

ACCORDANCE WITH THE WORK HEALTH AND SAFETY ACT AND REGULATIONS 2011, THE FOLLOWING TASKS HAVE BEEN IDENTIFIED AS POTENTIAL CONSTRUCTION HAZARDS ASSOCIATED WITH IMPLEMENTING THE DESIGN AS DOCUMENTED.

- DEMOLITION
- GROUND VIBRATIONS
- SURROUNDING PROPERTY AND INFRASTRUCTURE INCLUDING TREES
- EXCAVATIONS
- UNDERGROUND AND ABOVE GROUND SERVICES AND OBSTRUCTIONS
- LIFTING AND POSITIONING OF STRUCTURAL COMPONENTS
- HAZARDOUS MATERIALS
- OVER LOADING DUE TO CONSTRUCTION LOADS
- FORMWORK CONSTRUCTION
- WORKING AT HEIGHTS
- GENERAL SITE WORKS AND USE OF CONSTRUCTION EQUIPMENT
- SITE ACCESS INCLUDING STAIRS, SCAFFOLD, LADDERS, RAILINGS, SAFE WORK PLATFORMS, ACCESS PATHS FREE FROM FALLING OBJECTS AND DEBRIS AND ADJACENT WORKSPACE

THE ABOVE LISTED HAZARDS ARE TO BE ADDRESSED BY IMPLEMENTING AND COMPLYING WITH THE FOLLOWING NOTES:

IT IS THE CLIENT'S RESPONSIBILITY TO PROVIDE THIS "DOCUMENT" TO THE BUILDER, PROJECT MANAGER AND/OR PRINCIPAL CONTRACTOR

IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORKS STRICTLY IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND NOT TO MAKE ANY VARIATIONS TO THE CONSTRUCTION WITHOUT THE SPECIFIC WRITTEN APPROVAL OF THE DESIGNER

IT IS THE CLIENT'S RESPONSIBILITY, THROUGH THE CONSULTATION AND ENGAGEMENT OF SUITABLY QUALIFIED PROFESSIONALS, TO MAKE THE DESIGNER AWARE IF ANY INFORMATION RELATING TO HAZARDS AND RISKS WHERE CONSTRUCTION WORK IS TO BE CARRIED OUT, INCLUDING BUT NOT LIMITED TO: THE LOCATION OF UNDERGROUND AND ABOVE SERVICES, IDENTIFICATION OF CONTAMINATED SOILS AND OTHER MATERIALS OR THE PRESENCE OF DANGEROUS MATERIALS INCLUDING ASBESTOS

THIS DESIGN HAS BEEN DOCUMENTED IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS, LOCAL AUTHORITY REGULATIONS AND STANDARD BUILDING CODES OF PRACTICE UNLESS NOTED OTHERWISE. EACH LEVEL OF CONSTRUCTION IS TO BE STRUCTURALLY COMPLETED AND INSPECTED TO ENSURE DESIGN COMPLIANCE BY THE CERTIFYING AUTHORITY PRIOR TO ADVANCING TO THE NEXT STAGE OF WORK. IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO PROGRAM THE WORKS IN A SAFE MANNER AND TO HIGHLIGHT TO THE DESIGNER ANY ASPECTS OF THE WORK THAT MAY REQUIRE FURTHER CLARIFICATION OR ADVICE WITH REGARD TO THE HEALTH AND SAFETY OF THE PROJECT

ALL ASPECTS DETAILED OR NOTED IN THE STRUCTURAL DOCUMENTATION ARE THOSE REQUIRED FOR THE COMPLETED STRUCTURE ONLY. THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY NECESSARY TEMPORARY CONSTRUCTION, BRACING/SUPPORTS UNTIL COMPLETION OF THE FINAL STRUCTURE. THIS INCLUDES ELEMENTS SUCH AS PREFABRICATED TIMBER AND STEEL ELEMENTS, UNRESTRAINED WALLS, CONCRETE COLUMNS, BEAMS AND SLABS, PRECAST PANELS, ETC WHICH REQUIRE TEMPORARY SUPPORT OR PROPPING TO PREVENT OVER STRESS, EXCESSIVE DEFORMATION OR INSTABILITY UNTIL THE FINAL STRUCTURAL SYSTEM IS COMPLETED. THE DESIGNER IS TO BE CONTACTED FOR FURTHER ADVICE IF REQUIRED

WHERE THESE DESIGN DRAWINGS ONLY DOCUMENT PART OF A STRUCTURE, IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL DESIGN DRAWINGS ARE COORDINATED BETWEEN CONSULTANTS, FOR EXAMPLE, COORDINATION TO ENSURE APPROPRIATE SLAB THICKENINGS AND DETAILING FOR LOAD BEARING AND BRACING WALL ELEMENTS, CAST IN FIXINGS, ETC

NO ALLOWANCE HAS BEEN MADE FOR CONSTRUCTION LOADS INCLUDING STACKING OF MATERIALS ON DECKS, FLOORS OR ROOF PLATFORMS, LOADS IMPOSED DUE TO PLANT MACHINERY, LIFTING DEVICES, IMPACT/VIBRATION/CYCLOC LOADS, ETC. IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE DESIGNER OF ANY LOADS THAT ARE NOT DOCUMENTED, THAT THE STRUCTURE MAY BE SUBJECTED TO DURING CONSTRUCTION.

UNLESS NOTED ON THE DRAWINGS NO STRUCTURAL ALLOWANCE HAS BEEN MADE FOR SPECIFIC LOADS ASSOCIATED WITH THE MAINTENANCE OF THE STRUCTURE. THE DESIGNER IS TO BE INFORMED OF ANY REQUIREMENTS NECESSARY TO EXTERNALLY SUPPORT PLATFORMS, SCAFFOLDS ETC AS REQUIRED

DURING CONSTRUCTION, THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR SHALL PROTECT NEIGHBOURING PROPERTIES FROM NOISE IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS, RADIATION, GROUND VIBRATION AND OTHER CONSTRUCTION HAZARDS. CONDITION REPORTS ON NEIGHBOURING PROPERTIES AND STRUCTURES ARE RECOMMENDED PRIOR TO CONSTRUCTION.

THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR IS REQUIRED TO VERIFY AND IF NECESSARY CONDUCT FURTHER SEARCHES TO ACCURATELY LOCATE EASEMENTS, UNDERGROUND AND ABOVE GROUND SERVICES, PROPERTY BOUNDARIES, TREES, EXISTING STRUCTURES AND OTHER OBSTRUCTION PRIOR TO CONSTRUCTION. THE DESIGNER IS TO BE IMMEDIATELY NOTIFIED OF ANY ELEMENTS NOT SHOWN ON THE APPROVED DRAWINGS AS THE DESIGN AND SAFETY DESIGN REPORT MAY REQUIRE AMENDING.

THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR MUST OBTAIN DESIGN AND INSPECTION CERTIFICATES ON ALL SUNDRY ELEMENTS OF THE STRUCTURES INCLUDING BUT NOT LIMITED TO CLADDING DESIGN AND FIXINGS, WINDOWS, BALUSTRADES, STAIRS, SUSPENDED CEILINGS, INTERNAL FIT-OUT ITEMS AND ALL OTHER ELEMENTS NOT DETAILED IN THE DESIGN DOCUMENTS

- THE CONSTRUCTION IS TO BE FULLY CARRIED OUT IN ACCORDANCE WITH ALL DESIGN DRAWINGS AND NOTES AS DOCUMENTED. IF CONSTRUCTION CEASES AT ANY STAGE, THE DESIGNER IS TO BE NOTIFIED TO PROVIDE ADVICE ON THE SAFETY OF COMPLETED CONSTRUCTION WORK AT THAT TIME.
14. IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO INFORM THE DESIGNER OF AN CHANGE TO CONTRACTUAL ARRANGEMENTS BETWEEN THE CLIENT AND THEMSELVES WHICH MAY IMPACT ON THE DESIGN AND SAFETY OF THE DESIGN
15. THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR SHALL PROVIDE SUITABLE FENCING AROUND ALL EXCAVATIONS AND AT NO STAGE SHOULD AN EXCAVATION BE APPROACHED OR ENTERED INTO UNLESS AN APPROVED AND CERTIFIED SHORING SYSTEM HAS BEEN INSTALLED OR THE BANKS HAVE BEEN BATTERED AND/OR BENCHED IN ACCORDANCE WITH THE PROJECTS GEOTECHNICAL ENGINEERING SPECIFICATIONS AND/OR WRITTEN INSTRUCTIONS BY THE INSPECTING GEOTECHNICAL ENGINEER
16. AT NO STAGE SHALL SITE PERSONNEL PASS UNDER MATERIALS BEING LIFTED AND MOVED AROUND ON SITE. IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT SITE MATERIALS ARE DELIVERED, TRANSPORTED, STORED AND POSITIONED IN A SAFE MANNER AND IN ACCORDANCE WITH THE PRODUCT SPECIFICATION, THE SITE SPECIFIC SAFETY PLAN AND GENERAL SAFETY INDUCTION REGULATIONS
17. CONTRACTORS ARE REQUIRED TO OBTAIN AND COMPLY WITH MATERIAL PRODUCTS SPECIFICATIONS AND RECOMMENDATIONS WHEN USING MATERIAL SPECIFIED IN THE DESIGN DOCUMENTS
18. THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR MUST ELIMINATE OR LIMIT (AS FAR AS REASONABLY PRACTICABLE) SLIP HAZARDS AND PROTRUDING, SHARP OR ABRASIVE ELEMENTS ON SITE. HAZARDOUS ELEMENTS MUST BE CAPPED, ADEQUATELY SCREENED OR CLEARLY MARKED TO ENSURE SITE SAFETY.
19. IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT SITE WORKERS ARE SUITABLY QUALIFIED, TRAINED AND INSURED FOR THE TASKS BEING UNDERTAKEN ON SITE
20. IT IS THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL SITE PERSONNEL ARE PROVIDED ADEQUATE SPACE, VENTILATION AND APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT TO UNDERTAKE THE WORKS REQUIRED. ALL CONSTRUCTION EQUIPMENT IS TO BE USED IN ACCORDANCE WITH BEST INDUSTRY SAFETY PRACTICES AND REGULATIONS
21. DEMOLITION WORKS ARE REQUIRED TO BE CARRIED OUT IN A SAFE, SYSTEMATIC AND ORDERLY MANNER IN ACCORDANCE WITH THE SITE SPECIFIC SAFETY PLAN AND ALL GENERAL SAFETY INDUCTION REGULATIONS. TEMPORARY PROPPING OF MEMBERS MAY BE REQUIRED IN ACCORDANCE WITH THE DIRECTION OF A SUITABLY QUALIFIED PROFESSIONAL IN ACCORDANCE WITH INDUSTRY SAFETY PRACTICES AND REGULATIONS
22. AT ALL TIMES THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR IS TO PROVIDE SAFE ACCESS ONTO AND AROUND THE BUILDING SITE INCLUDING ADEQUATE STAIRS, SCAFFOLDING, SECURE LADDER ACCESS, SAFE WORKING PLATFORMS , ACCESS PATHS FREE FROM FALLING OBJECTS, ADEQUATE RAILINGS , FALL ARREST SYSTEMS, ETC.
23. ALL FORMWORK AND SCAFFOLDING SYSTEMS ARE TO BE DESIGNED AND CERTIFIED BY A LICENSED CONTRACTOR TO COMPLY WITH RELEVANT AUSTRALIAN STANDARDS AND KEPT AND MAINTAINED IN A GOOD WORKING ORDER. REGULAR CHECKS ON ERECTED MEMBERS AND FIXINGS MUST BE CARRIED OUT BY A QUALIFIED PROFESSIONAL TO ENSURE COMPLIANCE WITH DESIGN.
24. CLIMBING ON SCAFFOLDING OR FORMWORK AND WORKING AT HEIGHTS WITHOUT SUITABLY APPROVED RAILING, BARRIERS AND RESTRAINTS FIXED OFF TO CERTIFIED ANCHOR POINTS IS STRICTLY PROHIBITED
25. ALL SITE MACHINERY AND ELECTRICAL EQUIPMENT IS TO BE KEPT IN GOOD WORKING ORDER WITH CURRENT SAFETY TAGGING AND SERVICING WHERE APPLICABLE
26. THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR IS TO ADEQUATELY TREAT AND DISPOSE OF DANGEROUS SITE MATERIALS INCLUDING CONTAMINATED SOILS AND ASBESTOS IN ACCORDANCE WITH AUTHORITY REGULATIONS , INDUSTRY STANDARDS AND PRACTICES
27. THE BUILDER, PROJECT MANAGER OR PRINCIPAL CONTRACTOR IS TO ENSURE THE SITE IS MAINTAINED IN A SAFE WORKING MANNER AND THAT ALL SITE PRACTICES ARE IN ACCORDANCE WITH CURRENT WORK PLACE HEALTH AND SAFETY LAWS AND REGULATIONS

1. THE BORED PIER NOMINATED SIZES ARE BASED ON A GEOTECHNICAL INFORMATION PROVIDED IN,
REPORT BY ??????
REPORT NO.????

FINAL BORED PIER DESIGN SHALL BE IN ACCORDANCE WITH THE PILING CONTRACTORS DESIGN.
2. THE BASES OF BORED PIERS ARE TO BE SOCKETED INTO
THE ???ASNOTEDONTHEDRAWINGS
THE REQUIRED END BEARING CAPACITY IS ???
THE REQUIRED SHAFT ADHESION (SKIN FRICTION) IS ???
3. THE BOTTOM OF BORED PIERS ARE TO BE CLEANED OF ALL LOOSE MATERIAL, DEBRIS AND WATER, PRIOR TO CONCRETING OR GROUTING.
4. TEMPORARILY LINE THE BORED PIERS TO THE TOP OF THE ROCK TO PROVIDE ADEQUATE PROTECTION FOR SOCKETING, CLEANING OUT, PROOF DRILLING AND INSPECTION OF THE BASES U.N.O.
5. ALL BORED PIERS BASES TO BE PROOF DRILLED WITH A 50 DIAMETER HOLE FOR A DEPTH 2 x BORED PIER DIAMETERS TO CONFIRM BASE MATERIAL ADEQUACY AS DIRECTED BY THE STRUCTURAL ENGINEER. THE BASE OF EACH BORED PIER SHALL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE AND REINFORCEMENT.
6. STARTER BARS FOR COLUMNS AND WALLS OVER TO BE ACCURATELY POSITIONED AND HELD SECURELY IN PLACE PRIOR TO AND DURING CONCRETING.
7. CONSTRUCTION JOINTS FOR COLUMNS OR WALLS OVER SHALL BE SOUND CONCRETE OVER THE FULL SURFACE AREA OF THE VERTICAL ELEMENT OVER, SCABBLE JOINT SURFACE THOROUGHLY TO ACHIEVE AN EXPOSED AGGREGATE PROFILE.
8. REFER TO ARCHITECTURAL SETOUT DRAWINGS FOR ALL VERTICAL ELEMENTS, IN CONJUNCTION WITH PILECAP STRUCTURAL PLANS AND DETAILS TO ESTABLISH PILE SETOUT.

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Builders Name	Client Name	Project Details	Drawing Title:	Drawn	Signed	Date	Scale: NTS	Sheet Size A1
	AUSTRALIAN PROPERTY MANAGEMENT GROUP	PROPOSED TOWNHOUSE DEVELOPMENT 259-261 ASHMORE ROAD BENOWA, QLD 4215	GENERAL NOTES SHEET 2	KJD			Project Number	
				Designed	Signed	Date	GC170394	
				TW			PRELIMINARY NOT FOR CONSTRUCTION	
				Checked	Signed	Date		
				Approved	Signed	Date	Drawing No. S02	Rev. 01

DOWELLED JOINT (D.J.)
NTS

SQUARE DOWELLED JOINT (S.D.J)
NTS

KEYED JOINT (K.J.)
NTS

SAWN JOINT (S.J.)
N.T.S.

ISOLATION JOINT (I.J.)
NTS

SLAB ON GROUND STEP DETAIL
100 MAX. STEP (NTS)

SLAB ON GROUND STEP DETAIL
500 MAX. STEP (NTS)

EDGE THICKENING DETAIL

TYPICAL FLOOR PIT DETAIL

TYPICAL INTERNAL BEAM
TO EXTERNAL BEAM DETAIL
1:20

SERVICE PIPE PENETRATION DETAIL
PASSING THROUGH FOOTING
1:20

STRIP FOOTING
CORNER DETAIL
NTS

STRIP FOOTING
'T' INTERSECTION DETAIL
NTS

STRIP FOOTING
INTERSECTION DETAIL
NTS

STRIP FOOTING STEP DETAIL
TYPE 2
NTS

STRIP FOOTING STEP DETAIL
TYPE 3
NTS

NOTES

1. FOR REINFORCEMENT, DIMENSIONS ETC, SEE FOOTING SCHEDULE
2. REFER TO FOOTING NOTES U.N.O.

TYPICAL STRIP FOOTING DETAIL
ADJACENT TO SERVICES



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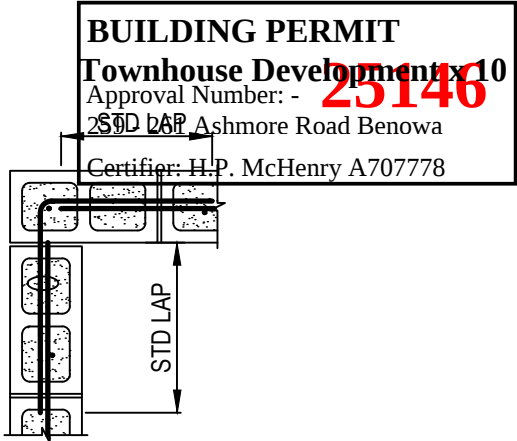
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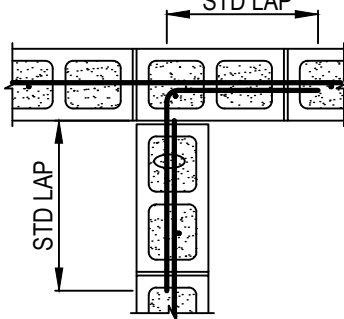
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	AUSTRALIAN PROPERTY MANAGEMENT GROUP	PROPOSED TOWNHOUSE DEVELOPMENT 259-261 ASHMORE ROAD BENOWA, QLD 4215	STANDARD DETAILS FOOTING AND SLAB ON GROUND	KJD			Project Number	
				Designed	Signed	Date	GC170394	
				TW			PRELIMINARY	
				Checked	Signed	Date	NOT FOR CONSTRUCTION	
				Approved	Signed	Date	Drawing No. S03	Rev. 01

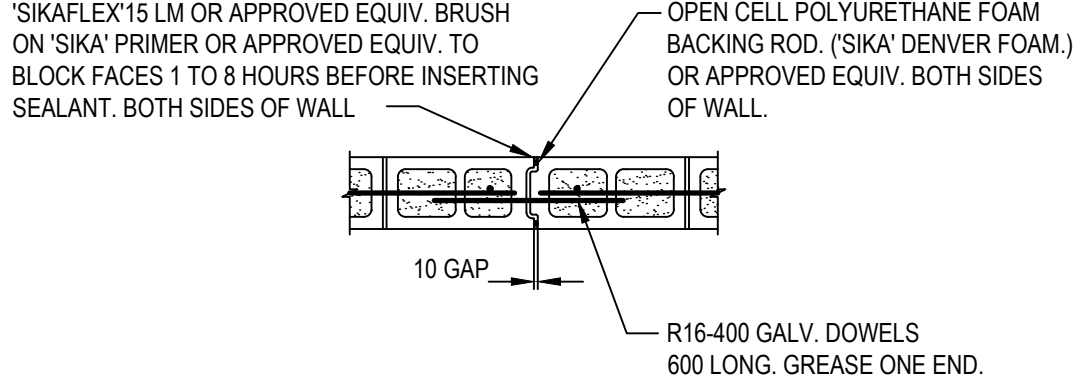
100mm
50
40
30
20
10
0
-10
-20



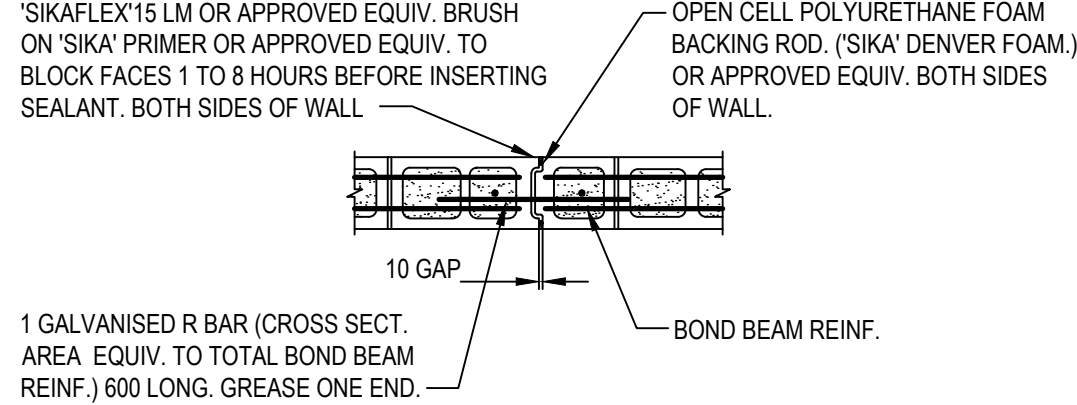
190/290 BLOCK WALL
CORNER DETAIL.



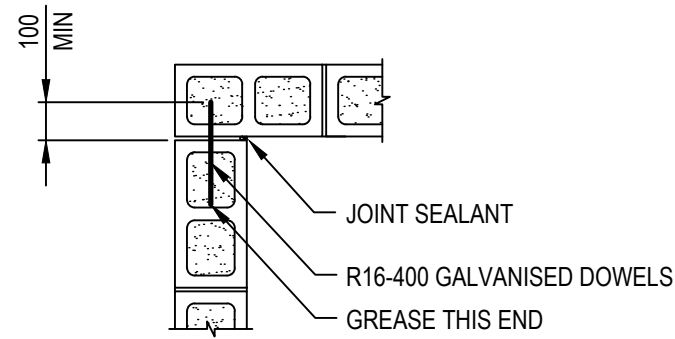
190/290 BLOCK WALL
INTERSECTION DETAIL.



