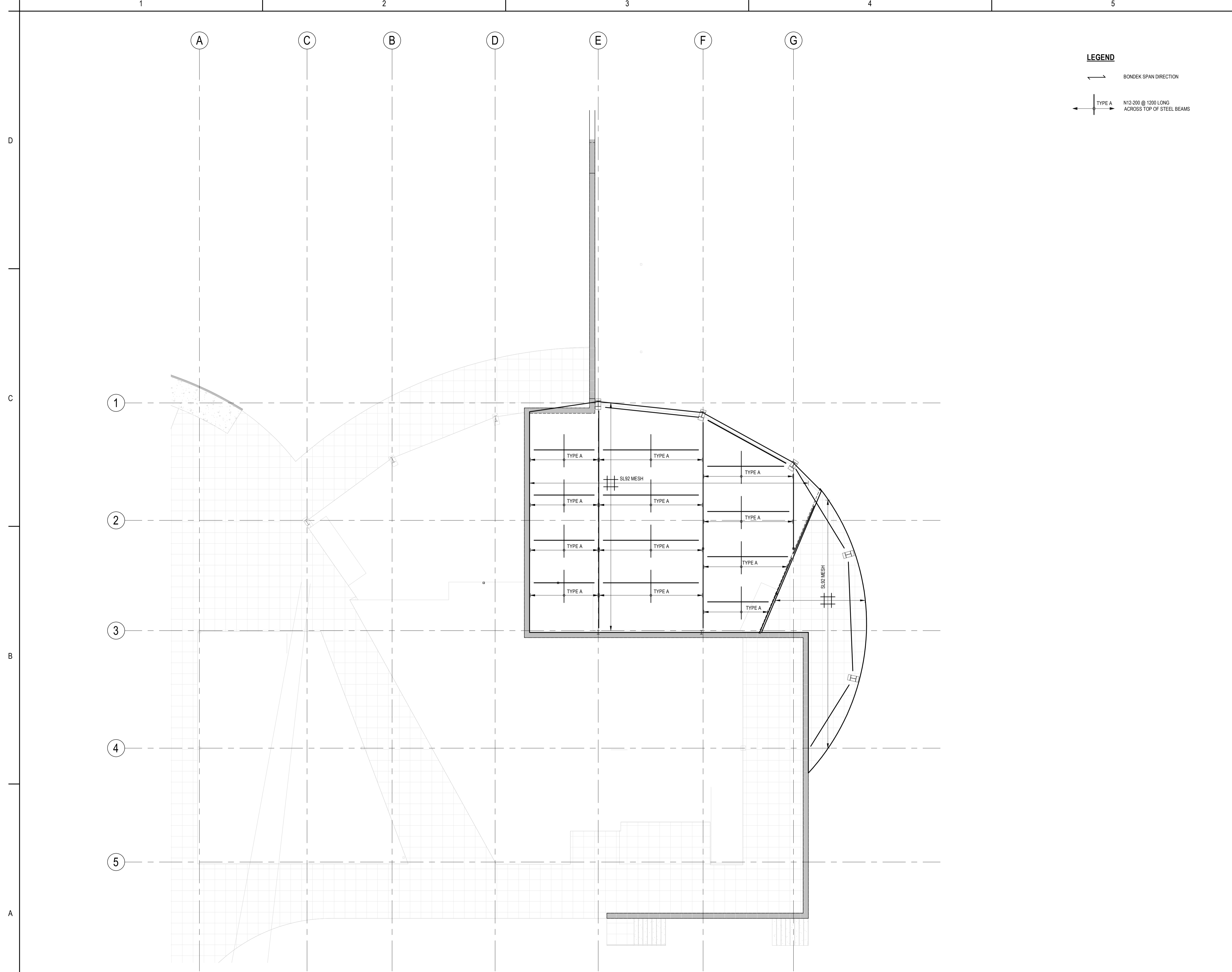
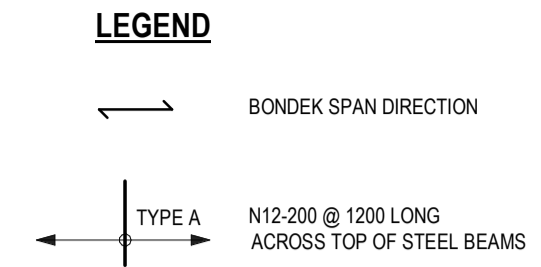
Drawing No.

ST-100-10

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NOTE:
 SIZE OF STRUCTURAL MEMBERS SUBJECT TO CHANGE DURING THE DESIGN DEVELOPMENT PHASE.

- GENERAL NOTES**
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 - REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATIONS OF FALLS, HOBS PLINTHS AND KERBS
 - REFER TO STANTEC SPECIFICATION FOR ALL DETAILING AND DEFLECTION REQUIREMENTS
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 - FOR LOADING PLANS REFER TO XXXX SERIES FOR ALL SURFACE LOADING
 - SERVICE CO-ORDINATION IS SUBJECT TO ONGOING CO-ORDINATION AND SERVICE PENETRATION SIZES AND LOCATIONS ARE STILL BEING CO-ORDINATED. CONTRACTOR TO MAKE DUE ALLOWANCE FOR ADDITIONAL REINFORCEMENT IN THESE AREAS



B	PRELIMINARY ISSUE	ID	KB	2023.10.27
A	PRELIMINARY ISSUE	ID	KB	2023.10.24
Issued/Revision		By	Appd	YYYY.MM.DD
File Name: N/A		SJ	ID	KB
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				2023.10.27
				YYYY.MM.DD

Issue Status

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NOT FOR CONSTRUCTION

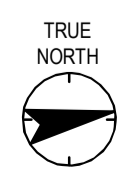
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Client/Project
TOWONG SHIRE
BELLBRIDGE BOATHOUSE

Title
GROUND FLOOR SLAB REINFORCEMENT PLAN

Project No.	301151577	Scale	As indicated
Revision	B	Drawing No.	ST-100-20



WORK IN PROGRESS:
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NOTE:
SIZE OF STRUCTURAL MEMBERS SUBJECT TO CHANGE DURING THE DESIGN DEVELOPMENT PHASE.

GENERAL NOTES

- ALL DEPTHS SHOWN ON PLAN ARE MINIMUM DEPTHS. RIDGE, VALLEY AND FALL LOCATIONS AS PER ARCHITECT DETAILS.
- REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATIONS OF FALLS, HOBS, PLINTHS AND KERBS
- REFER TO STANTEC SPECIFICATION FOR ALL DETAILING AND DEFLECTION REQUIREMENTS
- ALL SLABS AND BEAMS TO BE POST TENSIONED U.N.O (EXCLUDING SOG)
- FOR LOADING PLANS REFER TO XXXX SERIES FOR ALL SURFACE LOADING
- SERVICE CO-ORDINATION IS SUBJECT TO ONGOING CO-ORDINATION AND SERVICE PENETRATION SIZES AND LOCATIONS ARE STILL BEING CO-ORDINATED. CONTRACTOR TO MAKE DUE ALLOWANCE FOR ADDITIONAL REINFORCEMENT IN THESE AREAS

B	PRELIMINARY ISSUE	TD	KB	2023.10.27
A	PRELIMINARY ISSUE	TD	KB	2023.10.24
Issued/Revision		By	Appd	YYYY.MM.DD
File Name: N/A		SJ	TD	KB
		Dwn.	Dsgn.	Chktd.
				2023.10.27
				YYYY.MM.DD

Issue Status

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Client/Project

TOWONG SHIRE

BELLBRIDGE BOATHOUSE

Title

LOWER ROOF FRAMING PLAN

Project No.
301151577

Scale
1 : 100

Revision
B

Drawing No.

ST-101-10

STEELWORK NOTES:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE GENERAL NOTES DRAWING ON ST-000-01 AND/OR ST-000-02.
- REFER TO MASTER STEELWORK MEMBER SCHEDULE ON ST-000-10 FOR STEEL SECTIONS IF NOT DENOTED ON THIS DRAWING.
- ADOPT TYPICAL DETAILS SHOWN (U.N.O).

LEGEND:

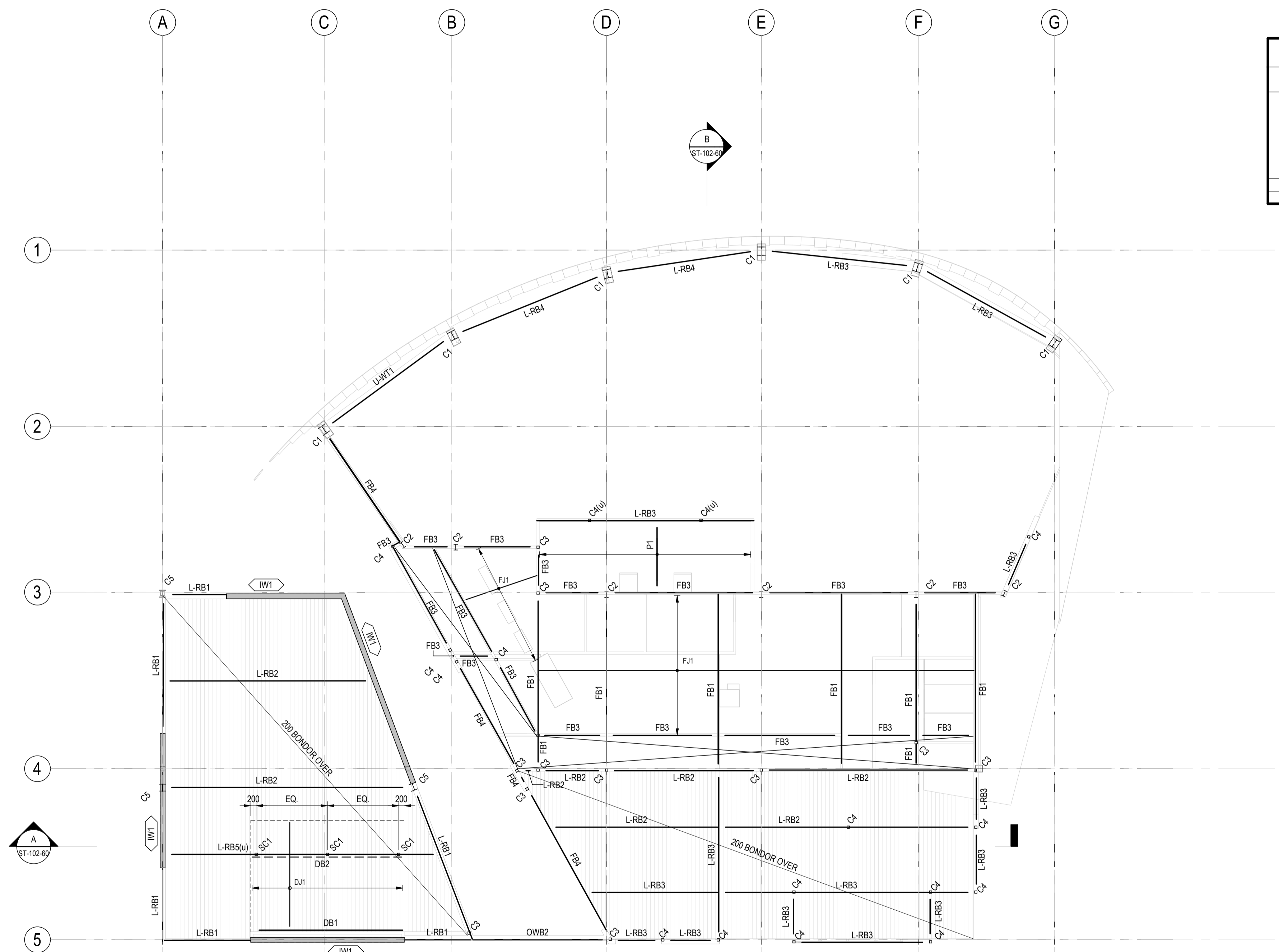
- DENOTES STRUCTURAL MEMBER OVER ONLY.
- DENOTES STRUCTURAL MEMBER UNDER ONLY.
- DENOTES STRUCTURAL MEMBER OVER & UNDER.
- DENOTES STEEL MEMBER.
- DENOTES VERTICAL BRACING TO FRAME. (NOTE: ALL VERT BRACING TO BE CENTRED ON COLUMN CENTRELINE U.N.O). REFER TO SCHEDULES FOR SIZES.
- DENOTES HORIZONTAL BRACING TO FRAME. REFER TO SCHEDULES FOR SIZES.
- DENOTES SPLICE IN BEAM, REFER TO TYPICAL DETAILS
- DENOTES FLYBRACE TO ROOF PURLINS. REFER TYPICAL DETAILS.

WALL SCHEDULE						
MARK	WALL TYPE	REINFORCEMENT		COMMENTS		
		VERTICAL	HORIZONTAL			
IW1	180	INSITU	REO VERT	REO HORZ	SL81 MESH EACH FACE N16 STARTER BARS 200 CRS HYDROTITE AT BASE, XYPEX WATERPROOF ADDITIVE TO CONCRETE MIXFACE OF CONCRETE TO BE IMPRINTED WITH ROUGH FORMWORK APPEARANCE (OR OTHER AGREED PATTERN)	
RW1	300	BLOCKWORK	REO VERT	REO HORZ	RETAINING - REFER DETAIL	
RW2	290	BLOCKWORK	REO VERT	REO HORZ	RETAINING	

COLUMN MEMBER SCHEDULE			
MARK	SIZE		COMMENT
C1	310UC96.8		COLUMN
C2	200UB29.8		COLUMN
C3	89x89x5.0SHS		COLUMN
C4	89x89x3.5SHS		COLUMN
C5	250UC72.9		COLUMN
P-C1	200PFC		RAKED COLUMN

LOWER ROOF MEMBER SCHEDULE			
MARK	SIZE		COMMENT
FB1	310UB32.0		
FB3	250PFC		
FB4	300PFC		
L-RB1	250PFC		ROOF BEAM
L-RB2	250UB37.3		ROOF BEAM
L-RB3	200PFC		ROOF BEAM
L-RB4	300PFC		ROOF BEAM
L-RB5	250UC72.9		ROOF BEAM
OWB2	250PFC		OPERABLE WALL BEAM

CAFE PLANT PLATFORM MEMBER SCHEDULE			
MARK	SIZE		COMMENT
DB1	200PFC		DECK BEAM (HOT DIP GALV.)
DB2	200UB29.8		DECK BEAM (HOT DIP GALV.)
DJ1	200PFC		DECK JOISTS AT 450 MAX. CTS. (HOT DIP GALV.)
SC1	89x89x3.5SHS		STUB COLUMN (HOT DIP GALV.)



LOWER ROOF FRAMING PLAN

SCALE - 1 : 100



WORK IN PROGRESS:
THE INFORMATION ON THIS DRAWING IS BASED UPON CURRENT ARCHITECTURAL INFORMATION. THIS INFORMATION IS SUBJECT TO CHANGE THROUGHOUT THE DESIGN DEVELOPMENT PHASE BY, BUT NOT LIMITED TO, ADJUSTMENT OF THE CLIENT BRIEF, SCOPE CHANGE, SUB CONTRACTOR DESIGN DEVELOPMENT REQUIREMENTS ETC.. ANY PRICING WORKS ARE TO APPLY A CONTINGENT APPROACH WITH RESPECT TO STRATEGIC DECISION MAKING AND COST MANAGEMENT.

NOTE:
SIZE OF STRUCTURAL MEMBERS SUBJECT TO CHANGE DURING THE DESIGN DEVELOPMENT PHASE.

GENERAL NOTES

- ALL DEPTHS SHOWN ON PLAN ARE MINIMUM DEPTHS. RIDGE, VALLEY AND FALL LOCATIONS AS PER ARCHITECT DETAILS.
- REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATIONS OF FALLS, HOBS, PLINTHS AND KERBS
- REFER TO STANTEC SPECIFICATION FOR ALL DETAILING AND DEFLECTION REQUIREMENTS
- ALL SLABS AND BEAMS TO BE POST TENSIONED U.N.O (EXCLUDING SOG)
- FOR LOADING PLANS REFER TO XXXX SERIES FOR ALL SURFACE LOADING
- SERVICE CO-ORDINATION IS SUBJECT TO ONGOING CO-ORDINATION AND SERVICE PENETRATION SIZES AND LOCATIONS ARE STILL BEING CO-ORDINATED. CONTRACTOR TO MAKE DUE ALLOWANCE FOR ADDITIONAL REINFORCEMENT IN THESE AREAS

STEELWORK NOTES:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE GENERAL NOTES DRAWING ON ST-000-01 AND/OR ST-000-02.
- REFER TO MASTER STEELWORK MEMBER SCHEDULE ON ST-000-10 FOR STEEL SECTIONS IF NOT DENOTED ON THIS DRAWING.
- ADOPT TYPICAL DETAILS SHOWN (U.N.O).

LEGEND:

- $C_{(U)}$ DENOTES STRUCTURAL MEMBER OVER ONLY.
- $C_{(U)}$ DENOTES STRUCTURAL MEMBER UNDER ONLY.
- C_1 DENOTES STRUCTURAL MEMBER OVER & UNDER.
- DENOTES STEEL MEMBER.
- DENOTES VERTICAL BRACING TO FRAME. (NOTE: ALL VERT BRACING TO BE CENTRED ON COLUMN CENTRELINE U.N.O). REFER TO SCHEDULES FOR SIZES.
- H_B DENOTES HORIZONTAL BRACING TO FRAME. REFER TO SCHEDULES FOR SIZES.
- S DENOTES SPLICE IN BEAM, REFER TO TYPICAL DETAILS
- FB DENOTES FLYBRACE TO ROOF PURLINS. REFER TYPICAL DETAILS.

WALL SCHEDULE					
MARK	WALL TYPE	REINFORCEMENT		COMMENTS	
		VERTICAL	HORIZONTAL		
IW1	180 INSITU	REO VERT	REO HORZ	SL81 MESH EACH FACE. N16 STARTER BARS 200 CRS. HYDROTITE AT BASE. XYPEX WATERPROOF ADDITIVE TO CONCRETE MIXFACE OF ROUGH FORMWORK APPEARANCE (OR OTHER AGREED PATTERN)	
RW1	300 BLOCKWORK	REO VERT	REO HORZ	RETAINING - REFER DETAIL	
RW2	290 BLOCKWORK	REO VERT	REO HORZ	RETAINING	

COLUMN MEMBER SCHEDULE		
MARK	SIZE	COMMENT
C1	310UC36.8	COLUMN
C2	200UB29.8	COLUMN
C3	89x89x5.0SHS	COLUMN
C4	89x89x3.5SHS	COLUMN
C5	250UC72.9	COLUMN
P-C1	200PFC	RAKED COLUMN

UPPER ROOF MEMBER SCHEDULE		
MARK	SIZE	COMMENT
BR1	16 DIA. M.S. ROD	TENSIONED ROOF CROSS BRACING
U-RB1	410UB99.7	
U-RB2	310UB32.0	
U-RB3	250PFC	
U-RB4	460UB67.1	
U-S2	168.3x4.8CHS	
U-WH1	200PFC	
U-WT1	250PFC	

B	PRELIMINARY ISSUE	ID	KB	2023.10.27
A	PRELIMINARY ISSUE	ID	KB	2023.10.24
Issued/Revision		By	Appd	YYYY.MM.DD
File Name: N/A		SJ	ID	KB
		Dwn.	Dsgn.	Chktd.
				YYYY.MM.DD

Issue Status

PRELIMINARY
NOT FOR CONSTRUCTION

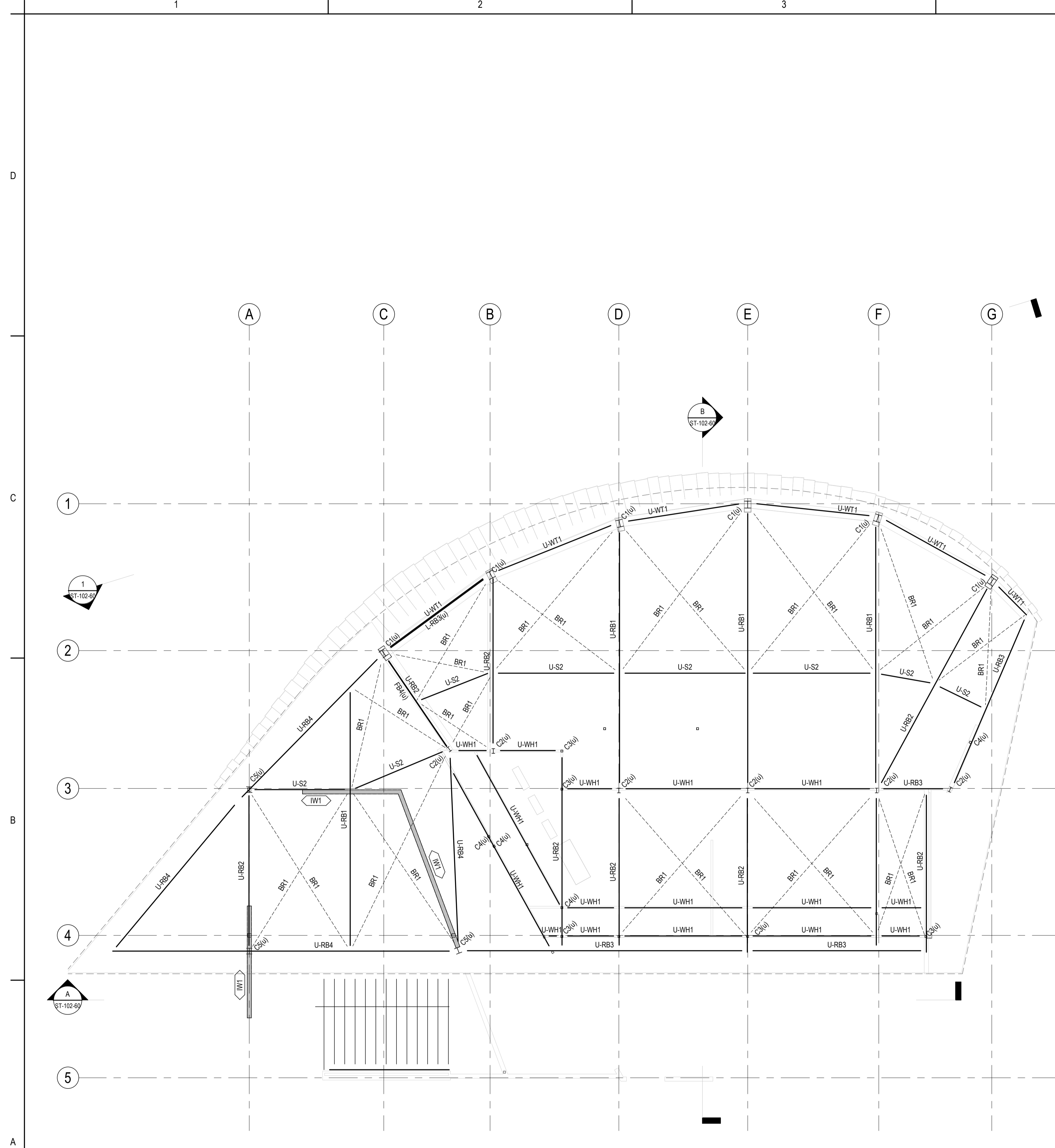
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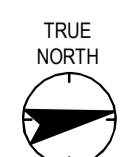
Client/Project
TOWONG SHIRE
BELLBRIDGE BOATHOUSE

Title
UPPER ROOF FRAMING PLAN

Project No. 301151577 Scale 1:100
Revision B Drawing No. **ST-102-10**



UPPER ROOF FRAMING PLAN
SCALE - 1 : 100

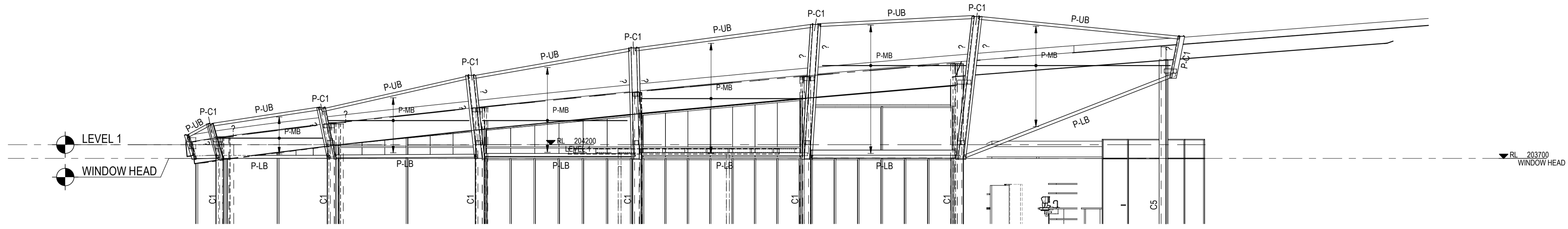


Notes

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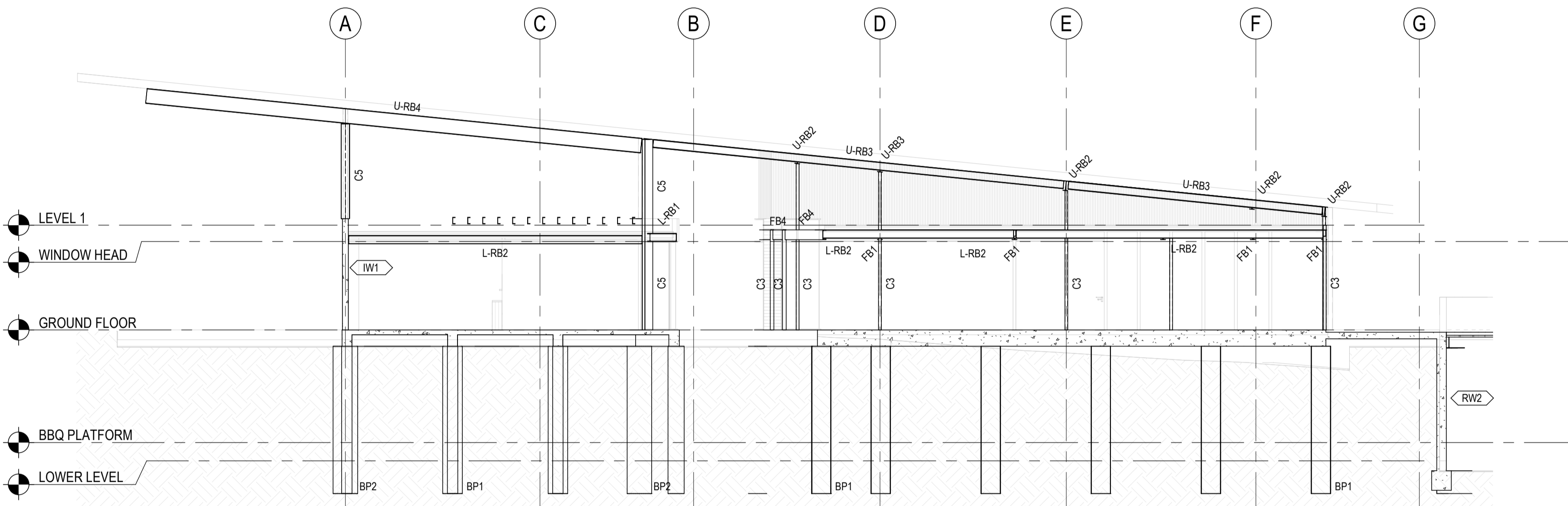
NOTE:
 SIZE OF STRUCTURAL MEMBERS SUBJECT TO CHANGE DURING THE DESIGN DEVELOPMENT PHASE.

- GENERAL NOTES**
- ALL DEPTHS SHOWN ON PLAN ARE MINIMUM DEPTHS. RIDGE, VALLEY AND FALL LOCATIONS AS PER ARCHITECT DETAILS.
 - REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATIONS OF FALLS, HOBS PLINTHS AND KERBS
 - REFER TO STANTEC SPECIFICATION FOR ALL DETAILING AND DEFLECTION REQUIREMENTS
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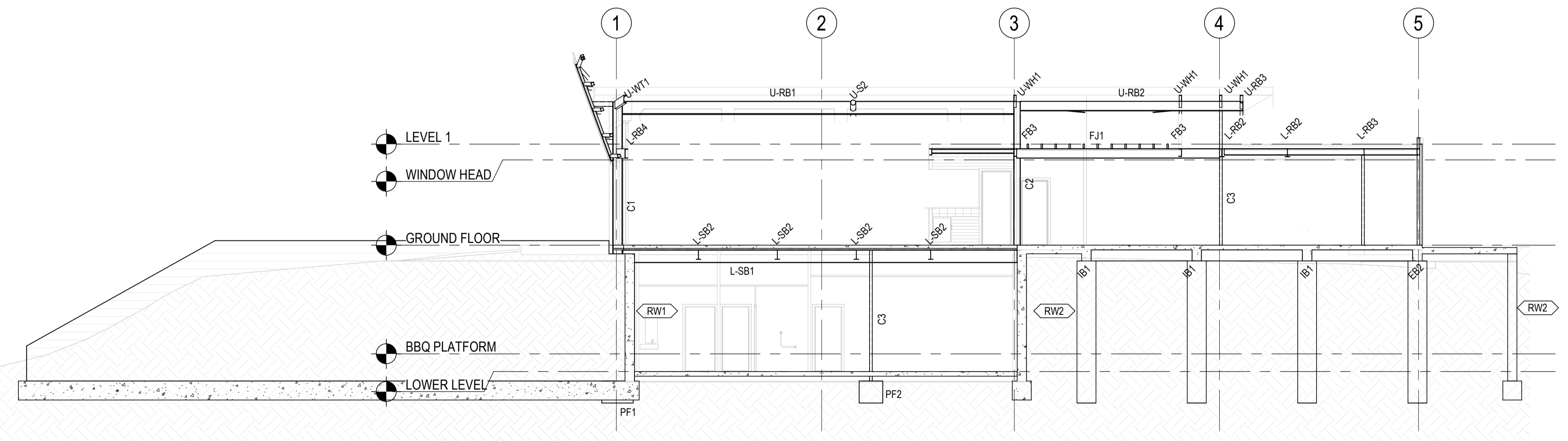
PARAPET FRAMING ELEVATION

SCALE - 1 : 100



A SECTION

ST-098-10 SCALE - 1 : 100



B SECTION

ST-098-10 SCALE - 1 : 100

Issue/Revision	By	Appd	YYYY.MM.DD
B PRELIMINARY ISSUE		ID	KB 2023.10.27
A PRELIMINARY ISSUE		ID	KB 2023.10.24

File Name: N/A	SJ	ID	KB	2023.10.27
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Issue Status

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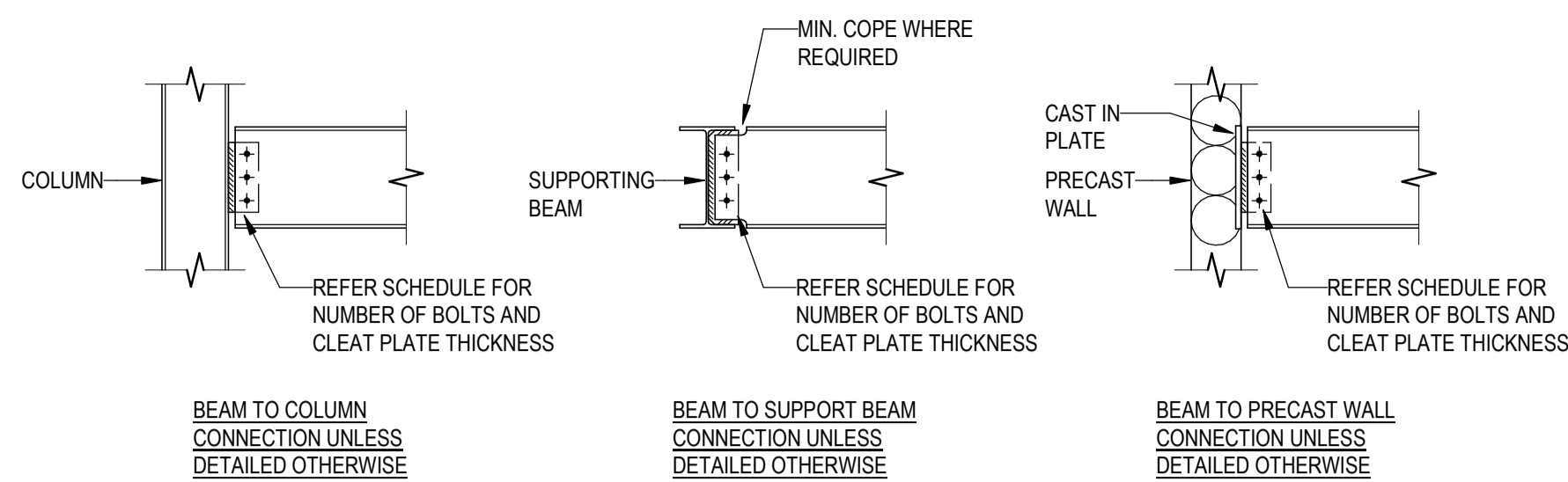


Client/Project
TOWONG SHIRE

BELLBRIDGE BOATHOUSE

Title
STEELWORK FRAMING ELEVATIONS

Project No.	Scale
301151577	1 : 100
Revision	Drawing No.
B	ST-102-60

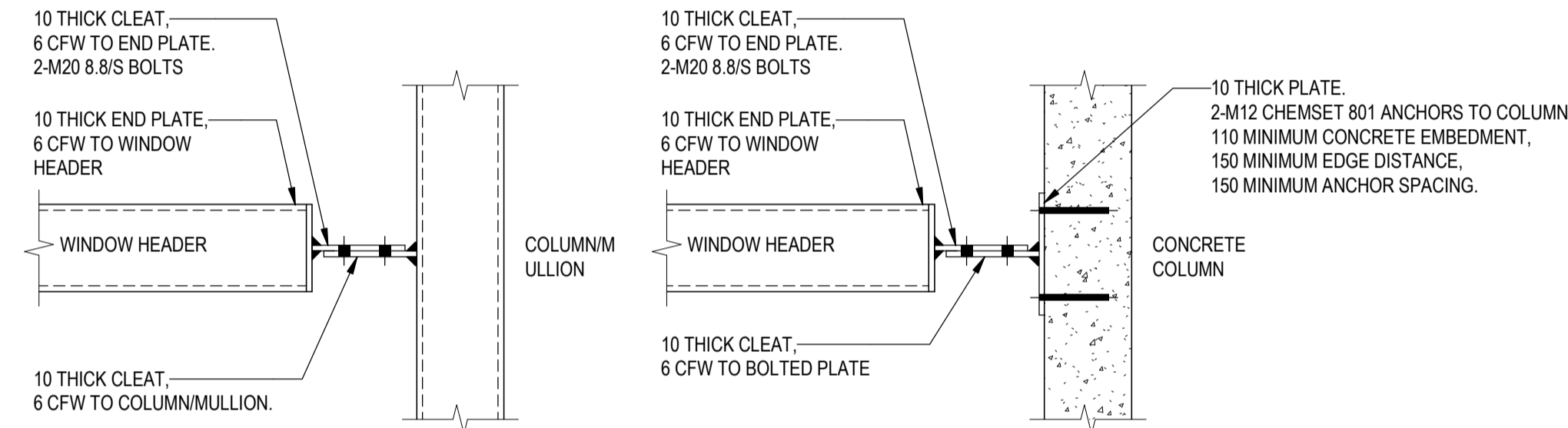


WEB SIDE PLATES
(REFER SCHEDULE BELOW FOR CLEAT PLATE AND BOLT DETAILS)

BEAM SIZE	CLEAT PLATE	No. BOLTS	BEAM SIZE	CLEAT PLATE	No. BOLTS	BEAM SIZE	CLEAT PLATE	No. BOLTS
800 WB	16mm	9	360 UB	10mm	3	380 PFC	10mm	4
700 WB	16mm	8	310 UB	10mm	3	300 PFC	10mm	3
610 UB	16mm	7	250 UB	10mm	2	250 PFC	10mm	2
530 UB	12mm	6	200 UB	10mm	2	230 PFC	10mm	2
460 UB	12mm	5	180 UB	10mm	2	200 PFC	10mm	2
410 UB	12mm	4	150 UB	10mm	2	180 PFC	10mm	2
						150 PFC	10mm	2

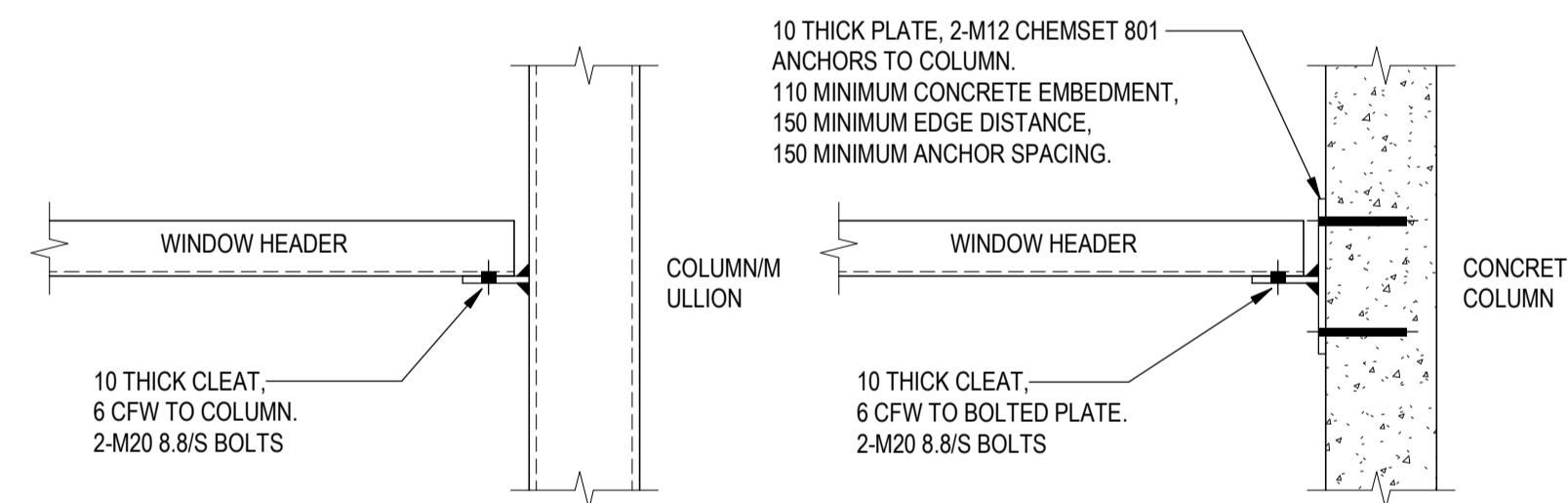
BEAM / RAFTER / COLUMN CONNECTION DETAILS U.N.O.

- NOTE:
- ALL STEELWORK GRADE 300 PLUS
 - ALL EXTERNAL STEELWORK TO BE HOT DIPPED GALVANISED
 - ALL CLEAT PLATES GRADE 250 U.N.O.
 - ALL BOLTS M20 8.8/S U.N.O.
 - ALL WELDS (SP) 6mm CONTINUOUS FILLET (CFW) U.N.O.



