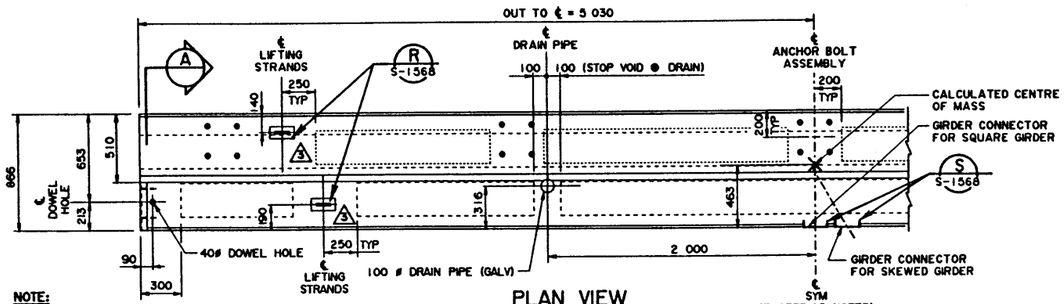
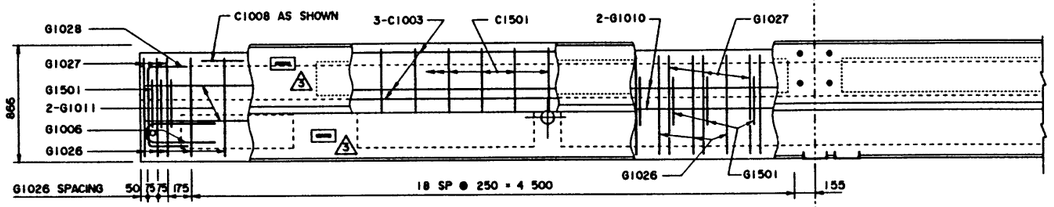
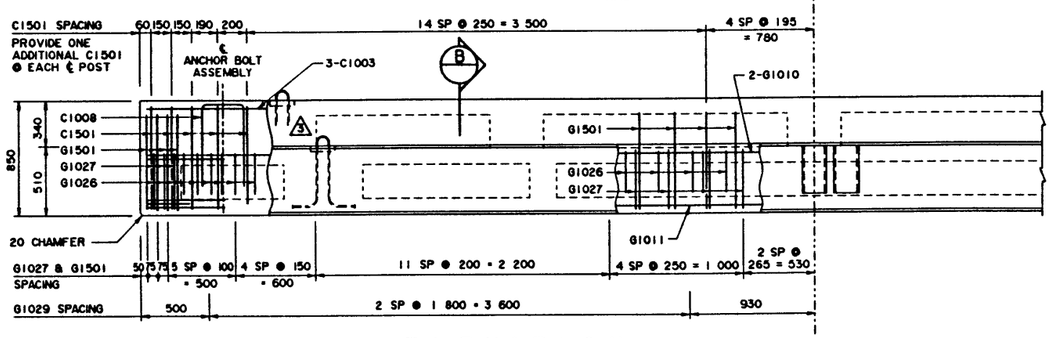


PLAN VIEW
1:20

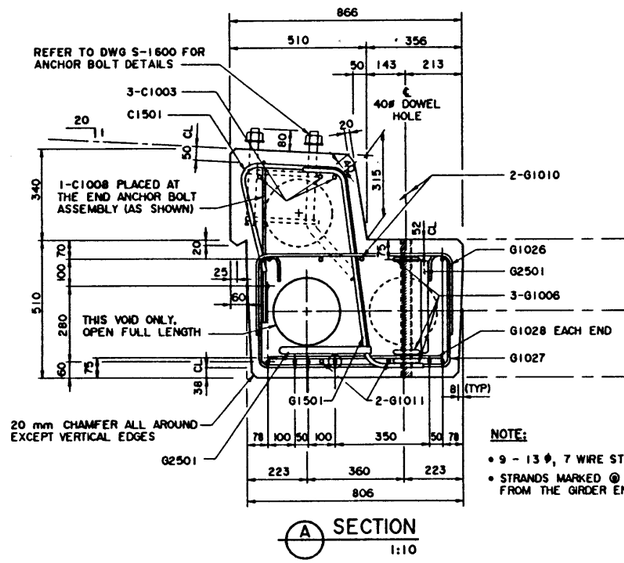
NOTE:
BEND REINFORCING BAR WHERE NECESSARY TO ACCOMMODATE CHANNEL CONNECTORS. STIRRUP SPACING TO BE MAINTAINED.



