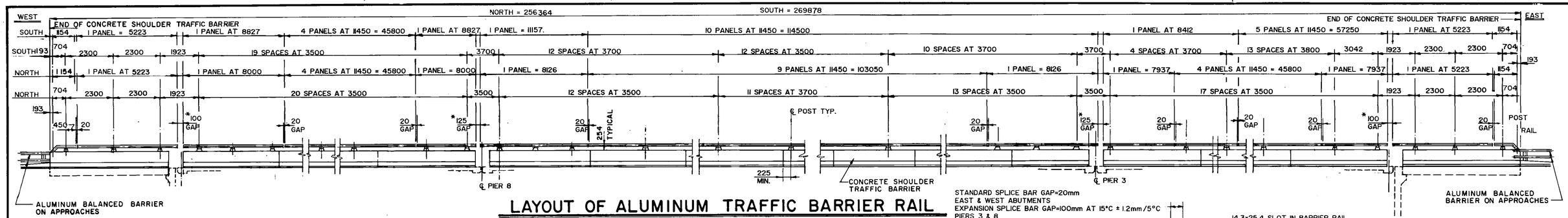


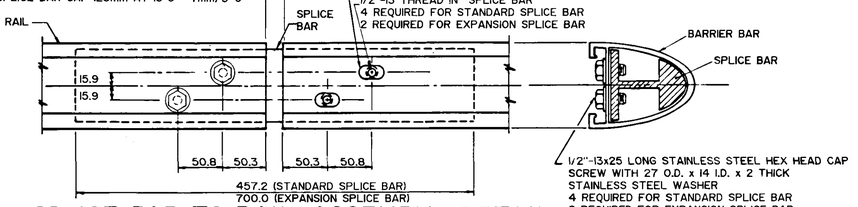
NOTE: * DENOTES DIMENSION AT INSTALLATION TEMPERATURE OF 15°C SEE "SPLICE BAR TO RAIL ASSEMBLY DETAIL" FOR VARIATION WITH TEMPERATURE

LAYOUT OF ALUMINUM TRAFFIC BARRIER RAIL

(SHOWING FRONT ELEVATION TYPICAL FOR BOTH CONCRETE SHOULDER BARRIERS)

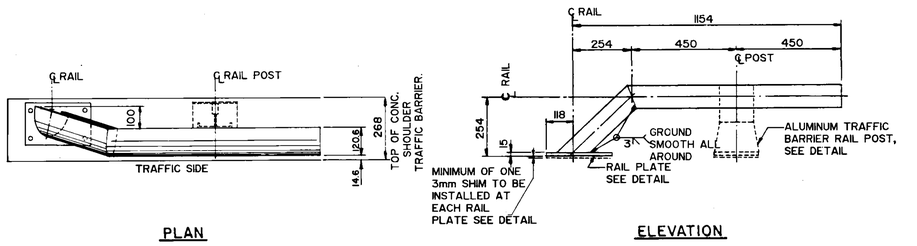
SCALE = 1:100

STANDARD SPLICE BAR GAP=20mm
EAST & WEST ABUTMENTS
EXPANSION SPLICE BAR GAP=100mm AT 15°C ± 1.2mm/5°C
PIERS 3 & 8
EXPANSION SPLICE BAR GAP=125mm AT 15°C ± 4mm/5°C



SPLICE BAR TO RAIL ASSEMBLY DETAIL

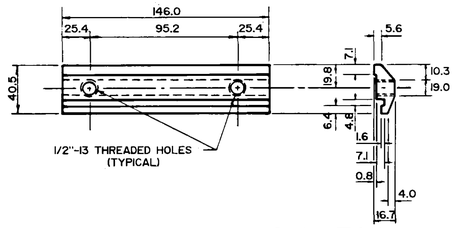
SCALE = N.T.S.



