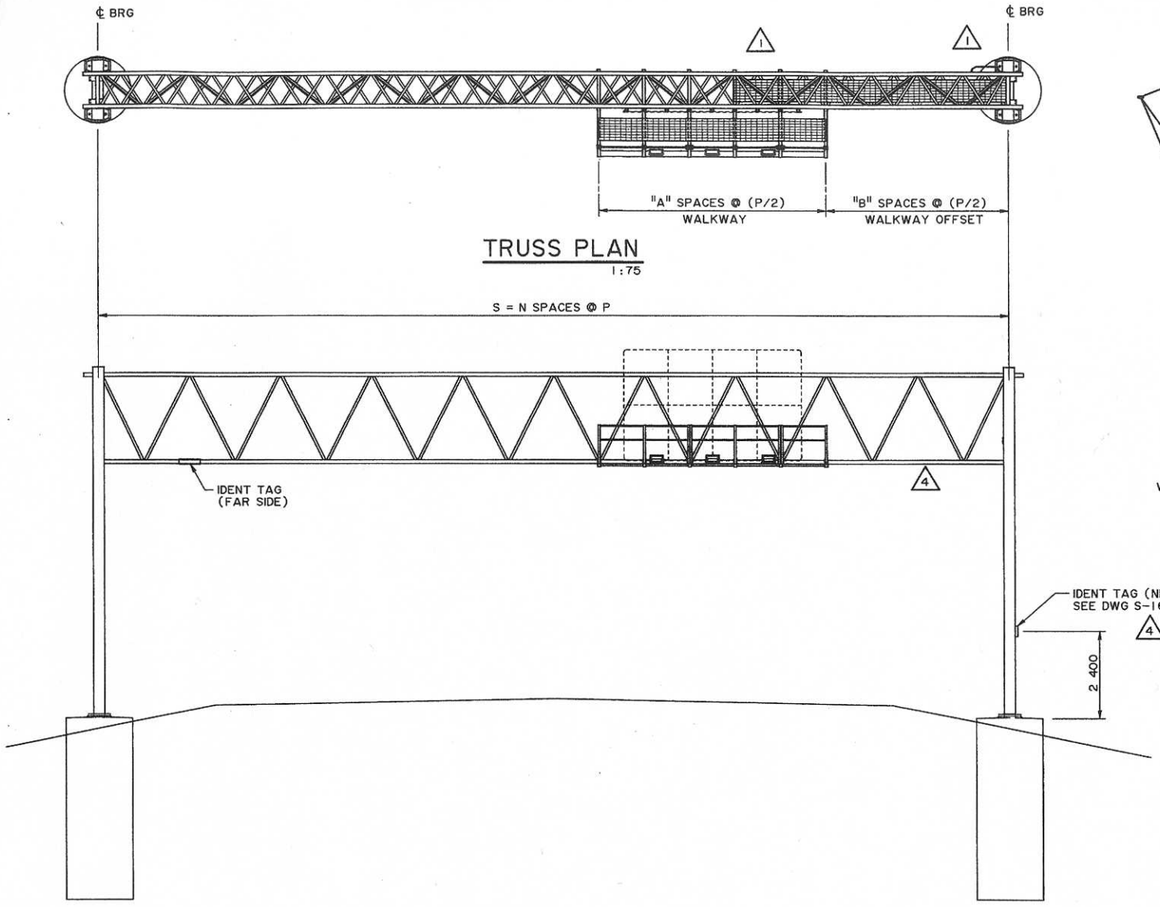
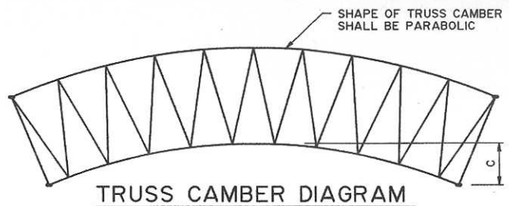
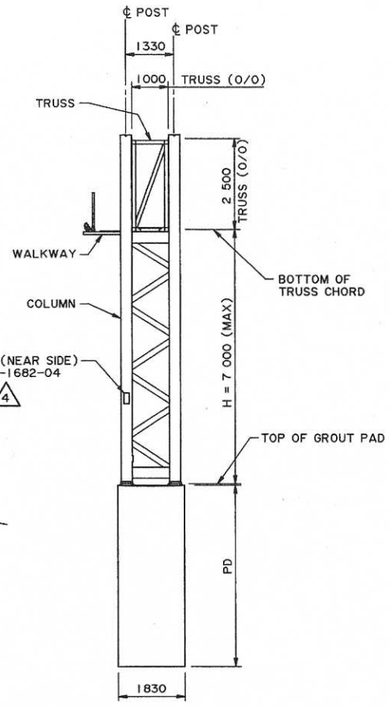


