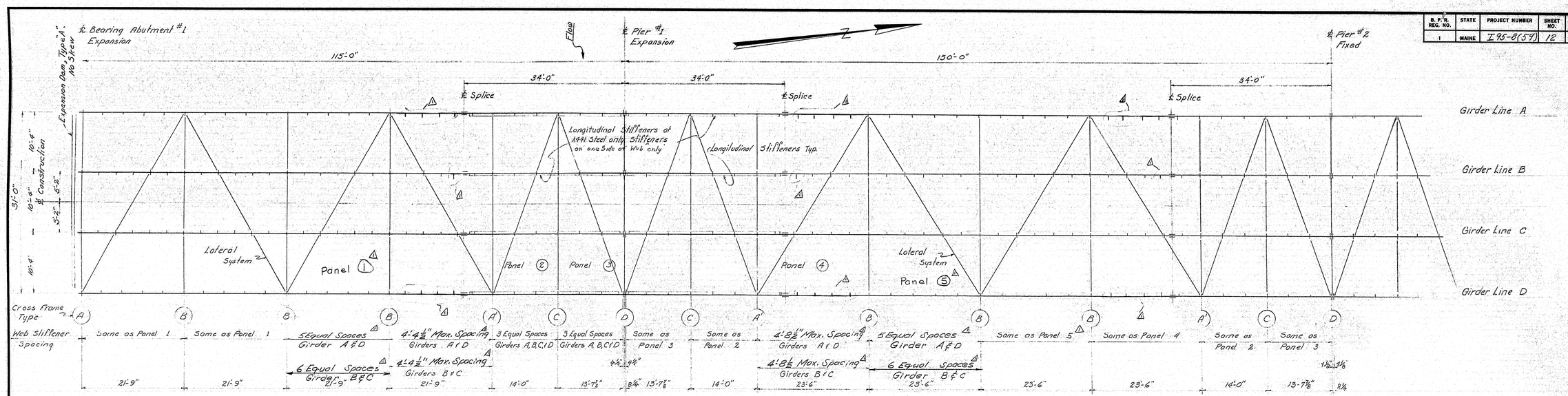
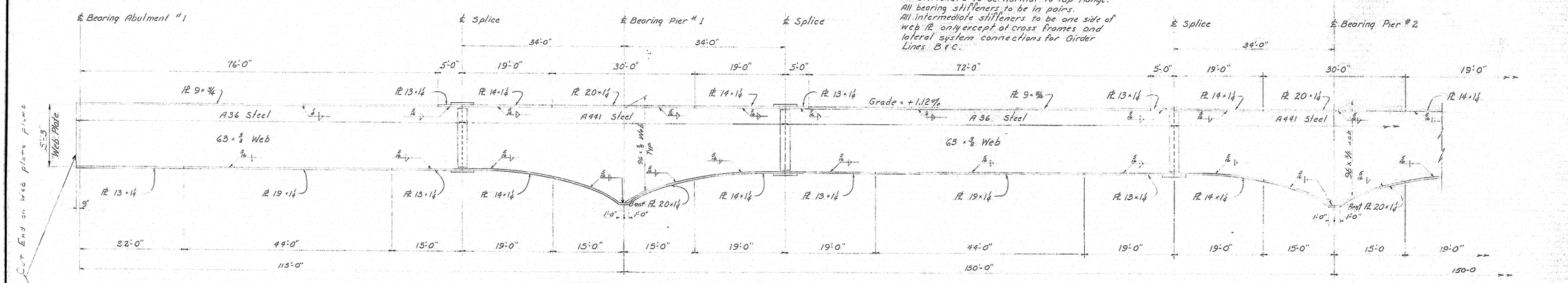
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-8(59)	12	47



ERECTION PLAN

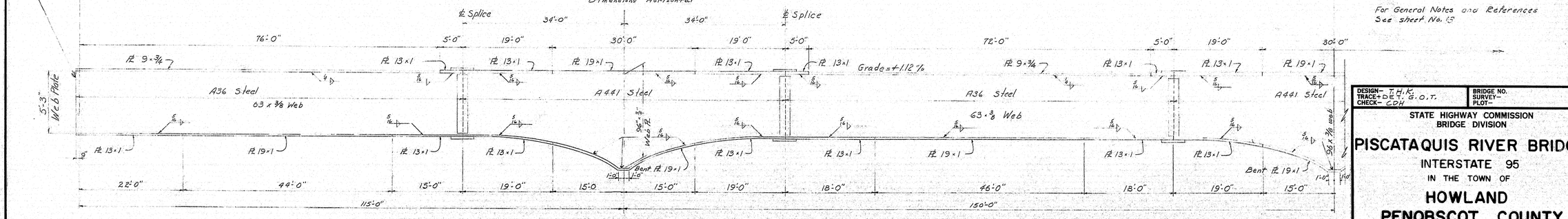
Note:
All dimensions are horizontal
All intermediate stiffeners to be PL 6 × ⅜.
All stiffeners to be normal to top flange.
All bearing stiffeners to be in pairs.
All intermediate stiffeners to be one side of web PL only except at cross frames and lateral system connections for Girder Lines B ℄ C.

Symmetrical about ℄ Pier #2 except for grades.



ELEVATION GIRDER LINES B ℄ C

Dimensions Horizontal



ELEVATION GIRDER LINES A ℄ D

Dimensions Horizontal

For General Notes and References See sheet No. 13

Revised 10-4-65

DESIGN- T.H.K.
TRACE+DET. G.O.T.
CHECK- CDH

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

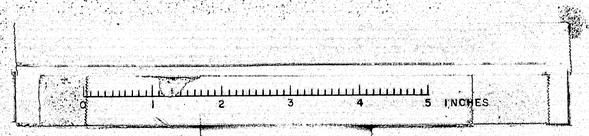
PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
ERECTION PLAN

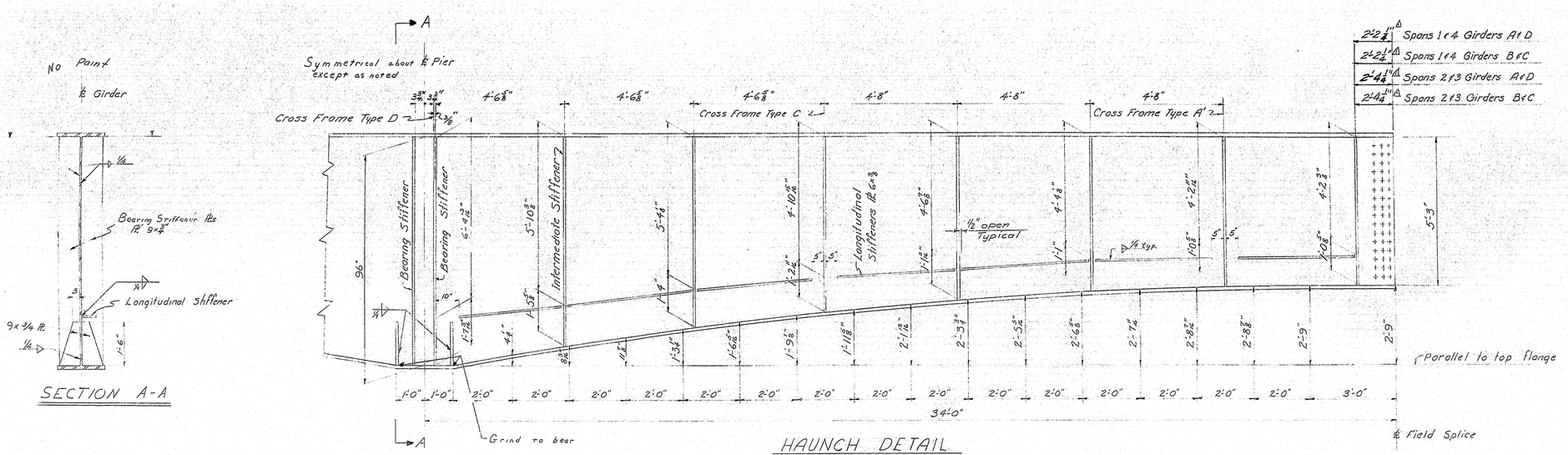
SHEET 12 OF 47 AUGUSTA, MAINE SEPT. 1964

96-25

C. B. CO., NO. 44-131 28788



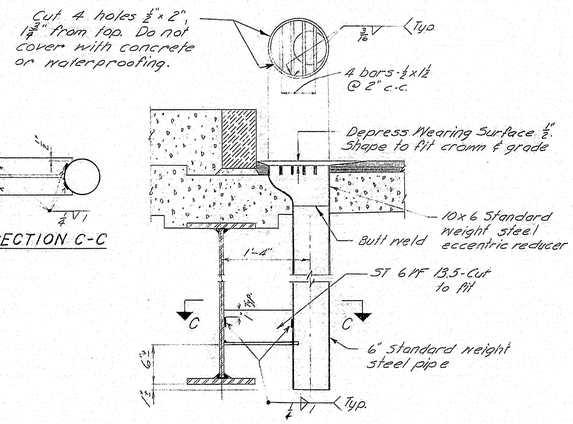
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-8(39)	13	47



SECTION A-A

HAUNCH DETAIL

Typical All Girders
Dimensions Horizontal



SECTION C-C

GENERAL NOTES

GIRDER FABRICATION

1. Flanges are to be butt welded in accordance with details this sheet and the specifications, and inspected in conformance with the specifications prior to being fillet welded to the web plates.
2. The Steel Fabricator at his option may fabricate the web plates with butt welds with the following limitations:
   a) A maximum of two (2) transverse welds in the positive moment 63 - ⅜ web plates per girder per span.
   b) A maximum of one (1) transverse weld each side of the ℄ of bearing at a maximum distance of 12'-0" from the ℄ of bearing and one (1) longitudinal weld in the negative moment 96 - ⅜ web plates per girder per section between field splices.

minimum C.L.F. 12'-11"-64

3. If butt welds are used to fabricate the web plates they shall be made and inspected in conformance with the specifications before the web plates are fillet welded to the flange plates. The location and detail of butt welds in the webs shall be subject to approval by the Engineer.

SPECIFICATIONS

Design:
The American Association of State Highway Officials Standard Specifications for Highway Bridges, 1961 with Interim Specifications 1961, 1962, 1964

Fabrication & Erection:
State of Maine, State Highway Commission, Standard Specifications Highways and Bridges, Revision of January 1956 and Supplemental Specifications Feb., 1960 and as modified by Contract Specifications

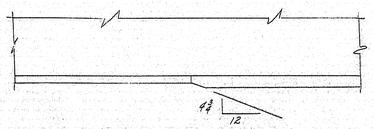
Welding:
Standard Specifications for Welded Highway and Railway Bridges, American Welding Society, AWS D20, 1963, as modified by contract specifications.

DESIGN

Loading: HS 20-44 as modified for Interstate Highways.
Allowable Stresses: Structural Steel, A36 - f_s = 20,000 psi
Structural Steel, A441 - f_s = 24,000 psi

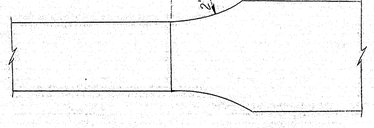
A.S.T.M. STEEL CLASSIFICATION

Girders: A36 or A441 as shown on Erection Plan Sheet No. 12
All Stiffeners: A36
Field Splices: A36.
H.S. Bolts: A325.
Pedestals: A36., except pins
Anchor Bolts: A7, A36 or A307.
All other A36 unless otherwise noted.
Pedestal pins: A235 Class C1 or A108
Grade 1016 to 1030 incl. with minimum Rockwell Scale "B" hardness of 80



FLANGE BUTT WELD @ THICKNESS CHANGE

Note:
"Single Vee Butt Weld" to be used when either plate is 1" or less in thickness. Structural Steel Fabricator to furnish details. Note also applies to View B-B.



FLANGE BUTT WELD @ WIDTH CHANGE

DRAIN

Drains to be paid for as Structural Steel
34 - Required for Piscataquis River Bridge.

REFERENCES

Erection Plan:	Sheet No. 12
Steel Details & General Notes:	Sheet No. 13
Shear Connector - Splice & Camber:	Sheet No. 16
Cross Frames Details:	Sheet No. 14
Lateral System Details:	Sheet No. 15
Bearing Pedestal Details:	Sheet No. 17
Expansion Dams See Standard	Sheet BD 105-64

Detail at ends of Longitudinal Stiffeners REVISED 11-19-64

Δ1 Revised 10-4-65

DESIGN - T.H.K. TRACE + DET. G.O.T. CHECK - EDH
BRIDGE NO. SURVEY - PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF

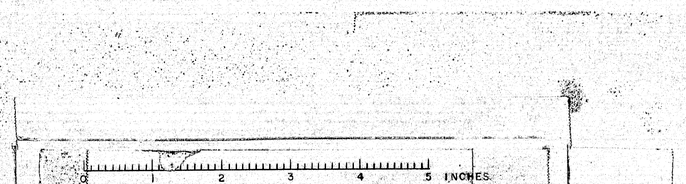
HOWLAND
PENOBSCOT COUNTY

STEEL DETAILS & GENERAL NOTES

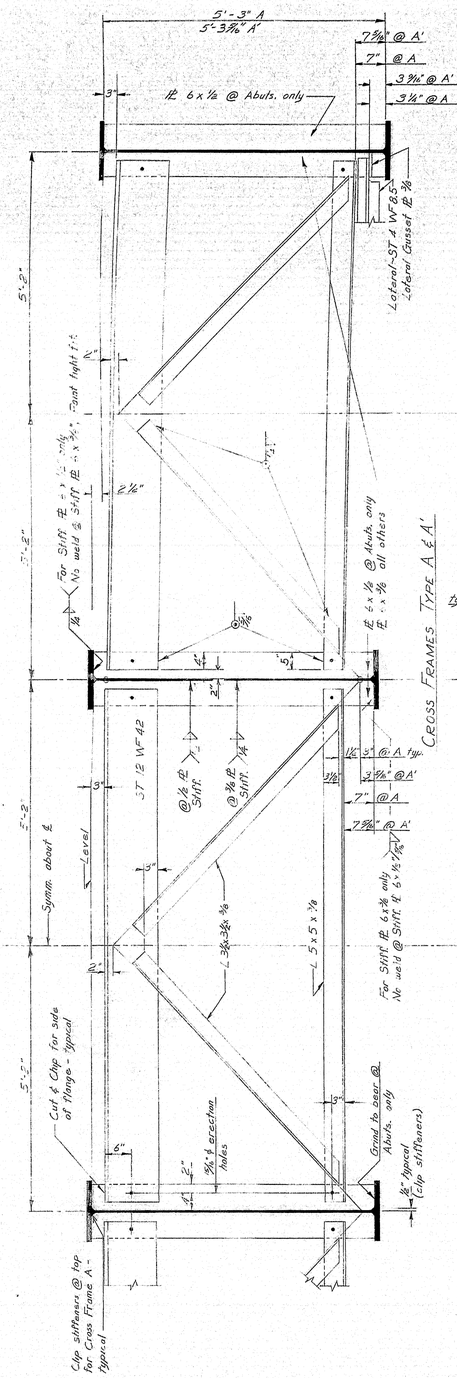
SHEET 13 OF 47 AUGUSTA, MAINE SEPT. 1964

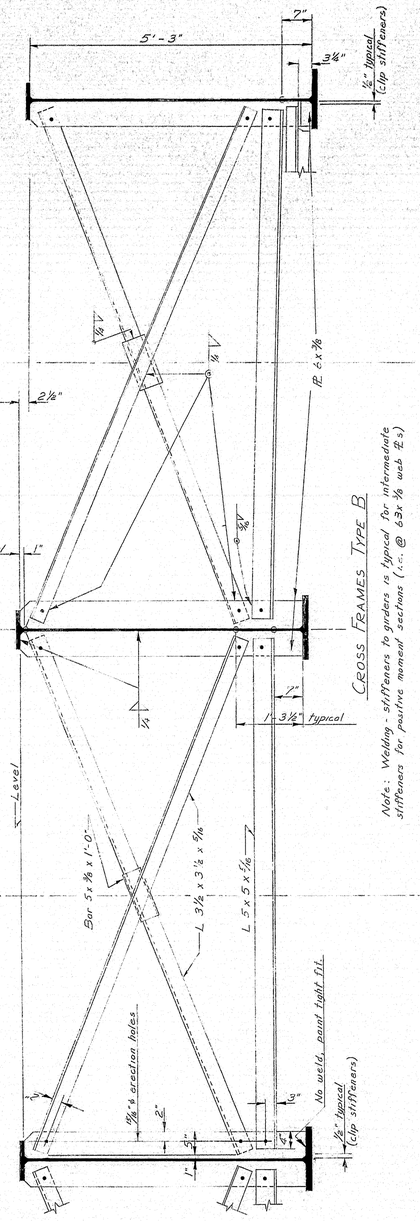
96-26

C. B. CO., NO. 44-131 28788

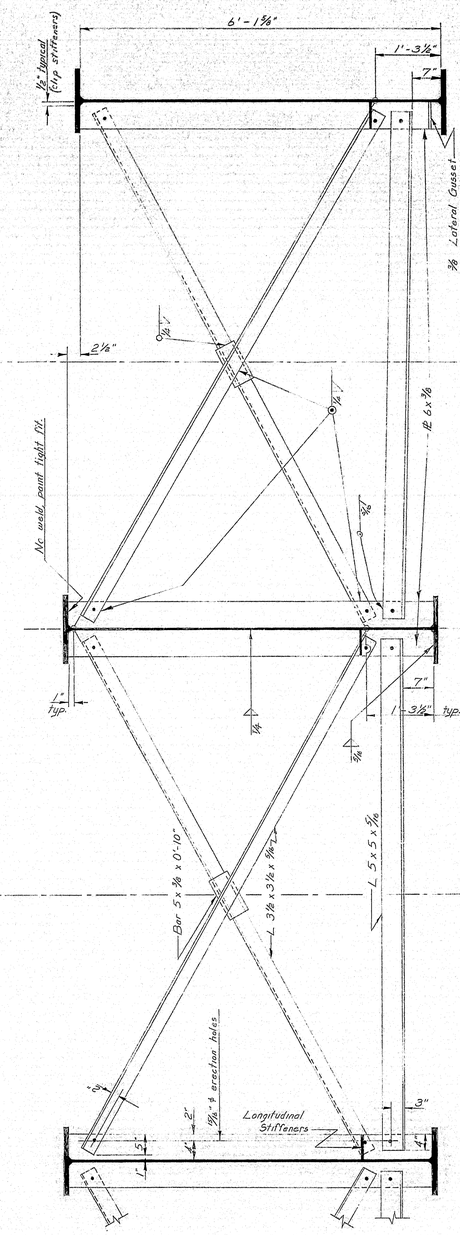


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-3(39)	14	47

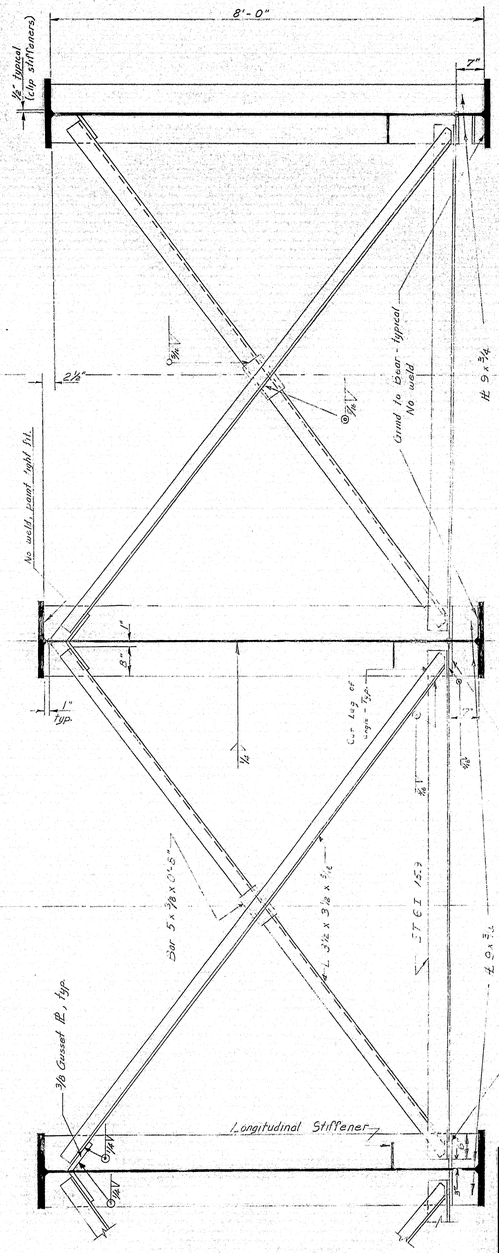




Note: Welding - stiffeners to girders is typical for intermediate stiffeners for positive moment sections (i.e. @ 63' ± web PL's)



Note: Welding - stiffeners to girders is typical for intermediate stiffeners for negative moment sections adjacent to piers (i.e. @ variable depth web PL's between field splices.)



NOTE: Exterior Girder Stiffeners shall have the same width as the Interior Girder Stiffeners.

