

PROJECT: 8 UNIT DEVELOPMENT

ADDRESS: 183 GREAT OCEAN ROAD, APOLLO BAY VIC 3233

WB CIVIL STRUCTURAL ENGINEERS

ABN: 84119322438

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9 NUMERING COURT,
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DISCLAIMER

CIVIL/STRUCTURAL DESIGN ENGINEER WB CIVIL STRUCTURAL ENGINEERS MUST NOT BE HELD RESPONSIBLE FOR ANY CLAIM ARISING DUE TO MISTAKES, OMISSIONS AND SUBSTANDARD WORKMANSHIP BY PROJECT BUILDER OR ITS SUB BUILDERS AND SUPPLIERS

DIMENSIONS

SETTING-OUT OF ANY ELEMENT MUST BE DONE AS PER ARCHITECTURAL PLANS. DIMENSIONS PROVIDED ON THESE PLANS MUST ALWAYS BE CHECKED AGAINST ARCHITECTURAL PLANS. STRUCTURAL ENGINEER (MOBILE: 0401023328) MUST BE KEPT INFORMED IMMEDIATELY OF ANY DISCREPANCY AND CLARIFICATION SOUGHT BEFORE SETTING-OUT AND CONCRETING IS ORGANISED.



WARNING

ALL SERVICES SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY AND EXACT LOCATION IS TO BE CONFIRMED ON SITE BY BUILDER PRIOR TO COMMENCEMENT OF ANY WORKS.

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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ENGINEERS & BUILDERS

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REGISTERED ENGINEER
REGISTERED BUILDER
VICTORIAN BUILDING AUTHORITY

PRIYAN WIJEYERATNE
EC 19060, D-BU 22220
M.I.E.(AUST), C.P.ENG.
M.Eng(Struct), M.Tech.(Mgt), BSc(Civil)

PROJECT:
8 RESIDENTIAL UNITS
DEVELOPMENT
PROJECT ADDRESS:
183 GREAT OCEAN ROAD,
APOLLO BAY VIC 3233

SHEET NO: **1/32**

SCALE: AS SHOWN

DATE: 18/09/2017



REV.	REMARKS/COMMENTS	DATE	APRV.
G	REVED. AS PER BS LETTER 11/12/2017	16/12/2017	PW
F	REVED. AS PER BS LETTER 09/11/2017	06/12/2017	PW
E	INFILTRA. MOD. ISSUED FOR PERMIT	01/11/2017	PW
D	ISSUED FOR PERMIT	31/10/2017	PW
C	ISSUED FOR PERMIT	22/10/2017	PW
B	ISSUED FOR REVIEW ONLY	15/10/2017	PW
A	ISSUED FOR REVIEW ONLY	9/10/2017	PW

GENERAL REQUIREMENTS

GENERAL

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER OR ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- G2. ALL DIMENSIONS ARE TO BE OBTAINED FROM THE ARCHITECT'S DRAWINGS OR FROM SITE. ENGINEER'S DRAWINGS MUST NOT BE SCALED.
- G3. DURING CONSTRUCTION THE BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.
- G4. MATERIAL AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE RELEVANT SAA CODES, BCA/NCC REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PROJECT SPECIFICATION.
- G5. THE APPROVAL OF A SUBSTITUTION BY THE ENGINEER IS NOT AN AUTHORIZATION FOR AN EXTRA. ANY EXTRA INVOLVED MUST BE TAKEN UP WITH THE ARCHITECT BEFORE WORK COMMENCES.
- G6. THE STRUCTURAL WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS:-

AREA	LIVE LOAD
FLOOR	1.5 kPa
ROOF	0.25 kPa 'OR' (1.8/A + 0.12) WHICHEVER IS GREATER
BALCONY (IF APPLICABLE)	2.0 kPa

- G7. FOUNDATION MATERIAL TO BE APPROVED BEFORE POURING CONCRETE FOR A SAFE BEARING CAPACITY OF: 50kPa.....WAFFLE SLAB
100kPa.....STRIP FOOTING
- G8. ALL DETAILS SHOWN IN WBCSE DRAWING SETS ARE FOR STRUCTURAL PURPOSES ONLY. THE ARCHITECT AND BUILDER MUST ENSURE ALL CONSTRUCTION REQUIREMENTS SET BY THE BCA/NCC ARE MET. THIS OFFICE SHOULD BE CONTACTED IF ANY CLARIFICATION IS REQUIRED.

STRUCTURAL STEELWORK

- S1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 1250 AND/OR AS4100.
- S2. WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS 1554.
- S3. HIGH STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH AS 1511.
- S4. TWO COPIES OF THE SHOP DETAIL DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEERS AND APPROVAL OF SAME OBTAINED BEFORE COMMENCING FABRICATION. APPROVAL WILL NOT COVER DIMENSIONS OR LAYOUT.
- S5. THE BUILDER SHALL PROVIDE AND LEAVE IN PLACE UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED SUCH TEMPORARY BRACING AS IS NECESSARY TO STABILIZE THE STRUCTURE DURING ERECTION.
- S6. CAMBER TO STRUCTURAL STEEL ROOF BEAMS, TRUSSES, PORTALS, ETC., TO BE 2mm FOR EVERY 1M OR SPAN UNLESS OTHERWISE NOTED.
- S7. ALL CLEAT AND DRILLING FOR FIXING OF TIMBER MEMBERS, ETC., TO BE PROVIDED BY FABRICATOR.
- S8. EXCEPT WHERE OTHERWISE SHOWN CONNECTIONS SHALL HAVE 6mm CONTINUOUS FILLET WELDS, 2-M16 8.8/S BOLTS IN 1.5mm CLEARANCE HOLES AND 10mm THICK CLEAT PLATE.
- S9. CONCRETE ENCASED STEELWORK SHALL BE WRAPPED WITH SLAB FABRIC, UNLESS OTHERWISE SHOWN.
- S10. STEELWORK SHALL BE THOROUGHLY WIRE BRUSHED AND GIVEN ONE SHOP COAT OF APPROVED PRIMER EXCEPT THAT NONE SHALL BE APPLIED AT CONTACT SURFACES WHERE H.S. BOLTS USED.
- S11. ALL STEEL BEAMS AND LINTELS ARE TO HAVE 100mm MIN. END BEARING UP TO 1.0m & 150mm MIN. END BEARING OVER 1.0m, UNLESS OTHERWISE NOTED.
- S12. STEEL FRAMING MUST BE PROTECTED FROM CORROSION WHERE REQUIRED IN ACCORDANCE WITH BCA 2016 3.4.2.2

CONCRETE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600.
- C2. CONCRETE COVER TO ALL REINFORCEMENT (FINISHES NOT INCLUDED).

ELEMENT	FORMED AND SHELTERED	FORMED AND EXPOSED	NO FORM WORK
SLABS AND WALLS	20mm	30mm	65mm
BEAMS	25mm	40mm	65mm
COLUMNS	40mm	50mm	75mm
FOOTINGS		65mm	75mm

- C3. CONCRETE SIZES SHOWN DO NOT INCLUDE FINISH AND MUST NOT BE REDUCED OR HOLED IN ANY WAY WITHOUT THE ENGINEER APPROVAL.
- C4. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.
- C5. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE PROPERLY FORMED AND LOCATED TO THE APPROVAL OF THE ENGINEER.
- C6. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- C7. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN. WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
- C8. REINFORCEMENT SYMBOLS:-
L LOW DUCTILITY BARS TO AS 4671: 2001
N NORMAL DUCTILITY BARS TO AS 4671: 2001
E SEISMIC (EARTHQUAKE) DUCTILITY BAR TO AS 4671: 2001
THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NOMINAL BAR DIAMETER IN MILLIMETRES.
- C9. CAMBER TO BEAMS AND SLABS SHALL BE 2mm FOR EVERY 1M OF SPAN UNLESS OTHERWISE NOTED.
- C10. ALL CONCRETE SHALL BE GRADE 20MPa - 100mm SLUMP (U.N.O.)
- C11. ALL REINFORCEMENT SHALL BE SUPPORTED IN ITS CORRECT POSITION SO AS NOT TO BE DISPLACED DURING CONCRETING ON APPROVED BAR CHAIRS AT 1.0m MAX CRS BOTH WAYS. WHERE REQUIRED PROVIDE SUPPORT BARS N16 AT 1.0m MAX CRS.
- C12. CONCRETE TO BE KEPT FREE OF SUPPORTING BRICKWORK BY TWO LAYERS OF A SUITABLE MEMBRANE (MALTHOID, ETC.), OR AS DIRECTED BY THE ENGINEER. VERTICAL FACES OF CONCRETE TO BE KEPT FREE BY 10mm THICKNESS OF BITUMINOUS CANITE.
- C13. WHERE WALLS ARE NON-LOAD BEARING AT EITHER HORIZONTAL OR VERTICAL FACES THEY SHALL BE SEPARATED FROM CONCRETE OR BRICKWORK BY 10mm THICK CANITE.
- C14. ALL REINFORCEMENT FOR ANY ONE POUR SHALL BE COMPLETELY PLACED AND TIED PRIOR TO INSPECTION BY THE ENGINEER OR ARCHITECT. NO CONCRETE SHALL BE POURED UNTIL REINFORCEMENT HAS BEEN INSPECTED AND APPROVED.
- C15. WHERE SLABS AND BEAMS ARE TO SUPPORT BRICKWORK OVER, FORMWORK AND PROPS MUST BE REMOVED BEFORE COMMENCEMENT OF BRICKWORK.
- C16. TRENCH MESH IN BEAMS TO BE LAID CONTINUOUSLY WITH EACH LAYER BEING LAPPED FOR ITS FULL WIDTH AT INTERSECTIONS AND FOR A MINIMUM OF 500mm AT SPLICES. THE TRENCH MESH SHALL BE OVERLAPPED BY THE WIDTH OF THE FABRIC AT T & L JUNCTIONS.
- C17. AS A GENERAL POLICY, WBCSE DO NOT RECOMMEND THE USE OF POLISHED CONCRETE. THE OWNER SHOULD BE MADE AWARE BY THE BUILDING DESIGNER AND BUILDER THAT CONCRETE IS A NATURAL MATERIAL AND THE POSSIBILITY OF SURFACE CRACK FORMATION MAY OCCUR AND CANNOT BE GUARANTEED EITHER IN THE SHORT OR LONG TERM, WE HIGHLY RECOMMEND CURING THE SLAB USING AN APPROVED CURING SPRAYED MEMBRANE.
- C18. WHEN NEW FOOTING IS ABUTTED TO THE ADJACENT STRUCTURES OF NEIGHBOURING BUILDING AT BOUNDARY, A MINIMUM OF 10mm THICK "ABLEFLEX" (OR APPROVED EQUIVALENT) MUST BE PLACED BETWEEN STRUCTURES (UNLESS OTHERWISE NOTED ON ENGINEERING DRAWINGS TYPICAL)

BRICKWORK

- B1. THE UNCONFINED COMPRESSIVE STRENGTH OF A BRICK UNIT TO BE MIN. OF 15MPa AND COMPRESSIVE STRENGTH OF MASONRY TO BE A MIN. OF 5.4 MPa
- B2. THE MORTAR MIX FOR BRICKWORK SHALL BE 1:1:6
- B3. FOR NON-LOAD BEARING WALLS SEE NOTE C13.
- B4. ARTICULATION (OR EXPANSION) JOINT SPACING MUST BE IN ACCORDANCE WITH AS4773.1 - 2015, AS4773.2 - 2015 & TECHNICAL NOTE 61 (AUG 2008) FOR ARTICULATED WALLING UNLESS NOTED OTHERWISE.
- B5. ALL WALL TIES MUST BE GALVANISED.

STRUCTURAL TIMBER

- T1. ALL TIMBER FRAMING IS TO BE IN ACCORDANCE WITH AS 1684-2010 RESIDENTIAL TIMBER FRAMED CONSTRUCTION.
- T2. ALL TIMBER STRESS GRADES NOMINATED SHALL BE IN ACCORDANCE WITH THE RELEVANT CODES AND MEANS THE STRUCTURAL QUALITY OF A TIMBER SECTION (REFER TO AS 1720).
- T3. TIMBER SHALL BE STORED AND HANDLED SO AS NOT TO BE DETRIMENTAL TO THEIR PERFORMANCE OR DAMAGE THEM. REFER APPENDIX H AS 1684-2:2010
- T4. ALL TIMBER SHALL BE DRY, IE: LESS THAN 15% MOISTURE CONTENT AT THE TIME OF CONSTRUCTION AND SHALL BE PROTECTED AND/OR TREATED AS NOTED.
- T5. ALL TIMBER BEAMS AND LINTELS ARE TO BEAR ON DOUBLE STUDS (ONE JAMB AND ONE BEARING STUD), UNLESS OTHERWISE NOTED.
- T6. BEAMS/STUDS HAVING MORE THAN 1 MEMBER TO BE NAIL LAMINATED TOGETHER IN ACCORDANCE WITH AS 1684-2010.
- T7. ALL EXPOSED TIMBER TREATMENT MUST BE IN ACCORDANCE WITH EXPOSURE CLASSIFICATION AS1684.2 TABLE B1, MINIMUM H3 TREATED OR DURABLE SPECIES TO BE ADOPTED TYPICAL U.N.O.

FRAMING

- F1. PROVIDE SOLID BLOCKING (45 WIDE x D-25 DEEP) SECURELY NAILED TO JOISTS/RAFTERS (D=DEPTH OF JOIST/RAFTER) AT 1800 MAX. CRS.
- F2. ALL EXTERNAL OR EXPOSED STEELWORK TO BE HOT DIP GALVANISED.
- F3. WATERPROOFING TO ARCHITECTS DETAILS.
- F4. ALL TIMBER FRAMING & BRACING NOT SHOWN TO COMPLY WITH AS1684 TIMBER FRAMING MANUAL.
- F5. ALL BRICKWORK LINTELS TO ARCHITECTS DETAILS. ALL BRICKWORK LINTELS TO COMPLY WITH F.3.3.3.5 OF B.C.A 2012 VOLUME 2.
- F6. ALL BEAMS/GIRDER & HIP TRUSSES TO BE SUPPORTED ON DOUBLE STUDS EACH END U.N.O.
- F7. ALL LINTELS TO BE SUPPORTED ON SINGLE STUD AND JAMB STUD U.N.O.
- F8. ALL TRUSSES & WALL FRAMES TO MANUFACTURER'S DESIGN & DETAILS.
- F9. TRUSS DIRECTION ASSUMED AS SHOWN (IF APPLICABLE). CONTACT THIS OFFICE IF DIFFERENT TRUSS LAYOUT IS USED SO LINTELS ETC CAN BE REDESIGNED (IF REQUIRED).
- F10. ALL TIMBER LINTELS TO BE DESIGNED BY THE TRUSS MANUFACTURER. TYPICAL U.N.O
- F11. BUILDER TO SUPPLY MANUFACTURERS TRUSS LAYOUT TO THIS OFFICE FOR APPROVAL PRIOR TO CONSTRUCTION. TRUSS DESIGN MUST BE IN ACCORDANCE WITH AS1720 AND AS1684. TRUSS FABRICATOR/BUILDER IS RESPONSIBLE FOR PROVIDING ADEQUATE ROOF/WALL BRACING TO ENSURE STABILITY OF THE STRUCTURE IN ACCORDANCE TO AS1684.
- F12. ALL INTERNAL WALLS TO BE NON-LOAD BEARING (TYPICAL) UNLESS HATCHED OTHERWISE ON PLANS.

INSPECTIONS

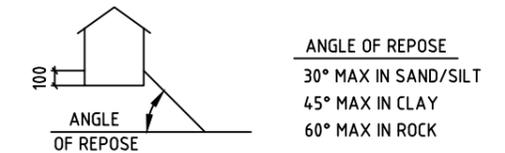
ALL STRUCTURAL WORK MUST BE INSPECTED AND APPROVED IN WRITING PRIOR TO ANY WORK PROCEEDING. 48 HOUR MIN. NOTICE IS REQUIRED FOR ALL INSPECTIONS.

SITE DRAINAGE

- D1. AT THE TIME OF THE PREPARATION OF THIS DOCUMENT, IF THE DRAINAGE DESIGN WAS NOT PREPARED OR CERTIFIED BY THIS OFFICE THEN THE DRAINAGE SYSTEM MAY NEED TO BE DOCUMENTED BY A SUITABLY QUALIFIED PERSON TO COMPLY WITH AS2870-2011. THE DRAINAGE DESIGNER SHOULD ENSURE THAT THE ELEMENTS OF THE DRAINAGE SYSTEM DESIGN ARE CONSIDERED WITH RESPECT TO THE PROPOSED FOOTING SYSTEM. WE RECOMMEND THAT WBCSE OR AN EQUIVALENT CERTIFIED PRACTITIONER, REVIEW ALL THE DOCUMENTATION TO ENSURE COMPLIANCE.
- D2. SITES SHOULD BE DRAINED SO THAT WATER CANNOT POND AGAINST OR NEAR THE HOUSE. THE GROUND IMMEDIATELY ADJACENT TO THE HOUSE SHOULD BE GRADED TO FALL 50mm OVER THE FIRST METRE. WHERE THIS IS IMPRACTICABLE (IE: ON SEVERAL SLOPING SITES) USE A.G. DRAINS ADJACENT TO FOOTINGS WHERE THE GROUND FALLS TOWARDS THE BUILDING.

FOOTING: ANGLE OF REPOSE

- A1. FOOTING MUST NOT UNDERMINE EXISTING FOOTING OR BE UNDERMINED BY PROPOSED EXCAVATION.
- A2. ENSURE ADEQUATE ANGLE OF REPOSE AT ALL TIMES (REFER DETAILS BELOW).
- A3. NOTIFY THIS OFFICE IF FOOTING UNDERMINE OCCURS.
- A4. PIPE DEPTH & LOCATION MUST BE CONFIRMED PRIOR TO CONSTRUCTION.



OH & SAFETY

- O1. FOR ALL WORKS CONDUCTED ON THIS PROJECT, THE BUILDER SHALL HAVE ALL APPROPRIATE AND SUFFICIENT SAFETY MEASURES AND PROCEDURES IN PLACE.
- O2. DEEP TRENCHES MAY EXIST ON THIS SITE. BUILDER TO ENSURE NECESSARY SAFETY MEASURES ARE TAKEN TO PREVENT FALL AND TRIPPING HAZARDS ARE ELIMINATED.
- O3. FOR LARGE SPAN BEAMS (SAY 6000mm), BUILDER TO ENSURE SEAT PLATES/ANGLES TO STEEL COLUMNS FOR MAJOR BEAMS AND LINTELS ARE INSTALLED FOR SAFER CONNECTION, BOLTING AND SITE WELDING.
- O4. ADEQUATE PROPPING MAY BE REQUIRED FOR ANY RETAINING/LOAD BEARING WALLS ON BOUNDARIES. TEMPORARY SHORING MAY BE REQUIRED. PROVISIONS SHALL BE MADE FOR APPROPRIATE DISTANCE FOR ROOF BATTENS/RAFTERS TO PROVIDE A SAFE WORKING PLATFORM DURING ROOF INSTALLATION AND WORKING AT HEIGHTS.
- O5. BUILDER MAY NEED TO BE AWARE OF APPROPRIATE MEASURES TO DEAL WITH HAZARDOUS MATERIALS SUCH AS ASBESTOS THAT MAY BE FOUND IN SERVICE PITS.
- O6. IF A CRANE IS REQUIRED, THE BUILDER IS TO PROVIDE ADEQUATE SAFETY MEASURES FOR CRANE USAGE AROUND POWER LINES.
- O7. IF ANY DIGGING IS REQUIRED OUTSIDE OF SITE BOUNDARIES, INFORMATION REGARDING EXISTING COUNCIL ASSETS NEED TO BE SOUGHT FROM "DIAL BEFORE YOU DIG".
- O8. THE SAFETY CONCERNS AND HAZARDS IDENTIFIED ABOVE REPRESENT COMMONLY OCCURRING RISKS. THE LIST DOES NOT COVER THE FULL RANGE OF RISK AVOIDANCE MEASURES REQUIRED.

DOWNPIPE & GUTTER NOTES:

THEY ARE TO BE IN ACCORDANCE WITH NCC PART 3.5.2, AS 3500.3 AND AS 3500.5. A DOWNPIPE MUST NOT SERVE MORE THAN 12m OF GUTTER LENGTH AND BE LOCATED WITHIN 1.2m FROM A VALLEY. WHERE DOWNPIPES ARE LOCATED GREATER THAN 1.2m FROM A VALLEY, PROVISION FOR OVERFLOW MUST BE MADE TO THE GUTTER. EAVE GUTTERS ARE TO BE PROVIDED WITH OVERFLOW PROVISIONS ALONG THE LENGTH OF THE GUTTERING IN ACCORDANCE WITH AS 3500.3

1	Structural Steel Design	AS4100
2	Structural Reinforced Concrete Design	AS3600
3	Structural Timber Framing	AS1684
4	Timber Structures Design	AS1720
5	Domestic Slab Design	AS2870
6	Brickwork	AS3700
6	Wind Analysis & Design	AS1170
7	Access & Mobility	AS1428
8	Welding	AS1554
9	Bolts & Nuts	AS1252
10	Cold formed Steel	AS 4500
11	Bolts & Nuts	AS1252
12	Stormwater Drainage	AS3500
13	Glazing	AS 1288/AS2047
14	Water Proofing to Wet Areas	AS3740/BCA 4-3-1

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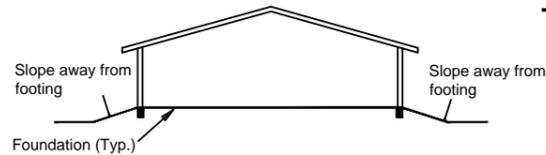
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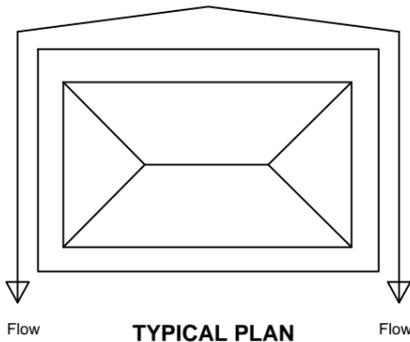


SITE DRAINAGE REQUIREMENTS

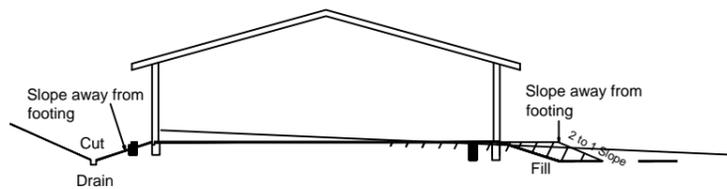
TYPICAL STORMWATER DRAINAGE



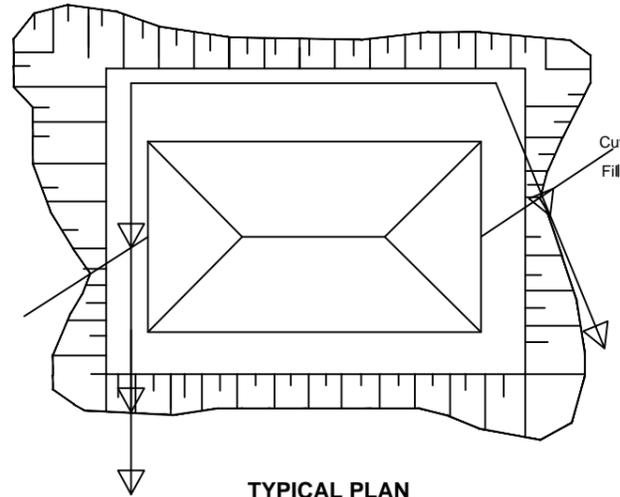
**TYPICAL SECTION
SITES WITH SLIGHT OR NO FALL**



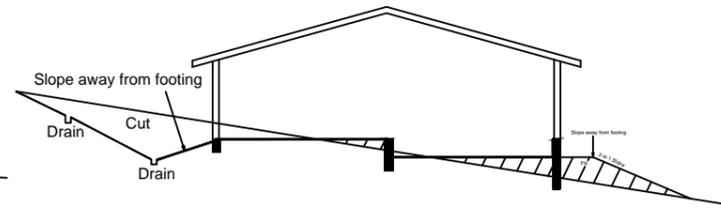
TYPICAL PLAN



**TYPICAL SECTION
SITES WITH FALL UP TO 1 : 18**



TYPICAL PLAN



**TYPICAL SECTION
SITES WITH FALL GREATER THAN 1 : 18**

MAINTENANCE:

- THE MAINTENANCE OF THE SITE AROUND A NEW HOME IS AN IMPORTANT FACTOR IN THE LONG-TERM PERFORMANCE OF THE FOOTING SYSTEM
- THE PRIMARY OBJECTIVE OF THIS MAINTENANCE IS TO MINIMISE THE VARIATION IN SOIL MOISTURE LEVEL AROUND THE FOOTING THAT COULD LEAD TO EXCESSIVE SOIL MOVEMENT AND POSSIBLE DISTRESS TO THE SUPERSTRUCTURE AND/OR FOOTING. WHEN THE SLAB FORMS PART OF THE TERMITE BARRIER SYSTEM FOR THE HOUSE, THEN IT IS ALSO NECESSARY TO MAINTAIN THE EFFECTIVENESS OF THAT BARRIER BY APPROPRIATE MAINTENANCE ACTIVITIES
- WHEN A CONCRETE SLAB-ON-GROUND IS USED AS PART OF THE TERMITE BARRIER SYSTEM AS OUTLINED IN AS3660.1, THEN IT CANNOT BE TOO HIGHLY STRESSED THAT REGULAR INSPECTION AND MAINTENANCE OF THE SLAB SURROUNDING BY A COMPETENT PROFESSIONAL IS REQUIRED TO ENSURE THAT ANY TERMITE INFESTATION IS DETECTED AND TREATED PROMPTLY.
- ONGOING MAINTENANCE AND INSPECTION ON A REGULAR BASIS IS A REQUIREMENT OF AS3660.1 AND OWNERS SHOULD BE CLEARLY ADVISED OF THEIR RESPONSIBILITIES TO ENSURE THAT THEIR INVESTMENT IS PROPERLY PROTECTED.
- LEAKING TAPS, DOWNPIPES, SEWERS, GUTTERS AND DRAINAGE CAN ALSO AFFECT THE MOISTURE CONTENT OF THE SOIL AND THESE MUST BE INSPECTED REGULARLY TO ENSURE AGAINST DAMAGE TO THE FOOTINGS. SIMILARLY, GUTTERS, DOWNPIPES AND COLLECTION POINTS CAN GET BLOCKED WITH LEAF AND OTHER DEBRIS, PREVENTING THE EFFECTIVE DRAINAGE OF STORMWATER AWAY FROM THE HOUSE. REGULAR INSPECTIONS AND MAINTENANCE SHOULD BE CARRIED OUT TO PREVENT BLOCKAGE
- IT IS IMPORTANT FOR BUILDER TO MAKE THE HOMEOWNER AWARE OF THE MAINTENANCE ISSUES ASSOCIATED WITH ENSURING THE LONG-TERM PERFORMANCE OF THE FOOTING SYSTEM.