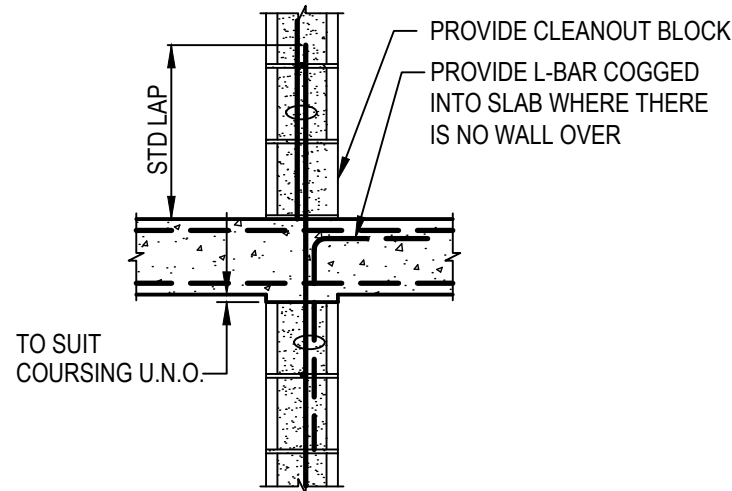
190/290 BLOCK WALL CONTROL
JOINT DETAIL. (B.C.J.)



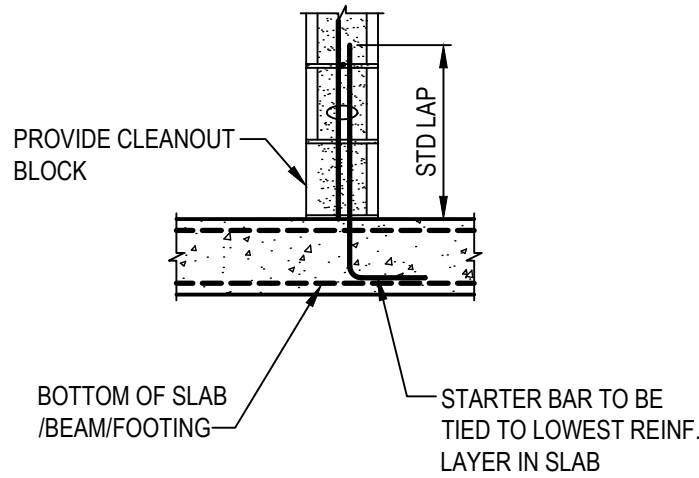
190/290 BLOCK WALL CONTROL
JOINT THROUGH BOND BEAM DETAIL



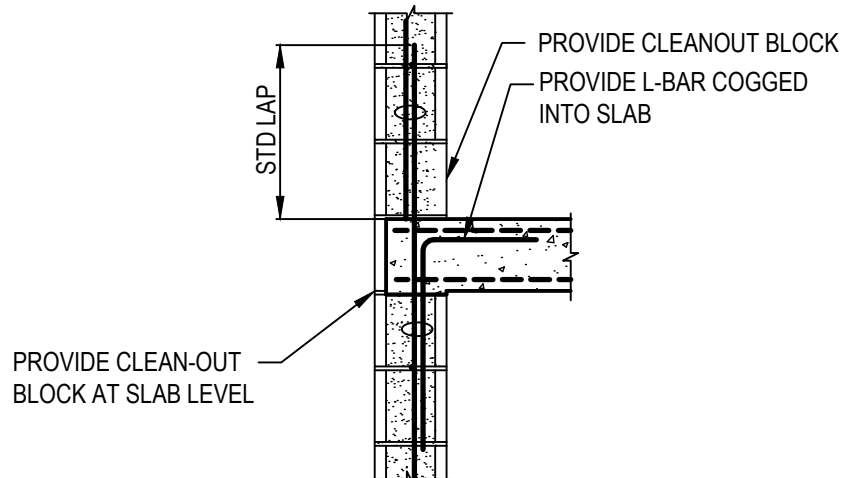
BLOCK WALL CONTROL JOINT
AT CORNER DETAIL



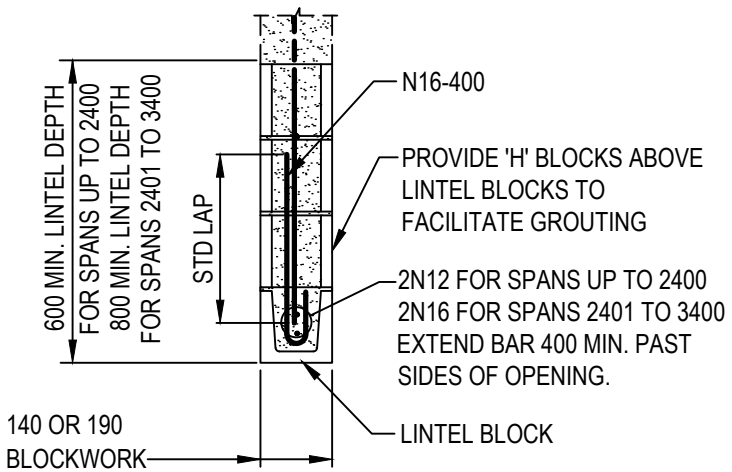
SLAB OVER LOAD
BEARING WALL DETAIL.



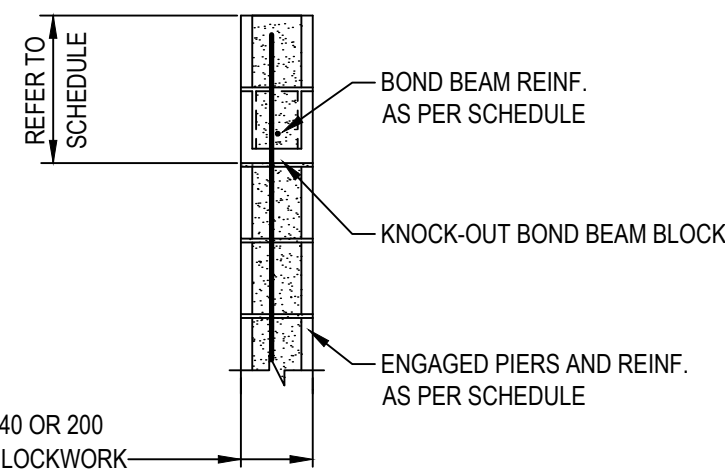
BASE DETAIL AT SLAB
DETAIL AT FOOTING SIMILAR



SLAB KEYED INTO LOAD
BEARING WALL DETAIL.



TYPICAL LINTEL DETAIL



TYPICAL BOND BEAM DETAIL
AT TOP OF WALLS

COURSING SHOWN IS INDICATIVE ONLY, REFER ARCHITECTS DRG'S FOR ALL COURSING SETOUT REQUIREMENTS.

REINFORCEMENT LAP TABLE	
BAR	LAP LENGTH
N12	500
N16	650
N20	825
N24	975

BLOCKWORK WALL SCHEDULE

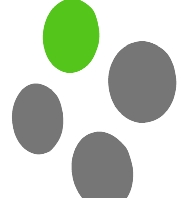
REFER TO PLANS FOR LOCATIONS

WALL TYPE	DESCRIPTION	REINFORCEMENT		REMARKS
		VERTICAL	HORIZONTAL	
BW1	190 SERIES	N12-400 CENTRAL	N12-400 CENTRAL	LOADBEARING GROUT FILL ALL CORES

CONCRETE MASONRY NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH AS 3700. MASONRY UNITS MINIMUM CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH f_{uc} SHALL BE 15 MPa. U.N.O.
- MASONRY WALLS SHALL NOT BE CONSTRUCTED ON SUSPENDED SLABS UNTIL STRIPPING OF FORMWORK AND REMOVAL OF FALSEWORK HAS BEEN COMPLETED.
- PROVIDE TEMPORARY BRACING TO WALLS DURING CONSTRUCTION IN ACCORDANCE WITH AS 3700.
- GROUT FOR FILLED HOLLOW MASONRY SHALL HAVE COMPRESSIVE STRENGTH OF $f_c = 20$ MPa) AND A SLUMP OF 230 ± 30 mm. MAXIMUM AGGREGATE SIZE SHALL BE 10mm. U.N.O.
- ALL CORES CONTAINING VERTICAL OR HORIZONTAL REINFORCING BARS ARE TO BE GROUTED. PROVIDE CLEAN OUT BLOCKS AT THE BASE OF EVERY CORE TO BE GROUTED. CLEAN OUT AND WET DOWN CORES BEFORE GROUTING.
- PROVIDE MINIMUM 20 GROUT COVER TO ALL REINFORCEMENT. REFER ALSO TO STRUCTURAL DETAILS FOR REQUIRED BAR LOCATIONS.
- OPENINGS IN HOLLOW MASONRY WALLS GREATER THAN 600 VERTICALLY OR HORIZONTALLY SHALL BE REINFORCED AT THE SIDES AND BOTTOM WITH 1N16 EXTENDING 600 PAST THE OPENING. TOP OF OPENINGS SHALL HAVE A BLOCKWORK LINTEL. ARCH BAR OR STEEL ANGLE SUPPORT. STEEL MEMBERS TO EXTERNAL WALLS SHALL BE HOT DIP GALVANIZED.
- MORTAR SHALL BE CLASS M3 AND HAVE THE PROPORTIONS OF C1:1.0:S6. USE A WELL GRADED SAND. USE A CELLULOSE-BASED WATER THICKENER IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION. FULLY BED FACE SHELLS OF HOLLOW UNITS SOLID OR CORED UNITS SHALL BE LAID ON A FULL BED OF MORTAR.
- ALL NON-LOADBEARING MASONRY SHALL BE KEPT 20mm (MINIMUM) CLEAR OF SLAB OR BEAM SOFFITS OVER U.N.O.
- UNLESS NOTED OTHERWISE, PROVIDE CONTROL JOINTS AT 10.0m CENTRES AND 5.0m FROM CORNERS. ALL CONTROL JOINTS SHALL BE AS DETAILED BY THE ARCHITECTURAL AND ENGINEERING DRAWINGS.
- CONSTRUCT WALLS AND PIERS IN LIFTS NOT EXCEEDING 1500 HIGH. 200 AND 300 BLOCKS SHALL NOT BE GROUTED IN LIFTS GREATER THAN 3000. 150 BLOCKS SHALL NOT BE GROUTED IN LIFTS GREATER THAN 1500 HIGH.
- WALL INTERSECTIONS SHALL BE OF BONDED CONSTRUCTION OR TIED (MEDIUM DUTY) AT 400 MAXIMUM CENTRES VERTICALLY.
- ALL TIES SHALL BE HOT DIP GALVANIZED COMPLYING WITH AS 2699.
- GROUT CORES AT ALL MASONRY TIES INTO HORIZONTAL BED JOINTS IN HOLLOW BLOCK WALLS.
- ALL CAVITY WALLS ARE TO BE CONSTRUCTED USING MEDIUM DUTY MASONRY TIES AT 600 MAXIMUM CENTRES BOTH WAYS AND 400 MAXIMUM CENTRES EACH SIDE OF OPENINGS U.N.O. EMBED TIES 50mm MINIMUM INTO EACH LEAF.

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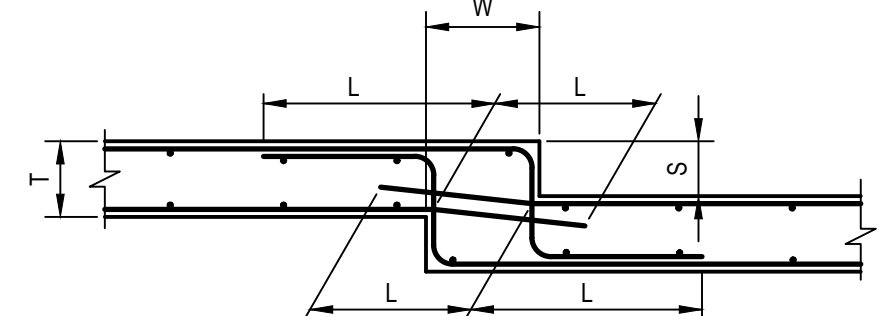
Builders Name

Client Name

Project Details

Drawing Title:

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KJD				A1
Designed	Signed	Date	Project Number	
TW			GC170394	
Checked	Signed	Date	PRELIMINARY NOT FOR CONSTRUCTION	
Approved	Signed	Date	Drawing No.	
			Rev.	
			S04	
			01	



BAR	L
N12	400
N16	600
N20	900
N24	1200
N28	1500

THIS TABLE ASSUMES CONCRETE STRENGTH $F_c = 25 \text{ MPa}$
AND CONCRETE COVER TO REINFORCEMENT = 20mm

TOP BARS:
FOR EVERY TWO BARS STOPPED BY THE
PENETRATION, ADD ONE BAR EACH SIDE
OF THE SAME GRADE AND SIZE.

30 COVER
TYPICAL

REFER
NOTE 5

TO MATCH ADJACENT
TOP REINF.

BOTTOM BARS:
FOR EVERY TWO BARS STOPPED BY THE
PENETRATION, ADD ONE BAR EACH SIDE
OF THE SAME GRADE AND SIZE.

30 COVER
TYPICAL

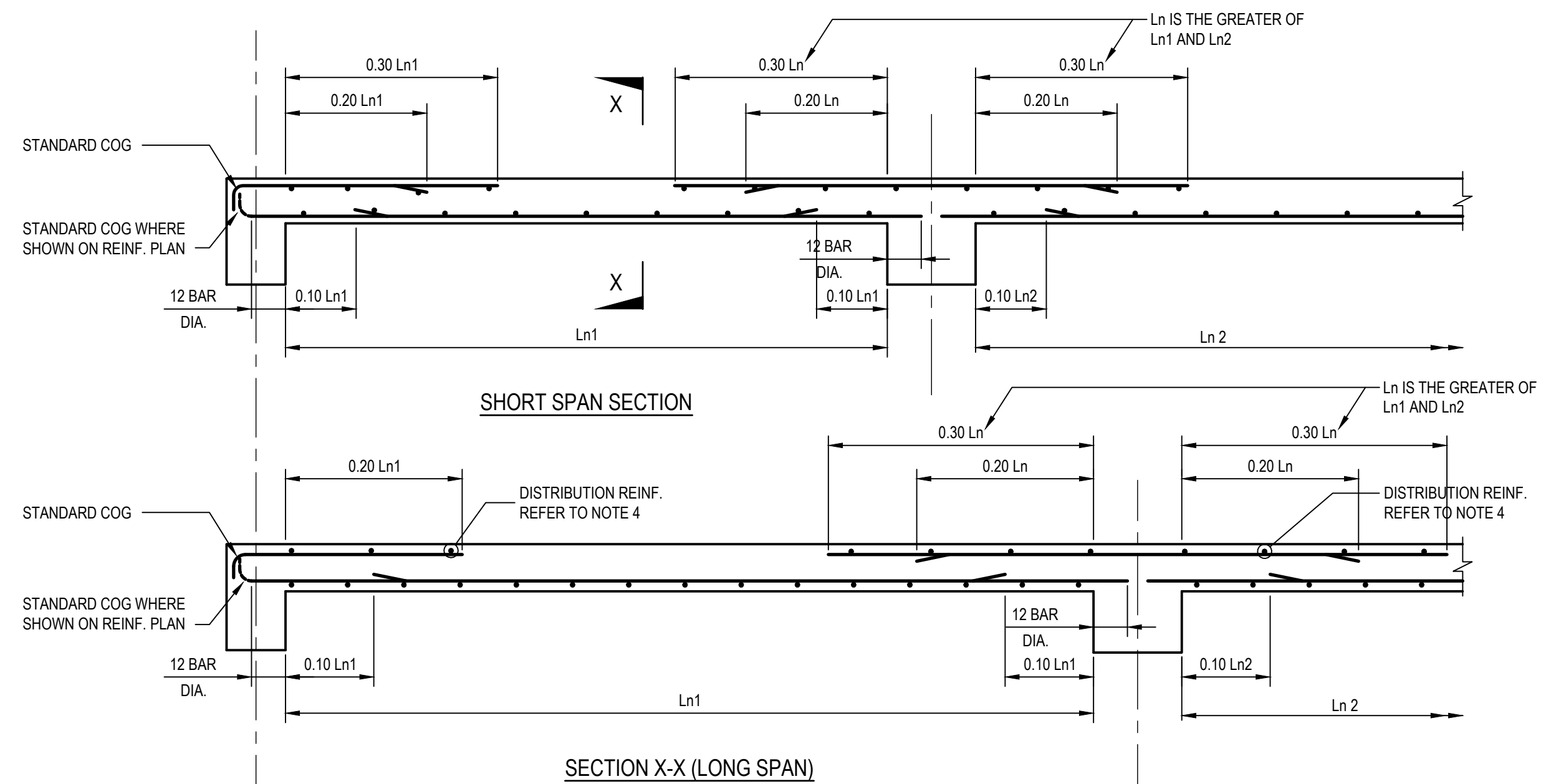
REFER
NOTE 5

BEAM

WHERE NO TOP OR BOTTOM REINF.
IS SHOWN ON PLAN PROVIDE 2N16
TRIMMER BARS AS SHOWN ON THESE
DETAILS

- ## NOTES
1. FOR HOLES LESS THAN 300 x 300 mm, BARS TO BE DISPLACED ABOVE PENETRATION.
 2. FOR HOLES GREATER THAN 300 x 300 mm, BUT LESS THAN 1000 x 1000 mm THE ABOVE DETAILS ARE TO BE USED
 3. FOR HOLES GREATER THAN 1000 x 1000 mm USE ABOVE DETAILS UNLESS NOTED OTHERWISE ON THE DRAWINGS
 4. LOCATION OF PENETRATIONS TO BE TO THE APPROVAL OF THE ENGINEER.
 5. REFER TO RC SLAB NOTES FOR BAR LAP LENGTHS, U.N.O.

RC BEAM DETAIL (REINFORCEMENT FABRICATED IN PLACE)

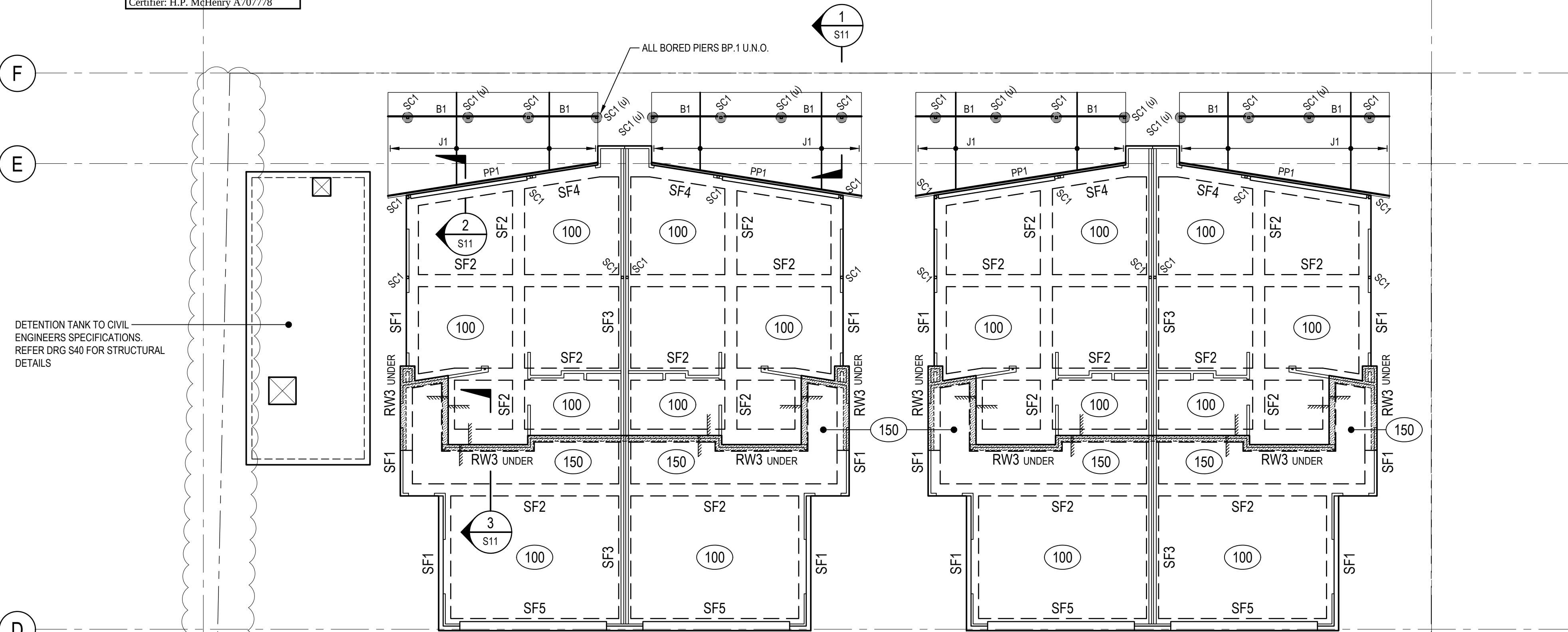


- ## NOTES
1. FOR REINFORCEMENT, SIZES & NUMBER, SEE PLANS.
 2. BARS ARE TO BE EVENLY SPACED WITHIN THEIR RESPECTIVE STRIP WIDTHS AS DIMENSIONED ON PLANS.
 3. DETAILS ABOVE APPLY UNLESS SHOWN OTHERWISE ON PLANS.
 4. WHENEVER SLAB REINFORCEMENT IS CALLED UP IN ONE DIRECTION DISTRIBUTION REINFORCEMENT IS REQUIRED IN THE TRANSVERSE DIRECTION.
 5. FOR DISTRIBUTION BARS NOT SHOWN ON PLAN, REFER TO RC SLAB NOTES ON PLAN
 6. FOR PRIMARY AND SECONDARY DIRECTIONS OF REINFORCEMENT SEE PLANS.
 7. REFER RC SLAB NOTES FOR BAR LAP LENGTHS U.N.O.