RAIL END SECTION DETAIL

SCALE = 1:10

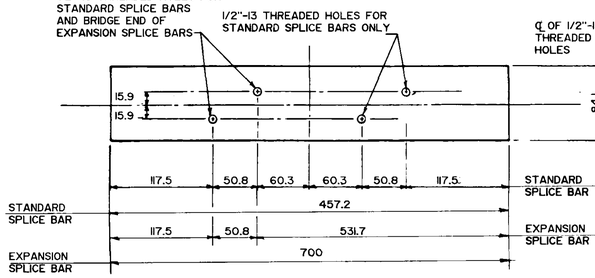
4 REQUIRED – 2 LEFT HAND (AS SHOWN)
– 2 RIGHT HAND



RAIL CLAMP BAR DETAIL

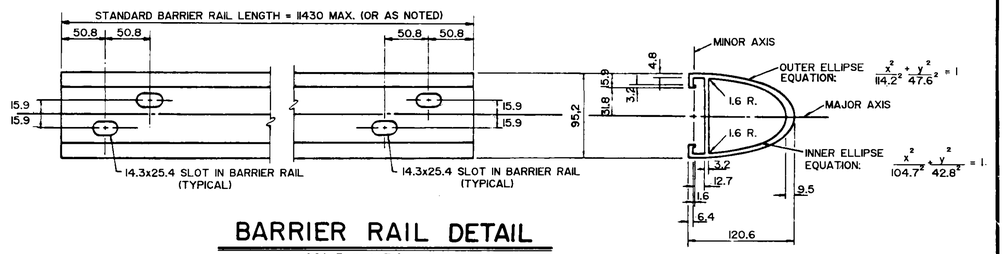
(FOR RAIL POST BRI TYPE C)

SCALE = N.T.S.



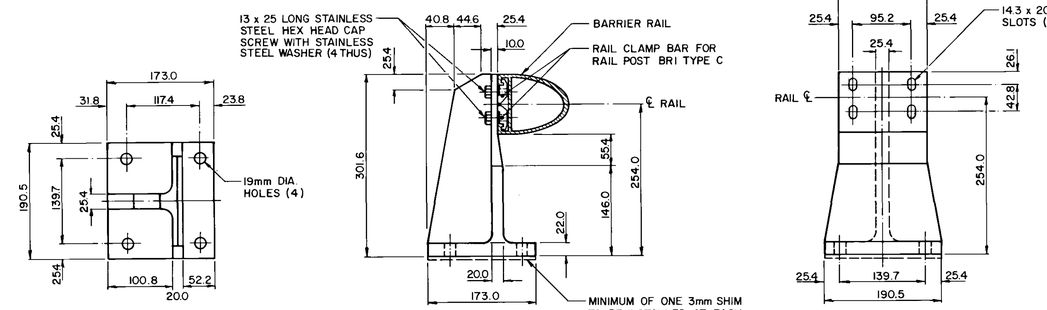
DETAIL OF SPLICE BARS

SCALE = N.T.S.



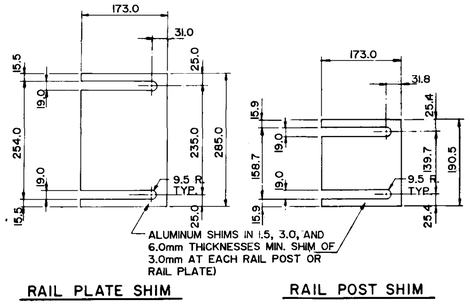
BARRIER RAIL DETAIL

SCALE = N.T.S.



