

## GENERAL NOTES

- G01. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. CONSTRUCTION FROM THESE DRAWINGS, AND THEIR ASSOCIATED CONSULTANT'S DRAWINGS IS NOT TO COMMENCE UNTIL APPROVED BY LOCAL AUTHORITIES.
- G02. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES.
- G03. ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.
- G04. BUILDER TO OBTAIN ALL REQUIRED SURVEY INFORMATION AND TO PROVIDE COPIES OF SURVEY INFORMATION TO THE OWNER AS REQUIRED. THE COST OF ALL SURVEYS ARE TO BE PAID BY THE OWNER/DEVELOPER.
- G05. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- G06. UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- G07. THE STRUCTURAL COMPONENTS DETAILED ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANT STANDARDS AUSTRALIA CODES AND LOCAL GOVERNMENT ORDINANCES FOR THE FOLLOWING LOADINGS. REFER TO ARCHITECTURAL DRAWINGS FOR PROPOSED FLOOR USAGE.

FLOOR USAGE	LIVE LOAD	SUPERIMPOSED DEAD LOADS
FLOORS U.N.O.	1.5 kPa	*SEE NOTE BELOW
GARAGE SLAB	2.5 kPa	
STAIRS & BALCONY AREAS	2.0 kPa	*SEE NOTE BELOW
ROOF	0.25 kPa	

NOTE: TILED AREAS (i.e. bathrooms and balconies) HAVE BEEN DESIGNED WITH A SUPERIMPOSED DEAD LOAD OF 1.5kPa. (i.e. a total topping of 60mm including cfc, bedding and tiles).

- G08. WIND LOADS ARE IN ACCORDANCE WITH AS1170.0-2002 & AS1170.2-2002 AS FOLLOWS: IMPORTANCE LEVEL: 2, ANNUAL PROBABILITY OF EXCEEDANCE: 1/500, REGION: A2, TC2.5, Ms=1.0, M1=1.0.
- G09. EARTHQUAKE LOADS ARE IN ACCORDANCE WITH AS1170.0-2002 & AS1170.4-2007 AS FOLLOWS: IMPORTANCE LEVEL: DOMESTIC STRUCTURE, TOP OF ROOF > 8.5m, kp=1.0, Z=0.08 EARTHQUAKE DESIGN CATEGORY: 2

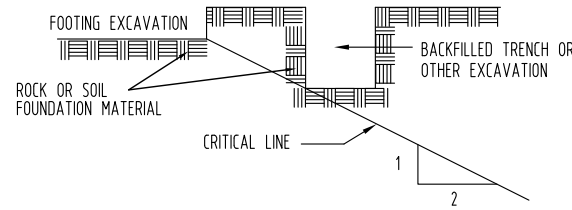
## STEELWORK

- S01. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS4100 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- S02. UNLESS NOTED OTHERWISE, ALL STEEL SHALL BE IN ACCORDANCE WITH AS3678 GRADE 250, OR AS3679 GRADE 300, OR AS1163 GRADE 350 AS APPROPRIATE.
- S03. THREE (3) COPIES OR ONE (1) TRANSPARENCY OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT LEAST 7 DAYS PRIOR TO COMMENCEMENT OF FABRICATION. FABRICATION NOT TO COMMENCE WITHOUT ENGINEER'S APPROVAL OF WORKSHOP DRAWINGS. ALL DIMENSIONS AND SETOUTS TO BE OBTAINED FROM ARCHITECTURAL DRAWINGS WHERE NOT INDICATED ON STRUCTURAL DRAWINGS.
- S04. 