ONE AND TWO WAY SLAB DETAILS

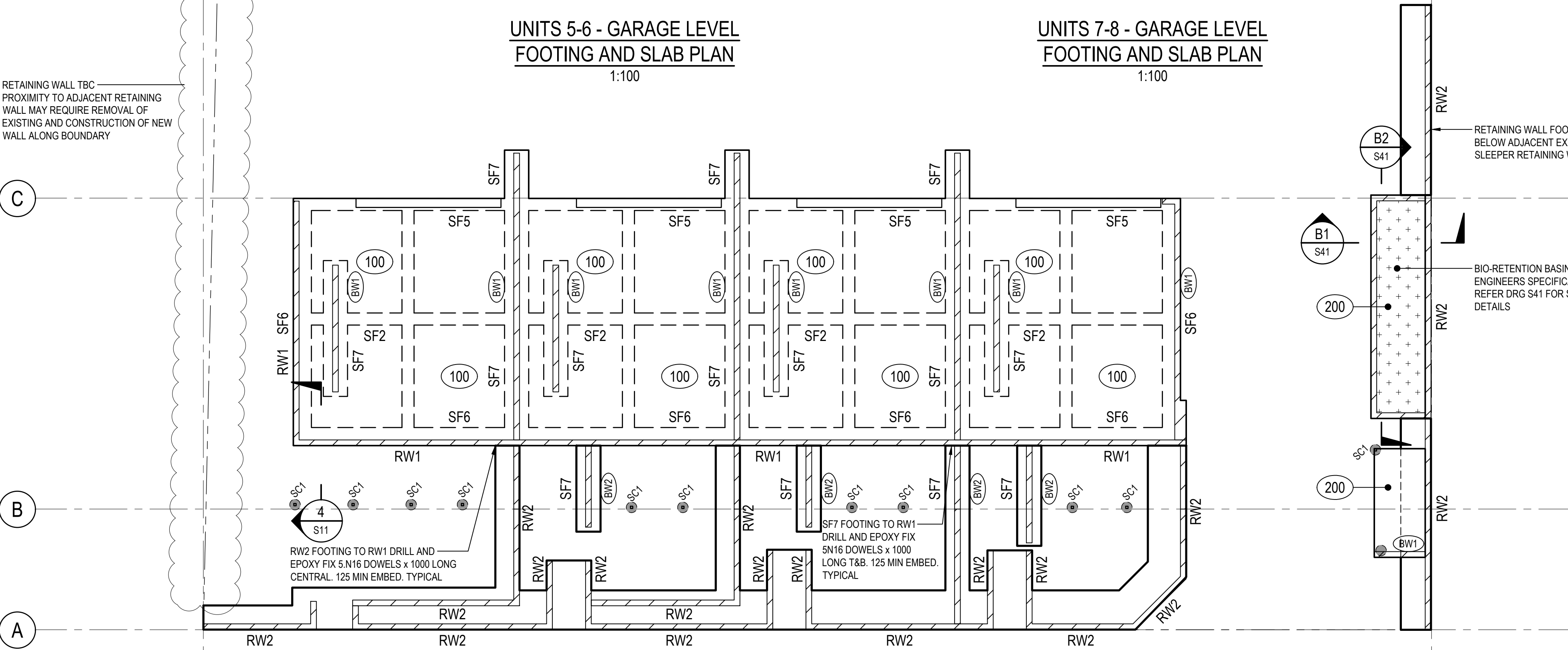
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UNITS 5-6 - GARAGE LEVEL
FOOTING AND SLAB PLAN
1:100

UNITS 7-8 - GARAGE LEVEL
FOOTING AND SLAB PLAN
1:100



UNITS 1-4 - GARAGE LEVEL
FOOTING AND SLAB PLAN
1:100

MEMBER SCHEDULE		
MARK	SIZE	REMARKS
SC1	75x4.0 SHS	STEEL COLUMN
B1	2/140x45 MGP12	TIMBER BEAM (H3 TREATED)
B2	300 PFC	STEEL BEAM
B3	2/240x45 MGP12	TIMBER BEAM (H3 TREATED)
B4	240x45 MGP12	TIMBER BEAM
B5	200 PFC	STEEL BEAM
B6	300x85 GL18C	TIMBER WIND BEAM
B7	190x35 MGP12	TIMBER BEAM (H3 TREATED)
J1	140x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J2	SJ20044	JOISTS @ MAX. 450 CRS
J3	120x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J4	190x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J5	SJ30090	JOISTS @ MAX. 450 CRS
J6	SJ30051	JOISTS @ MAX. 450 CRS
PP1	140x45 MGP10	POLE PLATE. M12 CHEMSET ANCHOR SF4 @ MAX. 500 CRS. (H3 TREATED)
PP2	140x45 MGP10	POLE PLATE. 2x BATTEN SCREWS TO JOISTS/STUDS @ MAX. 450 CRS. (H3 TREATED)
TR1	TIMBER ROOF TRUSSES	900 MAX. CRS. TO MANUF. SPECIFICATION
R1	120x35 MGP10	RAFTERS AT 900 MAX. CRS. (H3 TREATED)
L	REFER TIMBER LINTEL SCHEDULE ON SK	
L1	2/240x45 MGP12	TIMBER LINTEL
L2	200 PFC	STEEL LINTEL BEAM
L3	240x45 MGP12	TIMBER LINTEL
L4	300x85 GL18C	TIMBER LINTEL
L5	240x65 GL18C	TIMBER LINTEL

- NOTE:**
- ALL EXTERNAL STEELWORK TO BE HOT DIPPED GALVANIZED. U.N.O.
 - ALL SMART JOISTS AND SMARTFRAME PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

NOTE:
ALL SMARTFRAME PRODUCTS, SMARTJOIST AND SMARTLAM TO BE INSTALLED IN ACCORDANCE WITH THE SMARTFRAME DESIGN GUIDE AND INSTALLATION GUIDE RECOMMENDATIONS.

TIMBER DECK NOTES:

- FRAMING TIMBERS MORE THAN 150 ABOVE GROUND TO BE DURABILITY CLASS 1 WITH H3 OR BETTER PRESERVATIVE TREATED
- FRAMING TIMBERS LESS THAN 150 ABOVE GROUND TO BE DURABILITY CLASS 1 WITH H5 PRESERVATIVE TREATED
- HARDWOOD POSTS IN CONTACT WITH GROUND TO BE DURABILITY CLASS 1 WITH SAPIWOOD REMOVED OR SAPIWOOD PRESERVATIVE TREATED TO H5
- WHERE TIMBER IS USED IN EXTERNAL ABOVE GROUND APPLICATIONS THE TIMBER MUST BE SEALED IN ACCORDANCE WITH AS1684 BEFORE IT IS INSTALLED. I.E. ALL CUTS, NOTCHES AND DRILL HOLES MUST BE SEALED TO MINIMISE THE INGRESS OF MOISTURE
- APPLY MULTILAYER COVER STRIP OR SIMILAR TO ALL TOP EDGES OF DECK JOISTS AND DECK BEARERS
- GRADE SOIL SURFACE UNDER DECK AWAY FROM ADJACENT BUILDING OR PROVIDE AGRICULTURAL DRAINAGE
- PERIMETER OF THE DECK IS TO BE KEPT OPEN TO ALLOW ADEQUATE VENTILATION.

NOTE:
FOUNDATION DESIGN BASED ON THE ASSUMPTION OF 'M' CLASS SOIL CLASSIFICATION. TO BE CONFIRMED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

- NOTE:**
- ALL PLUMBING WORKS SHALL BE INSTALLED TO ACCOMMODATE THE POTENTIAL MOVEMENT OF SOIL. REFER TO THE SOIL REPORT FOR SOIL CLASSIFICATION AND EXPECTED SOIL MOVEMENT.
 - EXPECTED SOIL MOVEMENT MAY ONLY BE APPLICABLE PROVIDED THAT PROPER SITE MANAGEMENT IS CARRIED OUT IN ACCORDANCE WITH CSIRO BTF18 "FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE" HOMEOWNER GUIDE.

DRAWING REFERENCE

- S01-S02 GENERAL NOTES
S03-S04 STANDARD DETAILS
S11 FOOTING AND SLAB SECTIONS AND DETAILS

LEGEND

- BP1 DENOTES 3500 BORED PIER. FOUND MIN. 300 INTO NATURAL GROUND WITH 100kPa MIN. ALLOWABLE BEARING CAPACITY
- RW1 DENOTES RETAINING WALL TYPE REFER TO DRG S11 FOR DETAILS
- SF1 DENOTES FOOTING TYPE REFER TO DRG S11 FOR DETAILS
- BW1 DENOTES 190 BLOCK WALL TYPE REFER TO DRG S04 FOR DETAILS

SLAB ON GROUND NOTES

- SLAB TO BE CAST ON 0.2mm POLYTHENE SHEET (LAP JOINTS 200mm AND TAPE) OVER A 50mm THICK LAYER OF BEDDING SAND. OMIT SAND BEDDING AND POLYTHENE SHEET FOR EXTERNAL SLABS UNLESS NOTED OTHERWISE.
- SUB-BASE TO BE CBR 15 CRUSHED ROCK 100mm THICK COMPACTED TO 100% STANDARD RELATIVE COMPACTION.
- REFER TO CONCRETE NOTES FOR CONCRETE GRADES AND COVER TO REINFORCEMENT, ALONG WITH OTHER GENERAL NOTES AND CONCRETE NOTES.
- REINFORCE WITH SL82 MESH TOP U.N.O. MESH SHALL BE ON MESH CHAIRS AT 800 CRS MAXIMUM.
- SLAB CONTROL JOINTS ARE TO BE KEYED, DOWELED OR SAWN AS SHOWN ON THESE DRAWINGS. FOR SAWN JOINTS, 'SOFCUT' SAWING IMMEDIATELY FOLLOWING SURFACE FINISHING IS PREFERRED, OTHERWISE SAWING IS TO OCCUR AS SOON AS THE CONCRETE IS HARD ENOUGH (USUALLY WITHIN 4 - 6 HOURS OF POURING).
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, LEVELS, SETOUT, FINISHES, ETC.

SLAB ON GROUND LEGEND

- DENOTES SLAB THICKNESS: 100
REFER PLAN FOR ACTUAL THICKNESS
- DENOTES STEP IN TOP OF SLAB:
- DENOTES SLAB PENETRATION:
- DENOTES SLAB SETDOWN:
- DENOTES 2N12-50 CRS x 1500 LG TRIMMER BARS AT RE ENTRANT CORNERS.
- FABRIC LAP DETAIL

FOUNDATION PERFORMANCE AND MAINTENANCE

SHRINKAGE CRACKING CAN BE EXPECTED IN CONCRETE FLOORS. THE TIME OF ATTACHMENT OF FLOOR COVERINGS AND THE SELECTION OF ADHESIVE FOR THEM SHOULD TAKE INTO ACCOUNT THE MOISTURE IN THE CONCRETE AND ITS POSSIBLE EFFECT ON ADHESION. CONCRETE FLOORS CAN TAKE CONSIDERABLE TIME TO DRY (6 TO 9 MONTHS)

ALL SOILS ARE AFFECTED BY WATER. SILTS CAN BE WEAKENED AND SETTLE WHILE CLAYS SWELL AND SHRINK DUE TO CHANGES IN MOISTURE CONTENT. SITES SHOULD BE MAINTAINED IN A STABLE MOISTURE CONDITION WITH EXTREME CONDITIONS OF DRYING AND WETTING PREVENTED. THIS WILL REQUIRE ATTENTION TO: DRAINAGE OF THE SITE, LIMITATIONS ON GARDENS, RESTRICTIONS OF TREES AND SHRUBS AND REPAIR OF LEAKS TO SERVICES. AN EXTENSIVE DISCUSSION IS CONTAINED IN THE CSIRO PAMPHLET BUILDING TECHNOLOGY FILE 18, 'FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE: A HOME OWNERS GUIDE', AND ITS RECOMMENDATIONS SHOULD BE FOLLOWED.

NOTE

- SLAB STEPS AND FALLS TO ARCHITECTS DETAILS.
- REFER TO ARCHITECTURAL CONCRETE SETOUT, HYDRAULIC, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL SLAB PENETRATIONS.

THE INFORMATION CONTAINED ON THESE DRAWINGS IS BASED ON ARCHITECTURAL DRAWINGS ISSUE DATED 05/03/18 REV B

Rev.	Date	Revision Details	Dm	App.
01	09.03.18	PRELIMINARY ISSUE	KJD	

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Builders Name

Client Name

AUSTRALIAN PROPERTY
MANAGEMENT GROUP

Project Details

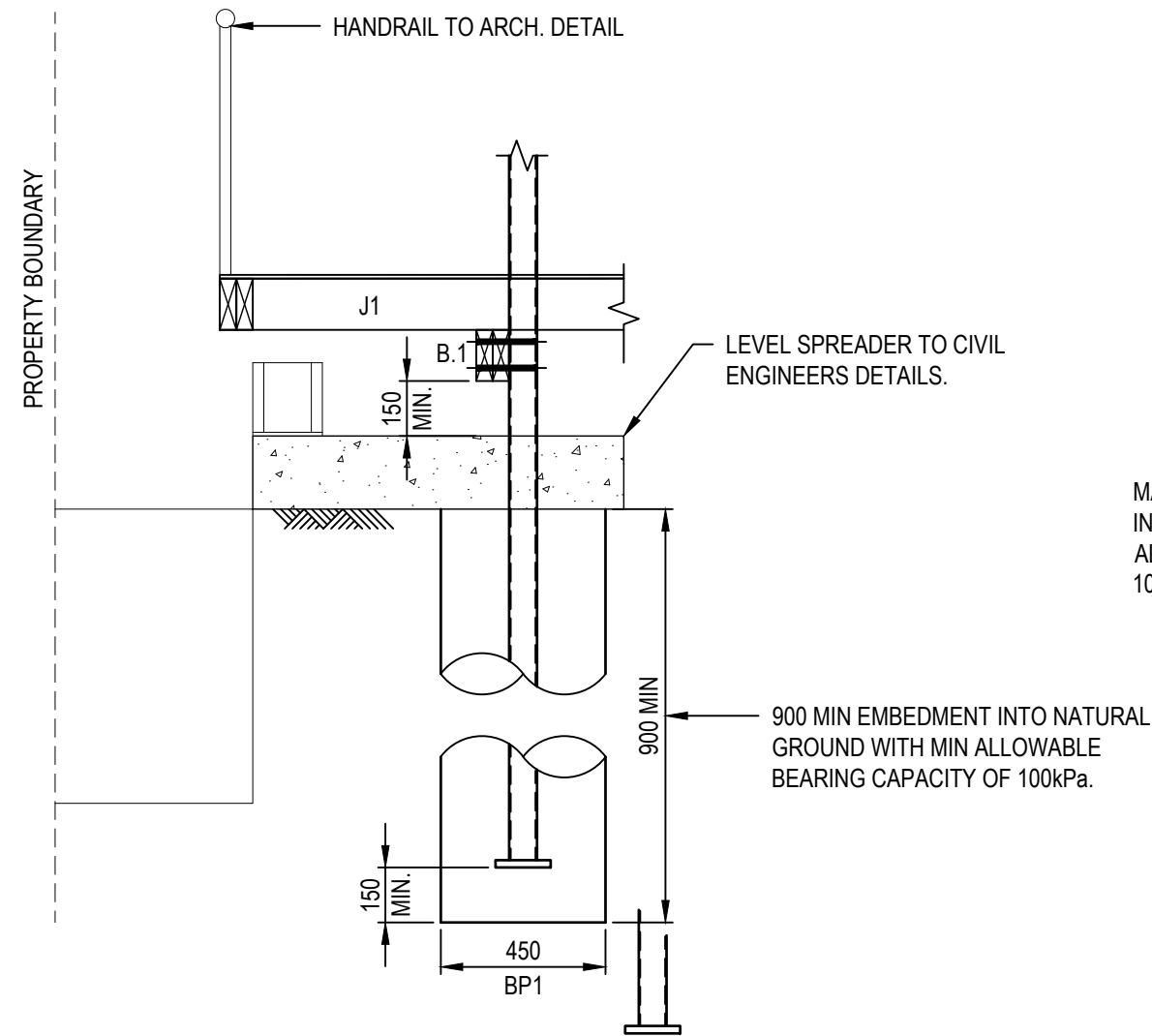
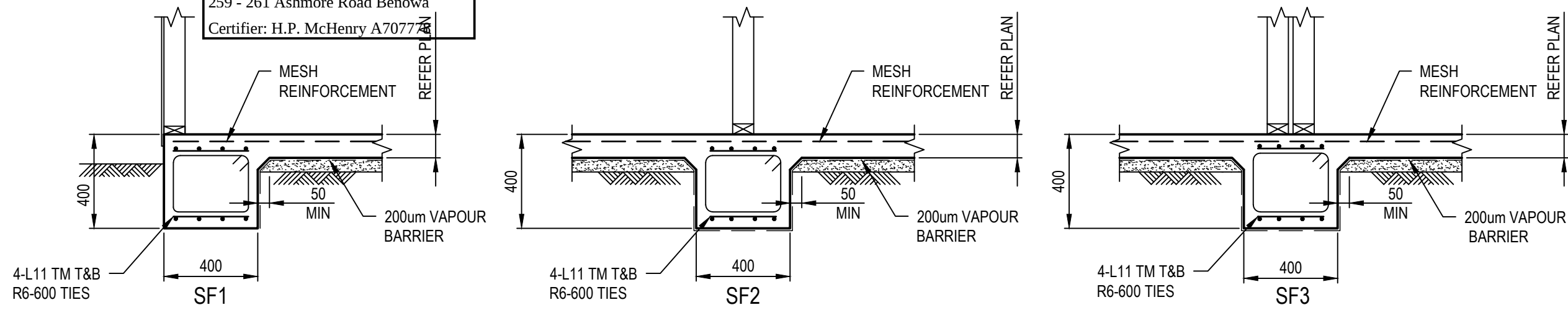
PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

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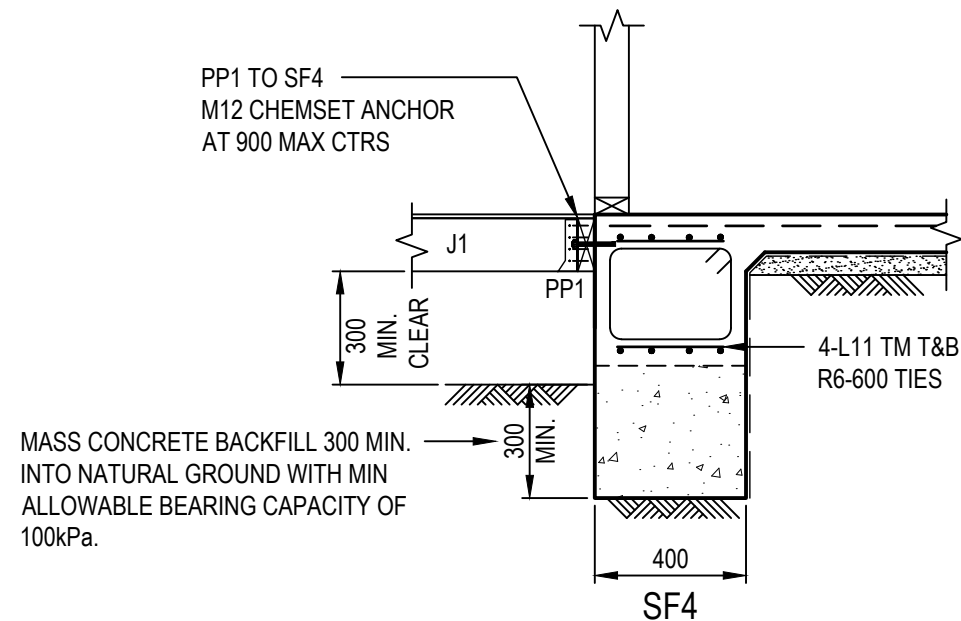
FOOTING AND SLAB PLAN
UNITS 1 - 8

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Checked	Signed	Date	PRELIMINARY NOT FOR CONSTRUCTION	
Approved	Signed	Date	Drawing No.	Rev.
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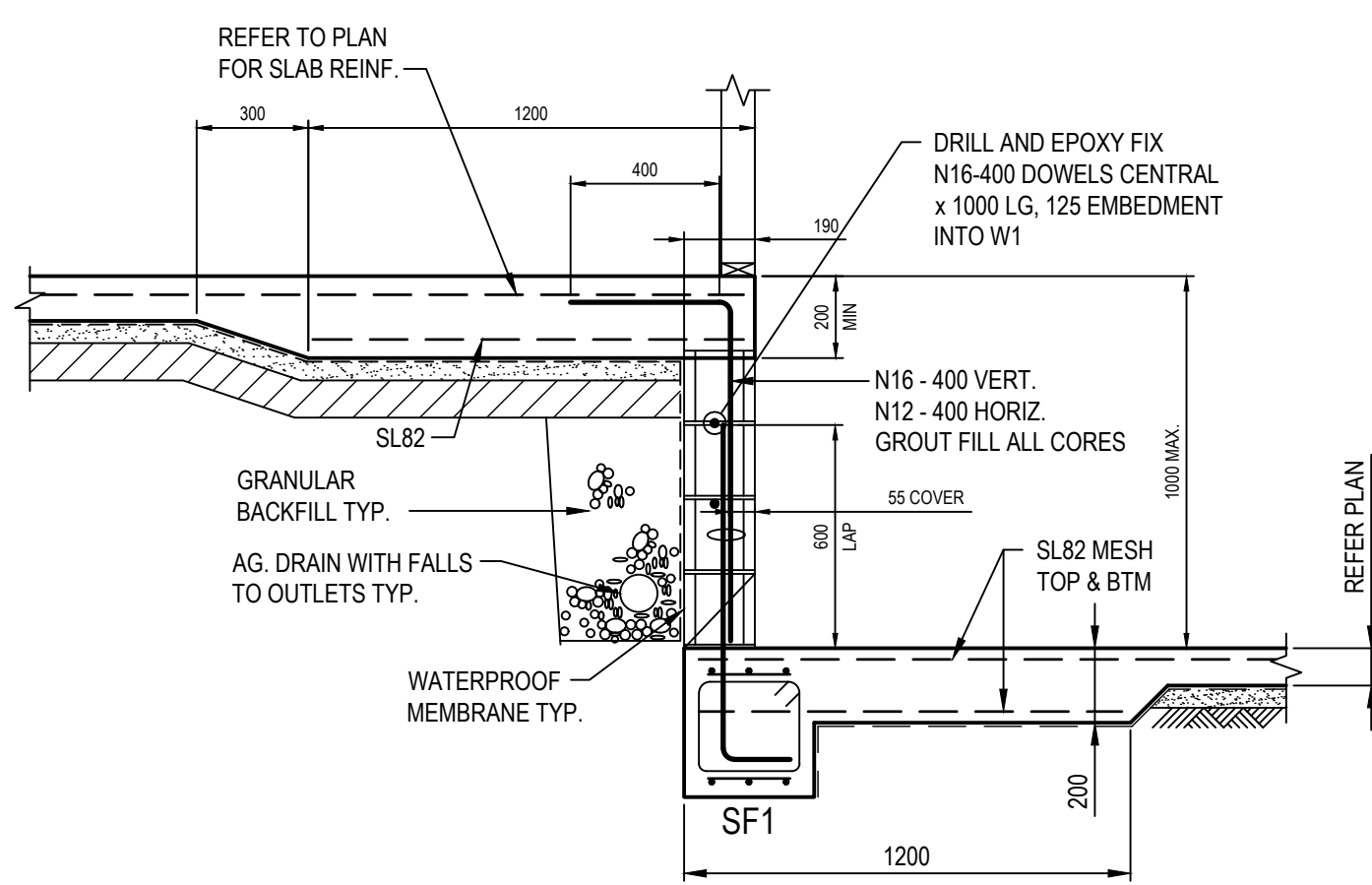
BUILDING PERMIT
Townhouse Development 10
Approval Number: **25146**
259 - 261 Ashmore Road Benowa
Certifier: H.P. McHenry A707726



