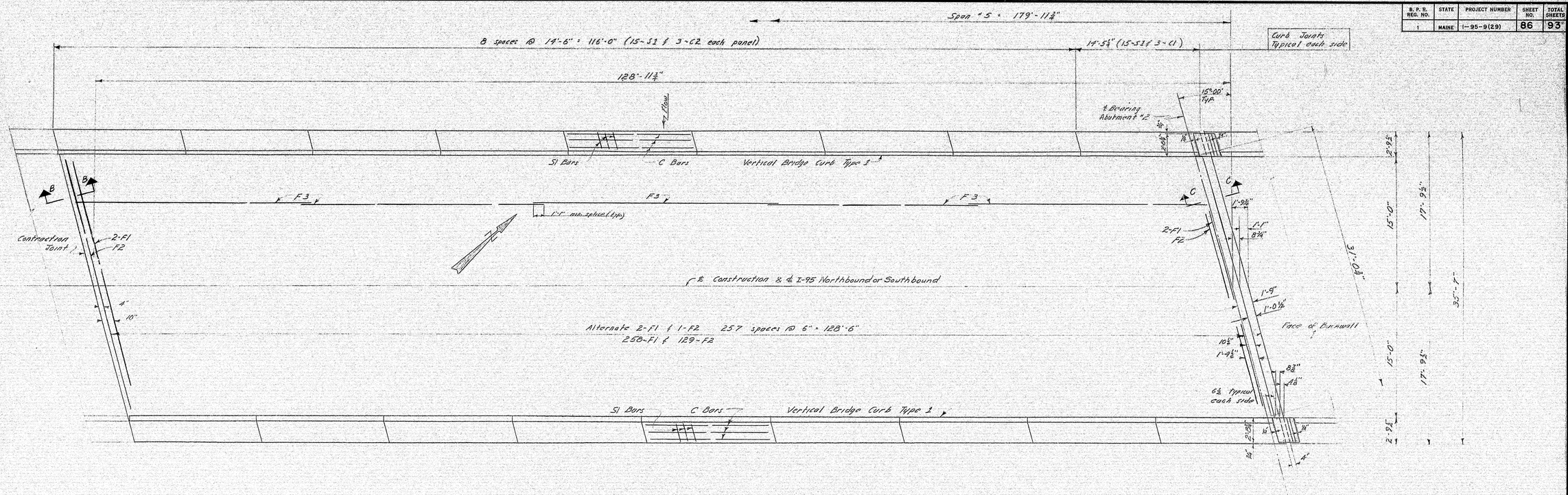
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(29)	86	93



PLAN - 129' SECTION of SPAN "5

See Sheet #84 for Sections B-B and C-C

DESIGN— M.C.B. TRACE— D.T.T. - A.T.A. CHECK— A.H.N.	BRIDGE NO. SURVEY— PLOT—

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
PENOBSCOT RIVER
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY

SLAB—SPAN 5

SHEET 86 OF 93 AUGUSTA, MAINE OCTOBER 1964

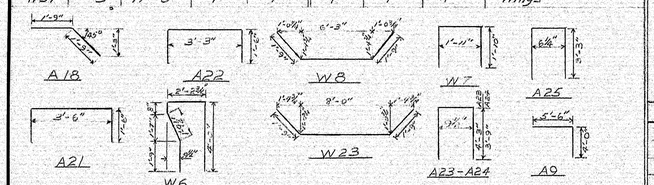
C. E. CO., NO. 44-131 24726

99-91

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9 (29)	87	93

ABUTMENTS

MARK	SIZE	LENGTH	NORTHBOUND ABUT 1 No.	NORTHBOUND ABUT 2 No.	SOUTHBOUND ABUT 1 No.	SOUTHBOUND ABUT 2 No.	TOTAL No.	LOCATION
A1	#6	22'-9"	16	16	16	16	64	Footings
A2	#6	17'-0"	16	16	16	16	64	"
A3	#6	7'-7"	64	64	64	64	256	"
A4	#6	16'-4"	4	4	4	4	16	"
A5	#6	16'-0"	4	4	4	4	16	"
A6	#6	15'-9"	4	4	4	4	16	"
A7	#6	15'-6"	4	4	4	4	16	"
A8	#6	2'-6"	23	23	23	23	92	"
A10	#6	18'-6"	7	7	7	7	28	Bridge Seat
A11	#6	20'-0"	7	7	7	7	28	" "
A12	#5	17'-8"	17	17	17	17	68	Br. Seat & Backwall
A13	#5	19'-8"	17	17	17	17	68	" "
A14	#6	10'-3"	21	21	21	21	84	Backwall
A15	#6	2'-9"	21	21	21	21	84	Bridge Seat
A16	#6	7'-6"	28	28	28	28	112	Footing
A17	#6	10'-1"	28	28	28	28	112	Backwall
A19	#7	8'-0"	20	20	20	20	80	Br. Seat & Backwall
A20	#6	3'-6"	36	36	36	36	144	Footing
A26	#5	1'-8"	4	4	4	4	16	End Post
A27	#5	3'-2"	4	4	4	4	16	" "
A28	#5	4'-8"	8	8	8	8	32	" "
W1	#6	5'-8"	6	6	6	6	24	Wings
W2	#6	9'-0"	6	6	6	6	24	"
W3	#6	7'-3"	70	70	70	70	280	"
W4	#6	5'-9"	8	8	8	8	32	"
W5	#6	4'-3"	8	8	8	8	32	"
W9	#5	14'-3"	4	4	4	4	16	"
W10	#5	15'-9"	1	1	1	1	4	"
W11	#5	17'-9"	1	1	1	1	4	"
W12	#5	19'-9"	1	1	1	1	4	"
W13	#5	21'-9"	6	6	6	6	24	"
W14	#6	9'-9"	6	6	6	6	24	"
W15	#6	10'-4"	1	1	1	1	4	"
W16	#6	11'-10"	1	1	1	1	4	"
W17	#6	13'-4"	1	1	1	1	4	"
W18	#6	14'-10"	1	1	1	1	4	"
W19	#6	16'-4"	1	1	1	1	4	Wings
W20	#6	17'-2"	12	12	12	12	48	"
W21	#5	17'-5"	2	2	2	2	8	"
W22	#5	16'-3"	1	1	1	1	4	"
W24	#5	13'-8"	4	4	4	4	16	"
W25	#5	15'-8"	1	1	1	1	4	"
W26	#5	17'-8"	1	1	1	1	4	"
W27	#5	19'-8"	1	1	1	1	4	"
W28	#5	22'-2"	6	6	6	6	24	"
W29	#6	9'-4"	6	6	6	6	24	"
W30	#6	11'-3"	1	1	1	1	4	"
W31	#6	12'-9"	1	1	1	1	4	"
W32	#6	14'-3"	1	1	1	1	4	"
W33	#6	15'-9"	1	1	1	1	4	"
W34	#6	17'-3"	1	1	1	1	4	"
W35	#6	17'-11"	12	12	12	12	48	"
W36	#5	17'-10"	2	2	2	2	8	"
W37	#5	17'-6"	1	1	1	1	4	Wings

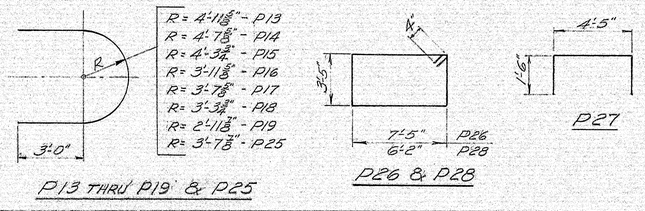


BENT BARS

MARK	SIZE	LENGTH	NORTHBOUND ABUT 1 No.	NORTHBOUND ABUT 2 No.	SOUTHBOUND ABUT 1 No.	SOUTHBOUND ABUT 2 No.	TOTAL No.	LOCATION
A9	#6	9'-6"	23	23	23	23	92	Bridge Seat
A18	#6	3'-6"	19	19	19	19	76	Backwall
A21	#5	6'-6"	8	8	8	8	32	Bridge Seat
A22	#5	6'-3"	8	8	8	8	32	" "
A23	#5	9'-4"	4	4	4	4	16	End Post
A24	#5	8'-4"	2	2	2	2	8	" "
A25	#5	7'-0"	2	2	2	2	8	" "
W6	#5	10'-5"	25	25	25	25	100	Wings
W7	#5	5'-7"	27	27	27	27	100	"
W8	#7	9'-9"	13	13	13	13	52	"
W23	#7	11'-6"	13	13	13	13	52	"

