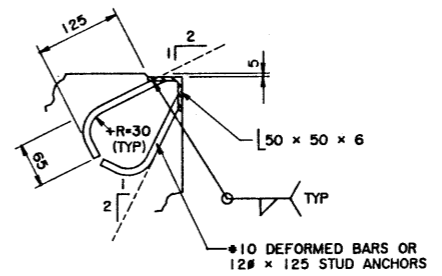


BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	28	A	1 125	300	1 725	38
G1002	10	5	STR			5 900	23
G1003	10	29	B	1 125		2 220	51
G1004	10	27	B	420		1 520	32
G1005	10	2	STR			5 800	9
G1006	10	6	D			1 020	5
G1007	10	2	A	1 000	300	1 600	3
G1025	10	2	C			670	1

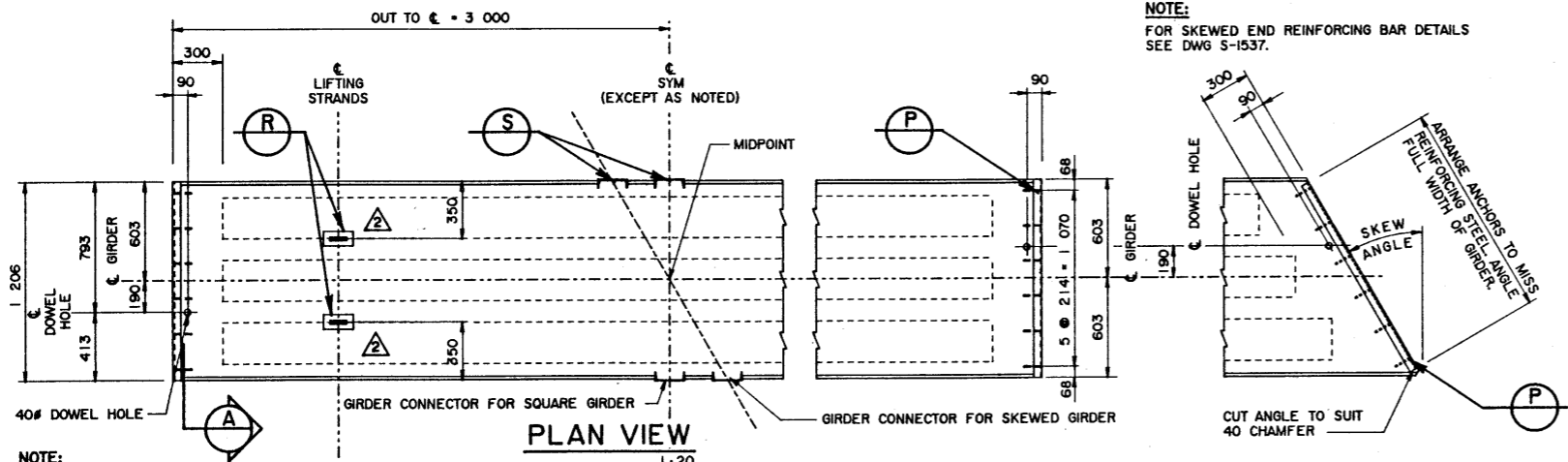
TOTAL kg : 162

NOTE:  
FOR SKEWED END REINFORCING BAR DETAILS  
SEE DWG S-1537.