LANDSCAPING

- THE WORKS ON GARDENS SHALL NOT IMPACT ON DRAINAGE REQUIREMENTS, SUBFLOOR VENTILATION AND WEEPHOLE DRAINAGE SYSTEMS. GARDEN BEDS ADJACENT TO THE BUILDING SHALL BE AVOIDED. CARE SHALL BE TAKEN TO AVOID OVERWATERING OF GARDENS CLOSE TO THE BUILDING FOOTINGS. (AS 2870 Cl. B2.3(b))
- PLANTING OF TREES SHALL BE AVOIDED NEAR THE FOUNDATION OF A BUILDING OR NEIGHBOURING BUILDING AS THEY CAN CAUSE DAMAGE DUE TO DRYING OF THE CLAY AT SUBSTANTIAL DISTANCES. TO REDUCE THE POSSIBILITY OF DAMAGE TREES SHOULD BE RESTRICTED TO A DISTANCE FROM THE HOUSE AS FOLLOWS:
 - 1 1/2 x MATURE TREE HEIGHT FOR CLASS E SITES.
 - 1 1/2 x MATURE TREE HEIGHT FOR CLASS H1 AND CLASS H2 SITES
 - 1 1/2 x MATURE TREE HEIGHT FOR CLASS M SITES
- WHERE ROWS OR GROUPS OF TREES ARE INVOLVED, THE DISTANCE FROM THE BUILDING SHOULD BE INCREASED. REMOVAL OF TREES FROM THE SITE CAN ALSO CAUSE SIMILAR PROBLEMS. (AS 2870 B2.3 (c))

DRAINAGE REQUIREMENTS

GENERAL

THESE DRAINAGE AND OTHER REQUIREMENTS FORM PART OF THE FOOTING DESIGN.

DEFECTIVE SURFACE DRAINAGE IS A COMMON FACTOR IN REACTIVE CLAY FOUNDATION MOVEMENT PROBLEMS. THE EFFECTIVE DRAINAGE OF THE SITE IS A PREREQUISITE FOR SATISFACTORY PERFORMANCE OF A FOUNDATION SYSTEM.

THE BUILDER'S RESPONSIBILITY IS TO MAKE THE OWNER AWARE OF THE IMPORTANCE OF SURFACE DRAINAGE, EVEN IF IT IS NOT PART OF BUILDER'S CONTRACT TO CONSTRUCT SURFACE DRAINAGE.

LANDSCAPING AND OTHER FINISHING SITE WORKS MUST BE INCORPORATED WITH WELL DESIGNED SURFACE DRAINAGE TO MITIGATE ANY ADVERSE IMPACT ON A FOUNDATION SYSTEM.

DRAINAGE NOTES

- ALL SURFACE DRAINAGE WORKS SHALL BE INSTALLED IN ACCORDANCE WITH CLAUSE 5.6.3 DRAINAGE REQUIREMENTS OF AS 2871-2011, WHEREIN FOR BUILDINGS ON MODERATELY, HIGH AND REACTIVE SITES
- SURFACE DRAINAGE SHALL BE CONTROLLED THROUGHOUT CONSTRUCTION AND BE COMPLETED BY THE FINISH OF CONSTRUCTION
- THE BASES OF TRENCHES SHALL SLOPE AWAY FROM THE BUILDING
- WHERE PIPES PASS UNDER THE FOOTING SYSTEM, CLAY PLUGS ARE TO BE ADOPTED TO PREVENT THE INGRESS OF WATER
- FOR BUILDINGS ON HIGHLY REACTIVE SITES, DRAINER SHALL PROVIDE DRAINAGE ARTICULATION TO ALL STORMWATER, SANITARY PLUMBING DRAINS AND DISCHARGE PIPES IN ACCORDANCE WITH CLAUSE 5.6.4 PLUMBING REQUIREMENTS WHEREIN FLEXIBLE JOINTS IMMEDIATELY OUTSIDE BUILDING AND COMMENCING WITHIN 1m OF THE BUILDING PERIMETER ARE REQUIRED TO ACCOMMODATE THE REQUIRED DIFFERENTIAL MOVEMENT BASED ON THE SOIL CLASSIFICATION. REFER TO TABLE BELOW FOR MIN. REQUIREMENTS FOR EXPANSION AND ALLOWABLE FITTINGS
- FLEXIBLE JOINTS ARE REQUIRED AT ENTRY & EXIT OF SLAB/FOOTINGS. SURFACE WATER MUST BE DIVERTED AWAY FROM THE DWELLING AND GRADED AWAY FROM ALL FOUNDATIONS TO GIVE A SLOPE OF NOT LESS THAN 50mm OVER THE FIRST 1000mm FROM THE DWELLING
- SUBSURFACE DRAINS TO REMOVE GROUND WATER SHALL BE DETAILED BY THE DESIGN ENGINEER. FURTHERMORE, DAMP-PROOF MEMBRANE IN ACCORDANCE WITH CLAUSE 5.6.3 OF AS 2870 SHALL BE INSTALLED FOR GROUNDWATER DRAINAGE ON AGGRESSIVE SOILS

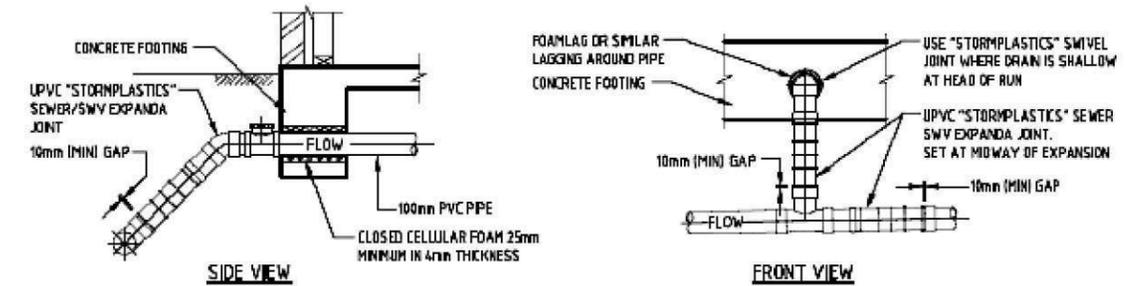
SITE DRAINAGE REQUIREMENTS

CONSTRUCTION STAGE

THE GEOTECHNICAL REPORT HAS RECOMMENDED THE USE OF A CERTAIN FOOTING THAT IS APPROPRIATE FOR THIS SITE. WHILE MAKING THIS RECOMMENDATION IT HAS BEEN ASSUMED THAT CERTAIN SITE DRAINAGE REQUIREMENTS AS PER AS2870:2011 HAS BEEN MET.

DURING THE CONSTRUCTION OF THE FOOTING THE FOLLOWING SITE DRAINAGE REQUIREMENTS ARE LISTED AS BEING PART OF THE FINAL FOOTING DESIGN BY THE DESIGN ENGINEER.

- MUST PREVENT WATER PONDING AGAINST OR NEAR THE FOOTING
- THE GROUND IN THE IMMEDIATE VICINITY OF THE PERIMETER FOOTING SHALL BE GRADED TO A FALL OF 60mm MIN. AWAY FROM THE FOOTING OVER A DISTANCE OF 1000mm (1.0m) AND SHAPED TO PREVENT PONDING OF WATER (THIS INCLUDES THE GROUND UP HILL FROM THE FOOTING ON A CUT/FILL SITE) - WHERE FILLING IS PLACED ADJACENT TO THE BUILDING, THE FILLING SHALL BE COMPACTED AND GRADED TO ENSURE DRAINAGE AWAY FROM FOOTINGS OR
- ALL COLLECTED STORMWATER MUST BE DISCHARGED TO A LEGAL POINT OF DISCHARGE
- SURFACE DRAINAGE OF THE SITE SHALL BE CONTROLLED FROM THE START OF THE SITE PREPARATION AND CONSTRUCTION. SURFACE DRAINAGE INCLUDES SURFACE WATER RUN-OFF AND BUILDING WATER (ROOF/FLOOR CONCRETE) RUN-OFF
- ALL WATER RUN-OFF SHALL BE CONTROLLED AT ALL TIMES
- USE TEMPORARY DOWNPIPES TO COLLECT WATER FROM A ROOFED BUILDING FRAME
- WHEN SILT PITS ARE USED TO GATHER SURFACE WATER FROM AREAS ADJACENT TO THE FOOTINGS, THESE SILT PITS ARE TO BE AT LEAST 1000mm AWAY FROM THE FOOTING AND CONNECTED TO THE STORMWATER SYSTEM WITH A SOLID PIPE
- STORMWATER DRAINS SHALL BE AT LEAST 90mm AND HAVE A MINIMUM FALL OF 1:100 AND 100mm COVER UNDER THE SOIL AND/OR PAVED AREAS
- INSPECTED OPENINGS SHOULD BE PROVIDED AT EACH PIPE CONNECTION POINT AND AT A NOMINAL SPACING OF 25m
- AVOID UNDERMINING THE FOOTING WITH ANY TRENCHES OR PIPE OR PITS UNLESS THE FOOTING HAS BEEN DESIGNED TO ALLOW FOR SUCH SITUATION. SUB-SURFACE DRAINAGE IS REQUIRED TO REMOVE ANY UNWANTED GROUND WATER BY MEANS OF 90mm SLOTTED PIPE IN A 300mm WIDE TRENCH (MIN. FALL OF 1:100). BASE OF THE TRENCH IS FILLED WITH 10mm CRUSHED ROCK OR SIMILAR COVERING THE SLOTTED PIPE
- AG DRAINS MUST NOT BE INSTALLED WITHIN 100mm FROM ANY FOOTING
- AG DRAINS MUST BE INSTALLED AT THE BASE OF ALL SITE CUTS THAT EXCEED 400mm IN HEIGHT, ALONG THE HIGH SIDE OF A SLOPING SITE AND POSSIBLY ALONG THE LOW SIDE OF A SLOPING SITE ALONG THE BOUNDARY. TO BE CONNECTED TO



FLEXIBLE PIPE CONNECTIONS FOR CLASS "H" AND "E" SITES, (AND CLASS "P" SITES WITH HIGHLY REACTIVE SOILS WHERE SPECIFIED IN THE SOIL REPORT)

SEWER & STORMWATER PIPE CONNECTION DETAIL

SCALE N.T.S

SITE CLASS	MINIMUM REQUIREMENTS FOR SEWER RETICULATION				
	SEWER EXIT POINTS SWIVEL	EXPANDER	MIN. EXPANSION JOINT CAPACITY	ALLOWABLE ROTATION	LAGGING
M	0	0	-	-	MIN 20
H1	1	1	60MM	15°	MIN 40
H2/H2-D	2	1	90MM	15°	MIN 40
E	2	1	120MM	15°	MIN 40
P	2	1	90MM (UNO)	15°	MIN 40

Rev. F

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PROJECT:
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PROJECT ADDRESS:
183 GREAT OCEAN ROAD,
APOLLO BAY VIC 3233

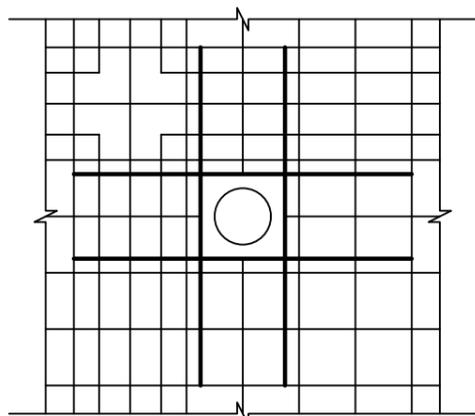
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SCALE: AS SHOWN

DATE: 18/09/2017

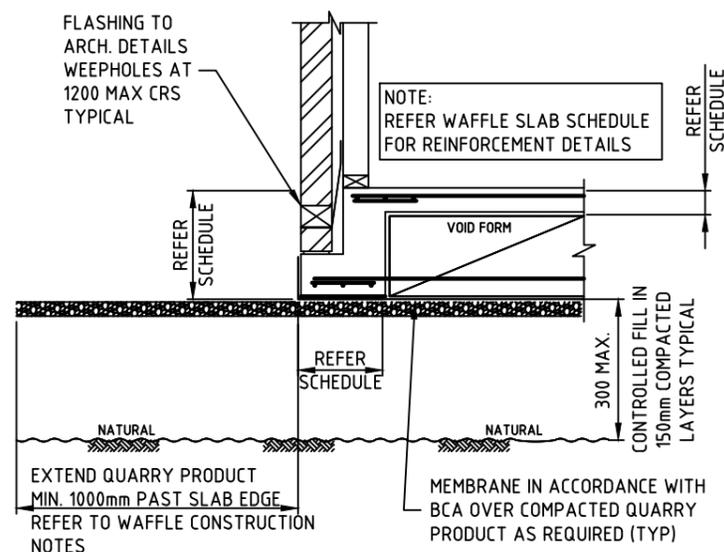


TYPICAL WAFFLE SLAB BEAM DETAILS 1 - NTS

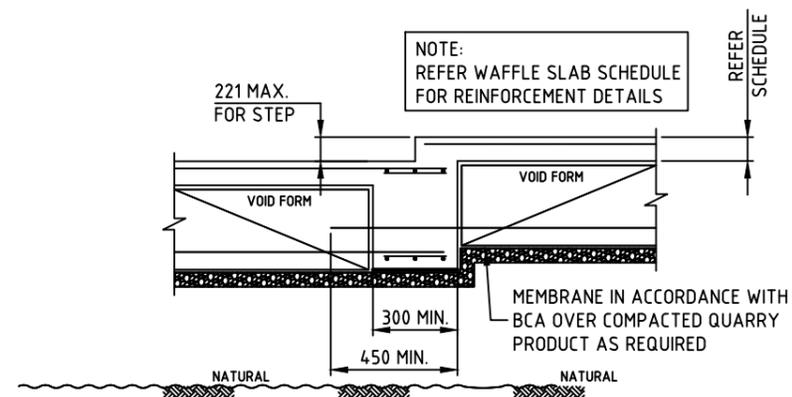


TYPICAL SLAB PENETRATION DETAIL

NOTE:
ADDITIONAL BARS MUST BE PLACED AROUND PIPE OPENING IF SLAB FABRIC WIRES ARE CUT, DAMAGED OR BENT (TYPICAL)



TYPICAL EXTERNAL RIB DETAIL



TYPICAL STEPDOWN DETAIL AT GARAGE/PORCH

NOTE 1
ENSURE A LEVELLED WORKING GROUND SURFACE/FILING MATERIAL IS WELL COMPACTED PRIOR TO PLACEMENT OF WAFFLE PODS. FILL PLACED DUE TO CUT/FILL OPERATIONS SHALL BE COMPACTED AS "CONTROLLED FILL" IN ACCORDANCE WITH AS 2870-2011 6.4.2.(a). COMPACTION DENSITY TO BE VERIFIED. DEPTH OF FILL NOT TO EXCEED 300MM.

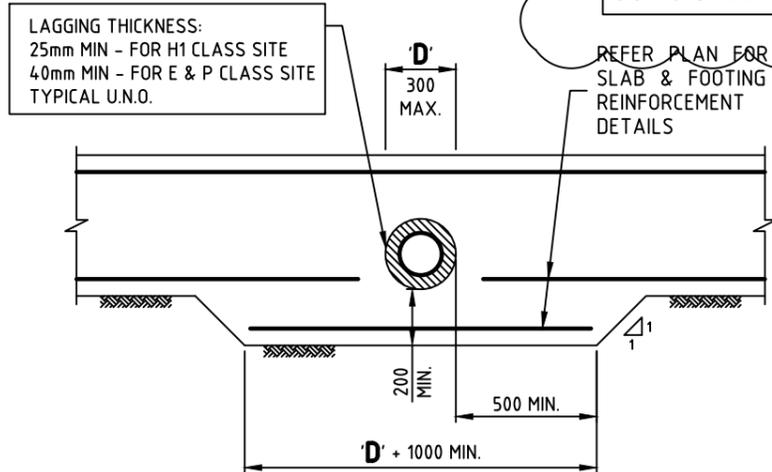
NOTE 2
SUITABLE QUARRY PRODUCTS INCLUDE WELL GRADED QUARRY SAND OR RUBBLE HAVING A MAXIMUM PARTICLE SIZE OF 20MM. LEVELLED & COMPACTED.

NOTE 3
EXTERNAL / INTERNAL RIBS WIDER THAN 300MM SHALL BE REINFORCED WITH AN ADDITIONAL N12 OR N16 (WHICHEVER SPECIFIED IN SCHEDULE) BAR TOP & BOTTOM FOR EVERY ADDITIONAL 110MM I WIDTH (TYP.).

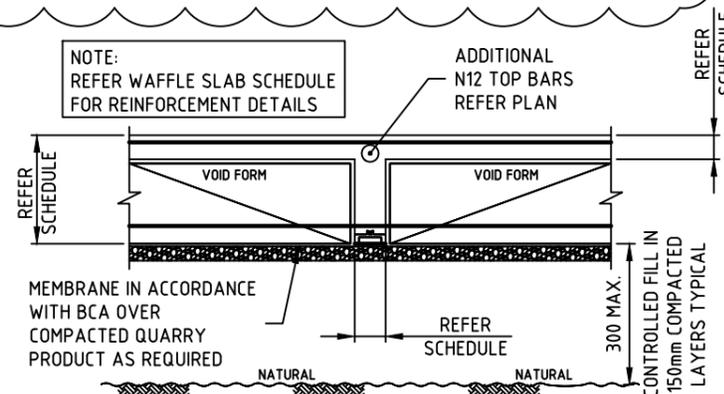
NOTE 4
REINFORCEMENT SHOWN ON SHEET 5&6 ARE INDICATIVE ONLY. GO TO SHEET NOS. 7, 8 & 9 SLAB SCHEDULES FOR SPECIFIED REINFORCEMENT.

NOTE 5
GO TO SHEET 3 FOR PIPE FLEXIBLE JOINTING DETAIL AS PER AS2870 - 2011 CL. 6.6

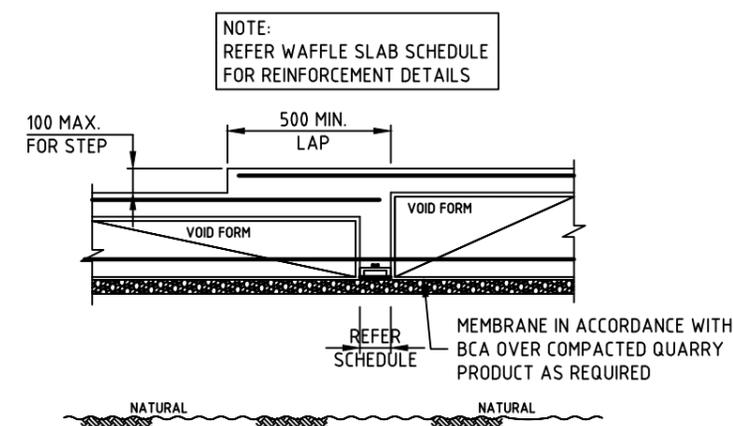
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TYPICAL PENETRATION THROUGH FOOTING DETAIL



TYPICAL INTERNAL RIB DETAIL



TYPICAL SLAB RECESS (SHOWER) DETAIL

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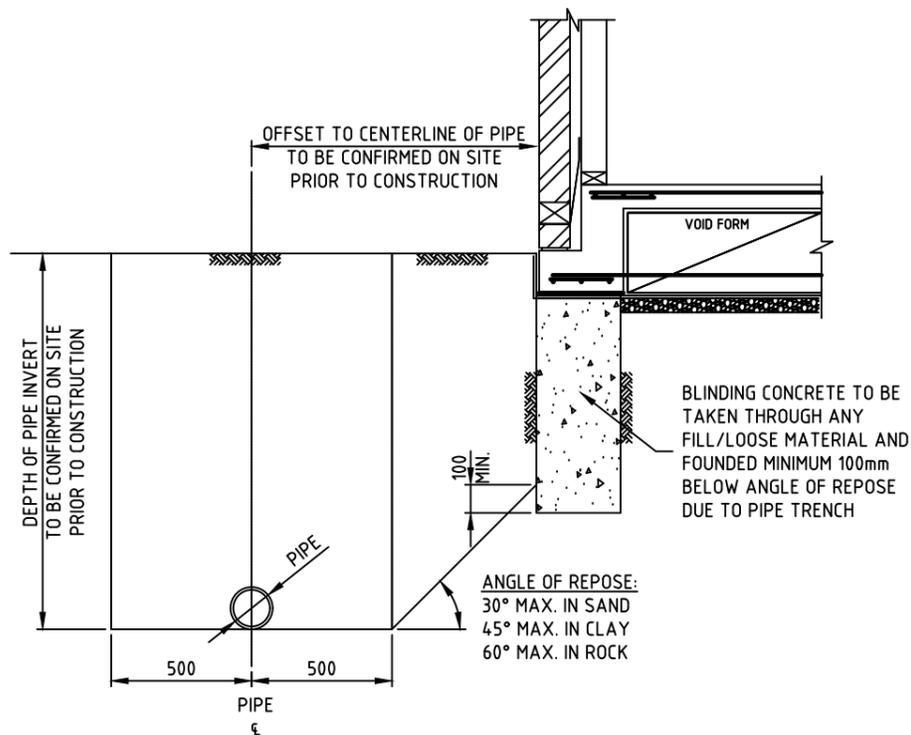
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SCALE: AS SHOWN

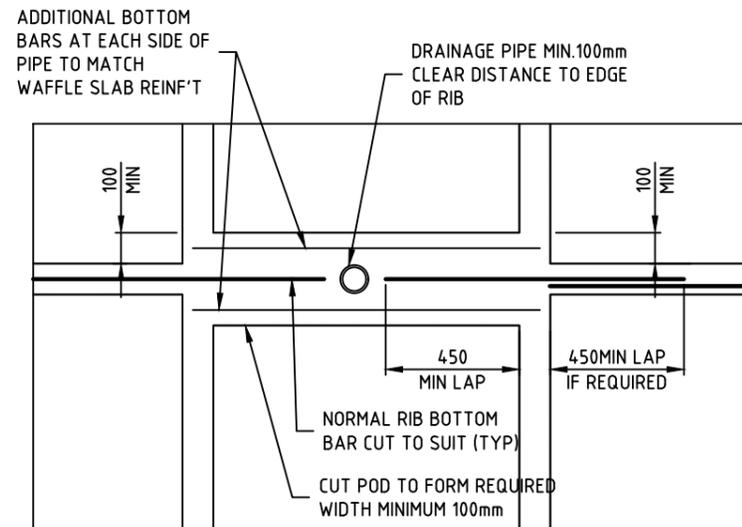
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TYPICAL WAFFLE SLAB BEAM DETAILS 2 - NTS



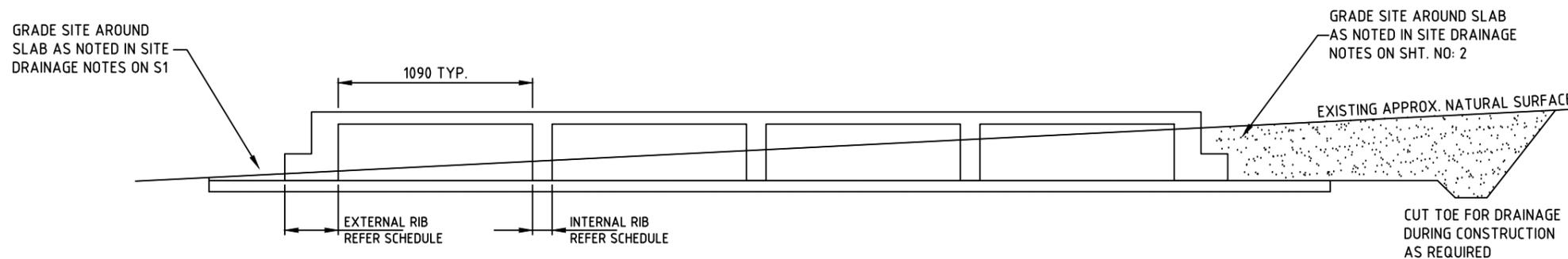
TYPICAL ANGLE OF REPOSE DETAIL
(IF REQUIRED)



TYPICAL PIPE THROUGH WAFFLE RIB
PLAN VIEW

NOTES:

- 0.2mm THICK POLYETHYLENE MEMBRANE TO BE APPROVED, TAPED AROUND PIPES AND LAPPED A MINIMUM OF 200mm.
- MINOR PENETRATION IS ACCEPTABLE AS PER AS2870 C5.3.3.
- 30mm COVER FOR BEAM REINFORCEMENT, AT SPLICES (500mm LAP FOR N12 BARS, 700mm LAP FOR N16 BARS) AND FULL BEAM WIDTH AT INTERSECTIONS.
- SLAB REINFORCEMENT COVER TO HAVE 20mm MINIMUM, LAP LENGTH TO BE MINIMUM 225mm OR 2 CROSS WIRES AND SHOULD BE SUPPORTED ON BAR CHAIRS, SPACE OF BAR CHAIRS SHOULD NOT EXCESS 1000mm CRS BOTH WAYS.
- CONCRETE SHALL BE VIBRATED INTO PLACE AND REINFORCEMENT SHALL BE FIXED IN POSITION BY BAR CHAIRS OR SIMILAR APPROVED.
- TRANSPORTATION, POURING, VIBRATION AND CURING OF CONCRETE SHOULD BE IN ACCORDANCE WITH GOOD BUILDING PRACTICE.