PIERS

MARK	SIZE	LENGTH	NORTHBOUND PIER 1 No.	NORTHBOUND PIER 2 No.	NORTHBOUND PIER 3 No.	NORTHBOUND PIER 4 No.	SOUTHBOUND PIER 1 No.	SOUTHBOUND PIER 2 No.	SOUTHBOUND PIER 3 No.	SOUTHBOUND PIER 4 No.	TOTAL No.	LOCATION
P1	#7	5'-6"	—	104	—	—	—	104	—	—	208	Seal - Dowel
P2	#6	20'-0"	30	30	30	30	30	30	30	30	240	Dist. Slab - Hor.
P3	#6	30'-0"	—	30	—	—	—	30	—	—	60	" " "
P4	#9	18'-0"	39	39	—	38	39	39	—	38	232	" " "
P5	#6	18'-0"	39	39	—	38	39	39	—	38	232	" " "
P6	#8	4'-0"	104	104	—	98	104	104	—	98	612	Dist. Slab - Dowel
P7		14'-0"	98	98	—	92	98	98	—	92	576	Shaft - Vert.
P8		3'-6"	2	2	—	2	2	2	—	2	12	" "
P9		7'-0"	2	2	—	2	2	2	—	2	12	" "
P10		11'-0"	2	2	—	2	2	2	—	2	12	" "
P11		19'-7"	—	46	—	—	—	46	—	—	92	" "
P12	#8	10'-0"	2	2	—	—	2	2	—	—	8	Shaft - Vert.
P20	#5	33'-0"	6	8	4	—	6	8	4	—	36	Shaft - Hor.
P21	#5	31'-8"	8	8	8	8	8	8	8	8	64	" "
P22	#5	30'-4"	8	8	8	8	8	8	8	8	64	" "
P23	#5	29'-0"	4	4	4	4	4	4	4	4	32	Shaft - Hor.
P24	#6	29'-0"	8	8	8	8	8	8	8	8	64	Cap - Hor.
P29	#6	35'-8"	2	2	2	2	2	2	2	2	16	Cap - Hor.
P30	#6	32'-6"	2	2	2	2	2	2	2	2	16	" "
P33	#8	5'-4"	—	—	110	—	—	—	110	—	220	Seal - Dowel
P34	#7	18'-0"	—	—	41	—	—	—	41	—	82	Dist. Slab - Hor.
P35	#10	18'-0"	—	—	41	—	—	—	41	—	82	" " "
P36	#6	29'-0"	—	—	32	—	—	—	32	—	64	" " "
P37	#10	4'-6"	—	—	100	—	—	—	100	—	200	" " "
P38		14'-0"	—	—	94	—	—	—	94	—	188	Shaft - Vert.
P39		16'-0"	—	—	46	—	—	—	46	—	92	" "
P40		11'-0"	—	—	2	—	—	—	2	—	4	" "
P41		7'-0"	—	—	2	—	—	—	2	—	4	" "
P42		4'-0"	—	—	2	—	—	—	2	—	4	" "
P43	#10	5'-0"	—	—	2	—	—	—	2	—	4	Shaft - Vert.
P48	#7	4'-9"	104	—	—	102	104	—	—	102	412	Seal - Dowel
P49	#6	29'-6"	30				30				60	Dist. Slab - Hor.
P50	#8	17'-7"	46	—	—	—	46	—	—	—	92	Shaft - Vert.
P55	#6	29'-0"	—	—	—	30	—	—	—	30	60	Dist. Slab - Hor.
P56	#8	11'-7"	—	—	—	46	—	—	—	46	92	Shaft - Vert.

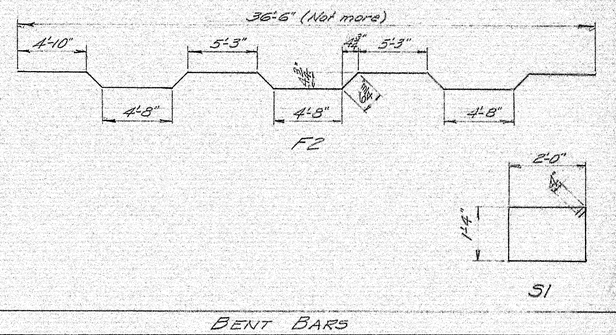


BENT BARS

MARK	SIZE	LENGTH	NORTHBOUND PIER 1 No.	NORTHBOUND PIER 2 No.	NORTHBOUND PIER 3 No.	NORTHBOUND PIER 4 No.	SOUTHBOUND PIER 1 No.	SOUTHBOUND PIER 2 No.	SOUTHBOUND PIER 3 No.	SOUTHBOUND PIER 4 No.	TOTAL No.	LOCATION
P13	#5	21'-8"	2	4	—	—	2	4	—	—	12	Shaft - Hor.
P14		20'-7"	4	4	4	—	4	4	4	—	24	
P15		19'-7"	4	4	4	4	4	4	4	4	32	
P16		18'-6"	4	4	4	4	4	4	4	4	32	
P17		17'-5"	4	4	4	4	4	4	4	4	32	
P18		16'-5"	4	4	4	4	4	4	4	4	32	
P19	#5	15'-4"	4	4	4	4	4	4	4	4	32	Shaft - Hor.
P25	#6	17'-6"	6	6	6	6	6	6	6	6	48	Cap - Hor.
P26	#6	22'-4"	22	22	22	22	22	22	22	22	176	Cap - Vert.
P27	#6	7'-5"	22	22	22	22	22	22	22	22	176	Cap - "
P28	#6	19'-10"	2	2	2	2	2	2	2	2	16	Cap - "

SUPERSTRUCTURE

MARK	SIZE	LENGTH	NORTHBOUND No.	SOUTHBOUND No.	TOTAL No.	LOCATION
F1	#6	36'-6"	2100	2100	4200	Slab - Main Steel
F3	#5	26'-9"	2870	2870	5740	Slab - Dist. Steel
F4	#5	40'-0"	92	92	184	" - " "
F5	#5	31'-0"	92	92	184	" - " "
C1	#5	14'-2"	60	60	120	Curb - Hor.
C2		12'-8"	192	192	384	" "
C3		11'-8"	48	48	96	" "
C4		13'-11"	48	48	96	" "
C5		13'-8	6	6	12	" "
C6		12'-5"	24	24	48	" "
C7		14'-8"	72	72	144	" "
C8	#5	12'-2"	12	12	24	Curb - Hor.



BENT BARS

MARK	SIZE	LENGTH	NORTHBOUND No.	SOUTHBOUND No.	TOTAL No.	LOCATION
F2	#6	37'-6"	1046	1046	2092	Slab - Main Steel
51	#5	7'-4"	2124	2124	4248	Curb - Stirrups

APPROACH SLABS

MARK	SIZE	LENGTH	NORTHBOUND No.	SOUTHBOUND No.	TOTAL No.	LOCATION
B1	#6	14'-6"	232	232	464	Approach Slab
B2	#4	29'-8"	40	40	80	" "

Note: Dimensions to ℄ of Reinforcing Steel.
Reinforcing Steel to be Intermediate Grade.

DESIGN-	BRIDGE NO.
TRACE-	SURVEY-
CHECK- AS NOTED	PLOT-

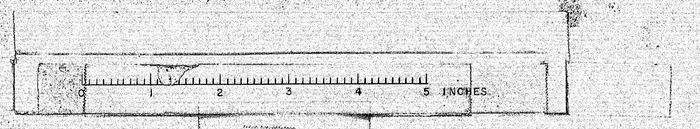
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
PENOBSCOT RIVER
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY

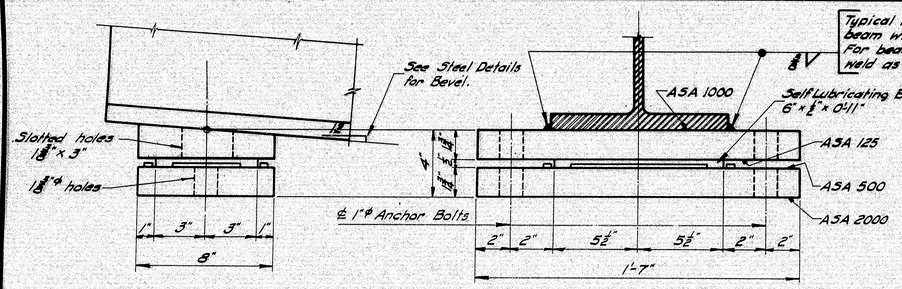
REINFORCING STEEL SCHEDULE

SHEET 87 OF 93 AUGUSTA, MAINE OCT. 1964

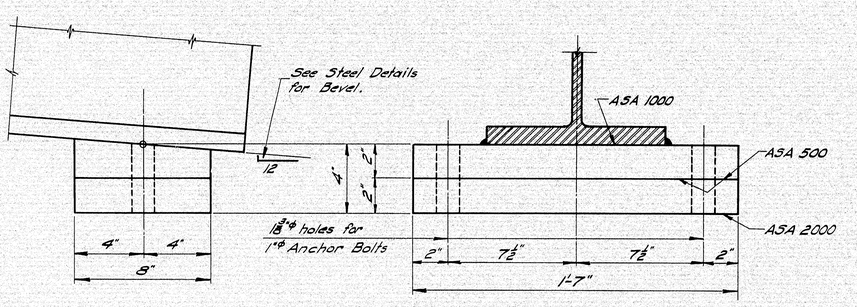
99-92



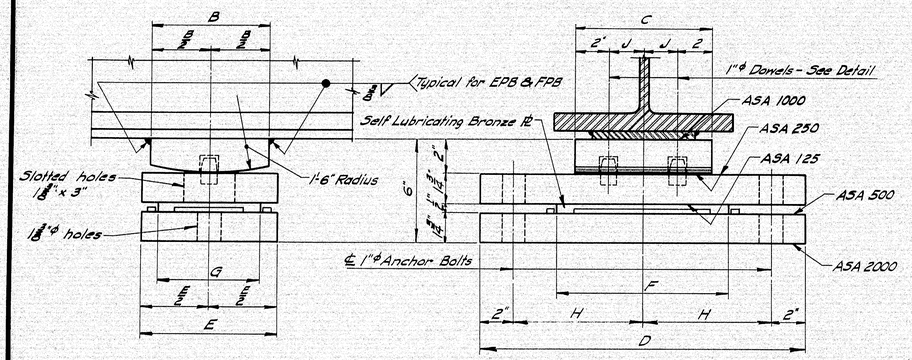
B.P.R. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(62)	88	93



