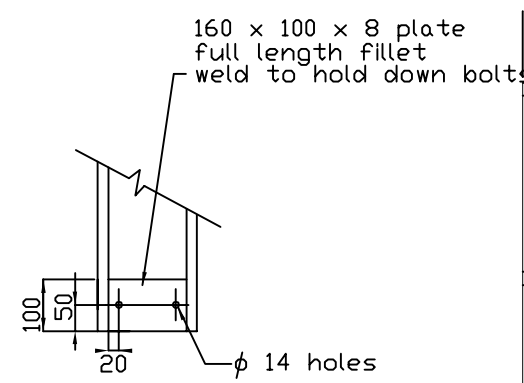
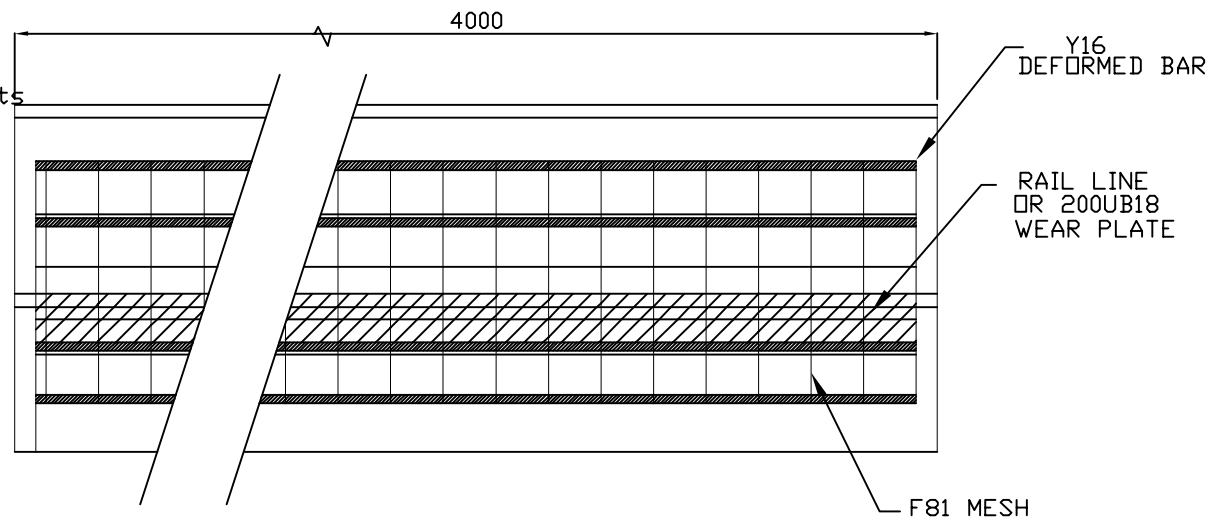


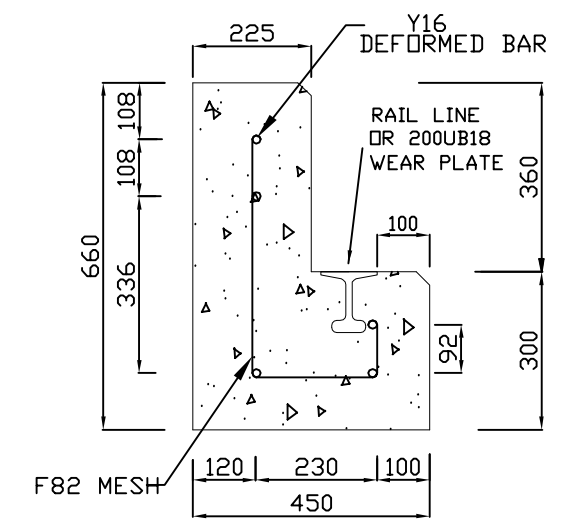
DETAIL "A"