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S10

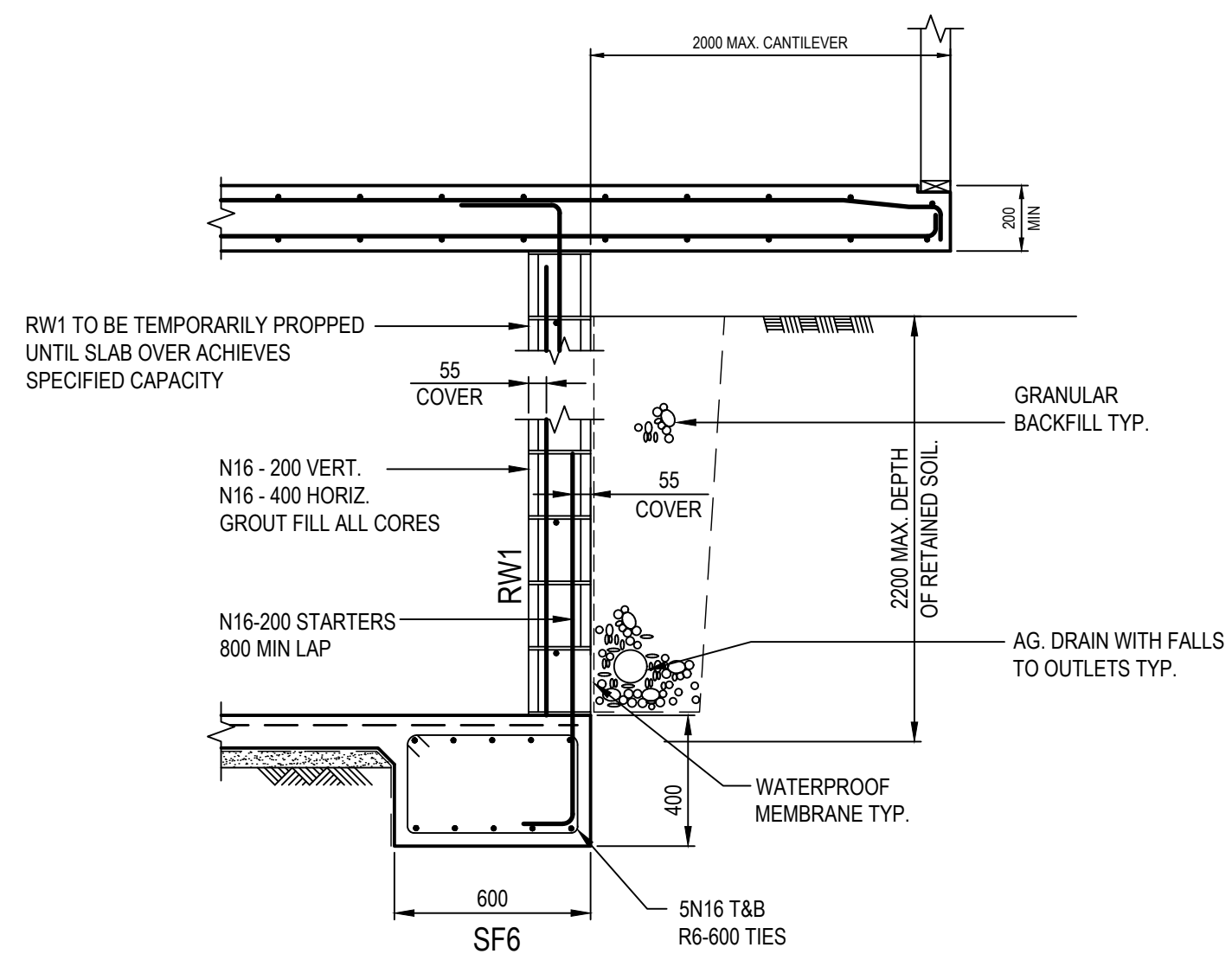
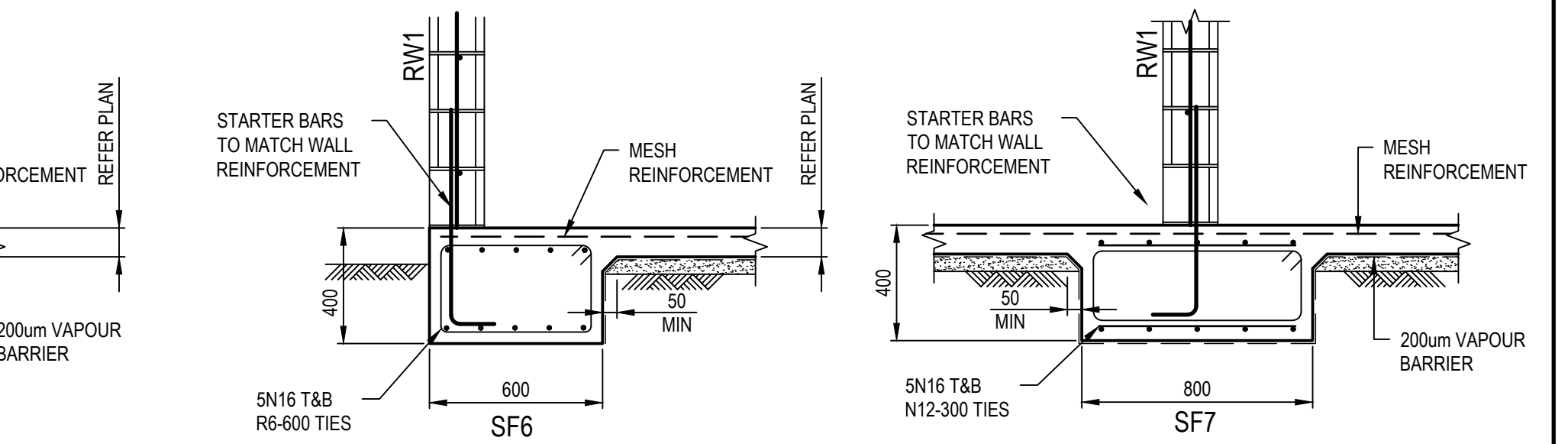


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S10



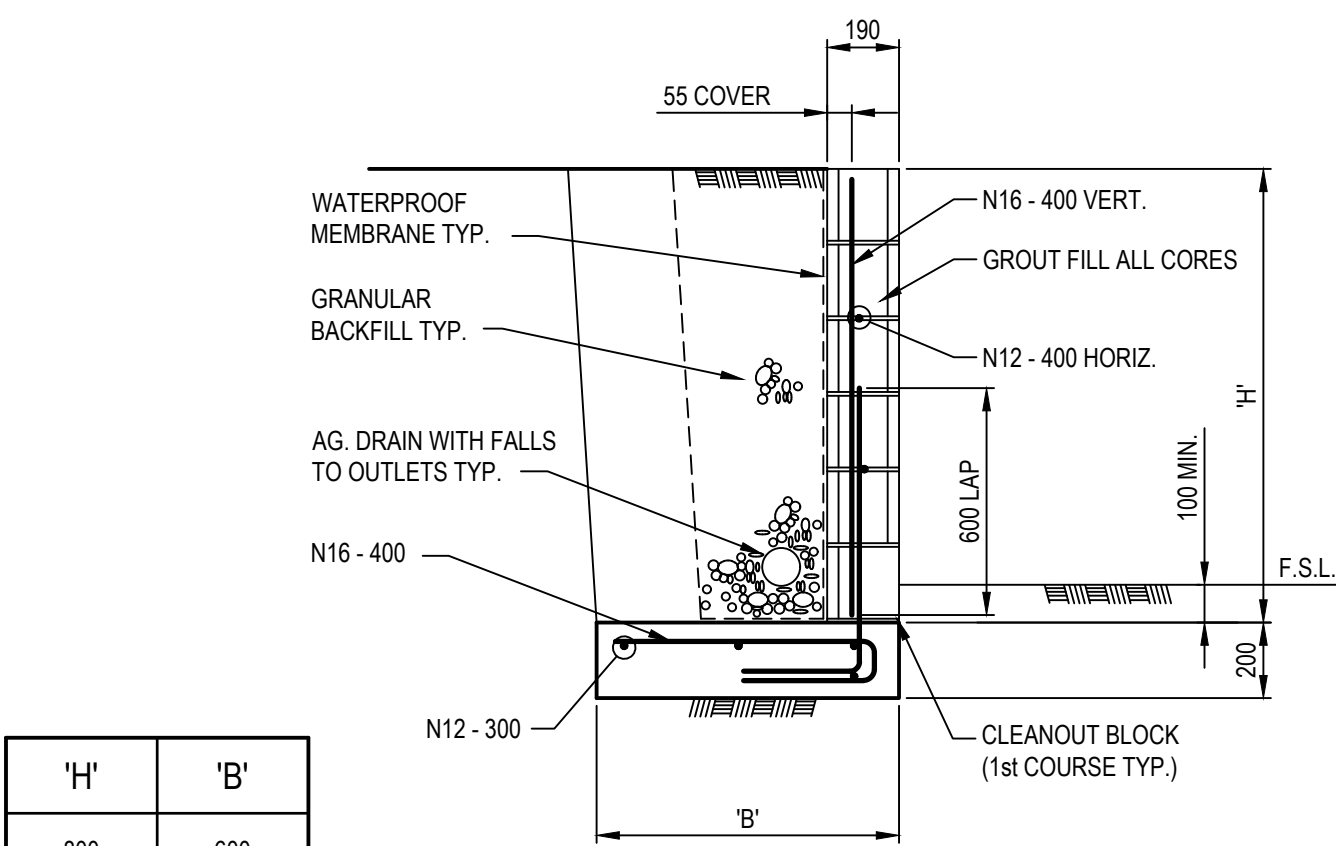
RETAINING WALL TYPE RW3

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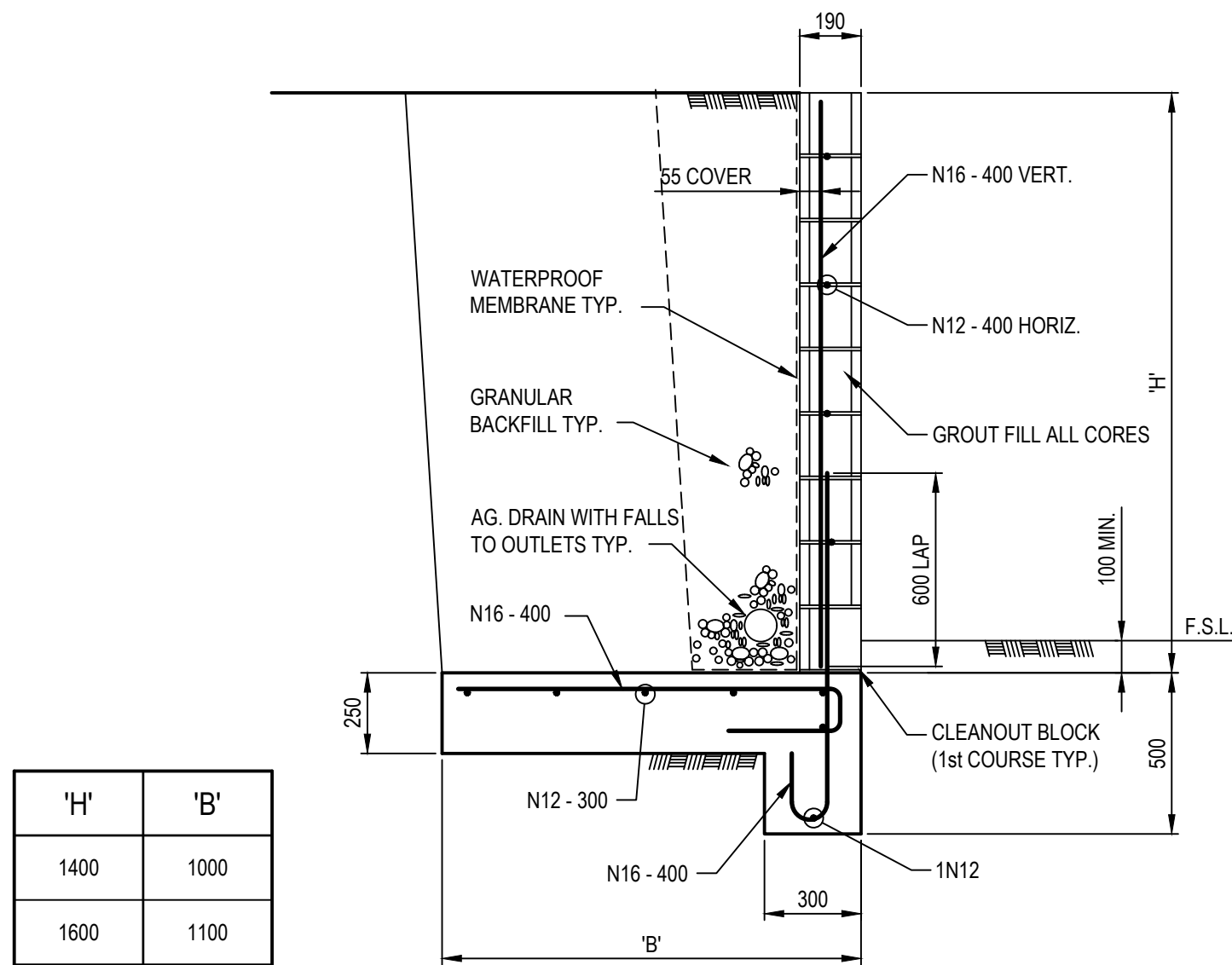
RETAINING WALL TYPE RW1

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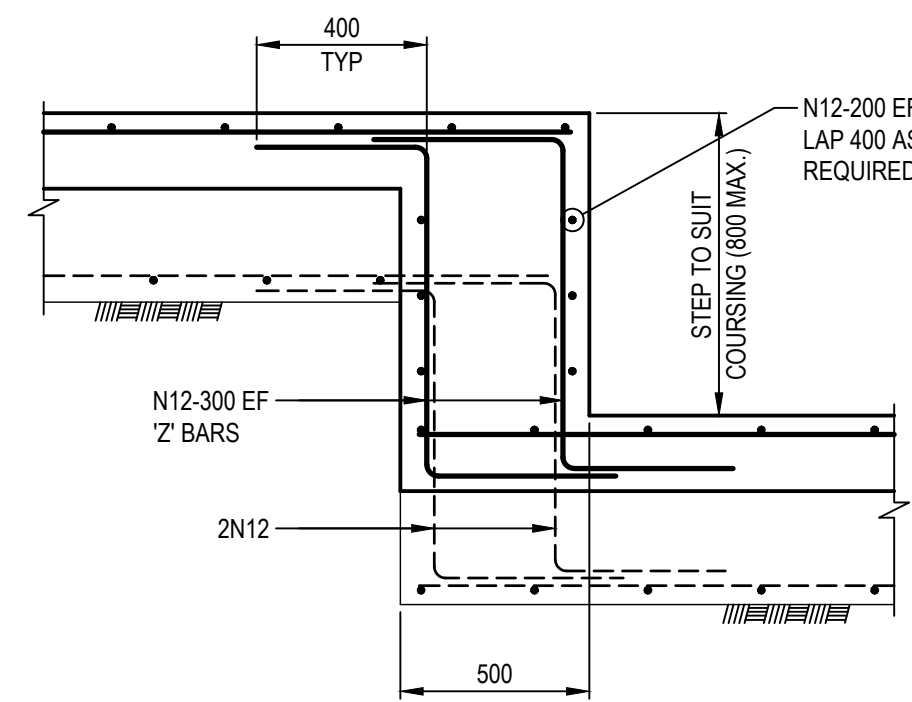
RETAINING WALL TYPE RW2

'H'	'B'
800	600
1000	700
1200	800



RETAINING WALL TYPE RW2

'H'	'B'
1400	1000
1600	1100
1800	1300



FOOTING RETAINING WALL
FOOTING STEP DETAIL
NTS

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Builders Name

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AUSTRALIAN PROPERTY
MANAGEMENT GROUP

Project Details

PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

Drawing Title:

FOOTING AND SLAB
SECTIONS & DETAILS

Drawn

KJD

Signed

Signed

Date

Date

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Sheet Size

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Project Number

GC170394

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Drawing No.

Rev.

S11

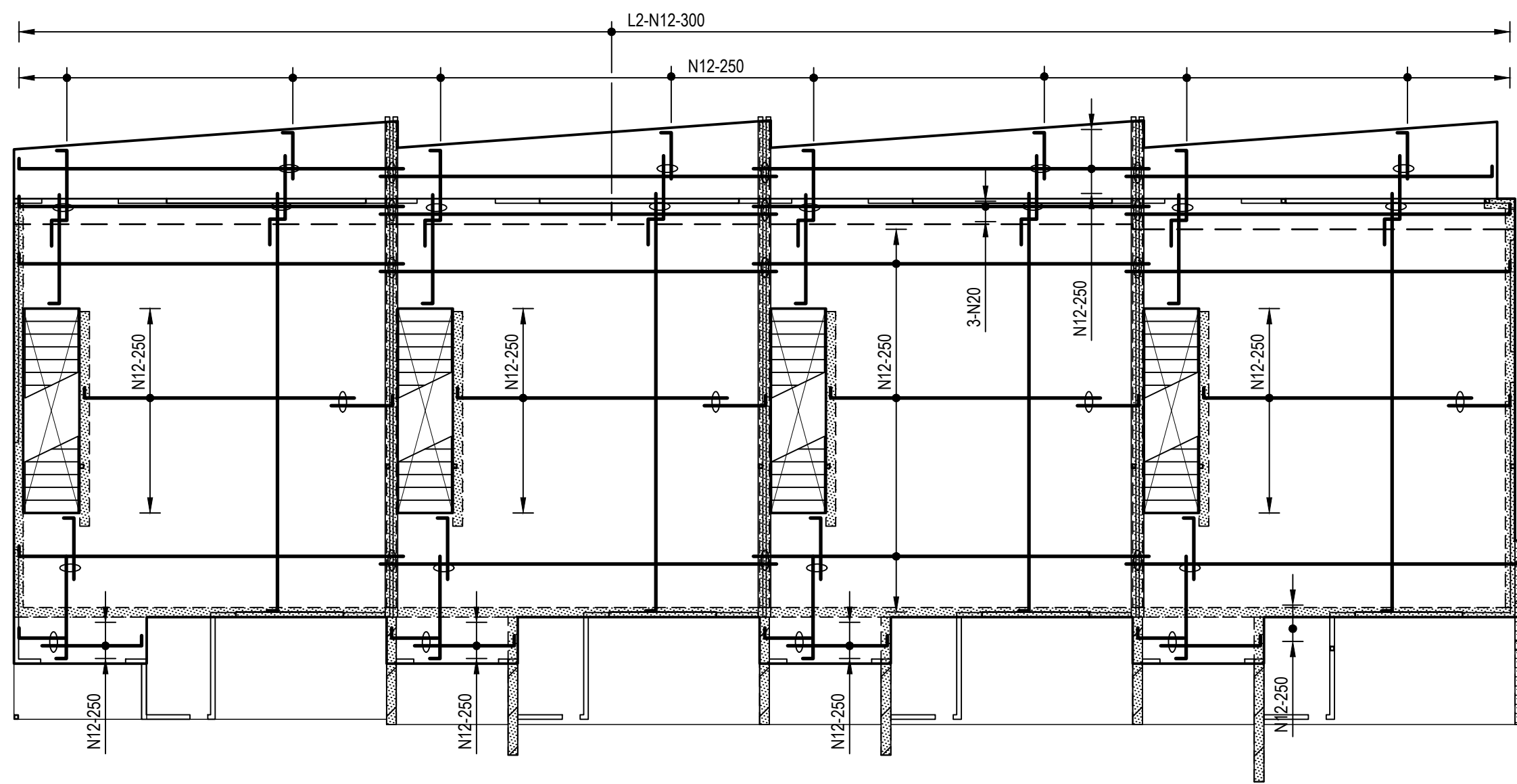
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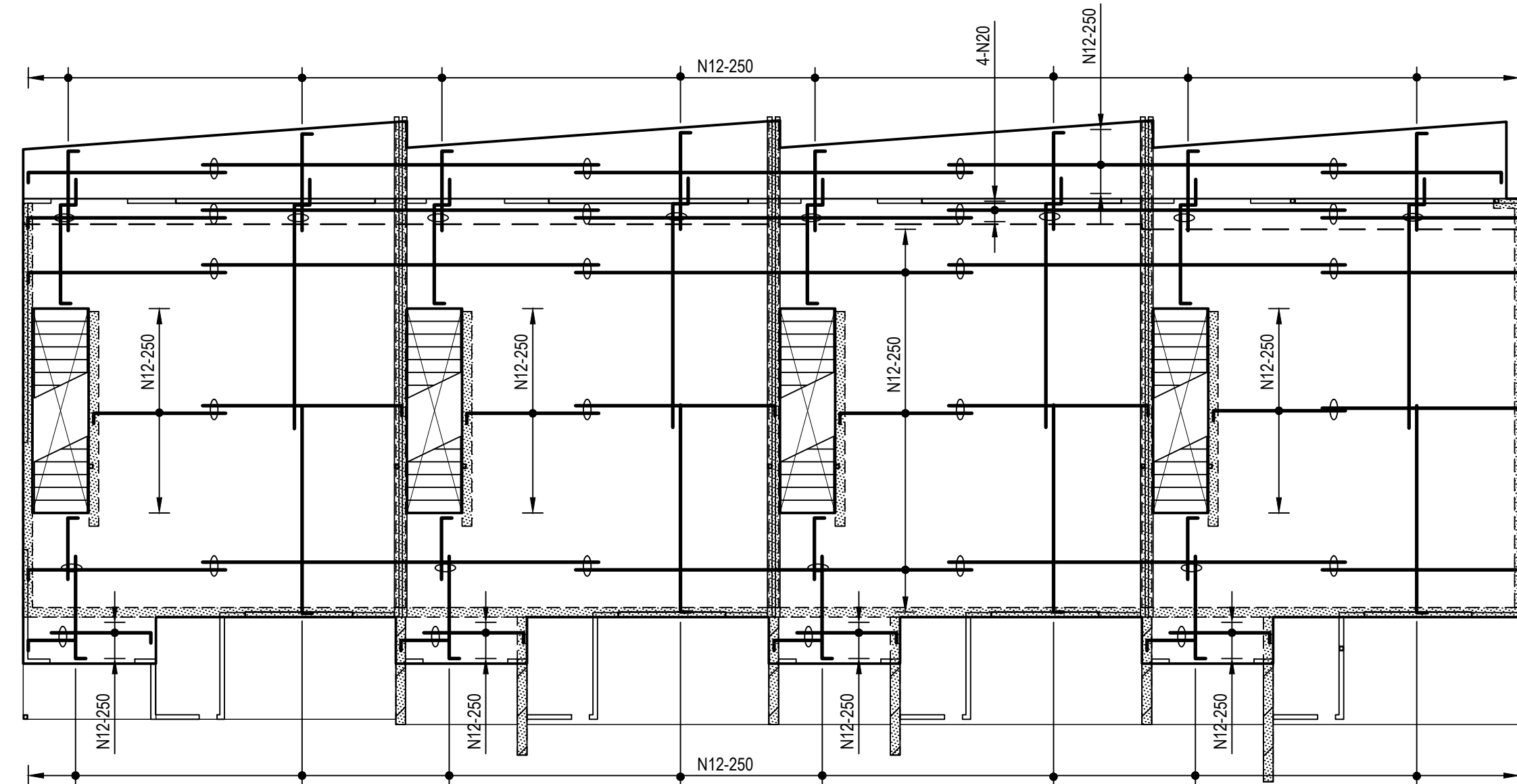
BUILDING PERMIT
Townhouse Development 10
 Approval Number: **23146**
 259 - 261 Ashmore Road Benowa
 Certifier: H.P. McHenry A707778

FOR FRAMING NOTES AND SCHEDULE
 REFER TO DRG S10. TYPICAL

UNITS 1-4 - GROUND FLOOR
SLAB PROFILE AND FRAMING PLAN
1:100



UNITS 1-4 - GROUND FLOOR
BOTTOM REINFORCMENT PLAN
1:100



UNITS 1-4 - GROUND FLOOR
TOP REINFORCEMENT PLAN
1:100

THE INFORMATION CONTAINED ON
THESE DRAWINGS IS BASED ON
ARCHITECTURAL DRAWINGS ISSUE
DATED 05/03/18 REV B

DRAWING REFERENCE

S01-S02	GENERAL NOTES
S03-S04	STANDARD DETAILS
S15	UNITS 1-4 GROUND FLOOR SLAB PROFILE, FRAMING AND REINFORCEMENT PLANS
S16	UNITS 1-4 GROUND FLOOR SECTIONS

LEGEND

BW1 DENOTES 190 BLOCK WALL TYPE
REFER TO DRG S04 FOR DETAILS

CONCRETE SLAB NOTES

1. DENOTES SLAB THICKNESS: 200
ACTUAL THICKNESSES ARE SHOWN ON THE CONCRETE PROFILE PLANS
2. REFER TO CONCRETE NOTES FOR CONCRETE GRADES AND REINFORCEMENT COVERS INCLUDING ALL RELEVANT NOTES.
3. REFER TO REINFORCEMENT PLANS FOR PRIMARY REINFORCEMENT AND BAR LAYING SEQUENCES.
4. REFER TO STANDARD DETAIL DRAWINGS FOR REINFORCEMENT REQUIREMENTS TO PENETRATIONS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL SETOUT, LEVELS, STEPS, REBATES, ETC.
6. DENOTES STEP IN TOP OF SLAB: 
7. DENOTES SLAB PENETRATION: 
8. DENOTES SLAB SETDOWN: 

NOTE

1. SLAB STEPS AND FALLS TO ARCHITECTS DETAILS.
2. REFER TO ARCHITECTURAL CONCRETE SETOUT, HYDRAULIC, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL SLAB PENETRATIONS.