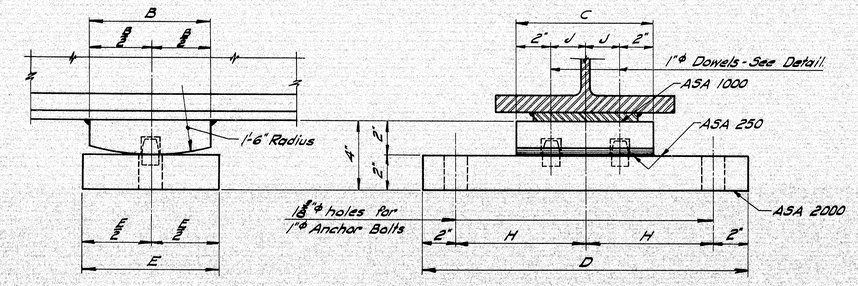
EXPANSION PEDESTAL – EPA



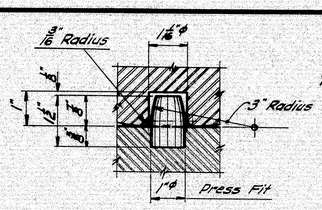
FIXED PEDESTAL – FPA



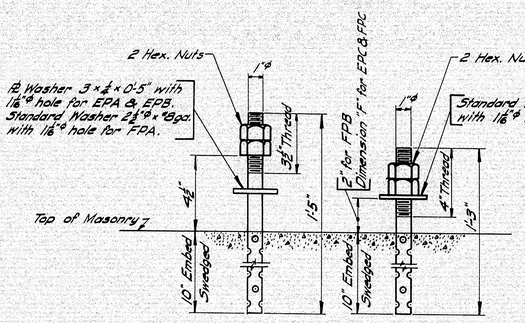
EXPANSION PEDESTAL – EPB



FIXED PEDESTAL – FPB



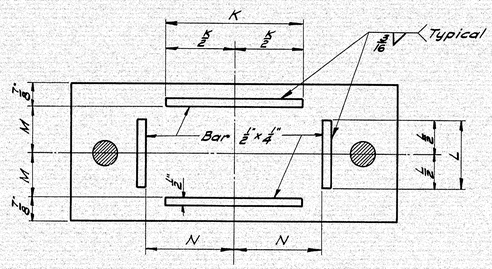
DOWEL DETAIL



For EPA - 2 req'd.
For FDA - 2 req'd.
For EPB - 2 req'd.

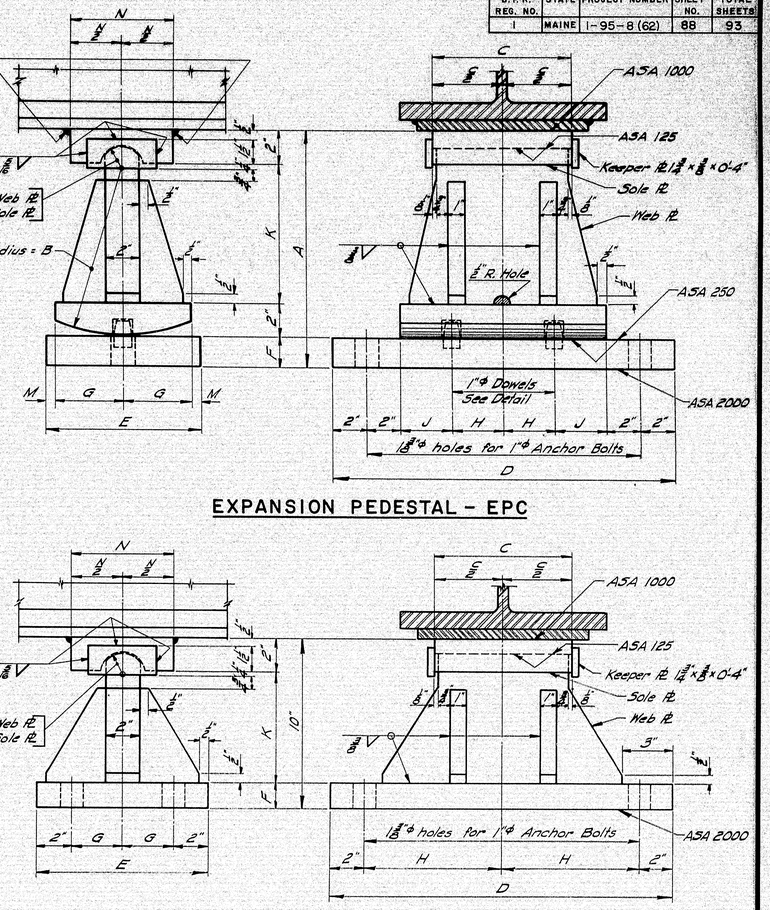
For FPB - 2 req'd.
For EPC - 2 req'd.
For FPC - 4 req'd.

ANCHOR BOLT DETAIL



For EPA & EPB

MASONRY PLATE



EXPANSION PEDESTAL – EPC

FIXED PEDESTAL – FPC

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of ⅛ inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 K	–	–	–	–	–	–	–	–	–	8"	4"	3⅛"	5⅜"
FPA	130 K	–	–	–	–	–	–	–	–	–	–	–	–	–
EPB-1	120 K	–	6"	8"	1'-7"	8"	10"	6"	7½"	2"	8"	4"	3⅝"	5⅜"
EPB-2	165 K	–	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3⅝"	6⅜"
EPB-3	224 K	–	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4½"	1'-2"	5"	3⅝"	8⅜"
FPB-1	120 K	–	6"	8"	1'-7"	8"	–	–	7½"	2"	–	–	–	–
FPB-2	165 K	–	7"	10"	1'-8"	9"	–	–	8"	3"	–	–	–	–
FPB-3	224 K	–	8"	1'-2"	2'-0"	10"	–	–	10"	5"	–	–	–	–
EPC-1	70 K	9⅝"	6"	8"	1'-8"	8"	1½"	3½"	3"	3"	4½"	–	½"	6"
EPC-2	100 K	11⅝"	8"	8"	1'-8"	8"	1½"	3½"	3"	3"	6¼"	–	½"	6"
EPC-3	130 K	1'-2"	10"	8"	1'-8"	9"	1⅛"	4"	3"	3"	8¼"	–	½"	7"
EPC-4	160 K	1'-2"	10"	8"	1'-10"	9"	1⅛"	4"	4"	3"	8¼"	–	½"	7"
EPC-5	190 K	1'-2½"	10"	9"	2'-0"	10"	2"	4½"	5"	3"	8¾"	–	½"	8"
EPC-6	220 K	1'-4½"	1'-0"	10"	2'-0"	1'-0"	2¼"	5"	5"	3"	10¼"	–	1"	8"
EPC-7	250 K	1'-4½"	1'-0"	1'-0"	2'-2"	1'-0"	2¼"	5"	5"	4"	10¼"	–	1"	8"
FPC-1	100 K	–	–	8"	1'-8"	9"	1¼"	2½"	8"	–	6½"	–	–	6"
FPC-2	160 K	–	–	8"	1'-8"	10"	1½"	3"	8"	–	6½"	–	–	7"
FPC-3	190 K	–	–	9"	2'-0"	10"	1½"	3"	10"	–	6½"	–	–	8"
FPC-4	220 K	–	–	10"	2'-0"	1'-0"	1¼"	4"	10"	–	6¼"	–	–	8"
FPC-5	250 K	–	–	1'-0"	2'-0"	1'-0"	2"	4"	10"	–	6"	–	–	8"

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1961, with Interim Specifications, 1961 & 1962

A.S.T.M. STEEL CLASSIFICATION

Anchor Bolts - A7, A36, or A 307
All other - A36.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

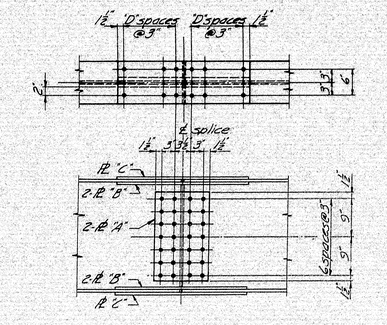
(BD 101 - 64)

BEARING PEDESTALS

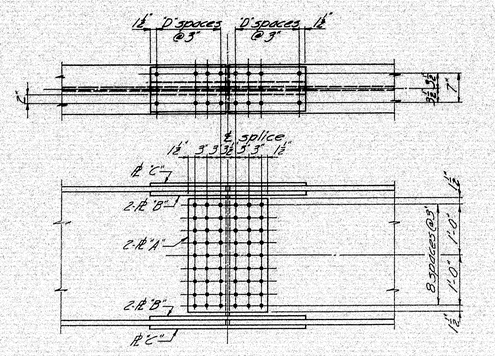
JANUARY 1964

99-93

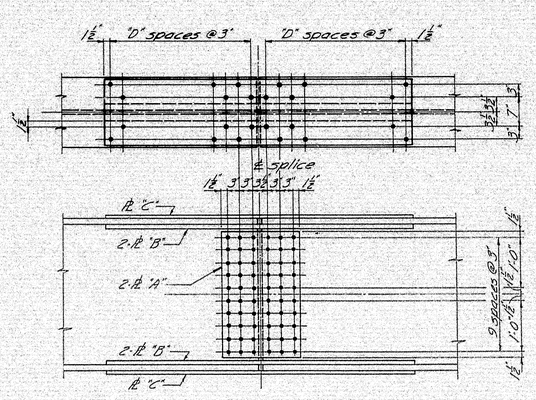
BPR. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
1	MAINE	I-95-8(62)	89	93