TRUSS PLAN
1:75

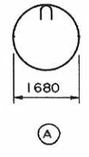


TRUSS CAMBER DIAGRAM



FRONT ELEVATION
25 000 SPAN SHOWN 1:75

END ELEVATION
1:75



VARIABLE DIMENSIONS									
S	SPAN	10 001 TO 15 000		15 001 TO 20 000		20 001 TO 25 000		25 001 TO 30 000		30 001 TO 35 000	
C	CAMBER	15		25		30		40		50	
N	NUMBER OF PANELS	6		8		10		12		14	
P	PANEL LENGTH	SPAN/6		SPAN/8		SPAN/10		SPAN/12		SPAN/14	
PD	PILE DEPTH	4 750		5 000		5 250		5 500		5 750	
MATERIALS									
MK		QTY	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION
CP	COLUMN POST	4	HSS 305 x 305 x 8.0	4	HSS 305 x 305 x 8.0	4	HSS 305 x 305 x 9.5	4	HSS 305 x 305 x 12.7	4	HSS 305 x 305 x 12.7
CT	COLUMN TIE BEAM	4	HSS 305 x 305 x 8.0	4	HSS 305 x 305 x 8.0	4	HSS 305 x 305 x 9.5	4	HSS 305 x 305 x 12.7	4	HSS 305 x 305 x 12.7
CB	COLUMN BRACING	–	HSS 152 x 152 x 4.8	–	HSS 152 x 152 x 4.8	–	HSS 152 x 152 x 4.8	–	HSS 152 x 152 x 4.8	–	HSS 152 x 152 x 4.8
TC	TRUSS CHORDS	4	HSS 89 x 89 x 4.8	4	HSS 89 x 89 x 6.4 3	4	HSS 102 x 102 x 6.4	4	HSS 127 x 127 x 6.4	4	HSS 127 x 127 x 9.5
TF	TRUSS END FRAME MEMBERS	10	HSS 89 x 89 x 4.8	10	HSS 89 x 89 x 6.4 3	10	HSS 102 x 102 x 6.4	10	HSS 127 x 127 x 6.4	10	HSS 127 x 127 x 9.5
TW	TRUSS WEB MEMBERS	24	HSS 51 x 51 x 4.8	32	HSS 51 x 51 x 4.8	40	HSS 64 x 64 x 4.8	48	HSS 76 x 76 x 4.8	56	HSS 76 x 76 x 4.8
TD	TRUSS DIAGONAL BRACING	12	HSS 51 x 51 x 4.8	16	HSS 51 x 51 x 4.8	20	HSS 64 x 64 x 4.8	24	HSS 76 x 76 x 4.8	28	HSS 76 x 76 x 4.8
TH	TRUSS HORIZONTAL BRACING	48	HSS 51 x 51 x 4.8	64	HSS 51 x 51 x 4.8	80	HSS 64 x 64 x 4.8	96	HSS 76 x 76 x 4.8	112	HSS 76 x 76 x 4.8

QUANTITY ESTIMATE – 2 PILES						
ITEM	UNIT	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE
CONCRETE – 25 MPa	m^3	25	26	28	29	30
REINFORCING STEEL	kg	1 185	1 248	1 312	1 374	1 437

BAR LIST – 2 PILES															
MARK	SIZE	SHAPE	QTY	LENGTH (mm)	MASS (kg)	QTY	LENGTH (mm)	MASS (kg)	QTY	LENGTH (mm)	MASS (kg)	QTY	LENGTH (mm)	MASS (kg)	QTY	LENGTH (mm)	MASS (kg)
F2501	25	STR	36	4 650	657	36	4 900	692	36	5 150	728	36	5 400	763	36	5 650	798
F2001	20	A	38	5 900	528	40	5 900	556	42	5 900	584	44	5 900	611	46	5 900	639

GENERAL NOTES

- ALL DRAWINGS ARE DIMENSIONED IN MILLIMETRES, EXCEPT FOR THE GENERAL LAYOUT DRAWING WHICH IS DIMENSIONED IN METRES.

DESIGN

- SIGNS:
  SIGN STRUCTURES ARE DESIGNED TO CARRY 3 m HIGH SIGNS COVERING 60% OF THE LENGTH OF THE SPAN OR 13 m, WHICH EVER IS GREATER. THE SIGNS ARE PLACED ON THE SPAN SO AS TO OBTAIN THE MAXIMUM LOAD EFFECTS.
- LIVE LOAD:
  2 kN CONCENTRATED POINT LOAD ON WALKWAY.
- ICE LOAD:
  12 mm ICE THICKNESS ON ALL FACES OF STRUCTURE MEMBERS AND ON ONE FACE OF SIGNBOARDS.
- WIND LOAD:
  7.2 kPa ON STRUCTURE MEMBERS
  3.0 kPa ON SIGNBOARDS.
- FOUNDATIONS:
  THE DESIGN OF THE FOUNDATION IS BASED ON COMPETENT SOIL EXISTING AT THE SITE. SITES WITH SOILS NOT MEETING THIS REQUIREMENT (CLAYS WITH UNCONFINED COMPRESSION STRENGTHS (qu) LESS THAN 100 kPa, SANDS WITH STANDARD PENETRATION COUNTS (N) LESS THAN 10 BLOWS PER 305 mm, SILTS, ORGANIC SOILS, ETC) REQUIRE A SPECIAL FOUNDATION DESIGN.