CONCRETE REINFORCEMENT NOTES

1. REFER TO CONCRETE NOTES FOR CONCRETE GRADES AND REINFORCEMENT COVERS INCLUDING ALL RELEVANT NOTES.
2. WHERE REINFORCEMENT IS SHOWN IN 1 DIRECTION ONLY, PROVIDE DISTRIBUTION REINFORCEMENT OF N12 AT 300 IN THE SECONDARY DIRECTION. LAP 400 AS REQUIRED
3. REFER TO REINFORCEMENT PLANS FOR PRIMARY REINFORCEMENT AND BAR LAYING SEQUENCES.
4. REFER TO STANDARD DETAIL DRAWINGS FOR REINFORCEMENT REQUIREMENTS TO PENETRATIONS.
5. WHERE DIFFERENT BAR SIZES ARE SHOWN LAPPING, LAP LENGTH SHALL SUIT THE SMALLER BAR SIZE.
6. REINFORCING BARS SHALL BE EVENLY SPACED ACROSS THE WIDTHS INDICATED ON THE PLAN.
7. FOR HORIZONTAL BARS MINIMUM REINFORCEMENT LAPS SHALL BE AS FOLLOWS.

BAR DIAMETER	LESS THAN 300 CONCRETE UNDER	MORE THAN 300 CONCRETE UNDER
N12	450	600
N16	675	900
N20	900	1200
N24	1150	1500
N28	1350	1750
N32	1600	2100
N36	1800	2350

8. REINFORCEMENT NOTATION IN BEAMS/SLABS.
- | | |
|------|--|
| E | DENOTES EXTRA BARS TO BE PLACED IN REINFORCEMENT STRIP |
| NSOP | DENOTES NOT SHOWN ON PLAN |

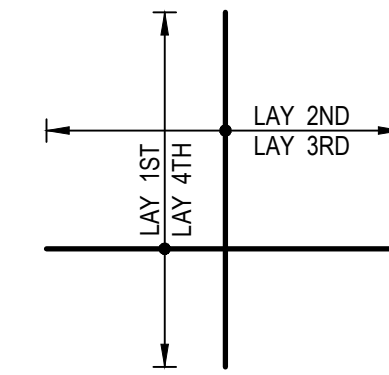
BAR LAYING SEQUENCE

LIGATURE SCHEDULE		
MK	SIZE	No. in SET/SHAPE
L1	N12	1 
L2	N12	1 
L3	N12	2  
L4	N12	2  
L5	N12	3   
L6	N12	3   
L7	N16	3   
L8	N16	4    

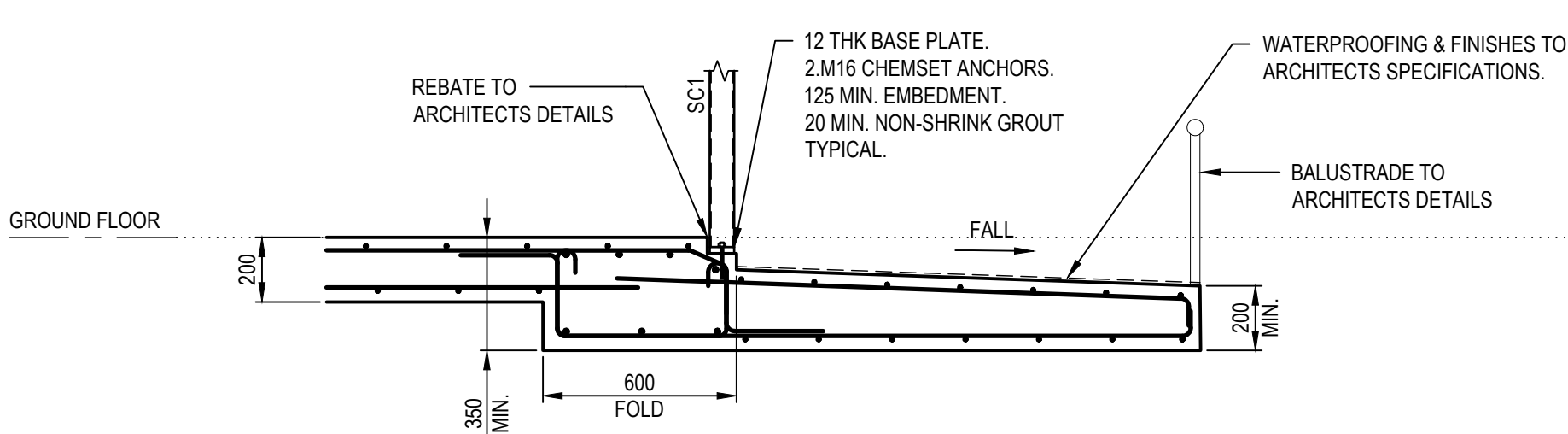
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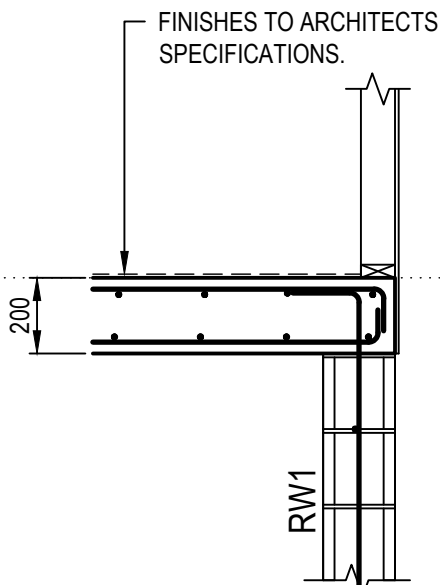
↑ DENOTES LIG SPACING WHERE APPLICABLE
↑ DENOTES LIG No.
— DENOTES NUMBER OF LIG SETS



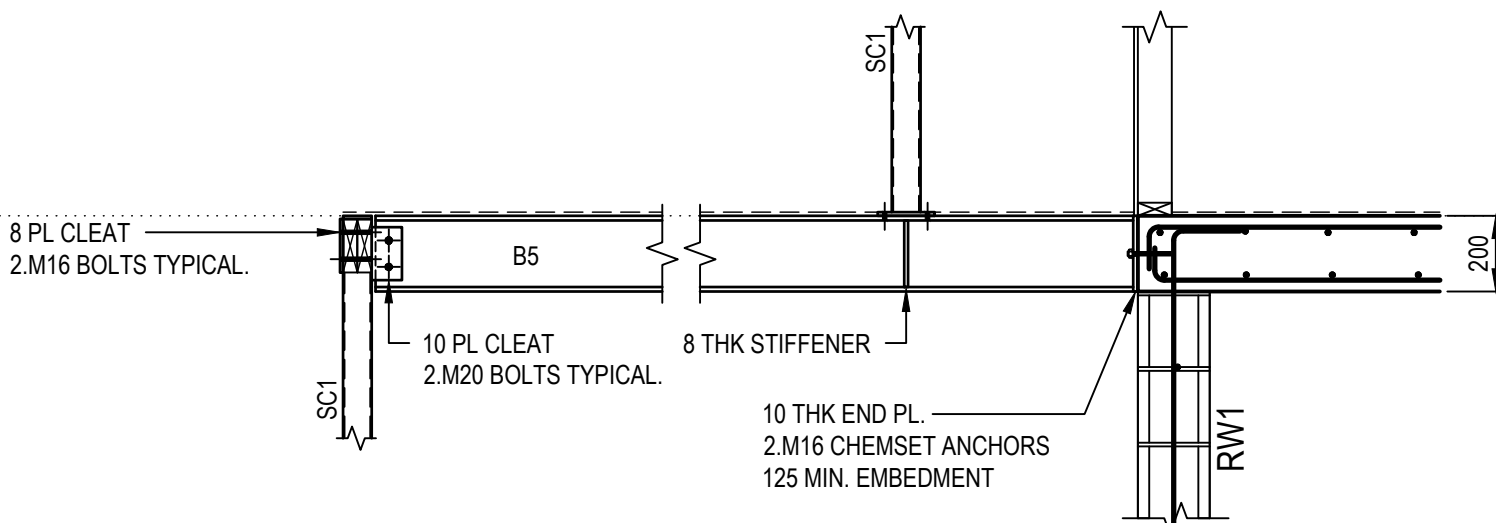
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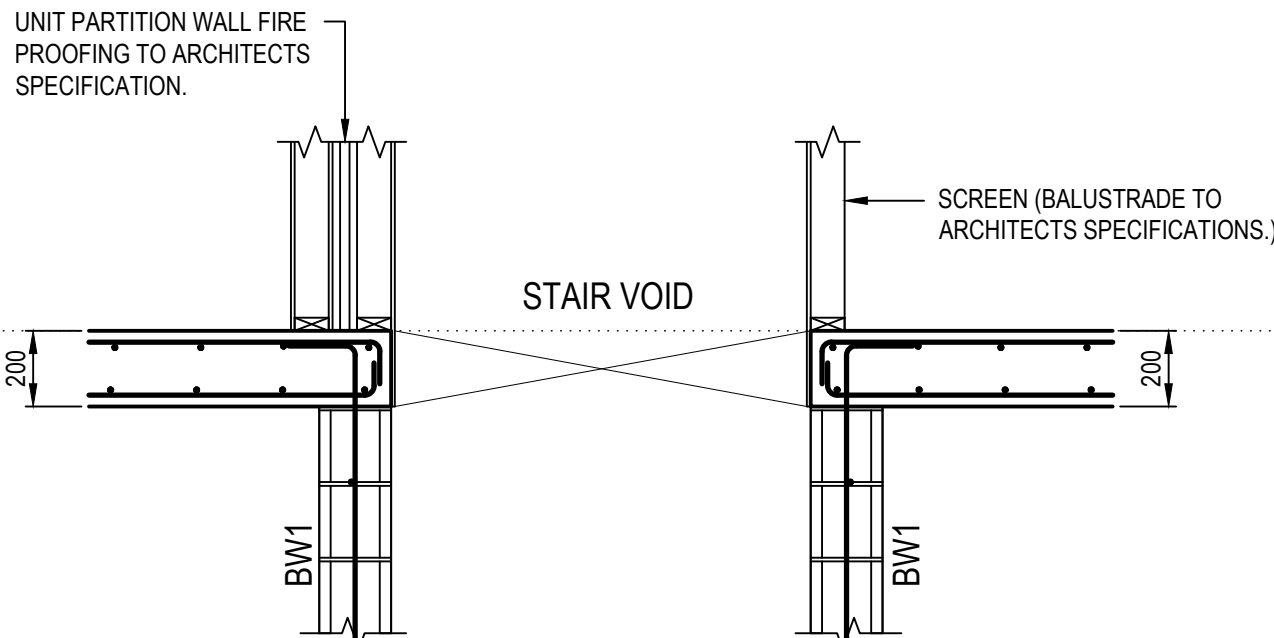
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S15



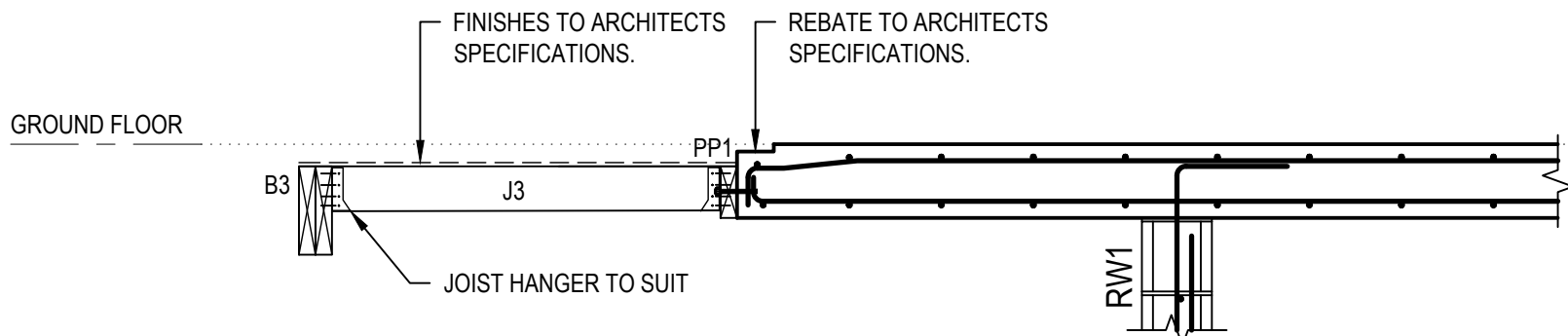
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S15



SECTION 3
1:20
S15



SECTION 4
1:20
S15



SECTION 5
1:20
S15

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Builders Name

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MANAGEMENT GROUP

Project Details

PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

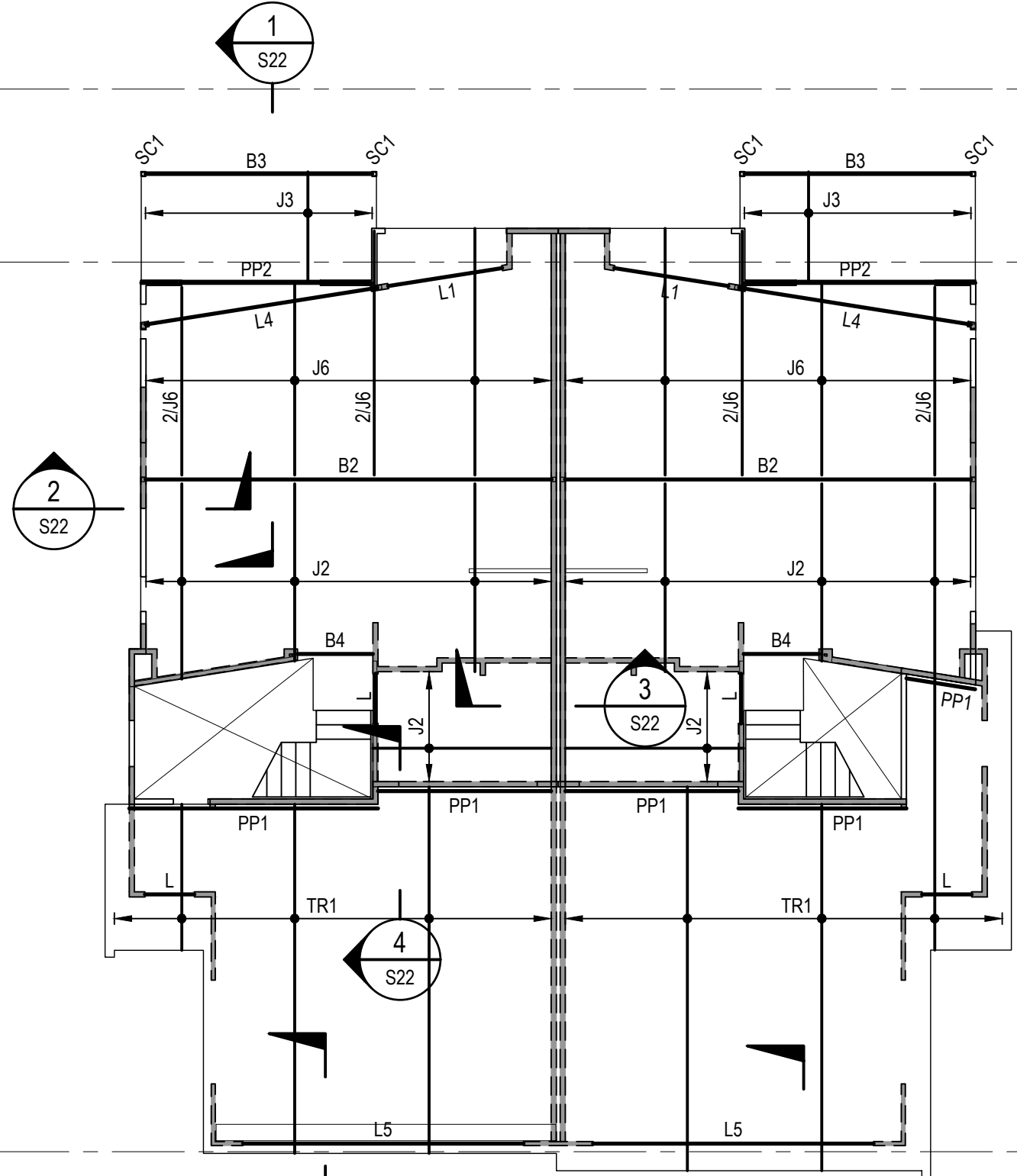
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GROUND FLOOR UNITS 1-4
SECTIONS & DETAILS

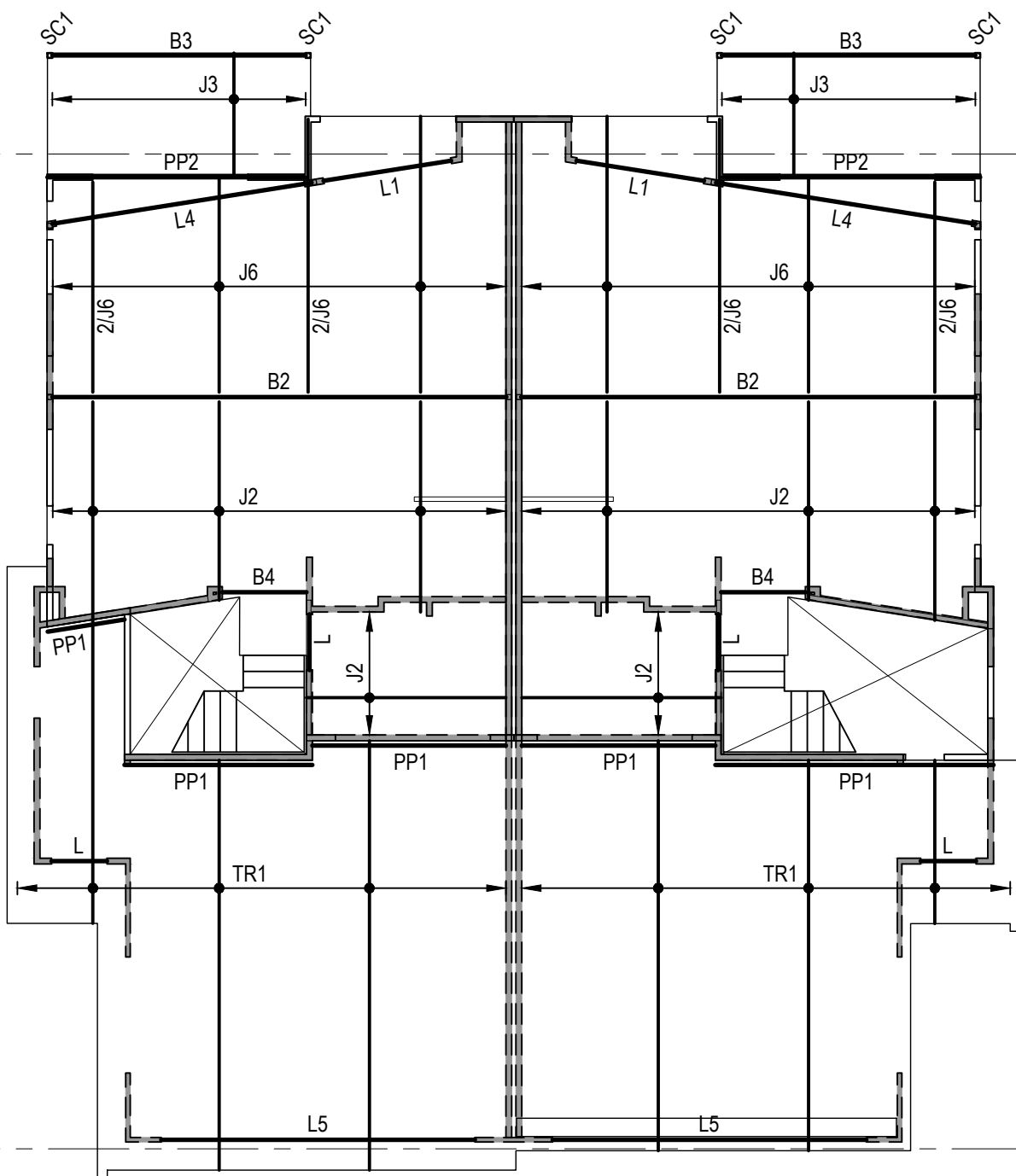
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TW		
Checked	Signed	Date
Approved	Signed	Date

