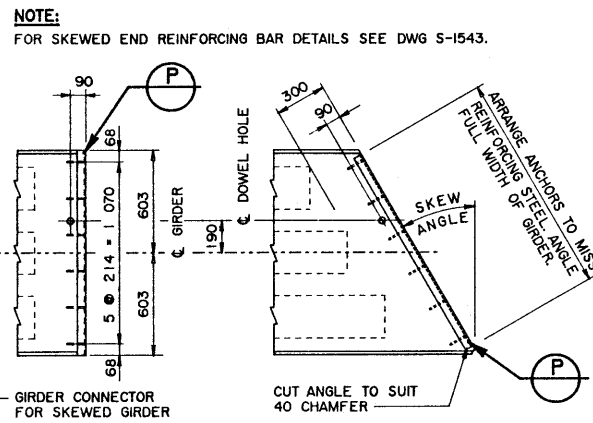
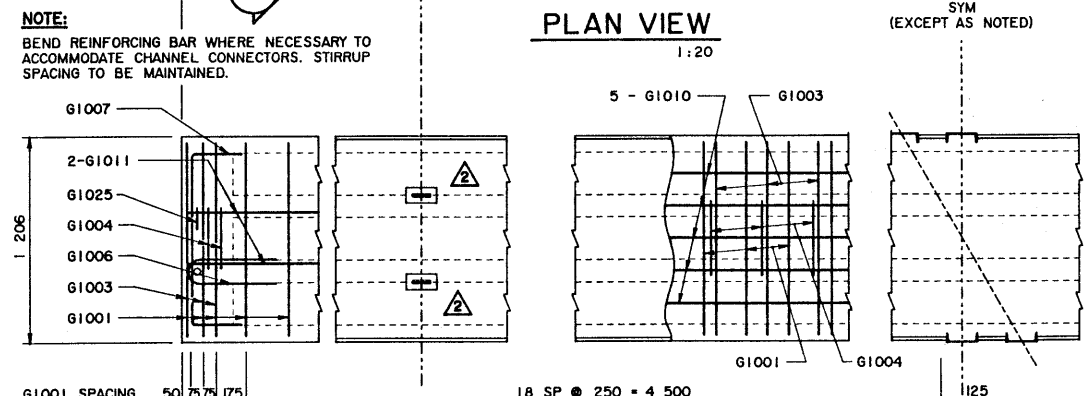


