

BILL OF REINFORCING STEEL

STRAIGHT BARS				BENT BARS											
MARK	QTY.	LENGTH (mm)	MASS (kg)	MARK	QTY.	TYPE	A	B	C	D	E	F	G	LENGTH (mm)	MASS (kg)
B1601	361	5887	3327.3	B1614	655	A	337	500	87	187	250	460	337	1830	2009.1
B1602	15	5487	129.2	B1615	4	A	200	500	84	156	250	429	337	1687	5.3
B1603	30	5242	246.9	B1616	3	A	200	500	87	124	250	400	337	1677	5.3
B1604	24	4611	173.7	B1617	4	A	200	500	89	93	250	369	337	1667	5.2
B1605	15	4337	102.1	B1618	3	A	200	500	90	59	250	338	337	1660	5.2
B1606	15	4187	98.6	B1619	4	A	200	500	91	28	250	308	337	1657	5.2
B1607	30	3910	184.2	B1620	3	A	200	500	90	0	250	278	337	1657	5.2
B1608	15	3500	82.4												
B1609	15	3462	81.5												
B1610	6	2948	27.8	B1621	655	B	678	110	250	140				2003	2191.9
B1611	6	2941	27.7	B1622	6	C	665	170						1990	6.2
B1612	12	1160	21.9	B1623	5	C	740	170						1977	6.2
B1613	699	1100	1207.2	B1624	6	C	810	170						1977	6.2
B1628	660	750	777.2	B1625	4	C	890	170						1977	6.2
B1629	9	4595	64.9												

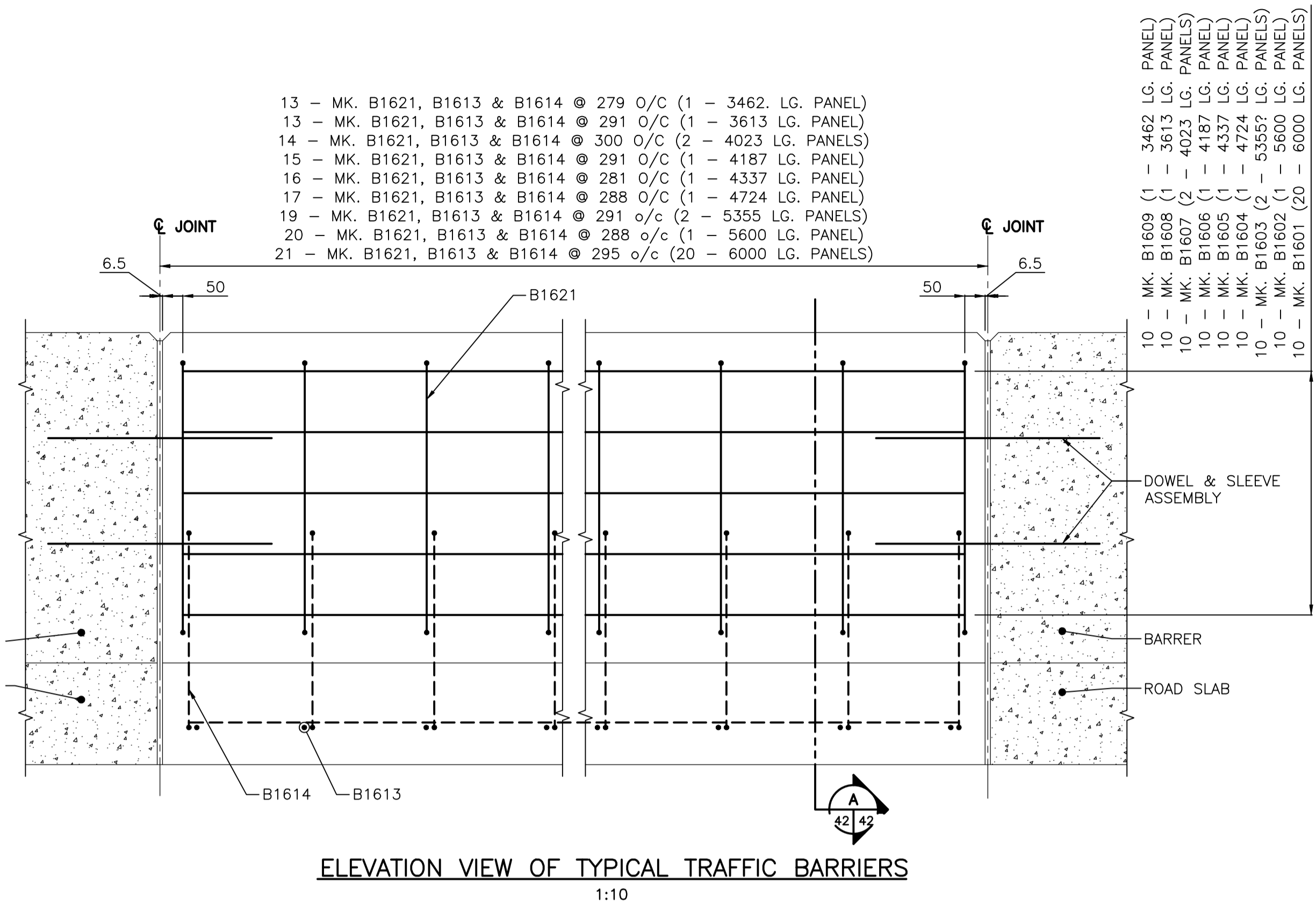
TOTAL MASS OF BLACK STEEL REINFORCING 10807.3 kg

