

NOTES

GENERAL

- G1 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 for decision before proceeding with the work.
- G2 All dimensions relevant to setting out and off site work shall be verified by the Contractor before construction and fabrication is commenced. The Engineer's drawings shall not be scaled.
- G3 During construction the Contractor shall be responsible for maintaining the structure in a stable condition and ensuring no part shall be overstressed under construction activities.
- G4 Workmanship and materials shall be in accordance with the relevant current S.A.A. codes including all amendments, and the local Statutory Authorities, except where varied by the contract documents.
- G5 The approval of a substitution shall be sought from the Engineer but it is not an authorisation for an extra. An extra involved must be taken up with the Architect before the work commences.
- G6 All dimensions are in millimetres unless stated otherwise. All levels are expressed in millimetres.
- G7 The structural work shown on these drawings has been designed for the following live loads-

AREA	LIVE LOAD kN/sq.m
FLOOR	5.0kPa

- G8 All props and formwork for beams and slabs shall be removed before construction of any masonry walls or partitions on the floor.
- G9 All non loadbearing walls shall be kept clear of the underside of slabs and beams by 20 mm unless otherwise shown.
- G10 Abbreviations used T-top, B-bottom, E.W.-each way, pl-plate, c.f.w.-continuous fillet weld, u.n.o.-unless noted otherwise.

FOOTINGS

Footings are to be founded in original undisturbed ground having a safe bearing capacity as noted below. Before any concrete is placed the safe bearing capacity shall be verified by a qualified Engineer.

Pad Footings 180 kPa	Strip Footings kPa	Ribs kPa	Bored Piers kPa
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CONCRETE

- C1 All workmanship and materials shall be in accordance with AS 3600.
- C2 Minimum cover (mm) to all reinforcement unless otherwise shown shall be as follows-

ELEMENT	FORMED & NOT EXPOSED TO WEATHER	FORMED & EXPOSED TO GROUND, WEATHER OR WATER	NOT FORMED, CAST AGAINST GROUND ETC..
Columns & Pedestals	40	50	75
Beams	40	50	65
Footings	-	65	75
Slabs	20	30	65
Walls	25		

- C3 Sizes fo concrete elements do not include thickness of applied finishes.
- C4 Beam depths are written first and do not include slab thickness.

- C5 No holes, chases or embedment of pipes other than those shown on the structural drawings shall be made in concrete members without prior approval of the Engineer.
- C6 Construction joints shall be properly formed and used only where shown or specifically approved by the Engineer.
- C7 Reinforcement is represented diagrammatically and not necessarily shown or specifically approved by the Engineer.
- C8 Splices in reinforcement shall be made only in the positions shown or as otherwise approved by the Engineer.
- C9 Welding of reinforcement shall not be permitted without the approval of the Engineer.
- C10 All reinforcement shall be supported in it's correct position during concreting by approved bar chairs, spacers or support bars.
- C11 Reinforcement symbols-
S Structural grade deformed bar to AS 1302
N500 grade deformed bars to AS 1302.
R Structural grade plain round bar to AS 1302
SL Hard drawn steel wire reinforcing fabric to AS 1304
The number following the bar symbol is the nominal bar diameter in millimetres.
- C12 Camber formwork to beams and slabs shall be set to a pre-determined level (allowing for immediate deflection of supporting structure and formwork settlement) to give zero negative camber immediately after concrete placement. Additional positive canbers shall be as noted on the drawings.
- C13 Stripping of formwork to be in accordance with Table 19.6.2.5 of AS 3600.
- C14 Formwork shall be designed and constructed in accordance with AS 1509.
- C15 Concrete to be kept free of supporting brickwork by two layers of malthoid.
- C16 Concrete testing to be in accordance with AS 3600.
- C17 Concrete components and quality shall be as follows.

