

15M TIES WELDED TO

ANCHOR BOLTS

LAGOPOULOS WAY

BARRIER TYPE 2 —

1-15M BOTTOM TIES WELDED

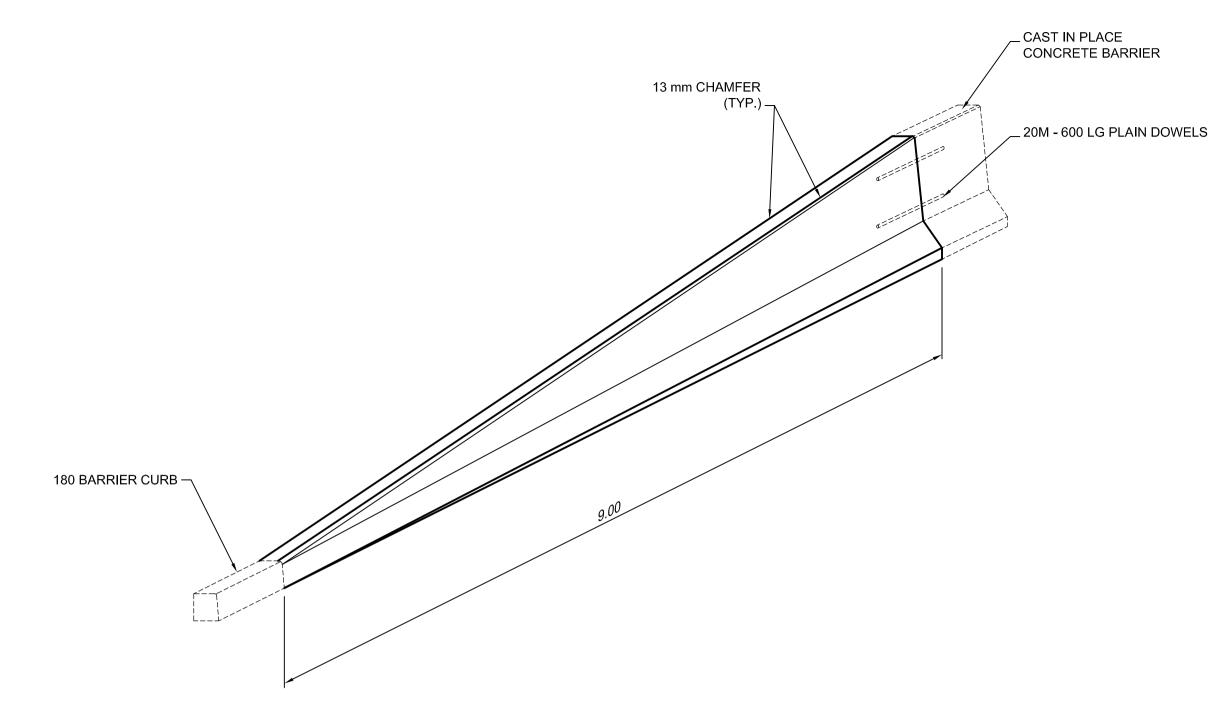
TO ANCHOR BOLTS -

TO HOLD BOLTS IN PLACE 2 REQUIRED

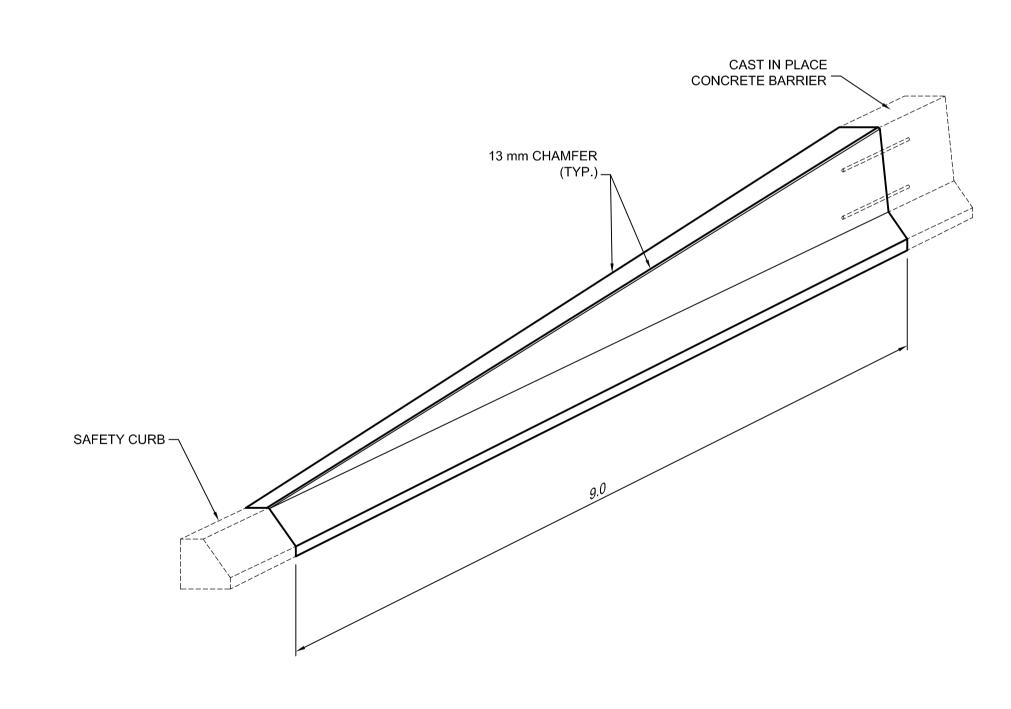
(1 TOP & 1 BOTTOM) -

√ 180 BARRIER CURB SAFETY CURB -

CURB TRANSITION DETAIL - TYPE 1 SCALE 1:50 22,37 | 45 *|*



BARRIER TRANSITION DETAIL - TYPE 2 SCALE 1:50



BARRIER TRANSITION DETAIL - TYPE 3 SCALE 1:50

GENERAL NOTES

- FLEXCELL BOND BREAKER

← BARRIER TYPE 1

- CONCRETE MEDIAN

ALL AROUND

TRANSIT WAY

— 4 - 60.3 O.D. (2") PLASTIC PIPE CONDUIT

END OF EACH ANCHOR BOLTS (TYP.)

