STRUCterre consulting engineers

G & A. LORD

PROPOSED DWELLING

4 FLORIDA AVE
BEAUMARIS, VIC

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Akritidis Group Building Consultants
"Approved Plans and Documentation"

AKRITIDIS GROUP BUILDING CONSULTANTS

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4 FLORIDA AVE
BEAUMARIS, VIC

TITLE: COVER SHEET

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GENERAL NOTES:

G.1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT/ENGINEER FOR DECISION BEFORE PROCEEDING WITH THE WORK.

G.2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS.

G.3. DO NOT SCALE FROM THESE DRAWINGSANY DIMENSIONS SHOWN ARE IN MILLIMETRES

G.4. ALL DIMENSIONS MUST BE VERIFIED ON SITE AND ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK

G.5. SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE BUILDER.

G.6. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.

G.7. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITIONS OF THE AS CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING STATE AUTHORITY. NO MATERIAL CAN BE SUBSTITUTED WITH ANY NON AUSTRALIAN STANDARD COMPLYING MATERIAL.

G.8. THIS REPORT IS BASED ON INFORMATION SUPPLIED BY THE CLIENT. IF ANY ASPECT OF THE SITE PREPARATION OR PROPOSED CONSTRUCTION CHANGES FROM THAT ORIGINALLY ADVISED, THE ENGINEER MUST BE NOTIFIED SO THAT ANY NECESSARY AMENDMENTS CAN BE MADE.

G.9. DEVELOPMENT APPLICATION DECISION NOTICE - FOR WORK REQUIRING BUILDING APPROVAL, THE DEVELOPMENT APPLICATION DECISION NOTICE, ISSUED BY THE COUNCIL OR BUILDING CERTIFIER MUST BE FORWARDED TO US PRIOR TO ARRANGING ANY INSPECTIONS WITH THIS OFFICE.

G.10. THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH ENGINEERING SPECIFICATIONS WHAICH SHALL TAKE PRECEDENCE

G.11. ALL RELEVANT TRADES TO HAVE ACCESS TO ENGINEERING COMPUTATIONS

G.12. IT IS THE BUILDERS RESPONSIBILITY TO READ AND UNDERSTAND ALL NOTES PRIOR TO CONSTRUCTION

G.13. SUBSTITUTION OF ANY PART OF THE DRAWINGS RELEVANT TO THIS DESIGN ARE NOT PERMITTED WITHOUT APPROVAL OF STRUCTERRE.

G.14. ALL REFERENCED STANDARDS TO BE THE CURRENT VERSION AT TIME OF CONSTRUCTION

G.15. (a) LOAD BEARING WALLS ARE TO BE SHOWN ON PLAN IN FULL LINES AND SHADED (b) WET AREAS SHOWN SHADED (c) WALLS ON SUSPENDED SLAB SHOWN DASHED

G.16. ALL WORK TO CONFORM WITH THE PROVISIONS OF THE BUILDING CODE OF AUSTRALIA

G.17. ALL DETAILS TO BE CHECKED AND SITE MEASURED, AS REQUIRED, PRIOR TO ORDERING. CHECK ANY DISCREPANCIES WITH THE ENGINEER

G.18. UNDER NO CIRCUMSTANCE IS ANYTHING (INCLUDING BASKETBALL HOOPS) TO BE FIXED TO THE WALL ABOVE LINTELS. OWNERS TO BE NOTIFIED IN WRITING.

SITE CLASSIFICATION NOTES:

C.1. THIS REPORT HAS BEEN BASED UPON INFORMATION PROVIDED TO OUR OFFICE AND/OR GATHERED BY OUR STAFF.

C.2. THIS REPORT HAS BEEN PREPARED IN ACCORDANCE WITH AS 2870 AND RELEVANT STATE LEGISLATION.

C.3. SHOULD SOIL CONDITIONS ENCOUNTERED ON SITE DIFFER SIGNIFICANTLY FROM THOSE INDICATED IN THE SOIL TEST NOTED ABOVE, THE ENGINEER MUST BE NOTIFIED BEFORE PROCEEDING AS THE SITE CLASSIFICATION MAY NEED REVISING AND MODIFICATIONS TO THE DESIGN MAY BE REQUIRED.

C.4. THE SITE INVESTIGATION MAY BE RENDERED IRRELEVANT IF THE LOCATION OF PROPOSED STRUCTURES VARY FROM THAT SPECIFIED AT THE TIME OF THIS REPORT. THIS REPORT RELATES TO THE CONDITIONS EXISTING ON THE LAND AT THE TIME OF THE SITE INVESTIGATION. THIS REPORT IS BASED UPON THE PROPOSED CUT / FILL INFORMATION PROVIDED BY THE CLIENT. ANY UNADVISED EXTENSIVE CUTTING OR FILLING MAY RENDER THIS REPORT IRRELEVANT.

C.5. WHILE A REASONABLE EFFORT IS MADE TO ASSESS THE SITE'S SUITABILITY FOR THE PROPOSED CONSTRUCTION, THIS REPORT DOES NOT TAKE INTO ACCOUNT SLOPE STABILITY. IF REQUIRED BY THE COUNCIL, A SUITABLY QUALIFIED PERSON SHOULD BE ENGAGED TO UNDERTAKE A SLOPE STABILITY ASSESSMENT.

C.6. ALLOW BEARING CAPACITY PER ENGINEERS REPORT

C.7. ALL FOUNDATIONS MUST BE INSPECTED AND APPROVED BY THE RELEVANT BUILDING AUTHORITY PRIOR TO CONCRETE POUR

SITE CLASSIFIACTION CONT:

C8. TOPSOIL CONTAINING GRASS ROOTS & ROOTS SHALL BE REMOVED FROM THE AREA ON WHICH THE SLAB IS TO BE PLACED

C9. MOISTURE BARRIER - THE SLAB SHALL BE PROVIDED WITH A 200 MICRON THICK VAPOUR BARRIER WITH ALL LAPS & PENETRATIONS TAPED & SEALED

C10. ON LEVEL SITES THE MINIMUM HEIGHT OF THE SLAB ABOVE FINISHED GROUND LEVEL SHALL BE 150mm. THIS MAY BE REDUCED TO 50mm FOR PAVED AREAS DRAINING AWAY FROM THE BUILDING

C11. CONCRETE - CONCRETE SHALL BE NOT LESS THAN 20MPa GRADE AT 28 DAYS WITH 20mm NOMINAL SIZE AGGREGATE & 80mm SLUMP

C12. REINFORCEMENT - DESIGN COVER TO UNPROTECTED GROUND SHALL BE 40mm, 40mm TO EXTERNAL EXPOSURE & 30mm TO THE MEMBRANE IN CONTACT WITH THE GROUND. TRENCH MESH IN BEAMS SHALL BE OVERLAPPED THE WIDTH OF THE FABRIC AT "T & L" INTERSECTIONS. TRENCH MESH SHALL BE SPLICED WHERE NECESSARY BY A LAP OF 500mm.
ALL FABRIC TO BE SUPPORTED ON BAR CHAIRS @ 1200mm MAX SPACING.

C13. TRENCHES SHALL BE DE-WATERED & CLEANED PRIOR TO CONCRETE PLACEMENT.

C14. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENT OF AS2870 RESIDENTIAL & FOOTINGS CODE & AS3600 CONCRETE STRUCTURES CODE

C15. LEVELING FILLING - UP TO 600mm OF SANDY OR GRANULAR LEVELING FILLING MAY BE PLACED UNDER THE SLAB PANEL PROVIDED THIS IS PLACED IN ROUGHLY EQUAL LAYERS NOT MORE THAN 150mm IN DEPTH.
LAYERS SHALL BE COMPACTED BY A VIBRATING PLATE COMPACTOR OR ROLLER OF SUITABLE WEIGHT & GIVEN SUITABLE NUMBER OF PASSES.

C16. THE SLAB MAY REQUIRE LOCAL THICKENING AND ADDITIONAL REINFORCEMENT FOR REBATES, FOR SHOWERS OR RECESSES.

C17. SLABS SHOULD BE GRADED TOWARDS DRAINAGE OUTLETS OR EXTERNAL DOORS

C18. THE BASE OF A STRIP FOOTING SHALL BE HORIZONTAL OR A SLOPE OF NOT MORE THAN 1 IN 10.

C19. CHIMNEY - FOUNDATIONS SHOULD ALLOW FOR AN INCREASE IN WIDTH TO THE CHIMNEY DIMENSIONS PLUS THE ADDITION OF AN EXTRA LAYER OF MESH TOP & BOTTOM MESH SHOULD EXTEND AT LEAST 500mm PAST THE EDGE OF THE CHIMNEY

C20. FOOTINGS MAY REQUIRE LOCAL DEEPENING TO REACH THE FOUNDING MATERIAL LEAN MIX CONCRETE MAY BE USED TO FILL BEAM EXCAVATIONS UP TO THE MINIMUM BEAM DEPTH. IF BEAMS ARE POURED INSITU WITH THE INCREASED DEPTH, THE BEAM STEEL WILL REQUIRE DOUBLING THE AMOUNT.

C21. LOAD BEARING EDGE & STIFFENING BEAMS ARE TO BE SUPPORTED ON NATURAL SOIL OR CONSOLIDATED GRANULAR FILL WITH AN ALLOWABLE BEARING CAPACITY OF NOT LESS THAN 90Kpa,SLAB PANELS SHOULD BE SUPPORTED ON SOILS WITH AN ALLOWABLE BEARING CAPACITY OF 50Kpa.
THESE CONDITIONS APPLY UNLESS THE SLAB IS DESIGNED OTHERWISE.

C22. NOTE IF FILL IS ENCOUNTERED UNDER NEW EDGE BEAMS, BEAMS WILL NEED TO BE LOCALLY DEEPENED. FOR BEAMS GREATER THAN 500mm DEEP, ADD AN ADDITIONAL LAYER OF REINFORCEMENT

C23. TERMITE PROTECTION TO SLAB, SLAB PENETRATIONS & PERIMETER AFTER LANDSCAPING TO MANUF SPECS.

C24. ENSURE THAT THERE IS NOT A LIP OF MORE THAN 5mm AT THE MAIN ENTRY POINT TO THE RAMP(S) & FROM THE RAMP TO THE DOORS. RAMP GRADE MAX 1:40

C25. ALL REINFORCEMENT STEEL TO COME FROM A SUPPLIER CERTIFIED BY AUSTRALIAN CERTIFICATION AUTHORITY FOR REINFORCING BARS

BCA COMPLIANT STRUCTURAL MATERIALS:

THE DESIGN ASSUMES THAT ALL STRUCTURAL MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT INCLUDING BUT NOT LIMITED TO STEEL (STRUCTURAL AND REINFORCING) CONCRETE, MASONRY (INCLUDING BRICKS/BLOCKS AND THE ASSOCIATED MORTAR) AND TIMBER COMPLY IN ALL RESPECTS TO THE BUILDING CODE OF AUSTRALIA. THIS GENERALLY MEANS THAT THEY MUST COMPLY WITH THE REQUIREMENTS OF THE APPROPRIATE AUSTRALIAN STANDARDS FOR THAT MATERIAL.

IF THE BUILDER PROPOSES TO USE ANY STRUCTURAL MATERIALS THAT ARE SOURCED FROM OUTSIDE AUSTRALIA, IT WILL BE THE BUILDERS ABSOLUTE RESPONSIBILITY TO VERIFY THAT THEY COMPLY WITH THE BUILDING CODE OF AUSTRALIA. STRUCTERRE MUST BE INFORMED OF ANY STRUCTURAL MATERIALS PROOSED TO BE SOURCED FROM OUTSIDE AUSTRALIA AND ALL SUPPORTING DOCUMENTATION REGARDING THEIR COMPLIANCE WITH THE BCA AND / OR THE RELEVANT AUSTRALIAN STANDARDS MUST BE SUPPLIED TO STRUCTERRE FOR ASSESSMENT.

THE BUILDER MUST UNDERSTAND THAT THERE MAY BE SIGNIFICANT STRENGTH AND STIFFNESS DEFICIENCIES (COMPARED WITH THOSE ASSUMED IN DESIGN) IN OUTSIDE MATERIALS SOURCED FROM OUTSIDE AUSTRALIA AND THAT THESE COULD SEVERELY IMPACT ON THE SAFETY AND SERVICEABILITY OF THE STRUCTURE

STRUCTERRE RESERVES THE RIGHT TO CHARGE A FEE TO MAKE THE APPROPRIATE ASSESSMENT AND TO ALTER OUR DESIGN SHOULD THIS BE NECCESSARY CONSEQUENCE

DRAINAGE NOTES:

D.1. ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS2870.

D.2. DRAINAGE SHALL BE CONSTRUCTED TO AVOID WATER PONDING AGAINST OR NEAR THE FOOTING. THE GROUND IN THE IMMEDIATE VICINITY OF THE PERIMETER FOOTING, INCLUDING THE GROUND UPHILL FROM THE SLAB ON CUT-AND-FILL SITES, SHALL BE GRADED TO FALL 50mm MINIMUM AWAY FROM THE FOOTING OVER A DISTANCE OF 1.0m. SURFACE OR SUBSURFACE DRAINS SHALL BE USED TO CHANNEL WATER AWAY AND CONNECT TO STORMWATER SYSTEM. ANY PAVING SHALL ALSO BE SUITABLY SLOPED.

D.3. PLUMBING TRENCHES SHALL BE SLOPED AWAY FROM THE HOUSE AND SHALL BE BACKFILLED WITH CLAY IN THE TOP 300mm WITHIN 1.5m OF THE HOUSE. THE CLAY USED FOR BACKFILLING SHALL BE COMPACTED. WHERE PIPES PASS UNDER THE FOOTING SYSTEM, THE TRENCH SHALL BE BACKFILLED WITH CLAY OR CONCRETE TO RESTRICT THE INGRESS OF WATER BENEATH THE FOOTING SYSTEM.

D.4. EXCAVATIONS NEAR THE EDGE OF THE FOOTING SYSTEM SHALL BE BACKFILLED IN SUCH A WAY AS TO PREVENT ACCESS OF WATER TO THE FOUNDATION. FOR EXAMPLE, EXCAVATIONS SHOULD BE BACKFILLED ABOVE OR ADJACENT THE FOOTING WITH MOIST CLAY, COMPACTED BY HAND-RODDING/TAMPING. POROUS MATERIAL SUCH AS SAND, GRAVEL OR BUILDING RUBBLE SHOULD NOT BE USED.

D.5. WATER RUN-OFF SHALL BE COLLECTED AND CHANNELED AWAY FROM THE HOUSE DURING CONSTRUCTION.

D.6. PENETRATIONS OF THE EDGE BEAMS AND FOOTING BEAMS ARE TO BE AVOIDED, BUT WHERE NECESSARY SHALL BE SLEEVED TO ALLOW FOR MOVEMENT.

D.7. CONNECTION OF STORMWATER DRAINS AND WASTE DRAINS SHALL INCLUDE FLEXIBLE CONNECTIONS.

D.8. ADDITIONAL PLUMBING REQUIREMENTS ARE NEEDED FOR MODERATELY, HEAVILY & EXTREMELY REACTIVE SITES IN ACCORDANCE WITH CLAUSE 6.6 (F) FROM AS 2870.

D.9. PLUMBING & DRAINAGE UNDER THE SLAB SHOULD BE AVOIDED WHERE PRACTICAL (REFER AS/NZS 3500 CLAUSE 4.10)

D.10. ALL PIPEWORK INCLUDING STORMWATER FITTINGS & ADAPTERS SHOULD BE PROTECTED FROM MECHANICAL DAMAGE.

D.11. BUILDER TO ENSURE THAT THE CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD ORDER AT ALL TIMES

D.12. PROVISIONS SHOULD BE MADE FOR THE CONNECTION OF OVERFLOW OR WATER DISCHARGE FROM FIXTURES SUCH AS HOT WATER SYSTEMS & AIR CONDITIONERS TO A DRAIN AS REQUIRED BY THE RELEVANT LOCAL AUTHORITY.