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PRELIMINARY			
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Drawing No.			Rev.
S16			01

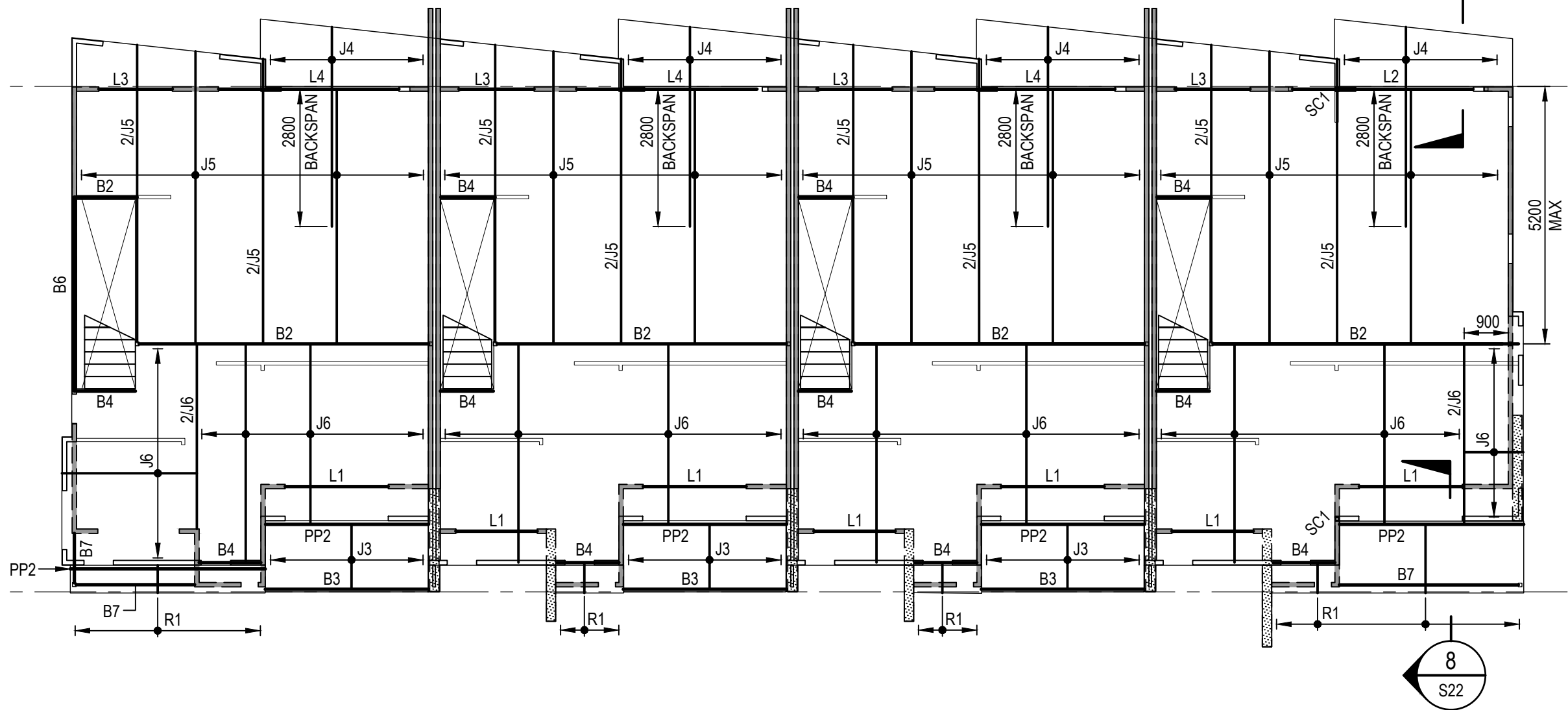
100mm
50
40
30
20
10
0
-10
-20



UNITS 5-6 - LEVEL 1
FRAMING PLAN
1:100



UNITS 7-8 - LEVEL 1
FRAMING PLAN
1:100



UNITS 1-4 - LEVEL 1
FRAMING PLAN
1:100

DRAWING REFERENCE	
S01-S02	GENERAL NOTES
S03-S04	STANDARD DETAILS
S20	UNITS 1-8 LEVEL 1 FRAMING PLANS
S21	UNITS 1-8 ROOF FRAMING PLANS
S22	FRAMING SECTIONS AND DETAILS

MEMBER SCHEDULE		
MARK	SIZE	REMARKS
SC1	75x4.0 SHS	STEEL COLUMN
B1	2/140x45 MGP12	TIMBER BEAM (H3 TREATED)
B2	300 PFC	STEEL BEAM
B3	2/240x45 MGP12	TIMBER BEAM (H3 TREATED)
B4	240x45 MGP12	TIMBER BEAM
B5	200 PFC	STEEL BEAM
B6	300x85 GL18C	TIMBER WIND BEAM
B7	190x35 MGP12	TIMBER BEAM (H3 TREATED)
J1	140x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J2	SJ20044	JOISTS @ MAX. 450 CRS
J3	120x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J4	190x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J5	SJ30090	JOISTS @ MAX. 450 CRS
J6	SJ30051	JOISTS @ MAX. 450 CRS
PP1	140x45 MGP10	POLE PLATE. M12 CHEMSET ANCHOR SF4 @ MAX. 500 CRS. (H3 TREATED)
PP2	140x45 MGP10	POLE PLATE. 2x BATTEN SCREWS TO JOISTS/STUDS @ MAX. 450 CRS.(H3 TREATED)
TR1	TIMBER ROOF TRUSSES	900 MAX. CRS. TO MANUF. SPECIFICATION
R1	120x35 MGP10	RAFTERS AT 900 MAX. CRS. (H3 TREATED)
L	REFER TIMBER LINTEL SCHEDULE ON SK	
L1	2/240x45 MGP12	TIMBER LINTEL
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L4	300x85 GL18C	TIMBER LINTEL
L5	240x65 GL18C	TIMBER LINTEL

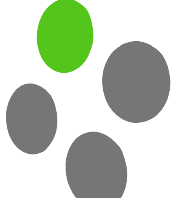
- NOTE
- ALL EXTERNAL STEELWORK TO BE HOT DIPPED GALVANIZED. U.N.O.
 - ALL SMART JOISTS AND SMARTFRAME PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

NOTE:
ALL SMARTFRAME PRODUCTS, SMARTJOIST AND SMARTLAM TO BE INSTALLED IN ACCORDANCE WITH THE SMARTFRAME DESIGN GUIDE AND INSTALLATION GUIDE RECOMMENDATIONS.

- TIMBER DECK NOTES:**
- FRAMING TIMBERS MORE THAN 150 ABOVE GROUND TO BE DURABILITY CLASS 1 WITH H3 OR BETTER PRESERVATIVE TREATED
 - FRAMING TIMBERS LESS THAN 150 ABOVE GROUND TO BE DURABILITY CLASS 1 WITH H5 PRESERVATIVE TREATED
 - HARDWOOD POSTS IN CONTACT WITH GROUND TO BE DURABILITY CLASS 1 WITH SAPWOOD REMOVED OR SAPWOOD PRESERVATIVE TREATED TO H5
 - WHERE TIMBER IS USED IN EXTERNAL ABOVE GROUND APPLICATIONS THE TIMBER MUST BE SEALED IN ACCORDANCE WITH AS1684 BEFORE IT IS INSTALLED. I.E. ALL CUTS, NOTCHES AND DRILL HOLES MUST BE SEALED TO MINIMISE THE INGRESS OF MOISTURE
 - APPLY MALTHOID COVER STRIP OR SIMILAR TO ALL TOP EDGES OF DECK JOISTS AND DECK BEARERS
 - GRADE SOIL SURFACE UNDER DECK AWAY FROM ADJACENT BUILDING OR PROVIDE AGRICULTURAL DRAINAGE
 - PERIMETER OF THE DECK IS TO BE KEPT OPEN TO ALLOW ADEQUATE VENTILATION.

THE INFORMATION CONTAINED ON THESE DRAWINGS IS BASED ON ARCHITECTURAL DRAWINGS ISSUE DATED 05/03/18 REV B

Rev.	Date	Revision Details	Drm	App.
01	09.03.18	PRELIMINARY ISSUE	KJD	
02	15.03.18	PRELIMINARY ISSUE	KJD	



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Builders Name

Client Name

AUSTRALIAN PROPERTY MANAGEMENT GROUP

Project Details

PROPOSED TOWNHOUSE DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

Drawing Title:

LEVEL 1 UNITS 1-8
FRAMING PLANS

Drawn	Signed	Date	Scale: 1:100	Sheet Size	A1
KJD			Project Number GC170394		
Designed	Signed	Date			
TW			PRELIMINARY NOT FOR CONSTRUCTION		
Checked	Signed	Date			
			Drawing No.		Rev.
Approved	Signed	Date	S20		02

BUILDING PERMIT
Townhouse Development 10
Approval Number: **25146**
259 - 261 Ashmore Road Benowa
Certifier: H.P. McHenry A707778

DRAWING REFERENCE
S01-S02 GENERAL NOTES
S03-S04 STANDARD DETAILS
S20 UNITS 1-8 LEVEL 1 FRAMING PLANS
S21 UNITS 1-8 ROOF FRAMING PLANS
S22 FRAMING SECTIONS AND DETAILS

MEMBER SCHEDULE		
MARK	SIZE	REMARKS
SC1	75x4.0 SHS	STEEL COLUMN
B1	2/140x45 MGP12	TIMBER BEAM (H3 TREATED)
B2	300 PFC	STEEL BEAM
B3	2/240x45 MGP12	TIMBER BEAM (H3 TREATED)
B4	240x45 MGP12	TIMBER BEAM
B5	200 PFC	STEEL BEAM
B6	300x85 GL18C	TIMBER WIND BEAM
B7	190x35 MGP12	TIMBER BEAM (H3 TREATED)
J1	140x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J2	SJ20044	JOISTS @ MAX. 450 CRS
J3	120x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J4	190x45 MGP12	JOISTS @ MAX. 450 CRS (H3 TREATED)
J5	SJ30090	JOISTS @ MAX. 450 CRS
J6	SJ30051	JOISTS @ MAX. 450 CRS
PP1	140x45 MGP10	POLE PLATE. M12 CHEMSET ANCHOR SF4 @ MAX. 500 CRS. (H3 TREATED)
PP2	140x45 MGP10	POLE PLATE. 2x BATTEN SCREWS TO JOISTS/STUDS @ MAX. 450 CRS.(H3 TREATED)
TR1	TIMBER ROOF TRUSSES	900 MAX. CRS. TO MANUF. SPECIFICATION
R1	120x35 MGP10	RAFTERS AT 900 MAX. CRS. (H3 TREATED)
L	REFER TIMBER LINTEL SCHEDULE ON SK	
L1	2/240x45 MGP12	TIMBER LINTEL
L2	200 PFC	STEEL LINTEL BEAM
L3	240x45 MGP12	TIMBER LINTEL
L4	300x85 GL18C	TIMBER LINTEL
L5	240x65 GL18C	TIMBER LINTEL

- NOTE
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 - ALL SMART JOISTS AND SMARTFRAME PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

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Builders Name

Client Name

Project Details

Drawing Title:

Drawn

Signed

Date

Scale: 1:100

Sheet Size

A1

Project Number

GC170394

PRELIMINARY
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Drawing No.

Rev.

S21

02

AUSTRALIAN PROPERTY
MANAGEMENT GROUP

PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

ROOF LEVEL UNITS 1-8
FRAMING PLANS

KJD

Designed

TW

Checked

Approved

Signed

Signed

Signed

Signed

Date

Date

Date

Date

BUILDING PERMIT

Townhouse Development No. 20140

Approval Number - 20140

259 - 261 Ashmore Road Benowa

Certifier: H.P. McHenry A707778

B3

J3

PP2

J6

L4

J6

J2

B2

JOIST HANGER TO SUIT

BLOCKING TO J6 IN ACCORDANCE WITH SMART JOIST MANUFACTURERS SPECS.

HATCHING DENOTES PLYWOOD INFILL TO SMART JOISTS IN ACCORDANCE WITH MANUFACTURERS SPECS.

TIE DOWN ROD TO J6 WITH Z' BRACKET TO SUIT.

PROVIDE 240 x 45 MGP12 TIMBER PACKERS TO B2 WITH M12 BOLTS AT 900 MAX. CRS.

LOOPED 3.0 x 0.8 G.I. STRAP WITH 6 x 2.8 DIA. NAILS EACH END.

B2

SC1

10 PL CLEAT
3 M20 BOLTS TYPICAL

Technical drawing showing a cross-section of a roof truss assembly. The drawing includes the following components and labels:

- TR1**: Truss member.
- PP1**: Plywood panel.
- Labels and Callouts:**
 - TRUSSES TO ROOF TRUSS MANUFACTURERS SPEC.
 - CEILING TO ARCHITECTS SPEC.
 - TRUSS CONNECTION TO PP1 TO TRUSS MANUFACTURERS SPEC.
 - PP1 TO STUD WALLS. PROVIDE 2 No. 14 TYPE 17 SCREWS TO WALL STUDS AT 450 MAX. CRS.
 - ROOF SHEETING TO ARCHITECTS SPEC.

Diagram illustrating the connection between the roof structure and the exterior wall. The diagram shows the roof edge, gutter, and the connection to the wall. Key components and labels include:

- GUTTER TO ARCHITECTS SPECS.
- ROOF SHEETING.
- TR1
- CEILING TO ARCHITECTS SPEC
- L5
- TR1 TO L5 TIE DOWN TO TRUSS MANUFACTURERS SPECS.

A detailed cross-section of a parapet wall and roof assembly. The roof structure consists of a top layer of plywood (indicated by hatching), followed by a layer of insulation (cross-hatching), and a bottom layer of plywood (hatching). The parapet wall is constructed from concrete (diagonal hatching) and is reinforced with 2M10 bolts at each end and M10 bolts at 500 mm maximum centers. The wall is topped with a 70 x 45 mm plate secured by an M12 bolt at 900 mm maximum centers. The wall is attached to a steel beam (L2) which is embedded in a concrete foundation. The roof assembly is labeled 'GLAZING TO ARCHITECTS SPEC.' and the 'BACKSPAN' is indicated as 2800 mm minimum.

HATCHING DENOTES PLYWOOD
INFILL TO SMART JOISTS IN
ACCORDANCE WITH
MANUFACTURERS SPECS.

2800 MIN.
BACKSPAN

GLAZING TO ARCHITECTS SPEC.

J5

J4

J4

2.M10 BOLTS EACH END
M10 BOLTS AT 500 MAX. CRS.

70 x 45 PLATE
M12 BOLT AT 900 MAX. CRS.

L2

Diagram illustrating the connection of a roof truss assembly to a wall and floor:

- ROOF SHEETING TO ARCHITECTS SPEC.**: Points to the roof sheathing.
- OUTRIGGERS TO TRUSS MANUFACTURERS SPECS.**: Points to the outriggers connecting the truss to the wall.
- TRUSS TIEDOWN TO TRUSS MANUFACTURERS SPECS.**: Points to the truss tiedown connecting the truss to the floor.
- TR1**: Label for the truss.
- L.**: Label for the floor joist.

GIRDER TRUSS TO TRUSS MANUFACTURERS SPEC.

TR1

GT1

ROOF SHEETING.

ROOF TRUSSES TO TRUSS MANUFACTURERS SPECS.

TR1

CEILING TO ARCHITECTS SPEC.

Odyssey Consulting Group

Structural and Civil Engineers

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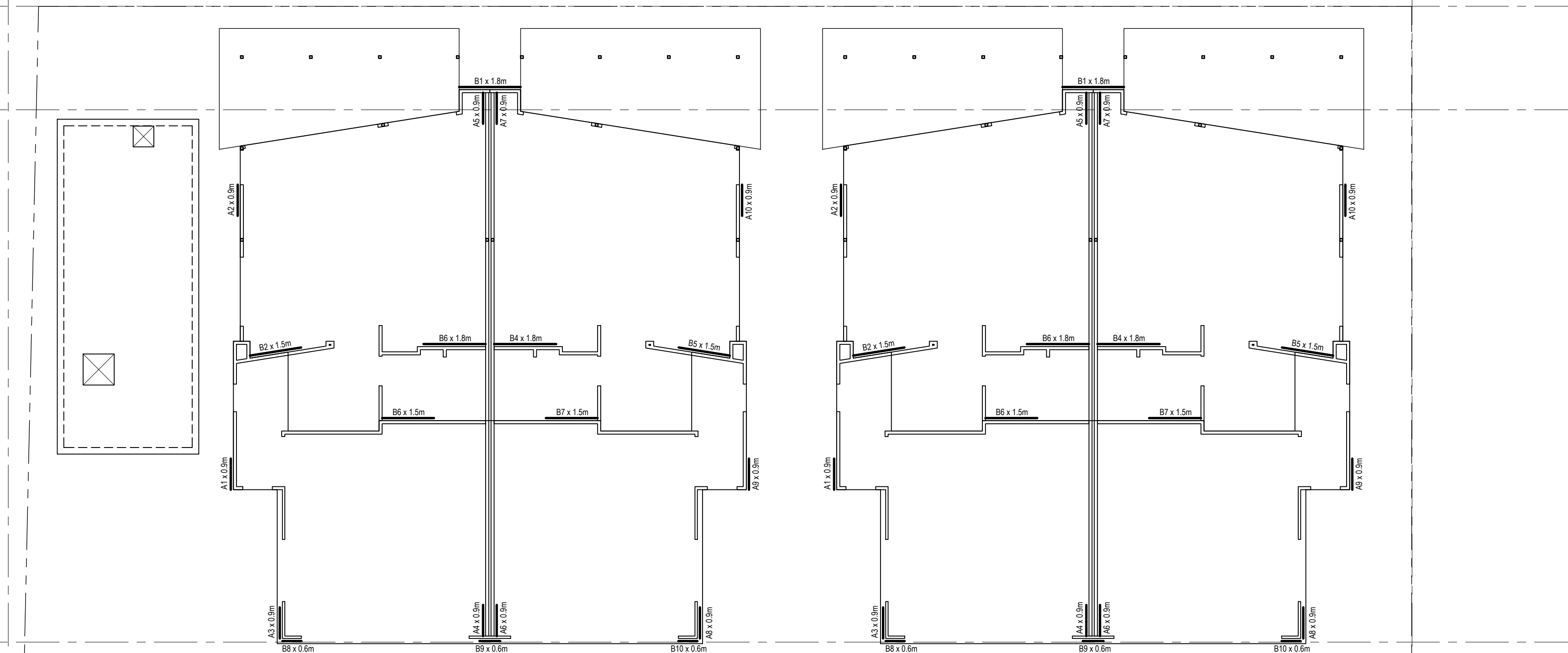
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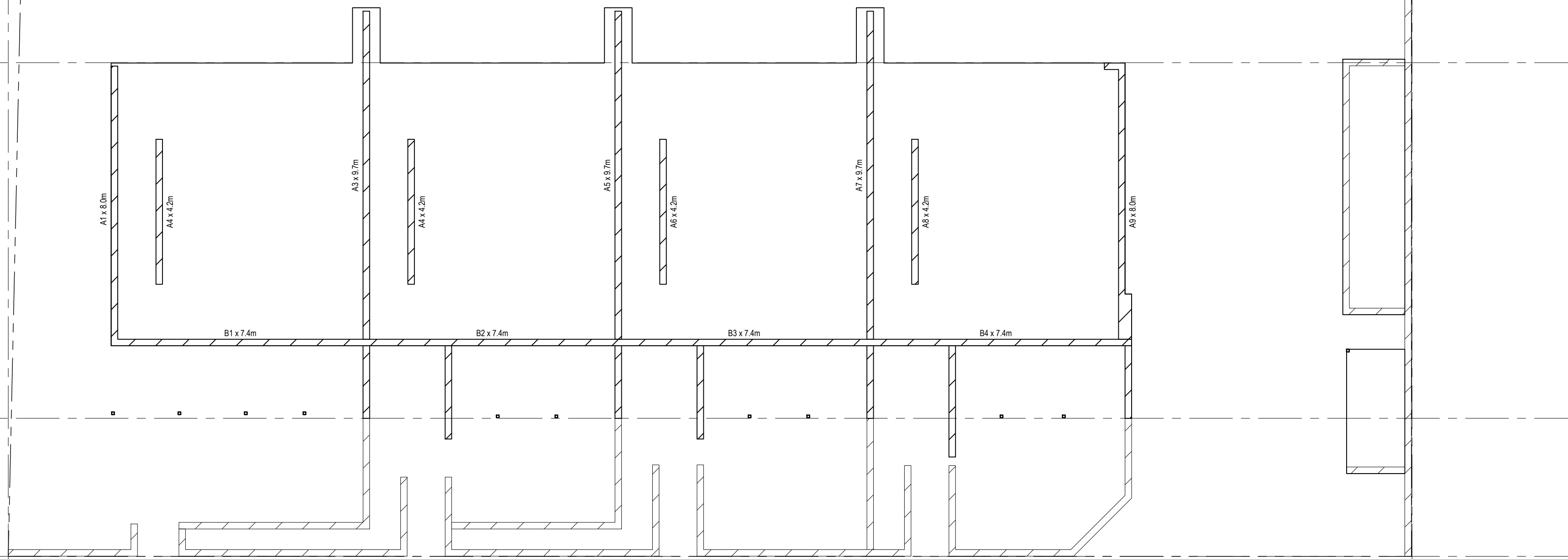
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4



UNIT 5-6 GROUND FLOOR BRACING PLAN

UNIT 7-8 GROUND FLOOR BRACING PLAN



UNIT 1-4 GROUND FLOOR BRACING PLAN

BRACING FOR DIRECTION A (UNIT 1-4)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
A1-A9	190 BLOCK WALL @ 10kN/m	61.9	619kN
		RESISTANCE REQUIRED: 200.8kN	
		RESISTANCE PROVIDED: 619kN	

BRACING FOR DIRECTION B (UNIT 1-4)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
B1-B4	190 BLOCK WALL @ 10kN/m	29.6	296kN
		RESISTANCE REQUIRED: 88.2kN	
		RESISTANCE PROVIDED: 296kN	

BRACING FOR DIRECTION A (UNIT 5-6)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
A1-A10	4.5mm PLYWOOD @ 6.4kN/m	9	57.6kN
		RESISTANCE REQUIRED: 50.6kN	
		RESISTANCE PROVIDED: 57.6kN	

BRACING FOR DIRECTION B (UNIT 5-6)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
B1-B10	4.5mm PLYWOOD @ 6.4kN/m	13.8	84.5kN
		RESISTANCE REQUIRED: 57.6kN	
		RESISTANCE PROVIDED: 84.5kN	

BRACING FOR DIRECTION A (UNIT 7-8)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
A1-A10	4.5mm PLYWOOD @ 6.4kN/m	9	57.6kN
		RESISTANCE REQUIRED: 50.6kN	
		RESISTANCE PROVIDED: 57.6kN	

BRACING FOR DIRECTION B (UNIT 7-8)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
B1-B10	4.5mm PLYWOOD @ 6.4kN/m	13.8	84.5kN
		RESISTANCE REQUIRED: 57.6kN	
		RESISTANCE PROVIDED: 84.5kN	

DRAWING REFERENCE

- S01-S02 GENERAL NOTES
S03-S04 STANDARD DETAILS
S30 UNITS 1-4 GARAGE LEVEL AND UNITS 5-8 GROUND FLOOR BRACING PLANS
S31 UNITS 1-4 GROUND FLOOR AND UNITS 5-8 LEVEL 1 BRACING PLANS
S32 UNITS 1-4 LEVEL 1 BRACING PLAN
S33 TYPICAL WALL FRAMING AND TIEDOWN DETAILS
S34 TYPICAL WALL BRACING DETAILS

LEGEND

A1 x 0.9m DENOTES 0.9 METRE MIN. LENGTH OF BRACING WALL. REFER TO PLAN FOR BRACING WALL TYPE.