DESIGN- T.H.K. DET. G.O.T. | BRIDGE NO.
TRACE- E.R.A. | SURVEY-
CHECK- EPH | PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

PISCATAQUIS RIVER BRIDGE

INTERSTATE 95

IN THE TOWN OF

HOWLAND

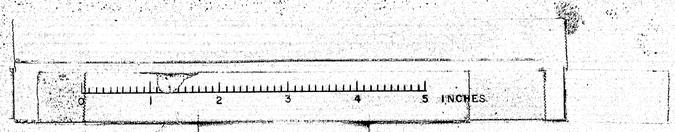
PENOBSCOT COUNTY

CROSS FRAMES

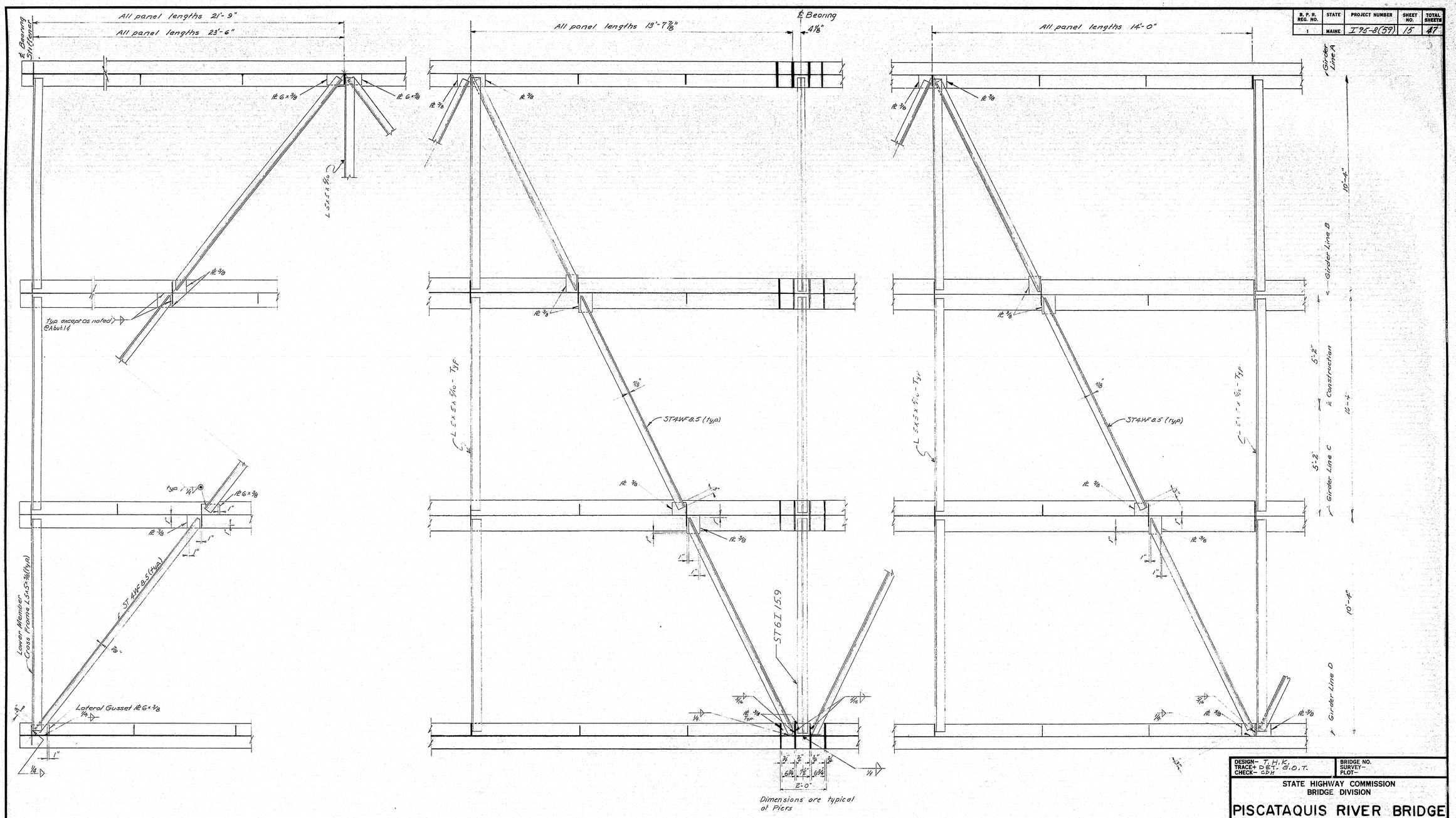
SHEET 14 OF 47 AUGUSTA, MAINE SEPT. 1964

96-27

C. B. CO., NO. 44-131 28728



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-8(59)	15	47



LATERAL SYSTEM DETAILS

Dimensions Horizontal

DESIGN- T.H.K.
TRACE- DET. S.O.T.
CHECK- C.P.H

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

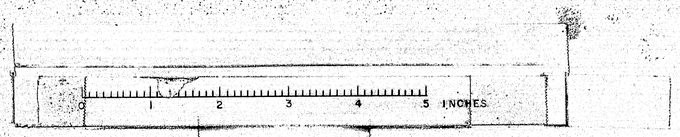
PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
LATERAL SYSTEM DETAILS

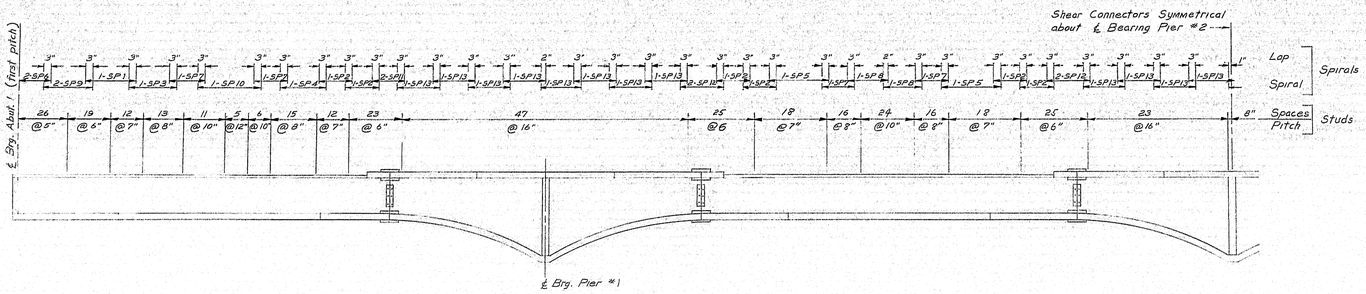
SHEET 15 OF 47 AUGUSTA, MAINE SEPT 1964

C. B. CO., NO. 44-131 28788

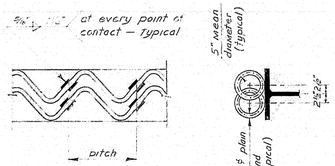
96-28



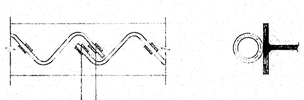
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	16	47



SHEAR CONNECTOR LAYOUT
All Girders



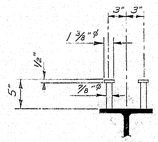
DOUBLE SPIRALS
Indicated by "2" in layout



SINGLE SPIRALS
Indicated by "1" in layout

SPIRAL TABLE

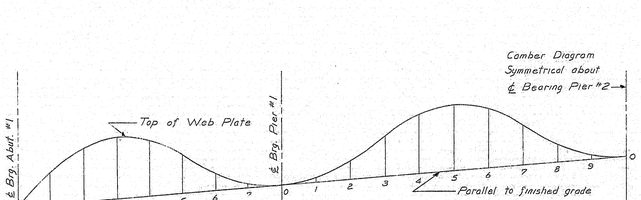
Spiral	Number	Spaces	Pitch	Length
SP1	8	29	4"	9'-8"
SP2	48	18	4"	6'-0"
SP3	8	22	5"	9'-2"
SP4	8	21	5"	8'-9"
SP5	16	28	5"	11'-8"
SP6	16	14	6"	7'-0"
SP7	32	12	6"	6'-0"
SP8	16	13	7"	7'-7"
SP9	16	16	7"	9'-4"
SP10	8	22	7"	12'-10"
SP11	16	10	7"	5'-10"
SP12	32	14	7"	8'-2"
SP13	96	6	16"	8'-0"



STUD DETAIL
2 Studs @ each pitch
5,936 Required

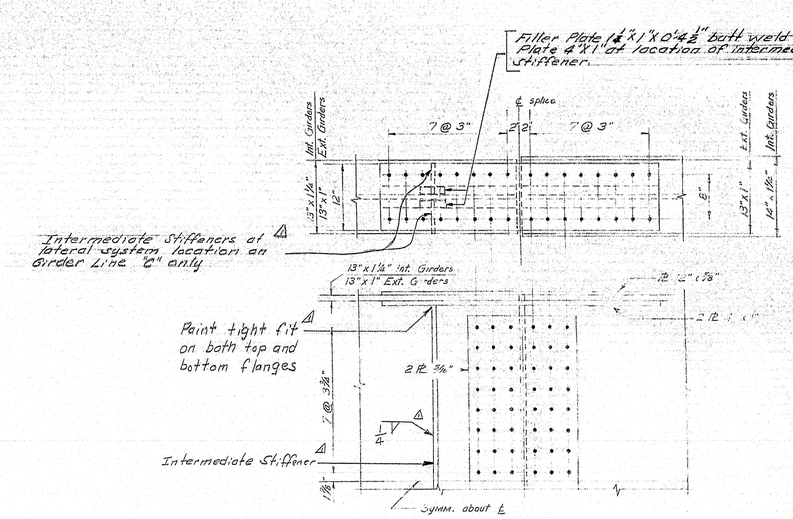
NOTE:
1. Pitch and transverse spacing may be revised slightly at girder field splices to clear H.S. Bolts.
2. Spiral reinforcing or studs may be used at the option of the contractor.
3. If studs are used they shall be granular or solid filled and automatically end welded to the top flange in the shop or field.
4. 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.

SHEAR CONNECTOR DETAILS



CAMBER DIAGRAM
All Girders

Span	Point	Camber
℄ Brg. Abut. #1	0	0
	1	1/16"
	2	1 1/16"
	3	1 1/16"
	4	1 1/16"
	5	1 1/16"
	6	1/16"
	7	1/16"
℄ Brg. Pier #1	0	0
	1	1/16"
	2	3/16"
	3	1 3/16"
	4	1 3/16"
	5	1 15/16"
	6	1 3/4"
	7	1 15/16"
	8	15/16"
	9	1/16"
℄ Brg. Pier #2	0	0



TYPICAL GIRDER FIELD SPLICE
7/8" ϕ H.S. Bolts; 1"/16" ϕ holes

Δ Revised 10-4-65

DESIGN- T.H.K.
TRACE- DET. E.R.A.
CHECK- GDH

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

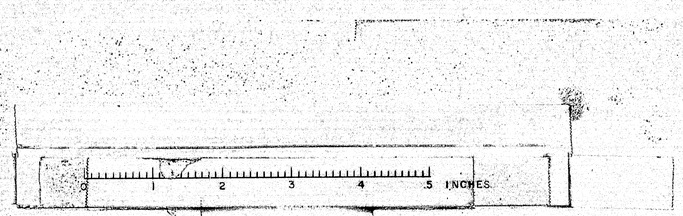
PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
SHEAR CONNECTOR- SPLICE- CAMBER

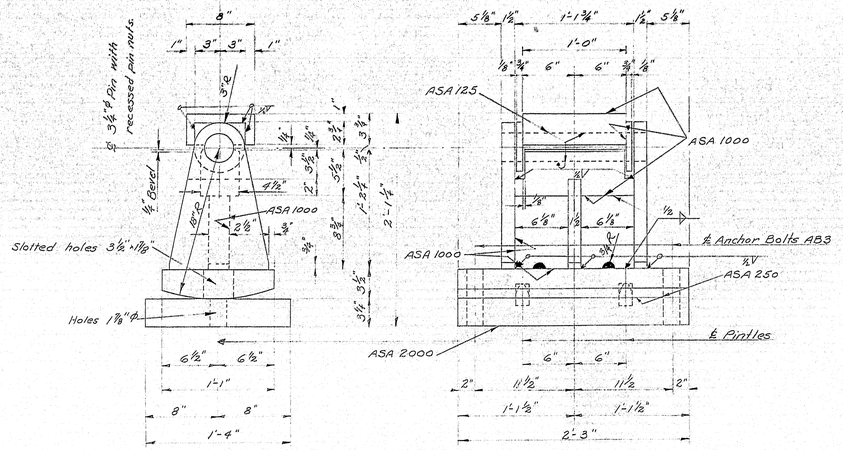
SHEET 16 OF 47 AUGUSTA, MAINE SEPT. 1964

96-29

C. B. CO., NO. 44-131 59760

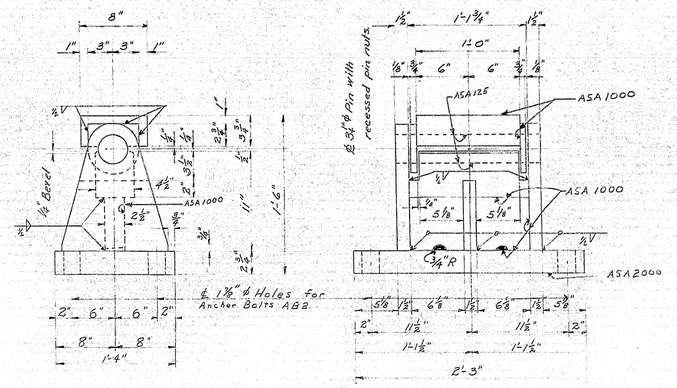


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-2(69)	17	47



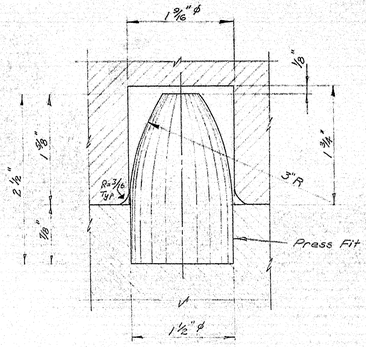
EXPANSION PEDESTAL

Piers 1 & 3 only
8 Required

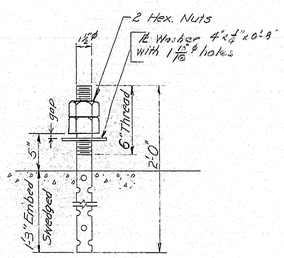


FIXED PEDESTAL

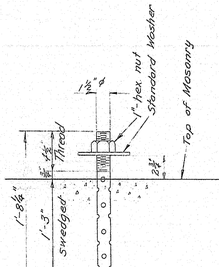
Pier 2 only
4 Required



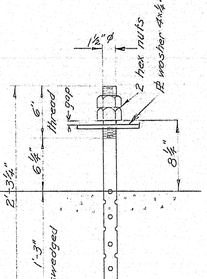
PINTLE DETAIL



AB1
16 Required



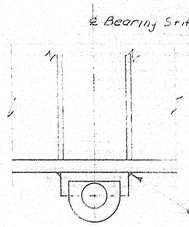
AB2
16 Required



AB3
16 Required

ANCHOR BOLTS

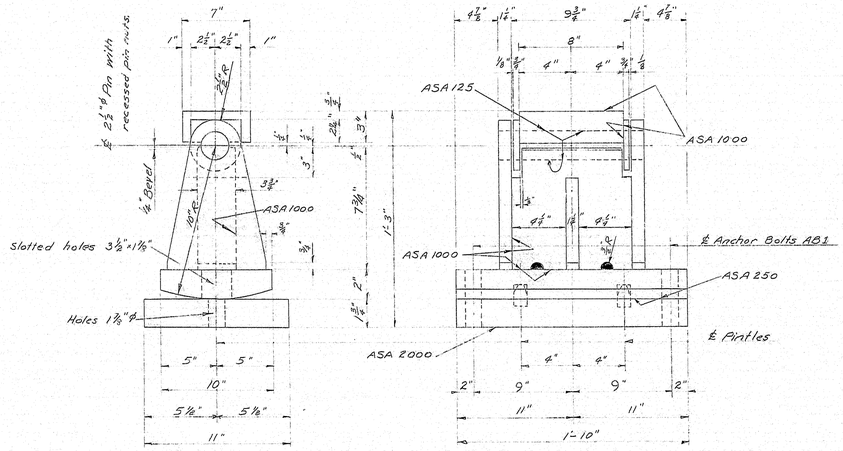
Piers



TYPICAL WELDING DETAIL

Sole ℄ to Girder

Note: Set Rockers Normal at 45° F.



EXPANSION PEDESTAL

Abutment 1 & 2

8 Required
Welding Similar to Pedestal above

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 plans. If the 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 ½ inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items. Place reinforcing steel to clear anchor bolts.

DESIGN- T.H.K. TRACE- DET. G.O.T. CHECK- CDH	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

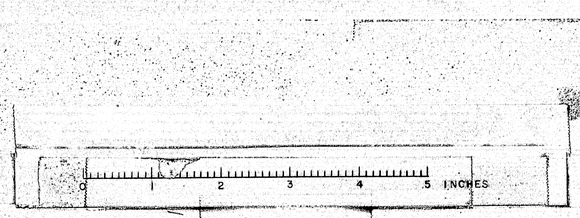
PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
BEARING PEDESTALS

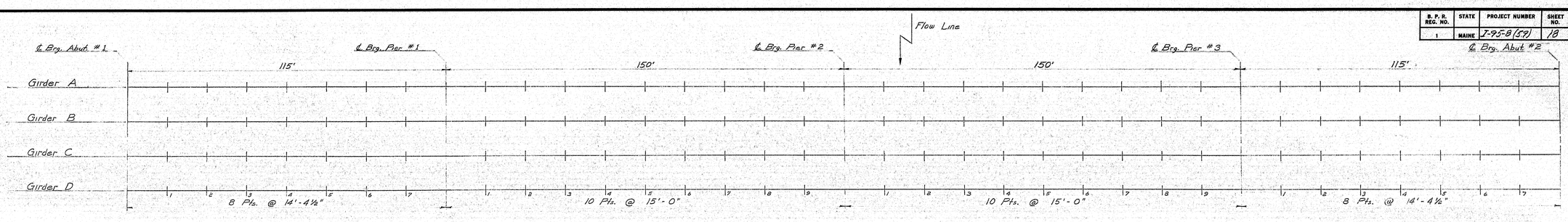
SHEET 17 OF 47 AUGUSTA, MAINE SEPT 1964

96-30

C. B. CO., NO. 44-131 28788



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(57)	18	47



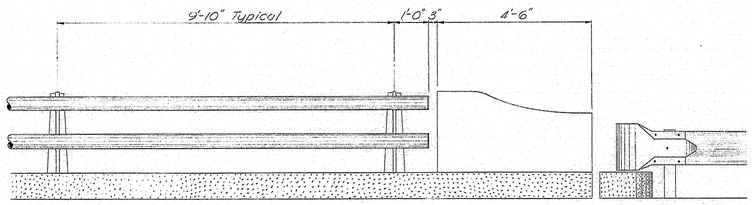
BLOCKING PLAN

BOTTOM OF SLAB ELEVATIONS

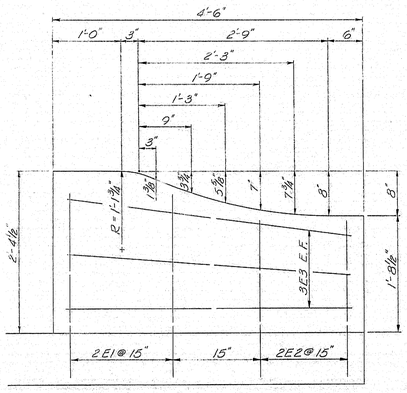
Girders	℄ Brg. Abut. 1	1	2	3	4	5	6	7	℄ Brg. Pier 1	1	2	3	4	5	6	7	8	9	℄ Brg. Pier 2	1	2	3	4	5	6	7	8	9	℄ Brg. Pier 3	1	2	3	4	5	6	7	℄ Brg. Abut. 2
A & D	170.30	170.53	170.73	170.91	171.06	171.19	171.31	171.44	171.59	171.77	171.99	172.20	172.42	172.60	172.76	172.88	172.99	173.11	173.27	173.45	173.67	173.88	174.10	174.28	174.44	174.56	174.67	174.79	174.95	175.12	175.31	175.51	175.70	175.89	176.03	176.13	176.24
B & C	170.51	170.74	170.94	171.12	171.26	171.39	171.52	171.65	171.80	171.98	172.19	172.41	172.62	172.81	172.96	173.08	173.20	173.32	173.48	173.66	173.87	174.09	174.31	174.49	174.65	174.76	174.88	175.00	175.16	175.33	175.52	175.72	175.91	176.09	176.23	176.33	176.44

173.20

Note:
To compensate for dead load deflections, as well as possible irregularities in girders, set the bottom of slab elevations at the points indicated before any of the slab forms are started. Bottom of slab grades for blocking shall be set after shear connectors are welded to the top flange.

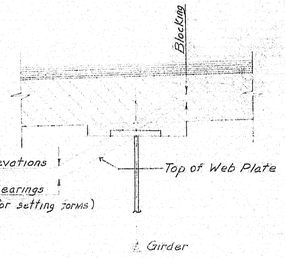


RAIL & END POST



END POST

Note- Payment for concrete in End Rail Posts to be made under Item 701-90, Portland Cement Concrete, Roadway and Sidewalk Slabs on Steel Bridges.



BLOCKING DETAIL

DESIGN- T.H.K. TRACE+DET. E.R.A & E.E.L. CHECK- CDH	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF

HOWLAND

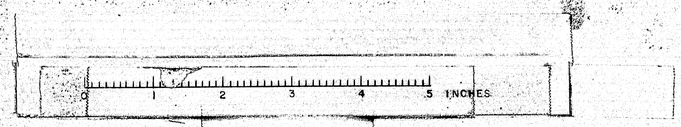
PENOBSCOT COUNTY

BLOCKING & RAIL DETAILS

SHEET 18 OF 47 AUGUSTA, MAINE SEPT. 1964

96-31

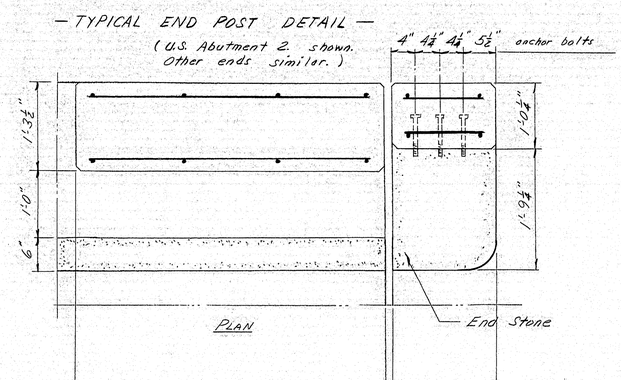
C. B. CO., NO. 44-131 29788

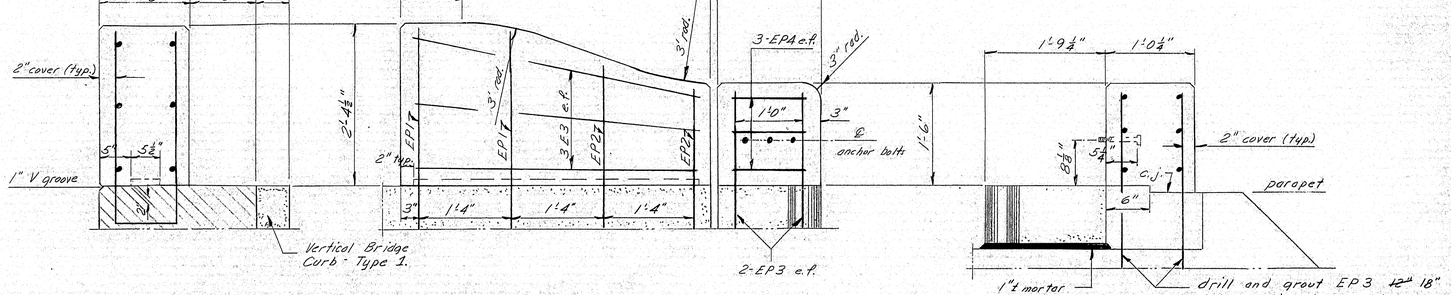


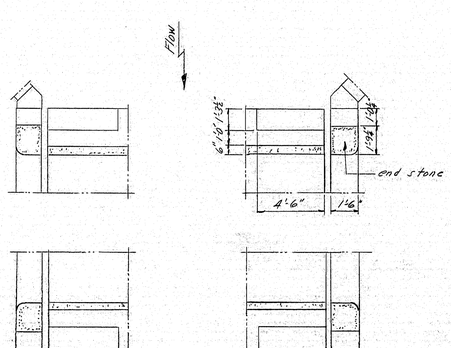
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-B(59)	18A	47

— TYPICAL END POST DETAIL —

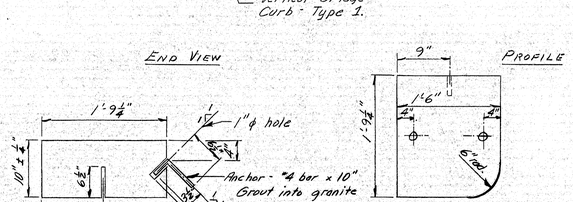
(U.S. Abutment 2. shown. Other ends similar.)