DESIGN CRITERIA:

D.1. LOADS INCLUDED IN THE DESIGN OF THE STRUCTURE ARE DEFINED AS 1170 PART 1:- DEAD AND LIVE LOADS AS1170 PART 2: WIND LOADS AS1170 PART 4: - EARTHQUAKE LOADS AND LISTED BELOW

D.2. LIVE LOADS

D

LOCATION		LIVE LOADS (kN/M2)
GROUND FLOOR		1.5
RESIDENTIAL GARAGE		2.5
SUSPENDED FLOOR	PUBLIC AREAS	2.0
	DOMESTIC AREAS	1.5
	STAIRS /LANDINGS	2.0
	BALCONIES	2.0
NON TRAFFICABLE AREAS		0.25

D.3. WIND LOADS Ms = 1 Mt = 1 WIND REGION A TERRAIN CATEGORY 1.5 Vultimate = 45 m/s, Vservice = 37 m/s

D.4. APARTMENT TOWER EARTHQUAKE LOADING: IMPORTANCE LEVEL 1 Z = 0.8 (Melbourne) EDCII IN ACCORDANCE WITH AS1170.4 - EARTHQUAKE ACTIONS IN AUSTRALIA

PROPERTY MAINTENANCE NOTES:

P.1. THIS DESIGN IS BASED UPON THE NORMAL FOOTING PERFORMANCE CRITERIA PROVIDED IN TABLE 2.2 OF AS8270-2011 WITH DAMAGE CATEGORIES DETAILED IN APPENDIX C. IF THESE PERFORMANCE CRITERIA IS UNSUITABLE FOR THIS DWELLING PLEASE CONSULT THIS OFFICE FOR ADDITIONAL ENGINEERING ADVISE AND DESIGN SERVICES.

P.2. THE OWNER'S ATTENTION IS DRAWN TO APPENDIX B 'PERFORMANCE CRITERIA AND FOUNDATION MAINTENANCE' AND APPENDIX C 'CLASSIFICATION OF DAMAGE DUE TO FOUNDATION MOVEMENTS' OF AS 2870-2011.

P.3. WE ALSO DIRECT THE OWNER TO THE CSIRO PUBLICATION BTF 18 'FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE: A HOMEOWNER'S GUIDE'. COPIES OF THIS PUBLICATION ARE AVAILABLE FROM CSIRO PUBLISHING ON PH: 1300-788-000 OR AT http://www.publish.csiro.au/nid/18/pid/3612.htm. THIS REPORT MAY BE RENDERED INVALID IF THE PROPERTY IS NOT MAINTAINED AS RECOMMENDED IN THIS PUBLICATION.

P.4. THE LONG TERM PERFORMANCE OF DWELLING FOOTINGS IS DEPENDANT ON FACTORS SUCH AS SITE DRAINAGE, VEGETATION AND WATERING OF AREAS ADJACENT TO THE DWELLING.

P.5. WATERING OF LAWNS AND GARDENS SHOULD BE CONSISTENT. OVER WATERING CAN DAMAGE FOOTINGS. EQUALLY FOOTINGS MAY BE DAMAGED BY PROLONGED PERIODS OF NEGLECT AFTER YEARS OF CAREFUL WATERING. LEAKING TAPS AND PIPES AND BLOCKED DRAINS SHOULD BE REPAIRED PROMPTLY. PROLONGED NEGLECT CAN LEAD TO DAMAGED FOOTINGS.

P.6. THE RECOMMENDED DISTANCE THAT A NEW TREE SHOULD BE LOCATED FROM A DWELLING WOULD BE EQUAL TO OR GREATER THAN 75% OF THE MATURE HEIGHT FOR CLASS M SITES. 100% OF THE MATURE HEIGHT FIR H1 & H2 SITES. 150% OF THE MATURE HEIGHT FOR CLASS E SITES UNLESS STATED OTHER WISE IN THE SOIL REPORT

ARTICULATED MASONRY NOTES:

A.1. THIS DESIGN ASSUMES THAT MASONRY ARTICULATION JOINTS WILL BE INSTALLED UNLESS NOTED OTHERWISE ON FOOTING & SLAB PLAN. ANY MASONRY ARTICULATION JOINTS SHALL BE POSITIONED IN ACCORDANCE WITH TECHNICAL NOTE 61 PRODUCED BY CEMENT CONCRETE & AGGREGATES AUSTRALIA AND AS 3700 SECTION 12.16.4. REFER TO TABLE BELOW FOR MAXIMUM SPACING AND MASONRY ARTICULATION PLAN (IF PROVIDED) FOR SPECIFIC LOCATIONS AND DETAILS FOR RENOVATIONS OR EXTENSIONS TO EXISTING STRUCTURES.

A.2. MASONRY ARTICULATION JOINTS SHALL BE POSITIONED WHERE EVER NEW BRICKWORK MEETS OLD BRICKWORK.

A.3. WHERE MASONRY ARTICULATION IS SHOWN BESIDE OPENINGS WITH BRICKWORK ABOVE THE OPENING, CARE SHOULD BE TAKEN TO PROVIDE A SLIP JOINT AROUND THE END OF THE LINTEL.

A.4. WHERE MASONRY ARTICULATION IS SHOWN BESIDE OPENINGS, THE JOINT IS TO CONTINUE BETWEEN THE WINDOW/DOOR FRAME AND THE BRICKWORK TO THE FULL HEIGHT OF THE WALL. AT THESE LOCATIONS, THE FRAMES ARE TO BE FIXED WITH FASTENERS THAT WILL ALLOW MOVEMENT OF THE JOINT.

FOUNDATIONS AND FOOTINGS:

F.1. REMOVE ALL TOP SOIL, VEGETATION AND DELETERIOUS FILL MATERIAL FROM THE BUILDING AREA

F.2. DRAIN ROOF AND SURFACE WATER AWAY FROM FOOTINGS.

F.3. ALL FILLING TO BE COMPACTED IN WELL WATERED 300mm LAYERS USING CLEAN WELL GRADED SAND TO PROVIDE STANDARD PENETROMETER READINGS OF 7 BLOWS PER 300mm. COMPACT BOTTOMS OF ALL FOOTING TRENCHES WHERE NATURAL SAND PROVIDES PENETROMETER READINGS LESS THAN 6 BLOWS PER 300mm.

F.4. THE FOOTINGS ARE PERFORMANCE BASED DESIGN

F.5. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS WILL STILL ENABLE THE BARRIER TO MEET THE PERFORMANCE PROVISIONS OF THE BUILDING CODE OF AUSTRALIA

F.6. FOOTINGS SHALL BE PLACED CENTRALLY UNDER WALLS AND COLUMNS UNLESS OTHERWISE NOTED.

F.7. ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH AS 2870 & NATIONAL CONSTRUCTION CODE (N.C.C.)

F.8. THE FOOTING DETAILS SHOWN ARE FOR THE SITE CLASSIFICATION STIPULATED. WHILST EVERY CARE HAS BEEN TAKEN TO VERIFY THAT THE INFORMATION SHOWN IS CORRECT, STRUCTERRE CONSULTING ENGINEERS TAKE NO RESPONSIBILITY FOR VARIATIONS WHICH MAY OCCUR DUE TO VARIATIONS IN SITE CONDITIONS.

F.9. SITE CLASSIFICATION AS PER SOIL REPORT

F.10. EXCAVATIONS NEAR THE EDGE OF FOOTINGS ARE TO BE BACKFILLED AND COMPACTED IN SUCH A WAY AS TO PREVENT THE ACCESS OF WATER TO THE FOUNDATIONS

A.1. FILL USED IN THE CONSTRUCTION OF A SLAB EXCEPT WHERE THE SLAB IS SUSPENDED SHALL CONSIST OF A CONTROLLED FILL OR ROLLED FILL IN ACCORDANCE WITH AS 2870:

F.1.1. ROLLED FILL CONSISTS OF MATERIAL COMPACTED IN LAYERS BY REPEATED ROLLING WITH AN EXCAVATOR. ROLLED FILL SHALL NOT EXCEED 600mm COMPACTED IN LAYERS NOT MORE THAN 300mm FOR SAND MATERIAL OR 400mm COMPACTED IN LAYERS NOT MORE THAN 150mm FOR OTHER MATERIAL.

F.1.2. CONTROLLED FILL CONSISTS OF WELL GRADED SAND FILL UP TO 800mm DEEP, WELL COMPACTED IN NOT MORE THAN 300mm LAYERS BY VIBRATING PLATE OR VIBRATING ROLLER. NO SAND FILL UP TO 400mm DEEP, WELL COMPACTED IN NOT MORE THAN 150mm LAYERS BY A MECHANICAL ROLLER, CLAY FILL SHOULD BE MOIST DURING COMPACTION. THE DEPTHS OF FILL GIVEN ABOVE ARE DEPTHS MEASURED AFTER COMPACTION. FOR COMPACTED DEPTHS GREATER THAN THAT GIVEN ABOVE THE FILL SHALL BE SUBJECT TO CONTROL AND TESTING. IF TEST FAILS THEN PIERS ARE REQUIRED. CONTACT THIS OFFICE PRIOR TO FURTHER CONSTRUCTION.

F.2. TOP SOIL CONTAINING GRASS ROOTS OR OTHER ORGANIC MATERIAL SHALL BE REMOVED FROM THE AREA ON WHICH THE SLAB IS TO REST.

F.3. IF ANY FOOTING IS LOCATED SUCH THAT A LINE DRAWN AT 45 DEGREES (FOR CLAY AND 30 DEGREES FOR SAND) FROM ITS BASE INTERSECTS A PRIVATE SERVICE TRENCH, THEN PIERS ARE REQUIRED. SEE FOOTING & SLAB DETAILS FOR EXAMPLE.

F.4. FOOTING & SLAB PIERS ARE REQUIRED WHERE UNCONTROLLED FILL UNDER THE EDGE BEAM/SLAB IS PRESENT.

F.5. WHERE PIERS ARE USED TO SUPPORT A SLAB ON UNCONTROLLED FILL, PLUMBING AND DRAINAGE PIPES FOUNDED WITHIN SUCH FILL SHALL BE HUNG FROM THE SLAB MESH WITH NON-CORROSIVE STRAPS.

F.6. FOR SATISFACTORY RESULTS, CONCRETE MUST BE CURED FOR AT LEAST 7 DAYS. CURING MAY BE ACHIEVED BY KEEPING THE CONCRETE MOIST, BY APPLYING A CURING MEMBRANE, OR BY COVERING THE CONCRETE WITH A MOISTURE BARRIER. MANY BUILDERS FIND THAT THE MOST SATISFACTORY WAY TO CURE A SLAB IS TO COVER IT WITH SHEETS OF POLYETHYLENE AS SOON AS POSSIBLE AFTER FINISHING. IF A SLAB IS MOIST WHEN COVERED AND THE POLYETHYLENE IS HELD SECURELY ONTO THE CONCRETE, THIS SYSTEM PROVIDES SATISFACTORY CURING OF THE CONCRETE.

MISCELLANEOUS NOTES:

M.1. WHERE TERMITE PROTECTION IS REQUIRED, INSTALL IN ACCORDANCE WITH AS3660. BUILDER SHALL CONFIRM WITH OWNER THE PREFERRED METHOD OF TERMITE MANAGEMENT. OWNER IS RESPONSIBLE FOR ONGOING INSPECTION OF STRUCTURAL TIMBER ELEMENTS AND ENSURING THAT TERMITE MANAGEMENT SYSTEMS ARE NOT BREACHED.

M.2. LOADS FROM ROOF MEMBERS ARE TO BE LOCATED DIRECTLY ABOVE STUDS OR WITHIN 1.5 x DEPTH OF PLATE FROM STUD

M.3. PREFABRICATED TIMBER WALLS/STUDS TO BE DESIGNED BY OTHERS. REFER TO WALL/STUD MANUFACTURERS DOCUMENTATION.

M.4. PREFABRICATED STEEL ROOF TRUSSES TO BE DESIGNED BY OTHERS. REFER TO ROOF TRUSS MANUFACTURERS DOCUMENTATION.

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BS-U 1573
INSPECTION BOOKINGS: 95682992

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PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

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MASONRY

M1 ALL MASONRY SHALL COMPLY WITH AS 3700. MORTAR TO BE M3 EXCEPT PROJECTS LOCATED WITHIN 1km OF THE OCEAN MORTAR TO BE M4 CLASSIFICATION. CEMENTS OTHER THAN TYPE GP PORTLAND CEMENT & 100% WHITE PORTLAND CEMENT SHALL NOT BE USED.

M2 ALL WALLS SUPPORTING SUSPENDED SLAB TO HAVE A MINIMUM CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH FOR MASONRY UNIT OF 12MPa IN ACCORDANCE WITH AS3700.

M3 BUILDER TO ASSESS ALL HORIZONTAL CHASING TO ENSURE THAT STRUCTURE IS NOT JEOPARDIZED. CONTACT THE ENGINEER IF UNSURE.

M4 U.N.O. LINTELS FOR LOWER WALLS OF TWO STOREY SECTIONS TO BE:

OPENING	LINTEL	MIN END BEARING
UP TO 1200mm	100 x 75 x 8.0 UA	150mm
UP TO 1800mm	100 x 100 x 8.0 EA	200mm
UP TO 2800mm	150 x 90 x 8.0 UA	250mm
UP TO 3300mm	150 x 100 x 10.0 UA	250mm

U.N.O. LINTELS FOR UPPER STOREY WALLS TO BE:

	METAL ROOF			
	EFFECTIVE ROOF LOAD WIDTH			
	3600mm		6600mm	
OPENING	LINTEL	MIN END BEARING	LINTEL	MIN END BEARING
UP TO 1500mm	75 x 75 x 6.0 EA	100mm	75 x 75 x 6.0 EA	100mm
UP TO 1800mm	75 x 75 x 8.0 EA	100mm	90 x 90 x 6.0 EA	120mm
UP TO 2200mm	100 x 100 x 6.0 EA	250mm	125 x 75 x 6.0 UA	150mm
UP TO 2400mm	100 x 100 x 8.0 EA	250mm	125 x 75 x 8.0 UA	165mm
UP TO 2700mm	125 x 75 x 8.0 UA	200mm	125 x 75 x 10.0 UA	180mm
UP TO 3000mm	125 x 75 x 10.0 UA	250mm	150 x 90 x 8.0 UA	200mm
UP TO 3300mm	150 x 90 x 8.0 UA	250mm	150 x 100 x 10.0 UA	250mm

M5 LINTELS ARE DESIGNED TO SUPPORT UP TO 10c OF BRICKWORK & UP TO 3.6m OF A TILED ROOF OR 6.6m OF METAL ROOF CLADDING

M6 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.

M7 MASONRY WALLS DESIGNED TO COMPLY WITH AS3700 AND PROVISION P2.1 OF THE BCA

M8 ALL BRICKS ARE TO BE LAID ON A FULL BED OF MORTAR AND ALL PERPENDS ARE TO BE FULLY MORTARED.

M9 PROVIDE TWO LAYERS OF PGI OVER SLAB WALLS

M10 DO NOT SUPPORT ROOF STRUTTING BEAMS OR OTHER POINT LOADS OVER THE LINTEL

M11 ALL STEEL WORK TO BE MINIMUM GRADE 300 (MPa) IN ACCORDANCE WITH AS/NZ 3679.1

M12 MASONRY WALLS DESIGNED TO COMPLY WITH AS3700 AND PROVISION OF P2.1 OF THE NCC.

M13 WIRES IN BRICKWORK SHALL BE TREATED FOR CORROSION PROTECTION IN ACCORDANCE WITH TABLE 3.4.4.2 "PROTECTIVE COATINGS FOR STEELWORK" OF THE NCC.

M14 ENSURE A MINIMUM OF 3 BED JOINTS ARE PLACED OVER EACH OPENING U.N.O. 86mm HIGH BRICKS IF REQUIRED

M15 WALL TIES TO BE LOCATED @ MAX 4c CENTRES VERTICALLY AND 600 CENTRES HORIZONTALLY
- (a) LOCATE @ 2c CENTRES MAX AT SIDES OF ALL OPENINGS
- (b) LOCATE @ 2c CENTRES MAX AT CROSS WALLS TIED TO THE INTERNAL WALLS OR INTERNAL LEAF OF EXTERNAL WALLS
- (c) LOCATE @ 300 CENTRES HORIZONTALLY AT BED JOINTS TO BOTTOM AND TOP OF EXTERNAL LEAFS
- (d) LOCATE @ 300 CENTRES HORIZONTALLY AT BED JOINTS IMMEDIATELY ABOVE SLABS TO EXTERNAL LEAFS

CONSTRUCTION NOTES

J1 THE PRESENCE OF GROUND WATER WITH SURFACE SOIL MAY LEAD TO CONSTRUCTION DIFFICULTIES DURING WET WEATHER. ATTENTION TO SITE GRADING/DRAINAGE WILL BE REQUIRED FROM THE START OF CONSTRUCTION. THE SITE SHOULD BE GRADED OR DRAINED SO THAT WATER CANNOT POND AGAINST OR NEAR THE FOOTINGS. WATER RUN-OFF SHALL BE COLLECTED AND CHANNELED AWAY FROM THE HOUSE DURING CONSTRUCTION

4.0 CONCRETE AND FORMWORK

C1 ALL CONCRETE SHALL BE IN ACCORDANCE WITH THE CONCRETE STRUCTURES CODE AS 3600. BLENDED CEMENT (TYPE GB) SHALL CONFORM WITH AS 3972.