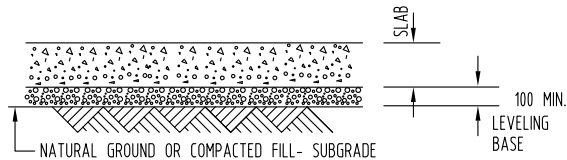
BOLT CATEGORY	COMMENTS
8.8/5	HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS252 SNIIG TIGHTENED
- S05. UNLESS OTHERWISE NOTED ALL BOLTS SHALL BE M20 CATEGORY 8.8/5 NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS. ALL BOLTS, NUTS AND WASHERS TO BE GALVANISED.
- S06. FABRICATION SHALL COMPLY WITH AS4100, SECTION 14.
- S07. ERECTION SHALL COMPLY WITH AS4100, SECTION 15.
- S08. UNLESS OTHERWISE NOTED, ALL FILLET WELDS SHALL BE 6mm CONTINUOUS CATEGORY SP USING E48XX ELECTRODES. ALL BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS TO AS1554.1.
- S09. ALL PLATES TO BE 10mm THICK UNLESS NOTED OTHERWISE.
- S10. ALL STEELWORK SHALL BE SECURELY TEMPORARILY BRACED BY THE ERECTOR AS NECESSARY TO STABILISE THE STRUCTURE DURING CONSTRUCTION.
- S11. THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND STEEL TO OTHER ELEMENTS IRRESPECTIVE OF WHETHER THESE CLEATS AND HOLES ARE DETAILED OR NOT.
- S12. THE FABRICATION AND ERECTION OF THE STRUCTURAL STEELWORK SHALL BE SUPERVISED BY A QUALIFIED ENGINEER EXPERIENCED IN SUCH SUPERVISION, TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN ARE MET.
- S13. PROVIDE SEAL PLATES TO THE ENDS OF HOLLOW SECTIONS WITH "BREATHER" HOLES IF THE MEMBER IS TO BE HOT DIP GALVANISED. SEAL PLATES TO BE 6mm THICK.
- S14. GALVANISING OF ALL STEELWORK TO AS 1650. THE CONTINUOUS AVERAGE ZINC COATING SHALL TO BE 600 g/sqm BUT NOT LESS THAN 550 g/sqm MINIMUM.
- S15. PAINT FINISHES OVER GALVANISED OR PRIMED STEELWORK TO ARCHITECTS SPECIFICATION.

## FOUNDATIONS

- F01. STRIP FOOTINGS, PAD FOOTINGS AND GROUND BEAMS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 600 kPa. GEOTECHNICAL ENGINEER TO CONFIRM CAPACITY ON SITE.
- F02. FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.
- F03. FOOTINGS SHALL BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT BY EXPOSURE.
- F04. EXCAVATIONS FOR TRENCHES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:



- F05. CONCRETE GRADE AND COVER FOR FOOTINGS SHALL BE AS SPECIFIED IN THE CONCRETE NOTES.
- F06. SUBGRADE: UNLESS OTHERWISE SPECIFIED THE SUBGRADE BELOW BASE COURSES FOR SLABS SHALL BE SUITABLE MATERIAL COMPACTED TO 98% OF MAXIMUM DRY DENSITY DETERMINED BY TEST TO AS1289-E 1.1



- F07. LEVELING: BASE SHALL BE APPROVED WELL GRADED NATURAL GRAVEL OR CRUSHED ROCK SPREAD AND COMPACTED TO 100% OF MAXIMUM DRY DENSITY DETERMINED BY TEST TO AS1289-E 1.1

## MASONRY

- M01. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3700.
- M02. MORTAR ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- M03. ALL MASONRY SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ANY CONTROL JOINTS IN THE CONCRETE.
- M04. NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- M05. REINFORCED CONCRETE BLOCKWORK SHALL COMPLY WITH THE FOLLOWING U.N.O.
  - BLOCKS SHALL BE STRENGTH GRADE 20 CONFORMING TO AS2733.
  - PROVIDE CLEANOUT HOLES AT BASE OF ALL WALLS AND ROD CORE HOLES TO REMOVE PROTRUDING MORTAR FINS.
  - MORTAR SHALL COMPRISE 1 CEMENT : 0.25 LIME : 3 SAND.
  - CORE FILLING GROUT TO HAVE A CHARACTERISTIC STRENGTH OF 25MPa, 10mm AGGREGATE, 230mm SLUMP + or - 30mm.
  - PROVIDE 65mm COVER TO REINFORCING BARS FROM THE OUTSIDE FACE OF THE BLOCKWORK TO ALLOW ADEQUATE GROUT COVER.
- M06. BACKFILL TO RETAINING WALLS SHALL BE FREE DRAINING GRANULAR MATERIAL U.N.O. PROVIDE SUBSOIL DRAIN TO ALL WEEP HOLES.
- M07. ALL LOAD-BEARING BRICKWORK SHALL COMPLY WITH THE FOLLOWING U.N.O.
  - BRICKS SHALL BE 110 x 76 SOLID CLAY.
  - BRICK STRENGTH SHALL BE AS FOLLOWS: UNCONFINED COMPRESSIVE STRENGTH (f<sub>uc</sub>) = 30MPa.
  - MORTAR SHALL BE: FULL BED, CLASS M4 (CEMENT 1 : LIME 0.25 : SAND 3.0).
- M08. ALL MASONRY WALLS AND PIERS SUPPORTING SLABS AND BEAMS SHALL HAVE A PRE-GREASED GALVANISED STEEL SLIP JOINT BETWEEN CONCRETE SOFFIT AND THE TOP OF THE MASONRY ELEMENT U.N.O.
- M09. DO NOT CONSTRUCT MASONRY WALLS ON SUSPENDED CONCRETE SLABS UNTIL SLAB FORMWORK HAS BEEN STRIPPED AND DE-PROPPED.
- M10. ALL CAVITY CONSTRUCTION TO HAVE STAINLESS STEEL WALL TIES INSTALLED AS PER CLAUSE 3.8 OF AS3700.
- M11. DURABILITY FOR BUILT IN COMPONENTS (e.g. LINTELS) - TO BE IN ACCORDANCE WITH AS3600 AND AS2699 & AS FOLLOWS:
  - EXPOSED LEAF OF EXTERNAL CAVITY OR CAVITY SPACE - R4
  - INTERNAL LEAF OF CAVITY WALL - R3
  - INTERNAL WALLS - R1

