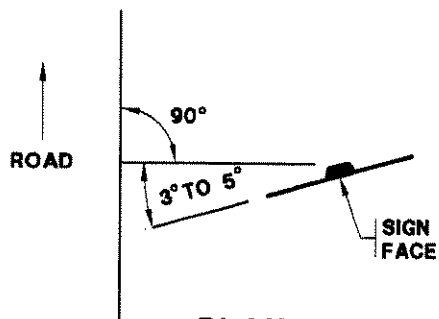
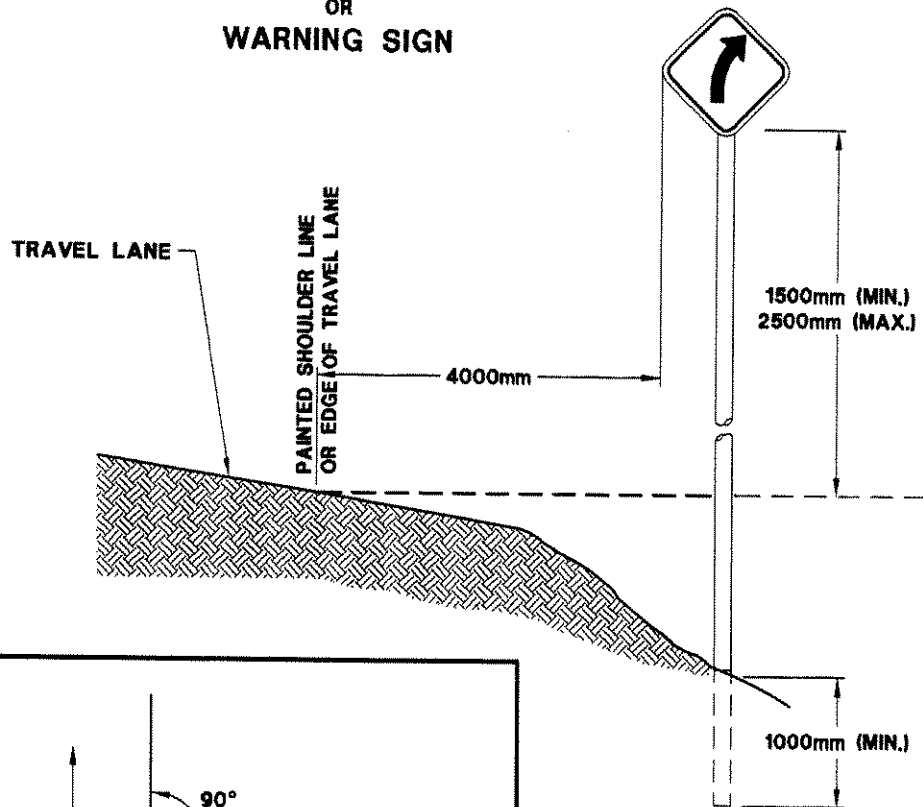
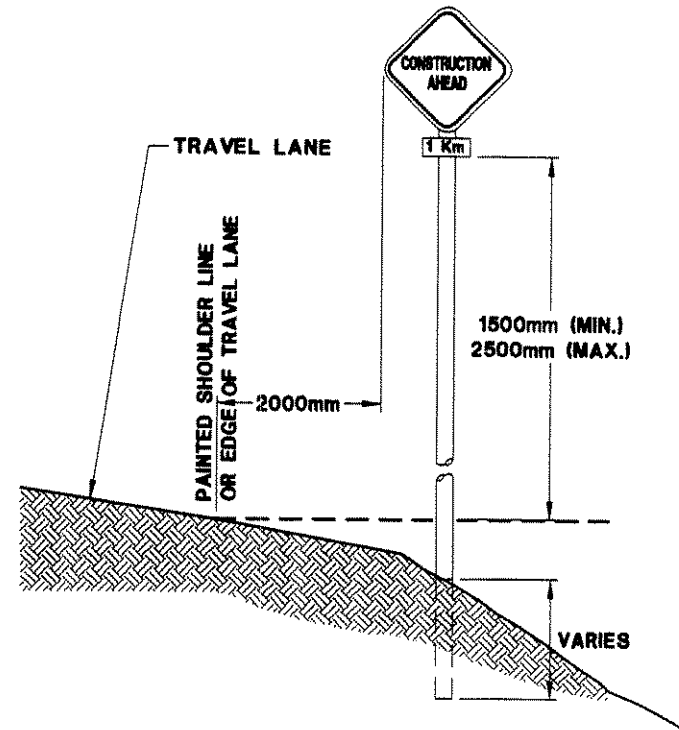


**PERMANENT
REGULATORY
OR
WARNING SIGN**



PLAN VIEW

**TEMPORARY
CONSTRUCTION
WARNING SIGN**



SPECIFICATIONS

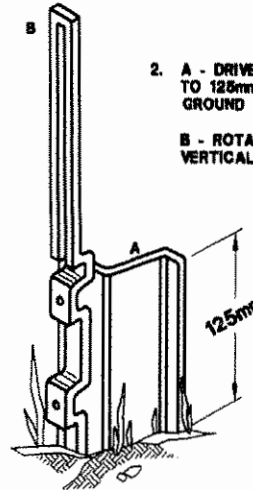
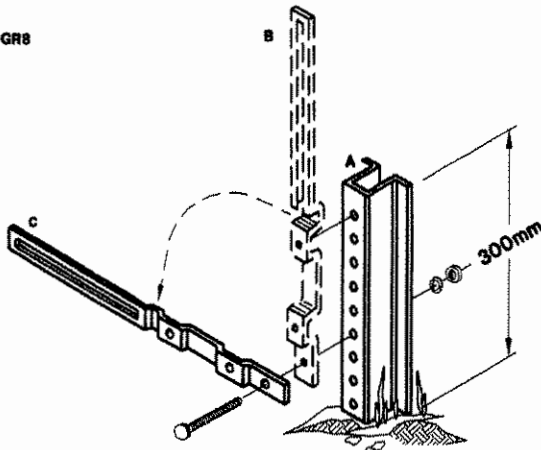
1. **MATERIALS** POSTS SHALL BE PRODUCED FROM HIGH STRENGTH RAIL STEEL ACCORDING TO CSA STANDARD SPECIFICATION G30.12, GRADE 400.
 2. **FINISH** BASE POST AND SIGN POST SHALL BE GALVANIZED, AS PER CSA STANDARD SPECIFICATION G164M.
 3. **BASE POST** THE WEIGHT OF EACH BASE POST BEFORE PUNCHING SHALL BE 2.50 lb/l. BASE POST IS TO BE PUNCHED WITH EIGHTEEN 0.438" DIAMETER HOLES ON A 1.0" CENTER, EXCEPT FOR THE FIRST AND FIFTH HOLES WHICH ARE TO BE 0.438" x 0.500" SLOTS, WITH THE HOLE BEING 1.0" FROM TOP. BASE SHALL BE POINTED AND 1.0 METRE IN LENGTH.
 4. **SIGN POST** THE WEIGHT OF EACH SIGN POST BEFORE PUNCHING SHALL BE 2.50 lb/l. SIGN POST IS TO BE PUNCHED WITH 0.438" DIAMETER HOLES ON A 1.0" CENTER, FULL LENGTH. FIRST AND LAST HOLES SHALL BE 1.0" FROM THE ENDS.
 5. **RETAINER (SPACER STRAP)** MATERIAL SHALL BE AISI 1020 STEEL GALVANIZED TO CSA STANDARD SPECIFICATION G164M, DIMENSIONS ARE AS FOLLOWS: 17.0"(L) x 1.0" (W) x 0.25"(T)
 6. **HARDWARE** BOLTS 3/8" x 16 UNC x 2.00"(L), HEX HEAD, INTEGRAL FLANGE, CONFORMING TO ASTM SPECIFICATION NUMBER A354, GRADE BD
NUTS 3/8" x 16 UNC, HEX HEAD INTEGRAL FLANGE, CONFORMING TO ASTM SPECIFICATION NUMBER A563, GRADE DH
LOCKWASHERS 3/8" EXTRA DUTY HELICAL SPRING
- NOTE: BOLTS, NUTS, AND LOCKWASHERS SHALL BE MECHANICALLY GALVANIZED.

ALL BOLTS 3/8" - 16UNC x 2" - GR8

1. **A - DRIVE BASE POST TO WITHIN 300mm OF GROUND LEVEL**

B-ATTACH RETAINER-SPACER STRAP WITH ONE 3/8" - 16 UNC x 2.0" BOLT, NUT AND LOCKWASHER THROUGH BOTTOM HOLE OF STRAP AND SIXTH HOLE OF BASE POST. SMALL TOP SLOT OF STRAP SHOULD LINE UP WITH TOP HOLE IN BASE POST

C-ROTATE STRAP 90° TO LEFT

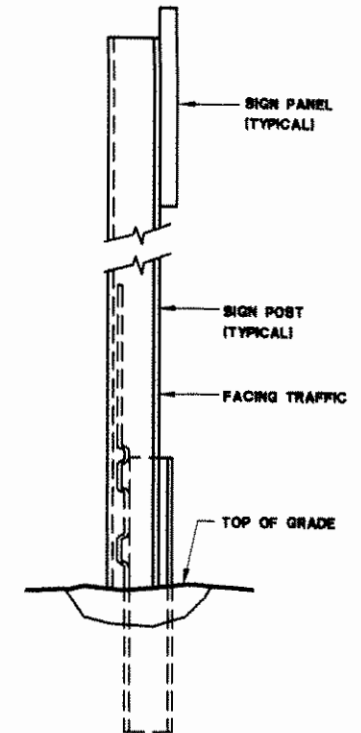
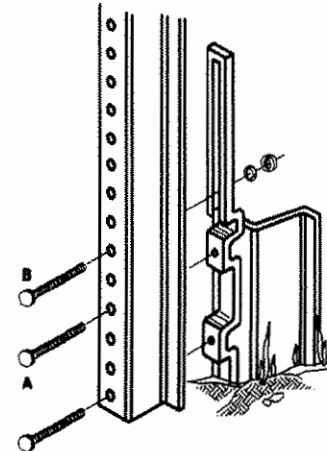


2. **A - DRIVE BASE POST TO 125mm ABOVE GROUND**

B - ROTATE STRAP TO VERTICAL POSITION

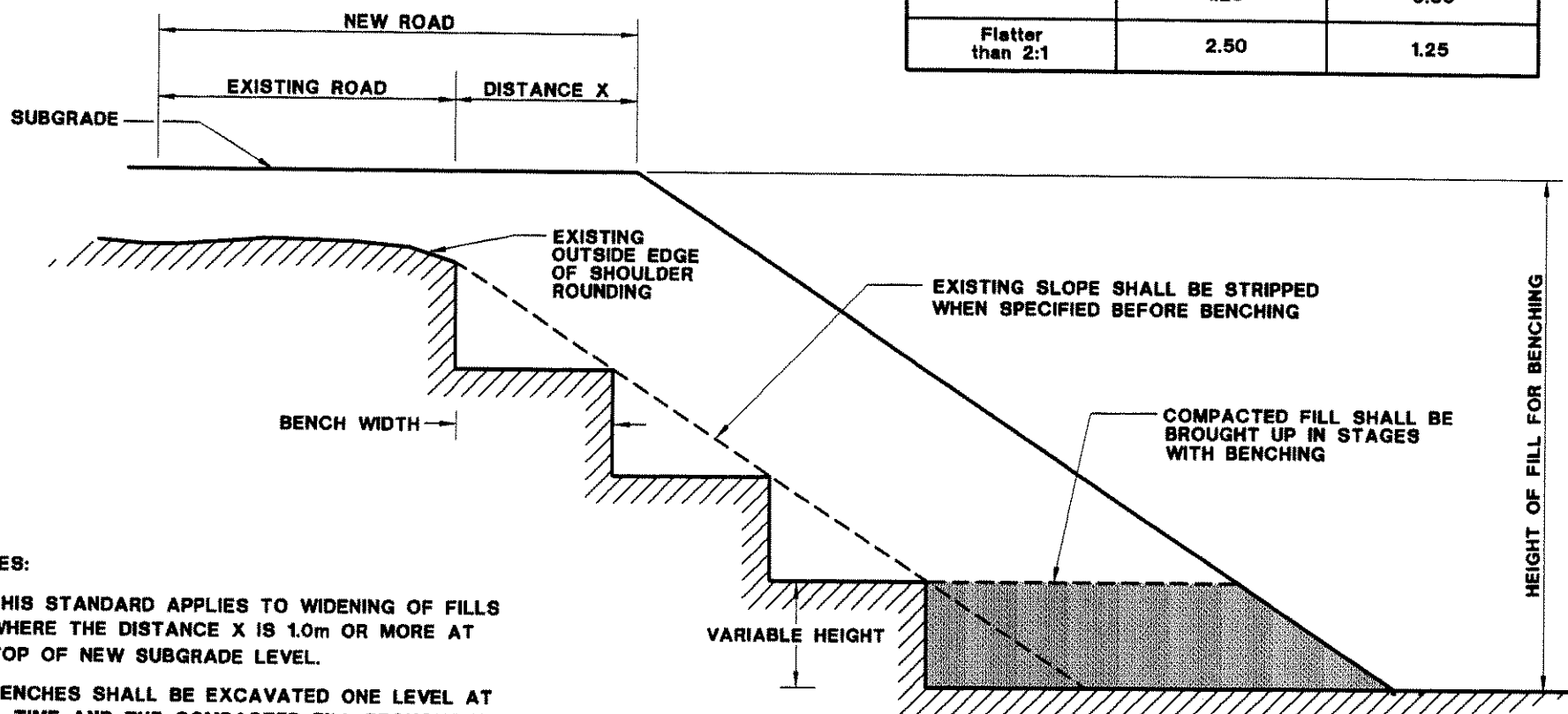
3. **A - ATTACH SIGN POST WITH TWO 3/8" - 16 UNC x 2.0" BOLTS, NUTS, AND LOCKWASHERS IN BOTTOM AND FIFTH HOLES. (THESE CORRESPOND WITH SMALL SLOTS IN STRAP.)**

B - INSERT ONE 3/8" - 16 UNC x 2.0" BOLT THROUGH SIGN POST AND BOTTOM ON LONG SLOT IN STRAP. TIGHTEN NUT AND LOCKWASHER SNUGLY BEFORE COMPLETELY TIGHTENING MIDDLE BOLTS.



WIDTH OF BENCHES (m)

EXISTING SLOPES	FILLS OF 3.5m OR GREATER	FILLS LESS THAN 3.5m
2:1	1.25	0.80
Flatter than 2:1	2.50	1.25



NOTES:

- A) THIS STANDARD APPLIES TO WIDENING OF FILLS WHERE THE DISTANCE X IS 1.0m OR MORE AT TOP OF NEW SUBGRADE LEVEL.
- B) BENCHES SHALL BE EXCAVATED ONE LEVEL AT A TIME AND THE COMPACTED FILL BROUGHT UP BEFORE THE NEXT BENCHING LEVEL IS EXCAVATED.
- C) ALL DIMENSIONS ARE SHOWN IN METRES UNLESS OTHERWISE SHOWN.

SD-300-06-01

BENCHING FOR
EMBANKMENT WIDENING

Date: DEC 1995

Revised: APRIL 2005

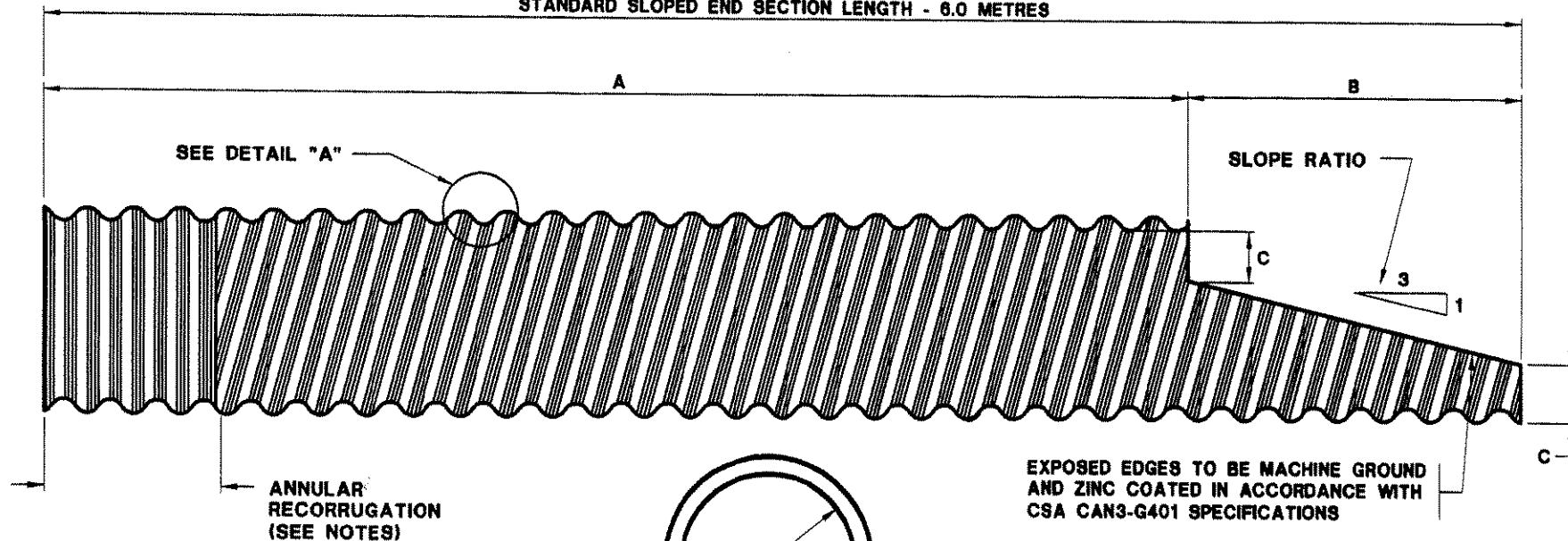
Approved


Director
Highways Division

APR 21 2005

Date

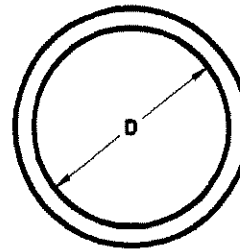
STANDARD SLOPED END SECTION LENGTH - 6.0 METRES



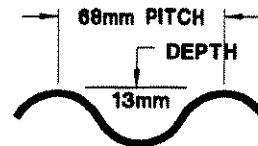
EXPOSED EDGES TO BE MACHINE GROUND
AND ZINC COATED IN ACCORDANCE WITH
CSA CAN3-G401 SPECIFICATIONS

NOTES:

- 1) THE SUPPLY AND FABRICATION OF ALL GALVANIZED CORRUGATED STEEL PIPE (C.S.P.) SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CANADIAN STANDARDS ASSOCIATION CAN3-G401 SPECIFICATIONS.
- 2) ON PIPE DIAMETERS OF 1000mm OR GREATER, LOCK SEAMS TERMINATING AT THE CUT EDGES OF SLOPES OR SQUARE ENDED SECTIONS SHALL HAVE A 50mm LENGTH FILLET WELD RUN ALONG THE LOCK SEAM AT EACH CUT EDGE.
- 3) THE HELICALLY CORRUGATED PIPE SHALL HAVE THE PIPE ENDS RECORRUGATED TO PROVIDE ANNULAR CORRUGATIONS FOR COUPLING PURPOSES (AS SHOWN). THE MINIMUM LENGTH WITH ANNULAR CORRUGATIONS SHALL BE 300mm FOR PIPE DIAMETERS OF 900mm OR LESS AND 600mm FOR PIPE DIAMETERS GREATER THAN 900mm.
- 4) THE COUPLER SHALL BE AN ANNULAR CORRUGATED BAND TYPE WITH A MINIMUM OF 3 BOLTS PER COUPLER FOR PIPE DIAMETERS OF 800mm OR GREATER.



