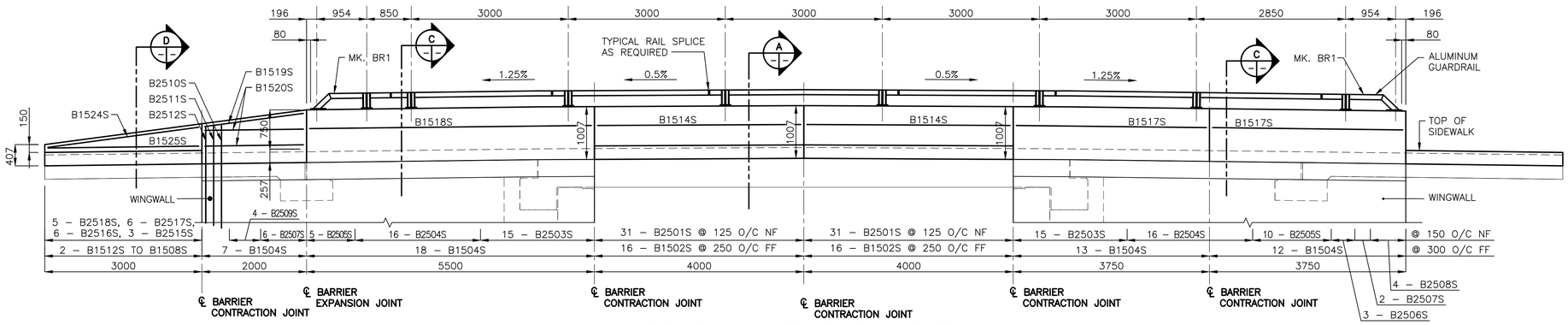
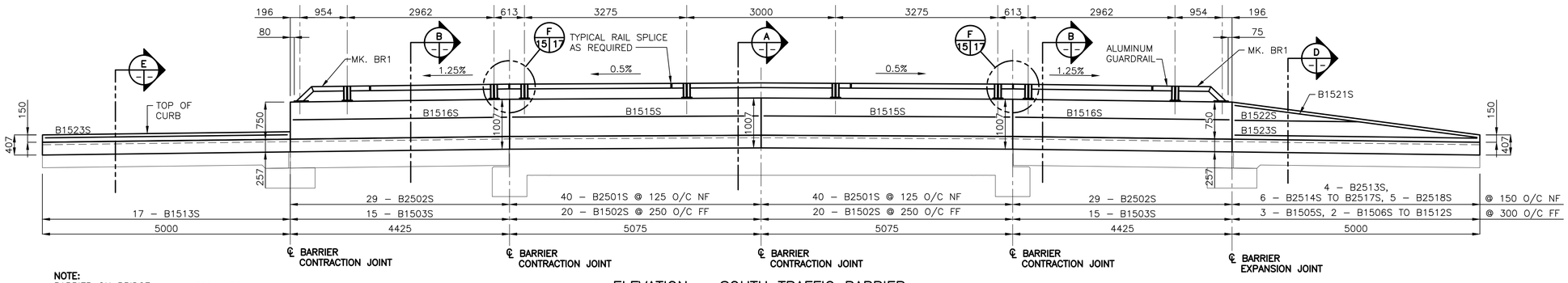
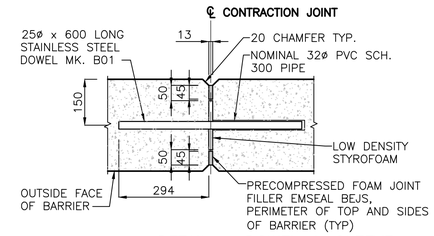


ELEVATION – NORTH TRAFFIC BARRIER
1:50

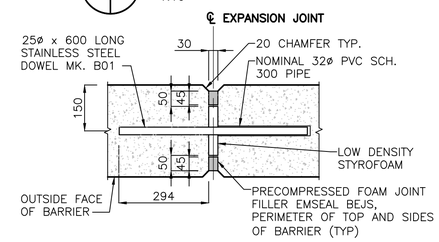


ELEVATION – SOUTH TRAFFIC BARRIER
1:50

BILL OF REINFORCING STEEL						
MARK	QTY.	DESCRIPTION	SIZE	COMPONENT MASS (kg)	MASS PER UNIT (kg)	TOTAL MASS (kg)
B01	29	25ø x 600 LONG STAINLESS STEEL DOWEL	AS DESCRIBED	2.4	2.4	69.6



