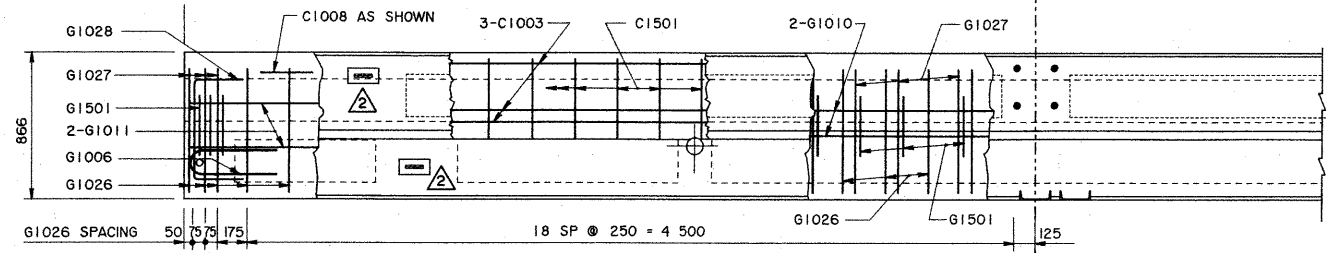
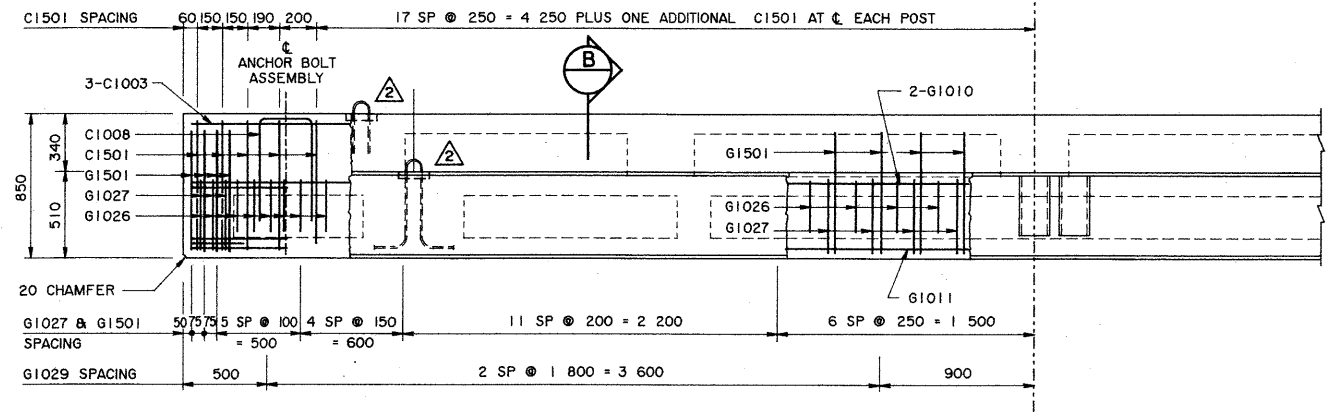


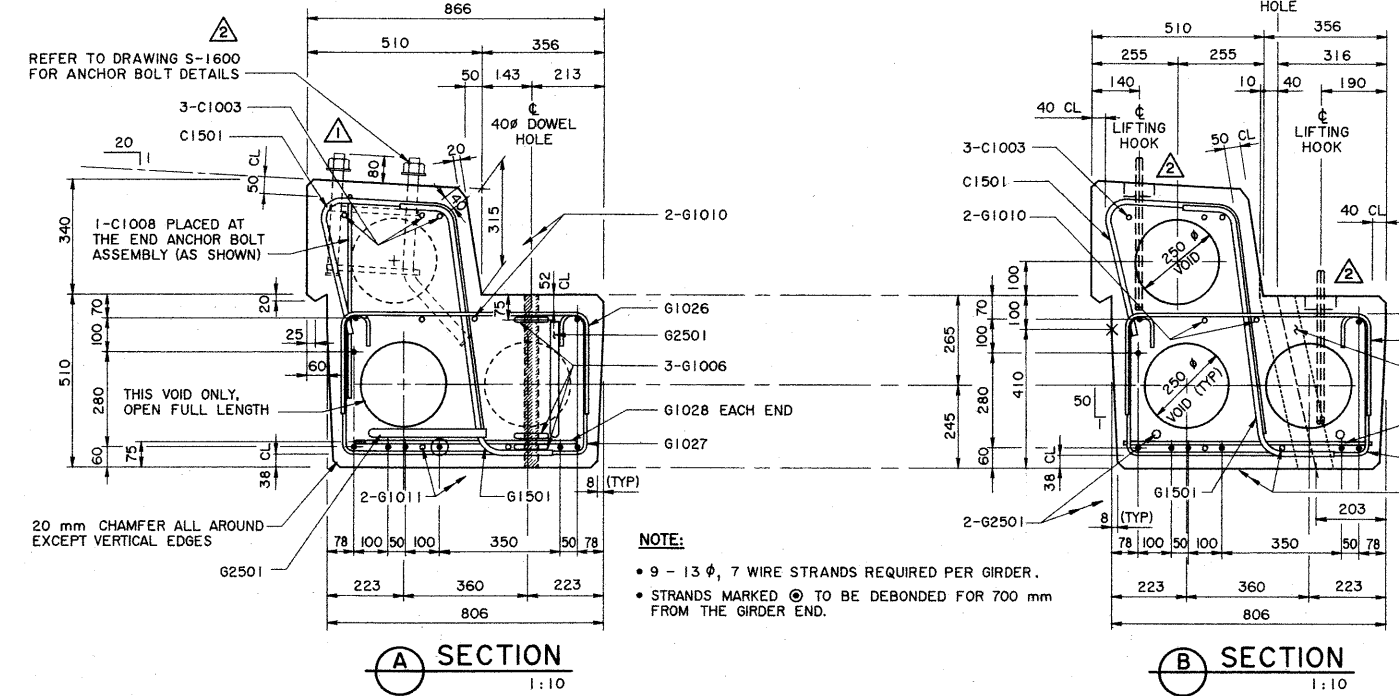
PLAN VIEW
1:20



REINFORCEMENT PLAN
1:20



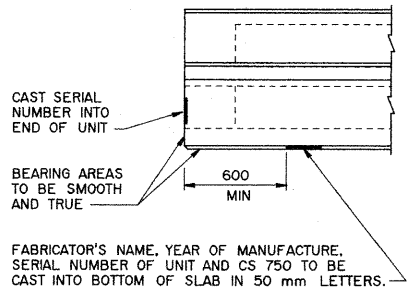
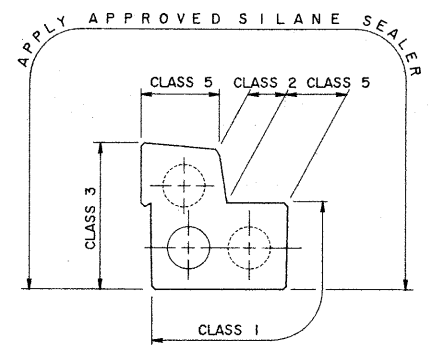
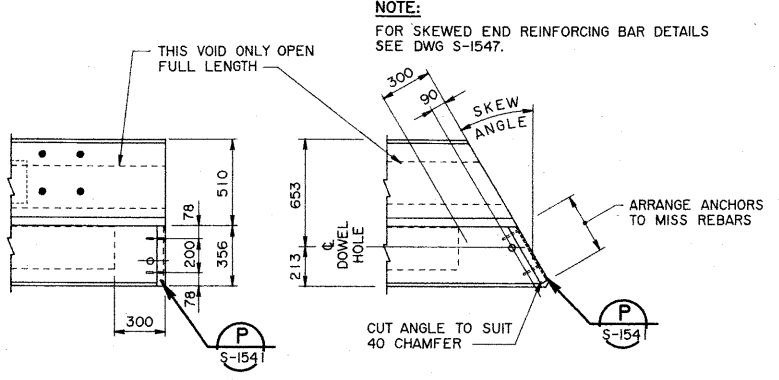
ELEVATION
1:20



SECTION A
1:10

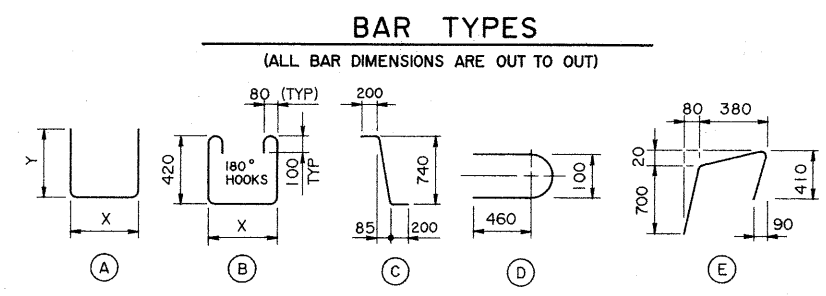
SECTION B
1:10

NOTE:
• 9 - 13 ϕ , 7 WIRE STRANDS REQUIRED PER GIRDER.
• STRANDS MARKED \odot TO BE DEBONDED FOR 700 mm FROM THE GIRDER END.



SUPERSEDED
S-1542 BY REVISION Δ 95-07-10

BAR LIST: FOR SQUARE GIRDER									
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS		
C1003	10	3	STR			9 900	23		
C1008	10	2	A	310	600	1 510	2		
C1501	15	48	E			1 455	109		
									TOTAL kg : 487
G1006	10	6	D			1 020	5		
G1010	10	2	STR			9 900	16		
G1011	10	2	STR			9 800	15		
G1026	10	44	A	725	300	1 325	46		
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	9 850	350	10 550	83		



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**
 - Δ 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 ϕ , 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 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 = 112 kN/STRAND
 - CURB SHALL BE CAST MONOLITHICALLY WITH GIRDER.
 - ANCHOR BOLT ASSEMBLIES SHALL BE CAST IN GIRDER AT SPACINGS SHOWN ON DRAWING S-1543.
 - 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.
- ERECTION**
 - ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
 - CALCULATED MASS OF ONE GIRDER IS 9.0 t.
- WORK THESE DRAWINGS TOGETHER : S-1541, S-1542 AND S-1543.

REV	DATE	REVISIONS	BY
94-04-05		ANCHOR BOLT REFERENCE & LIFTING HOOK	LEA
92-01-10		ANCHOR BOLT PROJ, CONC MATERIALS NOTE	DHQ

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

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

PRESTRESSED CONCRETE
10 m TYPE SC-510
CURB GIRDER

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
LEA	VMV	90-07-02	TJS	90-08-23					2 OF 4	S-1542