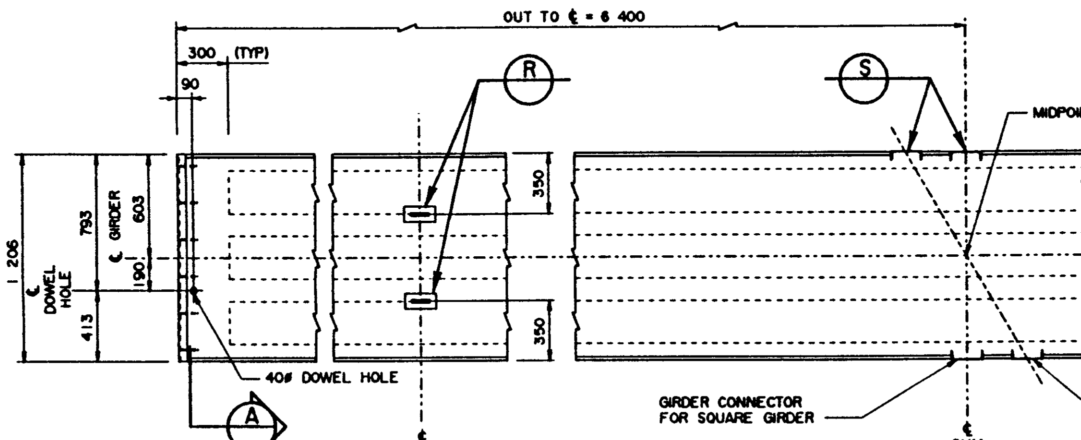
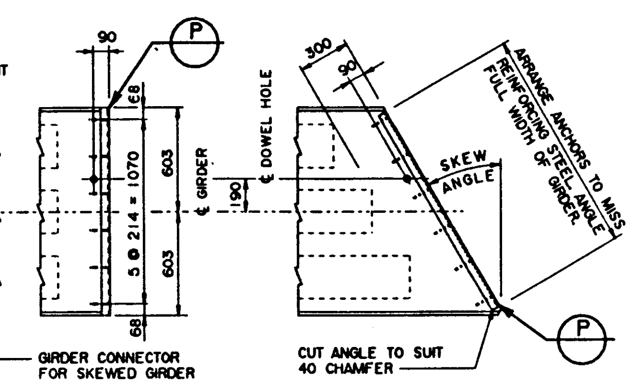
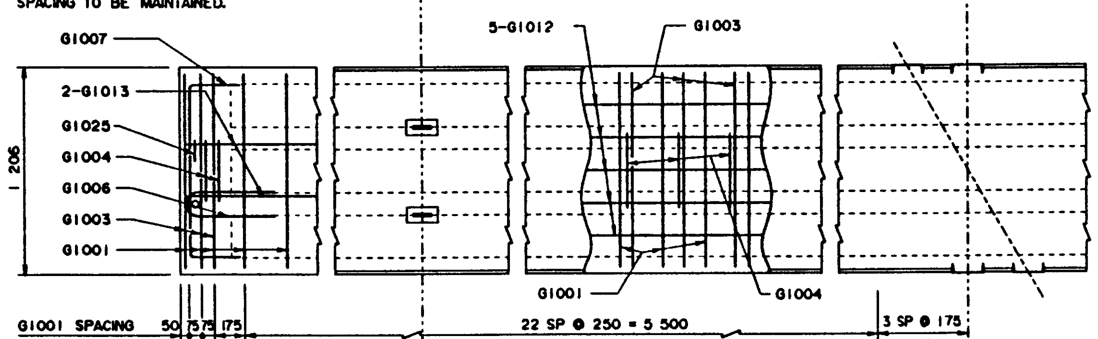
NOTE:
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1583