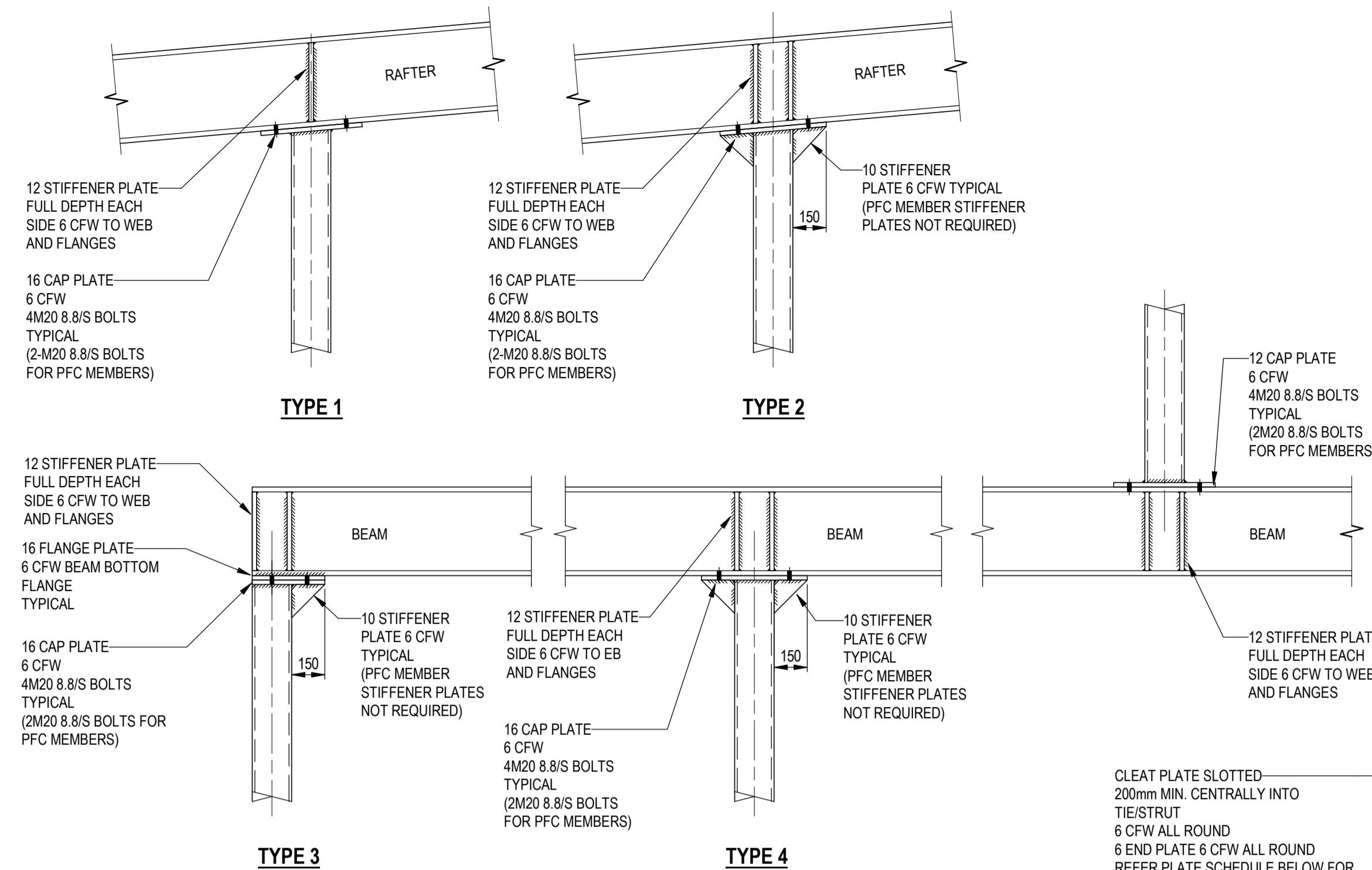
RHS/SHS WINDOW HEADER TO STEEL COLUMN

RHS/SHS WINDOW HEADER TO CONCRETE COLUMN



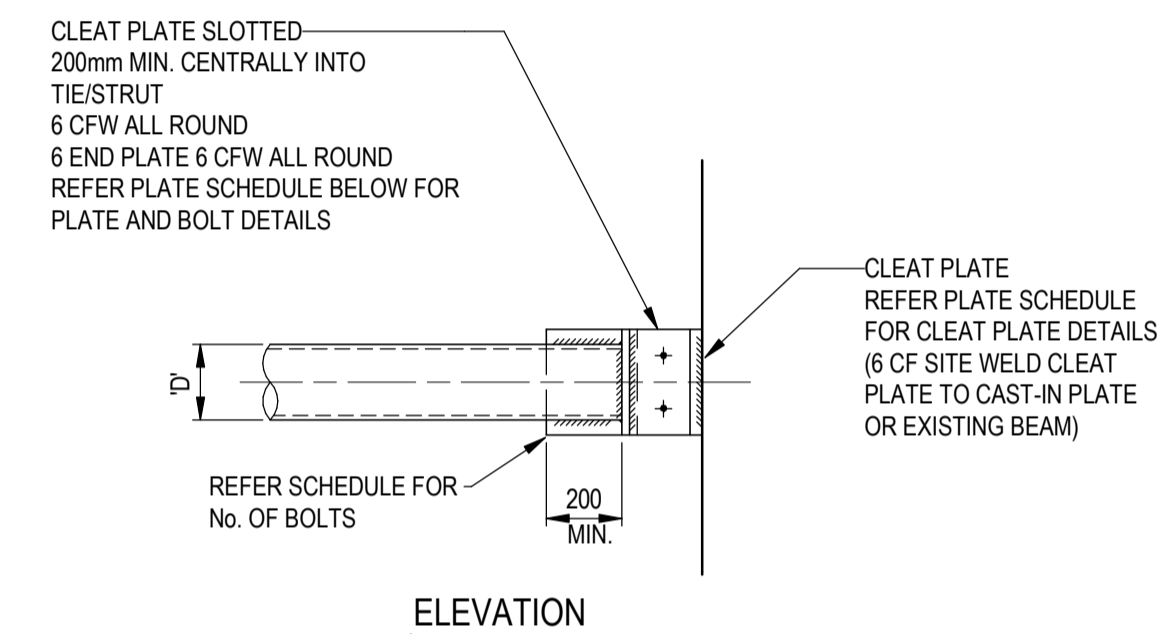
PFC WINDOW HEADER TO STEEL COLUMN

PFC WINDOW HEADER TO CONCRETE COLUMN



TYPICAL BEAM/RAFTER TO STEEL COLUMN DETAILS U.N.O.

NTS

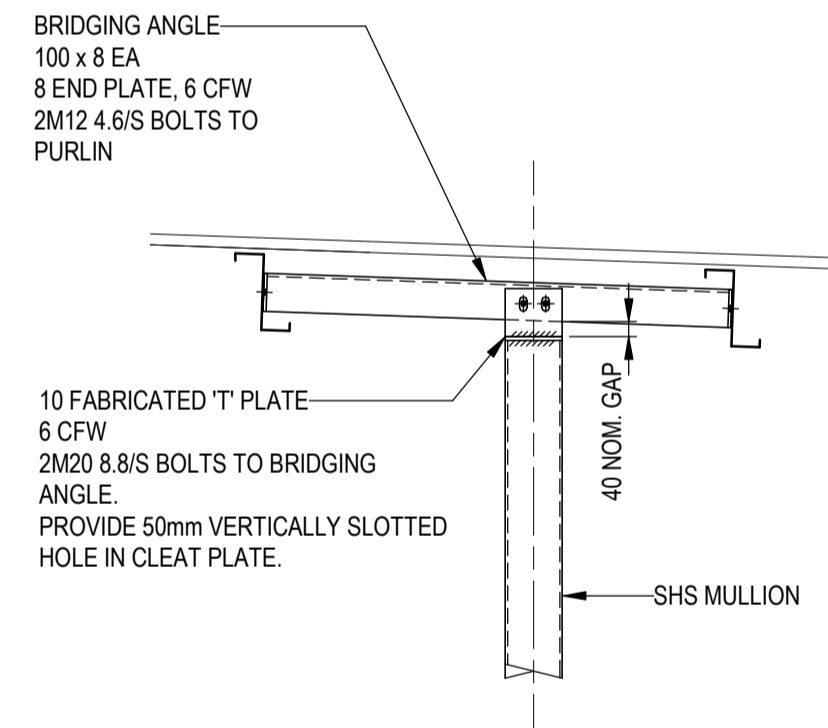


ELEVATION

STRUT SIZE (D)			PLATES	BOLTS
75 SHS	75 RHS	76 CHS	10 PLATES	2-M20 8.8/S
90 SHS	100 RHS	89 CHS	10 PLATES	2-M20 8.8/S
100 SHS	125RHS	102/114 CHS	10 PLATES	2-M20 8.8/S
125 SHS	127 RHS	127/139 CHS	10 PLATES	2-M20 8.8/S
150 SHS	150 RHS	152/165 CHS	16 PLATES	3-M24 8.8/S
200/250 SHS	200 RHS	168/219 CHS	16 PLATES	3-M24 8.8/S

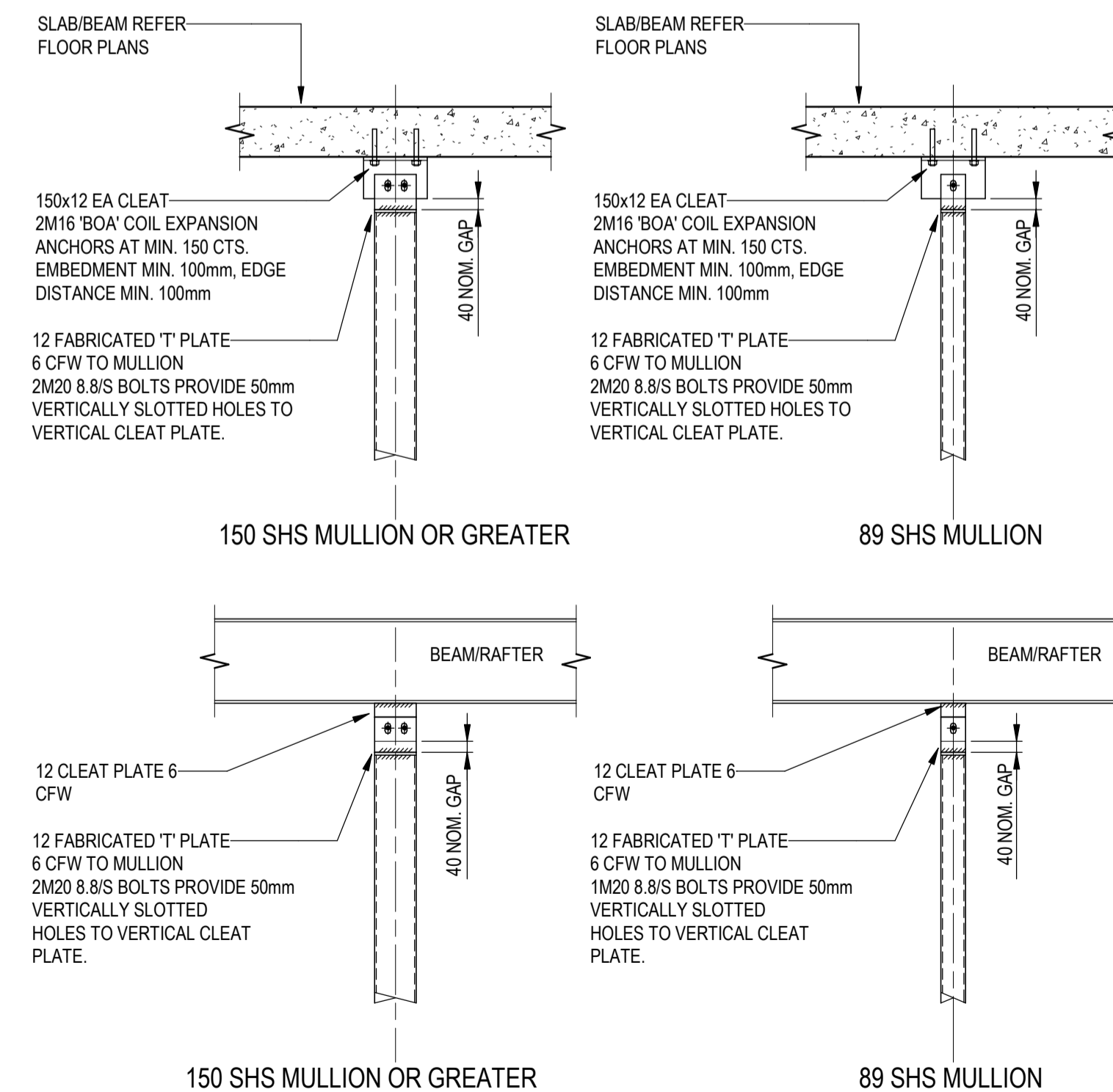
TYPICAL STRUT/TIE DETAILS U.N.O.

NTS



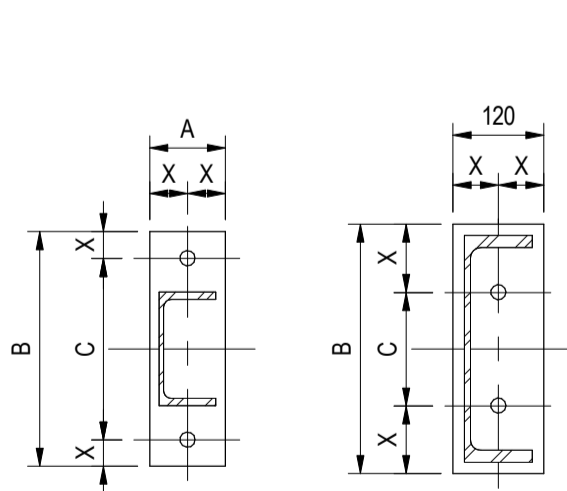
MULLION TOP DETAIL TO PURLINS

NTS



NON-LOADBEARING MULLION DETAILS

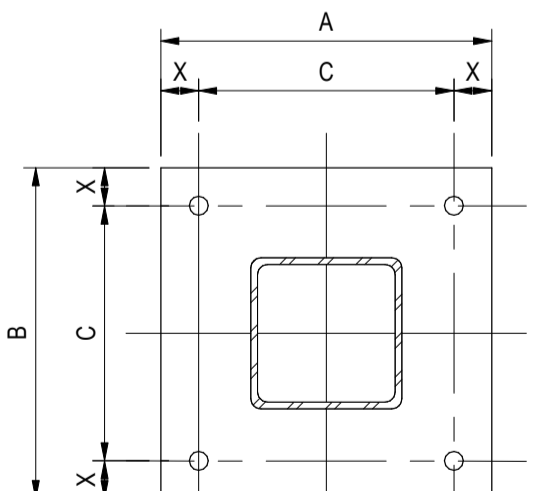
NTS



TYPICAL PFC BASE PLATE DETAIL
N.T.S.

PFC BASE PLATE SCHEDULE							
COLUMN SIZE	A	B	C	x	T	BOLTS	
75PFC	60	220	145	#	8	2	M12
100PFC	80	240	170	#	8	2	M12
125PFC	90	265	195	#	8	2	M16
150PFC	100	300	220	#	10	2	M16
180PFC	100	320	250	#	10	2	M20
200PFC	100	230	100	#	10	2	M20
230PFC	100	260	100	#	12	2	M20
250PFC	120	280	100	#	16	2	M20
300PFC	120	330	150	#	20	2	M24
380PFC	130	410	150	#	25	2	M24

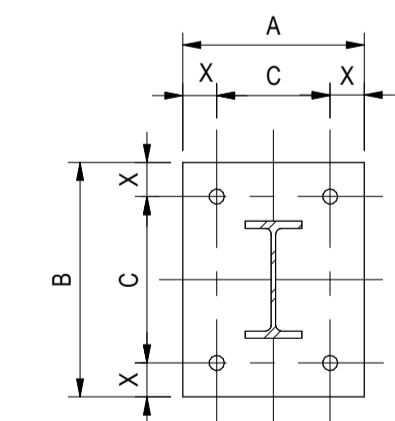
x TO BE SYMMETRICAL ABOUT CENTRE OF BASE PLATE
MINIMUM COLUMN BASE PLATES U.N.O.



TYPICAL SHS BASE PLATE DETAIL
N.T.S.

SHS COLUMN BASE PLATE SCHEDULE							
COLUMN SIZE	A	B	C	x	T	BOLTS	
50x50	200	200	110	#	10	4	M12
75x75	200	200	120	#	10	4	M12
89x89	250	250	150	#	10	4	M16
100x100	250	250	160	#	10	4	M16
125x125	300	300	210	#	12	4	M20
150x150	300	300	210	#	16	4	M20
200x200	350	350	270	#	20	4	M20

x TO BE SYMMETRICAL ABOUT CENTRE OF BASE PLATE
MINIMUM COLUMN BASE PLATES U.N.O.



TYPICAL UB BASE PLATE DETAIL
N.T.S.

UNIVERSAL BEAM BASE PLATE SCHEDULE							
COLUMN SIZE	A	B	C	D	x	T	BOLTS
150UB	240	310	150	220	#	10	4-M12
180UB	250	340	160	250	#	10	4-M12
200UB	300	360	210	270	#	10	4-M16
250UB	220	320	120	120	#	10	4-M16
310UB	230	370	120	170	#	12	4-M20
360UB	250	420	140	220	#	16	4-M20
410UB	260	470	140	270	#	20	4-M20
460UB	260	520	140	320	#	20	4-M20
530UB	290	600	160	350	#	25	4-M24
610UB	290	670	160	420	#	25	4-M24

x TO BE SYMMETRICAL ABOUT CENTRE OF BASE PLATE
MINIMUM COLUMN BASE PLATES U.N.O.

Author	Designer	Checker	10/27/23
			YYYY.MM.DD

Issue Status

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Client/Project Logo



Client/Project
TOWONG SHIRE

BELLBRIDGE BOATHOUSE

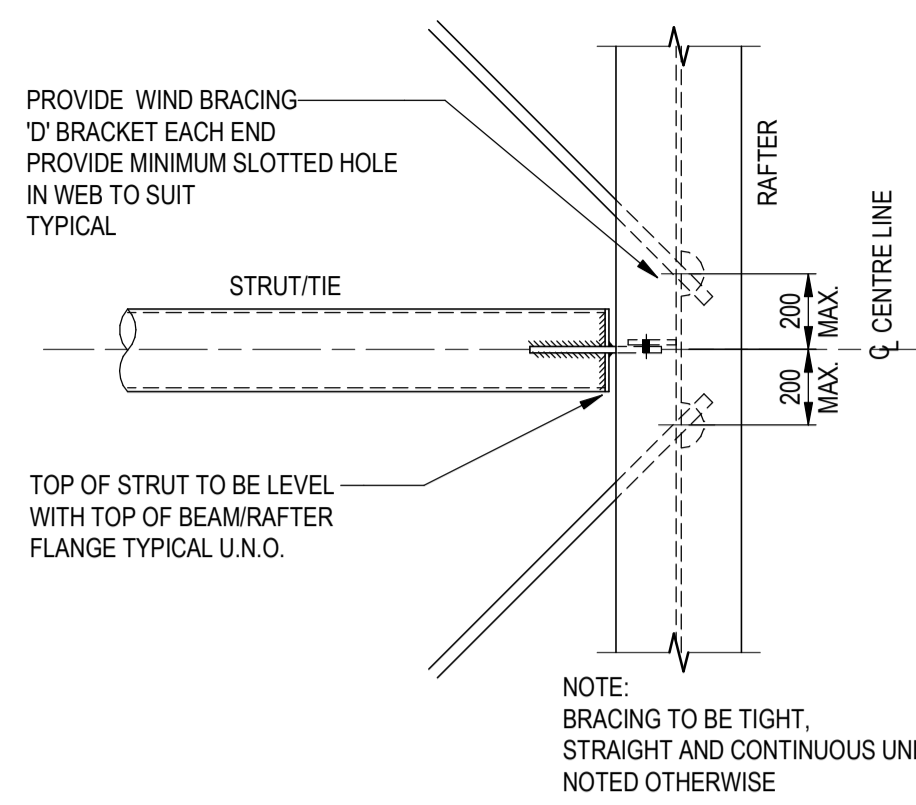
Title
STEELWORK FRAMING DETAILS SHEET 1

Project No.
301151577

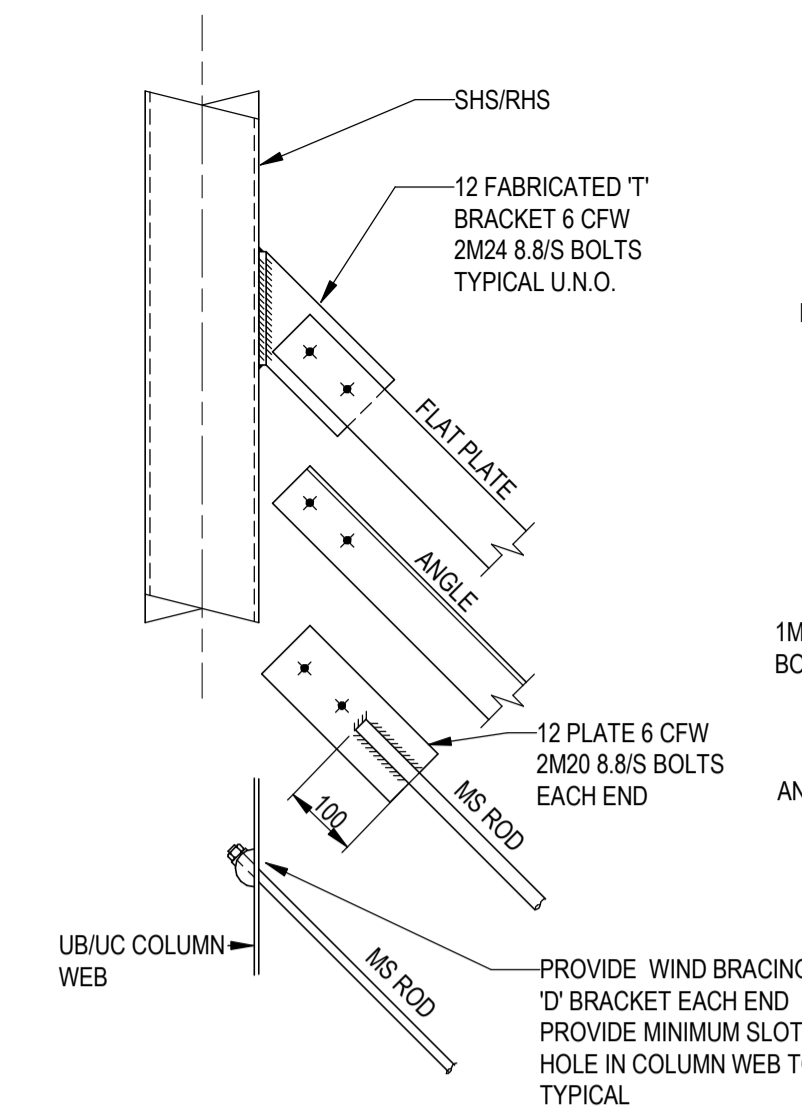
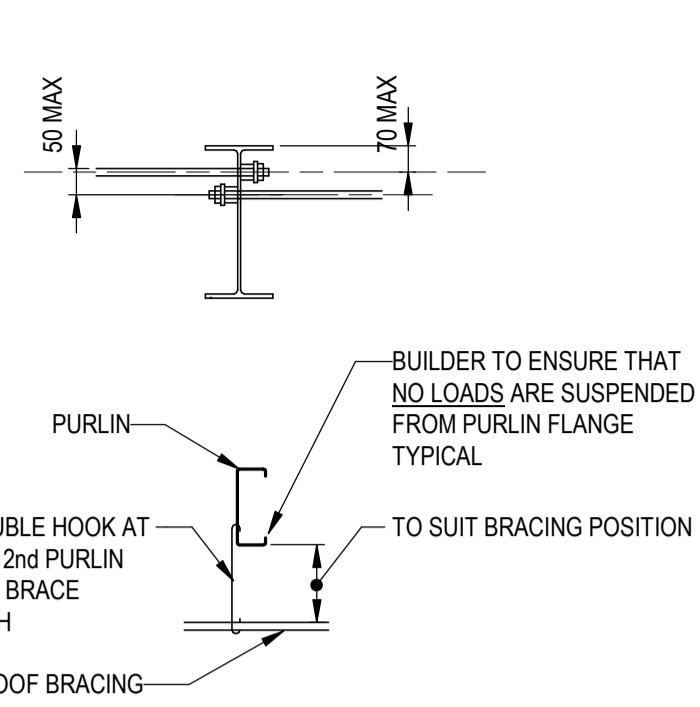
Scale
As indicated

Revision
A

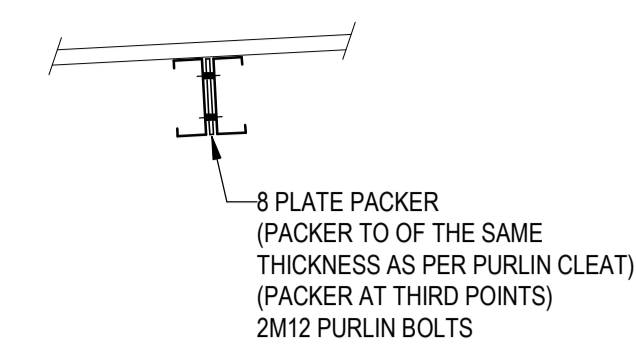
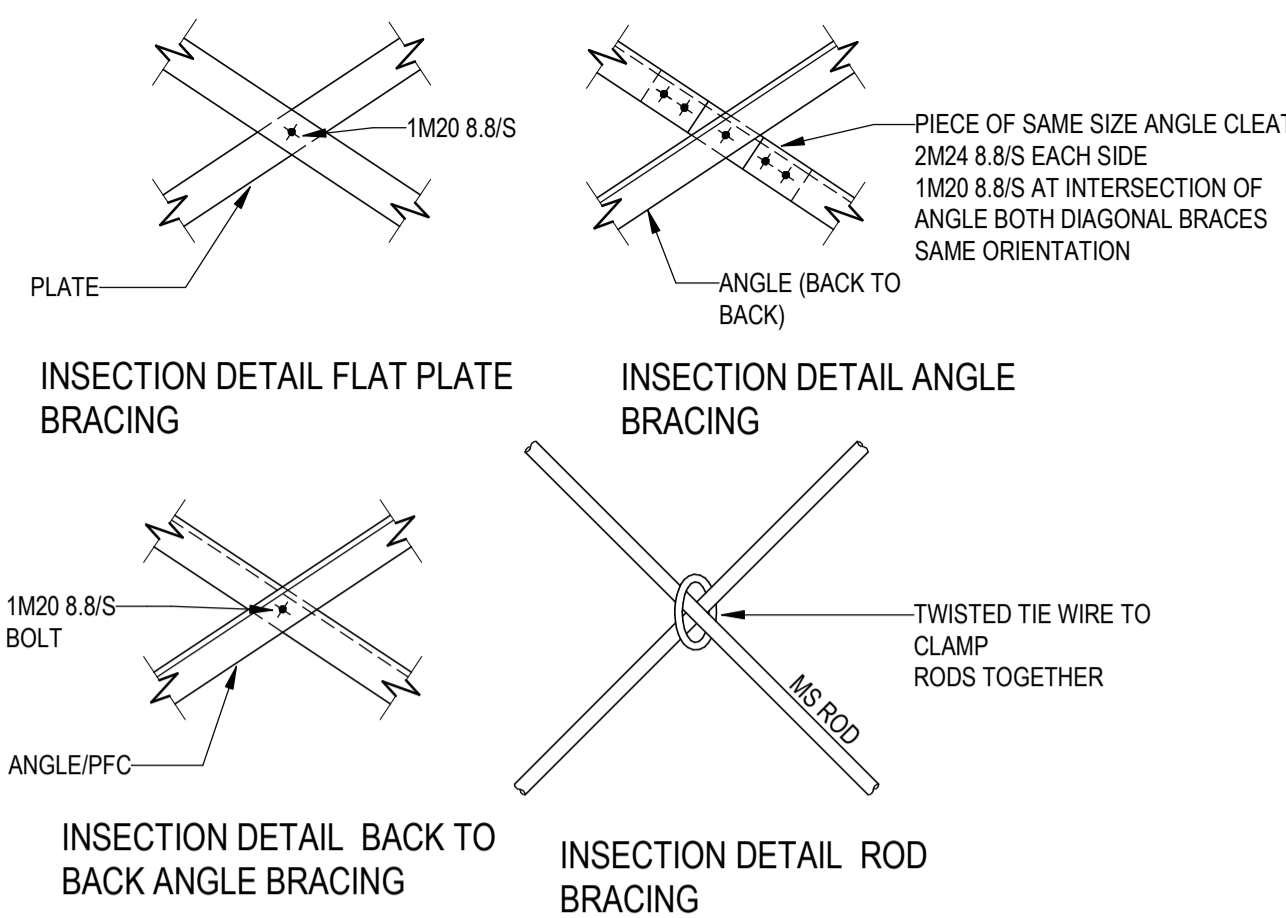
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ST-102-70



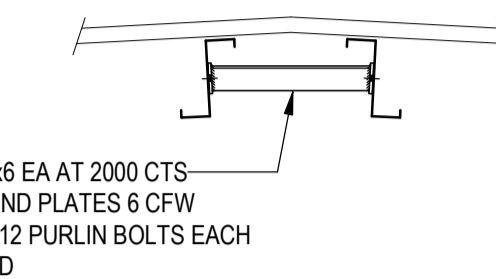
TYPICAL ROD ROOF BRACING DETAILS
NTS



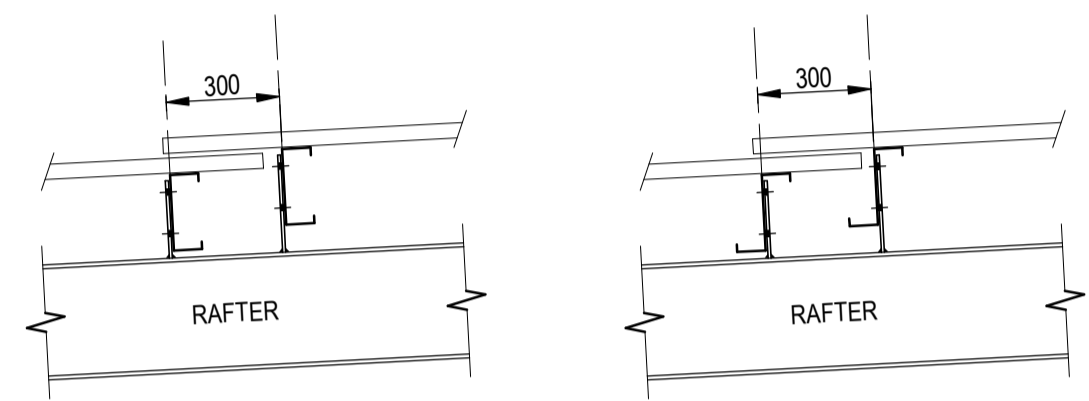
TYPICAL BRACING DETAILS
NTS



DOUBLE PURLIN DETAIL
NOTE: ADDITIONAL PURLIN ON HIGH SIDE
NTS



RIDGE DETAIL
NTS

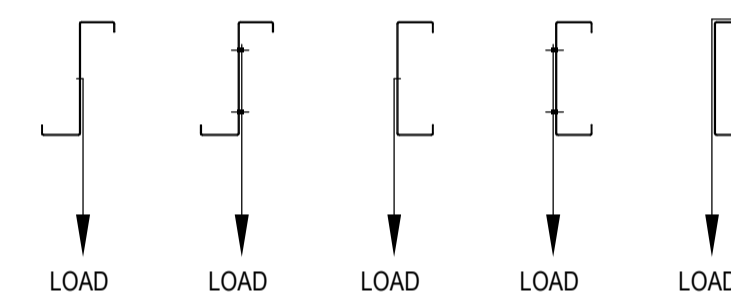


TYPICAL ROOF EXPANSION JOINT DETAILS
NTS

SUSPENDING LOADS FROM PURLINS

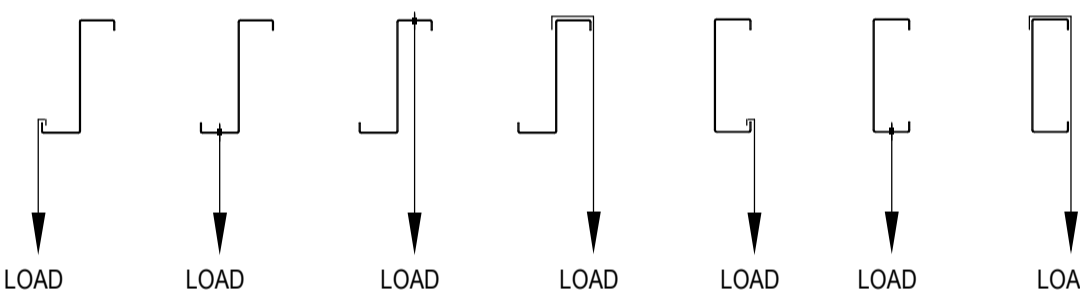
CEILINGS, SERVICES, ETC WHICH ARE SUSPENDED FROM PURLINS SHALL BE FIXED TO THE PURLINS WEBS ONLY. NO LOADS SHALL BE SUSPENDED FROM, OR HOLES DRILLED THROUGH, PURLIN FLANGES. WHERE NECESSARY TO HANG CEILINGS, SERVICES PIPES, DUCTWORK, ETC FROM STANDARD PURLINS THE BUILDER SHALL ONLY USE THE FOLLOWING APPROVED METHODS. REFER TO MANUFACTURER FOR APPROVED METHODS OF SUPPORTING LOADS FROM DOUBLE PURLINS.

APPROVED METHODS OF SUSPENDING FROM PURLINS

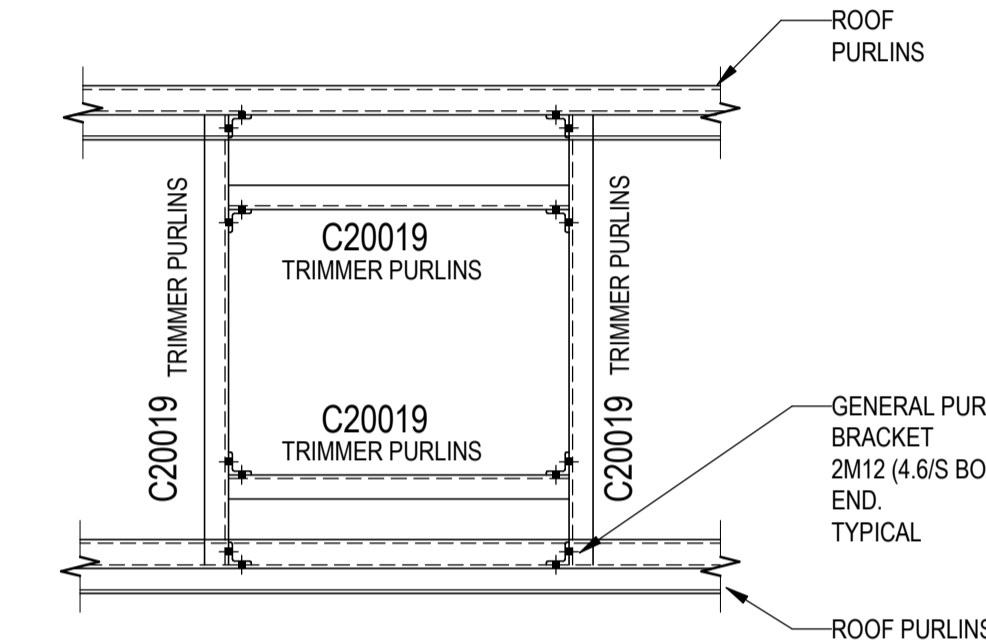


NON-APPROVED METHODS OF SUSPENDING FROM PURLINS

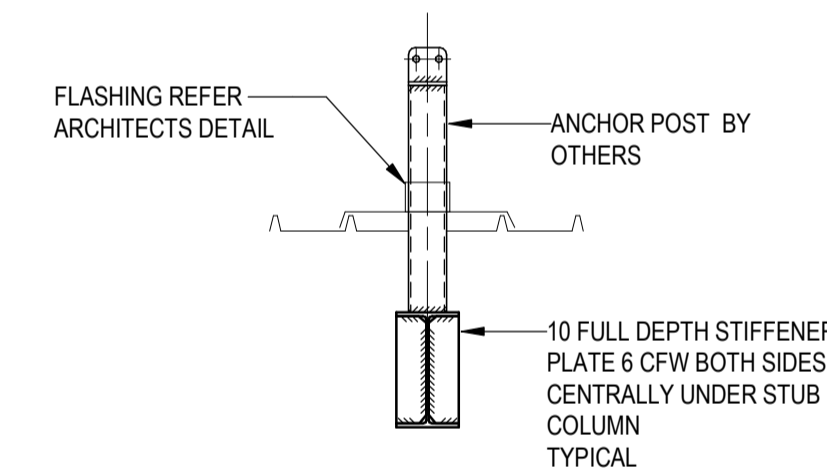
THE BUILDER SHALL NOT USE ANY OF THE FOLLOWING METHODS OF SUSPENSION



IF IN DOUBT OBTAIN APPROVAL FROM THE PROJECT ENGINEER FOR THE PROPOSED FIXING METHOD PRIOR TO COMMENCING ANY INSTALLATION. NOTE PARTICULARLY - LOAD SUSPENSION FROM PURLIN BRIDGING IS NOT PERMITTED.

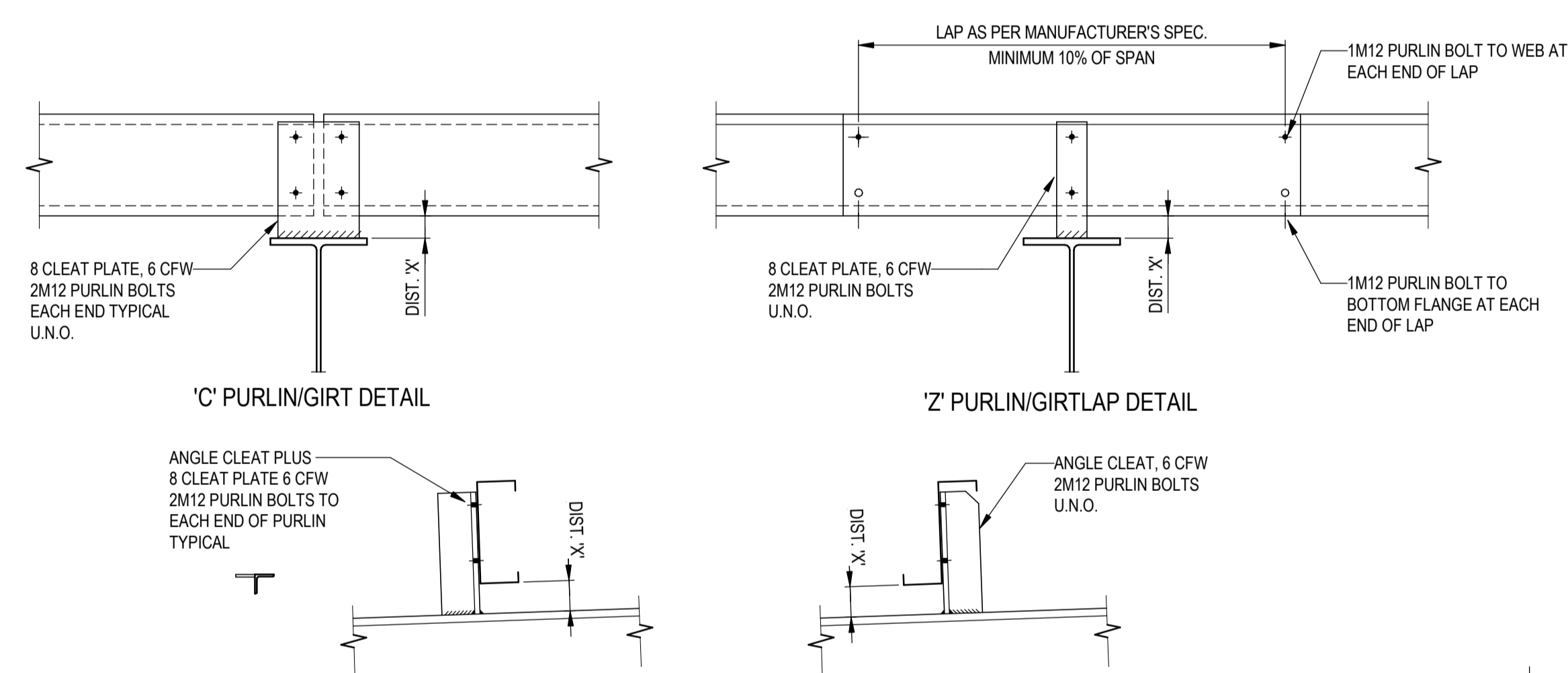


TYPICAL ROOF PENETRATION TRIMMER DETAIL
NTS



SAFETY ANCHOR POST DETAIL
NTS

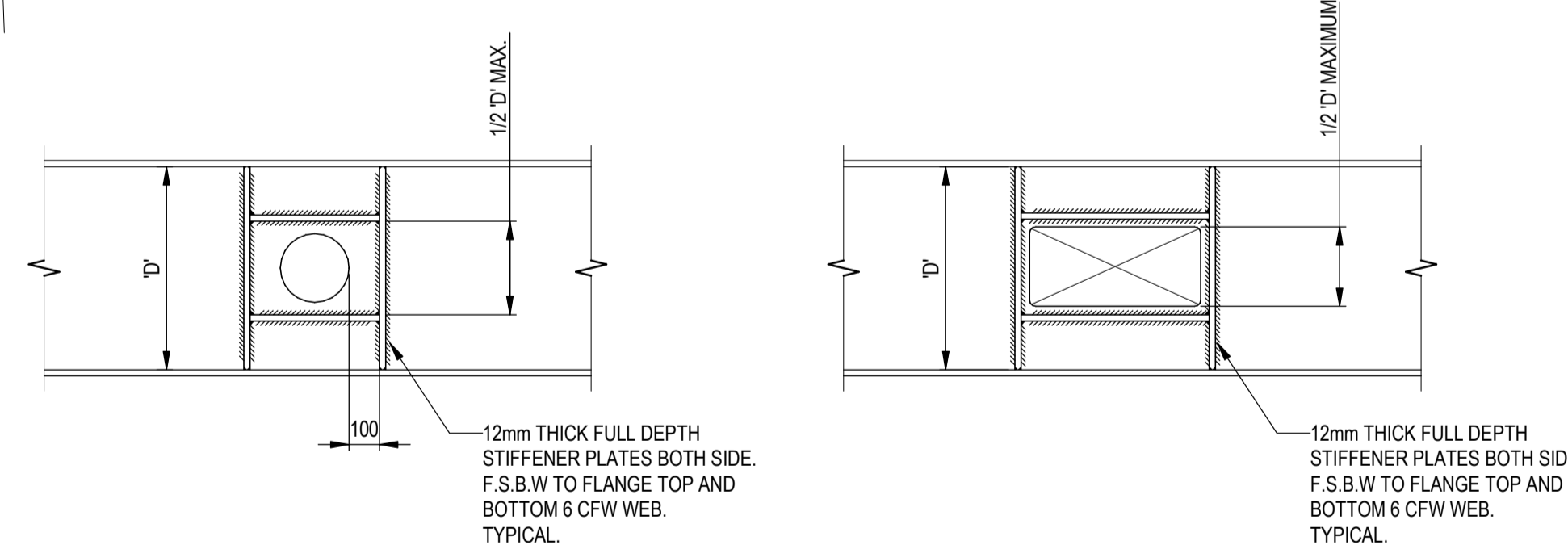
NOTE:
1. REFER TO CONSULTANT AND ARCHITECTS DRAWINGS FOR SAFETY ANCHOR LOCATIONS.
2. REFER CONSULTANT FOR SAFETY ANCHOR POSTS AND CONNECTION TO SUPPORT STEELWORK.