TYPICAL SECTION THROUGH WAFFLE SLAB

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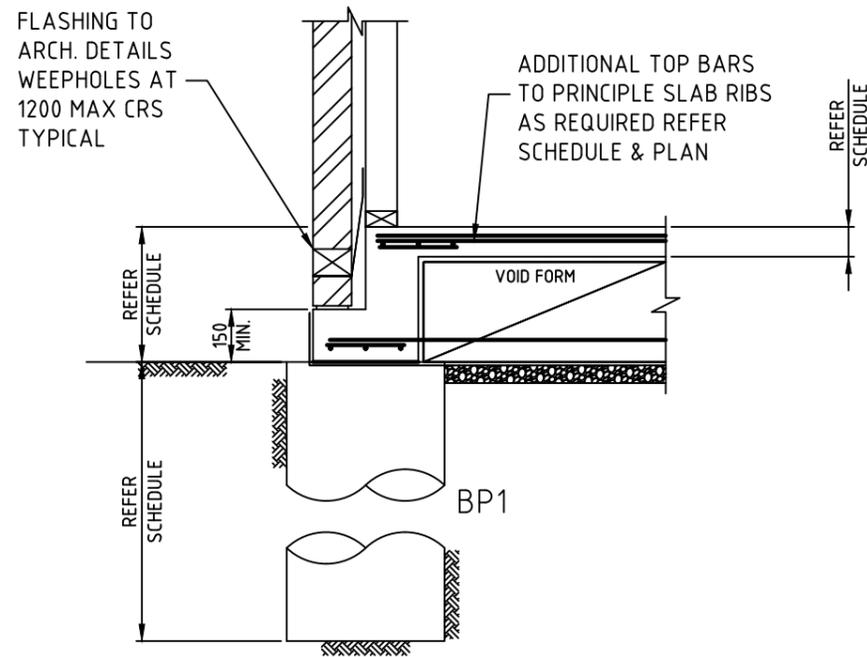
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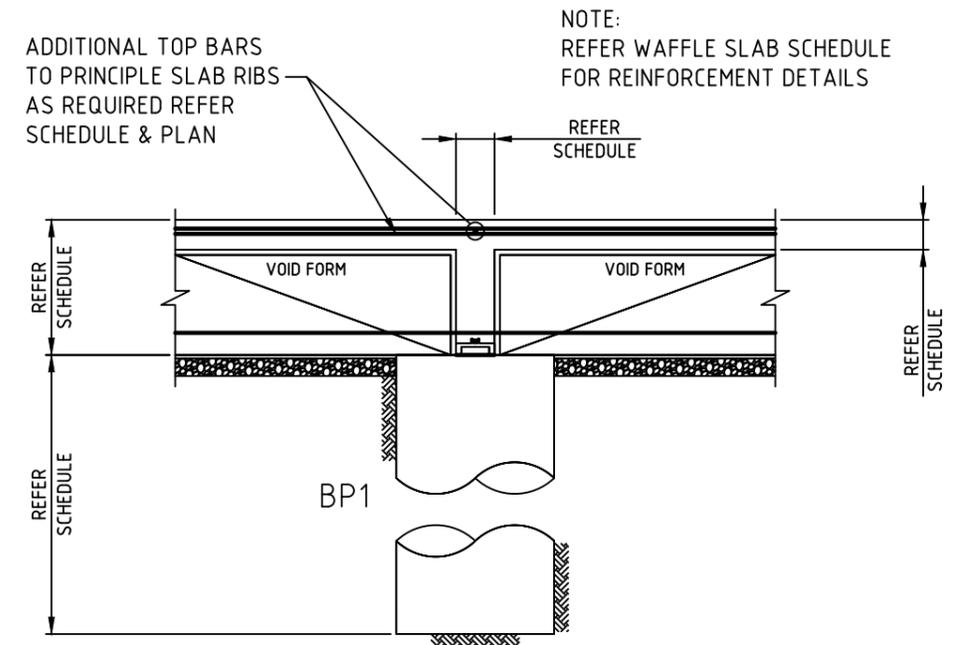
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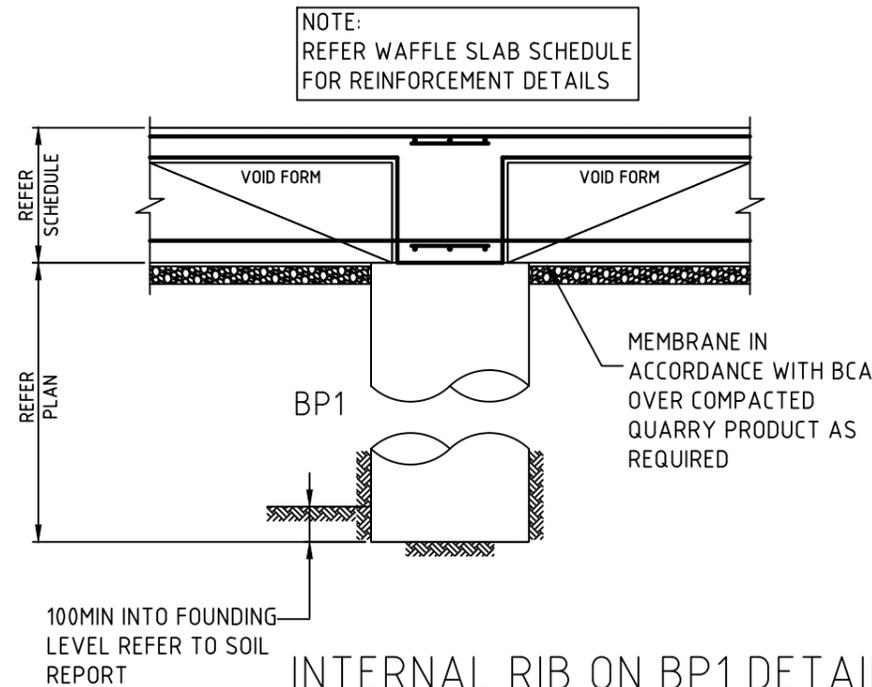
TYPICAL WAFFLE SLAB BEAM DETAILS 3 - NTS



TYPICAL EXTERNAL RIB ON PIER



TYPICAL INTERNAL RIB ON PIER



INTERNAL RIB ON BP1 DETAIL

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SHEET NO: 6/32

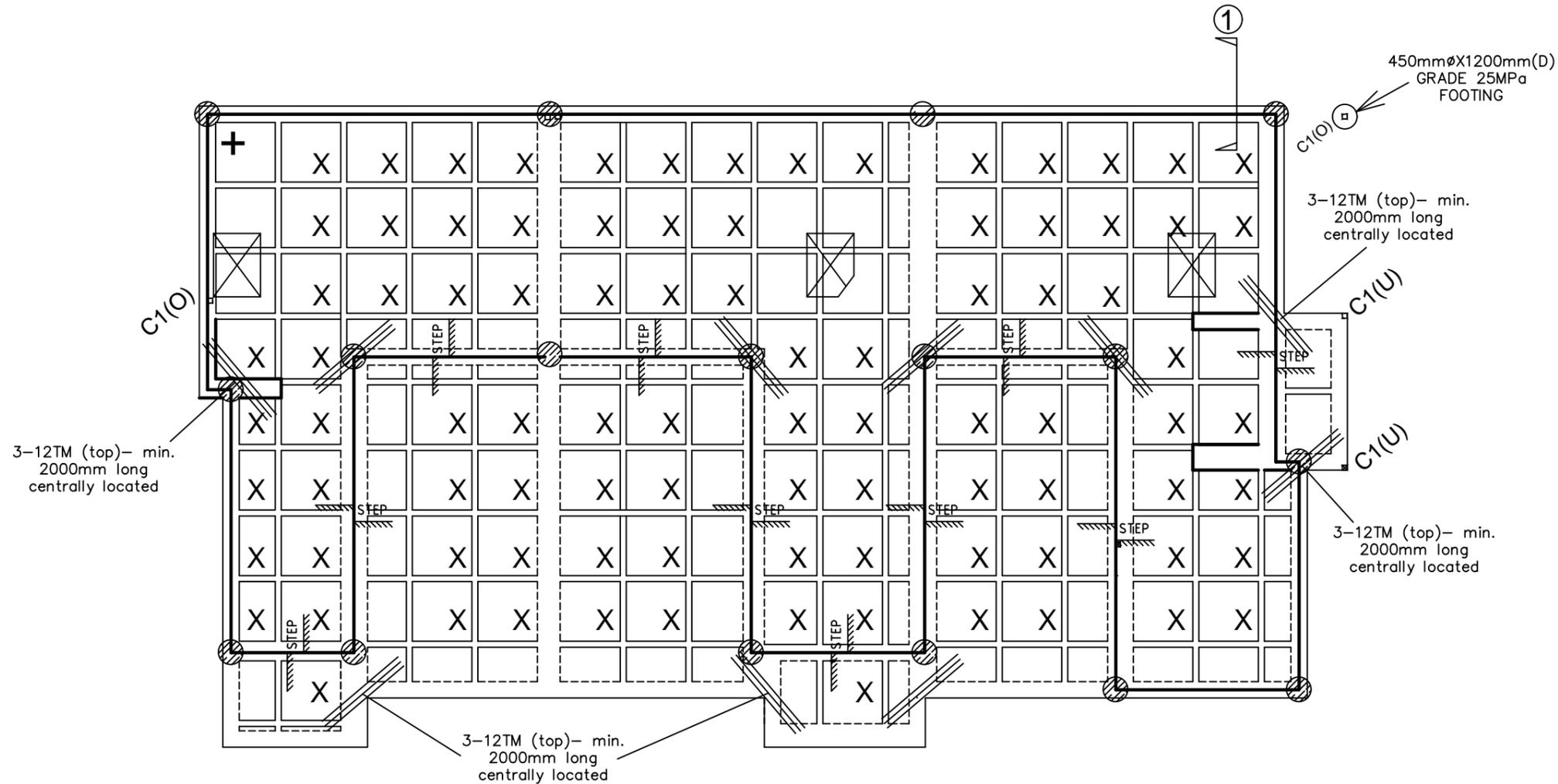
SCALE: AS SHOWN

DATE: 18/09/2017



WAFFLE SLAB DETAIL - UNITS 1, 2, & 3

(SEE SHT. NO: 10 OF 31)



3-12TM (top)- min. 2000mm long centrally located

450mmØX1200mm(D) GRADE 25MPa FOOTING

3-12TM (top)- min. 2000mm long centrally located

3-12TM (top)- min. 2000mm long centrally located

3-12TM (top)- min. 2000mm long centrally located

NOTE: IT IS BUILDER'S RESPONSIBILITY, TO DRAIN SURFACE & ROOF STORMWATER AWAY FROM FOUNDATION DURING & AFTER BUILDING

-  SHOWER RECESS AS PER ARCHITECTURAL PLANS. SLAB TO BE THICKENED BY SAME AMOUNT RECESSED (SHT. NO: 4)
-  PANELS TO BE FILLED AND COMPACTED WITH GRADE 25MPa CONCRETE WHERE C1 COLS LOCATED (BUILDER TO DETERMINE LOCATIONS)
-  BP1 MASS CONCRETE PIERS 20MPa. FOUNDING DEPTH TO BE MIN. 1200mm FROM AVERAGE GROUND LEVEL EXCEPT FOR LINES ALONG NORTHERN EDGE AND BETWEEN UNITS 5 & 6

WAFFLE SLAB SCHEDULE

- Overall Slab Depth - 400mm
- Void form height - 300mm
- Slab thickness - 100mm
- Internal beam/rib width - 110mm
- External beam width - 300mm
- Stem width min. - 150mm
- Pod size - 1090mmx1090mmx300mm
- X - Denotes standard pods
- + - Denotes optional setout point
- >> Vapour barrier in accordance with BCA to be lapped 200mm min. and taped at lap-joints, to be laid on a 50mm quarry product.
- >> Concrete strength to be 25MPa at 28 days with a slump of 100mm at pouring.

REINFORCEMENT

TOP

- Slab mesh - SL82
- Internal beam/rib - No Reo.
- External beam 1-N12 (tied to mesh)

BOTTOM

- Internal beam/rib - 1-N12
- External beam - 3-11TM-200

MINIMUM LAP LENGTHS

- 3-L11TM: 500mm
- SL 92/82 Mesh: 250mm
- N12 bars: 500MM

BEAM CORNERS & AT 'T's

LAPS TO BE FULL WIDTH OF BEAM

FINISH SLAB LEVELS

As per Architectural Plans = 4.700

PREPARATION FOR WAFFLE BASE

As per AS2870 and Soil Report.

- If the fill is only up to 300mm use clay and compact well (spread it in 2x150mm layers and compact well).
- If the fill is more than 300mm (max 600mm) use well compacted granular material (spread it in 150mm layers and compact well).
- Granular material - Sand (well graded sand) or Crushed Rock (class 2, max size 14mm).
- Finished ground level must always be sloped away from the slab base at a minimum gradient of 2 : 1.
- Slab base must be minimum 100mm higher than surrounding ground level.
- If soil profile encountered on actual site is different to soil report, the Structural Engineer must be informed immediately for instruction.
- All tree roots encountered within and around up to 2.0m from the perimeter of proposed slab must be removed completely to prepare ground for slab base.

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SHEET NO: 7/32

SCALE: AS SHOWN

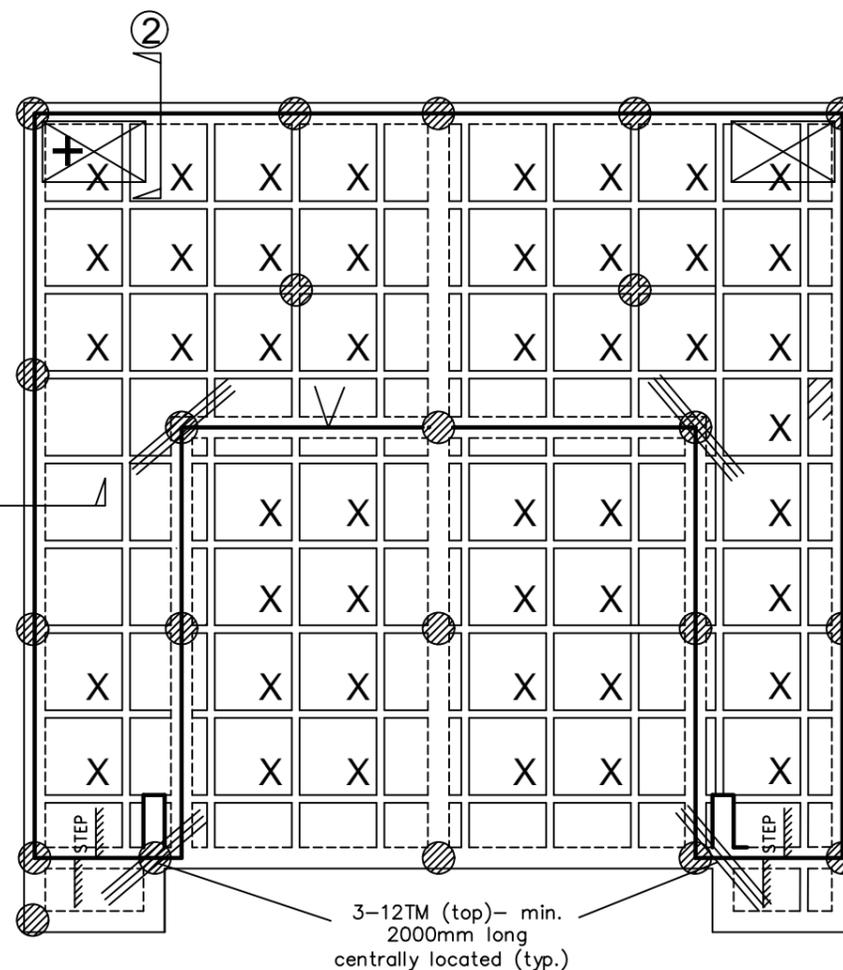
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WAFFLE SLAB DETAIL - UNITS 4 & 5

(SEE SHT. NO: 10 OF 31)

(SEE SHT. NO: 10 OF 31) ④



-  SHOWER RECESS AS PER ARCHITECTURAL PLANS. SLAB TO BE THICKENED BY SAME AMOUNT RECESSED (SHT. NO: 4)
-  PANELS TO BE FILLED AND COMPACTED WITH GRADE 25MPa CONCRETE WHERE C1 COLUMNS LOCATED (BUILDER TO DETERMINE LOCATIONS)
-  BP1 MASS CONCRETE PIERS 20MPa. FOUNDING DEPTH TO BE MIN. 1200mm FROM AVERAGE GROUND LEVEL EXCEPT FOR LINES ALONG NORTHERN EDGE AND BETWEEN UNITS 5 & 6

NOTE: IT IS BUILDER'S RESPONSIBILITY, TO DRAIN SURFACE & ROOF STORMWATER AWAY FROM FOUNDATION DURING & AFTER BUILDING

WAFFLE SLAB SCHEDULE

- Overall Slab Depth - 420mm
- Void form height - 300mm
- Slab thickness - 120mm
- Internal beam/rib width - 110mm
- External beam width - 300mm
- Stem width min. - 150mm
- Pod size - 1090mmx1090mmx300mm
- X - Denotes standard pods
- + - Denotes optional setout point
- >>Vapour barrier in accordance with BCA to be lapped 200mm min. and taped at lap-joints, to be laid on a 50mm quarry product.
- >>Concrete strength to be 25MPa at 28 days with a slump of 100mm at pouring.

REINFORCEMENT TOP

- Slab mesh - SL82
- Internal beam/rib - 1-N16 (every second b/w)
- External beam 3-12TM-200 (tied to mesh)

BOTTOM

- Slab mesh - SL82
- Internal beam/rib - 1-N16 (every rib b/w)
- External beam - 3-12TM-200

MINIMUM LAP LENGTHS

- 3-L11TM: 500mm
- SL 92/82 Mesh: 250mm
- N16 bars: 600MM

BEAM CORNERS & AT 'T's

LAPS TO BE FULL WIDTH OF BEAM

FINISH SLAB LEVELS

As per Architectural Plans = 4.700

PREPARATION FOR WAFFLE BASE

As per AS2870 and Soil Report.

- If the fill is only up to 300mm use clay and compact well (or spread it in 2x150mm layers and compact well).
- If the fill is more than 300mm (max 600mm) use well compacted granular material (or spread it in 150mm layers and compact well).
- Granular material - Sand (well graded sand) or Crushed Rock (class 2, max size 10mm).
- Finished ground level must always be sloped away from the slab base at a minimum gradient of 2 : 1.
- Slab base must be minimum 100mm higher than surrounding ground level.
- If soil profile encountered on actual site is different to soil report, the Structural Engineer must be informed immediately for instruction.
- All tree roots encountered within and around up to 2.0m from the perimeter of proposed slab must be removed completely to prepare ground for slab base.

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WAFFLE SLAB DETAIL - UNITS 6, 7, & 8

(SEE SHT. NO: 10 OF 31)

AREA OF SLAB TO BE CANTILEVERED - 200mm THICK AND PLACE ADDITIONAL SL92 TOP & BOTTOM MESH REINFORCEMENT (SEE SECTIONS FOR PIER FOUNDING DEPTHS)

EXISTING COUNCIL S/W PIPE 825mm ϕ , 300mm OFFSET FROM PROPOSED UNIT 6 FOOTING EDGE, BUILDER TO VERIFY ON-SITE. DEPTH TO TOP OF PIPE APPROX. 75mm TO 150mm, BUILDER TO VERIFY ON-SITE

INTERNAL BEAMS SEE SCHEDULE FOR REINFORCEMENT

3-12TM (top)- min. 2000mm long centrally located

3-12TM (top)- min. 2000mm long centrally located (typ.)

3-12TM (top)- min. 2000mm long centrally located (typ.)

④ (SEE SHT. NO: 10 OF 31)

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Rev. F
RW

NOTE: IT IS BUILDER'S RESPONSIBILITY, TO DRAIN SURFACE & ROOF STORMWATER AWAY FROM FOUNDATION DURING & AFTER BUILDING

-  SHOWER RECESS AS PER ARCHITECTURAL PLANS. SLAB TO BE THICKENED BY SAME AMOUNT RECESSED (SHT. NO: 4)
-  PANELS TO BE FILLED AND COMPACTED WITH GRADE 25MPa CONCRETE WHERE C1 COLUMNS LOCATED (BUILDER TO DETERMINE LOCATIONS)
-  BP1 MASS CONCRETE PIERS 20MPa. FOUNDING DEPTH TO BE MIN. 1200mm FROM AVERAGE GROUND LEVEL EXCEPT FOR LINES ALONG NORTHERN EDGE AND BETWEEN UNITS 5 & 6 (SHT. NO 10)
-  RW BOUNDARY RETAINING WALLS (SHT. NO: 32)

WAFFLE SLAB SCHEDULE

- Overall Slab Depth - 400mm
- Void form height - 300mm
- Slab thickness - 100mm
- Internal beam/rib width - 110mm
- External beam width - 300mm
- Stem width min. - 150mm
- Pod size - 1090mmx1090mmx300mm
- X - Denotes standard pods
- + - Denotes optional setout point
- >>Vapour barrier in accordance with BCA to be lapped 200mm min. and taped at lap-joints, to be laid on a 50mm quarry product.
- >>Concrete strength to be 25MPa at 28 days with a slump of 100mm at pouring.

REINFORCEMENT

- TOP**
- Slab mesh - SL82
- Internal beam/rib - No Reo.
- External beam 3-11TM-200 (Tied to mesh)

BOTTOM

- Internal beam/rib - 1-N12
- External beam - 3-11TM-200

MINIMUM LAP LENGTHS

- 3-L11TM: 500mm
- SL 92/82 Mesh: 250mm
- N12 bars: 500MM

BEAM CORNERS & AT 'T's

LAPS TO BE FULL WIDTH OF BEAM

FINISH SLAB LEVELS

As per Architectural Plans = 4.700

PREPARATION FOR WAFFLE BASE

As per AS2870 and Soil Report.

- If the fill is only up to 300mm use clay and compact well (or spread it in 2x150mm layers and compact well).
- If the fill is more than 300mm (max 600mm) use well compacted granular material (or spread it in 150mm layers and compact well).
- Granular material - Sand (well graded sand) or Crushed Rock (class 2, max size 10mm).
- Finished ground level must always be sloped away from the slab base at a minimum gradient of 2 : 1.
- Slab base must be minimum 100mm higher than surrounding ground level.
- If soil profile encountered on actual site is different to soil report, the Structural Engineer must be informed immediately for instruction.
- All tree roots encountered within and around up to 2.0m from the perimeter of proposed slab must be removed completely to prepare ground for slab base.

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PRIYAN WIJEYERATNE
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M.I.E.(AUST.), C.P.ENG.
M.Eng(Struct.), M.Tech.(Mgt.), BSc(Civil)

PROJECT:
8 RESIDENTIAL UNITS
DEVELOPMENT
PROJECT ADDRESS:
183 GREAT OCEAN ROAD,
APOLLO BAY VIC 3233

SHEET NO: 9/32

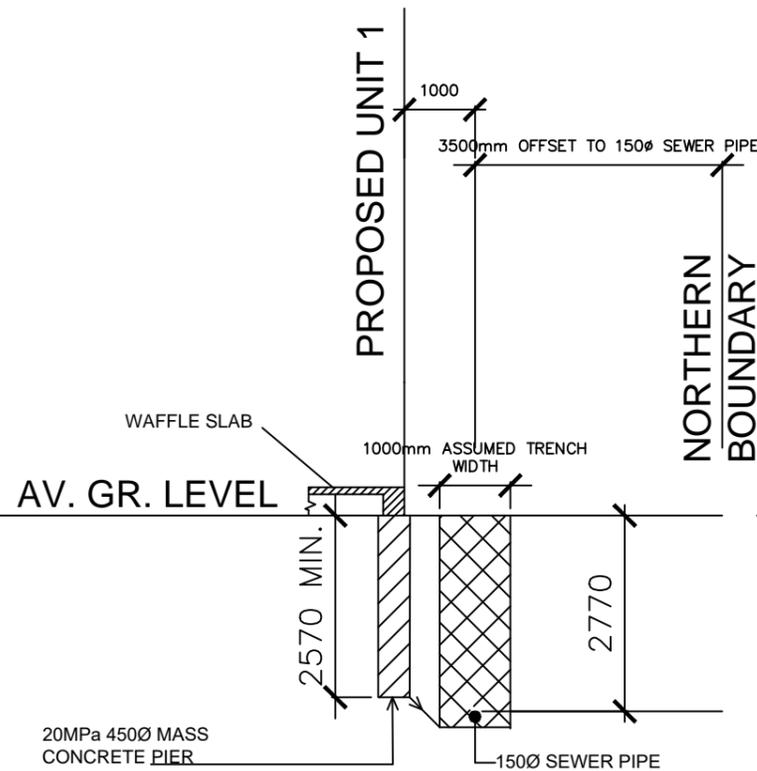
SCALE: AS SHOWN

DATE: 18/09/2017

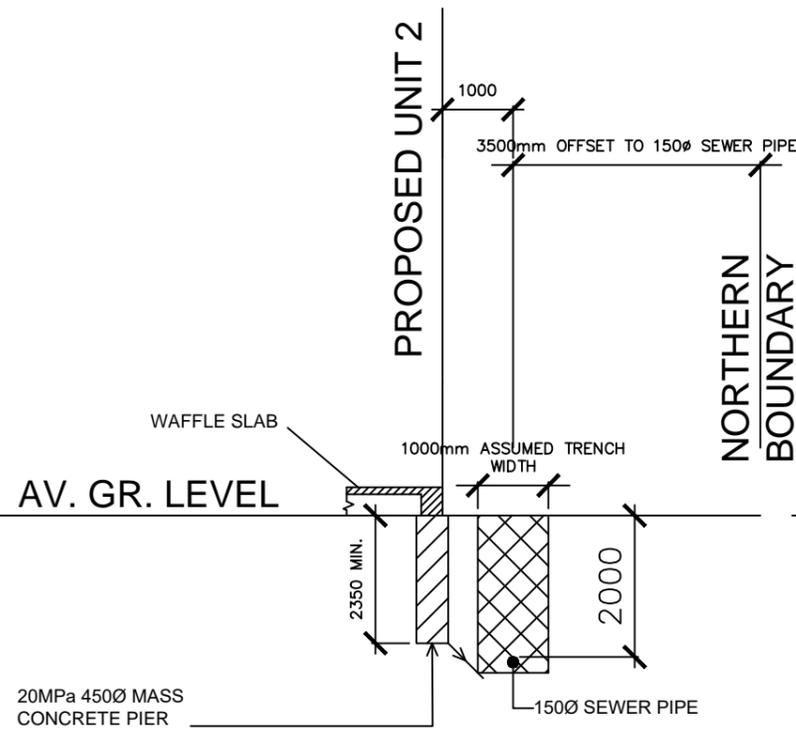


ANGLE OF REPOSE - SECTIONS 1, 2, 3 & 4 - SCALE 1 : 100

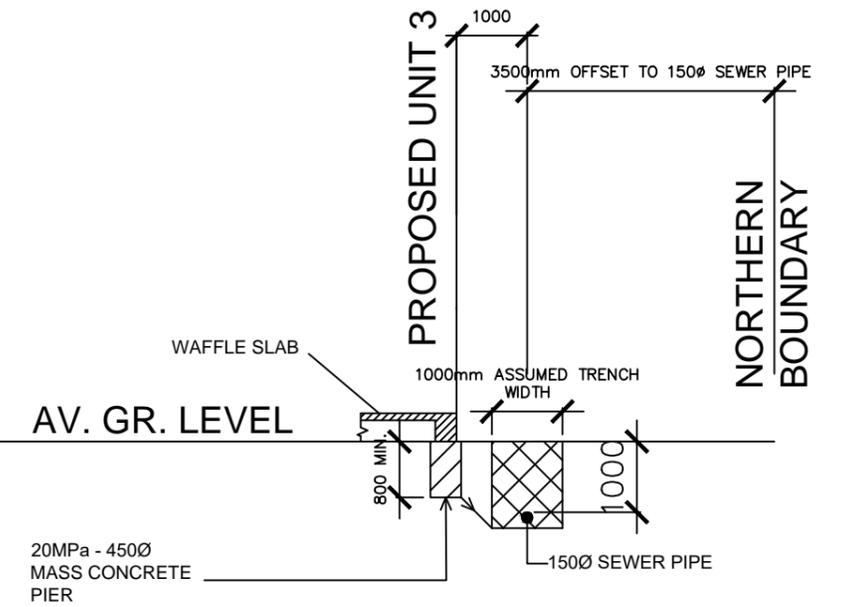
NOTE:
 BUILDER MUST VERIFY DEPTHS TO SERVICE PIPES ON SITE
 AND DEEPEN MASS CON. PIER AS NECESSARY, MAY USE
 15MPa FOR DEEPENING. ANGLE OF REPOSE ASSUMED 45°.