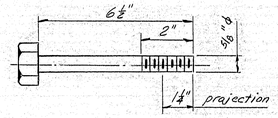


Scope of Work



Vertical Bridge Curb - Type 1. - End Stone

Drill 1¼" ϕ holes 6" deep into existing abutment concrete. Grout "6 x 1'0" dowels into granite before setting granite on abutment.

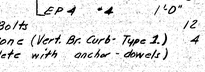


Anchor Bolt

Bolt to be furnished with hex. head, nut, and washer. All parts galvanized.

— Additional Materials Required —

Concrete Class "A"			- 0.50 c.y.	
Reinforcing Steel :				
Bent Bars	EP1	#5	6'-11"	8 req'd.
	EP2	#5	5'-3"	8 req'd.
Straight Bars	EP3	~~#5~~ #7	~~3'-5"~~ 3'-9"	16 req'd.
	EP4	#4	1'-0"	24 req'd.
Anchor Bolts				12 req'd.
End Stone (Vert. Br. Curb - Type 1.) (complete with anchor - dowels)				4 req'd.



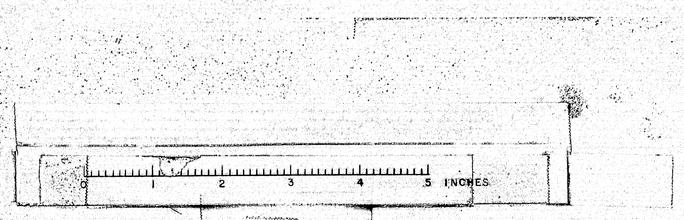
DESIGN— Mallicane
TRACE—
CHECK— JMcMillan
BRIDGE NO.
SURVEY—
PLOT—

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

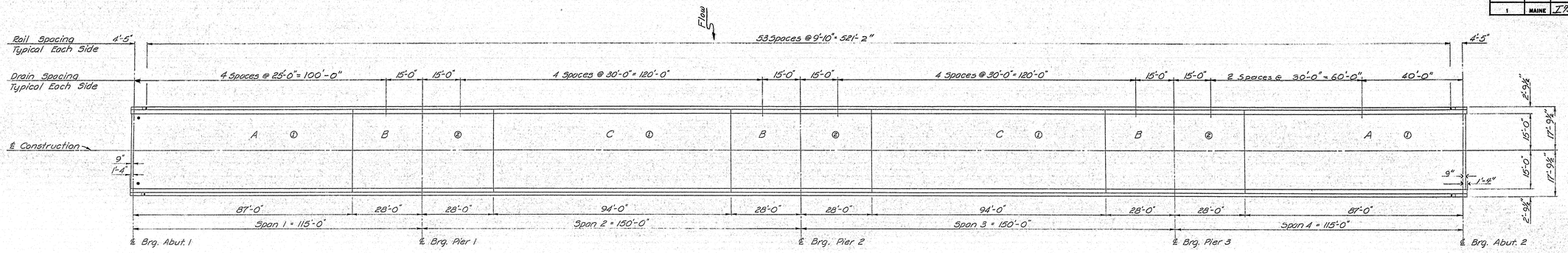
PISCATAQUIS RIVER BRIDGE
INTERSTATE 95
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
END POST REVISIONS

SHEET 18A OF 47 AUGUSTA, MAINE MARCH 1966

96-32

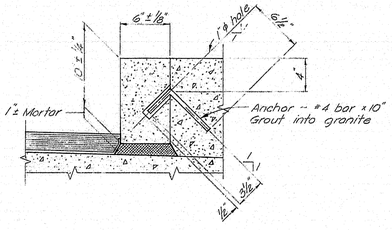


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-8 (59)	19	47

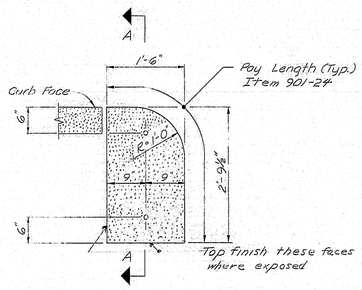


LAYOUT PLAN

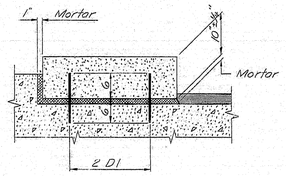
Place all slabs marked ① before placing slabs marked ②.



TYPICAL SECTION



PLAN



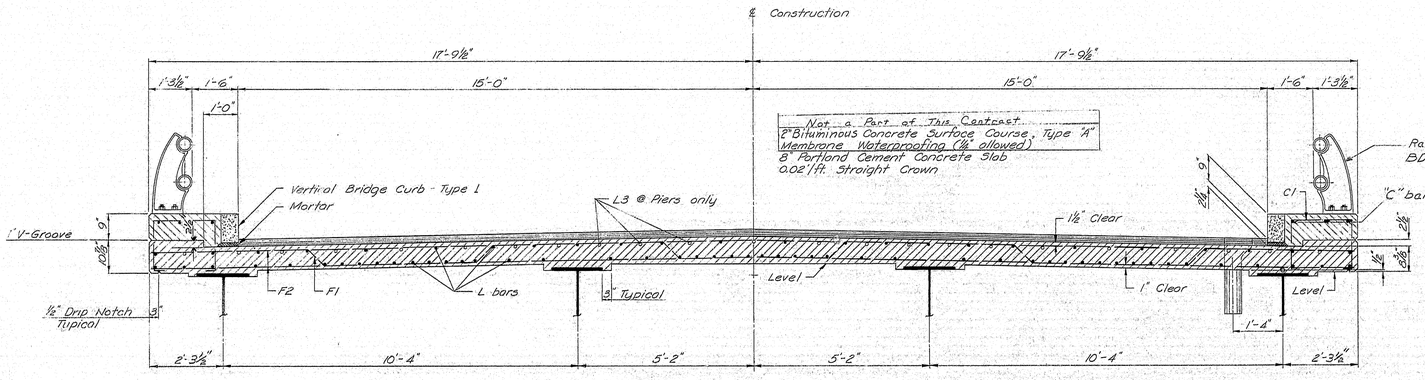
SECTION A-A

Grout D1 bars into 1¼" ϕ holes in stone prior to setting stone on backwall. Drill 1¼" holes in backwall to suit D1 bars. Payment for drilling and grouting of D1 bars to be included in the price for Item 705-14, Reinforcing Steel, Placing.

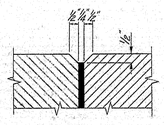
SLAB NOTES

1. At contraction joints over ℄ of bearings of piers use ½" preformed expansion joint filler for granite curb and concrete curb. At all other contraction joints in curbs break the bond between concrete surfaces by coating the contact areas with a suitable grade of asphalt paint. Joints in granite curb are to be provided at every contraction joint in concrete curb.
2. Form a 1" V-Groove on both face of curb and slab at each contraction joint.
3. At points indicated by symbol * on "Layout Plan" provide a 1" ϕ plastic tube drain extending through slab to 2" below bottom of slab. Place in order for drip to clear bridge seats. Do not cover with membrane waterproofing. Payment to be incidental to Item 701-40 Portland Cement Concrete Roadway and Sidewalk Slabs on Steel Bridges. (2 - Required.)
4. No work other than form work utilizing hand tools will be permitted on slab for a period of seven days following placing of slab.
5. For details of slabs A, B & C see Sh. #20.

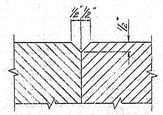
VERTICAL BRIDGE CURB - TYPE 1



TYPICAL TRANSVERSE SECTION



1" V-GROOVE
With ⅛" Preformed Expansion Joint Filler.



1" V-GROOVE
Without ⅛" Preformed Expansion Joint Filler.

DESIGN- T.H.K. TRACE- DET. E.E.L. CHECK- CDH	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

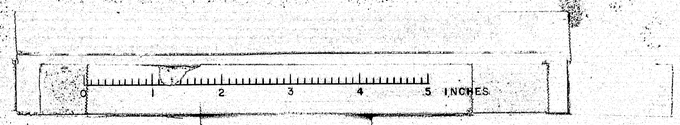
PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
SUPERSTRUCTURE

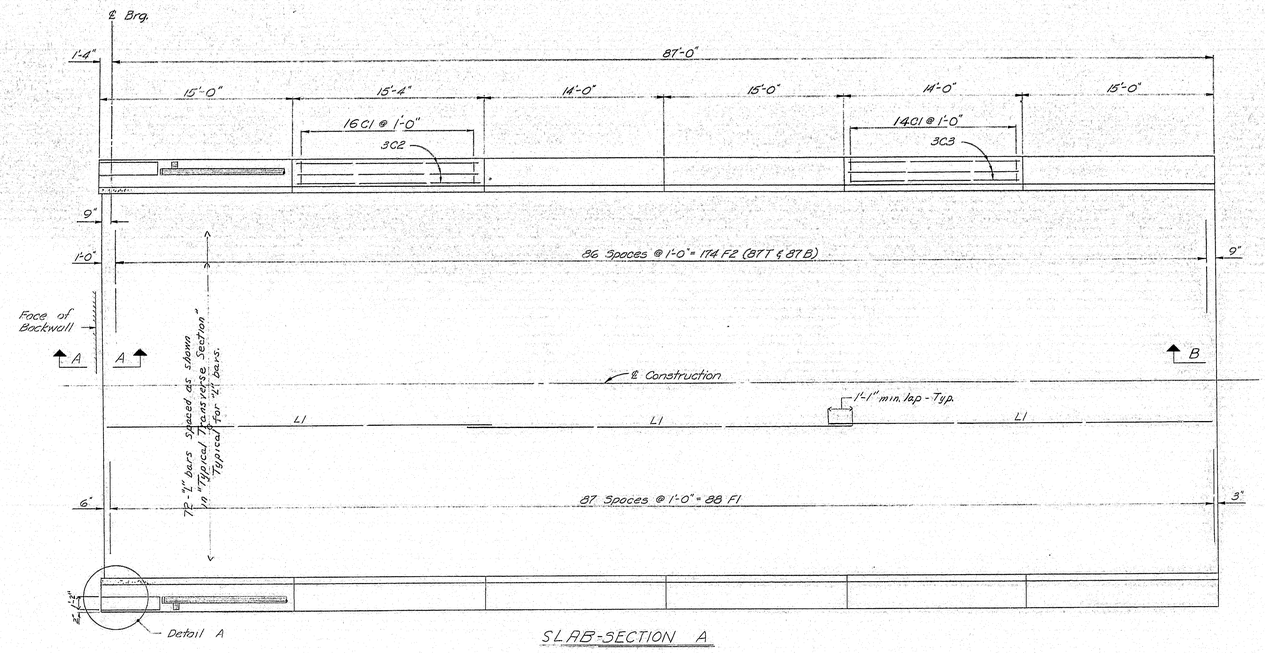
SHEET 19 OF 47 AUGUSTA, MAINE SEPT 1964

C. B. CO., NO. 44-131 28768

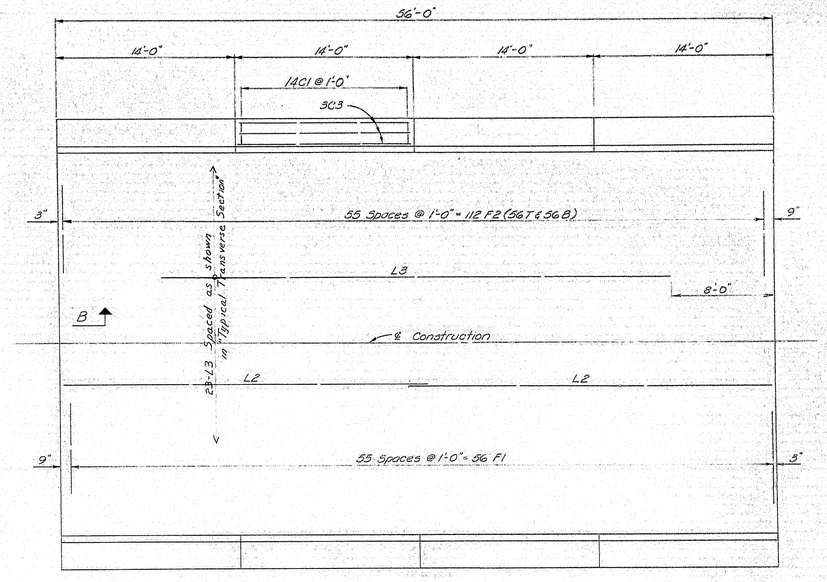
96-33



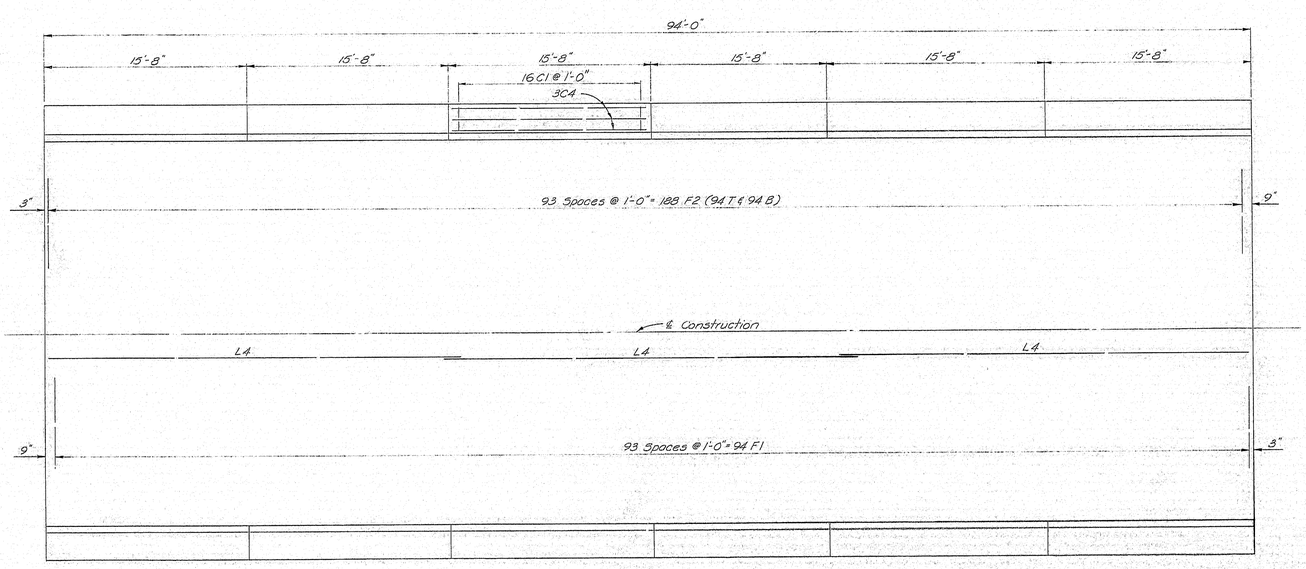
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95-8(57)	20	47



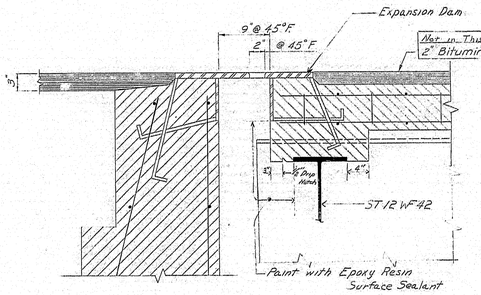
SLAB-SECTION A



SLAB-SECTION B



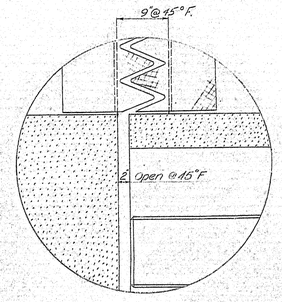
SLAB-SECTION C



SECTION A-A

SECTION B-B

At joints in concrete and granite curbs over piers 1, 2, & 3 and at slab construction joints, use ½" preformed expansion joint filler. At all other joints, break the bond between concrete surfaces with a coat of asphalt paint.



DETAIL A

Note: For location of Slab A, B & C see Sh #19.

DESIGN- T.H.K.
TRACE- D.S.T. E.E.L.
CHECK- EDH

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF

HOWLAND

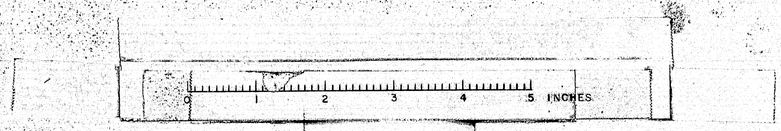
PENOBSCOT COUNTY

SUPERSTRUCTURE

SHEET 20 OF 47 AUGUSTA, MAINE SEPT 1964

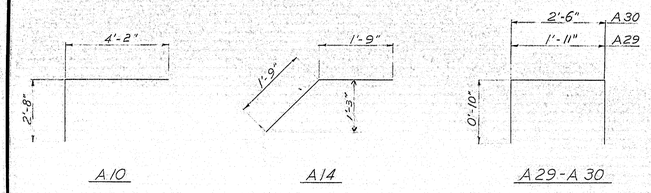
96-34

C. B. CO., NO. 44-131 28788



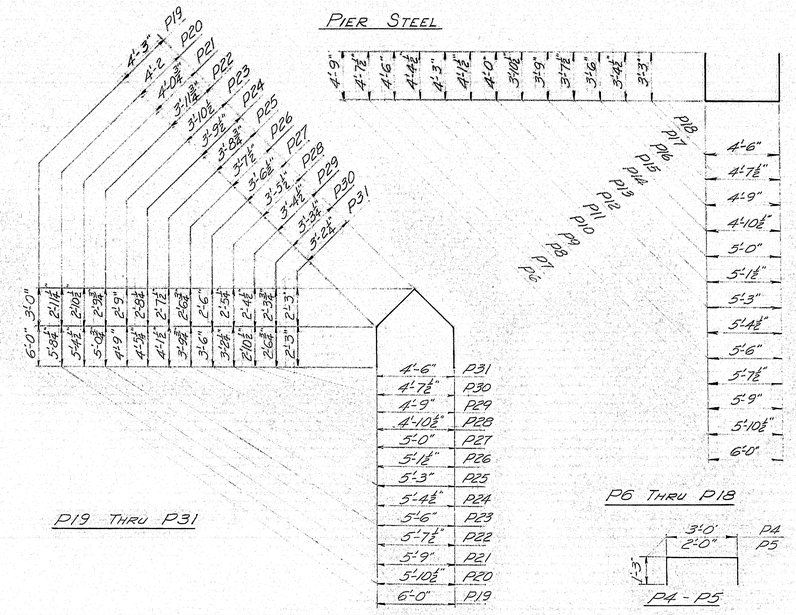
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	21	47

ABUTMENT STEEL



A10 A14 A29-A30

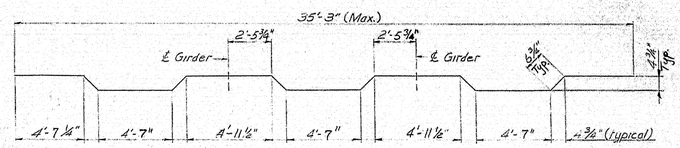
PIER STEEL



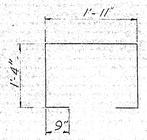
P19 THRU P31 P6 THRU P18

P4 - P5

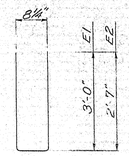
SUPERSTRUCTURE STEEL



F1



C1



E1 & E2

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
A1	#5	46	6'-10"	Bridge Seat
A14	#6	40	3'-6"	Backwall
A29	#4	16	3'-7"	Bearing Pads
A30	#4	16	4'-2"	" "

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
A1	#6	136	6'-6"	Footing
A2	#6	26	34'-0"	"
A3	#6	40	10'-6"	"
A4	#6	16	5'-6"	"
A5	#6	16	4'-6"	"
A6	#6	16	4'-0"	"
A7	#6	16	3'-0"	"
A8	#6	110	2'-6"	"
A9	#5	46	5'-9"	"
A11	#5	24	17'-6"	Bridge Seat
A12	#5	46	3'-0"	" "
A13	#4	40	17'-2"	Backwall
A15	#5	92	7'-6"	"
A16	#6	8	11'-0"	Wing
A17	#6	8	10'-8"	"
A18	#6	8	10'-2"	"
A19	#6	8	9'-8"	"
A20	#6	8	9'-2"	"
A21	#6	8	8'-8"	"
A22	#6	8	8'-2"	"
A23	#6	8	7'-8"	"
A24	#5	16	9'-0"	"
A25	#5	16	10'-0"	"
A26	#5	8	9'-3"	"
A27	#5	8	7'-3"	"
A28	#5	8	5'-3"	"
A31	#4	40	29'-6"	Approach Slab
A32	#5	232	14'-6"	" "

Bend in field

DET. E.E.L.