ANGLE CLEAT DETAILS

PURLIN CLEAT SCHEDULE	
CLEAT HEIGHT DIST 'X'	CLEAT
UP TO 50mm	8 PLATE
50mm TO 100mm	10 PLATE
100mm TO 250mm	75 x 10 EA
250mm AND OVER	90 x 12 EA

300mm DEEP PURLIN/GIRT SECTIONS SHALL HAVE A MINIMUM 12mm THICK CLEAT AND M16 PURLIN BOLTS (REFER MANUFACTURER'S SPECIFICATIONS).



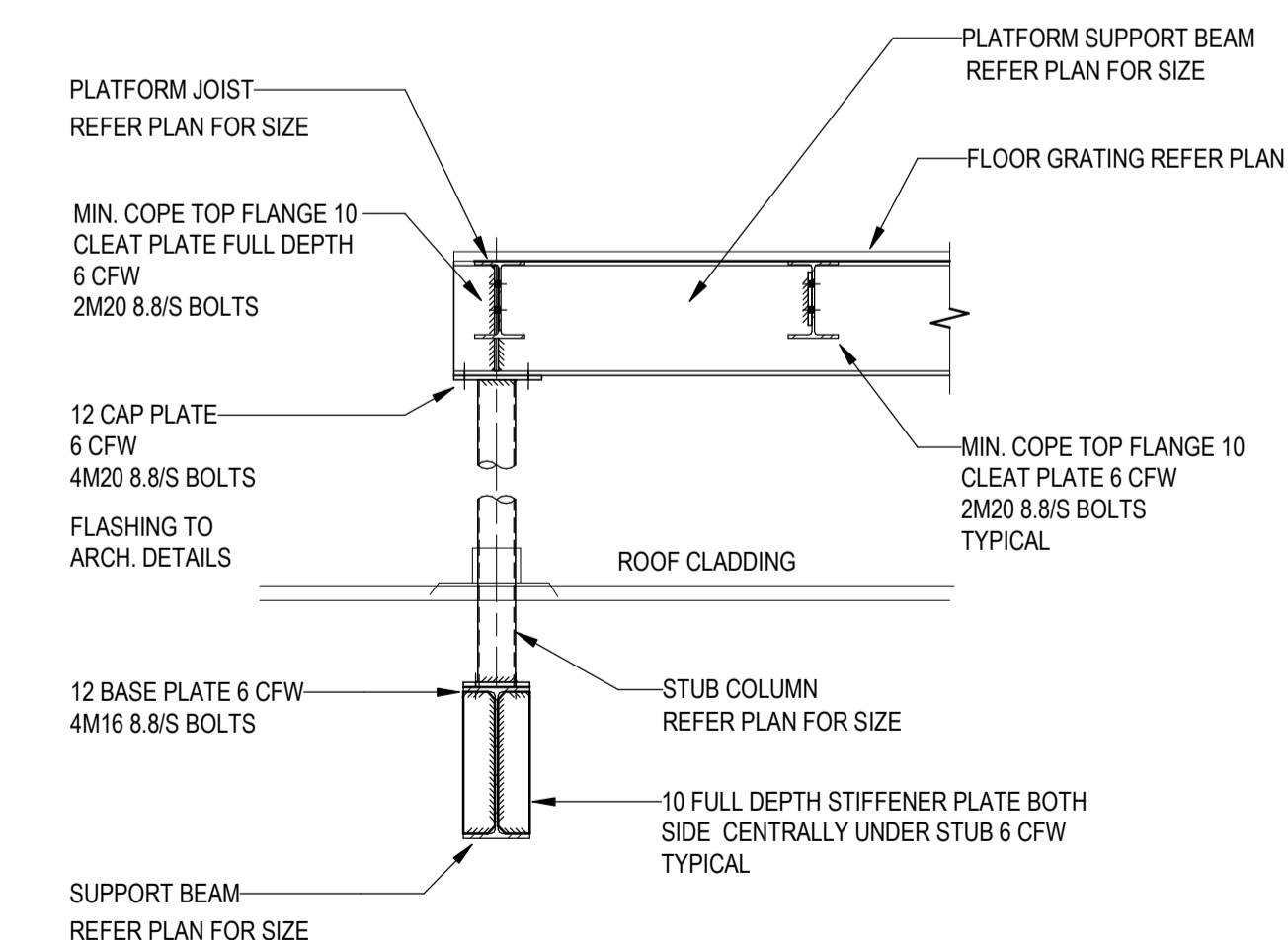
REFER SERVICES DRAWINGS FOR LOCATIONS SERVICE PIPE PENETRATIONS

REFER SERVICES DRAWINGS FOR LOCATIONS A/C DUCTS PENETRATION
NOTE
WHERE BEAM SIZE RESTRICTS SPACE BETWEEN UNDERSIDE OF BEAM AND TOP OF SUSPENDED CEILING GRID FRAMEWORK.

TYPICAL STEEL BEAM PENETRATION DETAILS
NTS

GIRT WALL MEMBER SCHEDULE U.N.O.				
SPAN	SIZE	SPACING MAXIMUM	BRIDGING / SAG RODS	REMARKS
0 - 4200	C15015	900	1No ROW OF BRIDGING	-
4200 - 6000	C20015	900	2No ROWS OF BRIDGING	-
6000 - 8400	C25019	900	2No ROW OF BRIDGING	-
8400 - 9200	C25024	600	3No ROWS OF BRIDGING	-

NOTES:
1. ALTERNATIVELY PROVIDE CONTINUOUS ZED SECTION LAPPED AT COLUMN LOCATIONS (REFER TO MANUFACTURER'S SPECIFICATIONS FOR LAP DIMENSIONS AND INSTALLATION DETAILS)
2. PROVIDE BRIDGING STRUTS AND 12mm DIAMETER DIAGONAL SAG RODS (REFER TO MANUFACTURER'S SPECIFICATIONS AND INSTALLATION DETAILS)
3. CONNECTION OF SAG ROD TO GIRT PROVIDE 'D' WASHER EACH END (BENDING OF SAG ROD IS NOT PERMITTED) REFER PURLIN/GIRT CONNECTION DETAILS FOR CLEAT PLATE AND BOLTS SCHEDULE



TYPICAL MECHANICAL PLATFORM DETAIL
UNLESS DETAILED OTHERWISE REFER ARCHITECT AND MECHANICAL DRAWINGS
N.T.S.

Author	Designer	Checker	Date

Issue/Revision	By	Appd	Date
A - PRELIMINARY ISSUE			2023.10.27

Issue Status

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Client/Project
TOWONG SHIRE

BELLBRIDGE BOATHOUSE

Title
STEELWORK FRAMING DETAILS SHEET 2



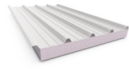
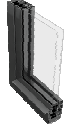
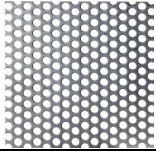

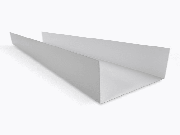



Project No.	Scale
301151577	As indicated
Revision	Drawing No.
A	ST-102-71




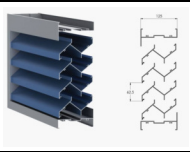
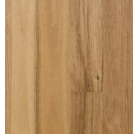


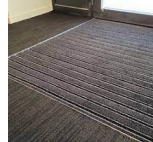

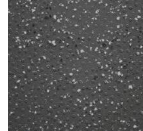

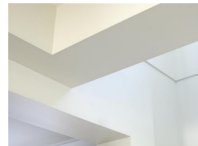
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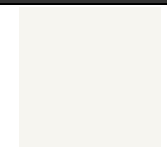


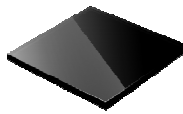
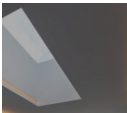







Design Development


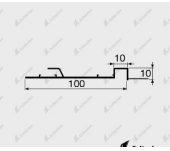
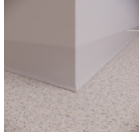

DESCRIPTION	PRODUCT	SUPPLIER	FINISH	COLOUR	SUPPLIED & INSTALLED BY	IMAGE	REV
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Note: Contractor to allow for required lead time of selected items
Confirm all quantities with Detailed Drawings prior to Tender and Ordering

EXTERNAL FINISHES							
	Concrete precast panels	Concrete		Horizontal pressed panel to represent rammed earth		Contractor	 0
	Timber Cladding External Walls External Soffit Columns	Spotted gum timber cladding 122 x 19mm	Nation wide timber	Clear penetrative sealer over	Natural	Contractor	 0
	Structurally insulated roof panels	BAL 29 Rated insulated panels	Bondor or similar	Colorbond Steel	SURFMIST	Contractor	 0
	Capral Aluminium Window & Door Frames	Thermally Broken Aluminium Frames	Capral	Powdercoat	MATT NIGHT SKY	Contractor	 0
	Perforated Screens	Aluminium powdercoated Screen VARIOUS PROFILES	Locker group	Powdercoat	Various	Contractor	 0
	Rainwater Head and Sump.	R-300 Rectangular including optional top trim	Dam Buster	Colorbond	NIGHTSKY	Contractor	 0
	Box gutters	Colorbond Steel	Lysaght or similar	Colorbond	Surfmist	Contractor	 0
	Downpipes	100MM Round PVC	Generic	Paint	Surfmist	Contractor	 0
	Eave Gutters	Half Round w exposed brackets	Generic	Colorbond	Surfmist	Contractor	 0
	Barge Capping & Flashings	Colorbond Steel	Lysaght	Colorbond	Surfmist	Contractor	0
	Hand rails	Stainless steel hand rails		Polished	Stainless Steel	Contractor	 0

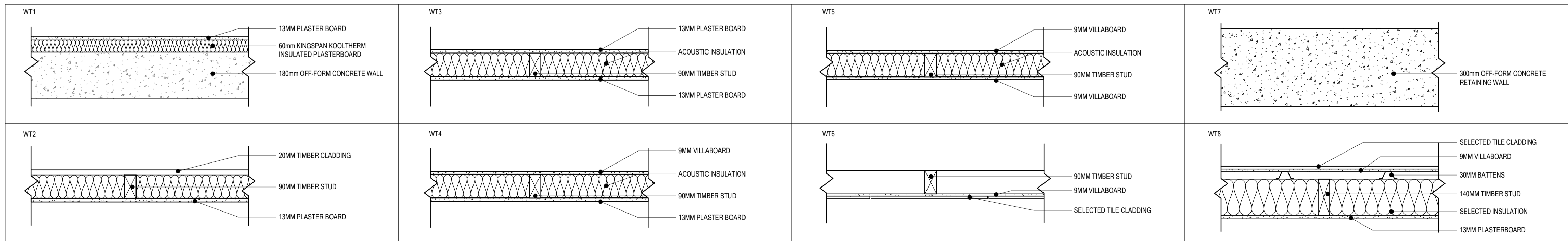
DESCRIPTION	PRODUCT	SUPPLIER	FINISH	COLOUR	SUPPLIED & INSTALLED BY	IMAGE	REV
Concrete Paving Feature - Pedestrian Street Entry & Building Main Entry	Exposed Aggregate Feature	generic	Clear penetrative sealer over	Brighton Lite cement with white sand and black & quartz pebble mix aggregate	Contractor		0
BBQ Batten Screen Public WC	Spotted gum Battens	Nation wide timber	Clear penetrative sealer over	Natural	Contractor		0
ENTRY WALL TILES PUBLIC WC VANITY WALL TILES WINDOW HEAD SECTIONS	Tech Lab Evo Charcoal Natural Tile	National Tiles	300 x 600		Contractor		0
Mechanical Louvres	Weatherproof Louvres	LouvreClad	50% free open area	Surfmist	Contractor		
FLOORING							
Timber Veneer Floor Planks			Blackbutt		Contractor		0
Burnished Concrete					Contractor		0
KITCHEN FLOORS	NON SLIP EPOXY FLOOR		FLAKE		Contractor		0
Door way matting	ENTRY MAT	Gerflor			Contractor		0
Bathroom Floor Tiles	Hamilton Matte Charcoal Concrete Look Tile	Tile Cloud		Charcoal 600 x 600	Contractor		0
R11 Vinyl Floor	Floor Vinyl	Gerflor	Tarasafe Ultra H2o	7732 Gravel	Contractor		0
CEILING							
Acoustic ceiling panel	Au.diSlat timber slats Ax-20s 75mm slat	Aktar	Spotted Gum	Natural	Contractor		0
Plaster Board ceiling Note: Villaboard in wet areas	Boral plaster board	Boral	level 4	As Specified	Contractor		0

DESCRIPTION	PRODUCT	SUPPLIER	FINISH	COLOUR	SUPPLIED & INSTALLED BY	IMAGE	REV
PAINT							
Paint finish 1		Haymes Paint PH: 1800 033 431	New Life Paint Minimum 2 coats	Light Frost	Contractor		0
GLASS							
General Glazing	Windows	Viridian	Double glazed	Grey & Clear - refer window & door schedule	Contractor		0
General Glazing	MIRROR	VIRIDIAN	6MM SILVER	CLEAR	Contractor		0
Spandrel panels	Windows	VIRIDIAN	Gloss	Black	Contractor		0
CORNICES							
Square set to all bulkheads, ceiling voids, common & administration areas with plasterboard ceilings	Cornice Profile	Gyprock 1300306556	Tape or aluminium angle	Painted to match wall/ceiling	Contractor		0
Suspended Ceiling Wall Angle	Shadow Line Wall Angle	Armstrong World Industries Pty Ltd Ceiling Division Head Office Phone: (02) 9748 1588	PeakForm Prelude XL 24mm Exposed Tee: HBP784003	White	Contractor		0
INTERNAL FINISHES							
CAFE Timber batten cladding	spotted gum timber cladding	Modinex Half Dowel	Satin Clear polyurethane	Natural	Contractor		0
BAR CLADDING	Tech Lab Evo Charcoal Natural Tile	National Tiles	300 x 600		Contractor		0
Café Bench top	Stone bench top	Smartstone	Statuario Dior	Polished	Contractor		0
Bar Bench Top BAR SHELVES	Spotted Gum	Nation wide timber	Satin Clear polyurethane	Natural	Contractor		0
Kitchen Benches BAR BENCH	Stanless Steel		304/4 Stainless steel		Contractor		0
Splash back tile - generally	Sub way tile 300 x 100	National Tiles	Subway tile; Café cool grey gloss tile	Code- NT18-1120WP	Contractor		0

	DESCRIPTION	PRODUCT	SUPPLIER	FINISH	COLOUR	SUPPLIED & INSTALLED BY	IMAGE	REV
	KITCHEN SPLASH BACK	Stainless steel		304/4 Stainless steel		Contractor		0
MISCELLANEOUS								
	Tactiles	Tactile Pads	Barrier Group 58-62 Separation St. North Geelong 03 5277 1098	Product Range: Warning Tactile Pad 300 x 300mm - Black TPU	Product Code: BTW104-TPUB	Contractor		0
FSK.01	Powdercoated skirting	DECORUM SHADOWLINE SKIRTING	Criterion Industries	CI-2390 CI-2391	Natural Anodised	Contractor		0
FSK.02	Skirting to Wet Areas NOT INCLUDING DISABLED	To all vinyl flooring not including disabled and showers	Generic	Floor to be covered	Light Grey 100mm	Contractor		0
FSK.03	Skirting to DISABLED and showers	Pencil round cove with PVC Capping strips P1509 to all skirting (suitable for non-vinyl lined walls)	Gerflor	Floor to be covered & Capped	4203 Gris	Contractor	 Capping Strips P1509 Width: 5 mm	0



WALL TYPE LEGEND



ARCHITECTURAL DRAWING LIST

A000	COVER
A100	EXISTING SITE CONDITIONS
A101	SITE PLAN
A102	FLOOR PLAN
A103	LOWER GROUND
A104	CLERESTORY LEVEL
A105	RCP
A106	LOWER RCP
A107	ROOF PLAN
A108	CARPARK LAYOUT
A200	ELEVATIONS
A300	SECTIONS 1
A301	SECTIONS 2
A400	INTERNAL ELEVATIONS 1
A401	INTERNAL ELEVATIONS 2
A402	INTERNAL ELEVATIONS 3
A500	DETAILS- ENTRY STRUCTURE
A501	DETAILS 1
A502	DETAILS 2
A700	SCHEDULES
A800	PERSPECTIVE VIEWS

DESIGN DEVELOPMENT

ISSUE	DESCRIPTION	DATE

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NORTH

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COVER

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BELLBRIDGE BOATHOUSE

CLIENT
TOWONG SHIRE

DATE: 03/11/2023
 DRAWN: JM
 CHECKED: DH
 JOB NO: G23009
 SCALE: 1:10 @ A1

DRAWING NO:
A000
 REVISION



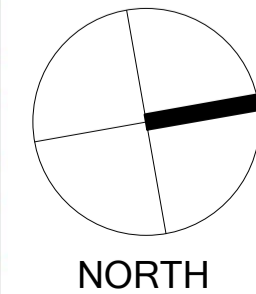
DESIGN DEVELOPMENT

ISSUE	DESCRIPTION	DATE

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EXISTING SITE CONDITIONS

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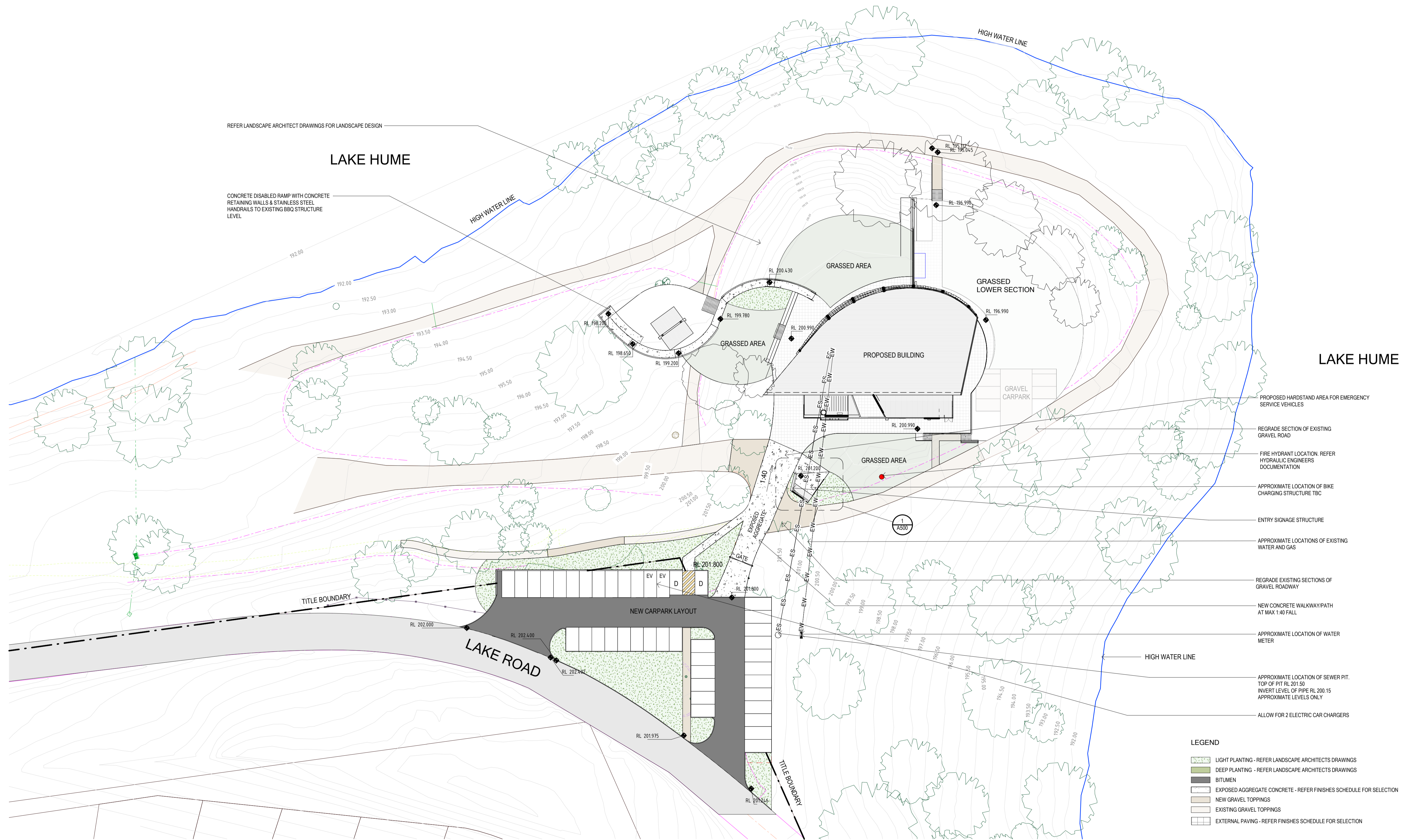
PROJECT
BELLBRIDGE BOATHOUSE

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A100

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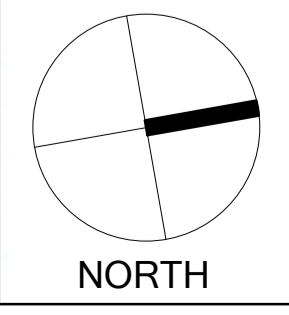
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 SITE PLAN
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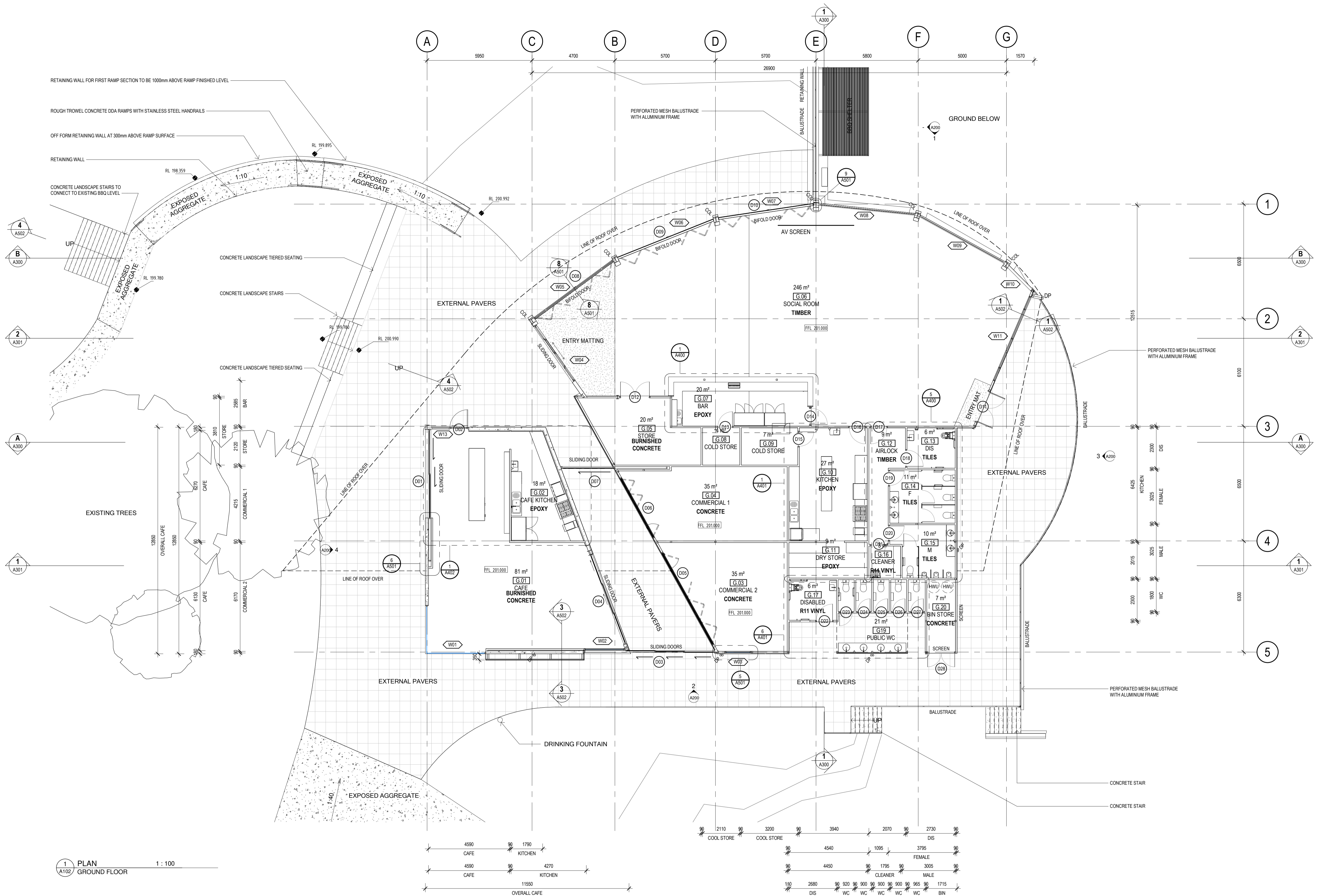
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DRAWING NO:
 A101

REVISION



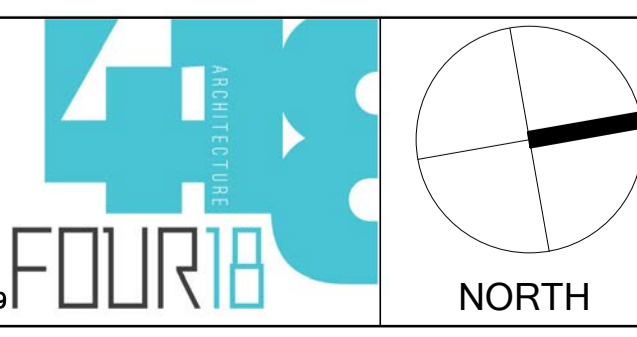
DESIGN DEVELOPMENT

ISSUE	DESCRIPTION	DATE

1 PLAN
A102 GROUND FLOOR
1 : 100

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FLOOR PLAN

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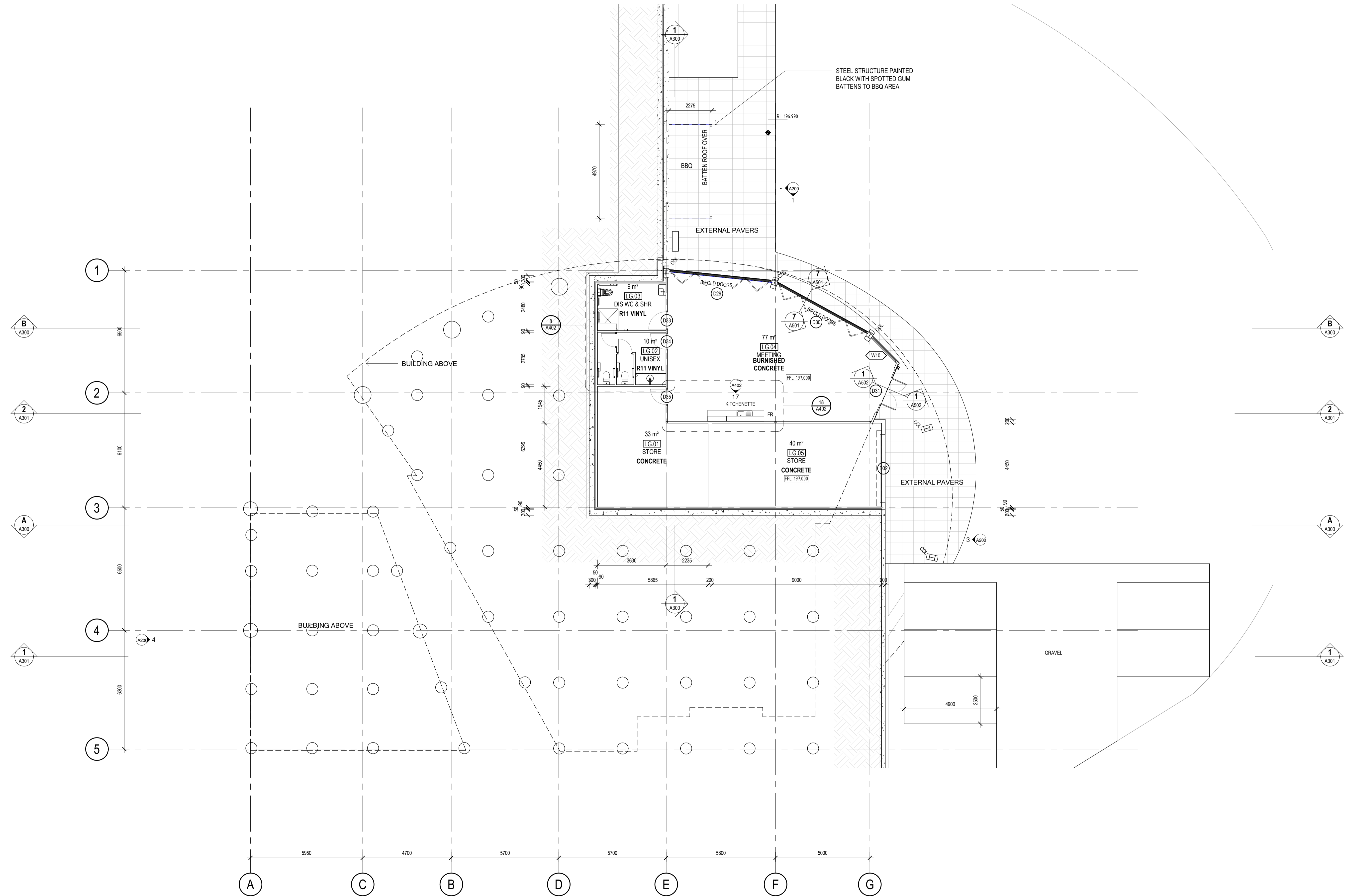
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JOB NO: G23009
SCALE: 1:100 @ A1

DRAWING NO:
A102


REVISION



DESIGN DEVELOPMENT

ISSUE	DESCRIPTION	DATE

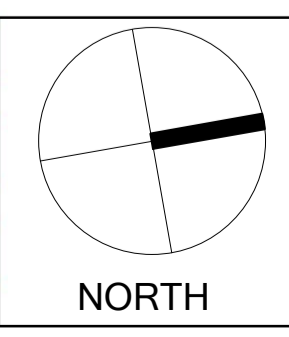
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LOWER GROUND

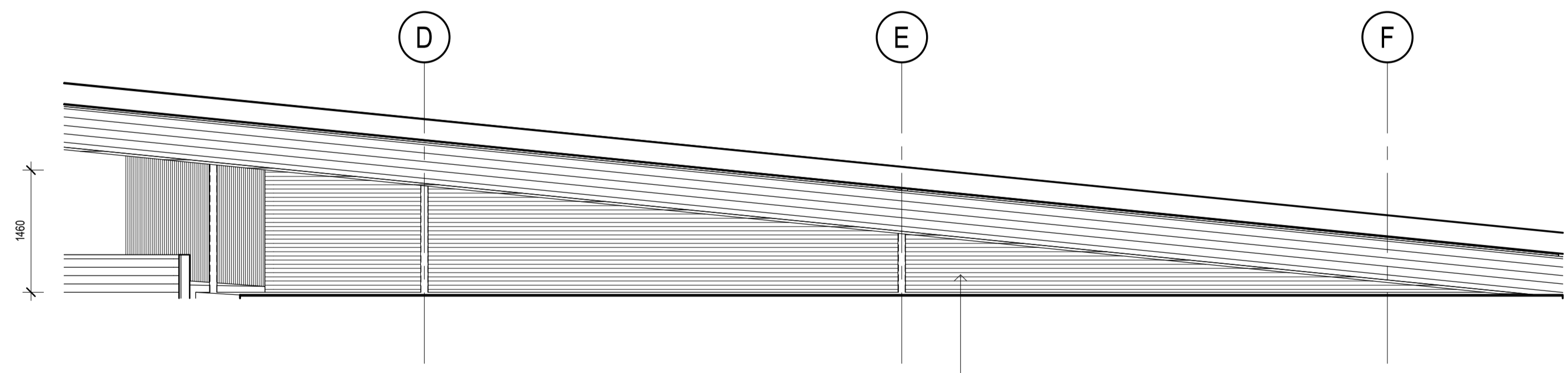
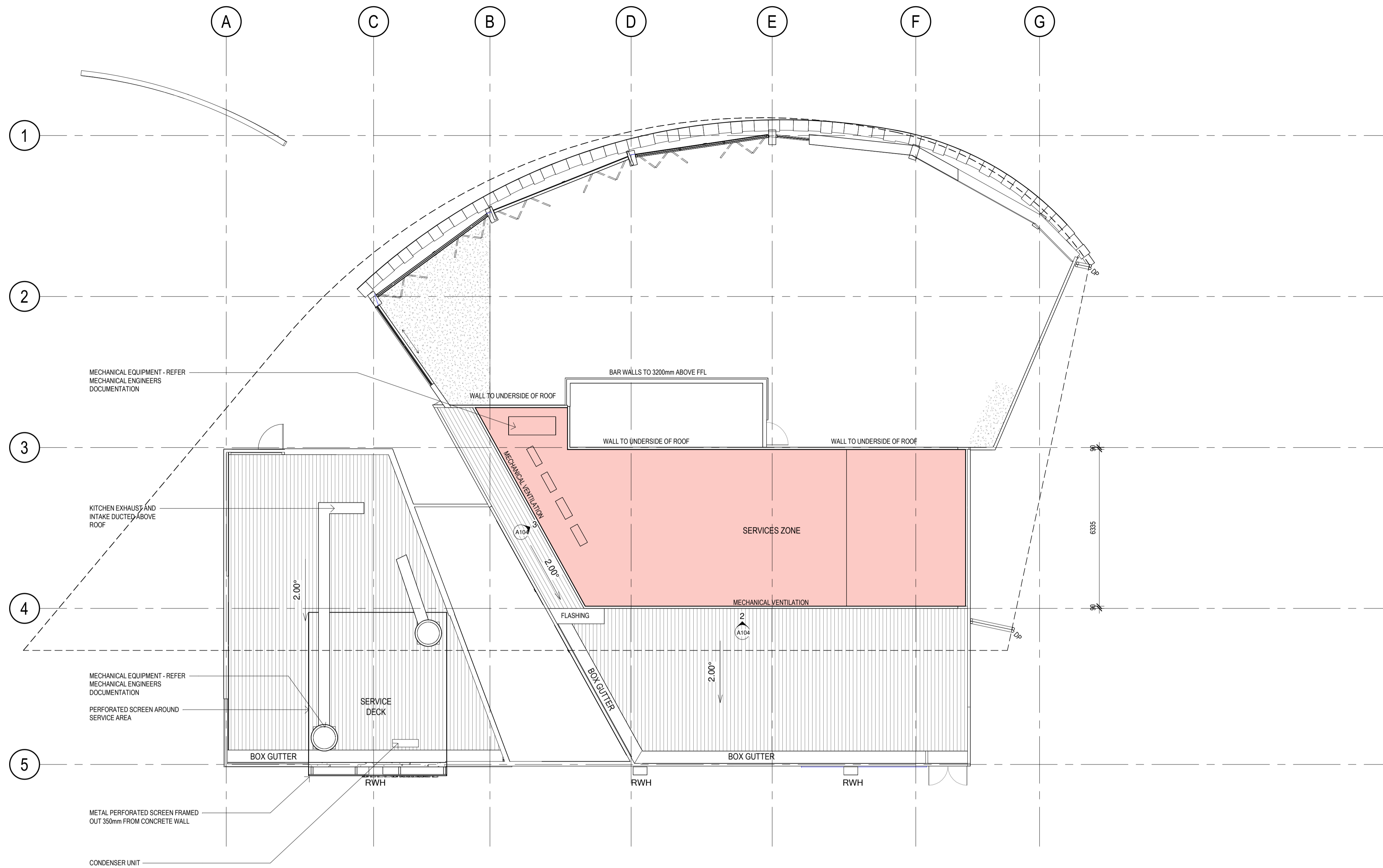
PROJECT
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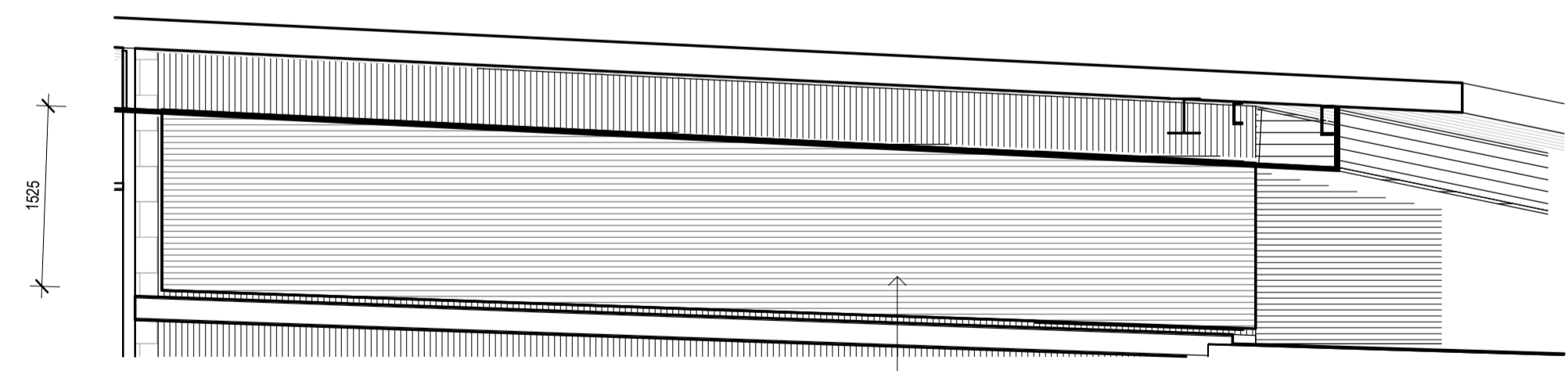
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 CHECKED: DH
 JOB NO: G23009
 SCALE: 1:100 @A1

