### **GENERAL:**

- G1. ALL WORK AND MATERIALS TO CONFORM TO THE DRAWINGS, THE SPECIFICATION, AND CURRENT BUILDING CODE OF AUSTRALIA AND AUSTRALIAN STANDARDS. G2. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH
- THE ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS, THE SPECIFICATION AND ALL OTHER WRITTEN INSTRUCTIONS ISSUED DURING THE CONSTRUCTION.
- G3. THE BUILDER SHALL CONFIRM ALL RELEVANT DIMENSIONS BEFORE COMMENCING CONSTRUCTION AND/OR FABRICATION. DO NOT SCALE STRUCTURAL DRAWINGS. G4. ALL DISCREPANCIES SHALL BE REFERRED TO THE
- ARCHITECT/ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORKS. G5. ALL DIMENSIONS ARE IN MILLIMETRES U.N.O. ALL LEVELS ARE EXPRESSED IN METRES. G6. SUBSTITUTIONS SHALL BE MADE WITH THE ENGINEER'S

WRITTEN APPROVAL, BUT NOT AN AUTHORISATION FOR AN EXTRA. ANY CLAIM FOR AN EXTRA MUST BE APPROVED

- BY THE ENGINEER. ARCHITECT AND/OR OWNER BEFORE COMMENCEMENT OF THE WORK. THE BUILDER SHALL MAINTAIN THE WORKS IN A SAFE.
- STABLE CONDITION AND ENSURE THAT NO PART IS OVER-STRESSED DURING CONSTRUCTION. G8. ALL PROPS AND FORMWORK TO A BEAM OR SLAB SHALL
- BE REMOVED BEFORE CONSTRUCTING MASONRY WORKS. G9. ALL NON-LOADBEARING WALLS SHALL BE CONSTRUCTED 20mm CLEAR OF SLAB AND BEAM SOFFITS U.N.O.
- G10. NO HOLES, RECESSES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE WITHOUT THE ENGINEERS WRITTEN APPROVAL, UNLESS ALLOWED BY AS1684. G11. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE
- THE WORKS CARRIED OUT ON SITE UNLESS INSPECTED AND APPROVED IN WRITING BY THE ENGINEER. G12. THE STRUCTURAL WORKS HAVE BEEN DESIGNED FOR THE
- FOLLOWING LIVE LOADS: AS PER AS1170 LOCATION LIVE LOAD (KPa) 0.25 DWELLING FLOOR GARAGE FLOOR 2.5 BALCONY 2.0 WIND CLASSIFICATION N2
- WIND DESIGN LOAD PRESSURE 0.92 kPa G13. WHERE ADDITIONAL CONSTRUCTION LOADS EXCEED THE AN ALLOWABLE LIVE LOAD, THE BUILDER TO NOTIFIED THIS OFFICE BEFORE COMENCING WORKS.

G14. BEFORE STARTING WORKS ON SITE, IT IS THE BUILDER'S

- RESPONSIBILITY TO ENSURE THE EXISTING UNDERGROUND SERVICES WILL NOT AFFECT THE WORKS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR ANY SITE DESCREPANCIES TO THE DRAWINGS. EXISTING LEVELS ARE TO BE VERIFIED ON SITE.
- G15. ALL PROPRIETARY PRODUCTS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS G16. ALL REQUIRED TESTS AND/OR SITE INSPECTION ARE TO THE CONTRACTORS EXPENSE.

## FOOTINGS AND SLAB ON GROUND

- F1 ALL WORK AND MATERIALS TO COMPLY WITH AS2870 F2. ALL FOOTINGS SHALL BE FOUNDED ON FIRMED SOIL. PRIOR TO COMENCING WORK, THE BUILDER IS TO FAMILARISE THE CONTENT OF THE SOIL REPORT PREPARED BY: SOIL TEST EXPRESS PTY LTD REPORT No.: 8971 DATED: 14/10/2021 FOOTING DEPTHS SPECIFIED ON THE DRAWINGS ARE MINIMUM DIMENSIONS ONLY, IF NOT SHOWN REFER TO THE SOIL REPORT FOR THE REQUIRED FOUNDING DEPTH. F3. THE SITE HAS BEEN CLASSIFIED AS CLASS 'P'IN
- ACCORDANCE WITH AS 2870. F4. STRIP / PAD FOOTINGS ARE TO BE FOUNDED ON ORIGINAL UNDISTURBED GROUND WITH AN ALLOWABLE
- BEARING CAPACITY OF 100 kPa. F5. EDGE BEAMS AND LOAD BEARING RIBS SHALL BE FOUNDED ON UNDISTURBED GROUND WITH AN ALLOWABLE BEARING CAPACITY OF 100 kPa. THE INTERNAL SLAB & NON-LOAD BEARING RIBS SHALL BE FOUNDED ON SO

WITH MINIMUM BEARING CAPACITY OF 50 kPa.

F6. ALL ORGANIC MATERIAL SHALL BE REMOVED FROM THE AREA BENEATH THE SLABS ON GROUND. THE GROUND ANY SOFT SPOTS SHALL BE DUG OUT AND REPLACED WITH COMPACTED CRUSHED ROCK OR 15MPa BLINDING CONCRETE. IN ACCORDANCE WITH AS2870 AND AS3798.

F7. UNLESS OTHERWISE SPECIFIED IN THE SOIL REPORT,

- FILLING USED IN THE CONSTRUCTION OF THE SLAB EXCEPT WHERE THE SLAB IS SUSPENDED SHALL CONSIST OF CONTROLLED FILL OR ROLLED FILL AS FOLLOWS: a. CONTROLLED FILL IS MATERIAL THAT HAS BEEN PLACED AND COMPACTED IN LAYERS BY COMPACTION EQUIPMENT WITHIN DEFINED DENSITY REQUIREMENT. EXCEPT AS PROVIDED BELOW, CONTROLLED FILL SHALL BE PLACED IN ACCORDANCE SAND FILL UP TO 0.8m DEEP WELL COMPACTED IN NOT MORE THAN 0.3m THICK LAYERS BY A VIBRATING PLATE OR
- VIBRATING ROLLER, SHALL BE DEEMED TO COMPLY WITH THIS REQUIREMENT. A SATISFACTORY TEST FOR SAND FILL NOT CONTAINING GRAVEL SIZED MATERIAL IS THE ACHIEVEMENT OF A BLOW COUNT OF 7 OR MORE PER 0.3m USING THE PENETROMETER TEST DESCRIBED IN AS 1289.6.3.3. NON-SAND FILL UP TO 0.4m DEEP WELL COMPACTED IN NOT MORE THAN 0.15m LAYERS BY A MECHANICAL ROLLER SHALL BE DEEMED TO COMPLY WITH THIS REQUIREMENT. CLAY FILL SHALL BE MOIST DURING COMPACTION. **b.** ROLLED FILL CONSISTS OF MATERIAL COMPACTED IN
- LAYERS BY REPEATED ROLLING WITH AN EXCAVATOR ROLLED FILL SHALL NOT EXCEED 0.6m COMPACTED IN LAYERS NOT MORE THAN 0.3m THICK FOR SAND OR 0.3m COMPACTED IN LAYERS NOT MORE THAN 0.15m THICK FOR OTHER MATERIAL c. THE EXTENT OF CONTROLLED FILL AND ROLLED FILL REQUIRED SHALL BE DETERMINED ON SITE IN ACCORDANCE WITH SECTION 6 OF AS2870 AND SHALL BE THE RESPONSIBILITY OF THE

CONTRACTOR & BUILDER

- F8. WHERE DEPTH OF CONTROLLED FILL IS THICKER THAN THAT SPECIFIED ABOVE, FILL MATERIAL SHALL BE SPREAD AND COMPACTED IN UNIFORM LAYERS NOT EXCEEDING 0.15m THICK. TOP SURFACE LAYER SHALL BE COMPACTED TO MINIMUM 98% STANDARD DRY DENSITY DETERMINED BY METHODS IN ACCORDANCE WITH AS1289. I OWFR LAYERS SHALL BE COMPACTED TO 95% STANDARD DRY DENSITY THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADJUSTED TO WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT DURING COMPACTION TO ENSURE THAT THE SPECIFIED COMPACTION IS OBTAINED. COMPACTION TESTS SHALL BE CARRIED OUT AT A RATE OF ONE TEST PER LAYER PER 100 SQUARE METRES OF FILL
- LABORATORIES SUBMIT REPORT TO THIS OFFICE FOR APPROVAL F9. FOUNDATIONS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER OR BUILDING INSPECTOR BEFORE LAYING MEMBRANES AND POURING CONCRETE. IF AN UNUSUAL GROUND CONDITION IS ENCOUNTERED DURING THE SITE EXCAVATION REPORT TO THIS DEFICE FOR RESOLUTION

TESTS ARE TO BE CARRIED OUT BY INDEPENDENT NATA REGISTERED.

