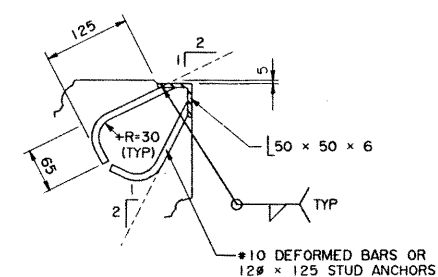
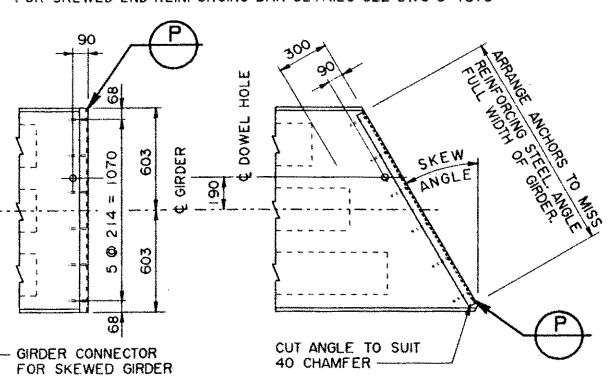


NOTE:
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1579



NOTE:
ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

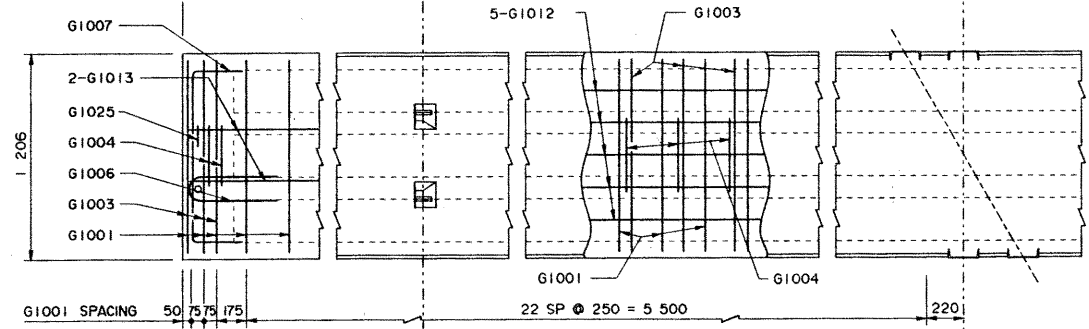
P BUFFER ANGLE
1:5

| BAR LIST: FOR SQUARE GIRDER | | | | | | | |
|-----------------------------|------|----|------|--------|-----|--------|------|
| MARK | SIZE | NO | TYPE | X | Y | LENGTH | MASS |
| G1001 | 10 | 53 | A | 1 125 | 300 | 1 725 | 72 |
| G1003 | 10 | 67 | B | 1 125 | | 2 220 | 117 |
| G1004 | 10 | 65 | B | 420 | | 1 520 | 78 |
| G1006 | 10 | 6 | D | | | 1 080 | 5 |
| G1007 | 10 | 2 | A | 1 000 | 300 | 1 600 | 3 |
| G1012 | 10 | 5 | STR | | | 12 090 | 47 |
| G1013 | 10 | 2 | STR | | | 11 990 | 19 |
| G1024 | 10 | 6 | STR | | | 1 100 | 5 |
| G1025 | 10 | 2 | C | | | 670 | 1 |
| G2502 | 25 | 4 | A | 12 040 | 350 | 12 740 | 200 |

