

- 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	251990.879	5890406.867	INVERT UPSTREAM
SP2	251980.865	5890402.698	INVERT DOWNSTREAM

NOTE IMPORTANTLY:
POSITION OF UNDERGROUND SERVICES TO BE CHECKED PRIOR TO CONSTRUCTION
AS CONSTRUCTED CARRIAGEWAY AND FORMATION WIDTHS ARE AS PER BEVERAGE WILLIAMS DRAWINGS.

- 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: 30820-1.dwg
DATE PLOTTED: 16-12-2020

No.	REVISION	DATE	BY
0	APPROVED FOR CONSTRUCTION	16/12/2020	LDM

No.	REVISION	DATE	BY
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ACE CONTRACTORS

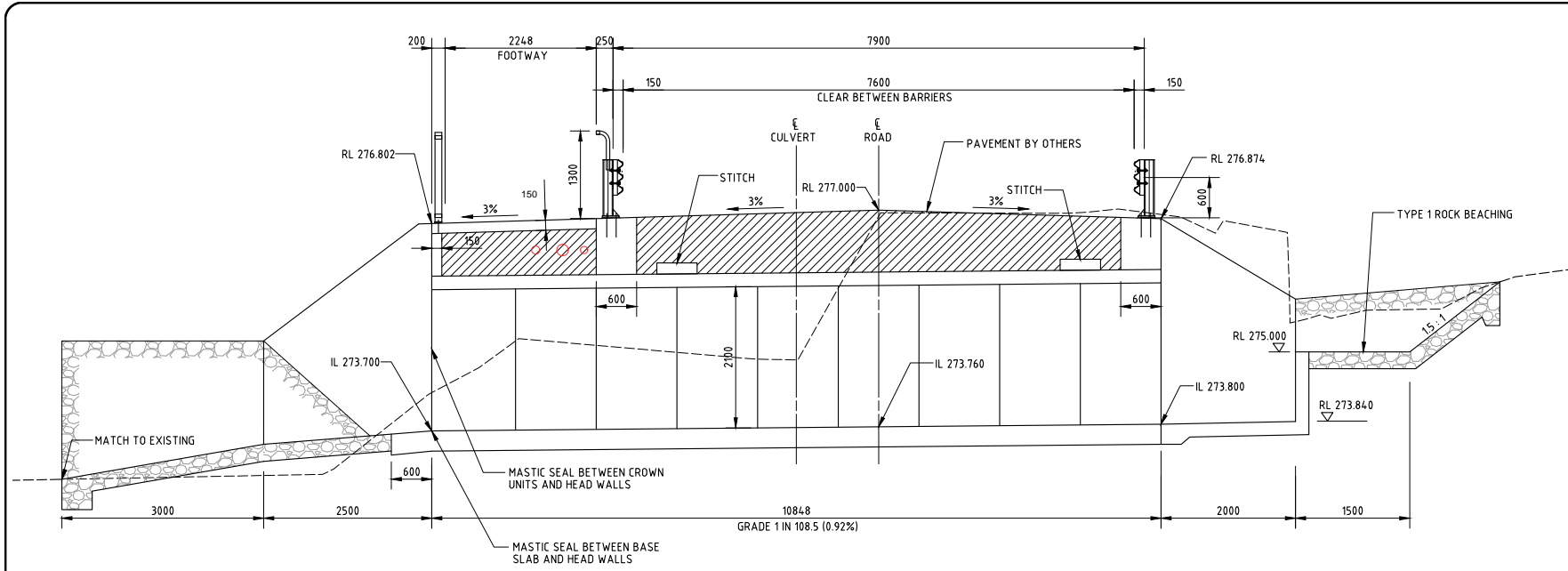
CHRIS O'BRIEN & COMPANY PTY LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS

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Traralgon Vic. 3844

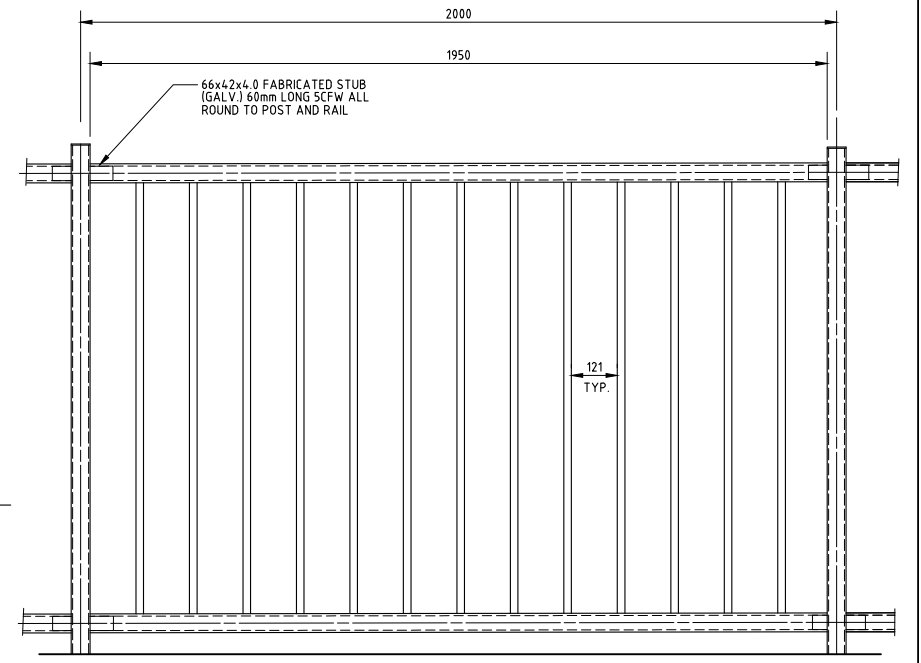
13th Church Street
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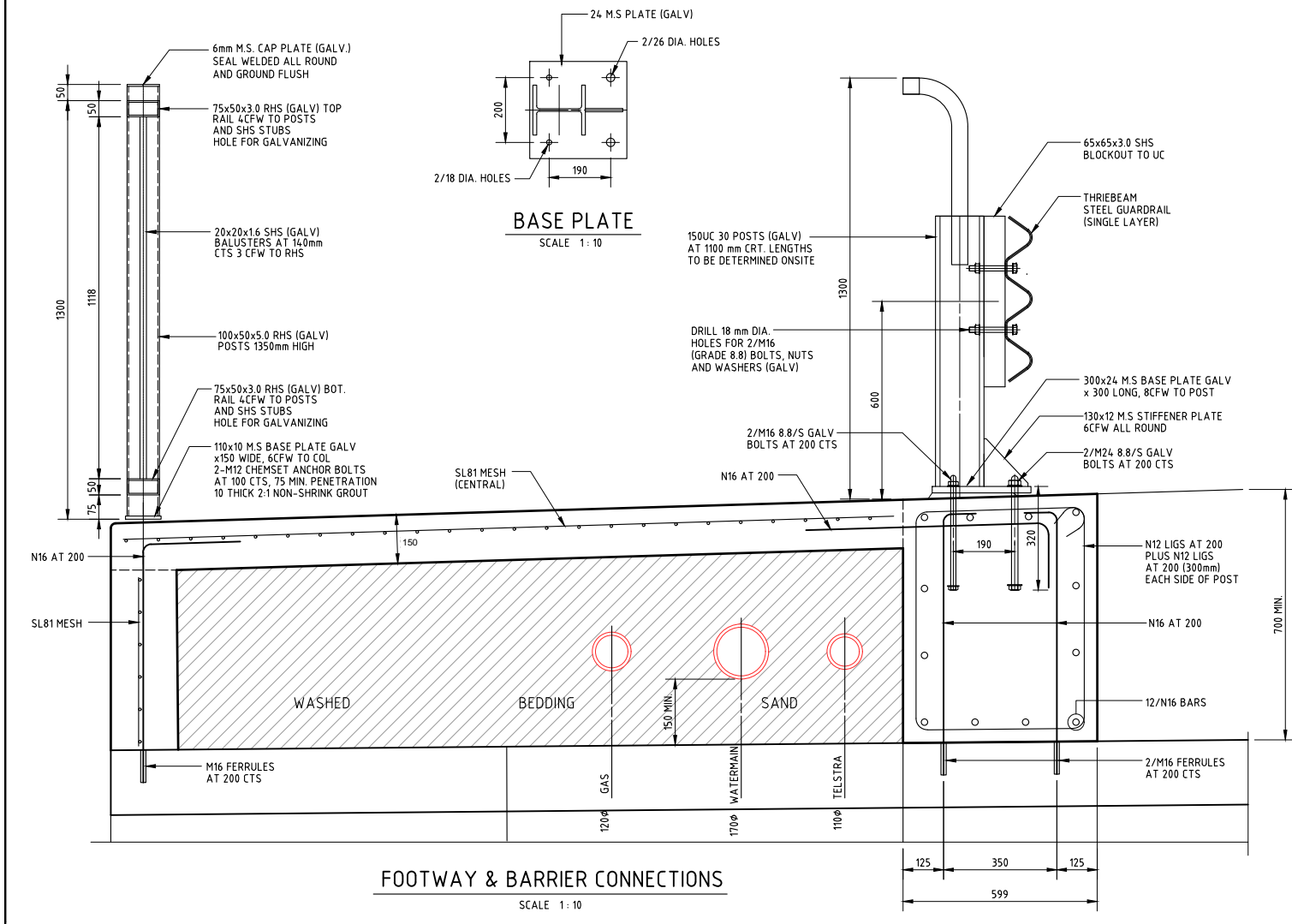
DRAWN	GENERAL ARRANGEMENT	DATE
LDM	PROJECT FRYERS ROAD CULVERTS OVER CAMPBELLS CREEKS AT CH. 805	AUG 2020
DESIGNED		SCALE AS SHOWN
NRR		SHEET No. 1 OF 2
CHECKED		PROJECT No. 30820
COB		
SIGNED		