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
P4	#5	24	5'-6"	Bearing Pads
P5	#5	24	4'-6"	" "
P6	#5	2	15'-6"	Shaft - Pier 1 & 3
P7	#5	3	15'-1"	" - Pier 1,2 & 3
P8	#5	3	14'-9"	" "
P9	#5	3	14'-4"	" "
P10	#5	3	14'-0"	" "
P11	#5	3	13'-7"	" "
P12	#5	3	13'-3"	" "
P13	#5	3	12'-10"	" "
P14	#5	3	12'-6"	" "
P15	#5	3	12'-1"	" "
P16	#5	3	11'-9"	" "
P17	#5	3	11'-4"	" "
P18	#5	3	11'-0"	" "
P19	#5	2	20'-6"	" - Pier 1 & 3
P20	#5	3	19'-8"	" - Pier 1,2 & 3
P21	#5	3	18'-10"	" "
P22	#5	3	18'-0"	" "
P23	#5	3	17'-3"	" "
P24	#5	3	16'-6"	" "
P25	#5	3	15'-8"	" "
P26	#5	3	14'-10"	" "
P27	#5	3	14'-1"	" "
P28	#5	3	13'-3"	" "
P29	#5	3	12'-6"	" "
P30	#5	3	11'-8"	" "
P31	#5	3	10'-10"	" "

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
P1	#7	266	4'-0"	Footing
P2	#7	88	18'-6"	Shaft
P3	#5	76	33'-0"	"
P32	#7	88	17'-6"	"
P33	#7	90	19'-6"	"

DET. G.M.C.

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
F1	#6	532	36'-3"	Slabs
C1	#5	1098	6'-1"	Curbs
E1	#5	8	6'-9"	End Posts
E2	#5	8	5'-11"	" "

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
F2	#6	1060	35'-3"	Slabs
L1	#5	132	3'-5"	"
L2	#5	432	28'-5	"
L3	#5	9	40'-0"	"
L4	#5	432	32'-0"	"
C2	#5	48	1'-3"	Curbs
C3	#5	96	13'-8"	"
C4	#5	72	15'-4"	"
D1	#6	8	1'-0"	Curb Dowels
E3	#4	24	4'-2	End Post

DET. E.E.L

NOTE: Dimensions to ℄ bars. Reinforcing steel to be of Intermediate Grade.

DESIGN- J.H.K.
TRACE- E.E.A., DET. AS SHOWN
CHECK- E.D.H.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

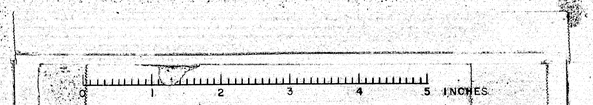
PISCATAQUIS RIVER BRIDGE

INTERSTATE 95
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
REINFORCING STEEL

SHEET 21 OF 47 AUGUSTA, MAINE SEPT. 1964

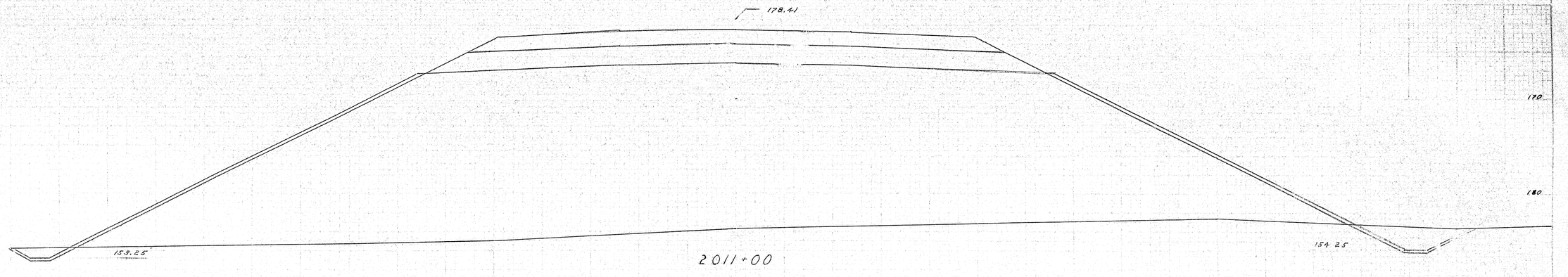
96-35

O. B. CO., NO. 44-131 29729



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8 (59)	22	47

℄

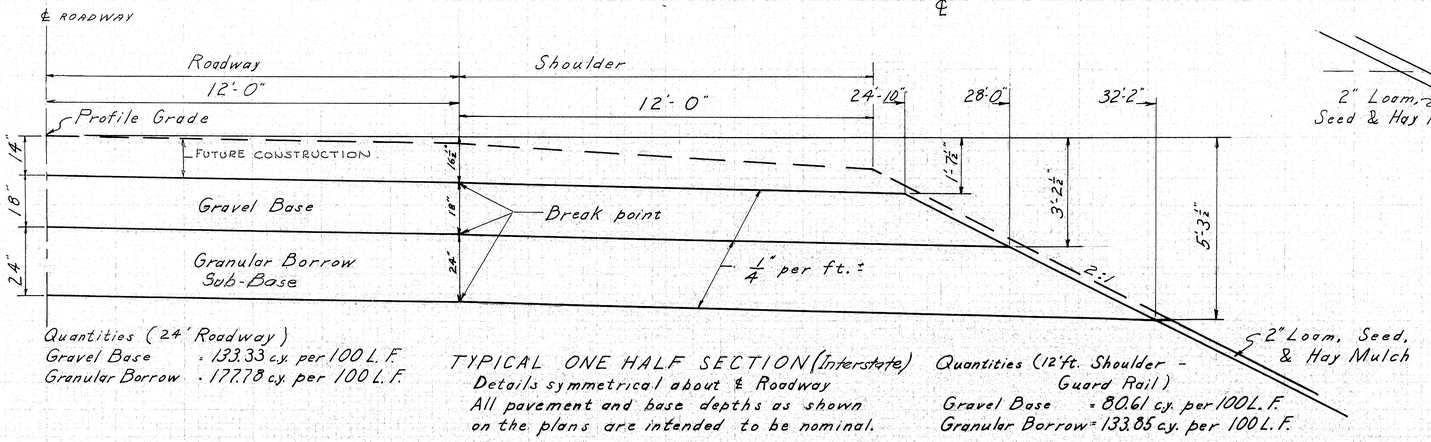


Grouted Hand Laid Riprap Ditch from Sta. 2010+50± to River

Grouted Hand Laid Riprap Ditch From Sta. 2010+20± to River

2010+50 (Interpolated)

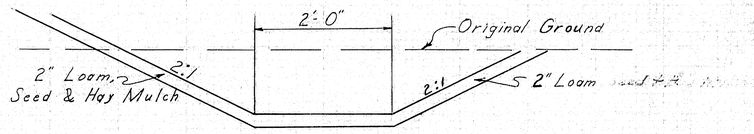
℄



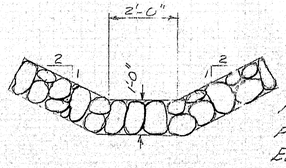
Quantities (24' Roadway)
Gravel Base = 133.33 c.y. per 100 L.F.
Granular Borrow = 177.78 c.y. per 100 L.F.

TYPICAL ONE HALF SECTION (Interstate)
Details symmetrical about ℄ Roadway
All pavement and base depths as shown on the plans are intended to be nominal.

Quantities (12'ft. Shoulder - Guard Rail)
Gravel Base = 80.61 c.y. per 100 L.F.
Granular Borrow = 133.85 c.y. per 100 L.F.



TYPICAL DITCH



Necessary excavation to be paid for under Item 203.09 Earth Excavation.

TYPICAL GROUTED HAND LAID RIPRAP DITCH

PLOT P.J.L.
CHECK Harris

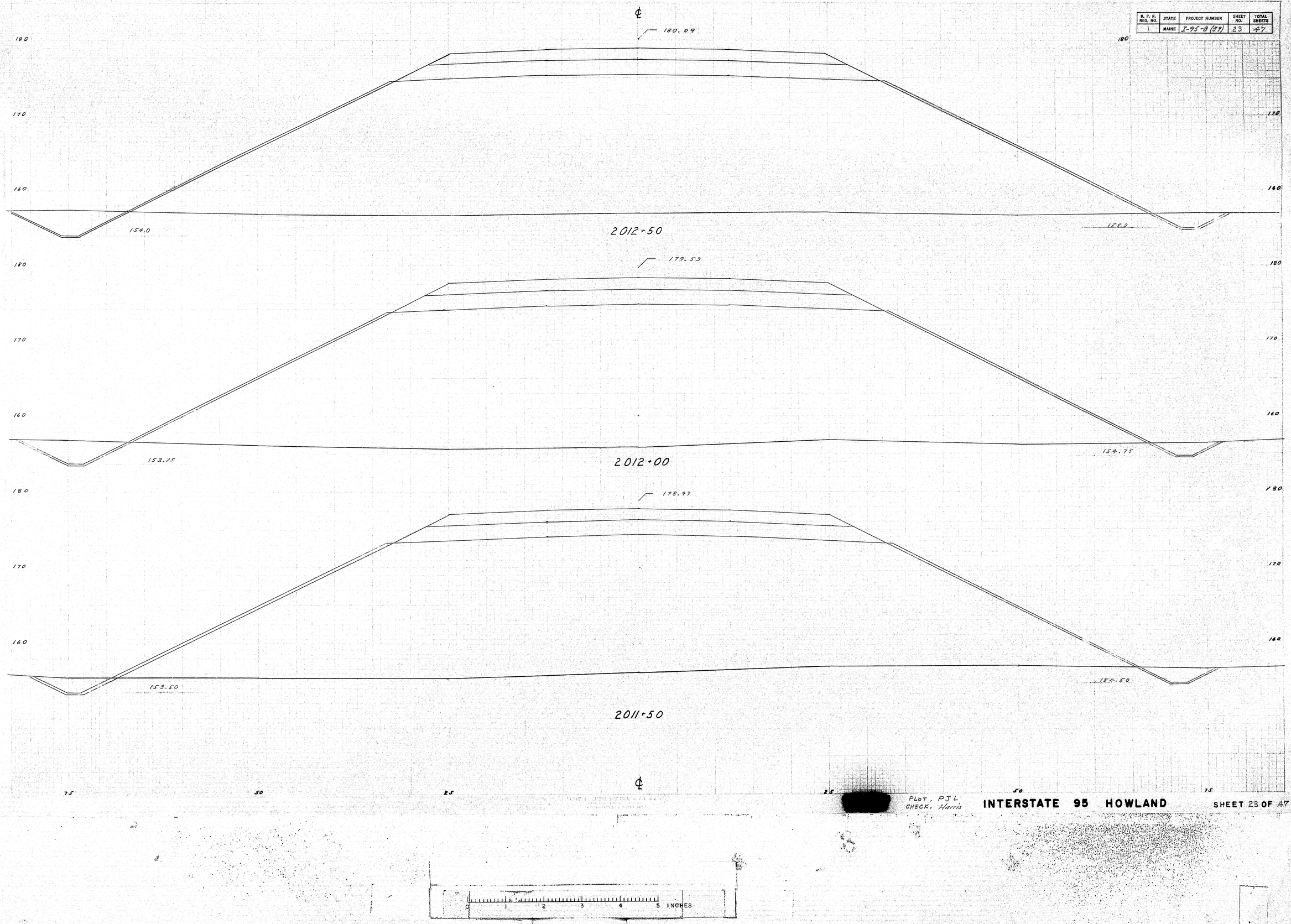
INTERSTATE 95 HOWLAND

SHEET 22 OF 47

TYPICAL SECTIONS & STATIONS 2010+50 → 2011+00

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-3(59)	23	47



STATIONS 2011+50 TO 2012+50

PLOT, PJL
CHECK, Harris

INTERSTATE 95 HOWLAND

SHEET 23 OF 47

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	24	47

℄

181.77

180 170 160

154.75

155.75

2014+00

181.21

180 170 160

154.50

155.50

2013+50

180.65

180 170 160

154.25

155.25

2013+00

℄

75 50 25 25 50 75

PLOT P.J.L.
CHECK Harris

INTERSTATE 95 HOWLAND

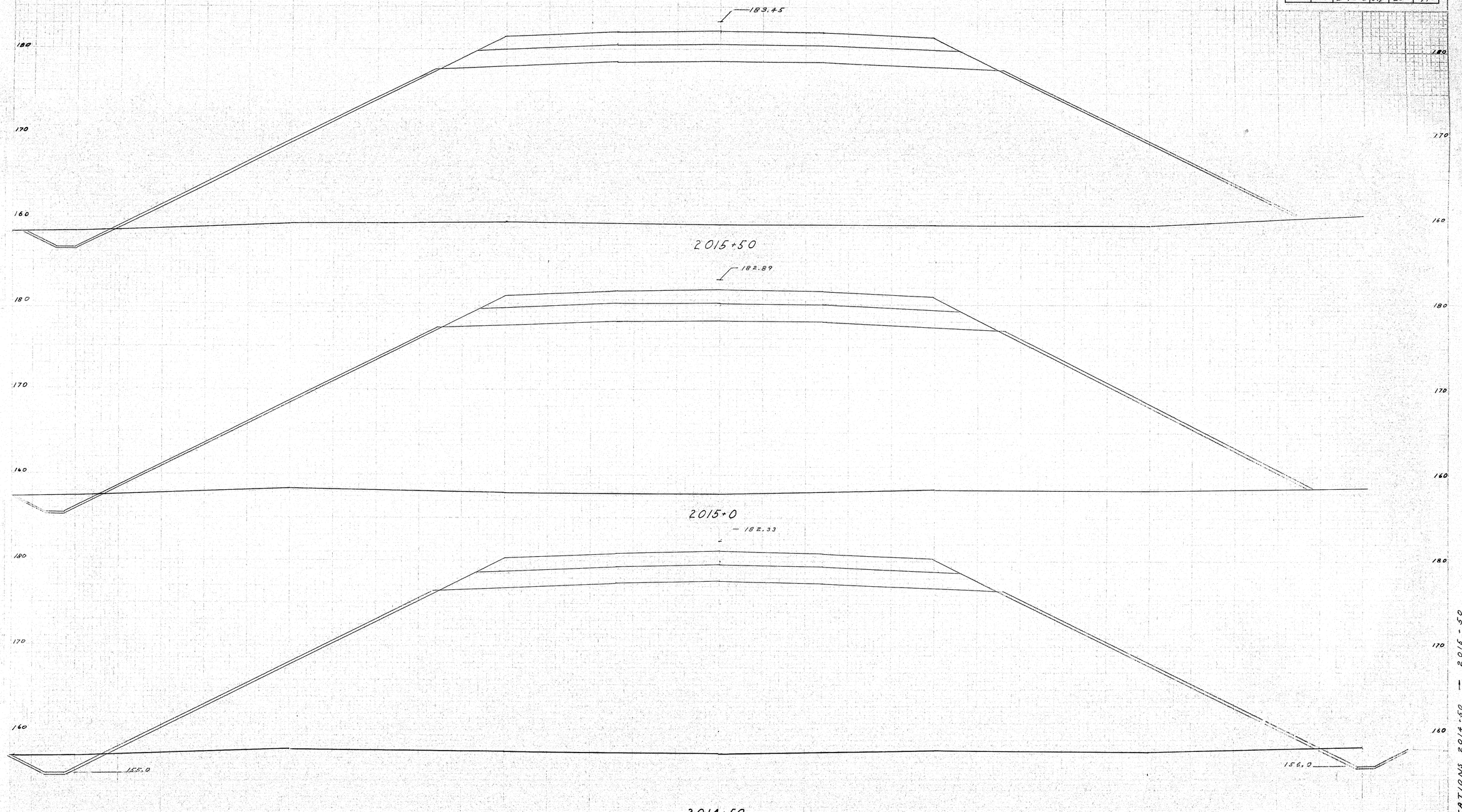
SHEET 24 OF 47

STATIONS 2013+00 TO 2014+00

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(57)	25	47

℄



PLOT P.J.L.
CHECK Harris

INTERSTATE 95 HOWLAND

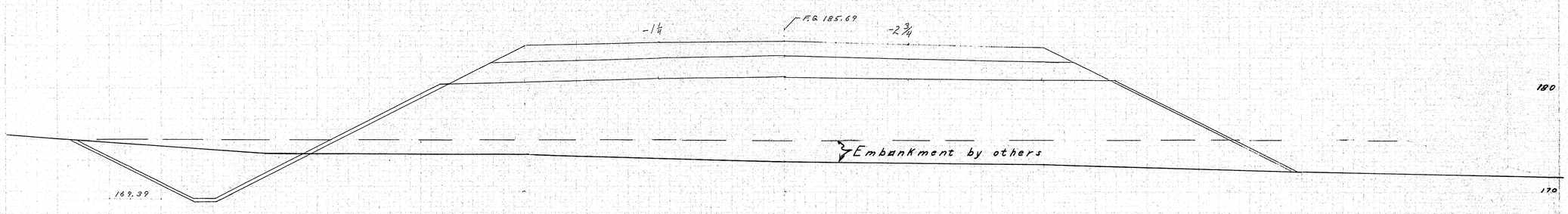
SHEET 25 OF 47

0 1 2 3 4 5 INCHES

D. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(51)	26	47

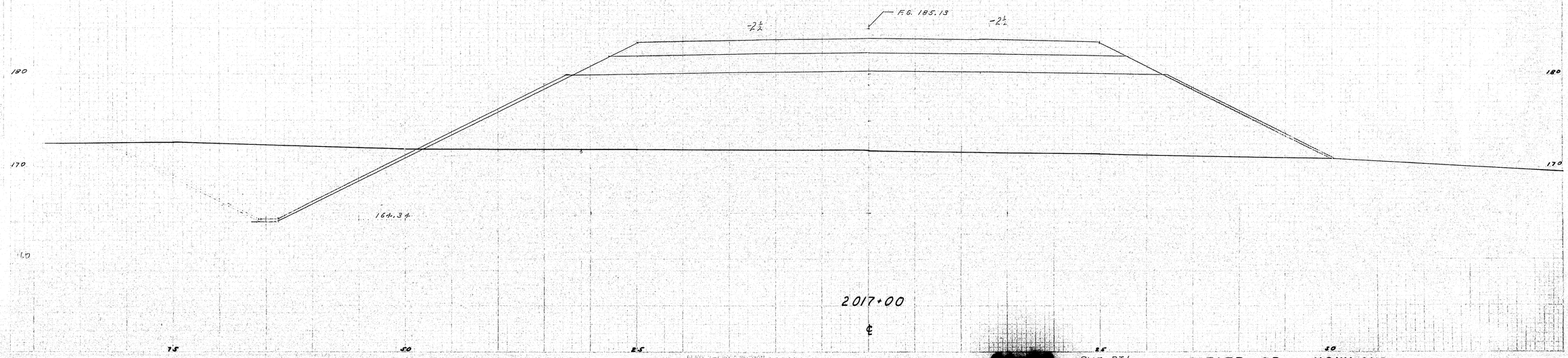
℄

ZERO SECTION
2018+00 (End Project)



2017+50

Use Jute Matting
From Sta 2017+50 ±
to Sta 2016+50 ±



2017+00

℄

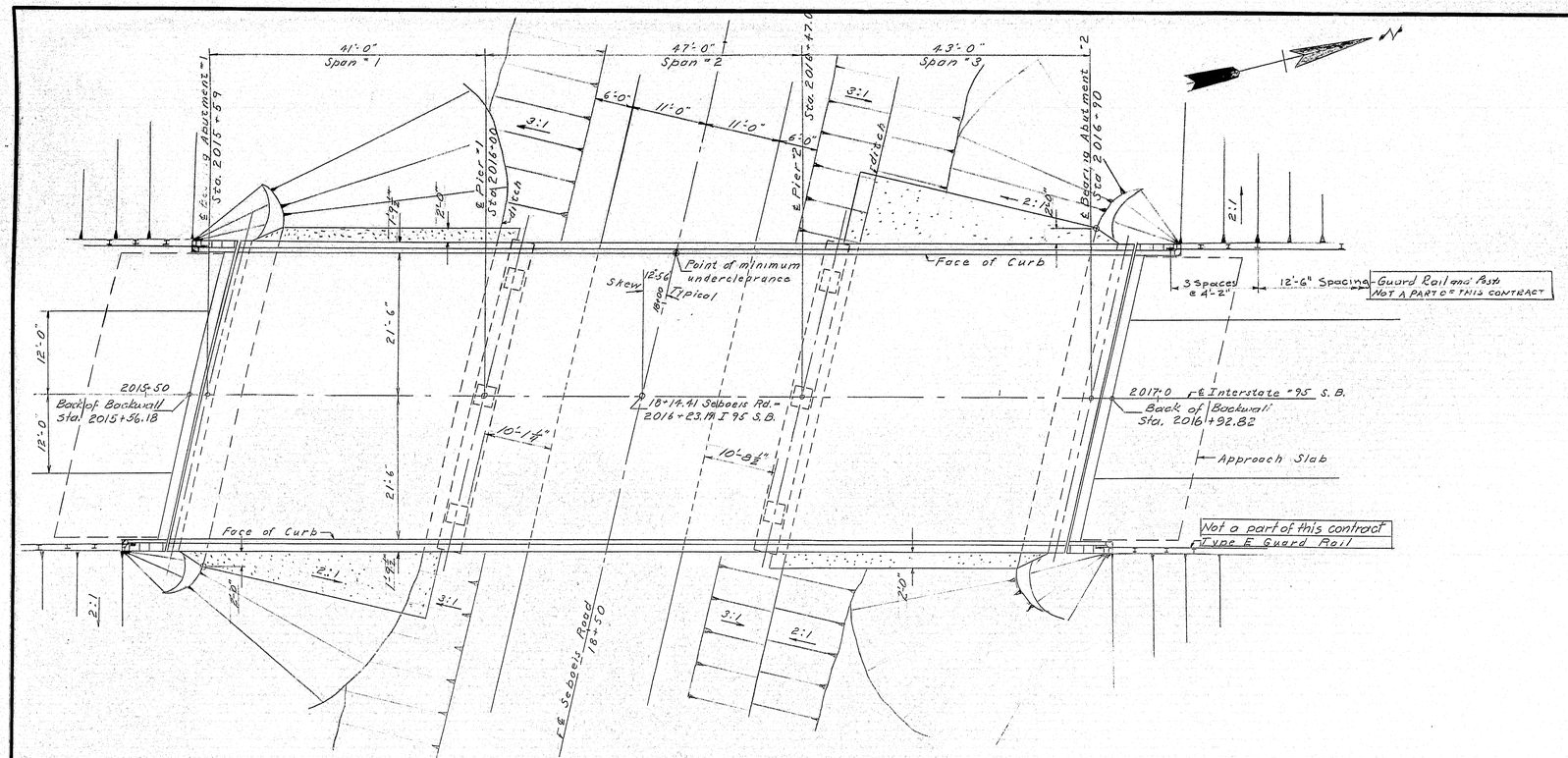
STATIONS 2017+00 → 2018+00

PLOT P.J.L.
CHECK. Harris

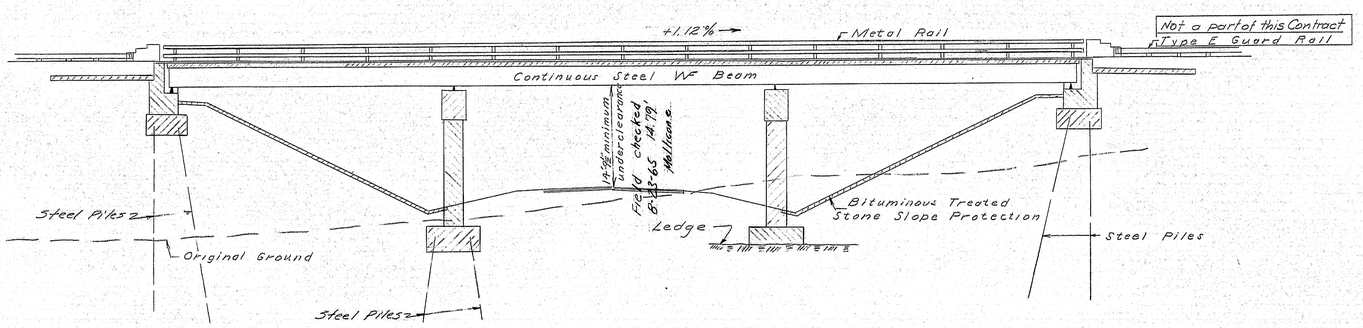
INTERSTATE 95 HOWLAND SHEET 26 OF 47

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	27	47



PLAN
Scale 1" = 10'



SECTION on ℄ INTERSTATE
Scale 1" = 10'

CONCRETE CLASSIFICATION

All concrete shall be Class "A"

ALLOWABLE STRESSES

Concrete - f_c = 1200 p.s.i., n = 10
Reinforcing Steel, Intermediate Grade - f_s = 20,000 p.s.i.
Structural Steel, A36 - f_s = 20,000 p.s.i.
Point Bearing Steel Piles - f_s = 6,000 p.s.i.

