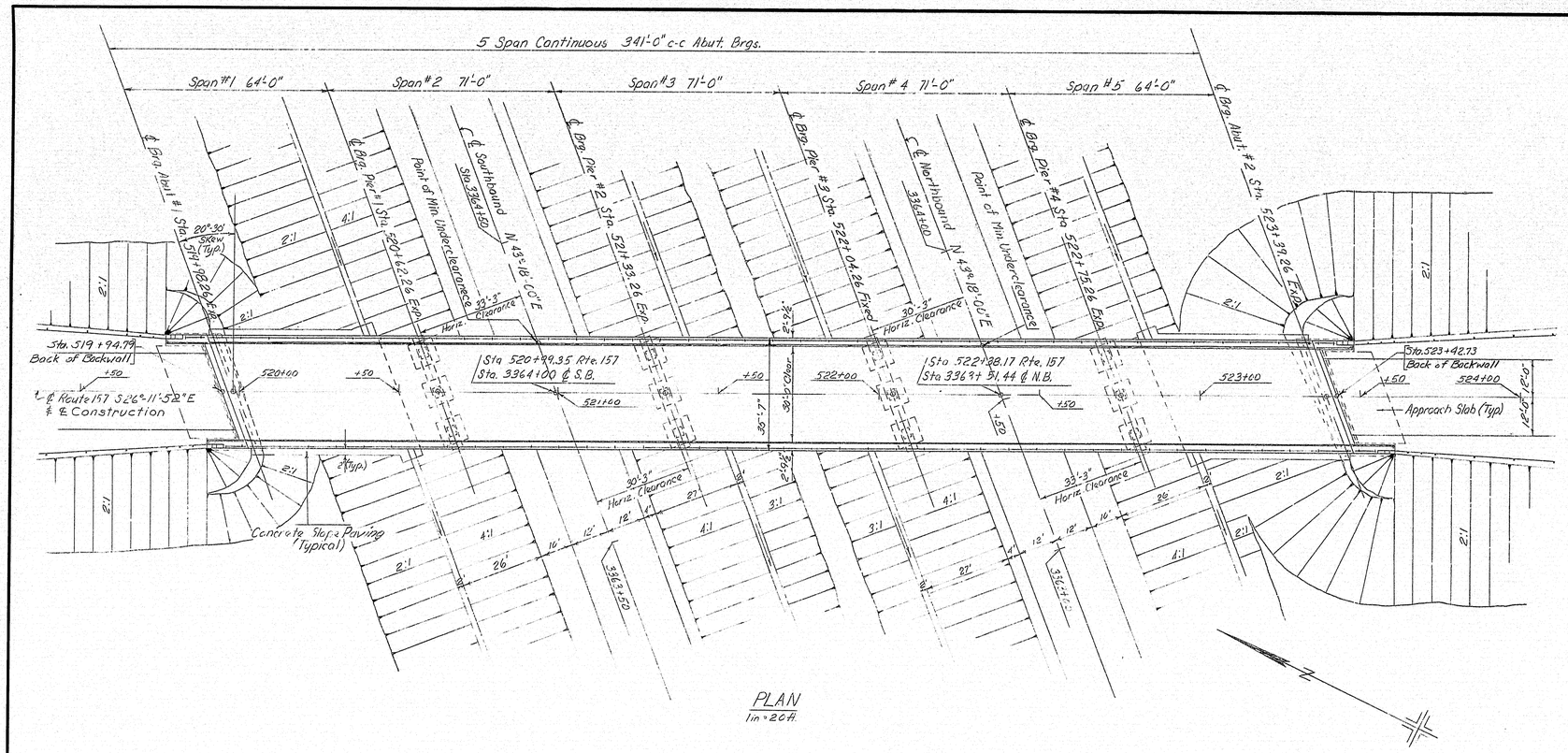
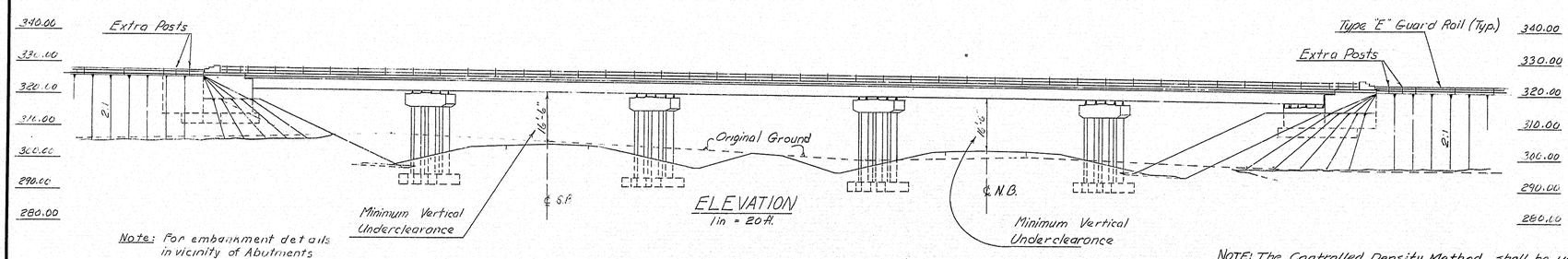
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(30)	13	25



PLAN
1in = 20ft.



ELEVATION
1in = 20ft.

Note: For embankment details in vicinity of Abutments see Sheet 5.

NOTE: The Controlled Density Method shall be used for placing all embankments between Stations 519+40 and 524+10

INDEX OF SHEETS

Sheet	Title
1	General Plan and Elevation, Index
2	Foundation Survey
3	Abutment #1
4	Abutment #2
5	Abutment Details
6	Piers
7	Structural Steel
8	Beam Grades and Blocking
9	Superstructure - 1
10	Superstructure - 2
11	Superstructure - 3
12	Superstructure - 4
13	Approach Slab, Typ. Sections and Grades, Bridge Quantities
14	Reinforcing Steel Schedule
15	Slope Paving

STANDARD DETAIL SHEETS

BD-101-64 Bearing Pedestals
BD103-64 Beam Splices
BD-104-64 Diaphragms, Armored Joint, Shear Connectors, Drains
BD-105-64 Expansion Dams
BD-107-64 Steel Rail
BD-108-64 Aluminum Rail
Engineers Field Offices

SPECIFICATIONS

DESIGN:
A.A.S.H.O. Standard Specifications for Highway Bridges, 1961, with Interim Specifications 1961, 1962, 1963, 1964.

CONTRACT:
State of Maine, State Highway Comm., Standard Specifications for Highways and Bridges. Revision of Jan. 1956 and Supplemental Specifications dated Feb. 1960.

LIVE LOADING
HS20-44

ALLOWABLE STRESSES

CONCRETE:
(n=10) f_c = 1200psi

REINFORCING STEEL:
Intermediate grade f_s = 20,000 psi

STRUCTURAL STEEL:
A36 f_s = 20,000psi

CONCRETE CLASSIFICATION
All Concrete Class "A" except Slope Paving which is Class "Y".

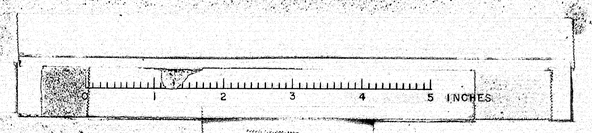
STRUCTURAL STEEL CLASSIFICATION
All structural steel shall conform to the latest revision of the Specification A.S.T.M. Designation A36 unless otherwise noted on the Standard Details.

DESIGN- A.M.R.
TRACE & DETAIL T.W.R.
CHECK-

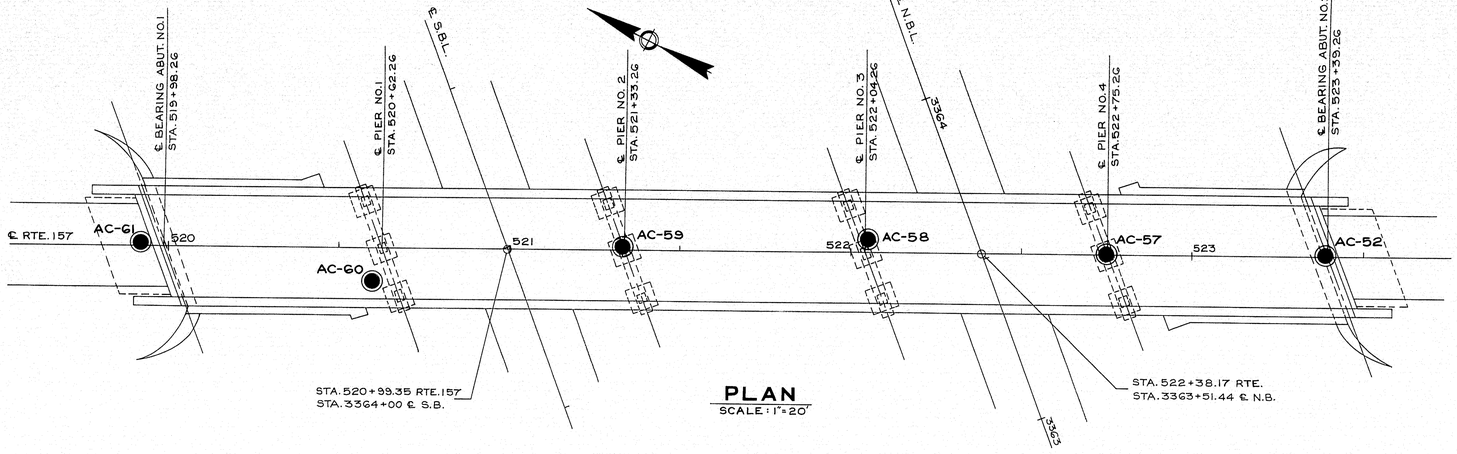
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY
GENERAL PLAN & ELEVATION, INDEX
SHEET 1 OF 15 AUGUSTA, MAINE DEC. 1964

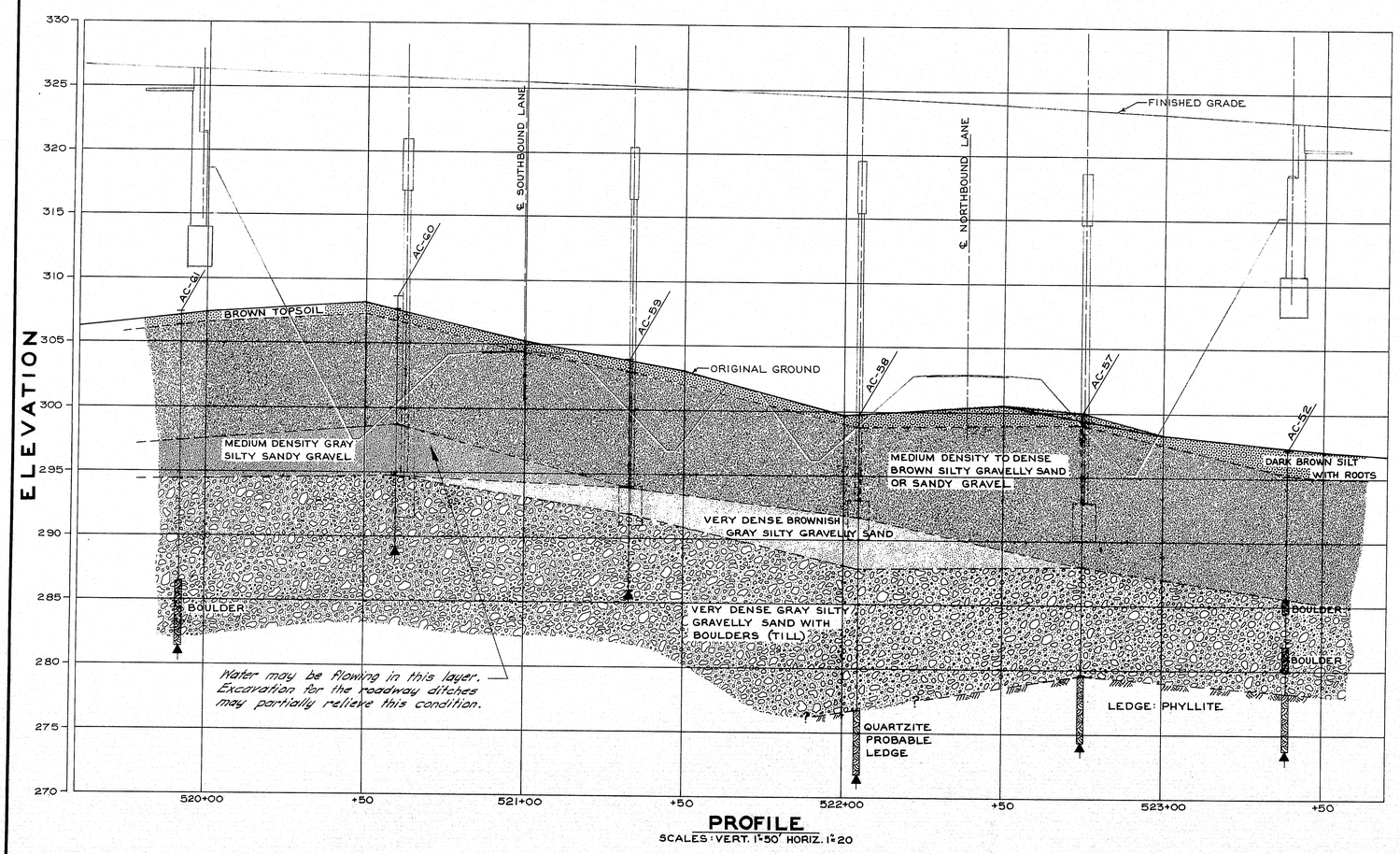
M-2443



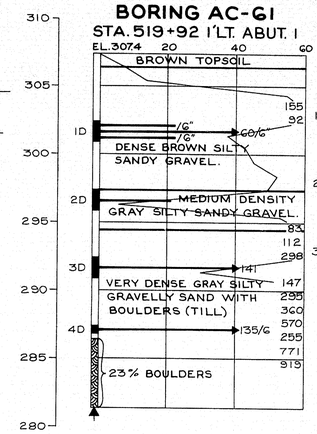
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	14	230

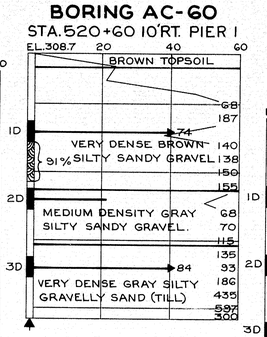


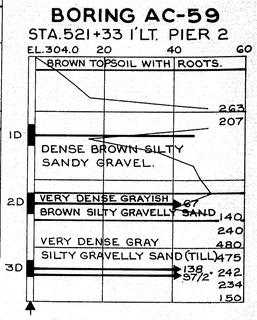
PLAN
SCALE: 1"=20'

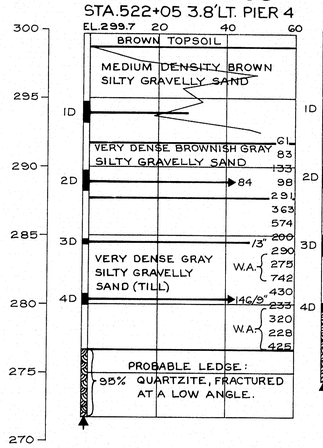


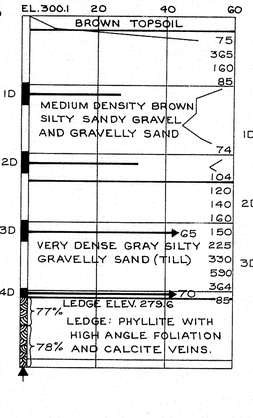
PROFILE
SCALES: VERT. 1"=50' HORIZ. 1"=20

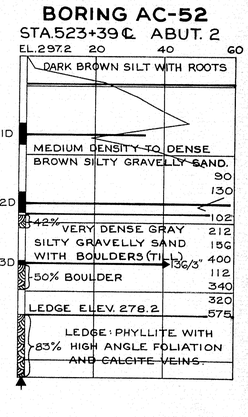












BORING NOTES

CASING SIZE 2½"

W.A. WASHED AHEAD BEFORE DRIVING CASING

NUMBER OF BLOWS REQUIRED TO DRIVE EXTRA HEAVY CASING ONE FOOT WITH 400 FT. LBS. OF ENERGY PER BLOW.

ALL SAMPLES ARE MADE AHEAD OF CASING.

LOCATION OF SAMPLE OR SAMPLE ATTEMPT.

NUMBER AND TYPE OF DRY SAMPLE.

S & H SAMPLER #1290's

1D NUMBER OF BLOWS REQUIRED TO DRIVE SPOON ONE FOOT WITH 350 FT. LBS. OF ENERGY PER BLOW.

BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)

LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK.

DESIGN– TRACE– CHECK–

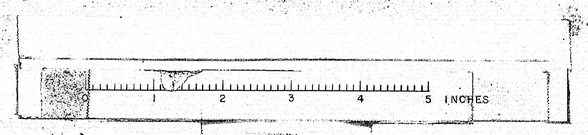
BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

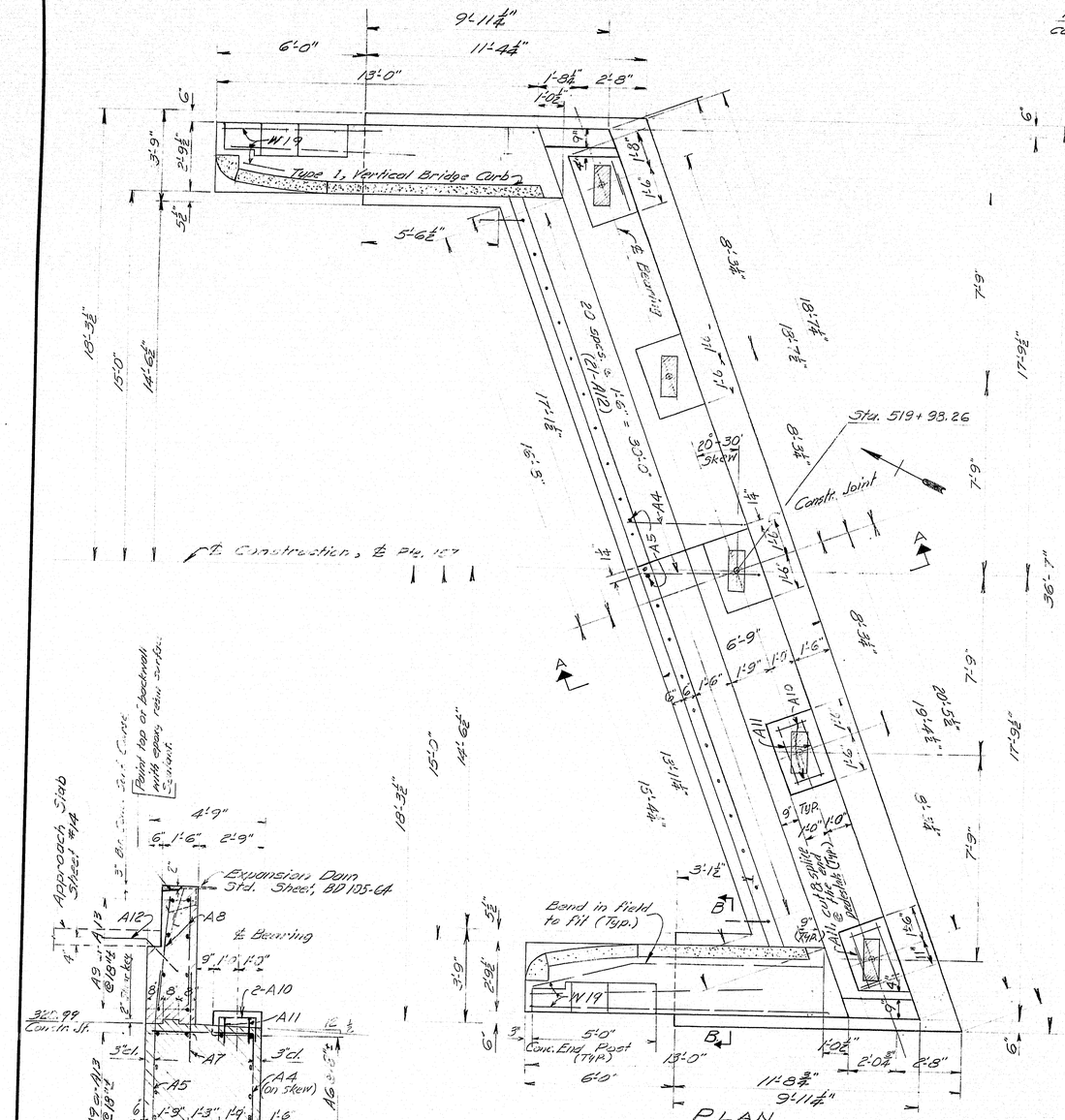
ROUTE NO. 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY
FOUNDATION SURVEY