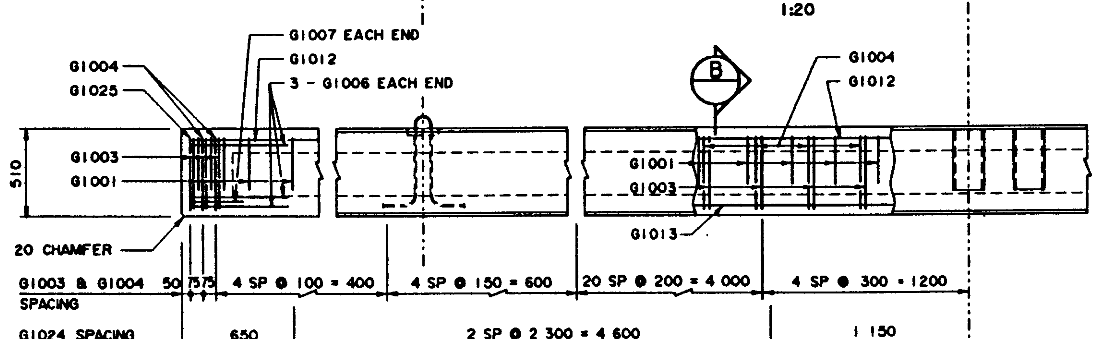


PLAN VIEW
1:20

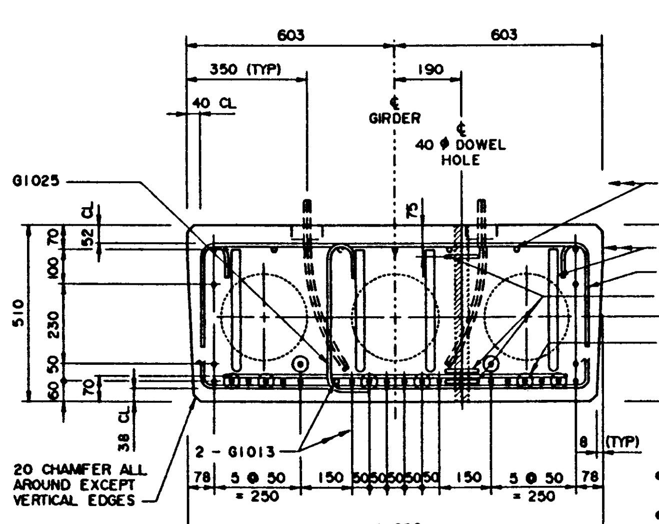
NOTE:
BEND REINFORCING BAR WHERE NECESSARY TO ACCOMMODATE CHANNEL CONNECTORS. STIRRUP SPACING TO BE MAINTAINED.



REINFORCEMENT PLAN
1:20

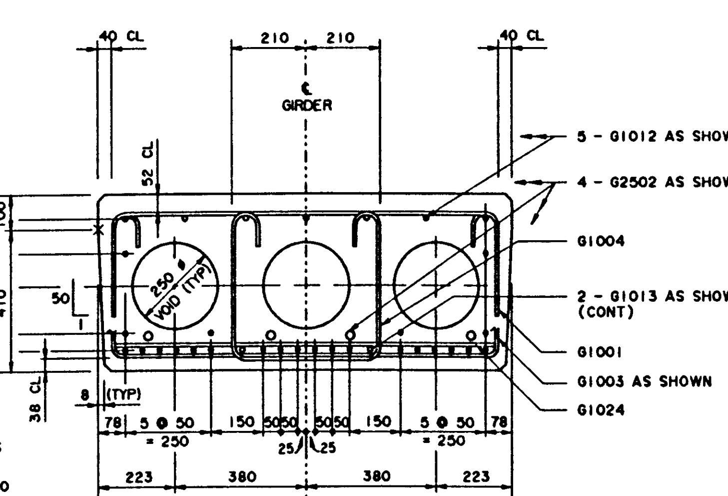


ÉLEVATION
1:20

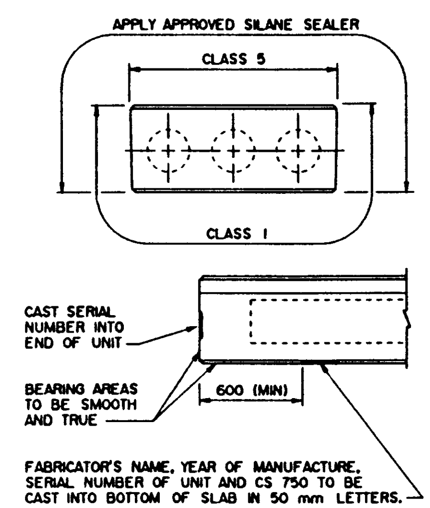


(A) SECTION
1:10

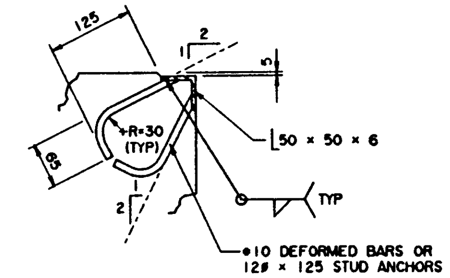
NOTE:
- 26 - 13 ø, 7 WIRE STRANDS REQUIRED PER GIRDER
- STRANDS MARKED ⊙ ARE TO BE DEBONDED FOR 1500 mm FROM THE GIRDER END.