SECTION A-A
SCALE 1:50

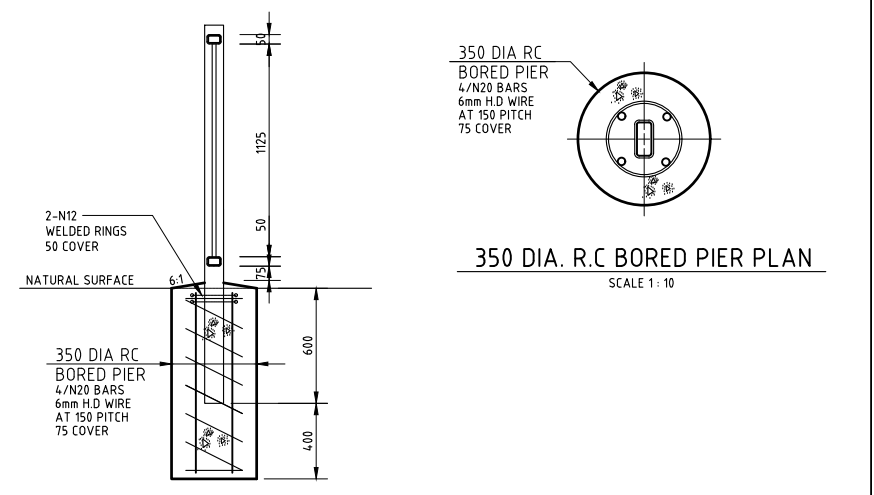


PEDESTRIAN BARRIER ELEVATION
SCALE 1:10

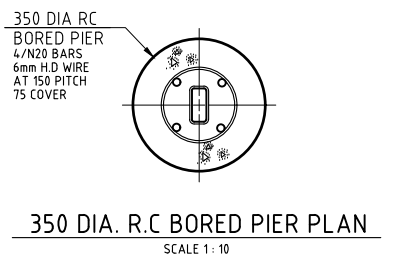


FOOTWAY & BARRIER CONNECTIONS
SCALE 1:10

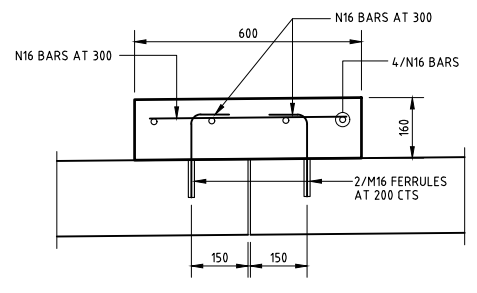
- CONCRETE**
- CONCRETE STRENGTH GRADE SHALL BE VR400/40
 - ALL CORNERS SHALL HAVE 20 x 20 mm FILLETS OR CHAMFERS UNLESS NOTED OTHERWISE.
- REINFORCEMENT**
- COVER -- 40 mm DECK OVERLAY UNLESS NOTED OTHERWISE.
 - GRADE -- 500 (N) HOT ROLLED DEFORMED BARS TO AS/NZS. 4571 (R) DENOTES PLAIN REINFORCING BARS TO AS/NZS. 4671
 - SPACING -- TAKEN AS EQUAL UNLESS NOTED OTHERWISE.
 - WELDING -- SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE
 - 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.



GUARD POST PIER DETAIL
SCALE 1:20



350 DIA. R.C BORED PIER PLAN
SCALE 1:10



STITCH DETAIL
SCALE 1:10

- NOTES**
- STEELWORK**
- BEAMS SHALL BE GRADE 300 PLUS.
 - DAMAGED SURFACE COATING SHALL BE MADE GOOD BY SPOT PAINTING WITH APPROVED COLD GALV. PAINT.
 - WELDING SHALL BE IN ACCORDANCE WITH SECTION 630 OF THE VICROADS SPECIFICATION
 - WELDING SHALL BE CATEGORY SP FOR ALL WELDS.
 - ELECTRODES SHALL BE E41XX TO AS 1554 - PART 1.
 - (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.
 - BARRIER RAILING AND STEELWORK SHALL BE HOT DIP GALVANIZED (HEAVY) AFTER FABRICATION IN ACCORDANCE WITH AS/NZS 4680.
 - GRADE 8.8 BOLTS, NUTS AND WASHERS TO AS. 1214 GALVANIZED TO AS/NZS 4680 UNLESS NOTED OTHERWISE.
 - BARRIER POSTS SHALL BE ERECTED VERTICAL.
 - PEDESTRIAN BARRIER LOAD : 0.75 kN/m AS PER AS5100.2-2017 CLAUSE. 12.5 (a)

APPROVED FOR CONSTRUCTION

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DATE PLOTTED: 16-12-2020

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DETAILED SECTIONS AND CONNECTIONS

PROJECT
**FRYERS ROAD CULVERTS
OVER CAMPBELLS CREEKS
AT CH. 805**

DATE	SCALE	SHEET No.	PROJECT No.
AUG 2020	AS SHOWN	2 OF 2	30820