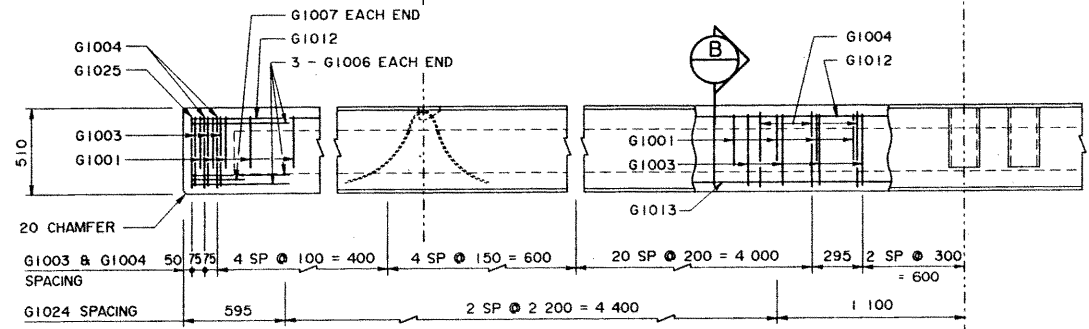
TOTAL kg : 547

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

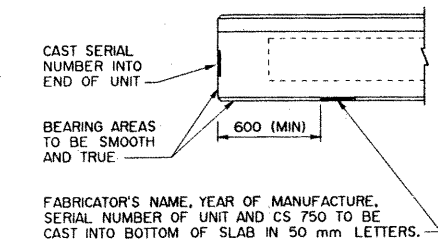
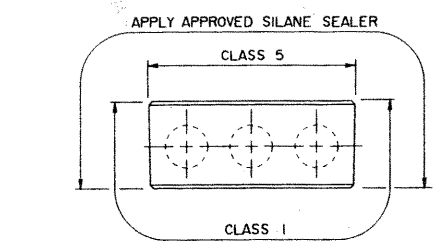
PLAN VIEW
1:20