DRAWING NO:
A103

REVISION



2 ELEVATION 1 : 50
A104 CLERESTORY SERVICE AREA SOUTH WALL



3 ELEVATION 1 : 50
A104 CLERESTORY SERVICE AREA EAST WALL

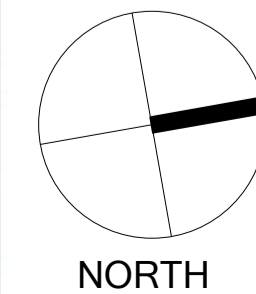
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CLERESTORY LEVEL

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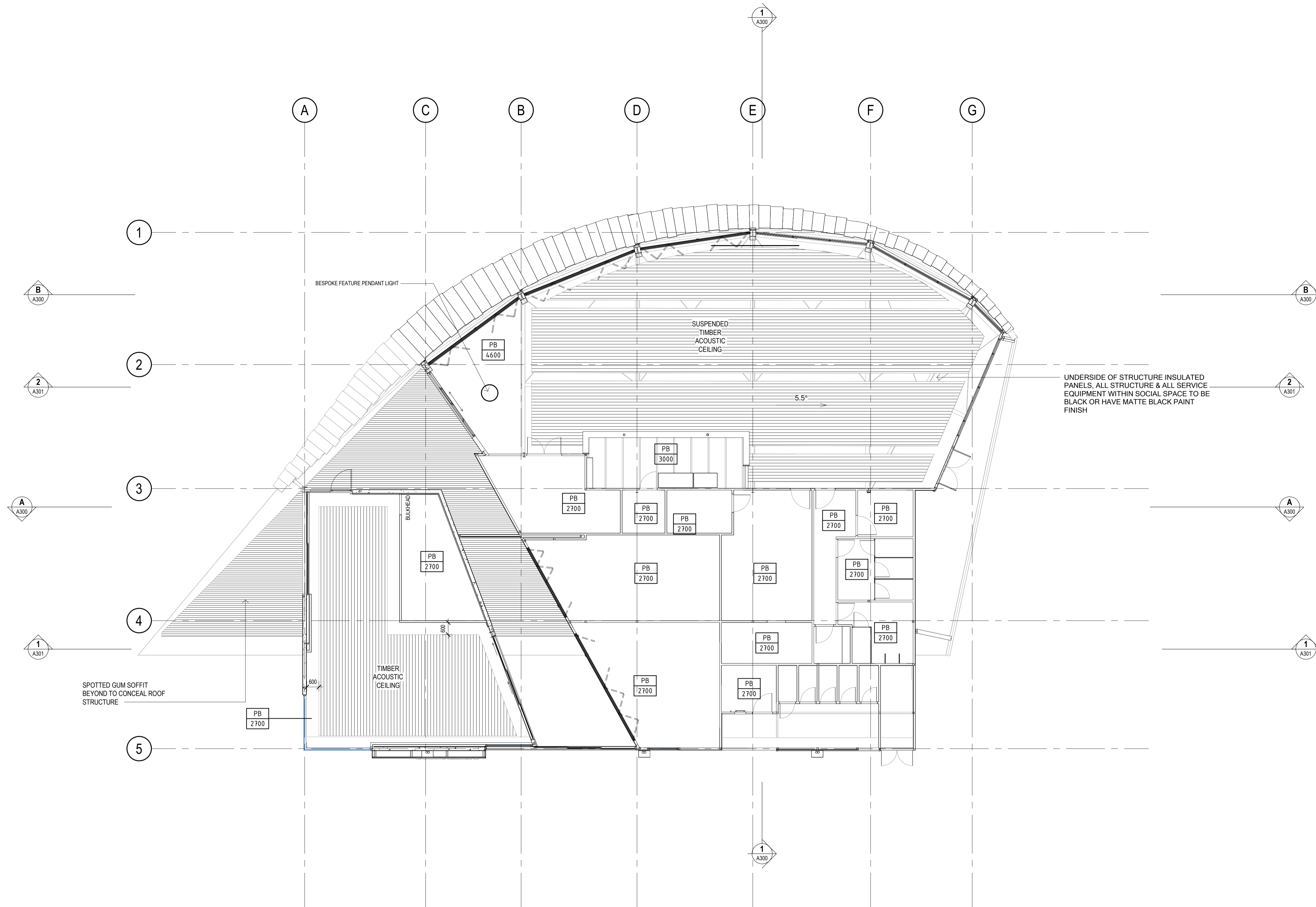
PROJECT
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CHECKED: DH
JOB NO: G23009
SCALE: As indicated @ A1

DRAWING NO:
A104

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1 PLAN
A105/ GROUND FLOOR 1 : 100

DESIGN DEVELOPMENT

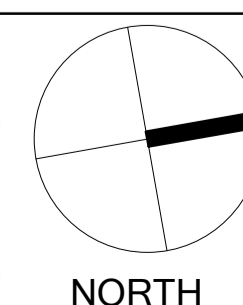
ISSUE	DESCRIPTION	DATE

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DRAWING TITLE
RCP

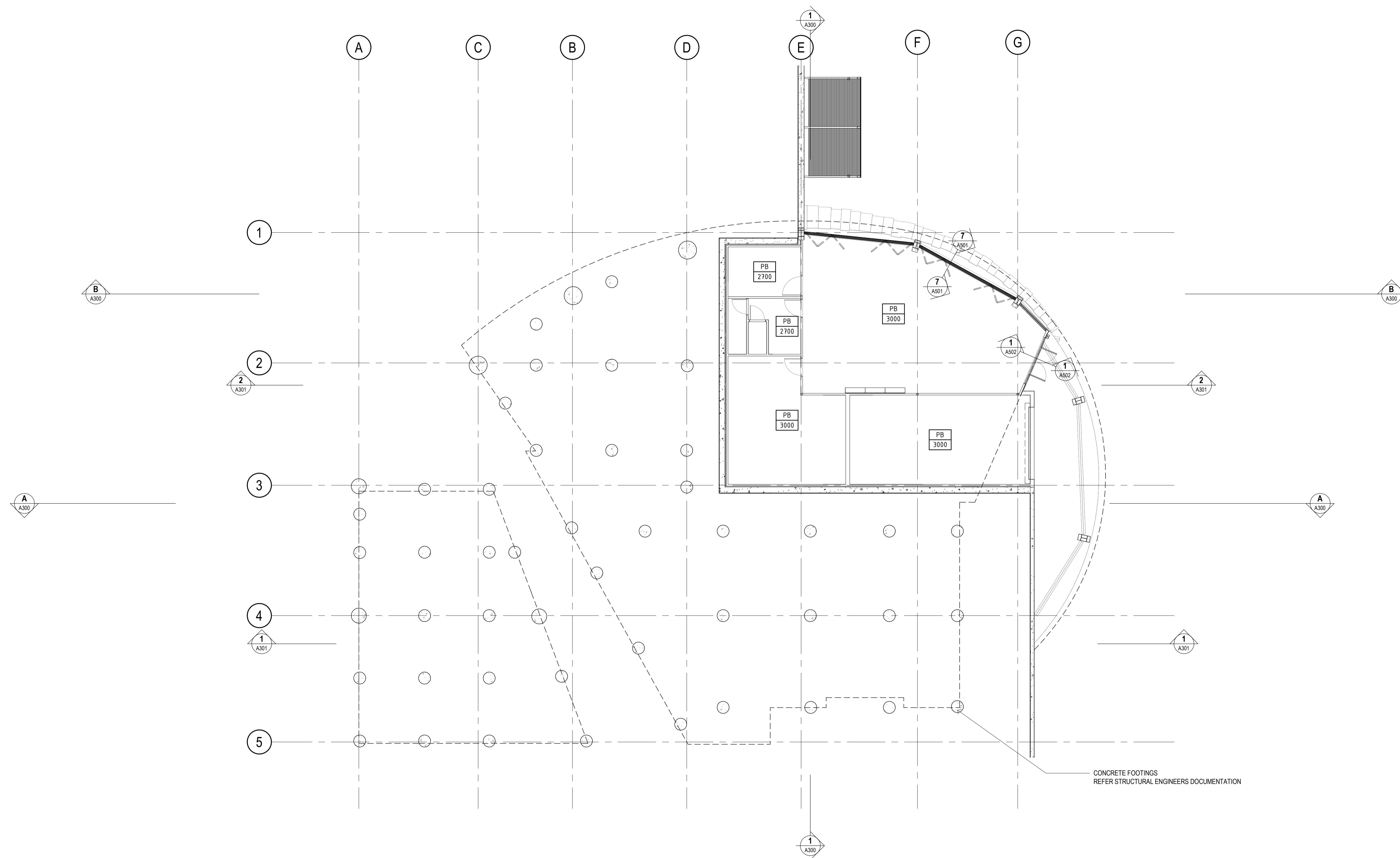
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PROJECT
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JOB NO: G23009
SCALE: 1 : 100 @ A1

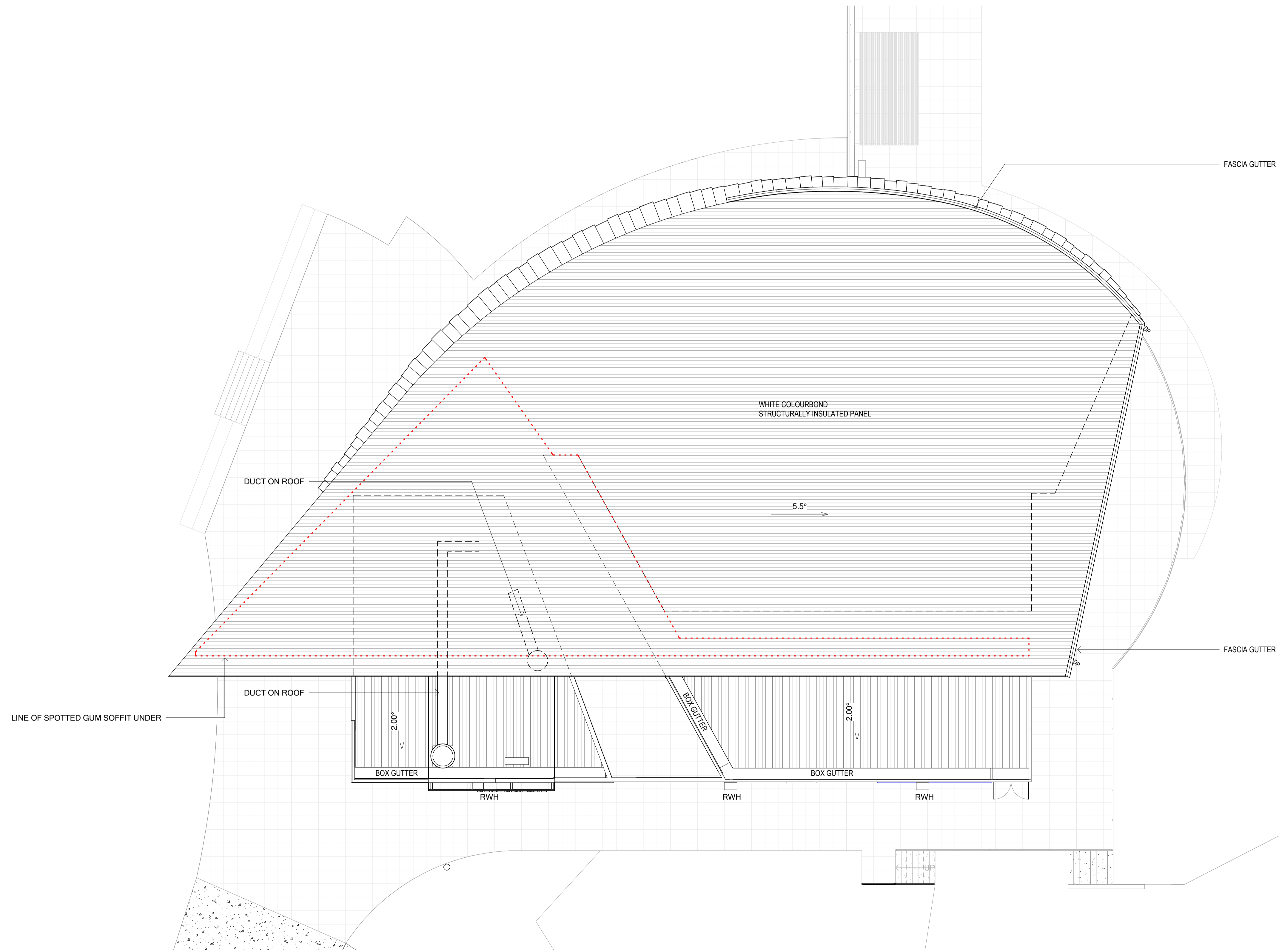
DRAWING NO:
A105
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1 PLAN
A106 LOWER FLOOR 1 : 100

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			CLIENT TOWONG SHIRE		REVISION																



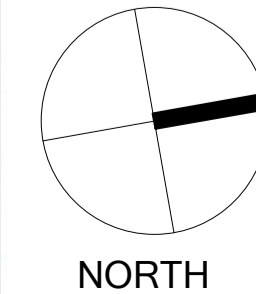
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DRAWING TITLE
ROOF PLAN

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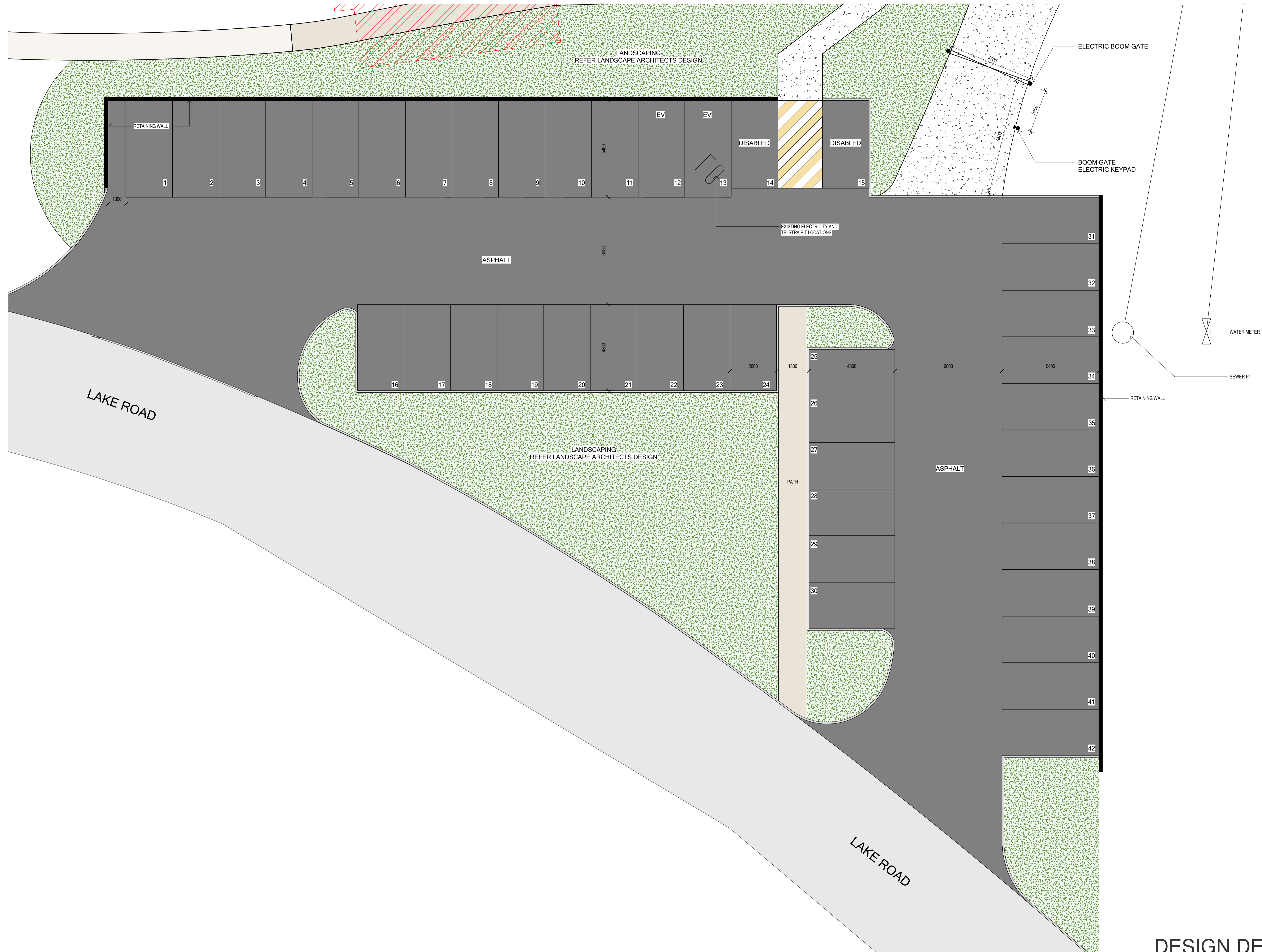
PROJECT
BELLBRIDGE BOATHOUSE

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 CHECKED: DH
 JOB NO: G23009
 SCALE: 1:100 @A1

DRAWING NO:
A107

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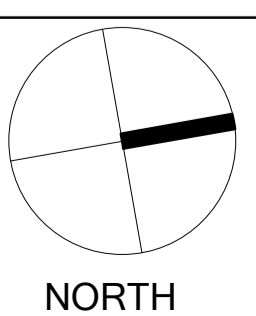
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 CARPARK LAYOUT

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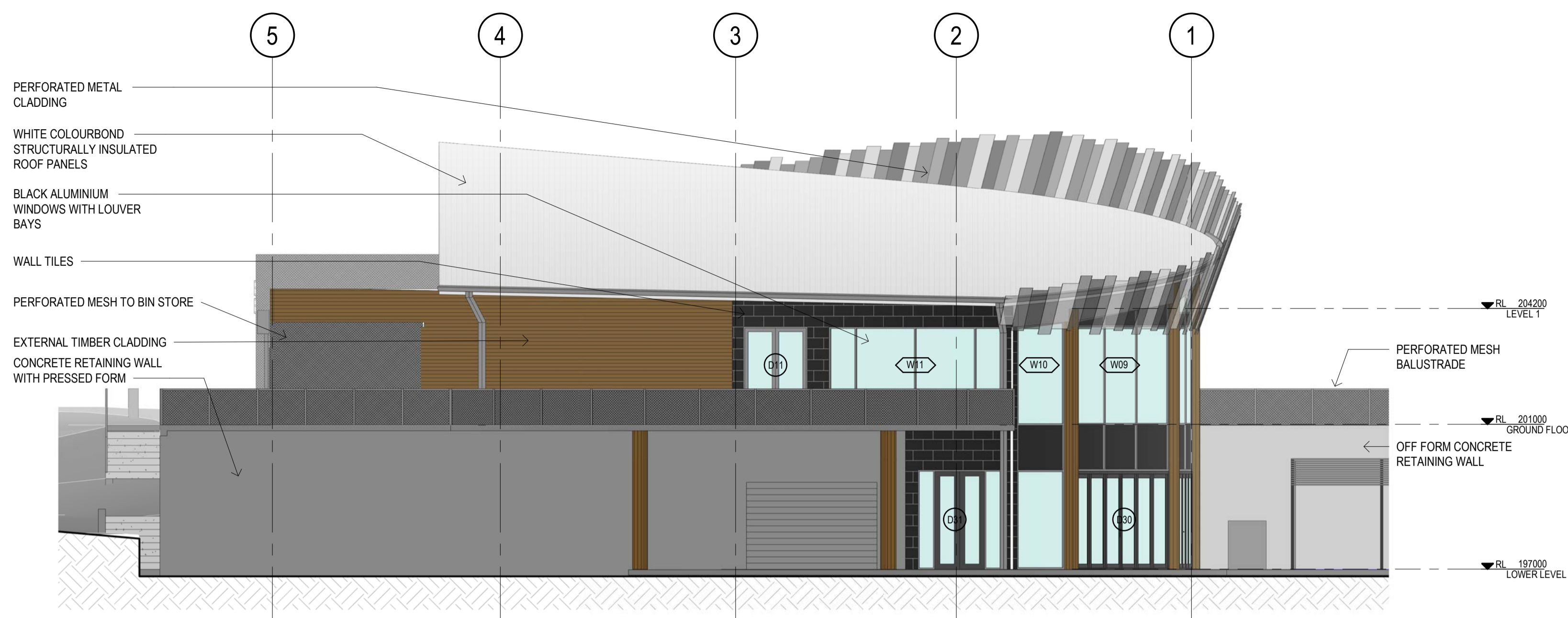
PROJECT
 BELLBRIDGE BOATHOUSE

CLIENT
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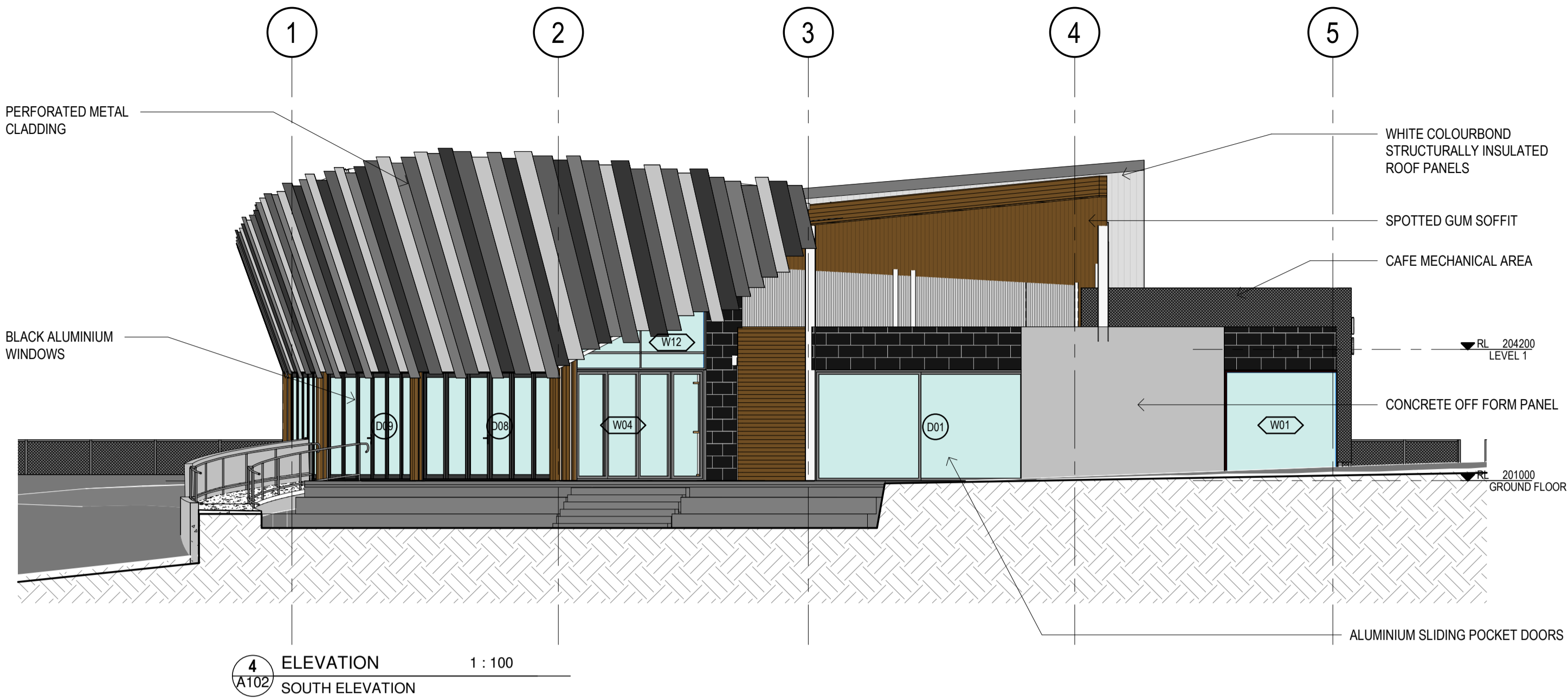
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 CHECKED: DH
 JOB NO: G23009
 SCALE: 1:100 @ A1

DRAWING NO:
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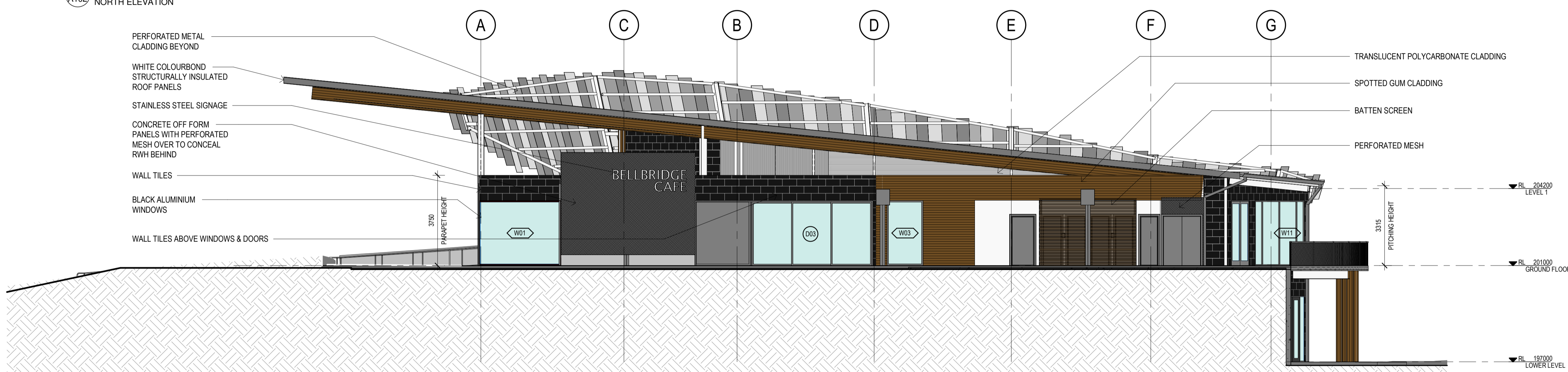
REVISION



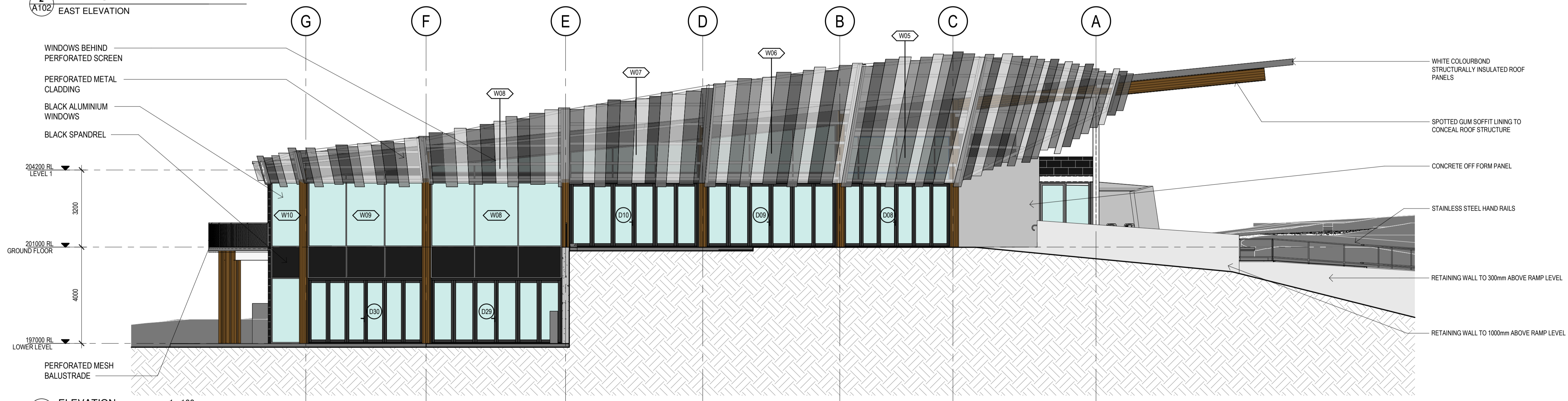
3 ELEVATION 1:100
A102 NORTH ELEVATION



4 ELEVATION 1:100
A102 SOUTH ELEVATION



2 ELEVATION 1:100
A102 EAST ELEVATION



1 ELEVATION 1:100
A102 WEST ELEVATION

DESIGN DEVELOPMENT

ISSUE	DESCRIPTION	DATE

FILE: C:\Revit Local Files\G23009 Bellbridge Boat Shed_Central_jacksonT8462.rvt

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NORTH

DRAWING TITLE
 ELEVATIONS

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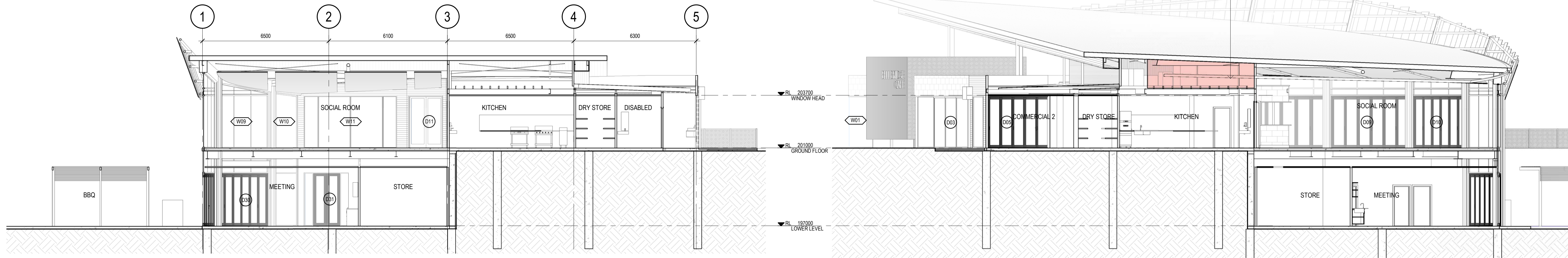
PROJECT
 BELLBRIDGE BOATHOUSE

CLIENT
 TOWONG SHIRE

DATE: 03/11/2023
 DRAWN: JM
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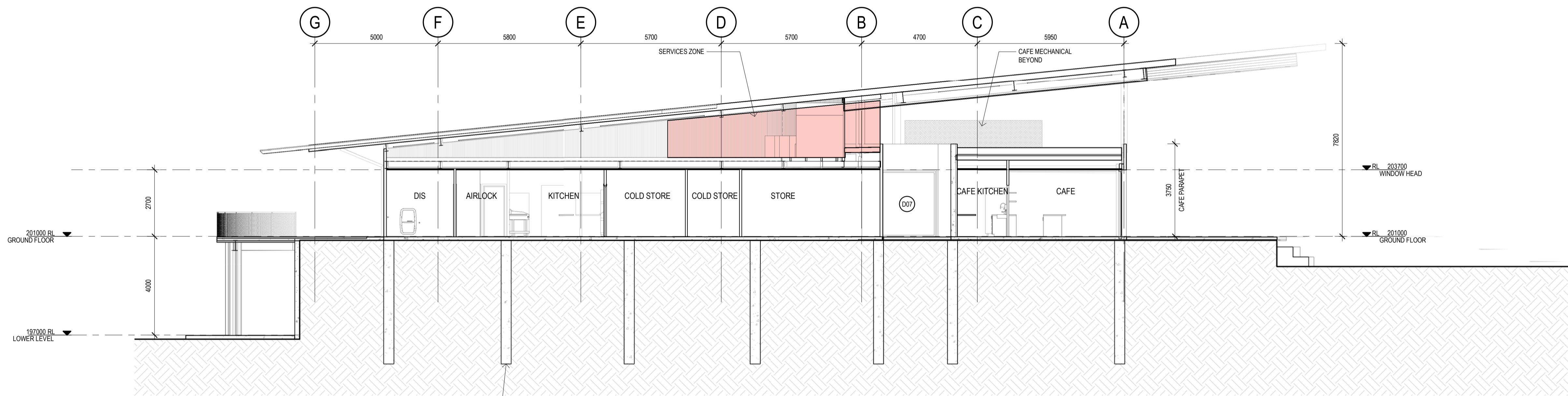
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A200

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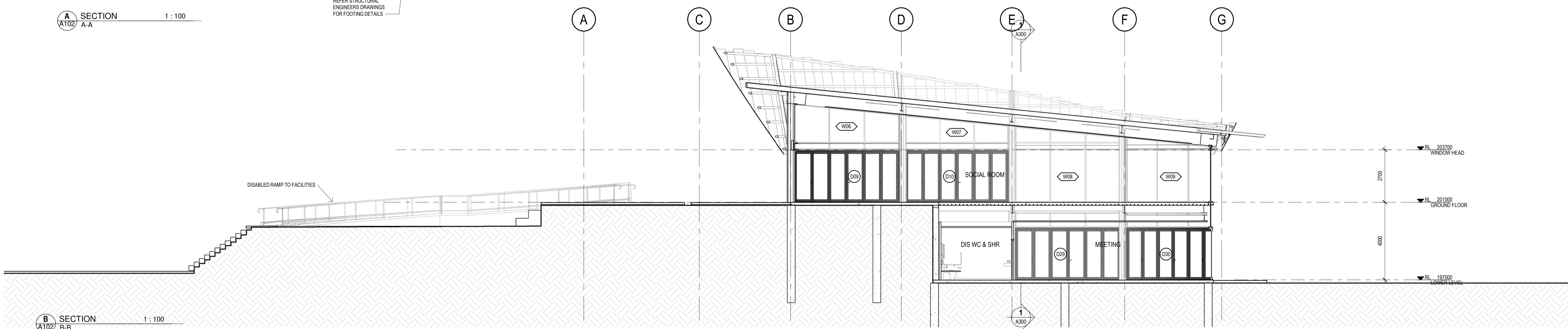
1 SECTION
A102 C-C 1:100

2 SECTION
A102 D-D 1:100



A SECTION
A102 A-A 1:100

REFER STRUCTURAL ENGINEERS DRAWINGS FOR FOOTING DETAILS




B SECTION
A102 B-B 1:100

DESIGN DEVELOPMENT

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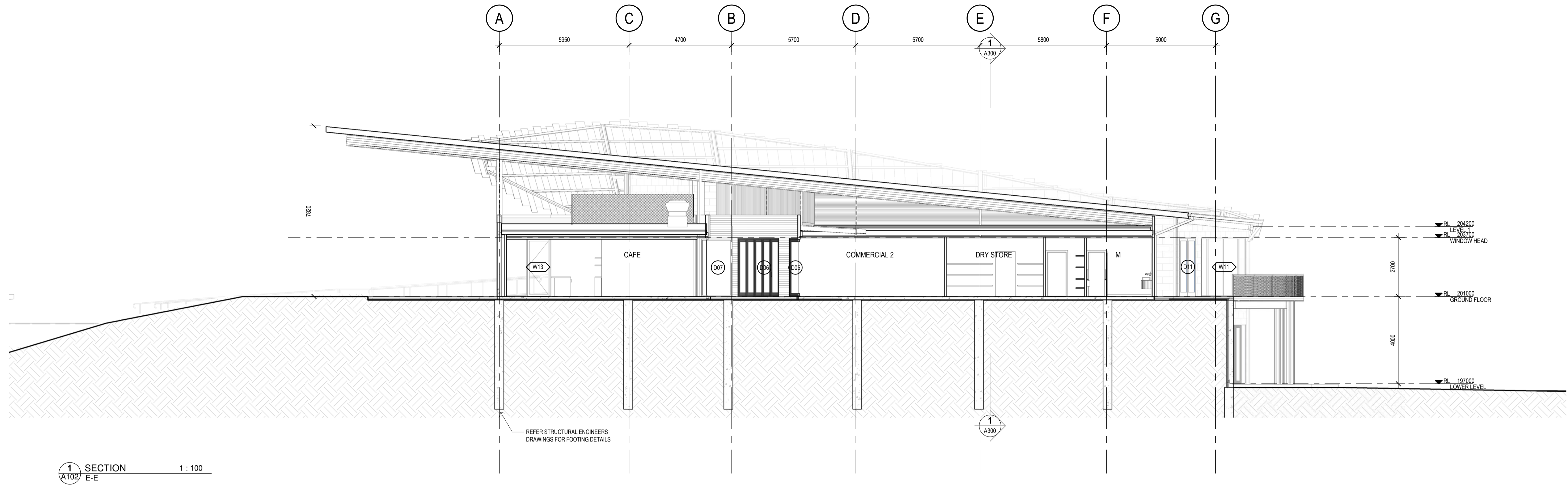
NORTH

DRAWING TITLE
 SECTIONS 1
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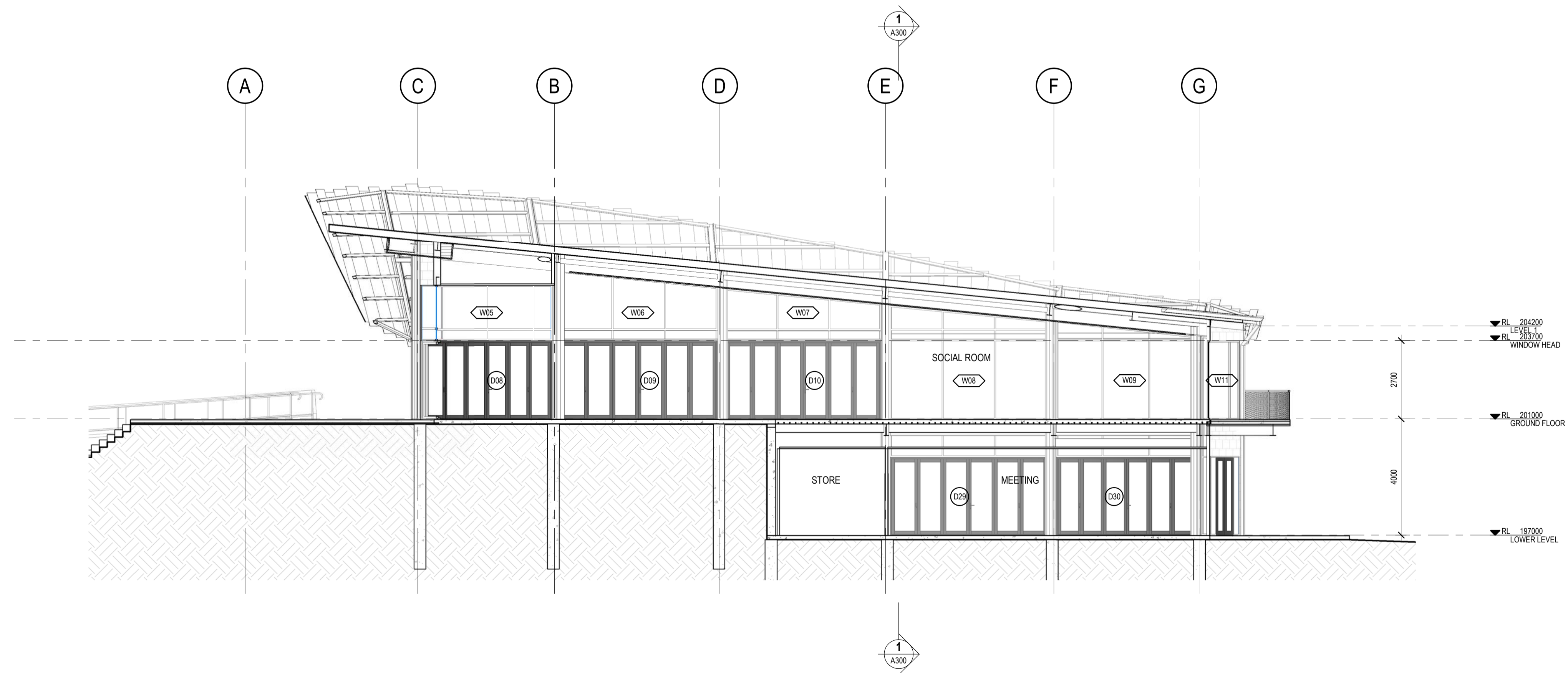
PROJECT
 BELLBRIDGE BOATHOUSE
 CLIENT
 TOWONG SHIRE

