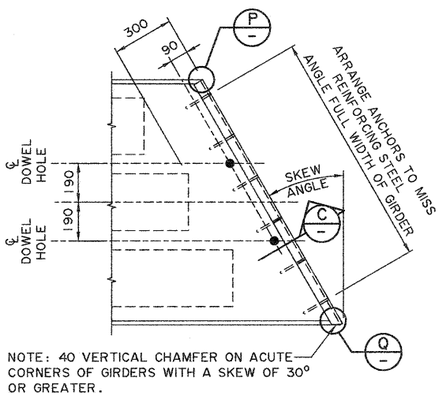
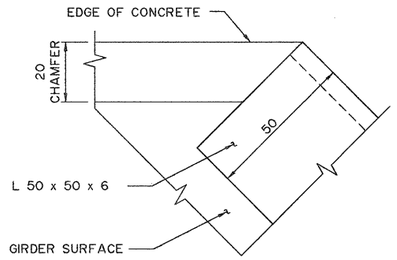
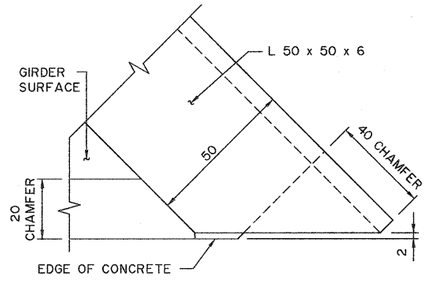


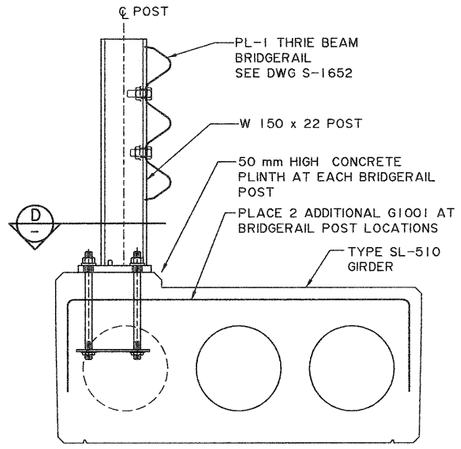
GIRDER SKEWED END PLAN DETAIL
1:15



P DETAIL
1:1



Q DETAIL
1:1



TYPICAL EXTERIOR GIRDER
1:10

GENERAL NOTES

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.

DESIGN

- CAN/CSA-S6-06 SPECIFICATIONS EXCEPT AS MODIFIED BELOW:
  - ALLOWABLE TENSION IN BOTTOM FIBRE AT MIDSPAN = 2.0 MPa EXCEPT WHERE NOTED ON GIRDER SPECIFIC DRAWINGS.
  - NO TENSION ALLOWED IN DECK SURFACE.
- LOADING:
  - LIVE LOAD – CAN/CSA-S6-06: CL-800
  - LIVE LOAD – ONE WHEEL LINE PER GIRDER
  - DEAD LOAD – GIRDER = 1.16 t/m
  - DEAD LOAD – ALLOWANCE FOR FUTURE WEARING SURFACE (90 mm ACP AND WATERPROOFING) = 0.26 t/m

MATERIALS

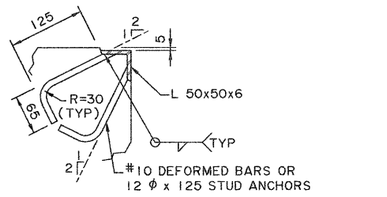
- CONCRETE SHALL BE STANDARD WEIGHT, CONTAINING 10% SILICA FUME AND NOT LESS THAN 5% AIR ENTRAINMENT.
- 28 DAY CONCRETE STRENGTH:
  - 50 MPa FOR ALL SPANS EXCEPT THE 14.0 m SPAN.
  - 70 MPa FOR THE 14.0 m SPAN ONLY.
- CONCRETE RELEASE STRENGTH:
  - 35 MPa FOR ALL SPANS EXCEPT THE 14.0 m SPAN.
  - 40 MPa FOR THE 14.0 m SPAN ONLY.
- PRESTRESSING STEEL SHALL BE 15 ϕ, 7 WIRE LOW RELAXATION STRAND (fpu = 1860 MPa).
- REINFORCING STEEL SHALL BE GRADE 400W. TACK WELDING OF REINFORCING SHALL NOT BE ALLOWED.

FABRICATION

- GIRDERS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 7 – PRECAST CONCRETE UNITS.
- ALL GALVANIZING SHALL CONFORM TO CSA SPECIFICATION G164.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING IS TO BE MAINTAINED.
- ALL EXPOSED CONCRETE CORNERS SHALL HAVE A 20 mm CHAMFER OR FILLET UNLESS NOTED OTHERWISE.