ELEMENT	F'c MPa	SLUMP (mm)	MAX AGGREGATE SIZE (mm)
SLABS	32	80	20
FOOTINGS	20	80	20

STRUCTURAL STEELWORK

- S1 All workmanship and materials shall be in accordance with AS 1250 and/or AS 4100.
- S2 Welding shall be performed by an experienced operator in accordance with AS 1554.
- S3 High Strength Friction Grip bolting shall be in accordance with AS 1511.
- S4 The Contractor shall provide and leave in place until permanent bracing elements are constructed such temporary bracing as is necessary to stabilise the structure during erection.
- S5 Concrete encased steelwork, shall be wrapped with F41 fabric, unless otherwise shown.
- S6 The ends of all tubular members are to be sealed with nominal thickness plates and continuous fillet weld unless otherwise shown.
- S7 Camber to be as noted on the drawings.
- S8 Before fabrication is commenced the Contractor shall submit copies of the shop drawings to the Architect for review. Review does not include checking of dimensions.
- S9 Unless otherwise specified all steelwork shall be painted one shop coat of Red Oxide Zinc Chromate primer. Members encased in concrete, fire sprayed or friction grip bolted connections must not be painted.
- S10 Except where otherwise shown the welds to be6mm..... continuous fillet and E41 xx Electrodes.
- S11 Steelwork below ground to have 75 concrete cover.
- S12 Builder to be responsible for field welding of masonry ties to steel sections.

CONCRETE PLACEMENT

CONCRETE SHALL NOT BE MIXED OR PLACED AT ANY TIME WHEN THE SHADE TEMPERATURE EXCEEDS 38°C OR IS LESS THAN 4°C.

THE CONCRETE SHALL BE THOROUGHLY WORKED INTO ALL CORNERS, AROUND ALL EMBEDDED ITEMS INCLUDING REINFORCEMENT, AND BE WELL COMPACTED BY MEANS OF HIGH FREQUENCY MECHANICAL VIBRATORS AND TAMPING. ALL VIBRATORS SHALL BE OPERATED BY TRAINED OPERATORS AND STANDBY VIBRATORS SHALL BE AVAILABLE ON SITE FOR IMMEDIATE USE IN CASE OF BREAKDOWNS.

VIBRATORS SHALL BE UNIFORMLY SPACED AT DISTANCES NOT EXCEEDING THE RADIUS AT WHICH VIBRATION IS VISIBLY EFFECTIVE, AND SHALL BE INSERTED INTO THE CONCRETE PROGRESSIVELY AS IT IS PLACED. NO PART OF THE CONCRETE SHALL BE OVER-VIBRATED, AND IN ANY CASE VIBRATIONS IN ANY REGION SHALL NOT EXCEED 20 SECONDS.

IF RESTRICTED SPACE MAKES INTERNAL VIBRATION OF CONCRETE DIFFICULT, EXTERNAL FORM VIBRATORS MAY BE USED, ASSISTED BY HAMMERING AND TAPPING OF THE FORMWORK IF NECESSARY TO ENSURE COMPLETE FILLING OF THE FORMS.

CONCRETE CURING

AFTER PLACEMENT AND FINISHING OF CONCRETE, ALL EXPOSED SURFACES SHALL BE PROTECTED AGAINST PREMATURE DRYING. IN WINDY CONDITIONS, SUITABLE WIND BREAKS SHALL BE ERECTED TO SHIELD THE CONCRETE DURING PLACEMENT AND CURING. AS SOON AS THE SURFACES OF CONCRETE HAVE HARDENED SUFFICIENTLY TO AVOID MARKING OR OTHER DAMAGE, BUT IN NO CASE LESS THAN THREE HOURS AFTER COMPLETION OF TROWELLING, THE SURFACE SHALL BE CURED BY SPRAYING WITH CLEAN WATER AND COVERING WITH AN APPROVED IMPERVIOUS MATERIAL (EG 0.1 MM THICK POLYETHYLENE SHEETING) FOR A MINIMUM OF SEVEN DAYS. TO PREVENT DISPLACEMENT BY WIND, ALL COVERINGS MUST BE WELL WEIGHTED, PARTICULARLY AROUND THE EDGES AND ALONG LAPPED JOINTS.

DURING HOT WEATHER, SIDES OF FORMS SUPPORTING CONCRETE SHALL BE KEPT COOL BY SHADING AND/OR WETTING THROUGHOUT THE CURING PERIOD. IF FORMS ARE STRIPPED DURING THE CURING PERIOD, THEN THE EXPOSED CONCRETE SURFACES SHALL BE KEPT WET AND COVERED DURING THE REMAINDER OF THE CURING PERIOD. AT THE COMPLETION OF THE SEVEN DAY CURING PERIOD, THE CONCRETE SHALL NOT BE PERMITTED TO DRY RAPIDLY. IF NECESSARY, THE CONCRETE SHALL BE SPRINKLED WITH CLEAN WATER AT REGULAR INTERVALS TO RETARD THE RATE OF DRYING.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL CONCRETE IS CURED CORRECTLY AND TO TAKE ALL PRECAUTIONS NECESSARY AND ADVISABLE FOR IT'S PROTECTION.