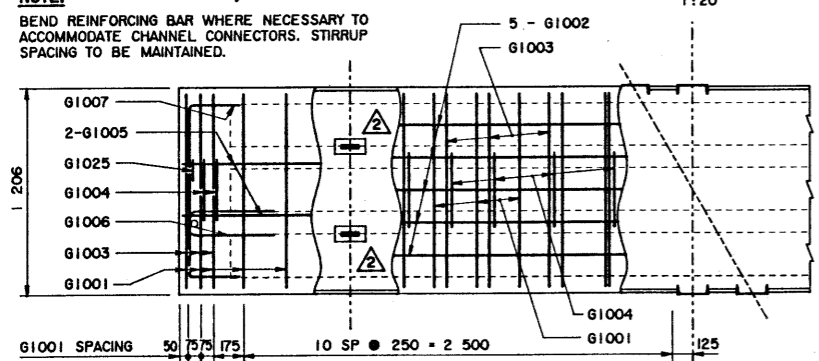


NOTE:  
ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

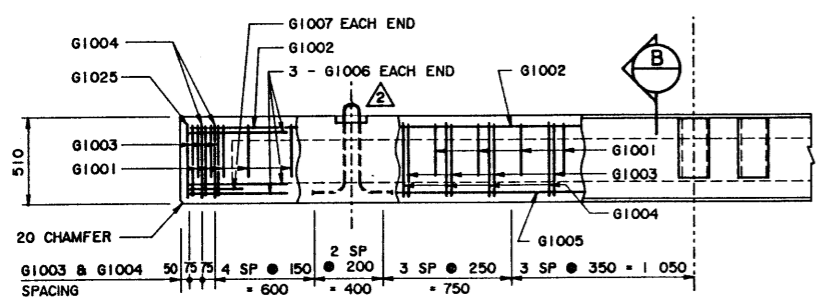
**P BUFFER ANGLE**  
1:5



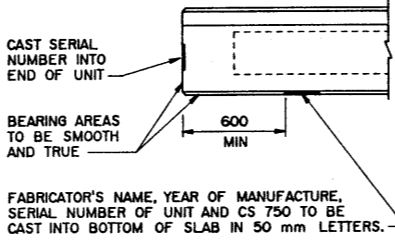
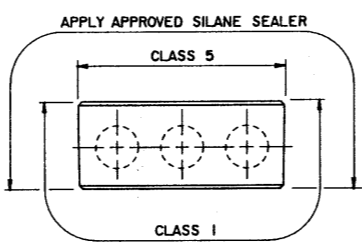
**PLAN VIEW**  
1:20



**REINFORCEMENT PLAN**  
1:20

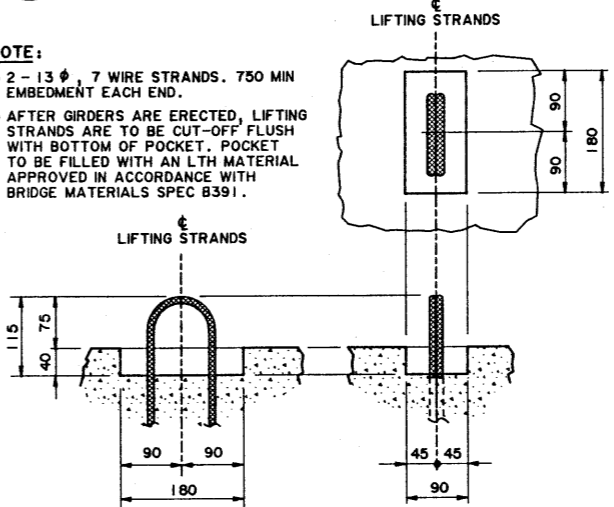


**ELEVATION**  
1:20

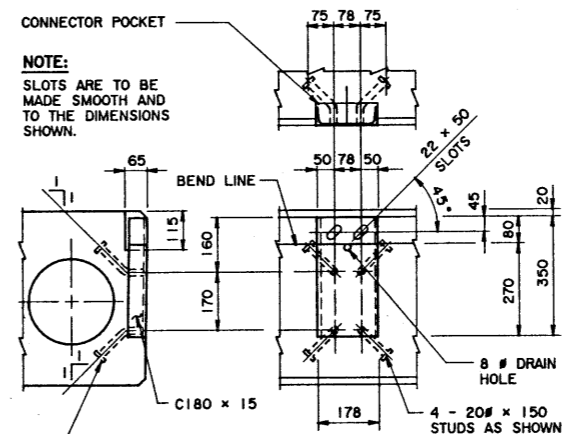


**GIRDER FINISHES**  
(BY FABRICATOR) 1:20

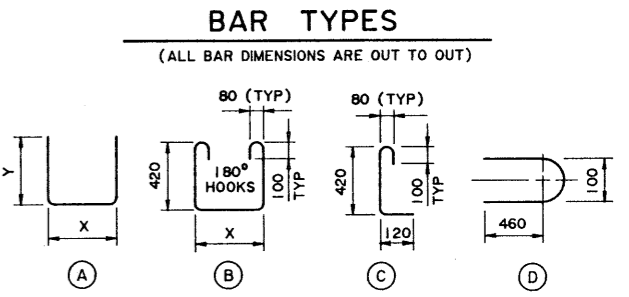
NOTE:  
• 2 - 13  $\phi$ , 7 WIRE STRANDS. 750 MIN EMBEDMENT EACH END.  
• AFTER GIRDERS ARE ERECTED, LIFTING STRANDS ARE TO BE CUT-OFF FLUSH WITH BOTTOM OF POCKET. POCKET TO BE FILLED WITH AN LTH MATERIAL APPROVED IN ACCORDANCE WITH BRIDGE MATERIALS SPEC B391.