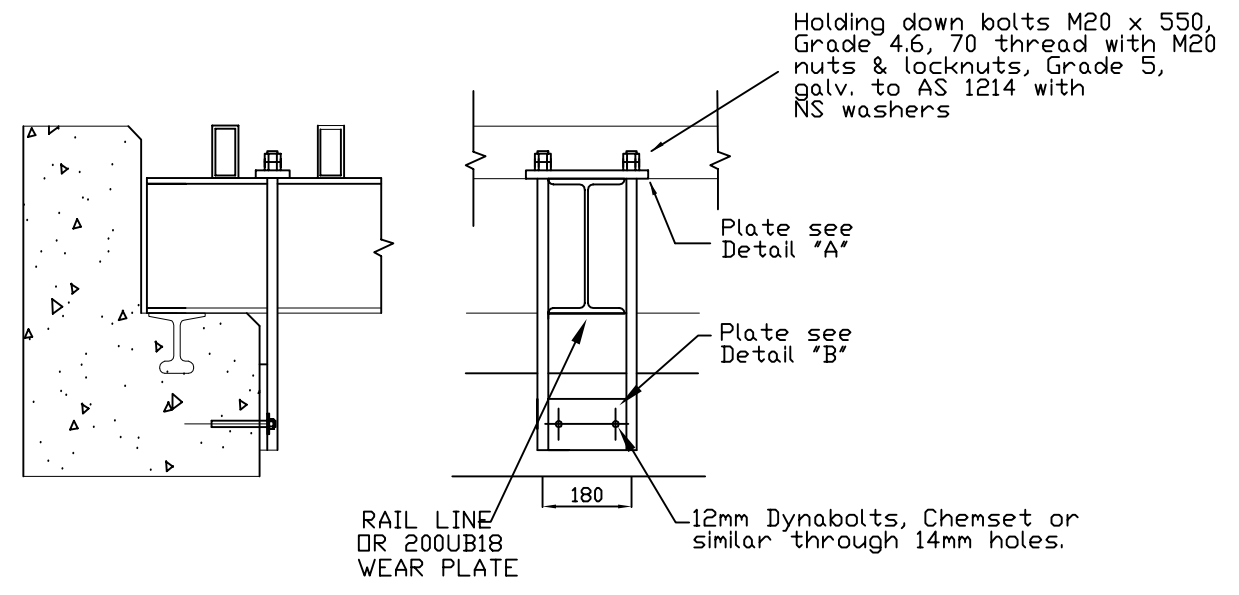
DETAIL "B"



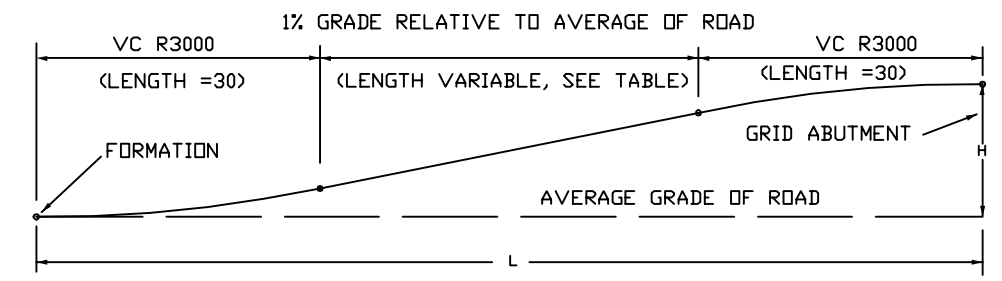
ABUTMENT FRONT VIEW



ABUTMENT DETAIL



HOLDING DOWN BOLT DETAIL



Half Longitudinal Section

HEIGHT	LENGTH	DISTANCE FROM GRID										LENGTH OF GRADE
		10	20	30	40	50	60	70	80	90		
0.7	100	0.68	0.63	0.55	0.45	0.35	0.25	0.15	0.07	0.02	0.02	40
0.6	90	0.58	0.53	0.45	0.35	0.25	0.15	0.07	0.02	-	-	30
0.5	80	0.48	0.43	0.35	0.25	0.15	0.07	0.02	-	-	-	20
0.4	70	0.38	0.33	0.25	0.15	0.07	0.02	-	-	-	-	10
0.3	60	0.28	0.23	0.15	0.07	0.02	-	-	-	-	-	0

ROAD APPROACH RAMP GRADIENT DETAILS

- NOTES:
- Concrete to be 32MPa/20
 - 4 Holding-Down Bolt arrangements are to be installed - one per corner of each grid segment.
 - Weight approx. 2.02 Tonnes for 4.0m segment.
 - Main Roads Standard insitu abutment may be used. Refer MRD Std Drgs 1561 and 1353.
 - Prefabricated pre-cast concrete abutments may be used, provided they are approved by CTRC, and both the abutments and the bedding are certified by a practising structural engineer.
 - Certified prefabricated Steel footings may be used provided they are approved by CTRC.
 - If prefabricated steel footings are used they shall be founded upon a 200mm thick reinforced concrete footing or a 300mm deep cement stabilised gravel footing compacted to 95% MDD.

MK	DETAILS OF AMENDMENTS	APPROVED BY:	DATE

CHARTERS TOWERS REGIONAL COUNCIL
 12-14 MOSMAN STREET
 (P.O. BOX 189)
 CHARTERS TOWERS, QLD, 4820
 Phone(07)47615300 Fax(07)47615344

SURVEY	SCALE:NTS
DATUM	CHECKED DATE
DESIGN	APPROVED DATE
DRAWN: RJG/UGH	APPROVED EXEC. MGR. ROADS INFRASTRUCTURE

S0049-1 CONCRETE ABUTMENT DETAILS

SHEET 3 OF 4

A3

a	b	c	d	e	f
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