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ARCHITECT CIVILVIC PTY LTD			
DESIGNED	SHAN LAU	DATE	MAY 2023
DRAWN	SC	SCALE	-
PROJECT NO.	4037-23	S1 of 5	ISSUE C1

PROPOSED
RETAINING WALLS
AT 854 MC DONALDS ROAD
NAGAMBIE

REV	AMENDMENT	DRAWN
P1	PRELIMINARY 1 - 29/05/2023	SC
C1	ISSUED FOR CONSTRUCTION - 20/06/2023	ND

NOTE ON VARIATIONS:

THE APPROVAL BY THIS OFFICE OF A SUBSTITUTE MATERIAL, WORK PRACTICE, VARIATION OR THE LIKE IS NOT AN AUTHORIZATION FOR ITS USE OR A CONTRACT VARIATION. ANY SAID VARIATIONS MUST BE ACCEPTED BY ALL PARTIES TO THE AGREEMENT AND WHERE APPLICABLE THE RELEVANT BUILDING SURVEYOR PRIOR TO IMPLEMENTING THE SAID VARIATION.

DIAL BEFORE YOU DIG:

CONTRACTOR MUST DIAL 1100 TO CONFIRM LOCATION OF EXISTING SERVICES AND COMPLY WITH ANY AUTHORITY REQUIREMENTS REGARDING EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORKS.

BARRIER RAIL LOADING:

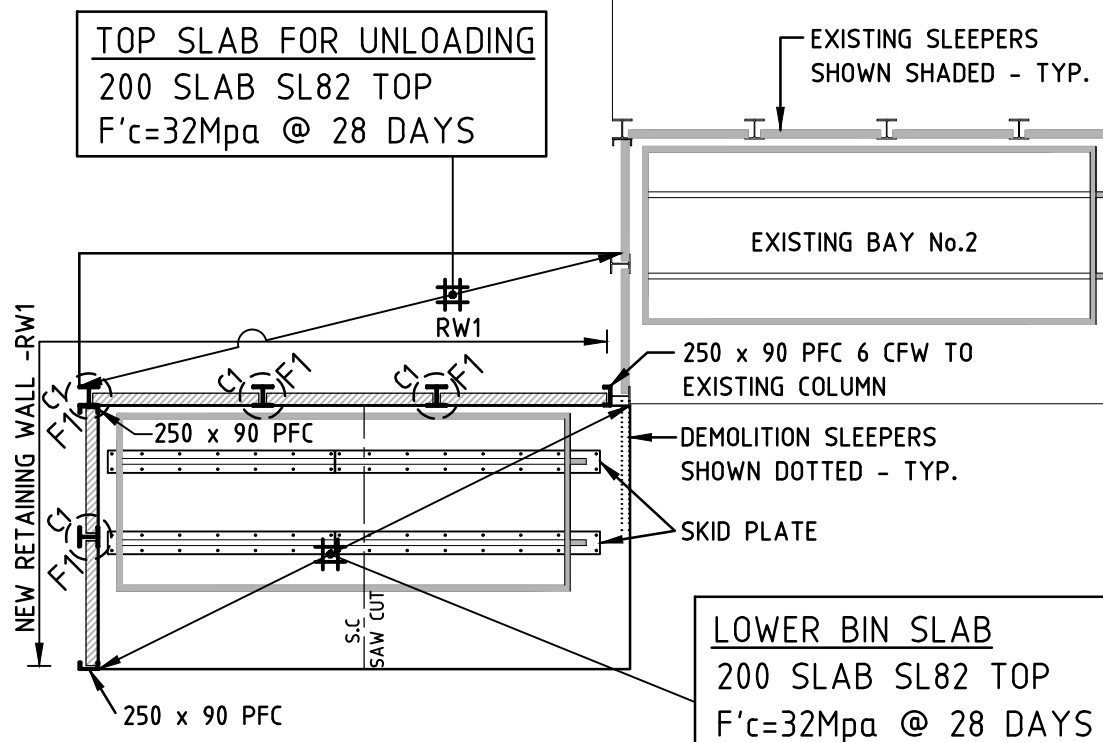
BARRIER RAIL HAS BEEN DESIGNED TO SUSTAIN THE MAXIMUM ALLOWABLE IMPOSED ACTION FOR THE TYPE OF OCCUPANCY OF "B" AND "E" WITH SPECIFIC USE AS FIXED PLATFORM, IN ACCORDANCE WITH AS1170.1 TABLE 3.3.