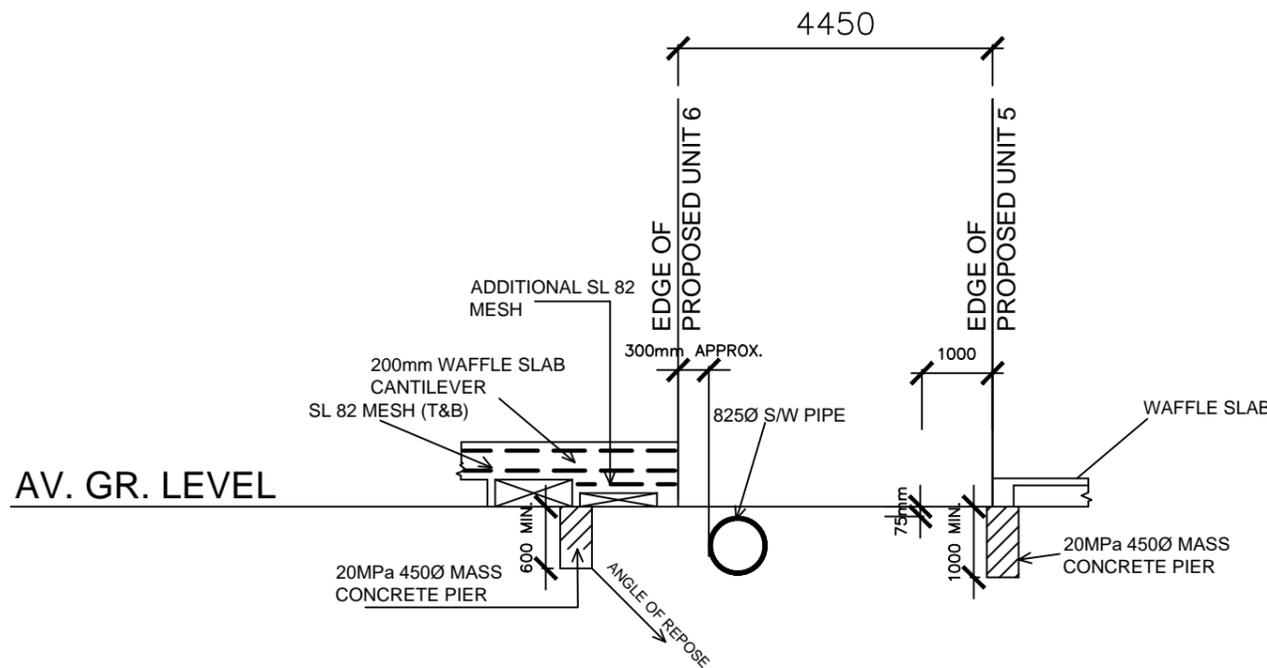
FOOTING SECTION 1 - UNITS 1, 2 & 3
 CANTILEVER WAFFLE SLAB & MASS
 CONCRETE PIERS FOUNDING DEPTHS



FOOTING SECTION 2 - UNITS 4 & 5
 CANTILEVER WAFFLE SLAB & MASS
 CONCRETE PIERS FOUNDING DEPTHS



FOOTING SECTION 3 - UNITS 6, 7 & 8
 CANTILEVER WAFFLE SLAB & MASS
 CONCRETE PIERS FOUNDING DEPTHS



FOOTING SECTION 4 - 4 - UNITS 6 & 5
 CANTILEVER WAFFLE SLAB & MASS
 CONCRETE PIERS FOUNDING DEPTHS
 (CANTILEVERED WAFFLE - UNIT6)
 (EXAGGERATED SCALE)

CLIENT:
 PROFILE HOMES
 SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PROJECT:
 8 RESIDENTIAL UNITS
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 PROJECT ADDRESS:
 183 GREAT OCEAN ROAD,
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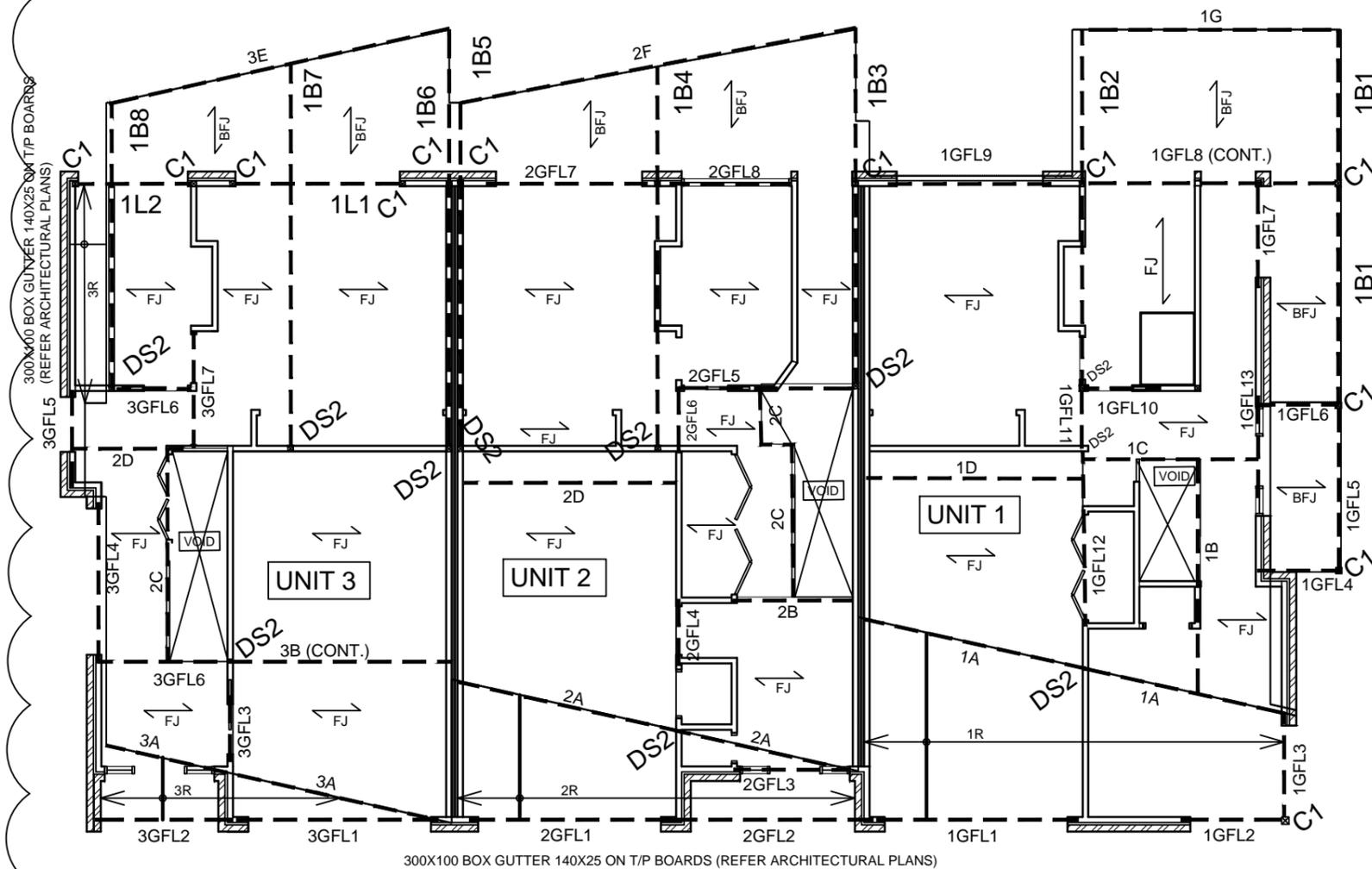
SHEET NO: **10/32**

SCALE: AS SHOWN

DATE: 18/09/2017



FIRST FLOOR & LOWER ROOF FRAMING PLAN - SCALE - 1 : 100



UNITS 1, 2 & 3

NOTE:

1. C1 - STEEL COLUMN (SEE SCHEDULE)
DS2 OR TS2 - ADDITIONAL STUDS (SEE STUD SCHEDULE ON SHT. NO: 19)
2. BALCONIES TO HAVE TREATED TIMBER

FIRST FLOOR LOWER ROOF MEMBER SCHEDULE

MARK	SECTION	REMARKS
1B1	2/360X45 hySPAN	LAMINATE AS PER AS 1684.2
OR	180UB22.2	G 300
1B2	2/360x45 hySPAN	LAMINATE AS PER AS 1684.2
OR	180UB22.2	G 300
1B3	2/360x45 hySPAN	LAMINATE AS PER AS 1684.2
OR	180UB22.2	G 300
1B4	2/300x45 hySPAN	LAMINATE AS PER AS 1684.2
OR	180UB22.2	G 300
1B5	2/300x45 hySPAN	LAMINATE AS PER AS 1684.2
OR	180UB22.2	G 300
1B6	2/360X45 hySPAN	LAMINATE AS PER AS 1684.2
OR	180UB22.2	G 300
1B7	2/360X45 hySPAN	LAMINATE AS PER AS 1684.2
OR	180UB22.2	G 300
1B8	2/200X45 hySPAN	LAMINATE AS PER 1684.2
OR	180UB22.2	G 300
C1	89X89X89X6	USE 4XM16 CHEMSET ANCHORS. MIN. 150mm EMBEDMENT INTO CONCRETE. BEAMS TO BE LOCALLY WIDENED.
1L1	2/300X63 hySPAN	LAMINATE AS PER 1684.2
OR	150UB18.0	G 300
OR	180X75 PFC	G 300
1L2	300X45 hySPAN	
OR	150UB18.0	G 300
OR	125X65 PFC	G 300
DSx	REFER TO TIMBER STUD SCHEDULE ON SHT. NO: 19	SAME APPLIES TO TSx/QSx/FSx
	USE STUDS AS PER TIMBER STUD SCHEDULE ON SHT NO: 19. WHERE, NO DSx MARK PROVIDED ON FRAMING PLAN USE DS1 AS PER SCHEDULE ON SHT. NO: 19	

FIRST FLOOR & LOWER ROOF MEMBER SCHEDULE

MARK	SECTION	REMARKS
1A	2/240X45 HYSpan	LAMINATE AS PER AS1684.2
1B	240X45 HYSpan	
1C	2/240X45 MGP10	LAMINATE AS PER AS1684.2
1D	2/240X45 MGP10	LAMINATE AS PER AS1684.2
1G	2/190X45 MGP15	LAMINATE AS PER AS1684.2
2A	2/320X45 HYSpan	LAMINATE AS PER AS1684.2
2B	2/240X45 MGP10	LAMINATE AS PER AS1684.2
2C	240X45 MGP12	
2D	240X45 MGP15	
2F	2/190X45 MGP10	LAMINATE AS PER AS1684.2
3A	2/245X45 HYSpan	LAMINATE AS PER AS1684.2
3B	2/240X45 MGP10	LAMINATE AS PER AS1684.2
3C	2/240X45 MGP10	LAMINATE AS PER AS1684.2
3D	2/240X45 MGP10	LAMINATE AS PER AS1684.2
3E	2/140X45 MGP10	LAMINATE AS PER AS1684.2
1R	140X45 MGP10 @450 CRS (MAX)	LOWER ROOF
2R	140X45 MGP10 @ 450 CRS (MAX)	LOWER ROOF
3R	140X45 MGP10 @ 450 CRS (MAX)	LOWER ROOF
MARK & SECTION		REMARKS
1GFL1 = 1GFL2 = 1GFL3 = 1GFL4 = 1GFL5 = 1GFL6 = 1GFL7 = 1GFL8 = 1GFL12 = 1GFL13 = 190X45 MGP12		UNIT 1 - LINTELS
1GFL9 = 2/190X45 MGP12		UNIT 1 = LINTELS
1GFL10 = 1GFL11 = 140X45 MGP12		UNIT 1 = LINTELS
2GFL1 = 2GFL8 = 190X45 MGP12		UNIT 2 = LINTELS
2GFL2 = 2GFL3 = 2GFL4 = 2GFL5 = 2GFL6 = 140X45 MGP12		UNIT 2 = LINTELS
2GFL7 = 2/190X45 MGP12		UNIT 2 = LINTELS
3GFL2 = 3GFL3 = 3GFL5 = 3GFL6 = 3GFL7 = 140X45 MGP12		UNIT 3 = LINTELS
3GFL1 = 190X45 MGP12		UNIT 3 = LINTELS
3GFL4 = 2/190X45 MGP12		UNIT 3 = LINTELS
BFJ = FJ = 240X45 MGP10 @ 450mm CRS (MAX.)		
NOTE: BALCONY JOISTS TO BE TREATED & FALL OUTWARDS		

Rev. F

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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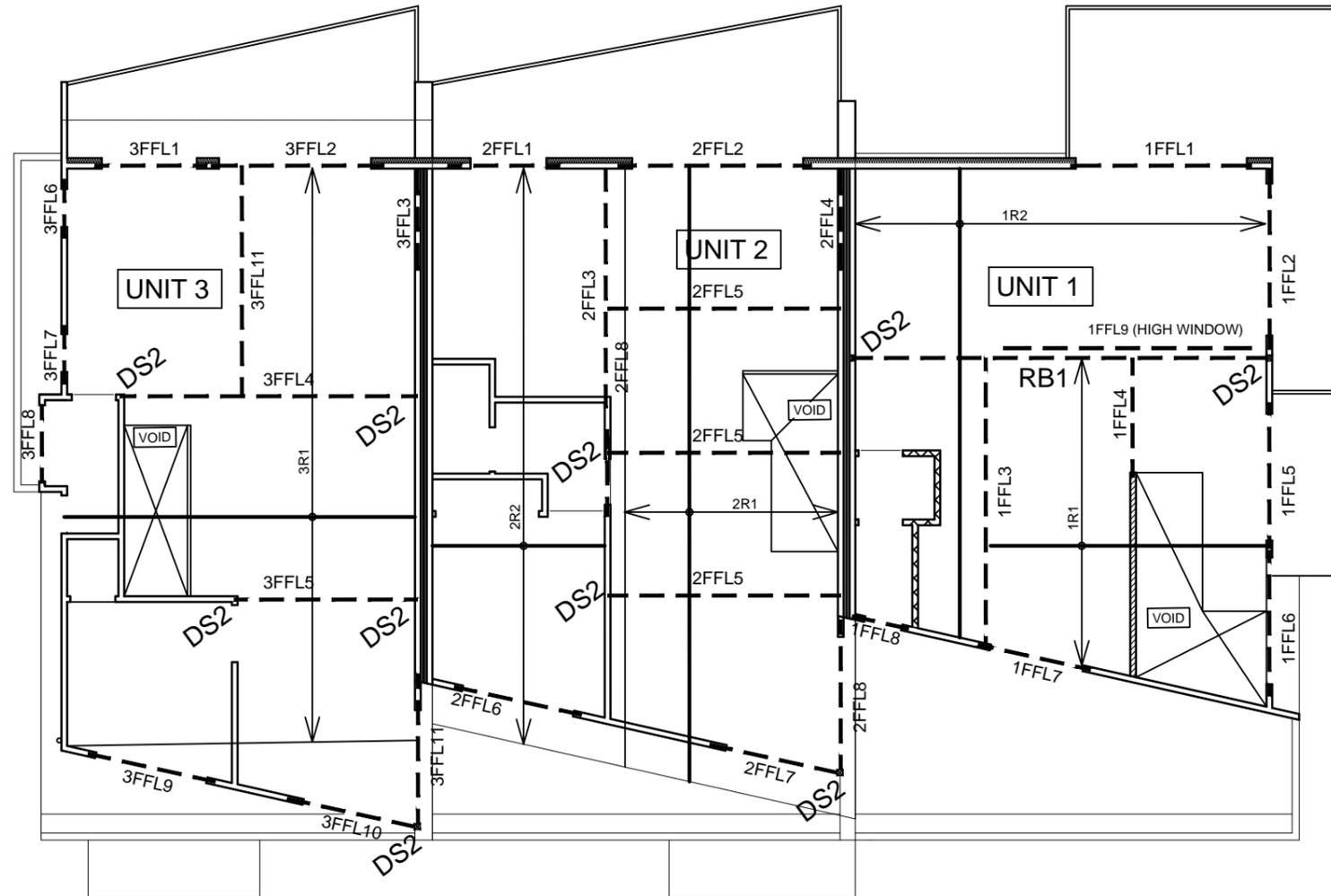
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SCALE: AS SHOWN

DATE: 18/09/2017



ROOF FRAMING PLAN - SCALE - 1 : 100



UNITS 1, 2 & 3

NOTE:

1. C1 - STEEL COLUMN (SEE SCHEDULE)
DS2 OR TS2 - ADDITIONAL STUDS (SEE STUD SCHEDULE ON SHT. NO: 19)
2. BALCONIES TO HAVE TREATED TIMBER

ROOF MEMBER SCHEDULE

MARK	SECTION	REMARKS
RB1	2/400X45 hySPAN	
OR	150UB18.0	G 300
MARK & SECTION		REMARKS
1FFL1 = 1FFL2 = 190X45 MGP12		UNIT 1 - LINTELS
1FFL5 = 1FFL6 = 1FFL7 = 1FFL9 = 140X45 MGP12		UNIT 1 - LINTELS
1FFL8 = 90X45 MGP10		UNIT 1 - LINTELS
1FFL3 = 2/400X45 HYSpan		UNIT 1 - BEAM
1FFL4 = 300X75 F7		UNIT 1 - BEAM
1R1 = 140X45 MGP10 @ 450 CRS		UNIT 1 RAFTERS
1R2 = 190X45 MGP10 @ 600 CRS		UNIT 1 RAFTERS
2FFL1 = 2FFL6 = 2FFL7 = 2FFL8 = 140X45 MGP12		UNIT 2 - LINTELS
2FFL2 = 190X45 MGP12		UNIT 2 - LINTEL
2FFL4 = 120X45 MGP12		UNIT 2 - LINTELS
2FFL3 = 240X63 HYSpan		UNIT 2 - BEAM
2FFL5 = 250X75 F7		UNIT 2 - BEAM
2R1 = 140X45 MGP10 @ 450 CRS		UNIT 2 - RAFTERS
2R2 = 190X45 MGP10 @ 600 CRS		UNIT 2 - RAFTERS
3FFL6 = 3FFL7 = 90X45 MGP10		UNIT 3 - LINTELS
3FFL8 = 90X45 MGP12		UNIT 3 - LINTEL
3FFL3 = 120X45 MGP12		UNIT 3 - LINTEL
3FFL1 = 3FFL2 = 3FFL9 = 3FFL10 = 140X45 MGP12		UNIT 3 - LINTELS
3FFL5 = 190X45 MGP15		UNIT 3 - LINTEL
3FFL11 = 300X75 F7		UNIT 3 - BEAM
3FFL4 = 300X45 HYSpan		UNIT 3 - BEAM
3R1 = 190X45 MGP10 @600CRS		UNIT 3 - RAFTERS
DSx	REFER TO TIMBER STUD SCHEDULE ON SHT. NO: 19	SAME APPLIES TO TSx/QSx/FSx
	USE STUDS AS PER TIMBER STUD SCHEDULE ON SHT NO: 19 WHERE, NO DSx MARK PROVIDED ON FRAMING PLAN USE DS1 AS PER SCHEDULE ON SHT. NO: 19	

Rev. F

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

**WB CIVIL STRUCTURAL
ENGINEERS**

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PROJECT:
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PROJECT ADDRESS:
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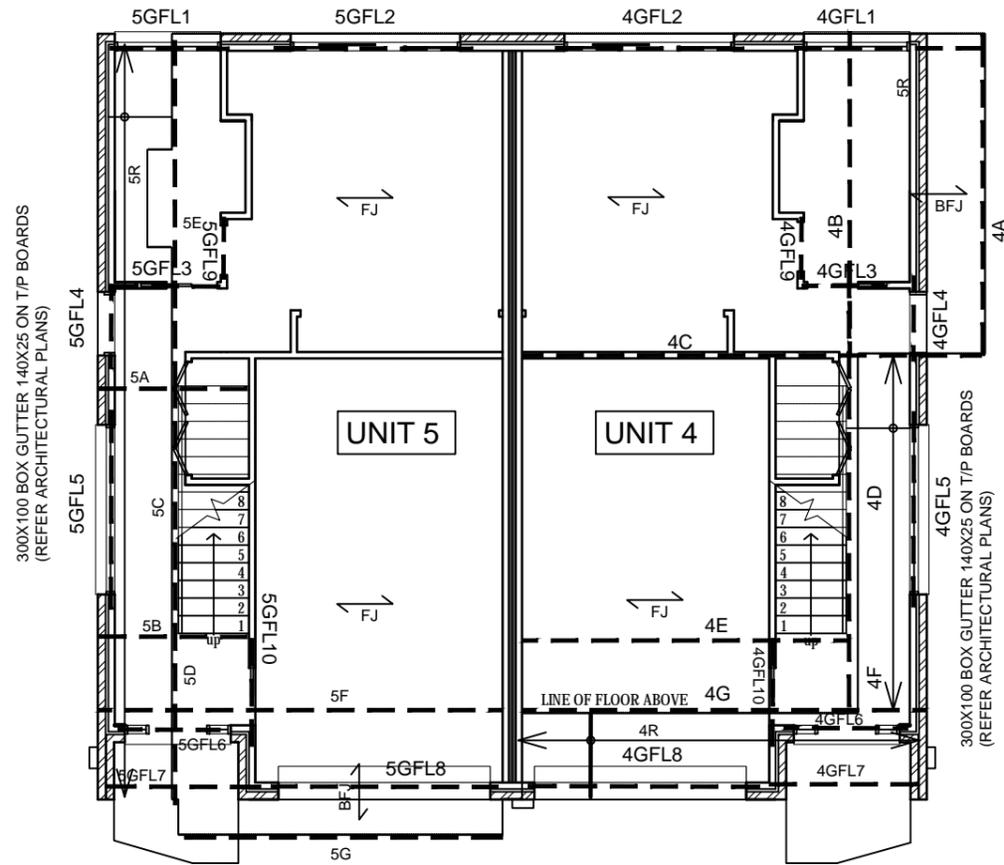
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SCALE: AS SHOWN

DATE: 18/09/2017



FIRST FLOOR & LOWER ROOF FRAMING PLAN - SCALE - 1 : 100



UNITS 4 & 5

NOTE:

1. C1 - STEEL COLUMN (SEE SCHEDULE)
DS2 OR TS2 - ADDITIONAL STUDS (SEE STUD SCHEDULE ON SHT. NO: 19)
2. BALCONIES TO HAVE TREATED TIMBER

FIRST FLOOR & LOWER ROOF MEMBER SCHEDULE

MARK	SECTION	REMARKS/CONNECTIONS
4A	2/190X45 MGP12	LAMINATE AS PER AS1684.2
4B	2/240X45 MGP15	LAMINATE AS PER AS1684.2
4C	2/240X45 MGP15	LAMINATE AS PER AS1684.2
4D	2/240X45 MGP15	LAMINATE AS PER AS1684.2
4E	2/240X45 MGP15	LAMINATE AS PER AS1684.2
4F	2/240X45 MGP10	LAMINATE AS PER AS1684.2
4G	2/240X45 MGP15	LAMINATE AS PER AS1684.2
5A	2/240X45 MGP10	LAMINATE AS PER AS1684.2
5B	2/240X45 MGP10	LAMINATE AS PER AS1684.2
5C	2/240X45 MGP15	LAMINATE AS PER AS1684.2
5D	2/240X45 MGP10	LAMINATE AS PER AS1684.2
5E	2/240X45 HYSpan	LAMINATE AS PER AS1684.2
5F	2/240X45 MGP15	LAMINATE AS PER AS1684.2
5G	2/240X45 MGP10	LAMINATE AS PER AS1684.2
4R	140X45 MGP10 @ 600CRS (MAX)	LOWER ROOF - RAFTERS
5R	140X45 MGP10 @ 600 CRS (MAX)	LOWER ROOF - RAFTERS
BFJ	190X45 MGP10 @ 450 CRS (MAX)	BALCONY - JOISTS TO FALL OUTWARDS AND TREATED
FJ	240X45 MGP10 @ 450 CRS (MAX)	FLOOR JOISTS
DSx	REFER TO TIMBER STUD SCHEDULE ON SHT. NO: 19	SAME APPLIES TO TSx/QSx/FSx

FIRST FLOOR MEMBER SCHEDULE

MARK & SECTIONS	REMARKS/CONNECTIONS
4GFL1 = 2/140X45 MGP12	UNIT 4 - LINTEL
4GFL2 = 2/190X45 MGP12	UNIT 4 - LINTEL
4GFL3 = 4GFL4 = 4GFL5 = 4GFL6 = 4GFL7 = 4GFL9 = 140X45 MGP12	UNIT 4 - LINTELS
4GFL8 = 190X45 MGP12	
4GFL10 = 2/140X45 MGP15	UNIT4 - LINTEL
5GFL1 = 2/140X45 MGP12	UNIT 5 - LINTEL
5GFL2 = 2/190X45 MGP12	UNIT 5 - LINTEL
5GFL3 = 5GFL4 = 5GFL5 = 5GFL6 = 5GFL7 = 5GFL8 = 5GFL9 = 140X45 MGP12	UNIT 5 - LINTELS
5GFL10 = 2/140X45 MGP15	UNIT 5 - LINTELS
DSx	REFER TO TIMBER STUD SCHEDULE ON SHT. NO: 19 SAME APPLIES TO TSx/QSx/FSx

Rev. F

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

WB CIVIL STRUCTURAL ENGINEERS & BUILDERS

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PROJECT:
8 RESIDENTIAL UNITS
DEVELOPMENT
PROJECT ADDRESS:
183 GREAT OCEAN ROAD,
APOLLO BAY VIC 3233