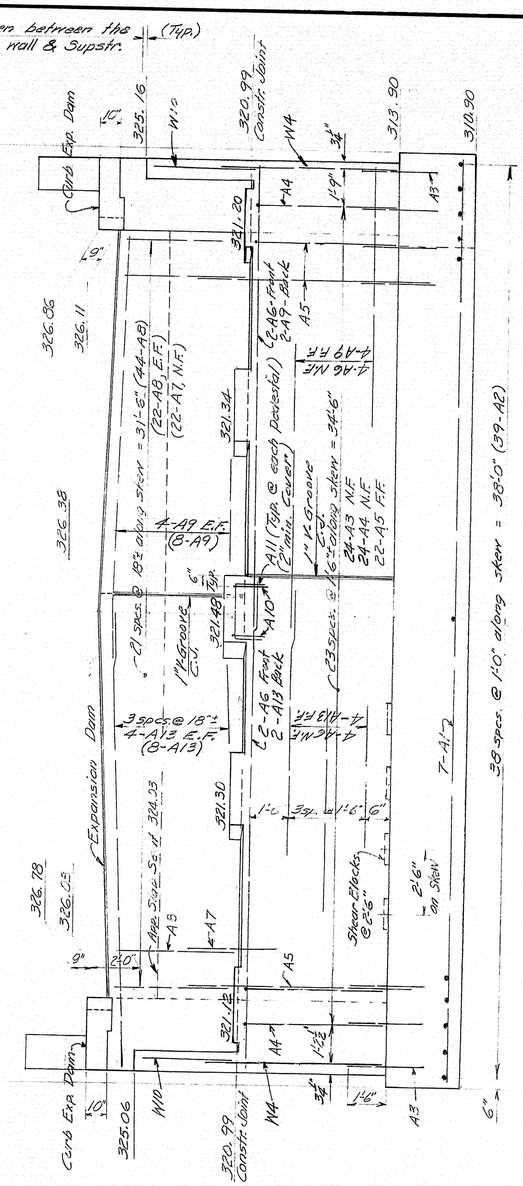
SHEET 2 OF 15 AUGUSTA, MAINE MAR. 1965

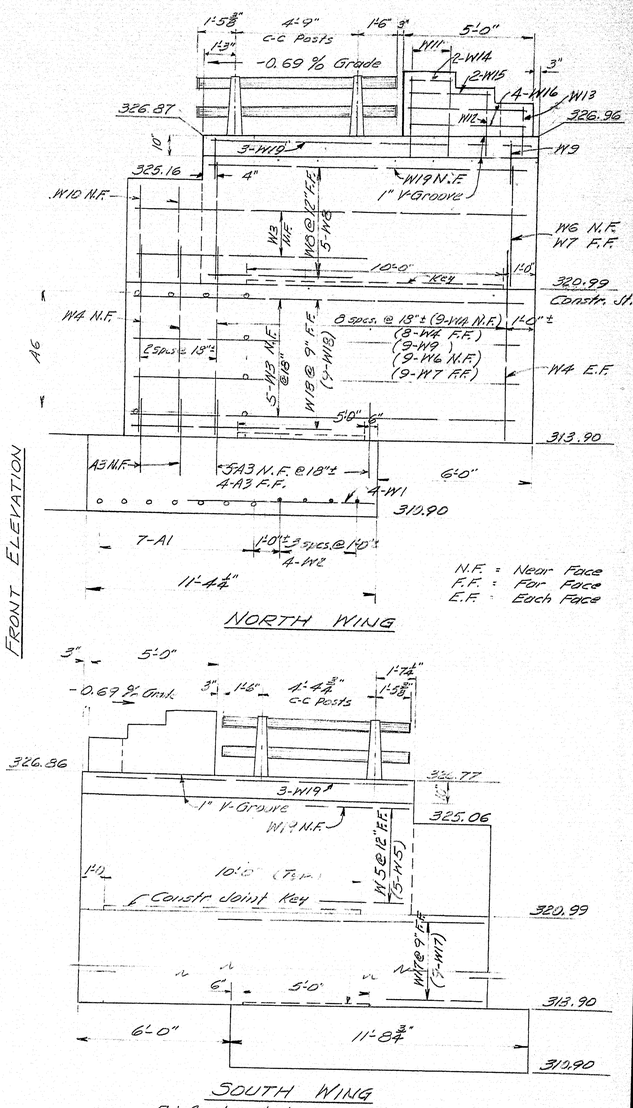
M-2444



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	15	230







NOTE: Revisions of Abutment 1 are shown on Sheet 3A.

Reinforcing steel same as for North Wing except as shown.

GENERAL NOTES:

1. Reinforcing Steel to have 3" min. concrete cover, unless noted.
2. For Details of Vertical Bridge Curb-Type 1, Constr. Joint 1" V-Groove, & Concrete End Post see Sheet #6
3. Reinforcing Steel, same for both abutments.
4. For Bridge Rail see sheet #10 & BD 107-64, BD 108-64
5. Maximum Footing Pressure = 3.0 Tons per square foot.
6. Paint face of backwall, the top, ends, and face of Bridge Seat, with Epoxy Resin Surface Sealant, down to 1'-0" below shelf elevation of slope paving.

DESIGN- A.H.R.
TRACE & DETAIL - G.W.C.
CHECK- E.F.S.

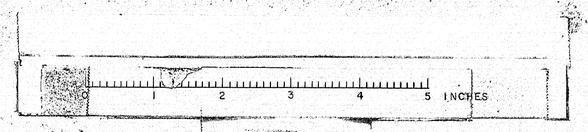
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

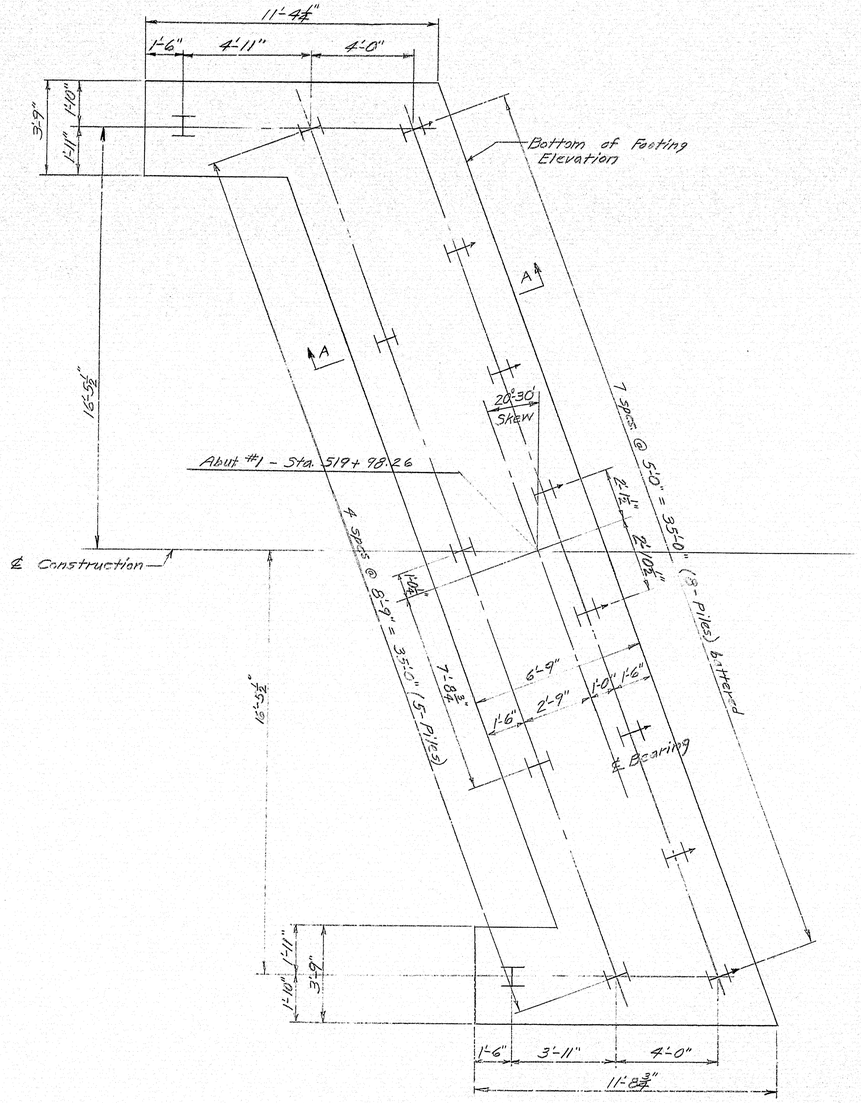
ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY
ABUTMENT 1

SHEET 3 OF 15 AUGUSTA, MAINE DEC. 1964

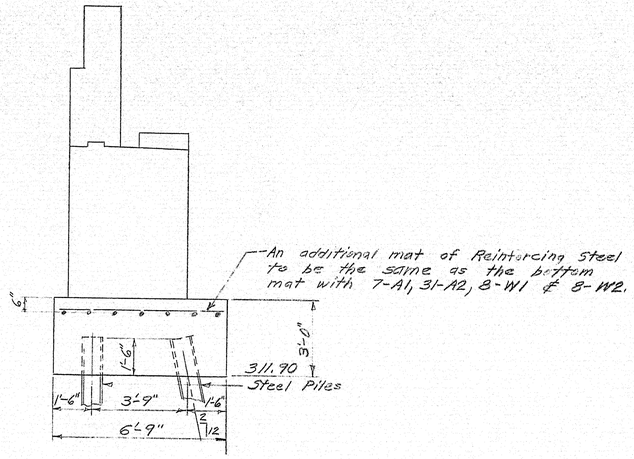
M-2445



B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



PILE PLAN



SECTION A-A

NOTE: Gravel Borrow shall be compacted by the "Control Density Method". 98% Compaction is not required. No rocks larger than 6" in diameter shall be used and concentration of stones of any size shall be avoided.

PILE NOTES

15 10BP42 Required
Estimated Length = 30' per Pile
⊢⊢ Denotes pile to be battered 2" per foot.
Maximum Actual Load per Pile = 37 tons

DESIGN– A.H.R.	BRIDGE NO.
TRACE– "	SURVEY–
CHECK– EAS	PLOT–

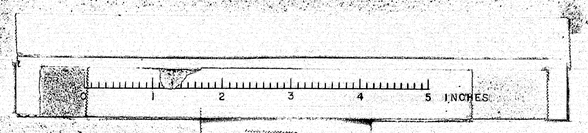
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY

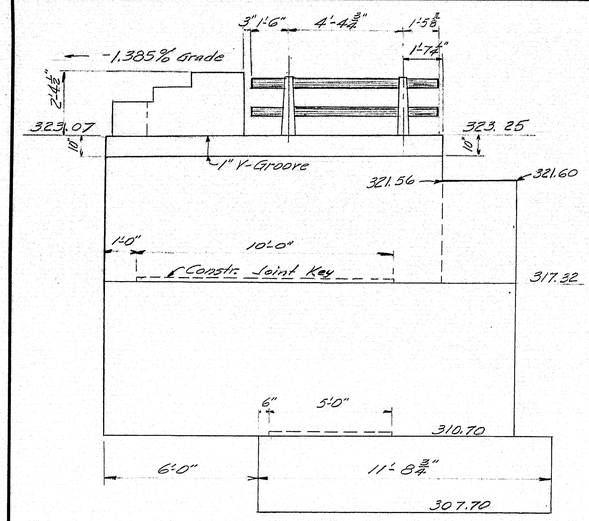
Revisions of Abutment 1

SHEET 3A OF AUGUSTA, MAINE AUG. 1965

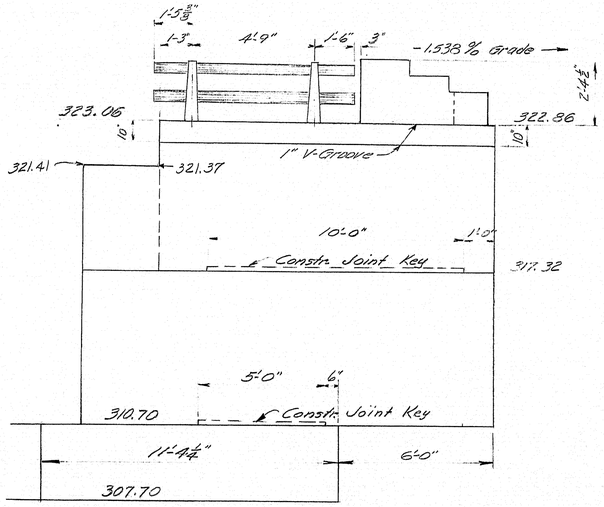
M-2446



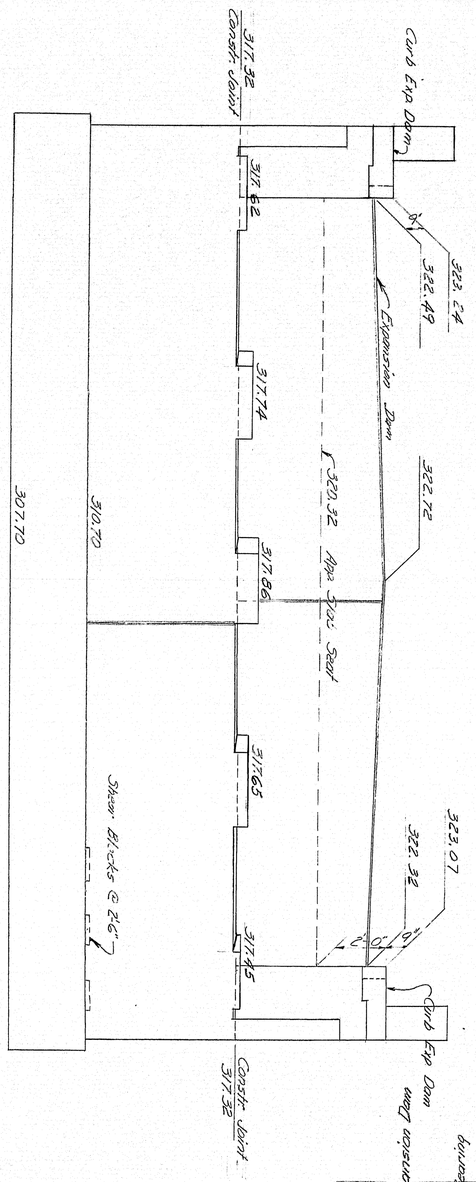
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	16	230



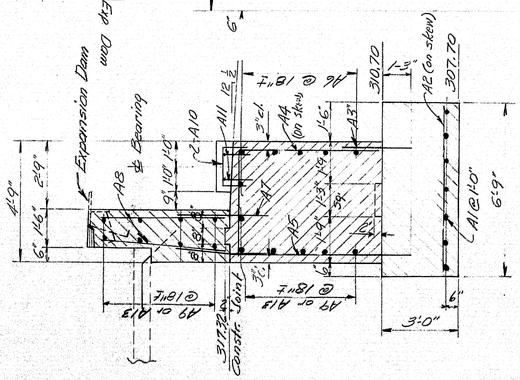
NORTH WING



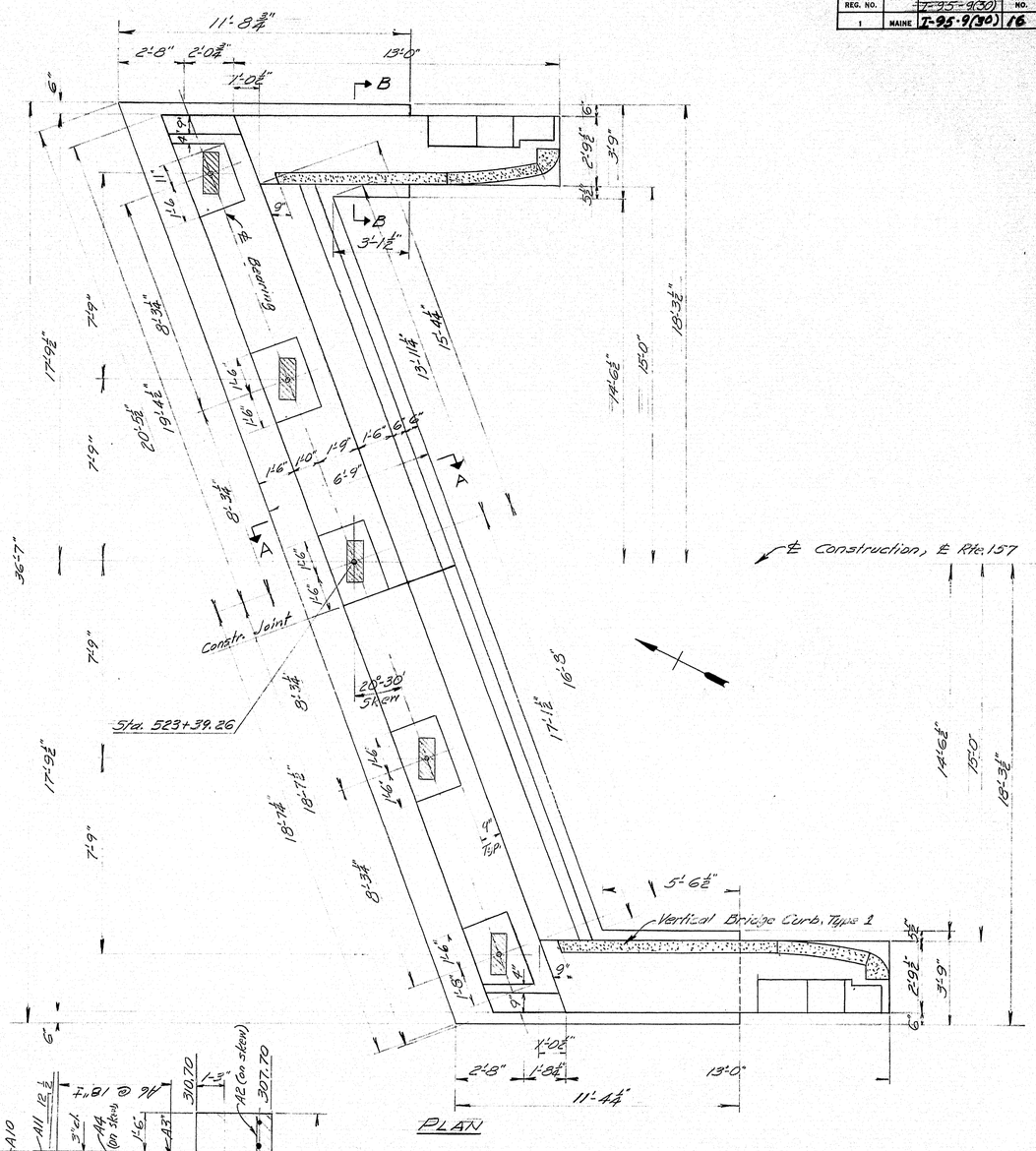
SOUTH WING



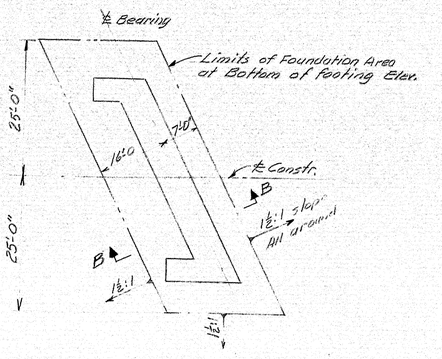
SECTION B-B (Typical)