SPECIFICATIONS

Design: AASHO Standard Specifications for Highway Bridges 1961 with Interim Specifications 1961, 1962, 1963, 1964.
Construction: State of Maine, State Highway Commission, Standard Specs, Highways and Bridges Revision of January 1956 and Supplemental Specifications February 1960.
Loading: HS 20-44 Modified for Interstate

DESIGN- T.H.K
TRACE- DET. D.L.G
CHECK- Harris

BRIDGE NO.
SURVEY-
PLOT-

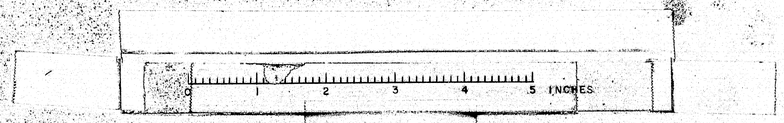
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY

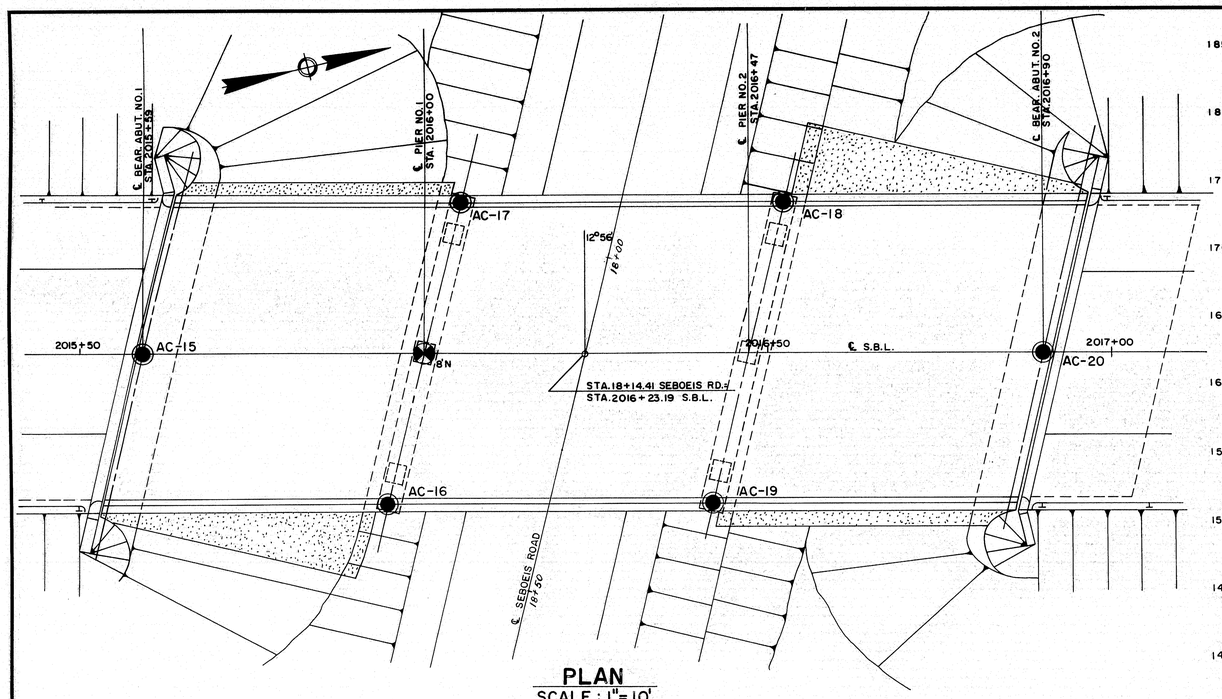
GENERAL PLAN & ELEVATION

SHEET 27 OF 47 AUGUSTA, MAINE SEPT. 1964

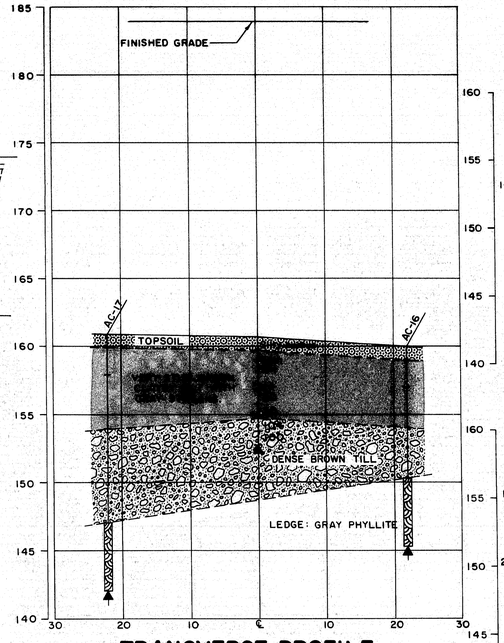
96-41



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	28	47

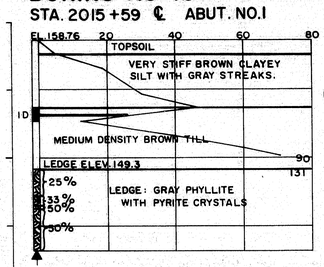


PLAN
SCALE : 1"= 10'

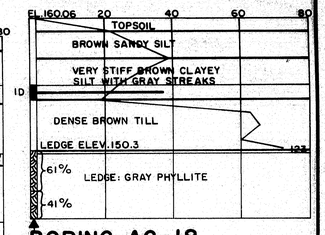


TRANSVERSE PROFILE
STA. 2016+00 PIER NO.1

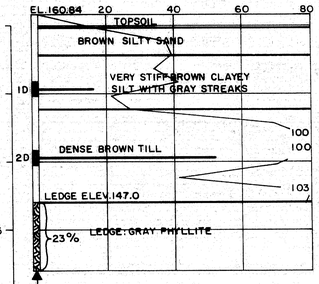
BORING AC-15
STA. 2015+59 ℄ ABUT. NO.1



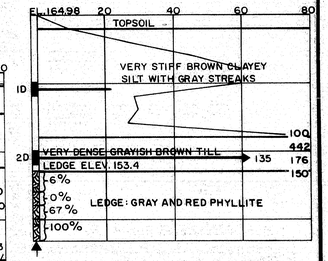
BORING AC-16
STA. 2015+95 22'RT. PIER NO.1



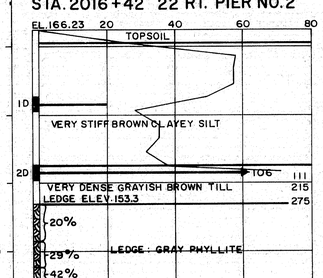
BORING AC-17
STA. 2016+05 22'LT. PIER NO. 1



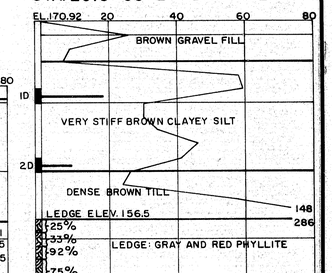
BORING AC-18
STA. 2016+52 22'LT. PIER NO. 2



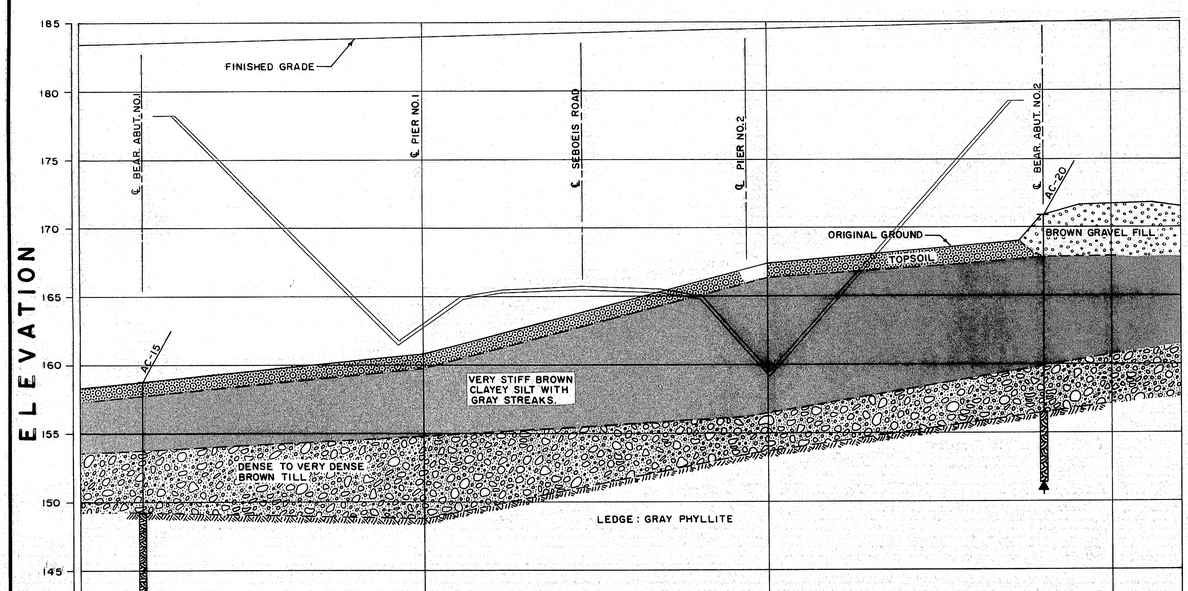
BORING AC-19
STA. 2016+42 22 RT. PIER NO.2



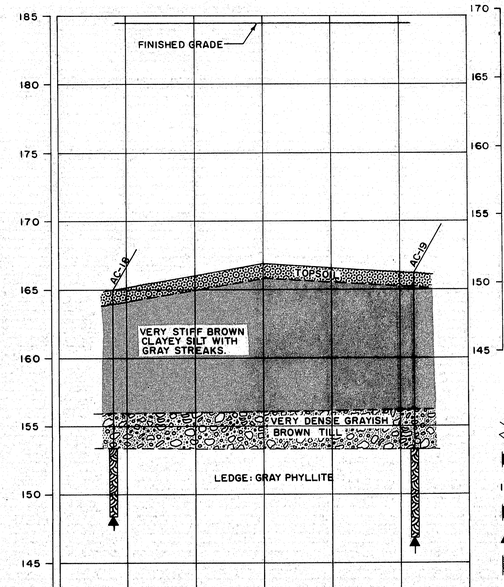
BORING AC-20
STA. 2016+90 ℄ ABUT. NO. 2



Note:
The till is a mixture of gravel, silt and sand.
The phyllite ledge has a high angle foliation and calcite veins.



℄ PROFILE SOUTHBOUND LANE



TRANSVERSE PROFILE
STA. 2016+47 PIER NO.2

BORING NOTES

- Casing size 2 1/2"
- All samples are made ahead of casing.
- Number of blows required to drive extra heavy casing one foot with 400 ft.lbs. of energy per blow.
- Location of sample or sample attempt.
- Number and type of dry sample.
- ID S & H Sampler No.1290's
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow.
- Bottom of boring (may not be bottom of soil strata)
- 71% Locations cored by diamond bit and per cent recovery of rock.

DESIGN— TRACE— CHECK— } Soils Division

BRIDGE NO.
SURVEY—
PLOT—

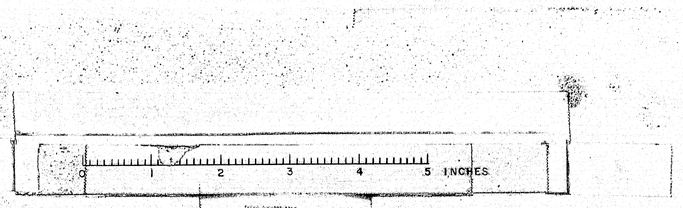
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
FOUNDATION SURVEY

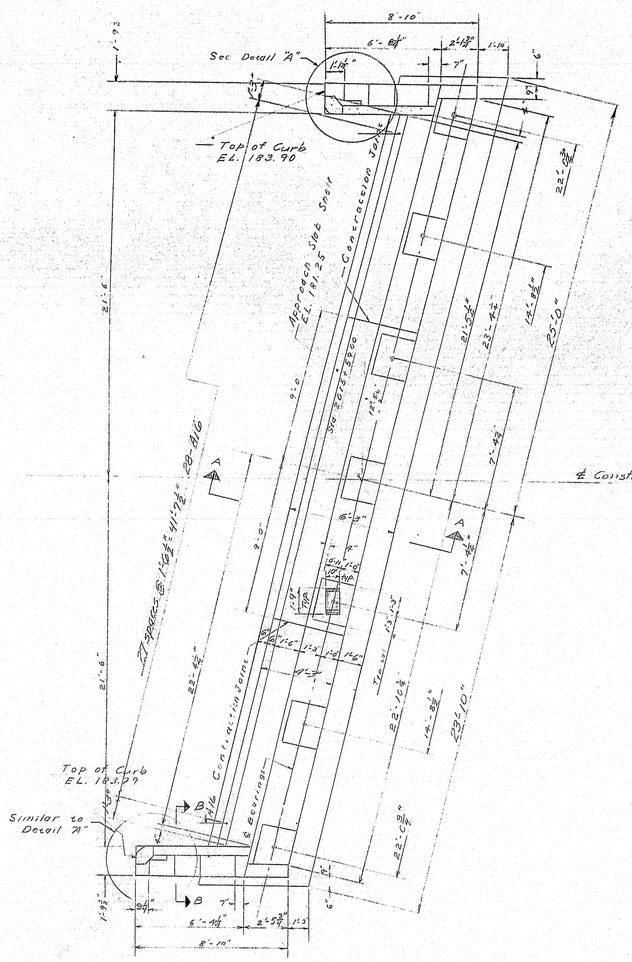
SHEET 28 OF 47 AUGUSTA, MAINE

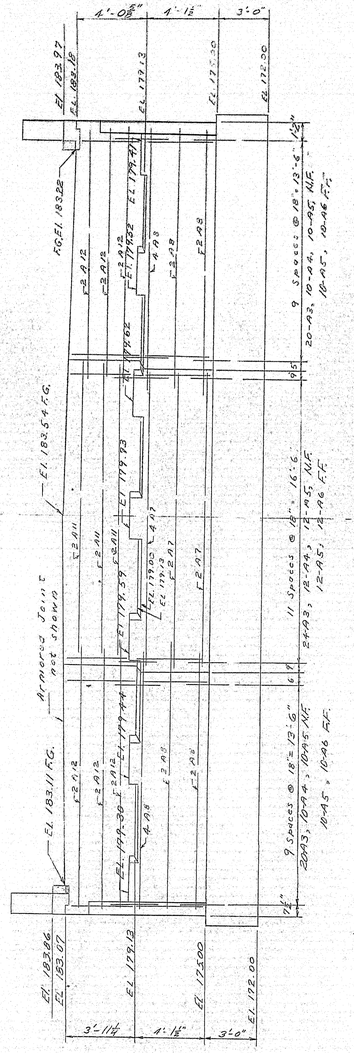
96-42

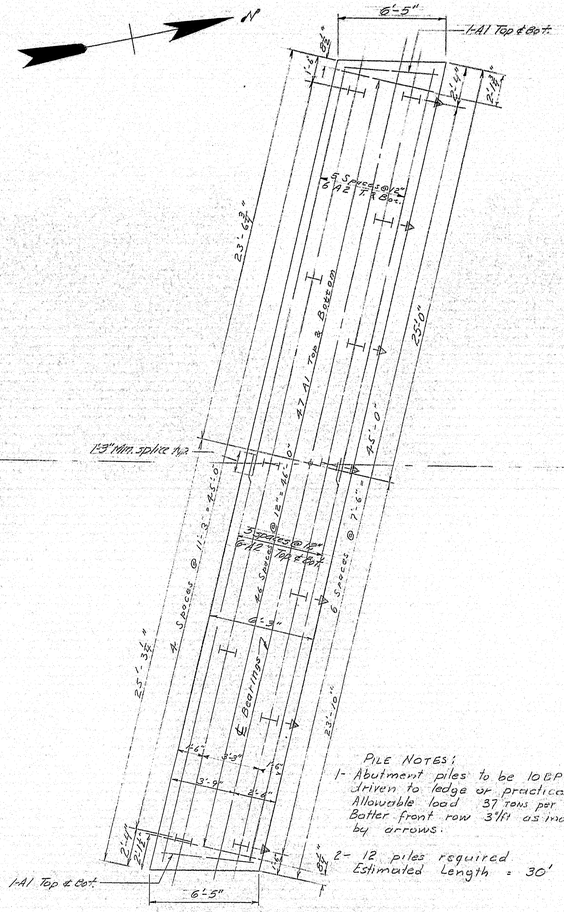
C. B. CO., NO. 44-131 29788



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-6(59)	29	47

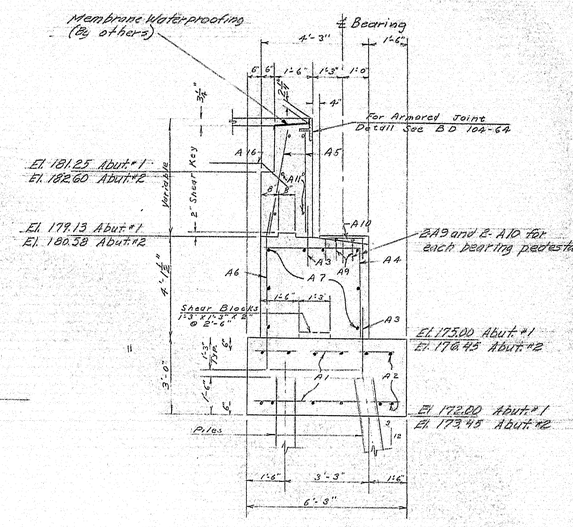






PILE AND FOOTING PLAN

PILE NOTES:
1- Abutment piles to be 10BP42 piles driven to ledge or practical refusal. Allowable load 37 tons per pile. Batter front row 3:1 ft as indicated by arrows.
2- 12 piles required
Estimated Length = 30'

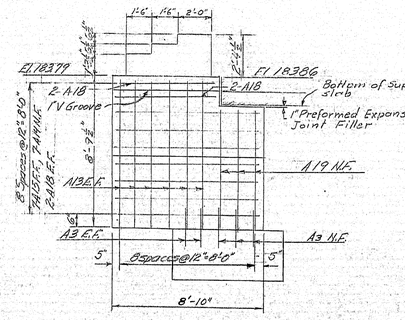


SECTION A-A

GENERAL ABUTMENT NOTES

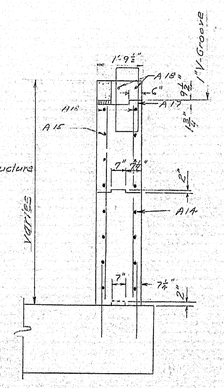
1. Paint bridge seat, face of backwall, and 1'-0" below top of slope paving on face of breastwall with Grey Epoxy Resin Surface Sealant.
2. Cover the back side of contraction joints with two layers of heavy roofing 10" wide bonded to concrete and to each other with a suitable grade of roofing cement. Recess area to be covered ¼". Coat surface of joint with asphalt paint to break bond.
3. Reinforcing cover 3" unless noted.
4. Backwalls and Wingwalls are to be built after Structural Steel has been erected and bottom of slab elevations established.
5. Bush bearing areas to exact elevations shown 1/4" larger all around than dimensions of bearing plates.

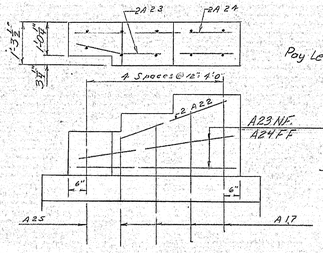
N. F. = Near Face
F. F. = Far Face
E. F = Each Face
F. G. = Finished Grade.



WING ELEVATION

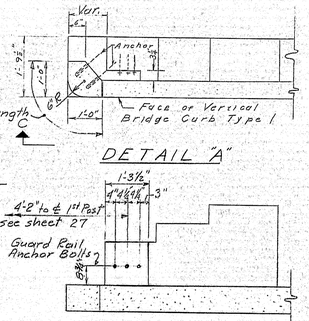
Reinforcing Steel typical for all wings





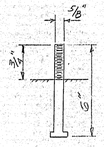
Payment for concrete in post to be made under Item 701-33, "Portland Cement Concrete, Abutments and Ret. Walls."