END SECTION

DETAIL "A"
CORRUGATION PROFILE

INSIDE DIAMETER 'd' mm	SLOPE RATIO X:Y	"A" Metre	"B" Metre	"C" mm	WALL THICKNESS mm
600	3:1	5.10	0.90	150	2.8
700	3:1	4.80	1.20	150	2.8
800	3:1	4.80	1.20	200	2.8
900	3:1	4.50	1.50	200	2.8
1000	3:1	4.35	1.65	225	2.8
1100	3:1	4.05	1.95	225	2.8
1200	3:1	3.75	2.25	225	2.8
≥1500	3:1	3.00	3.00	250	3.5

SD-400-01-51

STANDARD SLOPED END SECTIONS
(C.S.P. ROUND CULVERTS)

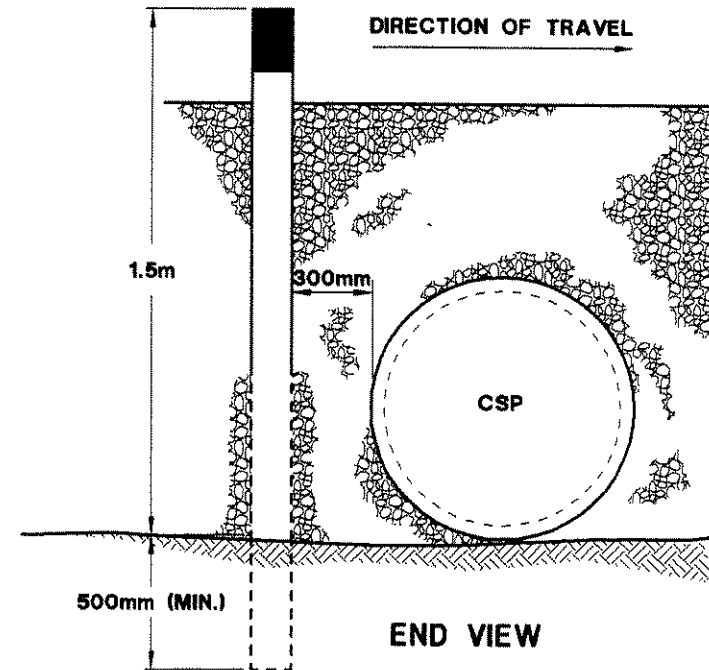
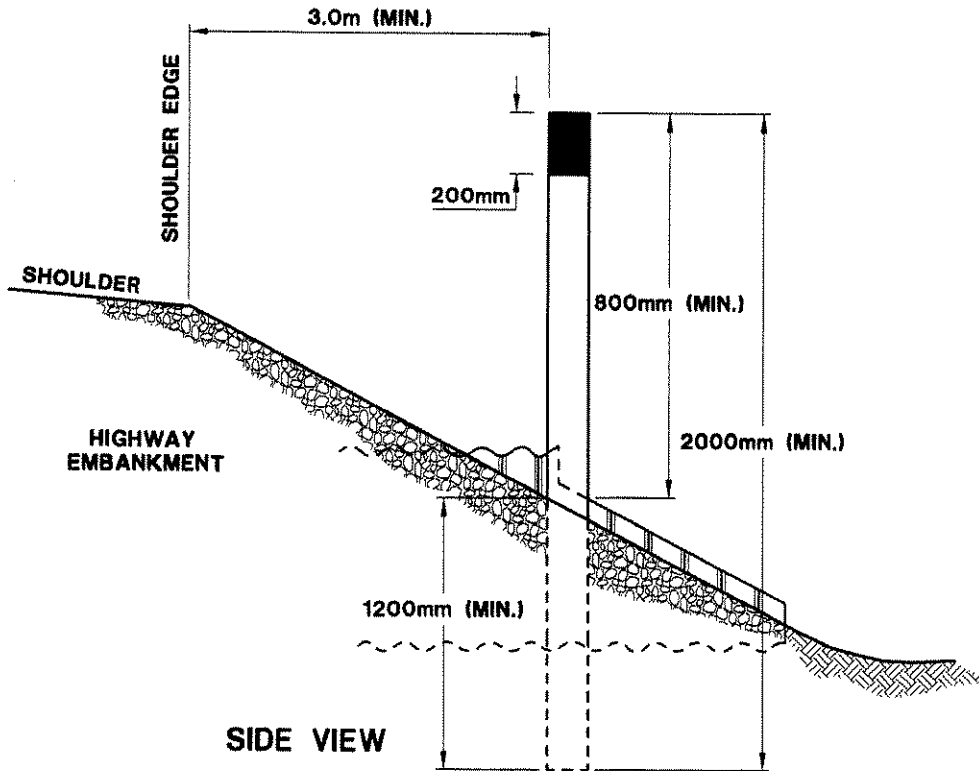
Date: DEC. 1995

Revised: APRIL 2005

Approved

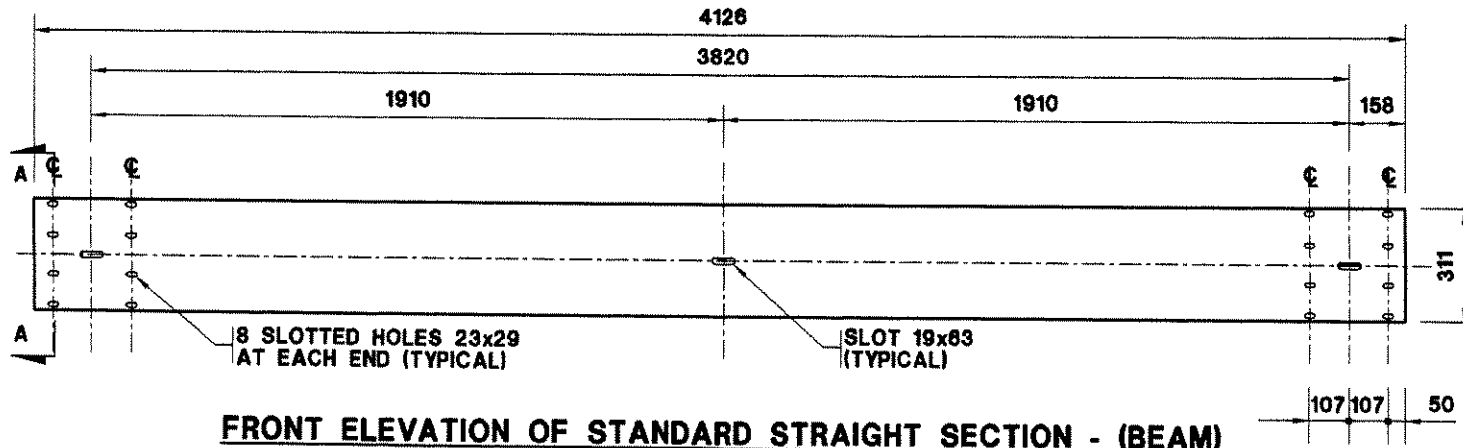
Director
Highways Division

APR 21 2005
Date

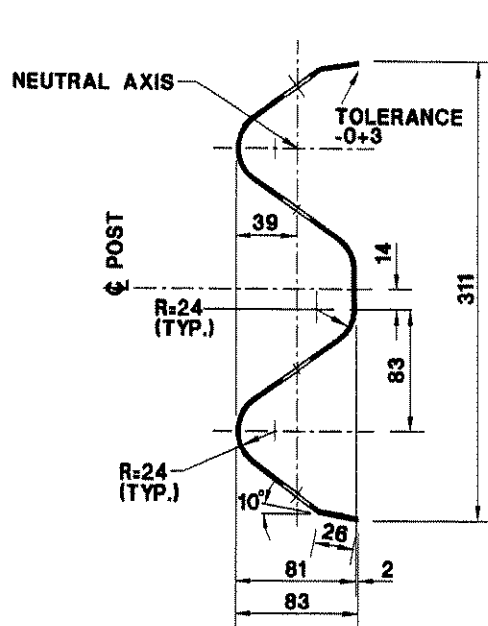
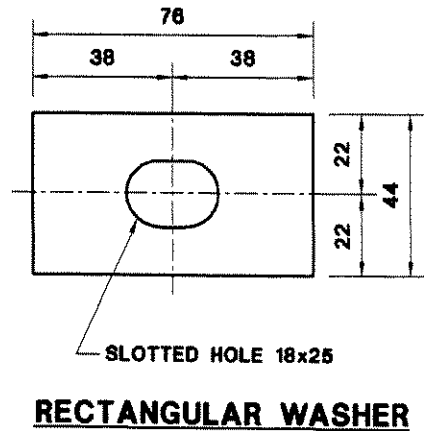


NOTE:

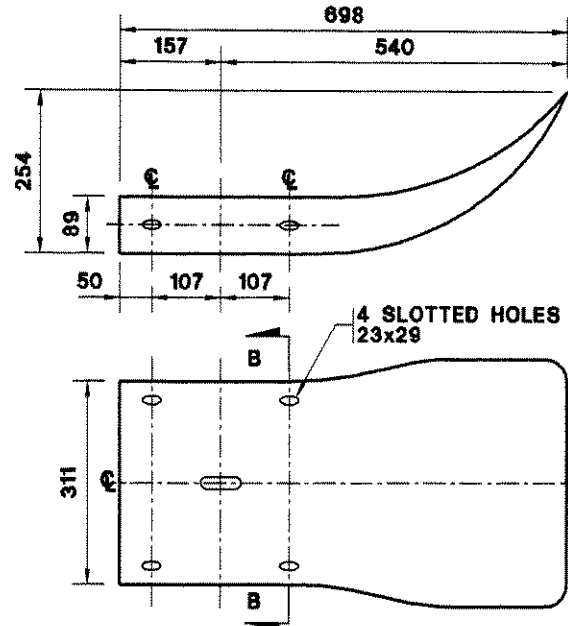
- MARKER POSTS SHALL BE 100mm(4") x 100mm(4") x 2000mm (MIN.) LONG.
- COLOR: WHITE WITH BLACK TOP (200mm).
- MARK ALL THROUGH GRADE STRUCTURES THAT HAVE A VERTICAL HEIGHT OF 2 METRES OR LESS.
- PLACE MARKER 300mm FROM THE CULVERT ON THE LEFT SIDE (WHEN FACING END OF CULVERT).
- MARKER MUST BE AT LEAST 3.0m FROM SHOULDER EDGE.



FRONT ELEVATION OF STANDARD STRAIGHT SECTION - (BEAM)



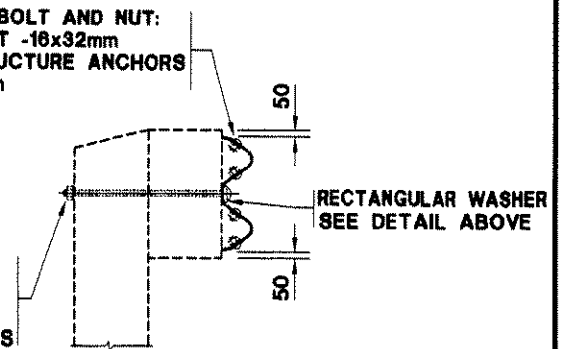
ENLARGED SECTION A-A
(SECTION B-B, SIMILAR)



STANDARD WING TERMINAL SECTION

SPLICE BOLT AND NUT:
AT POST - 16x32mm
AT STRUCTURE ANCHORS
16x38mm

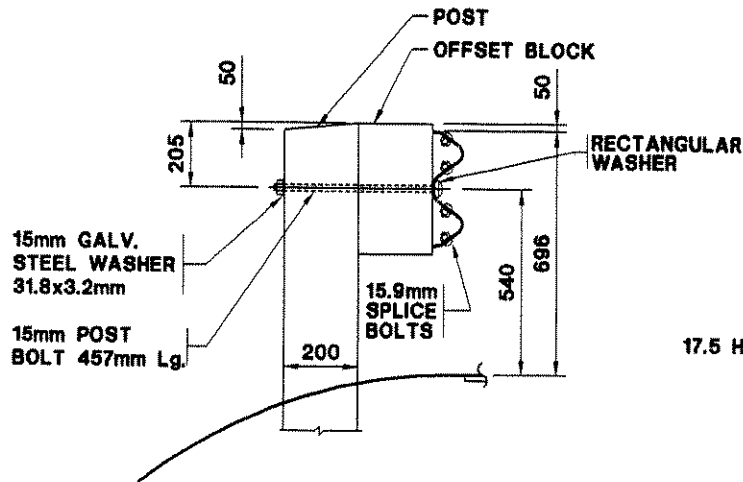
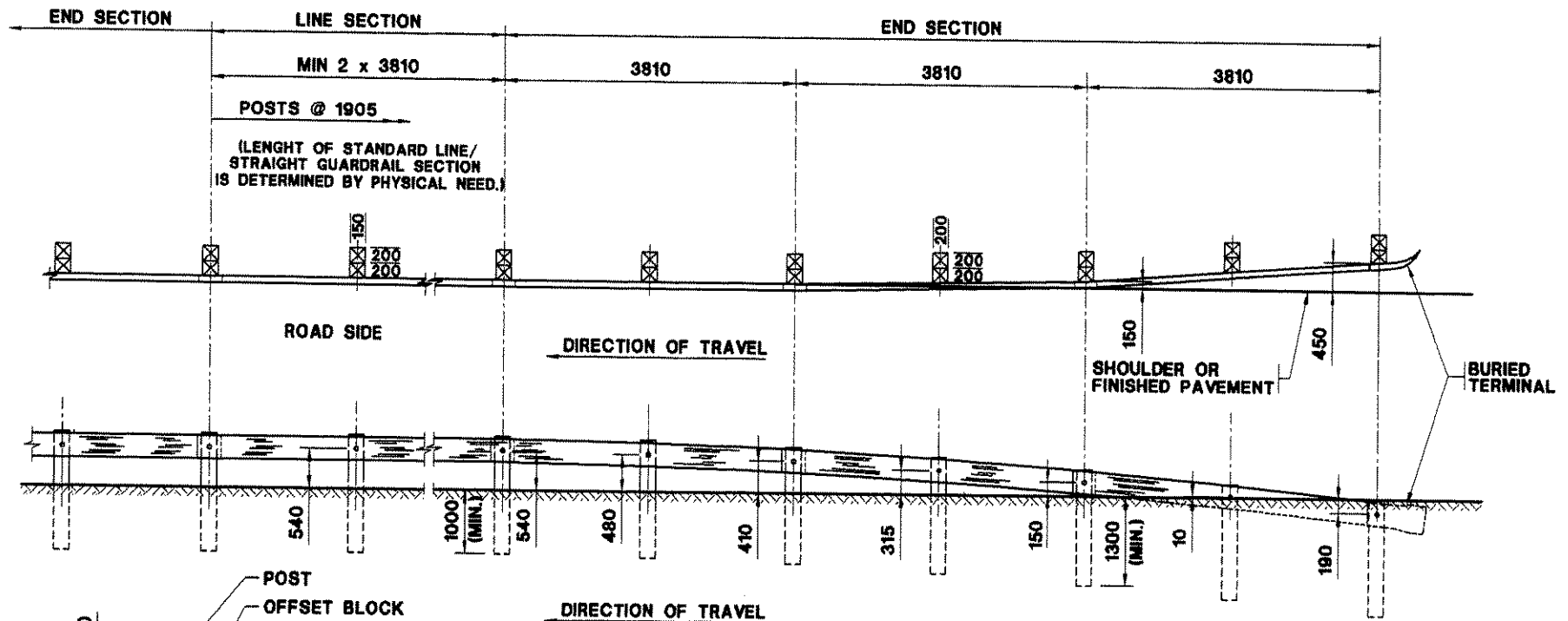
POST BOLT, NUT
AND WASHERS
AS DIRECTED ON
ASSEMBLY DRAWINGS



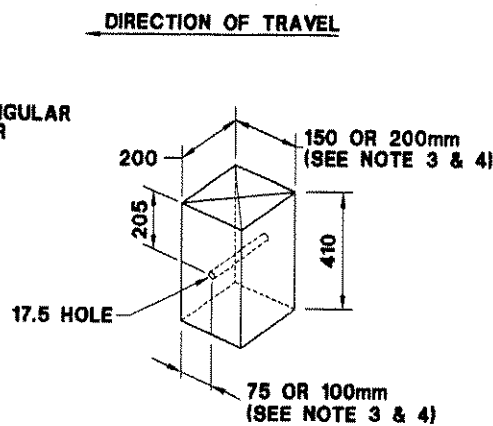
ARRANGEMENT AT POST

NOTE:

1. THICKNESS OF RAIL TO BE 2.8mm, THICKNESS OF RECTANGULAR WASHER TO BE 4.0mm.
2. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES UNLESS OTHERWISE INDICATED.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.



POST DETAIL



OFFSET BLOCK DETAIL

NOTES:

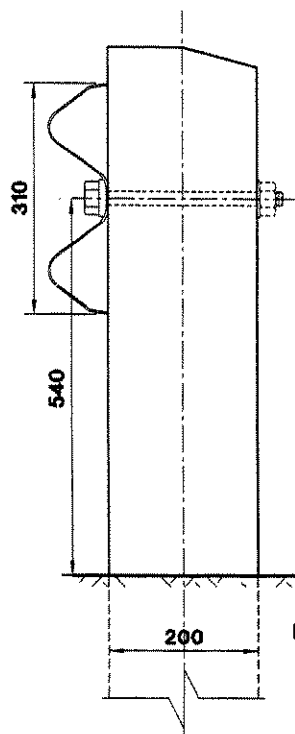
1. END POSTS 200mm x 200mm
2. LINE POSTS 150mm x 200mm
3. OFFSET BLOCKS FOR END POSTS 200mm x 200mm x 410mm
4. OFFSET BLOCKS FOR LINE POSTS 150mm x 200mm x 410mm
5. ALL MEASUREMENTS IN MILLIMETRES
6. ALL JOINTS TO BE LAPPED IN THE DIRECTION OF TRAFFIC
7. BURIED TERMINALS ARE TO BE USED AT BOTH ENDS OF GUARDRAIL

STEEL BEAM GUARDRAIL

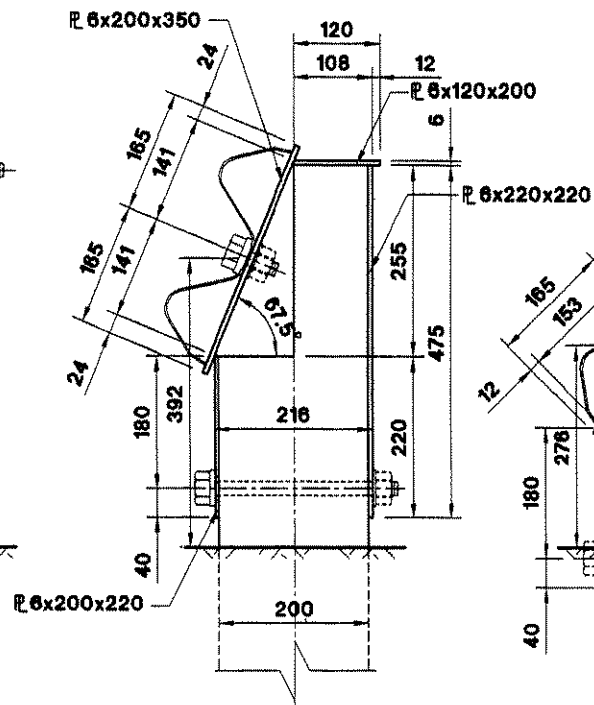
STD. TERMINAL SECTION

PLACE NATIVE/
GRANULAR BACKFILL

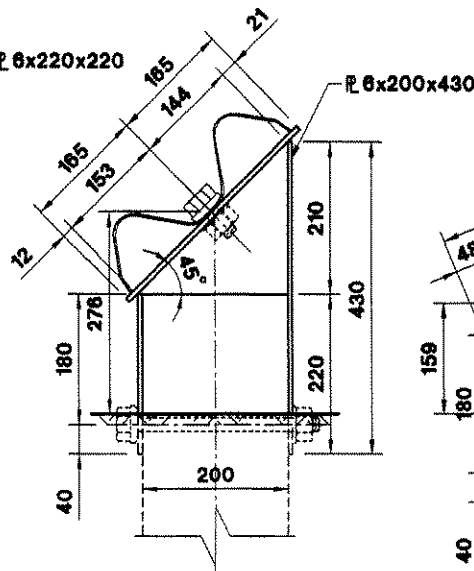
SECTION A-A



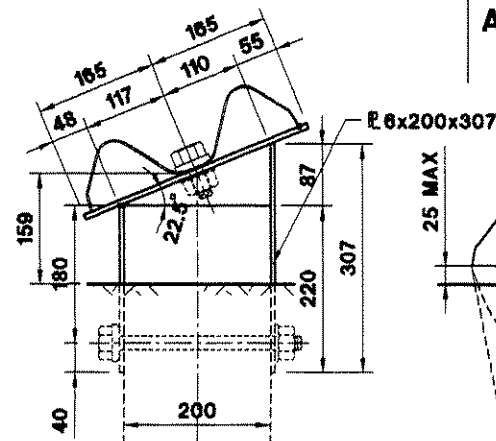
DETAIL "A"



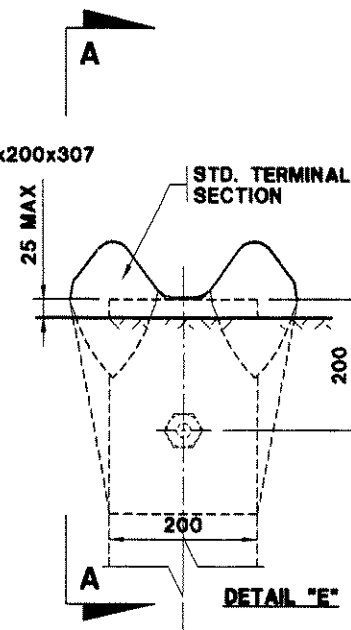
DETAIL "B"



DETAIL "C"



DETAIL "D"



DETAIL "E"

