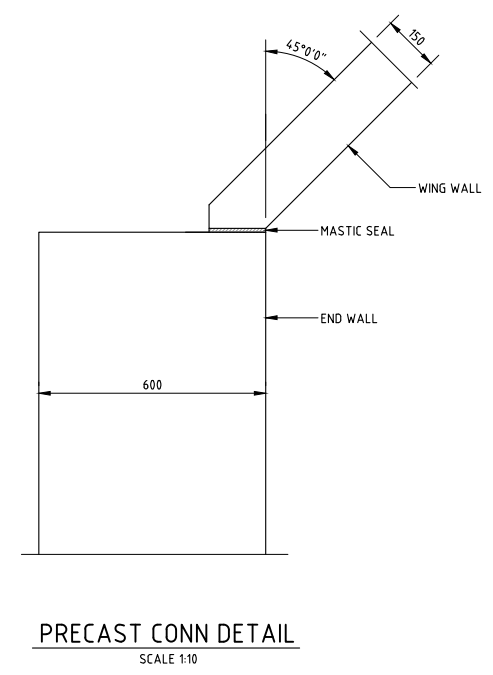


- NOTES**
CONCRETE
1. CONCRETE STRENGTH GRADE SHALL BE 32 MPa
 2. EXPOSURE CLASSIFICATION FOR SURFACES OF CONCRETE SHALL BE 'B1'
 3. ALL CORNERS SHALL HAVE 20 x 20 mm FILLETS OR CHAMFERS UNLESS NOTED OTHERWISE.



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

SETOUT COORDINATES

LOCATION	EASTINGS	NORTHINGS	COMMENTS
SP1	252061.3301	5890235.3357	INVERT UPSTREAM
SP2	252053.3087	5890232.7237	INVERT DOWNSTREAM

- GENERAL**
1. DESIGN TRAFFIC LOAD: SM1600 TO AS 5100
 2. CULVERT CONTAINMENT BARRIER: NO BARRIER
 3. DESIGN VEHICLE IS AN AUSTRROADS 25 m SEMI-TRUCK
 4. REMOVAL OF EXISTING STRUCTURE
 5. IF SUBGRADE DOES NOT ACHIEVE A BEARING OF 150 KPa THE SOFT MATERIAL SHALL BE REMOVED AND REPLACED WITH CLASS 3 FCR COMPACTED FILL
 6. CONCRETE STRENGTH GRADE SHALL BE 40 MPa
 7. ALL CORNERS SHALL HAVE 20 mm x 20 mm FILLETS OR CHAMFERS UNLESS NOTED OTHERWISE.
 8. EXPOSURE CLASSIFICATION FOR SURFACES OF CONCRETE SHALL BE INDICATED BELOW UNLESS NOTED ON THE DRAWING.
IN CONTACT WITH THE GROUND.....B1
ABOVE GROUND.....B1
 9. PRECAST CROWN UNITS BASE SLABS & END WALLS SHALL BE DESIGN AND MANUFACTURED BY MODCAST.