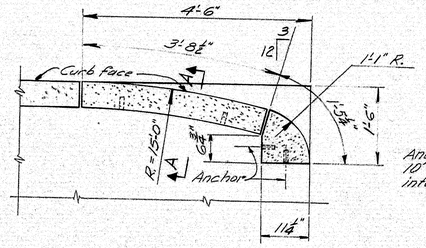
SECTION A-A Abutment

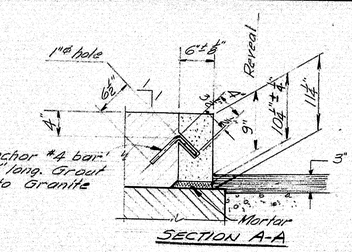

11'-8¾"
2'-8"
2'-0¾"
1'-0½"
13'-0"
B
9"
3'-2"
9"
℄ Bearing
3'-1½"
#11 @ 9"
#11 @ 18"
#7 @ 18"
#7 @ 18"
#9 @ 18"
#9 @ 18"
#9

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	15	330



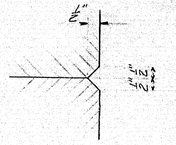
PLAN - ABUTMENTS



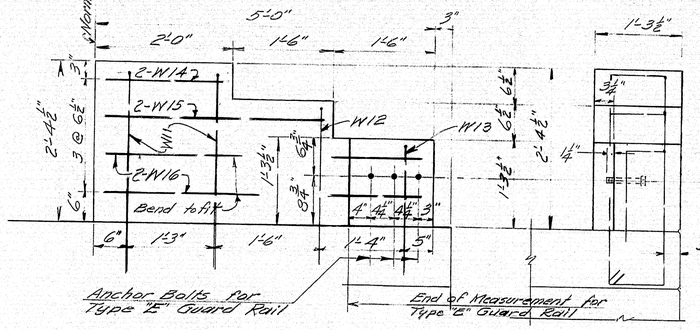


SECTION A-A

VERTICAL BRIDGE CURB - TYPE 1



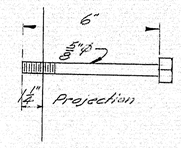
1" V-GROOVE



CONCRETE END POST

Typical

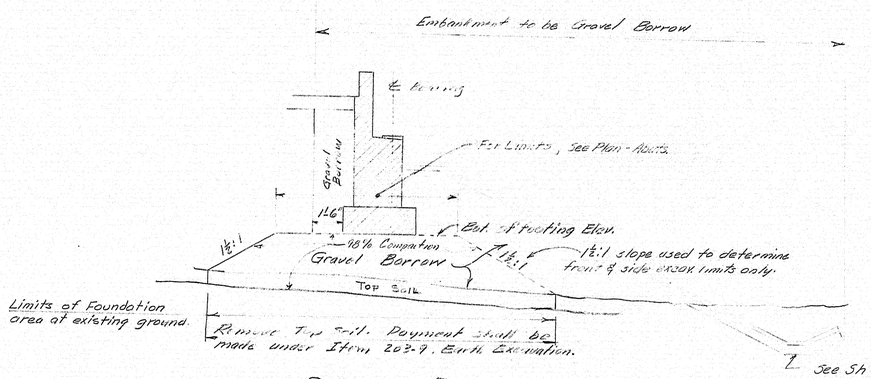
Note - Splice holes in guard rail beam that are not used in connection, to be plugged with button head bolts.



ANCHOR BOLT

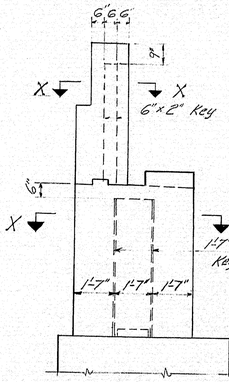
12- Req'd. (3 each post) Furnish with hex. nut & washer. (Galvanized)

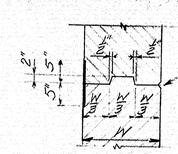
NOTE: Furnishing and placement of anchor bolts to be incidental to Item 701.33.



SECTION B-B

NOTE: See Supplemental Specification, "PREPARATION OF FOUNDATION AND CONSTRUCTION OF EMBANKMENTS IN THE ABUTMENT AREAS."





SECTION X-X

NOTE: Cover the backside of vertical joints with 2-layers of heavy roofing 10" wide. Coat the concrete and each layer as applied with a suitable grade of roofing cement. Recess the area to be covered, ¼ inch. To prevent bonding, paint constr. joint with a coat of asphalt paint.

CONSTRUCTION JOINT

(Typical)

DESIGN - A.H.R.
TRACE & DETAIL - G.W.C.
CHECK - R.A.S
BRIDGE NO.
SURVEY -
PLOT -

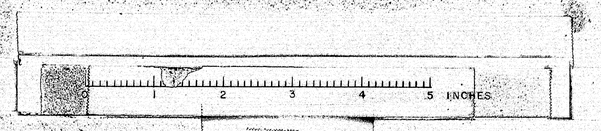
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY

ABUTMENT DETAILS

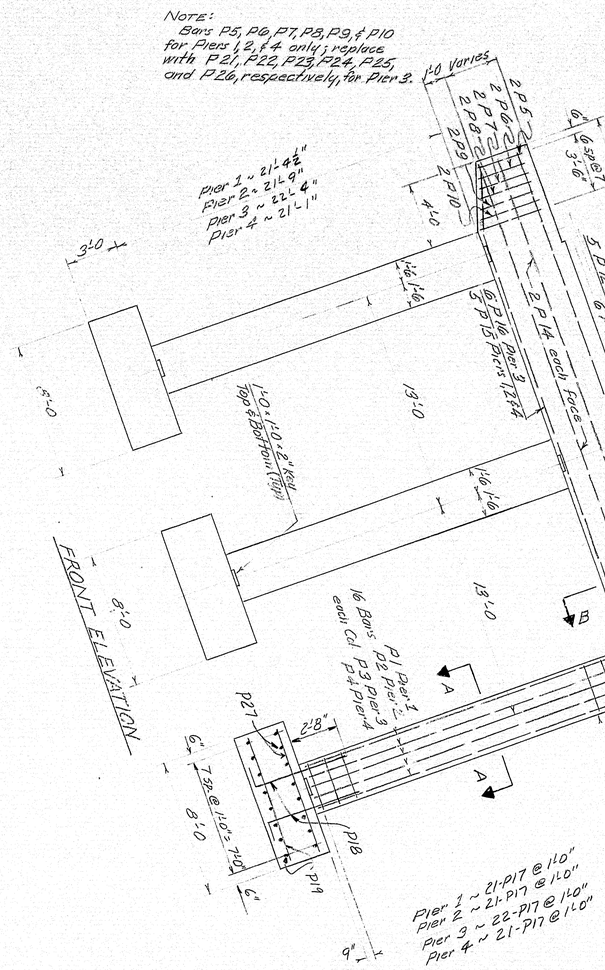
SHEET 5 OF 15 AUGUSTA, MAINE DEC. 1964

M-2448



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		I-95-9(30)		
1	MAINE	I-95-9(30)	6	15

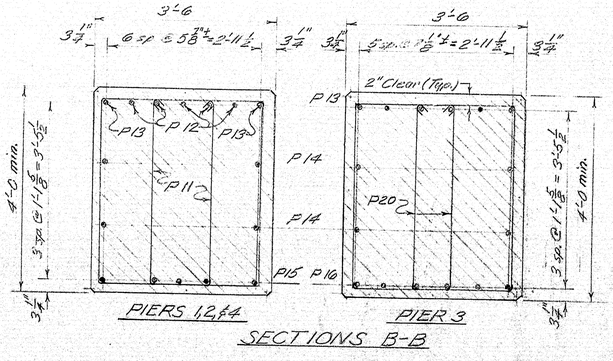
NOTE:
Bars P5, P6, P7, P8, P9, & P10 for Piers 1, 2, & 4 only; replace with P21, P22, P23, P24, P25, and P26, respectively, for Pier 3.

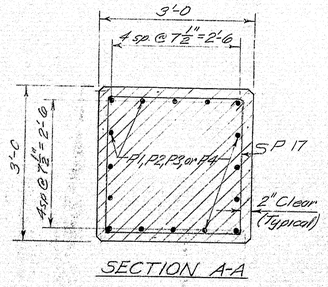


Pier	BEARING AREA ELEVATIONS					Bottom Footing Elevation
	Line I	Line II	Line III	Line IV	Line V	
1	320.47	320.60	320.74	320.56	320.37	292.00
2	319.85	319.98	320.12	319.93	319.74	291.00
3	319.46	319.59	319.72	319.52	319.33	290.00
4	318.23	318.35	318.48	318.27	318.08	290.00

GENERAL NOTES

1. Chamfer all exposed edges of concrete ¾ inch.
2. Reinforcing steel under bearings to clear anchor bolts.
3. Dress shaded bearing areas 1" longer than bearing plates all around and to exact elevations shown in bearing elevation table.
4. Maximum Footing Pressure = 3.0 Tons per sq. foot

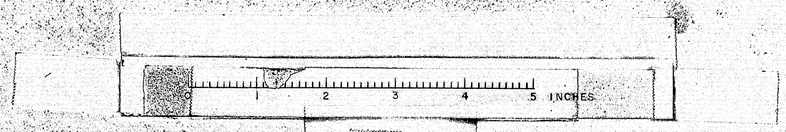




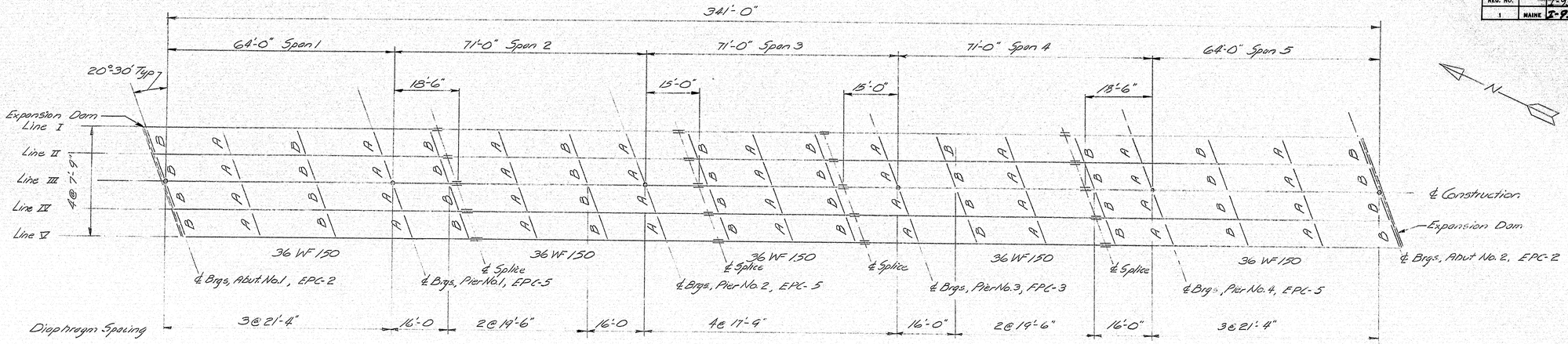
DESIGN– A.H.R. TRACE & DETAIL– J.C. CHECK– E.J.S.	BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY
PIERS
SHEET 6 OF 15 AUGUSTA, MAINE DEC. 1964

M-2449

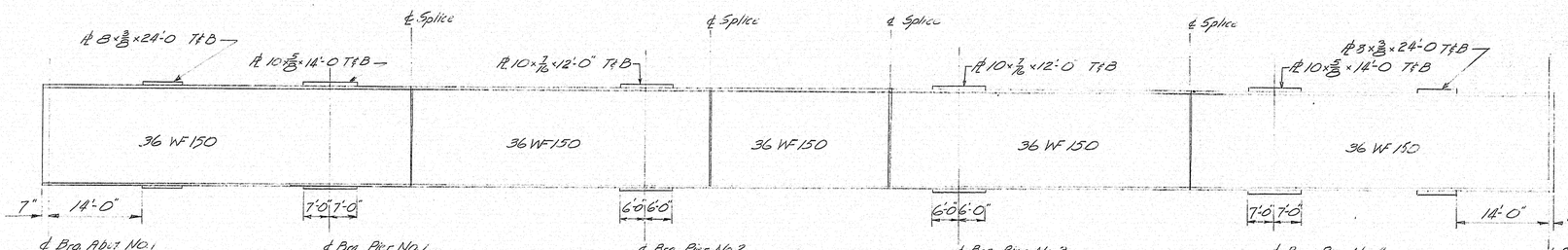


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	19	236



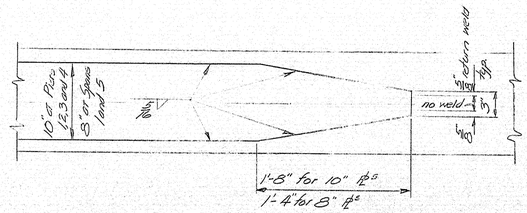
ERECTION DIAGRAM

All dimensions are horizontal

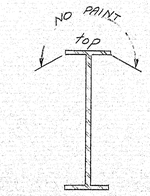


STRINGER ELEVATION

No camber



END of COVER PLATE DETAILS



TYPICAL STRINGER DETAIL

REFERENCE

PEDESTALS: See Standard Details - BD - 104 - 64
SPLICES: Regular 36 WF 150, See Standard Details - BD - 103 - 64
DRAINS: (14 required) See Standard Details - BD - 104 - 64 and sheet #9
DIAPHRAGMS: See Standard Details - BD - 104 - 64
EXPANSION DAMS: See Standard Details - BD - 105 - 64
Roadway Dam - Type 19 2 required
Curb Dams - Type V skewed 4 required, See sheet #9
BEAM GRADES - See sheet #8

NOTES

Set all diaphragms plumb
See sheet #3, General Plan for structural steel classification.

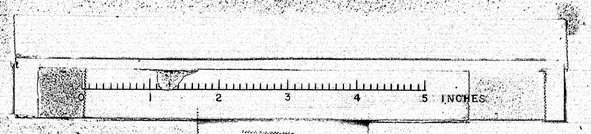
PEDESTALS

ABUTMENTS - EPC-2 — 10 required
PIERS 1,2 and 4 - EPC-5 — 15 required
PIER 3 - FPC-3 — 5 required

DESIGN - A.H.R.
TRACE & DETAIL - E.M.
CHECK - RJS
BRIDGE NO.
SURVEY -
PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY
STRUCTURAL STEEL
SHEET 7 OF 15 AUGUSTA, MAINE DEC. 1964

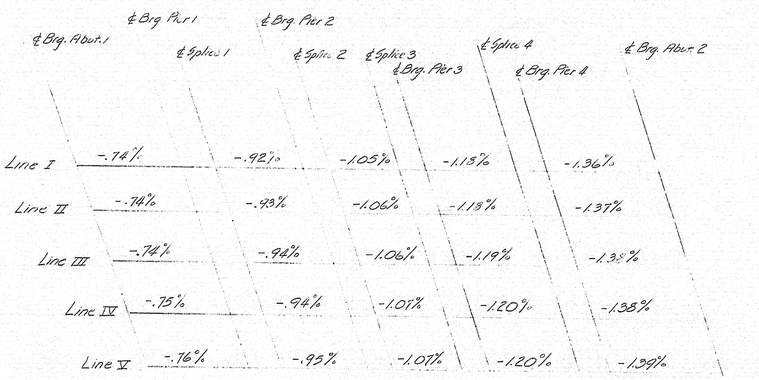
M-2450



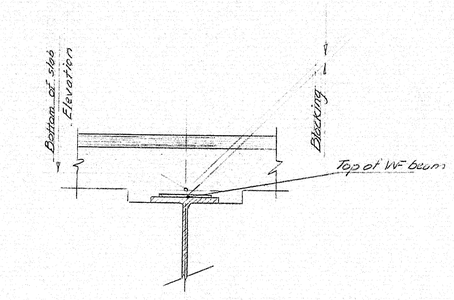
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	20	230

BOTTOM OF SLAB ELEVATIONS

	Abut.	Span 1							Pier 1	Span 2							Pier 2	Span 3							Pier 3	Span 4							Pier 4	Span 5							Abut 2
Point	℄ Brg.	8.0'	16.0'	24.0'	32.0'	40.0'	48.0'	56.0'	℄ Brg.	8.875'	17.750'	26.625'	35.50'	44.375'	53.250'	62.125'	℄ Brg.	8.875'	17.750'	26.625'	35.50'	44.375'	53.250'	62.125'	℄ Brg.	8.875'	17.750'	26.625'	35.50'	44.375'	53.250'	62.125'	℄ Brg.	8.0'	16.0'	24.0'	32.0'	40.0'	48.0'	56.0'	℄ Brg.
Line I	325.29	325.24	325.22	325.17	325.12	325.08	328.97	328.89	328.82	328.75	328.69	328.62	328.55	328.46	328.37	328.28	328.19	324.11	324.04	323.96	323.87	323.77	323.66	323.55	323.44	323.35	323.25	323.16	323.06	322.95	322.83	322.70	322.59	322.49	322.40	322.31	322.21	322.10	321.98	321.85	321.71
Line II	325.43	325.40	325.36	325.31	325.26	325.19	325.11	325.08	328.96	328.89	328.82	328.76	328.68	328.60	328.51	328.41	328.32	328.26	328.17	328.09	328.00	327.90	327.79	327.68	327.57	327.47	327.38	327.28	327.18	327.07	326.95	326.83	322.71	322.61	322.52	322.43	322.33	322.22	322.10	321.97	321.83
Line III	325.58	325.54	325.50	325.45	325.39	325.32	325.25	325.17	325.10	325.02	324.96	324.89	324.82	324.73	324.64	324.55	328.46	328.38	328.30	328.22	328.13	328.03	327.92	327.81	327.70	327.60	327.51	327.41	327.31	327.20	327.08	326.95	322.83	322.74	322.64	322.55	322.45	322.34	322.22	322.09	321.95
Line IV	325.39	325.36	325.32	325.27	325.21	325.14	325.06	324.99	328.91	328.84	328.77	328.70	328.63	328.55	328.46	328.36	328.27	328.19	328.11	328.03	327.94	327.84	327.73	327.62	327.51	327.41	327.31	327.22	327.11	327.00	326.88	326.75	322.63	322.54	322.44	322.35	322.25	322.14	322.02	321.89	321.75
Line V	325.21	325.18	325.14	325.09	325.03	324.96	324.88	324.80	328.73	328.65	328.59	328.52	328.44	328.36	328.26	328.17	328.08	323.99	323.92	323.84	323.75	323.65	323.54	323.42	323.31	323.21	323.12	323.02	322.91	322.80	322.68	322.55	322.43	322.34	322.24	322.15	322.05	321.94	321.82	321.68	321.55



BEAM GRADES



STRINGER SECTION

Note: Blocking is 1½" at abutment and pier bearings. Do not use for setting forms. To compensate for dead load deflections as well as possible irregularities in beams, set the bottom of slab elevations at the points indicated before any of the form work is started.