MATERIALS

- ALL HSS MEMBERS SHALL CONFORM TO CSA G40.21M-350W.
- STEEL FOR DYWIDAG BARS AND NUTS SHALL CONFORM TO ASTM A722 TYPE II.
- ALL BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A325 BOLTS, UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL CONFORM TO CSA G30.18-M92 – GRADE 400
- ALL OTHER STEEL SHALL CONFORM TO CSA G40.21M-300W.
- ALL CONCRETE SHALL HAVE A STRENGTH OF 25 MPa AT 28 DAYS.
- ALL GROUT SHALL BE SIKA 212.

FABRICATION

- FABRICATION SHALL BE IN ACCORDANCE WITH THE CURRENT BRIDGE BRANCH SPECIFICATION FOR THE SUPPLY OF STRUCTURAL STEEL FOR BRIDGES B187M.
- 1 HSS MEMBERS SHALL BE CONNECTED BY WELDING UNLESS NOTED OTHERWISE. THE EFFECTIVE THROAT THICKNESS OF WELDS SHALL BE EQUAL TO THE WALL THICKNESS OF THE CONNECTED MEMBERS AND SHALL BE CONTINUOUS AROUND THE CONNECTION.
- ALL WELDING SHALL CONFORM TO AWS SPECIFICATIONS D1.5 AND D1.1 (SECTION 10).
- TRUSS SHALL BE CAMBERED AS SHOWN ON THE TRUSS CAMBER DIAGRAM. DETAILS OF TRUSS TO COLUMN CONNECTION PLATES SHALL BE ADJUSTED FOR TRUSS END ROTATIONS DUE TO CAMBER AND DEAD LOAD DEFLECTIONS.
- ALL TRUSS MEMBERS AND DETAIL MATERIAL WELDED TO THE TRUSS SHALL BE BLAST CLEANED AFTER FABRICATION AS FOLLOWS:
  – TRUSS CONTACT SURFACES OF TRUSS TO COLUMN CONNECTIONS SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC-SP5.
  – ALL OTHER STEEL SURFACES SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC-SP6.
- 2 ALL STRUCTURAL STEEL, STEEL HARDWARE AND ANCHOR BOLT ASSEMBLIES EXCEPT FOR TRUSS MEMBERS AND DETAIL MATERIAL WELDED TO THE TRUSS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 OR A153 AS APPLICABLE. COLUMN CONTACT SURFACES OF TRUSS TO COLUMN CONNECTIONS SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC-SP7 AFTER GALVANIZING.
- TRUSS CONTACT SURFACES OF TRUSS TO COLUMN CONNECTIONS SHALL RECEIVE ONE SHOP COAT OF INORGANIC ZINC PRIMER CONFORMING TO CGSB SPECIFICATION 1-GP-181M, HAVING A DRY FILM THICKNESS OF 75 MICRONS. ALL OTHER SURFACES OF TRUSS MEMBERS AND DETAIL MATERIAL WELDED TO THE TRUSS SHALL RECEIVE A COMPLETE COATING CONSISTING OF THE FOLLOWING OR APPROVED EQUIVALENT.
  1) PRIMER COAT – GLIDDEN #5571 RUSTMASTER PRO PRIMER (RED) HAVING A DRY FILM THICKNESS OF 100 MICRONS.
  2) INTERMEDIATE COAT – GLIDDEN #5572 RUSTMASTER PRO MID-COAT (GREY) HAVING A DRY FILM THICKNESS OF 100 MICRONS.
  3) TOP COAT – GLIDDEN #5440 SERIES LIFEMASTER PRO HB ACRYLIC COATING (ALUMINUM COLOUR) HAVING A DRY FILM THICKNESS OF 100 MICRONS.

  PRIMER SHALL NOT BE APPLIED UNTIL APPROVAL OF THE BLAST CLEANING HAS BEEN OBTAINED FROM THE ENGINEER.

ERECTION

- FIELD WELDING TO HSS MEMBERS OR DETAIL MATERIAL WELDED TO THEM IS NOT PERMITTED.

REV	DATE	REVISIONS	BY
6			
5			
4	07-01-17	IDENT TAG LOCATION & APPROVAL SIGNATURE UPDATED	RY
3	95-03-08	QTY. TABLE: TRUSS CHORDS, TRUSS END FRAME MEMBER	LEA
2	94-08-22	ANCHOR BOLT GALV. NOTE	LEA
1	93-05-24	ACCESS WALKWAY & CONNECTION WELD SIZE NOTE	LEA

APPROVED 4
EXECUTIVE DIRECTOR
TECHNICAL STANDARDS BRANCH
DATE 2007-01-17

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

STANDARD TRUSS SIGN STRUCTURE

GENERAL ARRANGEMENT

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
RJR	MIK	93-04-19							2 OF 5	S-1607

F834749

NOTE: THIS DRAWING HAS BEEN REDUCED TO 22"x34", DO NOT SCALE

UPDATED: JANUARY 17, 2007