APPROVED FOR CONSTRUCTION

DWG FILE NAME: 40820-1.dwg
DATE PLOTTED: 11-01-2021

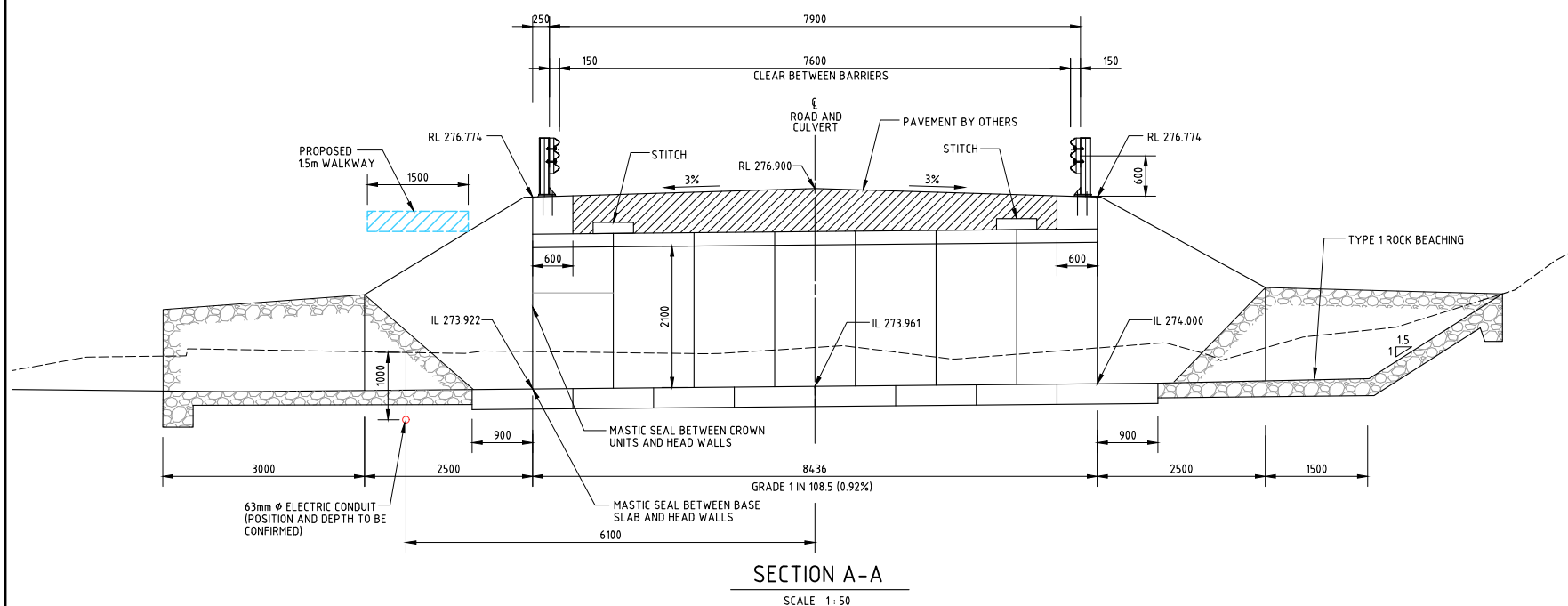
No.	REVISION	DATE	BY
1	APPROVED FOR CONSTRUCTION	11/01/2021	LDM
0	APPROVED FOR CONSTRUCTION	16/12/2020	LDM

No.	REVISION	DATE	BY

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CLIENT
ACE CONTRACTORS
CHRIS O'BRIEN & COMPANY PTY LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
All correspondence to:
P.O. Box 18
Traralgon Vic. 3844
13th Church Street
Traralgon Vic. 3844
Telephone 03 5174 9911
Facsimile 03 5174 0011

DRAWN	GENERAL ARRANGEMENT	DATE
LDM	PROJECT	AUG 2020
DESIGNED		SCALE
NRR		AS SHOWN
CHECKED		SHEET No.
COB		1 OF 2
SIGNED		PROJECT No.
		40820