27 WF 84

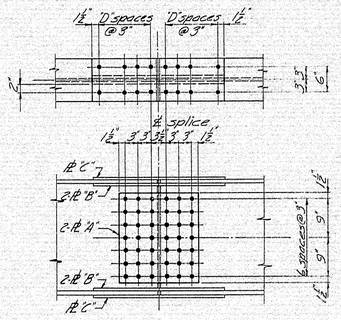


33 WF 118, 130, 141, 152

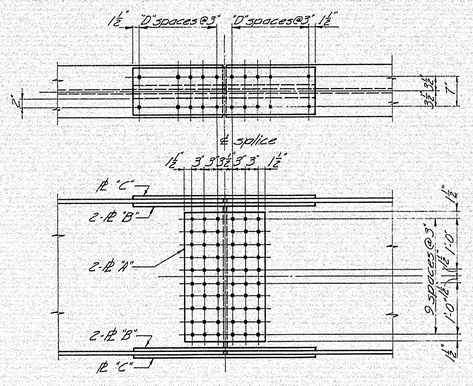


36 WF 245, 280

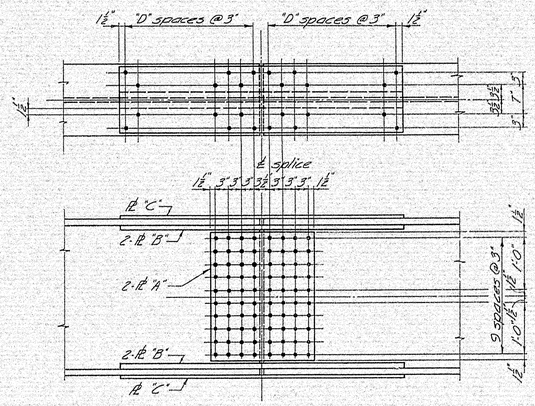
SPLICE DESIGN, PLATES AND FLANGE HOLES						
BEAM	BEND. M.	SHEAR	PLATE "A"	PLATE "B"	PLATE "C"	"D"
27 WF 84	3070 K'	111 K	12½ x ½	4 x 7/16	10 x 7/16	3
27 WF 94	3520 K'	119 K	18½ x 7/16	4 x ½	10 x 7/16	3
27 WF 102	3862 K'	126 K	18½ x 7/16	4 x 7/16	10 x 7/16	4
27 WF 114	4341 K'	140 K	18½ x 9/16	4 x 9/16	10 x ½	4
30 WF 99	3921 K'	139 K	18½ x ½	4 x ½	10 x 9/16	3
30 WF 108	4360 K'	147 K	18½ x 7/16	4 x 7/16	10 x 7/16	4
30 WF 116	4780 K'	152 K	18½ x 7/16	4 x 9/16	10 x 7/16	4
30 WF 124	5170 K'	159 K	18½ x 7/16	4 x 7/16	10 x ½	4
30 WF 132	5539 K'	168 K	18½ x 9/16	4 x ½	10 x 7/16	5
33 WF 118	5287 K'	164 K	18½ x ½	4 x 7/16	11 x 7/16	4
33 WF 130	5978 K'	179 K	18½ x ½	4 x ½	11 x 7/16	5
33 WF 141	6604 K'	181 K	18½ x 7/16	4 x 7/16	11 x ½	5
33 WF 152	7193 K'	191 K	18½ x 7/16	4 x ½	11 x 7/16	6
36 WF 135	6473 K'	191 K	18½ x ½	4 x 11/16	11 x 7/16	4
36 WF 150	7436 K'	202 K	18½ x ½	4 x 13/16	11 x ½	5
36 WF 160	8005 K'	212 K	18½ x 9/16	4 x ½	11 x 9/16	6
36 WF 170	8574 K'	221 K	18½ x 9/16	4 x 15/16	11 x ½	6
36 WF 182	9204 K'	231 K	18½ x 9/16	4 x 15/16	11 x 11/16	7
36 WF 194	9838 K'	253 K	18½ x 9/16	4 x 1	11 x 11/16	8
36 WF 230	12574 K'	247 K	18½ x 9/16	6 x 1	16 x 9/16	10
36 WF 245	13441 K'	260 K	18½ x 11/16	6 x 1	16 x 11/16	11
36 WF 260	14330 K'	276 K	18½ x 9/16	6 x 1 1/16	16 x ½	12
36 WF 280	15351 K'	291 K	18½ x 9/16	6 x 1 1/16	16 x 9/16	13
36 WF 300	16676 K'	312 K	24½ x 11/16	6 x 1 1/16	16 x ½	14



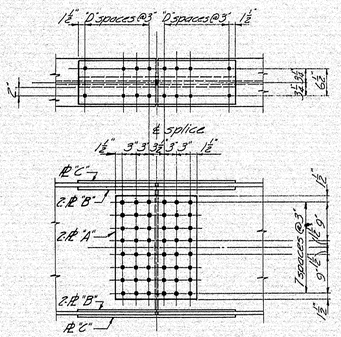
27 WF 94, 102, 114



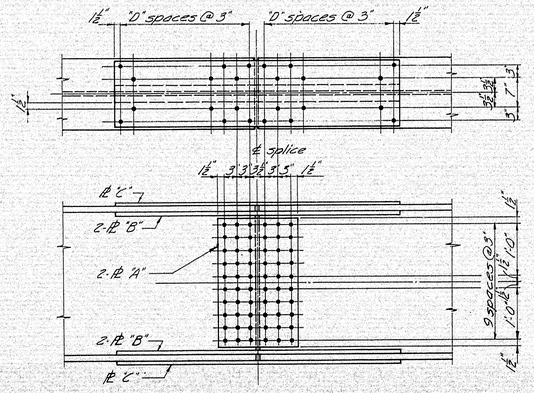
36 WF 135, 150, 160, 170, 182, 194



36 WF 300



30 WF 99, 108, 116, 124, 132



36 WF 230, 260

GENERAL NOTES

1. Splice connections to be made with ⅞" ϕ high tensile strength bolts. Holes to be 15/16" ϕ.

2. The design bending moment is 90% of the net resisting moment of the beam with an allowable stress of 20,000 p.s.i. The design shear is 75% of the shear strength of the gross section of the web with an allowable stress of 12,000 p.s.i.

3. If beams of different sizes are to be spliced, use splice details shown for the smaller of the beams being spliced unless otherwise directed by design details. See design details for filler thickness. Place fillers to limits of splice plates only, with no extensions.

4. See design details for slopes of beams in order to correctly fabricate bevels at the splices.

A.S.T.M. STEEL CLASSIFICATION

High Tensile Strength Bolts A-325
Splice Plates A-36

DESIGN SPECIFICATIONS

AASHO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 & 1962

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

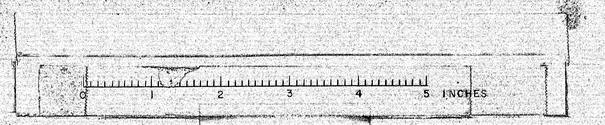
STANDARD DETAILS

(BD 103-64)

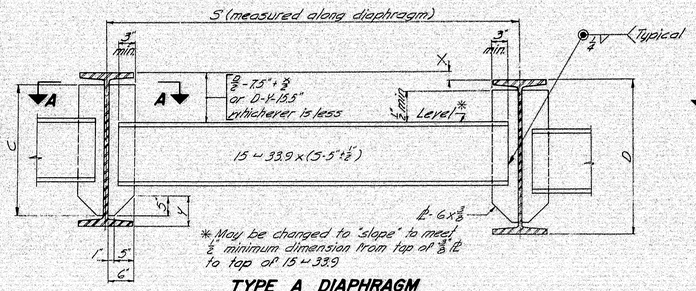
BEAM SPLICES

JANUARY 1964

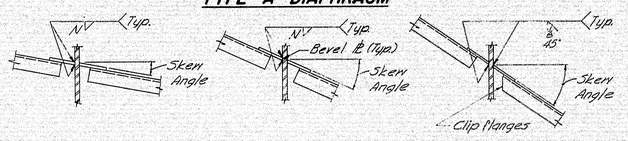
99-94



B.P.R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(62) I-95-9(29)	90	93



TYPE A DIAPHRAGM

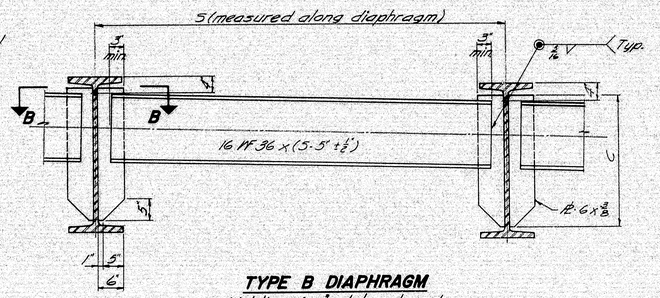


SECTION A-A
Skew Angle 0° to 18°-30'

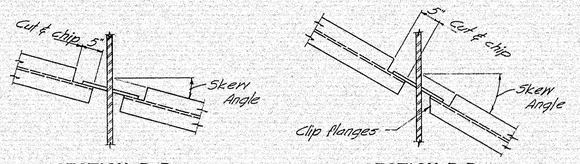
SECTION A-A
Skew Angle over 18°-30' to 30°-00'

SECTION A-A
Skew Angle over 30°-00'

FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM PLATES		
BEAM	C	N
27 WF 84 to 114 incl.	1'-11"	1/2"
30 WF 99 to 132 incl.	2'-2"	1/2"
33 WF 118 to 152 incl.	2'-5"	1/2"
36 WF 135 to 194 incl.	2'-7"	1/2"
36 WF 230 to 300 incl.	2'-6"	5/16"



TYPE B DIAPHRAGM
Welding 6 x 3/8 plates to web same as for Type A Diaphragm.

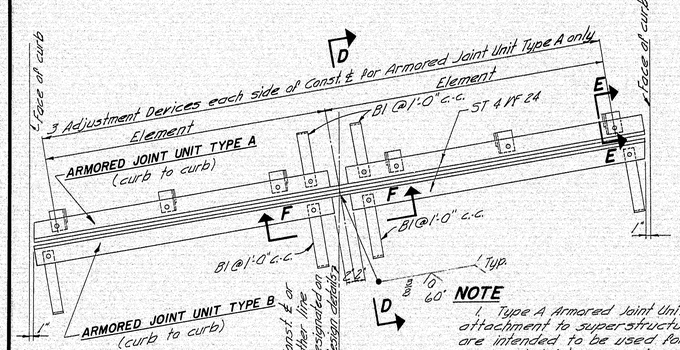


SECTION B-B
Skew Angle 0° to 25°-00'

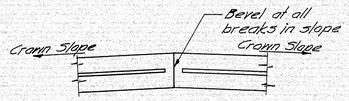
SECTION B-B
Skew Angle over 25°-00'

NOTE
See design details for diaphragm type, location and skew.