PAD FOOTINGS SCHEDULE

MARK	WIDTH	LENGTH	DEPTH (min)	REINFORCEMENTS
F1	600Ø	-	3900	-

MEMBER SCHEDULE

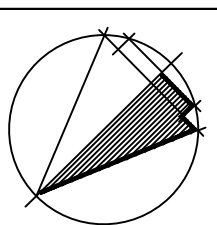
MARK	SIZE
C1	250UC90 @ 2.3m CTS MAX



FOOTING NOTES:

1. ALL SLAB AND FOOTINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH SOIL REPORT NO.23C 0276-2 PREPARED BY GEOTECHNICAL TESTING SERVICES DATED 5TH MAY 2023.
2. SITE CLASSIFICATION - CLASS "P", HOWEVER FOOTINGS DESIGNED FOR CLASS "M" TYPE SOIL CONDITIONS IN ACCORDANCE WITH AS2870-2011.
3. SLAB AND PAD FOOTINGS ARE TO PENETRATE THROUGH ANY SURFACE FILL AND BE FOUNDED A MINIMUM OF 100mm INTO THE NATURAL SILTY CLAY WHERE A MINIMUM ALLOWABLE BEARING CAPACITY OF 180kPa EXISTS OR AT LEAST 3500mm BELOW GROUND LEVEL, WHICHEVER IS DEEPER.
4. IT IS THE BUILDERS RESPONSIBILITY TO ENSURE THAT THE ANGLE OF REPOSE (CLAY=45°) MISSES THE BOTTOM OF ALL PIPES.
5. FOOTINGS WITHIN THE ZONE OF INFLUENCE OF TREES ARE TO BE DEEPEMED DOWN TO ROCK OR AT LEAST 2000mm BELOW GROUND LEVEL, WHICHEVER IS LESS.
6. FOR MORE ACCURATE FOUNDING MATERIALS, FOUNDING DEPTHS AND FURTHER RECOMMENDATIONS REFER TO SOIL REPORT.