DATE: 03/11/2023
 DRAWN: JM
 CHECKED: DH
 JOB NO: G23009
 SCALE: 1:100 @ A1

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1 SECTION 1 A102 E-E 1 : 100




2 SECTION 2 A102 F-F 1 : 100

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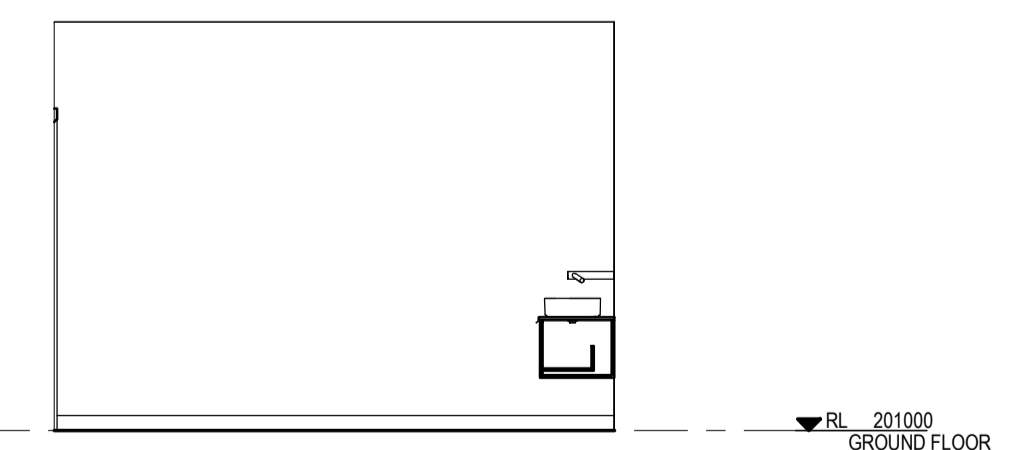
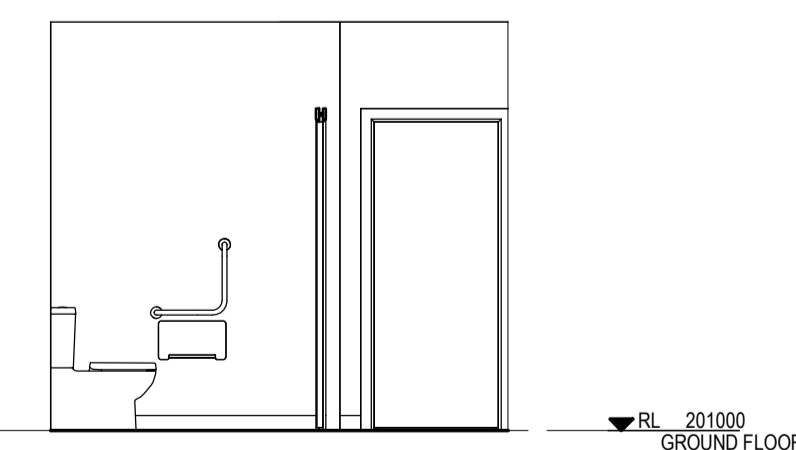
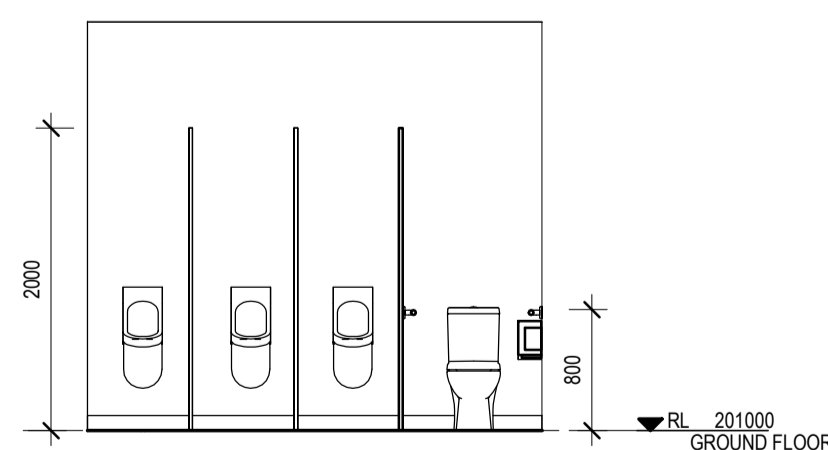
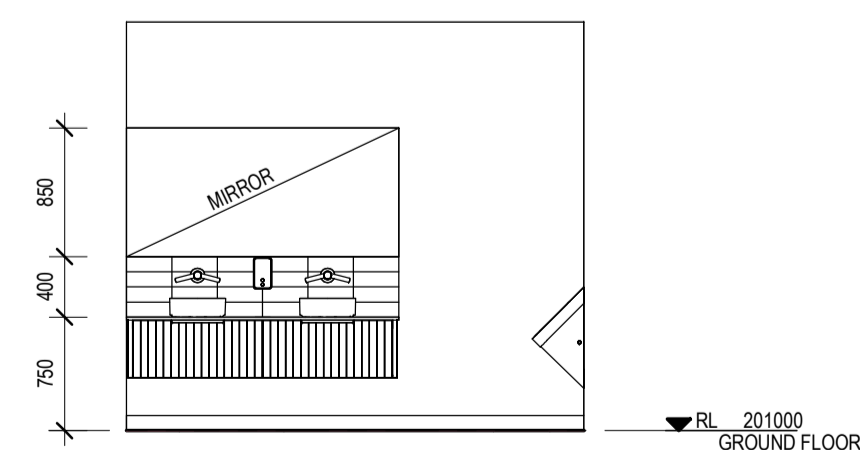
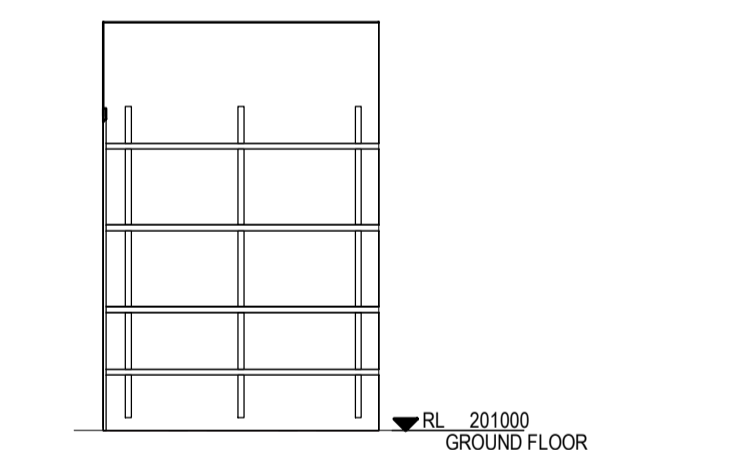
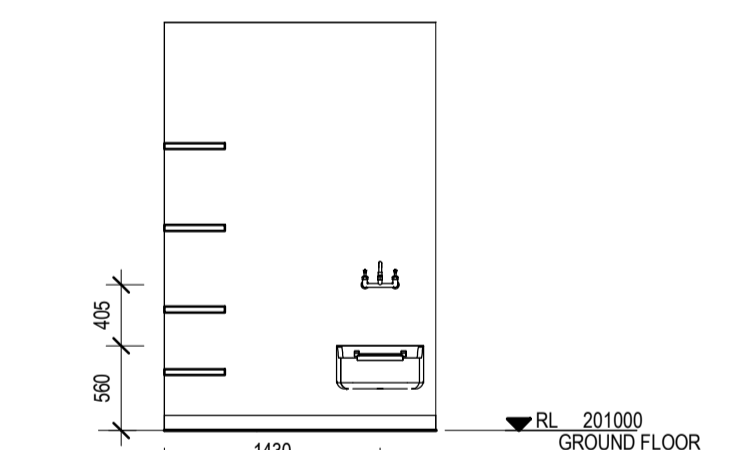
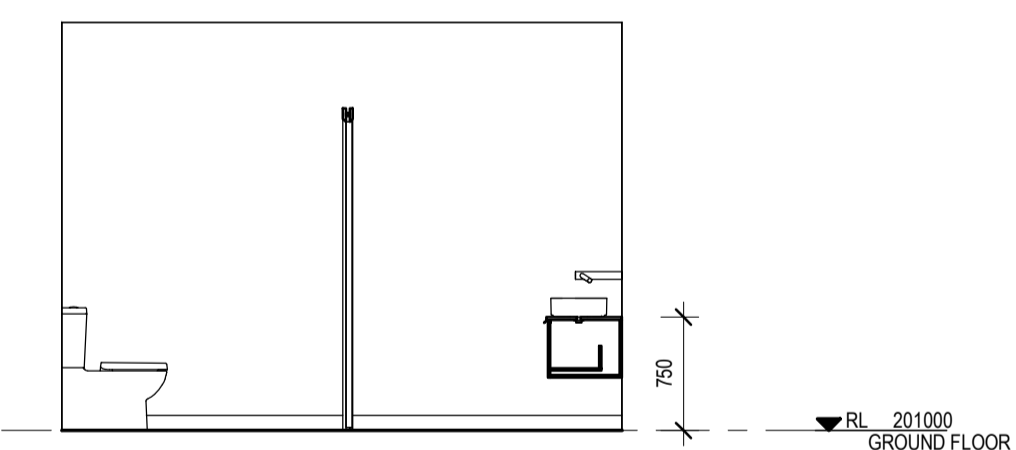
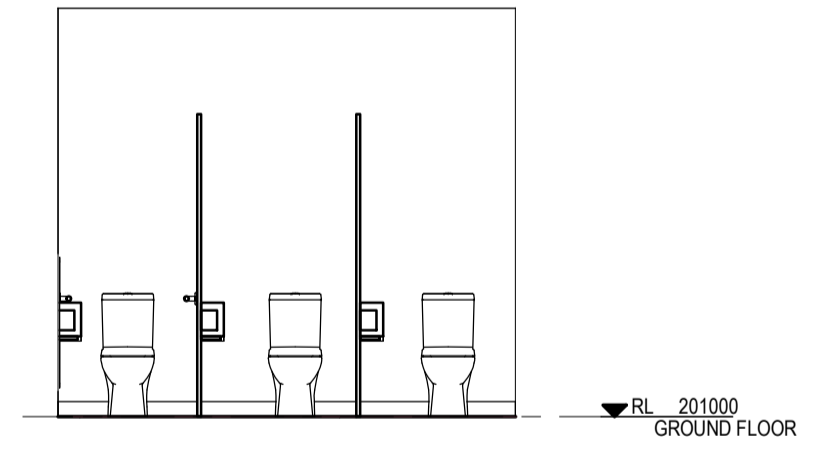
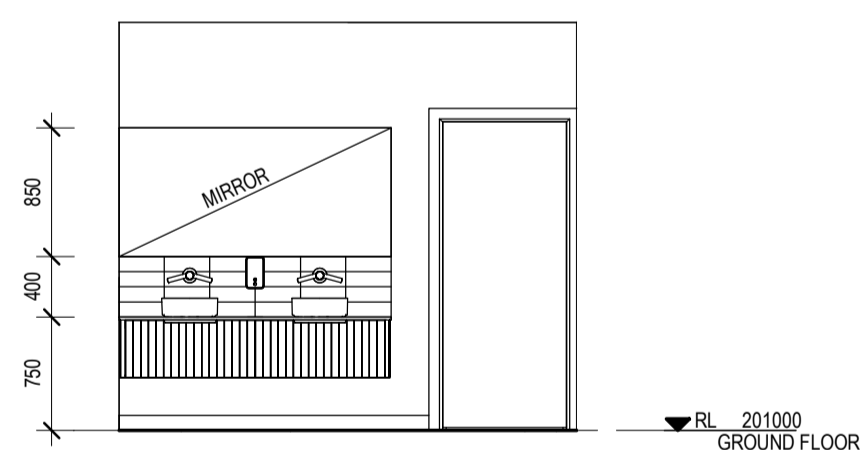
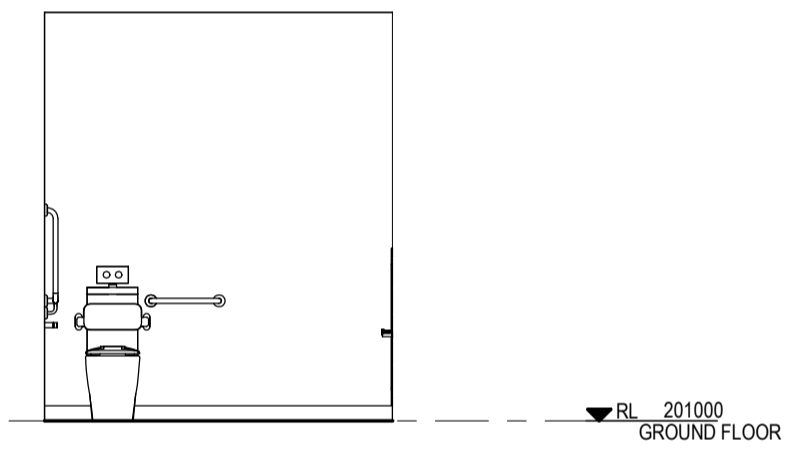
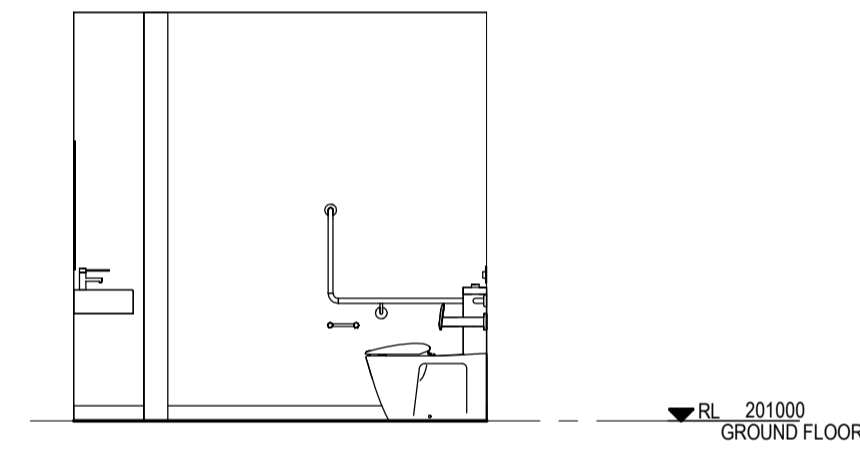
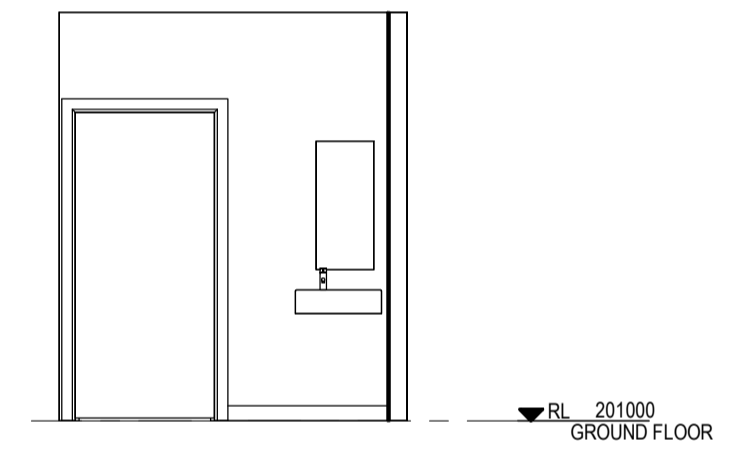
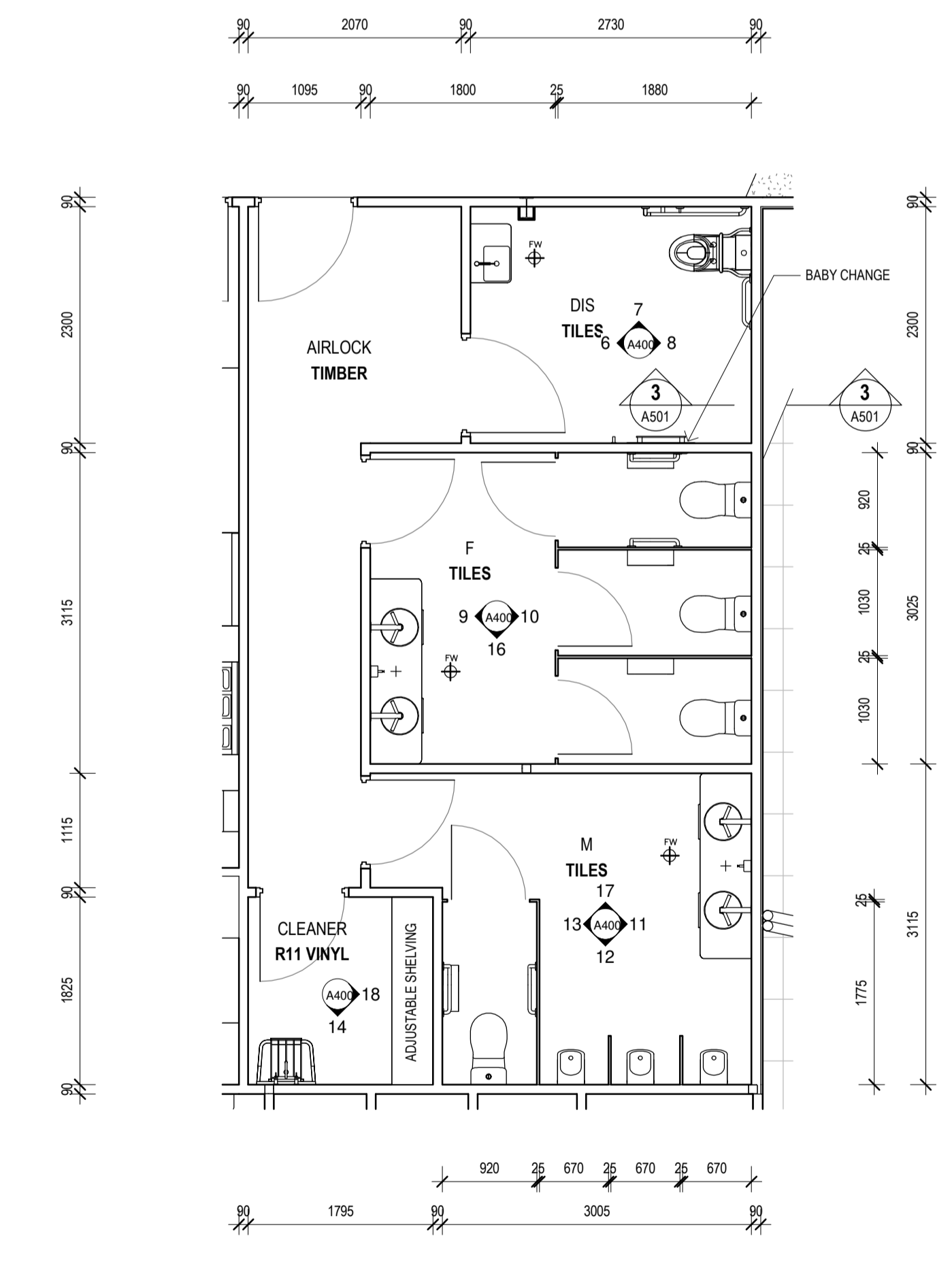
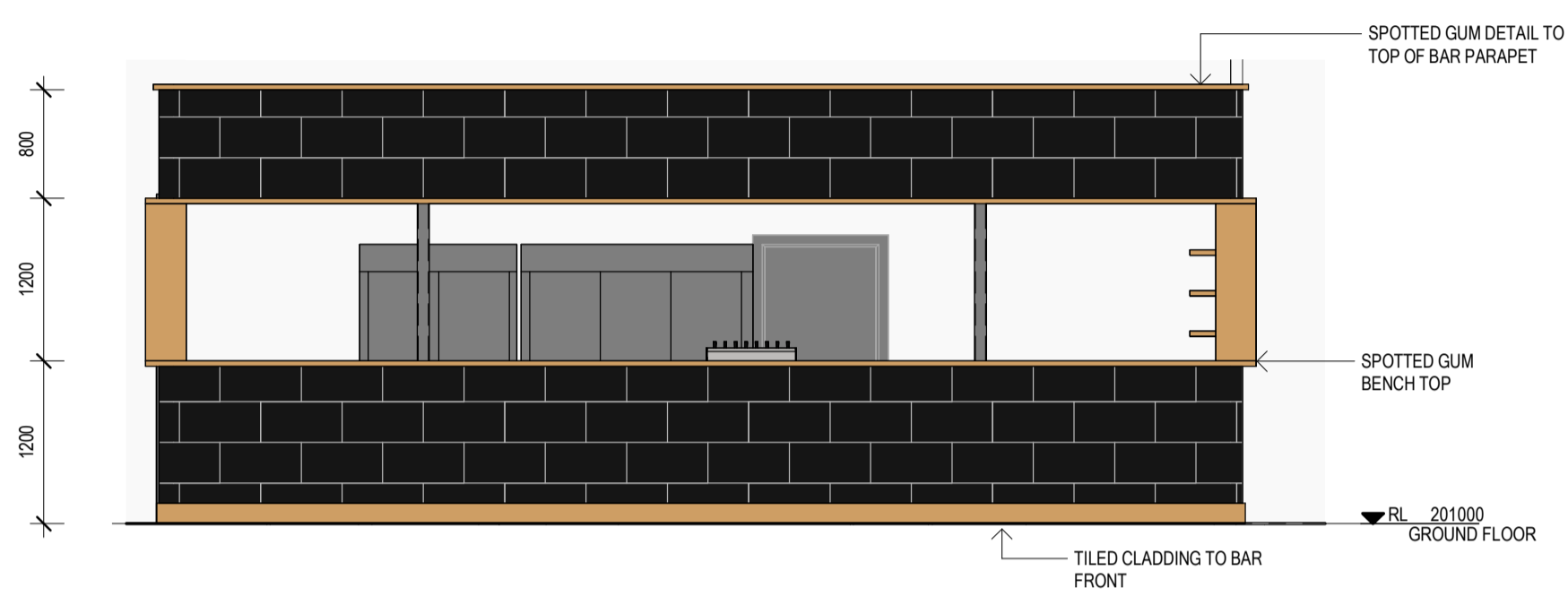
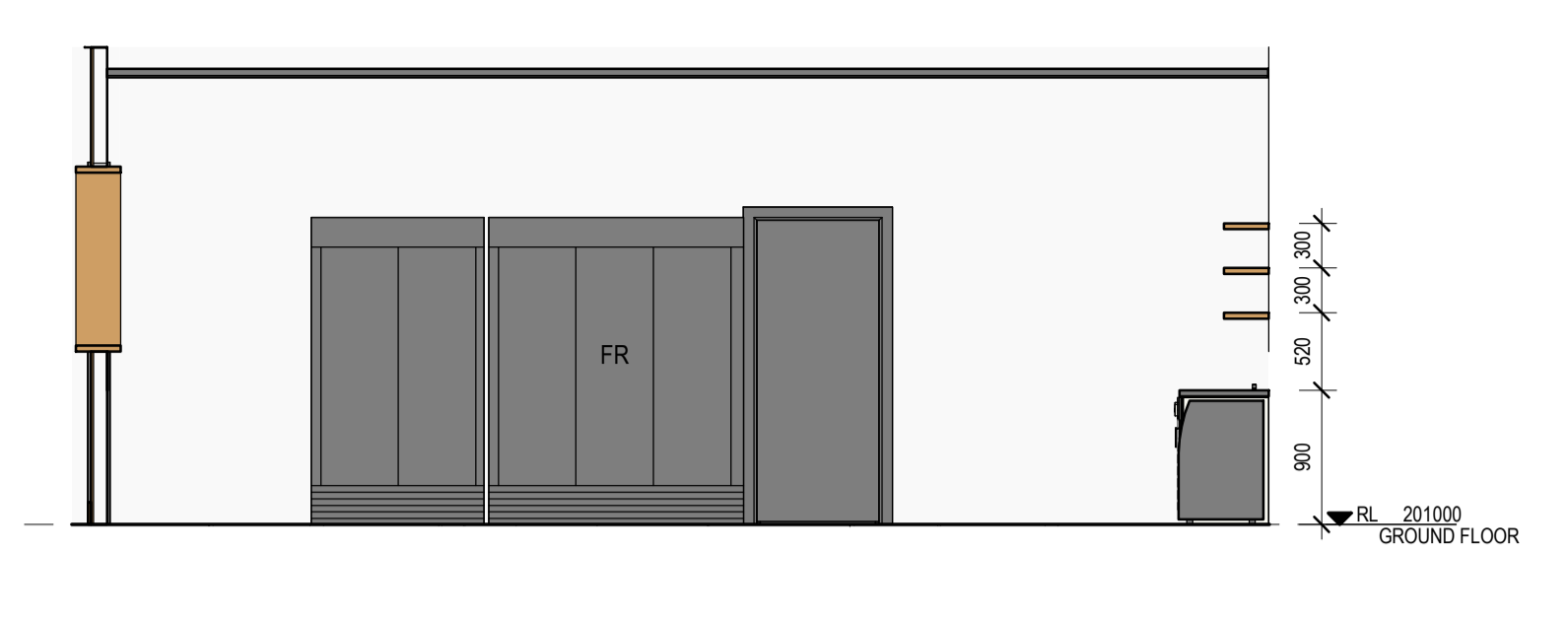
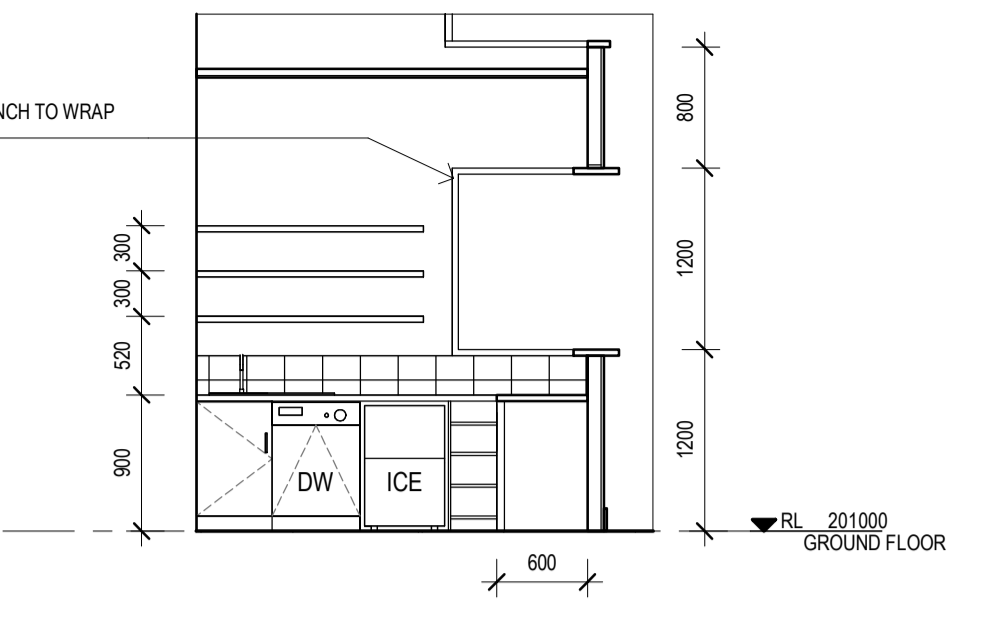
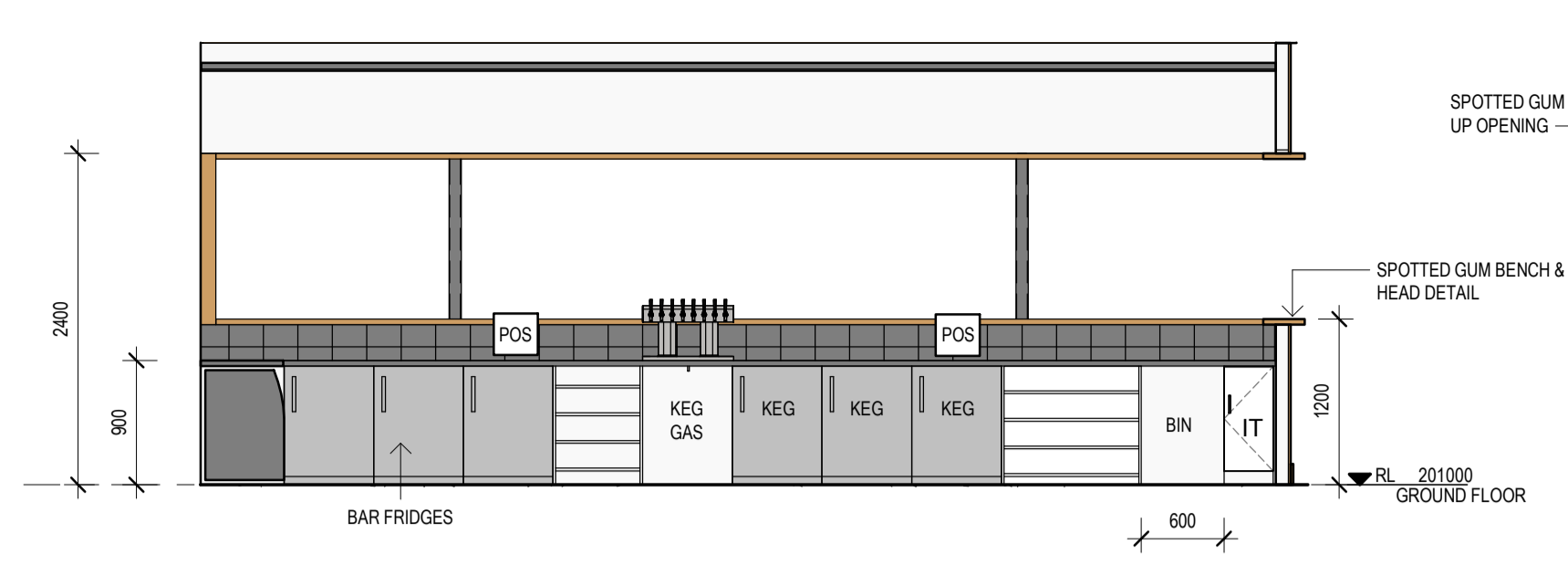
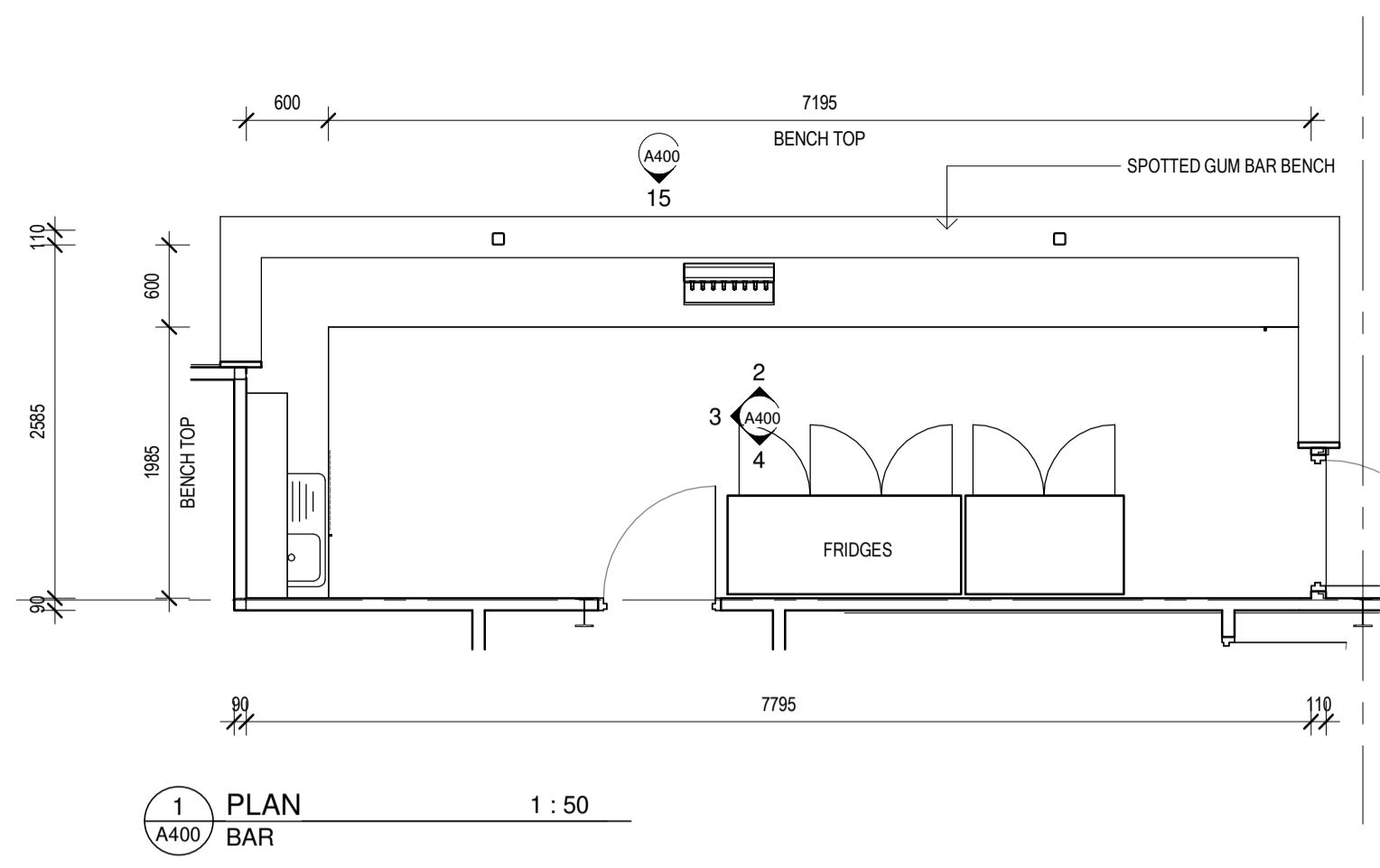
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 SECTIONS 2
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 BELLBRIDGE BOATHOUSE
 CLIENT
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 JOB NO: G23009
 SCALE: 1 : 100 @ A1

DRAWING NO:
A301
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DESIGN DEVELOPMENT

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INTERNAL ELEVATIONS 1

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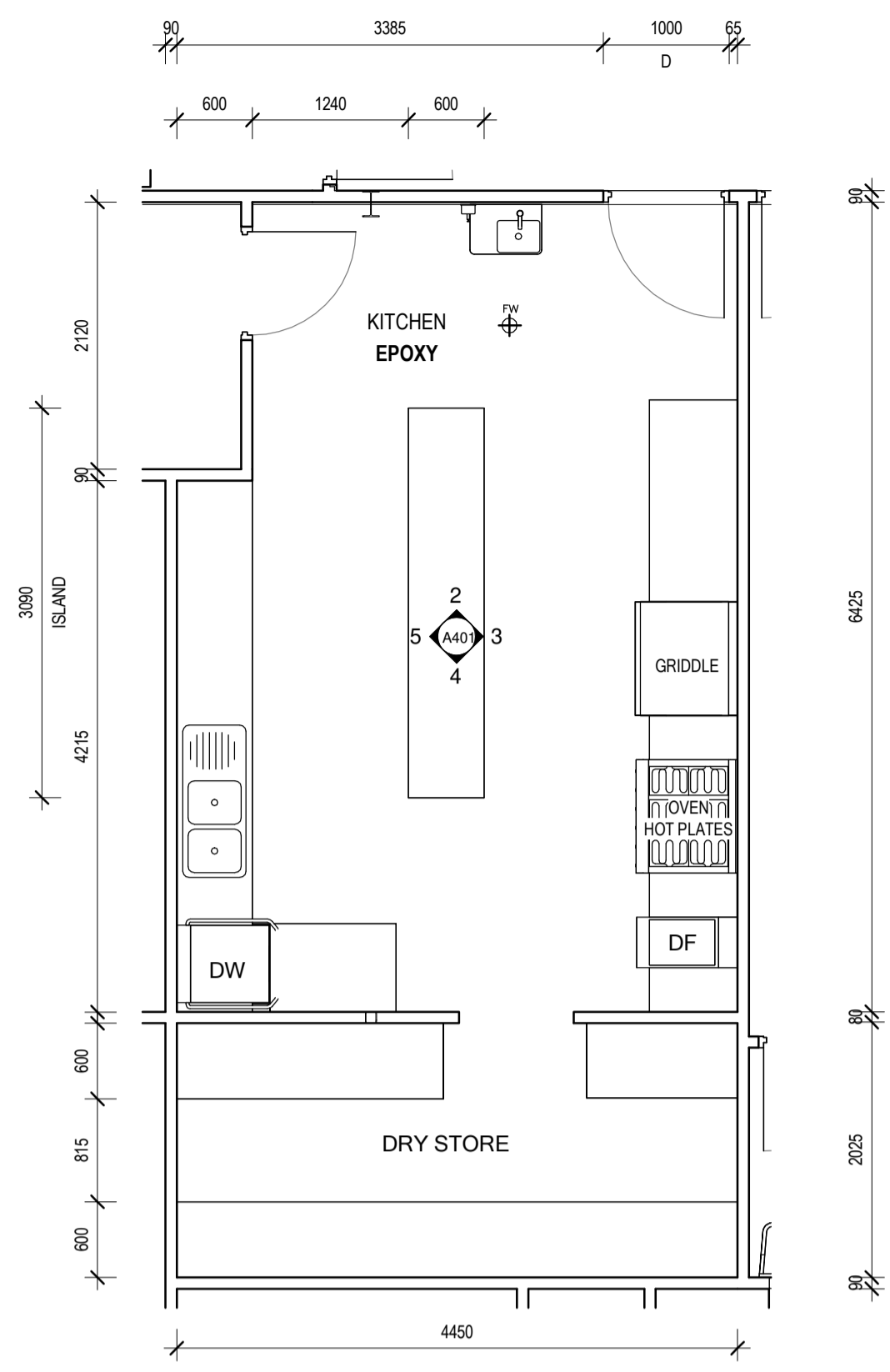
PROJECT
BELLBRIDGE BOATHOUSE

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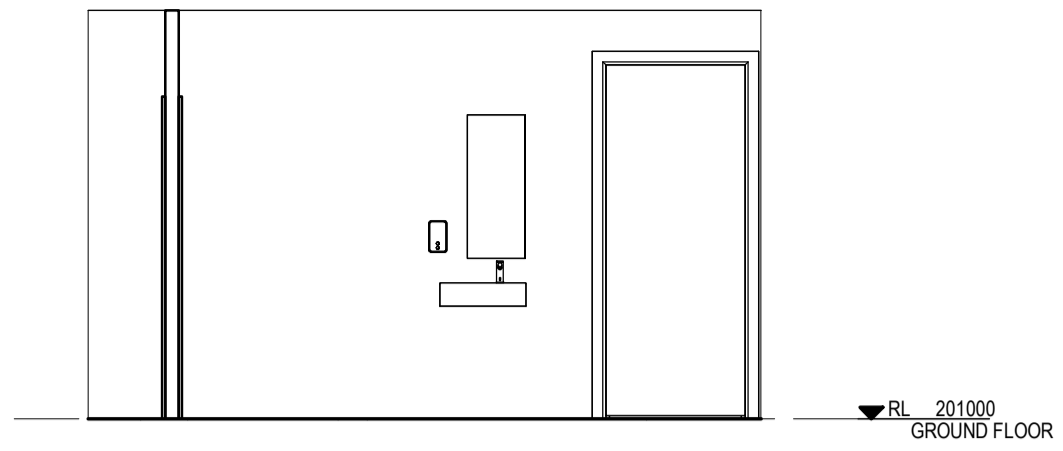
DATE: 03/11/2023
DRAWN: JM
CHECKED: DH
JOB NO: G23009
SCALE: 1 : 50 @ A1