C2 REFER TO CONCRETE TABLE FOR COMPRESSIVE STRENGTH AND SLUMP VALUES.

C3 ALL GALVANIZED ITEMS WHICH ARE CAST INTO CONCRETE ARE TO BE PASSIVATED IN A 0.2% SODIUM DICHROMATE SOLUTION OR EQUIVALENT.

C4 UNLESS OTHERWISE SHOWN, CONSTRUCTION JOINTS IN CONCRETE SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER.

C5 PROVIDE TWO LAYERS OF PGI OVER SLAB LOADED WALLS EXCEPT RETAINING WALLS. BEAR ONTO CLEAN BRICKWORK FOR TOP OF RETAINING WALLS.

C6 ALL CONCRETE SHALL BE CURED CONTINUOUSLY BY APPROVED METHODS AFTER PLACING, FOR PERIODS SHOWN IN CONCRETE TABLE.

C7 ALL SUSPENDED FLOOR CONCRETE SHALL BE WELL COMPACTED BY MEANS OF IMMERSION TYPE VIBRATORS.

C8 ALL FORMWORK SHALL BE RIGIDLY CONSTRUCTED OF APPROVED MATERIAL FORMWORK AND SUPPORTS SHALL BE DESIGNED TO WITHSTAND ALL POSSIBLE LOAD COMBINATIONS DURING CONSTRUCTION.

C9 SUSPENDED CONCRETE WITH CONVENTIONAL FORMWORK:

(a) SLAB TO BE KEPT PROPPED FOR A MINIMUM 21 DAYS AFTER CONCRETE POUR. REFER TO "AT DE-PROP" NOTE BELOW.

(b) SLAB MAY BE STRIPPED 7 DAYS AFTER CONCRETE POUR. ENSURE ADEQUATE PROPS MAINTAINED DURING STRIPPING STAGE, TO ENSURE FULL SUPPORT FOR THE SLAB DURING CONSTRUCTION. DO NOT DEPROP AS A WHOLE WHEN STRIPPING.

(c) THE SLAB MAY BE LOADED WITH CONSTRUCTION MATERIALS WHILE PROPPED. THE MATERIALS SHOULD, WHERE POSSIBLE, BE PLACED OVER WALLS OR OTHER SUPPORTS BELOW.

(d) DO NOT BUILD MASONRY WALLS OVER THE SLAB UNTIL IT HAS BEEN COMPLETELY DE-PROPPED.

C10 POUR COLUMNS BEFORE BEAMS AND SLABS. POUR BEAMS AND SLABS MONOLITHICALLY.

C11 ALL PIPES/CONDUITS IN SUSPENDED SLABS ARE TO BE INSTALLED AS FOLLOWS:
(a) MAX BUNDLE SIZE TO BE Ø100mm.
(b) SPACING BETWEEN SINGLE OR BUNDLED CONDUITS/PIPES TO BE MIN 1.5 TIMES THE LARGER BUNDLE DIAMETER.

C12 THIS DESIGN IS NOT SUITABLE FOR A POLISHED (OR HONED) CONCRETE FINISH UNLESS SPECIFICALLY STATED ON THE FLOOR PLANS. SHOULD SUCH FINISHES BE REQUIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION.

CONCRETE TABLE

LOCATION	CONCRETE	AT DE-PROP	TYPE OF CEMENT	COVER TO REINF'	MIN CURING TIME
GROUND SLAB	N20/20/100	-	GB OR GP	30	3 DAYS
FOOTINGS	N20/20/100	-	GB OR GP	70	3 DAYS
FILL CONCRETE	N20/10/100	-	GB OR GP	N / A	3 DAYS
SUSPENDED SLAB INT.	N40/20/80 U.N.O.	40 MPa U.N.O.	GP ONLY	20 U.N.O.	7 DAYS
SUSPENDED SLAB EXT.	N40/20/80	40 MPa	GP ONLY	30 U.N.O.	7 DAYS
BEAMS INTERNAL	N40/20/80	40 MPa	GP ONLY	20 U.N.O.	7 DAYS
BEAMS EXTERNAL	N40/20/80	40 MPa	GP ONLY	30 U.N.O.	7 DAYS

AT DE-PROP (PRIOR TO 28 DAYS): REFERS TO MINIMUM CONCRETE COMPRESSIVE STRENGTH REQUIREMENT BEFORE THE REMOVAL OF ALL PROPS AND/OR APPLICATION OF LOADS.
CONCRETE COMPRESSIVE STRENGTH MUST BE CONFIRMED BY TESTING IN STRICT ACCORDANCE WITH AS1012.9 PRIOR TO DE-PROP.

STEEL

S1 (a) ALL FABRICATION, TOLERANCES AND ERECTION OF STEELWORK TO BE IN ACCORDANCE WITH AS4100 - STEEL STRUCTURES CODE. MINIMUM WELD TO BE 6mm FILLET
(b) ALL HOLLOW SECTIONS (CHS, RHS, SHS) SHALL COMPLY WITH AS 1163 - STRUCTURAL STEEL HOLLOW SECTIONS
(c) ALL COLD FORMED SECTIONS OTHER THAN THOSE COMPLYING TO AS 1163, TO BE MANUFACTURED FROM CONTINUOUS GALVANISED SHEET STEEL (GSS) CONFORMING TO AS 1397

S2 (a) ALL WELDING SHALL BE MINIMUM WELD CATEGORY SP (STRUCTURAL PURPOSE) IN ACCORDANCE WITH AS1554 - PT 1 - WELDING OF STEEL STRUCTURES.
(b) WHERE BOTH PLATES TO BE WELDED ARE GREATER THAN 2.5mm THICK, THE MINIMUM WELD IS TO BE 6mm FILLET.
(c) WHERE EITHER OF THE PLATES TO BE WELDED ARE LESS THAN 2.5mm THICK, WELDING SHALL BE BY THE METAL INERT GAS TECHNIQUE (MIG) CONFORMING TO AS 1554

S3 ALL COLUMN BASE PLATES SHALL BE SET ON 20mm MIN OF 1:2 CEMENT AND SAND GROUT

S4 ALL STEELWORK (INCLUDING FASTENERS) TO BE TREATED IN ACCORDANCE WITH CLAUSE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.

S5 SPLAY STEEL BEAMS (WHERE REQUIRED) TO SUIT ROOF PITCH. MIN END HEIGHT TO BE 60mm.

S6 ALL BOLTS SHALL BE IN ACCORDANCE WITH AS 1252 AND BE CADMIUM PLATED OR GALVANISED, U.N.O.

S7 PROVIDE HOLES OR FIXING CLEATS FOR OTHER TRADES AS DIRECTED IN THE SPECIFICATION OR SHOWN ON THE ARCHITECTURAL DRAWINGS

S8 STEEL TO STEEL CONNECTION TO BE VIA 10 PL CLEAT FULLY WELDED TO WEB OF CONTINUOUS STEEL BEAM FIX INTERSECTING STEEL BEAM TO CLEAT VIA 2-M16 BOLTS

S9 U.N.O. ALTERNATIVELY, STEEL BEAM MAY BE FULLY WELDED U.N.O.

S10 STEEL TO TIMBER CONNECTION TO BE VIA 10PL END PLATE FULLY WELDED TO END OF STEEL BEAM. FIX END PLATE TO TIMBER BEAM VIA 4M16 BOLTS U.N.O. (MAXIMUM SIZE OF STEEL BEAM TO BE 180UB16).

S11 SEAL ALL OPEN ENDS OF PIPES OR RHS MEMBERS. GRIND OFF ALL VISIBLE WELDS AND BRAND MARKS TO A NEAT APPEARANCE WHEER SPECIFIED

S12 (a) THE CONTRACTOR SHALL REMAIN RESPONSIBLE AT ALL TIMES FOR PROVIDING ALL NECESSARY TEMPORARY BRACING AND OTHER SUPPORTS DURING ERECTION, TO STABILISE THE PARTIALLY CONSTRUCTED BUILDING
(b) PARTICULAR ATTENTION MUST BE PAID TO THE BUCKLING STABILITY OF BEAMS AND COLUMNS PRIOR TO THE CONNECTION OF PURLINS, GIRTS, FLYBRACES AND OTHER BRACING ELEMENTS
(c) IT IS THE RESPONSIBILITY OF THE BUILDER TO OBTAIN PROPER TECHNICAL ADVICE WHEREVER NECESSARY TO ENSURE THE PARTIALLY COMPLETED STRUCTURE IS SAFE FROM COLLAPSE

S13 (a) MASONRY AND CONCRETE WILL GENERALLY NOT BE CONSIDERED AS A SUITABLE ALTERNATIVE TO CAST-IN FERRULES EXCEPT AS SPECIFICALLY NOTED ON THE DRAWINGS
(b) ALL MASONRY AND CONCRETE ANCHORS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS, THE BUILDER MUST ENSURE THE ANCHOR LENGTH IS ADEQUATE TO ENSURE CORRECT EMBEDMENT, BEARING IN MIND THE THICKNESS OF THE PART BEING FASTENED. ALL ANCHORS FOUND TO BE INSTALLED INCORRECTLY WILL BE REJECTED

S14 THE INSTALLATION OF STATIC SAFETY LINE POINTS (WHERE REQUIRED BY THE RELEVANT AUTHORITIES) SHALL BE THE BUILDERS RESPONSIBILITY

S15 ALL STEEL TREATMENT TO BE IN ACCORDANCE WITH TABLE 3.4.4.2 OF THE NCC (VOLUME 2) CURRENT VERSION AND AS 2312 AS A MINIMUM OR AS PER ARCHITECTS / BUILDERS FURTHER SPECIFICATION. ALL HOLDING DOWN BOLTS TO BE HOT DIP GALVANISED (600g/sqM) UNO. EPOXY COAT ALL STEELWORK BELOW GROUND LEVEL.

S16 ALL DISSIMILAR METAL CONTACT TO BE ELECTRICALLY ISOLATED BY USE OF NON-CONDUCTIVE LOAD BEARING SPACERS TO MANUFACTURERS SPECIFICATIONS

S17 ALL SITE WELDS TO BE MINIMUM 6mm CONTINUOUS FILLET WELDS uno. PROPERLY CLEANED AND PREPARED BEFORE WELDING. POWER TOOL CLEAN TO BE CLASS 2 FOLLOWING WELDING AND PAINT WITH 2 COATS OF ZINC RICH PAINT AND TOP COAT TO MATCH EXISTING

S18 BOLTS UNLESS UNO TO BE MIN GRADE 8.8/S

S19 ALL STEELWORK OTHER THAN THAT ENCASED BY CONCRETE AND MATING SURFACES OF FRICTION GRIP BOLT CONNECTIONS SHALL BE GIVEN ONE COAT OF APPROVED STEEL PRIMING PAINT

S20 CAMBER TO STRUCTURAL STEEL ROOLF BEAMS, TRUSSES, PORTALS ETC TO BE 3mm FOR EVERY METRE OF SPAN UNO

S21 ALL STEEL STRUCTURES & FRAMES ARE TO BE ADEQUATELY PROPPED & BRACED IN ALL DIRECTIONS BY THE BUILDER, DURING CONSTRUCTION UNTIL ALL PERMANENT WALL & ROOF BRACING IS IN PLACE

S22 STEEL MEMBERS TO BE GRADE 300+ (U.N.O)

S23 ALL EXTERNAL STEEL LINTELS TO BE COATED WITH A RUST INHIBITIVE ALKYD PRIMER OR EQUIVALENT

S24 ALL BRICK LINTELS TO BE PROPPED AT MID-SPAN UNTIL BRICKWORK OVER IS A MINIMUM OF 3 DAYS OLD

REINFORCING

R1 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;
- R INDICATES PLAIN REINFORCING BAR R250N TO AS/NZS 4671.
- L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
- RL INDICATES DEFORMED RECTANGULAR MESH D500RL TO AS/NZS 4671.
- SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- N INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
- S INDICATES DEFORMED BARS D250N TO AS/NZS 4671.

R2 REINFORCEMENT SHALL BE PLACED WITH ACCURATE COVER AS PER CONCRETE TABLE. ALL SUSPENDED FLOOR REINFORCEMENT SHOULD BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE COMMENCEMENT OF THE POUR.

R3 (a) MAIN REINFORCEMENT IN CONVENTIONALLY REINFORCED SLABS SHALL NOT BE SPLICED UNLESS OTHERWISE SHOWN ON THE DRAWING.
(b) DISTRIBUTION STEEL IN CONVENTIONALLY REINFORCED SLABS MAY BE SPLICED AS NECESSARY WITH A LAP OF 38 x
(c) MESH TO BE LAPPED AS SHOWN ON DRAWINGS.

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STEEL SURFACE TREATMENT

TABLE 1 LEVELS OF SURFACE TREATMENT

Distance From Source of Corrosion: Ocean OR Heavy industrial area	Structure site in: Protected Position *	Exposed Position
Over 3 km	Level 1	Level 1
1.5 - 3 km	Level 1	Level 2
0.75 - 1.5 km	Level 2	Level 3
Within 0.75 km	Level 3	Level 3
Salt-water bay		
Over 1.5 km	Level 1	Level 1
0.75 - 1.5 km	Level 1	Level 2
Within 0.75 km	Level 2	Level 2

* A protected position is one that is more than 0.5 km from the nearest location that is in line of sight of the source of corrosion Figure 1.

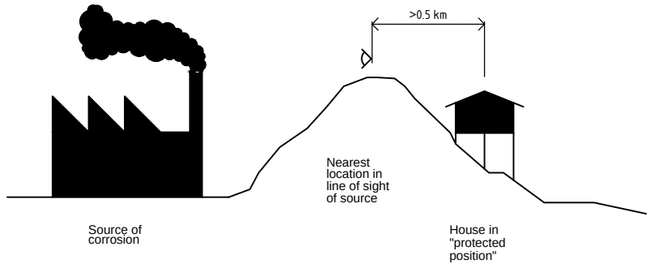

Figure 1

Definition of a 'protected position'

TABLE 2 SURFACE TREATMENT TYPE

Degree of Enclosure	Level of corrosion potential: Level 1	Level 2	Level 3
Enclosed	A	B	C
Unenclosed	B	C	D

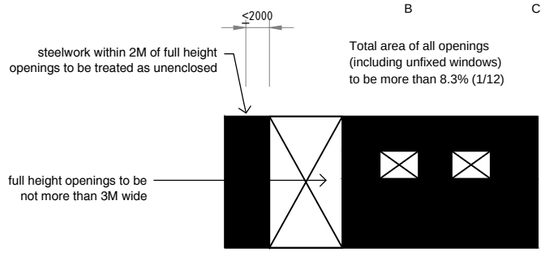

Figure 2

Maximum extent of openings in masonary walls for steelwork to be deemed to be 'enclosed'

TABLE 3 TREATMENT REQUIRED TO ACHIEVE REQUIRED SURFACE TREATMENT TYPE

Surface Treatment Type	Black Steel	Galvanised Steel
A	No protection required	No additional protection required
B	Remove loose scale by hand or power wire brushing Paint with one coat of a rust inhibitive alkyd primer or equivalent	No additional protection required
C	Prepare surface by power wire brushing or abrasive grit blasting. Apply one coat of a rust inhibitive alkyd primer, followed by one finish coat of all-weather gloss acrylic paint	No additional protection required
D	Prepare surface by abrasive grit blasting or pickling (class 2 1/2) followed by one of the following: + Apply one coat of an inorganic zinc silicate, followed by one coat of all-weather gloss acrylic with UV protector + Hot dip galvanising + Epoxy high corrosion-resistant system or equivalent	Apply primer coat followed by a finish coat, both of zinc dust or zinc oxide type. Both coats may either be brushed or sprayed. In the case of decking, the treatment should be applied to the underside before installation.