SLAB AND FOOTING PLAN

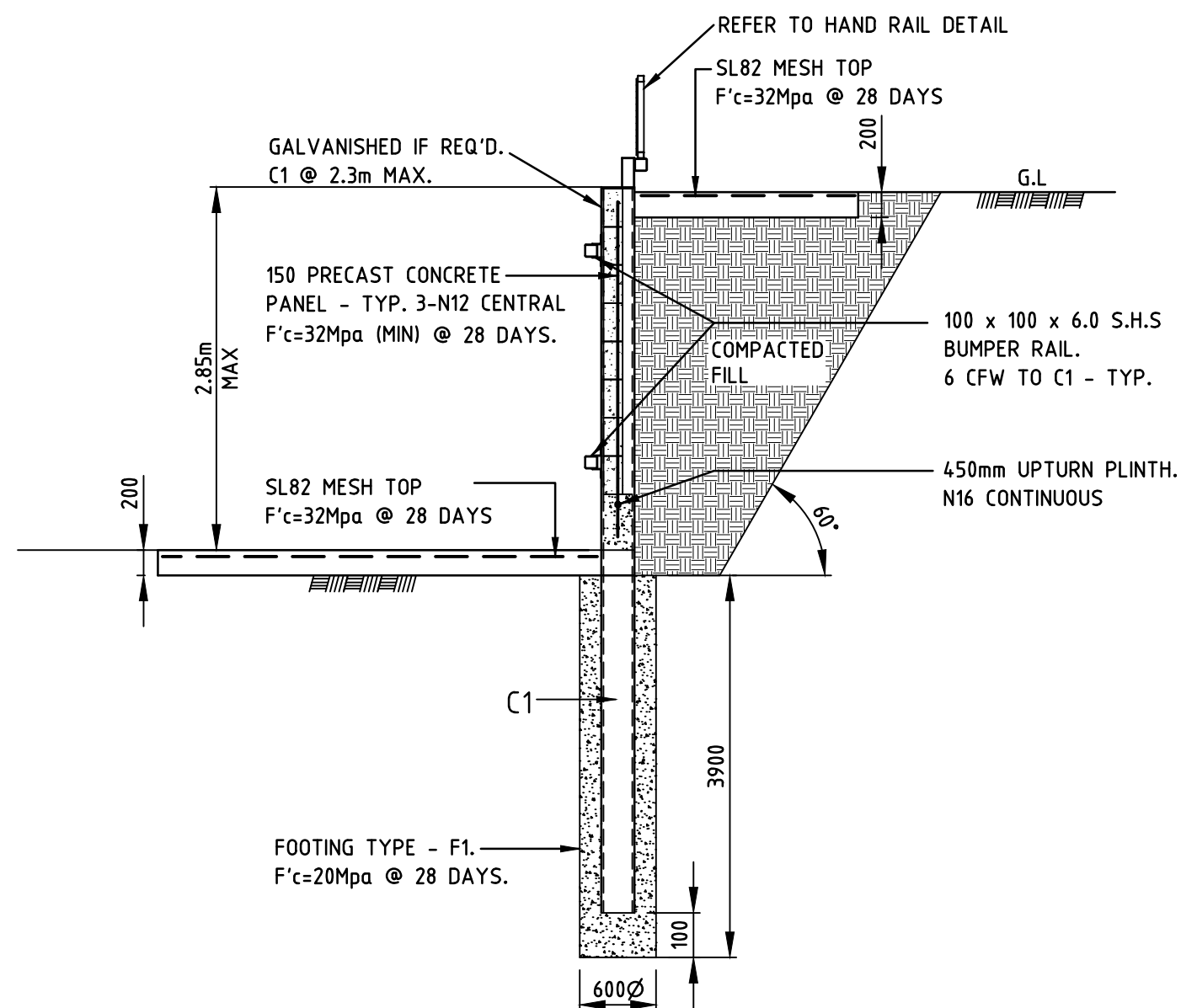


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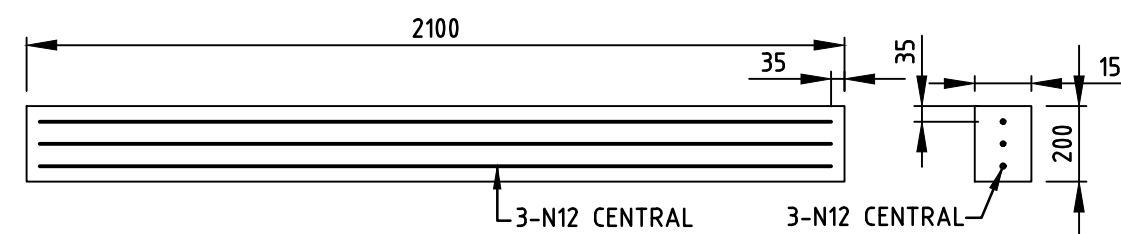
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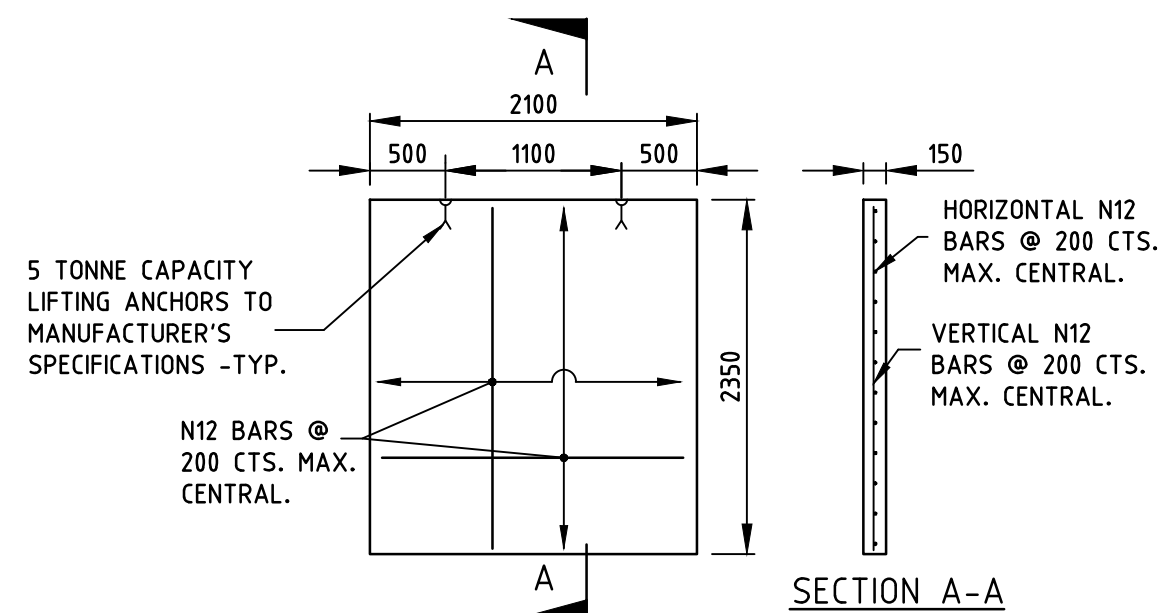


