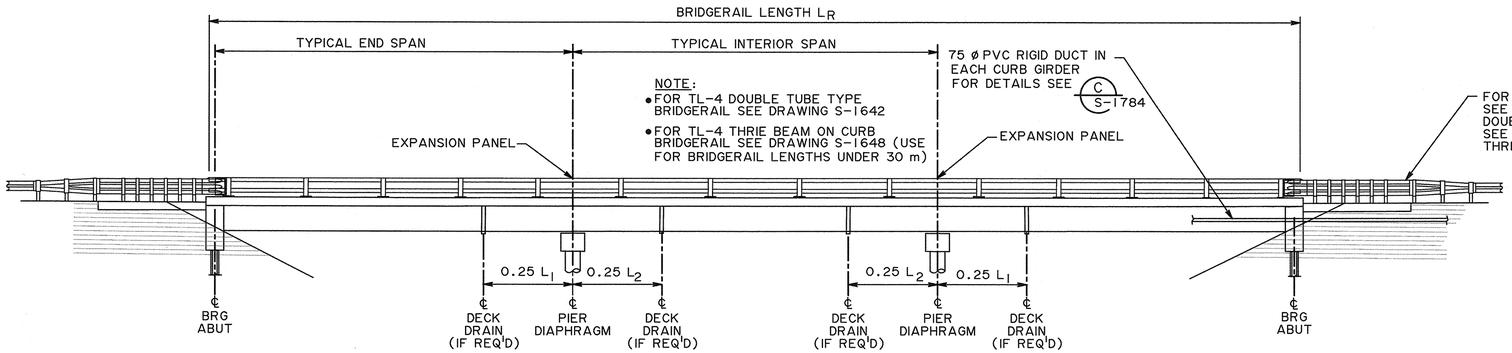
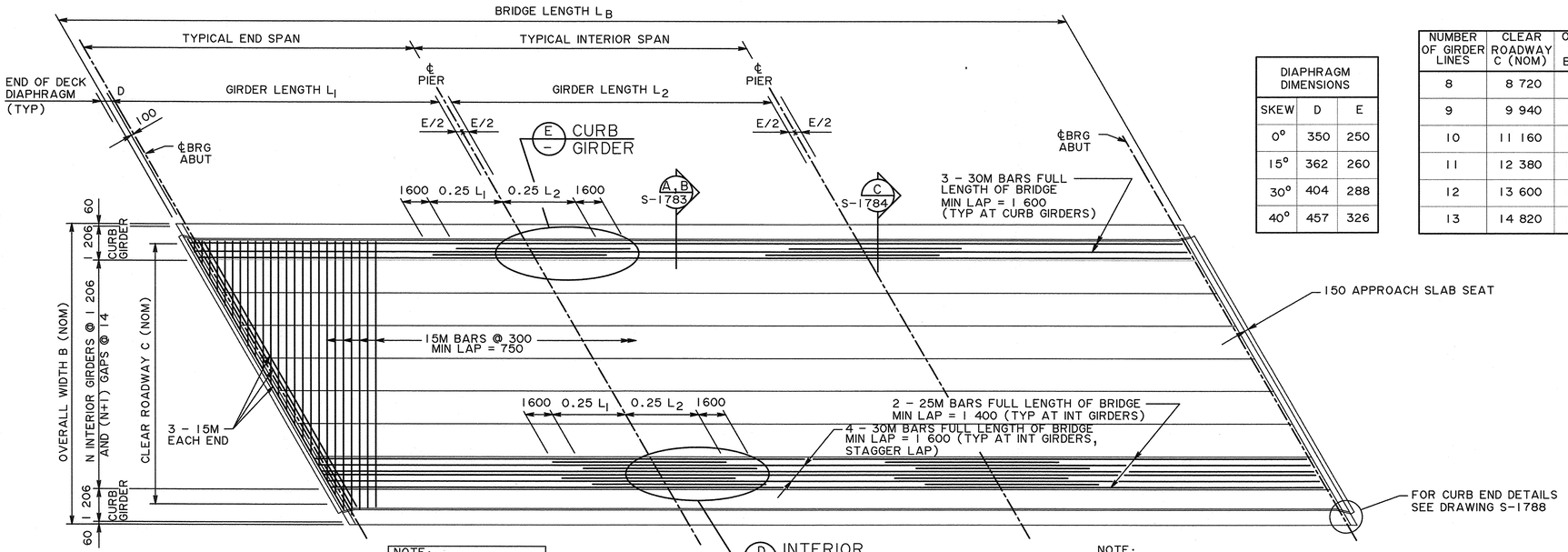