BRACING NOTES

- ALL BRACING TO BE STRICTLY IN ACCORDANCE WITH AS 1684 FOR WIND CLASSIFICATION N2
- ALL WALLS SHOWN AS TYPE C TO BE APPROVED GALVANIZED STEEL ANGLE OR DIAGONAL TIMBER BRACES FIXED FOR 1.5 kN/m
- ALL WALLS SHOWN ARE TO BE STRUCTURAL PLYWOOD FIXED FOR VALUES AS NOTED
- ALL WALLS SHOWN AS NOMINAL TO BE GYPSUM PLASTERBOARD FIXED NOMINALLY FOR: SHEATHED ON SIDE ONLY - 0.4 kN/m SHEATHED BOTH SIDES - 0.75 kN/m
- ALL BRICK BRACING HAVE VALUES AS CALCULATED IN THE CBCQ 1. 'CLAY BRICK CONSTRUCTION QUEENSLAND 1' BY THE BRICK DEVELOPMENT RESEARCH INSTITUTE
- BRACING WALLS ARE DETAILED ON THE BRACING DETAIL SHEET IN ACCORDANCE WITH AS 1684.
- ALL BRACING WALLS ARE TO BE FIXED TO ROOF FRAMING & FLOOR USING CONNECTION DETAILS AS SHOWN ON BRACING DETAILS SHEET IN ACCORDANCE WITH AS 1684.
- ANY DISCREPANCY OR DEVIATION FROM THIS PLAN IS TO BE REPORTED TO THE ENGINEER FOR INCLUSION IN THE PLAN. THE ENGINEER WILL NOT ACCEPT RESPONSIBILITY FOR ANY DEVIATION OR ALTERATION NOT REPORTED.

BRACING PLAN

BRACING SYSTEM DESIGNED TO AS 1684 FOR WIND CLASSIFICATION N2



DIRECTION A



DIRECTION B

Rev.	Date	Revision Details	Dm	App.
01	09.03.18	PRELIMINARY ISSUE	KJD	

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Builders Name

Client Name

AUSTRALIAN PROPERTY
MANAGEMENT GROUP

Project Details

PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

Drawing Title:

GARAGE LEVEL UNITS 1-4
GROUND FLOOR UNITS 5-8
BRACING PLANS

Drawn

KJD

Signed

Signed

Date

Date

Designed

TW

Signed

Signed

Date

Date

Approved

Signed

Date

Date

Scale: 1:100

Project Number

GC170394

PRELIMINARY
NOT FOR CONSTRUCTION

Drawing No.

S30

Sheet Size

A1

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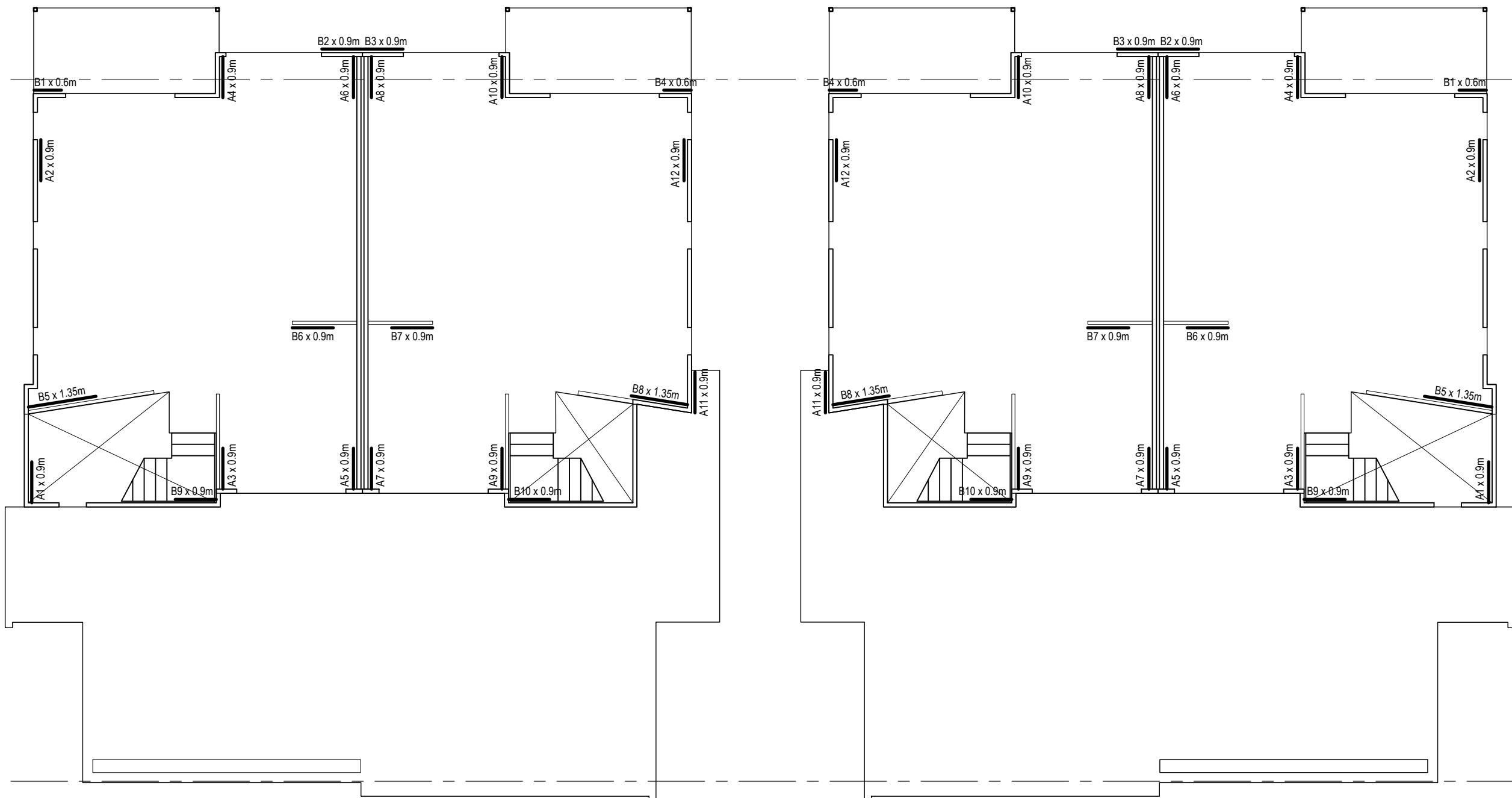
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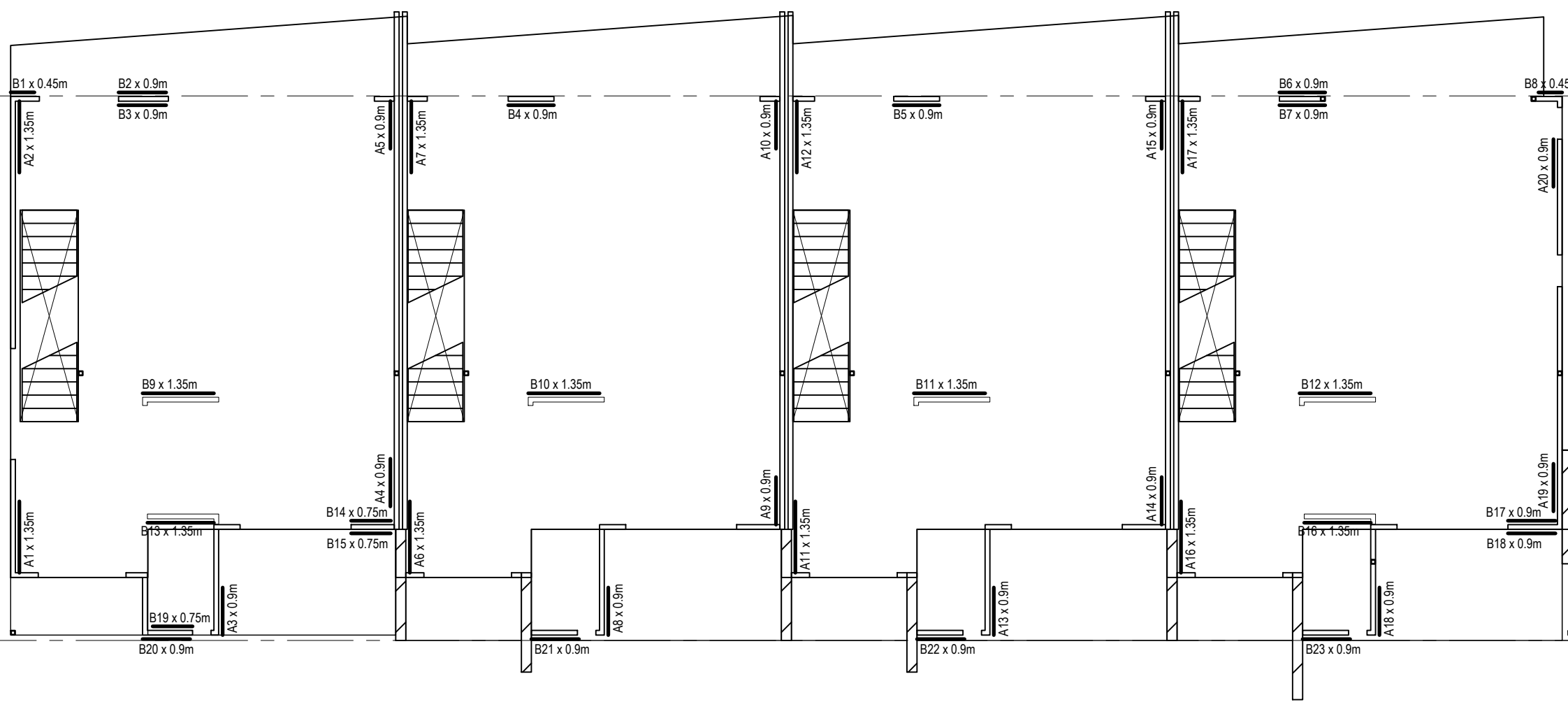
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UNIT 5-6 LEVEL 1 BRACING PLAN

UNIT 7-8 LEVEL 1 BRACING PLAN



UNIT 1-4 GROUND FLOOR BRACING PLAN

BRACING FOR DIRECTION A (UNIT 1-4)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
A1-A20	4.5mm PLYWOOD @ 6.4kN/m	21.6	138.2kN
		RESISTANCE REQUIRED:	132.9kN
		RESISTANCE PROVIDED:	138.2kN

BRACING FOR DIRECTION B (UNIT 1-4)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
B1-B23	4.5mm PLYWOOD @ 6.4kN/m	22.05	131.7kN
		RESISTANCE REQUIRED:	59.6kN
		RESISTANCE PROVIDED:	131.7kN

BRACING FOR DIRECTION A (UNIT 5-6)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
A1-A12	4.5mm PLYWOOD @ 3.4kN/m	10.8	36.7kN
		RESISTANCE REQUIRED:	28.9kN
		RESISTANCE PROVIDED:	36.7kN

BRACING FOR DIRECTION B (UNIT 5-6)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
B1-B10	4.5mm PLYWOOD @ 3.4kN/m	9.3	29.6kN
		RESISTANCE REQUIRED:	21.1kN
		RESISTANCE PROVIDED:	29.6kN

BRACING FOR DIRECTION A (UNIT 7-8)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
A1-A12	4.5mm PLYWOOD @ 3.4kN/m	10.8	36.7kN
		RESISTANCE REQUIRED:	28.9kN
		RESISTANCE PROVIDED:	36.7kN

BRACING FOR DIRECTION B (UNIT 7-8)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
B1-B10	4.5mm PLYWOOD @ 3.4kN/m	9.3	29.6kN
		RESISTANCE REQUIRED:	21.1kN
		RESISTANCE PROVIDED:	29.6kN

DRAWING REFERENCE

S01-S02	GENERAL NOTES
S03-S04	STANDARD DETAILS
S30	UNITS 1-4 GARAGE LEVEL AND UNITS 5-8 GROUND FLOOR BRACING PLANS
S31	UNITS 1-4 GROUND FLOOR AND UNITS 5-8 LEVEL 1 BRACING PLANS
S32	UNITS 1-4 LEVEL 1 BRACING PLAN
S33	TYPICAL WALL FRAMING AND TIEDOWN DETAILS
S34	TYPICAL WALL BRACING DETAILS

LEGEND

A1 x 0.9m DENOTES 0.9 METRE MIN. LENGTH OF BRACING WALL. REFER TO PLAN FOR BRACING WALL TYPE.

BRACING NOTES

- ALL BRACING TO BE STRICTLY IN ACCORDANCE WITH AS 1684 FOR WIND CLASSIFICATION N2
- ALL WALLS SHOWN AS TYPE C TO BE APPROVED GALVANIZED STEEL ANGLE OR DIAGONAL TIMBER BRACES FIXED FOR 1.5 kN/m
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BRACING PLAN

BRACING SYSTEM DESIGNED TO AS 1684 FOR WIND CLASSIFICATION N2

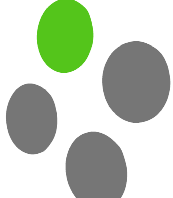


DIRECTION A



DIRECTION B

Rev.	Date	Revision Details	Dm	App.
01	09.03.18	PRELIMINARY ISSUE	KJD	



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Builders Name

Client Name

AUSTRALIAN PROPERTY
MANAGEMENT GROUP

Project Details

PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

Drawing Title:

GROUND FLOOR UNITS 1-4
LEVEL 1 UNITS 5-8
BRACING PLANS

Drawn

KJD

Signed

Signed

Date

Date

Scale: 1:100

Sheet Size

A1

Project Number

GC170394

PRELIMINARY
NOT FOR CONSTRUCTION

Drawing No.

Rev.

S31

01

BUILDING PERMIT
Townhouse Development
Approval Number: **25146**
259 - 261 Ashmore Road Benowa
Certifier: H.P. McHenry A707778

DRAWING REFERENCE

S01-S02	GENERAL NOTES
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S31	UNITS 1-4 GROUND FLOOR AND UNITS 5-8 LEVEL 1 BRACING PLANS
S32	UNITS 1-4 LEVEL 1 BRACING PLAN
S33	TYPICAL WALL FRAMING AND TIEDOWN DETAILS
S34	TYPICAL WALL BRACING DETAILS

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BRACING PLAN

BRACING SYSTEM DESIGNED TO AS 1684 FOR WIND CLASSIFICATION N2

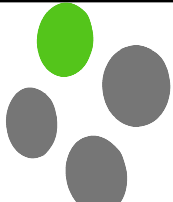


BRACING FOR DIRECTION A (UNIT 1-4)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
A1-A21	4.5mm PLYWOOD @ 3.4kN/m	18.75	62.1kN
RESISTANCE REQUIRED: 59.4kN			
RESISTANCE PROVIDED: 62.1kN			

BRACING FOR DIRECTION B (UNIT 1-4)			
CODE	TYPE	LENGTH (m)	VALUE (kN)
B1-B22	4.5mm PLYWOOD @ 3.4kN/m	19.2	63.0kN
RESISTANCE REQUIRED: 25.4kN			
RESISTANCE PROVIDED: 63.0kN			

UNIT 1-4 LEVEL 1 BRACING PLAN

Rev.	Date	Revision Details	Dm	App.
01	09.03.18	PRELIMINARY ISSUE	KJD	



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Builders Name

Client Name
AUSTRALIAN PROPERTY MANAGEMENT GROUP

Project Details
**PROPOSED TOWNHOUSE DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215**

Drawing Title:
**LEVEL 1 UNITS 1-4
BRACING PLAN**

Drawn KJD	Signed	Date	Scale: 1:100	Sheet Size	A1
Designed	Signed	Date	Project Number GC170394		
TW	Signed	Date	PRELIMINARY NOT FOR CONSTRUCTION		
Checked	Signed	Date	Drawing No.		Rev.
Approved	Signed	Date	S32		01

BUILDING PERMIT
Townhouse Development 10
 Approval Number: - 2518
 259 - 261 Ashmore Road Benowa
 Engineer: H.P. McHenry A707778

2/30x0.8 GI STRAPS WITH
 4/2.8mm dia NAILS EACH
 END

INTERNAL BRACING WALL

EXTERNAL TOP
 PLATE (DOUBLE TO
 PLATE)

INTERNAL BRACING WALL TO EXTERNAL WALL DETAIL

NTS

NAILING PLATES OR FRAMING ANCHOR (LEGS NOT BENT) TO EITHER END OF NOGGING 6/2.8mm dia NAILS PER FACE OR FIX FRAMING ANCHOR DIRECT TO WALL WHERE BOTH COINCIDE

TRUSSES OR JOISTS

90x35 NOGGING

TRUSSES

90x35 SHEAR BLOCKING MIN 450mm LONG 4/3.75mm dia NAILS TO WALL

BRACING WALL

BRACING WALL

FIXING OF TOP OF BRACING WALL DETAILS

NTS

TRUSSES OR JOISTS

90x35 SHEAR BLOCKING PIECES MIN 450mm LONG - 4/3.75mm dia NAILS TO WALL

BRACING WALL

M12 REO 502 CHEMSET ANCHOR AT END OF WALL AND MAX 1200 CRS. 110mm EMBEDMENT OR EQUIVALENT TO ACHIEVE 20 kN TIE DOWN FORCE

PROVIDE LOCALISED THICKENING UNDER BRACING WALLS

405

203

FIXING AT BOTTOM OF
BRACING WALL DETAIL
NTS

TWO NAILING PLATES EACH END OF BRIDGING, LEGS NOT BENT, WITH 6/2.8mm Ø NAILS TO EACH FACE

100x50 MGP10 BRIDGING PIECE ON EDGE (AT END OF WALL AND MAX. 1200 CRS)

M10 4.6/S BOLT AT END OF WALL AND MAX. 1200 CRS. (15 kN CAPACITY)

FIXING AT BOTTOM OF BRACING WALL DETAIL

NTS

Technical drawing of a wall section showing horizontal butt joints, noggings, and sheathed panels. The drawing includes dimensions and labels for various components.

Labels and Dimensions:

- HORIZONTAL BUTT JOINTS PERMITTED, PROVIDED NAILS FIXED TO NOGGING AT 50 CRS** (Top left)
- 150** (Horizontal dimension, top right)
- 150** (Vertical dimension, left side)
- 50** (Vertical dimension, right side)
- 30mmx2.8mm dia FLATHEAD NAILS OR EQUIVALENT** (Left side, pointing to a nail)
- M12 HD BOLTS - 1200 CRS** (Left side, pointing to a bolt)
- ONE ROW OF NOGGINGS STAGGERED AT HALF HEIGHT** (Bottom left)
- 150** (Horizontal dimension, bottom right)
- SHEATHED PANELS SHALL BE CONNECTED TO SUBFLOOR** (Bottom right)

Technical drawing of a wall section showing horizontal butt joints, concrete anchors, and sheathed panels. The drawing includes dimensions and labels for various components.