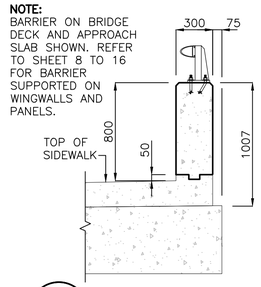
1 DETAIL – DOWEL & SLEEVE CONTRACTION JOINT
1:10



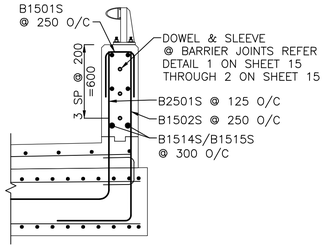
2 DETAIL – DOWEL & SLEEVE EXPANSION JOINT
1:10

NOTE: INSTALL WITH DOWEL CENTERED AT MID–HEIGHT OF THE EXPANSION SLEEVE. DOWEL MAY BE EMBEDDED IN LOW DENSITY POLYSTYRENE TO ACHIEVE CORRECT PLACEMENT.

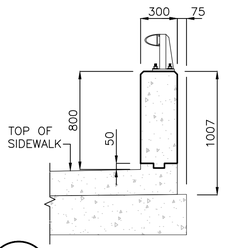
NOTE:
BARRIER ON BRIDGE DECK AND APPROACH SLAB SHOWN. REFER TO SHEET 8 TO 16 FOR BARRIER SUPPORTED ON WINGWALLS AND PANELS.