- F10.NO EXCAVATION IS TO BE TAKEN BELOW THE BASE OF ADJACENT / EXISTING FOOTINGS. IF IT IS UNAVOIDABLE, FOR THE CASE OF NEW FOOTINGS, BLINDING CONCRETE GRADE 15MPa SHALL BE PROVIDED BENEATH THE NEW FOOTING AND FOUNDING BELOW ANGLE OF REPOSE. FOR THE CASE OF EXISTING FOOTINGS, UNDERPINNING IS REQUIRED, REFER TO
- THIS OFFICE FOR DETAILS. F11. ALL FOUNDATIONS ARE TO BE FREE OF WATER AND
- LOOSE MATERIAL F12. OVER EXCAVATION IS TO BE FILLED TO THE UNDERSIDE OF FOOTINGS WITH 15MPa BLINDING CONCRETE
- F13. TERMITE PROTECTION SHALL BE PROVIDED AS REQUIRED BY AUSTRALIAN STANDARD AND THE LOCAL STATUTORY F14. A 0.2mm POLYTHENE MEMBRANE SHALL BE CONTINUOUS UNDER SLAB AND RIBS LAPPED 200mm MINIMUM WHERE REQUIRED
- PUNCTURES. THE MEMBRANE IS TO EXTEND UNDER AND TO THE SIDES OF SLABS, BEAMS AND THICKENINGS. F15. EXCAVATIONS NEAR THE BUILDING EDGE SHALL BE BACKFILLED IN SUCH A MANNER TO PREVENT READY ACCESS OF WATER

AND TAPED AT ALL SERVICE PENETRATIONS, LAPS AND

#### F16. SYMBOLS ON THE DRAWING FOR REINFORCEMENT ARE AS FOLLOWS

- GRADE 400MPa DEFORMED REINFORCING BARS GRADE 500MPa DEFORMED REINFORCING BARS.
- DUCTILITY CLASS N TO AS 4671 GRADE 250MPa PLAIN REINFORCING BARS
- HARD-DRAWN STEEL TRENCH MESH, GRADE 500 DUCTILITY CLASS L TO AS 4671 RECTANGULAR RIB MESH GRADE 500
- SQUARE RIB MESH GRADE 500 **DUCTILITY CLASS L TO AS 4671** F17. FABRIC SHALL BE PLACED NEAR THE TOP OF THE SLAB AND SHALL HAVE A NOMINAL COVER OF 25mm U.N.O. F18 REINFORCEMENT FARRIC SHALL BE LAPPED SO THAT EACH PAIR OF TRANSVERSE WIRES AT THE EDGE OF ON

DUCTILITY CLASS L TO AS 4671

- SHEET OVERLAPS EACH CORRESPONDING PAIR OF TRANSVERSE WIRES OF THE SHEET BEING LAPPED. REINFORCEMENT SHALL BE SUPPORTED IN POSITION PRIOF TO CONCRETING COMMENCING ON DENSE PRECAST CONCRETE SPACER BLOCKS OR BAR CHAIRS ON GALVANIZED STEEL DISHES (FITHER OF WHICH MUST NOT DAMAGE THE MEMBRANE) AT 1000mm MAXIMUM CENTRES EACH WAY TRAMPING IN FABRIC IS NOT PERMITTED
- F19 BEAM AND STRIP FOOTING REINFORCEMENT SHALL HAVE A NOMINAL COVER OF 50mm. F20. TRENCH MESH SHALL BE LAID CONTINUOUSLY AND SHALL BE SPLICED WHERE NECESSARY WITH A MINIMUM LAP OF 500mm
- OF FABRIC AT CORNERS AND INTERSECTIONS. THE ENDS OF TRENCH MESH SHALL TERMINATE WITH A CROSSBAR F22. PROVIDE 2N12 BARS OR 3-L11TM TRENCH MESH x 2000 LONG DIAGONALLY ACROSS RE-ENTRANT CORNERS OF SLAB AND TIED TO LINDERSIDE OF TOP FARRIC

F21. TRENCH MESH SHALL BE OVERLAPPED BY THE WIDTH

- F23. CONCRETE STRENGTH IS TO BE f'c = 25MPA. WITH 65 MAX. SLUMP, COMPACTED USING MECHANICAL VIBRATION. SLAB & RIBS ARE TO BE CAST IN ONE
- CONTINUOUS POUR AND THE SLAB IS TO BE STEEL-FLOAT FINISHED F24. ALL CONCRETE IS TO BE CONTINUOUSLY WET-CURED FOR 7 DAYS. F25. THE GROUND SURROUNDING SLABS SHALL HAVE THE

SURFACE AT LEAST 150mm LOWER THAN THE SLAB AND

WATER WILL DISCHARGE TO SUITABLE DRAINAGE POINTS AND NOT FLOOD THE SLAB SURFACE. E26. HOT WATER HEATING PIPES MAY BE EMBEDDED IN THE SLAB PROVIDED THAT THE SLAB THICKNESS IS INCREASED BY 25mm AND LAID ON ADDITIONAL SL52 MESH.

BE SLOPED AWAY FROM THE SLAB EDGE SO THAT

#### CONCRETE:

ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600. UNLESS OTHERWISE SHOWN THE MINIMUM 28 DAY COMPRESSIVE

STRENGTH OF CONCRETE SHALL BE AS FOLLOWS:				
ELEMENT	CONC. STRENGTH (f'c) MPa	SLUMP mm		
FOOTINGS SLAB-ON-GROUND COLUMNS WALLS SUSPENDED SLABS & BEAMS MASS CONCRETE	25 25 32 40 32 15	75 65 80 85 80 -		

- NOTE: SLUMP CAN VARY PROVIDED THAT THE CONCRETE STRENGTH IS ACHIEVED. CONCRETE SHALL BE CURED BY AN APPROVED METHOD FOR AT LEAST 7 DAYS AFTER PLACEMENT
- CONCRETE SHALL BE COMPACTED USING MECHANICAL VIBRATION
- VIBRATION OF FORMS IS NOT ACCEPTABLE AND CONCRETE SHALL NOT BE SPREAD BY VIBRATING. CONCRETE SECTIONS SHOWN ARE MINIMUM SIZES AND
- DO NOT INCLUDE FINISHES. SIZES SHALL NOT BE REDUCED IN ANY WAY OR HOLES FORMED OR MADE IN ANY MEMBER WITHOUT THE APPROVAL OF THE ENGINEER

DEPTH OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS SLABS AND BEAMS ARE TO BE POURED CONCURRENTLY U.N.O. AND FINISHED WITH A STEEL FLOAT. MINIMUM COVER TO ALL REINFORCEMENT INCLUDING

ELEMENT	FORMED AND	FORMED ON	NOT FORMED.
	NOT EXPOSED	GROUND &	CAST AGAINST
	TO WEATHER	EXPOSED TO	GROUND
		WEATHER	
INSITU COLUMN	40	50	75
& PEDESTALS			
INSITU BEAMS	40	50	65
FOOTINGS	-	50	75
PIERS	-	50	75
SLABS ON GROUND	20	30	65
SUSPENDED SLABS	20	30	65
INSITU WALLS	25	30	65
PRECAST WALLS	25	30	65
UNDERPINNING	-	50	75

C10 REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT IN TRUE PROJECTION.