Labels and Dimensions:

- HORIZONTAL BUTT JOINTS PERMITTED, PROVIDED NAILS FIXED TO NOGGING AT 150 CRS** (Top left)
- 150** (Dimension for horizontal spacing of noggings)
- 150** (Dimension for horizontal spacing of noggings)
- 300** (Dimension for vertical spacing of noggings)
- 30mmx2.8mm dia FLATHEAD NAILS OR EQUIVALENT** (Label for nails)
- CONCRETE ANCHORS THROUGH BOTTOM PLATE & PLACED EACH END OF BRACED PANEL. REFER TO NOMINAL FIXINGS FOR TIMBER MEMBERS** (Label for anchors)
- ONE ROW OF NOGGINGS STAGGERED AT HALF HEIGHT** (Label for noggings)
- SHEATHED PANELS SHALL BE CONNECTED TO SUREL OR** (Label for sheathed panels)

PLYWOOD BRACING PANEL ELEVATION
(6.4kN/m CAPACITY METHOD A. AS1684)
NTS

PLYWOOD BRACING PANEL ELEVATION
(3.4kN/m CAPACITY)
NTS

PLYWOOD STRESS GRADE	PLYWOOD THICKNESS (mm)	
	MAXIMUM STUD SPACING (mm)	
	450	600
F8	7	9
F11	6	7
F14	4	6
F27	4	4.5

FOR THE SYSTEM THE PLYWOOD THICKNESSES AND STUD
SPACING GIVEN IN TABLE 8.18 AND FASTENER SPACINGS GIVEN
IN THE FASTENER DIAGRAMS - RODDED, NO BRACES, NO
NOGGING. AS 1684.2

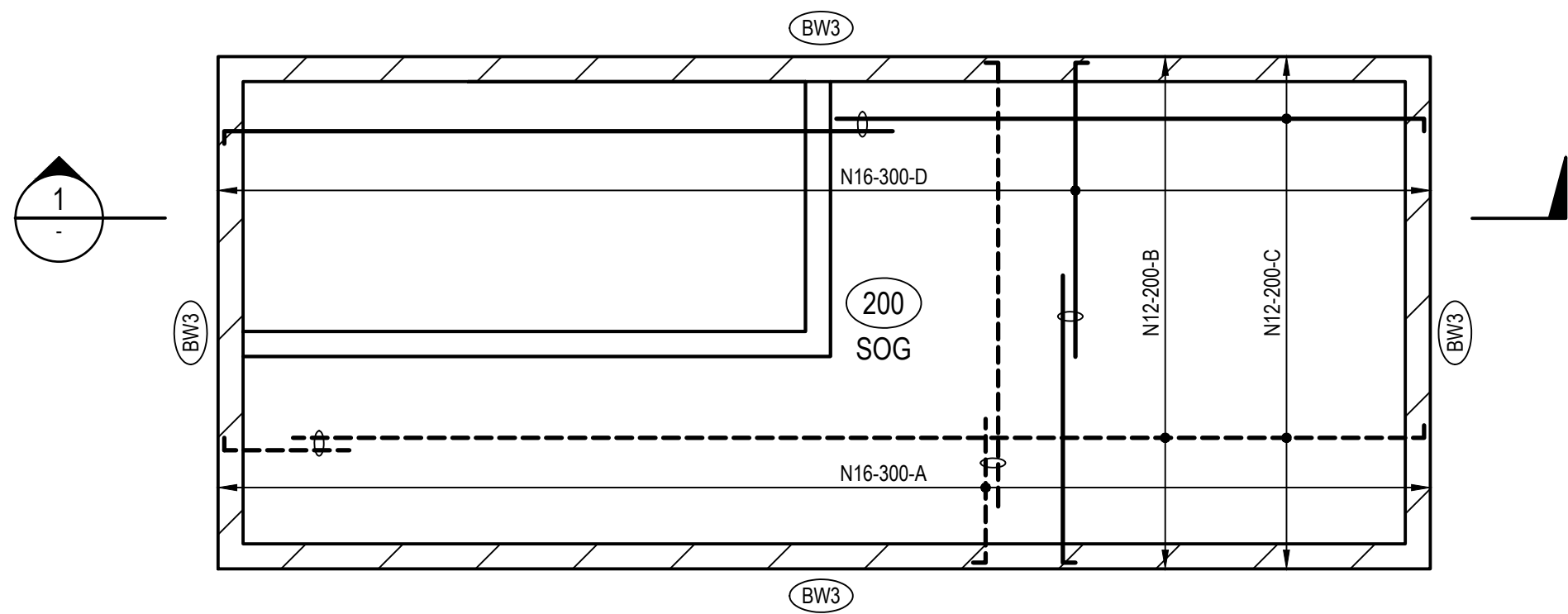
THICKNESS OF PLYWOOD FOR A
DESIGN BRACING RESISTANCE OF (6.4kN/m)
NTS

PLYWOOD STRESS GRADE	PLYWOOD THICKNESS (mm)	
	MAXIMUM STUD SPACING (mm)	
	450	600
F8	7	9
F11	4.5	7
F14	4	6
F22	4	-
F27	3	4.5

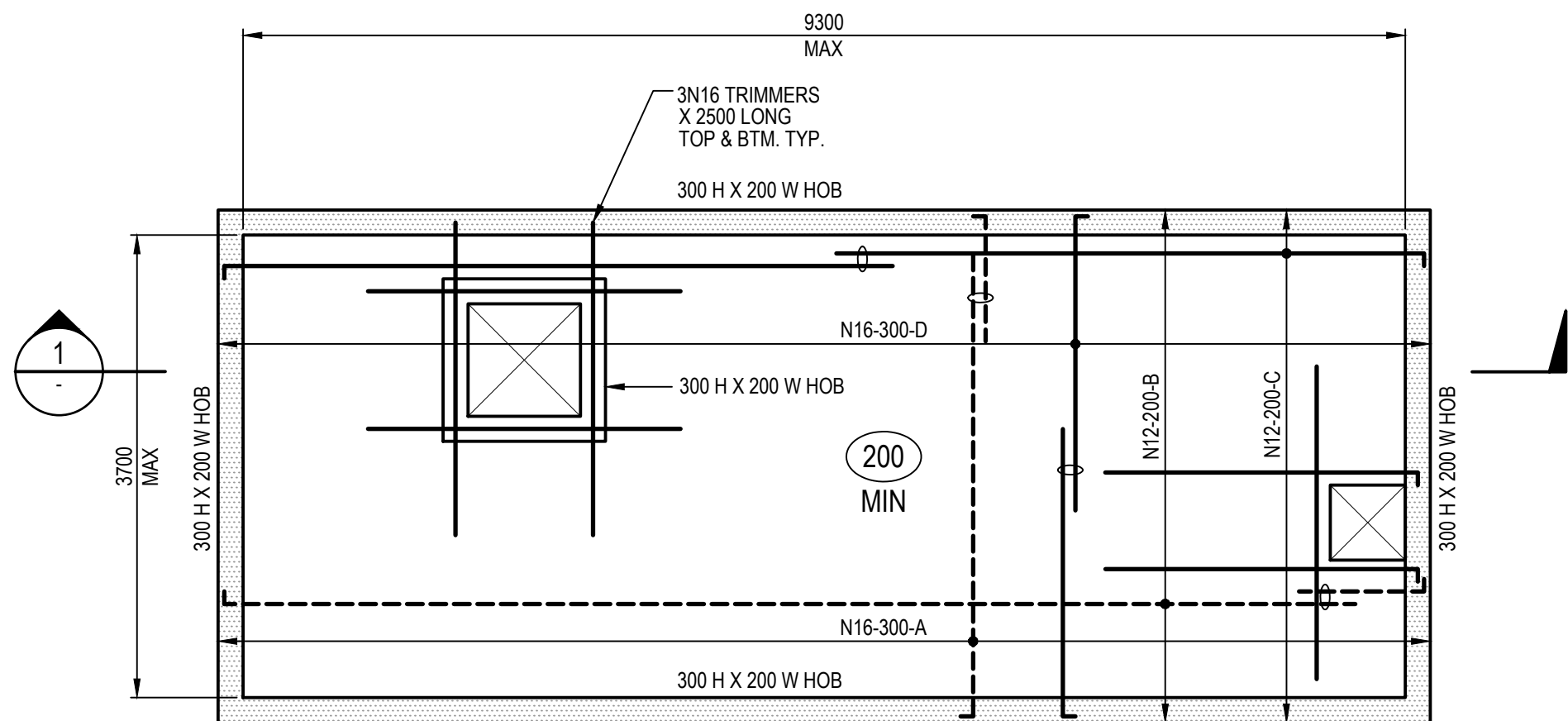
FOR THE SYSTEM THE PLYWOOD THICKNESSES AND STUD SPACING GIVEN IN TABLE 8.18 AND FASTENER SPACINGS GIVEN IN THE FASTENER DIAGRAMS - RODDED, NO BRACES, NO NOGGING, AS 1684.2

THICKNESS OF PLYWOOD FOR A
DESIGN BRACING RESISTANCE OF (3.4kN/m)
NTS

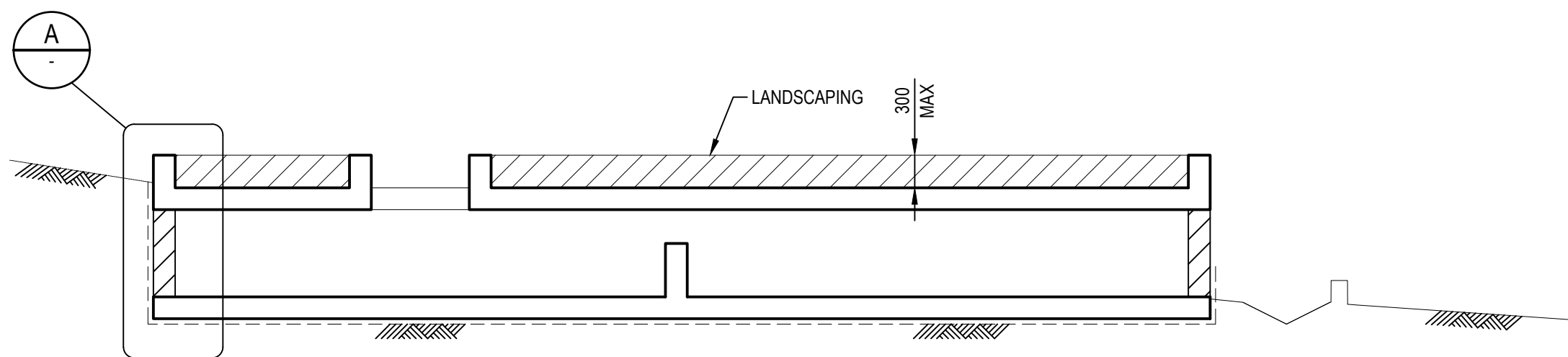
Rev.			Date	Revision Details		Drm	App.	 Odyssey Consulting Group Structural and Civil Engineers Odyssey Consulting Group ABN 35 612 263 975 Telephone: +61 7 5575 7744 Suite 5 Corporate House Facsimile: +61 7 5641 7992 155 Varsity Parade Varsity Lakes Q 4227 w: odoconsulting.com.au PO Box 4579 Robina Town Centre Email: goldcoast@odoconsulting.com.au Queensland Australia 4230 All rights reserved. This work is copyright and cannot be reproduced or copied in any form or by any means (graphic, electronic, or mechanical including photocopying) without the written permission of ODYSSEY Consulting Group. Any term(s), express or implied to use the document for any purpose whatsoever is restricted to the terms and agreement or implied agreement with ODYSSEY Consulting Group.	Builders Name	Client Name	Project Details	Drawing Title:	Drawn	Signed	Date	Scale:	NTS	Sheet Size	A1
01	09.03.18	PRELIMINARY ISSUE		KJD					Project Number										
									GC170394										
									PRELIMINARY										
									NOT FOR CONSTRUCTION										
									Drawing No.		Rev.								
									S34		01								



DETENTION TANK GENERAL ARRANGEMENT
BASE PLAN
1:50



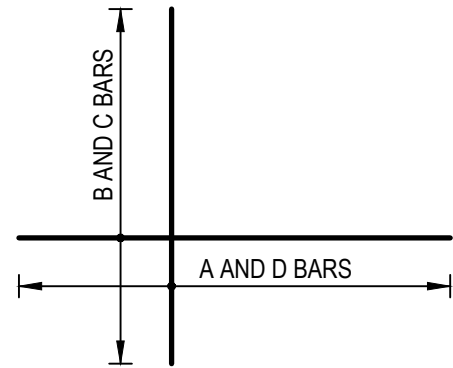
DETENTION TANK GENERAL ARRANGEMENT
LID PLAN
1:50



SECTION 1
1:50

DESIGN LOADS:
LIVE LOAD = 2 kPa
SOIL/PAVEMENT ROAD MATERIAL = 300mm DEPTH
DENSITY OF SOIL = 20kN/m³

NOTE:
FOR DETENTION TANK LOCATION AND ALL
SETOUT DIMENSIONS REFER TO NOBLES
CONSULTING ENGINEERS DRAWINGS
K3999-SW003 DATED 27.02.18



BAR LAYING SEQUENCE
'A' BARS LAID FIRST
'B' BARS LAID SECOND
'C' BARS LAID THIRD
'D' BARS LAID LAST

REINFORCEMENT CALL UP LEGEND

1. SLAB REINFORCEMENT
5 / N12 - 300 - A1
BAR MARK
BAR SPACING
BAR GRADE AND SIZE
NUMBER OF BARS

DRAWING REFERENCE

- S01-S02 GENERAL NOTES
S03-S06 STANDARD DETAILS
S40 DETENTION TANK PLAN AND SECTIONS
S41 BIO-RETENTION SECTIONS

LEGEND

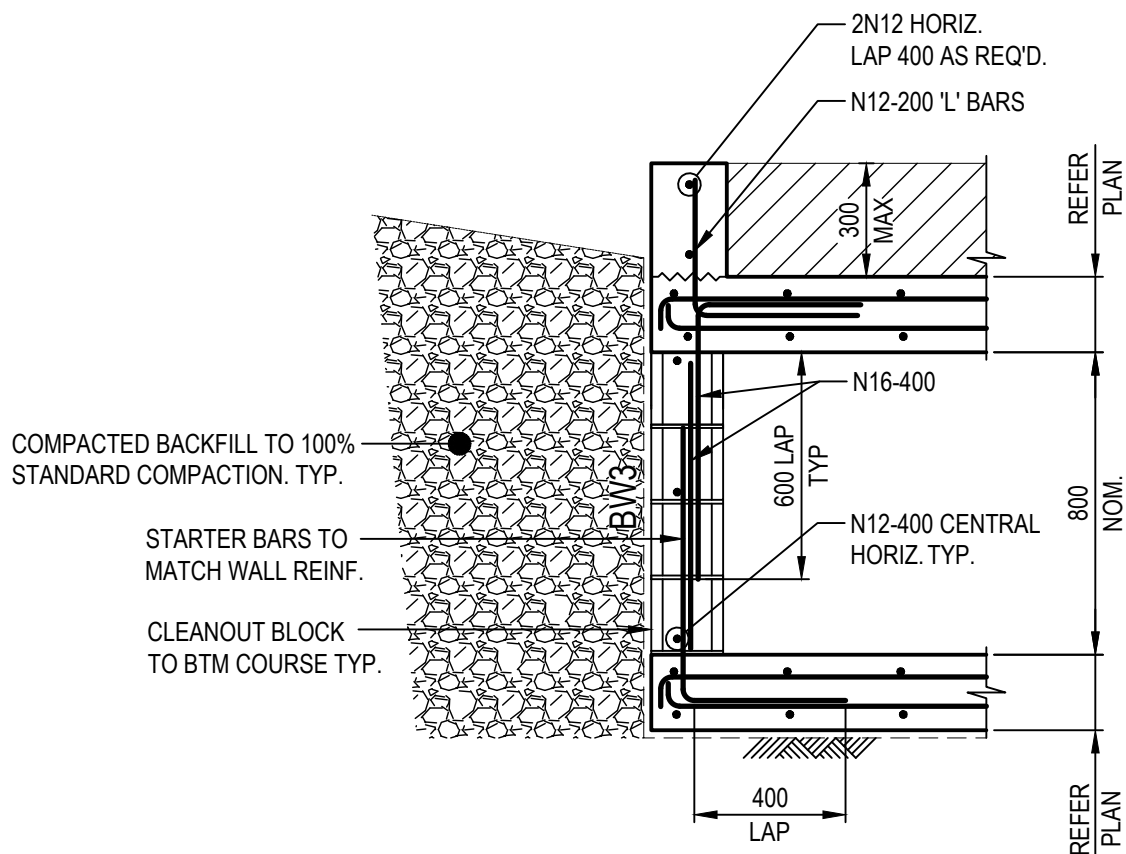
- BW3 DENOTES 190 BLOCK WALL TYPE
REFER TO DRG S04 FOR DETAILS

CONCRETE SLAB NOTES

1. DENOTES SLAB THICKNESS: (200)
ACTUAL THICKNESSES ARE SHOWN ON THE CONCRETE PROFILE PLANS
2. REFER TO DRAWING S01 FOR CONCRETE GRADES AND REINFORCEMENT COVERS INCLUDING ALL RELEVANT NOTES.
3. WHERE REINFORCEMENT IS SHOWN IN 1 DIRECTION ONLY, PROVIDE DISTRIBUTION REINFORCEMENT OF N12 AT 300 IN THE SECONDARY DIRECTION. LAP 400 AS REQUIRED
4. REFER TO REINFORCEMENT PLANS FOR PRIMARY REINFORCEMENT AND BAR LAYING SEQUENCES.
5. REFER TO STANDARD DETAIL DRAWINGS FOR REINFORCEMENT REQUIREMENTS TO PENETRATIONS.
6. FOR HORIZONTAL BARS MINIMUM REINFORCEMENT LAPS SHALL BE AS FOLLOWS.

BAR DIAMETER	LESS THAN 300 CONCRETE UNDER	MORE THAN 300 CONCRETE UNDER
N12	450	600
N16	675	900
N20	900	1200
N24	1150	1500
N28	1350	1750
N32	1600	2100
N36	1800	2350

7. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL SETOUT, LEVELS, REBATES, ETC.
8. DENOTES STEP IN TOP OF SLAB: 100
9. DENOTES SLAB PENETRATION:
10. DENOTES SLAB SETDOWN:



DETAIL A
1:20

Rev.	Date	Revision Details	Dm	App.
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Builders Name

Client Name
**AUSTRALIAN PROPERTY
MANAGEMENT GROUP**

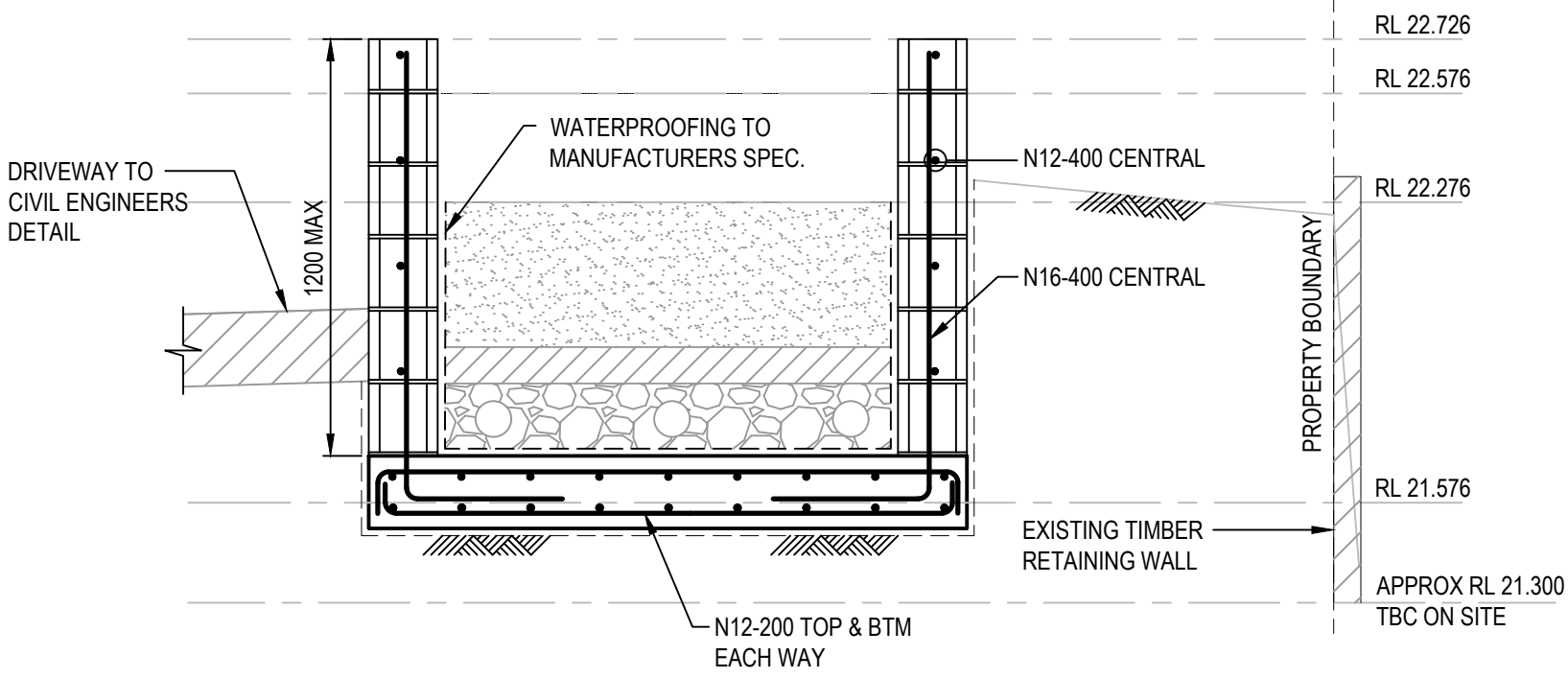
Project Details
**PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215**

Drawing Title:
**DETENTION TANK
PLAN AND SECTIONS**

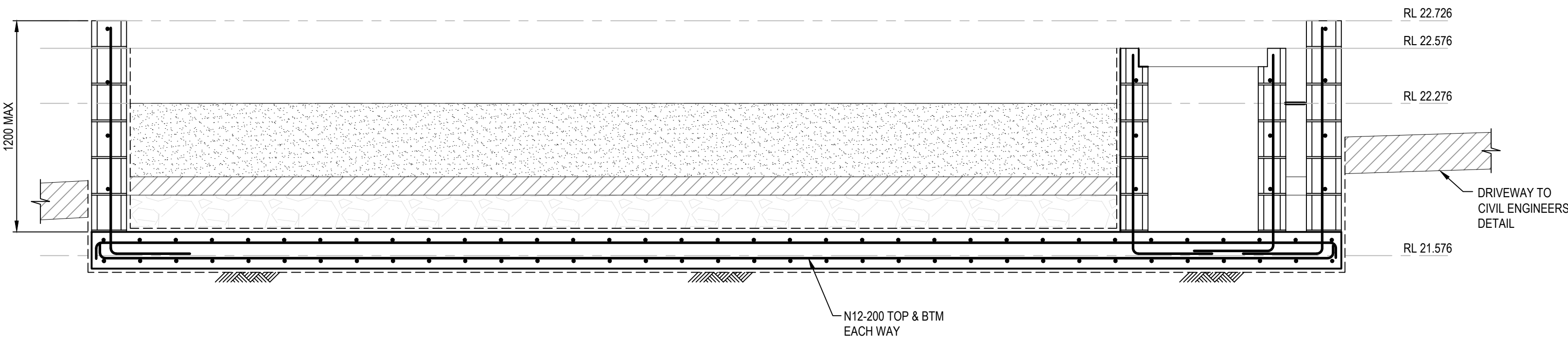
Drawn	Signed	Date
KJD		
Designed	Signed	Date
TW		
Checked	Signed	Date
Approved	Signed	Date

Scale:	1:50; 1:20	Sheet Size	A1
Project Number	GC170394		
Drawing No.	S40		
Rev.	01		

BUILDING PERMIT
Townhouse Development S10
Approval Number: - **25146**
259 - 261 Ashmore Road Benowa
Certifier: H.P. McHenry A707778

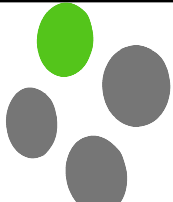


SECTION **B1**
1:20
S10



SECTION **B2**
1:20
S10

Rev.	Date	Revision Details	Dm	App.
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Builders Name

Client Name

AUSTRALIAN PROPERTY
MANAGEMENT GROUP

Project Details

PROPOSED TOWNHOUSE
DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA, QLD 4215

Drawing Title:

BIO-RETENTION SECTIONS

Drawn	Signed	Date
KJD		
Designed	Signed	Date
TW		
Checked	Signed	Date
Approved	Signed	Date

Scale:	Sheet Size
1:20	A1
Project Number	
GC170394	
PRELIMINARY NOT FOR CONSTRUCTION	
Drawing No.	Rev.
S41	01