DIAPHRAGMS



PLAN

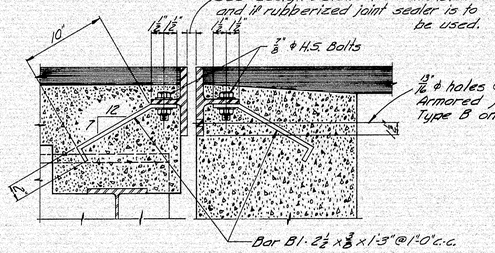


SECTION F-F
Note: See design details for Const. & to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

NOTE
1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two Type A Armored Joint Units shall be used.
2. If rubberized joint sealer is called for on the design details the area to which it is to be banded shall not be painted and it shall be supported on non-bituminous material. At the contractor's option the supporting material may be left in place or be removed. If the supporting material is left in place, it shall be compressible in accordance with specification AASHO M153-54. In either case bond between the supporting material and the rubberized joint sealer shall be prevented by a 1" minimum thickness of Poly-urethane foam.
3. If more elements than the two shown in the 'Plan' are required by the design details, there shall be three adjustment devices for each element for Armored Joint Unit Type A and the elements of both units shall be field welded together in the same manner as shown in the 'Plan'.
4. Armored Joints to be paid for as Structural Steel.

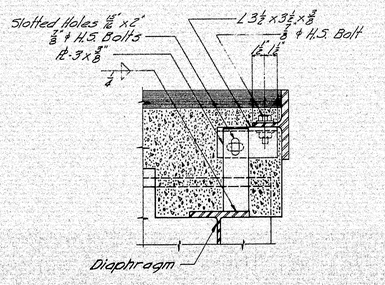
ARMORED JOINT

An armored joint consists of two armored joint units. See note 1.

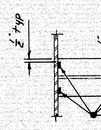


ARMORED JOINT UNIT TYPE A — ARMORED JOINT UNIT TYPE B

SECTION D-D

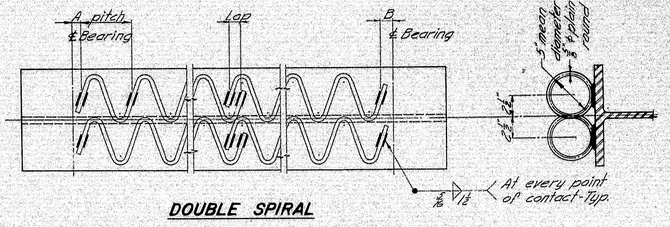


SECTION E-E
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld 3/8" to angle with 1/4" fillet

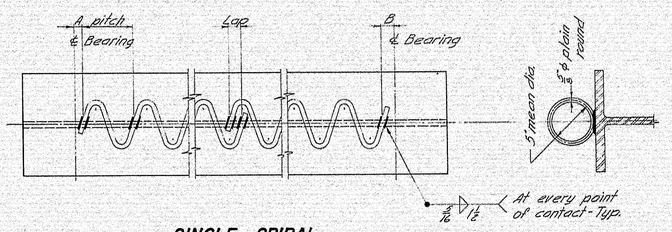


SECTION C-C

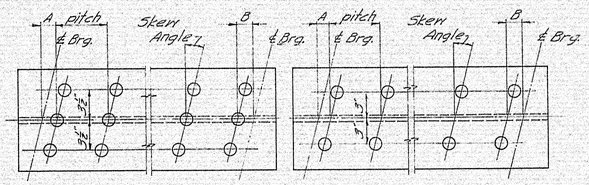
NOTE
1. Drain may be rotated 180°. See design details for location and number of drains and beam size to which it is connected.
2. Drains to be paid for as structural steel.



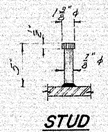
DOUBLE SPIRAL



SINGLE SPIRAL



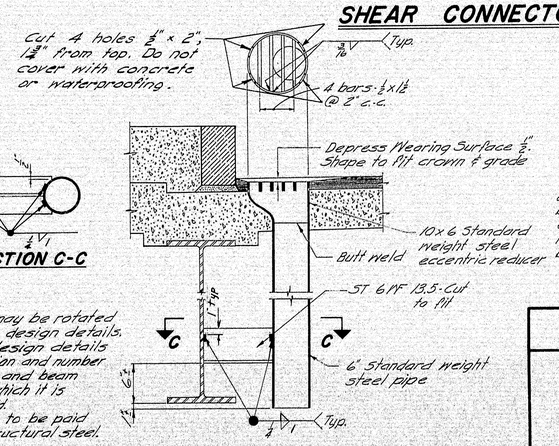
TRIPLE STUDS **DOUBLE STUDS**



STUD DETAIL

NOTE
1. Spiral reinforcing or studs may be used at the option of the Contractor.
2. If studs are used they shall be granular or solid flux filled and automatically end welded to the top flange in the shop or field.
3. Studs are a patented product. If the Contractor elects to use them, he shall pay the royalty and payment to the contractor will be included in the lump sum price for Shear Connectors.
4. See the design details for Dimensions 'A' and 'B', spiral and stud pitch and Skew Angle for Studs.

SHEAR CONNECTORS



DRAIN

Revised Nov. 1964, Welding Drain Support

GENERAL NOTE

Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.

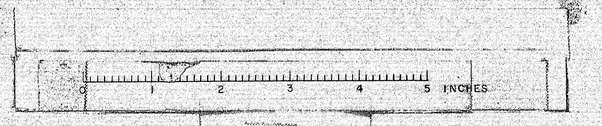
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 104-64)

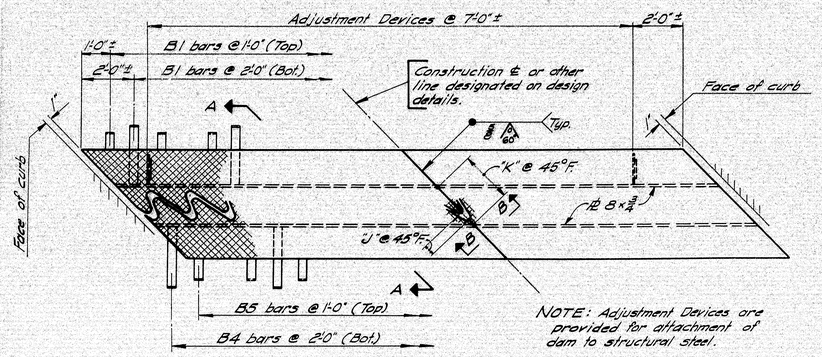
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

JANUARY 1964

99-95

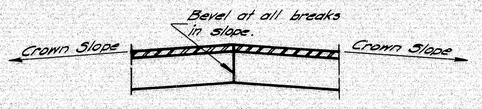


B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(29)	91	93



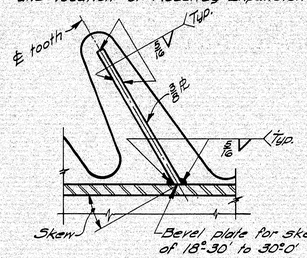
PLAN

Right skew indicated



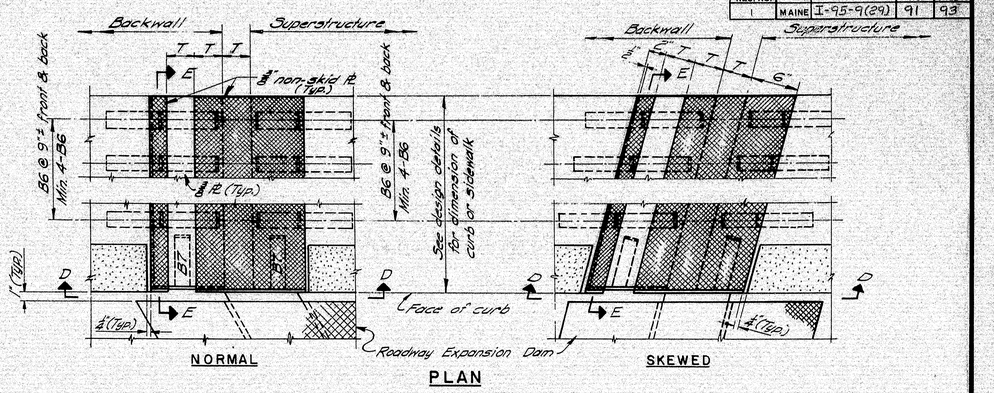
SECTION B-B

See design details for construction ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions & angles that are necessary to complete fabrication details and location of Roadway Expansion Dam.

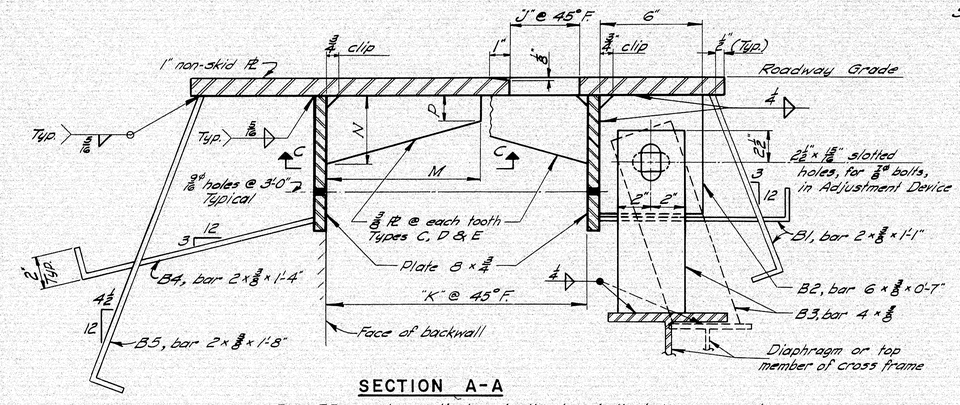


SECTION C-C

Skew ~0° to 30°-0'

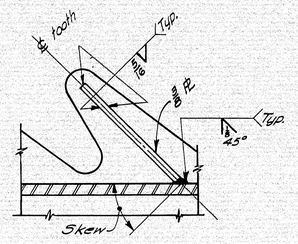


PLAN



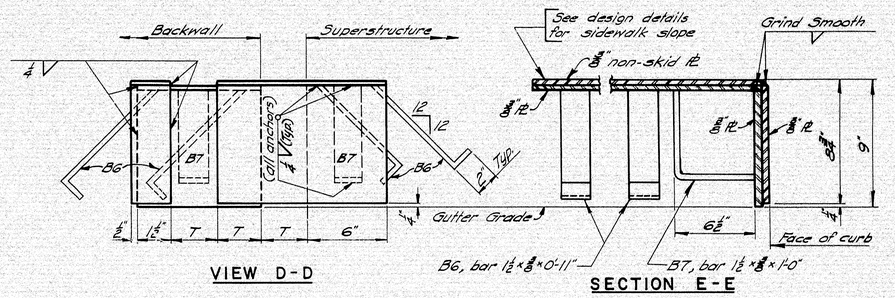
SECTION A-A

Bar B3 may be vertical or inclined as indicated, depending on design conditions. After Adjustment Device is in final position weld bars B2 to B3 with 1/4" fillet weld.