FITMENTS SHALL BE AS FOLLOWS, U.N.O:

- SYMBOLS ON THE DRAWING FOR REINFORCEMENT ARE AS FOLLOWS: GRADE 400MPa DEFORMED REINFORCING BARS TO AS1302
- GRADE 500MPa DEFORMED REINFORCING BARS, DUCTILITY CLASS N TO AS 4671
- GRADE 250MPa PLAIN REINFORCING BARS TO AS1302 HARD-DRAWN STEEL REINFORCING WIRE, GRADE 500 **DUCTILITY CLASS L TO AS 4671**
- HARD-DRAWN STEEL TRENCH MESH, GRADE 500 DUCTILITY CLASS L TO AS 4671
- RECTANGULAR RIB MESH GRADE 500 DUCTILITY CLASS L TO AS 4671
- SQUARE RIB MESH GRADE 500 DUCTILITY CLASS L TO AS 4671 ALL REINFORCEMENT AND INSERTS SHALL BE SUPPORTED AND HELD IN THE DESIGN LOCATION BY APPROVED BAR CHAIRS, SPACERS OR TIES. BAR CHAIRS SHALL BE
- PLACED AT MINIMUM 1000 CENTRES IN TWO DIRECTIONS U.N. WELDING AND THREADING OF REINFORCEMENT IS NOT PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER
- REINFORCEMENT SHALL BE EVENLY DISTRIBUTED OVER THE WIDTHS SHOWN U.N.O. PROVIDE 2-N12 x 1200 BARS DIAGONALLY ACROSS RE-ENTRANT CORNERS OF SLABS, TIED UNDER THE TOP
- FABRIC, U.N.O. STRIPPING OF FORMS AND REMOVAL OF FORMWORK SHALL TAKE PLACE IN ACCORDANCE WITH A PROCEDURE AGREED TO BY THE ENGINEER.
- CONCRETE MUST BE SEPARATED FROM SUPPORTING MASONRY WORK BY TWO LAYERS OF A SUITABLE DE-BONDING MEMBRANE.
- HOLDING-DOWN BOLTS SHALL BE SUPPLIED TO THE CONCRETOR FOR CASTING INTO THE CONCRETE AND SHALL BE INSTALLED IN ACCORDANCE WITH THE STEEL HOLDING-

## MASONRY:

- M1 ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700 AND AS 4455. M2 CLAY BRICKS SHALL HAVE A CHARACTERISTIC UNCONFINED
- COMPRESSIVE STRENGTH OF 30MPa LLN O SOLID CONCRETE BRICKS SHALL HAVE A CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF 10MPa U.N.O. M3 HOLLOW AND CORED CONCRETE BLOCKS SHALL HAVE A CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH
- M4 MORTAR SHALL BE AS FOLLOWS LOAD BEARING WALLS = 1 PART CEMENT AND 5 PARTS
- WELL GRADED SAND PLUS WATER THICKENER (CELLULOSE BASED) NON LOAD BEARING WALLS = 1 PART CEMENT 1 PART HYDRATED LIME AND 6 PARTS WELL GRADED SAND M5 LOAD BEARING MASONRY SHALL HAVE FULL-BED JOINTS, U.N.O. M6 MASONRY TIES FOR CAVITY WALLS SHALL BE MEDIUM
- DUTY GRADE, SPACED AT NOT MORE THAN 600mm CENTRES VERTICALLY AND HORIZONTALLY TIES FOR VENEER WALLS SHALL BE LIGHT DUTY GRADE SPACED AT NOT MORE THAN 450mm CENTRES VERTICALLY AND HORIZONTALLY. ADDITIONAL TIES SHALL BE PLACED ADJACENT TO
- LATERAL SUPPORTS, CONTROL JOINTS AND AROUND OPENINGS AT A SPACING OF NOT MORE THAN 300mm, AND LOCATED NOT MORE THAN 300mm FROM THE LINE OF SUPPORT, CONTROL JOINT OR PERIMETER OF OPENING CHARACTERISTIC STRENGTH OF TIES ARE TO BE RATED FOR THE APPROPRIATE CAVITY WIDTH
- M7 MASONRY SHALL BE TIED TO COLUMNS AT 400 MAXIMUM VERTICAL CENTRES. M8 NEW MASONRY SHALL BE TIED INTO EXISTING USING MEDIUM DUTY TIES AT 400mm MAXIMUM VERTICAL
- CENTRES ALONG ALL VERTICAL EDGES, AND AT 600 MAXIMUM HORIZONTAL CENTRES U.N.O. M9 MASONRY TIES ARE TO BE IN ACCORDANCE WITH
- AS 3700 AND AS 2699. M10 TIES BETWEEN LEAVES OF MASONRY FORMING SOLID WALLS OR ENGAGED PIERS SHALL BE MEDIUM DUTY, AND SPACED AT 400mm MAXIMUM CENTRES IN EACH DIRECTION.
- NON-LOADBEARING WALLS, PROVIDE A 100x10 GALVANISED STEEL PLATE LINTEL WITH 75mm MINIMUM END BEARING M12 FOR DOOR OPENINGS OF 1000-1800mm WIDE IN

M11 FOR DOOR OPENINGS NOT EXCEEDING 1000mm WIDE IN

- NON-LOADBEARING WALLS, PROVIDE A GALVANISED STEEL 100×10 EA LINTEL WITH 75mm MINIMUM END BEARING TO EACH END.
- M13 ALL CAVITIES BELOW GROUND LEVEL SHALL BE MORTAR M14 VERTICAL CONTROL JOINTS SHALL COMPLY WITH TECHNICAL NOTE No. 61 OF THE CEMENT AND CONCRETE
- ASSOCIATION OF AUSTRALIA AND SHALL BE LOCATED AS DESCRIBED IN THAT PUBLICATION OR AS SHOWN ON THE DRAWINGS. JOINTS SHALL BE KEPT FREE OF
- NON-COMPRESSIBLE MATERIAL. M15 NON-LOADBEARING WALLS SHALL BE KEPT 20mm CLEAR OF THE UNDERSIDE OF FLOORS AND SHELF ANGLES. M16 ALL STEELWORK IS TO HAVE PROTECTIVE COATING WHERE
- REQUIRED IN ACCORDANCE WITH BCA 2019 SECT 3.4.4.4 M17 AT VERTICAL CONTROL JOINTS PROVIDE MASONRY FLEXIBLE ANCHORS TYPE MFA 3/3 AT 600mm MAX. CENTRES, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, JOINTS ARE TO BE NOT LESS THAN 10mm. ARTICULATION JOINTS MUST EITHER BE FILLED WITH A COMPRESSIBLE FOAM OR POLYSTYRENE FILLER
- AND A FLEXIBLE SEALANT OR A PURPOSE MADE BACKER ROD AND A FLEXIBLE SEALANT. IN ADDITION, THE JOINT CONSTRUCTION MUST SATISFY REQUIREMENTS FOR: 1. FIRE RATING 2. SOUND INSULATION
- 3. WATERPROOFING AS SPECIFIED BY THE ARCHITECT. THE CONTROL JOINTS ARE TO BE AT 6000mm MAXIMUM CENTRES.