RETAINING WALL DETAIL - RW1

SCALE 1:50

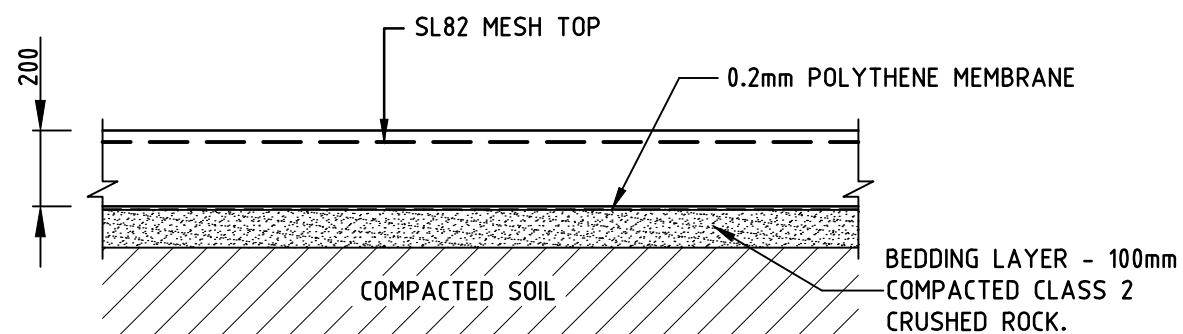


PRECAST CONCRETE SLEEPER DETAIL - TYP

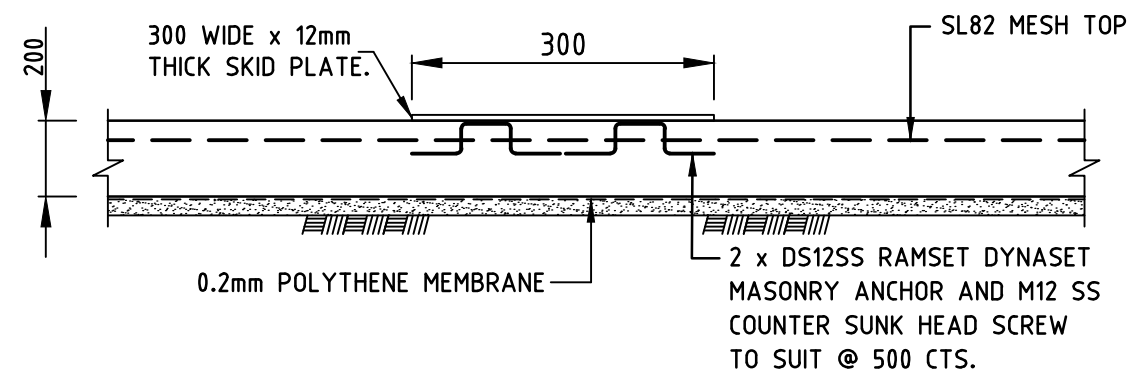


PRECAST CONCRETE PANEL DETAIL - TYP

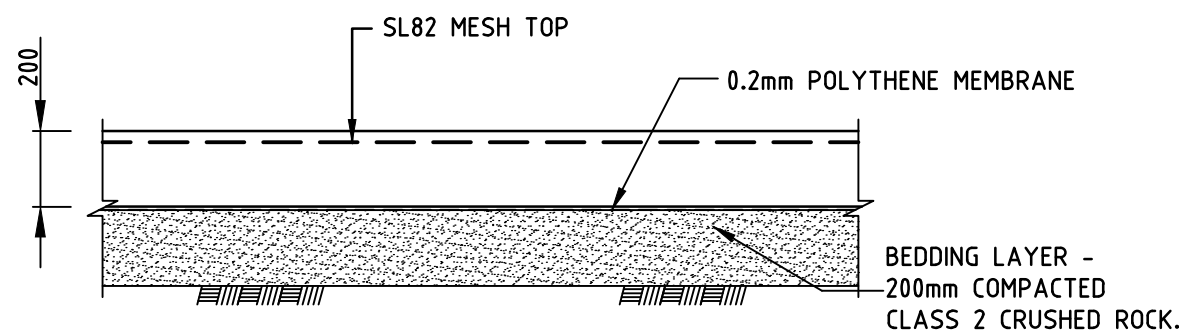
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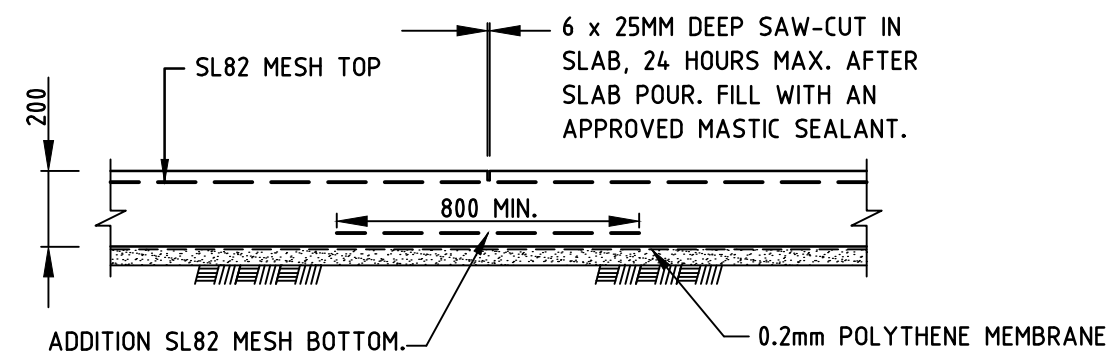
TOP SLAB DETAIL



