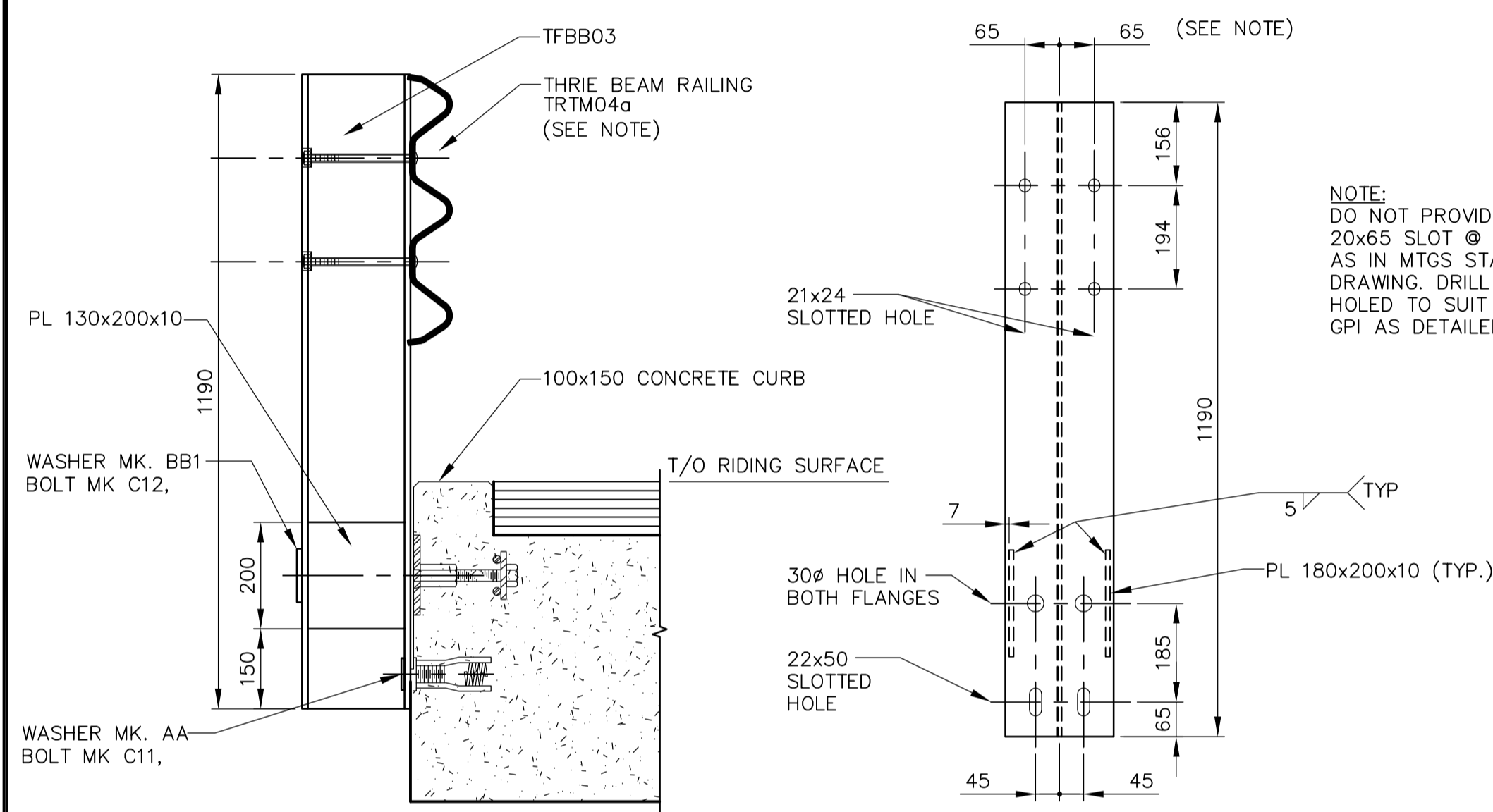


BRIDGE GUARDRAIL LAYOUT
SCALE 1:50

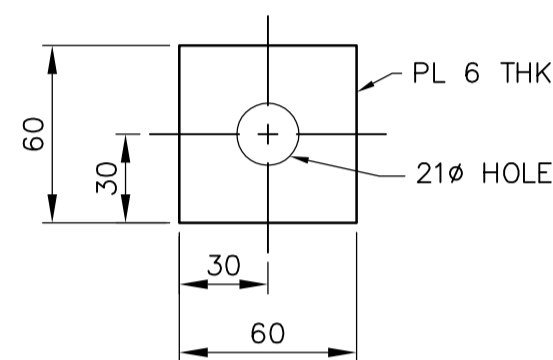
BILL OF MISCELLANEOUS METAL FOR BRIDGE RAILING			
MK.	NO.	DESCRIPTION	SIZE
GP1	18	RAILPOST - GALVANIZED	W200x46, 1190 LONG AS DETAILED
AA	3b	WASHER - GALVANIZED	AS DETAILED
BB1	18	WASHER - GALVANIZED	AS DETAILED
*	U1	RAILPOST ANCHOR UNIT-COMPLETLY GALVANIZED	
		EACH UNIT TO BE FABRICATED FROM:	
		PLATE	1-PL150x250x12
		HEX. COUPLING UNIT	2-22#x63.5mm LG. BOLT
*	E1	ANCHOR PLATE-COMPLETLY GALVANIZED	
		EACH UNIT TO BE FABRICATED FROM:	