- M18 WHERE NON LOAD BEARING WALLS ABUT THE UNDERSIDE OF HORIZONTAL OR RAKING MEMBERS (SLARS STEEL OR CONCRETE REAMS) PROVIDE MASONRY ELEXIBLE ANCHORS TYPE MFA4 TO EVERY THIRD PERPEND, FIXED TO THE STRUCTURAL MEMBER WITH RAMSET 6mm DIA. HEAD-DRIVE PINS OR SIMILAR. PROVIDE 10mm CLOSED-CELL POLYETHYLENE FOAM BACKING RODS RETWEEN THE WALL AND THE MEMBER
- M19 WHERE MASONRY WALLS INTERSECT STRUCTURAL MEMBERS (STEEL OR CONCRETE), PROVIDE MASONRY FLEXIBLE ANCHORS TYPE MFA7 AT 600 MAX. CENTRES THE MEMBER WITH 6mm DIA. HEAD RAMSET DRIVE-PINS. MEA7 TIES SHALL BE 200mm LONG x 50mm TURNDOWN TIES TO OUTER SKIN SHALL INCORPORATE A DRIP GROOVE
- PROVIDE MASONRY FLEXIBLE ANCHOR 'ANCHOR-TIES' AT 430mm VERTICAL AND 600mm HORIZONTAL CENTRES. M21 CONCRETE BEAMS AND SLABS SHALL BE SEPARATED FROM SUPPORTING MASONRY BY 2 LAYERS OF MALTHOID OR SIMILAR APPROVED MEMBRANE ON TOP
- OF MORTAR LEVELLING SCREED. M22 THE BUILDER SHALL PROVIDE DETAILS AND PROCEDURES OF NEEDLE AND PROPPING TO OPENINGS IN MASONRY WALLS FOR APPROVAL BEFORE WORK COMMENCES. M23 WHERE MASONRY WALLS ARE TO BE CONSTRUCTED ON SUSPENDED SLABS, STACK MASONRY UNITS TO BE USED IN THE WALL AS NEAR AS POSSIBLE TO THE FINAL POSITION OF THE WALL. NO UNITS ARE TO BE STACKED
- ON SUSPENDED CONCRETE WORKS UNTIL ALL PROPS HAVE BEEN REMOVED. THE STACKED LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD AS SET OUT IN THE GENERAL NOTES. NO MASONRY UNITS ARE TO BE STACKED ON CANTILEVERED SLABS. M24 NON LOAD BEARING AAC BLOCK WALLS TO BE INSTALLED
- IN ACCORDANCE WITH BLOCK MANUFACTURERS RECOMMENDATIONS
- STRUCTURAL STEELWORK: S1 ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE
- S2 ALL STEEL SHALL BE NEW AND FREE FROM WELDS AND BLEMISHES UNLESS APPROVED BY THE ENGINEER.
- S3 FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AS 4100 AND SAA/SNZ HB62. S4 HOT-ROLLED AND WELDED PRODUCTS SHALL BE BHP-300PLUS AND PLATE SHALL BE GRADE 250 U.N.O.
- S5 ALL WELDING SHALL BE IN ACCORDANCE WITH AS 1554. WELD TYPES ARE DESIGNATED AS FOLLOWS CFW - CONTINUOUS FILLET WELD FPBW - FULL PENETRATION BUTT WELD PPBW - PARTIAL PENETRATION BUTT WELD
- S7 ALL WELDS SHALL BE 6mm CONTINUOUS FILLET, CATEGORY GP, USING E41XX/W40X CONSUMABLES U.N.O. S8 WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS 1554 INSPECTED & CERTIFIED BY QUALIFIED PERSONNEL IN ACCORDANCE WITH AS2214
- S9 ALL HIGH-STRENGTH STRUCTURAL BOLTS SHALL BE M20 GRADE 8.8/S U.N.O. IN ACCORDANCE WITH AS 1252 S10 HOLDING-DOWN BOLTS SHALL BE M20 GRADE 4.6/S,
- S11 BOLTS MUST BE OF SUFFICIENT LENGTH TO HAVE AT LEAST ONE FULL THREAD EXPOSED AFTER TIGHTENING S12 BOLTS IN OVERSIZE OR SLOTTED HOLES ARE TO HAVE SUITABLE LARGER SIZE WASHERS
- IN ACCORDANCE WITH THE APPROPRIATE CONNECTION AS DETAILED IN THE AISC STANDARDISED STRUCTURAL CONNECTIONS MANUAL S14 UNLESS NOTED OTHERWISE CONNECTIONS BETWEEN 2 STRUCTURAL STEEL MEMBERS ARE TO HAVE MINIMUM 2M20 8.8/S BOLTS IN 22¢mm HOLES

S13 CONNECTIONS NOT SPECIFICALLY DETAILED SHALL BE

- M20 FOR WALLS WITH A CAVITY WIDTH BETWEEN 80mm TO 140mm S17 ALL CLEAT PLATES AND STIFFENERS SHALL BE 8mm
- - S21 BEFORE COMMENCING FABRICATION 3 COPIES OF THE SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. THIS REVIEW DOES NOT INCLUDE CHECKING OF DIMENSIONS S22 CAMBER SHALL BE AS NOTED ON THE DRAWINGS.

AS FOLLOWS

- S23 STRUCTURAL STEEL TO BE CONCRETE ENCASED SHALL BE WRAPPED WITH F41 MESH. THE GAP BETWEEN THE STRUCTURAL STEEL AND THE MESH AND AND THE THE EXTERNAL COVER TO THE MESH SHALL BE 25mm AND 50mm RESPECTIVELY.
- S24 ALL BOLTS AND STRUCTURAL STEEL EXPOSED TO THE WEATHER SHALL BE HOT-DIP GALVANISED U.N.O. PAINT SYSTEMS TO GALVANISED STEEL TO BE
- AS SPECIFIED BY THE ARCHITECT S25 ALL STEEL LINTELS SUPPORTING MASONRY EXPOSED TO THE WEATHER SHALL BE HOT-DIP GALVANISED
- S26 PROVIDE ALL NECESSARY CLEATS AND HOLES REQUIRED TO FIX TIMBER AND OTHER MATERIALS AND FINISHES TO THE STEELWORK. S27 LINTELS SHALL BE PROPPED DURING LOAD
- S28 THE CONTRACTOR SHALL PROVIDE AND LEAVE IN PLACE UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED. SUCH TEMPORARY BRACING AS IS NECESSARY TO ADEQUATELY STABILIZE THE STRUCTURE DURING ERECTION. S29 PROVIDE 150mm MINIMUM END BEARING WITH 20mm NOM.
- LEVELLING GROUT U.N.O. TO STEELWORK SEATED ON MASONRY. CHARACTERISTIC COMPRESSIVE STRENGTH OF GROUT IS 30MPa S30 ALL STEELWORK IS TO HAVE PROTECTIVE COATING WHERE
- REQUIRED & IN ACCORDANCE WITH BCA 2019 SECTION 3.4.4.4 S31 COATINGS DAMAGED DURING TRANSPORT AND ERECTION OR BY WELDING SHALL BE MADE GOOD AFTER BEING WIRE-BRUSHED CLEAN, AND RECOATED AS PER S30 ABOVE.
- S32 REFER TO ARCHITECTURAL DRAWINGS FOR ALL ADDITIONAL PLATES, ANGLES ETC. AS REQUIRED FOR FIXINGS TO INTERNAL PARTITIONS, BLOCKING, WINDOW FRAMES, ARCHITECTURAL FEATURES ETC

- S15 BOLT TYPES AND BOLTING PROCEDURE ARE DESIGNATED S33 PROVIDE ALL NECESSARY TRIMMING ANGLES AND FIXINGS TO SUPPORT CLADDING AND FLASHINGS AT ROOF OR 4.6/S - COMMERCIAL BOLTS TO AS 1111, SNUG TIGHTENED WALL INTERSECTIONS S34 PROVIDE ALL NECESSARY SUBFRAMES AND TRIMMERS FOR 8.8/S - HIGH STRENGTH STRUCTURAL BOLTS, NUTS AND HARDENED WASHERS TO AS 1252, SNUG TIGHTENED MECHANICAL AND ELECTRICAL EQUIPMENT AND 8.8/TB - HIGH STRENGTH STRUCTURAL BOLTS AS ABOVE ARCHITECTURAL FEATURES FULLY TENSIONED TO AS 1511 IN A BEARING TYPE JOINT
- S16 FULLY TENSIONED BOLTS ARE TO BE INITIALLY SNUG TIGHTENED, CONNECTING PLATES ADJUSTED TO FULL CONTACT. THEN TIGHTEN BOLTS TO AN ADDITIONAL HALF TURN IN ACCORDANCE ALTERNATIVELY PROVIDE LOAD INDICATING WASHERS AND INSTALL CONNECTIONS IN ACCORDANCE WITH MANUFACTURERS