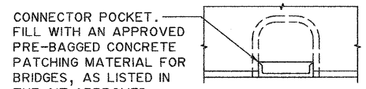
ERECTION

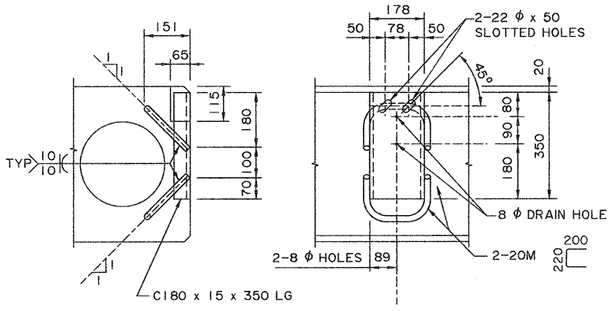
- LIFTING FORCE SHALL BE VERTICAL AT ALL TIMES.
- GIRDERS SHALL BE MAINTAINED LEVEL AT ALL TIMES.
- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.



NOTE:
ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

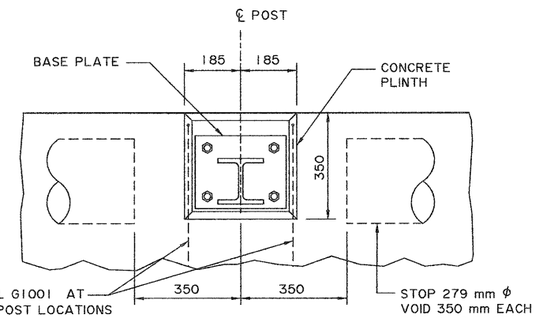
C BUFFER ANGLE
1:5





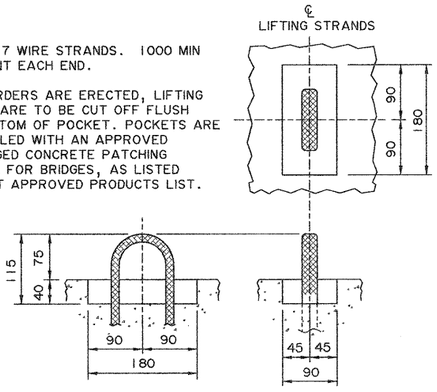
NOTE: ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

S GIRDER CONNECTIONS
1:10

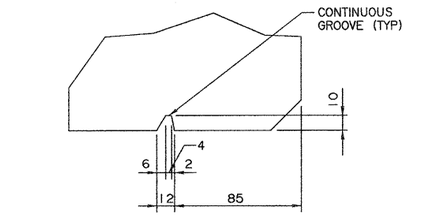


D AT POSTS
1:10

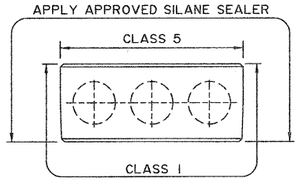
NOTE:
- 2-15 ϕ, 7 WIRE STRANDS. 1000 MIN EMBEDMENT EACH END.
- AFTER GIRDERS ARE ERECTED, LIFTING STRANDS ARE TO BE CUT OFF FLUSH WITH BOTTOM OF POCKET. POCKETS ARE TO BE FILLED WITH AN APPROVED PRE-BAGGED CONCRETE PATCHING MATERIAL FOR BRIDGES, AS LISTED IN THE AIT APPROVED PRODUCTS LIST.

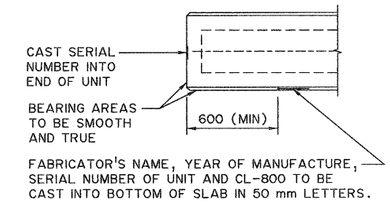


R LIFTING HOOK POCKET
1:5



T DRIP GROOVE
1:2





GIRDER FINISHES
(BY FABRICATOR) 1:20

BPTEC - DNW
Engineering Ltd.
Suite 200, 4220-98 St Ph: (780) 436-5376
Edmonton, AB T6E 6A1 Fax: (780) 435-4843
www.bptec-dnw.com
556-46

PERMIT TO PRACTICE
BPTEC-DNW ENGINEERING LTD.
Signature Scott Donald
Date AUG 1, 2007
PERMIT NUMBER: P0132
The Association of Professional Engineers Geologists and Geophysicists of Alberta

DESIGNER
PROFESSIONAL ENGINEER ALBERTA
ORIGINAL STAMPED AND SIGNED
BY: Stuart Smith
ON: AUG 1, 2007
DATE

CHECKER
PROFESSIONAL ENGINEER ALBERTA
ORIGINAL STAMPED AND SIGNED
BY: Scott Donald
ON: AUG 1, 2007
DATE

REV	DATE	REVISIONS	BY
6			
5			
4			
3			
2			
1	2008-04-22	DRIP GROOVE DETAIL	CM CM

RECOMMENDED
DIRECTOR BRIDGE ENGINEERING
ORIGINAL SIGNED BY
TOM LOO

APPROVED
EXECUTIVE DIRECTOR
TECHNICAL STANDARDS BRANCH
ORIGINAL SIGNED BY
ALLAN KWAN
DATE SEPT 17, 2007

Alberta INFRASTRUCTURE AND TRANSPORTATION

PRESTRESSED CONCRETE TYPE SL-510 GIRDER STANDARD DETAILS

AI BAR CODE	DATE	SHEET	DRAWING
	2007-06-07	3 OF 3	S-1749-07

Plotted: STANDARD SHEET S-1749-07-REV1.DGN