NOTES

1. ALL TIMBERS ARE 200 x 200 EXCEPT AS NOTED



Northwest
Territories Transportation

SD-700-04-04

STEEL W-BEAM GUARDRAIL
POST CAP DETAILS

Date: JULY 1998

Revised: MARCH 2002

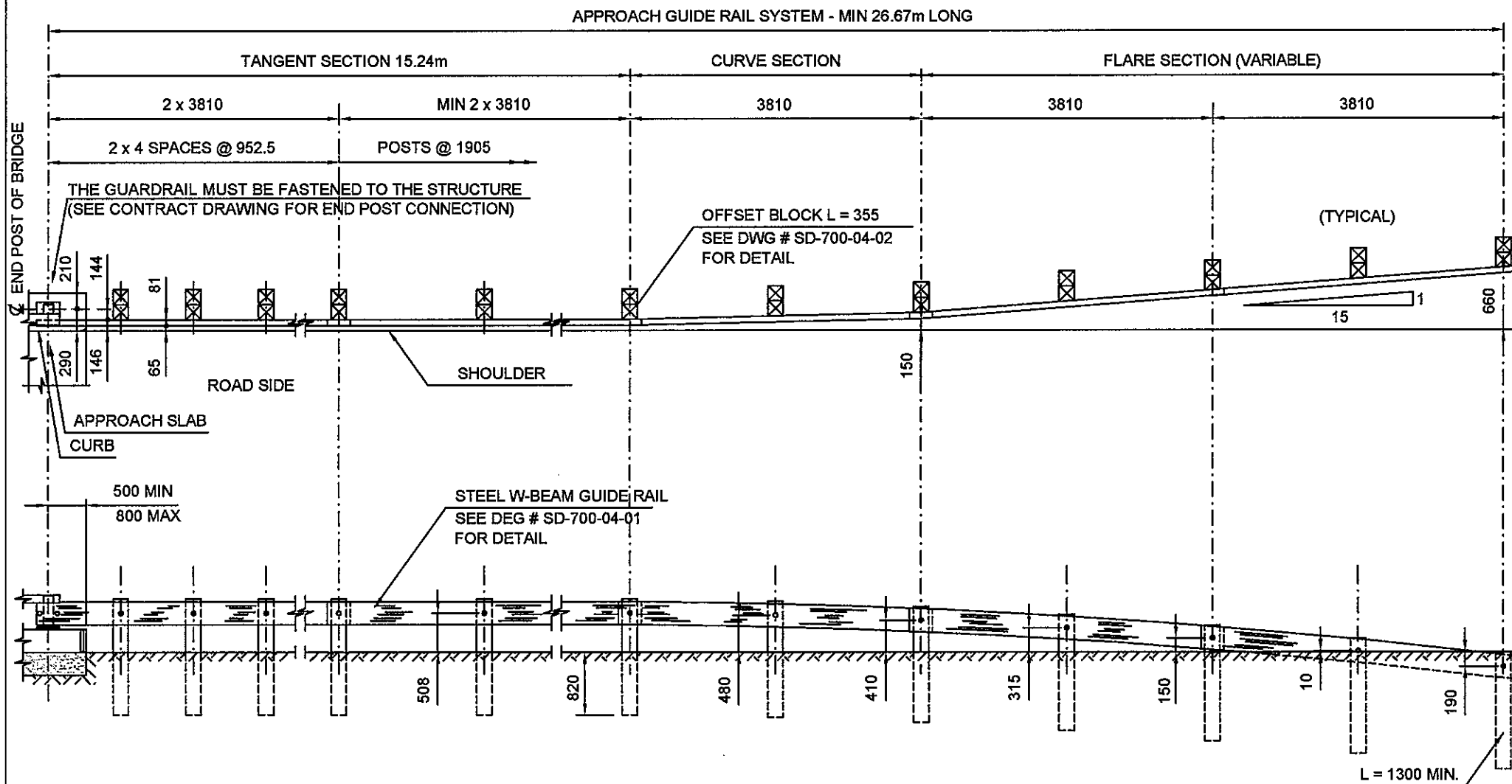
Approved

K. H. H. H.

Director
Highways Division

APR 21 2005

Date



- NOTES**
1. ALL TIMBERS ARE 150 x 200 x 1500 EXCEPT AS NOTED
 2. ALL LAPS TO BE MADE IN DIRECTION OF TRAFFIC
 3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.



Northwest
Territories Transportation

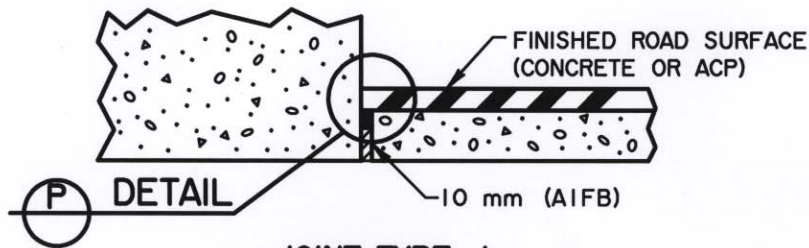
SD-700-04-05
STEEL W-BEAM GUARDRAIL
PLACEMENT AT BRIDGE APPROACHES
(TWO-LANE TRAFFIC)

Date: APRIL 2007

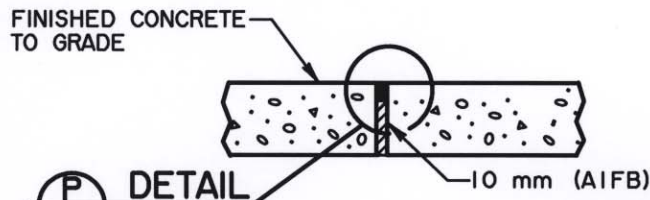
Revised:

Approved
K. H. [Signature]
Director
Highways Division

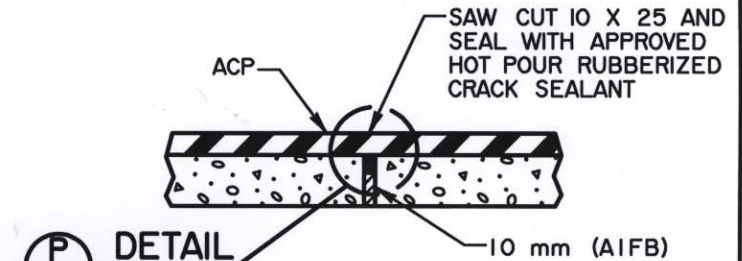
21/11/07
Date



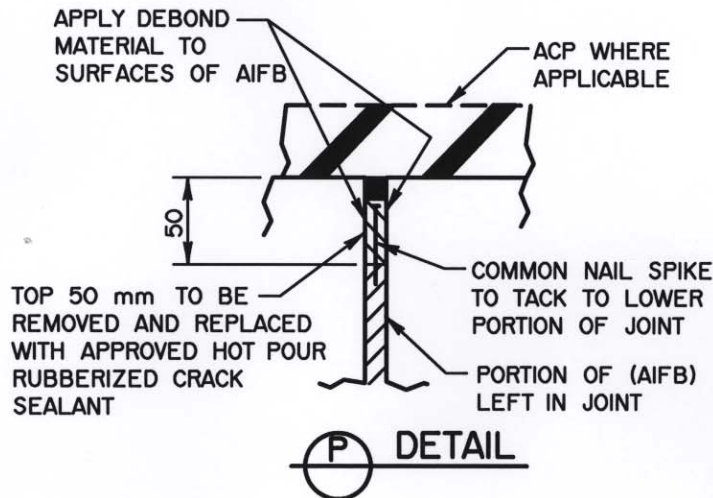
JOINT TYPE 1



JOINT TYPE 2 - CONCRETE GRADE



JOINT TYPE 2 - ACP GRADE



JOINT TYPE 3

GENERAL NOTES

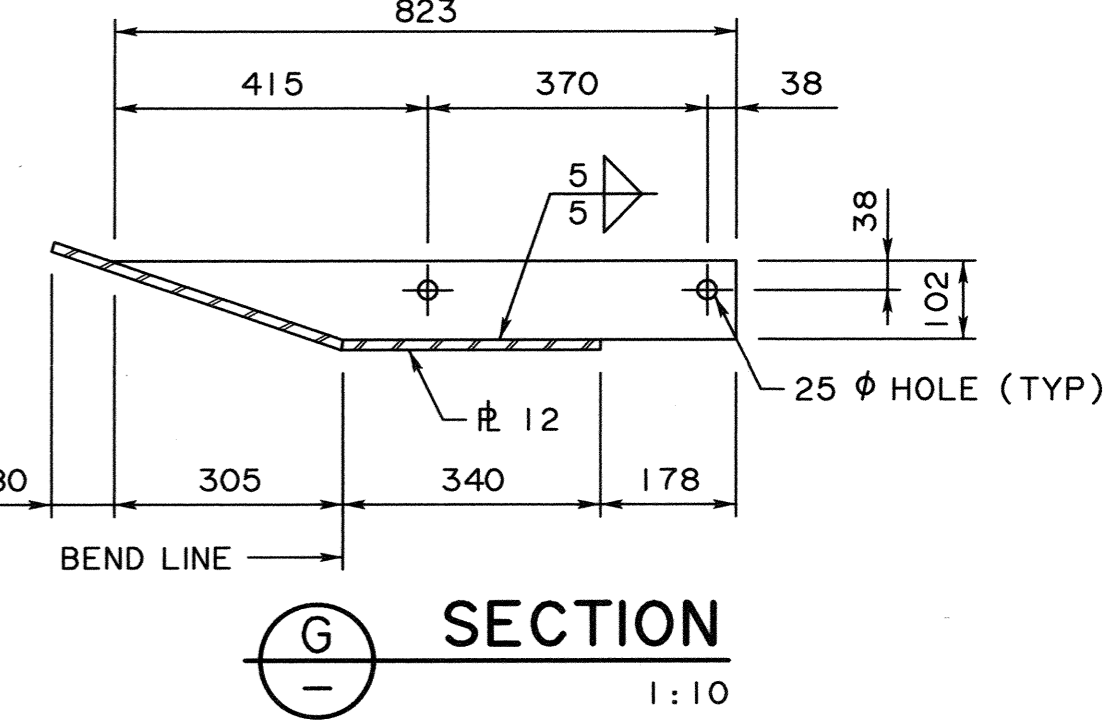
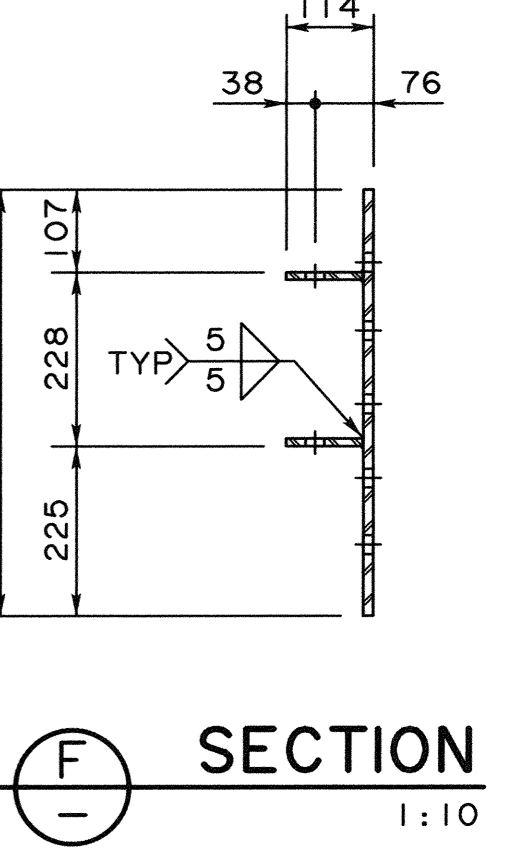
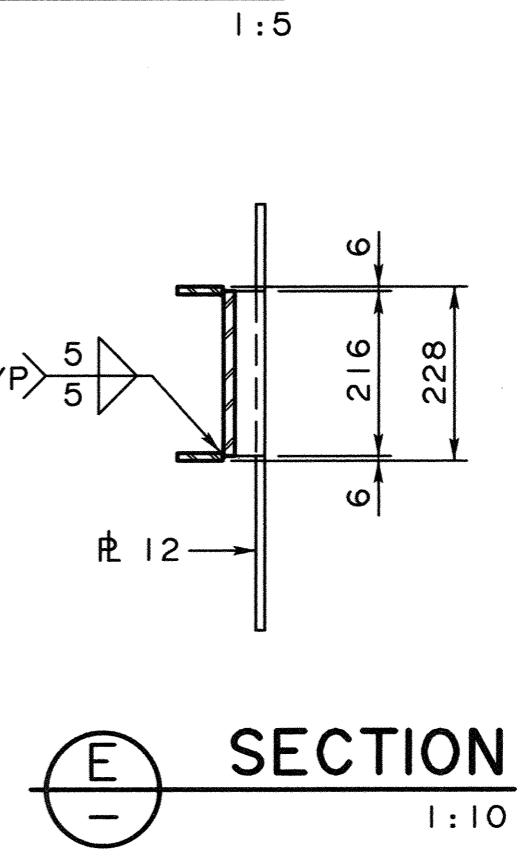
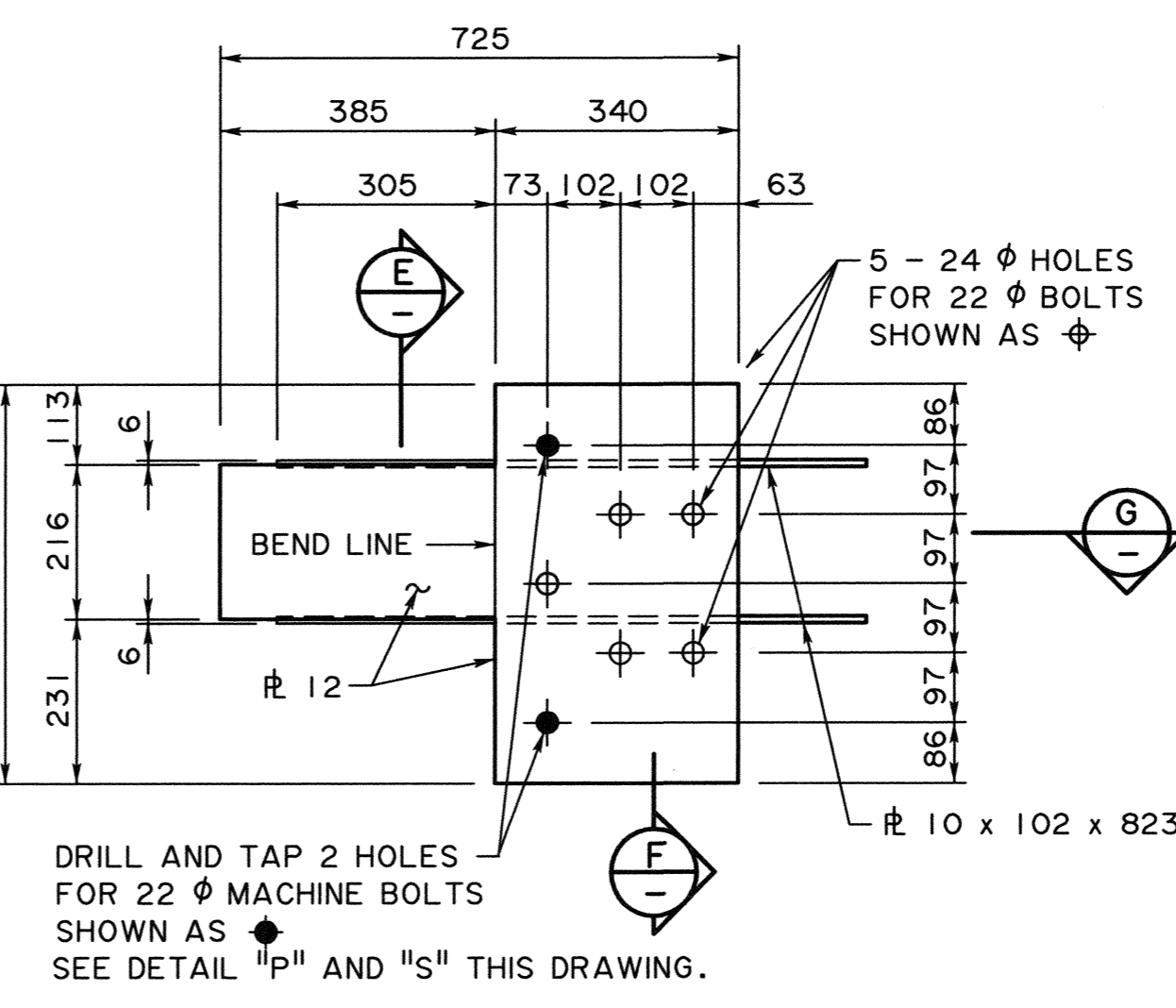
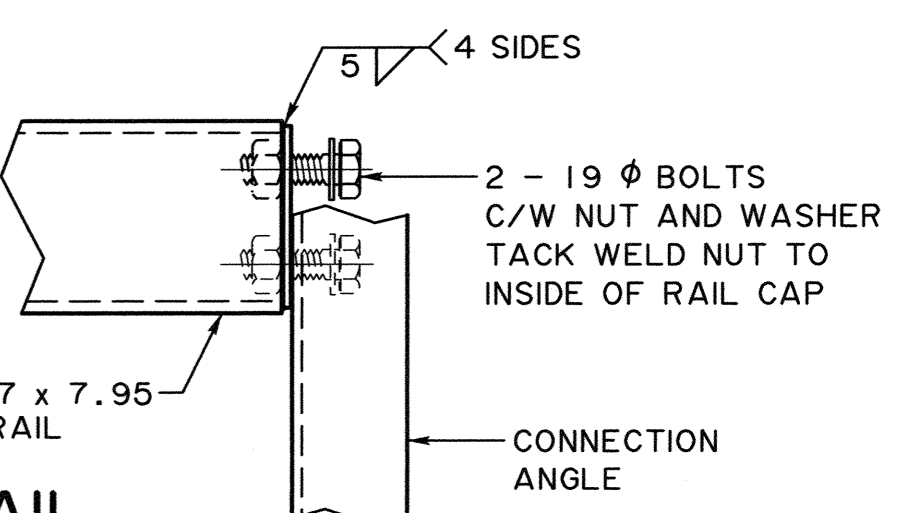
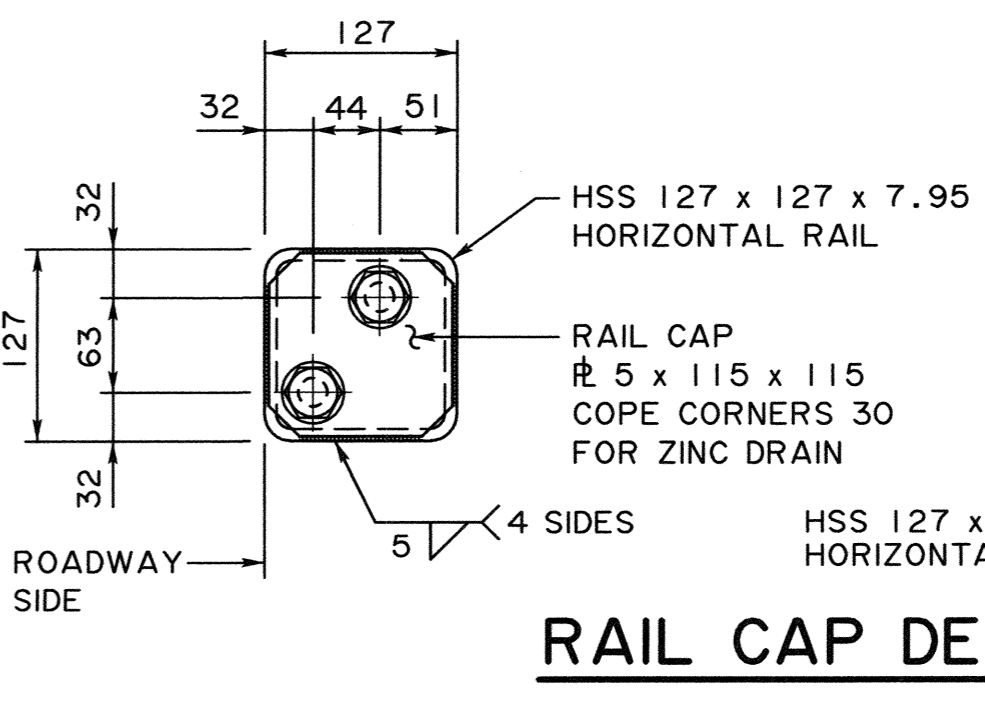
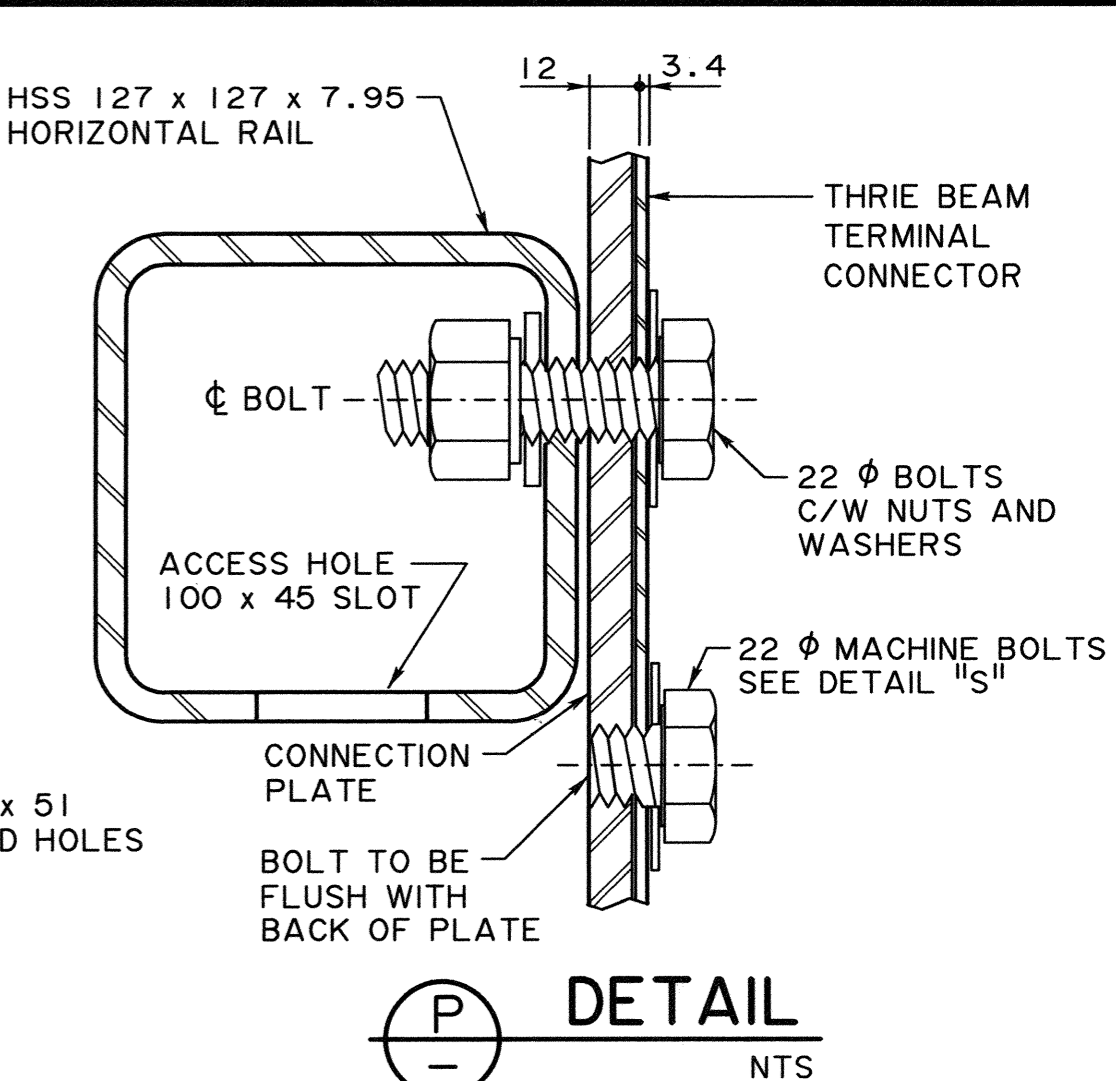
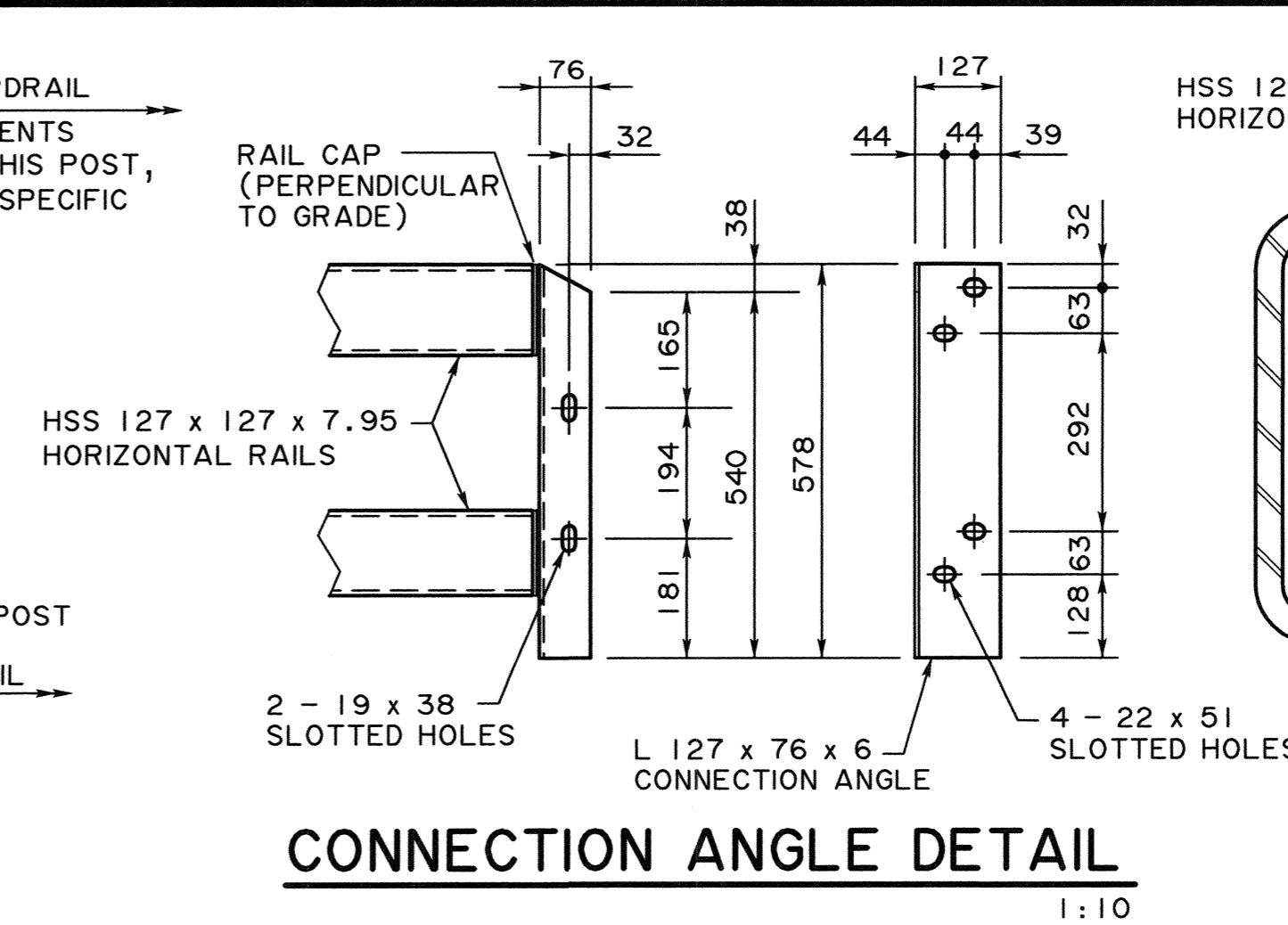
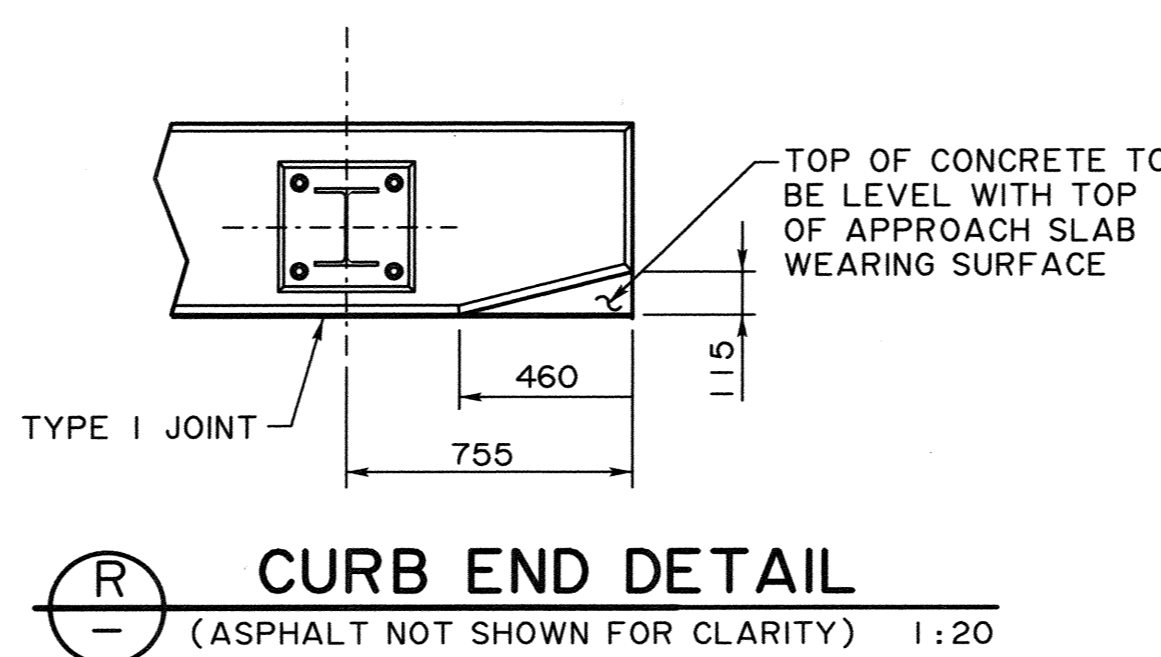
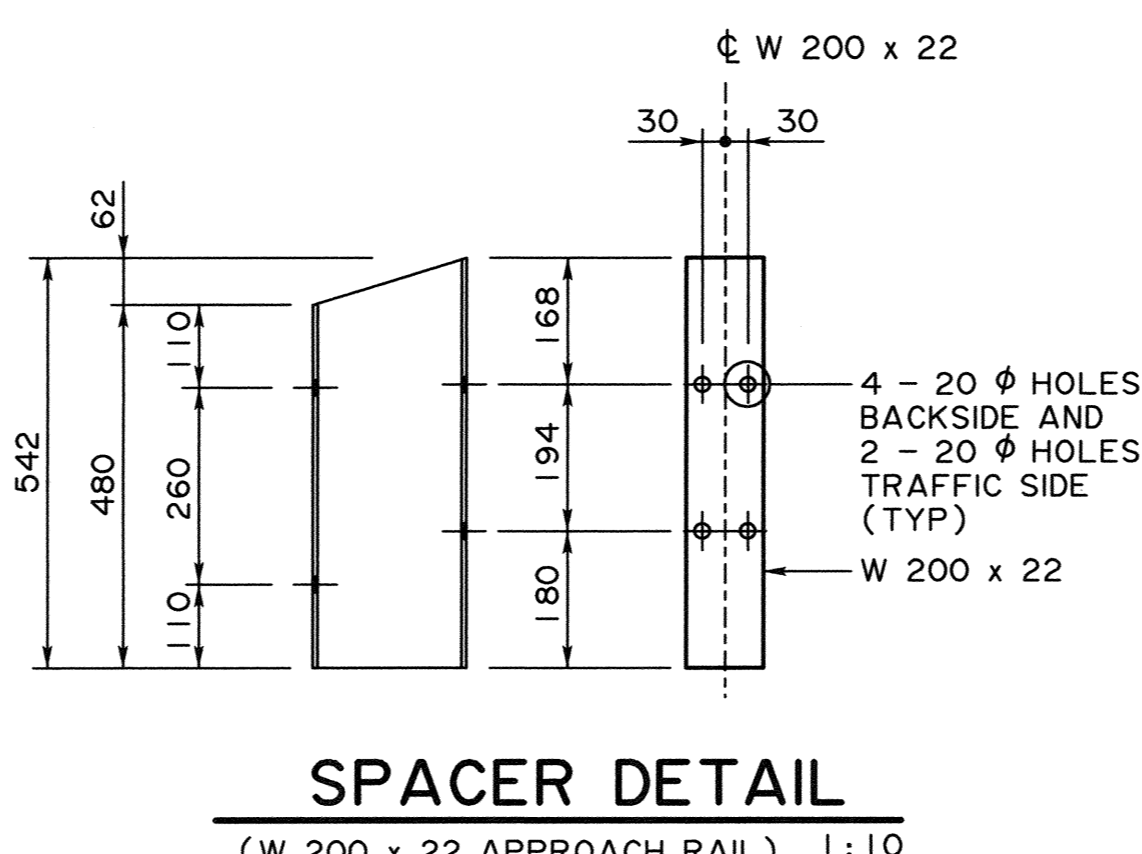
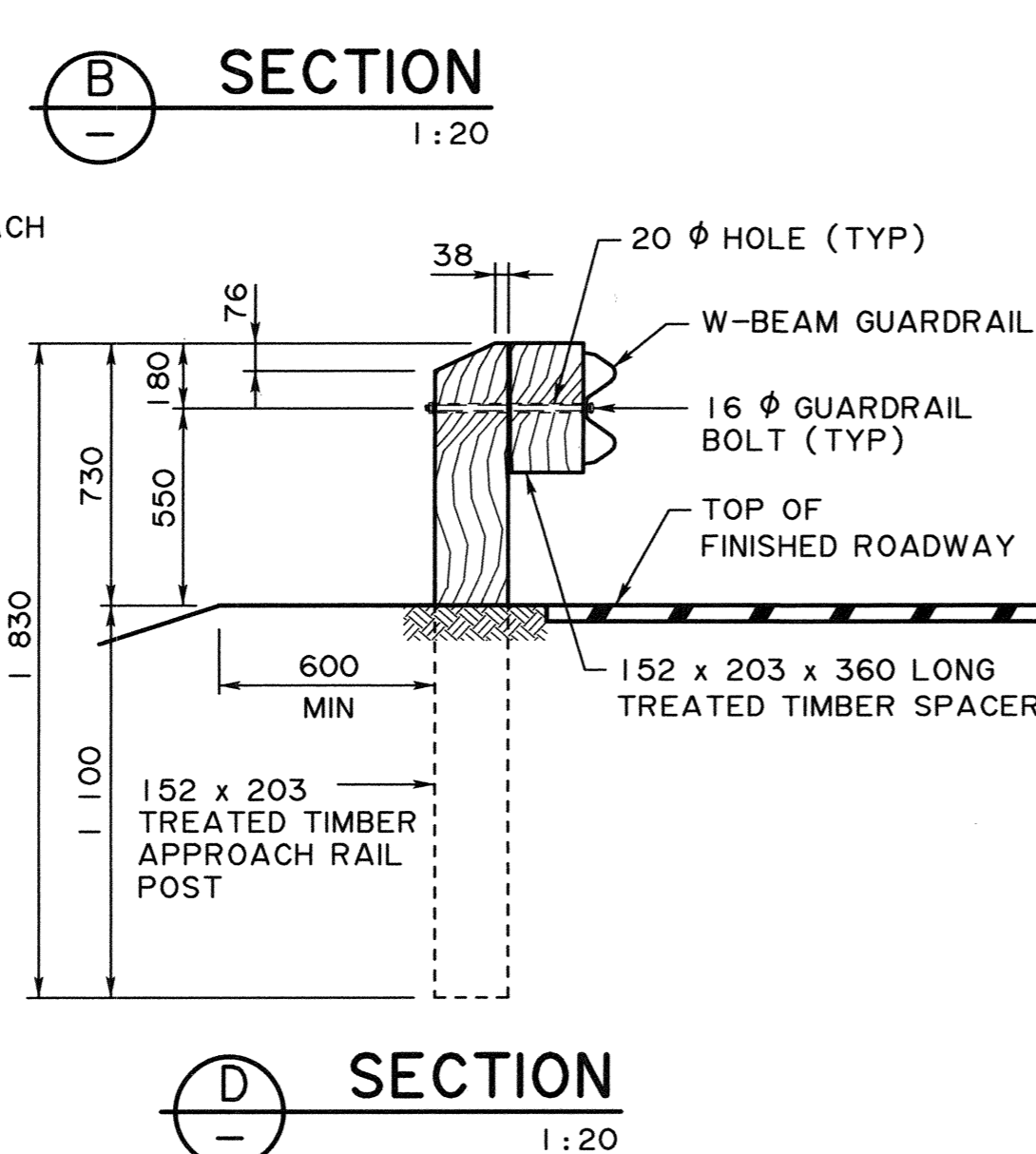
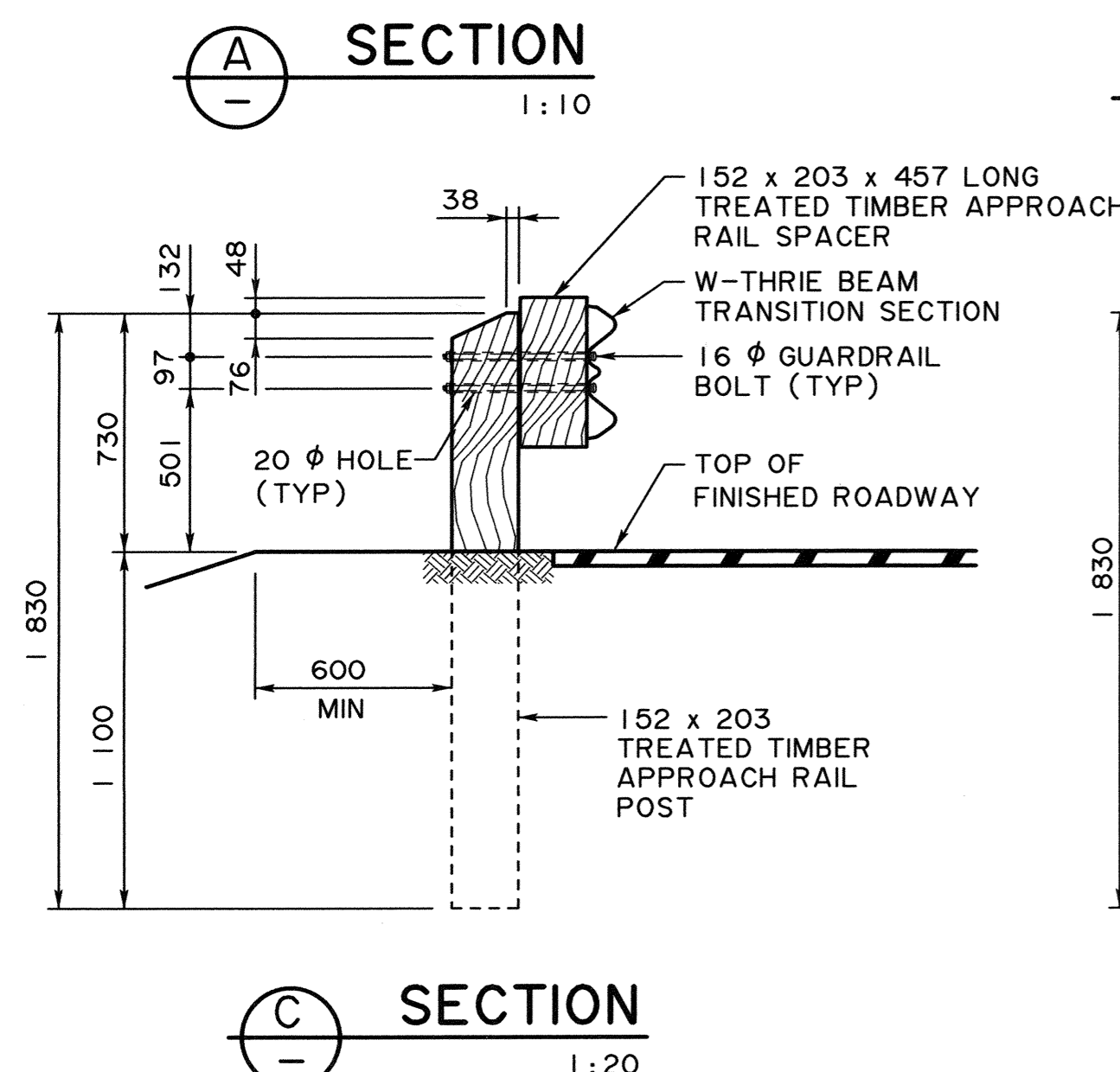
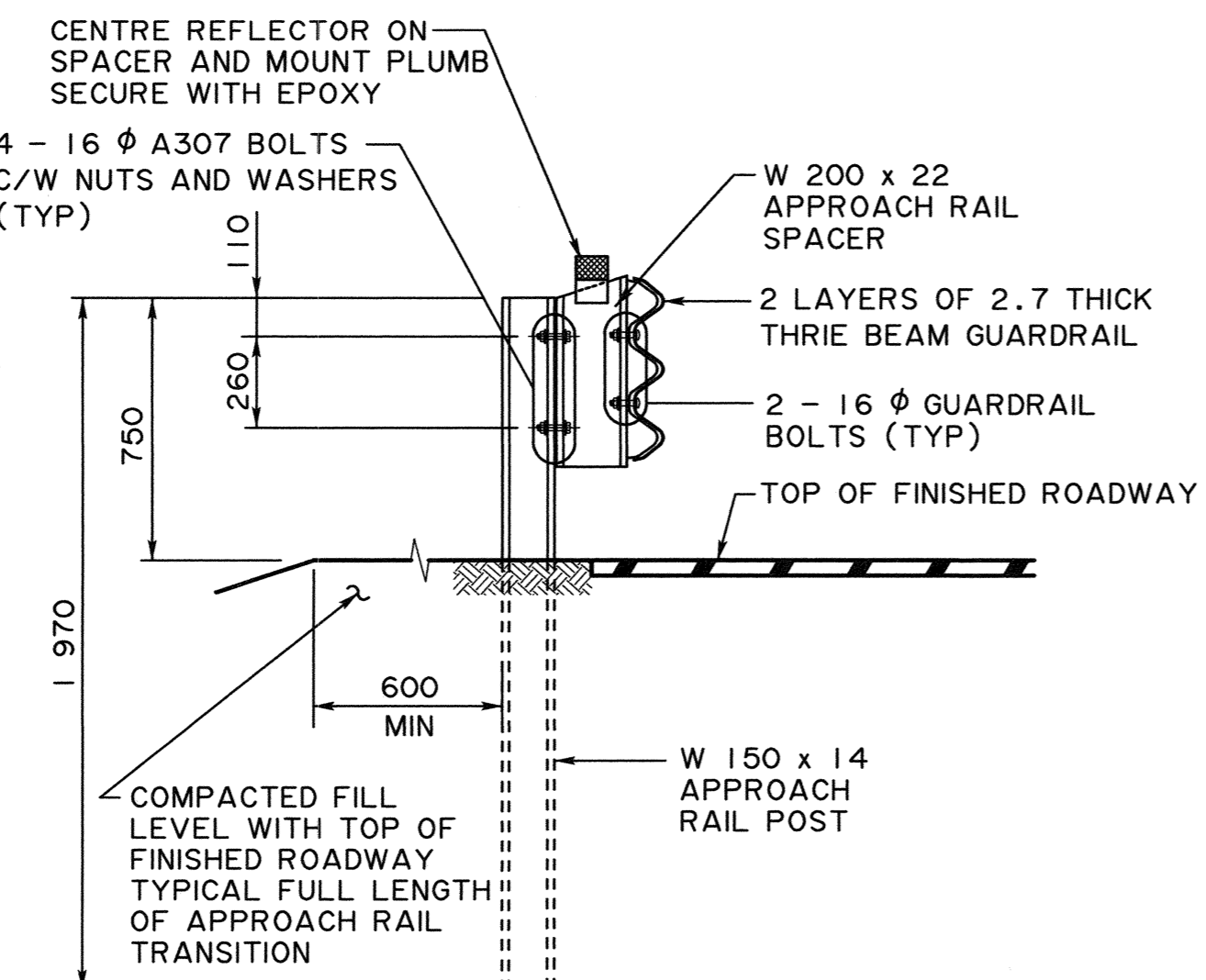
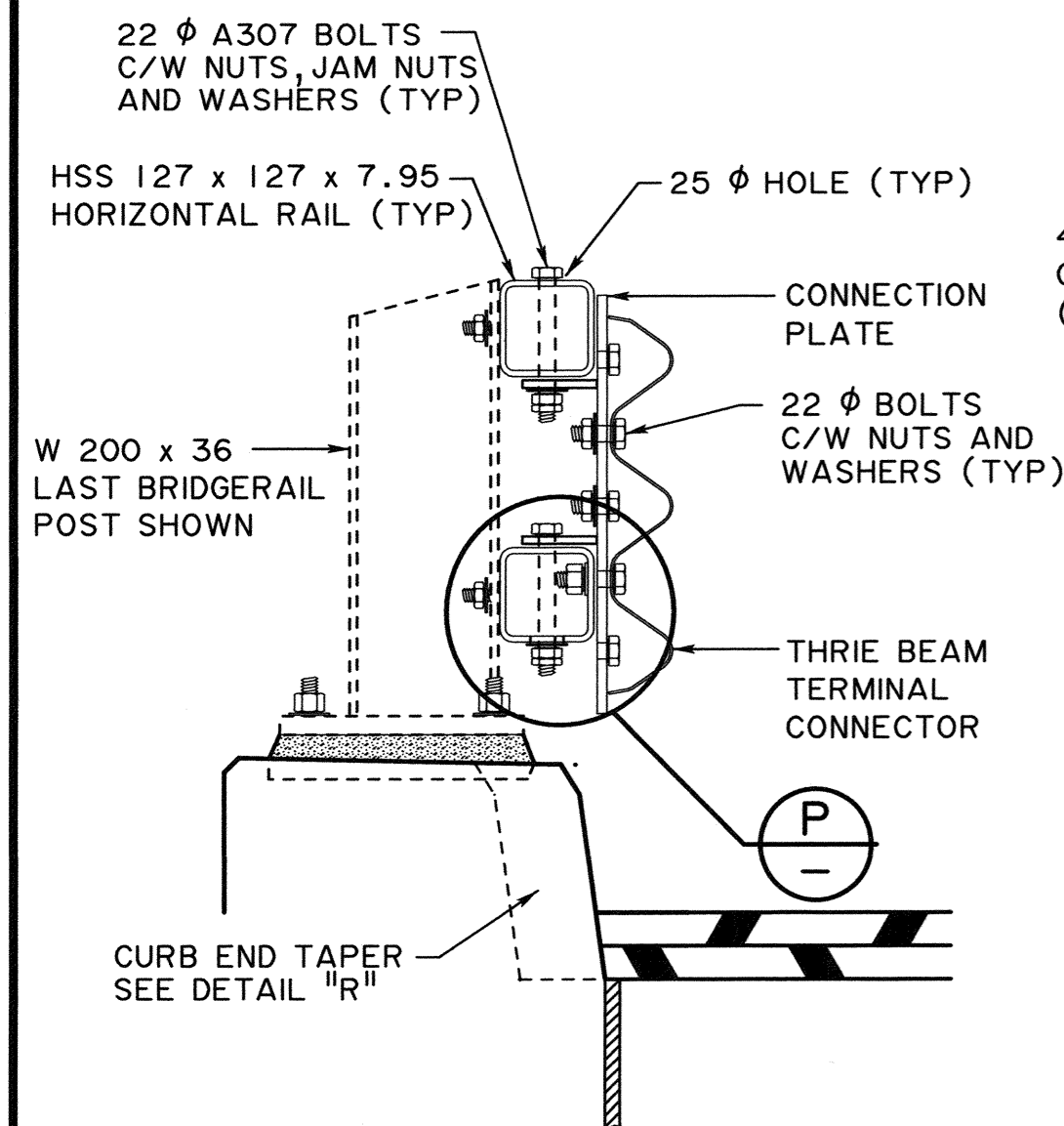
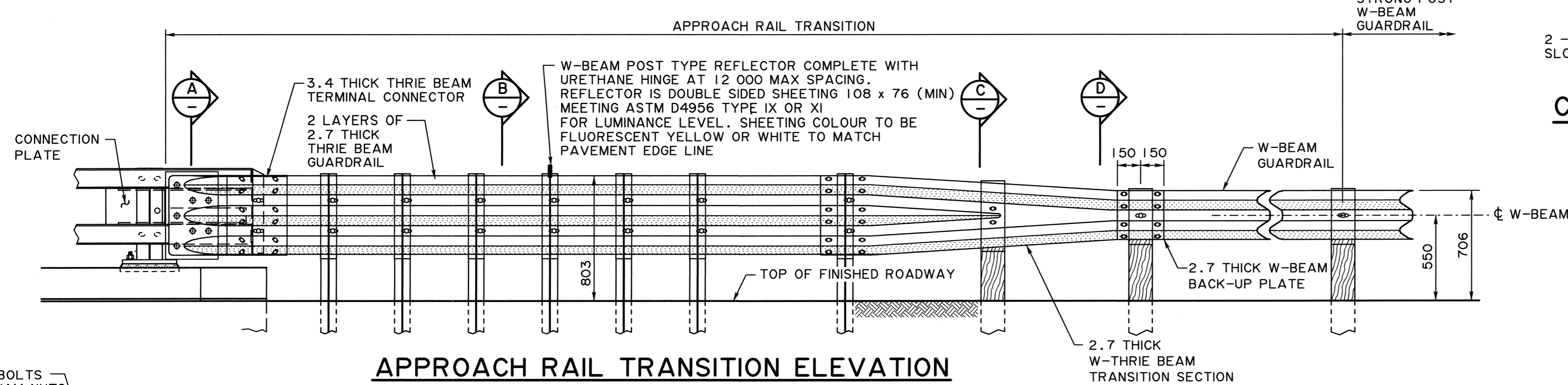
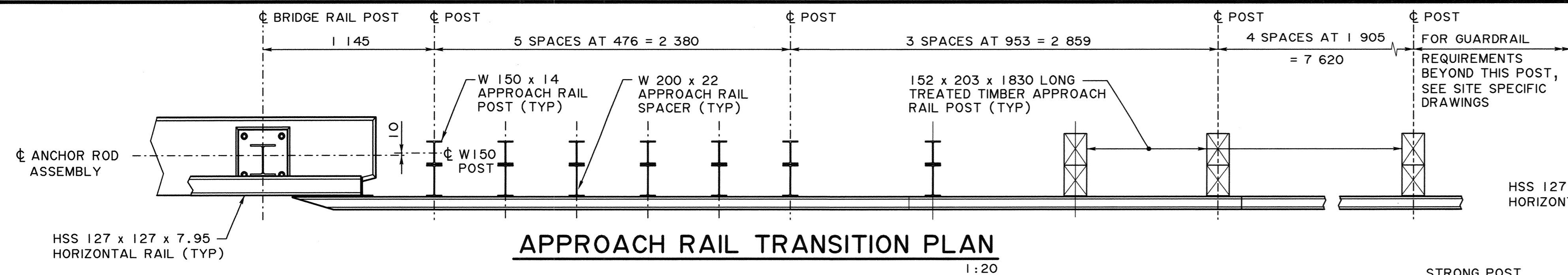
- DIMENSIONS ARE GIVEN IN mm. DETAILS ARE NOT TO SCALE.
- ASPHALT IMPREGNATED FIBREBOARD (AIFB) SHALL CONFORM TO THE CURRENT ASTM SPECIFICATION D1751 FOR PREFORMED EXPANSION JOINT FILLERS.