END POST DETAIL



All Vertical Bridge Curb Type 1 to be paid for under Item 901-24

VIEW C-C



ANCHOR BOLT (Structural Steel)

3 Required each end post.
Galvanized with nut & washer

Guard Rail anchor bolts shall be furnished and installed under this contract. Payment to be incidental to contract items.

Splice holes in Guard Rail beam shall be plugged with galvanized button head bolts
NOT A PART OF THIS CONTRACT.

DESIGN- T.H.K.
TRACE- DET. D.L.G.
CHECK- A.B.P.

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
ABUTMENT # 1

SHEET 29 OF 47 AUGUSTA, MAINE SEPT 1964

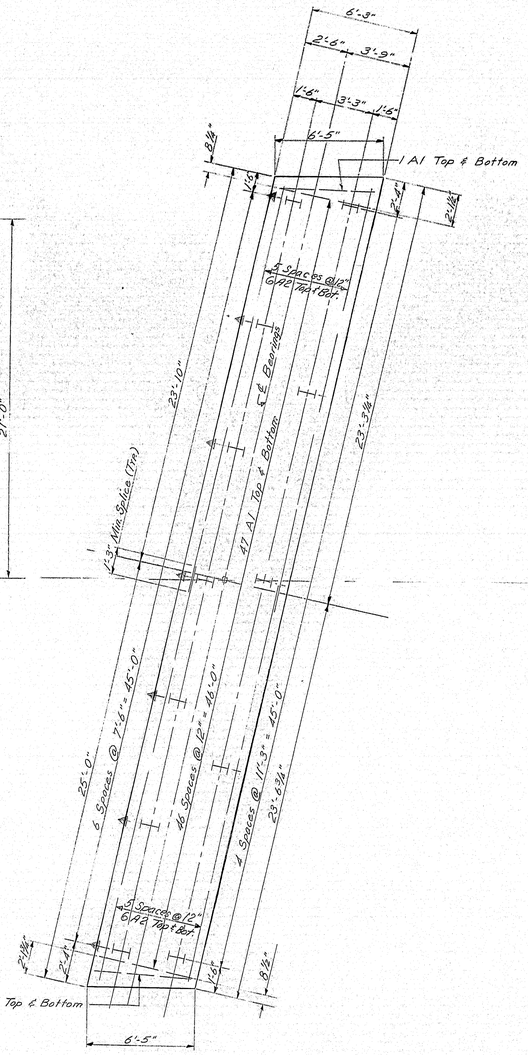
96-43

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-2(53)	30	47

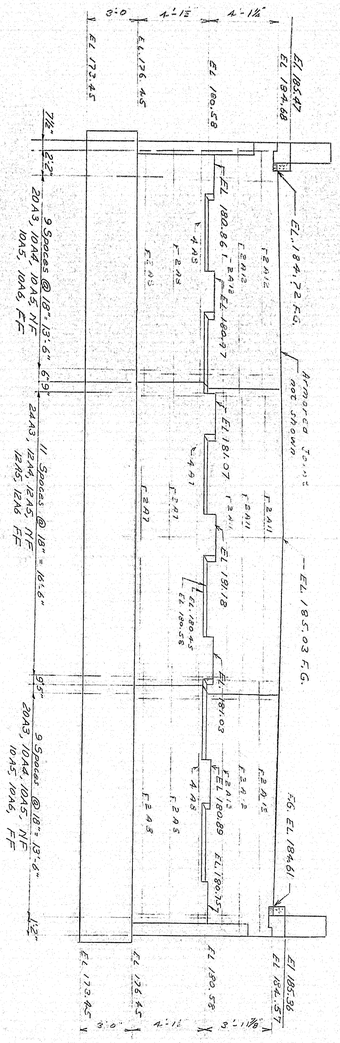
NOTE: Approach Slab concrete to be paid for under Item 701-33 Portland Cement Concrete Abutments and Retaining Walls.

APPROACH SLAB

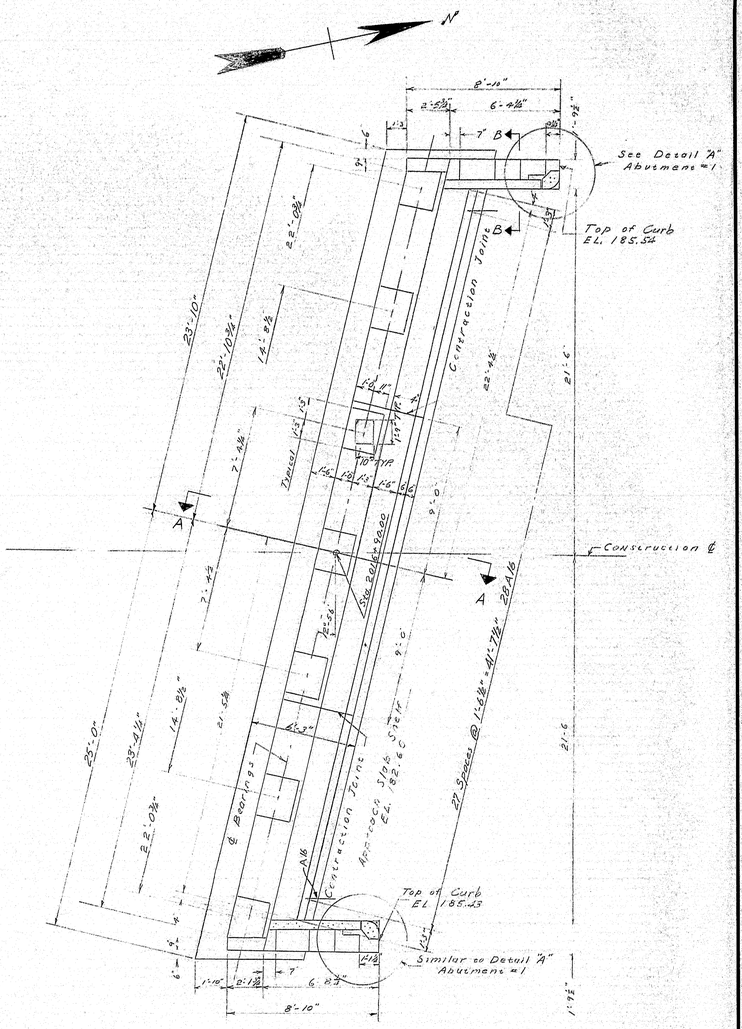
Abutment #2 shown ~ Abutment #1 similar



PILE AND FOOTING PLAN

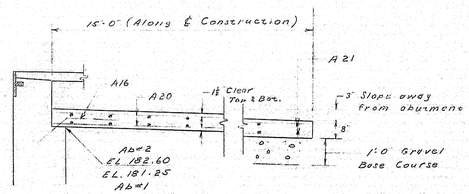


FRONT ELEVATION



PLAN

For Wingwall reinforcement, Section A-A, B-B, Detail "A" and End Post Details: see sheet 29



SECTION D-D

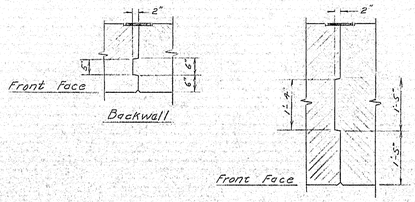
PILE NOTES

1. Abutment piles to be 10 BP 42 piles driven to ledge or practical refusal. Allowable load 37 tons per pile. Batter front row 3/ft. as indicated by arrows.

2. 12 piles required
Estimated length = 24'

GENERAL ABUTMENT NOTES

SEE SHEET 29



CONTRACTION JOINT SHEAR KEY
- TYPICAL BOTH ABUTMENTS -

DESIGN- T.H.K.
TRACE- DET. P.L.G.
CHECK- A.B.P.

BRIDGE NO.
SURVEY-
PLOT-

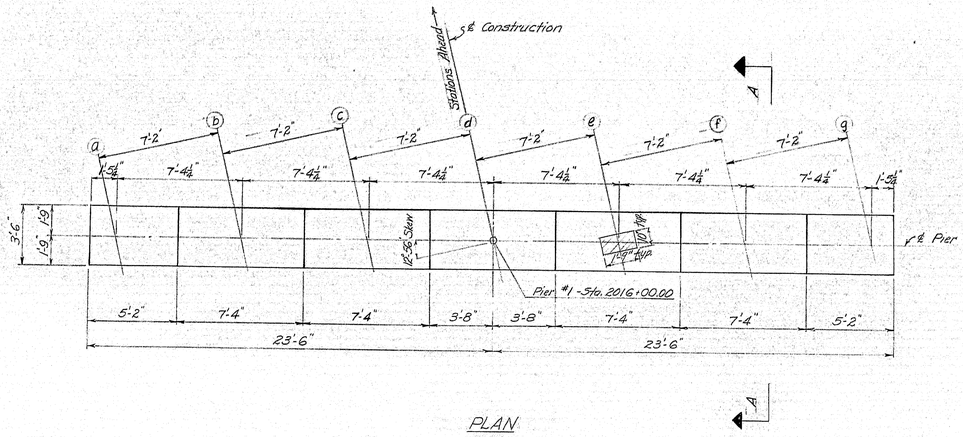
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
ABUTMENT #2

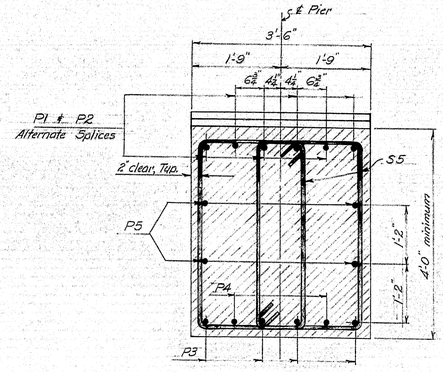
SHEET 30 OF 46 AUGUSTA, MAINE SEPT. 1964

96-44

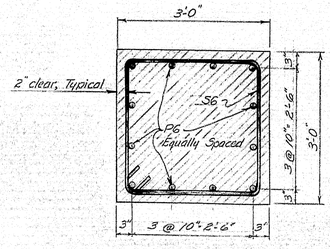
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-B(39)	31	47



PLAN

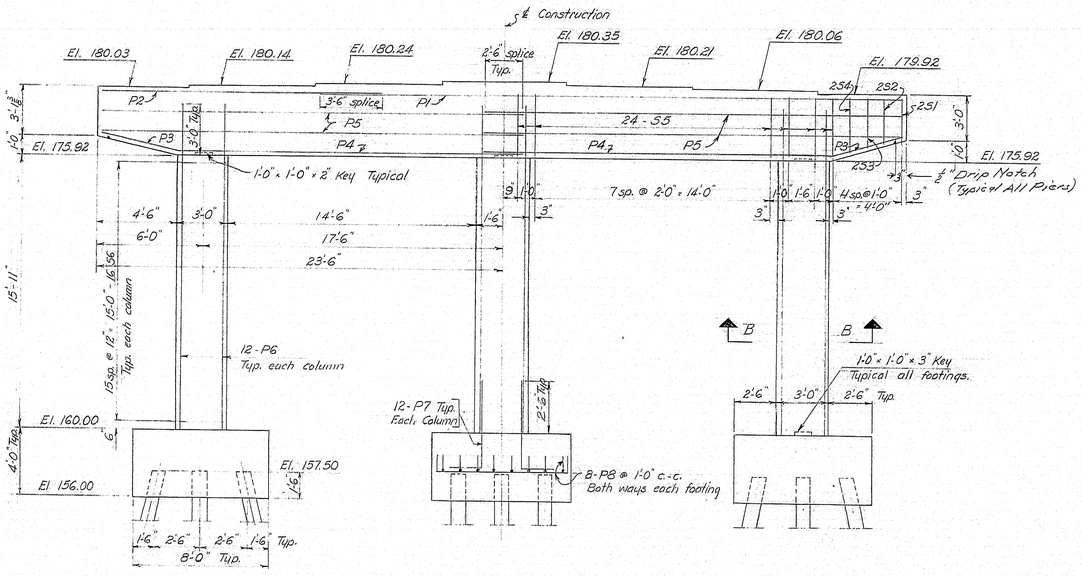


SECTION A-A

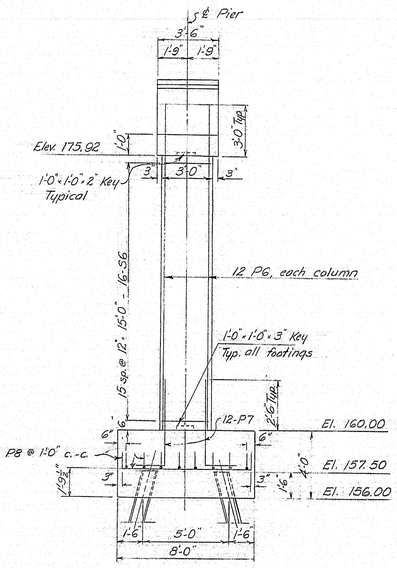


SECTION B-B

NOTE: Alternate location of splices Bar P1 to Bar P2.

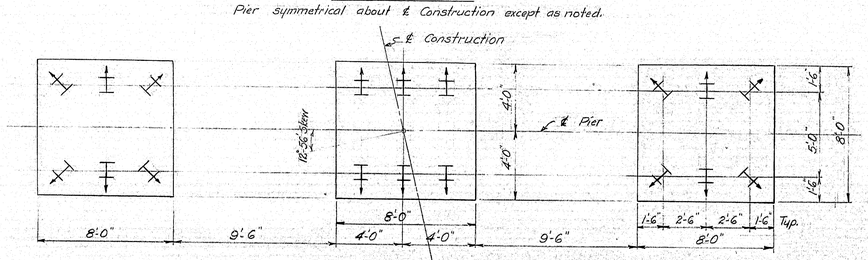


SIDE ELEVATION



END ELEVATION

Pier symmetrical about ℄ Construction except as noted.



PILE PLAN

PIER NOTES:
1. Bush bearing areas to exact elevations shown 1" larger all around than dimensions of bearing plates.
2. Place reinforcing steel in cap to clear anchor bolts.
3. Chamfer all exposed edges of concrete ½".

PILE NOTES:
1. Piles to be 10BP42, 18 required.
2. Maximum pile load = 37 tons.
3. Piles to be driven to ledge or practical refusal.
4. Estimated pile length = 15'.
5. All piles to be battered 2½" / 1' in direction indicated thus: ⊢⊸.

DESIGN– T. H. K.	BRIDGE NO.
TRACE– F. Foster	SURVEY–
CHECK– A.B.P.	PLOT–

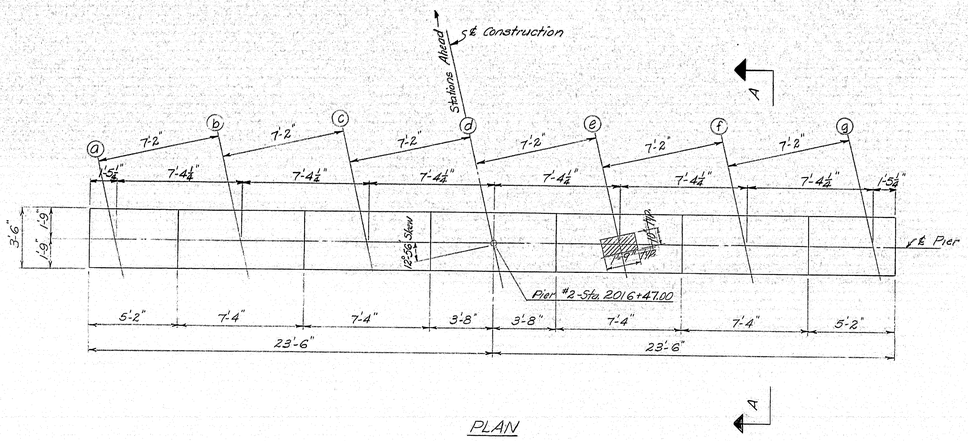
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
PIER NO. 1

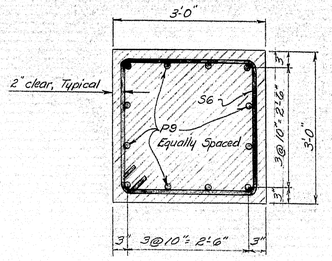
SHEET 31 OF 47 AUGUSTA, MAINE SEPT. 1964

96-45

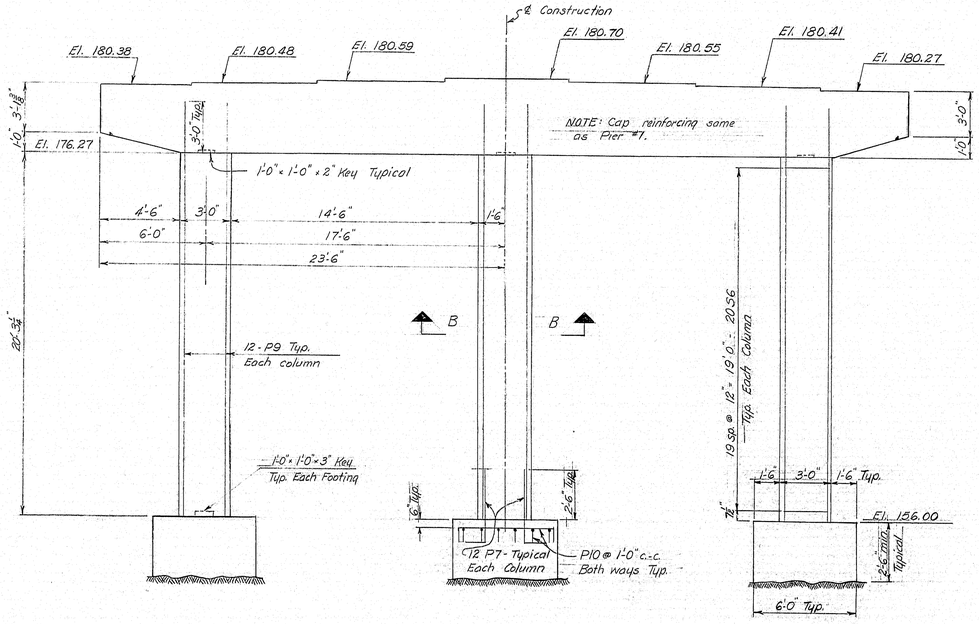
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-95-8(69)	32	47



PLAN

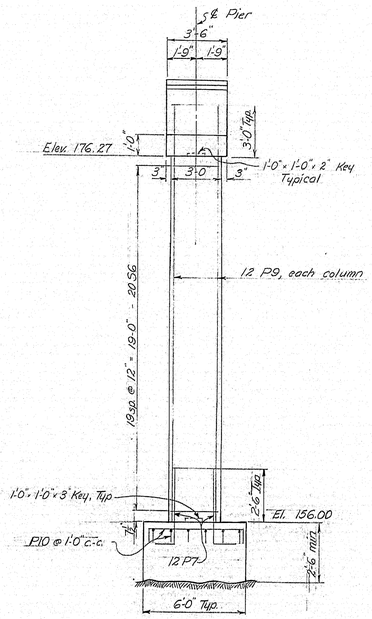


SECTION B-B



SIDE ELEVATION

Pier symmetrical about ℄ Construction except as noted.



END ELEVATION

NOTES:

1. For Pier Notes and Section A-A see Sh. 31.
2. For cap reinforcement see Sh. 31.
3. Maximum footing pressure = 8.5 tons/ft².
4. The elevation of the top of the footing may be raised to maintain the minimum depth of 2'-6" above the existing ledge surface.

DESIGN- T.H.K.
TRACE- F. Foster
CHECK- H.B.P.
PLOT-

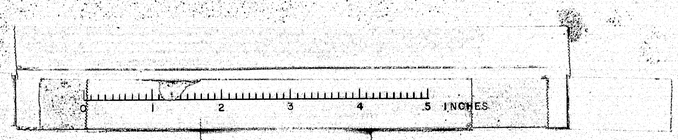
BRIDGE NO.
SURVEY-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

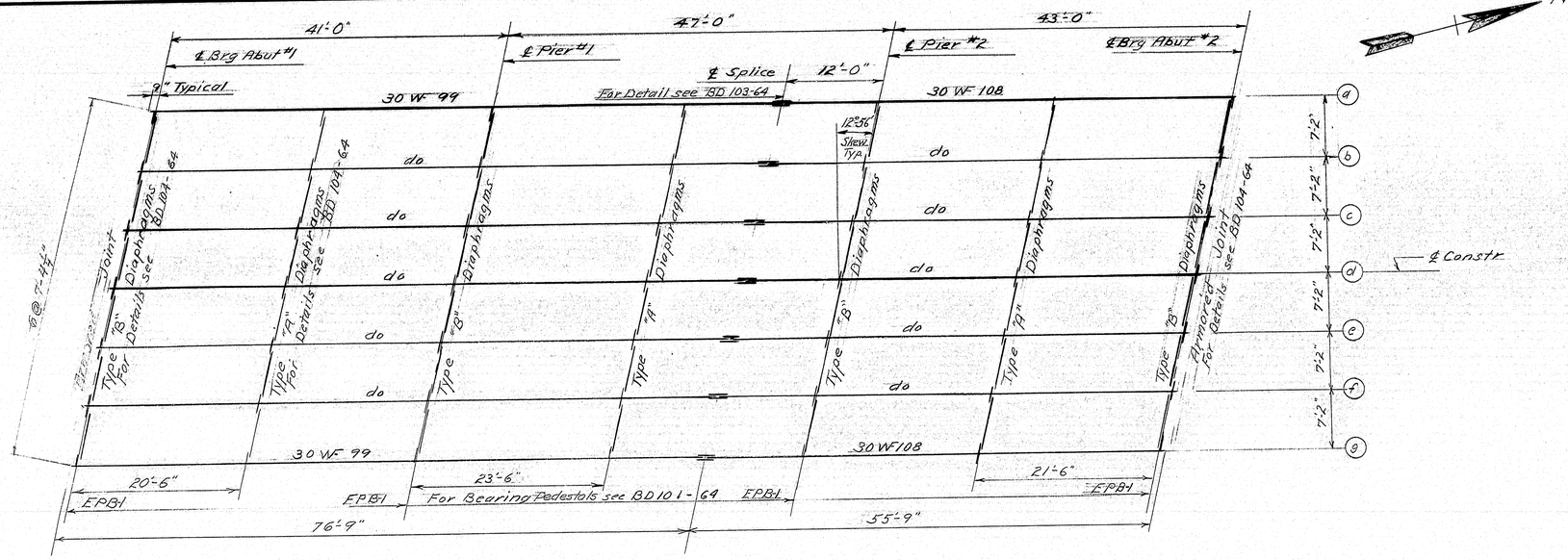
INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
PIER NO. 2

SHEET 32 OF 47 AUGUSTA, MAINE SEPT 1964

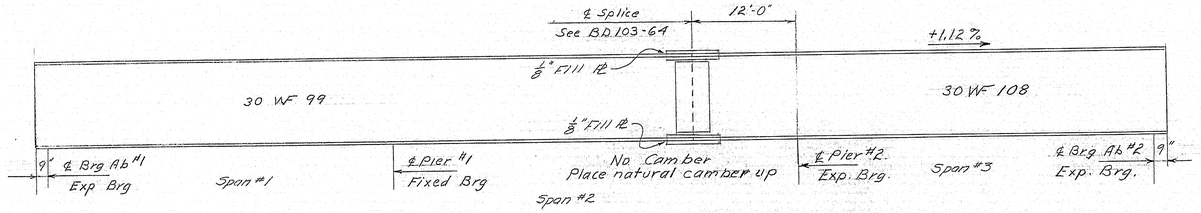
96-46



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(39)	33	47



ERECTION DIAGRAM



TYPICAL GIRDER ELEVATION

BLOCKING SCHEDULE

Beam Line	℄ Brg Abut #1	Span One			℄ Pier #1	Span Two			℄ Pier #2	Span Three			℄ Brg Abut #2
		¼ Point	½ Point	¾ Point		¼ Point	½ Point	¾ Point		¼ Point	½ Point	¾ Point	
"a"	182.46	182.59	182.71	182.82	182.92	183.06	183.19	183.32	183.45	183.58	183.71	183.83	183.93
"b"	182.57	182.70	182.81	182.92	183.03	183.16	183.30	183.43	183.55	183.69	183.82	183.93	184.04
"c"	182.67	182.80	182.92	183.03	183.13	183.27	183.41	183.53	183.66	183.79	183.92	184.04	184.14
"d"	182.78	182.91	183.03	183.13	183.24	183.38	183.51	183.64	183.77	183.90	184.03	184.14	184.25
"e"	182.64	182.77	182.88	182.99	183.10	183.23	183.37	183.50	183.62	183.75	183.88	184.00	184.10
"f"	182.49	182.62	182.74	182.85	182.95	183.09	183.23	183.35	183.48	183.61	183.74	183.86	183.96
"g"	182.35	182.48	182.60	182.71	182.81	182.95	183.08	183.21	183.34	183.47	183.60	183.71	183.82

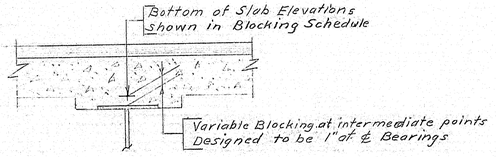
Note:— In order to compensate for dead load deflections and normal irregularities in the beams produced in the rolling process, set the blocking to bottom of slab elevation, in table above, at points indicated, before any of the slab forms are started.