		PLATE	1-PL. 10x90x150 LG. AS DETAILED
		BARS	2-15Mx900 LG. DEFORMED BARS
C11	36	HEAVY HEX. BOLT (A325)	19#x55 LG. NO NUT, GALVANIZED
C12	36	HEAVY HEX. BOLT (A325)	22#x215 LG. NO NUT, GALVANIZED
*	R22	HEAVY HEX. BOLT (A325)	22#x125 LG. NO NUT, GALVANIZED
	36	LOCK WASHERS	ONE REQ'D PER C12, GALVANIZED
	36	LOCK WASHERS	ONE REQ'D PER C11, GALVANIZED

BILL OF REINFORCING STEEL			
MK.	NO.	LENGTH	MASS (kg)
D1001	4	4500	18
D1002	64	350	14
TOTAL MASS OF REINFORCING STEEL			32 kg

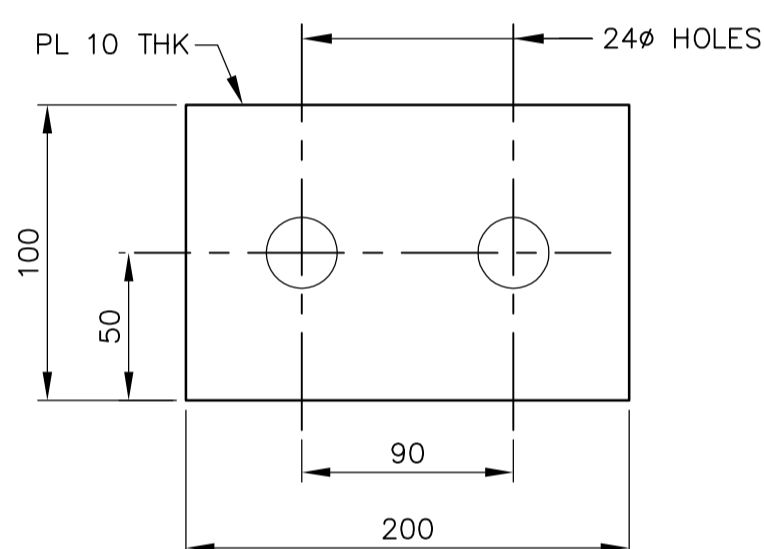
ITEMS MARKED * HAVE BEEN INSTALLED IN PREVIOUS CONTRACT