* Note: For lintels supporting masonary some building authorities may require a higher level of surface treatment

SURFACE TREATMENT - STEEL

P1 THOROUGHLY DEGREASE TO REMOVE ALL OIL, GREASE AND OTHER SURFACE CONTAMINANTS, REMOVE ALL RUST AND ANY LOOSE MATERIAL BY WIRE BRUSH OR MECHANICAL DEVICE

P2 APPLY PRIMER DIRECTLY TO SUITABLY PREPARED SURFACES. DO NOT APPLY OVER PREVIOUS COATINGS SYSTEMS (THESE MUST BE REMOVED) PRIOR

P3 PRIMER & FINISHED COATING TO BE APPLIED AS PER MANUF SPECS.

P4 ENSURE ALL SURFACE STEEL INCLUDING WELDS ARE ADEQUATELY COVERED WITH PRIMER AND FINISHED COATING

P5 ENSURE WORK AREA IS ADEQUATELY VENTILATED

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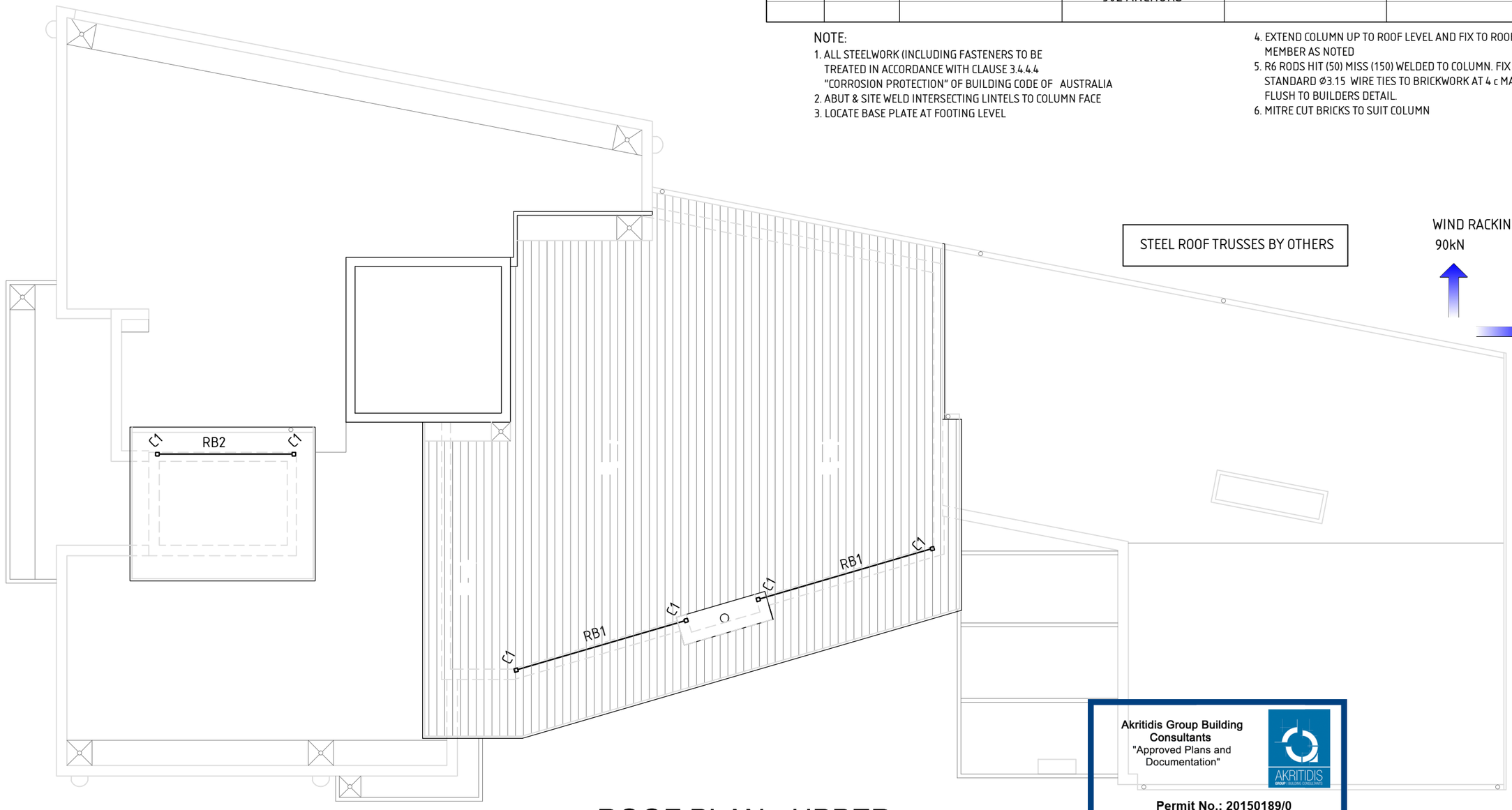
ROOF MEMBER SCHEDULE

MARK	COMMENT
RB1	300PFC
RB2	100PFC

COLUMN SCHEDULE

MARK	SIZE	BASEPLATE	BASEPLATE FIXING	CAP PLATE	CAP PLATE FIXING	NOTES
C1	89x5 SHS	200 SQ x 10 PL	4-M12 RAMSET CHEMSET 502 ANCHORS	3 PL SEAL + 10 PL CLEAT	2-M16 8.8/S BOLTS	1,3,4
C2	125x6 SHS	250 SQ x 10 PL	4-M12 RAMSET CHEMSET 502 ANCHORS	3 PL SEAL + 10 PL CLEAT	2-M12 BOLTS	1,2,3,4,5,6
C3	150x8 SHS	250 SQ x 10 PL	4-M12 RAMSET CHEMSET 502 ANCHORS	150 SQ 16 PL	2-M16 8.8/S BOLTS	1,3,4
C4	150x8 SHS	250 SQ x 10 PL	4-M12 RAMSET CHEMSET 502 ANCHORS	150 SQ 16 PL	2-M16 8.8/S BOLTS	1,3,4

NOTE:
1. ALL STEELWORK (INCLUDING FASTENERS TO BE TREATED IN ACCORDANCE WITH CLAUSE 3.4.4.4 "CORROSION PROTECTION" OF BUILDING CODE OF AUSTRALIA
2. ABUT & SITE WELD INTERSECTING LINTELS TO COLUMN FACE
3. LOCATE BASE PLATE AT FOOTING LEVEL
4. EXTEND COLUMN UP TO ROOF LEVEL AND FIX TO ROOF MEMBER AS NOTED
5. R6 RODS HIT (50) MISS (150) WELDED TO COLUMN. FIX STANDARD Ø3.15 WIRE TIES TO BRICKWORK AT 4 c MAX C/C. FLUSH TO BUILDERS DETAIL.
6. MITRE CUT BRICKS TO SUIT COLUMN



ROOF PLAN - UPPER

SCALE 1:100 (METAL ROOF)

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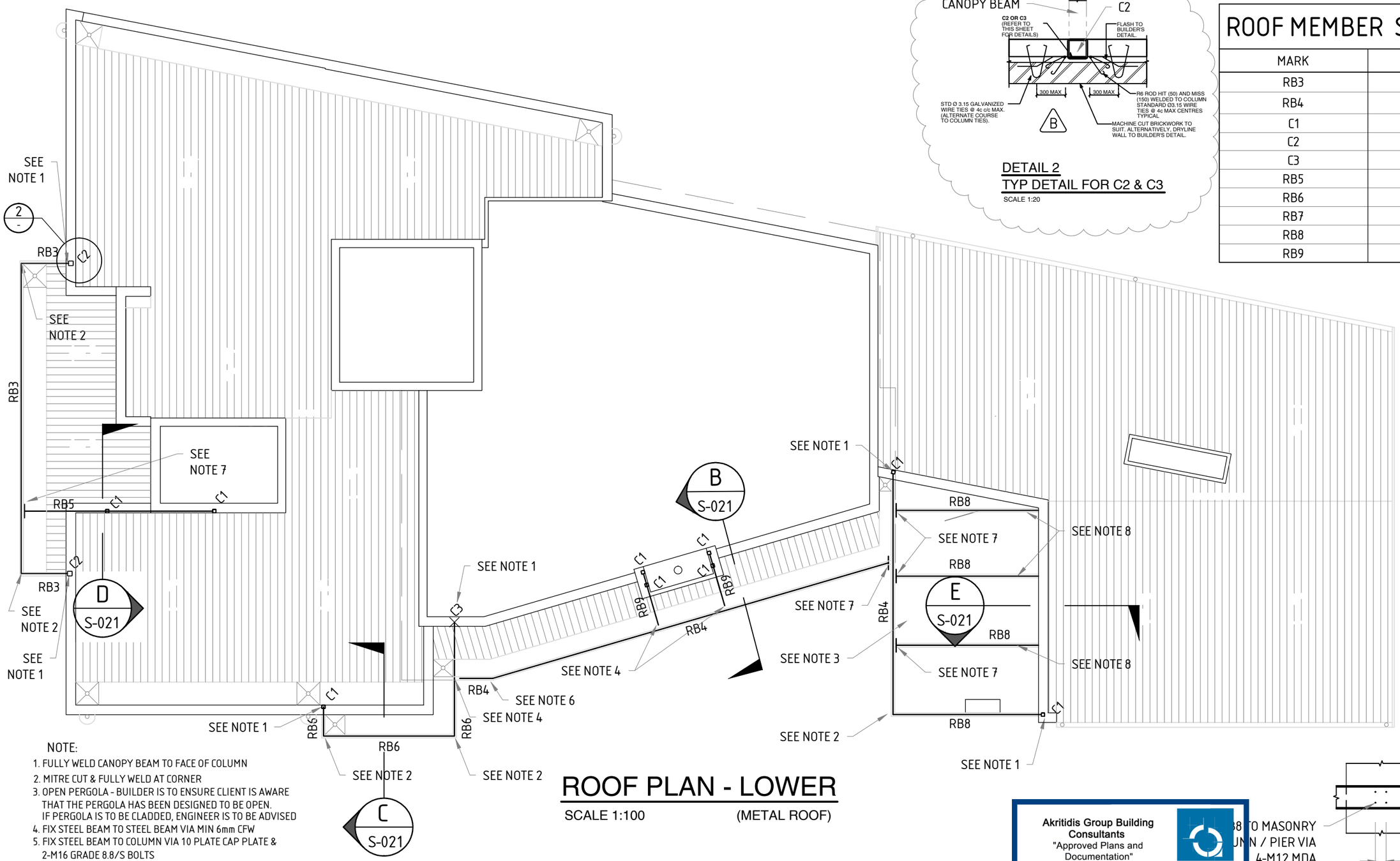


DETAIL 2
TYP DETAIL FOR C2 & C3
SCALE 1:20

ROOF MEMBER SCHEDULE

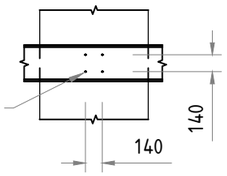
MARK	COMMENT
RB3	300PFC
RB4	300PFC
C1	89x5 SHS
C2	125x6 SHS
C3	150x8 SHS
RB5	200PFC
RB6	300PFC
RB7	300PFC
RB8	300PFC
RB9	300PFC

NOTE:
1. FULLY WELD CANOPY BEAM TO FACE OF COLUMN
2. MITRE CUT & FULLY WELD AT CORNER
3. OPEN PERGOLA - BUILDER IS TO ENSURE CLIENT IS AWARE THAT THE PERGOLA HAS BEEN DESIGNED TO BE OPEN. IF PERGOLA IS TO BE CLADDED, ENGINEER IS TO BE ADVISED
4. FIX STEEL BEAM TO STEEL BEAM VIA MIN 6mm CFW
5. FIX STEEL BEAM TO COLUMN VIA 10 PLATE CAP PLATE & 2-M16 GRADE 8.8/S BOLTS
6. FIX RB4 TO RB4 VIA CPBW
7. FIX STEEL BEAM TO STEEL BEAM VIA 10 PLATE ANGLE CLEAT & 3-M16 GRADE 8.8/S BOLTS EACH LEG
8. FIX RB8 TO L2 VIA 10 PLATE ANGLE CLEAT & 2-M12 GRADE 8.8/S BOLTS

STEEL ROOF TRUSSES BY OTHERS

ROOF PLAN - LOWER

SCALE 1:100 (METAL ROOF)



8 TO MASONRY
UMN / PIER VIA
4-M12 MDA

RB8 FIXING TO MASONRY WALL
SCALE 1:5

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4 FLORIDA AVE
BEAUMARIS, VIC

TITLE: ROOF PLAN – LOWER

STATUS: ISSUED FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-011
REV: B
SHEET SIZE: A1

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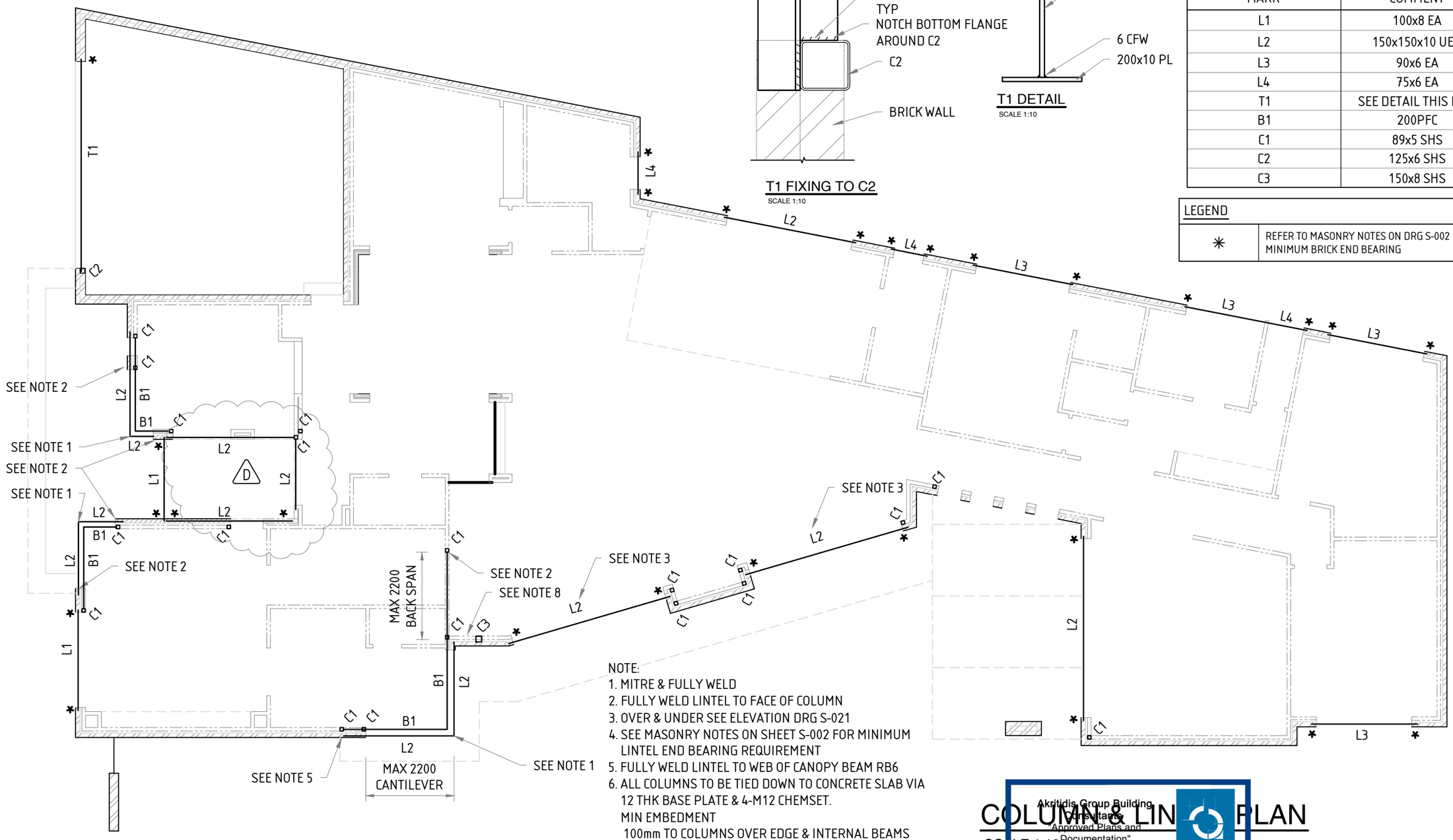