DOWEL & SLEEVE ASSEMBLY				
MARK	DESCRIPTION	MASS PER UNIT (kg)	QTY.	MASS (kg)
PD1	25# x 550 LG. GALV. PLAIN DOWEL	2.12	68	152.6
BV1	32 O.D. x 300 LG. GALV. EXPANSION SLEEVE	N/A	68	N/A

BAR TYPES

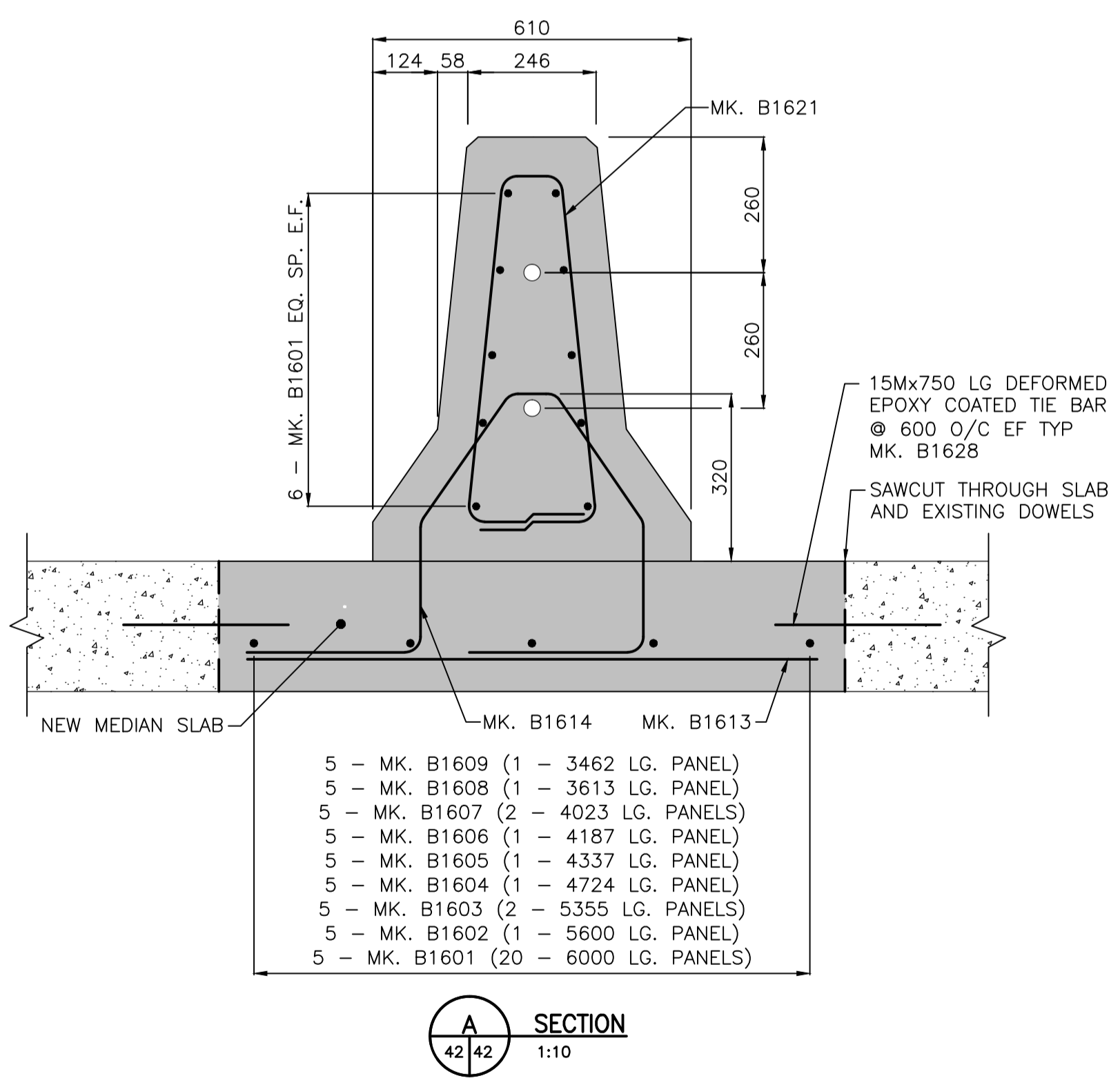
NOTE:

- All dimensions given in bending diagram are out to out, except radii. radii are inside dimensions. All reinforcing steel bends and hooks shall conform to clause 6.6.2 of C.S.A. A23.1-04, unless noted otherwise in the BILL OF REINFORCING STEEL.
- All reinforcing steel shall be deformed steel, unless noted otherwise in the BILL OF REINFORCING STEEL.
- 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.
- Unless otherwise noted, pin diameters shall be similar at all bends and hooks of a bar in accordance with the following detail:



- 13 - MK. B1621, B1613 & B1614 @ 279 o/c (1 - 3462 LG. PANEL)
- 13 - MK. B1621, B1613 & B1614 @ 291 o/c (1 - 3613 LG. PANEL)
- 14 - MK. B1621, B1613 & B1614 @ 300 o/c (2 - 4023 LG. PANELS)
- 15 - MK. B1621, B1613 & B1614 @ 291 o/c (1 - 4187 LG. PANEL)
- 16 - MK. B1621, B1613 & B1614 @ 281 o/c (1 - 4337 LG. PANEL)
- 17 - MK. B1621, B1613 & B1614 @ 288 o/c (1 - 4724 LG. PANEL)
- 19 - MK. B1621, B1613 & B1614 @ 291 o/c (2 - 5355 LG. PANELS)
- 20 - MK. B1621, B1613 & B1614 @ 288 o/c (1 - 5600 LG. PANEL)
- 21 - MK. B1621, B1613 & B1614 @ 295 o/c (20 - 6000 LG. PANELS)

- 10 - MK. B1609 (1 - 3462 LG. PANEL)
- 10 - MK. B1608 (1 - 3613 LG. PANEL)
- 10 - MK. B1607 (2 - 4023 LG. PANELS)
- 10 - MK. B1606 (1 - 4187 LG. PANEL)
- 10 - MK. B1605 (1 - 4337 LG. PANEL)
- 10 - MK. B1604 (1 - 4724 LG. PANEL)
- 10 - MK. B1603 (2 - 5355 LG. PANELS)
- 10 - MK. B1602 (1 - 5600 LG. PANEL)
- 10 - MK. B1601 (20 - 6000 LG. PANELS)



- 5 - MK. B1609 (1 - 3462 LG. PANEL)
- 5 - MK. B1608 (1 - 3613 LG. PANEL)
- 5 - MK. B1607 (2 - 4023 LG. PANELS)
- 5 - MK. B1606 (1 - 4187 LG. PANEL)
- 5 - MK. B1605 (1 - 4337 LG. PANEL)
- 5 - MK. B1604 (1 - 4724 LG. PANEL)
- 5 - MK. B1603 (2 - 5355 LG. PANELS)
- 5 - MK. B1602 (1 - 5600 LG. PANEL)
- 5 - MK. B1601 (20 - 6000 LG. PANELS)

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.

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	16.07.04	K.S.A.

Stantec
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www.stantec.com

DESIGNED BY: S.Y.	CHECKED BY: K.S.A.
DRAWN BY: V.F.	APPROVED BY: B.J.W.
HOR. SCALE: AS NOTED	RELEASED FOR CONSTRUCTION: DATE
VERTICAL: DATE 2016.02.19	DATE

ENGINEER'S SEAL

CONSULTANT DRAWING NO. S-126

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

2016 REGIONAL STREET PROGRAM
ARCHIBALD STREET
UNDERPASS REHABILITATION
TRAFFIC BARRIER REINFORCING SCHEDULE

SHEET 42 OF 62
CAD FILE DRAWING NUMBER 06880s-119-884.dwg
CITY DRAWING NUMBER U205-16-42