SPECIFICATIONS

Fabrication and Erection: State of Maine, State Highway Comm. Standard Specifications Highways and Bridges, Revision of January 1956 and Supplements, Feb. 1960.

Design and Detail: A.A.S.H.O. Standard Specifications of 1961 and Interim Specifications 1961, 1962, 1963 & 1964.

Materials: Beams shall conform to A.S.T.M. designation A-36. Other members shall conform to A.S.T.M. designation A-36, unless otherwise noted on Standard Details.



BLOCKING DETAIL

8 drains required, see Standard Detail BD 104-64 and sheet 34

DESIGN— THK DETAIL— PJL
TRACE—
CHECK— A.B.P.
BRIDGE NO.
SURVEY—
PLOT—

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

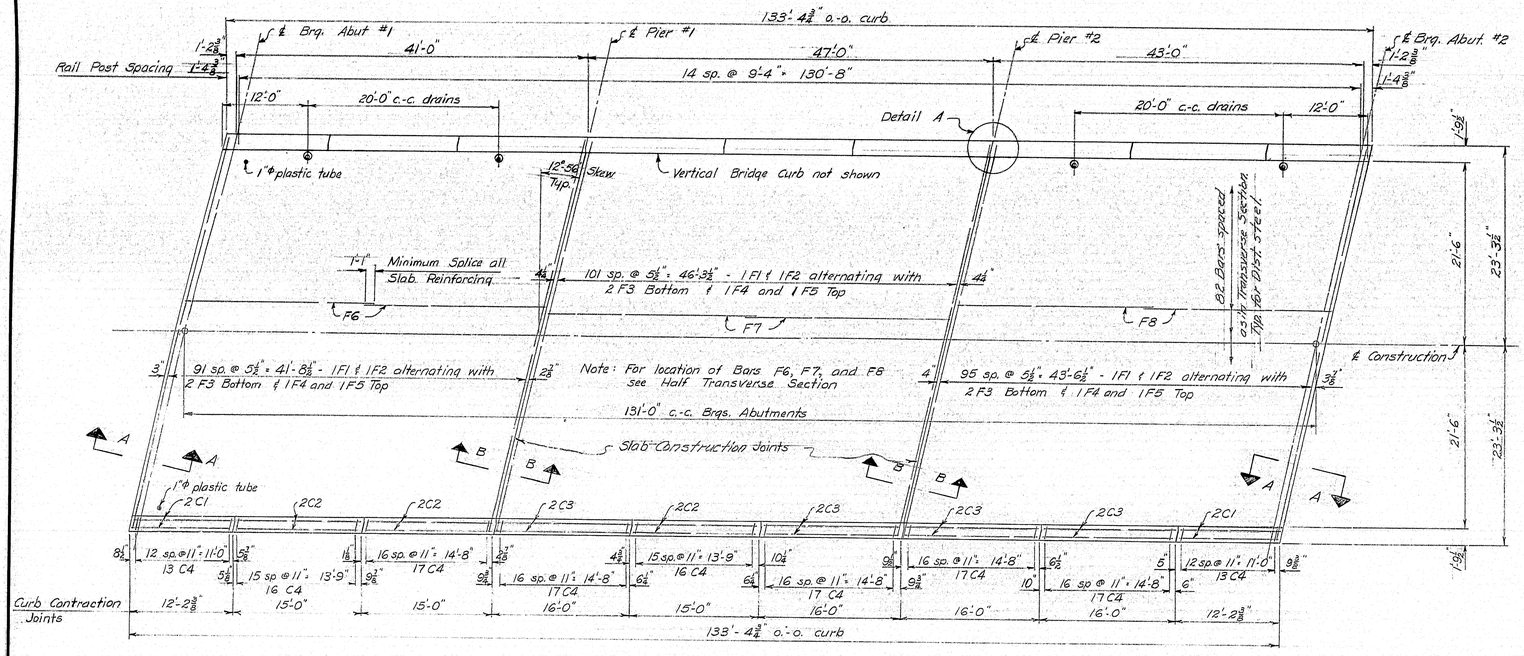
INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
STRUCTURAL STEEL

SHEET 33 OF 47 AUGUSTA, MAINE SEPT. 1964

96-47

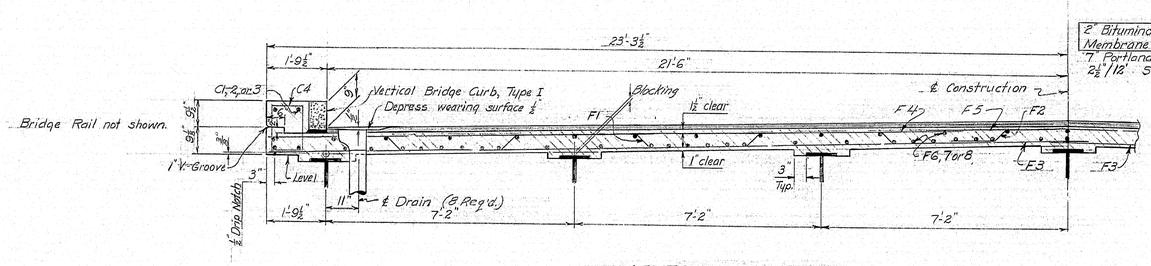
C. S. CO., NO. 44-131 38728

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	34	47



PLAN

Spacing of Rail Posts, Curb Contraction Joints, Curb Reinforcing Steel, and Drains typical both sides of ℄.



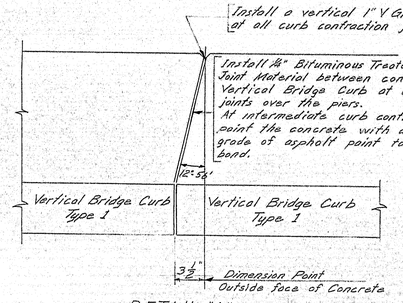
HALF TRANSVERSE SECTION

Structure symmetrical about ℄ Construction

2" Bituminous Concrete Surface Course
Membrane Waterproofing (¼" Allowed)
7" Portland Cement Concrete Slab
2½"/12" Straight Crown
Not a part of This Contract

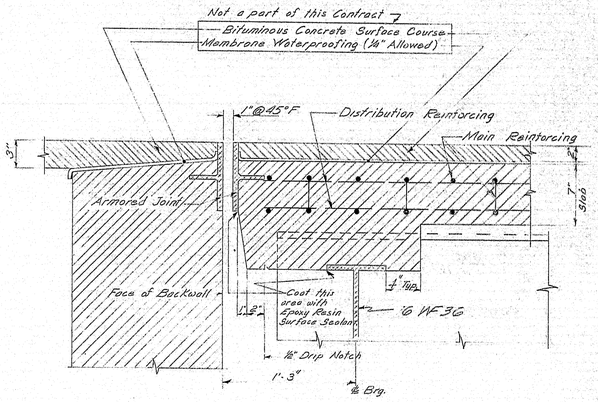
Install a vertical 1" V Groove in slab & curb at all curb contraction joints.

Install ½" Bituminous Treated Expansion Joint Material between concrete curbs and Vertical Bridge Curb at construction joints over the piers. At intermediate curb contraction joints paint the concrete with a suitable grade of asphalt paint to break the bond.



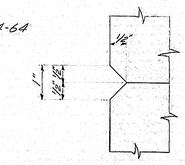
DETAIL "A"

Typical all Curb Joints

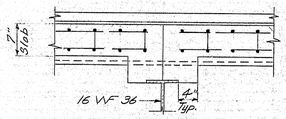


SECTION A-A

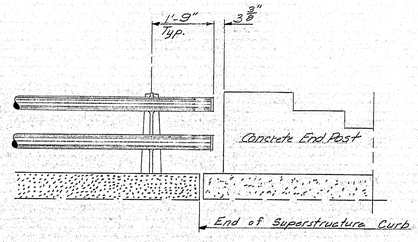
See Standard Detail Sheet BD 107-64 or Standard Detail Sheet BD 108-64 for 2 Bar Bridge Rail and Anchor Bolt Detail and Location.
See Standard Detail Sheet BD 104-64 for Drain Detail.



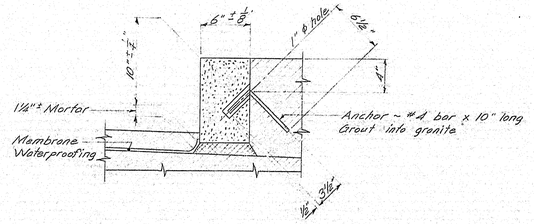
1" V-GROOVE



SECTION B-B



END POST DETAIL



VERTICAL BRIDGE CURB

TYPE 1.

Shown with 2" Bituminous Concrete and ¼" allowed for Membrane Waterproofing.

Provide two 1"ϕ plastic tube drains as shown on plan. Tube to extend 2" below bottom of slab. Tubes to be placed so that drip clears bridge seat. Do not cover top with membrane waterproofing. Payment to be incidental to Item 701-40, Portland Cement Concrete Roadway and Sidewalk Slabs on Steel Bridges.

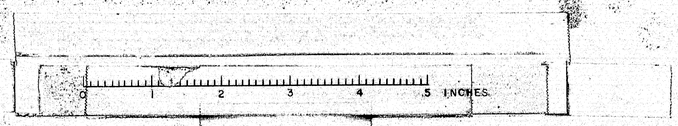
DESIGN- THK
TRACE- DET. F.S.F & E.R.A
CHECK- R.A.R.
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
SUPERSTRUCTURE SLAB

SHEET 34 OF 47 AUGUSTA, MAINE SEPT. 1964

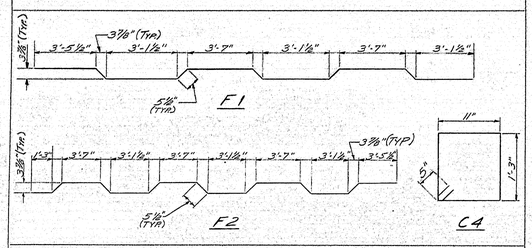
96-48



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-8(59)	35	47

REINFORCING STEEL SCHEDULE

SUPERSTRUCTURE



BENT BARS

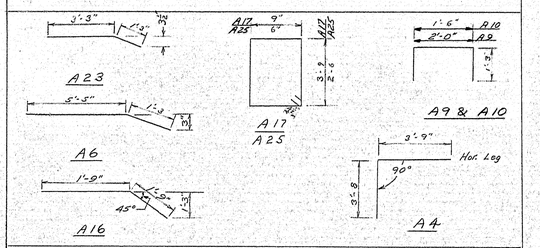
Mark	Size	Number	Length	Location
C4	#5	286	5'-2"	Curbs-
F1	#5	145	22'-4"	Slab - Main Steel
F2	#5	145	28'-0"	Slab " "

STRAIGHT BARS

C1	#5	8	11'-10"	Curb
C2	#5	12	14'-8"	Curb
C3	#5	16	15'-8"	Curb
F3	#5	290	21'-4"	Slab - Main Steel
F4	#5	145	20'-7"	" " "
F5	#5	145	28'-0"	" " "
F6	#5	164	21'-6"	Slab Distribution Steel
F7	#5	164	23'-11"	" " "
F8	#5	164	22'-6"	" " "

DET. F.F.

ABUTMENTS 1 & 2



BENT BARS

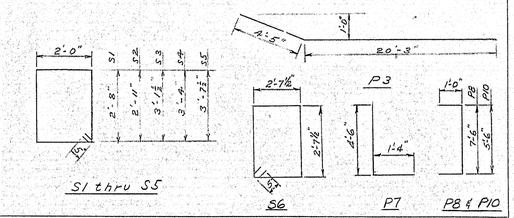
Mark	Size	Number	Length	Location
A4	#5	64	7'-5"	Bridge Seat
A6	#5	64	6'-8"	"
A9	#4	28	4'-6"	"
A10	#4	28	4'-0"	Bridge Seat
A16	#6	56	3'-6"	Backwall - Approach Slab
A17	#4	16	9'-9"	Wing wall - End post
A23	#4	8	4'-6"	End post
A25	#4	4	6'-9"	Wingwall - End post

STRAIGHT BARS

A1	#6	196	5'-9"	Footing
A2	#6	48	24'-10"	Footing - Spliced
A3	#5	156	2'-6"	Dowels
A5	#5	128	3'-5"	Backwall
A7	#5	16	11'-4"	Bridge Seat
A8	#5	32	16'-6"	Bridge Seat
A11	#4	12	17'-4"	Backwall
A12	#4	24	16'-6"	Backwall
A13	#5	48	8'-6"	Wing wall
A14	#5	28	8'-6"	"
A15	#6	28	8'-6"	"
A18	#4	16	6'-0"	"
A19	#5	12	7'-0"	Wing wall
A20	#6	336	14'-6"	Approach Slab
A21	#4	80	21'-10"	Approach Slab - Spliced
A22	#4	8	3'-3"	End Post
A24	#4	8	4'-6"	End Post

DET. D.L.

PIERS 1 & 2



BENT BARS

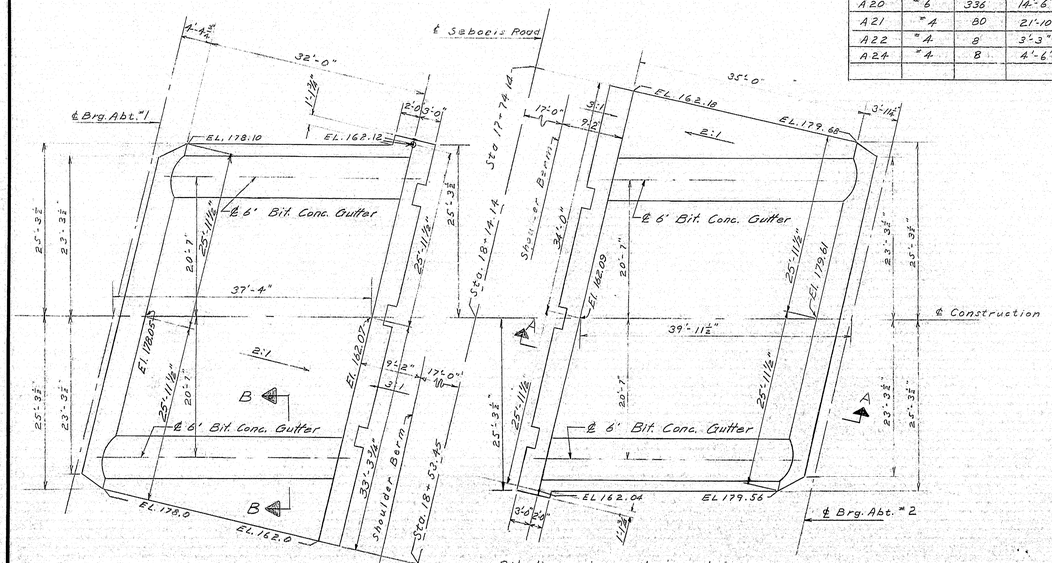
Mark	Size	Number	Length	Location
P3	#9	16	24'-8"	Bottom - Cap
S1	#5	8	10'-2"	Cap Stirrups
S2	#5	8	10'-8"	"
S3	#5	8	11'-1"	"
S4	#5	8	11'-6"	"
S5	#5	96	12'-1"	Cap Stirrups
S6	#4	108	11'-4"	Column Stirrups
P7	#9	72	5'-10"	Footings
P8	#8	48	9'-6"	Footings - Pier #1
P10	#6	36	7'-6"	Footings - Pier #2

Straight Bars

P1	#9	12	33'-10"	Top - Cap
P2	#9	12	16'-4"	Top - Cap
P4	#9	8	20'-3"	Bottom - Cap
P5	#6	16	24'-6"	Sides - Cap
P6	#9	36	18'-11"	Columns - Pier #1
P9	#9	36	23'-3"	Columns - Pier #2

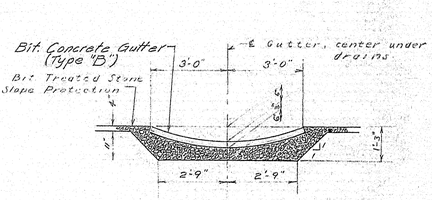
Det. - F. Foster

NOTES:
1. All reinforcing steel to be Intermediate Grade.
2. All dimensions to ℄ bars.



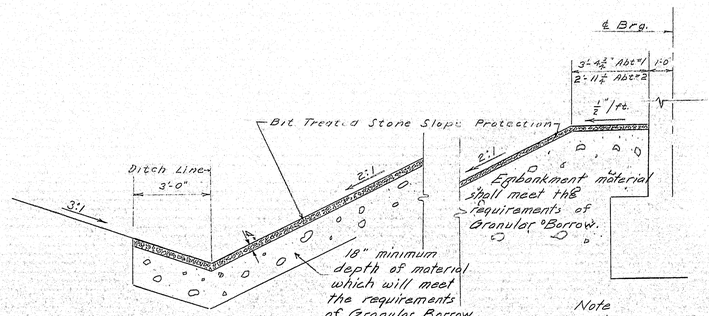
BITUMINOUS TREATED SLOPE PROTECTION

DET. P.L.



SECTION B-B

Note: Payment for Bit. Treated Stone Slope Protection placed beneath the gutter shall be made at the contract unit price for Item 9A3-8 "Bit. Treated Stone Slope Protection", per square yard.



SECTION A-A

Note
Necessary Excavation shall be paid for under Item 203-9, Earth Excavation.
Do not excavate for 18" depth under Bituminous Treated Slope Protection if existing material is suitable.