T1 FIXING TO C2
SCALE 1:10

T1 DETAIL
SCALE 1:10

ROOF MEMBER SCHEDULE

MARK	COMMENT
L1	100x8 EA
L2	150x150x10 UEA
L3	90x6 EA
L4	75x6 EA
T1	SEE DETAIL THIS DWG
B1	200PFC
C1	89x5 SHS
C2	125x6 SHS
C3	150x8 SHS

LEGEND	
✳	REFER TO MASONRY NOTES ON DRG S-002 FOR MINIMUM BRICK END BEARING

NOTE:
1. MITRE & FULLY WELD
2. FULLY WELD LINTEL TO FACE OF COLUMN
3. OVER & UNDER SEE ELEVATION DRG S-021
4. SEE MASONRY NOTES ON SHEET S-002 FOR MINIMUM LINTEL END BEARING REQUIREMENT
5. FULLY WELD LINTEL TO WEB OF CANOPY BEAM RB6
6. ALL COLUMNS TO BE TIED DOWN TO CONCRETE SLAB VIA 12 THK BASE PLATE & 4-M12 CHEMSET.
   MIN EMBEDMENT
   100mm TO COLUMNS OVER EDGE & INTERNAL BEAMS
   70mm TO COLUMNS OVER SLAB
7. FIX L2 TO B1 VIA MIN 6mm STITCH WELD - HIT 300 EACH END, MISS 150, HIT 100
8. USE HEAVY DUTY WALL TIES. WALL TIES TO BE LOCATED @ MAX 4 CORE VERT. & 450 CTS HORIZ. ENSURE WALL TIES ARE INSTALLED TO MANUFACTURER RECCOMENDATION

COLUMN & LINTEL PLAN

SCALE 1:100

Akritidis Group Building Consultants
"Approved Plans and Documentation"

Permit No.: 20150189/0
Issue Date: 25/02/2015

STEEL WALL FRAME BY OTHERS

Ari Akritidis
BS-U 1573
INSPECTION BOOKINGS: 95682992

REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP
A	HAV	22/01/15	ISSUED FOR CONSTRUCTION	SB	MA
B	HAV	03/02/15	ADDED B1, T1 DETAIL ADDED, NO COLUMNS IN BRICKWORK	BN	MA
C	HAV	05/02/15	ADDED NOTE 8, ADDITIONAL C1	BN	MA
D	HAV	17/02/15	ADDED L2 @ ENTRY	BN	MA

TITLE	NAME	DATE
DRAFTER	HAV	13/01/15
DESIGNER	BN	13/01/15
ENG. CHECK	SWB	13/01/15
AUTHORISED BY:		

NORTH

CLIENT: G & A. LORD

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PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

TITLE: LINTEL & COLUMN PLAN

STATUS: FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-020
REV: D
SHEET SIZE: A1

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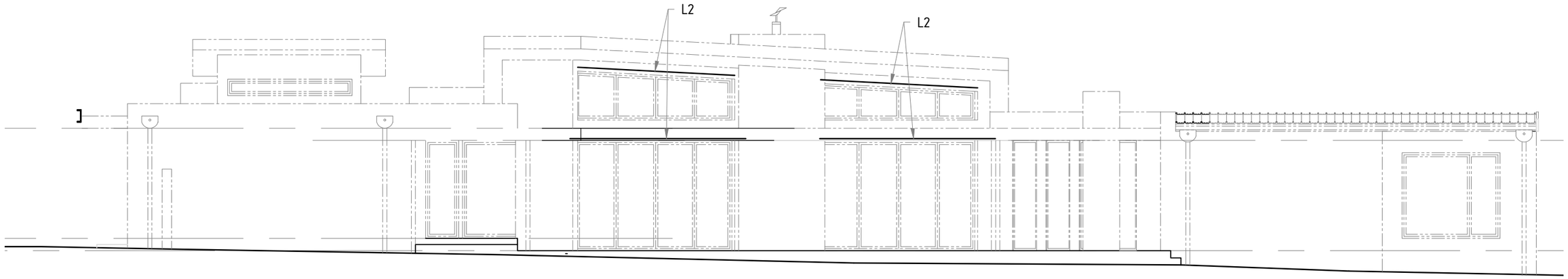
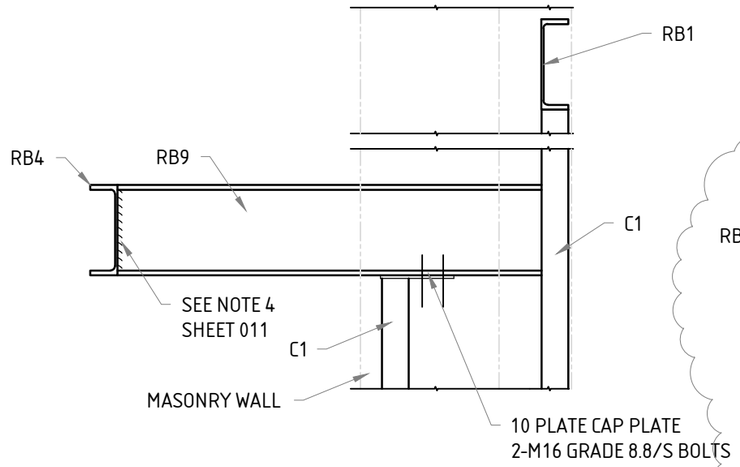


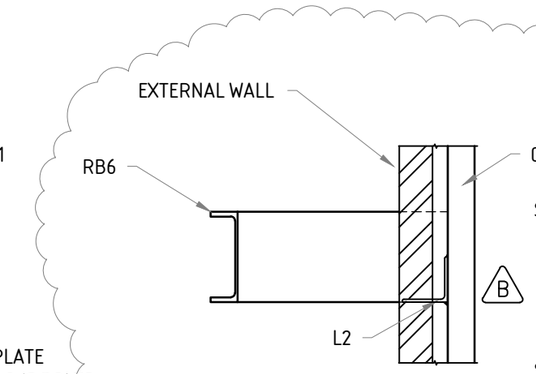
WEST ELEVATION

SCALE 1:100



B S-011 SECTION

Scale: 1:20



C S-011 SECTION

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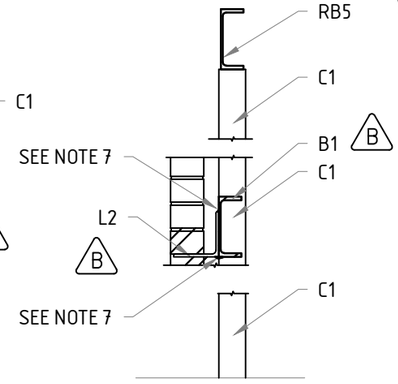
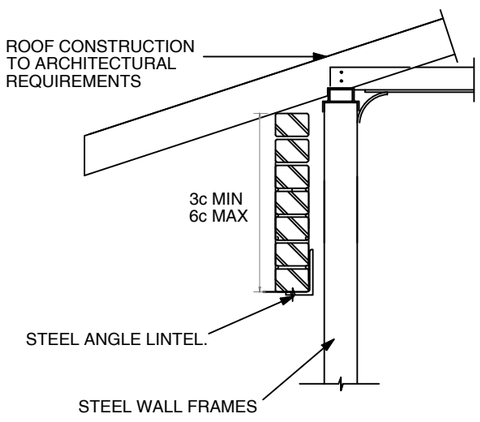


D S-011 SECTION

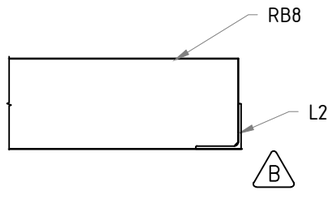
Scale: 1:20

WALL NOT SHOWN FOR CLARITY



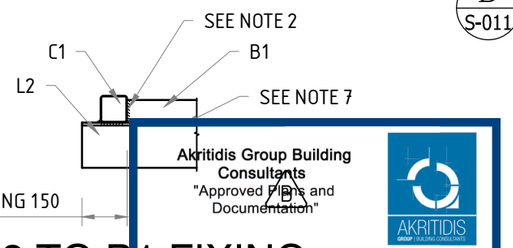
BRICK VENEER LINTEL DETAIL 1:20

1. THIS DETAIL IS TO PROVIDE LINTEL SIZES ONLY FOR SINGLE STOREY BUILDINGS.
2. LINTELS ARE DESIGNED TO SUPPORT UP TO MIN 3c AND MAX 7c OF BRICK WORK.
3. DO NOT SUPPORT ROOF STRUTTING BEAMS OR OTHER POINT LOADS OVER THE LINTEL.
4. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
5. IT IS PERMISSIBLE TO ADJUST THE SPAN BY ROUNDING TO THE NEAREST BRICK LENGTH, SUBJECT TO IT BEING NO MORE THAN 20mm.
6. WHERE LINTEL BEARS ON PERPENDICULAR BRICKWORK, BEARING IS TO BE ACROSS THE FULL WIDTH OF THE BRICK (90mm MIN).



E S-011 SECTION

Scale: 1:20



L2 TO B1 FIXING

SCALE 1:20

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Permit No.: 20150189/0
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BS-U 1573

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ISSUE/REVISIONS	REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP
	A	HAV	22/01/15	ISSUED FOR CONSTRUCTION	SB	MA
	B	HAV	03/02/15	REVISED SECTIONS C, D, E, ADDED L2 FIXING DETAIL	BN	MA

TITLE	NAME	DATE
DRAFTER	HAV	13/01/15
DESIGNER	BN	13/01/15
ENG. CHECK	SWB	13/01/15
AUTHORISED BY:		

NORTH

CLIENT: G & A. LORD

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PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC
INSPECTION BOOKINGS: 95682992

TITLE: ELEVATION & DETAILS

STATUS: ISSUED FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-021
REV: B
SHEET SIZE: A1

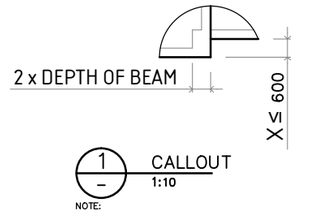
BUILDERS NOTE FOR POLISHED CONCRETE SLAB ON GROUND FLOORS:

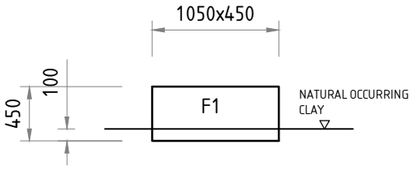
1. ENSURE SLAB IS POURED THICKER THAN 100mm TO ENSURE MINIMUM 100mm SLAB THICKNESS AND CORRECT COVER AFTER GRINDING.
2. SL92 MESH. 30mm TOP COVER, 225mm LAPS.
3. PLACE REINFORCEMENT ON CHAIRS TO ENSURE ACCURATE COVER
4. CURE DILIGENTLY TO MINIMISE SHRINKAGE CRACKING
5. CONCRETE TO BE S32/14 /80, AND MIX TO BE DESIGNED BY CONCRETE MANUFACTURER, TO REDUCE SHRINKAGE.

LEGEND

RE-ENTRANT CORNERS 2 x 3-L8TM x 2m LONG MIN
ALTERNATIVE 3-N16 BARS

IB	300x400 DEEP, 3L11TM BOTTOM
EB1	300x400 DEEP, 3L11TM BOTTOM
EB2	300 x 500 DEEP, 3L11TM TOP & BOTTOM
EB3	300 x 625 DEEP, 3L11TM TOP & BOTTOM
BP1	FOUNDING DEPTH 3200 BELOW GROUND LEVEL
BP2	FOUNDING DEPTH 1200 BELOW GROUND LEVEL
F1	1450x800x450 DEEP, 3L1TM BOTTOM





PAD FOOTING F1 DETAIL
SCALE 1:50

NOTE:
WHERE EXTERNAL BEAMS WIDER THAN 300mm ARE SPECIFIED, AN EXTRA BOTTOM BAR OR EQUIVALENT OF THE SAME SIZE BAR SHALL BE USED FOR EACH 100mm ADDITIONAL WIDTH

SLAB PLAN

SCALE 1:100

100mm MIN THK CONC SLAB, UNO, 130mm MIN FOR AREAS OF HYDRONIC HEATING
TOP MESH SL92 - COVER 30mm MIN, BOTTOM MESH SL52 - 40mm MIN IN AREAS OF HYDRONIC HEATING
ALL INTERNAL & EXTERNAL BEAMS TO BE FOUNDED 100mm INTO NATURALLY OCCURRING SLIGHTLY CLAYEY SAND

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Permit No.: 20150189/0
Issue Date: 25/02/2015

Ari Akritidis
BS-U 1573
INSPECTION BOOKINGS: 95682992

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D	HAV	17/02/15	ADDED EB3, NOTE	SB	MA

	NAME	DATE
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DESIGNER	BN	13/01/15
ENG. CHECK	SWB	13/01/15
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PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

TITLE: SLAB PLAN

STATUS: ISSUED FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-030
REV: D
SHEET SIZE: A1

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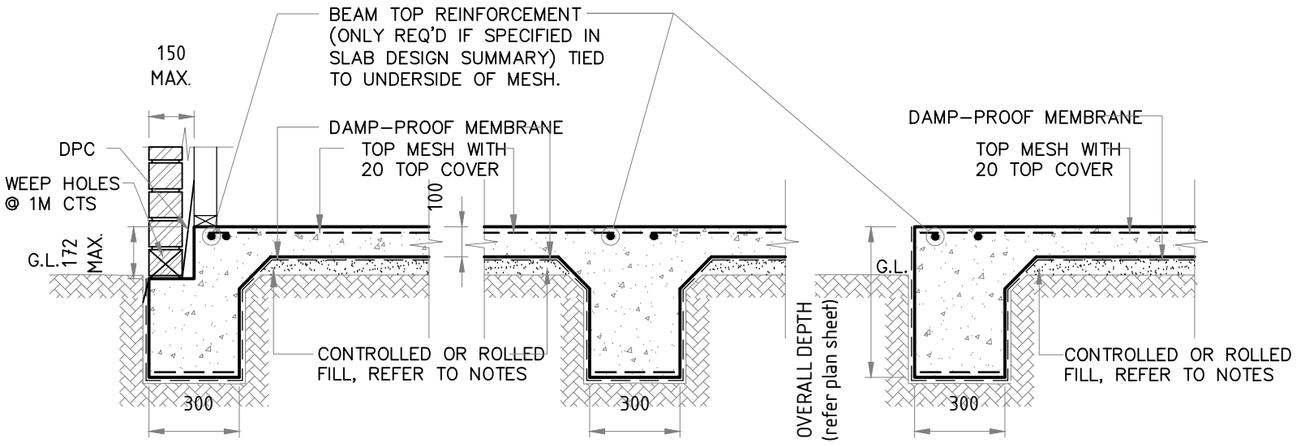
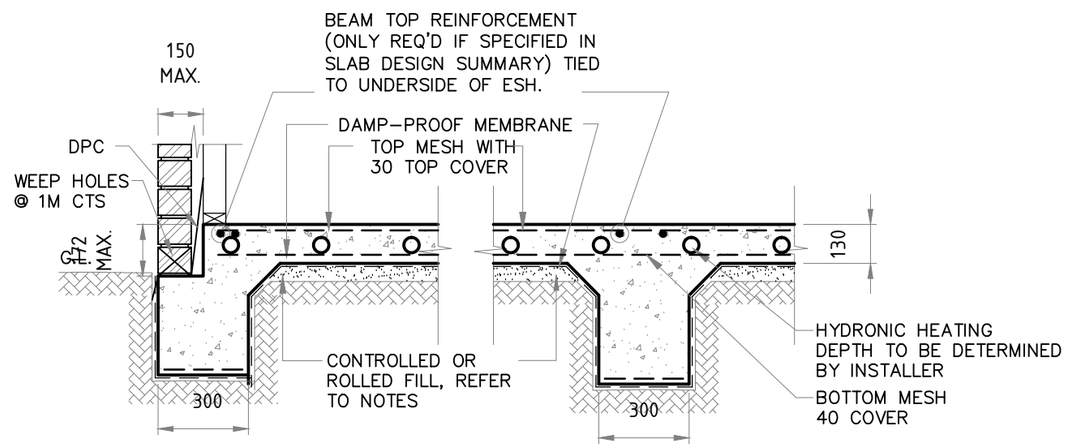