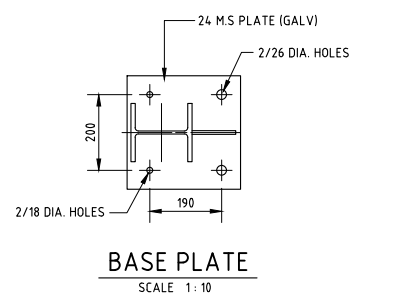


SECTION A-A
SCALE 1:50

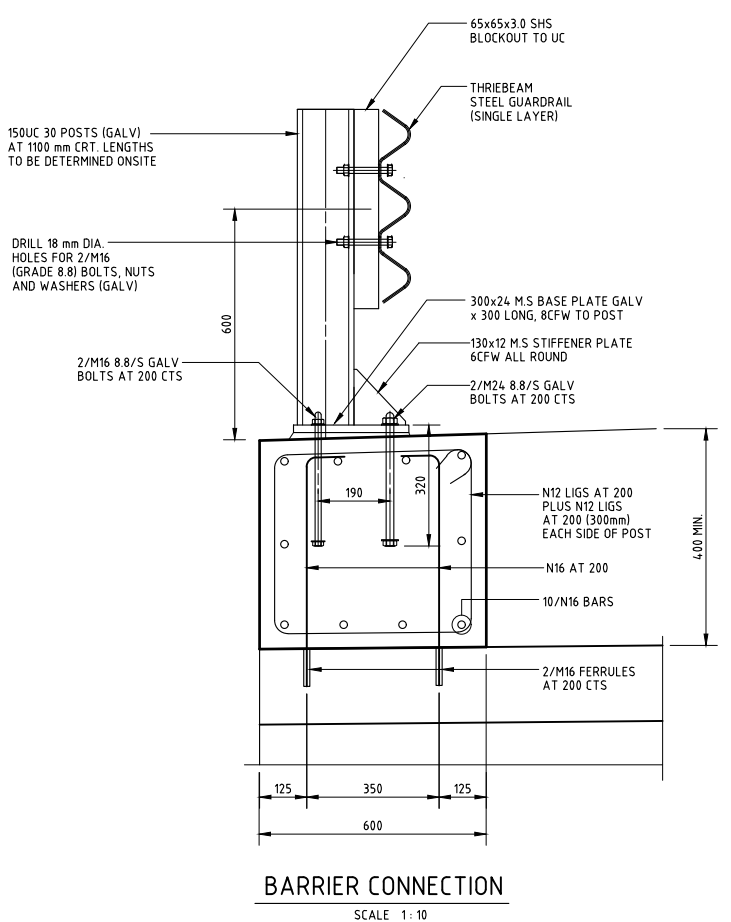
- CONCRETE**
1. CONCRETE STRENGTH GRADE SHALL BE VR400/40
 2. ALL CORNERS SHALL HAVE 20 x 20 mm FILLETS OR CHAMFERS UNLESS NOTED OTHERWISE.
- REINFORCEMENT**
3. COVER :- 40 mm DECK OVERLAY UNLESS NOTED OTHERWISE.
 4. GRADE :- 500 (N) HOT ROLLED DEFORMED BARS TO AS/NZS. 4571 (R) DENOTES PLAIN REINFORCING BARS TO AS/NZS. 4671
 5. SPACING :- TAKEN AS EQUAL UNLESS NOTED OTHERWISE.
 6. WELDING :- SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.
 7. SPLICING :- SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITION SHOWN ON THE DRAWINGS OR AS OTHERWISE APPROVED BY THE SUPERINTENDENT. BAR LAPS IN MILLIMETRES ARE TO BE AS SHOWN BELOW UNLESS SHOWN OTHERWISE.

BAR DIA.	LAP LENGTH (mm)
N12	500
N16	700

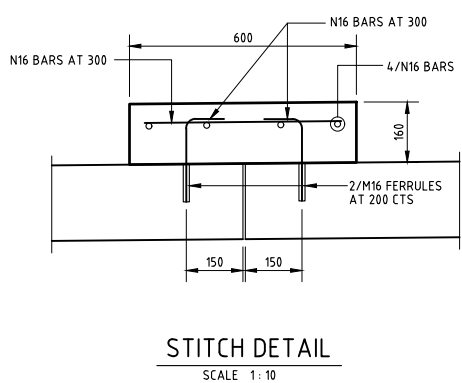
ALL HOOKS, BENDS AND COGS ARE STANDARD AND SHALL BE IN ACCORDANCE WITH AS 5100.5 - 2017 UNLESS NOTED OTHERWISE.



BASE PLATE
SCALE 1:10



BARRIER CONNECTION
SCALE 1:10



STITCH DETAIL
SCALE 1:10

- NOTES**
- STEELWORK**
1. BEAMS SHALL BE GRADE 300 PLUS.
 2. DAMAGED SURFACE COATING SHALL BE MADE GOOD BY SPOT PAINTING WITH APPROVED COLD GALV. PAINT.
 3. WELDING SHALL BE IN ACCORDANCE WITH SECTION 630 OF THE VICROADS SPECIFICATION
 4. WELDING SHALL BE CATEGORY SP FOR ALL WELDS.
 5. ELECTRODES SHALL BE E41XX TO AS 1554 - PART 1.
 6. (a) STEEL PLATES SHALL COMPLY WITH AS. 3678 GRADE 250 UNLESS NOTED OTHERWISE.
(b) STEEL RECTANGULAR HOLLOW SECTIONS SHALL COMPLY WITH AS. 1163 GRADE 350.
(c) STEEL HOT ROLLED ANGLES SHALL COMPLY WITH AS/NZS 3679.1 GRADE 300 PLUS.
 7. BARRIER RAILING AND STEELWORK SHALL BE HOT DIP GALVANIZED (HEAVY) AFTER FABRICATION IN ACCORDANCE WITH AS/NZS 4680.
 8. GRADE 8.8 BOLTS, NUTS AND WASHERS TO AS. 1214 GALVANIZED TO AS/NZS 4680 UNLESS NOTED OTHERWISE.
 9. BARRIER POSTS SHALL BE ERECTED VERTICAL.

APPROVED FOR CONSTRUCTION

DWG FILE NAME: 40820-2.dwg
DATE PLOTTED: 11-01-2021

No.	REVISION	DATE	BY
1	APPROVED FOR CONSTRUCTION	11/01/2021	LDM
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LDM	AUG 2020
DESIGNED	SCALE
NRR	AS SHOWN
CHECKED	SHEET No.
COB	2 OF 2
SIGNED	PROJECT No.
	40820