DRAWING NO:
A400

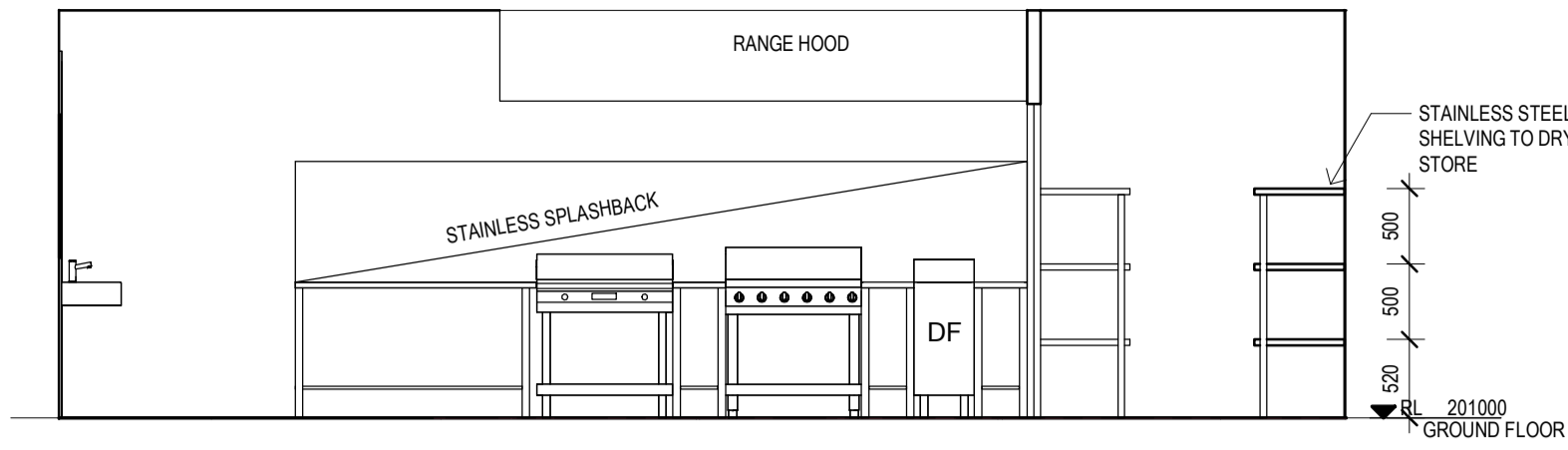
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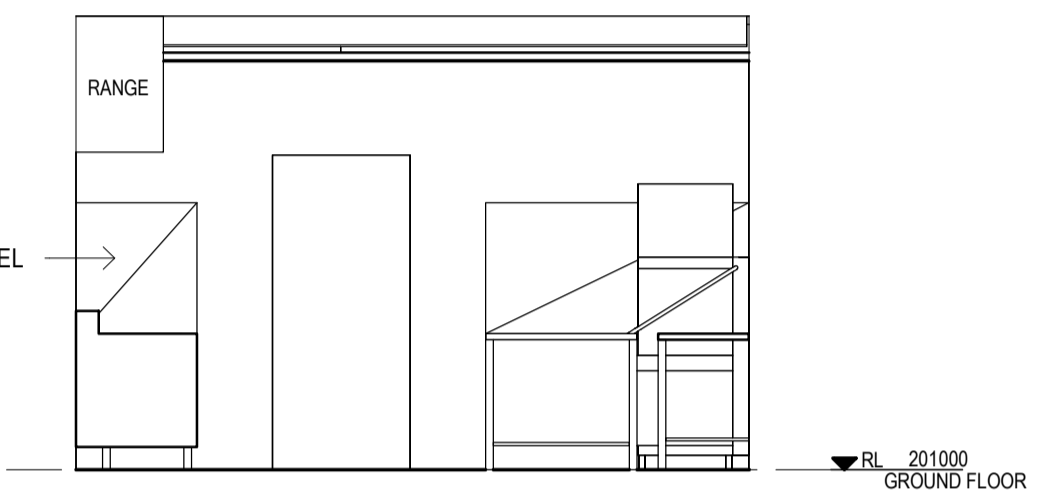
1 PLAN KITCHEN 1:50



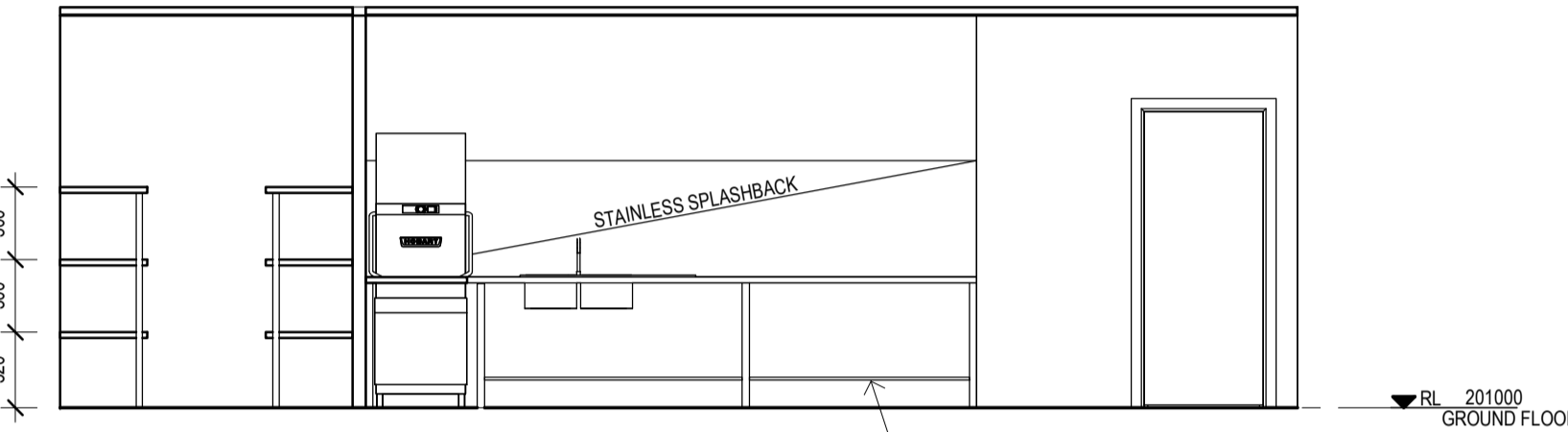
2 INTERNAL ELEVATION KITCHEN - A 1:50



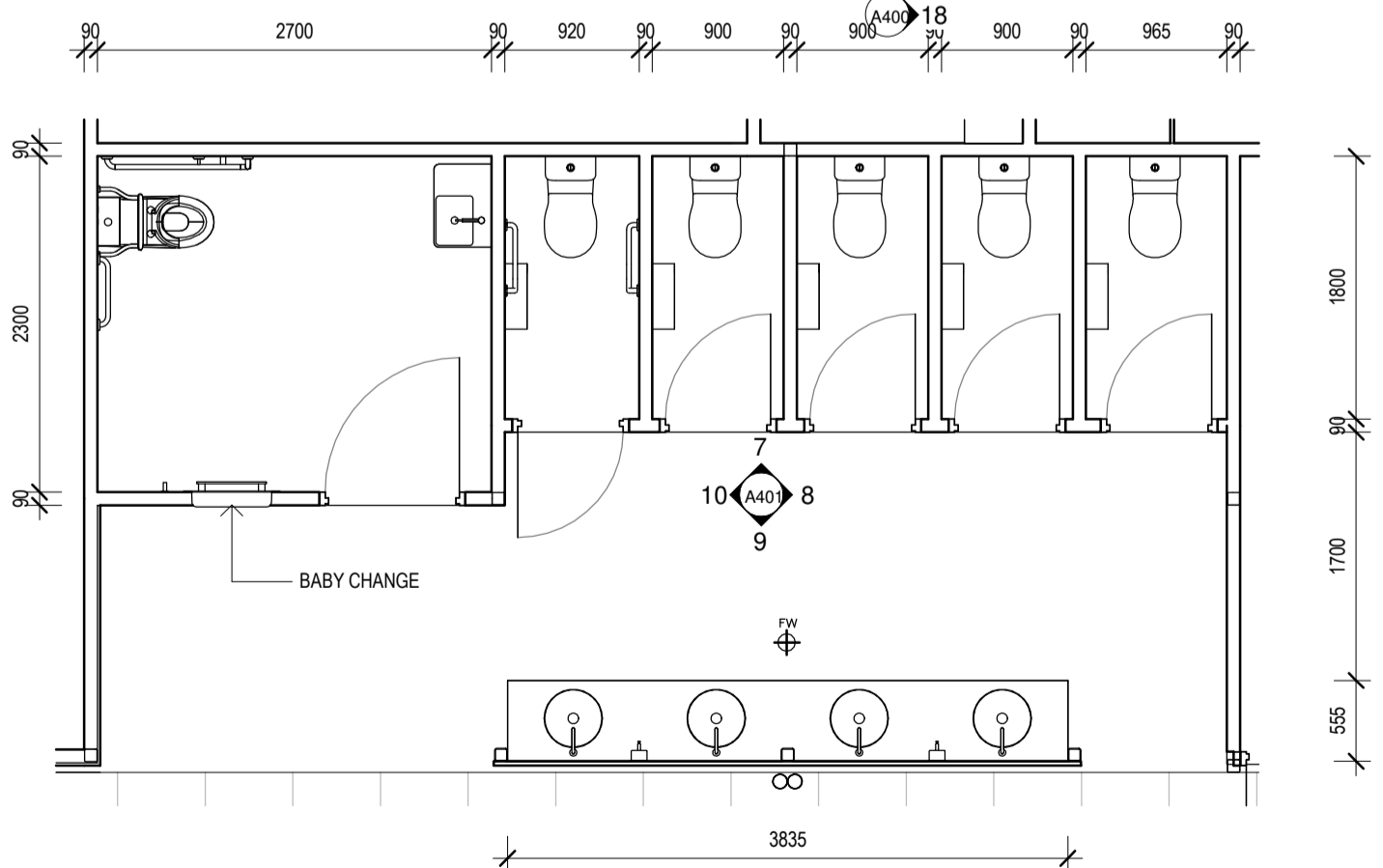
3 INTERNAL ELEVATION KITCHEN - B 1:50



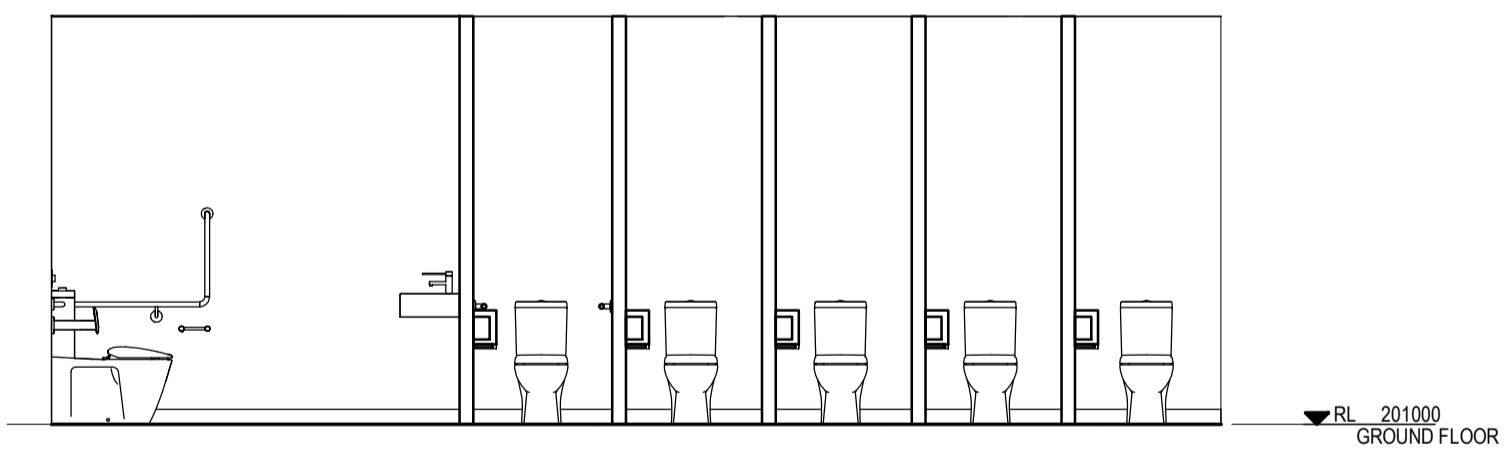
4 INTERNAL ELEVATION KITCHEN - C 1:50



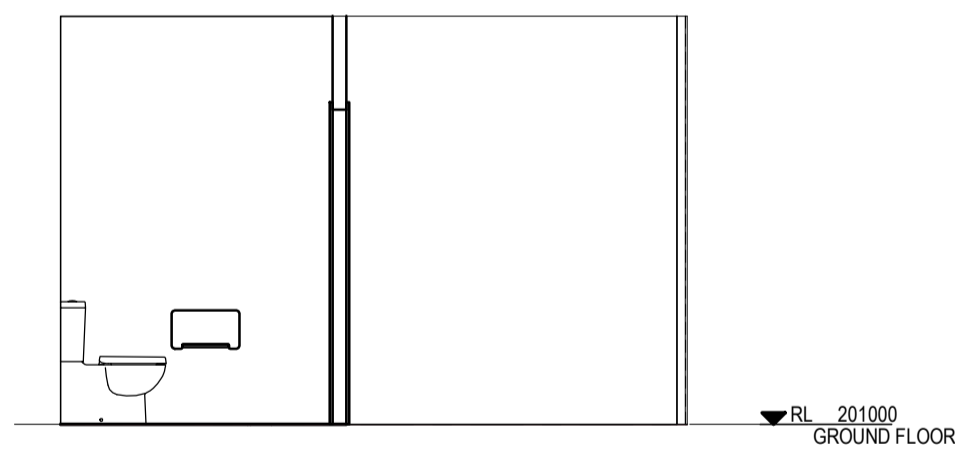
5 INTERNAL ELEVATION KITCHEN - D 1:50



6 PLAN PUBLIC AMENITIES 1:50



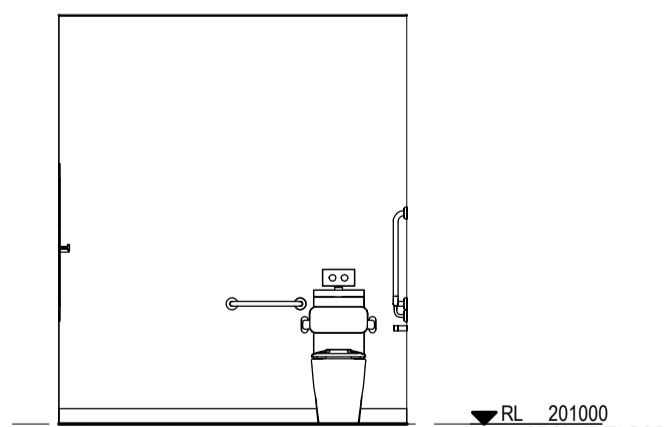
7 INTERNAL ELEVATION PUBLIC AMENITIES - A 1:50



8 INTERNAL ELEVATION PUBLIC AMENITIES - B 1:50



9 INTERNAL ELEVATION PUBLIC AMENITIES - C 1:50



10 INTERNAL ELEVATION PUBLIC AMENITIES - D 1:50

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DRAWING TITLE
INTERNAL ELEVATIONS 2

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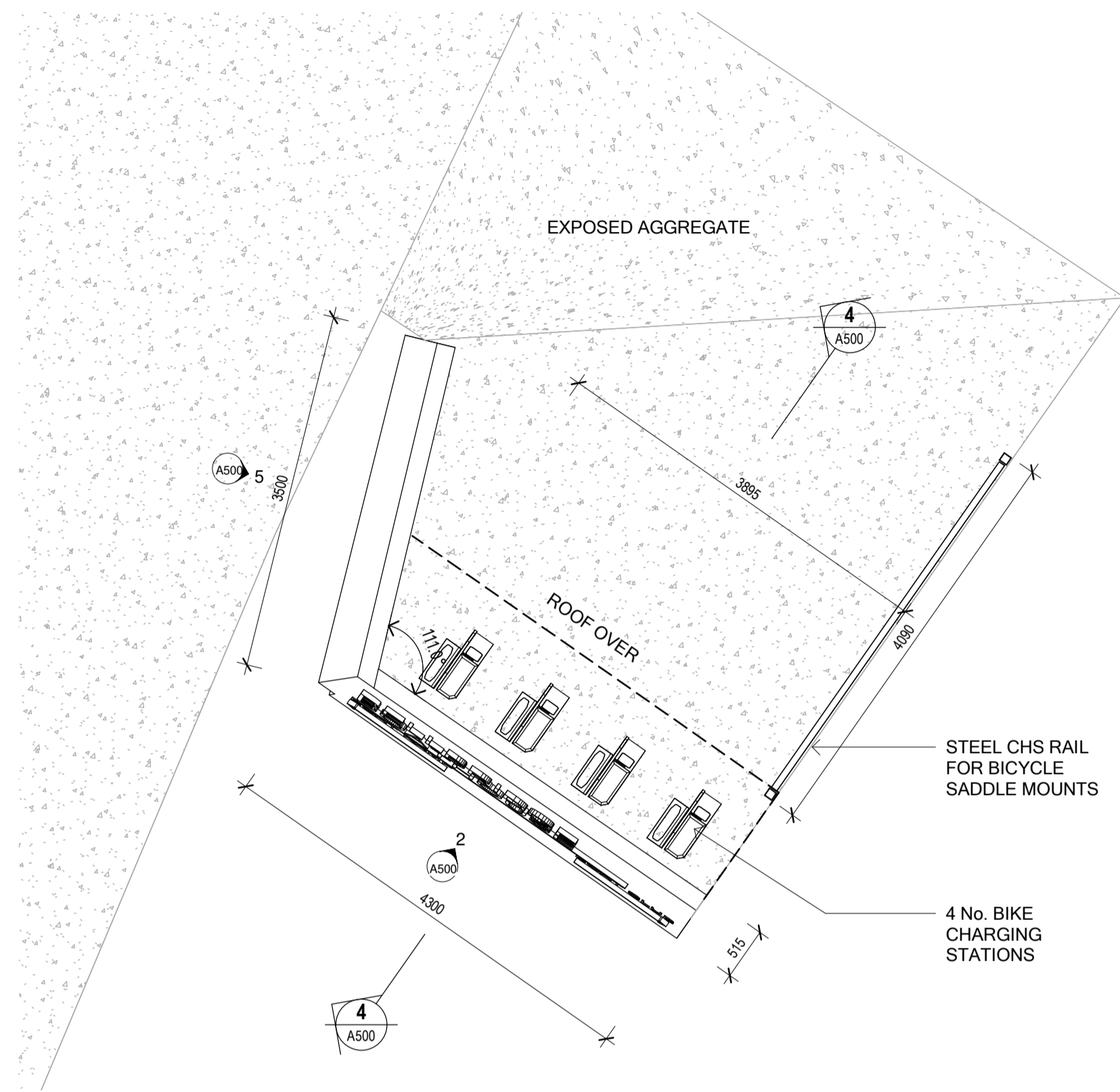
PROJECT
BELLBRIDGE BOATHOUSE

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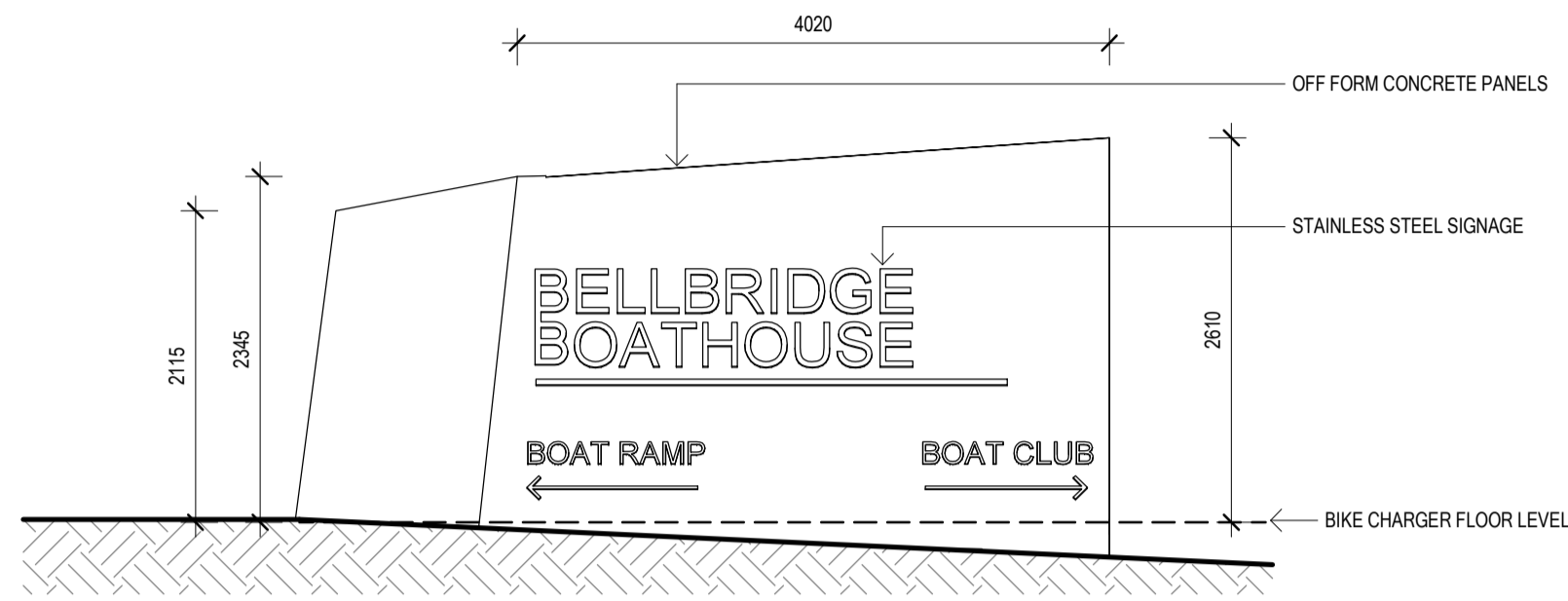
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SCALE: 1:50 @ A1

DRAWING NO:
A401

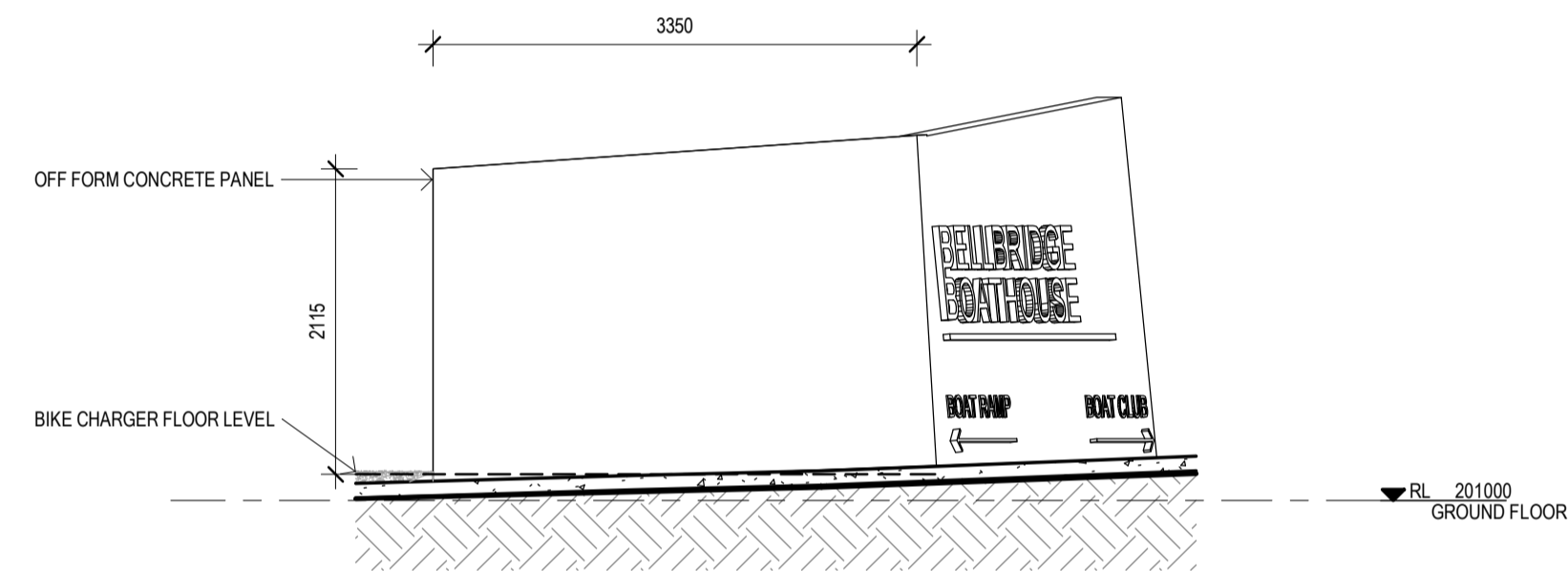
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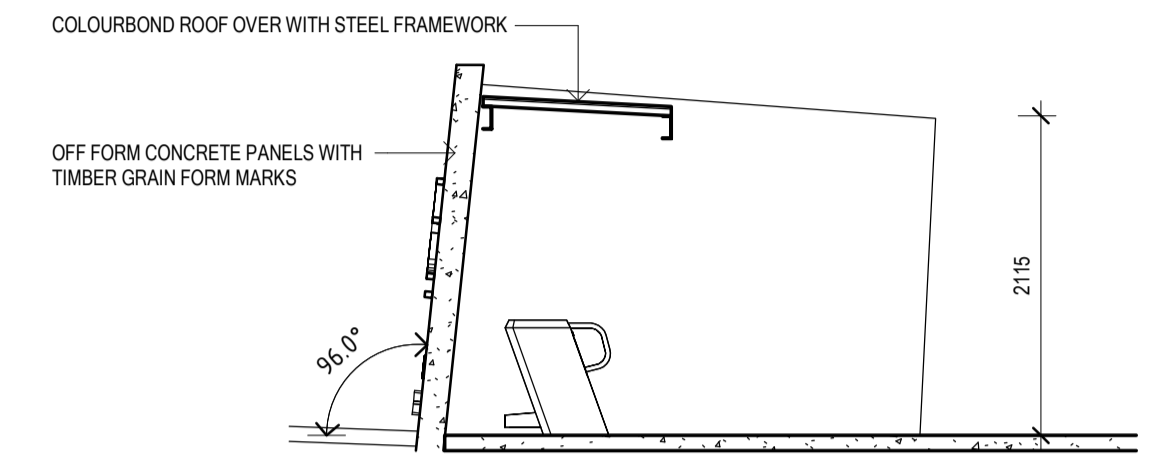
1 PLAN 1:50
A500 BIKE CHARGING & ENTRANCE SIGNAGE



2 ELEVATION 1:50
A500 BIKE CHARGING & ENTRANCE SIGNAGE





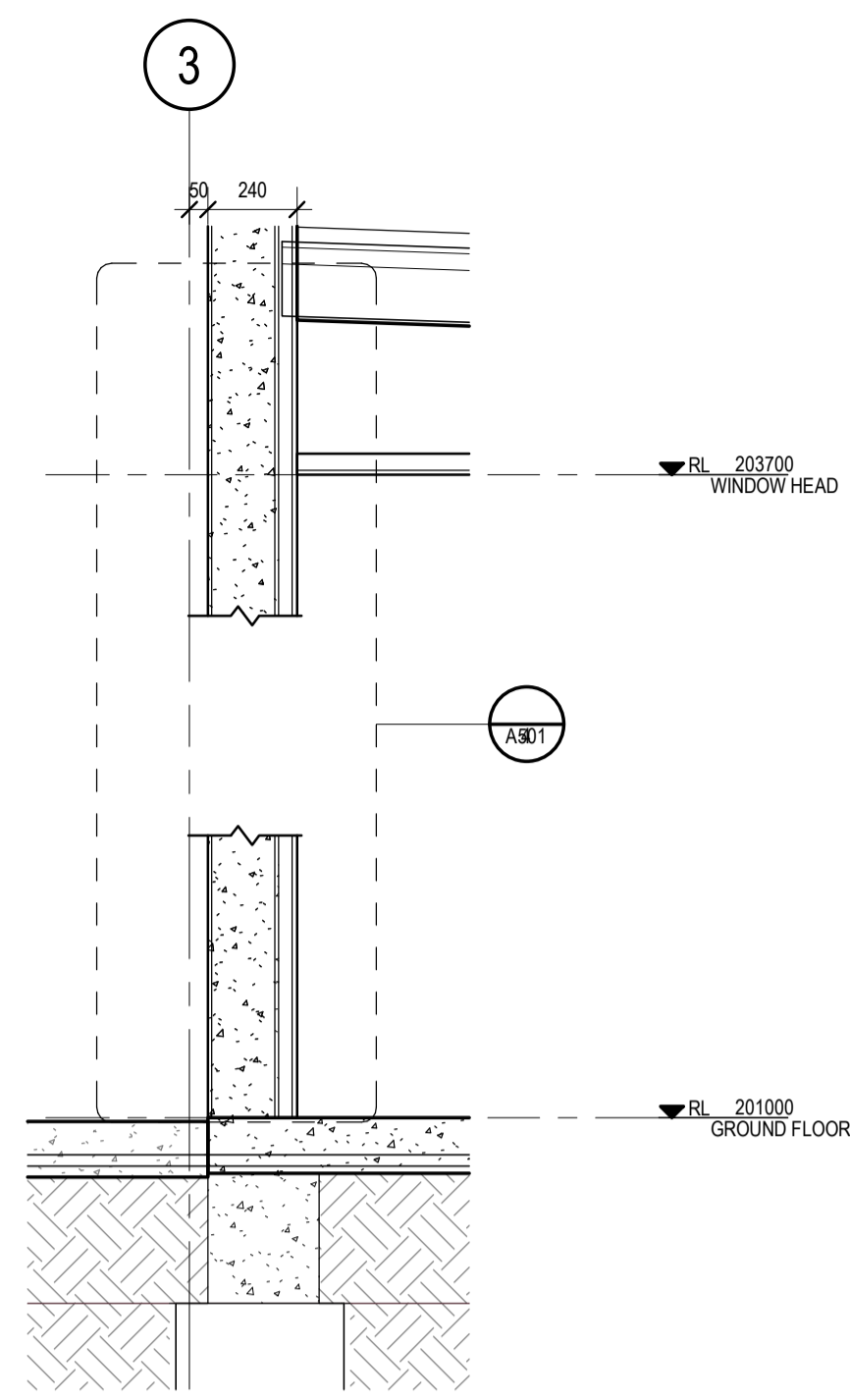
5 ELEVATION 1:50
A500 BIKE CHARGER SHELTER 2



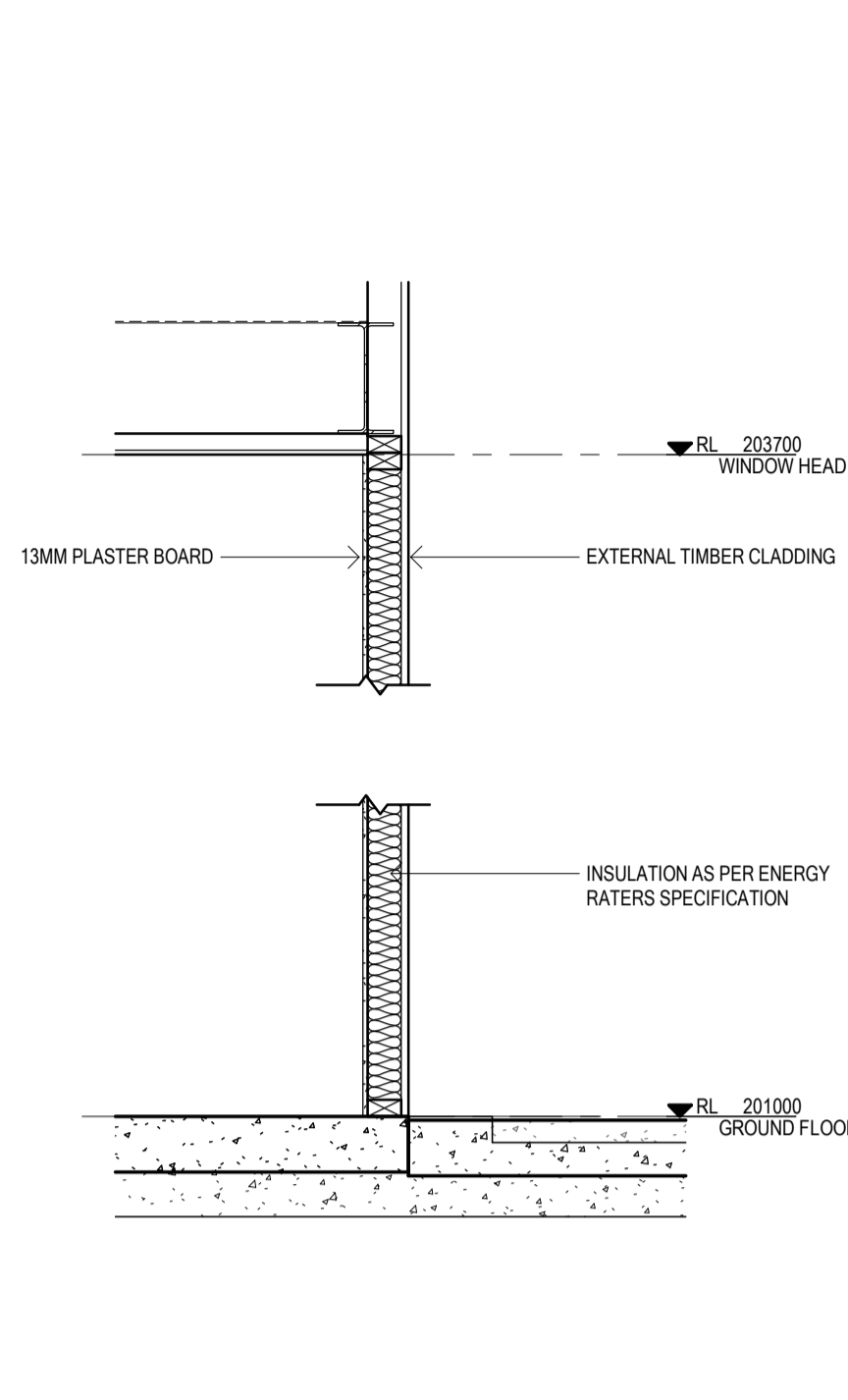
4 SECTION 1:50
A500 BIKE CHARGER SHELTER

DESIGN DEVELOPMENT

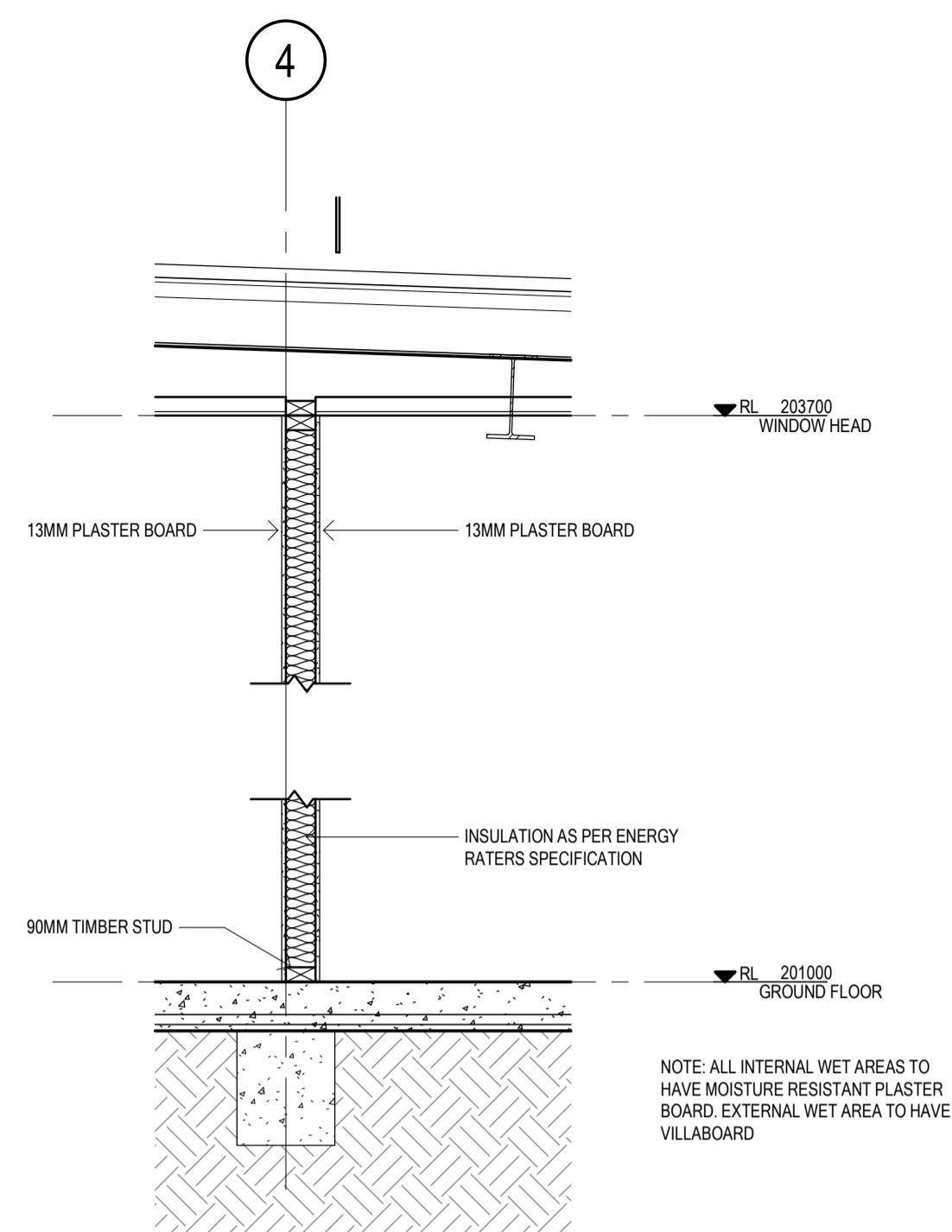
<p>ISSUE DESCRIPTION DATE</p>			<p>FILE: C:\Revit Local Files\G23009 Bellbridge Boat Shed_Central_jacksonT8462.rvt</p>					<p>FOUR18.COM.AU</p> <p>info@four18.com.au Unit 3, 5 Bridge St Newtown VIC 3220 T: 03 5222 5944 F: 5222 5049</p> 		<p>DRAWING TITLE DETAILS- ENTRY STRUCTURE</p>		<p>PROJECT BELLBRIDGE BOATHOUSE</p>		<p>DATE: 03/11/2023 DRAWN: JM CHECKED: DH JOB NO: G23009 SCALE: 1:50 @A1</p>		<p>DRAWING NO: A500</p>	
						<p>NORTH</p>		<p>Note: This drawing is copyright, unauthorized use of this design prohibited and may only be reproduced with the express written consent of the architects.</p>		<p>CLIENT TOWONG SHIRE</p>		<p>REVISION</p>					



