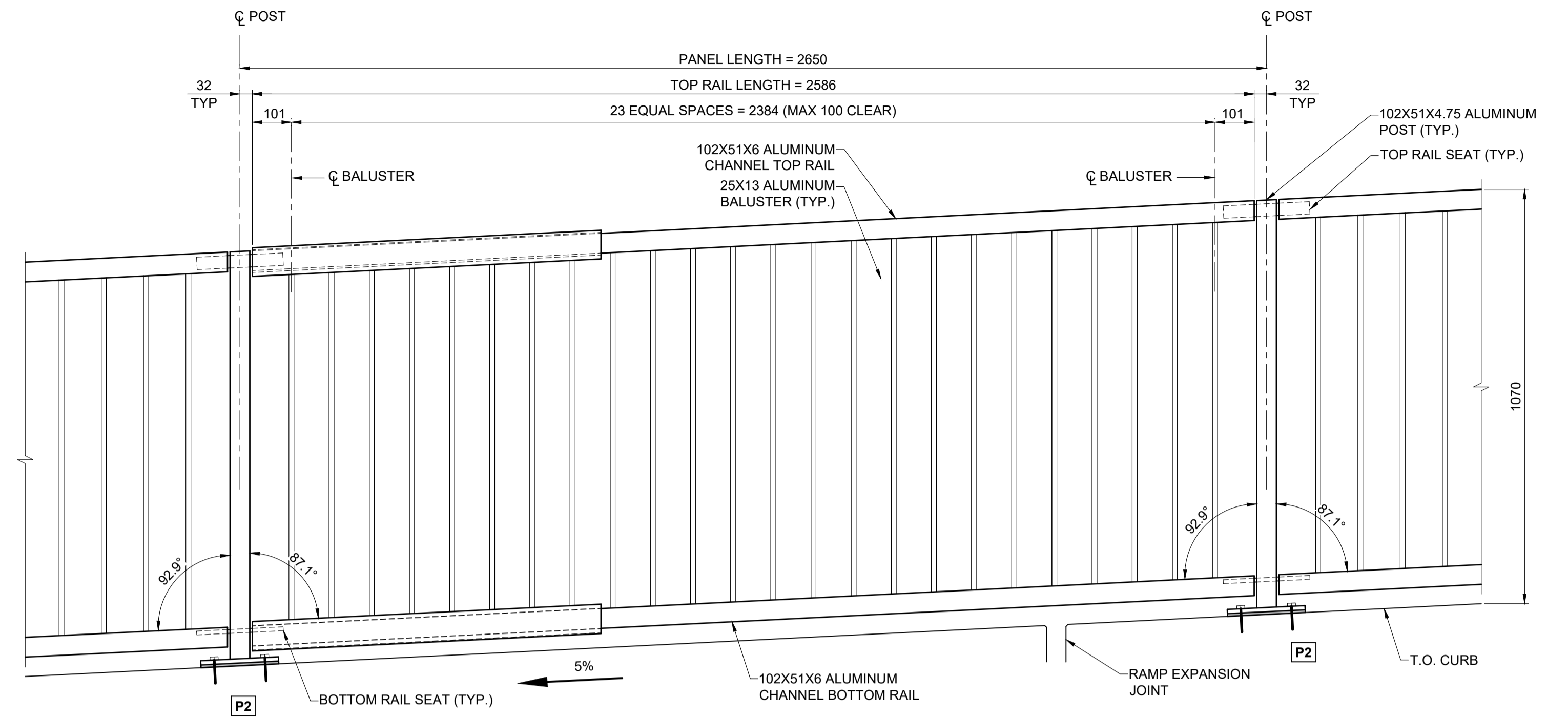
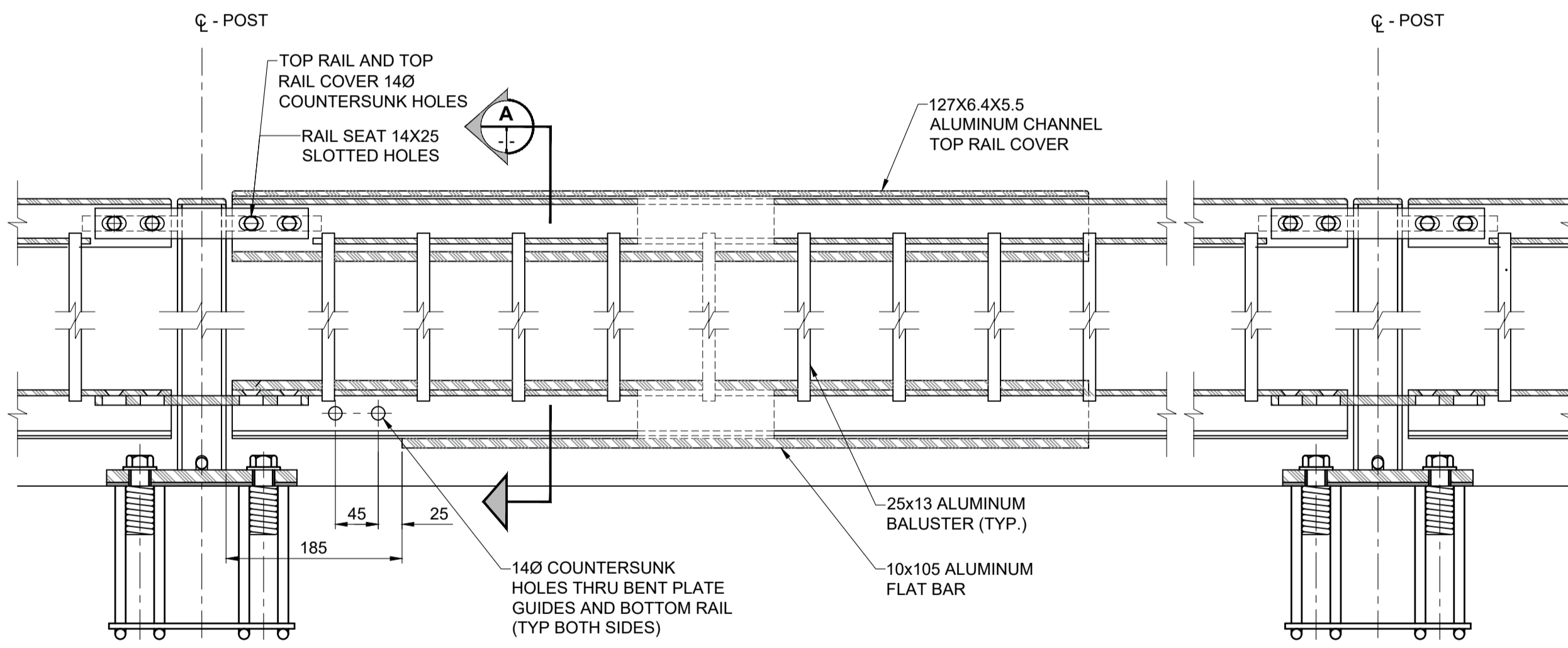