DESIGN- A.H.R.
TRACE- & DETAIL- E.M.
CHECK- EWS

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157

OVER

INTERSTATE 95

IN THE TOWN OF

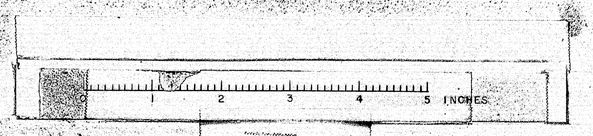
MEDWAY

PENOBSCOT COUNTY

BEAM GRADES & BLOCKING

SHEET 8 OF 15 AUGUSTA, MAINE DEC. 1964

M-24.51



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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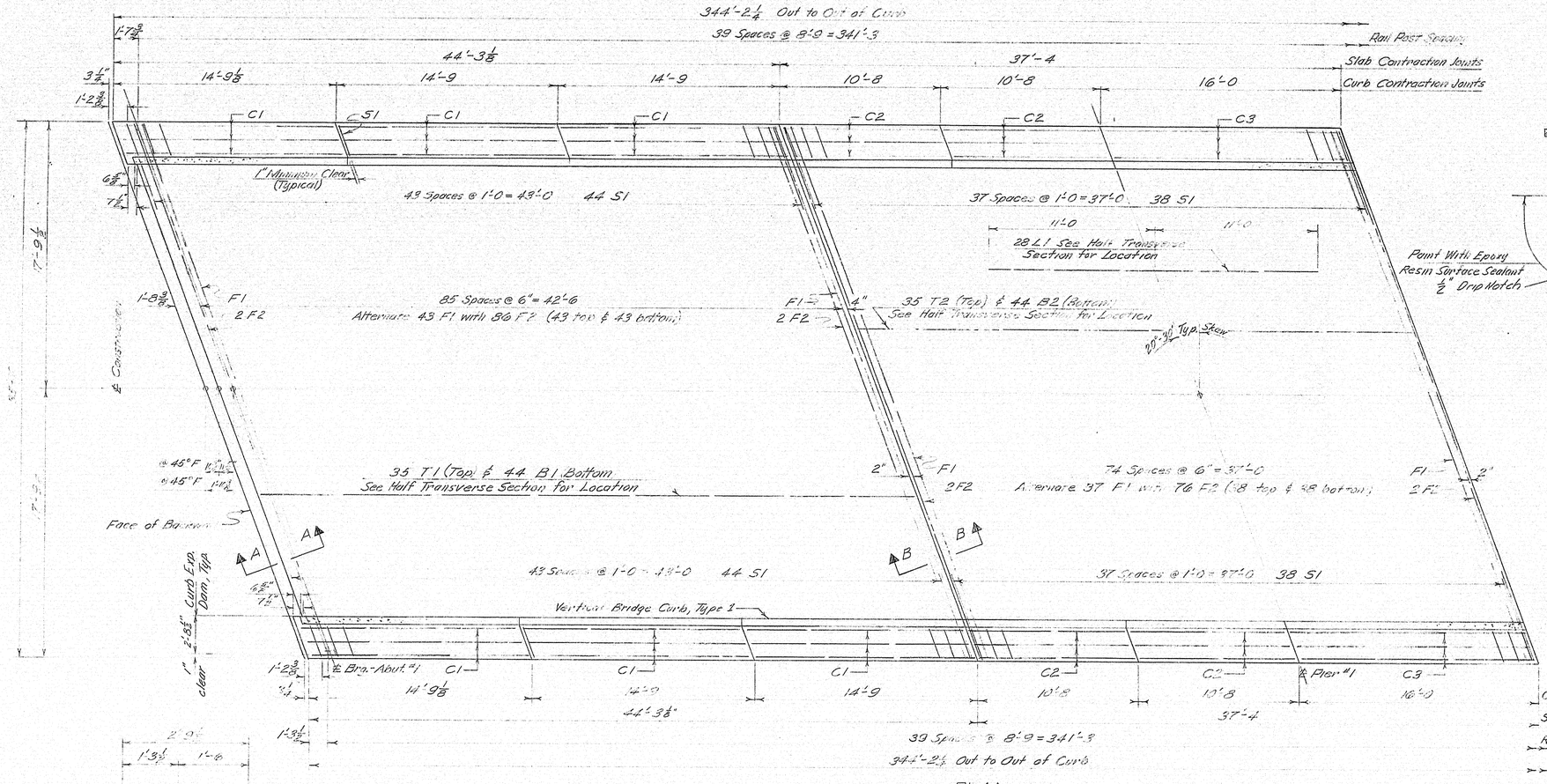
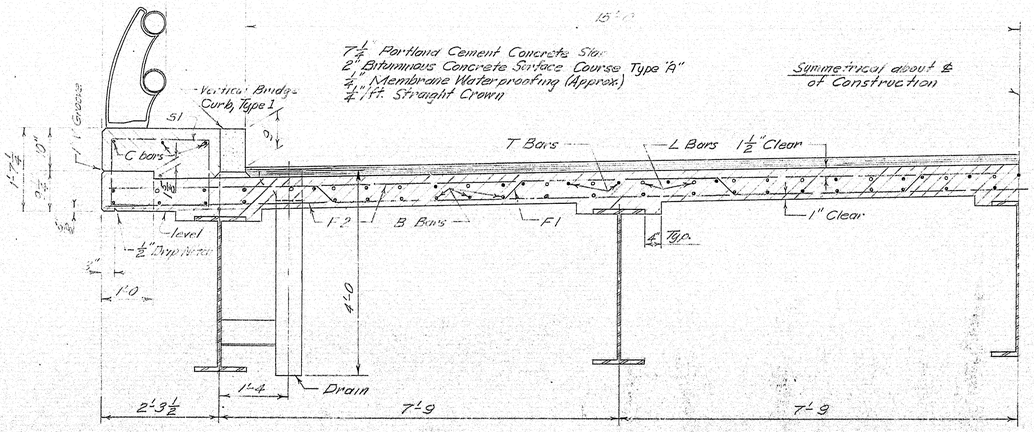
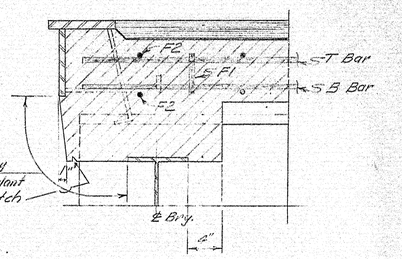


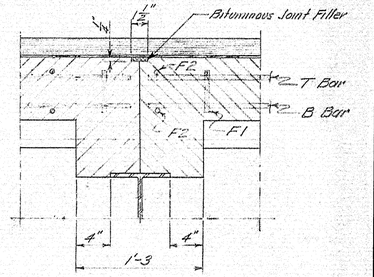
PLAN



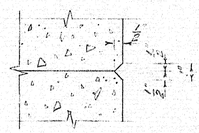
HALF TRANSVERSE SECTION



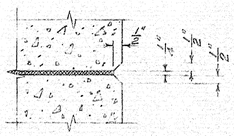
SECTION A-A



SECTION B-B



1"V-GROOVE DETAIL
Without 1" Expansion Joint Filler



1"V-GROOVE DETAIL
With 1" Expansion Joint Filler

GENERAL NOTES

1. Chamfer all exposed edges of concrete ½".
2. See Location Plan, Sheet 12 for slab placement sequence.
3. At curb contraction joints over piers provide ½" preformed expansion joint filler as separate curb sections (over granite and concrete). At all other curb contraction joints break bond between the concrete surfaces by oil or coating of suitable grade asphalt paint.
4. Form a 1" V-Groove on outside face of curb and slab at each curb contraction joint.
5. Provide a 1" plastic tube drain extending through slab to 2" below bottom of slab at low points. See sheet 13 for location. Do not cover top with membrane waterproofing. Payment to be incidental to Item 701-40.
6. Drain details are shown on Standard Details, sheet BD 104-64. See sheet 12 and Half Transverse Section for Locations. 14 Req'd
7. Rail details are shown on Standard Details, sheets BD 107-64 and BD 108-64, and sheet 11.

DESIGN- A.H.R.
TRACED DETAIL- J.C.
CHECK- R.A.S.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157

OVER

INTERSTATE 95

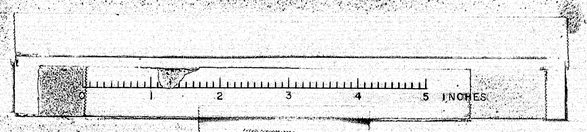
IN THE TOWN OF

MEDWAY
PENOBSCOT COUNTY

SUPERSTRUCTURE - 1

SHEET 9 OF 15 AUGUSTA, MAINE DEC. 1964

M-2452



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-3(30)	22	830

344'-2¼ Out to Out Curb (Both Sides)

99 Spaces @ 8'-9 = 341'-3 (Both Sides)

Rail Post Spacing

Slab Contraction Joints

Curb Contraction Joints

39'-0 | 33'-9 | 35'-6

13'-0 | 13'-0 | 13'-0 | 16'-0 | 17'-9 | 17'-9 | 17'-9

C4 | C4 | C4 | C3 | C5 | C5 | C5

38 Spaces @ 1'-0 = 38'-0 39 S1

35 T3 (top) & 44 B3 (bottom)
See Half Transverse Section for Location

33 Spaces @ 1'-0 = 33'-0 34 S1

35 T4 (top) & 44 B4 (bottom)
See Half Transverse Section for Location

35 Spaces @ 1'-0 = 35'-0 36 S1

35 T5 (top) & 44 B5 (bottom)
See Half Transverse Section for Location

66 Spaces @ 6" = 33'-0
Alternate 33 F1 with 68 F2 (34 top & 34 bottom)

4½" | 4½"

F1 | F1

2 F2 | 2 F2 | 2 F2 | 2 F2 | 2 F2

3" | 3" | 3"

77 Spaces @ 6" = 38'-6
Alternate 39 F1 with 78 F2 (39 top & 39 bottom)

70 Spaces @ 6" = 35'-0
Alternate 36 F1 with 70 F2 (35 top & 35 bottom)

30°-30' Typ. Skew

11'-0 | 11'-0

28 L1 see Half Transverse Section for Location

38 Spaces @ 1'-0 = 38'-0 39 S1

33 Spaces @ 1'-0 = 33'-0 34 S1

35 Spaces @ 1'-0 = 35'-0 36 S1

1" Minimum Clear (Typical)

Vertical Bridge Curb, Type 1

℄ Construction

℄ Pier 2

C4 | S1 | C4 | C4 | C3 | C5 | C5 | C5

13'-0 | 13'-0 | 13'-0 | 16'-0 | 17'-9 | 17'-9 | 17'-9

39'-0 | 33'-9 | 35'-6

Curb Contraction Joints

Slab Contraction Joints

PLAN

3½" Open @ 45°F

1'-5⅝" | 1'-5⅝"

Abutment

Superstructure

SIDE ELEVATION — RAIL DETAILS

1" ϕ Hole

6"±

Mortar 1"±¼"

#4 Anchor Bar 10" Long
Grout into Granite

VERTICAL BRIDGE CURB-TYPE 1-DETAIL

DESIGN- A. H. R.
TRACE & DETAIL- J.C.
CHECK- EAS

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157

OVER

INTERSTATE 95

IN THE TOWN OF

MEDWAY
PENOBSCOT COUNTY

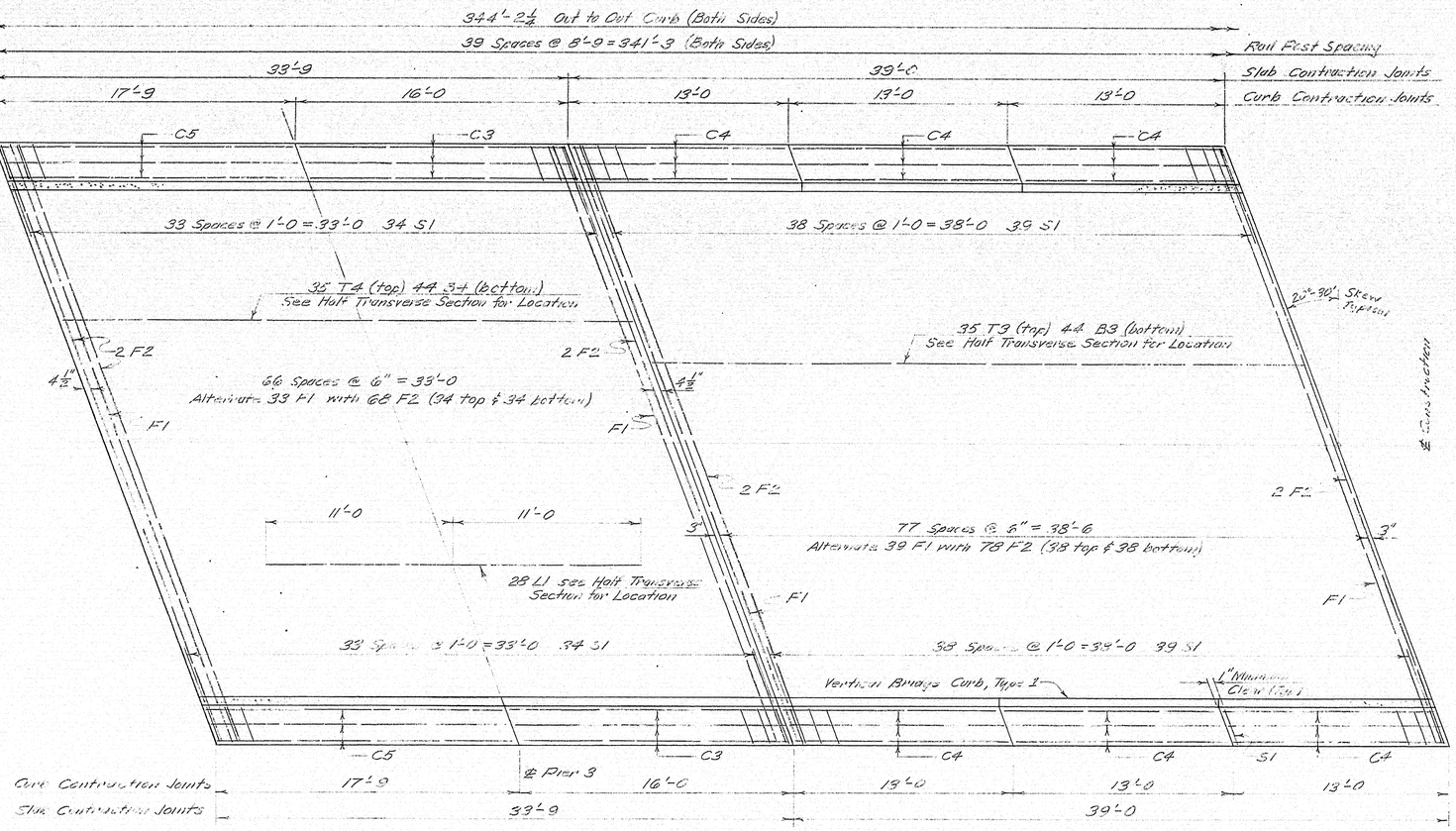
SUPERSTRUCTURE— 2

SHEET 10 OF 15 AUGUSTA, MAINE DEC. 1964

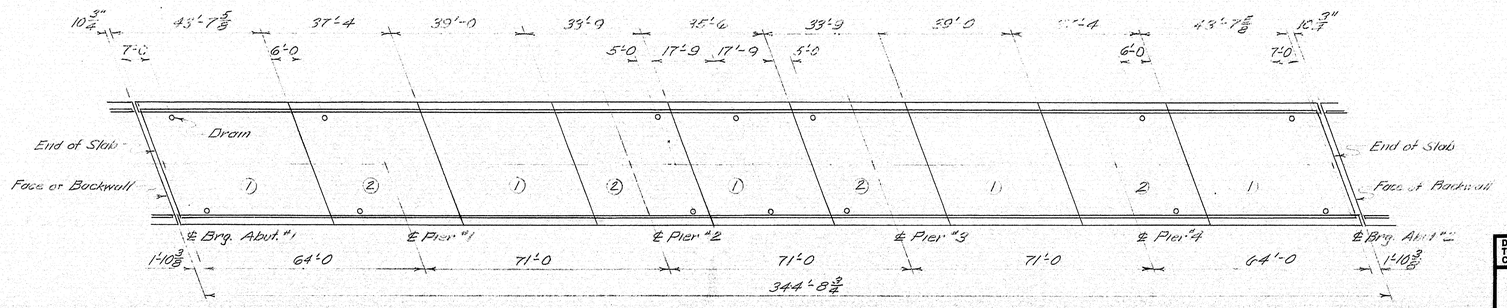
M-2453

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	25	250



PLAN



LAYOUT PLAN

Place All Slab Sections Marked ① Before Placing Sections Marked ②

DESIGN- A. H. R.
TRACE & DETAIL- J.C.
CHECK- R.M.S.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157

OVER

INTERSTATE 95

IN THE TOWN OF

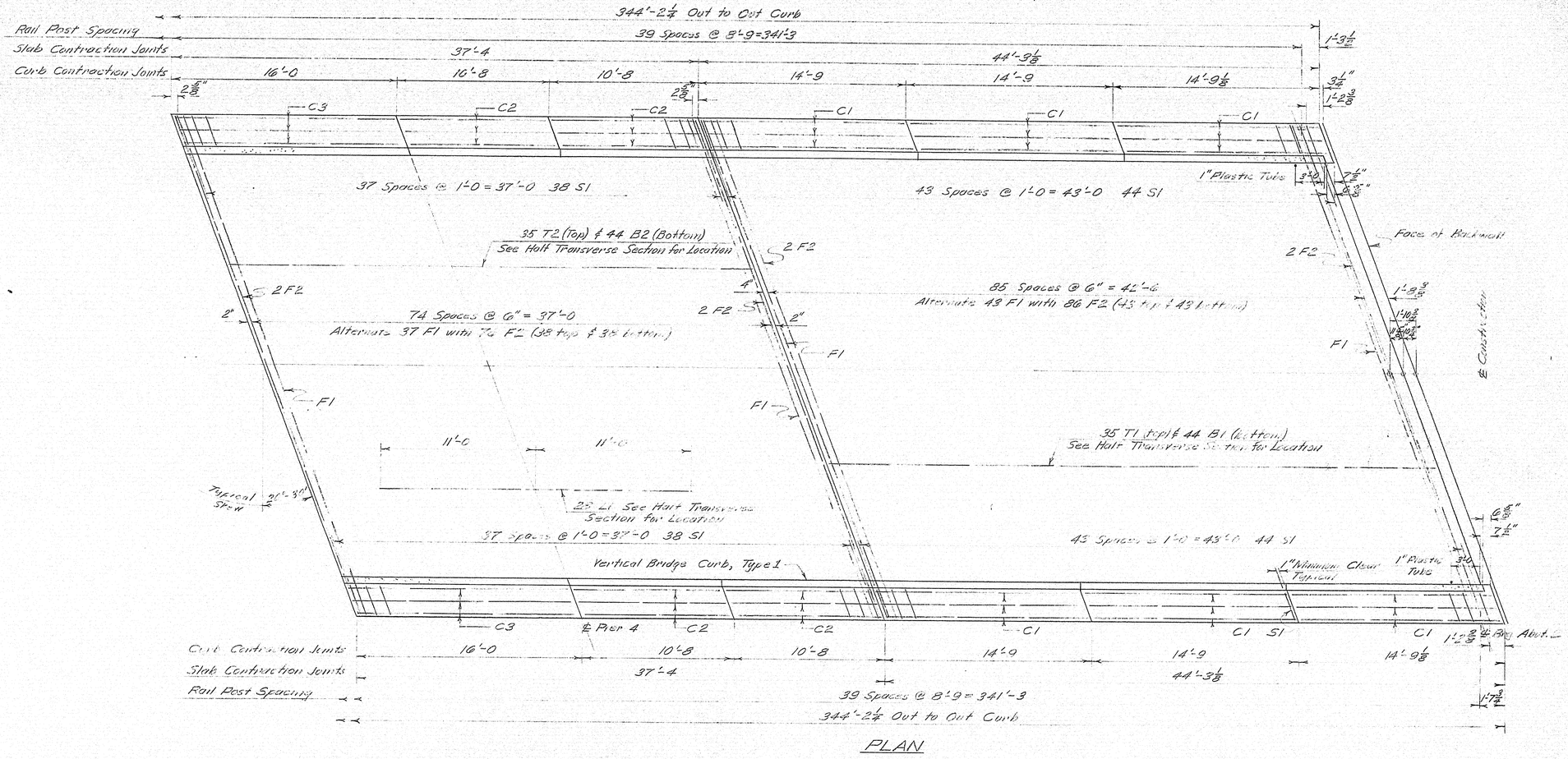
MEDWAY
PENOBSCOT COUNTY

SUPERSTRUCTURE — 3

SHEET 11 OF 15 AUGUSTA, MAINE DEC. 1964

M-2454

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(30)	24	259



PLAN

DESIGN- A.H.B. TRACE & DETAIL- J.C. CHECK- R.H.S.	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157

