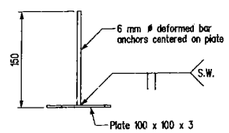
BILL OF MISCELLANEOUS METAL
SUPPLIED BY THE GIRDER CONTRACTOR

Site No. 693-02

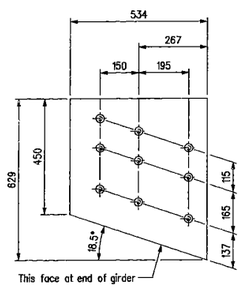
MARK	No.	DESCRIPTION	REMARKS
	96	Richmond structural concrete inserts type EC-2FW - galvanized	For 25 mm ø threaded rods
	342	Screed chair seat	See details
P1	36	Steel plate - galvanized	See details



NOTES:

1. Girder Fabricator shall supply screed chair seats. Seats shall be placed so that the top surface is flush with the top surface of the concrete girder with two edges of the seat parallel to edges of the top flange. Screed chair seats will be required at 1 250 mm intervals on longitudinal ℄ of girder with first and last seat in each girder immediately over ℄ of bearing.
2. Steel plates shall be galvanized in accordance with CAN/CSA-G164-M92.

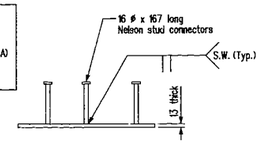
SCREED CHAIR SEAT
Scale 1:4



PLAN

NOTE:

Nelson stud connectors shall be:
H4L Headed Concrete Anchors (HCA)
Item No. 701053019
H4L 5/8 x 6 9/16



FRONT ELEVATION

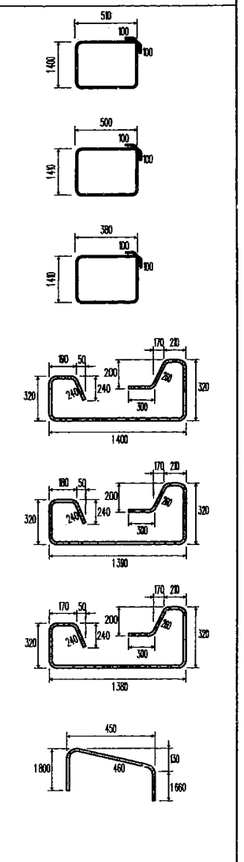
STEEL PLATE Mk. "P1"
Scale 1:4

BILL OF REINFORCING STEEL - For Concrete I-Girders

Site 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No. PER GIRDER	TOTAL No.
1001	BENT	45	4 020	6	108
1002	BENT	45	4 020	2	36
1003	BENT	45	3 780	2	36
1004	BENT	60	3 240	52	936
1005	BENT	60	3 220	68	1224
1006	BENT	60	3 200	68	1224
1007	STR		510	94	1692
1008	BENT	60	3 920	4	72
1009	STR		12 000	10	180
1010	STR		8 570	4	72

BENDING DIAGRAM

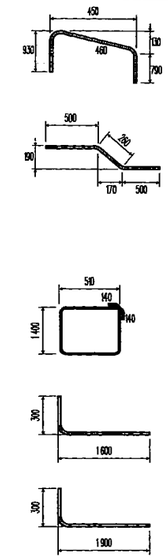


BILL OF REINFORCING STEEL - For Concrete I-Girders

Site 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No. PER GIRDER	TOTAL No.
1011	BENT	60	2 180	6	108
1012	BENT	60	1 260	8	144
1013	STR		8 800	4	72
1014	STR		10 300	2	36
1015	STR		1 270	8	144
1501	BENT	65	4 100	12	216
1502	BENT	90	1 900	4	72
1503	BENT	90	2 200	4	72

BENDING DIAGRAM



Volume of structural concrete per girder	9.83 m³
Total Volume of structural concrete	176.94 m³

NOTES:

1. All dimensions given in bending diagram are out to out, except radiuses. Radiuses are inside dimensions. All reinforcing steel shall conform to CAN/CSA-S6-00 Clause 8.14 "Details of Reinforcement and Special Detailing Provisions", unless noted otherwise in the BILL OF REINFORCING STEEL - For Concrete I- Girders.
2. All reinforcing steel shall be deformed steel, unless noted otherwise in the BILL OF REINFORCING STEEL - For Concrete I- Girders.
3. All reinforcing steel shall conform to CAN/CSA G30.18-M92 "Billet Steel Bars for Concrete Reinforcement" Grade 400W, unless noted otherwise in the BILL OF REINFORCING STEEL - For Concrete I- Girders.
4. Like bars shall be bundled, securely tied and identified as to Mark and Site No. by appropriate means. All other items to identified in a similar fashion.

REVISIONS

DATE	BY	DESCRIPTION
OCT31/07	R.A	AS BUILT

PROVINCE OF MANITOBA
A. H. PANKRATZ
REGISTERED PROFESSIONAL ENGINEER

GIRDER REINFORCING DETAILS

FOR PROPOSED 69 714 LONG R.C. BRIDGE
OVER SEINE RIVER DIVERSION
ON P.T.H. No. 59 SOUTH BOUND LANES, 10 900 ROADWAY
IN SEC. 28-8-4E

R.M. OF RITCHOT

Manitoba Transportation and Government Services
Bridges and Structures Branch

RELEASED FOR CONSTRUCTION
BY:
DIRECTOR OF BRIDGES AND STRUCTURES — DATE

DESIGN	BY: A.H.P.	SCALE: As Shown
	CHECKED: J.B.L.	SHEET No. 29
DETAILS	BY: D.P.W.	
	CHECKED: A.H.P.	SITE No. 693-02

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