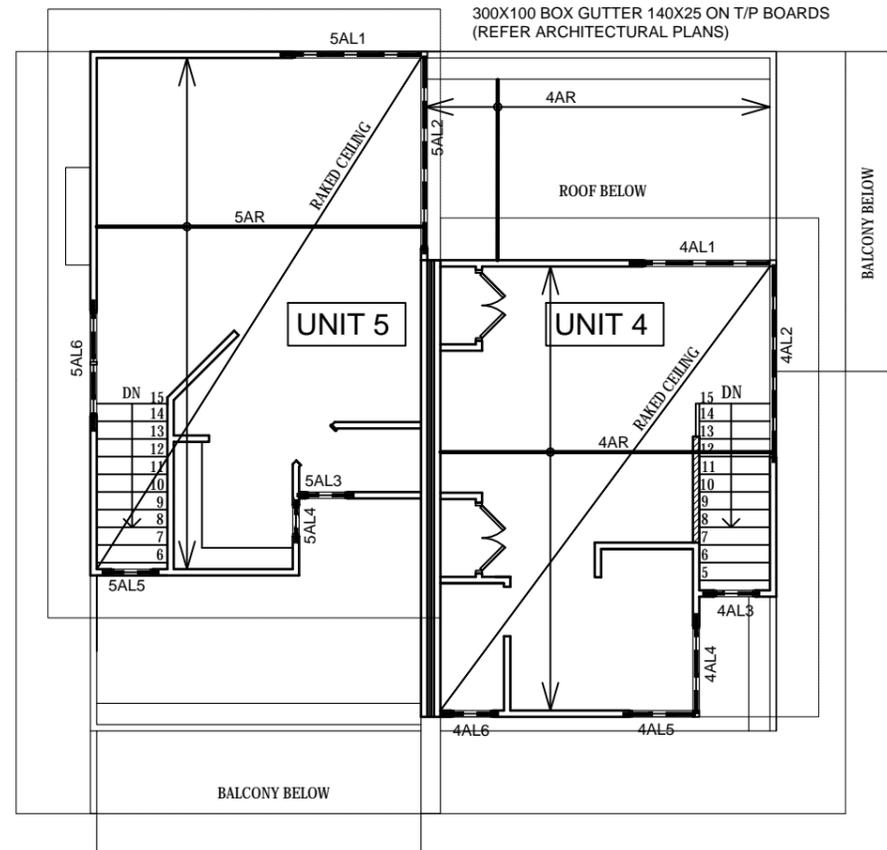
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SCALE: AS SHOWN

DATE: 18/09/2017



ATTIC FRAMING PLAN - SCALE - 1 : 100



UNITS 4 & 5

NOTE:

1. C1 - STEEL COLUMN (SEE SCHEDULE)
DS2 OR TS2 - ADDITIONAL STUDS (SEE
STUD SCHEDULE ON SHT. NO: 19
2. BALCONIES TO HAVE TREATED TIMBER

ATTIC MEMBER SCHEDULE

MARK & SECTION	REMARKS
4AL1 = 140X45 MGP12	UNIT 4 - LINTEL
A4L2 = 2/140X45 MGP12	UNIT 4 - LINTEL
A4L3 = 90X45 MGP10	UNIT 4 - LINTEL
A4L4 = A4L5 = 140X45 MGP10	UNIT 4 - LINTELS
A4L6 = 90X45 MGP10	UNIT 4 - LINTEL
5AL1 = 5AL2 = 140X45 MGP12	UNIT 5 - LINTELS
5AL3 = 5AL4 = 5AL5 = 90X45 MGP10	UNIT 5 - LINTELS
5AL6 = 140X45 MGP10	UNIT 5 - LINTELS
4AR	190X45 MGP12 @ 600 CRS ATTIC RAFTERS
5AR	190X45 MGP12 @ 600 CRS ATTIC RAFTERS

Rev. F

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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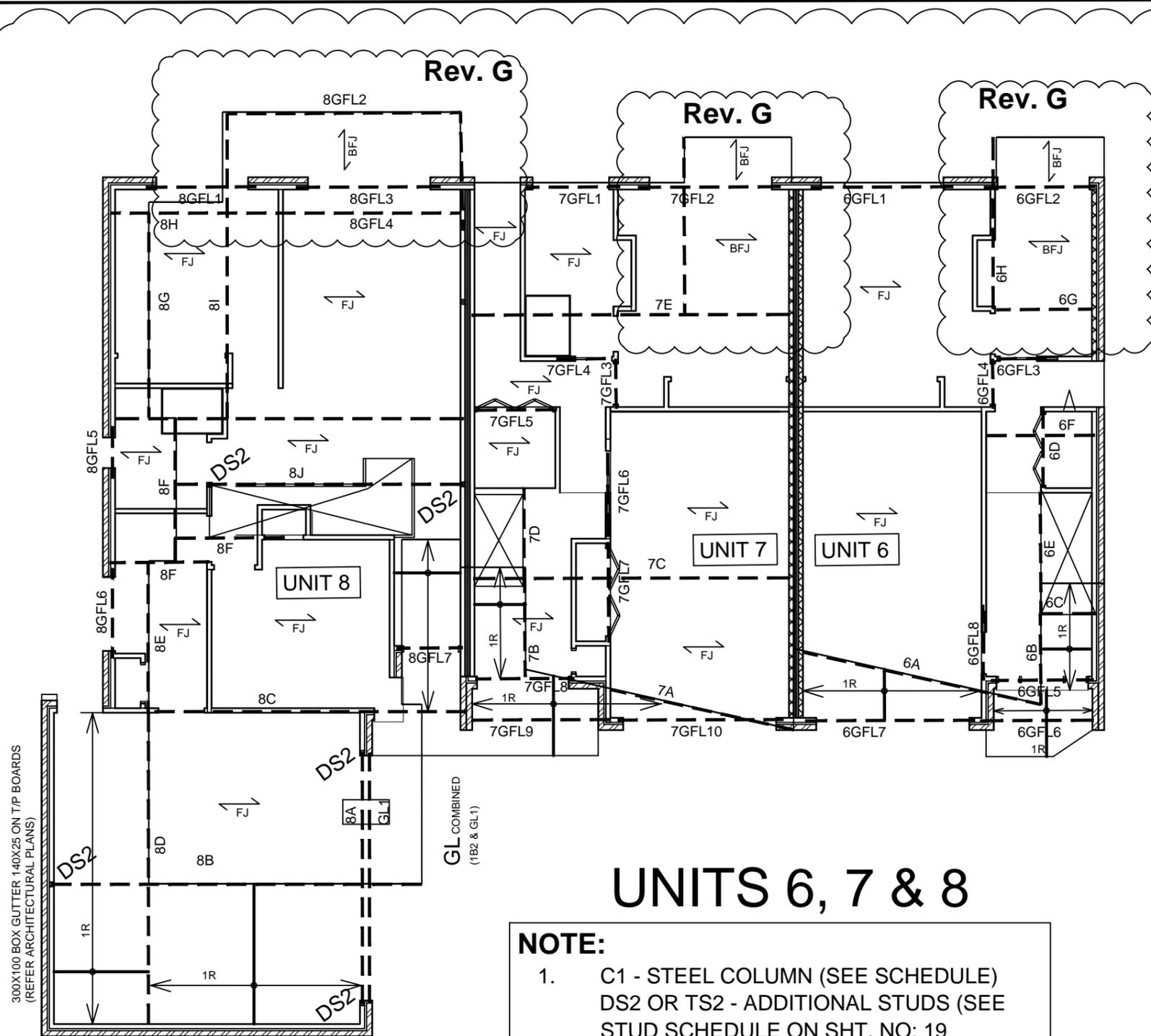
SHEET NO: 15/32

SCALE: AS SHOWN

DATE: 18/09/2017



FIRST FLOOR & LOWER ROOF FRAMING PLAN - SCALE - 1 : 100



UNITS 6, 7 & 8

NOTE:

1. C1 - STEEL COLUMN (SEE SCHEDULE)
DS2 OR TS2 - ADDITIONAL STUDS (SEE STUD SCHEDULE ON SHT. NO: 19)
2. BALCONIES TO HAVE TREATED TIMBER

FIRST FLOOR & LOWER ROOF MEMBER SCHEDULE

MARK	SECTION	REMARKS/CONNECTIONS
USE SEPARATE BEAMS (TIMBER/STEEL) OR COMBINED IN UNIT 8 OVER GARAGE ROLLER DOOR		
8A	2/400X63 hySPAN	LAMINATE AS PER 1684.2
OR	200UB25.4	G 300
GL1	150X12 PL HOR. 200X10 PL VER. G300	
GL2	240X10 PL HOR. 200X10 PL VER. G300	
8B	2/450X63 hySPAN	LAMINATE AS PER 1684.2
OR	250UB31.4	G 300
8C	2/240X45 MGP10	DOUBLE FLOOR JOISTS
8D	2/240X45 MGP10	DOUBLE FLOOR JOISTS
8E	2/240X45 MGP10	DOUBLE FLOOR JOISTS
8F	2/240X45 MGP10	DOUBLE FLOOR JOISTS
8G	2/240X45 MGP12	DOUBLE FLOOR JOISTS
8H	2/240X45 MGP10	DOUBLE FLOOR JOISTS
8I	2/240X45 MGP12	DOUBLE FLOOR JOISTS
8J	360X63 hySPAN	
OR	180UB22.2	G 300
DSx	REFER TO TIMBER STUD SCHEDULE ON SHT. NO: 19	SAME APPLIES TO TSx/QSx/FSx
USE STUDS AS PER TIMBER STUD SCHEDULE ON SHT NO: 19. WHERE, NO DSx MARK PROVIDED ON FRAMING PLAN USE DS1 AS PER SCHEDULE ON SHT. NO: 19		

FIRST FLOOR & LOWER ROOF MEMBER SCHEDULE

MARK	SECTION	REMARKS/CONNECTIONS
7A	2/240X45 MGP10	DOUBLE FLOOR JOISTS
7B	2/240X45 MGP10	DOUBLE FLOOR JOISTS
7C	2/240X45 MGP10	DOUBLE FLOOR JOISTS
7D	2/240X45 MGP10	DOUBLE FLOOR JOISTS
7E	2/240X45 MGP10	DOUBLE FLOOR JOISTS
7F	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6A	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6B	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6C	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6D	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6E	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6F	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6G	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6H	2/240X45 MGP10	DOUBLE FLOOR JOISTS
6GFL1 = 2/190X45 MGP12		UNIT 6 - LINTELS
6GFL2 = 190X45 MGP12		UNIT 6 - LINTELS
6GFL3 = 6GFL4 = 6GFL6 = 6GFL8 = 140X45 MGP12		UNIT 6 - LINTELS
6GFL5 = 6GFL7 = 190X45 MGP12		UNIT 6 - LINTELS
7GFL1 = 7GFL7 = 7GFL8 = 7GFL10 = 190X45 MGP12		UNIT 7 - LINTELS
7GFL2 = 2/190X45 MGP12		UNIT 7 - LINTELS
7GFL3 = 7GFL4 = 7GFL5 = 7GFL6 = 7GFL9 = 140X45 MGP12		UNIT 7 - LINTELS
8GFL1 = 8GFL2 = 8GFL3 = 190X45 MGP12		UNIT 8 - LINTELS
8GFL4 = 2/240X45 MGP15		UNIT 8 - LINTELS
8GFL5 = 90X45 MGP10		UNIT 8 - LINTELS
8GFL6 = 8GFL7 = 140X45 MGP10		UNIT 8 - LINTELS
FJ = 240X45 MGP10 @ 450mm CRS (MAX.) BFL = 190X45 MGP10 @ 450mm CRS (MAX.) NOTE: BALCONY JOISTS TO BE TREATED & FALL OUTWARDS		

Rev. F

Rev. G

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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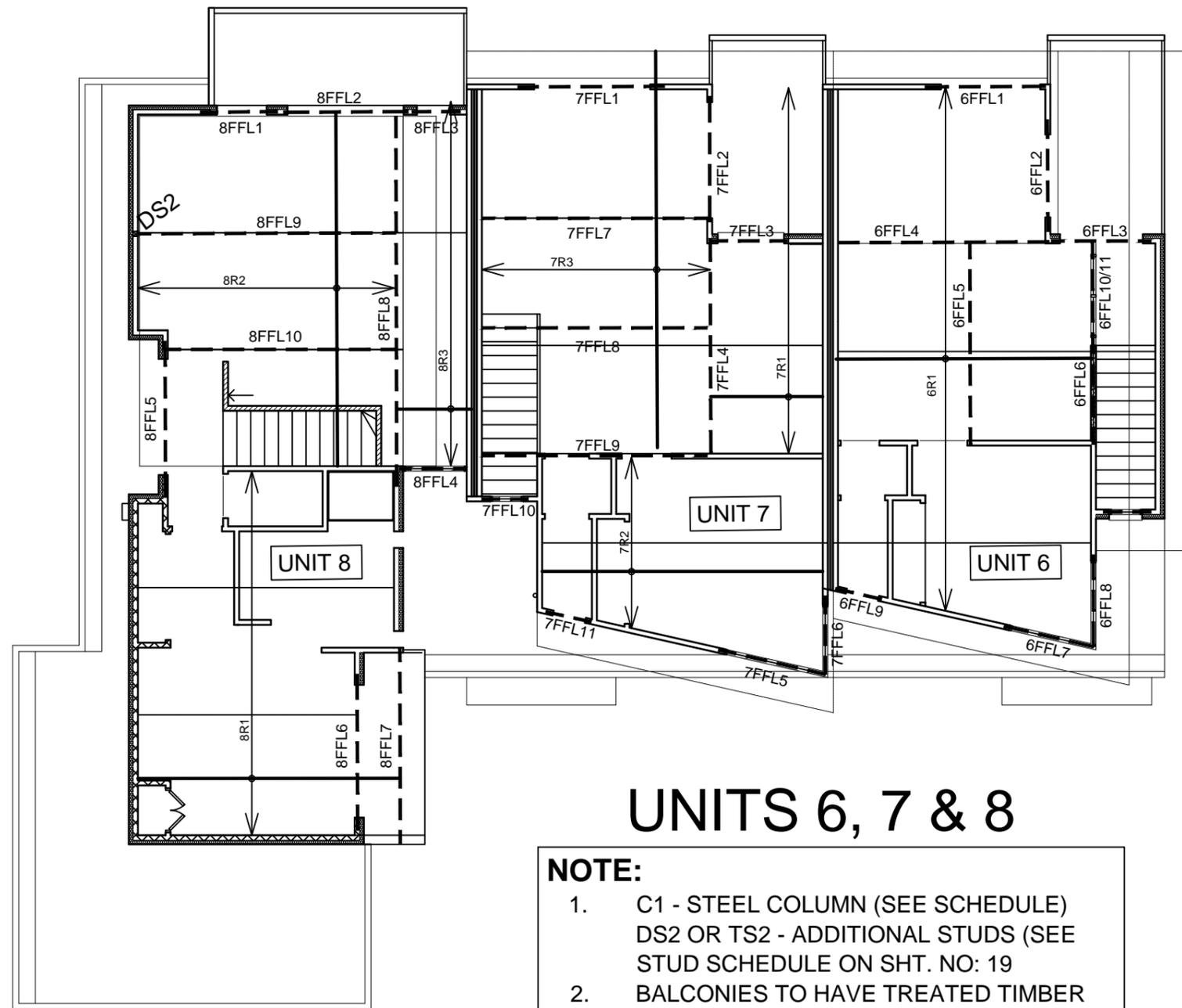
SHEET NO: 16/32

SCALE: AS SHOWN

DATE: 18/09/2017



ROOF FRAMING PLAN - SCALE - 1 : 100



UNITS 6, 7 & 8

NOTE:

1. C1 - STEEL COLUMN (SEE SCHEDULE)
DS2 OR TS2 - ADDITIONAL STUDS (SEE STUD SCHEDULE ON SHT. NO: 19)
2. BALCONIES TO HAVE TREATED TIMBER

ROOF MEMBER SCHEDULE

MARK	SECTION	REMARKS/CONNECTIONS
6FFL1 = 6FFL2 = 6FFL3 = 6FFL7 = 6FFL8 = 6FFL9 = 140X45 MGP12		UNIT 6 - LINTELS
6FFL10 = 6FFL11 = 120X45 MGP12		UNIT 6 - LINTELS
6FFL4 = 6FFL6 = 200X63 HYPSPAN		UNIT 6 - BEAMS
6FFL5 = 250X75 F7		UNIT 6 - BEAMS
6R1 = 170X45 MGP10 @600 CRS		UNIT 6 - RAFTERS
7FFL1 = 140X45 MGP12		UNIT 7 - LINTEL
7FF2 = 190X45 MGP10		UNIT 7 - LINTEL
7FFL3 = 140X45 MGP10		UNIT 7 - LINTEL
7FFL4 = 240X45 MGP12		UNIT 7 - LINTEL
7FFL5 = 140X45 MGP12		UNIT 7 - LINTEL
7FFL6 = 140X45 MGP12		UNIT 7 - LINTEL
7FFL10 = 7FFL11 = 90X45 MGP10		UNIT 7 - LINTEL
7FFL7 = 7FFL8 = 7FFL9 = 300X75 F7		UNIT 7 - BEAMS
7R1 = 90X45 MGP10 @600 CRS		UNIT 7 - RAFTERS
7R2 = 170X45 MGP10 @ 600 CRS		UNIT 7 - RAFTERS
7R3 = 90X45 MGP10 @ 450 CRS		UNIT 7 - RAFTERS
8FFL1 = 8FFL3 = 8FFL4 = 140X45 MGP12		UNIT 8 - LINTELS
8FFL2 = 8FFL5 = 8FFL6 = 8FFL7 = 190X45 MGP12		UNIT 8 - LINTELS
8FFL9 = 2/300 X45 HYPSPAN		UNIT 8 - BEAM
8FFL10 = 300X75 F7		BEAMS
8R1 = 170X45 MGP10 @ 600 CRS		UNIT 8 - RAFTERS
8R2 = 90X45 MGP10 @ 600 CRS		UNIT 8 - RAFTERS
8R3 = 90X45 @ 600 CRS		UNIT 8 - RAFTERS
DSx	REFER TO TIMBER STUD SCHEDULE ON SHT. NO: 19	SAME APPLIES TO TSx/QSx/FSx
	USE STUDS AS PER TIMBER STUD SCHEDULE ON SHT NO: 19. WHERE, NO DSx MARK PROVIDED ON FRAMING PLAN USE DS1 AS PER SCHEDULE ON SHT. NO: 19	

Rev. F

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PROJECT:
8 RESIDENTIAL UNITS
DEVELOPMENT
PROJECT ADDRESS:
183 GREAT OCEAN ROAD,
APOLLO BAY VIC 3233

SHEET NO: 17/32

SCALE: AS SHOWN

DATE: 18/09/2017



FRAMING TIMBER MEMBER GRADES & SIZES

TIMBER FRAMING MEMBERS (U.N.O)

STUDS:

90X35 MGP10 AT 600 MAX CRS 1ST FLOOR (MAX. HEIGHT 2700mm)
 90 x 35 MGP10 AT 450 MAX. CRS. (MAX. GROUND FLOOR HEIGHT 2700mm)
 90 x 45 MGP10 AT 450 MAX. CRS. (HEIGHT 2700-3000mm)
 90 x 45 MGP12 AT 450 MAX. CRS. (HEIGHT 3000-3600mm)
 (NOGGINGS AT MIDHEIGHT)
 2-90 x 45 MGP12 AT 450 MAX. CRS. (HEIGHT 3600-4200mm)
 (NO NOTCHING OF STUDS)
 (NOGGINGS AT 1/3 HEIGHT)

DOUBLE STUDS: 2-90 x 45 MGP10 STUDS U.N.O.

FIX END STUD WALL TO MASONRY WALLS WITH
 M10 DYNABOLT AT TOP, BOTTOM AND 1200 MAX. CRS. TYPICAL

WALL PLATES:

UPPER STOREY: TOP PLATE - 1 X 45 x 90 MGP10 NOT TRENCHED
 BTM PLATE - 45 x 90 MGP10 NOT TRENCHED
 LOWER STOREY: TOP PLATE - 45 x 90 MGP10 NOT TRENCHED
 BTM PLATE - 45 x 90 MGP10 NOT TRENCHED
 FIXED TO SLAB WITH 75mm MASONRY NAILS AT 600mm MAX. CRS.
 (FOLLOW TABLE 9.4 AS 1684.2)
 REFER BRACING PLAN FOR FIXING REQUIREMENTS
 PROVIDE DOUBLE TOP PLATES IF SUPPORTING METAL ROOF TRUSS

STUDS AT SIDE OPENINGS:

OPENING WIDTH	STUDS:
UP TO 1200MM	1-90 x 35 MGP10
1200MM TO 1800MM	2-90 x 45 MGP10
1800MM TO 2400MM	2-90 x 45 MGP10

WALL BRACING:

BRACING OF ALL STUD WALLS TO BE IN ACCORDANCE WITH THE RESIDENTIAL TIMBER
 FRAMING CONSTRUCTION AS 1684.2-2010. U.N.O.

FIXING REQUIREMENTS:

GENERAL: REFER TO AS1684.2-2010 RESIDENTIAL TIMBER FRAMING
 CONSTRUCTION MANUAL TYPICAL FIXING REQUIREMENTS.

MINIMUM JOINT REQUIREMENTS FOR SHEET ROOF STRUCTURES:

JOINT OR MEMBER:	MINIMUM FIXING DETAILS:
RAFTERS & PURLINS	METAL STRAPS, APPROVED FRAMING ANCHORS OR EQUIVALENT SHALL BE USED TO TIE RAFTERS TO TOP WALL PLATES AND TOP WALL PLATES TO STUDS (OR RAFTERS DIRECTY TO STUDS) WITH A MINIMUM OF 300MM x 3.15MM DIAMETER NAILS OR CLOUTS INTO THE SIDE GRAIN ON EACH MEMBER. MAXIMUM SPACINGS OF FASTENINGS SHALL BE 1800MM OR THREE STUD SPACINGS, WHICHEVER IS THE LESSER.
LARGE SPAN ROOF MEMBER (SUCH AS TRUSSES OR ROOF BEAMS OF SPAN 6000MM OR GREATER).	AS FOR RAFTERS & PURLINS SPACINGS OF FASTNINGS SHALL NOT EXCEED THE SPACING OF THE ROOF MEMBERS.

FIXING FOR STRUCTURES IN AREAS SUBJECT TO RELATIVELY HIGH WINDS:

GENERAL: REFER TO AS1684.2 -2010 RESIDENTIAL TIMBER FRAMING CONSTRUCTION MANUAL
 ADDITIONAL FIXING REQUIREMENTS.

NOTE: EQUIVALENT TIMBER GRADE CAN BE USED TO
 REPLACE TIMBER GRADES SPECIFIED

CLIENT:
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TIMBER LINTEL, STUD SCHEDULES & TIMBER GRADES CONVERSION TABLE

ALL STUDS SHALL BE NAIL LAMINATED IN ACCORDANCE WITH AS1684.2		DS1	DS2	DS3	DS4	TS1	TS2	TS3	QS1	QS2	FS1	FS2	
		90x45	90x45	70x45	120x45	90x45	90x45	70x45	90x45	90x45	90x45	90x45	90x45
		MGP10	F17 KD HW	F17 KD HW	MGP10	MGP10	F17 KD HW	F17 KD HW	MGP10	F17 KD HW	MGP10	F17 KD HW	
LINTEL	NO. OF BEARING STUD	1	1	1	1	1	1	1	2	2	2	2	
	NO. OF JAMB STUD	1	1	1	1	2	2	2	2	2	3	3	
BEAM	NO. OF BEARING STUD	2	2	2	2	3	3	3	4	4	5	5	

TIMBER BEAM/LINTEL CONVERSION TABLE			
NOTE: ALTERNATIVE SIZE MEMBER CANNOT BE CONVERTED TO THE GIVEN SIZE MEMBER BUILDER MUST CHECK WITH ENGINEER BEFORE SUBSTITUTION			
GIVEN SIZE	ALTERNATIVE SIZE		
	SMARTLVL 15	F17 KD HW	HYSpan - LVL
90 x 45 F17 HD HW	130 x 42	---	150 x 45
140 x 45 F17 HD HW	150 x 42	---	150 x 45
190 x 45 F17 HD HW	200 x 42	---	200 x 45
240 x 45 F17 HD HW	240 x 42	---	240 x 63
290 x 45 F17 HD HW	300 x 42	---	300 x 45
130 x 42 SMARTLVL 15	---	190 x 45	150 x 45
150 x 42 SMARTLVL 15	---	190 x 45 OR 2-140 x 45	200 x 45
150 x 58 SMARTLVL 15	---	2-140 x 45	200 x 45
200 x 42 SMARTLVL 15	---	240 x 45 OR 2-190 x 45	240 x 63 OR 2-200 x 45
200 x 58 SMARTLVL 15	---	2-190 x 45	240 x 63 OR 2-200 x 45
240 x 42 SMARTLVL 15	---	290 x 45 OR 2-240 x 45	240 x 63 OR 2-200 x 45
240 x 58 SMARTLVL 15	---	2-240 x 45	300 x 45
300 x 42 SMARTLVL 15	---	2-290 x 45	360 x 45 OR 2-300 x 45
300 x 58 SMARTLVL 15	---	2-290 x 45	360 x 63 OR 2-300 x 45
360 x 42 SMARTLVL 15	---	2-290 x 45	360 x 63 OR 2-300 x 45
360 x 58 SMARTLVL 15	---	---	400 x 63 OR 2-360 x 63

ANGLE LINTEL TABLE (BL)		
ANGLE LINTEL SPAN (mm)	BRICK HEIGHT	
	800mm MAX.	3200mm MAX.
0 - 900	100 x 100 x 6 EA	100 x 100 x 8 EA
901 - 1600	100 x 100 x 6 EA	100 x 100 x 10 EA
1601 - 2100	100 x 100 x 6 EA	150 x 100 x 10 UA
2101 - 2600	150 x 100 x 8 UA	150 x 100 x 10 UA + 50 x 10 EXT. PL
2601 - 3100	150 x 100 x 8 UA	150 x 100 x 12 UA + 75 x 12 EXT. PL
3101 - 3600	150 x 100 x 12 UA	N/A

NOTES:

1. ANGLE LINTEL TO EACH MASONRY SKIN TYPICAL
2. SET ANGLES WITH LONG LEG VERTICAL TYPICAL U.N.O.
3. HOT DIP GALVANISED TO ALL EXPOSED ANGLE LINTELS TYPICAL

CLIENT:
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SAM TOBOLOV

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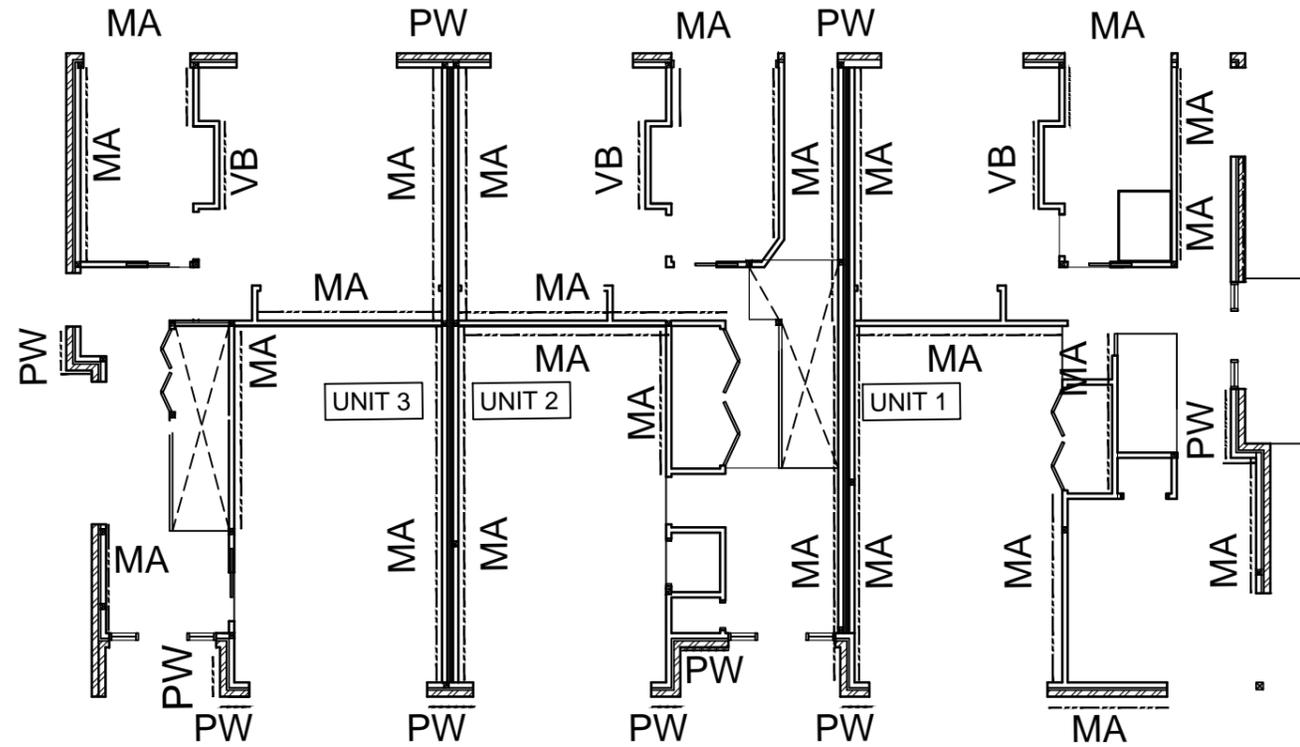
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SCALE: AS SHOWN

DATE: 18/09/2017



BRACING PLANS UNITS 1, 2, & 3 - NTS



GROUND STOREY

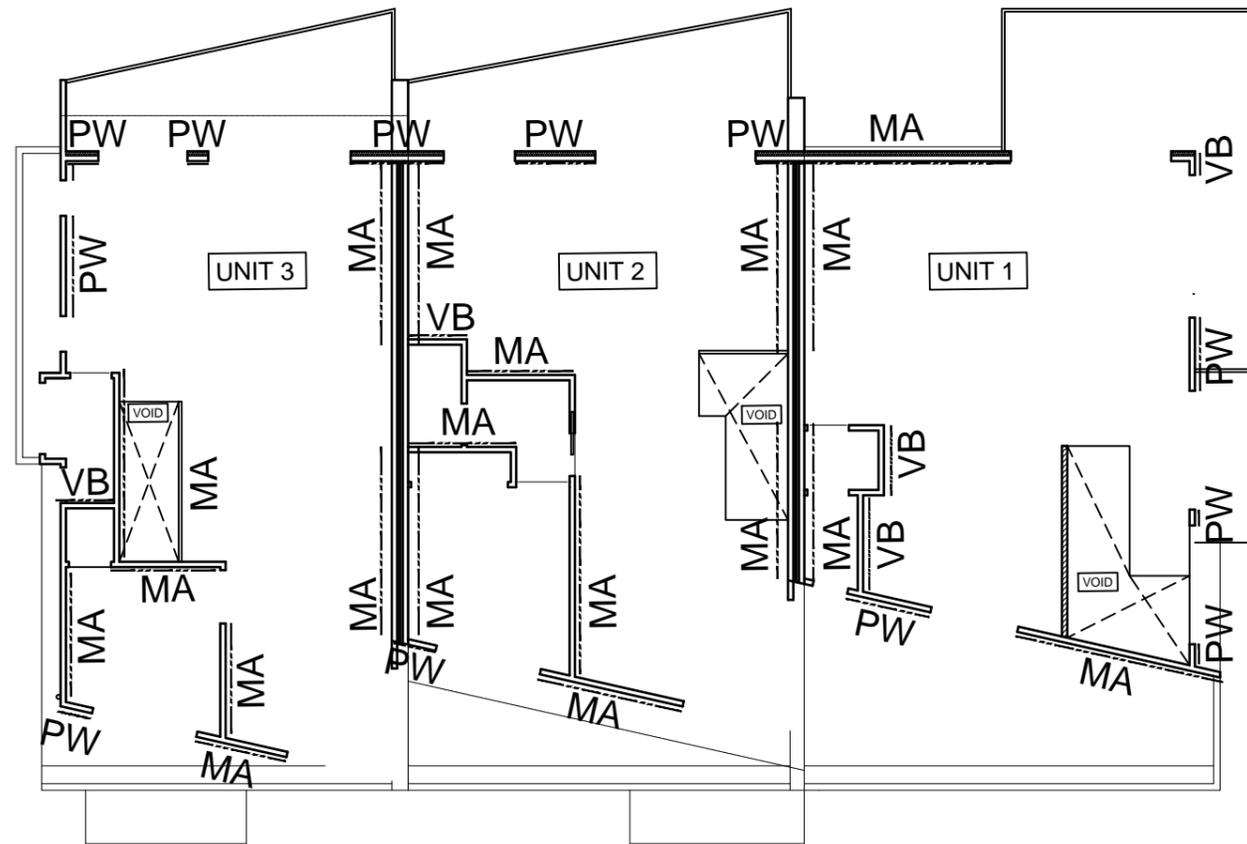
LEGEND

1. MA - METAL ANGLE - MIN. 1.5 KN/m
2. PW - PLY WOOD - MIN. 3.4 KN/m
3. VB - 6mm VILLABOARDS - MIN. 1.0 KN/m
(JAMES HARDIE OR SIMILAR FOLLOW MANUF'S MANUAL)

FOLLOW AS 1684.2 TABLE 8.18 FOR SELECTION & FIXING DETAIL FOR BRACING

WIND ANALYSIS

REGION = A
 TERRAIN CATEGORY = 2
 SHIELDING = PS
 TOPOGRAPHY = T1
 WIND CLASSIFICATION = N2
 WIND PRESSURE
 SERVICEABILITY LIMIT = 700 Pa
 ULTIMATE LIMIT = 1000Pa
 WATER PENETRATION = 150Pa



FIRST STOREY

CLIENT:
 PROFILE HOMES
 SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PROJECT:
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 PROJECT ADDRESS:
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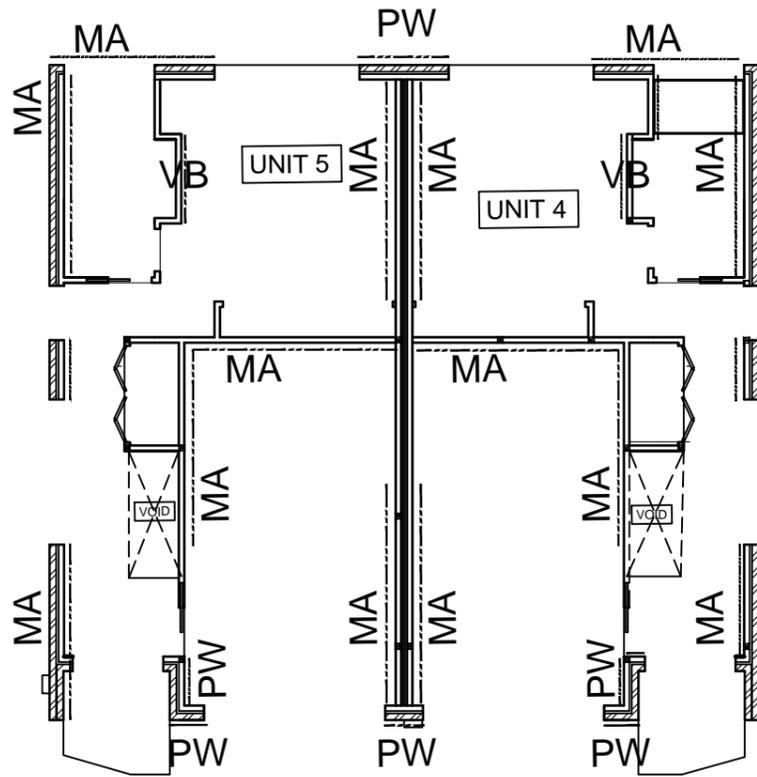
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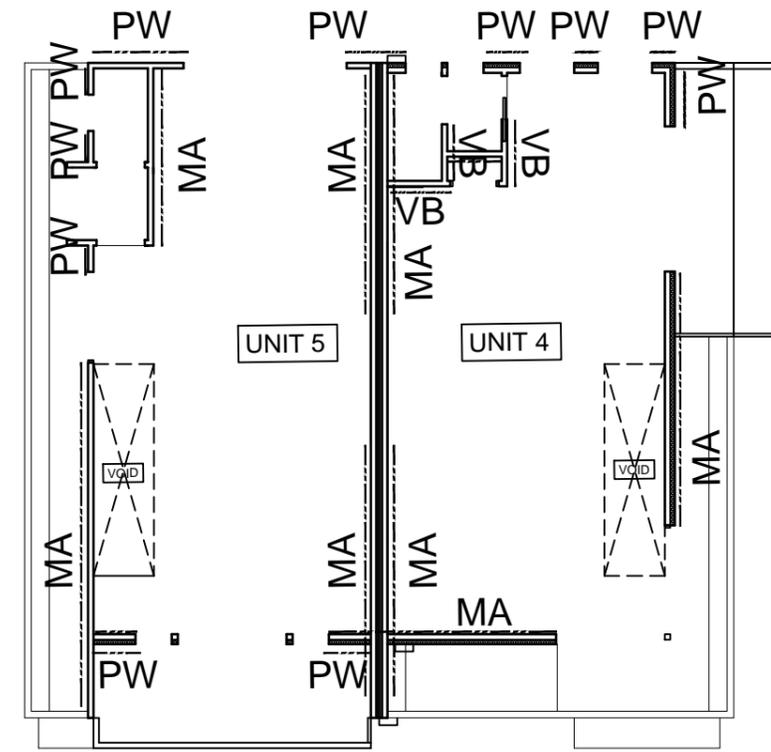
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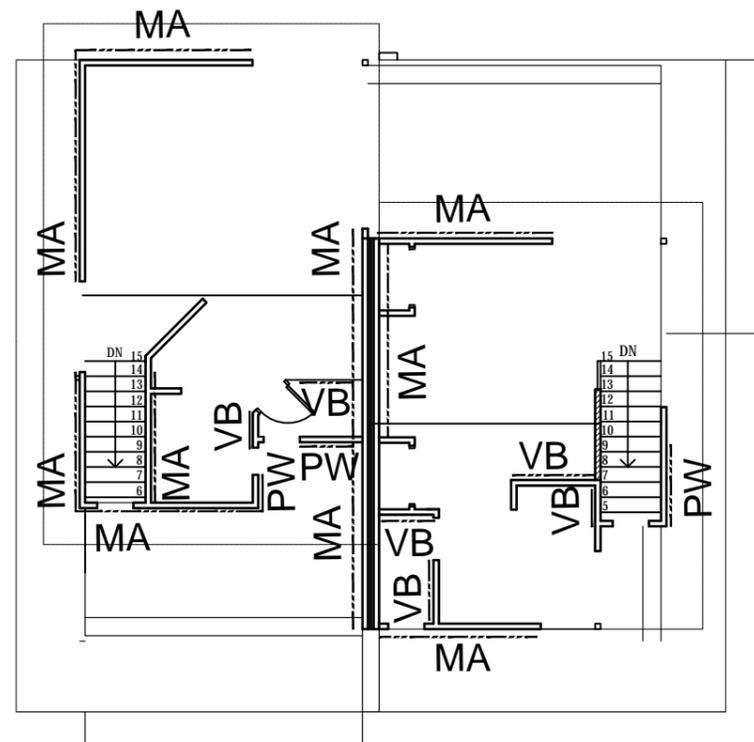
BRACING PLANS 4 & 5 - NTS



GROUND STOREY



FIRST STOREY



SECOND STOREY

LEGEND

1. MA - METAL ANGLE - MIN. 1.5 KN/m
2. PW - PLY WOOD - MIN. 3.4 KN/m
3. VB - 6mm VILLABOARDS - MIN. 1.0 KN/m
(JAMES HARDIE OR SIMILAR FOLLOW MANUF'S MANUAL)

FOLLOW AS 1684.2 TABLE 8.18 FOR SELECTION & FIXING DETAIL FOR BRACING

WIND ANALYSIS

REGION = A
 TERRAIN CATEGORY = 2
 SHIELDING = PS
 TOPOGRAPHY = T1
 WIND CLASSIFICATION = N2
 WIND PRESSURE
 SERVICEABILITY LIMIT = 700 Pa
 ULTIMATE LIMIT = 1000Pa
 WATER PENETRATION = 150Pa

CLIENT:
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 SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PROJECT:
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 PROJECT ADDRESS:
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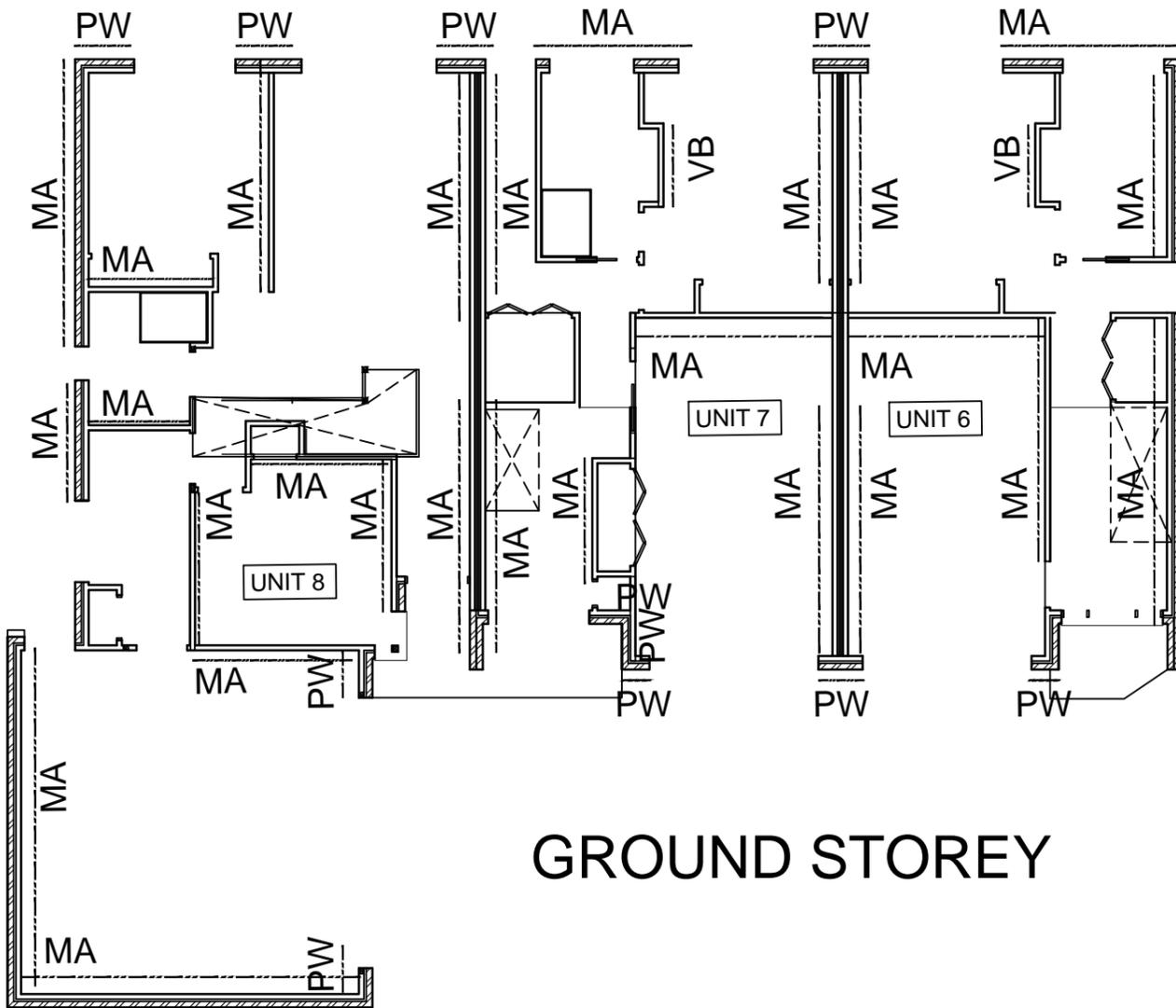
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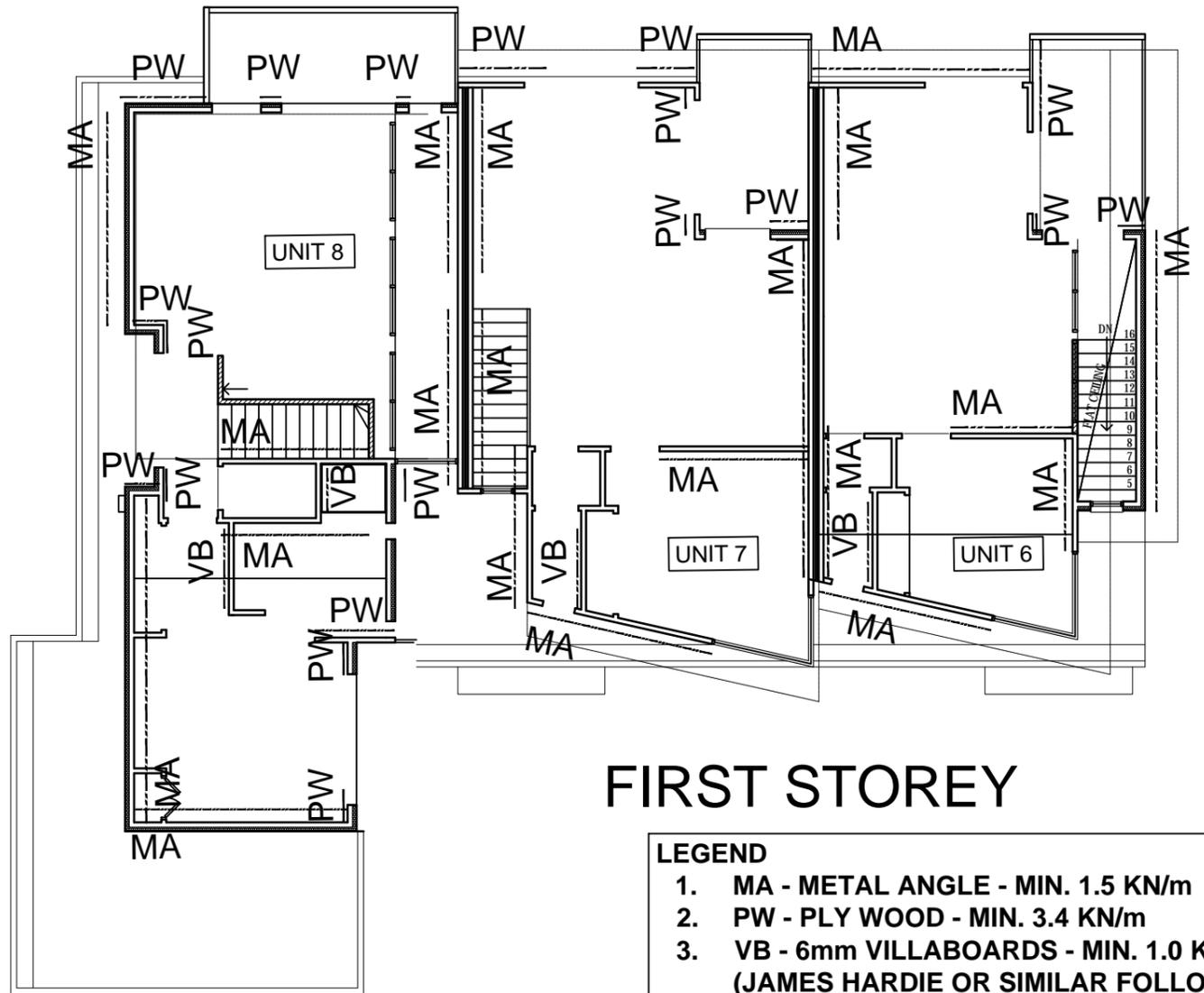
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BRACING PLANS 6, 7, & 8 - NTS



GROUND STOREY



FIRST STOREY

LEGEND

1. MA - METAL ANGLE - MIN. 1.5 KN/m
2. PW - PLY WOOD - MIN. 3.4 KN/m
3. VB - 6mm VILLABOARDS - MIN. 1.0 KN/m
(JAMES HARDIE OR SIMILAR FOLLOW MANUF'S MANUAL)

FOLLOW AS 1684.2 TABLE 8.18 FOR SELECTION & FIXING DETAIL FOR BRACING

WIND ANALYSIS

REGION = A
 TERRAIN CATEGORY = 2
 SHIELDING = PS
 TOPOGRAPHY = T1
 WIND CLASSIFICATION = N2
 WIND PRESSURE
 SERVICEABILITY LIMIT = 700 Pa
 ULTIMATE LIMIT = 1000Pa
 WATER PENETRATION = 150Pa

CLIENT:
 PROFILE HOMES
 SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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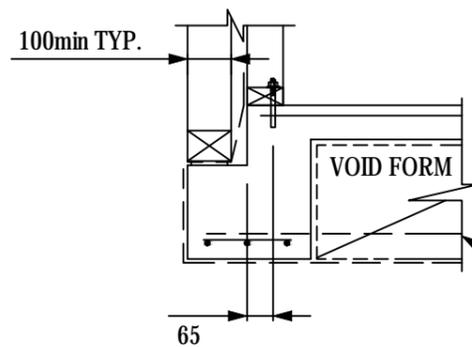
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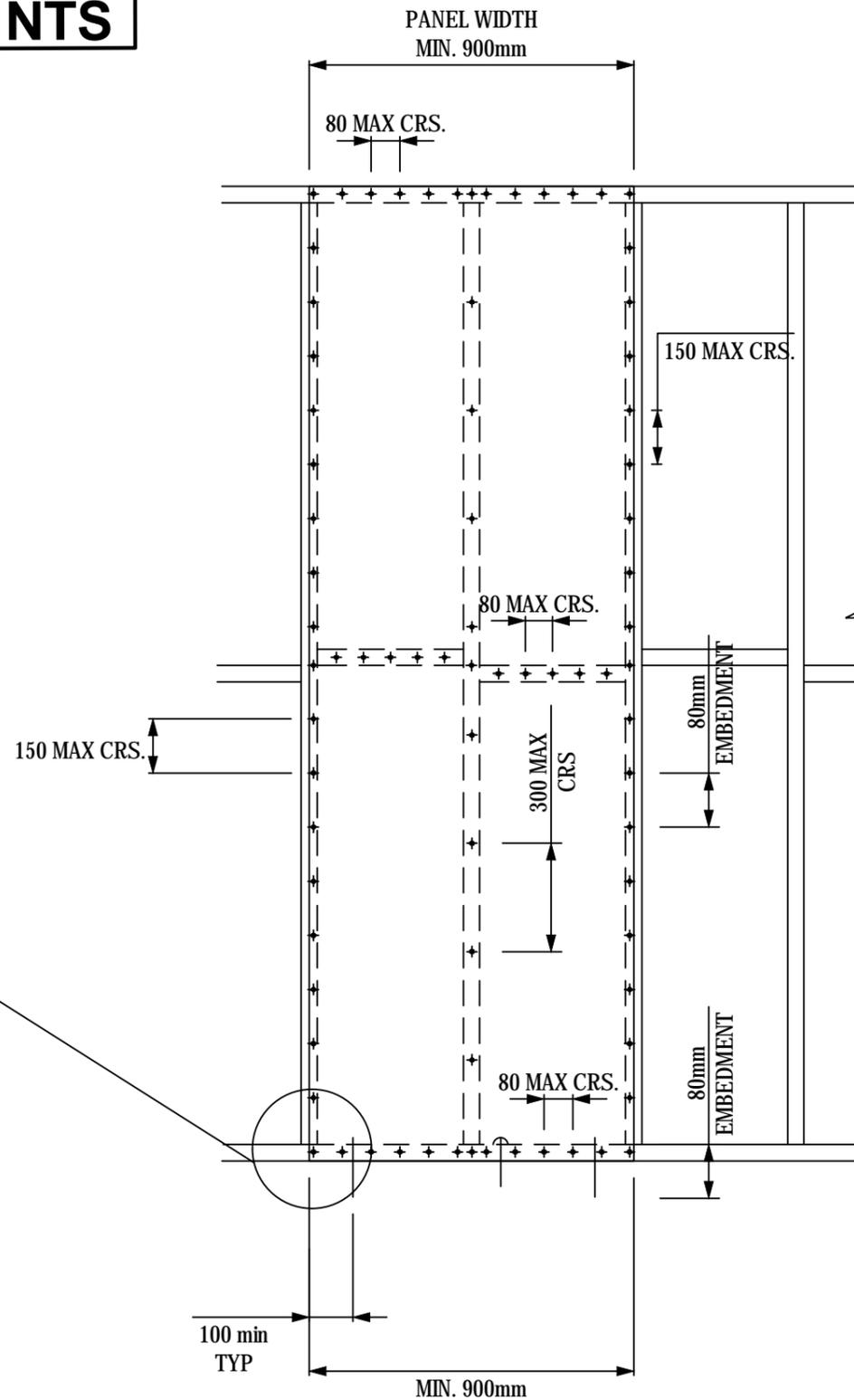
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WALL BRACING TYPES - TYPICAL 1 - NTS



BRACING WALL PLATE TO CONCRETE SLAB FIXING DETAIL (END FIXING)



MINIMUM PLYWOOD THICKNESS (mm)		
STRESS GRADE	STUD SPACING	
	450	600
F8	7	7
F11	4.5	4.5
F14	4	4
F27	3	3

NOTE:
PLYWOOD SHALL BE NAILED TO FRAME
USING 30X2.8Ø GALV. FLAT HEAD NAILS @
CRS INDICATED ON FIGURE.