6	2011-11-01	GENERAL ACP DETAILS	CM
5	2003-04-17	REVISED JOINTS TO INCLUDE ACP SURFACE	RY
4	99-04-14	REVISED JOINT 3	RY
3	99-03-29	BEB CHANGED TO TSB	RY
2	94-11-30	PAGE NUMBER	RJR
1	87-03-04	REDRAWN FROM S-1411	DHQ
NO	DATE	REVISIONS	BY

Alberta TRANSPORTATION AND UTILITIES
TECHNICAL STANDARDS BRANCH

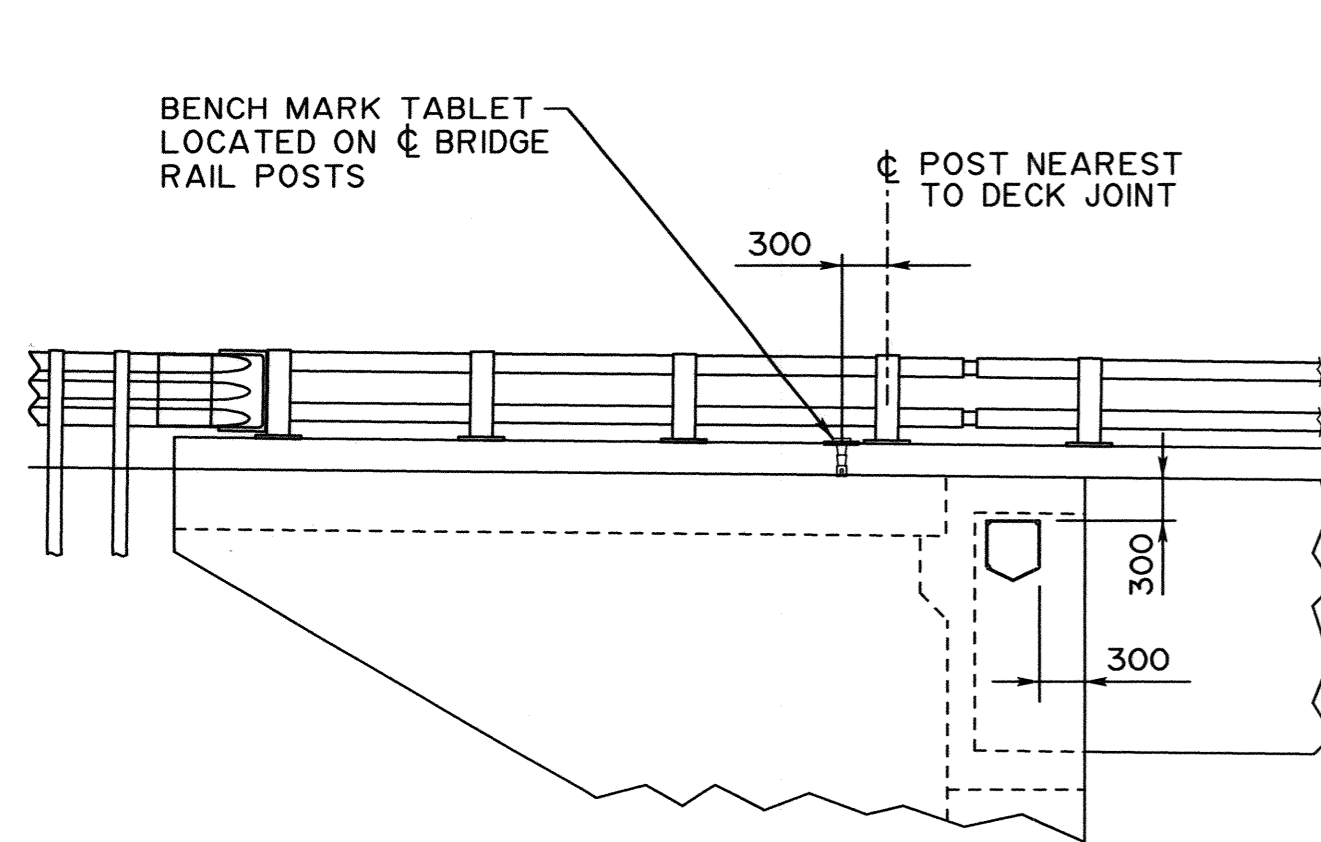
STANDARD CONCRETE JOINTS

DESIGNED DHQ	DRAWN MIK	DATE 87-03-04	APPROVED EXECUTIVE DIRECTOR	SIGNATURE <i>Wm. Boyd</i>	DATE May 8/87	PAGE 4.33	DRAWING S-1411-87
-----------------	--------------	------------------	--------------------------------	------------------------------	------------------	--------------	----------------------



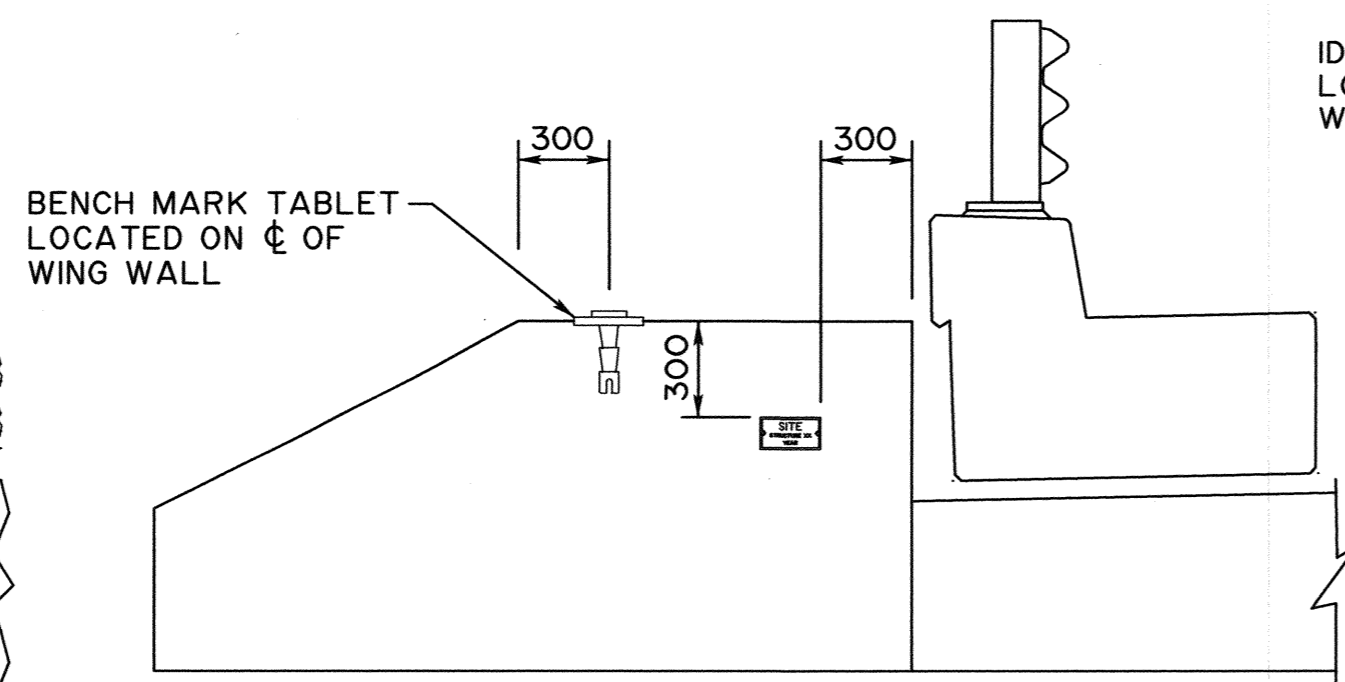
• WORK THESE DRAWINGS TOGETHER: S-1642 AND S-1643

<div> <div>RECOMMENDED DIRECTOR BRIDGE ENGINEERING</div> <div>APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH</div> </div>				<div> <div>Alberta Transportation</div> <div>TL-4 DOUBLE TUBE TYPE BRIDGERAIL APPROACH RAIL TRANSITION DETAILS WITH STRONG POST W-BEAM GUARDRAIL</div> </div>		
DESIGNER	CM	CM	CHECKER	MT	DATE	2021-3-2
DATE	2020-09-04	SHEET	2 OF 2	DRAWING	S-1643-20	



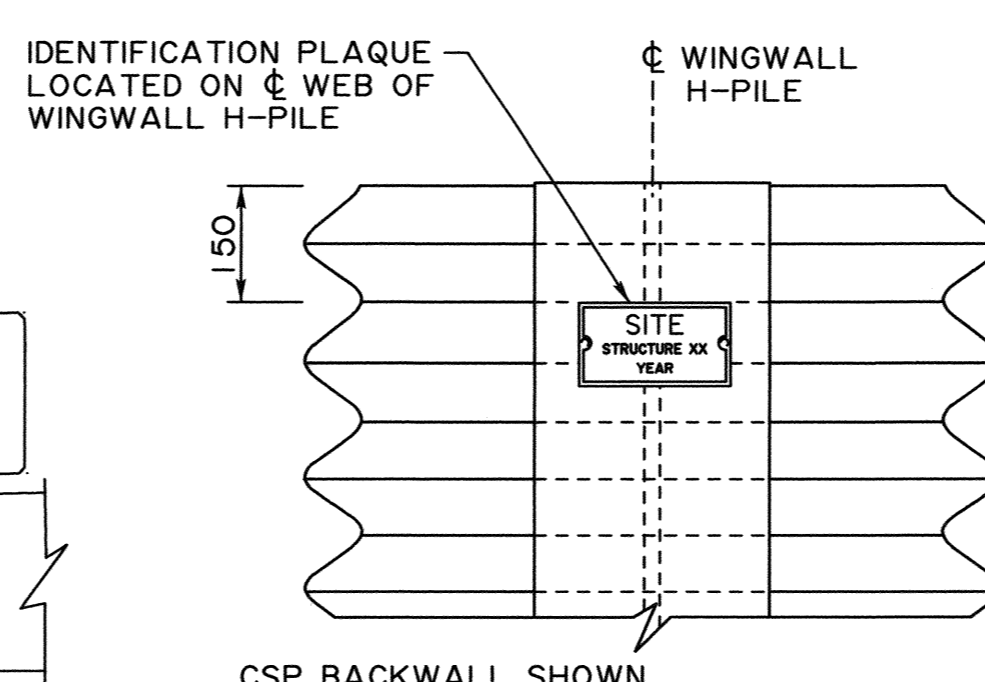
PLAQUE AND BENCH MARK TABLET LOCATION FOR MAJOR BRIDGES