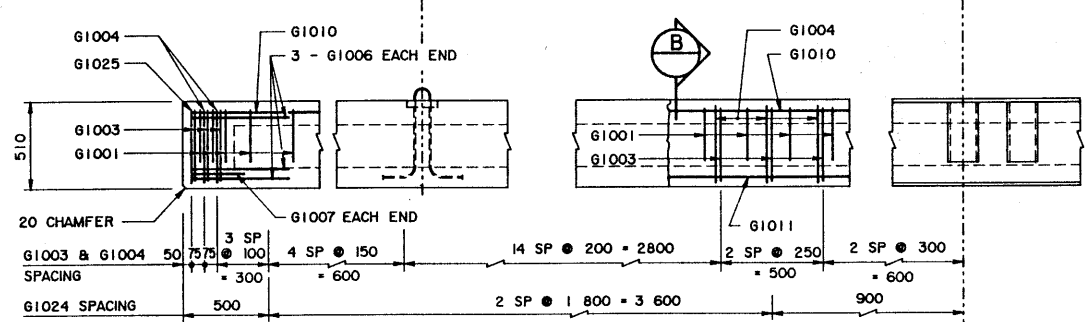
PLAN VIEW
1:20



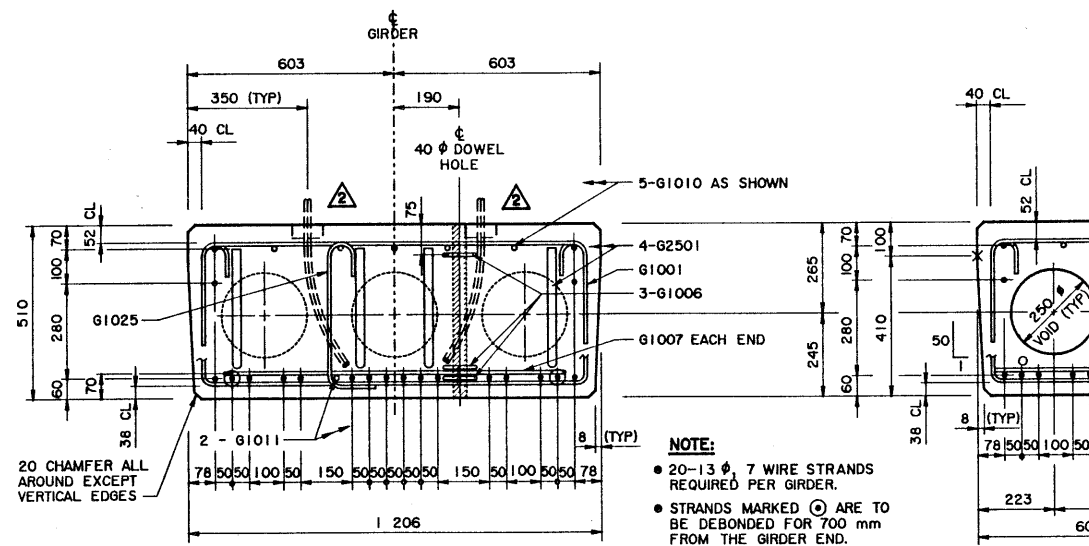
BUFFER ANGLE
1:5



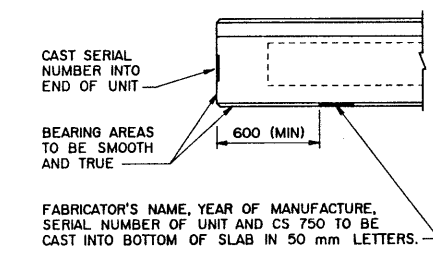
REINFORCEMENT PLAN
1:20



ELEVATION
1:20

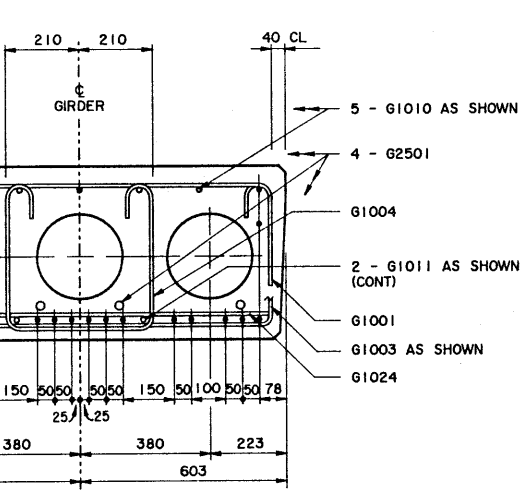


SECTION A
1:10



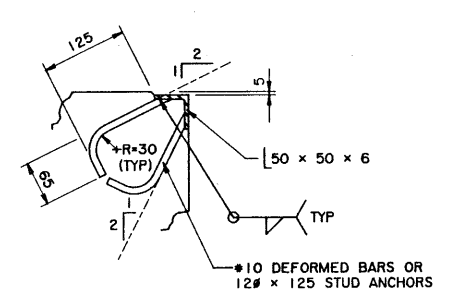
GIRDER FINISHES
(BY FABRICATOR) 1:20

SUPERSEDED
BY REVISION



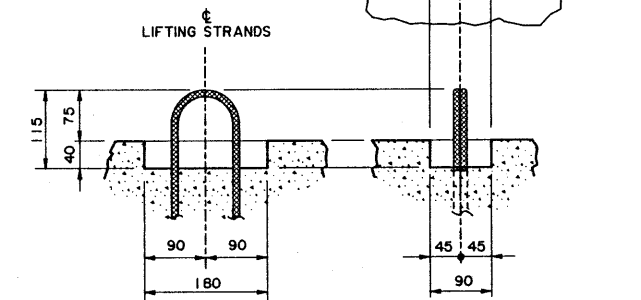
SECTION B
1:10

NOTE:
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1543.