PLYWOOD BRACING SYSTEM - PW (BRACING CAPACITY - 3.4kN/m)

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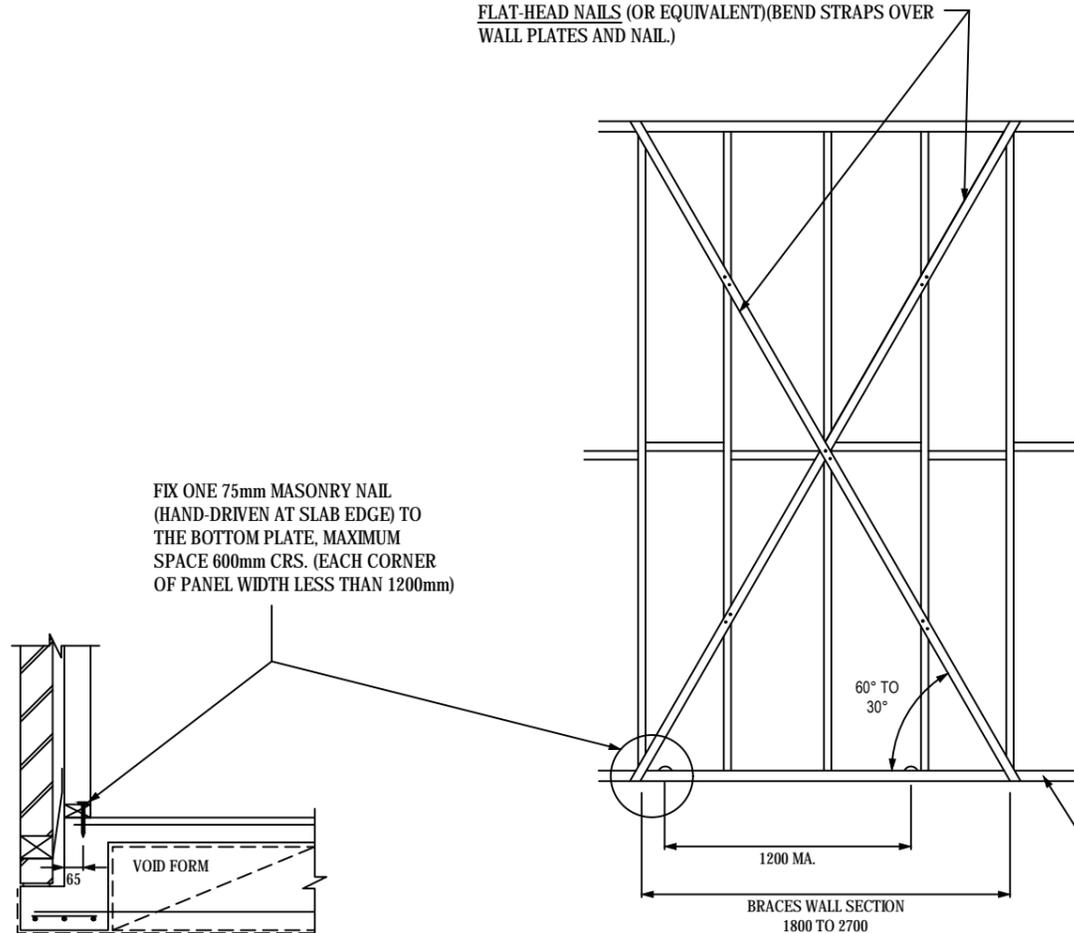
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WALL BRACING TYPES - TYPICAL 2 - NTS

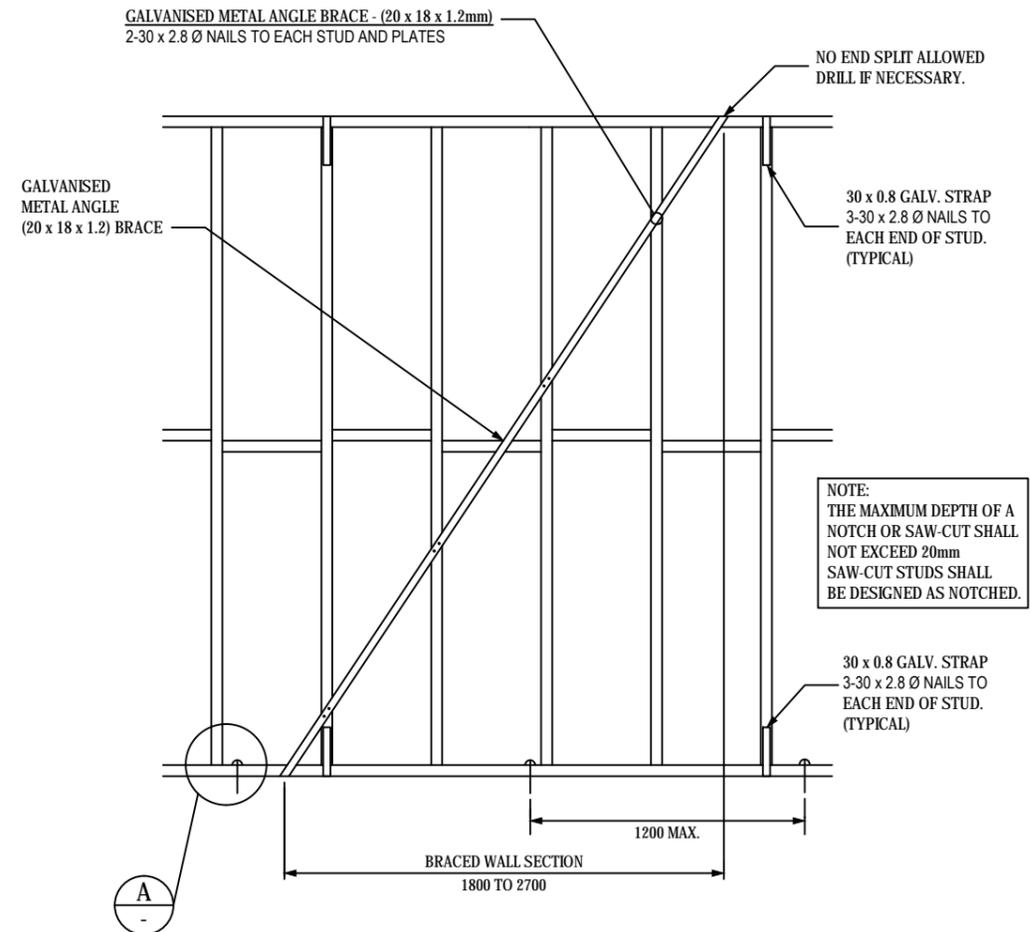
TENSIONED GALVANISED METAL STRAPS
WITH MINIMUM THICKNESS OF 0.8mm AND MINIMUM NET
SECTION OF 15.2mm².
FIXED TO STUDS WITH 1/30x2.8Ø GALVANISED
FLAT PLATES WITH 3/30 x 2.8Ø GALVANISED
FLAT-HEAD NAILS (OR EQUIVALENT)(BEND STRAPS OVER
WALL PLATES AND NAIL.)



**DOUBLE DIAGONAL METAL TENSION STRAPS
BRACING SYSTEM - MA
(BRACING CAPACITY - 1.5kN/m)**

FIX BOTTOM PLATE TO FLOOR
FRAME OR SLAB WITH NOMINAL
FIXING ONLY (SEE AS1684.2
TABLE 9.4)

OR



**DIAGONAL METAL ANGLE BRACES
(BRACING CAPACITY - 1.5kN/m)
DENOTED AS 'MA' ON PLAN**

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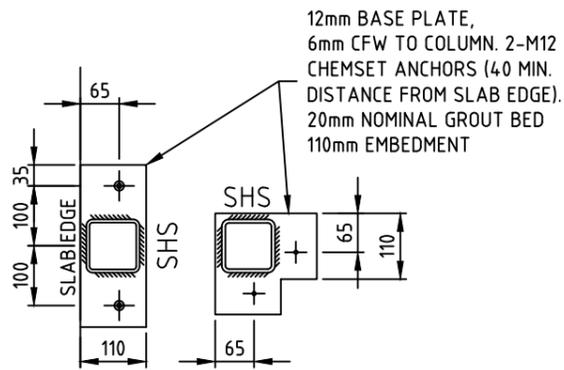
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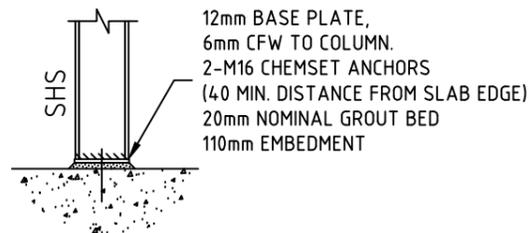
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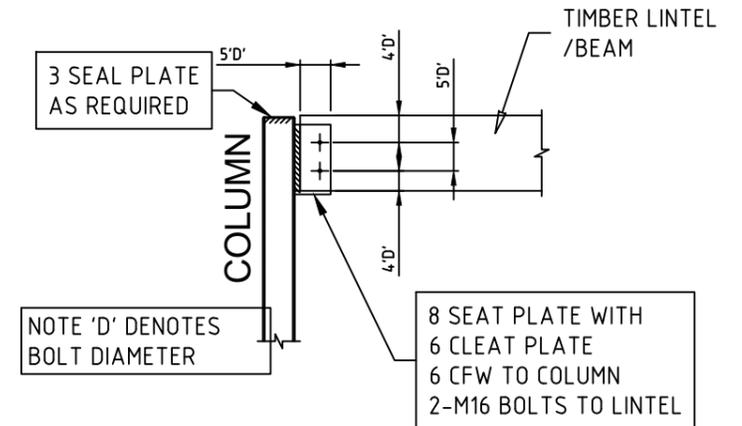
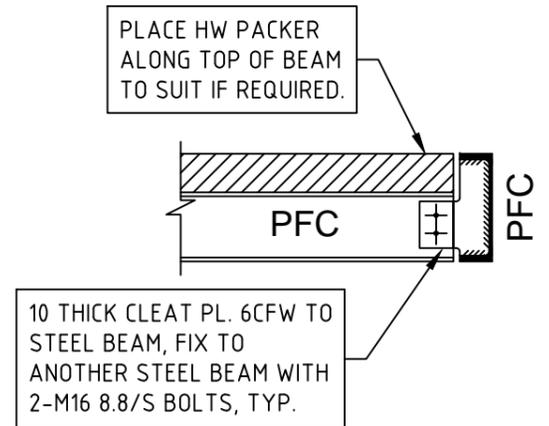
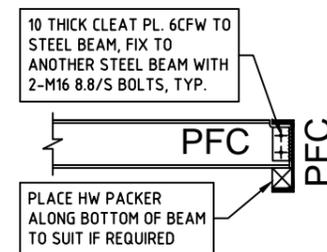
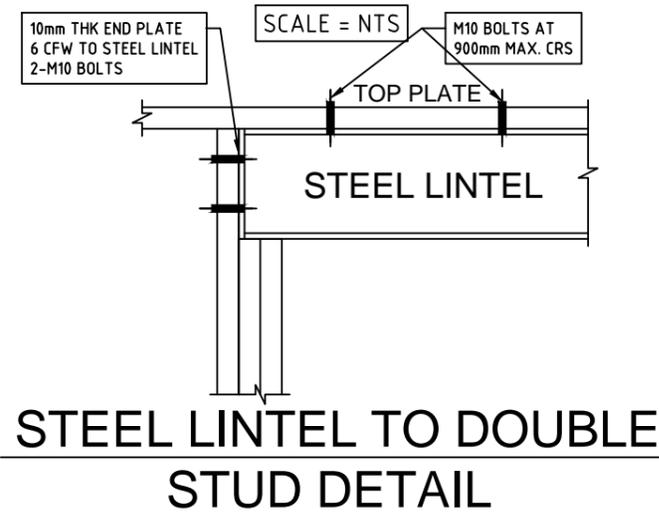
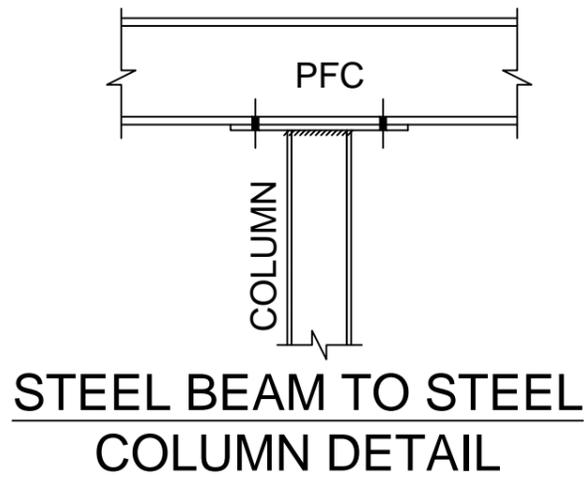
TYPICAL MEMBER JOINTS & STEEL COLUMN BASE PLATE DETAIL 1 - NTS



BASE PLATE PLAN



TYPICAL COLUMN BASE
CONNECTION DETAILS



CLIENT:
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SAM TOBOLOV

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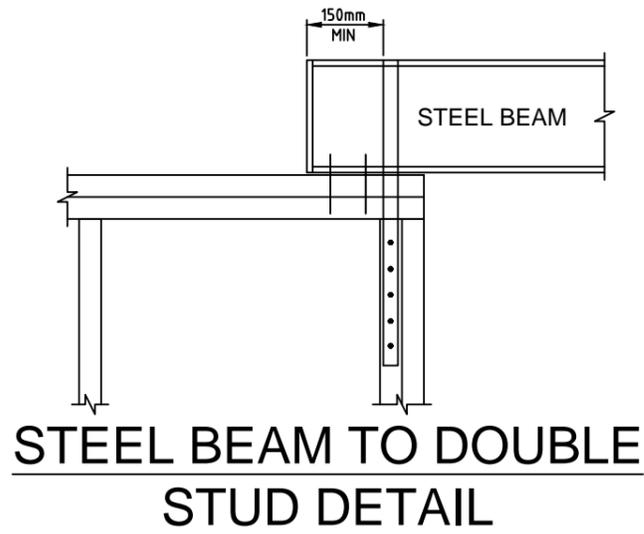
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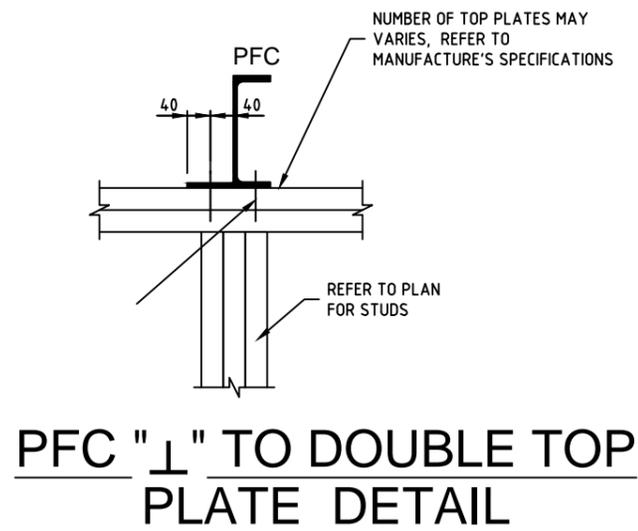
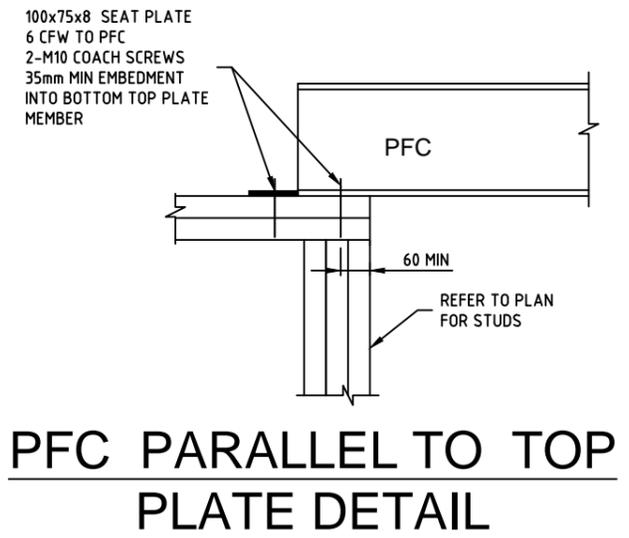
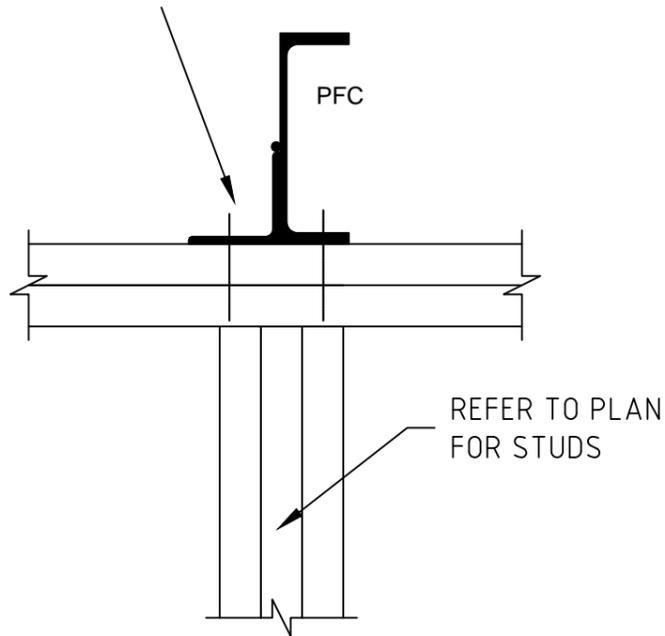
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TYPICAL MEMBER JOINT DETAIL 2 - NTS



100x100x10 EA
6 CFW TO PFC
2-M10 COACH SCREWS
35mm MIN EMBEDMENT
INTO BOTTOM TOP PLATE
MEMBER



CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

**WB CIVIL STRUCTURAL
ENGINEERS**

ENGINEERS & BUILDERS
ABN: 84119322436

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REGISTERED BUILDER
VICTORIAN BUILDING AUTHORITY

PRIYAN WIJEYERATNE
EC 19060, D-BU 22220
M.I.E.(AUST), C.P.ENG.
M.Eng(Struct), M.Tech.(Mgt.), BSc(Civil)

PROJECT:
8 RESIDENTIAL UNITS
DEVELOPMENT
PROJECT ADDRESS:
183 GREAT OCEAN ROAD,
APOLLO BAY VIC 3233

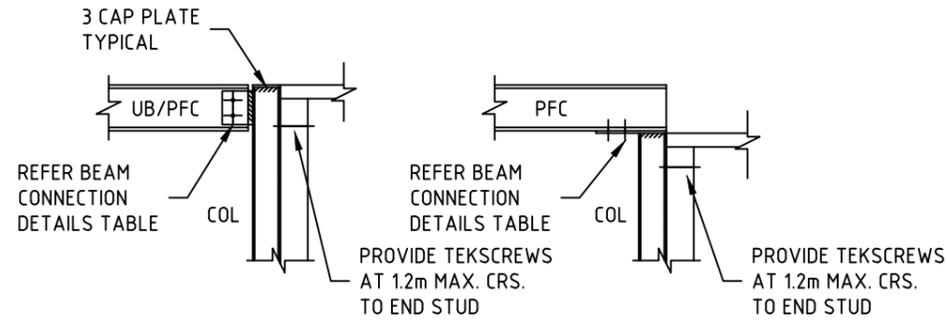
SHEET NO: 26/32

SCALE: AS SHOWN

DATE: 18/09/2017



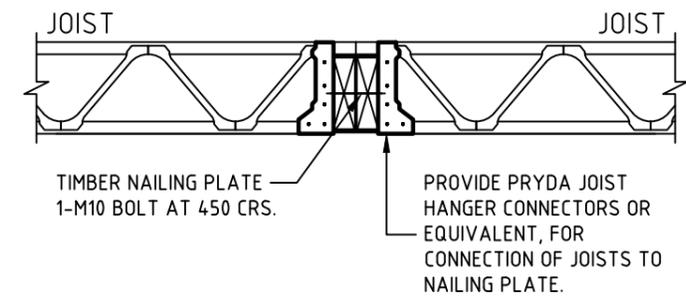
TYPICAL MEMBER JOINT DETAIL 3 - NTS



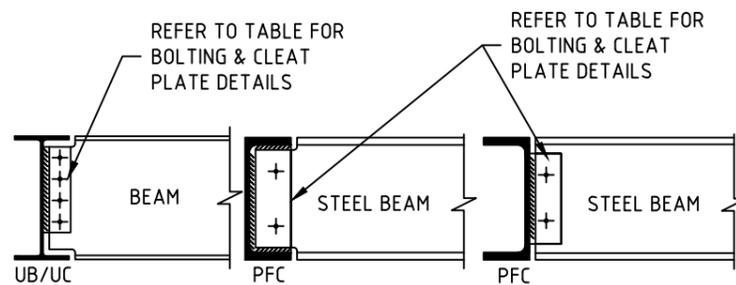
STANDARD STEEL BEAM TO COLUMN DETAILS

NOTE:

1. DETAILS ARE TO BE USED UNLESS NOTED OTHERWISE ON THE DRAWINGS TYPICAL
2. TOP PLATE LOCATION IS INDICATIVE ONLY

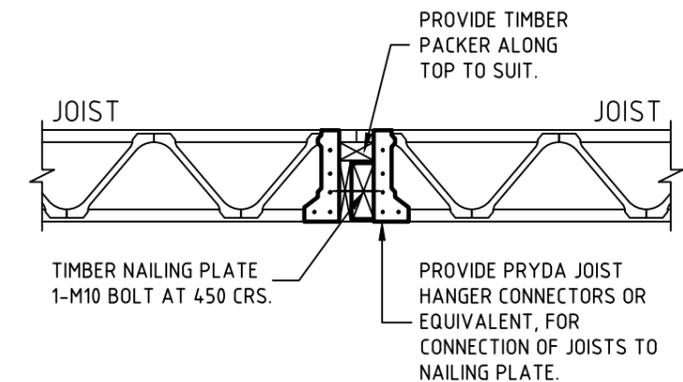


FLOOR JOISTS TO STEEL BEAM CONNECTION DETAIL



BEAM CONNECTION DETAILS		
MEMBER SIZE	BOLTS REQUIRED	CLEAT PLATE THICKNESS
UPTO 200UB/PFC	2-M16 8.8/S BOLTS	10mm
UPTO 250UB/PFC	2-M16 8.8/S BOLTS	10mm
UPTO 360UB/PFC	3-M20 8.8/S BOLTS	10mm
NOTE: TYPICAL FOR ALL CONNECTIONS (U.N.O. ON DETAILS).		

STEEL BEAM TO STEEL BEAM CONNECTION DETAILS



FLOOR JOISTS TO STEEL BEAM CONNECTION DETAIL

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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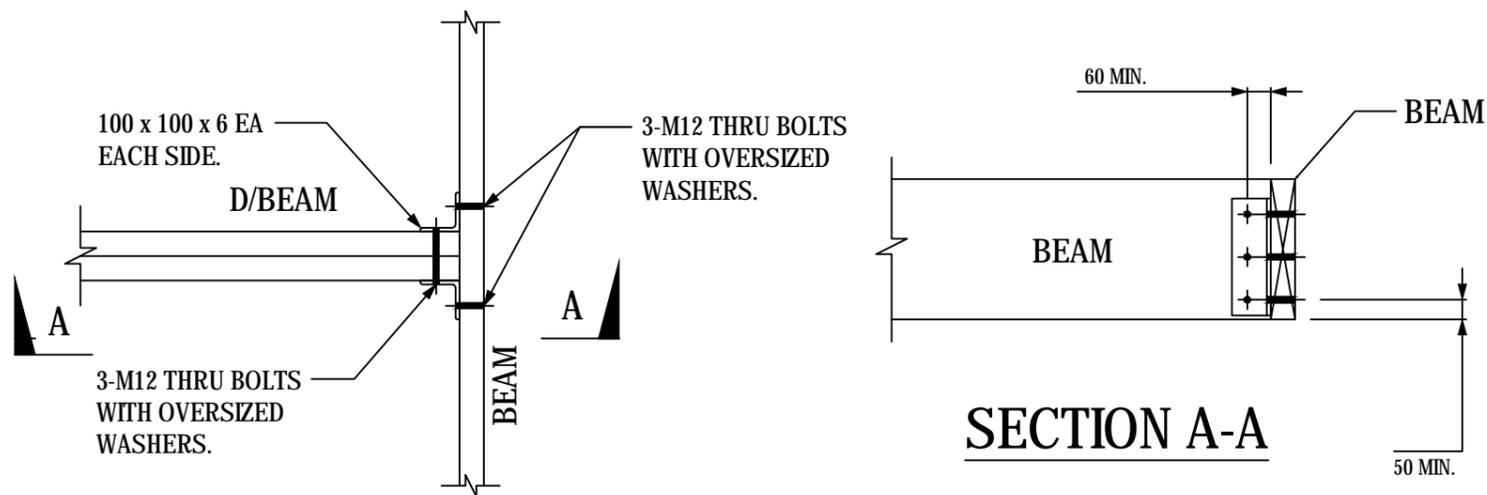
SHEET NO: 27/32

SCALE: AS SHOWN

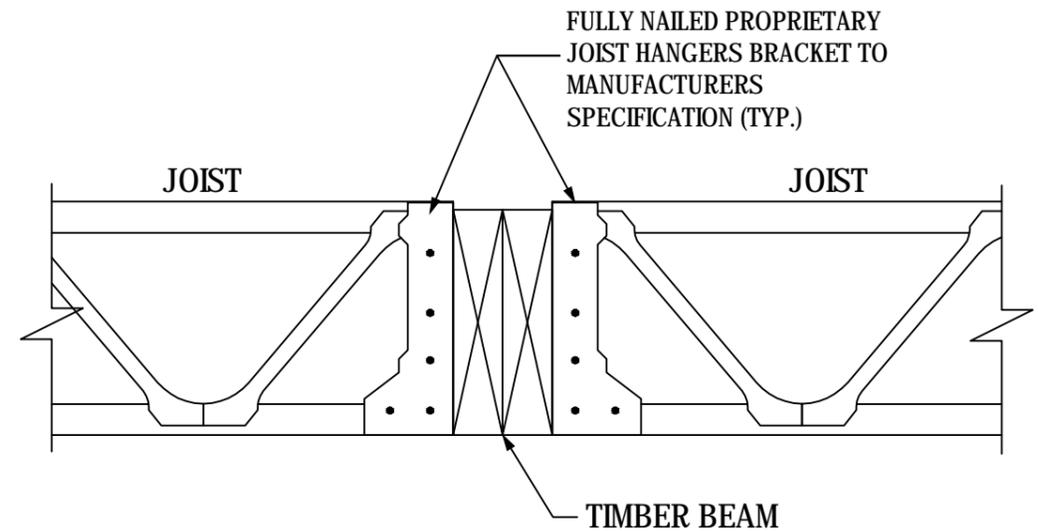
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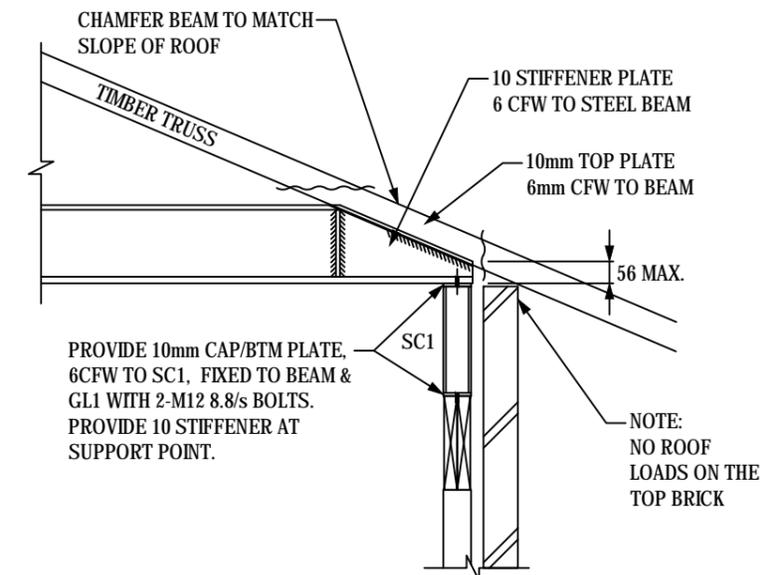
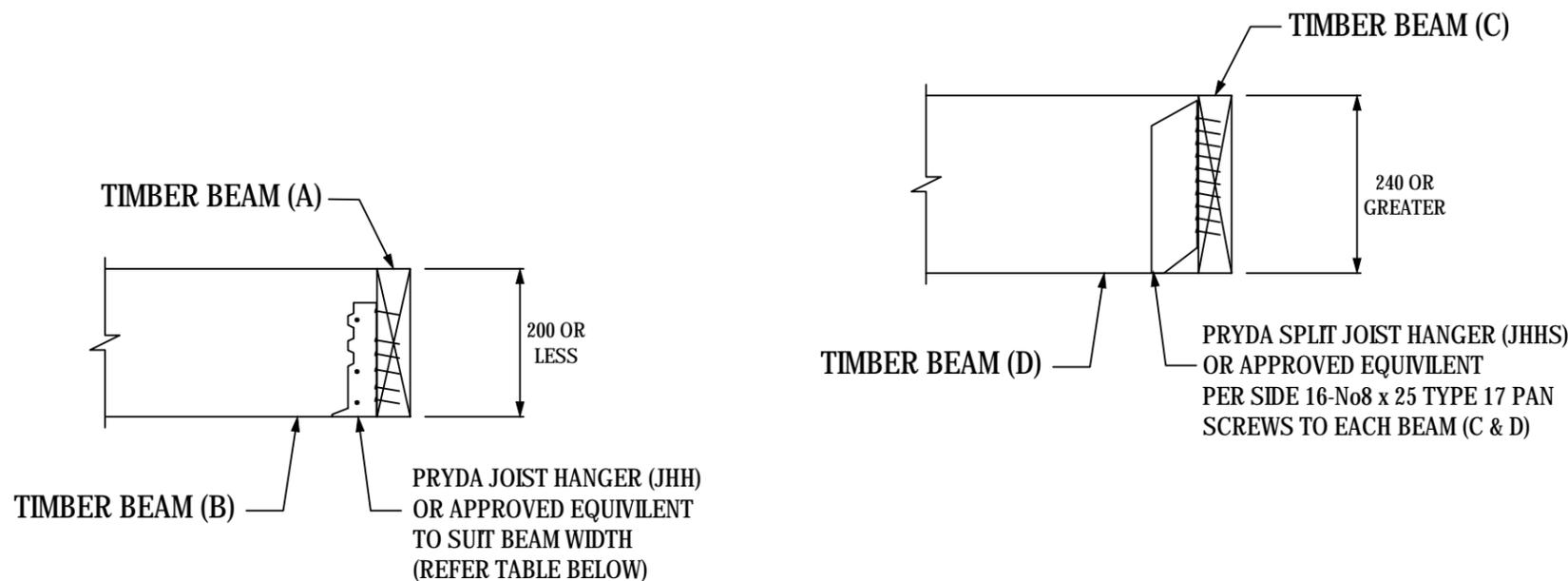
TYPICAL MEMBER JOINT DETAIL 4 - NTS