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## CONCRETE

- C01. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF AS3600 (WITH AMENDMENTS) EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- C02. ALL CONCRETE SUPPLY SHALL COMPLY WITH AS1379.
- C03. CONCRETE QUALITY

Element	Strength Grade (MPa)	Slump (mm)	Aggreg. (Max. mm)	Cover	
				Internal	External
SUSPENDED SLABS	N40	100	20	25	40
GROUND SLABS	N32	100	20	25	40

- PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS1379, CLAUSE B7.
- C04. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY THE ENGINEER.
- C05. ALL REINFORCEMENTS SHALL BE FIRMLY SUPPORTED ON PLASTIC CHAIRS AT NOT GREATER THAN 1 METRE CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATIVE INTERSECTIONS.
- C06. CONCRETE SIZES SHOWN DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES.
- C07. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.
- C08. FOR CHAMFERS, DRIP GROOVES, REGLETS, ETC. REFER TO ARCHITECT'S DETAILS, MAINTAIN COVER TO REINFORCEMENT AT THESE DETAILS.
- C09. NO HOLES, CHASES OR EMBEDMENTS OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- C10. CONSTRUCTION JOINTS, WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- C11. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS ETC. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.
- C12. CURING OF ALL CONCRETE SHALL BE ACHIEVED BY KEEPING SURFACES COMPLETELY WET FOR A PERIOD OF 7 DAYS, (10 DAYS IN SUMMER) AND PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 10 DAYS FOLLOWED BY A GRADUAL DRYING OUT. APPROVED SPRAYED ON CURING COMPOUNDS THAT COMPLY WITH AS3799 MAY BE USED WHERE FLOOR FINISHES WILL NOT BE AFFECTED (REFER MANUFACTURERS SPECIFICATION). POLYTHENE SHEETING OR WET HESSIAN MAY BE USED TO RETAIN CONCRETE MOISTURE WHERE PROTECTED FROM WIND AND TRAFFIC.
- C13. CONDUITS, PIPES ETC. SHALL BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS. PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE COVER TO REINFORCEMENT.
- C14. ALL REINFORCEMENT SHALL BE AS FOLLOWS
  - N DENOTES GRADE 500 NORMAL DUCTILITY DEFORMED BAR TO AS 4671.
  - R DENOTES GRADE 250 NORMAL DUCTILITY PLAIN ROUND BAR TO AS 4671.
  - SL DENOTES GRADE 500 LOW DUCTILITY WELDED SQUARE MESH TO AS 4671.
NUMBER OF BARS IN GROUP - BAR GRADE AND TYPE - NOMINAL BAR SIZE IN mm - SPACING IN mm : 17 N20 - 250 THE FIGURES FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS4671
- C15. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- C16. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING BY THE ENGINEER. LAPS SHALL BE IN ACCORDANCE WITH AS3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR.
- C17. SITE BENDING OF DEFORMED REINFORCING BARS SHALL BE DONE WITHOUT HEATING USING MECHANICAL BENDING TOOLS.
- C18. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER.
- C19. JOGGLES TO BARS SHALL BE 1 BAR DIAMETER OVER A LENGTH OF 12 BAR DIAMETERS.
- C20. FABRIC SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 50mm. BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER CENTRES WITH 3 WRAPS OF THE WIRE.
- C21. WHERE TOP AND BOTTOM REINFORCEMENT ARE SHOWN ON THE SAME PLAN TOP REINFORCEMENT IS SHOWN THUS:  
BOTTOM REINFORCEMENT IS SHOWN THUS:
- C22. THE ENGINEER SHALL BE GIVEN 48 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE DELIVERED UNTIL FINAL APPROVAL IS OBTAINED.

## SCHEDULE OF DRAWINGS

No.	TITLE
S01	GENERAL NOTES AND SCHEDULE OF DRAWINGS
S02	GARBAGE STORE SLAB GROUND BEAM DETAILS
S01	ROOF PLAN DETAILED SECTION

Date	Amendments	Rev	Drn
06.12.2014	FOR ARCHITECT REVIEW	A	CMF

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ALTERATIONS AND ADDITIONS  
NARRANURRA SKI LODGE  
PERISHER VALLEY NSW

Drawing Title :

GENERAL NOTES AND  
SCHEDULE OF DRAWINGS

Design C FITZSIMON

Checked C FITZSIMON

Scale N.T.S.

Date AUGUST 2013

Job No.

15030

Dwg. Size

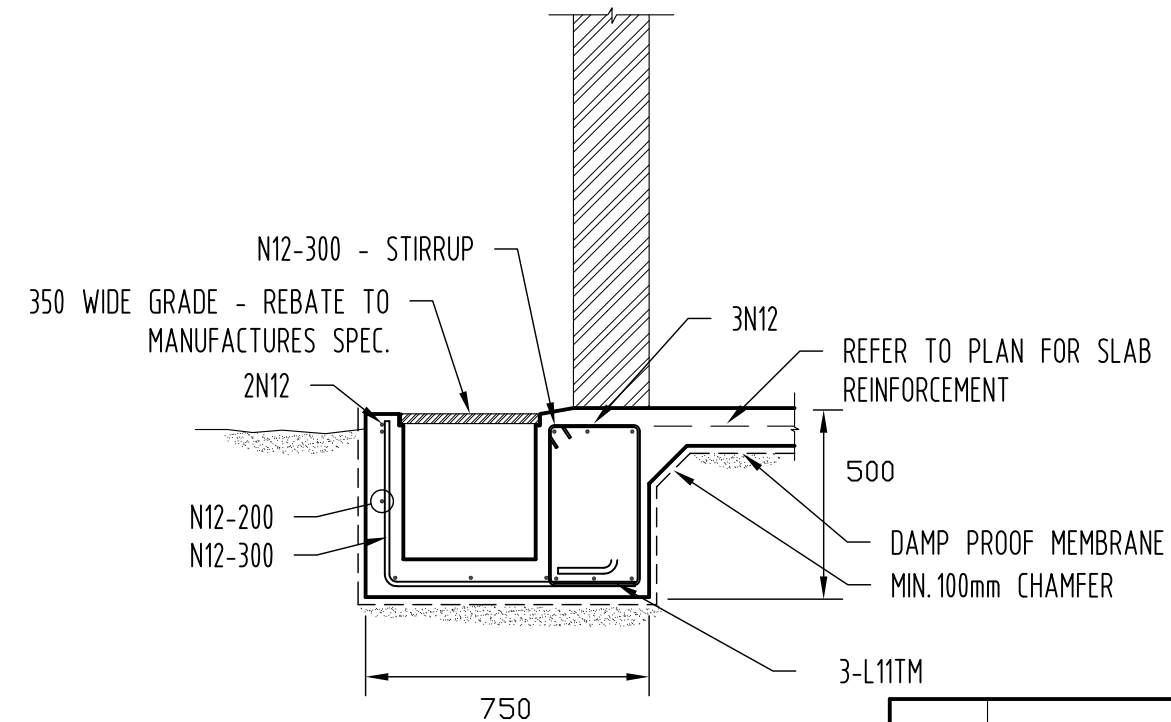
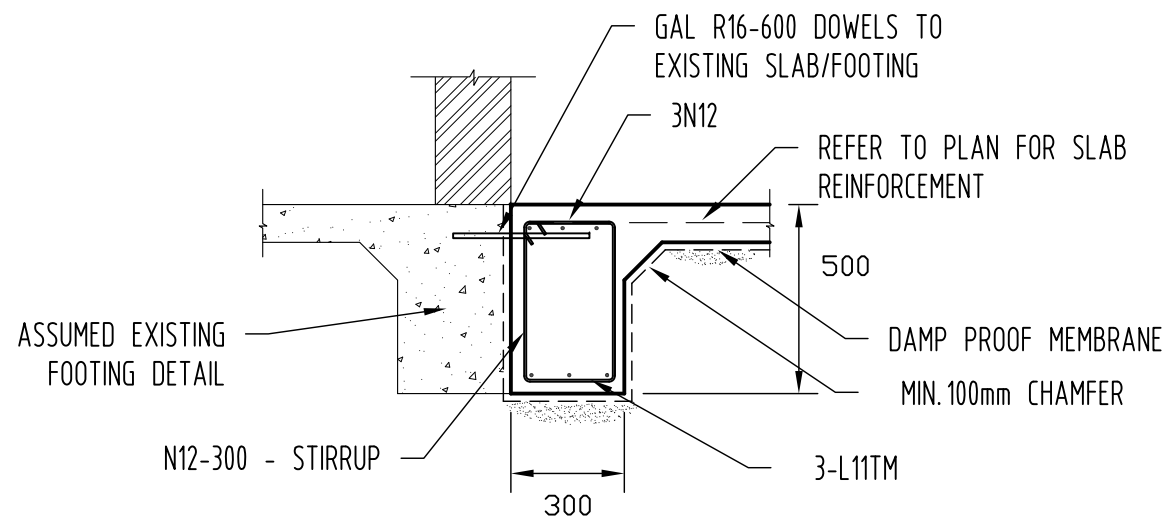
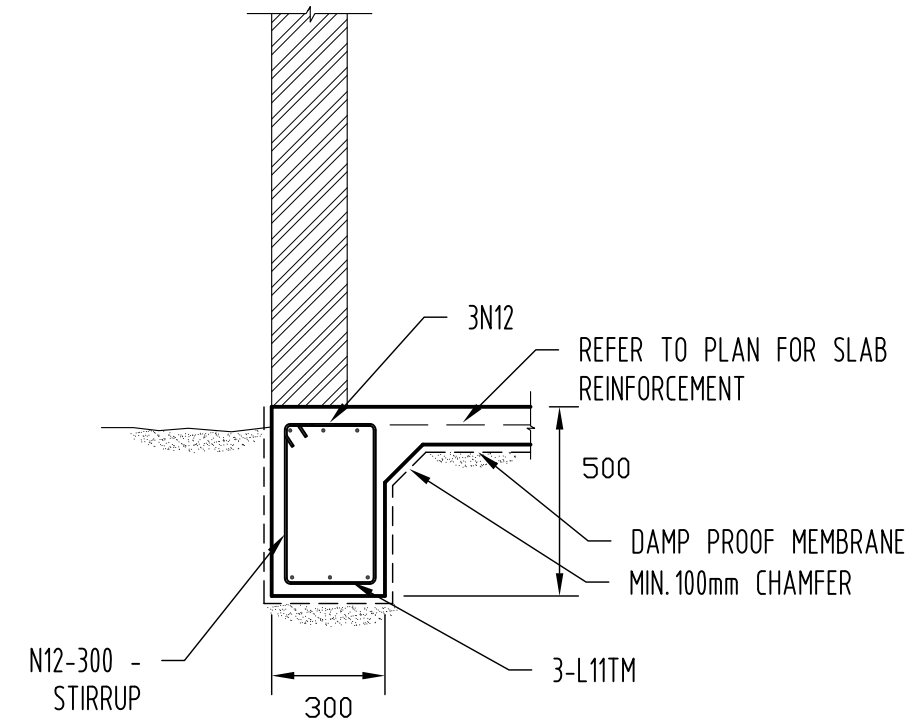
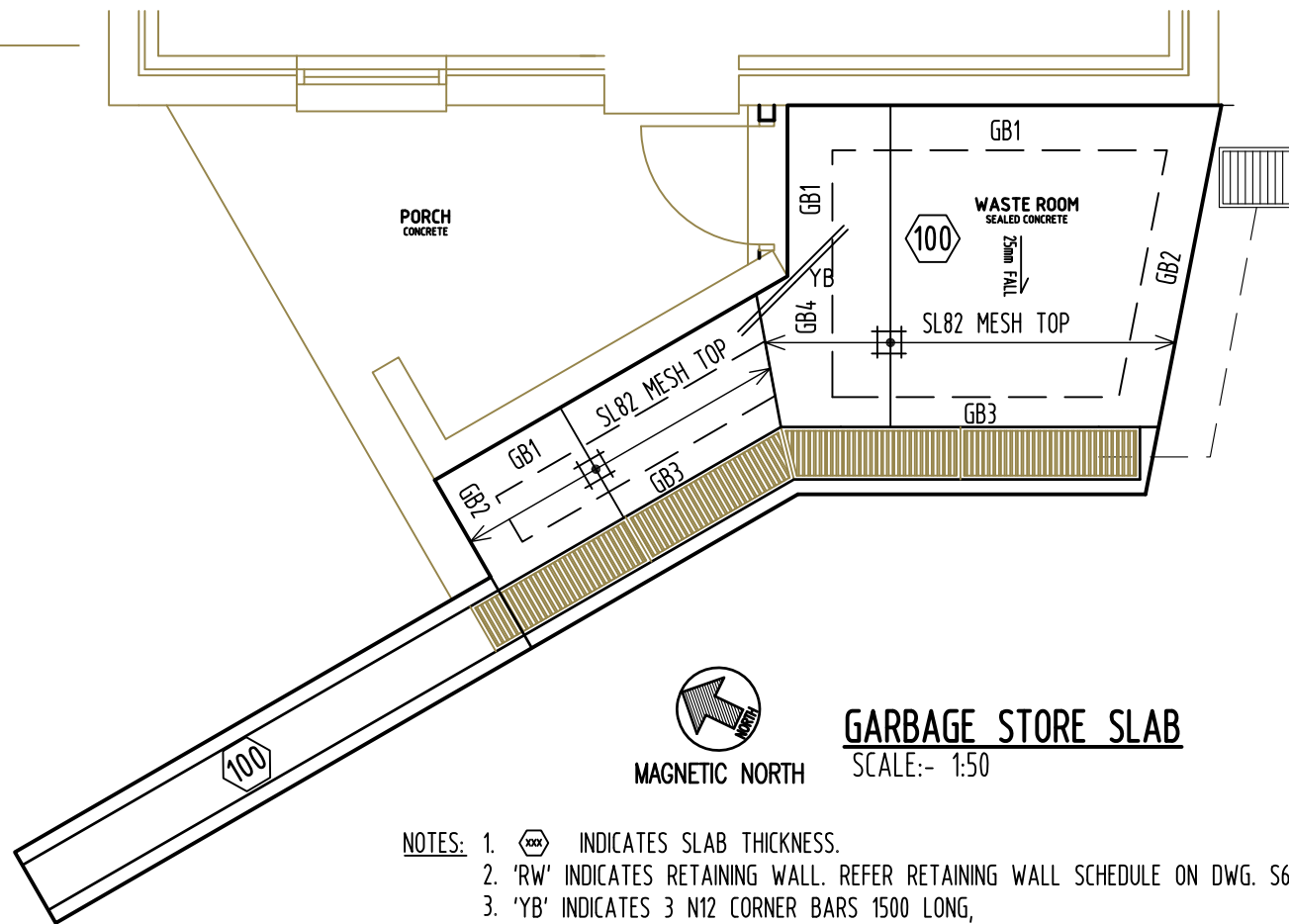
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Drawing No.