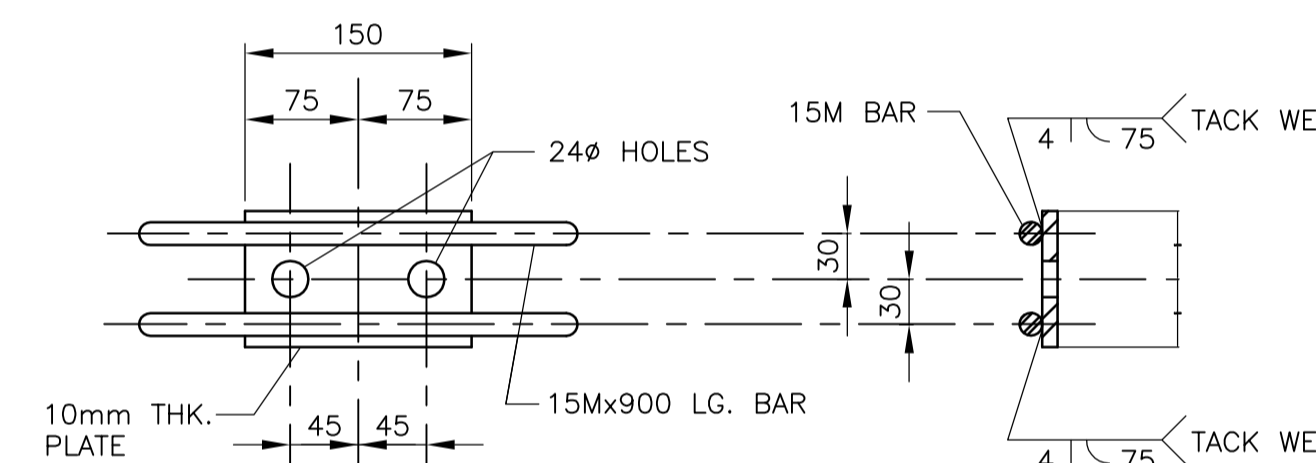
RAIL POST MK. GP1
SCALE 1:10



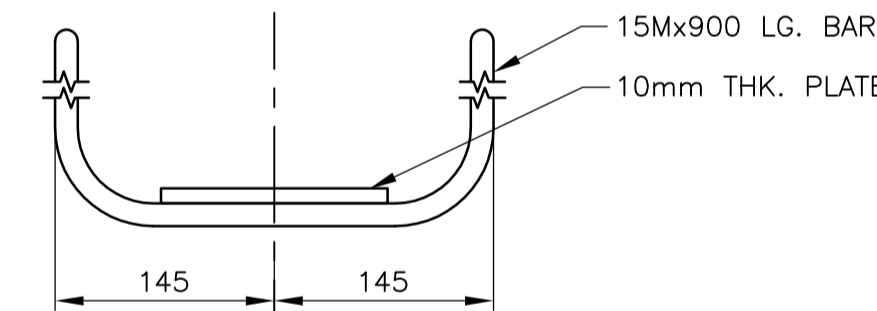