SECTION C-C

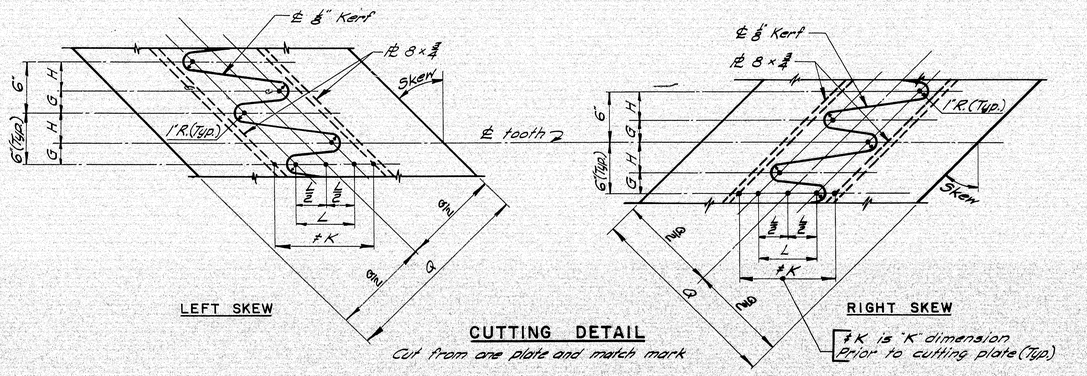
Skew over 30°



VIEW D-D **SECTION E-E**

TYPE	V	W	X	Y	Z
Exp. Length	100'-280'	280'-440'	440'-600'	600'-760'	760'-920'
T	3"	4"	5"	6"	7"

CURB AND SIDEWALK EXPANSION DAM - DETAILS



CUTTING DETAIL

Cut from one plate and match mark

≠K is "K" dimension prior to cutting plate (Typ.)

ROADWAY EXPANSION DAM - DETAILS

TABLE OF DIMENSIONS											
Type	Exp. Length	Skew	≠K	L	G	H	K@45°	J@45°	M	N	P	Q
A	100'-280'	0°-5° incl.	7"	4"	3"	3"	9"	2 3/8"	—	—	—	21"
		5°-10°	7 1/4"	4 1/2"	2 7/8"	3 3/8"	9 1/4"	2 3/8"	—	—	—	22"
		10°-20°	8"	4 5/8"	2 7/8"	3 3/8"	10"	2 3/8"	—	—	—	22"
		20°-30°	8 3/4"	5 1/4"	2 7/8"	3 3/4"	10 3/8"	2 3/8"	—	—	—	23"
		30°-40°	9 3/4"	5 3/4"	2 7/8"	3 7/8"	11 3/8"	2 3/8"	—	—	—	23"
		40°-50° incl.	11 1/4"	6 5/8"	2 1/2"	3 1/2"	13 1/4"	2 3/8"	—	—	—	23"
B	280'-440'	0°-5° incl.	9"	6"	3"	3"	12"	3 3/8"	—	—	—	23"
		5°-10°	9 1/2"	6 1/4"	2 7/8"	3 3/8"	12 1/2"	3 3/8"	—	—	—	24"
		10°-20°	10"	6 3/8"	2 7/8"	3 3/8"	13"	3 3/8"	—	—	—	24"
		20°-30°	10 3/4"	7 1/4"	2 7/8"	3 3/4"	13 3/8"	3 3/8"	—	—	—	25"
		30°-40°	12"	8"	2 7/8"	3 3/4"	15"	3 3/8"	—	—	—	25"
		40°-50° incl.	13 3/4"	9 1/4"	2 7/8"	3 5/8"	16 3/4"	3 3/8"	—	—	—	25"
C	440'-600'	0°-10° incl.	11 1/4"	8 3/8"	3"	3"	15 1/2"	4 3/8"	9"	4"	1 1/2"	26"
		10°-20°	12"	8 3/4"	2 7/8"	3 3/8"	16"	4 3/8"	10"	4"	1 1/2"	26"
		20°-30°	12 3/4"	9 1/4"	2 7/8"	3 3/8"	16 3/4"	4 3/8"	11"	4"	1 1/2"	26"
		30°-40°	14"	10"	2 7/8"	3 3/4"	18"	4 3/8"	11"	4"	1 1/2"	26"
		40°-50° incl.	15 3/4"	10 7/8"	2 7/8"	3 3/8"	19 1/2"	4 3/8"	12"	4"	1 1/2"	26"
D	600'-760'	0°-10° incl.	13 3/4"	10 1/4"	3"	3"	18 1/2"	5 3/8"	11"	5"	2"	30"
		10°-20°	14"	10 3/8"	2 7/8"	3 3/8"	19"	5 3/8"	12"	5"	2"	30"
		20°-30°	14 3/4"	11"	2 7/8"	3 3/8"	19 3/8"	5 3/8"	13"	5"	2"	30"
		30°-40°	16"	12"	2 7/8"	3 3/8"	21"	5 3/8"	13"	5"	2"	30"
		40°-50° incl.	17 3/4"	13"	2 7/8"	3 3/4"	22 3/4"	5 3/8"	15"	5"	2"	30"
E	760'-920'	0°-10° incl.	15 3/4"	12"	3"	3"	21 1/2"	6 3/8"	13"	6"	2 1/2"	36"
		10°-20°	16"	12 1/8"	2 7/8"	3 3/8"	22"	6 3/8"	14"	6"	2 1/2"	36"
		20°-30°	16 3/4"	13"	2 7/8"	3 3/8"	22 3/4"	6 3/8"	15"	6"	2 1/2"	36"
		30°-40°	18"	14"	2 7/8"	3 3/8"	24"	6 3/8"	15"	6"	2 1/2"	36"
		40°-50° incl.	19 3/8"	15"	2 7/8"	3 3/4"	25 3/8"	6 3/8"	17"	6"	2 1/2"	36"

GENERAL NOTES

Expansion Dams to be paid for as Structural Steel.

If there is conflict between this Standard Detail and the design details, the requirements of the design details shall be followed.

Steel Classification: A.S.T.M. A36

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

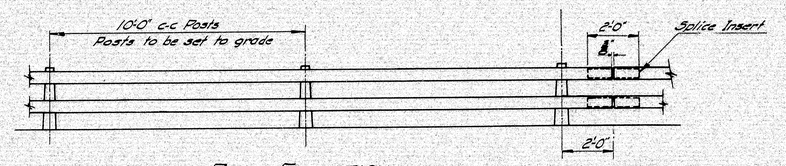
STANDARD DETAILS
(BD 105 - 64)

EXPANSION DAMS

APRIL 1964

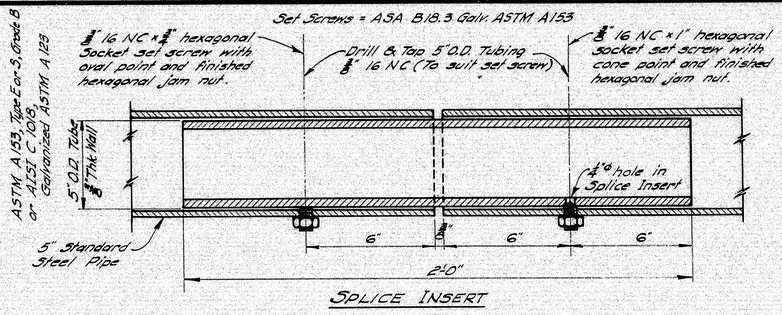
99-96

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-95-B(62)	92	93
		F-95-9(29)		

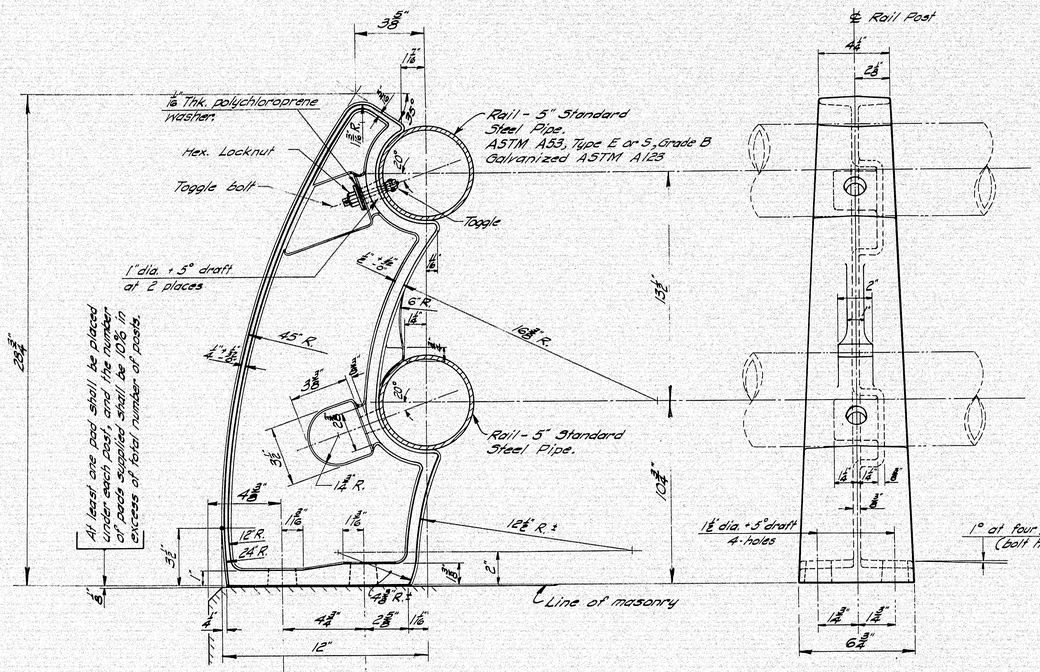


RAIL ELEVATION

Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.