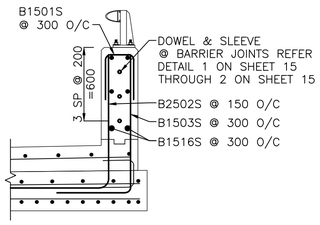
A SECTION – BARRIER
1:25



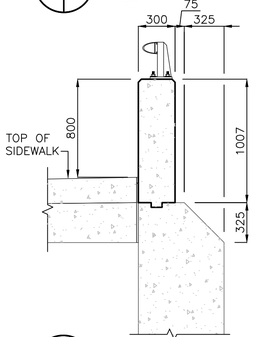
A SECTION – BARRIER REINFORCEMENT
1:25



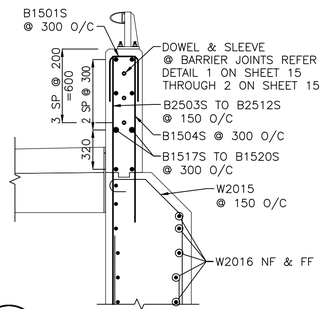
B SECTION – BARRIER
1:25



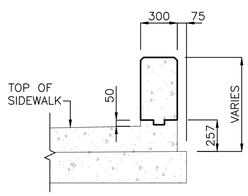
B SECTION – BARRIER REINFORCEMENT
1:25



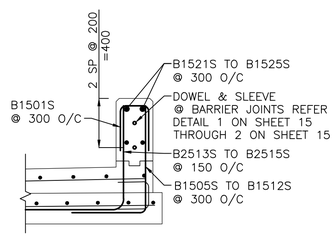
C SECTION – BARRIER
1:25



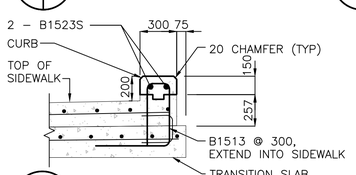
C SECTION – BARRIER REINFORCEMENT
1:25



D SECTION – BARRIER
1:25



D SECTION – BARRIER REINFORCEMENT
1:25



E SECTION – CURB
1:25

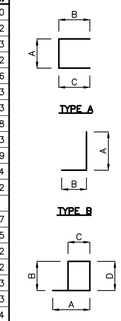
BILL OF REINFORCING STEEL

TOTAL BARRIERS

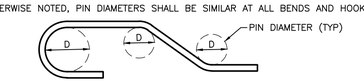
STRAIGHT BARS				BENT BARS									
MARK	QTY.	LENGTH (mm)	MASS (kg)	MARK	QTY.	TYPE	A	B	C	D	E	F	LENGTH (mm)	MASS (kg)
B1504S	50	1350	106.0	B1501S	196	A	180	365	365				910	280.0
B1514S	12	3880	73.1	B1502S	72	B	1410	600					2010	227.2
B1515S	12	4995	94.1	B1503S	30	B	1210	600					1810	85.3
B1516S	12	4305	81.1	B1505S	3	B	930	600					1530	7.2
B1517S	16	3630	91.2	B1506S	2	B	855	600					1455	4.6
B1518S	8	5380	67.6	B1507S	2	B	785	600					1385	4.3
B1519S	2	1896	6.0	B1508S	4	B	715	600					1315	8.3
B1520S	4	1880	11.8	B1509S	4	B	640	600					1240	7.8
B1521S	2	4923	15.5	B1510S	4	B	570	600					1170	7.3
B1522S	2	2500	7.9	B1511S	4	B	495	600					1095	6.9
B1523S	4	4880	30.6	B1512S	4	B	420	600					1020	6.4
B1524S	2	2905	9.1	B1513S	17	C	600	420	180	420			1620	43.2
B1525S	2	2880	9.0											
				B2501S	142	B	1200	800					2000	1114.7
B2503S	30	2740	322.6	B2502S	58	B	1100	800					1900	432.5
B2504S	32	3000	376.8	B2513S	4	B	1060	800					1860	29.2
B2505S	15	2590	152.5	B2514S	6	B	950	800					1750	41.2
B2506S	3	2380	28.0	B2515S	9	B	850	800					1650	58.3
B2507S	8	2280	71.6	B2516S	12	B	735	800					1535	72.3
B2508S	4	2080	32.7	B2517S	12	B	630	800					1430	67.4
B2509S	4	2030	31.9	B2518S	10	B	535	800					1335	52.4
B2510S	1	1980	7.8											
B2511S	1	1910	7.5											
B2512S	1	1845	7.2											

TOTAL MASS OF STAINLESS STEEL REINFORCING FOR TOTAL BARRIERS = 4,198.1 kg

BAR TYPES



NOTE:
1. ALL DIMENSIONS GIVEN IN BENDING DIAGRAM ARE OUT TO OUT, EXCEPT RADII WHICH ARE INSIDE DIMENSIONS. ALL REINFORCING STEEL BENDS AND HOOKS SHALL CONFORM TO CLAUSE 6.6.2 OF C.S.A. A23.1–19, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
2. ALL REINFORCING STEEL SHALL BE DEFORMED STEEL, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
3. ALL STAINLESS STEEL REINFORCING SHALL CONFORM TO ASTM A955M, 300 SERIES MINIMUM GRADE 420.
4. LIKE BARS SHALL BE BUNDLED, SECURELY TIED AND IDENTIFIED AS TO MARK AND SITE NO. BY APPROPRIATE MEANS. ALL OTHER ITEMS TO BE IDENTIFIED IN A SIMILAR FASHION.
5. UNLESS OTHERWISE NOTED, PIN DIAMETERS SHALL BE SIMILAR AT ALL BENDS AND HOOKS OF A BAR IN ACCORDANCE WITH THE FOLLOWING DETAIL:



APEGM
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. 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.

B.M. ELEV.

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	19.09.18	J.M.B.

Stantec
500 - 311 Portage Avenue, Winnipeg MB Canada
www.stantec.com

DESIGNED BY	H.M.V.	CHECKED BY	C.D.
DRAWN BY	J.M.B.	APPROVED BY	K.S.A.
HOR. SCALE: / VERTICAL:	1:50 OR AS NOTED	RELEASED FOR CONSTRUCTION:	
DATE	2019.09.18	DATE	

ENGINEER'S SEAL
TENDER DRAWING
NOT TO BE USED FOR CONSTRUCTION

CONSULTANT DRAWING NO.
S-112

Winnipeg
THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

DUBLIN AVENUE BRIDGE REPLACEMENT
PROPOSED BRIDGE STRUCTURE
BARRIERS DETAILS

SHEET 15 OF 48
CAD FILE DRAWING NUMBER 33340s-112-926.dwg
CITY DRAWING NUMBER B105-19-15

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2019/09/18 2:08 PM By: Han, Jake