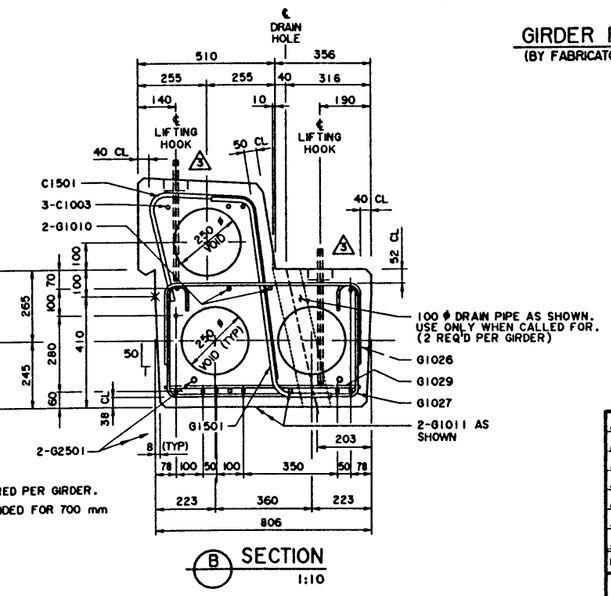
REINFORCEMENT PLAN
1:20



ELEVATION
1:20

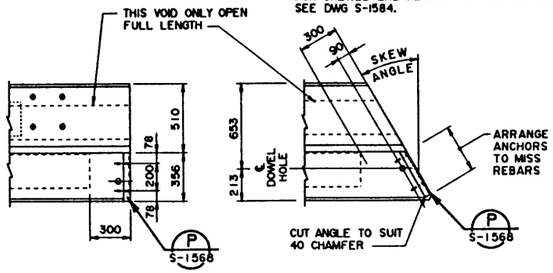


A SECTION
1:10

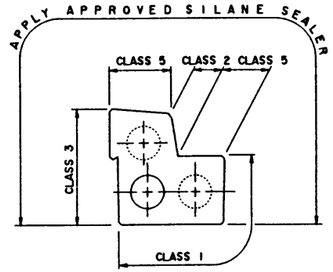


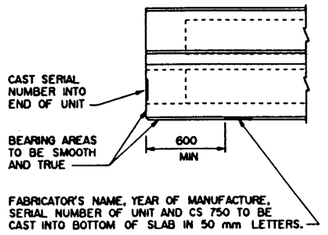
B SECTION
1:10

NOTE:
- 9 - 13 ø, 7 WIRE STRANDS REQUIRED PER GIRDER.
- STRANDS MARKED @ TO BE DEBONDED FOR 700 mm FROM THE GIRDER END.



NOTE:
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1584.





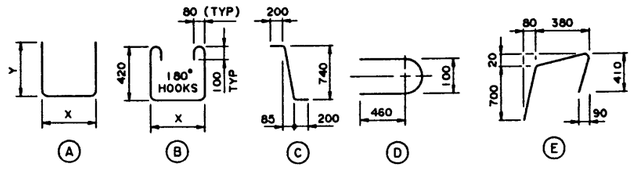
GIRDER FINISHES
(BY FABRICATOR) 1:20

BAR LIST: FOR SQUARE GIRDER

MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
C1003	10	3	STR			9 960	23
C1008	10	2	A	310	600	1 510	2
C1501	15	50	E			1 455	114
G1006	10	6	D			1 080	5
G1010	10	2	STR			9 960	16
G1011	10	2	STR			9 860	15
G1026	10	45	A	725	300	1 325	47
G1027	10	57	B	725		1 820	81
G1028	10	2	A	600	300	1 200	2
G1029	10	6	STR			700	3
G1501	15	57	C			1 140	102
G2501	25	2	A	9 910	350	10 610	83

TOTAL kg : 493

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
  0.8 WHEEL LINES PER GIRDER
  DEAD LOAD - GIRDER = 0.86 t/m
  - WEARING SURFACE = 0.09 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 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

- 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 = 112 kN/STRAND
- CURB SHALL BE CAST MONOLITHICALLY WITH GIRDER.
- ANCHOR BOLT ASSEMBLIES SHALL BE CAST IN GIRDER AT SPACINGS SHOWN ON DRAWING S-1570.
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A123 OR A153 AS APPLICABLE.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING SHALL BE MAINTAINED. FOR CONNECTOR AND LIFTING HOOK LOCATIONS SEE DWG S-1570.

ERECTION

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 9.1 t.

REV	DATE	REVISIONS	BY
5			
4			
3	95-07-10	SPECIFICATION NOTE	LEA
2	94-04-05	LIFTING HOOK POCKET	LEA
1	93-12-13	BAR LENGTH REVISED	SBD
0	93-08-27	CONNECTOR & LIFTING HOOK LOCATION NOTE	LEA

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

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

PRESTRESSED CONCRETE 10.06 m TYPE SC-510 CURB GIRDER

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
LEA	VMV	93-08-23	SBD	94-05-16					2 or 4	S-1569

FILE: BRIDGE\1569s03.r4 UPDATE: JUL 14, 1995
TEXT: 1:100 MM