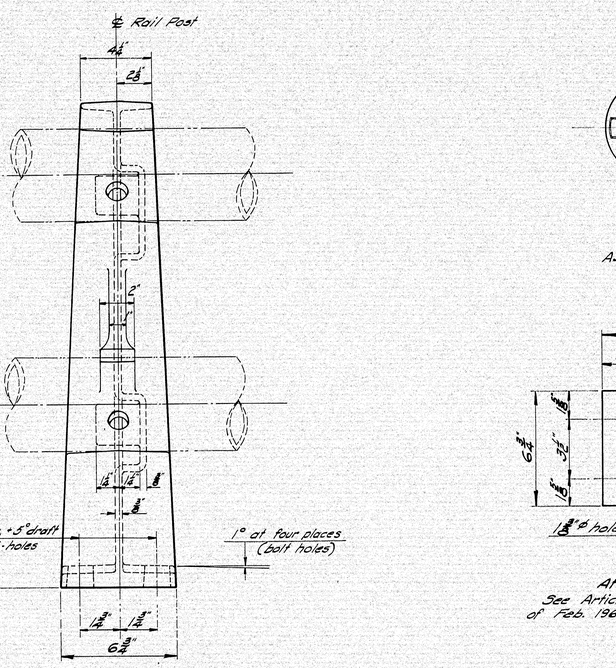


SPLICE INSERT

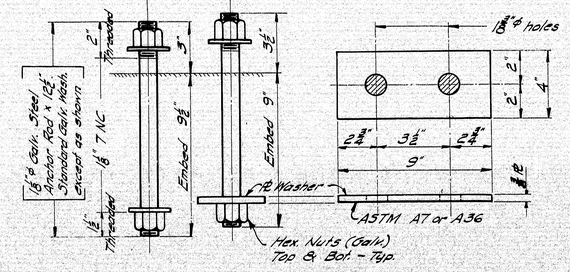


RAIL POST

ASTM A27, Grade 65-35, Galvanized ASTM A153

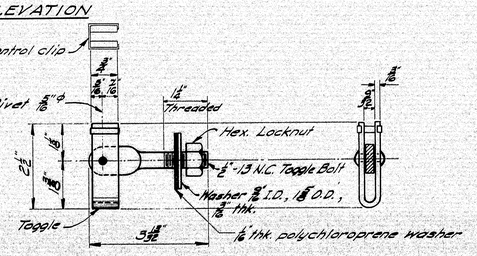


FRONT ELEVATION



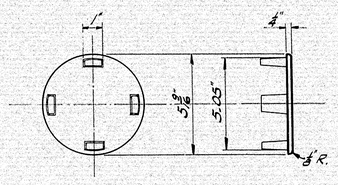
RAIL POST ANCHORAGE

Bolts, Nuts, & Std. Washers = ASTM A325 Galvanized ASTM A153



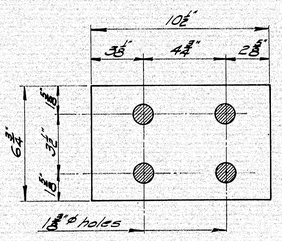
TOGGLE BOLT DETAIL

Cadmium Plate metal parts ASTM A165-55, Type N5, .0005" thick



RAIL CAP

ASTM A27, Grade 65-35, Galv. ASTM A153



PAD

At each rail post
See Article 702-80 Supplemental Specifications of Feb. 1960.

DESIGN SPECIFICATIONS

A.A.S.H.O. Interim Specifications Int. 1 (64)

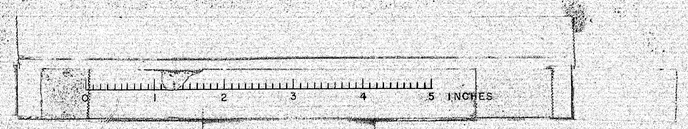
Toggle	=	ASTM A303, 1015 H.R. Steel.
Rivet	=	ASTM A195, 1038 C.R. Steel, Heat Treated
Toggle Bolt	=	ASTM A354, 1335 C.R. Steel, Heat Treated RC 32-38.
Washer	=	ASTM A7, 1020 H.R. Steel
Hex. Locknut	=	Finished Hexagonal Locknut Prevailing Torque Type Steel Grade C or D, Industrial Fasteners Institute.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

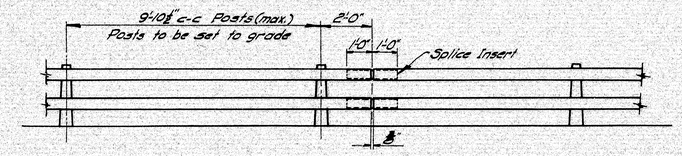
STANDARD DETAILS
(BD 107 - 64)
STEEL RAIL
(2-BAR PIPE RAIL)
CAST POST

OCT. 1964

99-97



B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-75-B (62)	93	93
		F-75-9 (29)		

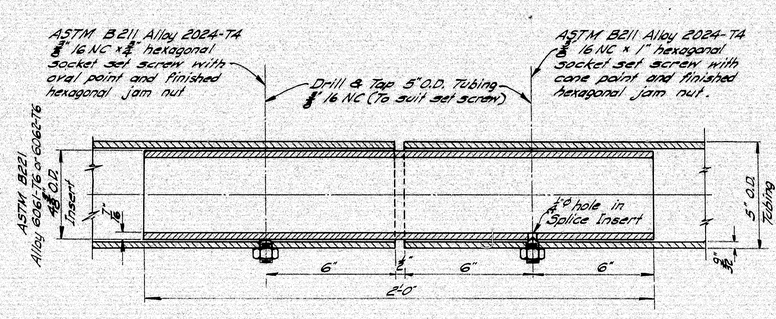


RAIL ELEVATION

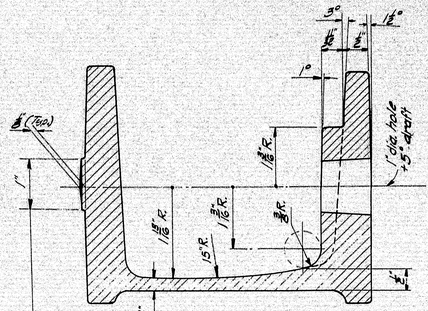
Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.

⚠ ORIGIN LOCATION - PRINCIPAL CURVES

Curve	Radius	"X"	"Y"
#1	24"	24"	3 15/32"
#2	45"	45"	2 27/32"
#3	15"	15 1/16"	4 23/32"
#4	9 3/4"	20 1/16"	2 11/32"
#5	19"	28 17/32"	11"
#6	6"	16 17/32"	16 1/16"

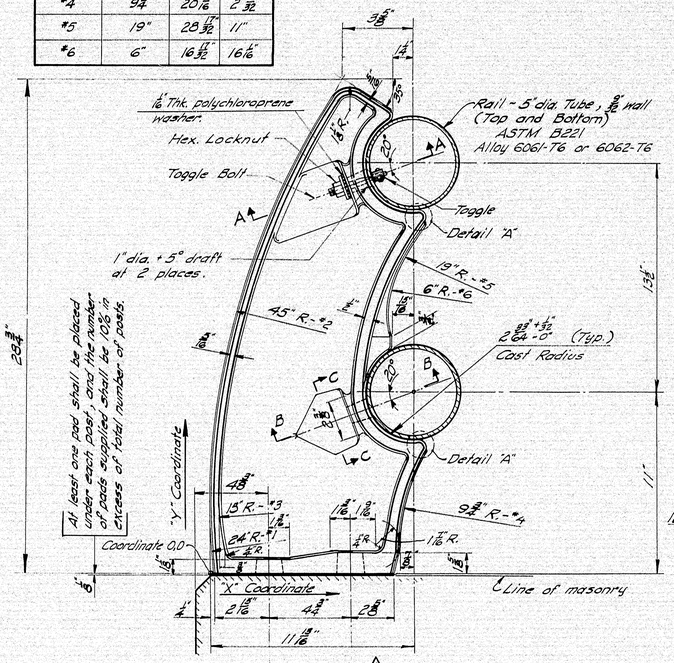


SPLICE



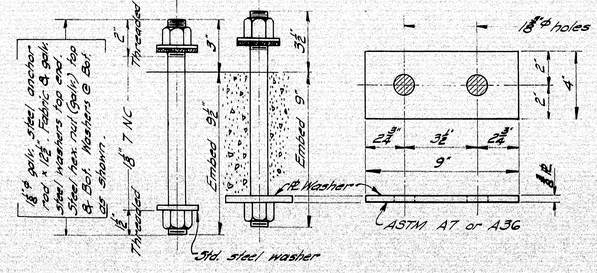
SECTION A-A

Casting to be supplied with a 60 grid belt grind finish on all gating rib surfaces around entire casting.



