

BILL OF STRUCTURAL STEEL FOR STEEL THROUGH PLATE GIRDERS (FCM)					
MARK	QTY	DESCRIPTION	SIZE	MASS (kg) PER UNIT	TOTAL MASS (kg)
G1	1	THROUGH PLATE GIRDER (FCM)			
		- TOP FLANGE PLATE	20000x550x50 LG AS DETAILED	4317.5	
		- WEB PLATE	20000x1500x16 LG AS DETAILED	3768.0	
		- BOTTOM FLANGE PLATE	20000x550x50 LG AS DETAILED	4317.5	
					24806.0
G2	1	THROUGH PLATE GIRDER (FCM)			
		- TOP FLANGE PLATE	20000x550x50 LG AS DETAILED	4317.5	
		- WEB PLATE	20000x1500x16 LG AS DETAILED	3768.0	
		- BOTTOM FLANGE PLATE	20000x550x50 LG AS DETAILED	4317.5	
					24806.0
TOTAL MASS (kg) = 49612.0					

BILL OF STRUCTURAL STEEL FOR STEEL FLOOR BEAMS (PM) & STRINGERS (PM)					
MARK	QTY	DESCRIPTION	SIZE	MASS (kg) PER UNIT	TOTAL MASS (kg)
FB1	4	FLOOR BEAM (PM)	W610x195, 6034 LG AS DETAILED	1180.25	4721.0
FB2	5	FLOOR BEAM (PM)	W610x195, 6034 LG AS DETAILED	1180.25	5901.5
FB3	2	FLOOR BEAM (PM)	W610x195, 5544 LG AS DETAILED	1084.41	2168.8
ST1	32	STRINGER (PM)	W250x49, 1835 LG AS DETAILED	89.92	2877.3
ST2	8	STRINGER (PM)	W250x49, 1835 LG AS DETAILED	89.92	719.3
ST3	8	STRINGER BEAM END (PM)	W250x101, 395 LG AS DETAILED	39.97	319.8
TOTAL MASS (kg) = 16707.7					



BILL OF STRUCTURAL STEEL FOR STEEL CONNECTION, STIFFENER & CROSS-BRACING ANGLES					
MARK	QTY	DESCRIPTION	SIZE	MASS (kg) PER UNIT	TOTAL MASS (kg)
GA1	9	GIRDER ANGLE - BEAM CONNECTION	L203x203x19, 1500 LG AS DETAILED	86.85	781.7
GA2	9	GIRDER ANGLE - BEAM CONNECTION	L203x203x19, 1500 LG AS DETAILED	86.85	791.7
GA3	18	GIRDER ANGLE - CONNECTION	L203x203x19, 505 LG AS DETAILED	29.24	526.3
GA4	9	GIRDER ANGLE - STIFFENER	L203x203x19, 625 LG AS DETAILED	36.19	325.7
GA5	9	GIRDER ANGLE - STIFFENER	L203x203x19, 625 LG AS DETAILED	36.19	325.7
GA6	10	GIRDER ANGLE - INTERMEDIATE STIFFENER	L203x152x19, 1500 LG AS DETAILED	75.15	751.0
GA7	10	GIRDER ANGLE - INTERMEDIATE STIFFENER	L203x152x19, 1500 LG AS DETAILED	75.15	751.0
CA1	160	STRINGER CONNECTION ANGLE	L127x127x13, 180 LG AS DETAILED	4.338	694.08
CA2	16	END STRINGER CONNECTION ANGLE	L127x127x13, 180 LG AS DETAILED	4.338	69.41
CA3	8	END STRINGER CONNECTION ANGLE	L127x127x13, 200 LG AS DETAILED	4.820	38.56
CA4	5	CROSS-BRACING CONNECTION ANGLE	L89x89x9.5, 250 LG AS DETAILED	3.150	15.75
BA1	3	CROSS-BRACE ANGLE	L89x89x9.5, 6445 LG AS DETAILED	81.21	243.6
BA2	1	CROSS-BRACE ANGLE	L89x89x9.5, 6325 LG AS DETAILED	79.70	79.7
BA3	1	CROSS-BRACE ANGLE	L89x89x9.5, 6325 LG AS DETAILED	79.70	79.7
BA4	8	CROSS-BRACE ANGLE	L89x89x9.5, 3115 LG AS DETAILED	39.25	314.0
BA5	2	CROSS-BRACE ANGLE	L89x89x9.5, 2995 LG AS DETAILED	37.74	75.5
TOTAL MASS (kg) = 5853.5					