STEEL BIN SKID RAIL DETAIL



LOWER BIN SLAB DETAIL



SAW-CUT DETAIL - S.C

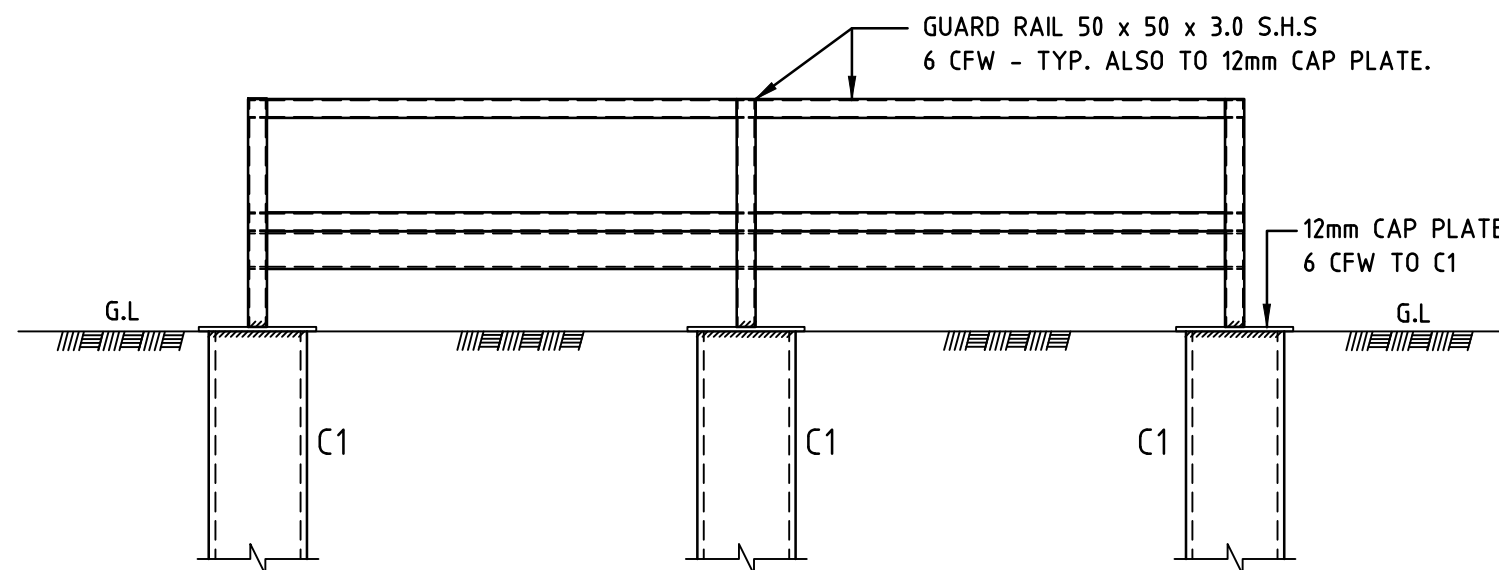


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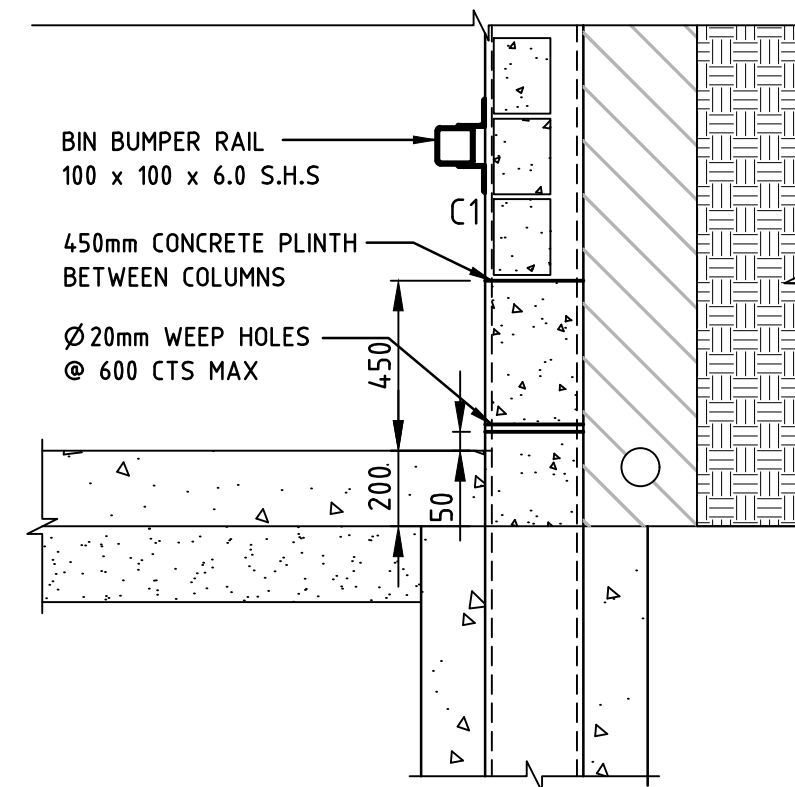