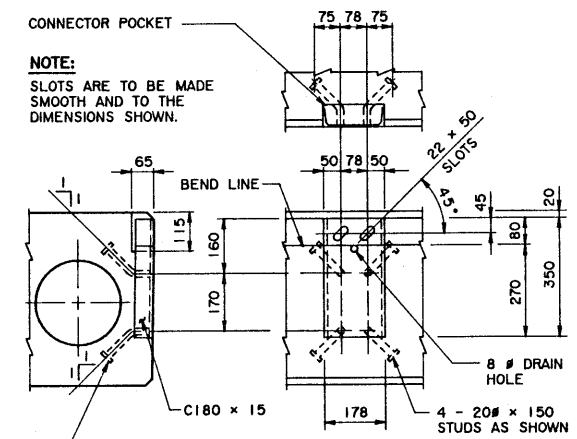


NOTE:
ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

NOTE:
• 2 - 13 #, 7 WIRE STRANDS. 750 MIN EMBEDMENT EACH END.
• AFTER GIRDERS ARE ERECTED, LIFTING STRANDS ARE TO BE CUT-OFF FLUSH WITH BOTTOM OF POCKET. POCKET TO BE FILLED WITH AN LTH MATERIAL APPROVED IN ACCORDANCE WITH BRIDGE MATERIALS SPEC B391.



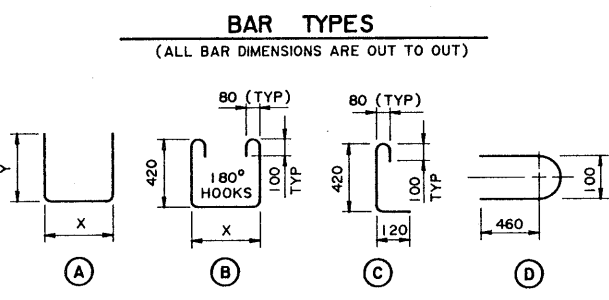
LIFTING HOOK POCKET
1:5



GIRDER CONNECTORS
1:10

BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	44	A	1 125	300	1 725	60
G1003	10	55	B	1 125		2 220	96
G1004	10	53	B	420		1 520	63
G1006	10	6	D			1 020	5
G1007	10	2	A	1 000	300	1 600	3
G1010	10	5	STR			9 900	39
G1011	10	2	STR			9 800	15
G1024	10	6	STR			1 100	5
G1025	10	2	C			670	1
G2501	25	4	A	9 850	350	10 550	166

TOTAL kg : 453



GENERAL NOTES

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.
- DESIGN**
- CAN/CSA-S6-88 SPECIFICATIONS EXCEPT AS MODIFIED BELOW:
 - ALLOWABLE TENSION AT MIDSPAN IS 40% OF MODULUS OF RUPTURE (SEVERE EXPOSURE CONDITIONS).
 - NO TENSION ALLOWED IN DECK SURFACE.
- **LOADING:**
 - LIVE LOAD - CAN/CSA-S6-88; CS-750 ONE WHEEL LINE PER GIRDER
 - DEAD LOAD - GIRDER = 0.93 t/m
 - WEARING SURFACE = 0.24 t/m

- MATERIALS**
- CONCRETE SHALL CONTAIN SILICA FUME AND BE MADE OF LIGHTWEIGHT COARSE AGGREGATE AND NATURAL SAND FINES. UNIT WEIGHT OF SEMI-LIGHTWEIGHT CONCRETE SHALL BE 1920 kg/m³.
- 28 DAY CONCRETE STRENGTH - 35 MPa
- RELEASE STRENGTH - 28 MPa
- PRESTRESSING STEEL SHALL BE 13 #, 7 WIRE LOW RELAXATION STRAND (f_{pu} = 1860 MPa).
- REINFORCING STEEL SHALL BE GRADE 400W (YIELD STRENGTH OF GRADE 300 USED IN DESIGN TO ALLOW TACK WELDING OF SHEAR REINFORCEMENT).

- FABRICATION**
- GIRDERS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE BRIDGE MATERIALS SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED CONCRETE BRIDGE UNITS (SPEC B190).
- FORCE IN PRESTRESSING STEEL:
 - INITIAL TENSIONING LOAD = 129 kN/STRAND
 - DESIGN LOAD AFTER LOSSES = 106 kN/STRAND
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A123
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING IS TO BE MAINTAINED.

- ERECTION**
- ANY FREE SPACE BETWEEN CONNECTOR SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 9.48 t.
- WORK THESE DRAWINGS TOGETHER : S-1541, S-1542 AND S-1543

DESIGNED		DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
LEA		90-07-02	TJS	90-08-23					1 of 4	S-1541

ORIGINAL DRAWING APPROVED BY

N. BOYD
EXECUTIVE DIRECTOR
BRIDGE ENGINEERING

AUG 23, 1990

Albarta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

PRESTRESSED CONCRETE
10 m TYPE SC-510
INTERIOR GIRDER

SUPERSEDED