S01

Issue

A



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Date	Amendments	Rev	Drn

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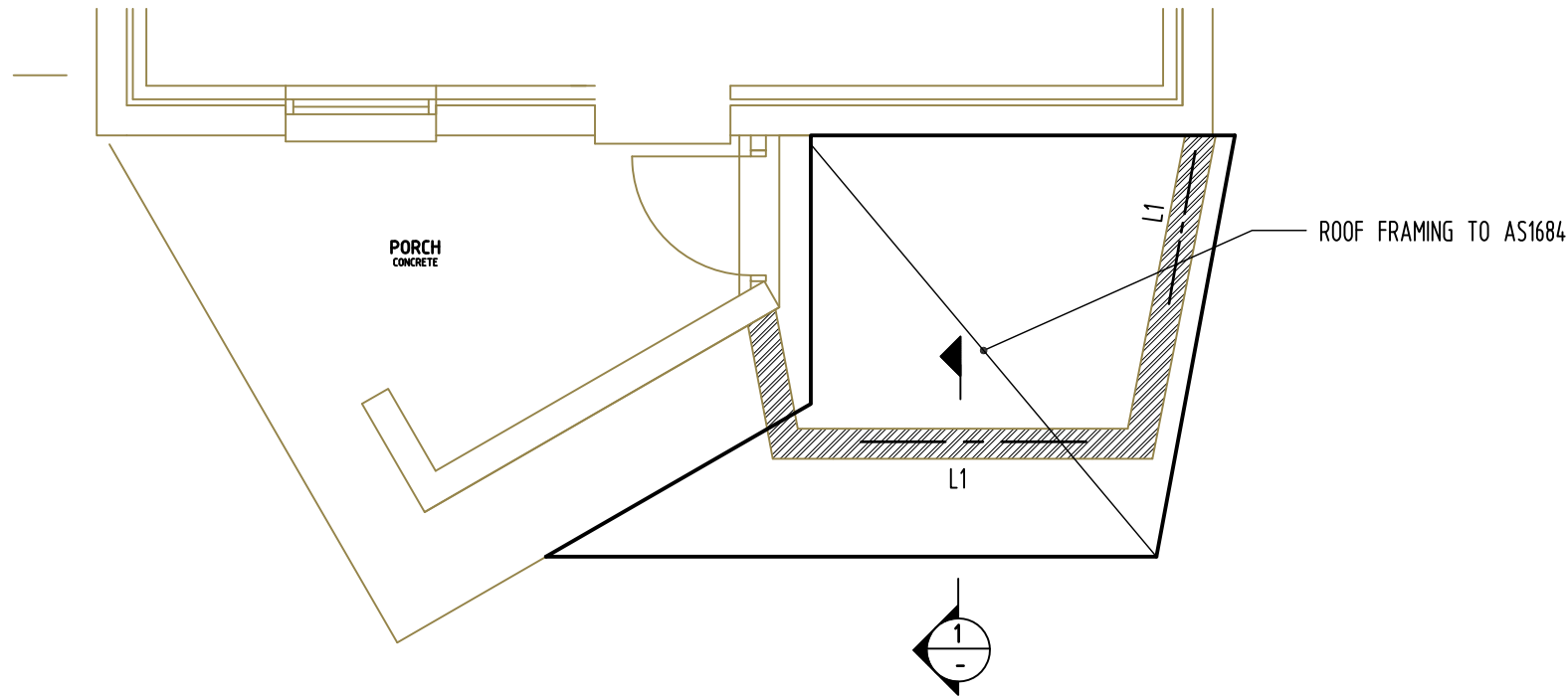