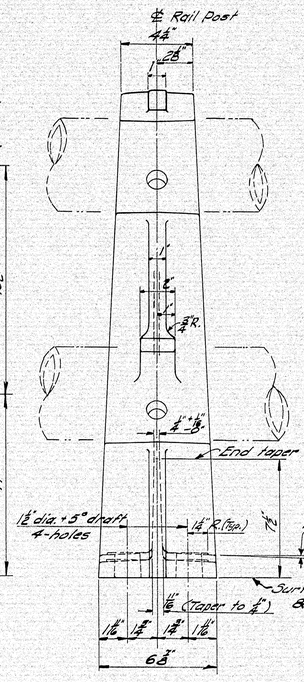
RAIL POST ⚠

Aluminum Association Alloy A344-T4

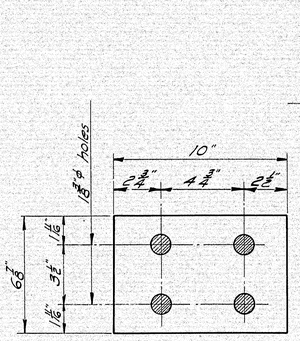


RAIL POST ANCHORAGE

Bolts, Nuts & Std. Washers = ASTM A325 Galvanized ASTM A153



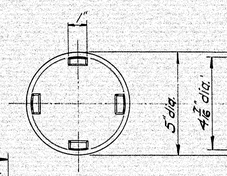
FRONT ELEVATION



PAD

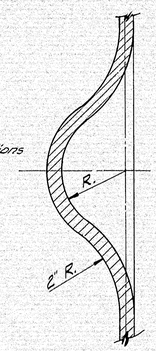
At each rail post

See Article 702-80, Supplemental Specifications of Feb. 1960 for Pad & Fabric Washers.

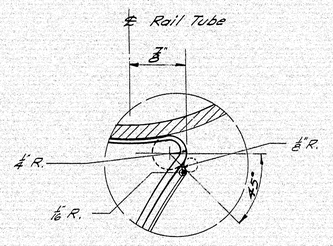


RAIL CAP

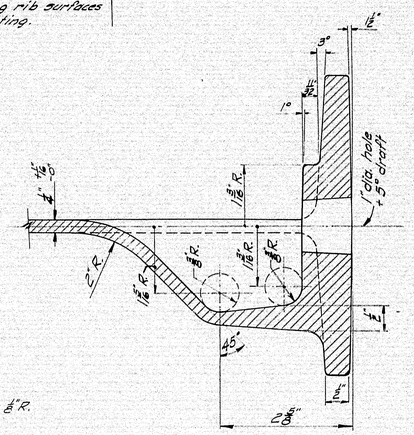
ASTM B26 Alloy 3G 70 A or 35 A



SECTION C-C



DETAIL "A" ⚠



SECTION B-B

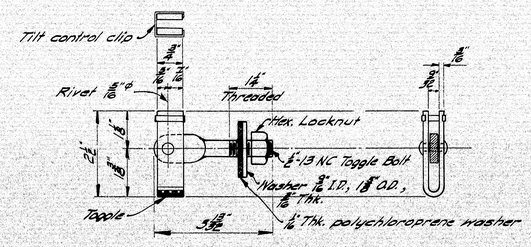
DESIGN SPECIFICATIONS

A.A.S.H.O. Interim Specifications Int. I (64).

A344-T4 Alloy to meet the Specification outlined by Aluminum Association.

ALTERATION:

⚠ - Added Detail "A" and Origin Location - Principal Curves. Nov. 19, 1964.



TOGGLE BOLT DETAIL

Cadmium Plate metal parts ASTM A165-55, Type N.5, .0005" thick.

Toggle = ASTM A303, 1015 H.R. Steel.
Rivet = ASTM A195. 1038 C.R. Steel, Heat Treated
Toggle Bolt = ASTM A354, 1335 C.R. Steel, Heat Treated RC 32-38.
Washer = ASTM A7, 1020 H.R. Steel.
Hex. Locknut = Finished Hexagon. Locknut Prevailing Torque Type Steel Grade C or D; Industrial Fasteners Institute.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

(BD 108-64)

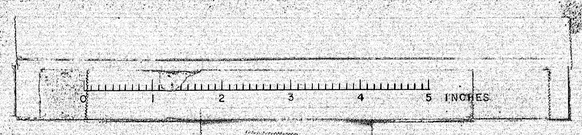
ALUMINUM RAIL

2 - BAR (TUBE RAIL)

CAST POST

OCT. 1964

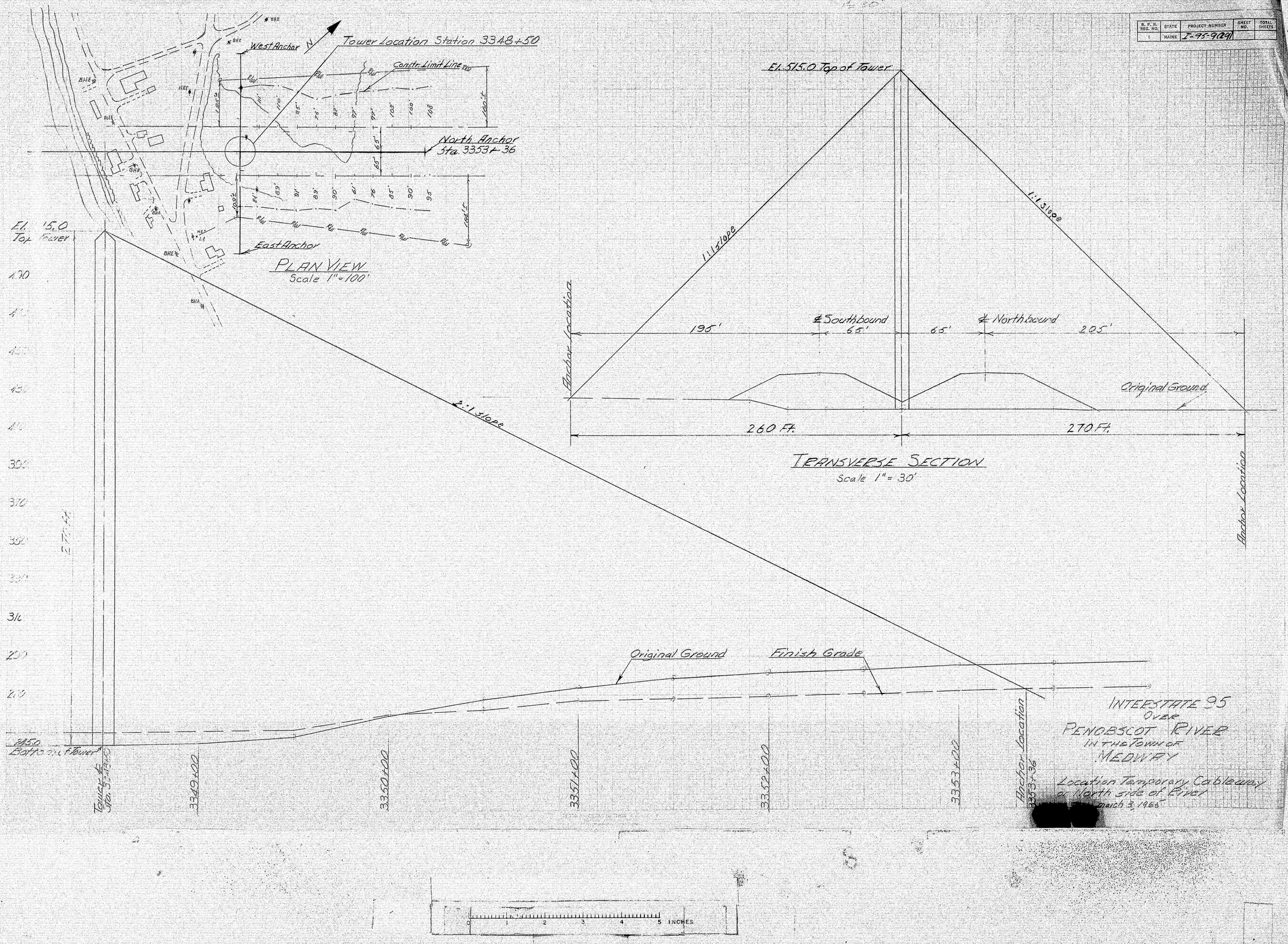
99-98



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(29)		

PLAN VIEW
Scale 1" = 100'

TRANSVERSE SECTION
Scale 1" = 30'



INTERSTATE 95
OVER
PENOBSCOT RIVER
IN THE TOWN OF
MEDWAY

Location Temporary Cableway
at North side of River
March 3, 1964

[redacted]

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(29)		

El. 520.0 Top of Tower

1:1 Slope

1:1 Slope

Southbound

Northbound

213'

65'

65'

205'

278'

270'

TRANSVERSE SECTION
Scale 1"=30'

℄ Brg. Abut #1 N.B.
Sta. 3335+94.83

Piers

℄ Abut #1 S.B.
Sta. 3335+60

Tower Location
Sta. 3334+60

270' to Anchor

278'

West Anchor

Sta. 3332+86.56 N.B
Sta. 52+00.92 Pc. 116

Junk Yard

℄ N.B.

65'

65'

℄ S.B.

Sta. 3332+66.15 S.B
Sta. 51+32.36 Pc. 112

Proposed Temp cables

Temp Cables

Rte. 95 N.B.

Rte. 95 S.B.

Rte. 95 Northbound Lanes

Rte. 95 Southbound Lanes

Top of Tower

PLAN
Scale 1"=30'

2:1 Slope

INTERSTATE 95
Over
PENOBSCOT RIVER
IN the TOWN OF
MEDWAY
Location of Temporary Cableway
on South Side of River
H. Flagg March 3, 1965

Original Ground

Finish grade Ditch

Anchor Location
Station 29+93

3331+00

3332+00

3333+00

3334+00

3335+00

Approx. Finish Gr.

Original Ground

Elev. Bottom of Tower 250.0

520
510
490
470
450
430
410
390
370
350
330
310
290
270
250

530
510
490
470
450
430
410
390
370
350
330
310
290
270
250

PLATE 2 - CROSS SECTION

0 1 2 3 4 5 INCHES