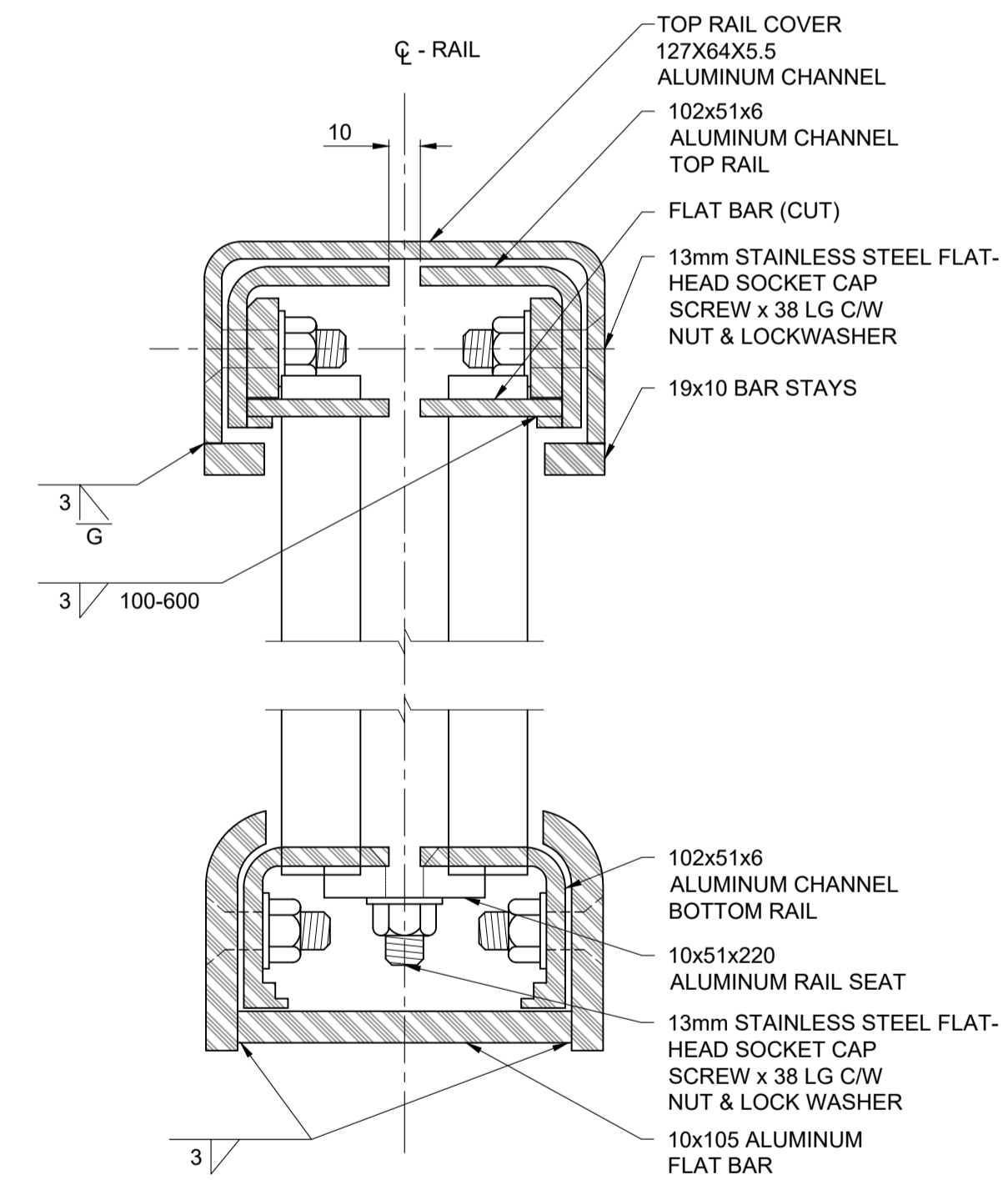
EXPANSION PANEL LOWER RAIL PLAN
SCALE: 1:5