**R LIFTING HOOK POCKET**  
1:5



**S GIRDER CONNECTORS**  
1:10



**BAR TYPES**  
(ALL BAR DIMENSIONS ARE OUT TO OUT)

**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/m<sup>3</sup>.
- 28 DAY CONCRETE STRENGTH - 35 MPa
- RELEASE STRENGTH - 28 MPa
- PRESTRESSING STEEL SHALL BE 13  $\phi$ , 7 WIRE LOW RELAXATION STRAND (f<sub>pu</sub> = 1860 MPa).
- REINFORCING STEEL SHALL BE GRADE 400W (YIELD STRENGTH OF GRADE 300 USED IN DESIGN TO ALLOW TACK WELDING OF SHEAR REINFORCEMENT).

**FABRICATION**

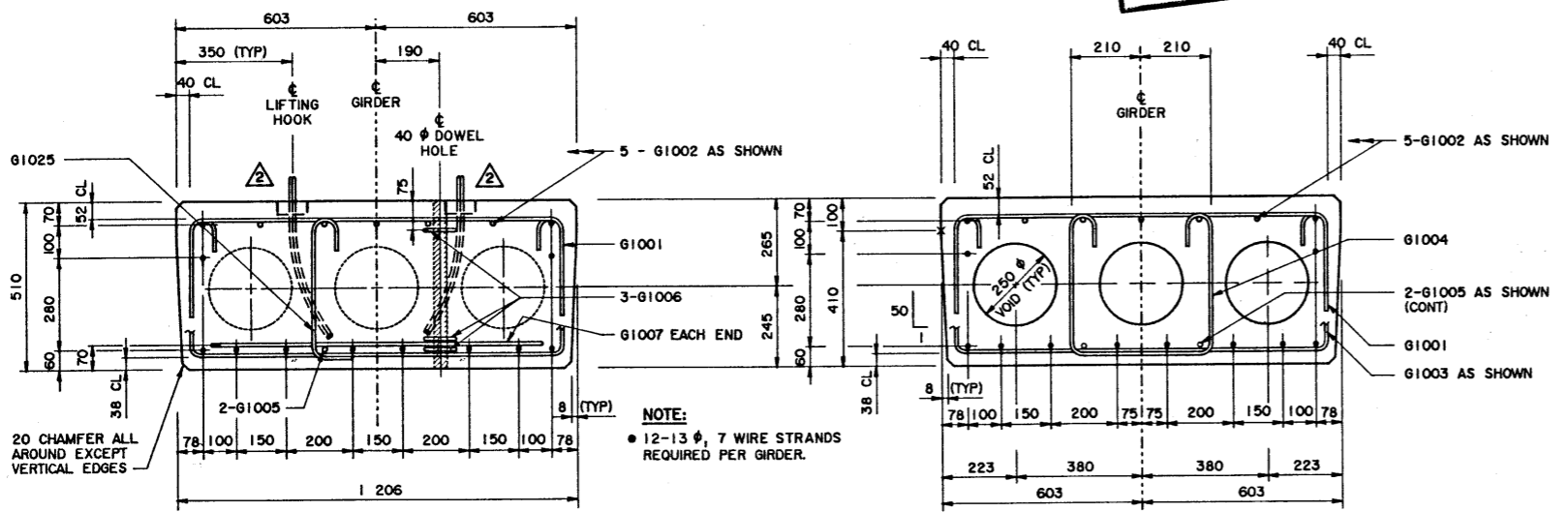
- GIRDERS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE BRIDGE MATERIALS SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED CONCRETE BRIDGE UNITS (SPEC B190).
- FORCE IN PRESTRESSING STEEL:
  - INITIAL TENSIONING LOAD = 129 kN/STRAND
  - DESIGN LOAD AFTER LOSSES = 111 kN/STRAND
- ALL GALVANIZING SHALL 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 CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF THE GIRDER IS 5.10 t.
- WORK THROUGH DRAWINGS TOGETHER : S-1535, S-1536 AND S-1537

**SUPERSEDED**  
BY REVISION 12/35

**SUPERSEDED**  
3



**A SECTION**  
1:10

**B SECTION**  
1:10

REV	DATE	REVISIONS	BY							
94-04-05		LIFTING HOOK POCKET & BAR LIST	LEA							
92-01-10		CONCRETE MATERIALS NOTE	DHQ							
DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
LEA	VMV	90-07-02	TJS	90-08-23					1 of 4	S-1535

ORIGINAL DRAWING APPROVED BY  
N. BOYD  
EXECUTIVE DIRECTOR  
BRIDGE ENGINEERING  
AUG 23, 1990

Alberta TRANSPORTATION AND UTILITIES  
BRIDGE ENGINEERING BRANCH  
**PRESTRESSED CONCRETE**  
6 m TYPE SC-510  
INTERIOR GIRDER