BRIDGE RAIL POST AND DECK DRAIN LAYOUT

1:100



NOTE:
ALL DECK BARS ARE CORROSION RESISTANT REINFORCING

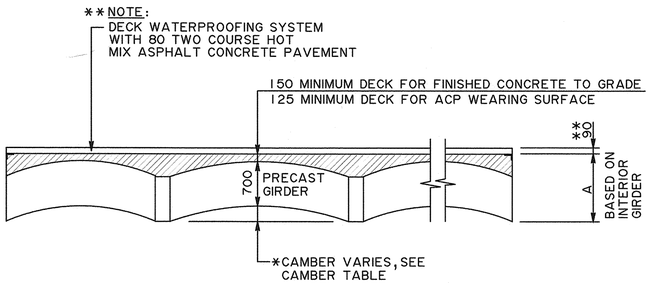
NOTE:
FOR ABUTMENT AND PIER DIAPHRAGM REINFORCING SEE DRAWING S-1783

DECK REINFORCING PLAN

1:100

DIAPHRAGM DIMENSIONS		
SKEW	D	E
0°	350	250
15°	362	260
30°	404	288
40°	457	326

NUMBER OF GIRDER LINES	CLEAR ROADWAY C (NOM)	OVERALL WIDTH B (NOM)
8	8 720	9 870
9	9 940	11 090
10	11 160	12 310
11	12 380	13 530
12	13 600	14 750
13	14 820	15 970



CAMBER DIAGRAM

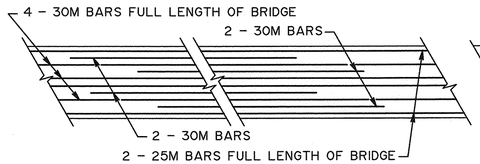
NTS

*NOTES:

- CAMBER VALUES ARE ESTIMATED BASED ON GIRDER AGE AT ERECTION TO BE 40 DAYS
- NET CAMBER VALUES ARE ESTIMATED VALUES ONLY. ACTUAL VALUES MAY VARY ACCORDING TO VARIATIONS IN PRESTRESS LOSSES AND PROPERTIES OF CONCRETE
- FIELD ADJUST AS REQUIRED BY RAISING OR LOWERING GRADE LINE TO MAINTAIN MINIMUM DECK THICKNESS

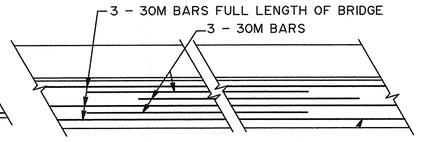
CAMBER TABLE								
DEFLECTION (−) OR CAMBER (+)	14 m GIRDER		16 m GIRDER		18 m GIRDER		20 m GIRDER	
	INTERIOR	CURB	INTERIOR	CURB	INTERIOR	CURB	INTERIOR	CURB
AT TRANSFER	5	7	6	11	13	18	18	25
CURB	–	-4	–	-7	–	-11	–	-17
CAMBER GROWTH BEFORE DECK	2	1	2	1	5	2	8	2
150 DECK	-2	-1	-4	-2	-7	-3	-10	-5
125 DECK+90 ACP	-3	-2	-5	-3	-8	-4	-12	-6
ACCUMULATIVE CAMBER (125+90ACP)	4	2	3	2	10	5	14	4

USE THESE VALUES TO ADJUST PROFILE



D INTERIOR GIRDER

1:10



E CURB GIRDER

1:10

GENERAL NOTES

- ALL DIMENSIONS ARE GIVEN IN MILLIMETRES UNLESS NOTED OTHERWISE
- THIS DESIGN IS APPLICABLE FOR BOTH CLASS 6 CONCRETE SURFACE FINISH FOR CONCRETE FINISHED TO GRADE AND CLASS CONCRETE SURFACE FINISH TO RECEIVE WATERPROOFING MEMBRANE AND ACP
- FOR DETAILS OF BRIDGE WATERPROOFING SYSTEM WITH 80 mm TWO COURSE HOT MIX ASPHALTIC CONCRETE PAVEMENT SEE DRAWING S-1838 TO S-1840
- ALL REFERENCES TO OTHER STANDARD DRAWINGS REFER TO THE LATEST REVISION
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR BRIDGE CONSTRUCTION LATEST VERSION