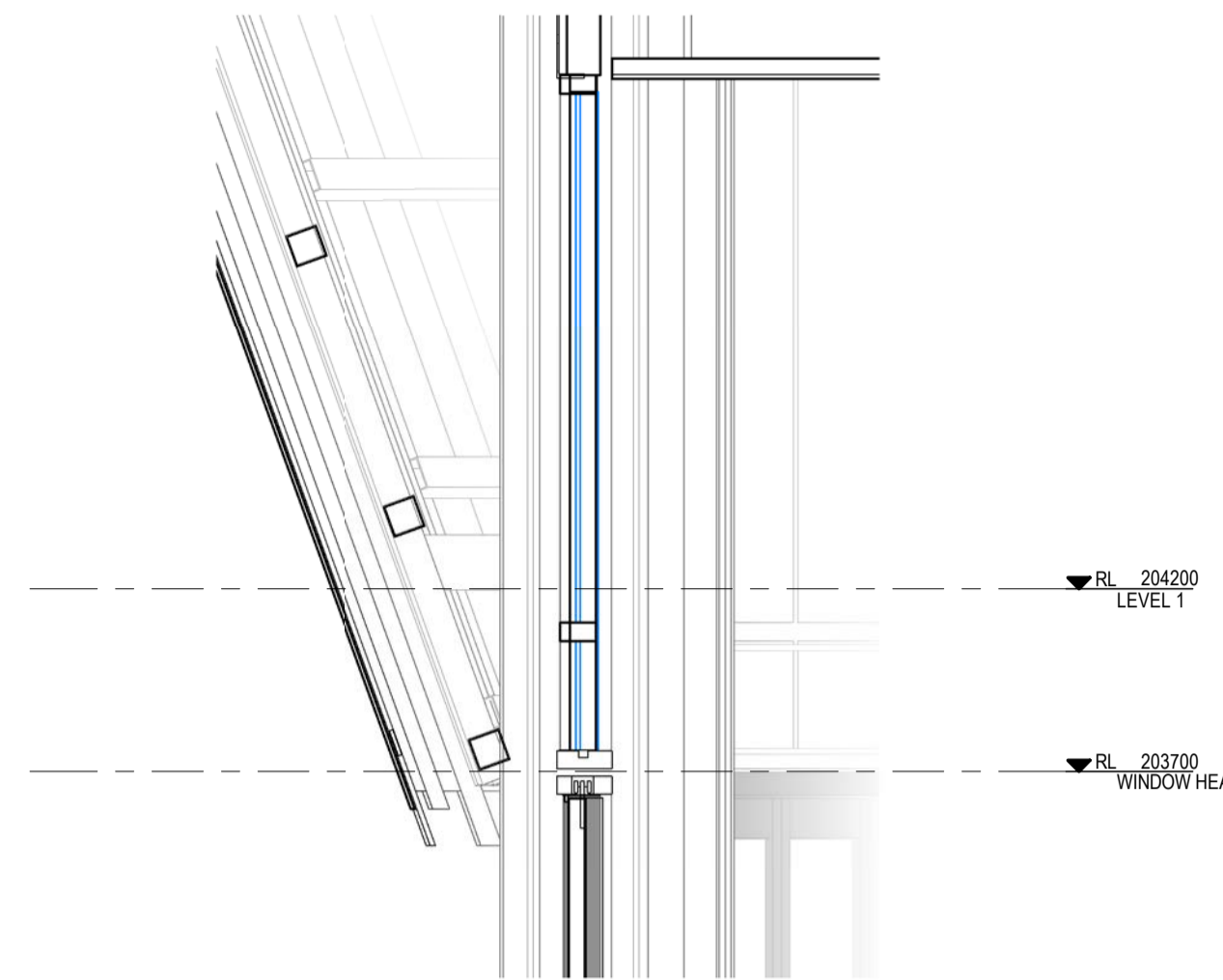
1 DETAIL
A402 WT1 1:20



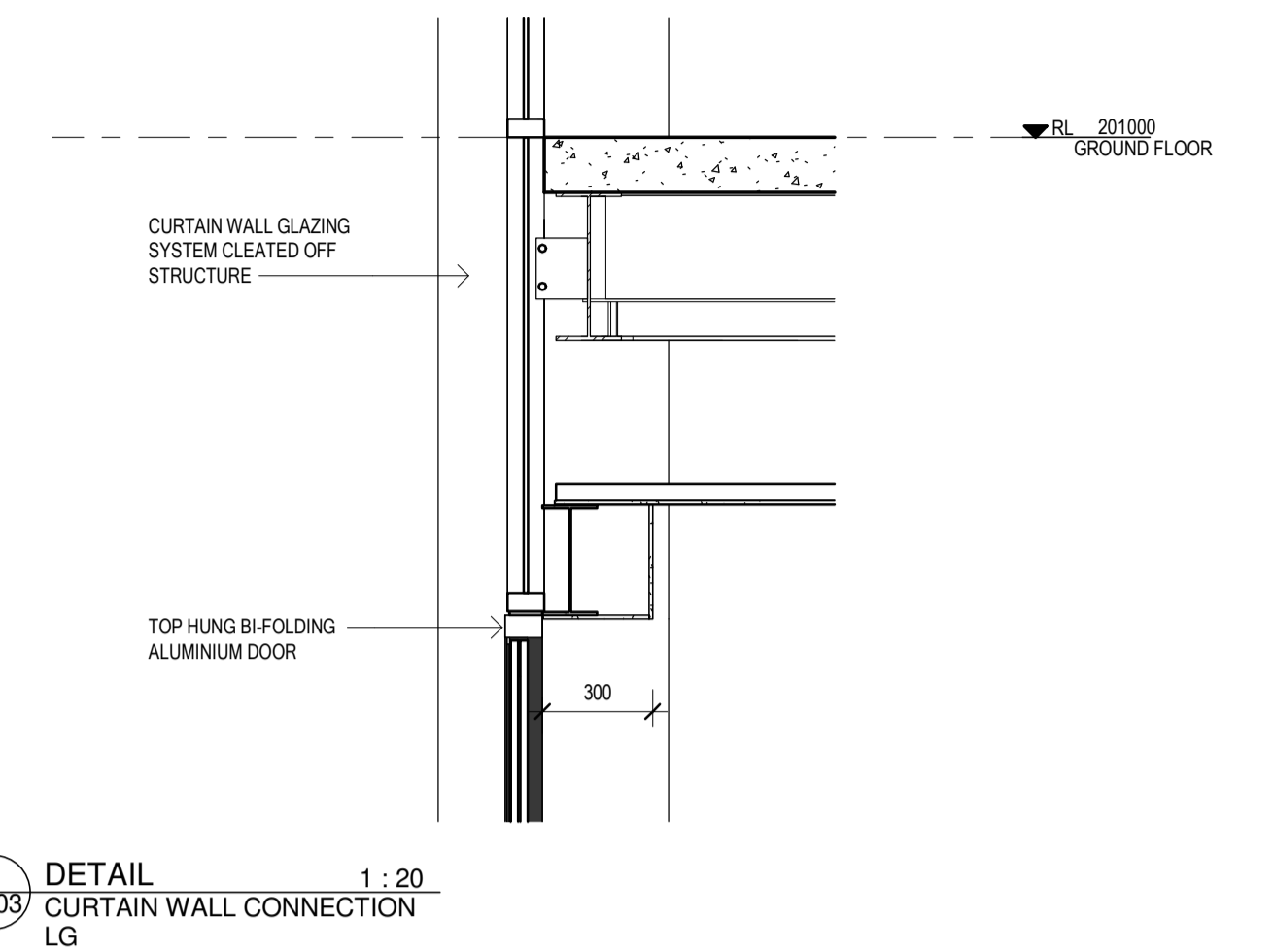
3 DETAIL
A400 WT2 1:20



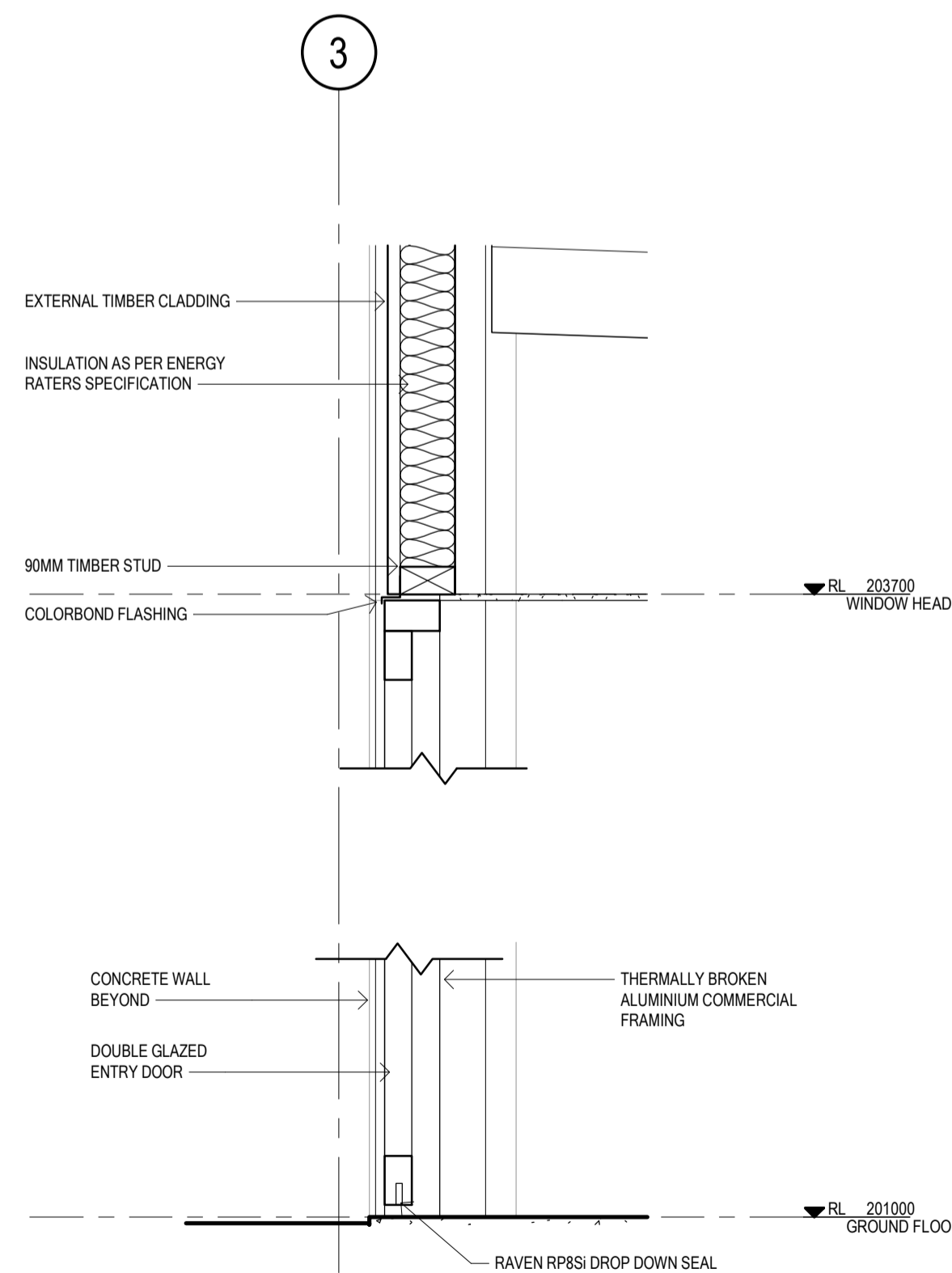
2 DETAIL
A402 WT3 1:20



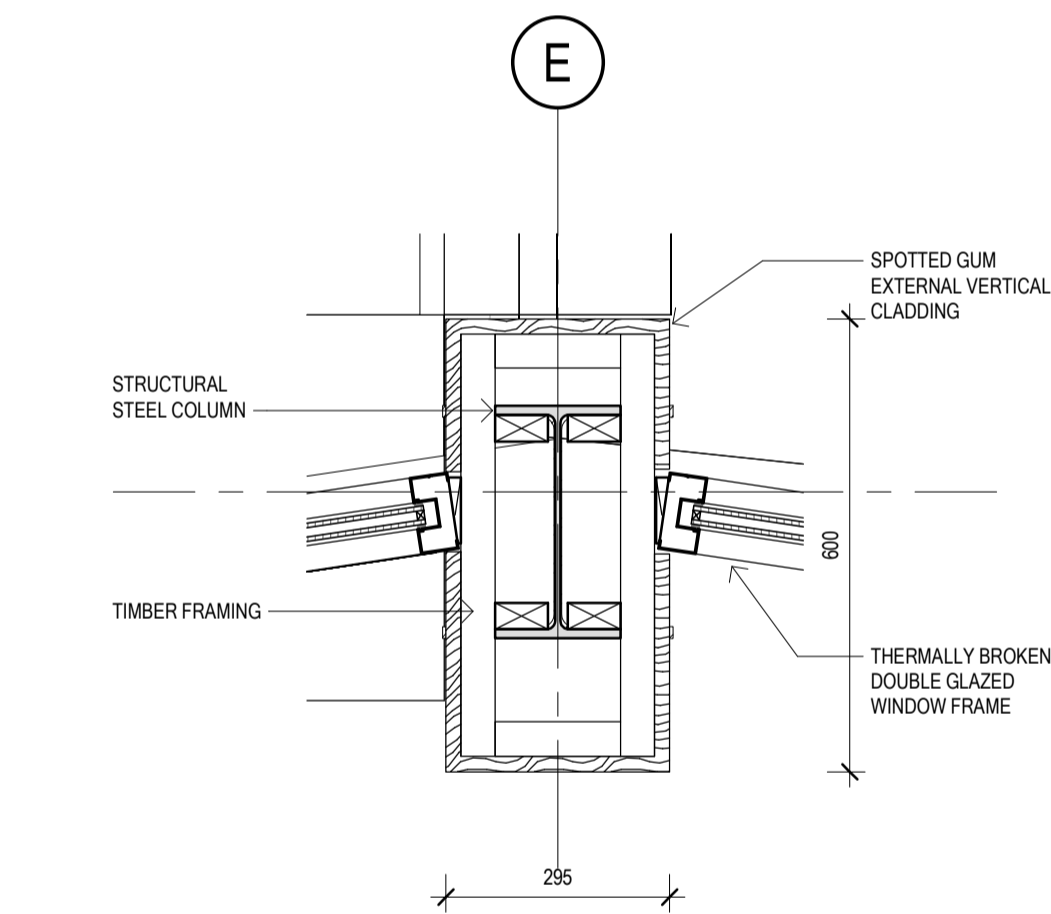
8 DETAIL
A102 CURTAIN WALL CONNECTION GF 1:20



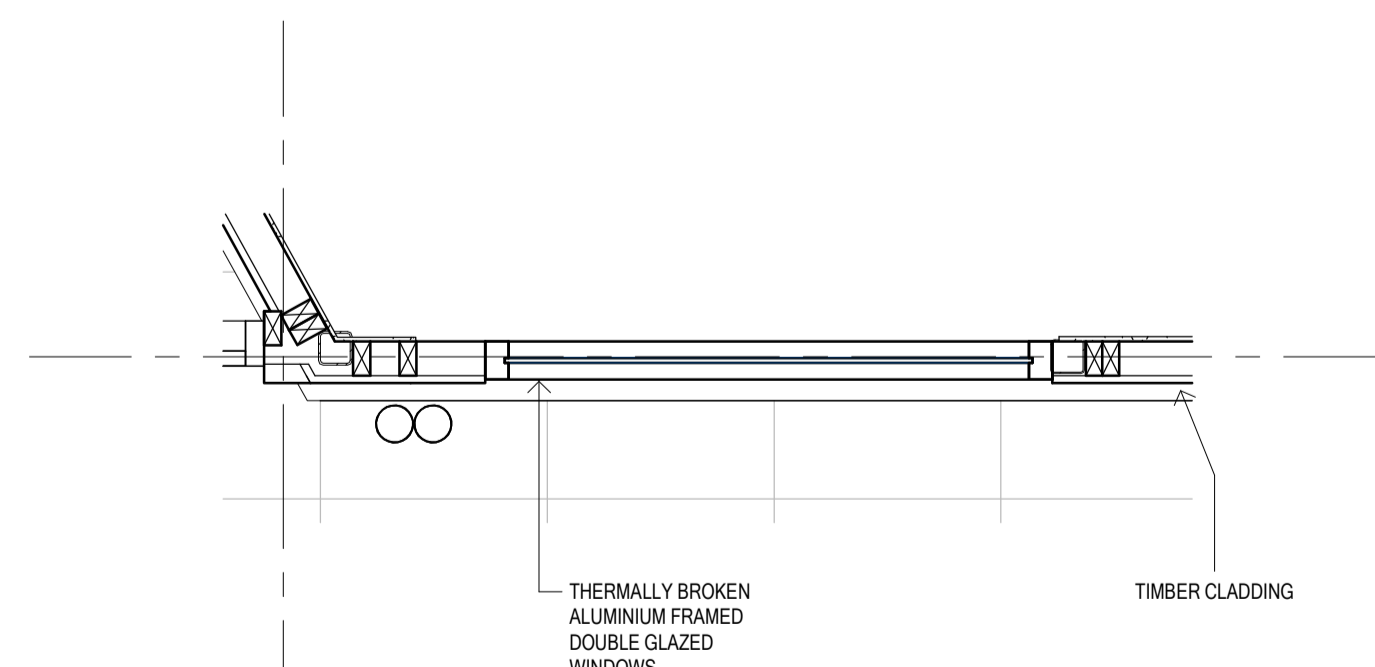
7 DETAIL
A103 CURTAIN WALL CONNECTION LG 1:20



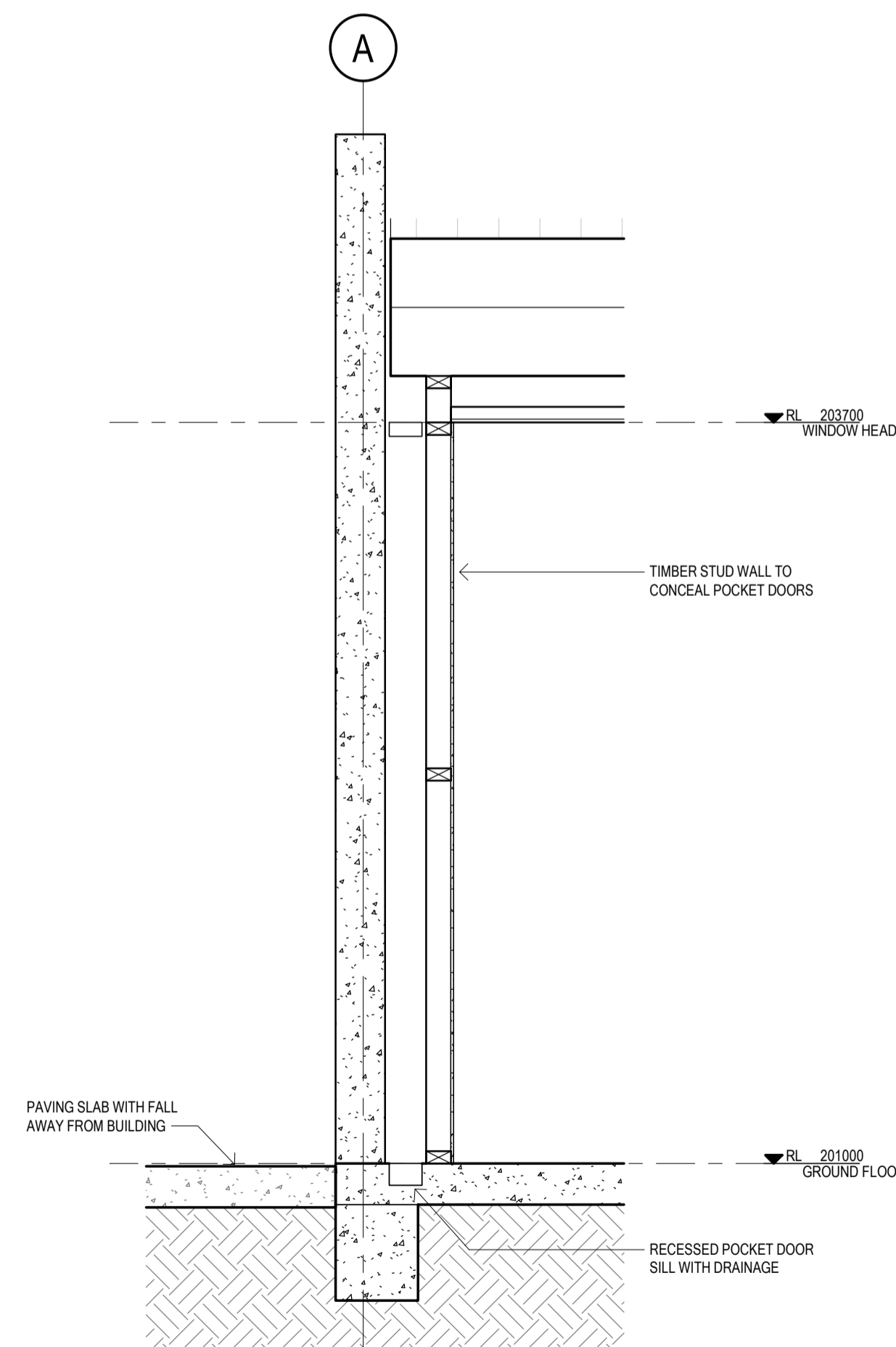
4 DETAIL
A402 CAFE HINGE DOOR 1:10



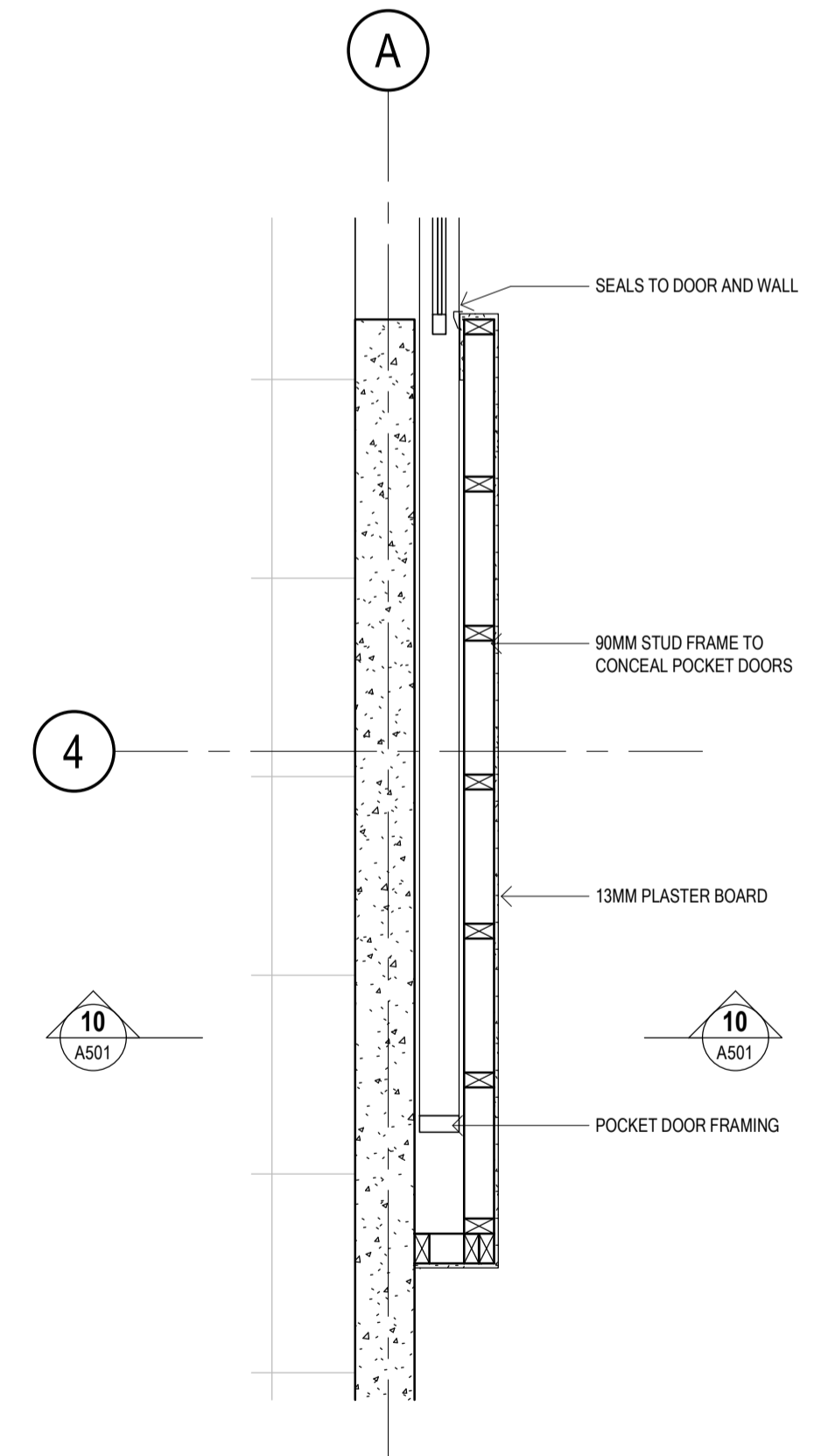
9 DETAIL
A102 TYPICAL COLUMN CLADDING 1:10



5 DETAIL
A102 WINDOW/WALL 1:20



10 DETAIL
A501 POCKET DOOR 1:20



6 DETAIL
A102 CAFE POCKET DOORS 1:20

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DETAILS 1

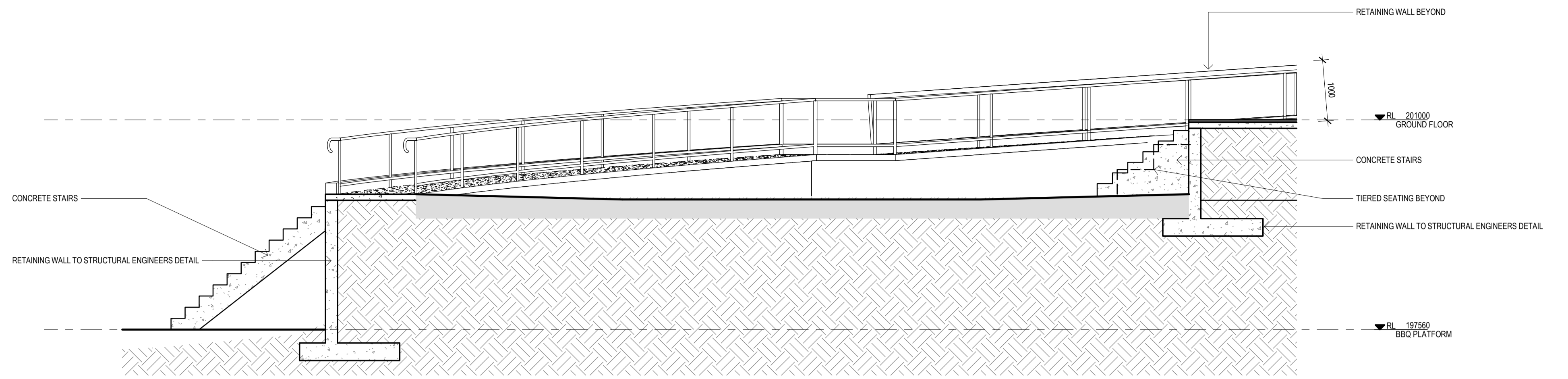
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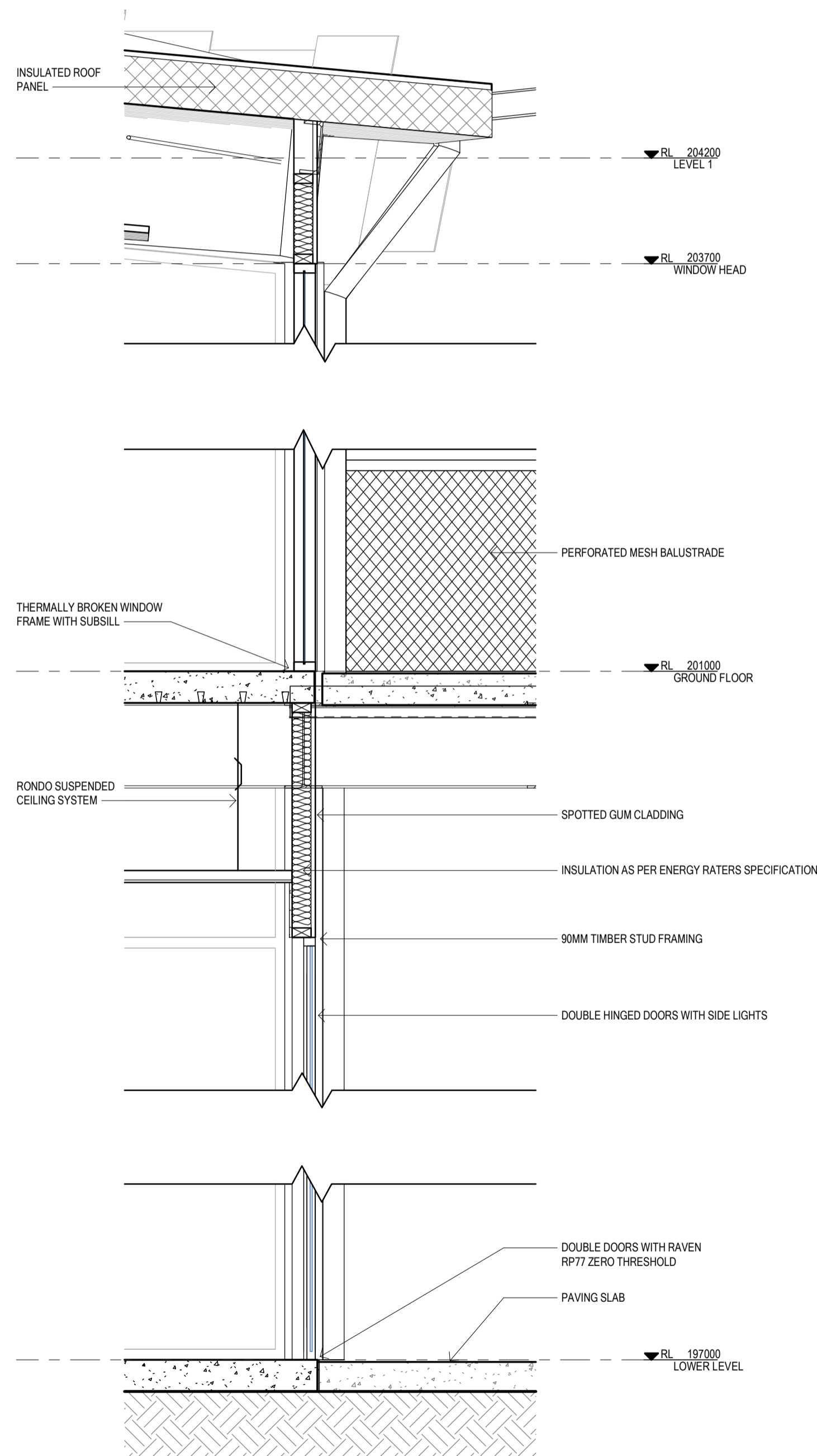
CLIENT
TOWONG SHIRE

DATE: 03/11/2023
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SCALE: As indicated @ A1

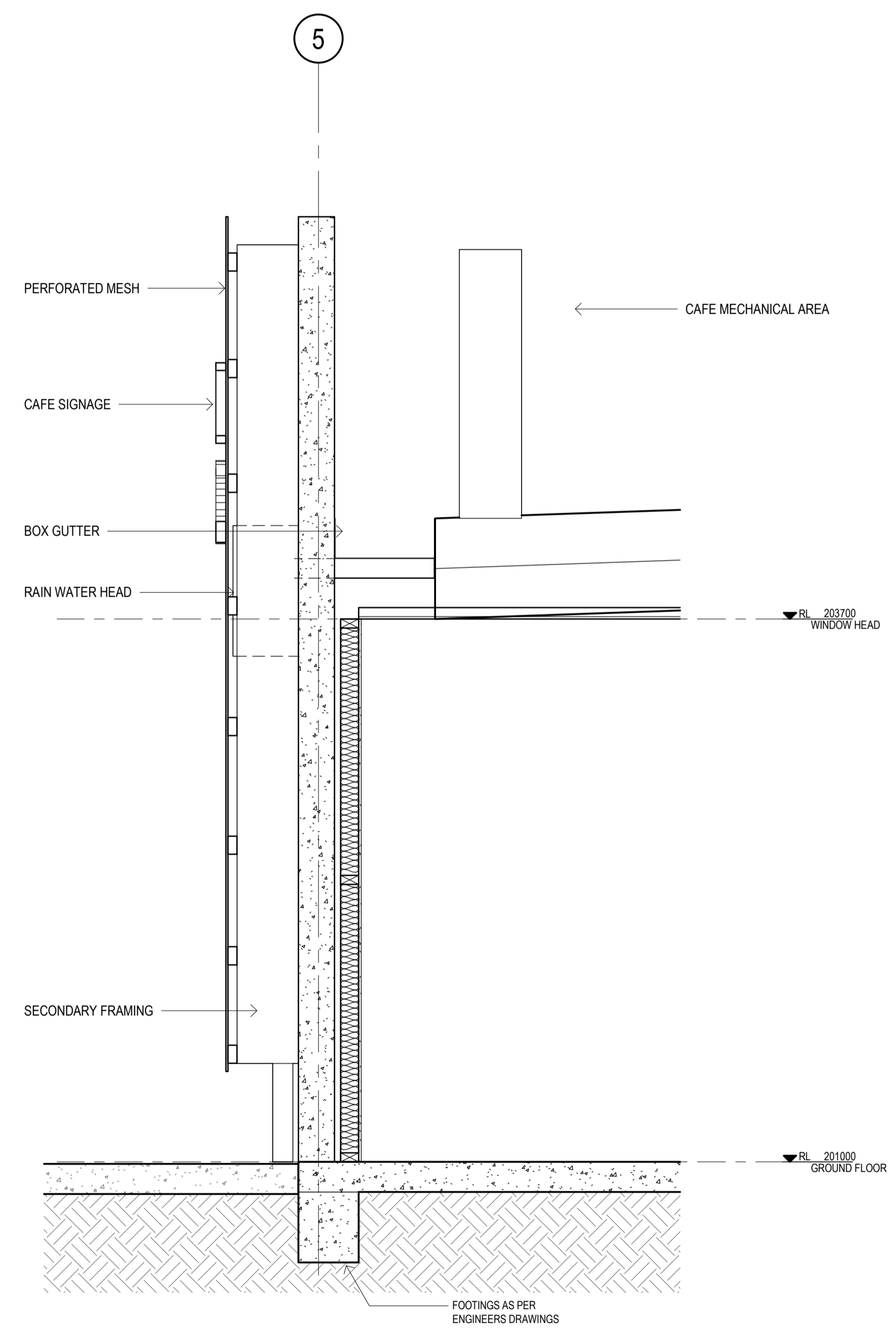
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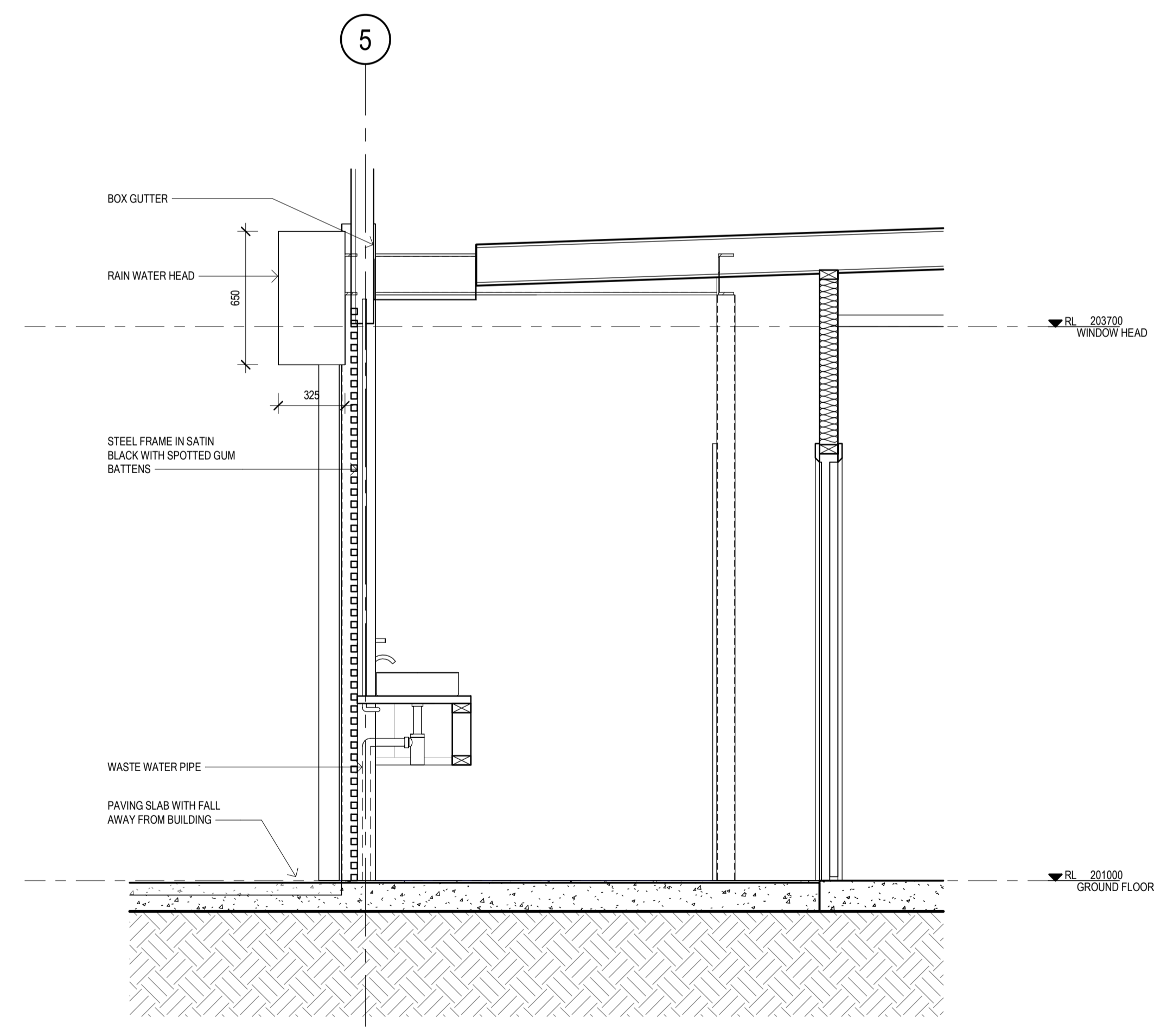
4 SECTION 1:50
 (A102) LANDSCAPED STEPPED DOWN SECTION