1:50



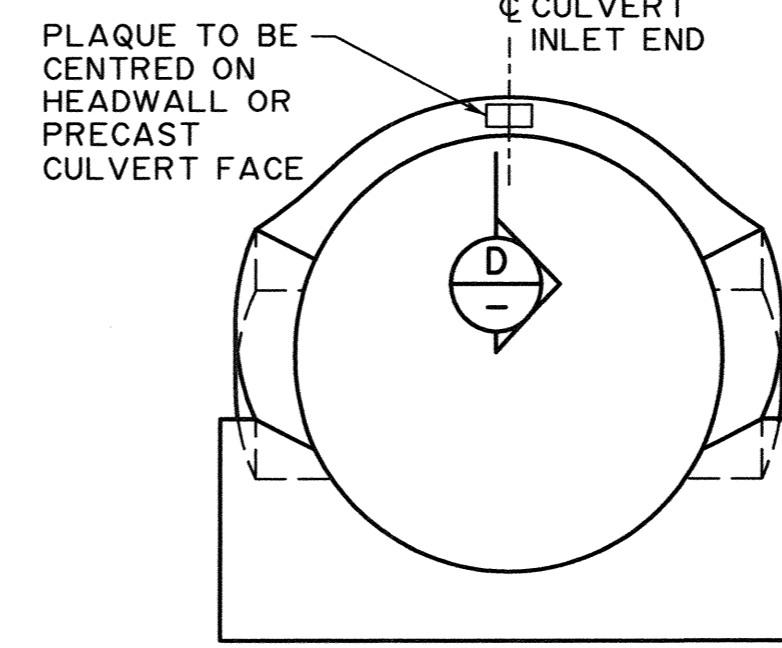
CONCRETE WINGWALL

1:25



TIMBER OR CORRUGATED BACKWALL

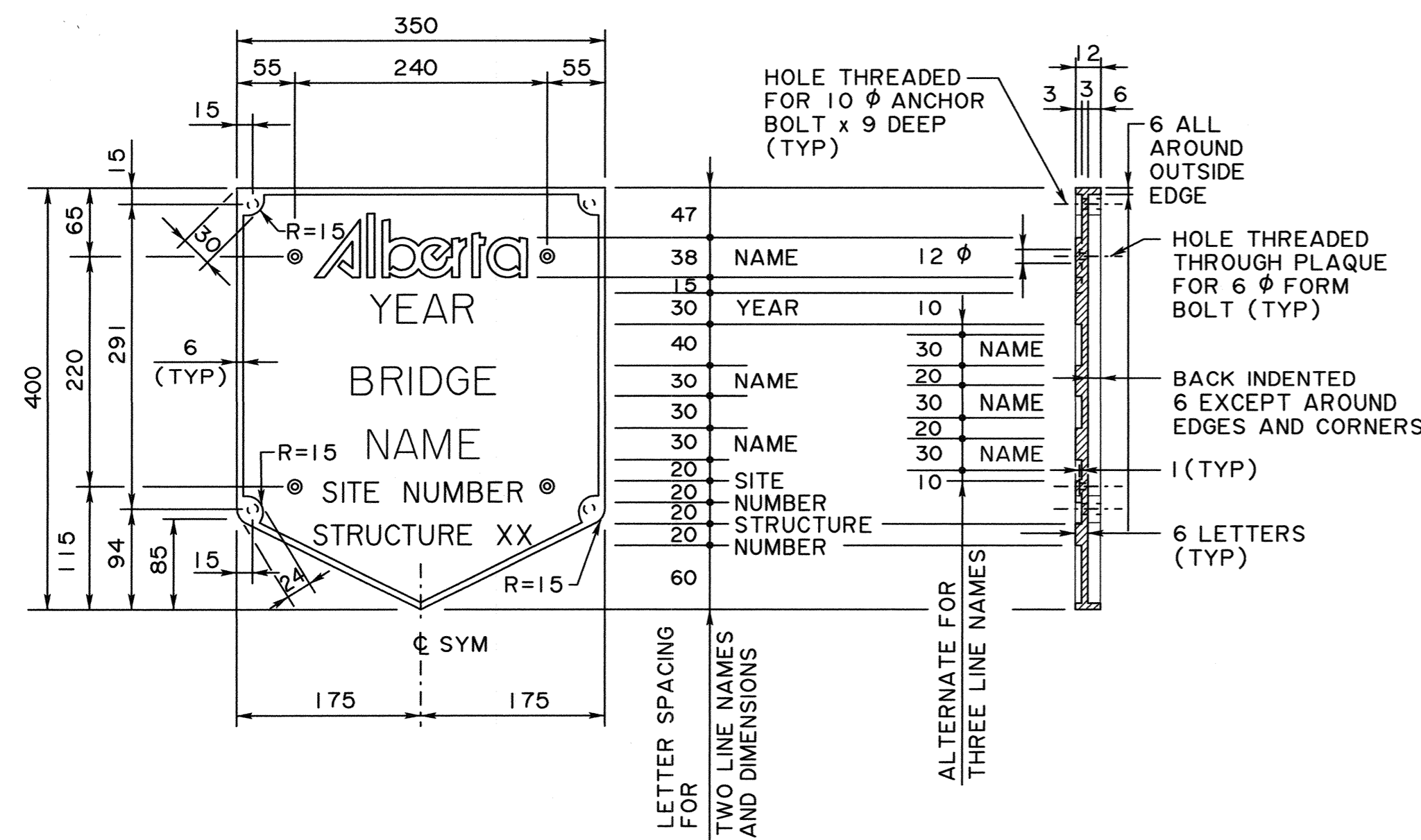
(CSP BACKWALL SHOWN TIMBER SIMILAR) 1:10



CAST IN PLACE CONCRETE HEADWALLS AND PRECAST CULVERTS

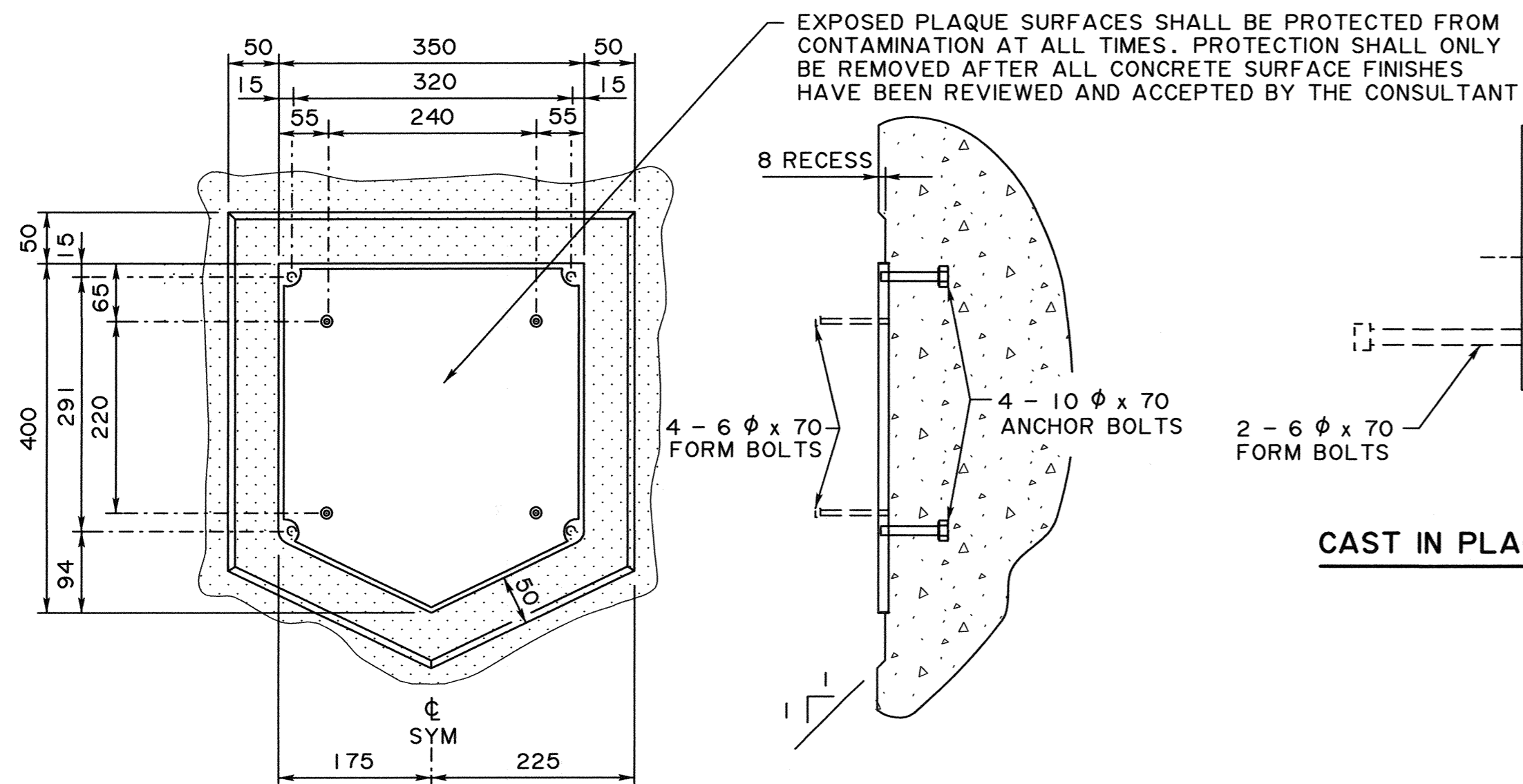
(CIP SHOWN, PRECAST SIMILAR) NTS

PLAQUE AND BENCH MARK TABLET LOCATION FOR STANDARD BRIDGES/CULVERTS



CASTING DETAILS

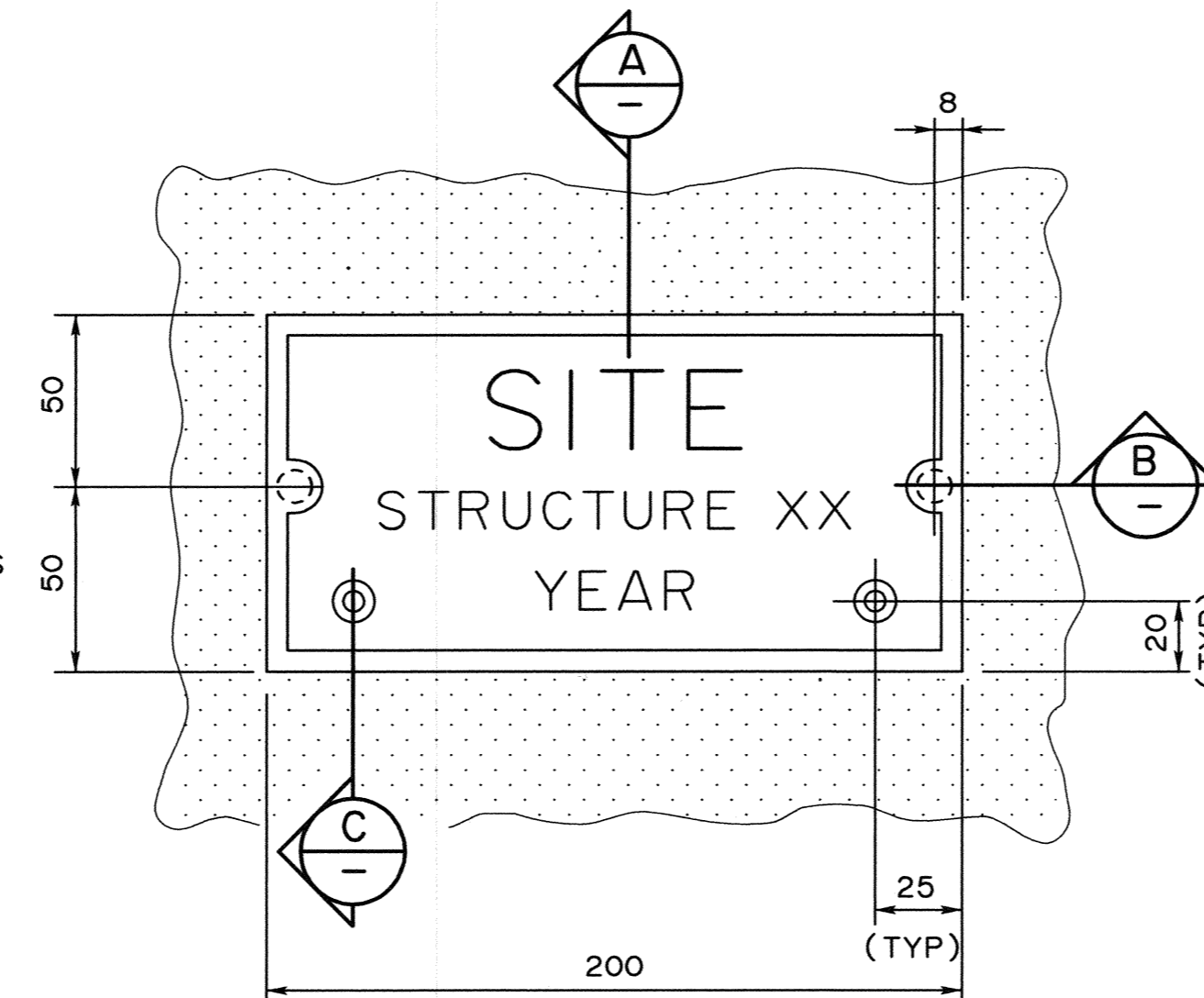
1:5



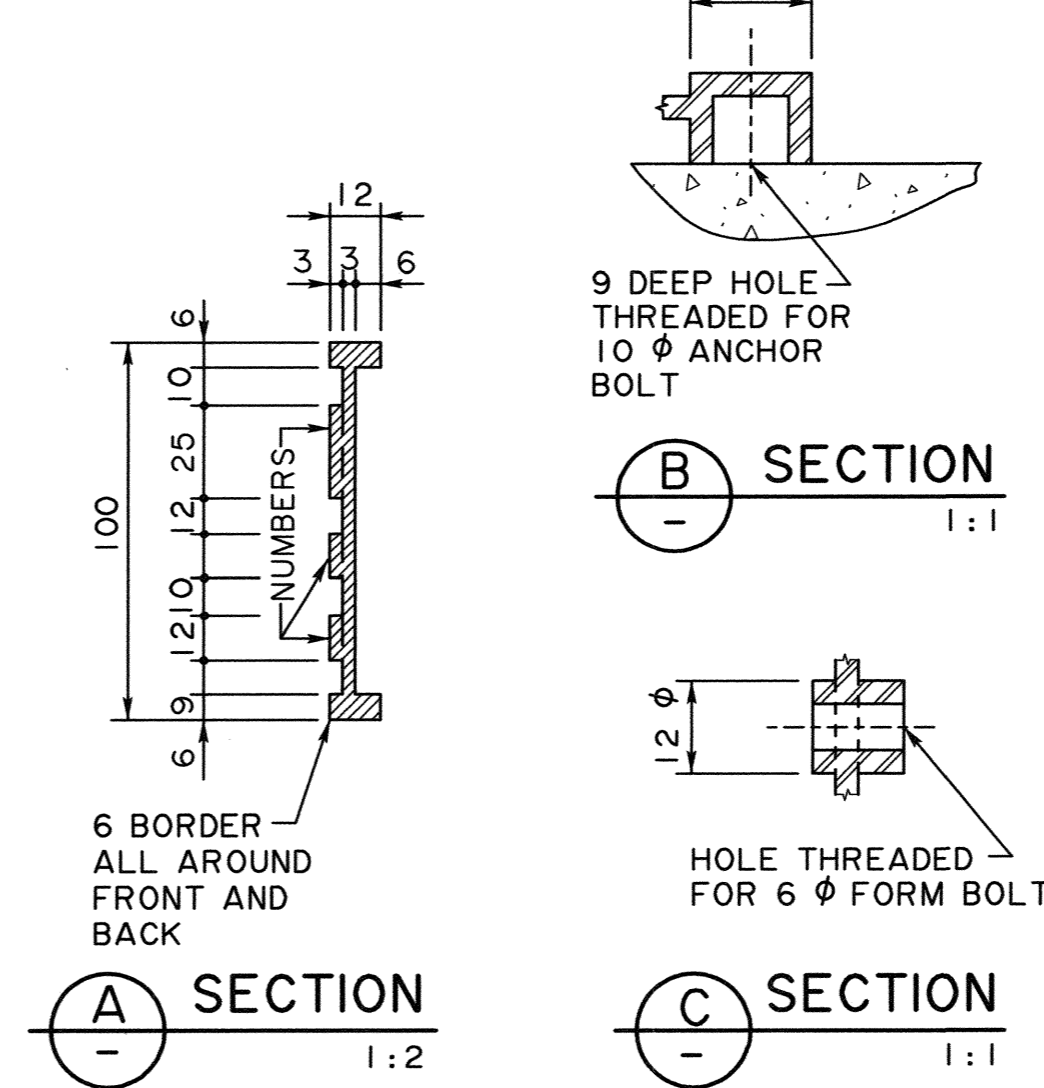
INSTALLATION DETAILS

1:5

MAJOR BRIDGE PLAQUE



CASTING DETAILS



CAST IN PLACE CONCRETE

1:2

WINGWALL PILE

1:5

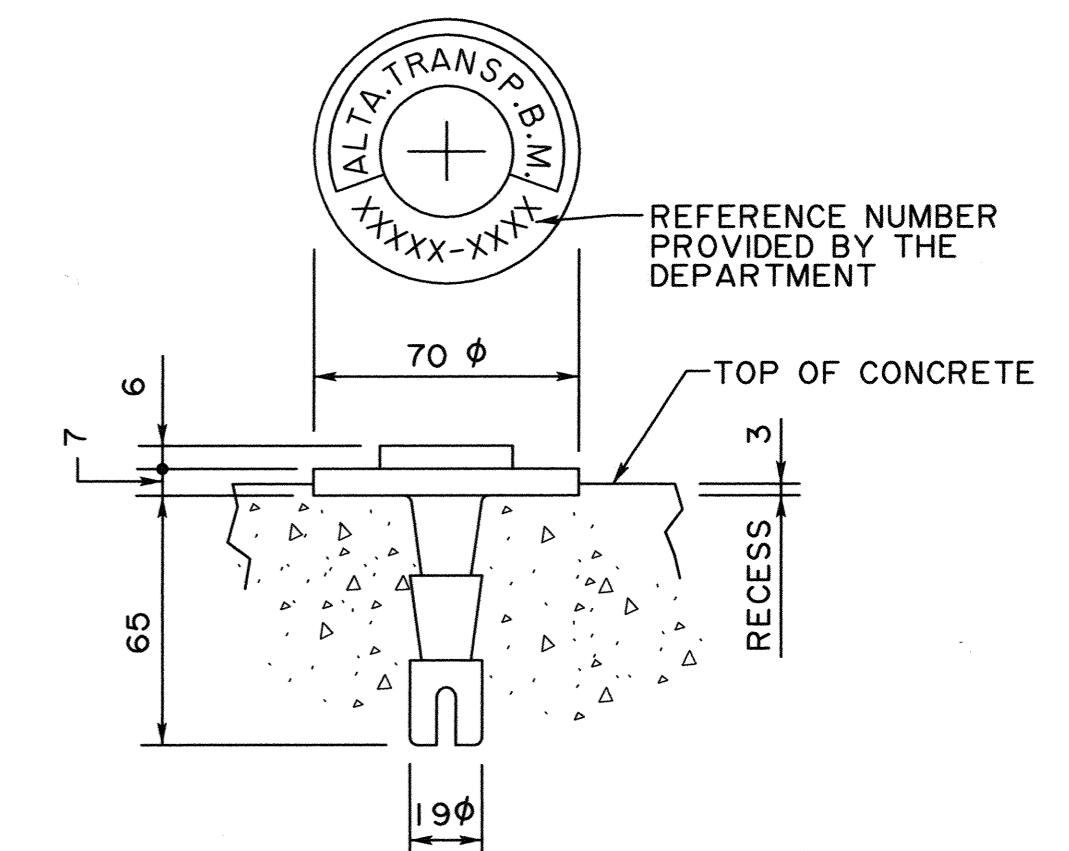
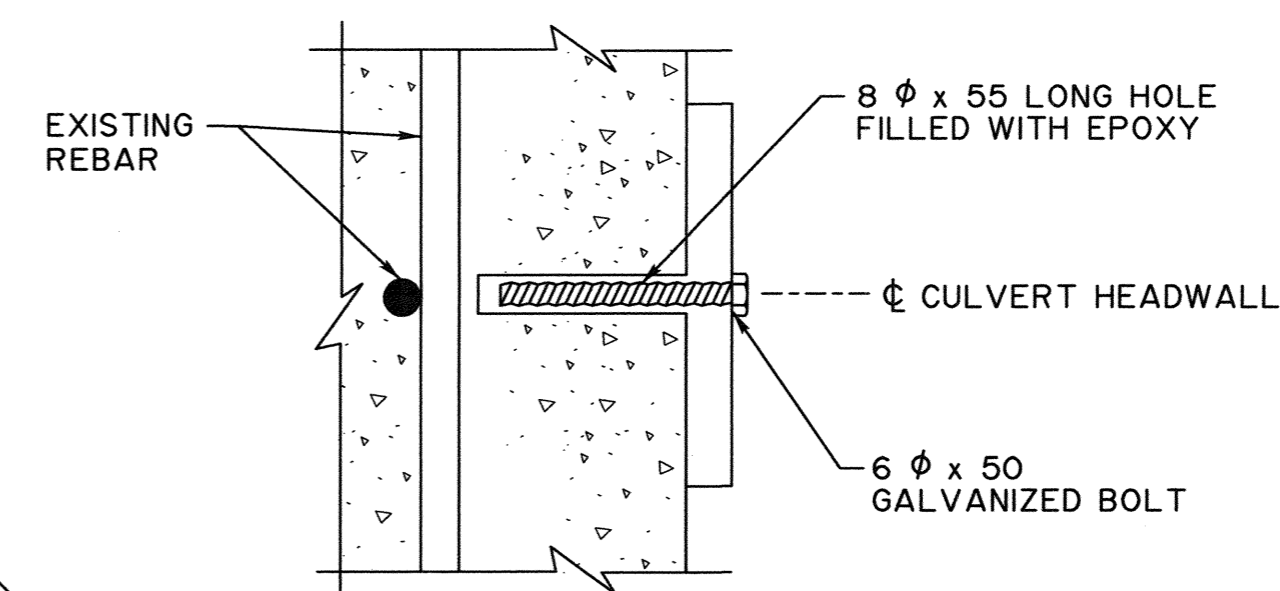
INSTALLATION DETAILS