8.8/TF - HIGH STRENGTH STRUCTURAL BOLTS AS ABOVE,

- RECOMMENDATIONS AND AS 4100 S18 THE ENDS OF ALL TUBULAR MEMBERS SHALL BE
- SEALED WITH A 3mm PLATE U.N.O. S19 TUBULAR MEMBERS TO BE GALVANISED SHALL BE ADEQUATELY VENTED. S20 PURLINS AND GIRTS INCLUDING LATERAL AND BUCKLING RESTRAINING MEMBERS SUCH AS
- BRIDGING, STRUTS AND TIE RODS SHALL BE IN ACCORDANCE WITH AS/NZS 4600, GALVANISED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS THE ARCHITECT.
  - UNDER ALL BOLT HEADS AND NUTS. AND AS FOLLOWS: 25x25x1.6mm - FOR BOLTS UP TO M6 DIA. 50x50x3mm - FOR BOLTS UP TO M12 DIA 65x65x5mm - FOR BOLTS UP TO M20 DIA
  - HOT-DIP GALVANIZED.
    - AND AGAIN AT 12 MONTHS. T5 MAKE GOOD PRESERVATIVE TREATMENT WHERE T6 ALL EXTERNAL TIMBERS SHALL BE DURABLE, APPROPRIATE HAZARD LEVEL FOR SPECIFIC SERVICE
    - CONDITIONS, ONLY TIMBER OF HIGH DURABILITY IS PERMITTED IN CONTACT WITH SOIL T7 GLUE-LAMINATED BEAMS SHALL BE MANUFACTURED IN ACCORDANCE WITH AS 1328. CAMBER SHALL BE AS NOTED ON THE DRAWINGS OR AS SPECIFIED. AND INSTALLED WITH THE NATURAL HOG UP. BEAMS FOR EXTERNAL USE SHALL BE FABRICATED USING RESORCINOL OR PHENOLIC ADHESIVE
    - WITH THE MANUFACTURER'S RECOMMENDATIONS CONNECTORS USED IN EXPOSED OR AGGRESSIVE ENVIROMENT T9 ALL TIMBER FRAMEWORK SHALL BE ADEQUATELY TIED TO RESIST UPLIFT AND RACKING FORCES IN ACCORDANCE WITH AS 1684. ALL MEMBERS BETWEEN THE ROOF AND
    - T8 ALL PROPRIETARY FIXINGS SHALL BE INSTALLED TO DEVELOP THEIR MAXIMUM CAPACITY AND IN ACCORDANCE THE FOUNDATIONS ARE TO BE ADEQUATELY CONNECTED

COMMENCEMENT OF FABRICATION.

TO EACH OTHER.

- ALL TIMBER DESIGN, CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 1720 AND AS 1684.
- ALL TIMBER FRAMING SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH AS1684 OR THE "TIMBER FRAMING MANUAL" BY TIMBER PROMOTION T2 STRUCTURAL TIMBER AS SHOWN ON THE ENGINEER'S
- DRAWINGS SHALL HAVE A MINIMUM STRESS GRADE F17 KILN DRIED HARDWOOD (KDHW) UNSEASONED HARDWOOD (HW) OREGON (DOUGLAS FIR UNSEASONED)
- SEASONED RADIATA PINE (SRP) LAMINATED VENEER LUMBER MGP10 MACHINE GRADED RADIATA PIN T3 TIMBER SIZES NOT CALLED UP SHALL BE IN ACCORDANCE WITH AS 1684 OR THE ARCHITECT'S
- DRAWINGS. ANY DISCREPANCY SHALL BE REFERED TO T4 ALL BOLTED CONNECTIONS SHALL USE WASHERS SIZES OF WASHERS TO BE IN ACCORDANCE WITH AS1720 75x75x6mm - FOR BOLTS GREATER THAN M20 DIA.
- MINIMUM TIMBER EDGE DISTANCE TO BE 5 x BOLT ALL EXTERNAL BOLTS, NUTS AND WASHERS SHALL BE NO KNOTS OR DEFECTS SHALL OCCUR WITHIN 150mm OF BOLT GROUP OR CONNECTORS. WHERE POSSIBLE, RE-TIGHTEN BOLTS AFTER 6 WEEKS
- CHECKOUTS, HOLES AND CUTS EXPOSE UNTREATED SUITABLE FOR EXTERNAL USE, AND COMPLY WITH THE
- ARE TO BE TREATED WITH AN APPROVED PROTECTIVE COATING

T10 THE BUILDER SHALL SUBMIT TO THE BUILDING SURVEYOR

3 SETS OF THE TRUSS MANUFACTURER'S LAYOUT DRAWINGS AND COMPUTATIONS FOR BUILDING APPROVAL PRIOR TO

- T11 METAL FIXINGS SHALL BE COMPATIBLE WITH TIMBER GLUES AND PRESERVATIVE TREATMENTS. T12 NO PENETRATIONS OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE
  - IN TIMBER MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER UNLESS ALLOWED FOR IN AS1684 T13 NOTCHING OF RAFTERS IS PERMITTED UP TO D/3 FROM THE TOP, OR D/4 FROM THE BOTTOM AT END
  - T14 NOTCHING OF CANTILEVERED MEMBERS AT SUPPORTS MUST COMPLY WITH AS 1684 (ie. BIRDMOUTHS)
  - 115 NOTCHING OF BEAMS IS NOT PERMITTED T16 PLYWOOD WALL BRACING AND TENSIONED HOOP-IRON CROSS BRACING IS TO COMPLY WITH AS 1684. STUDS ARE NOT TO BE NOTCHED FOR BRACING. T17 ROOF BRACING SHALL COMPLY WITH AS 1684
  - T18 RAFTERS OR FLOOR JOISTS BUTTING INTO SIDES OF TIMBER BEAMS ARE TO BE CONNECTED USING 'PRYDA FRAMING BRACKETS OR 'PRYDA' MULTIGRIPS TO EACH SIDE OF THE MEMBER T19 WHERE ROOF LIGHTS OR OTHER INSTALLATIONS
  - PENETRATE THE ROOF ERAMING TRIM FACH SIDE OF THE OPENING WITH DOUBLE RAFTERS TO MAINTAIN AVERAGE RAFTER SPACING. USE TRIMMER RAFTERS TO ADJACENT T20 FOOTINGS TO TIMBER POSTS SUPPORTING PERGOLA FRAMING SHALL BE 600x600x600mm DEEP MINIMUM MASS CONCRETE. POSTS ARE TO BE SUPPORTED 50mm CLEAR
  - T21 UNLESS NOTED OTHERWISE PROVIDE DOUBLE STUDS TO EACH END OF LINTELS AND BEAMS. DOUBLE STUDS TO BE OF MINIMUM SECTION 2/90x45 LAMINATED IN ACCORDANCE WITH THE TIMBER FRAMING MANUAL AND AS 1684. LESSER MEMBER SIZES MAY ONLY BE USED IF COMPLIANT WITH THESE CODES, CONTINUE DOUBLE STUDS TO LOWER LEVELS TO CARRY MAJOR POINT LOADS TO FOUNDATIONS

OF THE FINISHED GROUND LEVEL ON STANDARD

GALVANISED STEEL STIRRUPS.

