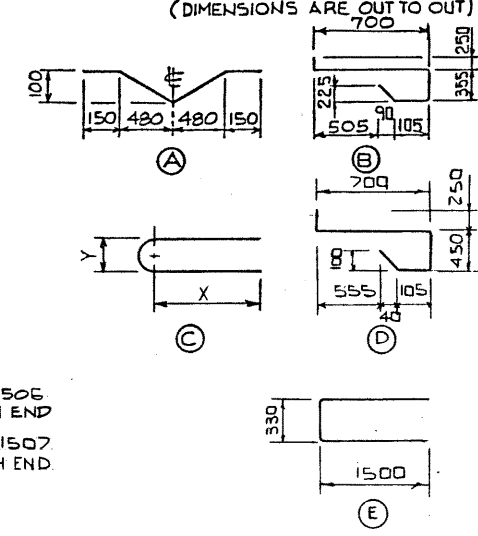


**BAR TYPES:**  
(DIMENSIONS ARE OUT TO OUT)

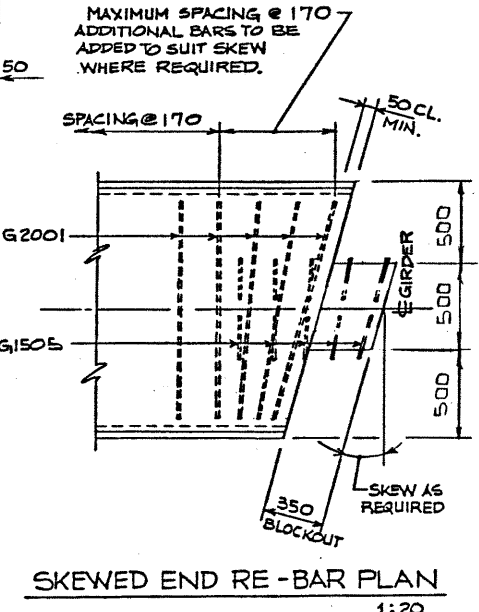


BAR LIST: ONE SQUARE GIRDER							
MARK	SIZE	NO.	TYPE	X	Y	LENGTH	MASS
G 1501	15	16	STR.			9750	245
G 1502	15	29	A			1280	159
G 1503	15	16	STR.			9250	232
G 1504	15	116	B			1655	301
G 1505	15	48	D			1615	122
G 1506	15	8	C	945	110	2065	26
G 1507	15	4	E			3330	21
G 2001	20	100	STR.			1260	315
G 2002	20	8	STR.			9250	174

TOTAL kg: 1595

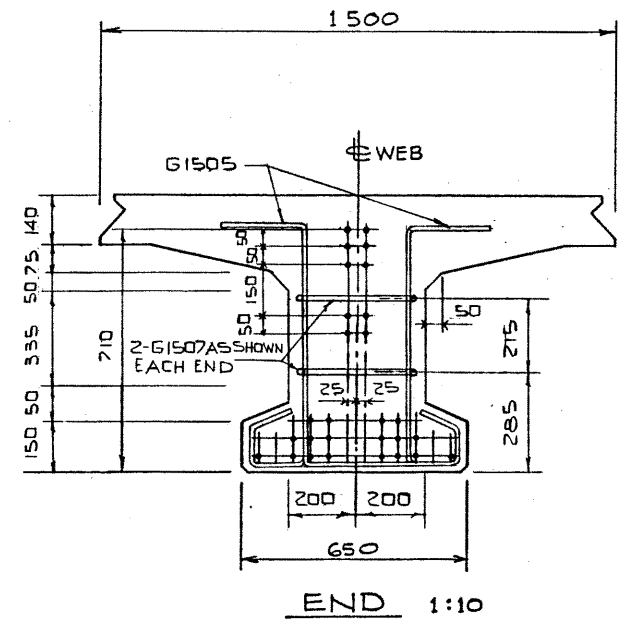
**GENERAL NOTES**

- DESIGN:**
- C.S.A. CAN 3-S6-M78
  - NO TENSION IN TOP FLANGE OF GIRDER.
- LOADING:**
- DEAD LOAD - GIRDER = 10.92 kN/M
  - WEARING SURFACE, SHEAR KEYS = 2.55 kN/M
  - LIVE LOAD - C.S.A. CAN 3-S6-M78 - MS300 PLUS IMPACT
  - WHEEL LINES/GIRDER
- PRESTRESSING STEEL:**
- PRESTRESSING STEEL SHALL BE 12.7 mm  $\phi$  - 7 WIRE LOW RELAXATION STRAND (FPU = 1860 MPa)
  - INITIAL TENSIONING LOAD: 128.6 kN/STRAND
  - DESIGN LOAD AFTER LOSSES: 96.9 kN/STRAND
- MATERIALS:**
- STANDARD WEIGHT CONCRETE WITH NOT LESS THAN 5% AIR ENTRAINMENT (WHEN MEASURED IN PLASTIC STATE) SHALL BE USED THROUGHOUT.
  - 28 DAY STRENGTH: 40 MPa
  - RELEASE STRENGTH: 31 MPa
  - REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF G30.12M GRADE 300
- FABRICATION:**
- GIRDERS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ALBERTA BRIDGE BRANCH "SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED AND PRECAST CONCRETE BRIDGE UNITS B-190M".
  - ALL EXPOSED CONCRETE CORNERS TO HAVE 20 mm CHAMFER OR FILLET UNLESS OTHERWISE NOTED.
  - GIRDER FORMS MUST BE ADJUSTABLE SUCH THAT THE TOP AND BOTTOM FLANGES OF THE GIRDER WILL FOLLOW THE SAME PARABOLIC CURVE WITH A MIDPOINT SAG AS SPECIFIED AT THE TIME OF CASTING.
  - EXPECTED NET GIRDER CAMBER DUE TO PRESTRESS IS 30 mm
- ERECTION:**
- LIFTING FORCE AT EACH HOOK MUST BE VERTICAL AT ALL TIMES.
  - GIRDER SURFACE MUST BE LEVEL AT ALL TIMES.
  - THEORETICAL MASS OF ONE GIRDER IS 20 TONNES.
  - CAMBER DIFFERENTIAL TO BE ELIMINATED BEFORE WELDING FLANGE CONNECTORS, USING JACKING BEAM & LIFTING HOOKS AT MIDSPAN.