WASHER MK AA



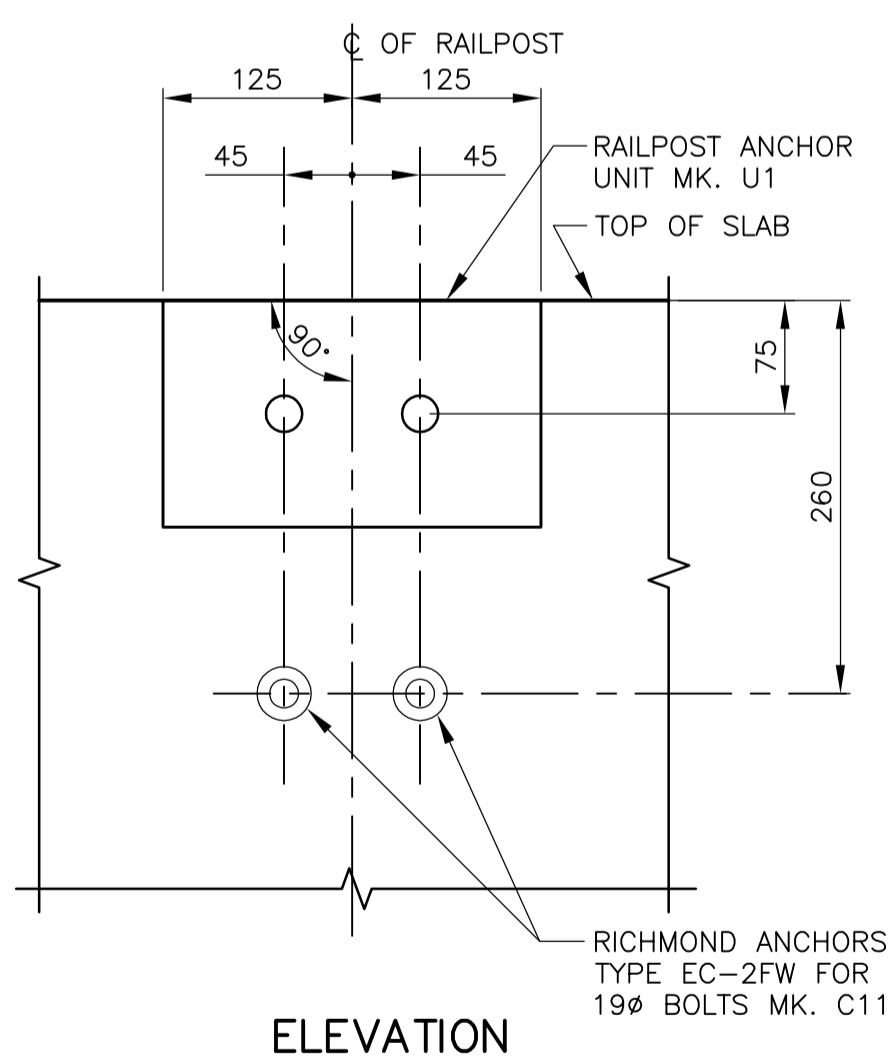
WASHER MK BB1
SCALE 1:5