#### T22 PROVIDE 20mm MIN CLEARANCE TO UNDERSIDE OF ROOF TRUSSES OR FLOOR JOISTS FOR NON-LOAD BEARING STUD WALL.

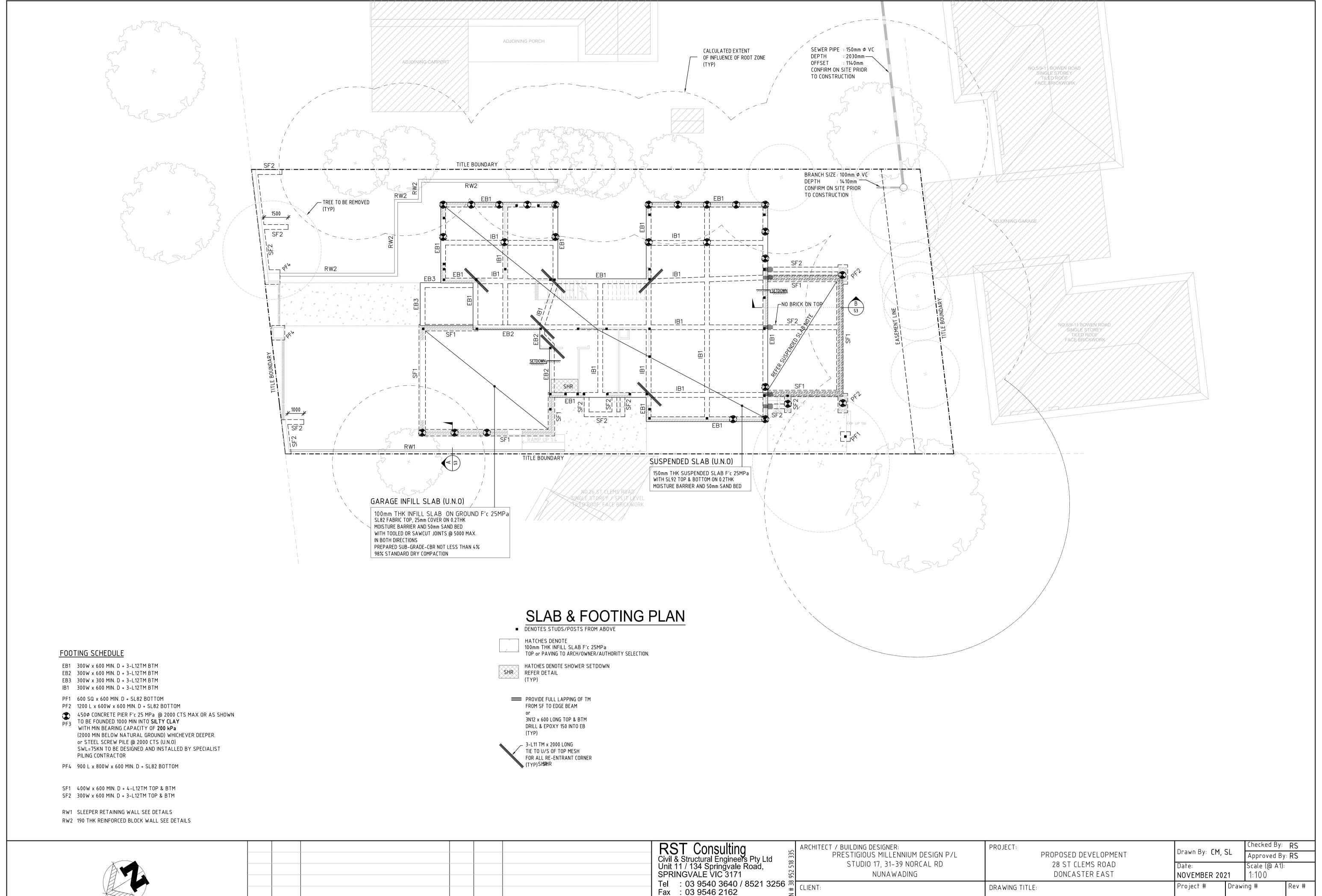
OFFICE FOR GUIDANCE.

TREE(S) OWNER/BUILDER TO PROVIDE CONCRETE BLINDING 15MPa AS ROOT BARRIER UNDER FOOTINGS (within zone of influence of 0.75 x tree matured height) TO BE FOUNDED ON WEATHERED BEDROCK OR 2000mm DEEP MIN. FROM GROUND LEVEL (WHICH EVER IS SHALLOWER) IF TREES EXIST OR EXPECTED DO NOT CUT TREE STRUCTURAL ROOTS. IF UNSURE, CONTACT AN ARBORIST / THIS

