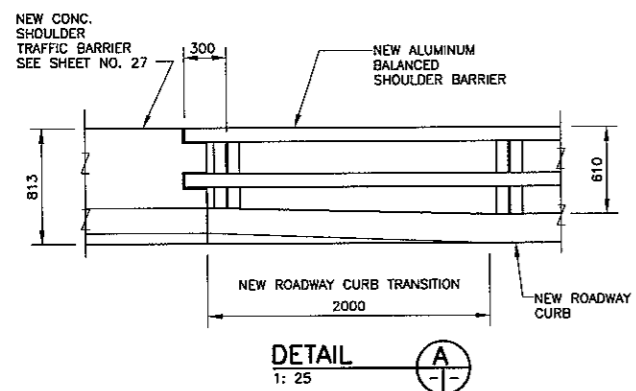
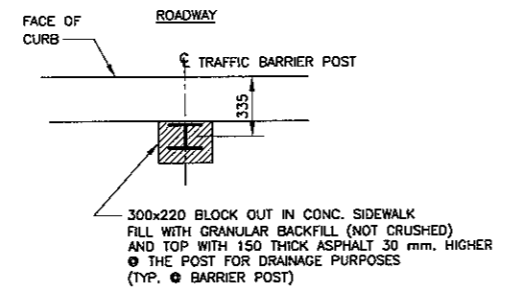


ALUMINUM BALANCED SHOULDER BARRIER LAYOUT
1:50



DETAIL A
1: 25



TYPICAL BARRIER POST BLOCK-OUT DETAIL
DETAIL B
1: 20

BILL OF MATERIAL						
BALANCED ALUMINUM BARRIER EAST STRUCTURE (SHOULDER) SOUTH END						
ITEM	NO. REQ'D.	SALVAGE	CITY SUPPLIED	CONTRACTOR SUPPLIED	CONTRACTOR FABRICATED FROM CITY SUPPLIED COMPONENTS	CONTRACTOR FABRICATED FROM CONTRACTOR SUPPLIED COMPONENTS
13-13 x 25 mm LONG S/S HEX HEAD CAP SCREW	48			48		
27 O.D. 14 mm I.D. x 2 mm THICK S/S WASHER	48			48		
RAIL CLAMP BARS	24			24		
BARRIER POST 1600mm	6		6			
RAIL END CAPS	2		2			
BARRIER RAIL 10490	2				2	
BARRIER RAIL 3200	1				1	
BARRIER RAIL 2500	1				1	
BARRIER RAIL BASE PLATE	1			1		
HILT ANCHOR BOLTS C/W 1 NUT & 1 WASHER EA. BOLT	4			4		

BILL OF MATERIAL						
BALANCED ALUMINUM BARRIER WEST STRUCTURE (MEDIAN) SOUTH END						
ITEM	NO. REQ'D.	SALVAGE	CITY SUPPLIED	CONTRACTOR SUPPLIED	CONTRACTOR FABRICATED FROM CITY SUPPLIED COMPONENTS	CONTRACTOR FABRICATED FROM CONTRACTOR SUPPLIED COMPONENTS
13-13 x 25 mm LONG S/S HEX HEAD CAP SCREW	80			80		
27 O.D. 14 mm I.D. x 2 mm THICK S/S WASHER	80			80		
RAIL CLAMP BARS	40	24		16		
BARRIER POST 1600mm	10	6	4			
RAIL END CAPS	4	2	2			
BARRIER RAIL 11430	3	2*	1			
BARRIER RAIL 11230		1				
BARRIER RAIL 7600	1		1			
BARRIER RAIL 3810	1	1				
BARRIER RAIL 3470		1				

* 1 COMES FROM THE EXISTING BARRIER RAIL

NO.	REVISIONS	DATE	BY
2	ISSUED FOR TENDER	02/02/06	N.B.G.
1	ISSUED FOR CITY REVIEW	02/14/06	N.B.G.

DESIGNED BY	N.B.G.
DRAWN BY	N.B.G.
CHECKED BY	R.A.W.
REVIEWED BY	R.A.W.
HOR. SCALE	AS NOTED
VERTICAL	AS NOTED
DATE	DEC. 2005

ENGINEER'S SEAL

DILLON CONSULTING

PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
R. A. WIEBE

CONSULTANT PROJECT NO.
05-5069-1000

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

Winnipeg

MARYLAND TWIN BRIDGES REHABILITATION PROJECT
EAST BRIDGE REHABILITATION

BALANCED SHOULDER BARRIER LAYOUT AND DETAILS
MISCELLANEOUS DETAILS

CITY DRAWING NUMBER
B108-06-30
SHEET 30 OF 38