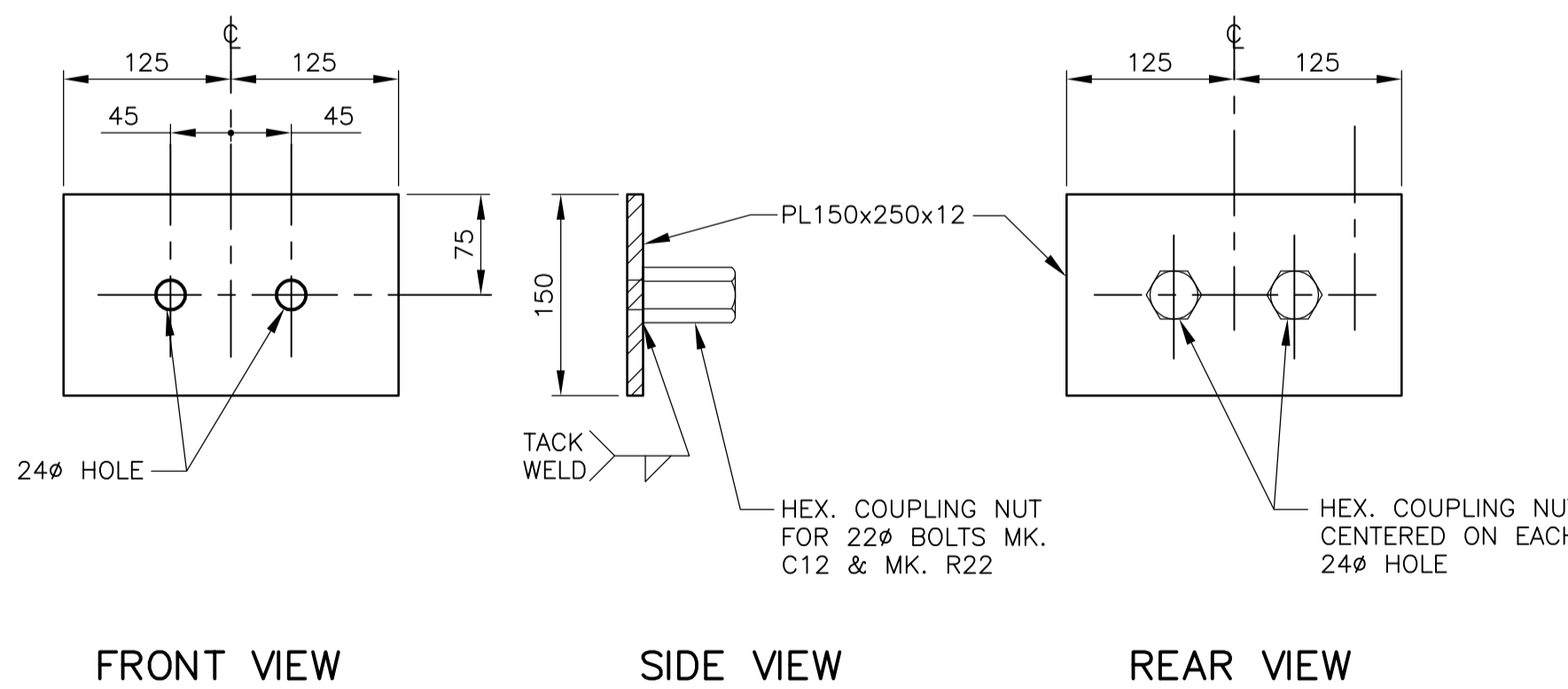
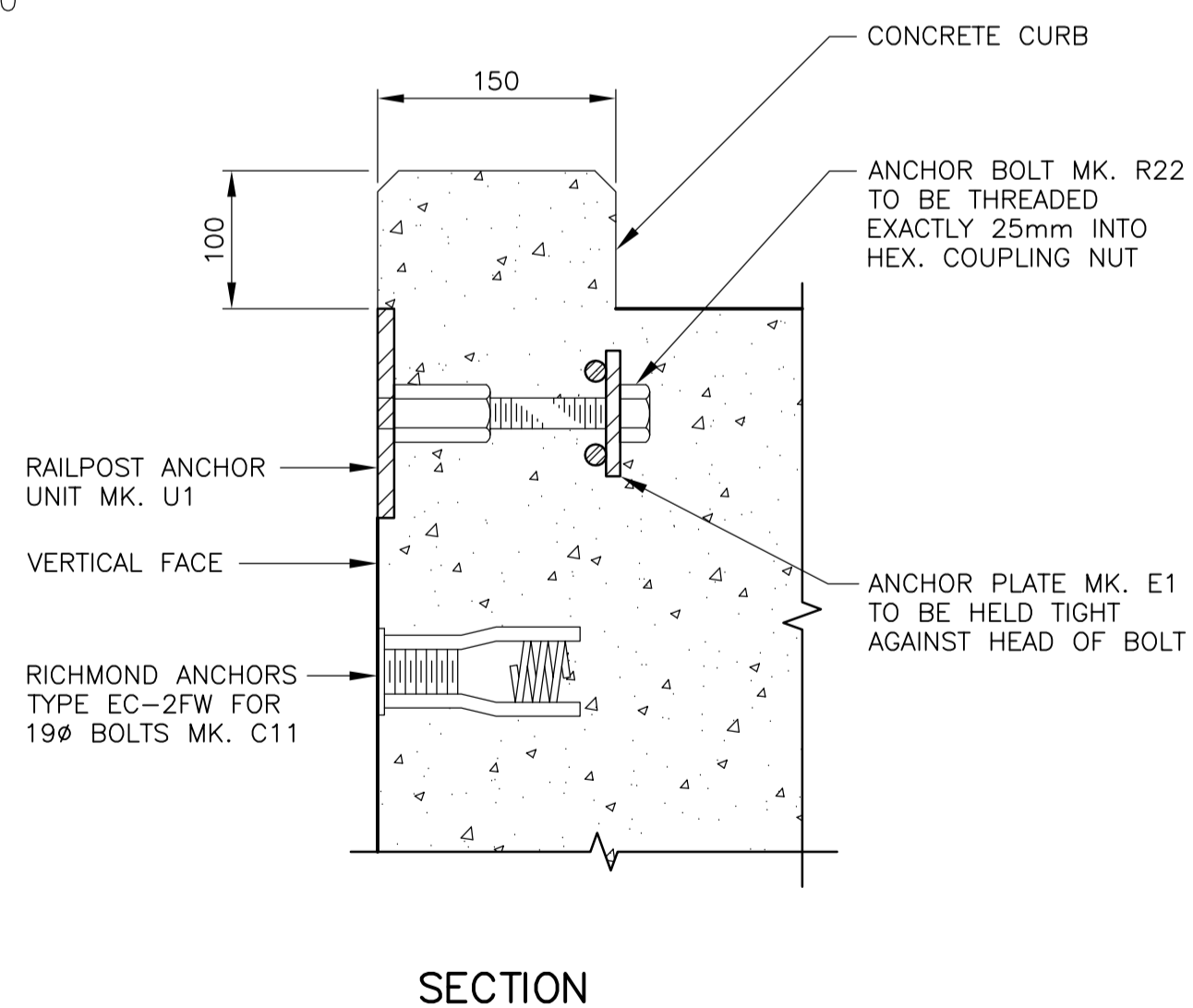
ANCHOR PLATE MK. E1-GALVANIZED