OVER

INTERSTATE 95

IN THE TOWN OF

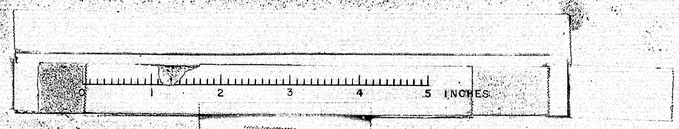
MEDWAY

PENOBSCOT COUNTY

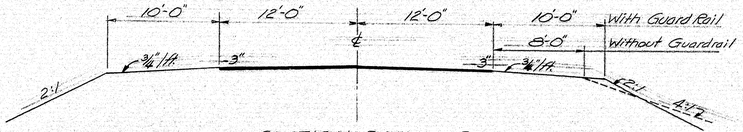
SUPERSTRUCTURE — 4

SHEET 12 OF 16 AUGUSTA, MAINE DEC. 1964

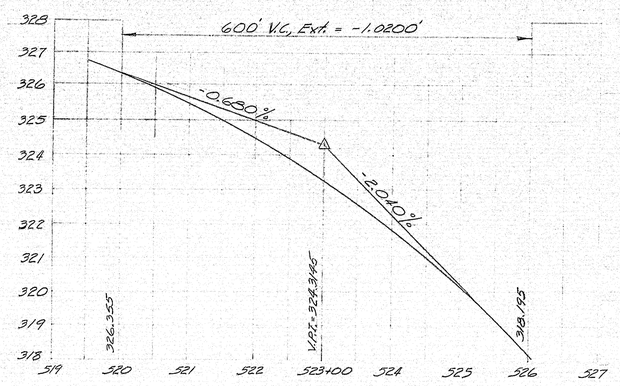
M-2455



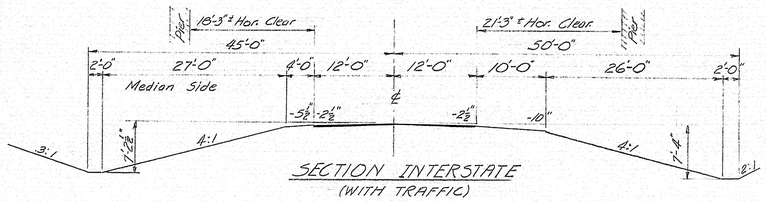
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(10)	25	230



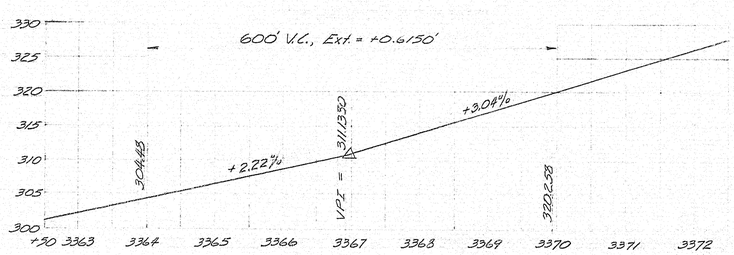
SECTION ROUTE 157



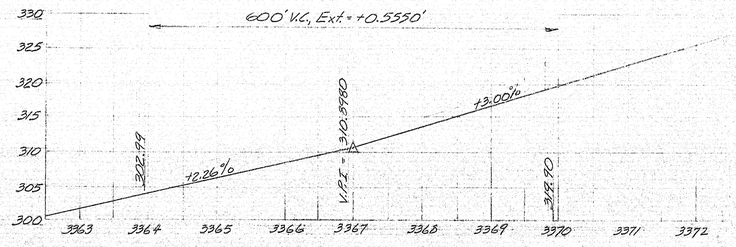
PROFILE & ROUTE 157



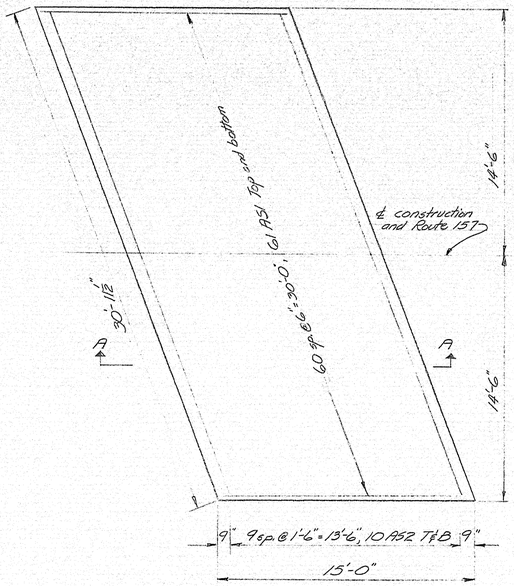
SECTION INTERSTATE
(WITH TRAFFIC)



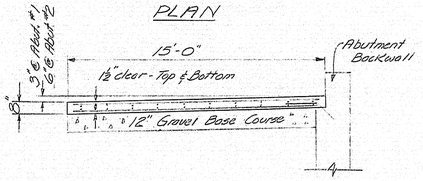
PROFILE & INTERSTATE S.B.



PROFILE & INTERSTATE N.B.



PLAN



SECTION A-A

Approach Slab Notes
Abutment #1 shown, Rotate 180° for Abutment #2.

APPROACH SLAB

ESTIMATE OF QUANTITIES FOR ROUTE 157 OVER I-95

DESCRIPTION	UNIT	QUANTITY
203-9 EARTH EXCAVATION	C.Y.	430
204-14 STRUCTURAL EARTH EXCAVATION, PIERS	C.Y.	470
205-12 GRAVEL BORROW, IN PLACE MEASURE	C.Y.	2500
404-28 BITUMINOUS CONCRETE SURFACE COURSE TYPE "A"	TON	126
701-33 PORTLAND CEMENT CONCRETE, ABUTMENTS AND RETAINING WALLS	C.Y.	250
701-35 PORTLAND CEMENT CONCRETE, PIERS	C.Y.	251
701-40 PORTLAND CEMENT CONCRETE, RDWY & SIDEWALK SLABS ON STL. BR'S.	C.Y.	352
701-50 PORTLAND CEMENT CONCRETE, APPROACH SLABS	C.Y.	22
701-55 CURING BOX FOR CONCRETE CYLINDERS	EACH	1
702-103.1 STRUCTURAL STEEL, FABRICATED AND DELIVERED	L.S.	LUMP SUM
702-104.1 STRUCTURAL STEEL, ERECTION	L.S.	LUMP SUM
702-105.1 STRUCTURAL STEEL, FIELD PAINTING	L.S.	LUMP SUM
705-13 REINFORCING STEEL, DELIVERED	LB.	125,800
705-14 REINFORCING STEEL, PLACING	LB	125,800
805-8 BRIDGE RAIL	L.F.	718
807-9 MEMBRANE WATERPROOFING	S.Y.	1143
807-11 EPOXY RESIN SURFACE SEALANT	S.Y.	125
808-6 SLOPE PAVING	S.Y	495
901-24 VERTICAL BRIDGE CURB TYPE 1	L.F.	717
901-25 VERTICAL BRIDGE, CIRCULAR, TYPE 1	L.F.	21
939-9.1 FIELD OFFICE TYPE "C"	L.S.	LUMP SUM

ESTIMATED WEIGHT OF STRUCTURAL STEEL INCLUDING DRAINS = 322,800 Lbs.

DESIGN- A.H.R.
TRACE- & DETAIL- E.M.
CHECK- R.A.S. (CHIEF ENG.)

BRIDGE NO.
SURVEY-
PLOT-

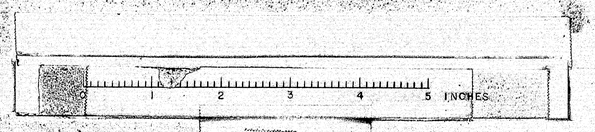
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY

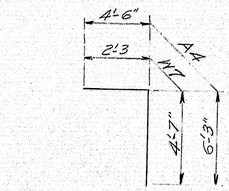
APPROACH SLABS, TYPICAL SECTIONS AND GRADES, BRIDGE QUANTITIES

SHEET 15 OF 15 AUGUSTA, MAINE DEC. 1964

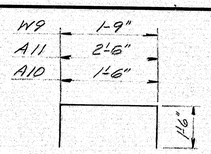
M-2456



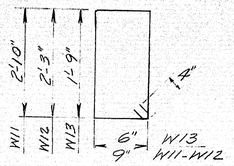
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	26	28



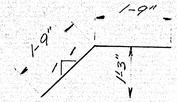
W7 - A4



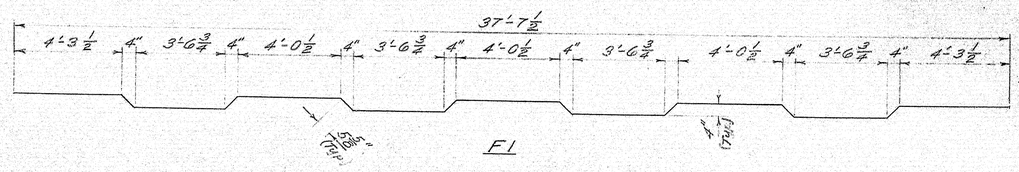
W9 - A10 - A11



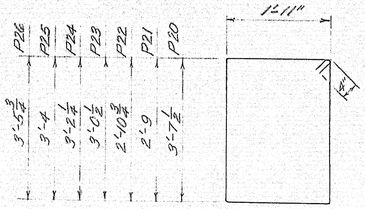
W11 - W12 - W13



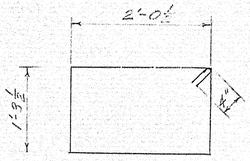
A12



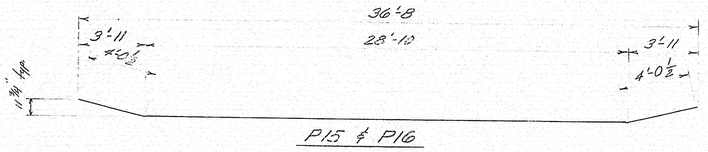
P18



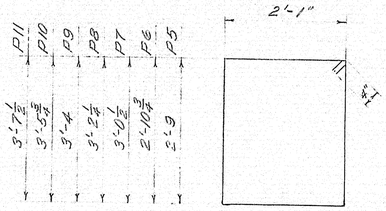
P20 to P26



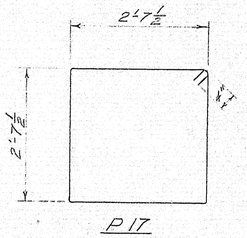
S1



P15 & P16



P5 to P11



P17

REINFORCING STEEL SCHEDULE

Det. - GMG.	APPROACH SLAB	Chk. RAS.	
Mark	Size	No.	Length	Location
A51	#6	244	14'-6"	Slabs
A52	#4	40	30'-6"	"

Detail - GMG.	ABUTMENTS	Check RAS		
Mark	Size	Number	Length	Location
		Bent Bars		
A4	#5	48	10'-9"	Breast Wall
A10	#5	20	4'-6"	Bridge Seat
A11	#5	20	5'-6"	" "
A12	#6	42	3'-6"	Approach Slab Seat
W7	#5	36	6'-10"	Wing - Wall
W9	#5	36	4'-9"	Wing - Curb
W11	#5	8	7'-10"	Conc. End Post
W12	#5	4	6'-8"	" " "
W13	#5	4	5'-2"	" " "
		Straight Bars		
A1	#6	14	38'-6"	Abut. Footing
A2	#6	78	6'-9"	" "
A3	#5	92	3'-0"	Footings
A5	#5	44	10'-3"	Breast Walls
A6	#5	24	20'-0"	" "
A7	#5	44	3'-6"	Backwall
A8	#5	88	4'-0"	"
A9	#5	28	20'-6"	"
A13	#5	28	18'-6"	Backwall
W1	#6	16	7'-6"	Wing - Footing
W2	#6	16	3'-3"	" - "
W3	#5	28	15'-6"	" - Walls
W4	#5	76	8'-3"	" - "
W5	#5	10	11'-6"	So. Wing, Abut.#1 - No. Wing, Abut.#2
W6	#5	36	4'-8"	Wing - Walls
W8	#5	10	13'-6"	No. Wing, Abut.#1 - So. Wing, Abut.#2
W10	#5	8	3'-9"	Curtain Walls
W14	#5	8	1'-8"	Concrete End Post
W15	#5	8	3'-2"	" " "
W16	#5	16	4'-8"	" " "
W17	#6	18	14'-6"	So. Wing - Abut.#1 - No. Wing - Abut.#2
W18	#6	18	16'-3"	No. Wing - Abut.#1 - So. Wing - Abut.#2
W19	#5	16	1'-10"	Wing - Curbs

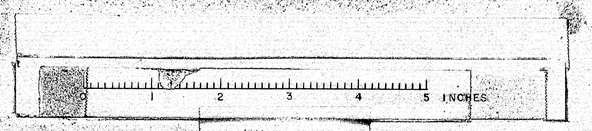
Detail - JC	PIERS			
Mark	Size	Number	Length	Location
		Bent Bars		
P5	#4	12	10'-4"	Caps, Piers 1,2,&4
P6	#4	12	10'-7"	" " 1,2,&4
P7	#4	12	10'-11"	" " 1,2,&4
P8	#4	12	11'-2"	" " 1,2,&4
P9	#4	12	11'-6"	" " 1,2,&4
P10	#4	12	11'-9"	" " 1,2,&4
P11	#4	102	12'-1"	" " 1,2,&4
P15	#10	15	36'-11	" " 1,2,&4
P16	#9	6	36'-11	" Pier 3
P17	#4	85	11'-2	Columns (all)
P20	#4	34	11'-9"	Cap, Pier 3
P21	#4	4	10'-0"	" " "
P22	#4	4	10'-3"	" " "
P23	#4	4	10'-7"	" " "
P24	#4	4	11'-10"	" " "
P25	#4	4	11'-2"	" " "
P26	#4	4	11'-5"	" " "
P18	#8	192	6'-2"	Footing Dowels
*P1	#8	48	24'-1"	Columns, Pier 1
*P2	#8	45	24'-5"	" " 2
*P3	#8	48	25'-0	" " 3
*P4	#8	48	23'-9"	" " 4
*P12	#9	15	36'-8	Caps, Piers 1,2,&4
*P13	#10	12	36'-8	Caps, (all)
*P14	#6	16	36'-8	" "
*P19	#7	192	7'-6"	Caps - Bottom Mat
*P27	#5	192	7'-6"	" - Top Mat

Straight Bars

* Straight Bars

Detail - JC	SUPERSTRUCTURE	Check RAS.		
Mark	Size	Number	Length	Location
		Straight Bars		
F2	#5	688	37'-8	Slab (main steel)
T1	#4	70	43'-3	Slab (distribution steel)
T2	#4	70	37'-6	Slab " "
T3	#4	70	38'-5	Slab " "
T4	#4	70	39'-5	Slab " "
T5	#4	35	39'-5	Slab " "
B1	#5	88	41'-3	Slab " "
B2	#5	88	37'-0	Slab " "
B3	#5	88	38'-9	Slab " "
B4	#5	88	39'-5	Slab " "
B5	#5	44	39'-5	Slab "
C1	#5	36	14'-5	Curbs
C2	#5	24	10'-4	Curbs
C3	#5	24	15'-8	Curbs
C4	#5	36	15'-8	Curbs
C5	#5	24	17'-5	Curbs
L1	#5	112	22'-0	Slab, over Piers
		Bent Bars		
F1	#6	340	38'-9	Slab (main steel)
S1	#5	692	7'-4	Curb (stirrups)

Note:
Dimensions are to center lines of bars.
All steel to be Intermediate Grade.