BILL OF STRUCTURAL STEEL FOR STEEL PLATES & MISCELLANEOUS STRUCTURAL STEEL					
MARK	QTY	DESCRIPTION	SIZE	MASS (kg) PER UNIT	TOTAL MASS (kg)
P1	4	GIRDER STIFFENER PLATE	1500x260x25 PLATE, AS DETAILED	76.54	306.2
P2	4	GIRDER STIFFENER PLATE	1500x260x25 PLATE, AS DETAILED	76.54	306.2
P3	2	GIRDER BEARING PLATE	800x430x30 PLATE, AS DETAILED	81.01	162.0
P4	2	GIRDER BEARING PLATE	800x430x30 PLATE, AS DETAILED	81.01	162.0
P5	8	BEAM JACKING PLATE	573x150x20 PLATE, AS DETAILED	13.5	108.0
P6	8	BEAM CONNECTION PLATE	505x500x20 PLATE, AS DETAILED	39.64	317.1
P7	8	BEAM SHIM PLATE	505x240x5 PLATE, AS DETAILED	4.76	38.1
P8	4	GUSSET END PLATE	520x230x15 PLATE, AS DETAILED	14.08	56.3
P9	8	GUSSET BEAM PLATE	600x425x15 PLATE, AS DETAILED	30.03	240.2
P10	5	GUSSET BRACING PLATE	460x320x15 PLATE, AS DETAILED	17.33	86.6
KB1	9	KNEE BRACE - TO BE FABRICATED FROM:			
		- PLATE MK P11	345x200x15 PLATE, AS DETAILED	8.13	
		- PLATE MK P12	880x200x15 PLATE, AS DETAILED	20.72	
		- PLATE MK P13	785x635x12 PLATE, AS DETAILED	46.96	
				75.81	682.3
KB2	9	KNEE BRACE - TO BE FABRICATED FROM:			
		- PLATE MK P11	345x200x15 PLATE, AS DETAILED	8.13	
		- PLATE MK P12	880x200x15 PLATE, AS DETAILED	20.72	
		- PLATE MK P13	785x635x12 PLATE, AS DETAILED	46.96	
				75.81	682.3
KB3	2	KNEE BRACE - TO BE FABRICATED FROM:			
		- PLATE MK P11	345x200x15 PLATE, AS DETAILED	8.13	
		- PLATE MK P12	880x200x15 PLATE, AS DETAILED	20.72	
		- PLATE MK P14	785x635x12 PLATE, AS DETAILED	46.96	
				75.81	151.6
KB4	2	KNEE BRACE - TO BE FABRICATED FROM:			
		- PLATE MK P11	345x200x15 PLATE, AS DETAILED	8.13	
		- PLATE MK P12	880x200x15 PLATE, AS DETAILED	20.72	
		- PLATE MK P14	785x635x12 PLATE, AS DETAILED	46.96	
				75.81	151.6
P15	16	BEARING KEEPER PLATE	335x255x12 PLATE, AS DETAILED	8.05	128.8
TOTAL MASS (kg) = 3579.3					

BILL OF STRUCTURAL STEEL FOR BOLTS					
MARK	QTY*	DESCRIPTION	MASS (kg) PER UNIT	TOTAL MASS (kg)	
B1	11	22x65 LG ASTM F3125 GRADE A325 TYPE 3 HEAVY HEX BOLT C/W 1 ASTM A563 GRADE C3 OR DH3 HEAVY HEX NUT & 2 ASTM F436 TYPE 3 WASHERS	0.544	5.98	
B2	101	22x70 LG ASTM F3125 GRADE A325 TYPE 3 HEAVY HEX BOLT C/W 1 ASTM A563 GRADE C3 OR DH3 HEAVY HEX NUT & 2 ASTM F436 TYPE 3 WASHERS	0.558	56.36	
B3	1262	22x80 LG ASTM F3125 GRADE A325 TYPE 3 HEAVY HEX BOLT C/W 1 ASTM A563 GRADE C3 OR DH3 HEAVY HEX NUT & 2 ASTM F436 TYPE 3 WASHERS	0.590	744.58	
B4	452	22x85 LG ASTM F3125 GRADE A325 TYPE 3 HEAVY HEX BOLT C/W 1 ASTM A563 GRADE C3 OR DH3 HEAVY HEX NUT & 2 ASTM F436 TYPE 3 WASHERS	0.603	272.56	
B5	435	22x100 LG ASTM F3125 GRADE A325 TYPE 3 HEAVY HEX BOLT C/W 1 ASTM A563 GRADE C3 OR DH3 HEAVY HEX NUT & 2 ASTM F436 TYPE 3 WASHERS	0.649	282.32	
B6	235	22x110 LG ASTM F3125 GRADE A325 TYPE 3 HEAVY HEX BOLT C/W 1 ASTM A563 GRADE C3 OR DH3 HEAVY HEX NUT & 2 ASTM F436 TYPE 3 WASHERS	0.680	159.80	
B7	17	36x615 LG ASTM F1554 GRADE 105 THREADED ROD C/W 1 ASTM A563 GRADE DH HEAVY HEX NUT & 1 ASTM F436 TYPE 3 WASHER	8.100	137.70	
TOTAL MASS (kg) = 1659.4					

*NOTE:
QUANTITIES INCLUDE 5% OVERAGE FOR DROPPAGE/LOSS DURING ERECTION.

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2026/02/11 4:03 PM By: Boernemans, James

B.M. ELEV.		 500-311 Portage Ave, Winnipeg MB Canada www.stantec.com	ENGINEER'S SEAL	 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION GREATER WINNIPEG WATER DISTRICT RAILWAY BRIDGE REPLACEMENT AT MILE 41.3 STRUCTURAL STEEL BILL OF MATERIAL	SHEET OF 16 OF 17	
DESIGNED BY	S.S.Y.		CHECKED BY		Y.M.S.	CAD FILE DRAWING NUMBER 33942s-113-m41.3.dwg
DRAWN BY	J.M.B.		APPROVED BY		E.R.T.	CITY DRAWING NUMBER 1-0754R-S0014-001
HOR. SCALE:			RELEASED FOR CONSTRUCTION:			CONSULTANT DRAWING NO. S-113
NO. REVISIONS		DATE	2026-02-11	DATE		

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES