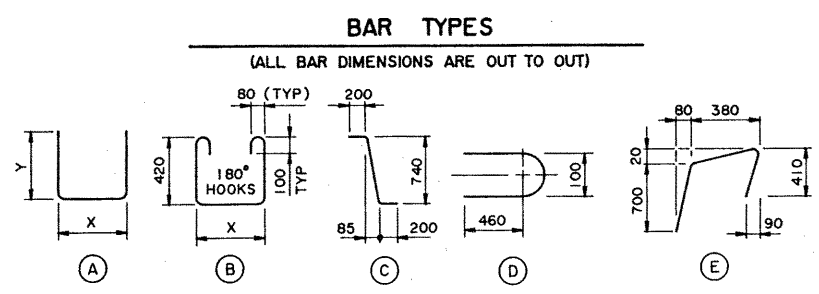


**SUPERSEDED**

BY REVISION  $\Delta$  45-01-10

BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
C1004	10	3	STR			12 700	30
C1008	10	2	A	310	600	1 510	2
C1501	15	61	E			1 455	139
G1006	10	6	D			1 080	5
G1012	10	2	STR			12 700	20
G1013	10	2	STR			12 600	20
G1026	10	57	A	725	300	1 325	59
G1027	10	73	B	725		1 820	104
G1028	10	2	A	600	300	1 200	2
G1029	10	6	STR			700	3
G1501	15	73	C			1 140	131
G2502	25	2	A	12 650	350	13 350	105

TOTAL kg : 620



**GENERAL NOTES**

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.
- DESIGN**
  - CAN/CSA-S6-88 SPECIFICATIONS EXCEPT AS MODIFIED BELOW:
    - ALLOWABLE TENSION AT MIDSPAN IS 60% OF MODULUS OF RUPTURE.
    - 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/m<sup>3</sup>.
  - 28 DAY CONCRETE STRENGTH - 45 MPa
  - RELEASE STRENGTH - 28 MPa
  - PRESTRESSING STEEL SHALL BE 13  $\phi$ , 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 = 110 kN/STRAND
  - CURB SHALL BE CAST MONOLITHICALLY WITH GIRDER.
  - ANCHOR BOLT ASSEMBLIES SHALL BE CAST IN GIRDER AT SPACINGS SHOWN ON DRAWING S-1583.
  - 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. SEE 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 11.6 t.

APPROVED				Albarta TRANSPORTATION AND UTILITIES BRIDGE ENGINEERING BRANCH			
EXECUTIVE DIRECTOR BRIDGE ENGINEERING				PRESTRESSED CONCRETE 12.80 m TYPE SC-510 CURB GIRDER			
DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY
A. Cochran LEA	VMV	94-03-15	S. D. Smith SBD	94-05-16			
REV	DATE	REVISIONS		BY	FILE	SHEET	DRAWING
						2 of 4	S-1582