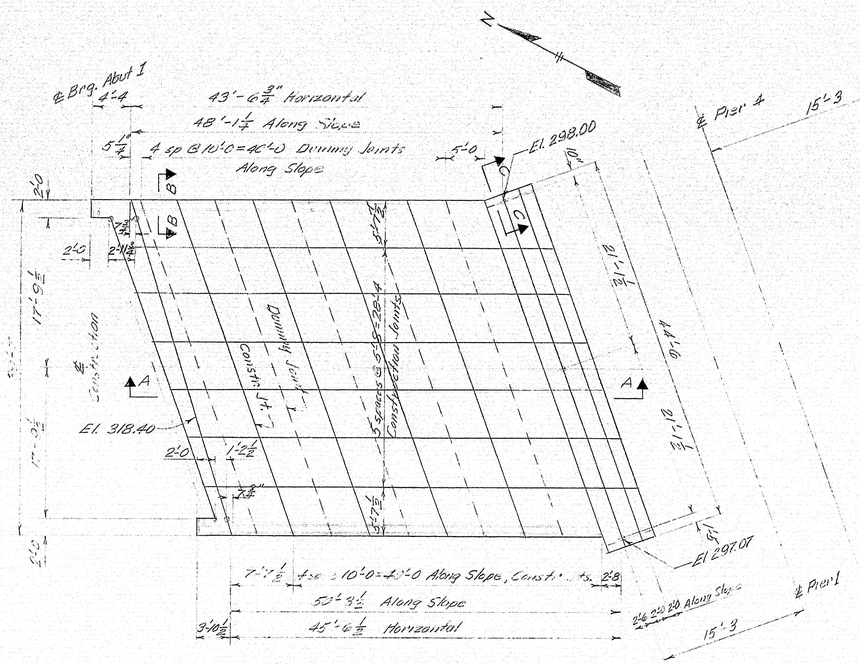


DESIGN - A.H.R.	BRIDGE NO.
TRACE & DETAIL - AS NOTED	SURVEY -
CHECK - EBS	PLOT -

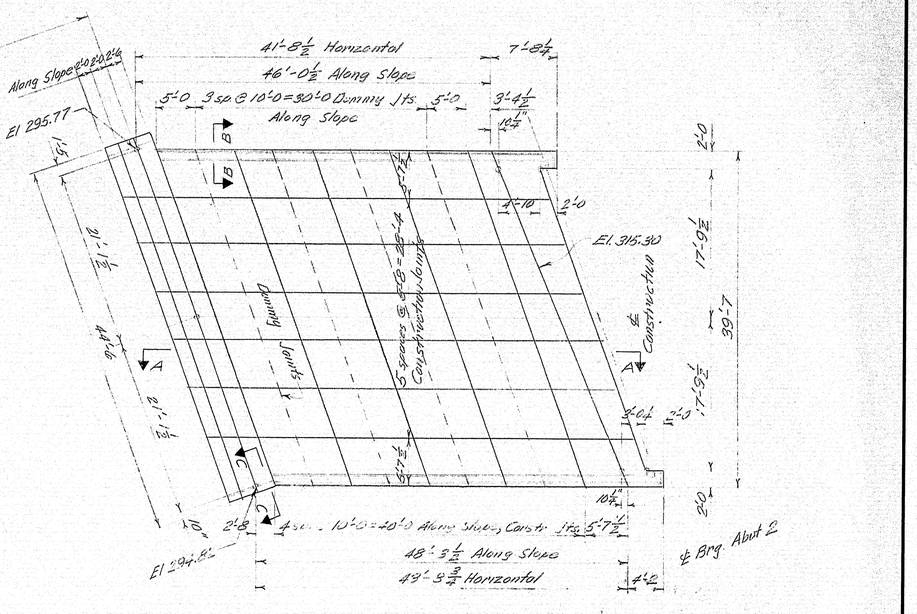
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ROUTE 157
OVER
INTERSTATE 95
IN THE TOWN OF
MEDWAY
PENOBSCOT COUNTY
REINFORCING STEEL SCHEDULE
SHEET 14 OF 15 AUGUSTA, MAINE DEC. 1964

M-24-89

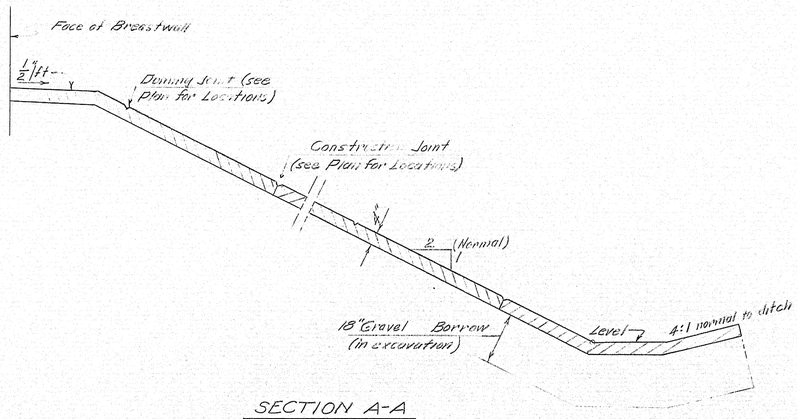
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	27	230



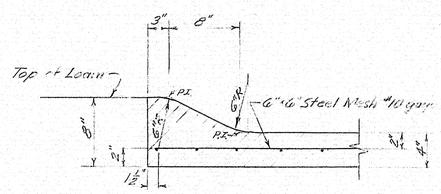
PLAN - ABUTMENT 1



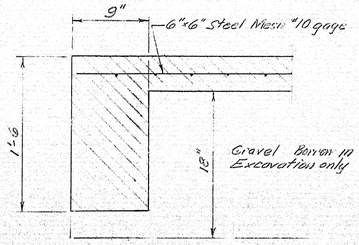
PLAN - ABUTMENT 2



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

1 Break bond at Construction Joints with a coat of asphalt paint.
2 Reinforce with #10 gage 6"x6" steel mesh, not to pass through construction joints.
3 Dummy Joints shall be made with a sidewalk-edging tool to a depth of 2".
4 The 18" of Gravel Borrow under the Slope Paving may be reduced or omitted if, in the opinion of the Engineer, the existing material is suitable. Payment for excavation for Gravel Borrow under slope paving to be made under Item 203-9, "Earth Excavation."

DESIGN- A. H. R.
TRACE & DETAIL- J.C.
CHECK- E.A.S.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ROUTE 157

OVER

INTERSTATE 95

IN THE TOWN OF

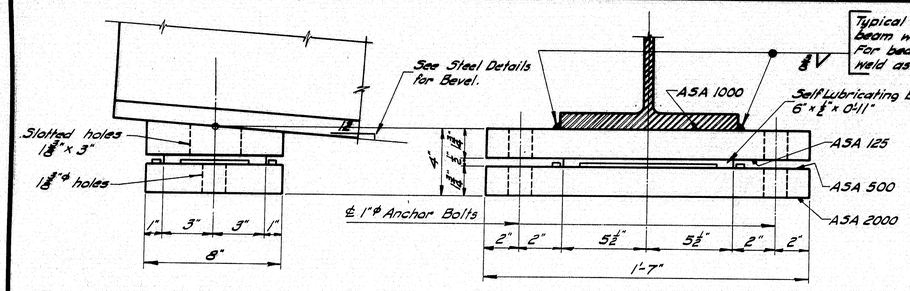
MEDWAY
PENOBSCOT COUNTY

SLOPE PAVING

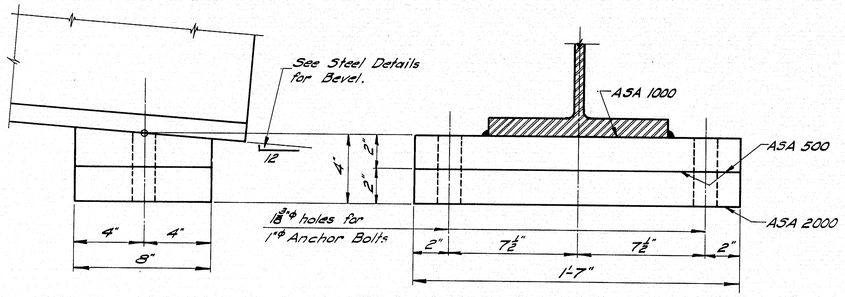
SHEET 15 OF 15 AUGUSTA, MAINE DEC 1964

M-2458

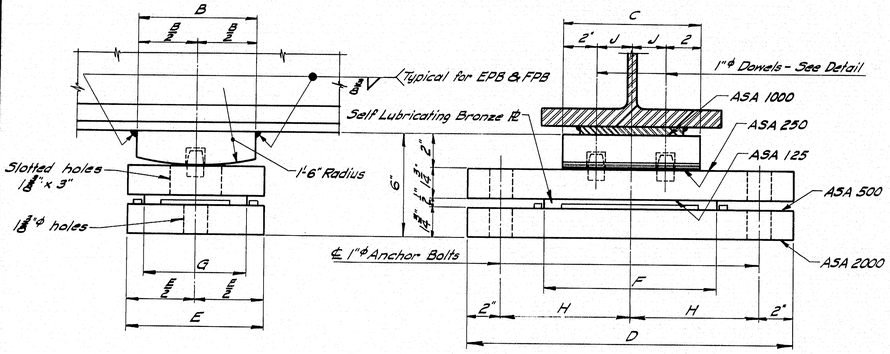
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-P(30)	38	230



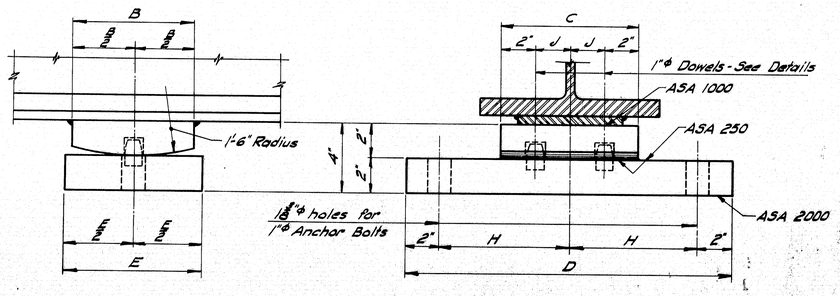
EXPANSION PEDESTAL - EPA



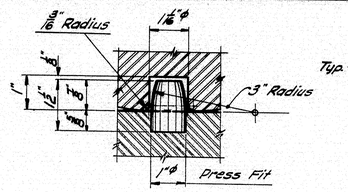
FIXED PEDESTAL - FPA



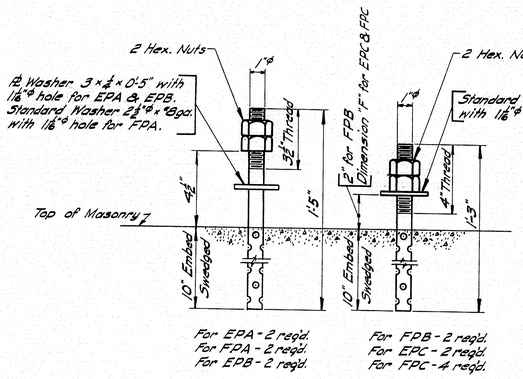
EXPANSION PEDESTAL - EPB



FIXED PEDESTAL - FPB



DOWEL DETAIL



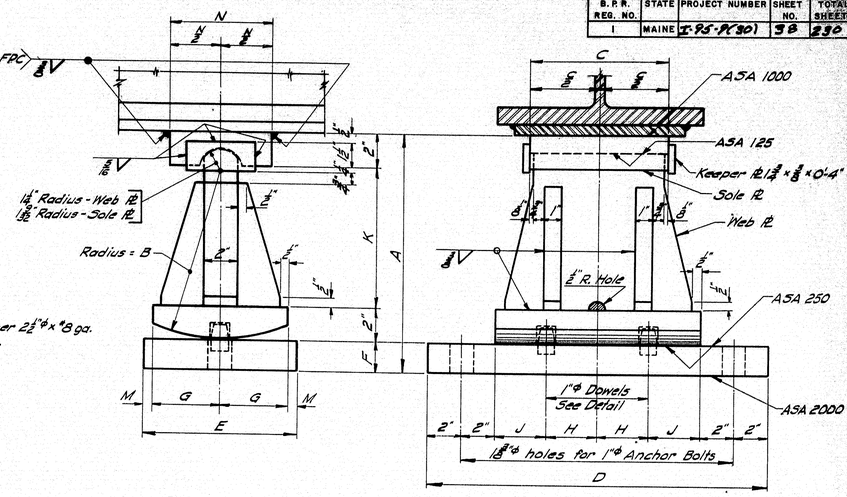
For EPA - 2 req'd.
For FPA - 2 req'd.
For EPB - 2 req'd.

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

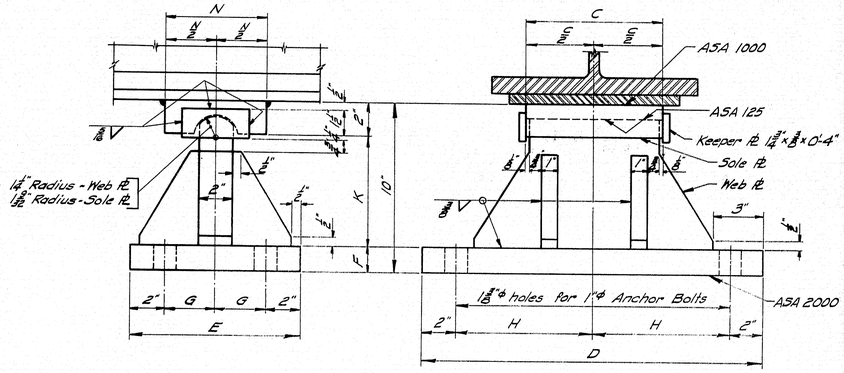
ANCHOR BOLT DETAIL

For EPA & EPB

MASONRY PLATE



EXPANSION PEDESTAL - EPC



FIXED PEDESTAL - FPC

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 K	—	—	—	—	—	—	—	—	—	8"	4"	3 1/8"	5 3/8"
FPA	150 K	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 K	—	6"	8"	1'-7"	8"	10"	6"	7 1/8"	2"	8"	4"	3 1/8"	5 3/8"
EPB-2	165 K	—	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3 1/8"	6 5/8"
EPB-3	224 K	—	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4 1/2"	1'-2"	5"	3 1/8"	8 5/8"
FPB-1	120 K	—	6"	8"	1'-7"	8"	—	—	7 1/8"	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	9 1/4"	6"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	4 1/2"	—	1/2"	6"
EPC-2	100 K	11 1/4"	8"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	6 1/2"	—	1/2"	6"
EPC-3	130 K	1'-2"	10"	8"	1'-8"	9"	1 1/2"	4"	3"	3"	8 1/2"	—	1/2"	7"
EPC-4	160 K	1'-2"	10"	8"	1'-10"	9"	1 1/2"	4"	4"	3"	8 1/2"	—	1/2"	7"
EPC-5	190 K	1'-2 1/4"	10"	9"	2'-0"	10"	2"	4 1/2"	5"	3"	8 1/2"	—	1/2"	8"
EPC-6	220 K	1'-4 1/2"	1'-0"	10"	2'-0"	1'-0"	2 1/2"	5"	5"	3"	10 1/2"	—	1"	8"
EPC-7	250 K	1'-4 1/2"	1'-0"	1'-0"	2'-2"	1'-0"	2 1/2"	5"	5"	4"	10 1/2"	—	1"	8"
FPC-1	100 K	—	—	8"	1'-8"	9"	1 1/2"	2 1/2"	8"	—	6 1/2"	—	1/2"	6"
FPC-2	160 K	—	—	8"	1'-8"	10"	1 1/2"	3"	8"	—	6 1/2"	—	—	7"
FPC-3	190 K	—	—	9"	2'-0"	10"	1 1/2"	3"	10"	—	6 1/2"	—	—	8"
FPC-4	220 K	—	—	10"	2'-0"	1'-0"	1 1/2"	4"	10"	—	6 1/2"	—	—	8"
FPC-5	250 K	—	—	1'-0"	2'-0"	1'-0"	2"	4"	10"	—	6"	—	—	8"

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 1/2 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

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.

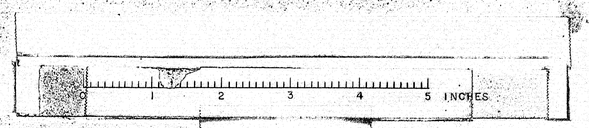
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 101 - 64)

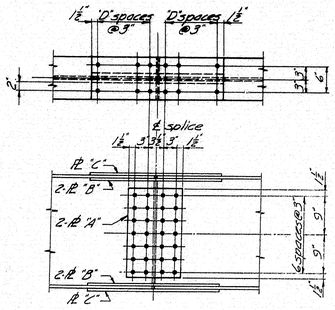
BEARING PEDESTALS

JANUARY 1964

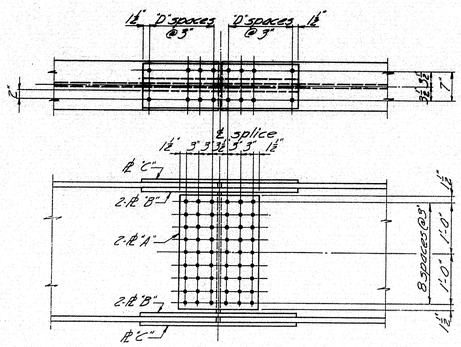
M-2458A



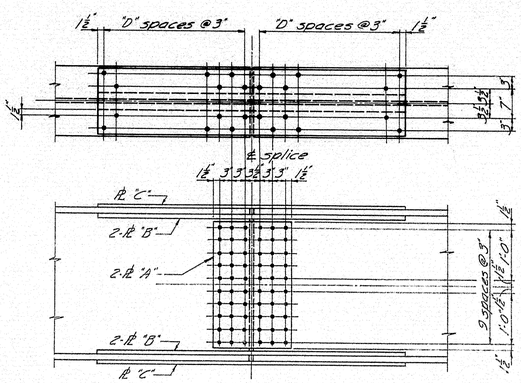
B.P.R. REG. NO	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
1	MAINE	I-95-1(30)	39	230



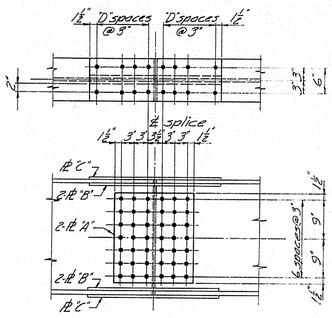
27 WF 84



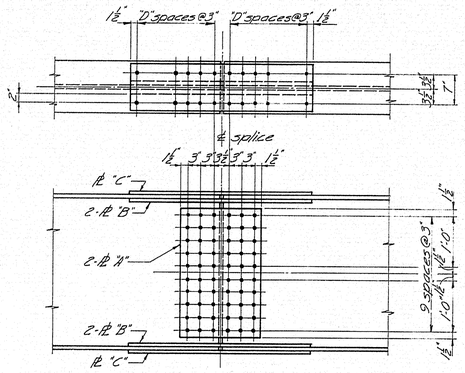
33 WF 118, 130, 141, 152



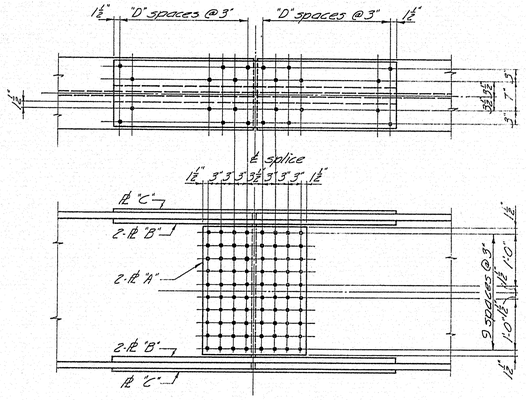
36 WF 245, 280



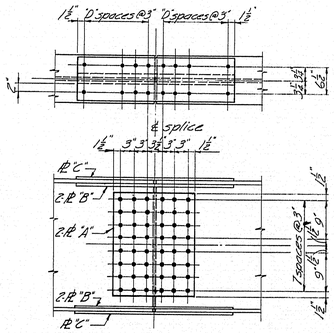
27 WF 94, 102, 114



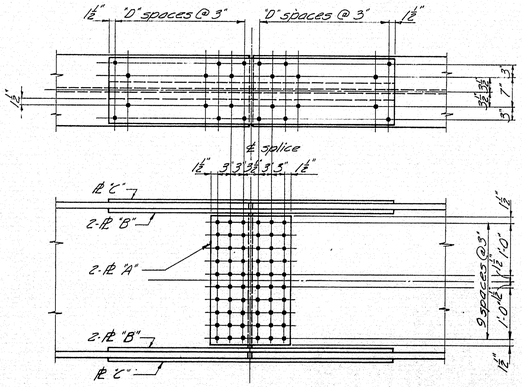
36 WF 135, 150, 160, 170, 182, 194



36 WF 300



30 WF 99, 108, 116, 124, 132



36 WF 230, 260

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 3/8	3
27 WF 94	3520 K"	119 K	18½ x 7/16	4 x ½	10 x 3/8	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 5/8	4 x 5/8	10 x ½	4
30 WF 99	3921 K"	139 K	18½ x ½	4 x ½	10 x 3/8	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 5/8	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 5/8	4 x ¾	10 x 9/16	5
33 WF 118	5287 K"	164 K	18½ x ½	4 x 9/16	11 x 7/16	4
33 WF 130	5978 K"	173 K	18½ x ½	4 x ¾	11 x 7/16	5
33 WF 141	6604 K"	181 K	18½ x 9/16	4 x 11/16	11 x ½	5
33 WF 152	7193 K"	191 K	18½ x 9/16	4 x ¾	11 x 9/16	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 ¾	11 x 9/16	6
36 WF 170	8574 K"	221 K	18½ x 9/16	4 x 13/16	11 x ¾	6
36 WF 182	9204 K"	237 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 3/4	8
36 WF 230	12574 K"	247 K	18½ x 9/16	6 x 1	16 x 3/8	10
36 WF 245	13441 K"	260 K	18½ x 9/16	6 x 1	16 x 7/16	11
36 WF 260	14930 K"	276 K	18½ x 5/8	6 x 1 1/16	16 x 7/16	12
36 WF 280	15551 K"	291 K	18½ x 5/8	6 x 1 1/16	16 x 9/16	13
36 WF 300	16676 K"	312 K	24½ x 11/16	6 x 1 1/8	16 x ½	14

