BILL OF REINFORCING FOR NEW CANTILEVER — SITE No. 2924-00

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS	BENDING DIAGRAM
1505-8	BENT	65	5 780	4	36.30	560 60 2 120 2 120 680
1505-9	BENT	65	5 970	4	37.49	560 60 2 210 2 220 680
1505-10	BENT	65	6 150	4	38.62	560 60 2 310 2 310 690
1505-11	BENT	65	6 340	4	39.82	560 70 2 400 2 400 690
1505-12	BENT	65	6 520	4	40.95	560 70 2 490 2 490 700
1505-13	BENT	65	6 710	4	42.14	560 70 2 580 2 580 700
1506	BENT	90	3 180	32	159.76	250 2 930
1507	BENT	65	2 930	12	55.20	90 140 150 140 2 650
1508-1	BENT	90	1 230	8	15.45	250 980
1508-2	BENT	90	1 730	8	21.73	250 1 480
1508-3	BENT	90	2 220	8	27.88	250 1 970
1508-4	BENT	90	2 720	8	34.16	250 2 470

BILL OF REINFORCING FOR NEW CANTILEVER — SITE No. 2924-00

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS	BENDING DIAGRAM
1509-1	STR		1 160	8	14.57	
1509-2	STR		1 670	8	20.98	
1509-3	STR		2 170	8	27.26	
1509-4	STR		2 680	8	33.66	
1510-1	BENT	65	1 780	4	11.18	90 140 150 140 1 500
1510-2	BENT	65	1 870	4	11.74	90 140 150 140 1 590
1510-3	BENT	65	1 960	4	12.31	90 140 150 140 1 680
1510-4	BENT	65	2 060	4	12.94	90 140 150 140 1 770
1510-5	BENT	65	2 150	4	13.50	90 140 150 140 1 860
1510-6	BENT	65	2 240	4	14.07	90 140 150 140 1 950
1510-7	BENT	65	2 330	4	14.63	90 140 150 140 2 040
1510-8	BENT	65	2 420	4	15.20	90 140 150 140 2 130
1510-9	BENT	65	2 510	4	15.76	90 140 150 140 2 230

BILL OF REINFORCING FOR NEW CANTILEVER — SITE No. 2924-00

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS	BENDING DIAGRAM
1510-10	BENT	65	2 600	4	16.33	90 140 150 140 2 320
1510-11	BENT	65	2 690	4	16.89	90 140 150 140 2 410
1510-12	BENT	65	2 780	4	17.46	90 140 150 140 2 500
1510-13	BENT	65	2 870	4	18.02	90 140 150 140 2 590
1511	STR		2 950	56	259.36	
1514	BENT	90	2 090	48	157.50	250 1 840
1515	BENT	90	2 400	76	286.37	790 790 820
1516	BENT	90	1 320	80	165.79	250 250 820
1518	BENT	90	3 540	20	111.16	730 130 450 850 250 220 2 440
1519	BENT	90	1 880	12	35.42	250 250 1 380

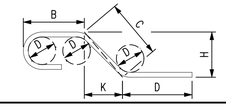
BILL OF REINFORCING FOR NEW CANTILEVER — SITE No. 2924-00

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS	BENDING DIAGRAM
1520-1	BENT	90	1 140	4	7.16	250 250 640
1520-2	BENT	90	1 130	4	7.10	250 250 630
1520-3	BENT	90	1 120	4	7.03	250 250 620
1520-4	BENT	90	1 110	4	6.97	250 250 610
1521	BENT	90	1 120	64	112.54	10 10 250 250 250 250 620
1523	BENT	90	580	16	14.57	250 330
2501	STR		2 650	32	332.84	
2502	BENT	150	3 260	12	153.55	400 2 860

Total mass of reinforcing steel	3 019.61 kg
Total volume of structural concrete	25.06 m³

NOTES:

1. All dimensions given in bending diagram are out to out, except radii and extensions on 90°, 135° & 180° hooks. Extensions on 90°, 135° & 180° hooks are the "A" or "G" dimensions for the standard 90°, 135° & 180° hooks referenced from the RSIC "Manual of Standard Practice". 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.
2. All reinforcing steel shall be deformed steel, unless noted otherwise in the BILL OF REINFORCING STEEL.
3. All reinforcing steel shall conform to CSA G30.18-M92 "Billet Steel Bars for Concrete Reinforcement" Grade 400W, unless noted otherwise in the BILL OF REINFORCING STEEL.
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. All bars shall be bent in accordance with the following detail:



REVISIONS		
10/03/04	J.J.	As built
DATE	BY	DESCRIPTION

PROVINCE OF MANITOBA — Original signed by M. B. CHISLETT 09/04/20 — REGISTERED PROFESSIONAL ENGINEER

CANTILEVER & PEDESTAL REINFORCING DETAILS

RECONSTRUCTION AND STRENGTHENING OF EXISTING BRIDGE
OVER ASSINIBOINE RIVER - CONTRACT ONE
ON P.T.H. No. 100 IN R.L.'S 72, 73 & 94
PARISH OF ST. CHARLES

CITY OF WINNIPEG

Manitoba — Infrastructure and Transportation
Water Control & Structures

DESIGN	BY: M.B.C.	
	CHECKED: A.H.P.	
DETAILS	BY: M.S.	
	CHECKED: M.B.C.	

RELEASED FOR CONSTRUCTION BY:
Original signed by Ruth J. Eden 09/05/01
DIRECTOR — DATE
STRUCTURES, DESIGN AND CONSTRUCTION BRANCH

SCALE: 1 : 300 or as shown
SHEET No. 9
SITE No. 2924-00