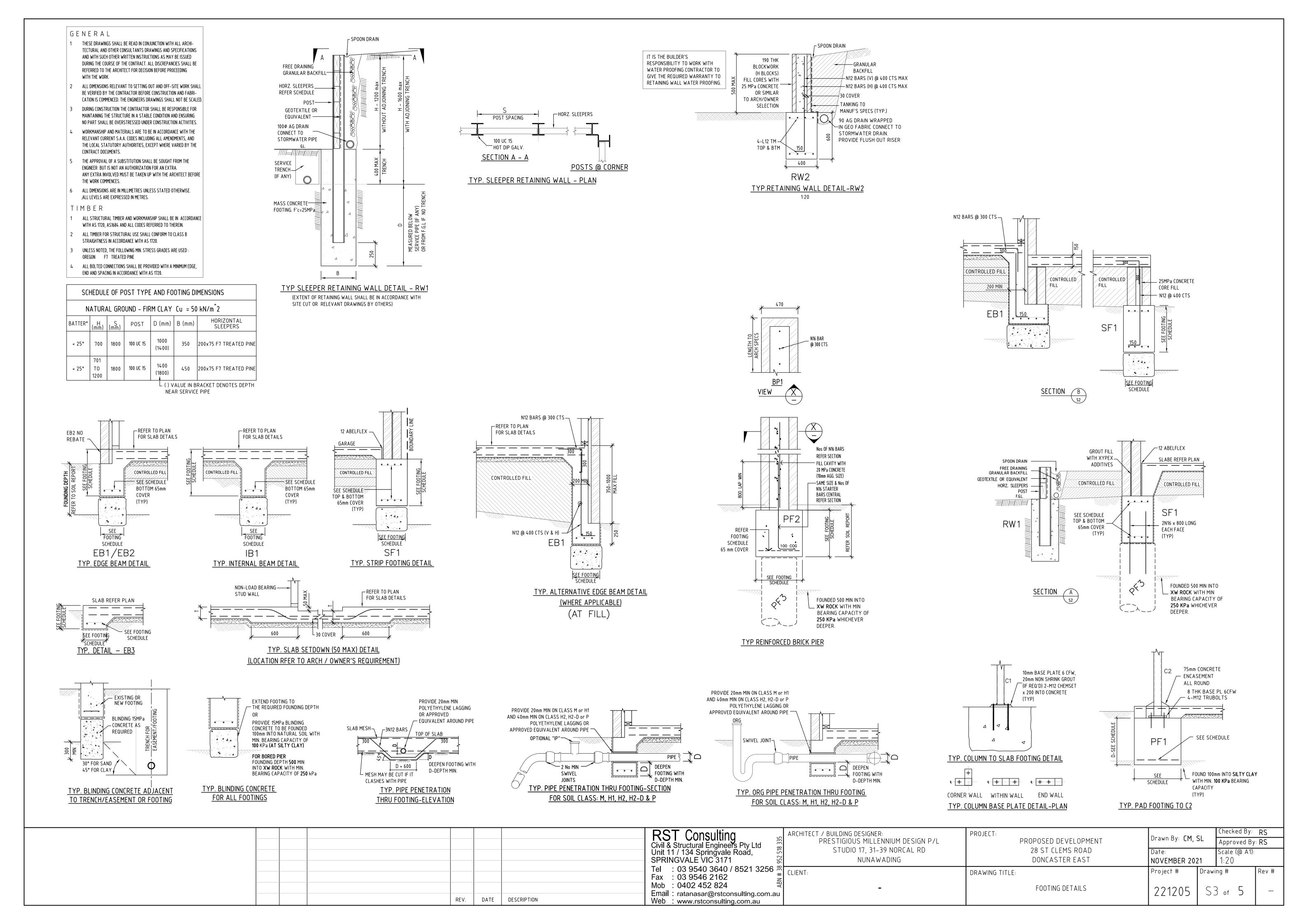
# DRAWING SCHEDULE

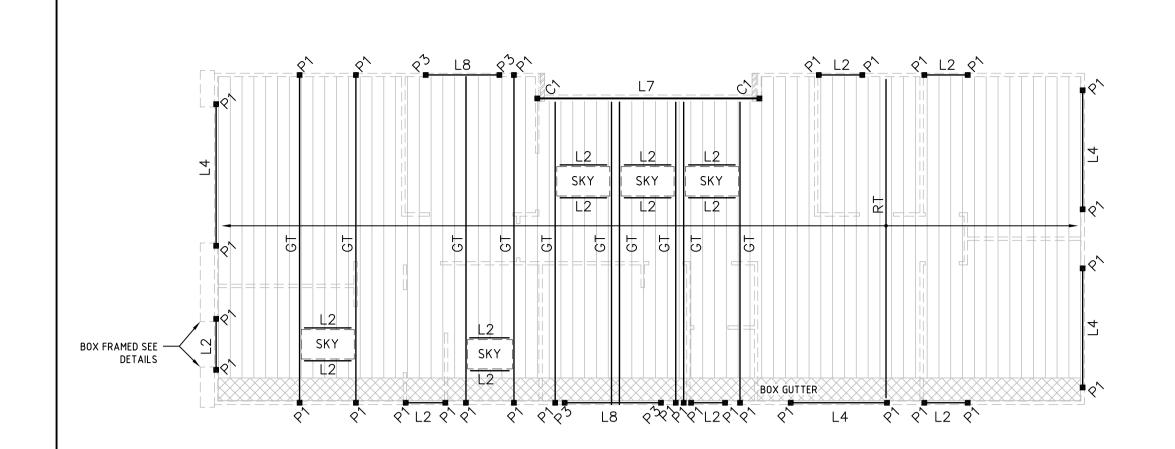
- S1 GENERAL NOTES
- S2 SLAB & FOOTING PLAN
- S3 FOOTING DETAILS
- S4 ROOF, FIRST FLOOR FRAMING PLANS & WALL BRACING PLANS
- S5 STRUCTURAL DETAILS

	RST Consulting Civil & Structural Engineers Pty Ltd Unit 11 / 134 Springvale Road, SPRINGVALE VIC 3171	ARCHITECT / BUILDING DESIGNER: PRESTIGIOUS MILLENNIUM DESIGN P/L STUDIO 17, 31-39 NORCAL RD NUNAWADING	PROJECT: PROPOSED DEVELOPMENT 28 ST CLEMS ROAD DONCASTER EAST	Drawn By: CM, SL  Date:  NOVEMBER 2021	Checked By: RS Approved By: RS Scale (@ A1): N.T.S
REV. DATE DESCRIPTION	Tel : 03 9540 3640 / 8521 3256 % Fax : 03 9546 2162 # Mob : 0402 452 824 Email : ratanasar@rstconsulting.com.au Web : www.rstconsulting.com.au	CLIENT:	DRAWING TITLE:  GENERAL NOTES	<del></del>	wing # Rev # 51 of 5 —