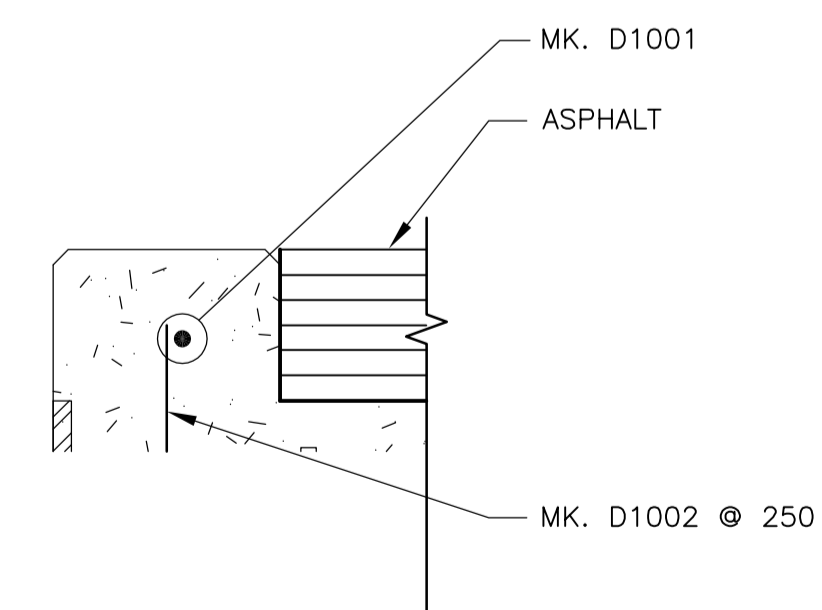
CURB REINFORCING STEEL



GUARD POST INSERT DETAILS
SCALE 1:5



RAILPOST ANCHOR UNIT MK. U1-GALVANIZED
SCALE 1:5



CURB REINFORCING STEEL
SCALE 1:5

<p>Certificate of Authorization Earth Tech Canada Inc. No. 730</p>	B.M. ELEV.	<p>Frederickson Cooper ARCHITECTS</p>	<p>A Tice International Ltd. Company</p>	ENGINEER'S SEAL	<p>THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION</p>				
				DESIGNED BY AP		CHECKED BY EBL	ORIGINAL SIGNED BY E.B. LOEWEN		
				DRAWN BY KC		APPROVED BY DT	07/01/30		
				SCALE: AS NOTED		RELEASED FOR CONSTRUCTION BY: R. SOROKOWSKI	CONSULTANT DRAWING NO. WN-S0494		
	NO. REVISIONS	DATE	BY	DATE	07/01/30	DATE	07/01/30	WATER TREATMENT PLANT CONSTRUCTION OF ROADS AND LANDSCAPING	CITY FILE NUMBER
								STRUCTURAL EASTERN BRIDGE APPROACH SLAB DETAILS	SHEET OF
									CITY DRAWING NUMBER 1-0601N-A-S0494-001-02D