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

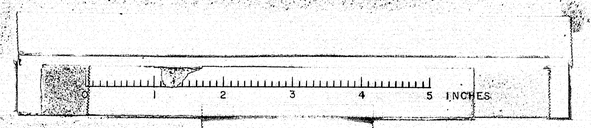
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 103-64)

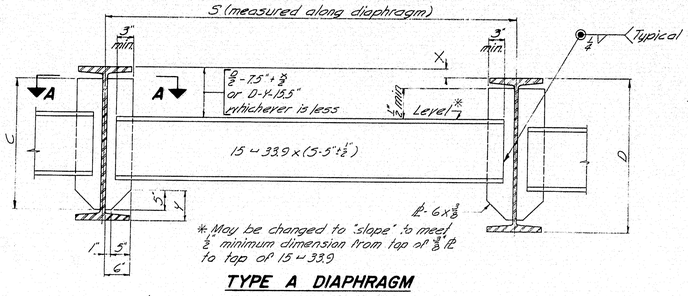
BEAM SPLICES

JANUARY 1964

M-24580

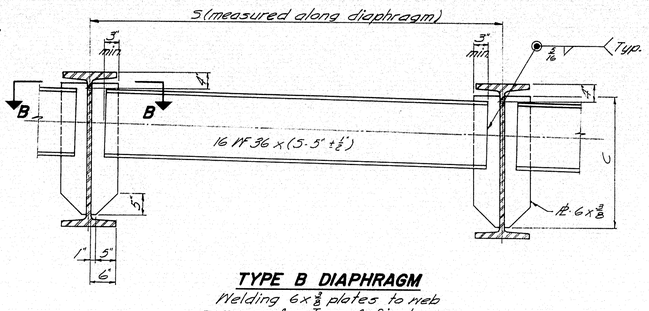


B.P.R. DIV. NO	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
I	MAINE	I-95-9(30)	40	230



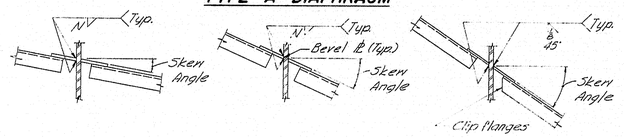
* May be changed to "slope" to meet ⅜ minimum dimension from top of ⅜ PL to top of 15 WF 33.9

TYPE A DIAPHRAGM



TYPE B DIAPHRAGM

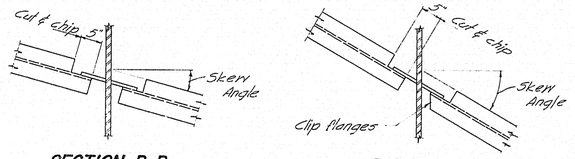
Welding 6 x ⅜ plates to web same as for Type A Diaphragm.



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'



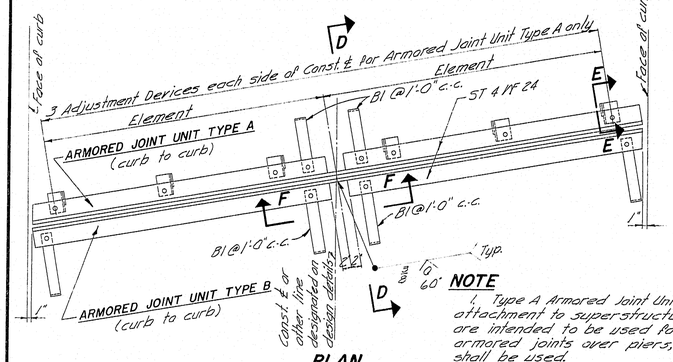
SECTION B-B
Skew Angle 0° to 25°-00'

SECTION B-B
Skew Angle over 25°-00'

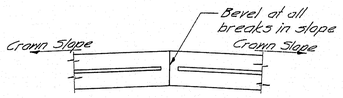
NOTE
See design details for diaphragm type, location and skew.

FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM PLATES		
BEAM	C	N
27 WF 84 to 114 incl.	1'-11"	¼
30 WF 99 to 132 incl.	2'-2"	¼
33 WF 118 to 152 incl.	2'-5"	¼
36 WF 135 to 194 incl.	2'-7"	¼
36 WF 230 to 300 incl.	2'-6"	⅜

DIAPHRAGMS



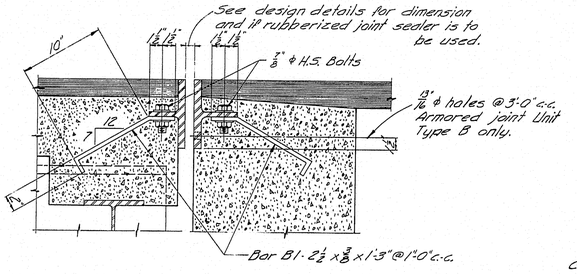
PLAN



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

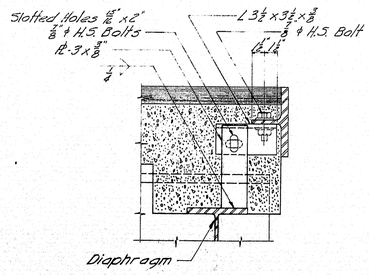
NOTE

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 bonded 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 M 153-54. 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 UNIT TYPE A — ARMORED JOINT UNIT TYPE B

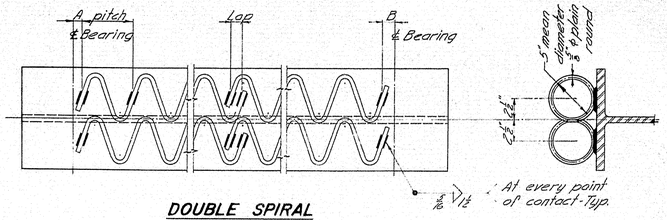
SECTION D-D



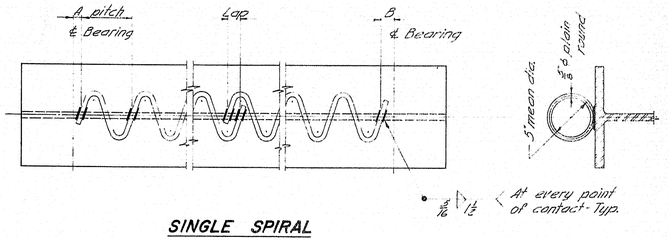
SECTION E-E
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld ⅜ PL to angle with ¼ fillet

ARMORED JOINT

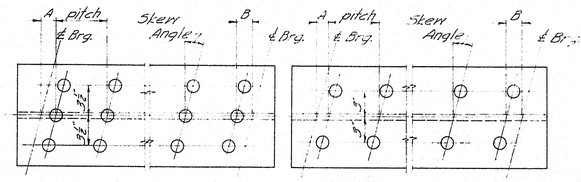
An armored joint consists of two armored joint units. See note 1.



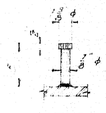
DOUBLE SPIRAL



SINGLE SPIRAL



TRIPLE STUDS **DOUBLE STUDS**

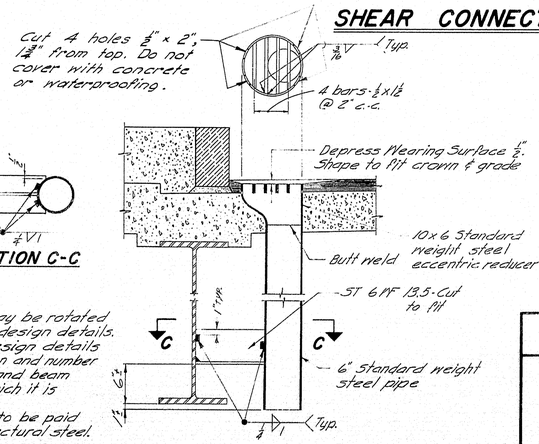


STUD DETAIL

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, the cost 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 [illegible] Skew Angle for Studs.

SHEAR CONNECTORS



SECTION C-C

NOTE

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

DRAIN

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.

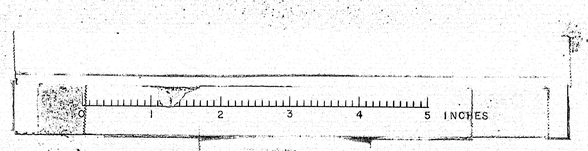
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 104-64)
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

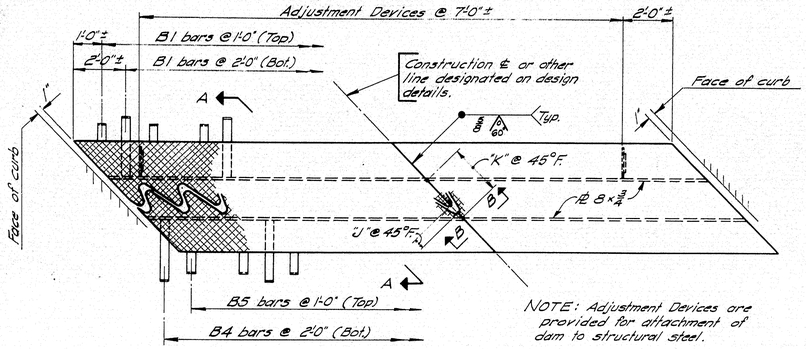
JANUARY 1964

Revised Nov. 1964, Welding Drain Support

M-24-58C

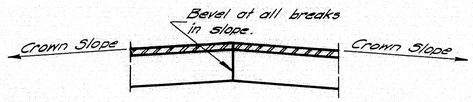


B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(30)	41	258



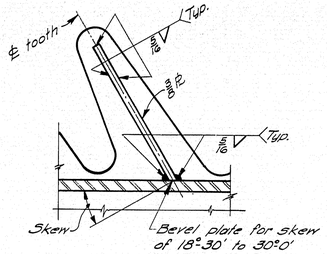
PLAN

Right skew indicated



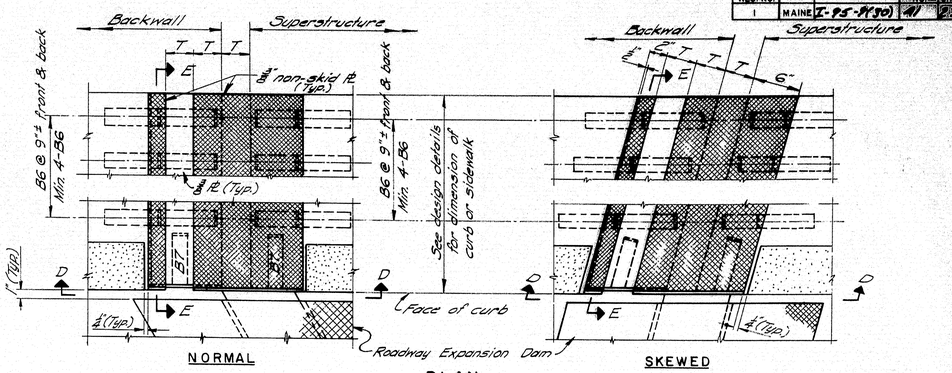
SECTION B-B

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.

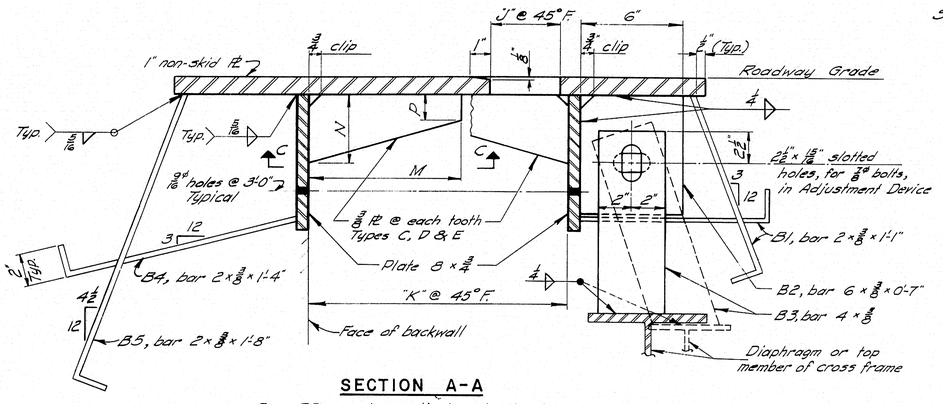


SECTION C-C

Skew ~0° to 30°0'

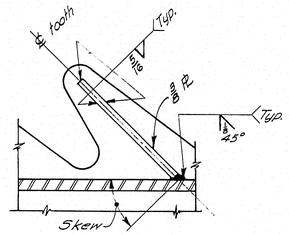


PLAN



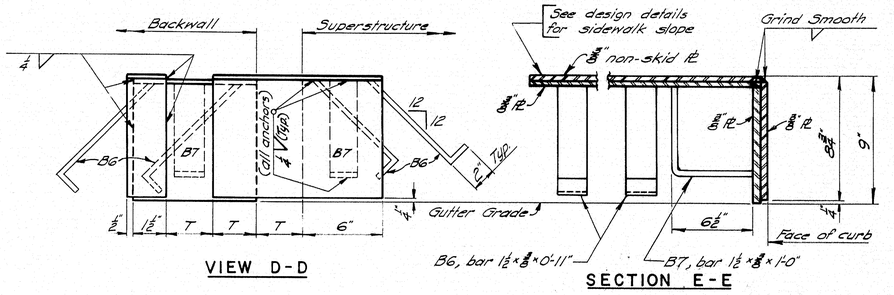
SECTION A-A

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

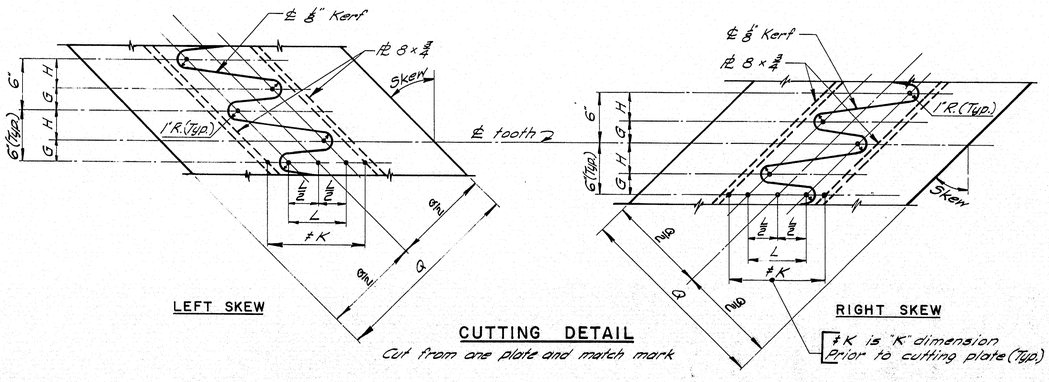
Skew over 30°



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 5/8"	—	—	—	21"
		5°-10°	7 1/4"	4 1/4"	2 5/8"	3 5/8"	9 1/4"	2 5/8"	—	—	—	22"
		10°-20°	8"	4 3/8"	2 5/8"	3 5/8"	10"	2 5/8"	—	—	—	22"
		20°-30°	8 3/4"	5 1/4"	2 5/8"	3 5/8"	10 3/8"	2 5/8"	—	—	—	23"
		30°-40°	9 3/8"	5 3/4"	2 5/8"	3 5/8"	11 1/8"	2 5/8"	—	—	—	23"
		40°-50° incl.	11 1/8"	6 3/4"	2 5/8"	3 5/8"	13 1/8"	2 5/8"	—	—	—	23"
B	280'-440'	0°-5° incl.	9"	6"	3"	3"	12"	3 3/8"	—	—	—	23"
		5°-10°	9 1/4"	6 1/4"	2 5/8"	3 5/8"	12 1/4"	3 3/8"	—	—	—	24"
		10°-20°	10"	6 3/8"	2 5/8"	3 5/8"	13"	3 3/8"	—	—	—	24"
		20°-30°	10 3/8"	7 1/4"	2 5/8"	3 5/8"	13 3/8"	3 3/8"	—	—	—	25"
		30°-40°	12"	8"	2 5/8"	3 5/8"	15"	3 3/8"	—	—	—	25"
		40°-50° incl.	13 3/8"	8 3/8"	2 5/8"	3 5/8"	16 3/8"	3 3/8"	—	—	—	25"
C	440'-600'	0°-10° incl.	11 1/8"	8 3/8"	3"	3"	15 3/8"	4 5/8"	9"	4"	1 1/2"	26"
		10°-20°	12"	8 3/8"	2 5/8"	3 5/8"	16"	4 5/8"	10"	4"	1 1/2"	26"
		20°-30°	12 3/8"	9 1/4"	2 5/8"	3 5/8"	16 3/8"	4 5/8"	11"	4"	1 1/2"	26"
		30°-40°	14"	10"	2 5/8"	3 5/8"	18"	4 5/8"	11"	4"	1 1/2"	26"
		40°-50° incl.	15 1/8"	10 3/8"	2 5/8"	3 5/8"	19 1/8"	4 5/8"	12"	4"	1 1/2"	26"
D	600'-760'	0°-10° incl.	13 1/8"	10 3/8"	3"	3"	18 3/8"	5 3/8"	11"	5"	2"	30"
		10°-20°	14"	10 3/8"	2 5/8"	3 5/8"	19"	5 3/8"	12"	5"	2"	30"
		20°-30°	14 3/8"	11 1/4"	2 5/8"	3 5/8"	19 3/8"	5 3/8"	13"	5"	2"	30"
		30°-40°	16"	12"	2 5/8"	3 5/8"	21"	5 3/8"	13"	5"	2"	30"
		40°-50° incl.	17 3/8"	13"	2 5/8"	3 5/8"	22 3/8"	5 3/8"	15"	5"	2"	30"
E	760'-920'	0°-10° incl.	15 1/8"	12 1/4"	3"	3"	21 1/8"	6 3/8"	13"	6"	2 1/2"	36"
		10°-20°	16"	12 3/8"	2 5/8"	3 5/8"	22"	6 3/8"	14"	6"	2 1/2"	36"
		20°-30°	16 3/8"	13 1/4"	2 5/8"	3 5/8"	22 3/8"	6 3/8"	15"	6"	2 1/2"	36"
		30°-40°	18"	14"	2 5/8"	3 5/8"	24"	6 3/8"	15"	6"	2 1/2"	36"
		40°-50° incl.	19 3/8"	15"	2 5/8"	3 5/8"	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

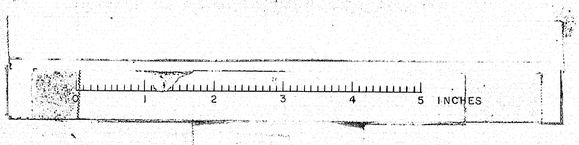
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 105 - 64)

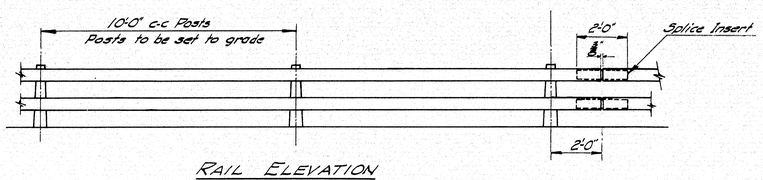
EXPANSION DAMS

APRIL 1964

M-2458D

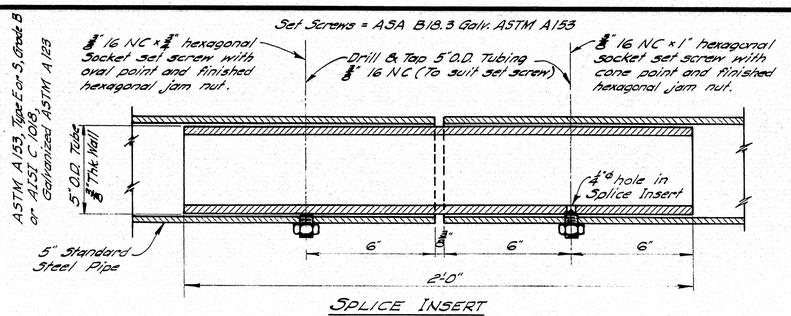


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	42	230



RAIL ELEVATION

Lengths of rail shall be attached to a minimum of (4) four rail posts, whererer possible, and in any case nerer less than (2) two.