TYPICAL EDGE BEAM EB

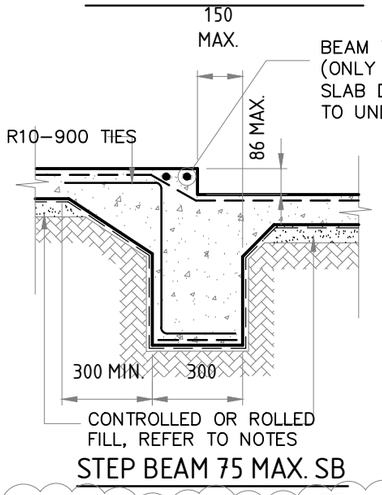
INTERNAL BEAM IB

VERANDAH EDGE BEAM EB1

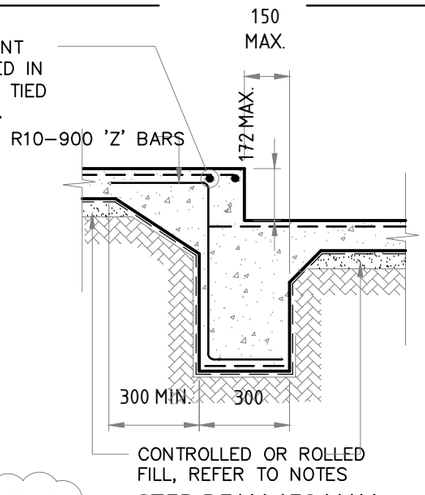


TYPICAL EDGE BEAM EB
WITH HYDRONIC HEATING

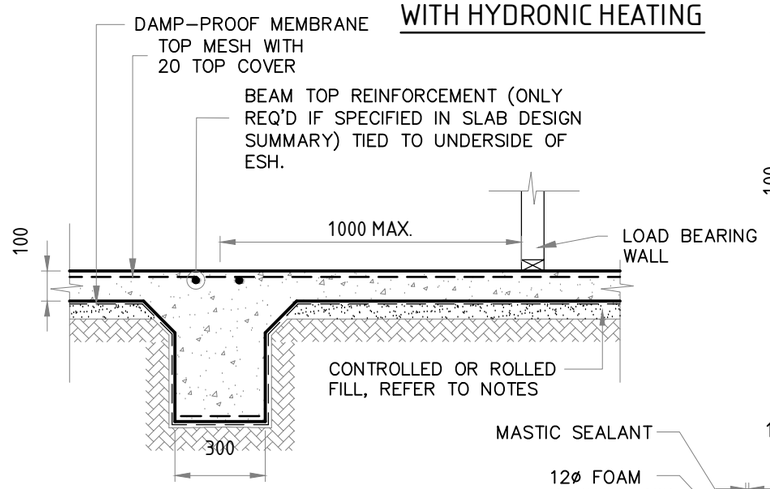
INTERNAL BEAM IB
WITH HYDRONIC HEATING



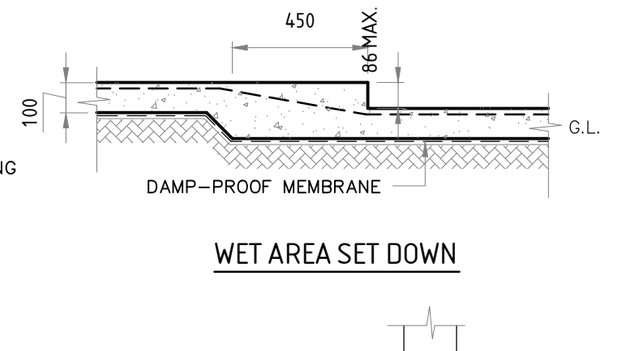
STEP BEAM 75 MAX. SB



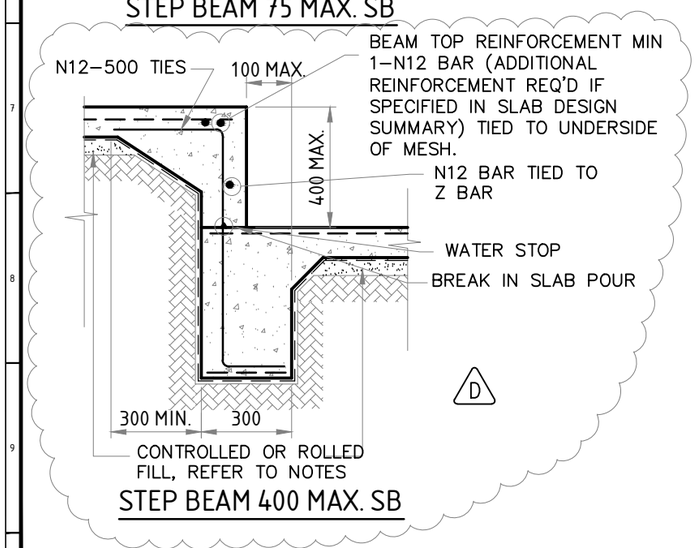
STEP BEAM 172 MAX.



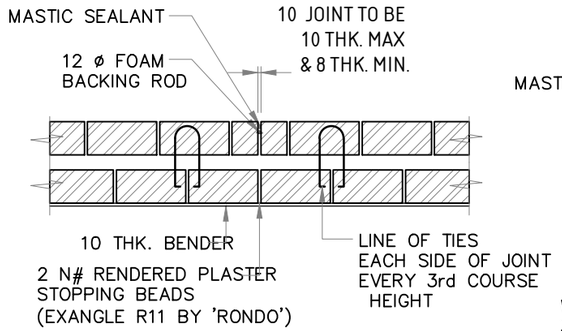
INTERNAL BEAM 'IB'



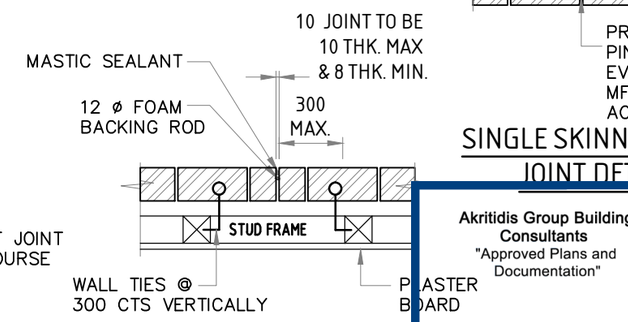
WET AREA SET DOWN



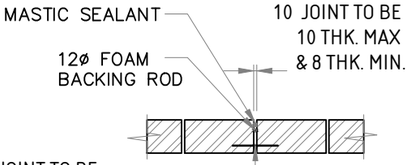
STEP BEAM 400 MAX. SB



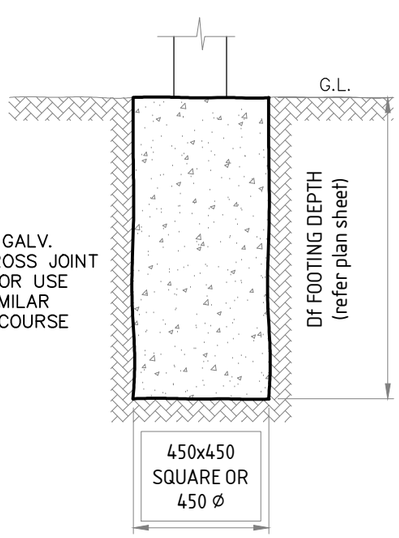
MASONRY CAVITY WALL
JOINT DETAIL



MASONRY VENEER WALL
JOINT DETAIL



SINGLE SKINNED WALL
JOINT DETAIL



ISOLATED PAD DETAIL (P1)

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AKRITIDIS GROUP BUILDING CONSULTANTS
Permit No.: 20150189/0
Issue Date: 25/02/2015

NOTE:
STAINLESS STEEL BRICK TIES @ COASTAL LOCATION

Art Akritidis
BS-U 1573
INSPECTION BOOKINGS: 95682992

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A	HAV	22/01/15	ISSUED FOR CONSTRUCTION	SB	MA
D	HAV	17/02/15	ADDED 400 STEP DETAIL	SB	MA

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DRAFTER	HAV	13/01/15
DESIGNER	BN	13/01/15
ENG. CHECK	SWB	13/01/15
AUTHORISED BY:		

NORTH

CLIENT: G & A. LORD

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TEL (03) 5996 2555 - EMAIL: melbourne@structerre.com.au

PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

TITLE: SLAB DETAILS

STATUS: ISSUED FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-031
REV: D
SHEET SIZE: A1

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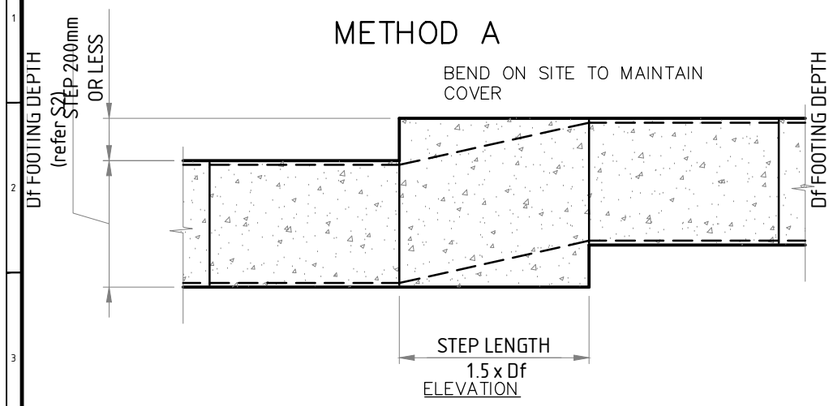
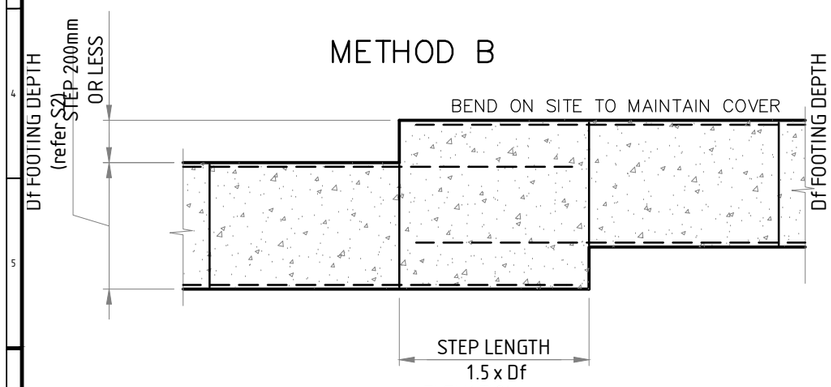
METHOD A



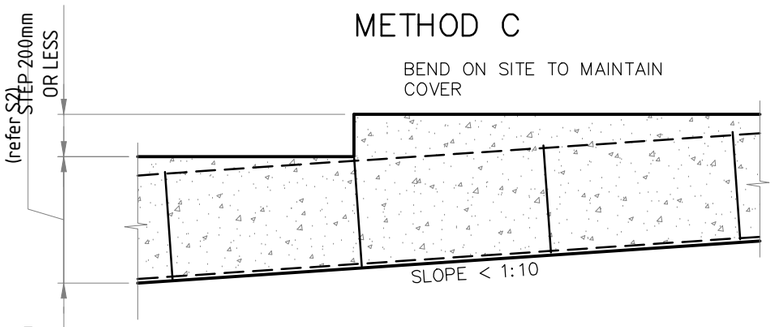
ELEVATION

METHOD B

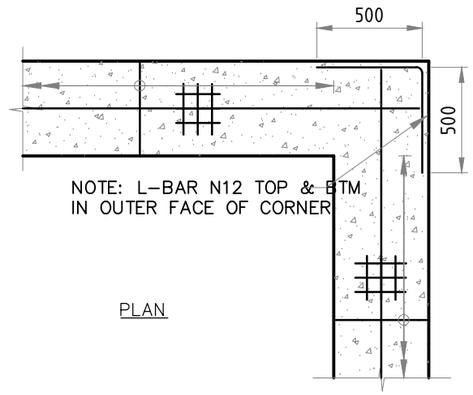


ELEVATION

METHOD C

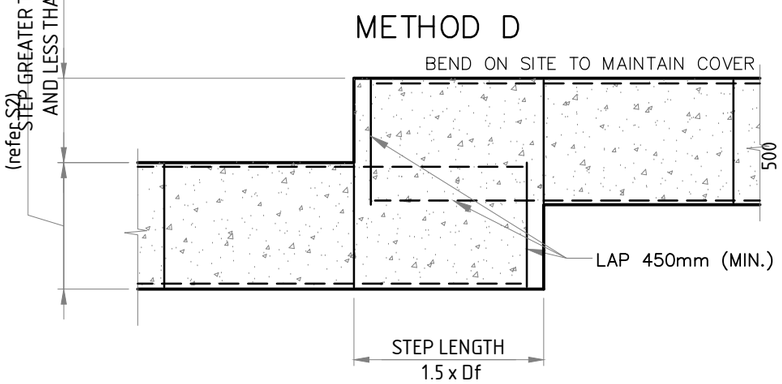


ELEVATION

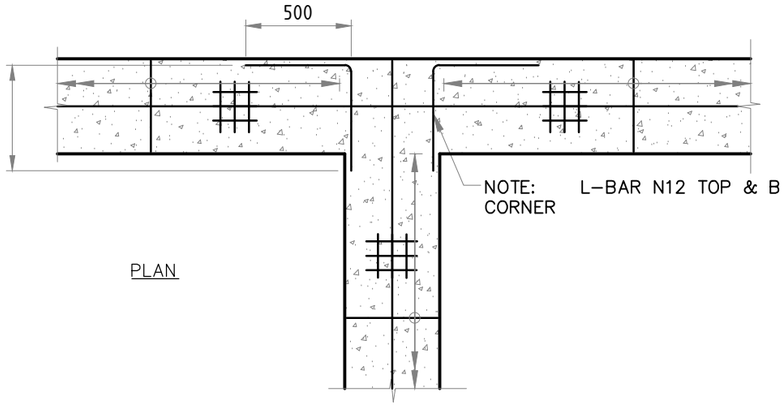


PLAN

METHOD D



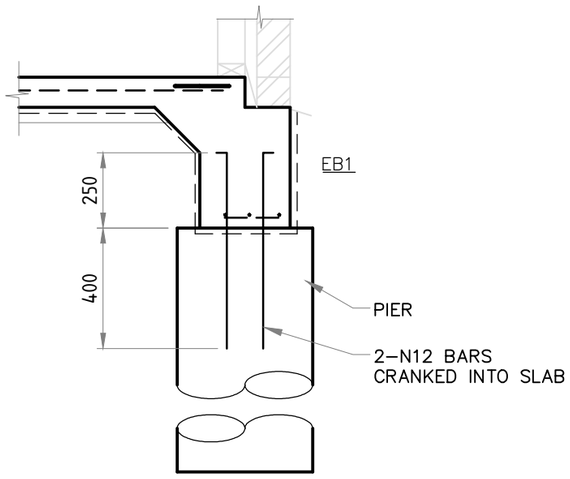
ELEVATION



PLAN

STRIP FOOTING STEP & LAP DETAILS N.T.S.