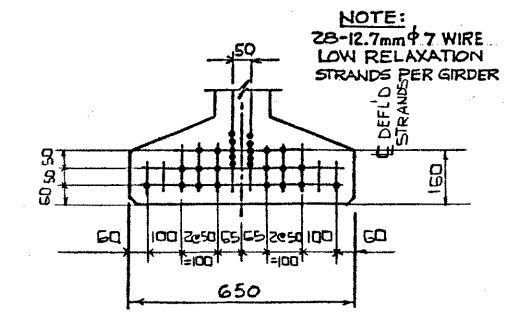


SKewed END RE-BAR PLAN 1:20

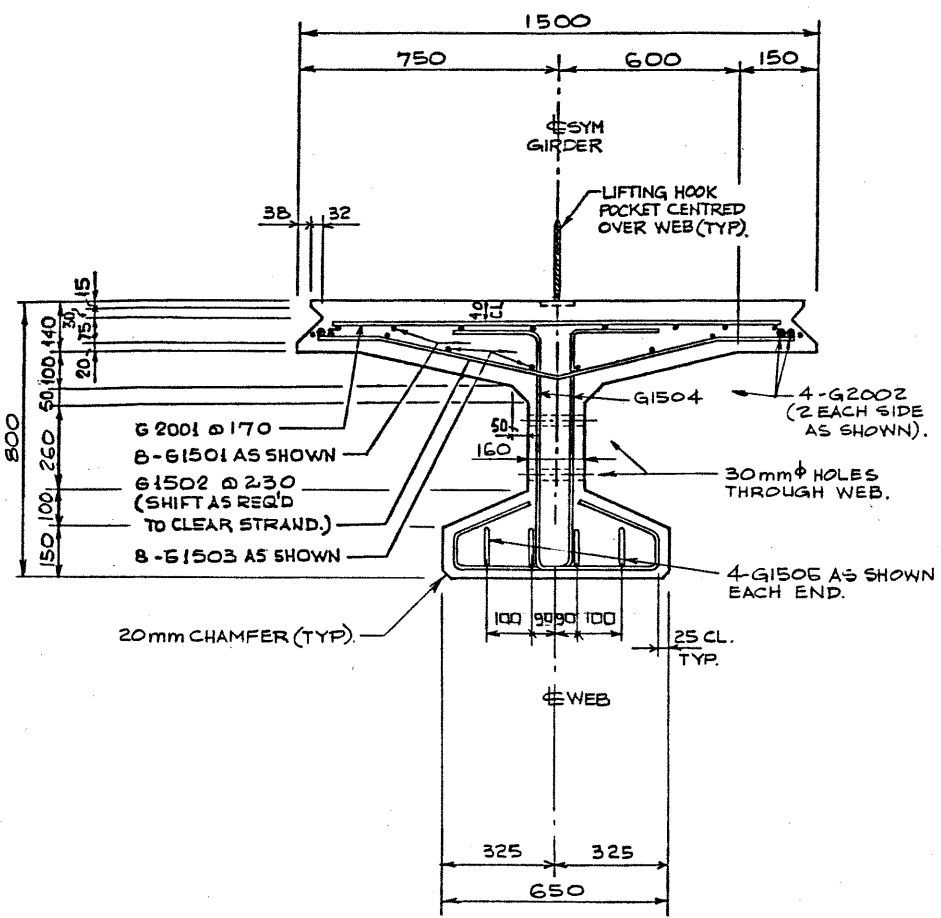
ELEVATION N.T.S.



END 1:10



MIDSPAN PRESTRESSING PATTERN 1:10



TYPICAL SECTION 1:10

DESIGNED BY: J. A. S.  
DRAWN BY: P. SZOIS  
DATE: 82-03-04  
M.P. - 258

**SUPERSEDED**  
BY 84-05-24

NO.	DATE	DESCRIPTION	DESIGNED	DRAWN BY	DATE	CHECKED BY	DATE	STREAM	LOCATION	HYD. NO.	SCALE	FILE NO.	SHEET	DRG. NO.
			T. MORRISON	W. KOHLMANN	82-11-08						SHOWN		5-1534	