DESIGN

- THIS DESIGN IS APPLICABLE TO SPAN ARRANGEMENTS BASED ON THE FOLLOWING COMBINATIONS OF GIRDER LENGTHS:

SPAN ARRANGEMENT TABLE			
14-18-14 m	16-18-16 m	18 m	20 m
14-20-14 m	16-20-16 m	18-18-18 m	20-20-20 m
		18-20-18 m	

- STANDARD SKEW ANGLES: 0°, 15°, 30° AND 40°
- CAN/CSA-S6-19
- LIVE LOAD - CAN/CSA-S6-19 CL-800 WHEEL LINES PER GIRDER
  SLS/ULS - MID SPAN = 0.66 SUPPORT = 0.80
  FLS - MID SPAN = 0.60 SUPPORT = 0.80
- DEAD LOAD
  -SEE DRAWING S-1785 FOR DEAD LOAD TABLE

SITE SPECIFIC REQUIREMENTS

- THIS SET OF STANDARD DRAWINGS ARE TO BE WORKED TOGETHER WITH THE FOLLOWING SITE SPECIFIC DRAWINGS, WHICH SHALL BE PREPARED BY A CONSULTANT PRE-QUALIFIED BY THE DEPARTMENT TO DESIGN MAJOR BRIDGE STRUCTURES
  - GENERAL LAYOUT INCLUDING BRIDGE RAIL LAYOUT
  - SITE INFORMATION SHEET(S)
  - DECK REINFORCING PLAN, PIER AND ABUTMENT ELEVATIONS
  - DESIGN CONSULTANT SHALL BE RESPONSIBLE FOR CHECKING GIRDER SHOP DRAWINGS

DECK

- CAST-IN-PLACE CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 4, CAST-IN-PLACE CONCRETE
- ALL CONCRETE SHALL BE CLASS HPC
- REINFORCING STEEL SHALL BE IN ACCORDANCE WITH SECTION 5 OF THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION AND SITE SPECIFIC DRAWINGS
- ALL CONCRETE CORNERS SHALL HAVE A 20 mm CHAMFER OR FILLET UNLESS NOTED OTHERWISE
- DECK AND DIAPHRAGM CONCRETE SHALL BE PLACED CONTINUOUSLY. DECK CONCRETE SHALL REMAIN PLASTIC FOR THE ENTIRE DECK CONCRETE PLACEMENT(NOT ACHIEVED INITIAL SET 3 MPa). THE USE OF HYDRATION STABILIZER WILL BE PERMITTED. THE LENGTH OF HYDRATION STABILIZED PERIOD SHALL REVIEWED AND ACCEPTED BY THE CONSULTANT
- ALL REINFORCING STEEL SHALL HAVE A 50 mm CLEAR COVER UNLESS NOTED OTHERWISE
- GALVANIZING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A123/A123M AND ASTM F2329
- FOR CONCRETE TO GRADE, DECK CONCRETE SURFACE FINISH SHALL BE CLASS 6. CURB BLOCKOUT AND PIER DIAPHRAGM FINISHES TO MATCH PRECAST GIRDERS. SEALER SHALL BE APPLIED TO THE SURFACES SHOWN ON DRAWING S-1852
- FOR ACP WEARING SURFACE, DECK CONCRETE SURFACE FINISH SHALL BE CLASS 4. CURB BLOCKOUT AND PIER DIAPHRAGM FINISHES TO MATCH PRECAST GIRDERS. SEALER SHALL BE APPLIED TO THE SURFACES SHOWN ON DRAWING S-1852
- STEEL FOR ANCHOR DOWELS AND MISCELLANEOUS IRON SHALL CONFORM TO CSA G40.21M-300W

REV	DATE	REVISION	BY
6			
4			
3			
2			
1			

DESIGNER KA CHECKER BH

RECOMMENDED DIRECTOR BRIDGE ENGINEERING

APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH

DATE Oct 06,2022

Alberta Transportation

STANDARD SLC COMPOSITE BRIDGES SLC700 PRESTRESSED CONCRETE GIRDERS SUPERSTRUCTURE LAYOUT

DATE	SHEET	DRAWING
2020-11-17	1 OF 7	S-1782-20