(FOR FOOTING DEPTH REFER TO DWG S4)



PIER TO EDGE BEAM DETAIL

REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP
A	HAV	22/01/15	ISSUED FOR CONSTRUCTION	SB	MA

ISSUE/REVISIONS

REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP

ISSUE/REVISIONS

TITLE	NAME	DATE
DRAFTER	HAV	13/01/15
DESIGNER	BN	13/01/15
ENG. CHECK	SWB	13/01/15

AUTHORISED BY:

NORTH

CLIENT

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PROJECT

PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

TITLE

SLAB DETAILS

STATUS: ISSUED FOR CONSTRUCTION

SCALE: 1:100

DRAWING REF. No.: F14190-S-032

REV: A

SHEET SIZE A1

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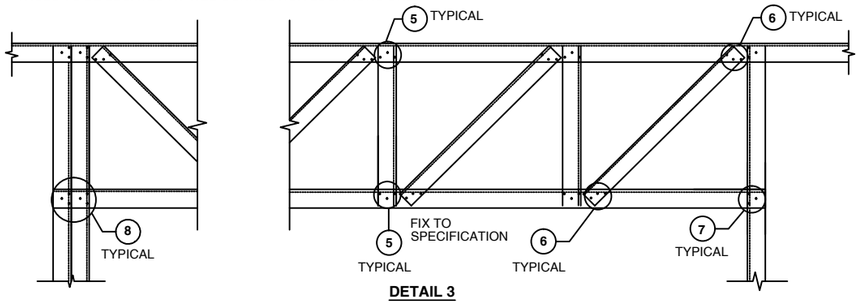
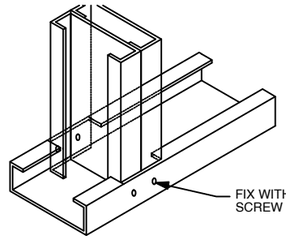
NOTES

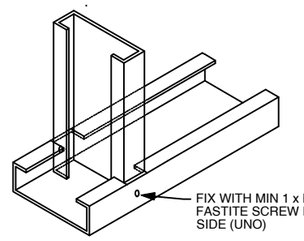
TRUSS TO BE LOCATED AT WEB CONNECTION LOCATIONS ONLY



DETAIL 3

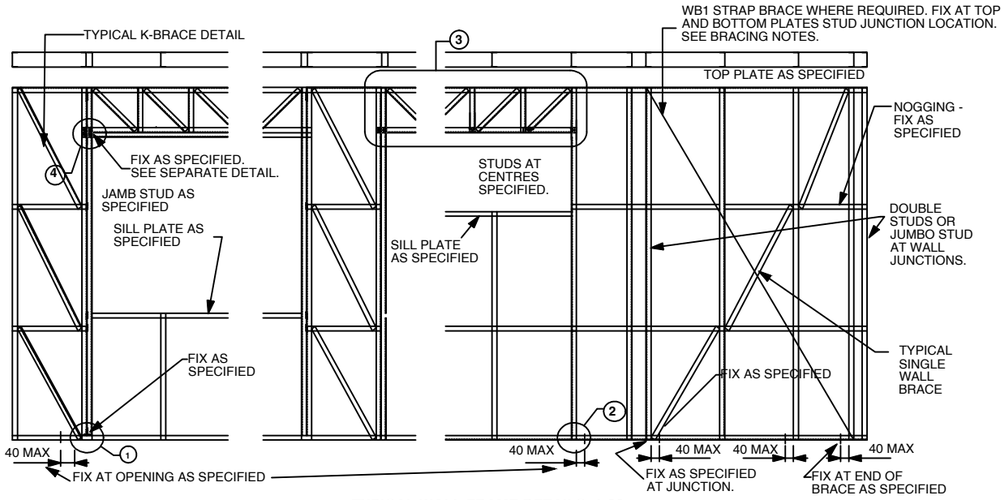


DETAIL 1

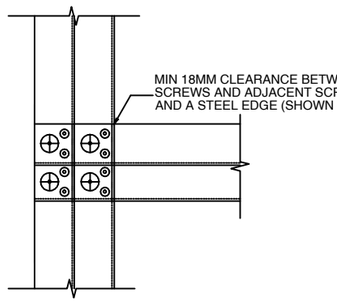


DETAIL 2

STUD TO PLATE FIXING DETAILS

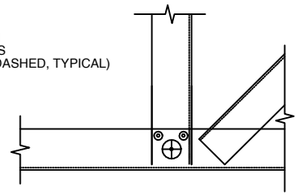


TYPICAL WALL FRAME DETAILS 1:20



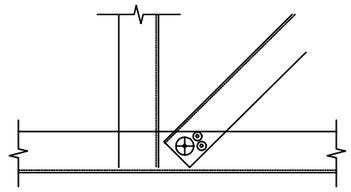
DOUBLE HEADER SILL CONNECTION SCREW LOCATIONS
MAX NUMBER 24X
DOUBLE JAMB (SCREWS REQUIRE BOTH SIDES)
MIN NUMBER FAR FACE 4X

DETAIL 4



STUD/VERTICAL WINDOW HEAD WEB CONNECTION SCREW LOCATIONS
MAX NUMBER 6X
(SCREWS REQUIRED BOTH SIDES)
MIN NUMBER FAR FACE 1X

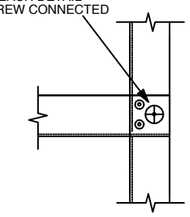
DETAIL 5



WINDOW HEAD WEB/ BRACE CONNECTION SCREW LOCATIONS
MAX NUMBER 6X
(SCREWS REQUIRED BOTH SIDES)
MIN NUMBER FAR FACE 1X

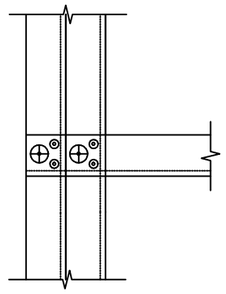
DETAIL 6

TYPICAL DIMPLED SCREW HOLE LOCATION INDICATED ON EACH DETAIL
NOTE: MUST BE FIRST SCREW CONNECTED



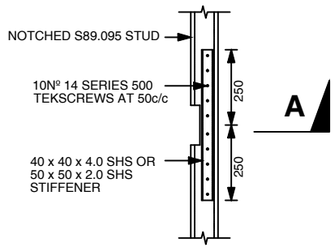
HEADER SILL CONNECTION SCREW LOCATIONS MAX NUMBER 6X
SINGLE JAMB (SCREWS REQUIRED BOTH SIDES)
MIN NUMBER FAR FACE 1X

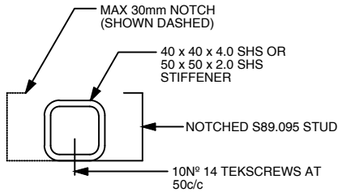
DETAIL 7



HEADER SILL CONNECTION SCREW LOCATIONS
MAX NUMBER 12X
DOUBLE JAMB (SCREWS REQUIRED BOTH SIDES)
MIN NUMBER FAR FACE 2X

DETAIL 8

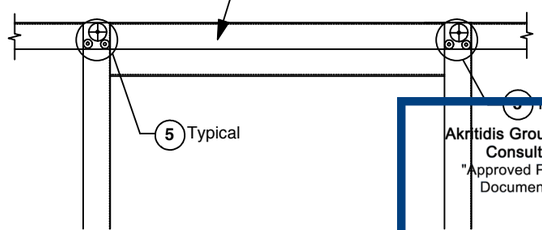




SECTION A

STUD STIFFENER AT NOTCH DETAIL

PROVIDE S89.095 STIFFENER BETWEEN STUD TO SUPPORT ANY TRUSS NOT LOCATED WITH 40MM OF STUD LOCATION
FIX TO TOP CHORD WITH NO 12 TEKS AT 50MM CENTRES
STAGGERED END MAX 20MM FROM ENDS



DETAIL 9

Akritidis Group Building Consultants
"Approved Plans and Documentation"

AKRITIDIS GROUP | BUILDING CONSULTANTS

Permit No.: 20150189/0
Issue Date: 25/02/2015

Ari Akritidis
BS-U 1573

INSPECTION BOOKINGS: 95682992

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ISSUE/REVISIONS

REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP
A	HAV	22/01/15	ISSUED FOR CONSTRUCTION	SB	MA

REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP

TITLE	NAME	DATE
DRAFTER	HAV	13/01/15
DESIGNER	BN	13/01/15
ENG. CHECK	SWB	13/01/15
AUTHORISED BY:		

NORTH

CLIENT: G & A. LORD

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TEL (03) 5996 2555 - EMAIL: melbourne@structerre.com.au

PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

TITLE: STEEL FRAME DETAILS

STATUS: ISSUED FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-040
REV: A
SHEET SIZE: A1

Floor Frame Criteria max 2.75m high walls , Wind Class N3 (MAX 6.4m RLW INCLUDING EAVES) U.N.O.

All RHS/SHS to be G450 or DUALGRADE

Note: Stud height is measured from floor level to ceiling restraint level. (U.N.O.). A double stud is equivalent to a boxed stud.
If any of these criteria are exceeded and not marked on the engineers plan, refer back to the engineer for advice prior to proceeding
Teks to placed 15mm min from any edge and adjacent teks, (U.N.O.)

	Section	Fixing (UNO)	Location	Hold Down	Notes
1. Bottom plate					
External	S89.095	N/A	N/A		
Internal	S89.095	N/A	N/A		
2. Top plate					
External	S89.095	N/A	N/A		See detail 9
Internal load bearing	S89.095	N/A	N/A		See detail 9
Internal non load bearing	S89.095	N/A	N/A		
3.1 Vertical stud sections (stud height up to 2.75m)					
External	S89.095	2M6 fastite screws (each end)	450c/c	Type A	Spacing to suit cladding
Studs under point loads	S89.095	2M6 fastite screws (each end)	Under trusses/rafter locations	Type A	Spacing to suit cladding
Studs at ends of BR	S89.095	2M6 fastite screws (each end)	N/A	Type A	At start and ends of brace
All RHS/SHS locations	as marked on layout	Fix SHS/RHS to abutting studs via 2/10-16x25 Teks @ 600c/c	As marked on layout	Type D	
Internal load bearing	S89.095	2M6 fastite screws (each end)	N/A	Type A	At start and ends of brace
Note: RLW above includes eave width					
Studs are required to be located directly under all load bearing points, ie trusses & rafter. Refer studs under point load detail below.					
Beams will require column supports to suit. See layout for locations.					
internal non load bearing	S89.075	2M6 fastite screws (each end)	600c/c	Type A	spacing to suit cladding
Junctions stud	S89.075	2M6 fastite screws (each end)		Type A	
4.1 Studs to the sides of openings (External wall stud height up to 2.75m)					
Size	**Section**	**Fixing (UNO)**	**Spacing**		
Max 1.0m Opening	S89.095	2M6 fastite screws (each end)	N/A	Type A	
Max 3.0m Opening	Double S89.095	2M6 fastite screws each stud (each end)	N/A	Type B	
Max 6.0m Opening	89x89x4.0 SHS	Fix SHS/RHS to abutting studs via 2/10-16x25 Teks @ 600c/c	N/A	Type D	
Wider openings to be engineered to suit requirement. Contact engineer if not specified.					
4.2 Studs to the sides of openings (Internal load bearing wall stud height up to 2.75m)					
Size	**Section**	**Fixing (UNO)**	**Spacing**		
Max 0.9m Opening	S89.095	2M6 fastite screws (each end)	N/A	Type A	
Wider openings to be engineered to suit requirement. Contact engineer if not specified.					
5. Stud to side of openings (non load bearing internal walls)					
Max 2.0m Opening	S89.075	2M6 fastite screws each stud (each end)	N/A	Type A	
6.1 Window sill plate (stud height up to 2.75m)					
Max 2.0m Opening	S89.095	2M6 fastite screws (each end)	N/A		
Max 4.0m Opening	Double S89.095	2M6 fastite screws each stud (each end)	N/A		
Wider openings to be engineered to suit requirement. Contact engineer if not specified.					
7.1 Window head bottom plate (min head height 300mm for stud height up to 2.75m)					
Max 2.5m Opening	S89.095	4M6 fastite screws (each end)	N/A		See detail 8
Max 3.0m Opening	Double S89.095	8M6 fastite screws (each end)	N/A		See detail 4
Max 6.0m Opening	89x89x6.0 SHS	Fully Weld	N/A		
Wider openings to be engineered to suit requirement. Contact engineer if not specified.					
8.1 Window head top plate (min head height 300mm for stud height up to 2.75m)					
Max 3.0m	S89.095	2M6 fastite screws (each end)			
Max 6.0m	Double S89.095	2M6 fastite screws each stud (each end)			
Wider openings to be engineered to suit requirement. Contact engineer if not specified.					

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Web size	Section	Fixing (UNO)	Spacing	Notes
Max 2.5m Opening	S89.095	2M6 fastite screws (each end)	600c/c	Spacing to suit cladding
Max 3.0m Opening	S89.095	2M6 fastite screws + 4 x 10g flat head screws (each end)	600c/c	See detail 6
Max 6.0m Opening	Double S89.095	2M6 fastite screws + 4 x 10g flat head screws (each end)	600c/c	See detail 6

Trusses are to align with web underneath refer studs under point load detail below.
Wider openings to be engineered to suit requirement. Contact engineer if not specified

10 Studs under sills					
Studs up to 2.75m	S89.095	2M6 fastite screws (each end)	600c/c	Type A	Spacing to suit cladding
11 Nogging					
Stud height up to 2.75m	S89.095	2M6 fastite screws (each end)	Midheight of wall		Not required for wall under 1.6m high
12. Brace BR					
Stud height up to 2.75m	S89.095	2M6 fastite screws (each end)	As marked on layout		See ceiling connection details

13. Wallframe junctions
Fix frames together using 3 No14 teks at top, nog location and at bottom. Fixing to be max 25mm from the web of the top/ bottom plates.
Alternatively, at top provide 150mm x 75mm wide plate. Fix each end with 4 No 14 teks.

Hold Down Type

Typa A. 1 M10 'Ramset' Dynabolt Plus with 40mm embedment or equivalent with 7.9kN capacity and 1 Washer (refer to Washer Detail 1). Ensure maximum 900mm spacing of hold down location.
Type B. 1 M10 'Ramset' TruBolt with 95mm embedment or equivalent with 14.7kN capacity and 1 Washer (refer to Washer Detail 1).
Type C. 1 M12 Grade 5.8 'Ramset' Chemset Reo 502 Anchor Stud with 90mm embedment or equivalent with 25.48kN capacity and 1 Washer (refer to Washer Detail 1).
Type D. 150SQ x 10PL baseplate with 2R12 Lugs x 200 Long. Lugs on baseplates to be cast into concrete. All steelwork that is cast into concrete to be hot dip galvanised to AS/NZS 4680 after fabrication.

WALLFRAME NOTE:
ENSURE WALL STUDS ARE FULLY BEARING ON TOP AND BOTTOM TRACK.

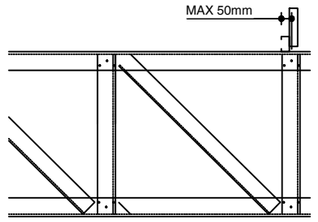
BRACING FOR THE WALL FRAMES

North-South Direction — As Marked on Wallframe Layout
East-West Direction — As Marked on Wallframe Layout

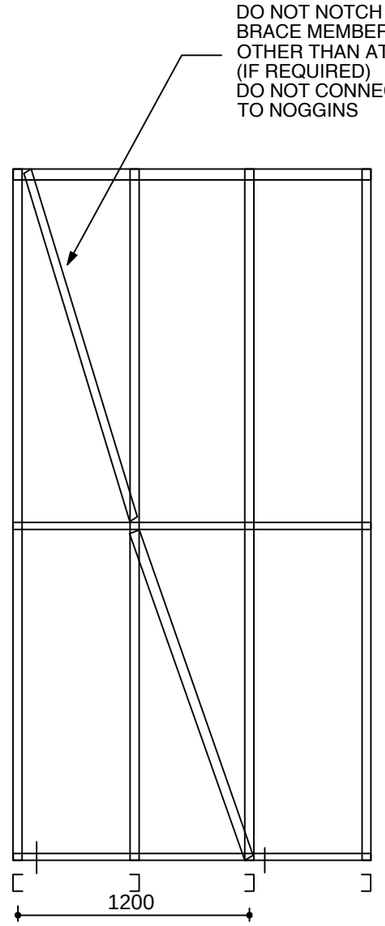
NOTES

Maximum spacing between braced wall frames perpendicular to the building width or length shall not exceed 9m. Evenly space bracing walls full width of building. larger spacing requires ceiling bracing to suit. Refer to as 1684 as a guide to spacing requirements of brace walls.

BR BRACE (AS MARKED ON ARCHITECTURAL DRAWINGS)
Standard bracing capacity of the angled S89.095 brace as indicated in the typical wall frame details is 3kN for a brace extending diagonally over min 1200mm (2 adjacent bays) and 2750mm height. If brace is spread over a shorter width or higher frame, the capacity is to be reduced proportionally to the height increase and length reduction respectively. ie a "K" brace over 600mm is rated at 1.5kN brace capacity. all connections to have 2N°12 teks. Diagonal bracing studs are to be connected to studs. do not connect to noggins. Diagonal bracing studs are not to be notched other than at the lip under any circumstances. This brace capacity includes 0.45kN/m allowance for sheeting on one side.