TIMBER BEAM TO TIMBER BEAM CONNECTION DETAIL



FLOOR JOIST TO TIMBER BEAM CONNECTION DETAIL



BEAM/LINTEL TO STUB COLUMN DETAIL

CLIENT:
PROFILE HOMES
SAM TOBOLOV

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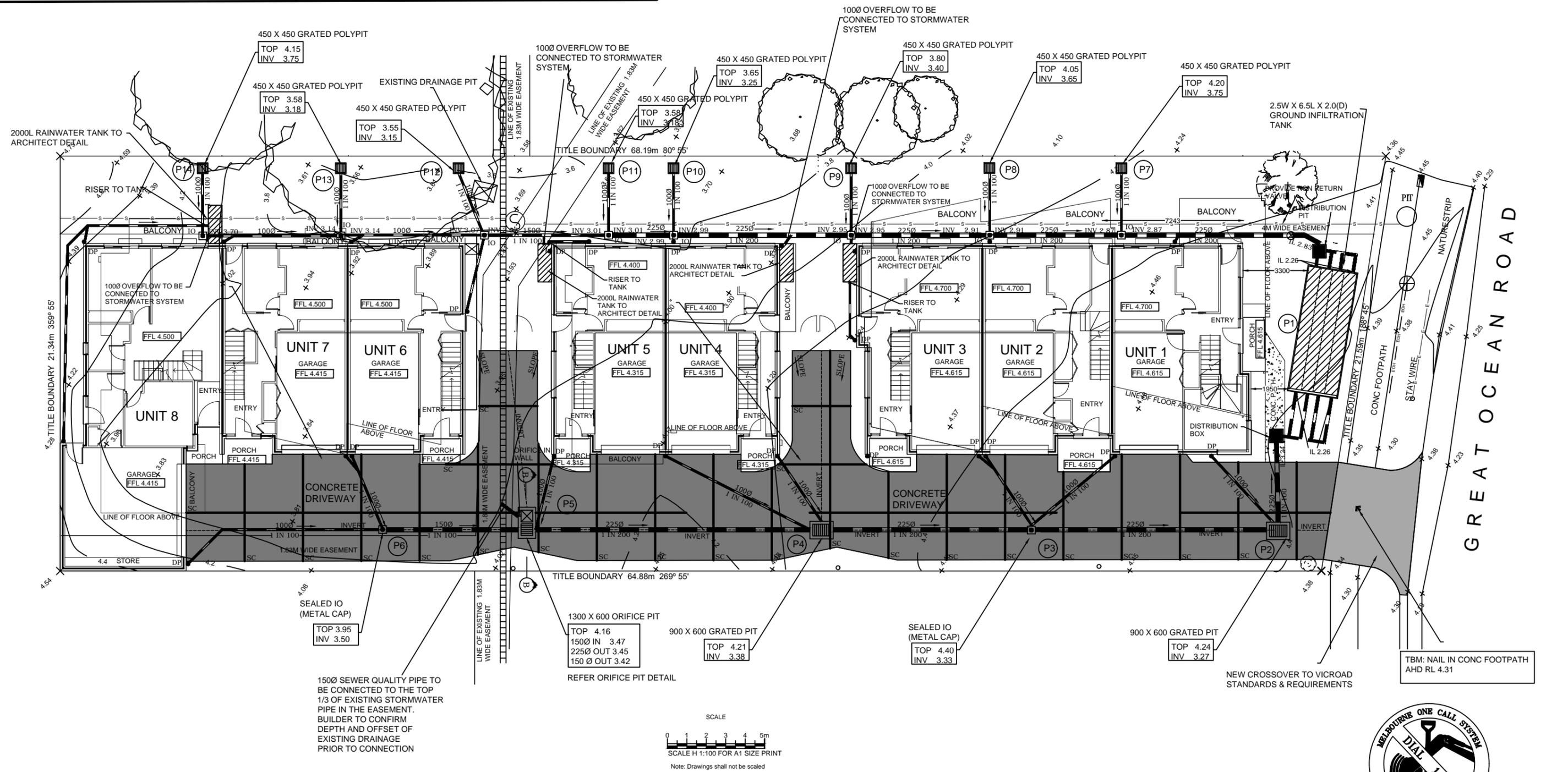
SHEET NO: 28/32

SCALE: AS SHOWN

DATE: 18/09/2017



DRAINAGE PLAN (ON-SITE DETENTION)



NOTES:
 1. ALL LEVELS ARE IN AHD
 2. ALL D/Ps AS PER ARCHITECT DESIGN

WARNING
BEWARE OF UNDERGROUND SERVICES
 THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

WARNING
 ALL SERVICES SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY AND EXACT LOCATION IS TO BE CONFIRMED ON SITE BY BUILDER PRIOR TO COMMENCEMENT OF ANY WORKS.



CLIENT:
 PROFILE HOMES
 SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PROJECT:
 8 RESIDENTIAL UNITS DEVELOPMENT
PROJECT ADDRESS:
 183 GREAT OCEAN ROAD, APOLLO BAY VIC 3233

SHEET NO: 29/32
SCALE: AS SHOWN
DATE: 18/09/2017



REV.	REMARKS/COMMENTS	DATE	APRV.
F	REVISED AS PER BS LETTER 09/11/2017	06/12/2017	PW
E	INFILTRA. MOD. ISSUED FOR PERMIT	01/11/2017	PW
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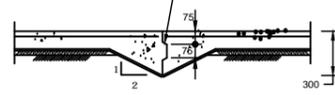
PITS, STEP IRON, PAVEMENT DETAILS & NOTES - NTS

GENERAL NOTE

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED TOWN PLANNING & BUILDING PLANS FOR THE CONSTRUCTION OF 183 GREAT OCEAN ROAD APOLLO BAY

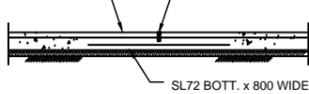
- ALL LEVELS ARE TO A.H.D. OR ARBITRARY DATUM.
- MINIMUM FALL TO 90 & 100 DIA. S.W.D.P.'S TO BE 1 IN 100. MINIMUM FALL TO 150 DIA. S.W.D.P.'S TO BE 1 IN 100. PROVIDE 100 DIA. S.W.P. WHERE NO SIZE SPECIFIED FROM DOWNPIPES WITH INSPECTION OPENINGS AT ALL CHANGES IN GRADE AND/OR DIRECTION AND AT 10 METRE MAXIMUM CENTRES.
- ALL 90, 100 & 150 DIA. PIPEWORK TO BE SEWER GRADE U.P.V.C.
- ALL U.P.V.C. PIPES TO BE SOLVENT WELD JOINTED (S.W.J.) ALL A.C. PIPES TO BE ADJOL JOINTED AND CEMENTED WITH BITUMINOUS JOINTING COMPOUND, ALL R.C. PIPE TO BE SPIGOT/SOCKET JOINTED.
- GRADED SURFACE DRAINS TO BE PROVIDED WHERE LANDSCAPE PREVENTS RUN OFF OF SURFACE WATER.
- ALL DRAINAGE LINES OFF SET 1000mm FROM ADJACENT BUILDING U.N.O.
- ALL SET OUT DIMENSIONS AS PER ARCHITECT'S PLAN.
- ALL GRADES AND OUTFALL INVERT LEVELS ARE TO BE CHECKED ON SITE AND ANY DISCREPANCY IS TO BE REFERRED TO THIS OFFICE BEFORE ANY PIPE LAYING COMMENCES.
- PRIOR TO COMMENCEMENT OF WORKS ON ADJOINING PROPERTIES, BUILDER SHALL REACH AGREEMENT WITH THE OWNER/GOVERNING AUTHORITY AS TO THE TIMING AND EXTENT OF WORKS.
- ALL DRAINAGE WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH SHIRE OF COLAC OTWAY STANDARD DRAINAGE CONSTRUCTION SPECIFICATION AND TO THE SATISFACTION OF THE COUNCIL ENGINEER.
- WHERE PIPES ARE LOCATED UNDER PAVEMENTS, TRENCHES ARE TO BE BACKFILLED WITH CLASS 2A CRUSHED ROCK COMPACTED IN 150mm LAYERS TO 98% OF MAX. DRY DENSITY.
- CARE MUST BE TAKEN WHEN BREAKING INTO COUNCIL DRAINS, KERBS & CHANNELS AND FOOTPATHS AND IT IS THE BUILDER'S RESPONSIBILITY TO ENSURE THESE ARE REINSTATED TO THE SATISFACTION OF THE SHIRE OF COLAC OTWAY ENGINEER.
- BUILDER TO ARRANGE FOR ALL SERVICES IN THE VICINITY OF THE ADDRESS (GAS, TELSTRA ETC.) TO BE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF EXCAVATION AND ALL EXCAVATION AROUND THESE SERVICES ARE TO BE BY HAND AND NOT MACHINERY.
- PAVEMENT DEPTH WILL BE SUBJECT TO SUBGRADE IMPROVEMENT AS DIRECTED BY ENGINEER FOLLOWING RECEIPT OF A SOIL REPORT FROM A GEOTECHNICAL ENGINEER GIVING CALIFORNIA BEARING RATIOS AND REACTIONS OF SUBGRADE.
- FILLED AREAS: FILLING TO BE BEST EXCAVATED MATERIAL. ALL VEGETATION AND TOPSOIL SHALL BE STRIPPED BEFORE PLACEMENT OF FILL. THE AREA TO BE FILLED SHALL BE CLEARED TO A FIRM FOUNDATION, FILLED AND CONSOLIDATED WITH APPROVED SOIL IN LAYERS NOT EXCEEDING 150mm IN DEPTH AND COMPACTED TO 95% OF MAX DRY DENSITY. ANY SOFT SPOTS ARE TO BE REMOVED AND BACKFILLED WITH CLASS 2A CRUSHED ROCK IN 150mm LAYERS AND COMPACTED TO 95% A.A.S.H.O. (STANDARD).
- ALL DISTURBED AREAS TO BE COVERED WITH 100mm TOPSOIL AND SEEDED WITH GRASS AS DIRECTED. TOPSOIL IS NOT TO BE REMOVED FROM SITE.
- OCCUPIERS/OWNERS CORPORATION TO MAINTAIN ALL DRAINAGE SYSTEMS AT REGULAR INTERVALS

75 x 25 REBATE IN FIRST POUR PAINT FACE WITH BITUMEN PRIOR TO SECOND POUR. STOP REINFORCEMENT AT JOINT.

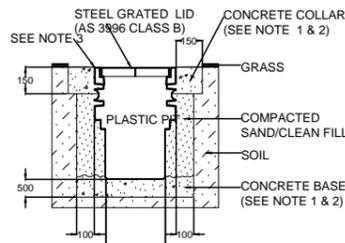


CONSTRUCTION JOINT (CJ)

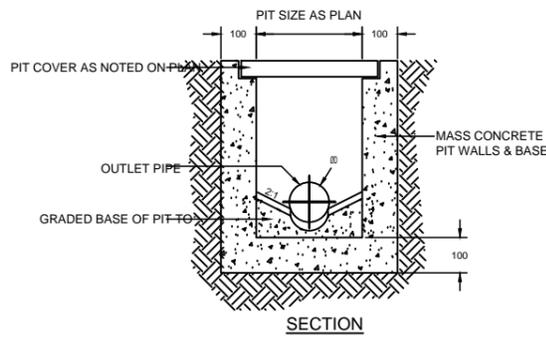
SL72 MESH 50 COVER
50 DP. x 3 W. SAWCUT MADE WITHIN 48 HOURS OF CONCRETE POUR. FILL WITH APPROVED SEALANT



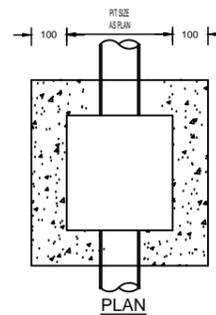
SAW CUT JOINT (SC)



TYPICAL POLY PIT DETAIL (LANDSCAPE AREA)

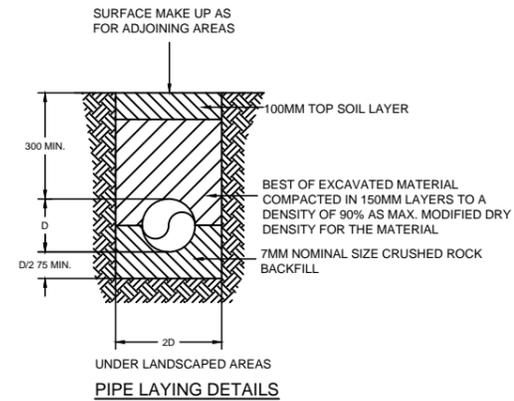


SECTION

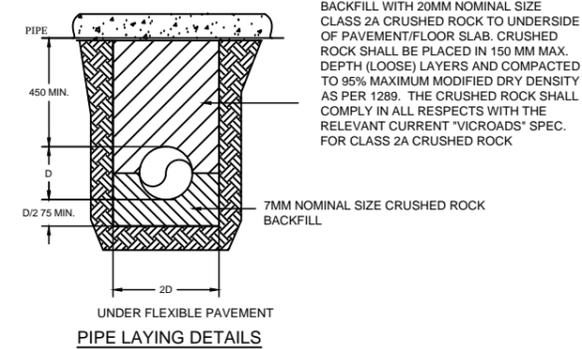


TYPICAL PIT DETAIL

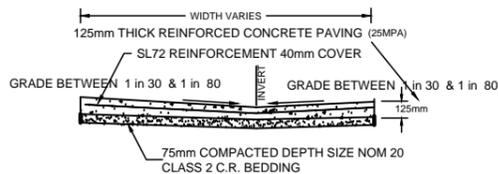
NOTES:
1. REFER TO PLAN FOR RELEVANT DIMENSIONS
2. GATIC TYPE COVERS WHERE SPECIFIED SHALL BE REBATED INTO THE PIT WALLS IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS



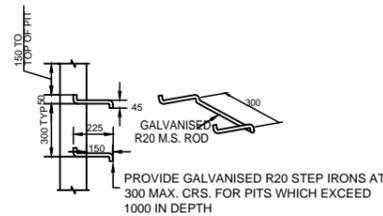
PIPE LAYING DETAILS



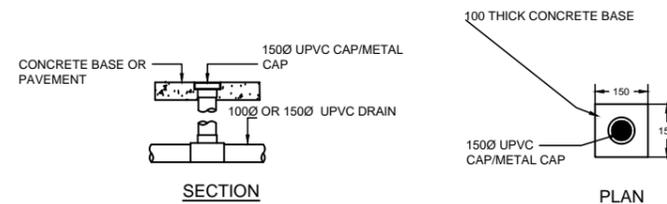
PIPE LAYING DETAILS



TYPICAL DRIVEWAY CROSS - SECTION



TYPICAL PIT STEP IRON DETAIL



SECTION

PLAN

TYPICAL INSPECTION OPENING DETAIL (IO)

LEGEND

- NATURAL GROUND LEVEL
- UPVC DOWN PIPE
- INSPECTION OPENING (IO)
- FLOOR WASTE POINT (FW)
- EX. COUNCIL JUNCTION
- NEW JUNCTION PIT (JP)
- NEW GRATED PIT (GP)
- NEW POLY PIT (PP)
- 100mm THK. CONCRETE BASE (FOR PERMEABLE SURFACE)
- 100Ø STORMWATER PIPE
- FFL XX.XX FLOOR LEVEL
- CONCRETE DRIVEWAY
- CONCRETE CROSSING
- PERMEABLE CONCRETE DRIVEWAY
- OVERLAND FLOW PATH
- GAS
- SEWER
- WATER
- ELECTRICITY
- ELECTRICITY (O/H)
- TELEC
- EXIST
- FENCE
- EASEMENT
- CONTOUR
- AGRICULTURAL DRAIN
- EX. S/W DRAIN



WARNING
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CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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PROJECT:
8 RESIDENTIAL UNITS DEVELOPMENT
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183 GREAT OCEAN ROAD,
APOLLO BAY VIC 3233

SHEET NO: 30/32

SCALE: AS SHOWN

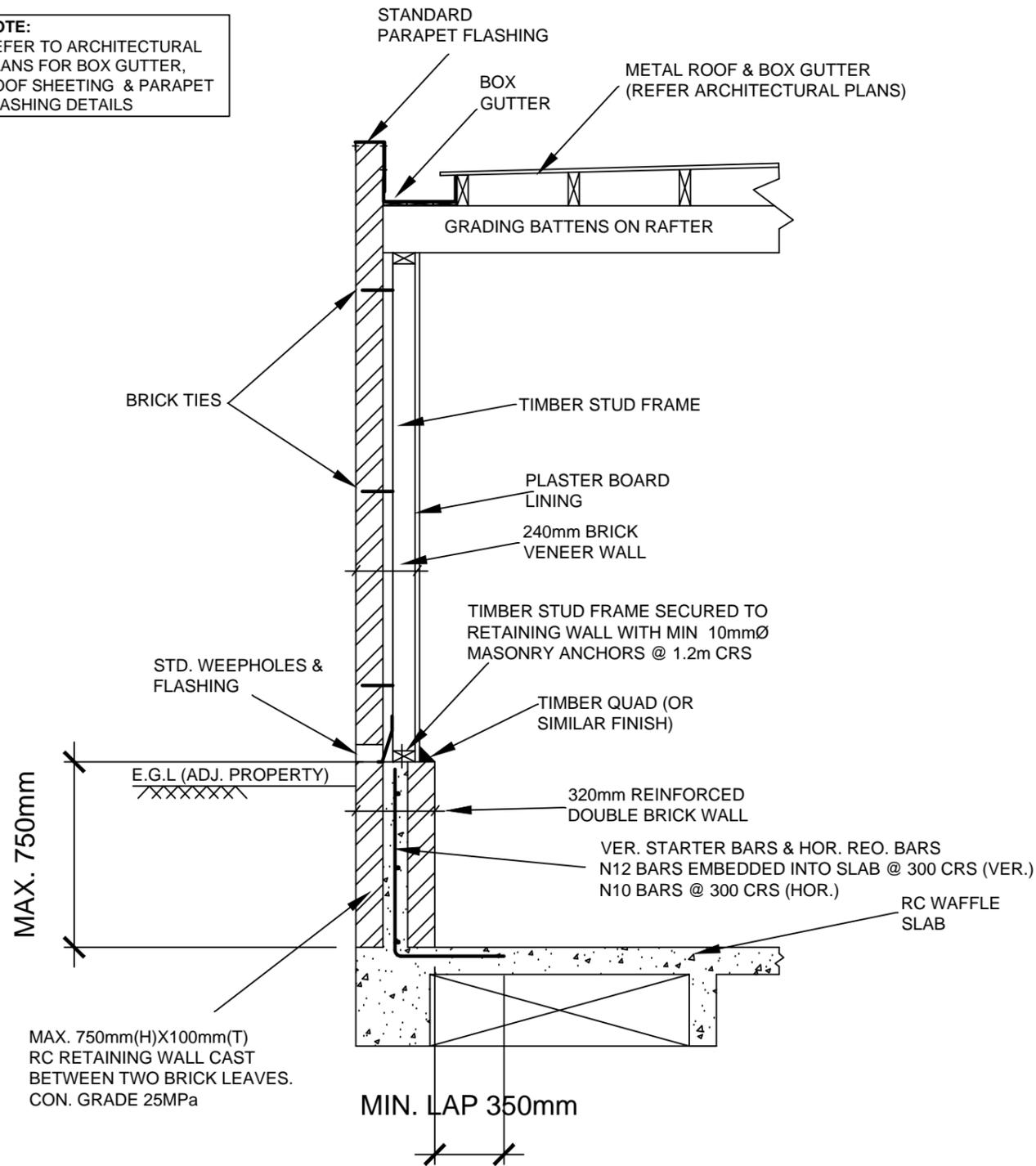
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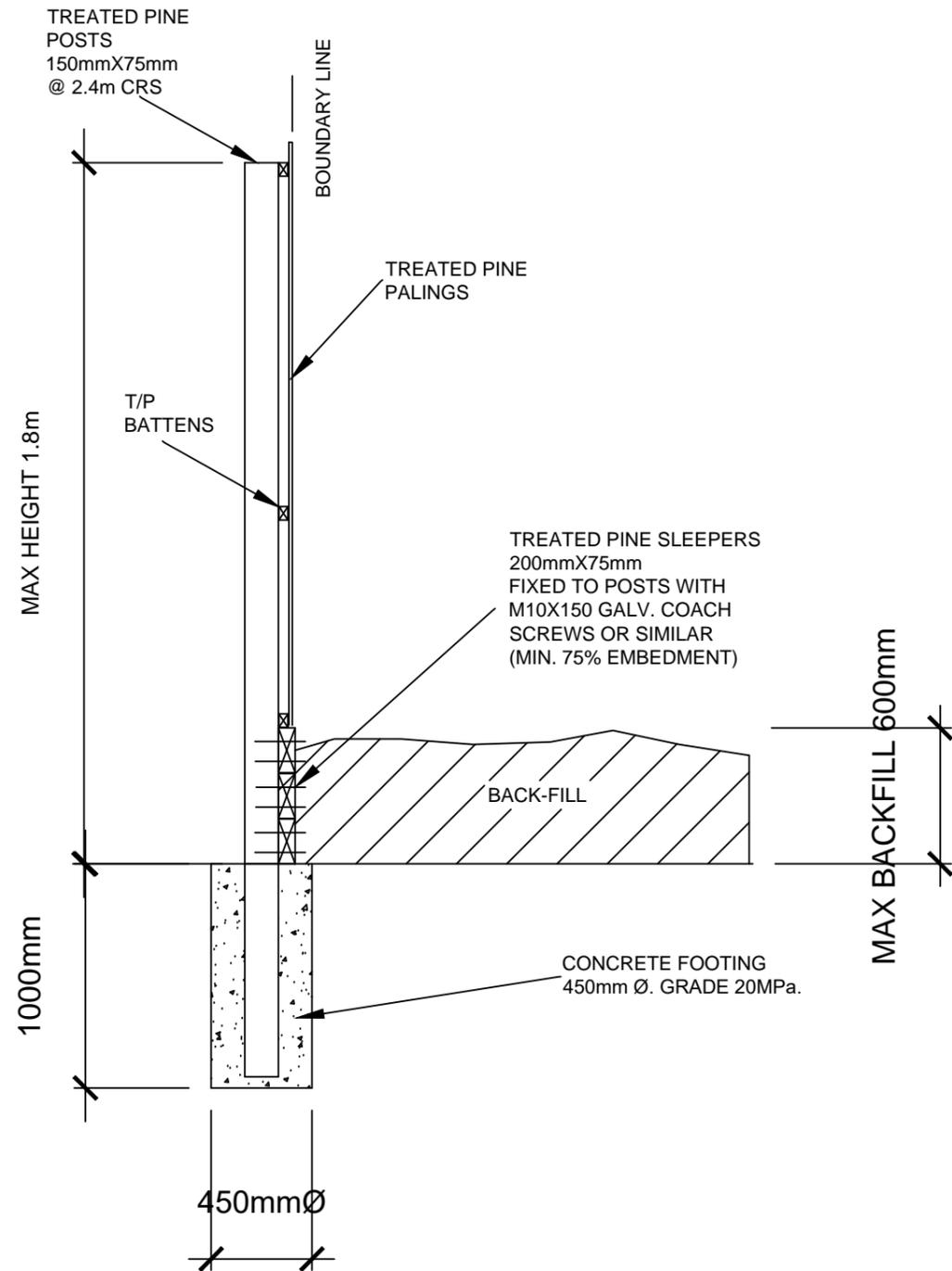
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BOUNDARY RW (SHT. 9/32) - UNIT 8 & PALING FENCE - NTS

NOTE:
REFER TO ARCHITECTURAL
PLANS FOR BOX GUTTER,
ROOF SHEETING & PARAPET
FLASHING DETAILS



DETAIL SECTION OF BOUNDARY RETAINING WALL - UNIT 8 - NTS



DETAIL SECTION OF SLEEPER RETAINING WALL & PALING FENCE ON BOUNDARY

CLIENT:
PROFILE HOMES
SAM TOBOLOV

JOB NO: PROFILE/DEV/2017/1

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