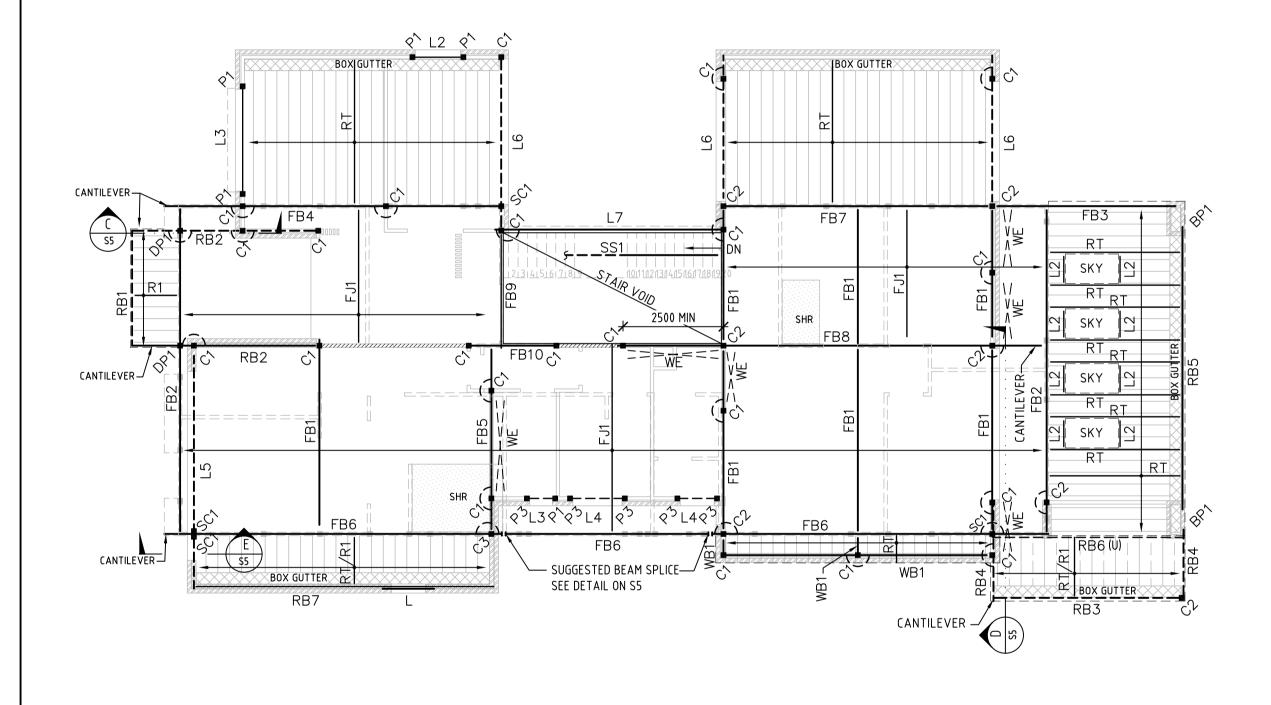


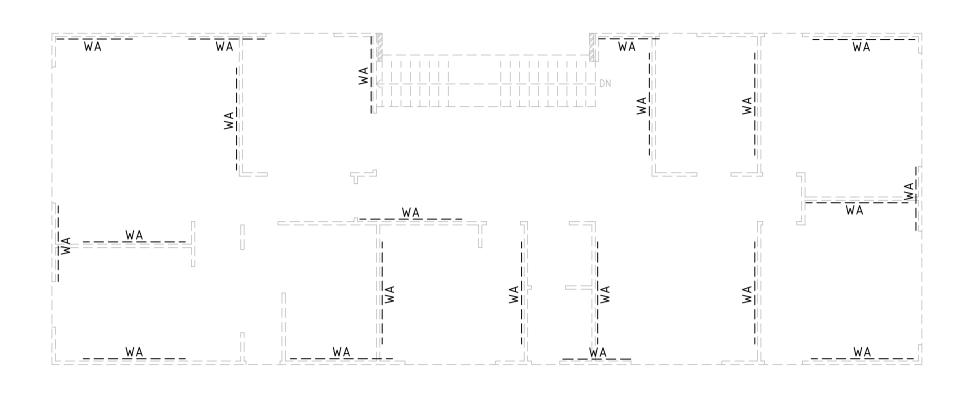




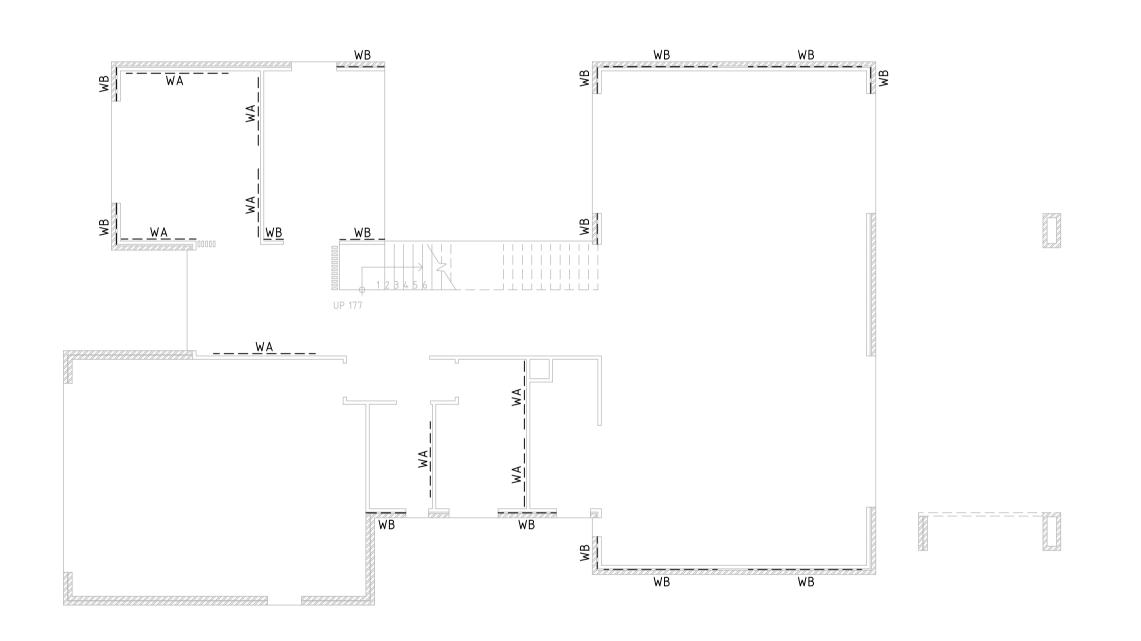


# ROOF FRAMING PLAN





# FIRST FLOOR WALL BRACING PLAN



# GROUND FLOOR WALL BRACING PLAN

(WE BRACING REFER TO STRUCTURAL PLANS)

#### (FOR METAL ROOF, TRUSSES MAY BE SPACED AT 900 CTS MAX IF CEILING PLASTERBOARDS ARE FIXED TO CEILING BATTENS) TIMBER ROOF TRUSSES (RT) & BRACING TO MANUF'S SPECIFICATIONS AND DETAILS. WALL BRACING TO AS1684. IF GIRDER TRUSSES (GT) ARE LOCATED AT DIFFERENT POSITIONS FROM THE ROOF FRAMING PLAN, THIS OFFICE MUST BE NOTIFIED TO ENSURE THE SUPPORTING MEMBERS ARE NOT OVERSTRESSED. BUILDER TO ENSURE DOUBLE STUDS (P3) ARE PROVIDED UNDER ALL GIRDER TRUSSES, WINDOW / DOOR LINTELS OR BEAMS U.N.O UNLESS OTHERWISE SPECIFIED, ROOF BEAMS AND LINTELS TO BE IN ACCORDANCE WITH AS 1684 OR TO MANUFACTURER'S SPECIFICATIONS. IF UNSURE CONTACT THIS OFFICE

@ 600 CTS FOR METAL ROOF

# MEMBER SCHEDULE

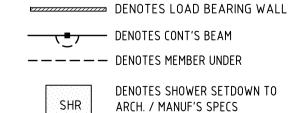
- L REFER NON LOAD BEARING BRICK LINTEL SCHEDULE
- L1 90 x 58 LVL 15 L2 140 x 58 LVL 15 or 190 x 45 MGP10

NOTE:

TIMBER TRUSSES:

- L3 190 x 58 LVL 15 or 240 x 45 MGP10
- L4 240 x 58 LVL 15 or 290 x 45 MGP10
- L5 300 PFC + 200 x 10 (H) PL (GALV)
- L6 250 PFC + 200 x 10 (H) PL (GALV) L7 300 PFC
- L8 2/240 x 42 LVL 15
- P1 2/90 x 35 MGP10
- <del>P2 3/90 x 35 MGP10</del>
- P3 2/90 x 42 LVL 15 or 3/90 x 45 MGP10
- C1 89 SHS 5.0 C2 89 SHS 6.0
- C3 100 SHS 6.0 (GALV)
- SC1 89 SHS 5.0
- DP1 89 SHS 5.0 (IF REQUIRED)
- R1 90 x 45 MGP10 @ 600 CTS
- RB1 300 PFC (GALV) FLANGES FACING OUT
- RB2 300 PFC (GALV) FLANGES FACING OUT
- RB3 250 PFC
- RB4 250 PFC
- RB5 300 PFC or FACADE TRUSS TO MANUF'S SPECS RB6 2/240 x 45 MGP10
- RB7 42 x 90 LVL 15
- FJ1 PS40 45 x 90 MGP10 @ 450 CTS OR EQUIVALENT
- FB1 250 PFC FB2 250 PFC
- FB3 250 PFC
- FB4 250 PFC FB5 250 PFC
- FB6 460 UB 82
- FB7 460 UB 82
- FB8 460 UB 82
- FB9 2/300 x 42 LVL 15 FB10 250 PFC
- SS1 250 x 150 x 9.0 RHS
- BP1 REINFORCED BRICK PIER SEE DETAIL
- WB1 89 SHS 5.0 (WIND BEAM)
- WE COLUMN BRACING SEE DETAIL
- WA DIAGONAL TENSION METAL STRAPS WALL BRACING TYPE A FIX TO AS1684.2-2010, TABLE 8.18 (d) MIN. BRACING CAPACITY = 3.0 KN/m OR EQUIVALENT
- WB PLYWOOD WALL BRACING TYPE B FIX TO
  AS1684.2-2010, TABLE 8.18 (h)-METHOD B (NO RODS)
  BRACING CAPACITY = 6.0 KN/m OR EQUIVALENT

# FIRST FLOOR FRAMING PLAN



NON LOAD BEARING BRICK LINTEL (L) (GALV)				
SPAN (mm)	MIN. END BEARING (mm)	PER BRICK SK		
UP TO 1000	150	100 x 10 FL		
1000 TO 2500	230	100 x 100 x 8 E		
2500 TO 3000	230	150 x 100 x 10 U		
3000 TO 3500	230	* 150 x 100 x 10 UA		

\* DENOTE MAXIMUM BRICK HEIGHT OF 2500 MAX.

TIMBER GENERAL SPECIFICATION (U.N.0)				
	1.	ROOF BATTENS (METAL ROOF)-	35 x 35 F17 KDHW @ 900 CTS MAX	

2. WALL STUD: HEIGHT (mm)

2700

2700 - 90 x 35 MGP10 @ 450 CTS (+ ONE ROW OF NOGGINGS) 3000 - 90 x 45 MGP10 @ 450 CTS

(OR EQUIVALENT)

ROOF BATTENS (TILE ROOF) - 35 x 35 F17 KDHW @ 330 CTS MAX

(+ TWO ROW OF NOGGINGS)

(MAX ROOF LOAD WIDTH OF 7500mm)

(ALL STUDS MAY BE NOTCHED 20mm MAX)

TOP PLATE - 2/45 x 90 MGP10

BOTTOM PLATE - 45 x 90 MGP10

LAMP CTUP

PEFER PLAN MIN 2 (2023 F M

JAMB STUD - REFER PLAN. MIN 2/90x35 MGP10. NOGGING - 70 x 35 MGP10



		REV.	DATE	DESCRIPTION

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PRESTIGIOUS MILLENNIUM DESIGN P/L
STUDIO 17, 31-39 NORCAL RD
NUNAWADING

CLIENT:

CLIENT:

PROJECT:
PROF

2

DRAWING TITLE:

ROJECT:
PROPOSED DEVELOPMENT
28 ST CLEMS ROAD
DONCASTER EAST

- 70 x 35 MGP10

Checked By: RS

Approved By: RS