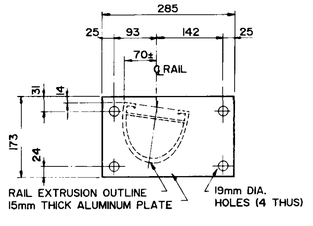
CAST ALUMINUM TRAFFIC BARRIER RAIL POST DETAIL

ALSO SHOWING RAIL TO POST ASSEMBLY DETAIL
SCALE - 1:5



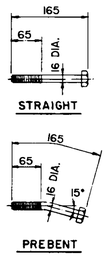
SHIM DETAILS

SCALE = 1:5



RAIL PLATE DETAIL

SCALE = 1:5



ANCHOR BOLT DETAILS

(STAINLESS STEEL)
FOR RAIL POSTS AND RAIL PLATES

NOTES

1. THE 19mm DIA. HOLES (4) IN THE BASE OF THE BARRIER RAIL POSTS AND RAIL PLATES ARE DESIGNED TO ACCOMMODATE 16mm DIA. RAIL POST ANCHOR BOLTS AS DETAILED. SUPPLY WITH EACH ANCHOR BOLT: ONE STAINLESS STEEL PLAIN WASHER, ONE STAINLESS STEEL LOCK WASHER, AND ONE STAINLESS HEX NUT.
2. A COMBINATION OF 1.5, 3.0, AND/OR 6.0mm THICK ALUMINUM RAIL POST OR PLATE SHIMS ARE TO BE USED AS REQUIRED TO SET THE BARRIER RAIL TO THE SPECIFIED HEIGHT. (MINIMUM 3.0mm SHIM REQUIRED AT EACH POST OR PLATE).
3. REMOVE ALL BURRS AND SHARP EDGES IN THE SHOP. AFTER THE INSTALLATION OF THE BARRIER HAS BEEN COMPLETED, THE TOP EDGES AND CORNERS OF THE BARRIER RAIL POSTS SHALL BE ROUNDED SMOOTH TO THE SATISFACTION OF THE ENGINEER.
4. * DENOTES DIMENSION AT INSTALLATION TEMPERATURE OF 15°C SEE SPLICE BAR TO RAIL ASSEMBLY DETAIL FOR DIMENSION VARIATION WITH TEMPERATURE.
5. FOR BILL OF MATERIALS SEE DWG. B121-85-18.
6. BOTTOM SURFACE OF SHIM (SURFACE IN CONTACT WITH CONCRETE) IS TO BE PAINTED WITH 2 COATS OF ALKALI RESISTANT BITUMINOUS PAINT, EACH COAT BEING 1mm IN THICKNESS.

SPECIFICATIONS

1. EXTRUDED ALUMINUM SHAPES SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. B221, ALLOY 6061-T6 OR ALLOY 6351-T5 (MINIMUM ELONGATION 10%)
2. USE ALLOY 535.2 TO CAST RAIL POST.
3. THE STAINLESS STEEL HEX HEAD AND SOCKET HEAD CAP SCREWS SHALL MEET THE REQUIREMENTS OF A.S.T.M. A 276 TYPE 430, AND THE DIMENSIONAL REQUIREMENTS OF A.N.S.I. B 18.3.
4. DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE, AND ACCEPTED MANUFACTURING PRACTICES.

RECORD DRAWING

B-5579

NO	REVISIONS	DATE	APP.
1	RECORD DRAWING	NOV.86	

PROVINCE OF MANITOBA — K.S. UPPAL — June 15/84 — REGISTERED ENGINEER
ENGINEER'S SEAL

the uma group — Underwood McLellan Ltd. — Consulting Engineers and Planners

DESIGNED BY: K.U.	DRAWN BY: BH
CHECKED BY: J.T.	DATE: APRIL 1985
APPROVED BY:	JOB No. 0265-216-01
	DATE: June 15/84

THE CITY OF WINNIPEG
WORKS & OPERATIONS DIVISION
STREETS & TRANSPORTATION DEPARTMENT

NAIRN AVENUE OVERPASS
DECK REHABILITATION, STRUCTURAL STRENGTHENING AND RELATED WORKS

ALUMINUM TRAFFIC BARRIER RAIL DETAILS

AUTHORIZED BY: STREETS & BRIDGES ENGINEER	DATE: 1985-04-16
ACCEPTED BY: BRIDGE ENGINEER	DATE: 1985 04 16
SCALE: AS NOTED	DRAWING NO: B121-85-13