1 SECTION 1:20
 (A102) WALL / WINDOW



3 DETAIL 1:20
 (A102) CAFE FEATURE WALL



2 DETAIL 1:20
 (A102) EXTERNAL BATHROOMS

DESIGN DEVELOPMENT

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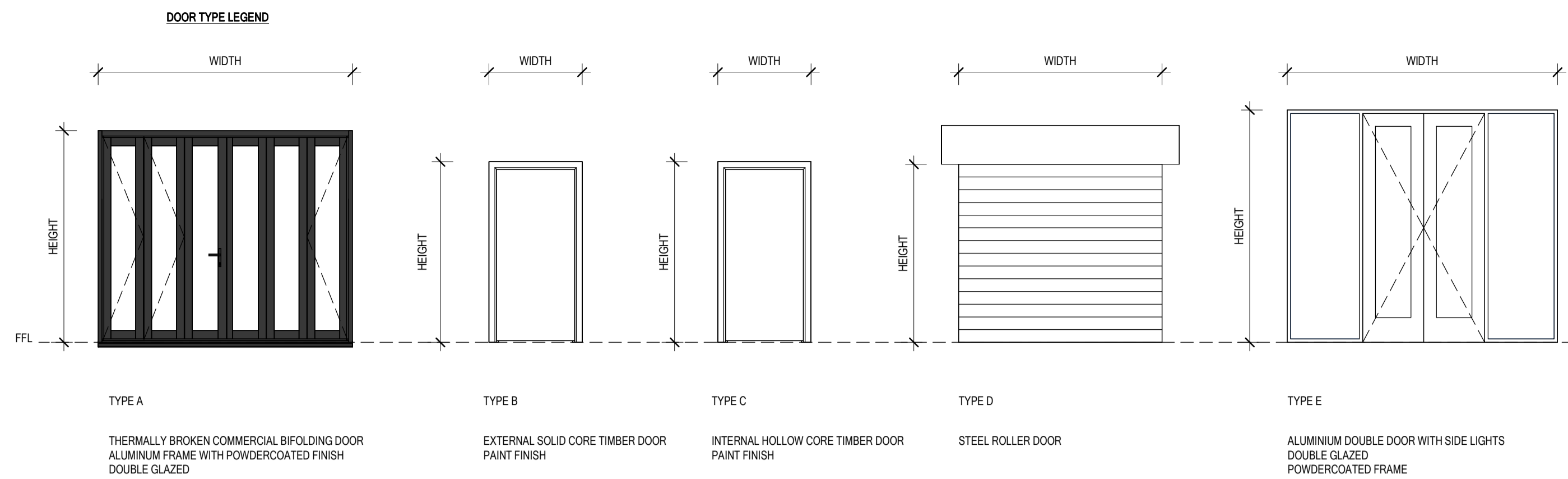
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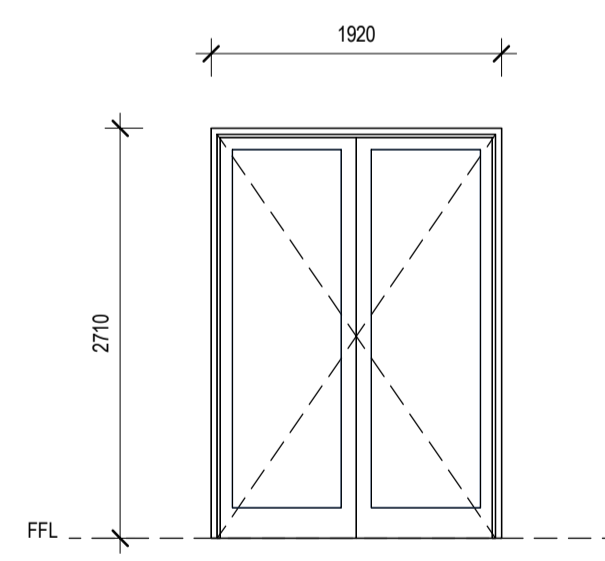
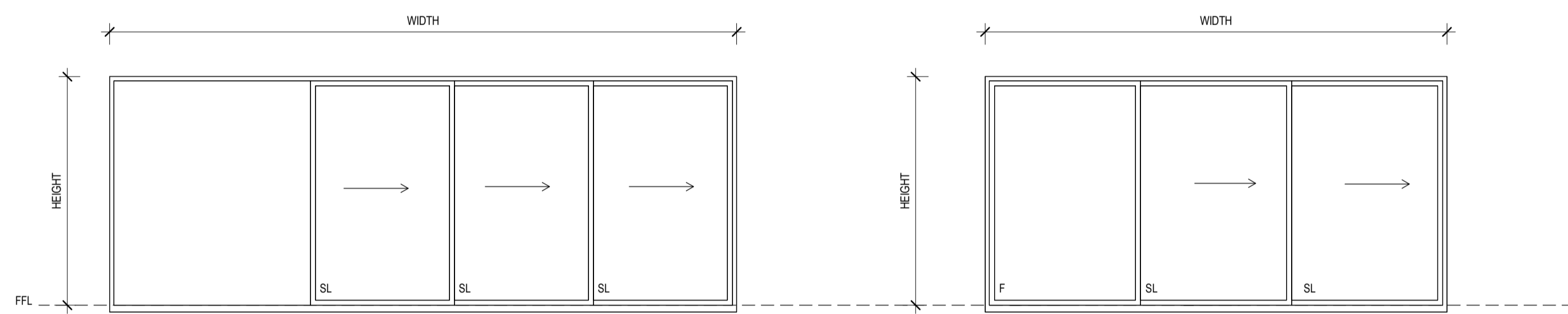
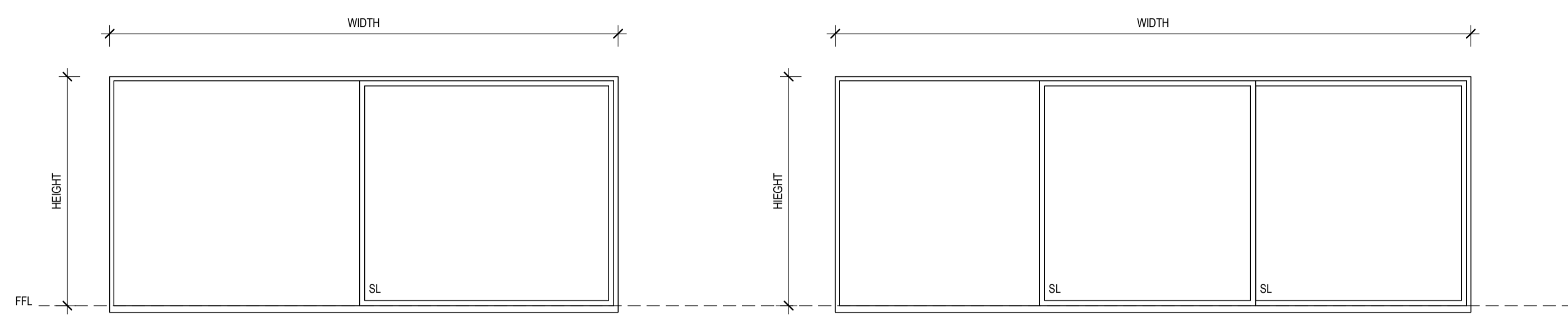
PROJECT
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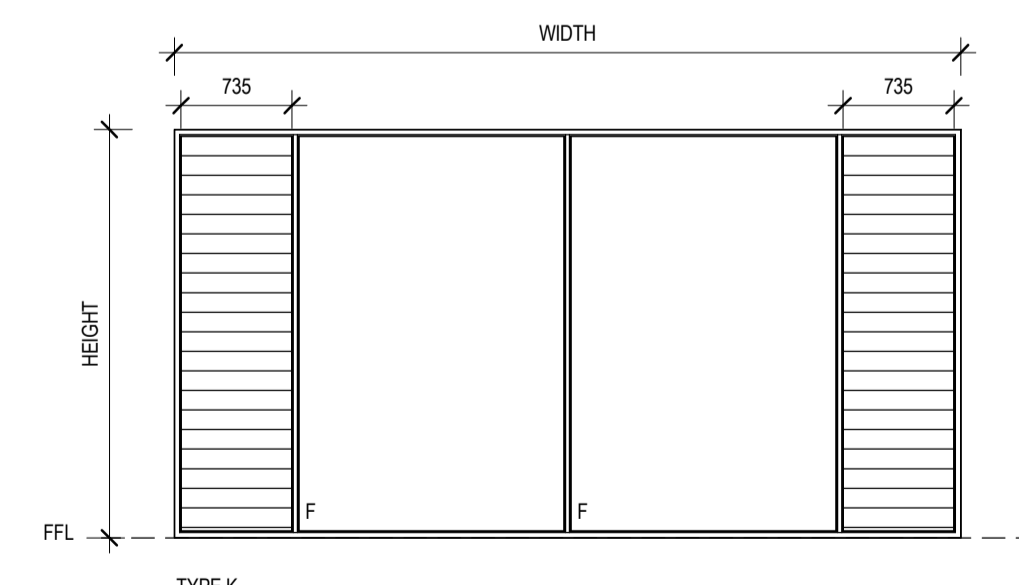
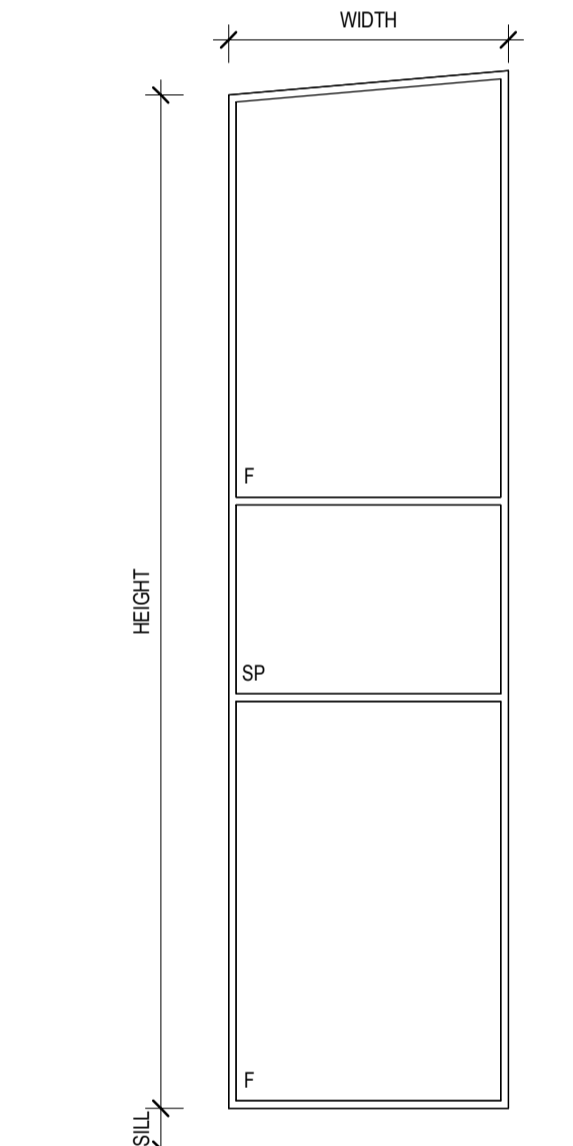
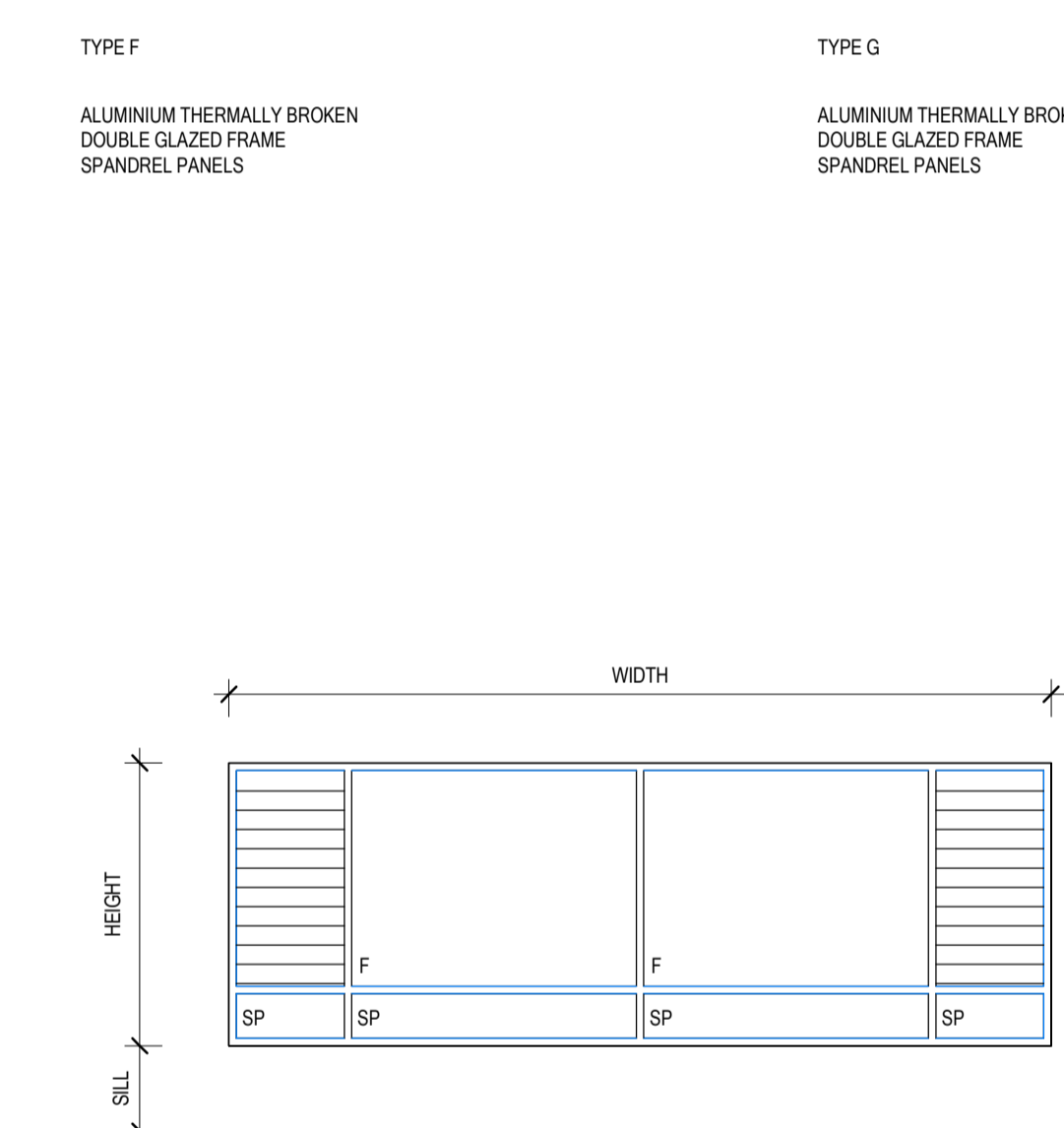
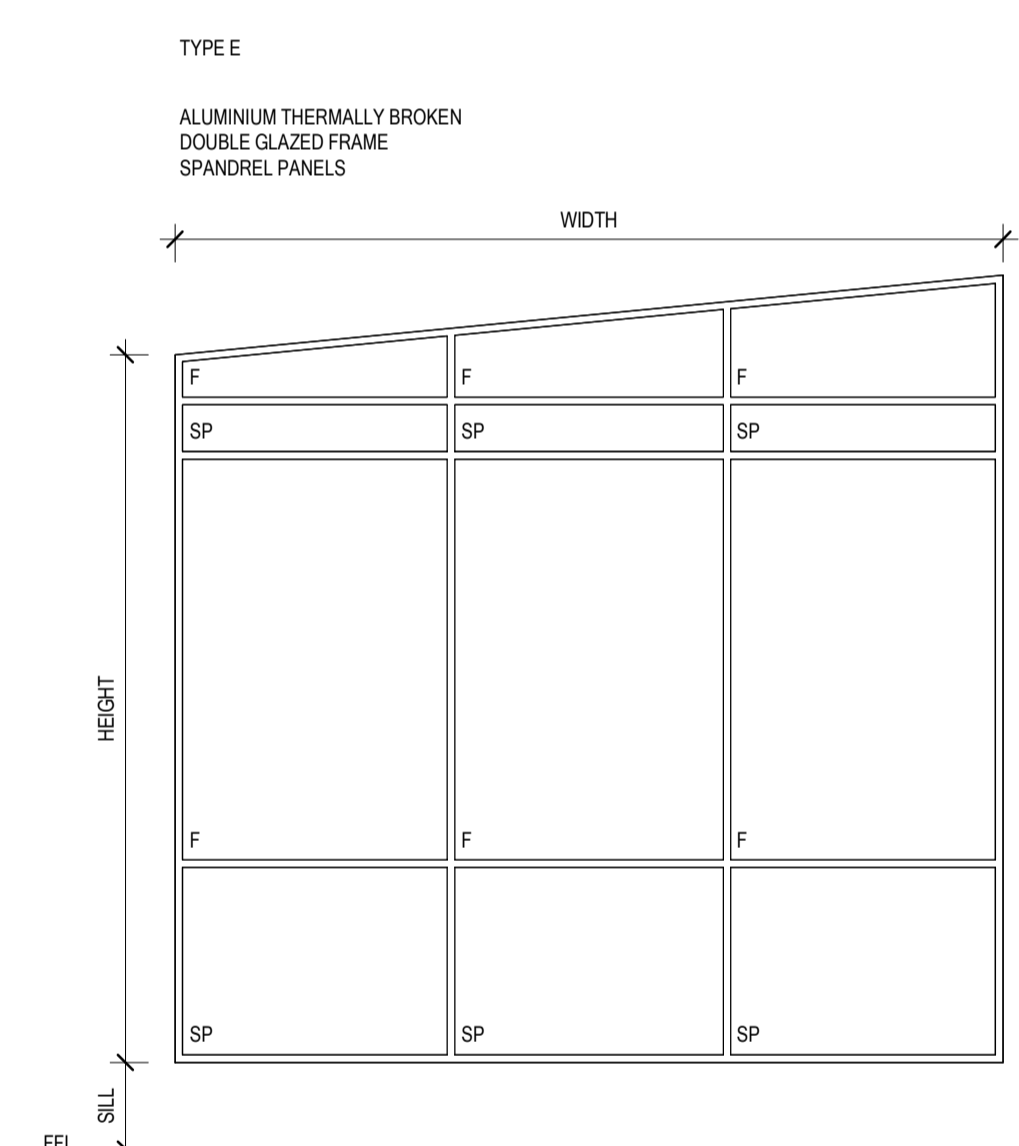
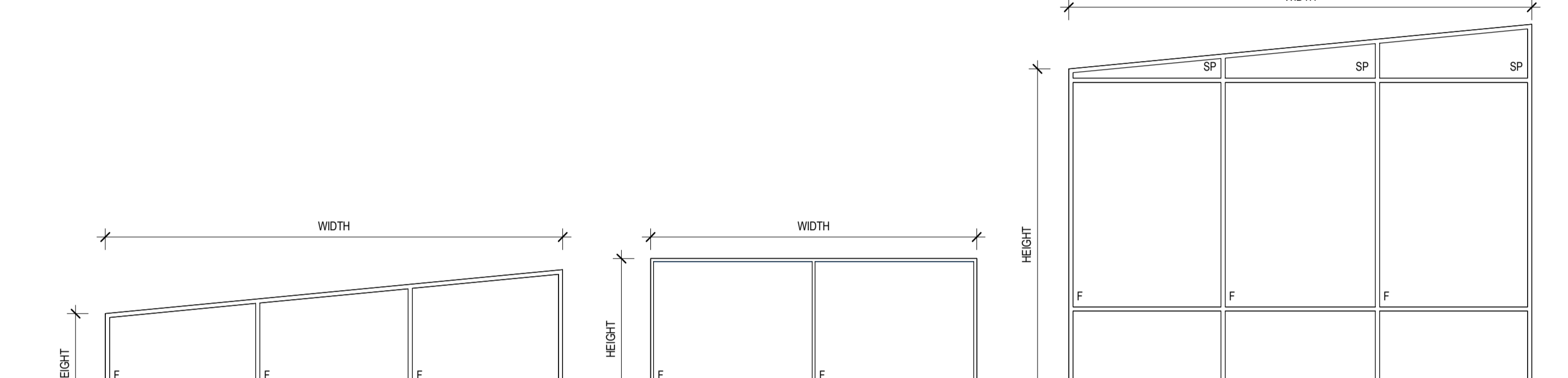
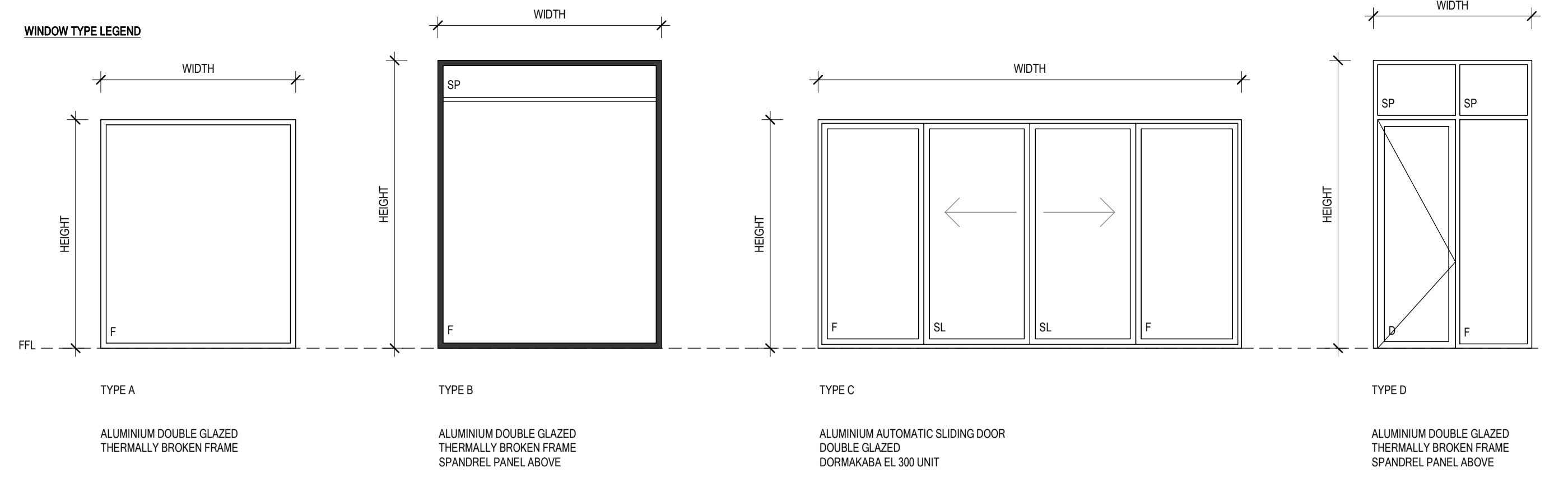
DRAWING NO:
A502
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NOTE: SEE FLOOR PLAN FOR CONFIGURATIONS



DOOR SCHEDULE										
NUMBER	ROOM NAME	DIMENSIONS		DOOR TYPE	DOOR		FRAME		DOOR HARDWARE	COMMENTS
		HEIGHT	WIDTH		DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH		
01	CAFE	2700	7500	G	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
03	BREEZEWAY	2700	7400	H	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
04	CAFE	2700	5450	I	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
05	COMMERCIAL 2	2700	6000	A	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
06	COMMERCIAL 1	2700	3900	A	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
07	BREEZEWAY	2700	6000	F	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
08	COMMERCIAL 2	2700	5525	A	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
09	COMMERCIAL 2	2700	5834	A	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
10	SOCIAL ROOM	2700	5400	A	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
11	SOCIAL ROOM	2670	1840	J	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	YES	
12	GROUND STORE	2040	820	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	NO	
13	BAR COLD STORE	2040	820	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	YES	BY COLD ROOM MANUFACTURER
14	BAR	2340	920	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	YES	
15	KITCHEN COLD STORE	2040	820	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	YES	BY COLD ROOM MANUFACTURER
16	KITCHEN	2340	920	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	YES	
17	AIRLOCK	2340	920	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	YES	
18	DISABLED	2040	920	B	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	NO	
19	FEMALE TOILET	2040	820	B	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	YES	
20	MALE TOILET	2040	820	B	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	YES	
21	CLEANER	2040	820	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	NO	
22	PUBLIC DISABLED	2040	920	B	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	NO	
28	BIN STORE	2040	770	B	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	NO	
29	MEETING	2700	5475	A	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
30	MEETING	2700	5465	A	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
31	MEETING	2340	1640	E	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
32	LOWER STORE	2400	3600	D	STEEL	POWDERCOAT	STEEL	GALVANISED	NO	
33	LOWER DISABLED	2040	920	B	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	NO	
34	LOWER UNISEX	2040	820	C	ALUMINIUM	POWDERCOAT	ALUMINIUM	POWDERCOAT	YES	
35	LOWER STORE	2040	820	C	TIMBER	PAINT	ALUMINIUM	POWDERCOAT	NO	



WINDOW SCHEDULE											
NUMBER	ROOM NAME	HEIGHT	WIDTH	SILL HEIGHT	WINDOW TYPE	GLAZING TYPE	WINDOW FRAME MATERIAL	WINDOW FRAME FINISH	INSECT SCREEN	COMMENTS	
01	CAFE	2700	2750	0		DOUBLE	ALUMINIUM	POWDERCOAT		CORNER BUTT JOIN WINDOW	
02	CAFE	2700	2300	0	A	DOUBLE	ALUMINIUM	POWDERCOAT			
03	COMMERCIAL 2	2700	1500	0	A	DOUBLE	ALUMINIUM	POWDERCOAT			
04	ENTRY	2700	3850	0	C	DOUBLE	ALUMINIUM	POWDERCOAT		AUTOMATIC DOUBLE DOOR	
05	SOCIAL ROOM HL	1900	5525	2710	I	DOUBLE	ALUMINIUM	POWDERCOAT			
06	SOCIAL ROOM HL	1825	5835	2710	D	DOUBLE	ALUMINIUM	POWDERCOAT			
07	SOCIAL ROOM HL	1260	5400	2710	D	DOUBLE	ALUMINIUM	POWDERCOAT			
08	SOCIAL ROOM	4680	5475	2710	H	DOUBLE	ALUMINIUM	POWDERCOAT			
09	SOCIAL ROOM	4150	5465	2710	G	DOUBLE	ALUMINIUM	POWDERCOAT			
10	MEETING / SOCIAL ROOM	6700	1850	0	J	DOUBLE	ALUMINIUM	POWDERCOAT			
11	SOCIAL ROOM	2700	5200	0	K	DOUBLE	ALUMINIUM	POWDERCOAT			
12	ENTRY HL	1900	3850	2710	F	DOUBLE	ALUMINIUM	POWDERCOAT			
13	CAFE	2700	400	0		DOUBLE	ALUMINIUM	POWDERCOAT			

DESIGN DEVELOPMENT

ISSUE	DESCRIPTION	DATE

FILE: C:\Revit Local Files\G23009 Bellbridge Boat Shed_Central_jacksonT8462.rvt

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FOUR18

FOUR18 ARCHITECTS

DRAWING TITLE
SCHEDULES

CLIENT
TOWONG SHIRE

PROJECT
BELLBRIDGE BOATHOUSE

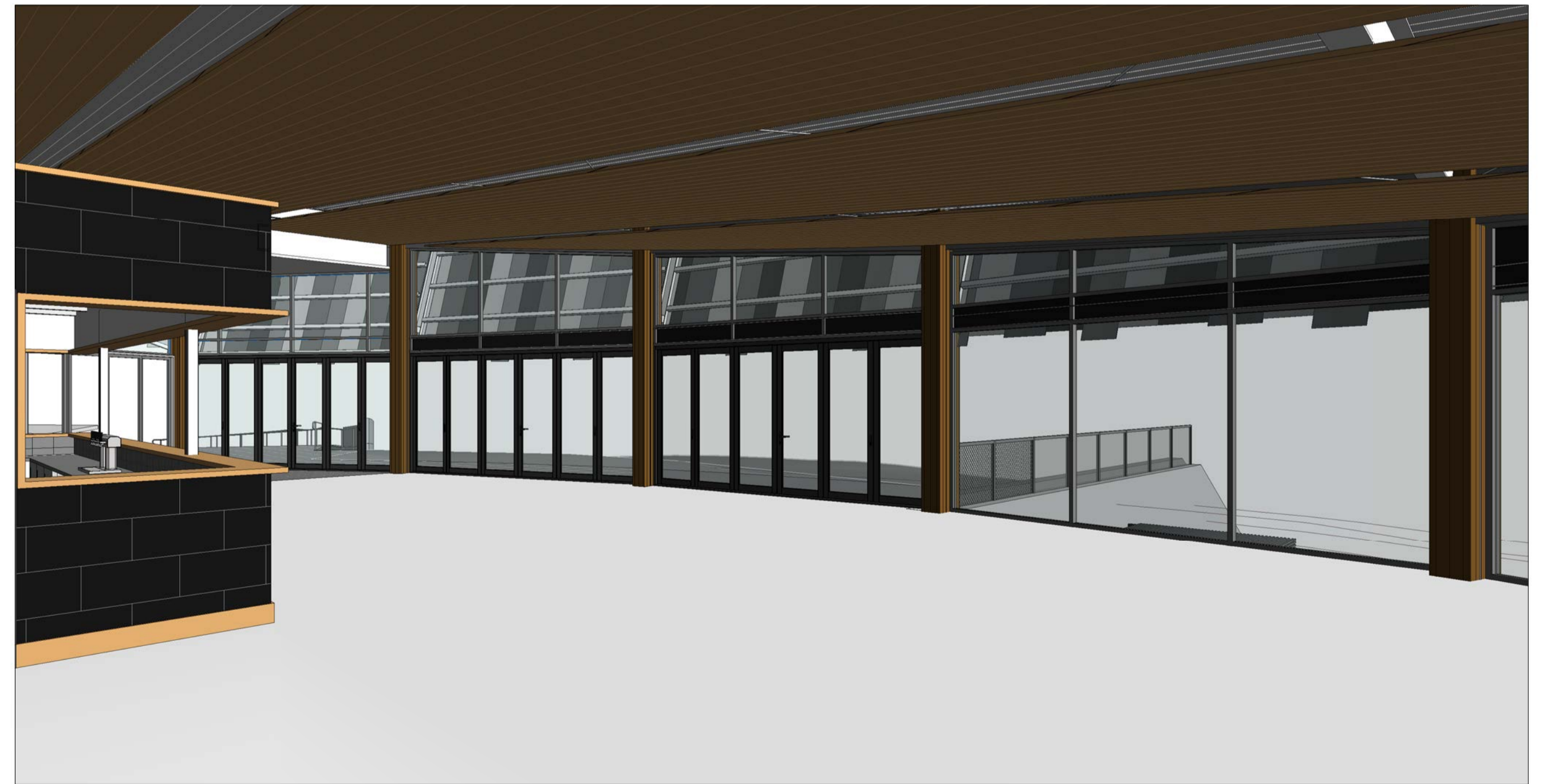
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CHECKED: DH
JOB NO: G23009
SCALE: 1:50 @ A1

DRAWING NO:
A700

REVISION

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NORTH



DESIGN DEVELOPMENT

ISSUE	DESCRIPTION	DATE

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NORTH

DRAWING TITLE
 PERSPECTIVE VIEWS

PROJECT
 BELLBRIDGE BOATHOUSE

CLIENT
 TOWONG SHIRE

DATE: 03/11/2023
 DRAWN: JM
 CHECKED: DH
 JOB NO: G23009
 SCALE: @ A1

DRAWING NO:
A800

REVISION








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Fittings, Furniture & Equipment Schedule








DESCRIPTION	LOCATION	PRODUCT	SUPPLIER	CODE/CLR	PROVIDE & INSTALLED BY	IMAGE	REV
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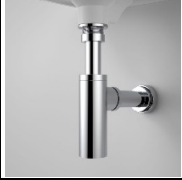






Confirm all quantities with Detailed Drawings












SANITARY FIXTURES, FITTINGS





Toilet Suite	All toilets except DDA & Ambulant	Caroma Luna Square Cleanflush® Wall Faced Toilet Suite	Caroma	846410W	Contractor		0
Accessible Toilet Suite	Disabled toilet	Product Range: Linkware Product: Linkcare Grey Assisted Living Suite - S Trap Finish: White Seat: Anthracite Grey Provide Mini cistern stop	Linkware Australia Ph: 02 9912 5900	Product Code: TS565G	Contractor		
Ambulant Toilet Suite	All Ambulant Cubicles	ROCA The Gap close coupled back to wall back inlet comfort height Toilet Suite	Reece Ph: (03) 5222 2144	Product Code: 9505426	Contractor		
Urinal	Male Toilets	Cube .8l urinal Series II	Caroma Ph: 1300 661 943	Code 678800W	Contractor		
Toilet roll holders	Disbaled toilet	Surface Conventional Toilet Roll Dispenser	Tork PH: 1800 643 634	Code: 557000 7322540354898	Contractor		
Toilet roll holders	All toilets except DDA	Surface Mounted Mini Jumbo Toilet Roll Dispenser 750mm base clearance	Tork PH: 1800 643 634	Code: 555500 7322540584530	Contractor		
Hand dryer	Amenties	Product Range: Velo Fuga Hand Dryer - ABS in Black	Velo Hand Dryers Ph: (02) 9773 0708	01851.BK	Contractor		0

DESCRIPTION	LOCATION	PRODUCT	SUPPLIER	CODE/CLR	PROVIDE & INSTALLED BY	IMAGE	REV
Soap Dispenser	Amenities	Tork Liquid Soap Dispenser - black	Tork PH: 1800 643 634	Code: 560000 7322540355031	Contractor		0
Accessibility compliant Basin mixer	Disabled toilet	Accessible compliant Basin Mixer Caroma Pin Lever Care Basin Mixer	Caroma Ph: 1300 661 943	Code: 872563C5A	Contractor		
Bottle Trap	Disabled toilet	Product Range: Mizu Drift Bottle Trap with Sleeve 40mm Chrome	Reece Ph: (03) 5222 2144	Code: 9502124	Contractor		
Accessibility compliant basin	Disabled toilet	Product Range: Highgrove Bathrooms Product : KUBICA Wall mount Basin RHB. Include chrome bottle trap & wastes/plugs	Highgrove Bathrooms Ph: 5221 7481		Contractor		
General Mirror	Amenities	Frameless with Polished edges	Generic		Contractor		
Safety Grab Rails & Backrest	Disabled toilet	Product Range: RBA Accessible Compliant 90deg Angled 2 Wall Grab Rail with Backrest	RBA Ph: 1300 788 778	RBA4150-229	Contractor		
Ambulant toilet grab rails	Male and Female	90 degree Grab Rail, Ambidextrous, Ambulant. Stainless Steel, 32 Dia. 2 No. Rails per ambulant cubicle	RBA Ph: 1300 788 778	RBA4090-450	Contractor		
VANITY	INTERNAL BATHROOM	Kado Neue All-Drawer 1800 Double Bowl Wall Hung Caesarstone	REECE	CODE : 2351480	CONTRACTOR		0

DESCRIPTION	LOCATION	PRODUCT	SUPPLIER	CODE/CLR	PROVIDE & INSTALLED BY	IMAGE	REV
Basin	INTERNAL BATHROOM	Roca Inspira Light Round Above Counter Basin 370mm White	REECE	CODE : 9510256	CONTRACTOR		
Mixer	INTERNAL BATHROOMS	DYSON TAP HAND DRYER WALL: AIRBLADE™ TECHNOLOGY	REECE	P-DYSABTW	CONTRACTOR		0
Baby Change	Disabled toilet	KOALA KARE VERTICAL BABY CHANGE TABLE RECESSED	RBA Ph: 1300 788 778	KB311-SSRE	CONTRACTOR		
Cleaners Sink	Cleaners	Product: Cleaners sink with grate	Enware Ph: (03) 9550 0300	Product Code: EWS600	Contacto		
Ceaners tap	Cleaners	3monkeez cleaners sink tap	3monkeez (02) 9627 6111	Code: T-3MCSTS	Contacto		
Accessible Shower and Grabrail	Accessible shower	Shower 'T' Grab Rail with Mixer, Handset, Slider & Hose	RBA Ph: 1300 788 778	Left Hand : RBA 4110-931 Right Hand:RBA 4110-930	Contractor		
Coat Hook	Staff shower & disabled shower	Robe Hook	Abey Australia 57-81 Abey Rd, Cobblebank VIC 3338 Phone: 03 9747 7777	PRH-B	Contractor		
Recessed Shower Soap Dish	Accessible & Staff Shower	Product Range: Bobrick Recessed Soap Dish - White	RBA Ph: 1300 788 778	Code: RBA8132-117	Contractor		
Shower Curtain Track and Curtain	Accessible toilet	Safety Rails Australia Product : 1100 x 1100 including corner dropper (AS 1428.1 compliant) Finish: SS & concealed fixings including weighted curtain to suit.	RBA Ph: 1300 788 780	Product Code: SR003	Contractor		

DESCRIPTION	LOCATION	PRODUCT	SUPPLIER	CODE/CLR	PROVIDE & INSTALLED BY	IMAGE	REV
Shower Seat	Accessible toilet	Product Range: Folding Shower Seat - Black	RBA Ph: 1300 788 778	Code: RBA4157-777-004	Contractor		
Public WC Basins	Public WC	Harlow Round Basin Sink - Stainless Steel	ABI Interiors	SKU: 11749	Contractor		
Public WC MIXERS	Public WC	Mecca Hob Basin Commercial Electronic Sensor Tap (Curved Spout) 6Star 6Star Chrome	Tradelink	Product Code: 195069	Contractor		
Public WC BOTTLE TRAP	Public WC	Urbane II Bottle Trap 40mm Chrome	Tradelink	Product Code: 123008	Contractor		
SITE EQUIPMENT							
4 Bay E-Bike Charging Station				https://www.all4cyclin g.com.au/shop/ebike-charging-station/			0
AQUA COOLER Australia		Outdoor Drinking Fountain & Bottle Filler	https://www.watercoolersuperstore.com.au/products/outdoor-drinking-fountain-and-bottle-refill-station?RecID=147&ad_source=18&ad_campaign=18&ad_content=18	SU650			0
JOINERY FITTINGS							
Joinery Handles	Cupboard & Drawer Handles to all cupboards	Häfele Design Model H1960	Hafele	106.69.501 KNOB BLACK MATT 60X28MM H1960	Contractor		0
BAR							
Classeq G400 Glasswasher				https://www.nisbets.com.au/classeq-eco-2-glasswasher-g400/cb968			
Commercial Glass Door Display Fridge 2000ltr With 3 Hinged Doors				https://cksonline.com.au/product/display-fridge-2000ltr-3-door			
Three Door Commercial Glass Door Worktop / Under Bench Display Fridge				https://newhand.com.au/products/three-door-commercial-glass-door-worktop-under-bench-display-fridge-700mm-			

DESCRIPTION	LOCATION	PRODUCT	SUPPLIER	CODE/CLR	PROVIDE & INSTALLED BY	IMAGE	REV
AG Ice Machine - 55Kg/24Hr				https://restaurantequipment.com.au/collections/under-bench-ice-maker/products/ag-under-bench-ice-machine-55kg-24hrs-			
3-Door Super Deluxe Commercial Grade Kegerator - Premium Draft				https://www.kingsbottle.com.au/products/super-deluxe-commercial-grade-kegerator-premium-draft-beer-			
COMMERCIAL CAFÉ KITCHEN							
Washtech by Moffat Under Bench Dishwasher UD				https://www.nisbets.com.au/washtech-undercounter-dishwasher-ud/gr907			
EF-28L - Electric Fryer With Cold Zone				https://leadingcatering.com.au/catering-equipment/cooking-equipment/gas-and-electric/commercial-deep-fryers/ef-28l-electric-fryer-with-cold-zone/			0
Roband G700 Electric Griddle Hotplate - Very High Production				https://mvocateringsolutions.com.au/roband-g700-griddle-hotplate-very-high-production.html?gad_source=1&gclid=CjwKCAjwP8OpBhAFiEiwAC7N5E1YvCIEhM			
Waldorf RN8600E-LS - 900mm Electric Cooktop with Leg Stand				https://caterinc.com.au/waldorf-rn8600e-ls-900mm-electric-cooktop-with-leg-stand.html?gclid=CjwKCAjwP8OpBhAFiEiwAC7N5E1YvCIEhM			
SIMCO MBF8005 Top Mounted 2 Door Refrigerator 1314 Mm				https://commercialfridgesales.com.au/product/simco-mbf8005-top-mounted-2-door-refrigerator-1314-mm/			
Glass Counter Fridge 545ltr – 4 Doors (223cm Long 70cm Deep)				https://cksonline.com.au/product/borrelli-stainless-steel-counter-fridge-with-4-glass-doors			
AUTOBOIL 15 LITRE WHITE				https://www.zipwater.com/shop/on-wall-boiling/autoboil-15-litre-white-415052			
COMMERCIAL KITCHEN							
EF-28L - Electric Fryer With Cold Zone				https://leadingcatering.com.au/catering-equipment/cooking-equipment/gas-and-electric/commercial-deep-fryers/ef-28l-electric-fryer-with-cold-zone/			0
Blue Seal Evolution Series EP516-LS 900mm Electric Griddle Leg Stand				https://flexikitch.com.au/products/blue-seal-evolution-series-ep516-ls-900mm-electric-griddle-leg-stand-ep516-ls-variant-426262759			

DESCRIPTION	LOCATION	PRODUCT	SUPPLIER	CODE/CLR	PROVIDE & INSTALLED BY	IMAGE	REV
Electrolux Pass Through Dishwasher Hood Type EHT8G				https://www.nisbets.com.au/electrolux-pass-through-dishwasher-hood-type-eh8g-direct/fy549			
Waldorf 800 Series RNL8619EC - 900mm Electric Range Convection Oven Low Back				https://www.industrykitchens.com.au/waldorf-800-series-rl8619ec-900mm-electric-range-convection-oven-low-back-version			
AUTOBOIL 15 LITRE WHITE				https://www.zipwater.com/shop/on-wall-boiling/autoboil-15-litre-white-415052			
SIGNAGE							
All Gender Toilets & Shower	Entrance to toilet Airlock & Disabled Toilet entrance	Black Acrylic Braille Sign	Braille Sign Supplies	SKU: BF-AGATLS-BLACK	Contractor		0
LIGHTING							
Feature Pendant	Social Space entry	Custom Designed Pendant	Bluelab Design	Black	Contractor	