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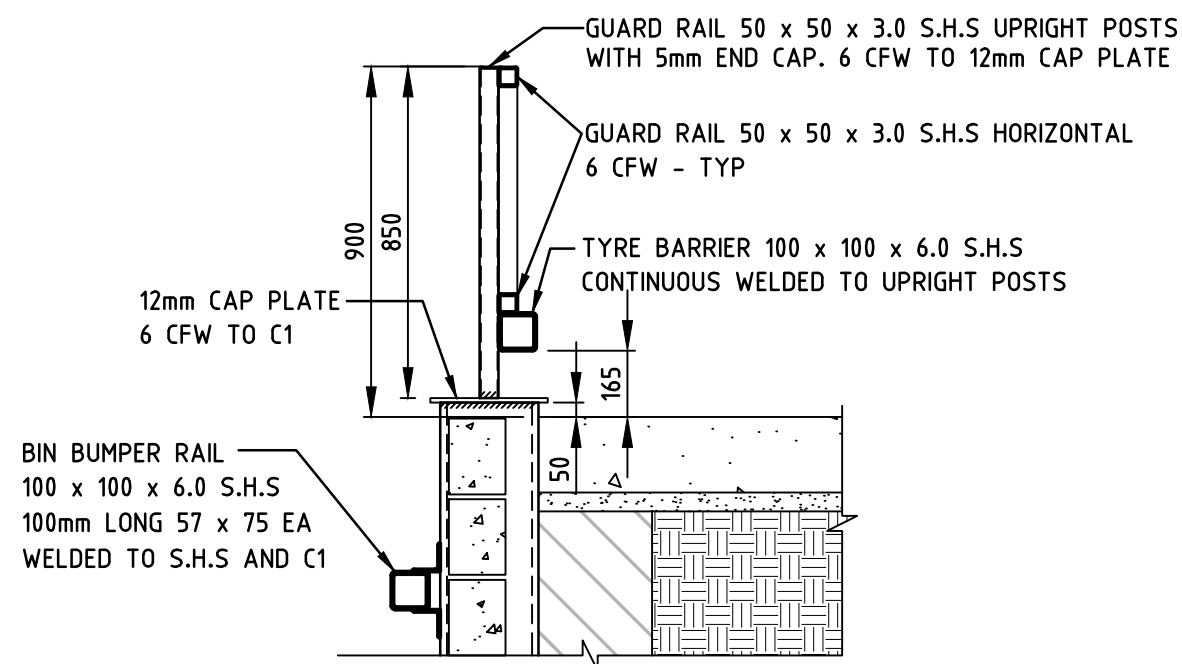
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HAND RAIL ELEVATION - TYP



PLINTH DETAIL - TYP



HAND RAIL - TYP



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