Project :

**ALTERATIONS AND ADDITIONS  
NARRANURRA SKI LODGE  
PERISHER VALLEY NSW**

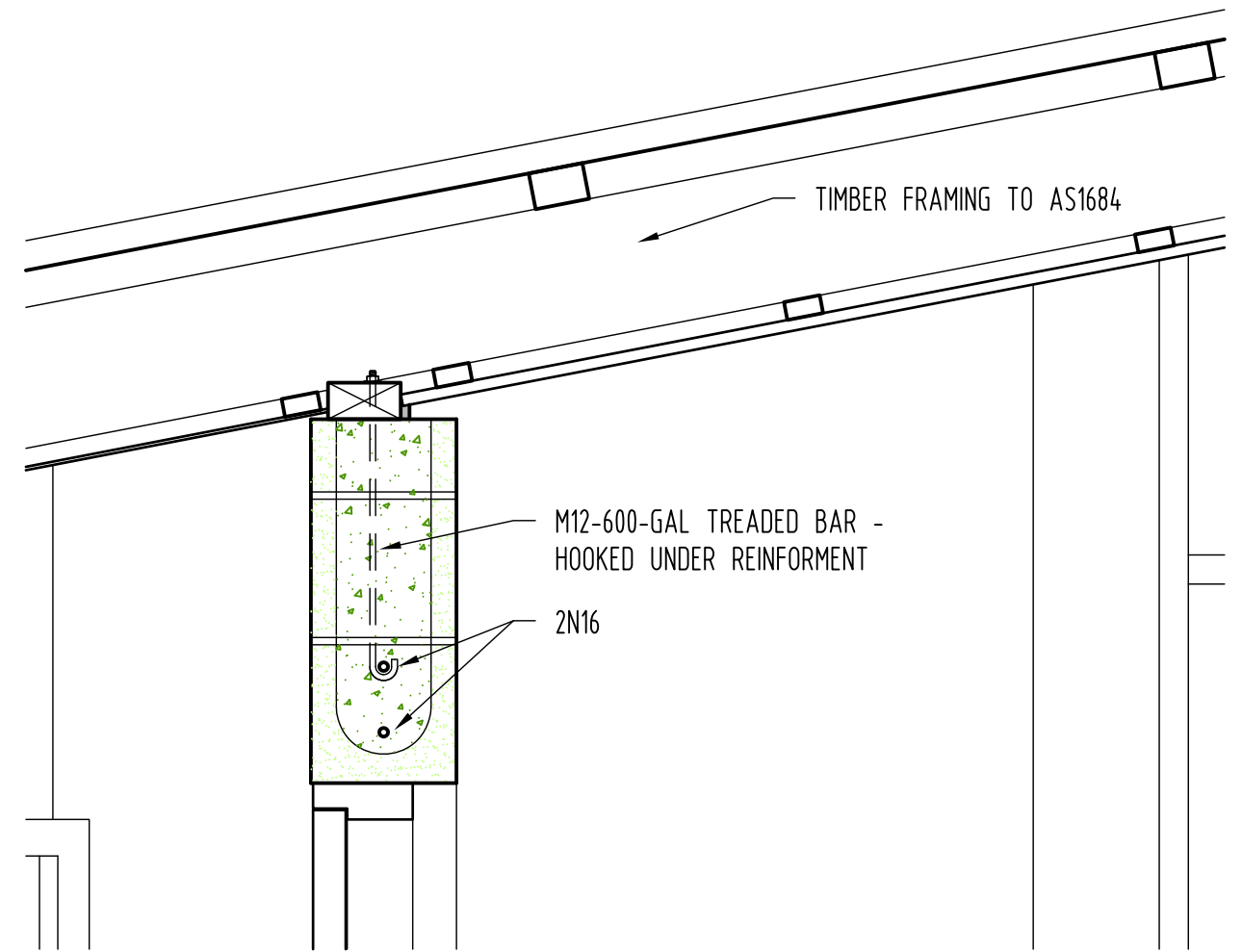
Drawing Title :