EXPANSION PANEL Mk. A ELEVATION
SCALE: 1:10



EXPANSION PANEL SECTION
AT CENTRELINE OF RAILS
SCALE: 1:5



SECTION - HANDRAIL POST
SCALE: 1:2

- NOTES:**
1. ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B221 ALLOY 6351-T6.
 2. ALUMINUM PLATES SHALL CONFORM TO ASTM B221 ALLOY 5083.
 3. THE M.I.G. PROCESS OF WELDING SHALL BE USED.
 4. RAIL POSTS AND BALUSTERS SHALL BE SET PLUMB.
 5. PLACE NEOPRENE PAD UNDER EACH POST BETWEEN BASE PLATE OR SHIM AND CONCRETE SURFACE. ALUMINUM SHIMS MAY BE REQUIRED FOR VERTICAL ALIGNMENT.
 6. HANDRAIL ANCHOR INSERTS SHALL BE ACROW-RICHMOND TYPE DGRS-1.

BID OPPORTUNITY No. 602-2018



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

LOCATION APPROVED
UNDERGROUND STRUCTURES

Supr. U/G STRUCTURES COMMITTEE DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

BM ELEV					
DESIGNED BY	ALP	CHECKED BY	BAP		
DRAWN BY	ALP	APPROVED BY	BE		
		RELEASED FOR CONSTRUCTION			
			N/A		
B	ISSUED FOR TENDER	18/09/04	BAP	HOR SCALE	AS SHOWN
A	ISSUED FOR 95% DESIGN REVIEW	18/08/07	BAP	VERT SCALE	AS SHOWN
No.	REVISIONS	YYMMDD	BY	DATE	



PROFESSIONAL'S SEAL
PROVINCE OF MANITOBA
B.A.F. PHILLIPS
Member
32723
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT FILE NAME
W160034 - DD NR
HANDRAIL.DWG

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

EMPRESS STREET PROJECT
PEDESTRIAN ACCESSIBILITY RAMPS
NORTH RAMP
PEDESTRIAN HANDRAIL DETAILS 3

CITY DRAWING NUMBER
P-3494-157

SHEET 157 OF 168

DRAWING No. REV
157 B