(B) SECTION
1:10



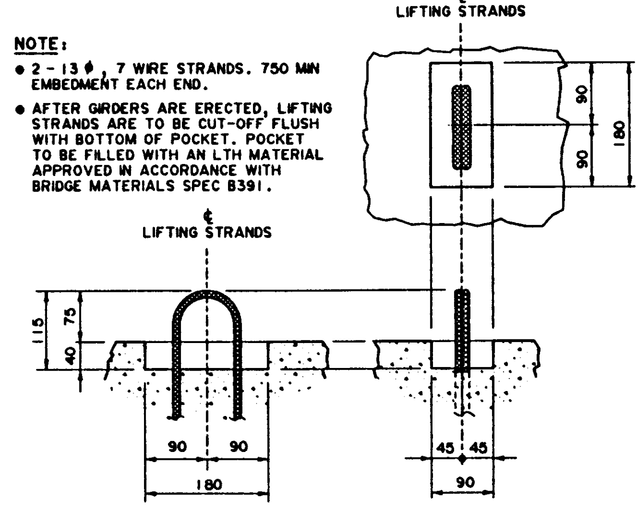
GIRDER FINISHES
(BY FABRICATOR) 1:20



NOTE:
ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

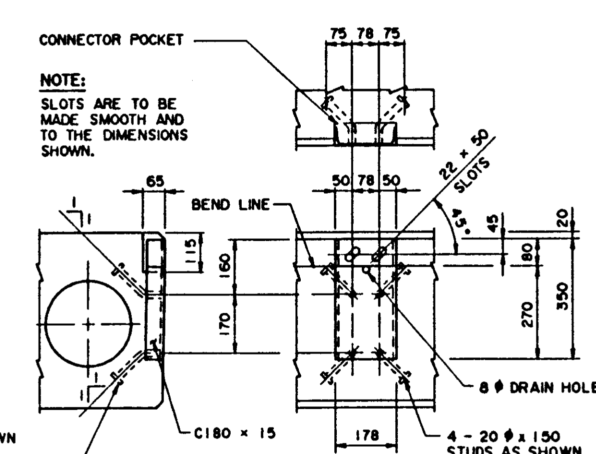
(P) BUFFER ANGLE
1:5

NOTE:
- 2 - 13 ø, 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

NOTE:
SLOTS ARE TO BE MADE SMOOTH AND TO THE DIMENSIONS SHOWN.



ALTERNATE SYSTEM OF ANCHORING CHANNEL, WHICH FACILITATES THE PLACING OF THE CIRCULAR VOID, WILL BE CONSIDERED BY THE DEPARTMENT

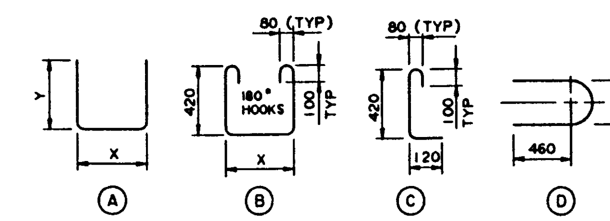
NOTE: ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

(S) GIRDER CONNECTORS
1:10

BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	57	A	1 125	300	1 725	77
G1003	10	69	B	1 125		2 220	120
G1004	10	67	B	420		1 520	80
G1006	10	6	D			1 080	5
G1007	10	2	A	1 000	300	1 600	3
G1012	10	5	STR			12 700	50
G1013	10	2	STR			12 600	20
G1024	10	6	STR			1 100	5
G1025	10	2	C			670	1
G2502	25	4	A	12 650	350	13 350	210

TOTAL kg : 571

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 67% OF MODULUS OF RUPTURE WITH 50 mm WEARING SURFACE (80% WITH 90 mm WEARING SURFACE).
  - 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 — 45 MPa
- RELEASE STRENGTH ——— 28 MPa
- PRESTRESSING STEEL SHALL BE 13 ø, 7 WIRE LOW RELAXATION STRAND (fpu = 1860 MPa).
- REINFORCING STEEL SHALL BE GRADE 400W (YIELD STRENGTH OF GRADE 300 USED IN DESIGN TO ALLOW TACK WELDING OF SHEAR REINFORCEMENT).

FABRICATION

- ⚠1 GIRDERS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 7 - PRECAST CONCRETE UNITS.
- FORCE IN PRESTRESSING STEEL:
  INITIAL TENSIONING LOAD = 129 kN/STRAND
  DESIGN LOAD AFTER LOSSES = 103 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. FOR CONNECTOR AND LIFTING HOOK LOCATIONS SEE DWG S-1583.

ERECTION

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 12.10 t.

(2)

REV	DATE	REVISIONS	BY
1	95-07-10	SPECIFICATION NOTE	LEA

ORIGINAL DRAWING APPROVED BY
J. RAMOTAR
EXECUTIVE DIRECTOR BRIDGE ENGINEERING
MAY 24, 1994

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

PRESTRESSED CONCRETE
12.80 m TYPE SC-510
INTERIOR GIRDER

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
LEA	VMV	94-03-15	SBD	94-05-16					1 of 4	S-1581