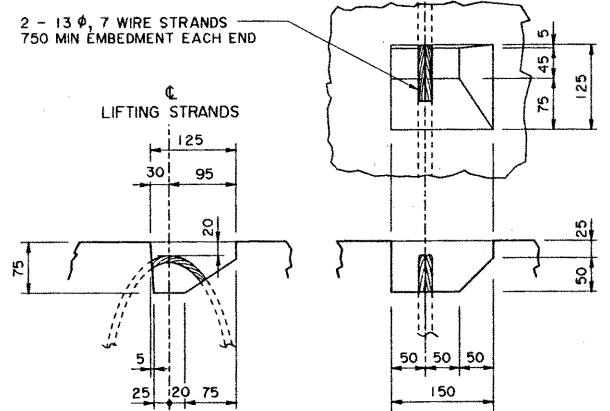
REINFORCEMENT PLAN
1:20



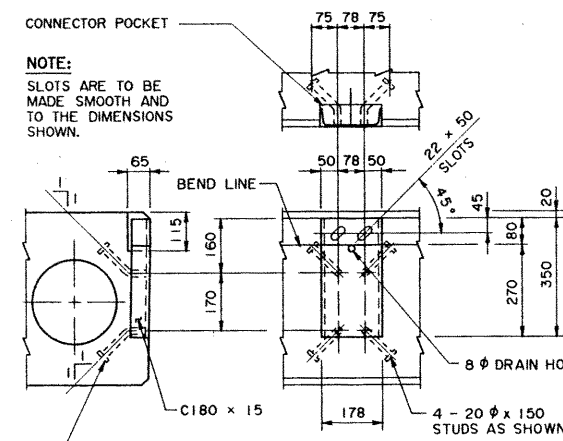
ELEVATION
1:20



GIRDER FINISHES
(BY FABRICATOR) 1:20



R LIFTING HOOK POCKET
1:5

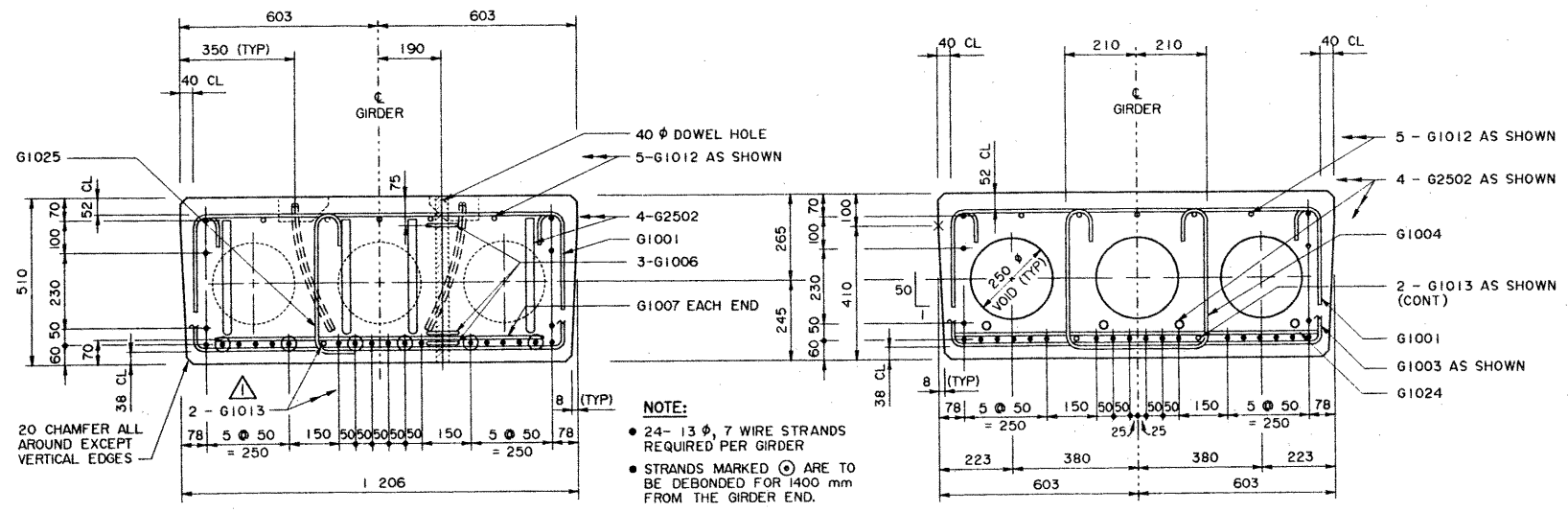


NOTE:
SLOTS ARE TO BE MADE SMOOTH AND TO THE DIMENSIONS SHOWN.

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.

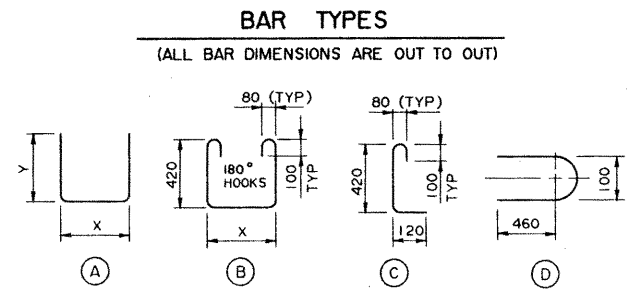
S GIRDER CONNECTORS
1:10



A SECTION
1:10

B SECTION
1:10

NOTE:
• 24 - 13 ϕ , 7 WIRE STRANDS REQUIRED PER GIRDER
• STRANDS MARKED \odot ARE TO BE DEBONDED FOR 1400 mm FROM THE GIRDER END.



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 54% OF MODULUS OF RUPTURE WITH 50 mm WEARING SURFACE (66% 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 - 40 MPa
- RELEASE STRENGTH - 28 MPa
- PRESTRESSING STEEL SHALL BE 13 ϕ , 7 WIRE LOW RELAXATION STRAND (f_{pu} = 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 = 104 kN/STRAND
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A-75.
- BEND OR SHIFT REINFORCING WHERE REQUIRED BY GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STRIPS SHALL BE MAINTAINED. FOR CONNECTOR AND LIFTING HOOK SEE DWG S-1579.

ERECTION

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 11.52 t

SUPERSEDED

| | | | | | | | |
|--|-------|----------|---------|---|--------|----------|---------|
| APPROVED | | | | Alberta TRANSPORTATION AND UTILITIES BRIDGE ENGINEERING BRANCH | | | |
| EXECUTIVE DIRECTOR BRIDGE ENGINEERING | | | | PRESTRESSED CONCRETE 12.19 m TYPE SC-510 INTERIOR GIRDER | | | |
| 93-12-13 BAR LIST REVISED & BAR MARK CORRECTED | | | | SBD DATE PRELIM | | | |
| DESIGNED | DRAWN | DATE | CHECKED | DATE | STREAM | LOCATION | HIGHWAY |
| LEA | VMV | 93-09-16 | SBD | | | | |
| | | | | | | FILE | SHEET |
| | | | | | | | 1 of 4 |
| | | | | | | DRAWING | S-1577 |