STANDARD BRIDGE/CULVERT PLAQUE

NOTE: CULVERT PLAQUES ARE ONLY REQUIRED FOR CULVERTS WITH CAST IN PLACE CONCRETE HEADWALLS OR PRECAST RCP OR PBC CULVERTS

CAST IN PLACE CONCRETE HEADWALLS AND PRECAST RCP AND PBC CULVERTS

(CIP SHOWN, PRECAST SIMILAR) 1:2



BENCH MARK TABLET

1:2

GENERAL NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
- FABRICATION AND INSTALLATION OF ALL PLAQUES AND BENCH MARK TABLETS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 13
- MATERIALS FOR ALL PLAQUES SHALL BE CAST ALUMINUM
- ALL PLAQUES SHALL BE FABRICATED TO THE DIMENSIONS SHOWN ANY PROPOSED CHANGES SHALL BE APPROVED BY THE DEPARTMENT

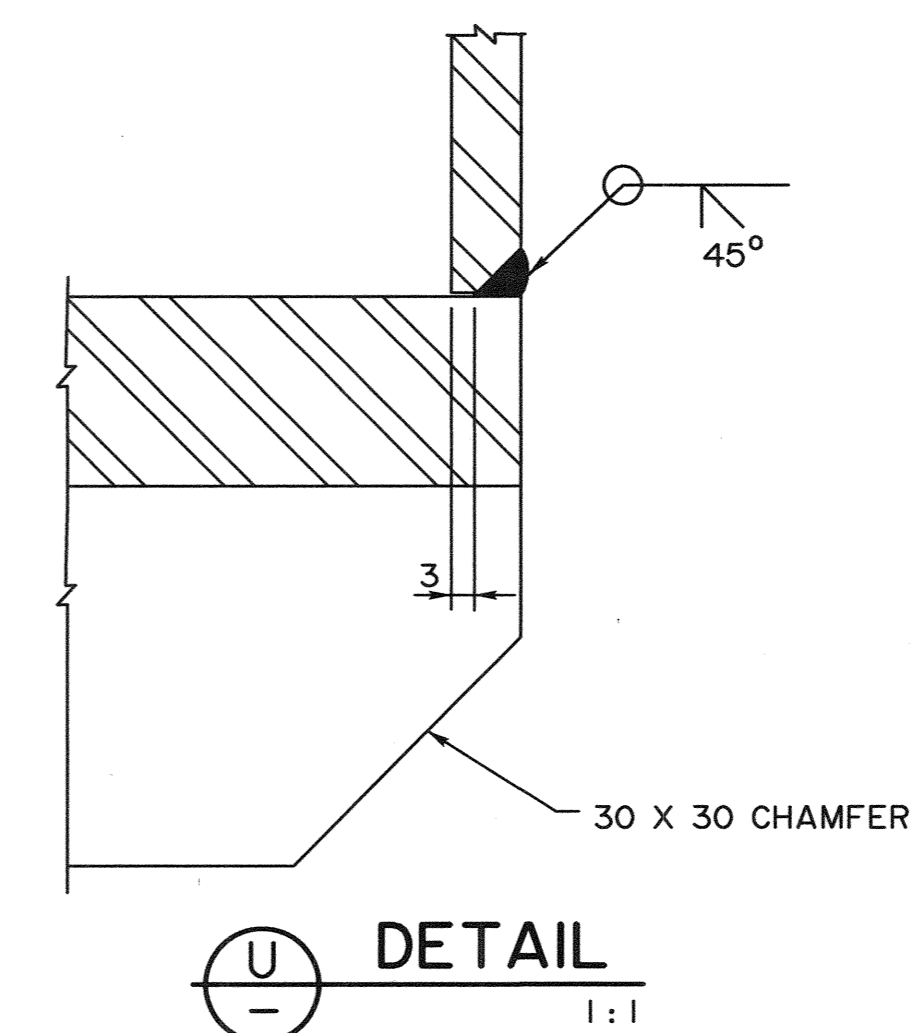
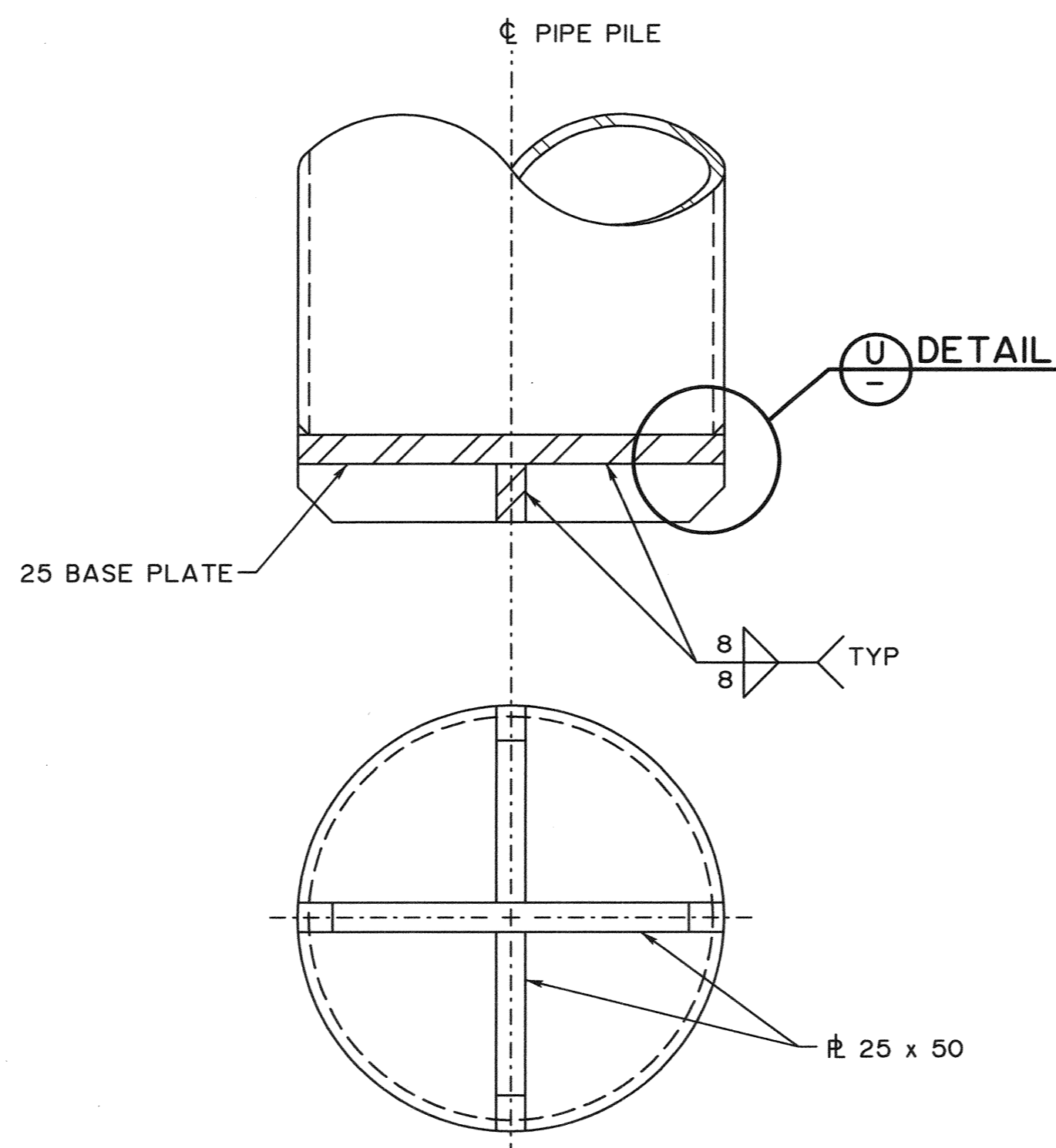
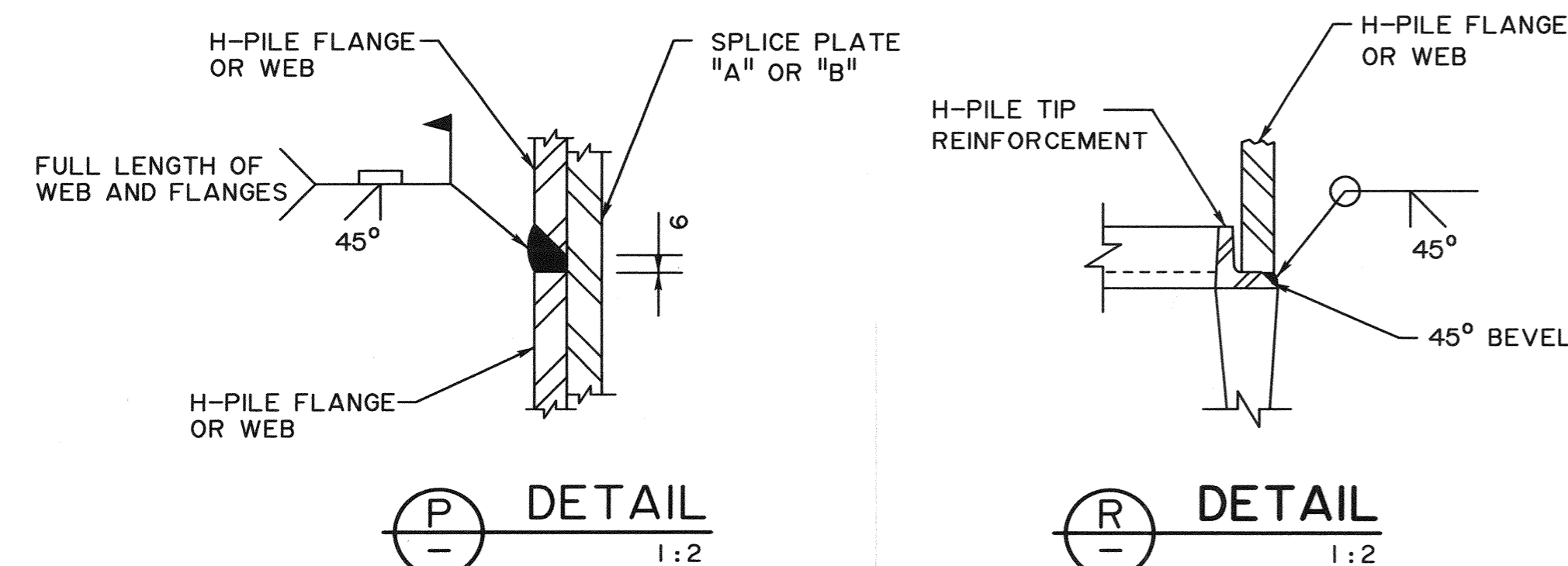
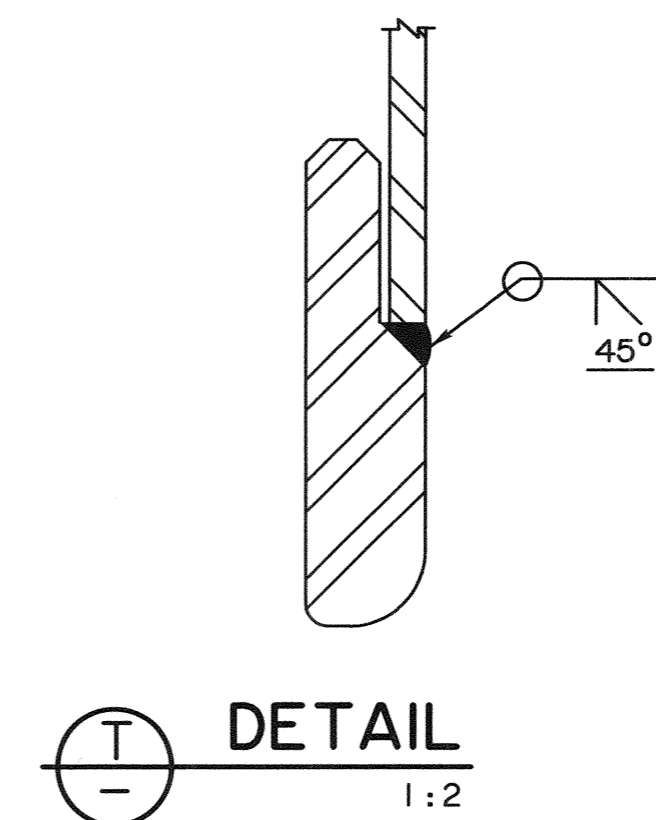
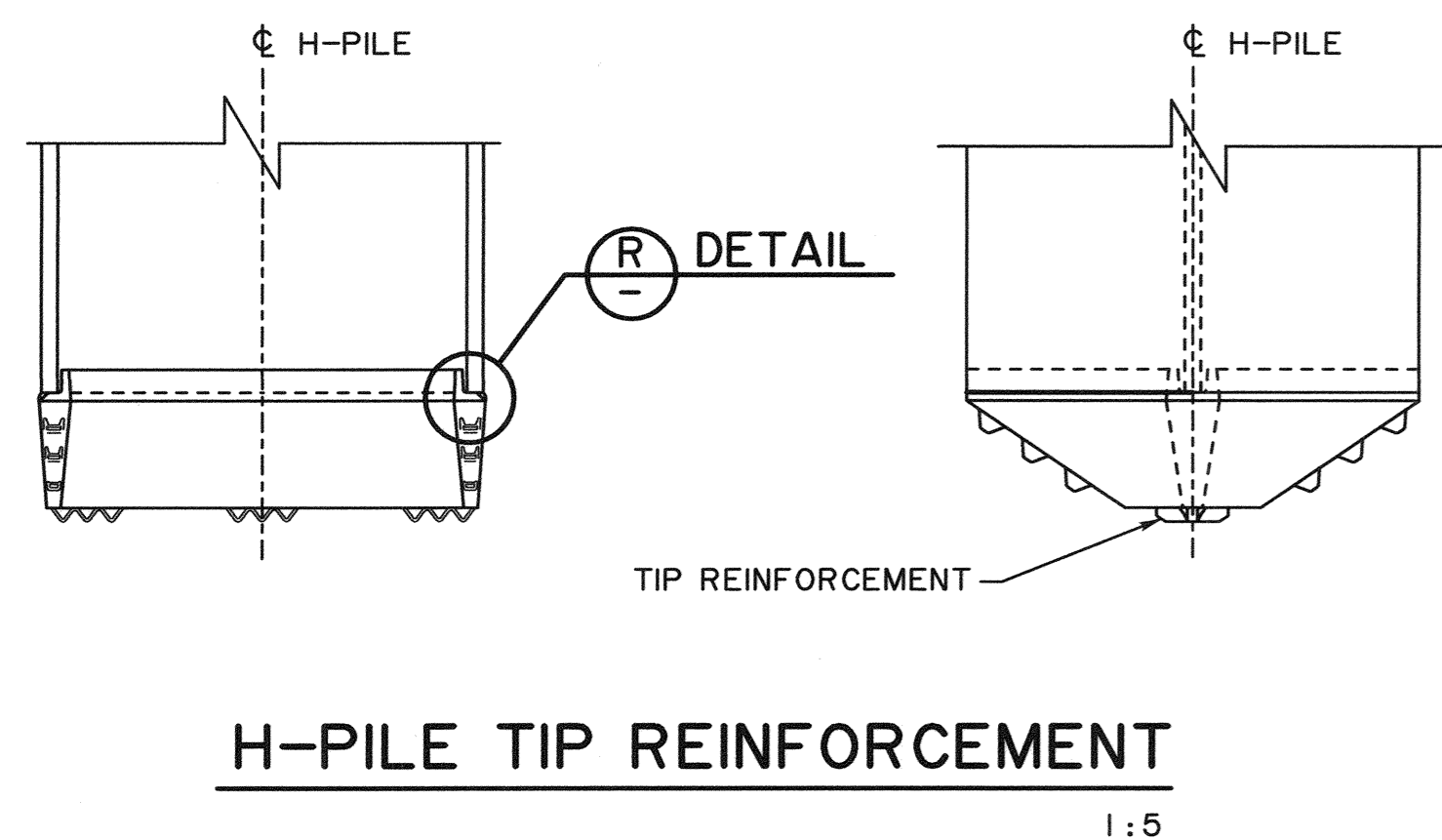
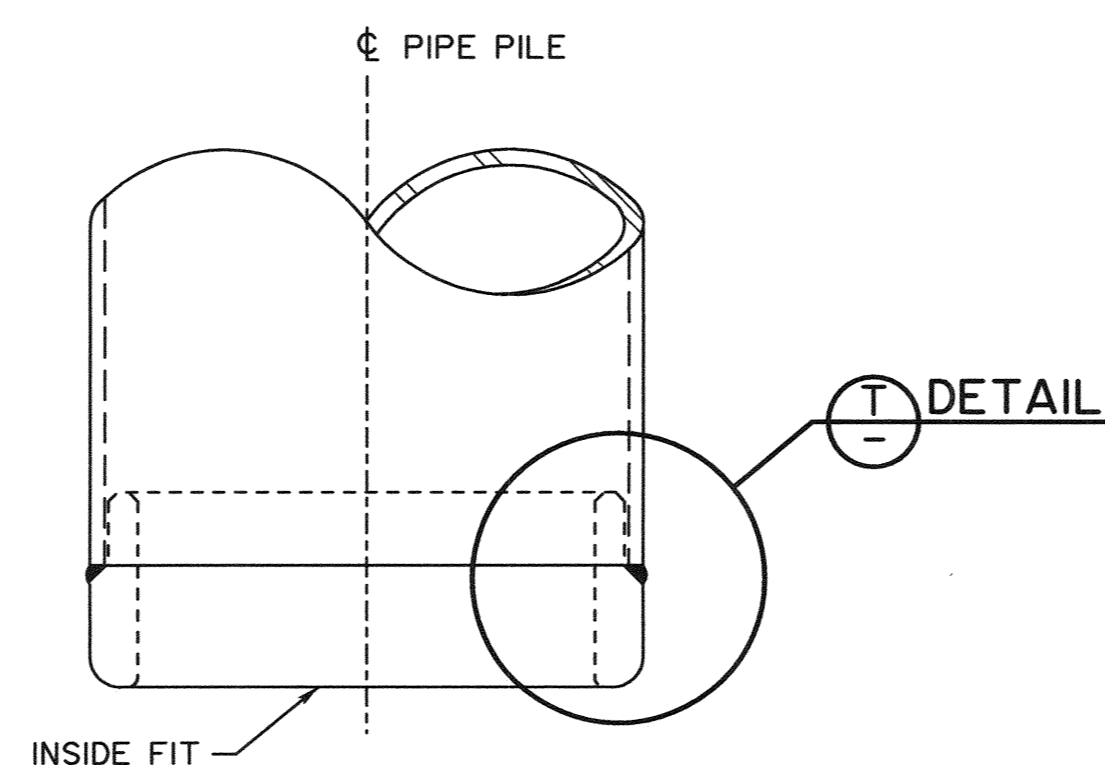
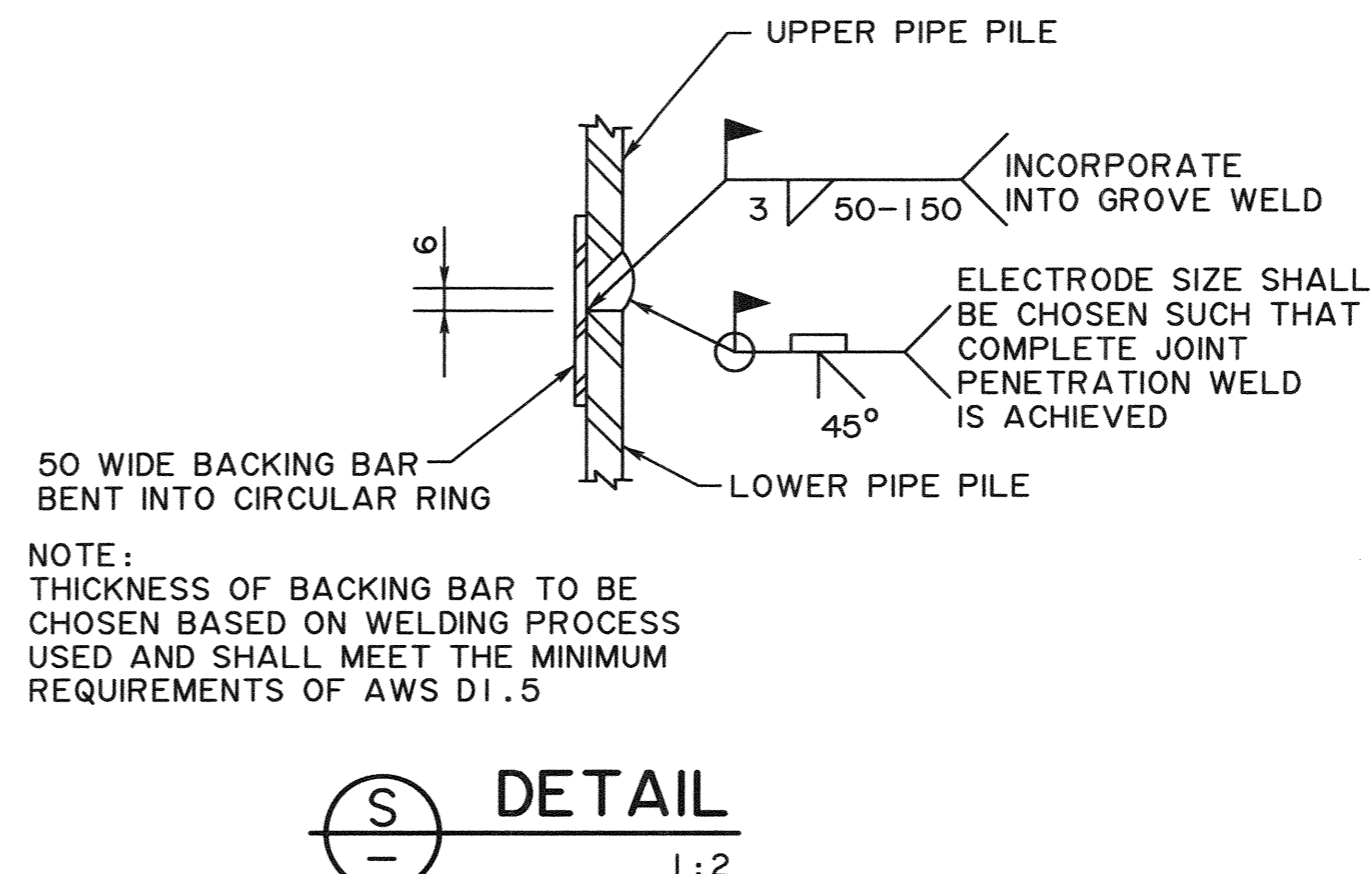
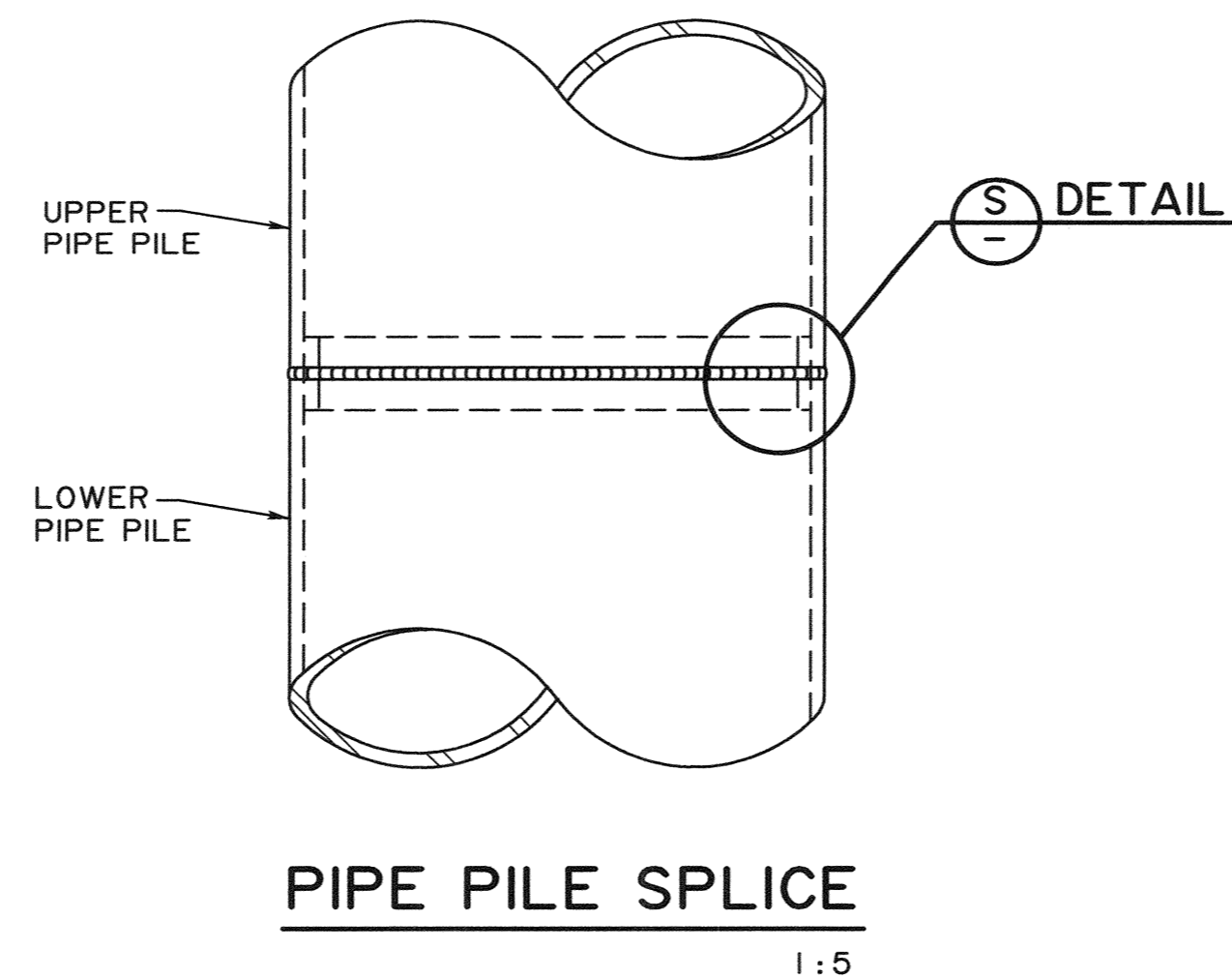
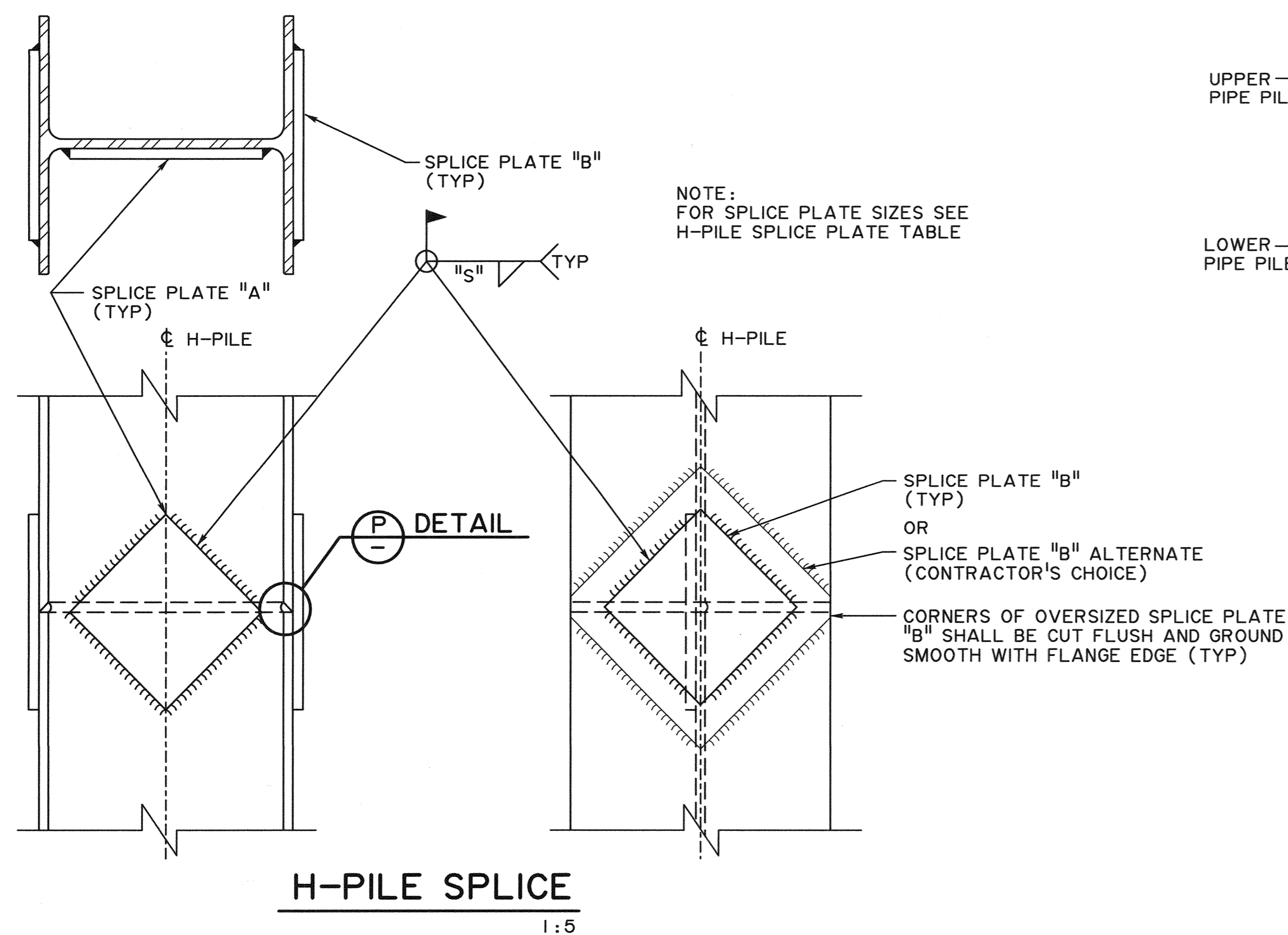
PLAQUES