**GARBAGE STORE SLAB  
GROUND BEAM DETAILS**

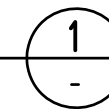
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Checked C FITZSIMON	Dwg. Size A3	Drawing No. S02	Issue A
Scale 1:150			
Date NOV 2014			



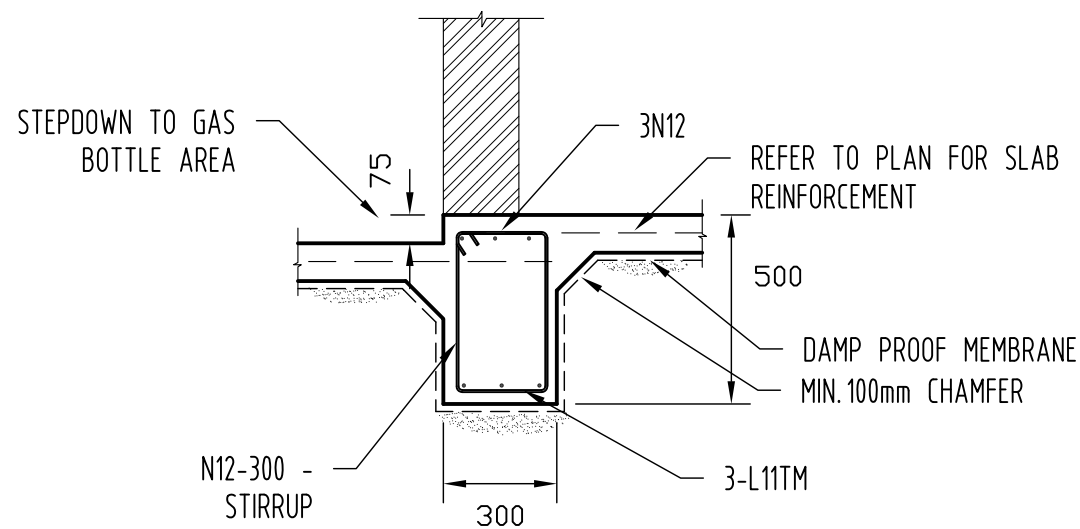
**GARBAGE STORE ROOF PLAN**  
SCALE:- 1:50



**SECTION**  
SCALE:- 1:10



NOTES:  
1. TYPICAL DETAIL FOR L1.



**TYPICAL 'GB4' DETAIL**  
SCALE:- 1:20

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**ALTERATIONS AND ADDITIONS  
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Drawing Title :

**ROOF PLAN  
DETAILED SECTION**

Design C FITZSIMON	Job No. 15030		
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Scale 1:150	Dwg. Size A3	Drawing No. S03	Issue A
Date NOV 2014			