- 25 (1") DIA. x 1870 LONG ANCHOR BOLT (4-REQ'D.)

C/W 3-25 mm HEX NUTS & A FLAT ROUND WASHER.

ONE NUT SHALL BE THREADED ON TO EMBEDDED

(2 EACH SIDÈ OF CONC. PILE)

- 1. <u>REINFORCING STEEL</u> CSA G30.12 GRADE 400 VERTICAL BARS FULL LENGTH OF PILE
- 2. ANCHOR BOLTS CSA G40.21 GRADE 300W 4-25 (1") DIA. X 1870 LONG EACH BOLTH C/W 3 NUTS & 1 WASHER 300 LONG THREAD AT EACH END. HOT DIP GALVANIZED FULL LENGTH BCD = BOLT CIRCLE DIAMETER TO CENTRE OF BOLT GROUP
- 3. ANCHOR BOLTS SHALL BE ALIGNED WITH A TEMPORARY STEEL TEMPLATE. PLACEMENT OF ANCHOR BOLTS AND CONCRETE WITHOUT THE TEMPLATE WILL NOT BE PERMITTED.
- 4. TOP OF PILE SHALL BE FORMED WITH A TUBULAR FORM (SONOTUBE) AS FOLLOWS: (a) BORED PILES - MIN. 500 mm BELOW FINAL GRADE
- 5. CONCRETE MIX DESIGN
- PROPORTIONING OF FINE AGGREGATE, COARSE AGGREGATE, CEMENT, WATER, AND AIR ENTRAINING AGENT SHALL BE SUCH AS YIELD CONCRETE HAVING THE REQUIRED STRENGTH AND WORKABILITY AS FOLLOWS: i) MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 35 MPa ii) MAXIMUM WATER/CEMENT RATIO = 0.45 iii) MINIMUM CEMENT CONTENT = 340 kg/m

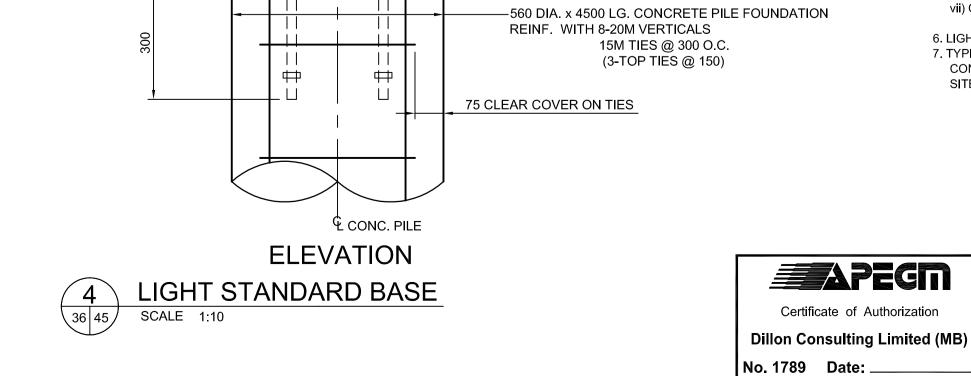
(b) "HYDRO-JET EXCAVATED" PILES - MIN. 1000 mm BELOW FINAL GRADE

iv) SLUMP = $80 \text{ mm} \pm 30 \text{ mm}$ v) AGGREGATE: 20 mm NOMINAL

vi) AIR CONTENT: 5.0 TO 8.0 PERCENT

vii) CEMENT - TYPE HS, HIGH SULFATE-RESISTANT.

6. LIGHT STANDARD POLES SUPPLY & INSTALLATION BY MANITOBA HYDRO. 7. TYPICAL PILE INSTALLATION LOCATION AS SHOWN ON DRAWINGS. CONTRACT ADMINISTRATOR MAY MODIFY DEPENDING ON SITE APPURTENANCES.



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DILLON CONSULTING	ENGINEER'S SEAL ORIGINAL STAMPED BY S.S. RIHAL 04-29-09
EASED FOR CONSTRUCTION	
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E 04/29/09	088813

04/29/09

ENGINEER'S SEAL
ORIGINAL STAMPED BY S.S. RIHAL 04-29-09 PROFESSIONAL
CONSULTANT PROJECT NO.

Winnipeg	THE CITY OF V	
SOUTHWEST RA	APID TRANSIT CORRIDOR - STAGE 1	CITY DRAWING NUMBER P-3299-45

OUTHWEST RAPID TRANSIT CORRIDOR - STAGE 1	P-3299-45			
RANSITWAY CONSTRUCTION, DONALD/HARKNESS RECONSTRUCTION & ASSOCIATED WORKS	SHEET	45	of 64	
		+0	<u> </u>	
CONCRETE BARRIER & CURB TRANSITION		CONSULTANT DRAWING NUMBER		
DETAILS	C3-C3027-T			