- BRIDGE PLAQUES SHALL BE LOCATED ON THE RIGHT HAND SIDE OF THE FIRST ABUTMENT ENCOUNTERED IN THE DIRECTION OF TRAVEL
- FOR CIP HEADWALLS AND PRECAST CONCRETE CULVERTS THE PLAQUE SHALL BE LOCATED AT INLET END
- ALL LETTERS AND NUMBERS CAST ON THE PLAQUE SHALL BE UPPERCASE UNIFORMS 65, EXCEPT NAME "ALBERTA" ON THE LARGE PLAQUE
- NAME "ALBERTA" ON LARGE PLAQUES OF MAJOR BRIDGES SHALL BE FOLLOWED IN ABSOLUTE DETAILS AS SHOWN. ANY DEVIATIONS REQUIRED FOR CASTING PURPOSES SHALL BE REVIEWED AND ACCEPTED BY THE DEPARTMENT
- BRIDGE NAME CAST ON THE LARGE PLAQUES OF MAJOR BRIDGES IS SITE SPECIFIC AND SHALL BE STREAM NAME OR BRIDGE STRUCTURE NAME AS APPLICABLE. THE BRIDGE NAME SHALL BE PLACED IN 2 OR 3 LINES AS REQUIRED
- FOR NEW BRIDGE CONSTRUCTION, THE "YEAR" SHALL BE THE YEAR IN WHICH CONSTRUCTION IS COMPLETED. FOR BRIDGE REHABILITATION, THE "YEAR" SHALL BE THE YEAR IN WHICH THE ORIGINAL BRIDGE CONSTRUCTION WAS COMPLETED. FOR FULL SUPERSTRUCTURE REPLACEMENTS, THE "YEAR" SHALL BE THE YEAR IN WHICH THE SUPERSTRUCTURE REPLACEMENT IS COMPLETED.
- BRIDGE SITE NUMBER AND STRUCTURE NUMBERS SHALL BE OBTAINED FROM THE BRIDGE ENGINEERING SECTION OF ALBERTA TRANSPORTATION
- ALL PLAQUES SHALL BE SUPPLIED WITH BLACK BAKED ENAMEL EVERYWHERE EXCEPT FOR FULL BORDERS AND ALL NUMBERS AND LETTERS WHICH SHALL BE EXPOSED ALUMINUM
- HEX HEAD CAP SCREWS SHALL CONFORM TO ASTM A307. NUTS AND WASHERS SHALL CONFORM TO ASTM A563 AND F436 RESPECTIVELY
- BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329

BENCH MARK TABLETS

- BRONZE BENCH MARK TABLETS SHALL BE INSTALLED ON MAJOR AND STANDARD BRIDGE STRUCTURES. THE SUPPLY, FABRICATION AND INSTALLATION OF BENCH MARK TABLETS SHALL BE IN ACCORDANCE OF THE STANDARD SPECIFICATION FOR BRIDGE CONSTRUCTION OF SECTION 13
- BENCH MARK TABLETS SHALL BE INSTALLED ON ABUTMENTS THAT ARE SUPPORTED ON PILES OR BEDROCK
- BENCH MARK TABLETS SHALL GENERALLY BE PLACED ON THE NORTH WEST CORNER OF THE ABUTMENT AND THE LOCATION OF THE BENCH MARK TABLETS SHALL BE CLEARLY MARKED ON THE SITE SPECIFIC DRAWINGS
- THE DEPARTMENT WILL ASSIGN A UNIQUE REFERENCE NUMBER FOR EACH BENCH MARK TABLET. THE NUMBER WILL BE PROVIDED BY THE DEPARTMENT'S SURVEY/IMAGERY COORDINATOR
- FINAL BENCH MARK ELEVATION (TO THE NEAREST 0.001 m) WILL BE DETERMINED BY THE CONSULTANT AFTER THE INSTALLATION OF THE BENCH MARK TABLET. THE FINAL BENCH MARK ELEVATION, AS WELL AS WHICH GEODETIC BASED BENCH MARK IT WAS TIED TO, WILL BE REPORTED TO THE DEPARTMENT'S SURVEY/IMAGERY COORDINATOR
- TWIN STRUCTURES WILL ONLY REQUIRE ONE BENCH MARK TABLET ON ONE OF THE STRUCTURES

DESIGNER		CM		CM	CHECKER	DB	DB	DATE	2021.3.2	RECOMMENDED DIRECTOR BRIDGE ENGINEERING		APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH		DATE		2020-09-04	SHEET		1 OF 1	DRAWING		S-1847-20
STANDARD IDENTIFICATION PLAQUES AND BENCHMARK TABLET																						












GENERAL NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE
- H-PILES AND H-PILE SPLICE PLATES SHALL CONFORM TO ASTM A36 OR CSA G40.21M GRADE 350W. H-PILES AND H-PILE SPLICE PLATES SHALL BE THE SAME GRADE OF STEEL
- STEEL PIPE PILING SHALL CONFORM TO ASTM A252 GRADE 2
- SHOP WELDING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 6
- FIELD WELDING OF PILE SPLICES AND REINFORCEMENT PILE SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 3
- PILE ENDS SHALL BE FLAME CUT, STRAIGHT AND SQUARE, USING A STEEL GUIDE PRIOR TO SPLICING. BEVEL CUTS SHALL BE 45 DEGREES. THE BEVEL ON THE UPPER PIPE PILE SHALL BE FLAME CUT USING A MECHANICAL PIPE BEVELLING MACHINE
- PILE TIP REINFORCEMENT SHOWN ARE ACCEPTABLE CONFIGURATIONS. THE CONTRACTOR REQUIRES THE CONSULTANT'S REVIEW AND ACCEPTANCE OF PROPOSED PILE TIP REINFORCEMENT DETAILS AND/OR PROPOSED ALTERNATES

H-PILE SPLICE PLATE TABLE			
H-PILE DESIGNATION	SPLICE PLATE DIMENSIONS		FILLET WELD SIZE "S"
	PLATE A (WEB)	PLATE B (FLANGE)	
HP 310 x 79	12 x 160 x 160	12 x 200 x 200	6
HP 310 x 94	12 x 160 x 160	12 x 200 x 200	6
HP 310 x 110	12 x 160 x 160	12 x 200 x 200	6
HP 360 x 132	12 x 190 x 190	12 x 250 x 250	6
HP 360 x 174	12 x 190 x 190	12 x 250 x 250	8

* SPLICE PLATE B MAY BE OVERSIZED TO PROVIDE BACKING FOR THE FULL FLANGE WIDTH AND THEN CUT FLUSH AND GROUND SMOOTH. PLATE THICKNESS AND WELD SIZE SHALL BE AS SPECIFIED

								RECOMMENDED DIRECTOR BRIDGE ENGINEERING 		 Alberta Transportation			
								APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH 		STANDARD STEEL PILE DETAILS			
													
													
													
REV		DATE		REVISION				BY					
DESIGNER		CM		CM		CHECKER		DB		DB		DATE <u>2021-3-2</u>	
												DATE <u>2020-09-04</u>	
												SHEET 1 OF 1	
												DRAWING S-1850-20	



ELEVATION

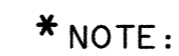


Figure 1 is a graph showing the relationship between Girdar Temperature in $^{\circ}\text{C}$ (Y-axis) and "X" Displacement (mm) (X-axis). The Y-axis ranges from -45 to 35 in increments of 10. The X-axis ranges from -50 to 50 in increments of 10. Two linear data series are plotted:

- AT ERECTION:** A line passing through points $(-25, -45)$ and $(25, 35)$.
- FINAL:** A line passing through points $(-35, -45)$ and $(15, 35)$.

A point $(0, -5)$ is marked on the "FINAL" line. A horizontal double-headed arrow labeled Δ indicates the displacement difference between the two lines at a temperature of 15 $^{\circ}\text{C}$.

'Δ' ACCOUNTS FOR ALL CREEP,
SHRINKAGE AND RELAXATION
THAT OCCURS WITH NU GIRDERS
AFTER BEARINGS ARE SET AND
GROUTED

1:10

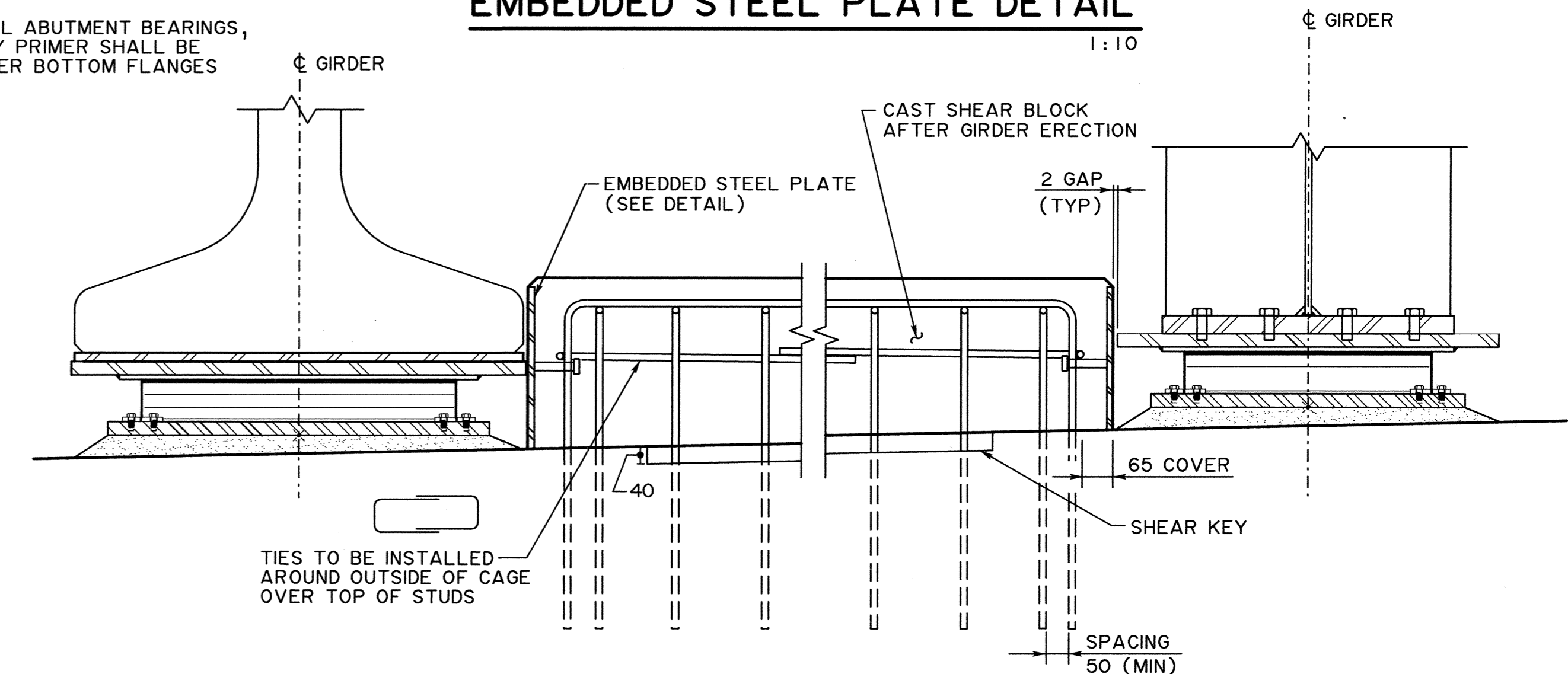


1 : 10



Diagram of a rectangular steel plate with rounded corners. The plate is labeled "6 GALVANIZED STEEL PLATE". The corners are defined by a radius $R = 100$ (MIN). The plate has "SLOTTED HOLES (TYP)" along the long edges. A "CLIPPING SITE" is indicated on the left side.

1:10



1:10

NOT FOR CONSTRUCTION









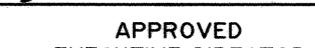


NTS



GALVANIZE AFTER FABRICATION



1:2

    						RECOMMENDED DIRECTOR BRIDGE ENGINEERING 	
							APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH 
REV	DATE	REVISION			BY		
DESIGNER		MT	CHECKER		CM	DATE <u>2021-3-2</u>	

Alberta Transportation

TYPICAL EXPANSION BEARING DETAILS

DATE
2020-09-04

SHEET
1 OF 1

DRAWING
T-176-20