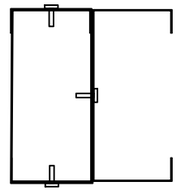
STUD UNDER POINT LOAD ALIGNMENT
MAX 50mm OFFSET



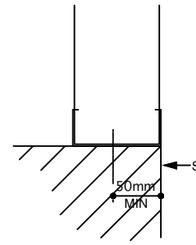
BR BRACE DETAIL

DOUBLE STUD CONNECTION
NOTE: TEKS @ 150 C/C

BOXED STUD
WITH SINGLE STUD
CONNECTION

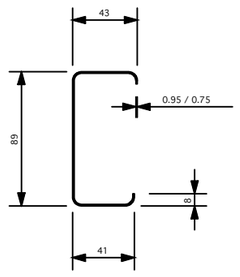


TRIPLE STUD CONNECTION
NOTE: TEKS @ 150 C/C

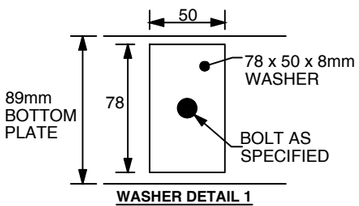


SLAB EDGE BOLT OFFSET

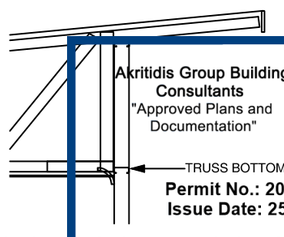
DETERMINING APPROPRIATE
ENGINEERED WALL FRAME HEIGHT



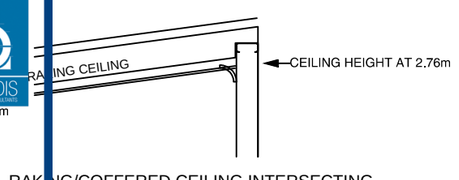
FRAMECAD LIPPED CEE
SECTION



WASHER DETAIL 1
G400 STEEL
OFFSEET HOLE TO SUIT
CONCRETE EDGE



TRUSS BOTTOM CHORD INTERSECTING
WALL FAME AT CEILING HEIGHT



RAKING/COFFERED CEILING INTERSECTING
WALL FRAME

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Permit No.: 20150189/0
Issue Date: 25/02/2015
Ari Akritidis
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ISSUE/REVISIONS	REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP
	A	HAV	22/01/15	ISSUED FOR CONSTRUCTION	SB	MA

	TITLE	NAME	DATE
	DRAFTER	HAV	13/01/15
	DESIGNER	BN	13/01/15
	ENG. CHECK	SWB	13/01/15
	AUTHORISED BY:		

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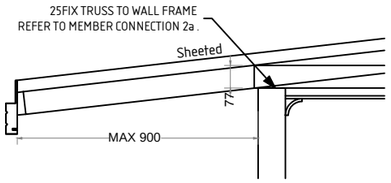
PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC
INSPECTION BOOKINGS: 95682992

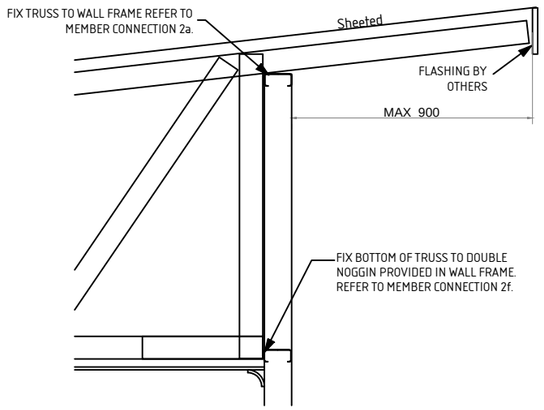
TITLE: STEEL FRAME DETAILS

STATUS: ISSUED FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-041
REV: A
SHEET SIZE: A1



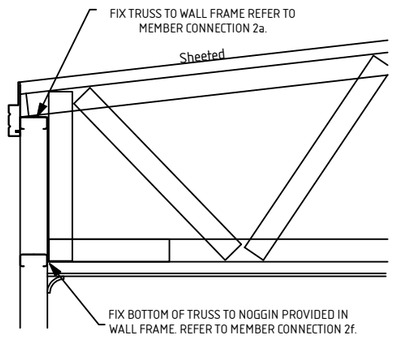
TRUSS CONNECTION DETAIL 1

MAX Roof Load Area: 6.3m ^{2}



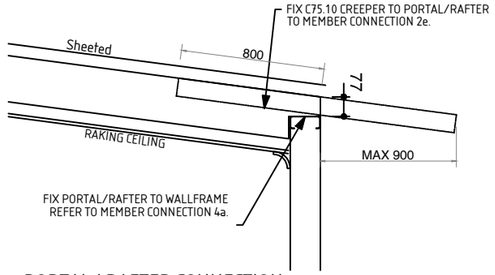
TRUSS CONNECTION DETAIL 2

MAX Roof Load Area: 6.3m ^{2}



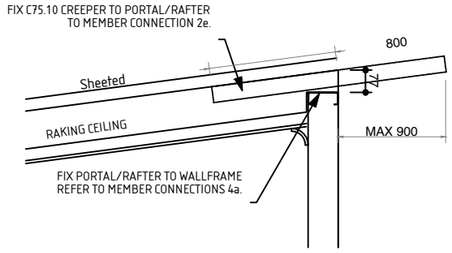
TRUSS CONNECTION DETAIL 3

MAX Roof Load Area: 6.3m ^{2}



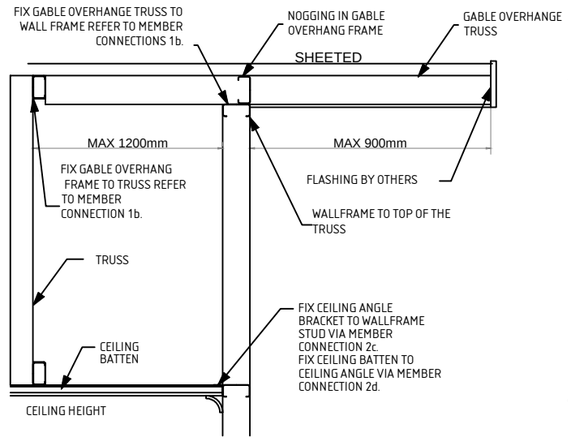
PORTAL/ RAFTER CONNECTION DETAIL 1

MAX Roof Load Area: 6.3m ^{2}

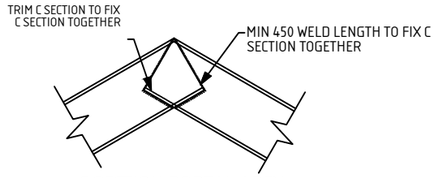


PORTAL/ RAFTER CONNECTION DETAIL 2

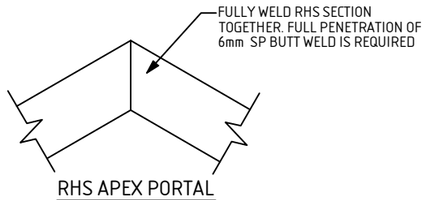
MAX Roof Load Area: 6.3m ^{2}



GABLE OVERHANG TRUSS CONNECTION DETAIL



C SECTION PORTAL APEX CONNECTION DETAIL



RHS APEX PORTAL CONNECTION DETAIL

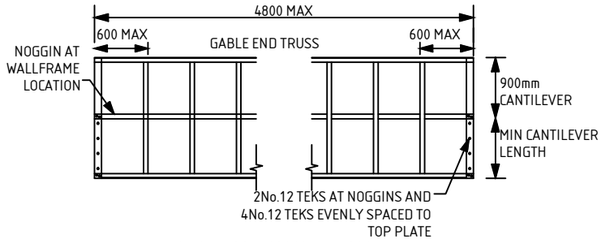
GENERAL NOTES

1. Creepers :- Creepers to be located at 1200crs uno.
2. Hips :- Hips cantilevering max 1000mm past wall frame.
3. Ceiling Hangers :- Ceiling hangers to be C75.08. Fix ceiling hangers to rafters at 1500 max cts with min 25 x 25 x 0.8 angle, 2 No12 teks at each connection. When spanning between trusses ceiling hanger to be supported at 1500 c/c with with C75.08 spanning between trusses either side fix to truss with 1 triple grip 2 no 12 teks each tab. Ceiling hangers to allow max 1500c/c span for the ceiling battens.
4. Packers :- Packers to be fixed to wall plate with 2 No 12 teks
5. Roof Battens :- Refer to Roof Batten Detail

a) Fix 40 x 0.55mm roof battens to truss top chords with 2No.12 teks each truss. Min 12 battens required at per roof slope.
b) Min 1 trimmer at module ends located at sheeting joint.

6. Ceiling Battens :-

a) Gyprock ceiling; Fix 25 x 0.42mm ceiling battens to bottom chord of trusses with 2 No12 teks to each truss, generally at 600mm max centres uno. Refer to manufacturers' requirements.
b) Hardiflex ceiling; Fix 25 x 0.42mm ceiling battens to bottom chord of trusses with 2 No12 teks to each truss, generally at 450mm max centres uno. Refer to manufacturers' requirements.
c) Aquacheck ceiling; Fix 25 x 0.42mm ceiling battens to bottom chord of trusses with 2 No12 teks to each truss, generally at 450mm max centres uno. Refer to manufacturers' requirements.



GABLE OVERHANG FRAME

NOTE: Stud at 600c/c max, otherwise to cladding manufacturer's requirement

GENERAL DESIGN CRITERIA

- Structural design actions (Permanent, Imposed, Wind) are in accordance with AS/NZS 1170:2002, Parts 0, 1 and AS/NZS 1170.2:2011, and AS4055:2012.
- Wind Class = N3
- Regional Wind Speed (VR) = 50m/s
- Design roof external wind pressure coefficients upwind of -0.3p or 0.2p, downwind of -0.6p, gable roof -0.9p, and internal wind pressure coefficient of 0.0p or -0.3p
- All construction to be in accordance with "The National Code of Australia" - 2011.
- All fabrication to be in accordance with AS/NZS 4600 :2005, "Cold-Formed Steel Structures" code.
- All materials to conform with AS 1397 :2001, "Steel Sheet and Strip".
- All timber work to comply with with AS 1684, "National Timber Framing Code" and AS 1720, "Timber Structures Code".
- All fixings, teks, masonry anchors etc shall be installed to the manufacturer's requirements.
- Roof Pitch - 0º to 25º
- Truss spacing - 900 uno
- Rafter spacing - 900 uno
- Roof batten spacing - 900 maximum sheeted, and to suit manufacturers' requirements
- Ceiling batten spacing - generally 600 internal uno, 450 uno to any external location. Refer to manufacturers' requirements

TRUSSES

Top chord - S89.095 minimum.
Bottom chord - S89.095. minimum.
Webs - S89.095 minimum.
Steel Grades - ≤1mm BMT min. G550, >1.0-1.2mm BMT min. G500, ≥1.6mm BMT min. G450.

TRUSS CONNECTIONS

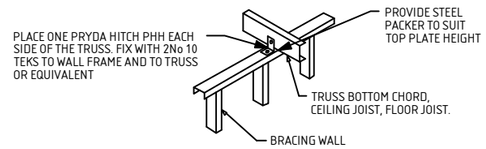
end: Webs to chords - Spans> 8m use 2M6 fastite screws + 2 x 10g flat head screws each end but webs at internal support points to have 2M6 fastite screws + 4 x 10g flat head screws each

Notes:
a) Trusses to have a node point at all internal support points.
b) Minimum edge distance to be greater of 3 x tek diameter & 15mm.
c) Minimum clear distance between teks to be 3 x tek diameter.

MEMBER CONNECTIONS

Note For open face connections provide a 1.2mm Channel Overplate with min 30mm wide flanges min 100mm long. Fix with 3No 10 teks top and bottom evenly spaced.

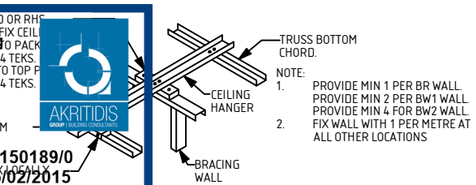
Truss to Truss :- Minimum connection shall be,
2. a) Jack Truss to Girder Truss; Use N°12 teks at maximum 200 centres on vertical 6min).
b) Gable Overhang to Truss; Use 2N°12 teks per stud
Truss Fixings :- Unless otherwise detailed minimum connection shall be;
12 a) To Wall Frame; Fix via 2N° triple grip or universal bracket connectors with 3N° 12 tek screws per tab, triple grip or universal bracket connector may be substituted for ex 1.6mm PGI angle bracket with 3N° frame
tek screws per tab. Provide a noggin at ceiling level to fix bottom of truss to at locations where wall extends beyond ceiling level.
b) To Beam; 2 Triple grip or universal grip with 3 No12 teks per tab or via 2No 1.6 PGI angle bracket,
4 No10 teks to each bracket leg
c) 1 N° 12 tek.
d) 2 N° 12 teks.
e) Min 4N° 12 teks evenly spaced, or at 200c/c, max 50mm from edge.
f) 2N° 1.6mm PGI angle bracket to side of truss with 3N°12 tek screws to each leg of each bracket and 2N°12 teks to end vertical or angle bracket may be substituted for 1 Triple grip or universal grip with 3 No12 teks per tab.
3. Creeper Fixings :- Unless otherwise detailed minimum connection shall be;
4. a) Generally; 1 Triple grip with 3 No12 teks per tab.
b) To Beam; 1 Triple grip with 3No.12 Teks per tab.
5. Rafter Fixings :- Unless otherwise detailed minimum connection shall be;
a) Generally; 1N° Triple grip or Universal bracket with 3N°12 teks per tab.
Split Truss Connection & Joining to separate trusses :-
6. a) Provide 900 long overplate S89.095 Stud Top & Bottom typical. Fix with 4N° 12 teks Top & Bottom to each side typical. Refer to Divide / Split Connection Detail.
Screws :- Unless otherwise detailed, minimum steel edge distance shall be 15mm for all connections.



NOTE:
1. PROVIDE MIN 1 PER BR WALL.
PROVIDE MIN 2 PER BW1 WALL.
PROVIDE MIN 4 FOR BW2 WALL.
2. FIX WALL WITH 1 PER METRE AT ALL OTHER LOCATIONS

CEILING CONNECTION DETAIL 2

FOR FIXING TRUSSES/JOISTS AT RIGHT ANGLES TO BRACING WALLS



NOTE:
1. PROVIDE MIN 1 PER BR WALL.
PROVIDE MIN 2 PER BW1 WALL.
PROVIDE MIN 4 FOR BW2 WALL.
2. FIX WALL WITH 1 PER METRE AT ALL OTHER LOCATIONS

CEILING CONNECTION DETAIL 1

FOR FIXING TRUSSES/JOISTS PARALLEL TO BRACING WALLS

Akritidis Group Building Consultants
"Approved Plans and Documentation"
Permit No.: 20150189/0
Issue Date: 25/02/2015

Ari Akritidis
BS-U 1573
INSPECTION BOOKINGS: 95682992

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REV.	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP
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REV	BY	DATE	ISSUE / REVISION DESCRIPTION	CHK	APP

TITLE	NAME	DATE
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ENG. CHECK	SWB	13/01/15
AUTHORISED BY:		

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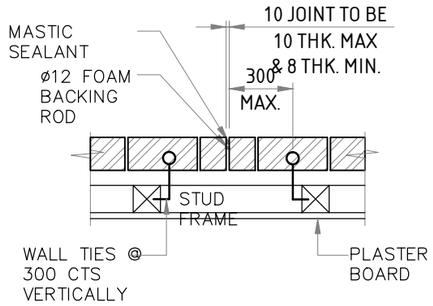
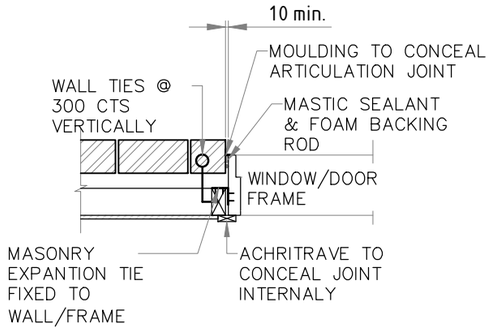
PROJECT: PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

TITLE: STEEL FRAME DETAILS

STATUS: ISSUED FOR CONSTRUCTION
SCALE: 1:100
DRAWING REF. No.: F14190-S-042
REV: A
SHEET SIZE: A1



MASONRY VENEER WALL JOINT DETAIL



MASONRY VENEER WALL JOINT DETAIL

BESIDE OPENINGS

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PROJECT

PROPOSED DWELLING
4 FLORIDA AVE
BEAUMARIS, VIC

TITLE

MASONRY WALL TIES

STATUS

ISSUED FOR CONSTRUCTION

SCALE

1:100

DRAWING REF. No.

F14190-S-050

REV

A

SHEET SIZE A1