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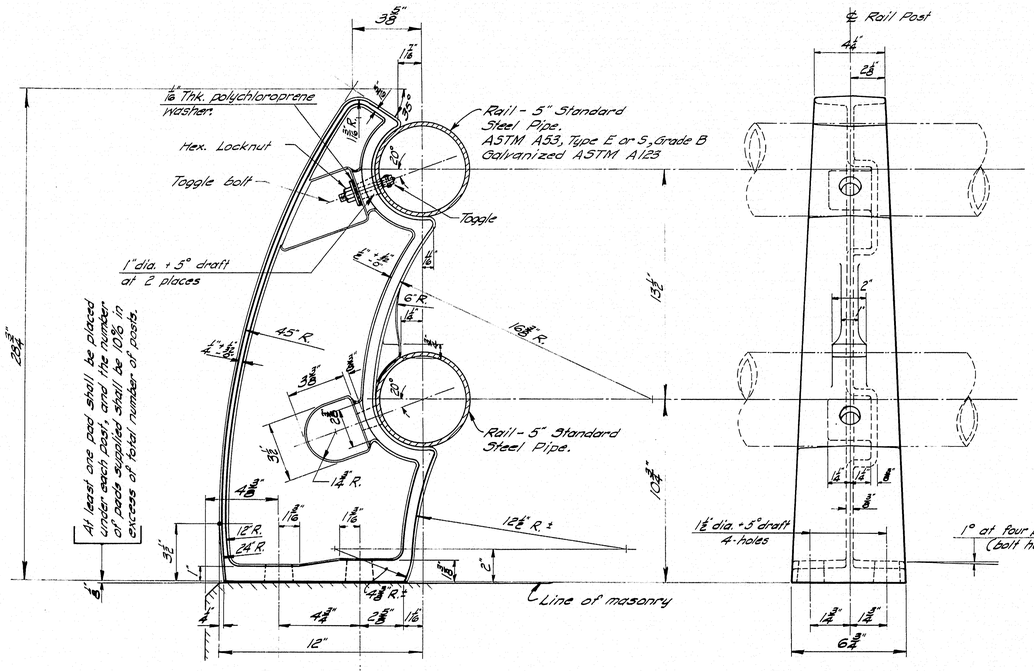
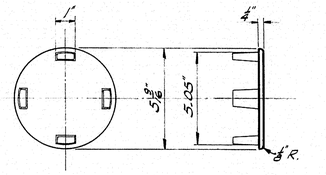


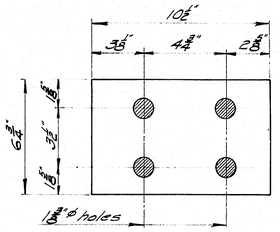
RAIL POST

ASTM A27, Grade 65-35, Galvanized ASTM A153



RAIL CAP

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

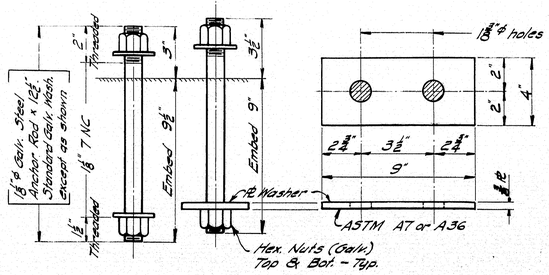


PAD

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

DESIGN SPECIFICATIONS

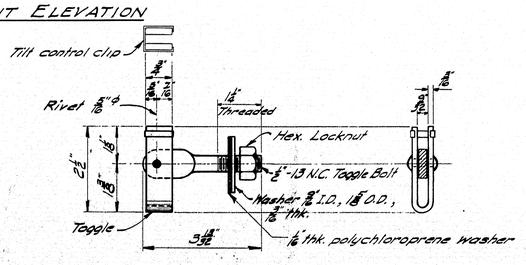
A. A. S. H. O. Interim Specifications Int. I (64)



RAIL POST ANCHORAGE

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

FRONT ELEVATION



TOGGLE BOLT DETAIL

Cadmium Plate metal parts ASTM A165-55, Type N5, .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 Hexagonal Locknut Prevailing Torque Type Steel Grade C or D, Industrial Fasteners Institute.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

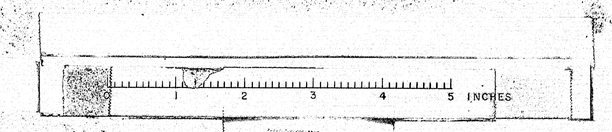
(BD 107 - 64)

STEEL RAIL

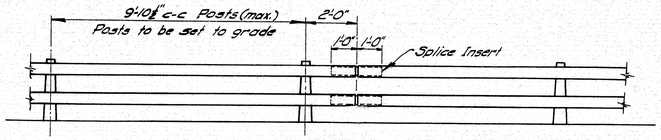
(2-BAR PIPE RAIL)
CAST POST

OCT. 1964

M-2458E

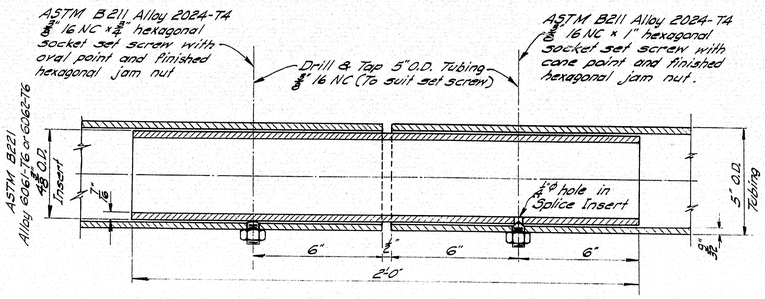


B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(30)	45	250

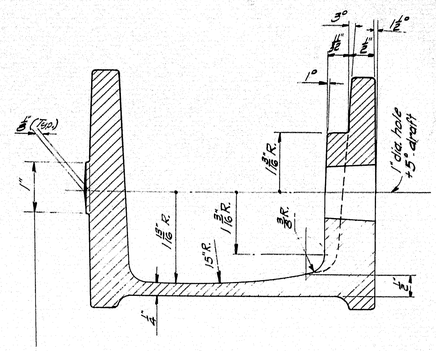


RAIL ELEVATION

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

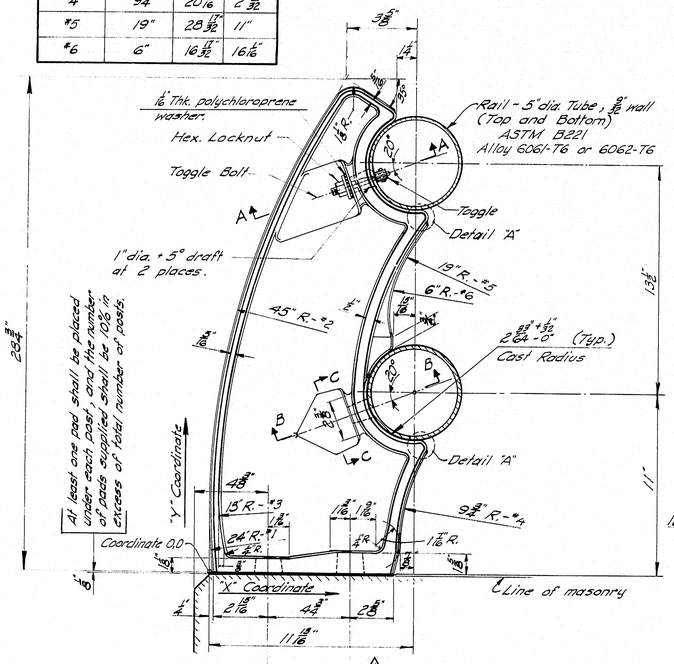


SECTION A-A

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

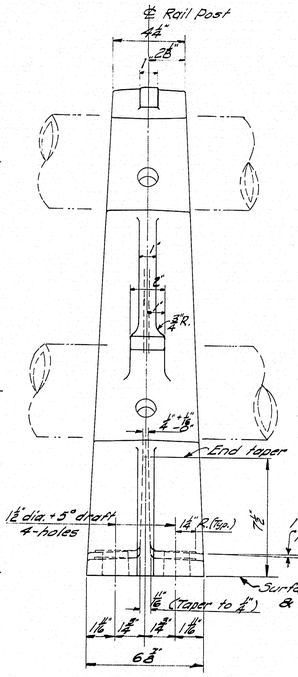
⚠ ORIGIN LOCATION - PRINCIPAL CURVES

Curve	Radius	"X"	"Y"
#1	24"	24"	3 15/32"
#2	45"	45"	2 27/32"
#3	15"	15 11/16"	4 23/32"
#4	9¾"	20 11/16"	2 13/32"
#5	19"	28 17/32"	11"
#6	6"	16 11/32"	16 1/16"

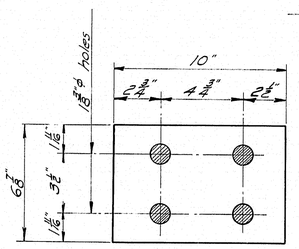


RAIL POST ⚠

Aluminum Association Alloy A344-T4



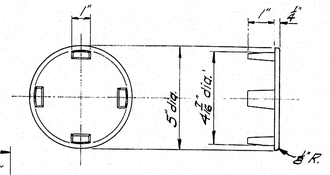
FRONT ELEVATION



PAD

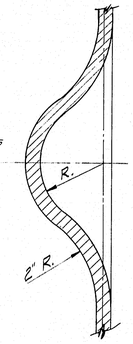
At each rail post

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

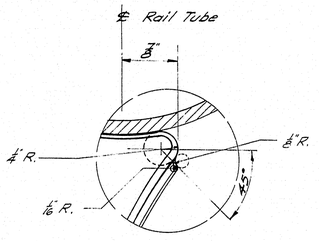


RAIL CAP

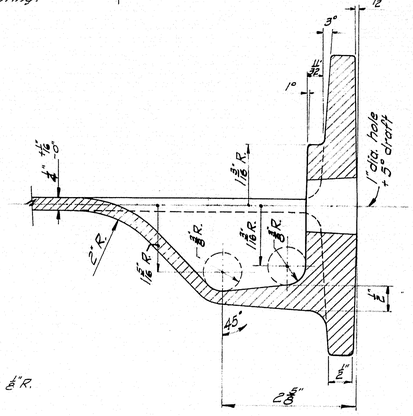
ASTM B26 Alloy 5G 70 A or 35 A



SECTION C-C



DETAIL "A" ⚠



SECTION B-B

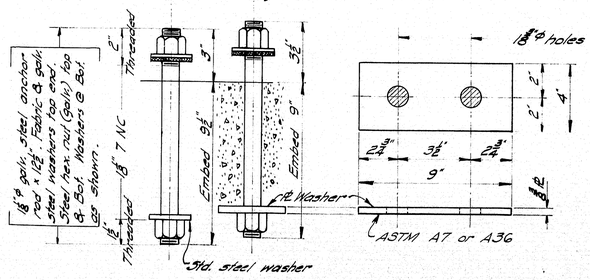
DESIGN SPECIFICATIONS

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

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

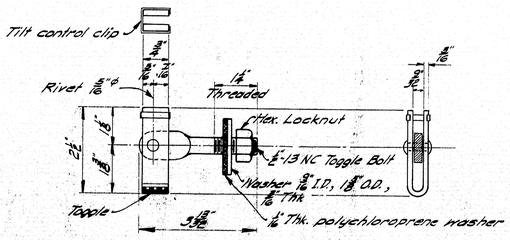
ALTERATION:

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



RAIL POST ANCHORAGE

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



TOGGLE BOLT DETAIL

Cadmium Plate metal parts. ASTM A165-55, Type N3, .0005" thick.

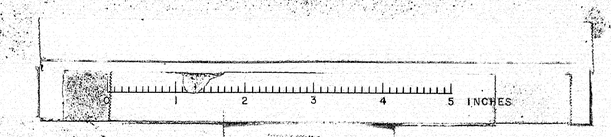
Toggle = ASTM A303, 1015 H.R. Steel.
Rivet = ASTM A195. 1038 C.R. Steel, Heat Treated
Toggle Bolt = ASTM A354, 1335 C.R. Steel, Heat Treated RC 32-38.
Washer = ASTM A7, 1020 H.R. Steel.
Hex. Locknut = Finished Hexagon. Locknut Prevailing Torque Type Steel Grade C or D, Industrial Fasteners Institute.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

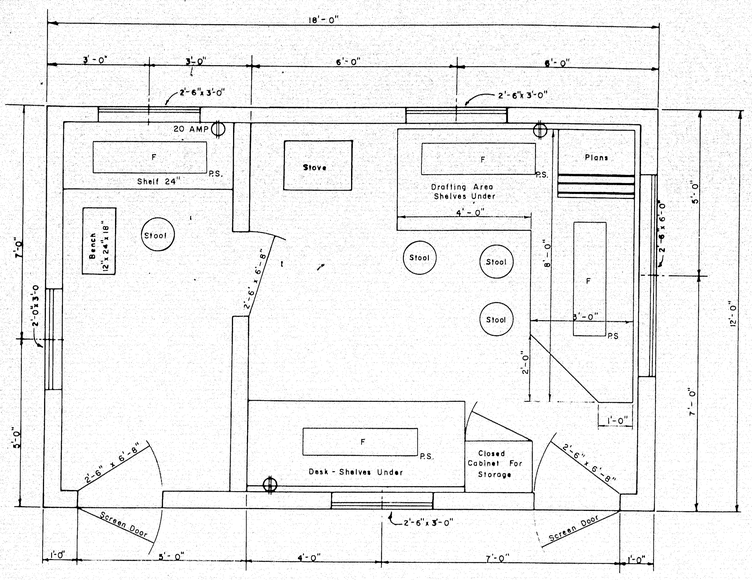
STANDARD DETAILS
(BD 108-64)
ALUMINUM RAIL
2 - BAR (TUBE RAIL)
CAST POST

OCT. 1964

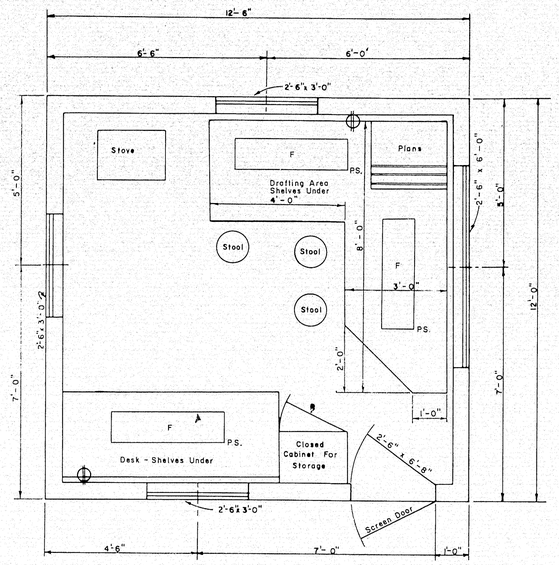
M-2458F



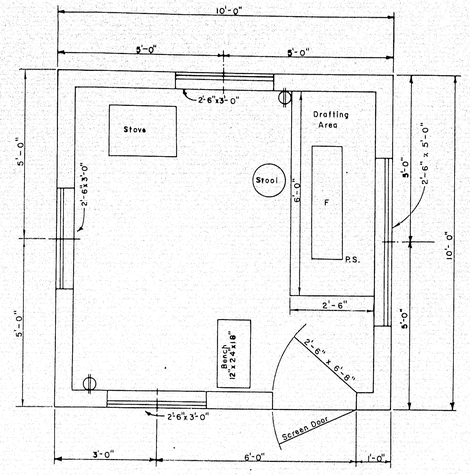
B. P. R. REG. NO	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE			



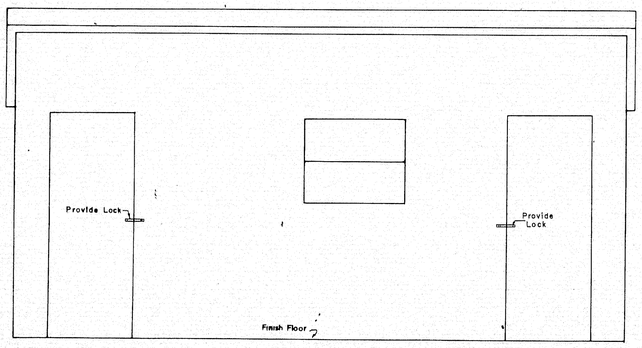
FLOOR PLAN
TYPE "A"



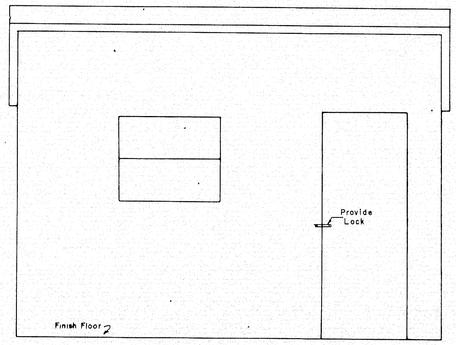
FLOOR PLAN
TYPE "B"



FLOOR PLAN
TYPE "C"



FRONT ELEVATION
TYPE "A"



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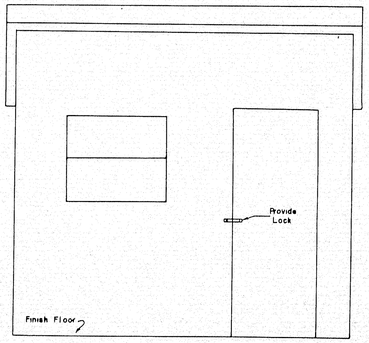
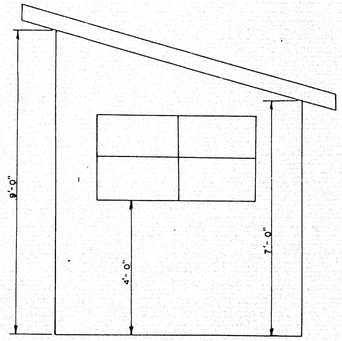


FRONT ELEVATION
TYPE "C"



SIDE ELEVATION
TYPES "A" "B" & "C"

NOTES:

Drafting table 3'-4" high at front edge.

Set drafting table out 2" from studs to allow prints to hang down behind table when in use.

The engineer may rearrange the items shown on the plan views during construction of the field office.

Shelves under desk to fit 11½" x 14" x 25" trans files.

Windows shall be double hung.

ENGINEERS FIELD OFFICES

SCALE ½" = 1'-0"

FURNISHINGS TO BE SUPPLIED:

2 Straight back chairs for type A and B.
1 Straight back chair for type C.
3 Stools for type A and B.
2 Stools for type C.

SYMBOLS:

F Flourescent lights (2 light, rapid start 48" strips and 40 watt bulbs).
P.S. - - Pull switch.
⊕ - - - Duplex wall outlet - 15 amp unless otherwise noted.

M24586

NOV. 1964