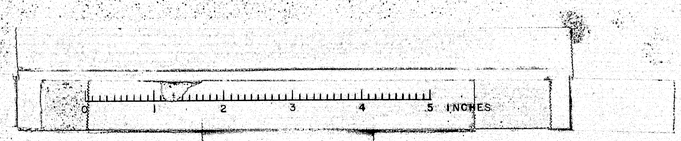
DESIGN- T.H.K
TRACE- DET. AS SHOWN
CHECK- A.B.P.
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
REINFORCING STEEL

SHEET 35 OF 47 AUGUSTA, MAINE SEPT. 1964

96-49



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	36	47

R/W Monuments ⊡

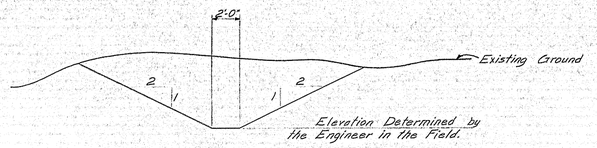
Sta.	Lt.	Rt.
2+00.00	50.00'	50.00'
16+75.09	50.00'	
16+97.64		50.00'
21+66.86	50.00'	
22+05.91		50.00'
24+00.00	50.00'	50.00'
P.T. 24+54.31	50.00'	50.00'

Survey Markers △

Sta.	Lt.	Rt.
P.C. 20+01.98	50.00'	50.00'

Utility Symbols

- Existing Pole
- Temporary Pole
- X Permanent Pole
- --- Temporary Line
- ——— Permanent Line



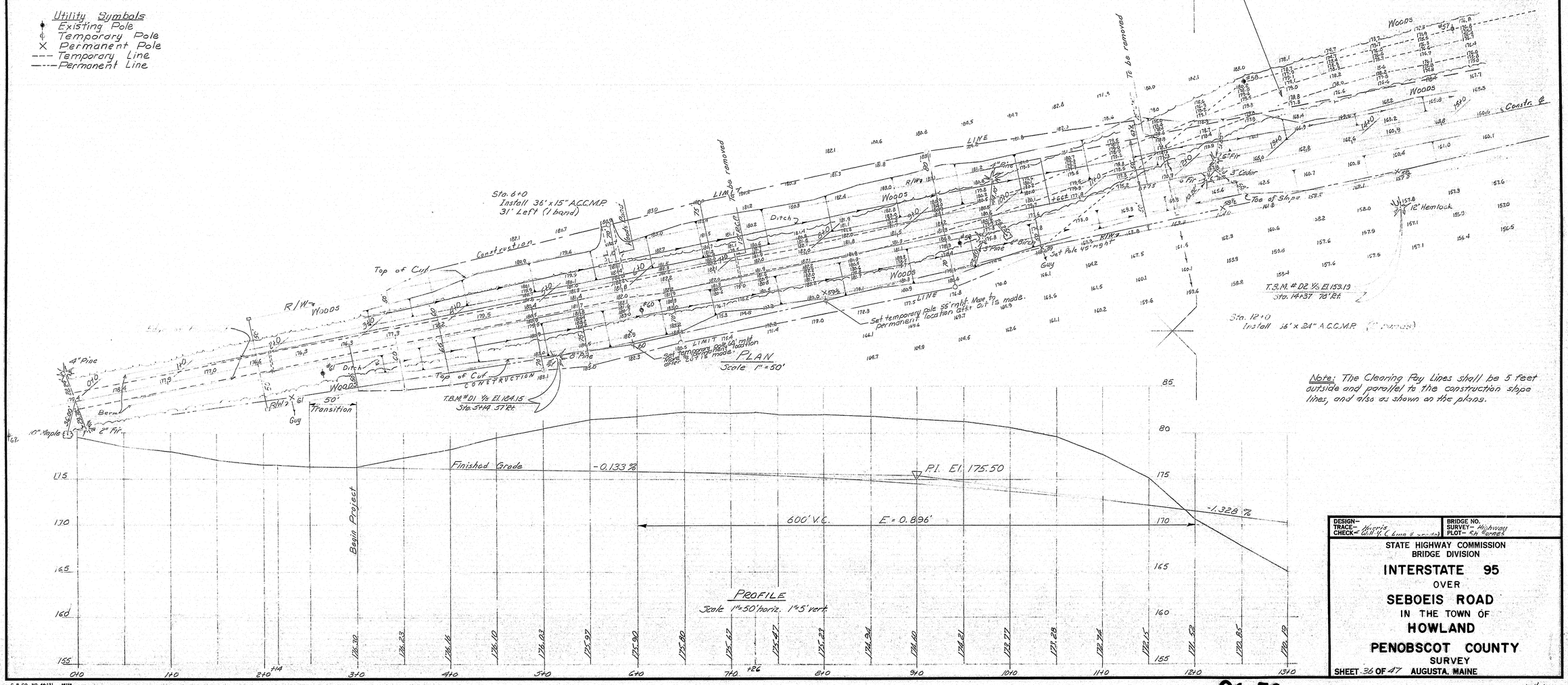
Elevation Determined by the Engineer in the Field.

Typical Ditch Section

For Replacing Existing Culverts @ Sta. 21+25± & Sta. 24+50±

Necessary excavation to be paid for under Item 204-10, Structural Earth Excavation-Drainage.

Existing tar pavement to be removed & area is to be loamed (2" loam) and seeded (Method #2) Sta. 13+0± to Sta. 25+0±.
Pavement removal to be paid per cubic yard under Item 203-9 Earth Excavation.



Note: The Clearing Pay Lines shall be 5 feet outside and parallel to the construction slope lines, and also as shown on the plans.

DESIGN–	BRIDGE NO.
TRACE–	SURVEY– Highway
CHECK– Will K. (Lima & Sons)	PLOT– S.H. Roads

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

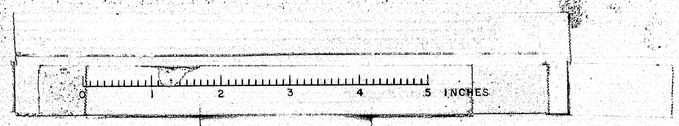
INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
SURVEY

SHEET 36 OF 47 AUGUSTA, MAINE

C. S. CO., NO. 44-131 26758

96-50

Seboeis Rd. - Howland - Survey Sh. #1



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-B(52)	37	47

Fencing - Metal Post, Typ.

Woods

Route 116

15° C.M.P.

15" C.M.P. To be removed & replaced by 24"

Welmon to small hardwood & softwood

U.S.G.S. Pisgot E. 165.22
Sta. 24+77 30' Lt.

Move 15'

Top of Cut

Ditch

Berm

Edge of Pavement

Toe of Slope

5" Cedar

6" Fir

12" Hemlock

4" Fir

8" Cedar

Survey ℄

Constr. ℄

R/W

Sta. 18+14.41 Seboeis Road
Sta. 2016+23.19 I95 Southbound

Sta. 17+50
Install 72' x 24" A.C.C.M.P.
(3 bands)

Sta. 21+23
Install 64' x 24" A.C.C.M.P.
(2 bands)

Sta. 24+50
Install 62' x 24" A.C.C.M.P.
(2 bands)

T.B.M. #02 Vs El. 159.19
Sta. 141+37 78' Rt.

T.B.M. #03 Vs El. 161.21
Sta. 21+90 74' Rt.

P.I. Sta. 25+07.59
Δ = 47° 37' 00" Rt
D = 5° 00'
T = 505.61'
L = 952.33
R = 1,195.91

Small mixed growth 3" to 6"

Small growth 1" to 6"

For Intersection Detail see Sh. # 39

Interstate I-95 (S.B.)

PLAN
Scale 1" = 50'

-1.328%

400' V.C.

E = 0.564'

P.I. El. = 166.20

-0.200%

Finished Grade

Survey ℄

Constr. ℄

PROFILE
Scales 1" = 50' horiz. 1" = 5' vert.

DESIGN–	BRIDGE NO.
TRACE– Morris	SURVEY–
CHECK– W.H.P. (Line & Grade)	PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

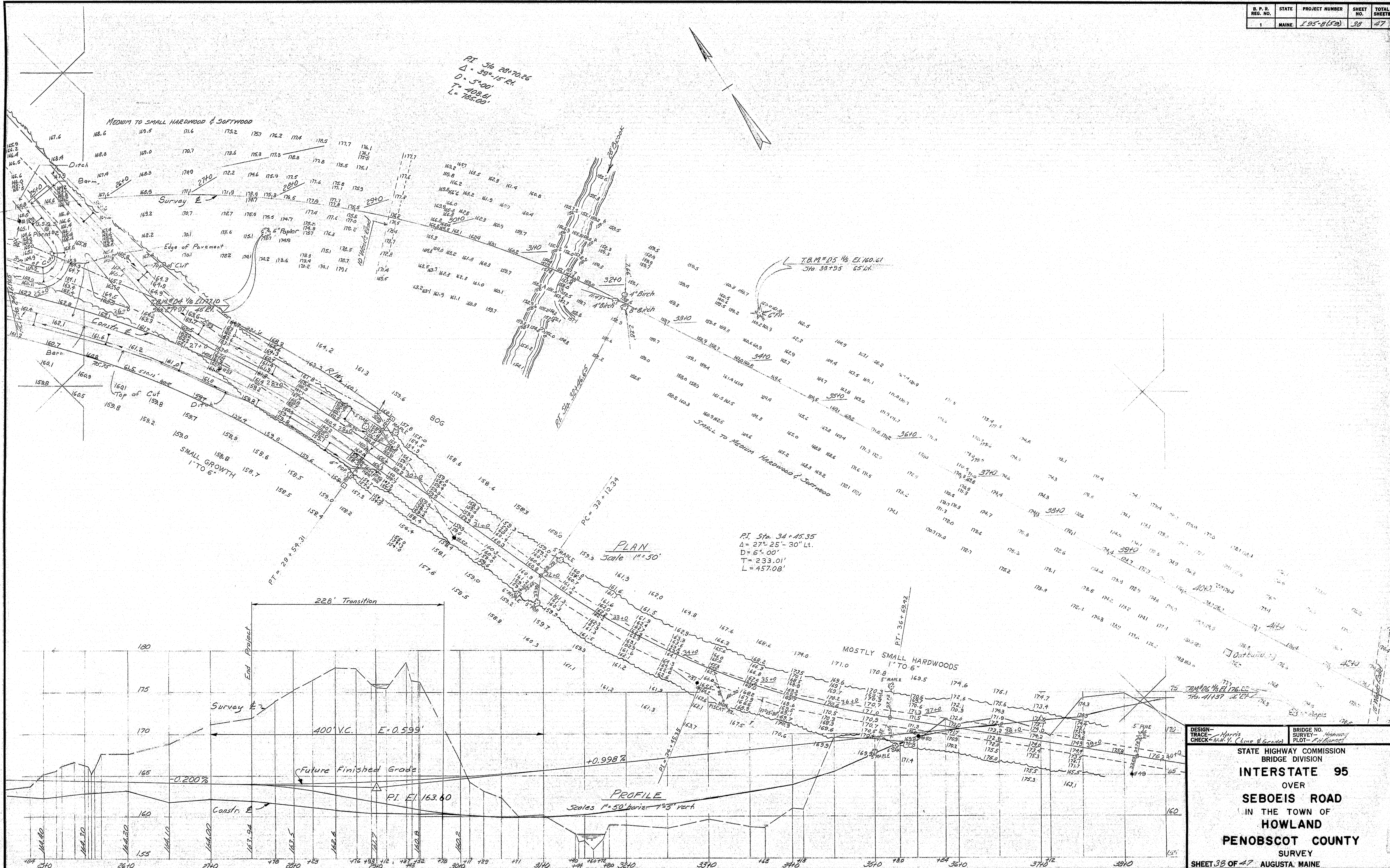
INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
SURVEY

SHEET 37 OF 47 AUGUSTA, MAINE

G. B. CO., NO. 44-131 26788

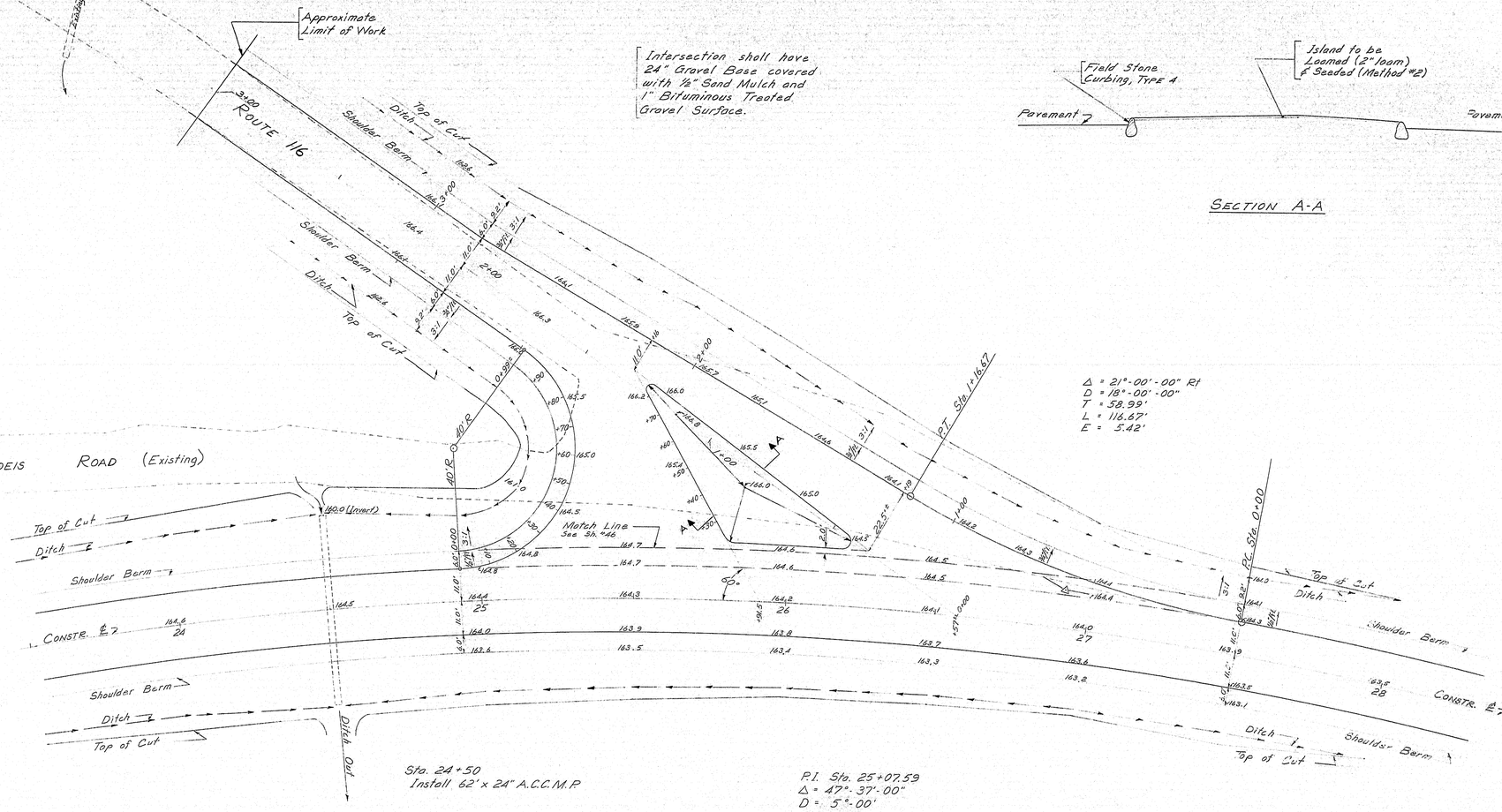
96-51 ... in the Howland Survey Sh #2

0 1 2 3 4 5 INCHES



96-52 Seboeis Road Howland Survey Sh #3

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	195-B(53)	39	47



INTERSECTION DETAIL

SCALE: 1" = 20'

Note: Elevations shown are Finished Grades...

DESIGN- E.R.A.
TRACE-
CHECK- Harris

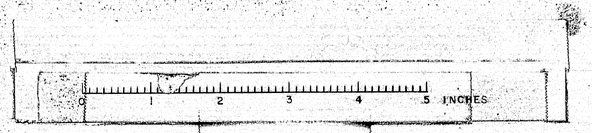
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
SEBOEIS ROAD
IN THE TOWN OF
HOWLAND
PENOBSCOT COUNTY
INTERSECTION DETAIL

SHEET 39 OF 46 AUGUSTA, MAINE

96-53



B. P. R. PROJ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F 854(CS)	40	417

SEBOEIS ROAD

40

Sta. 6+0
Field Entrance -
Install 36' x 15" ACCMP 31' Length

95-859

Arius 8-64

FED. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BRF-9(58)	41	47

SEBOEIS ROAD

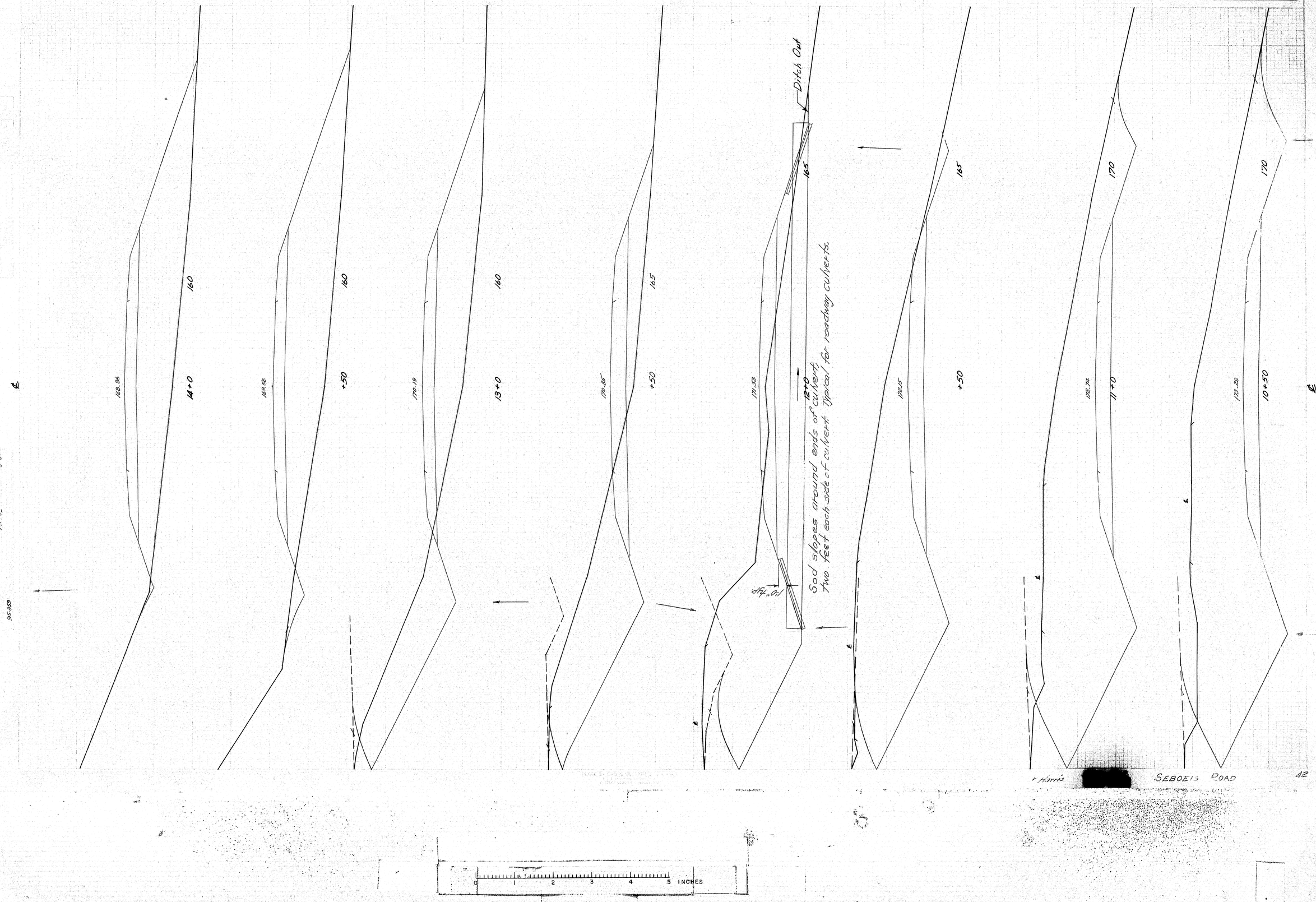
V. Harris

170	6+50	170
	175.80	
170	7+00	170
	175.67	
170	7+50	170
	175.47	
170	8+00	170
	175.23	
170	8+50	170
	174.94	
170	9+00	170
	174.60	
170	9+50	170
	174.21	
170	10+00	170
	173.77	

95-859

Arthur Perron Associates
8-64
3-64

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-3(52)	42	47



R. P. W. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IM-95-8(53)	43	47

43

SEBOEIS RIVER

155

14+50

163.24

155

15+0

163.67

155

+50

163.19

155

16+0

163.76

155

+50

163.42

155

17+0

Note: Embankment material 155 from Sta. 17+00 to Sta. 19+00 shall meet the requirements of Granular Borrow.

163.14

155

18+0

163.80

For Slope Protection Detail See Sheet #35

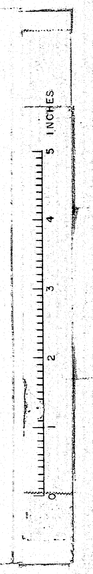
+50

163.94

See Interstate Sections for Ditches.

A-Plus B-64

95-859



B. F. H. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BRS-S(65)	44	47

For Slope Protection
Detail See Sheet #35

Harris Seboeis Road

18+50 — 155

-3" — 165.70 — -3"

19+0 — 155

-1" — 165.60 — -3"

+50 — 155

+1" — 165.50 — -3"

20+0 — 155

+3" — 165.40 — -3"

20+50 — 155

+5" — 165.30 — -3"

21+0 — 155

165.20

+23 — 16" C.M.P. on ℄ — 155

Ditch Out

165.15

+50 — 155

165.10

℄

95-859

A-Plus — B-64 — 2-42

R. P. & B. PROJ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	2935-X(79)	45	107

SEBOEIS ROAD

Harris

AS

22+0 155

165.00

+50 155

164.90

23+0 155

164.80

+50 155

164.70

24+0 155

164.60

+29 15" CMP on Lt (Removed) 155

Outlet inv=Ø

164.54
℄ Ditch

Ditch

Ditch Out

+50 155

164.50

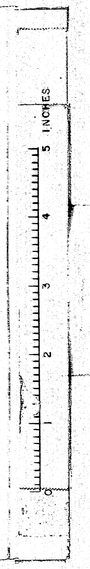
25+0 155

164.40

℄

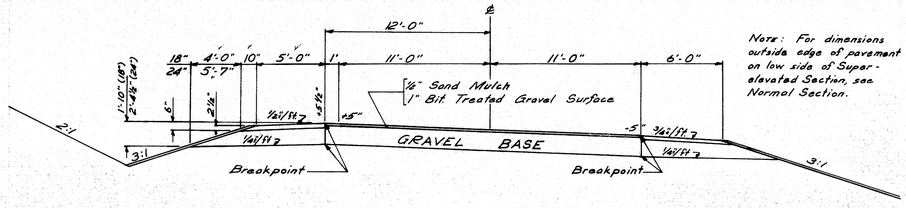
Artus B-64 3-66

95-859



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-8(53)	46	47

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I 95-8(59)	47	47



Note: For dimensions outside edge of pavement on low side of Super-elevated Section, see Normal Section.

SUPERELEVATED SECTION

18" Gravel Base in Fill Sections
24" Gravel Base in Cut Sections

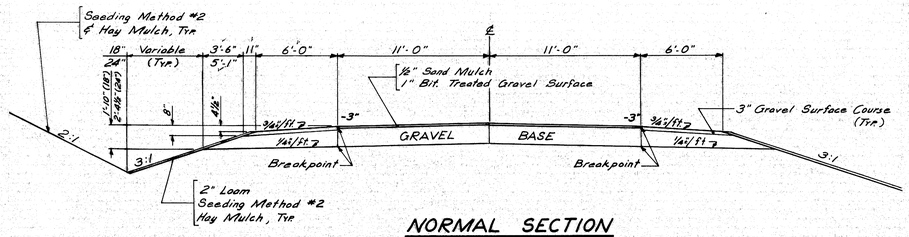
5 FT. SHOULDER

18" Gravel Base = 37.59' C.Y. Per 100 L.F.
24" Gravel Base = 57.31' C.Y. Per 100 L.F.

23 FT. ROADWAY

18" Gravel Base = 127.78' C.Y. Per 100 L.F.
24" Gravel Base = 170.37' C.Y. Per 100 L.F.

SEBOEIS ROAD



NORMAL SECTION

18" Gravel Base in Fill Sections
24" Gravel Base in Cut Sections

***6 FT. SHOULDER**

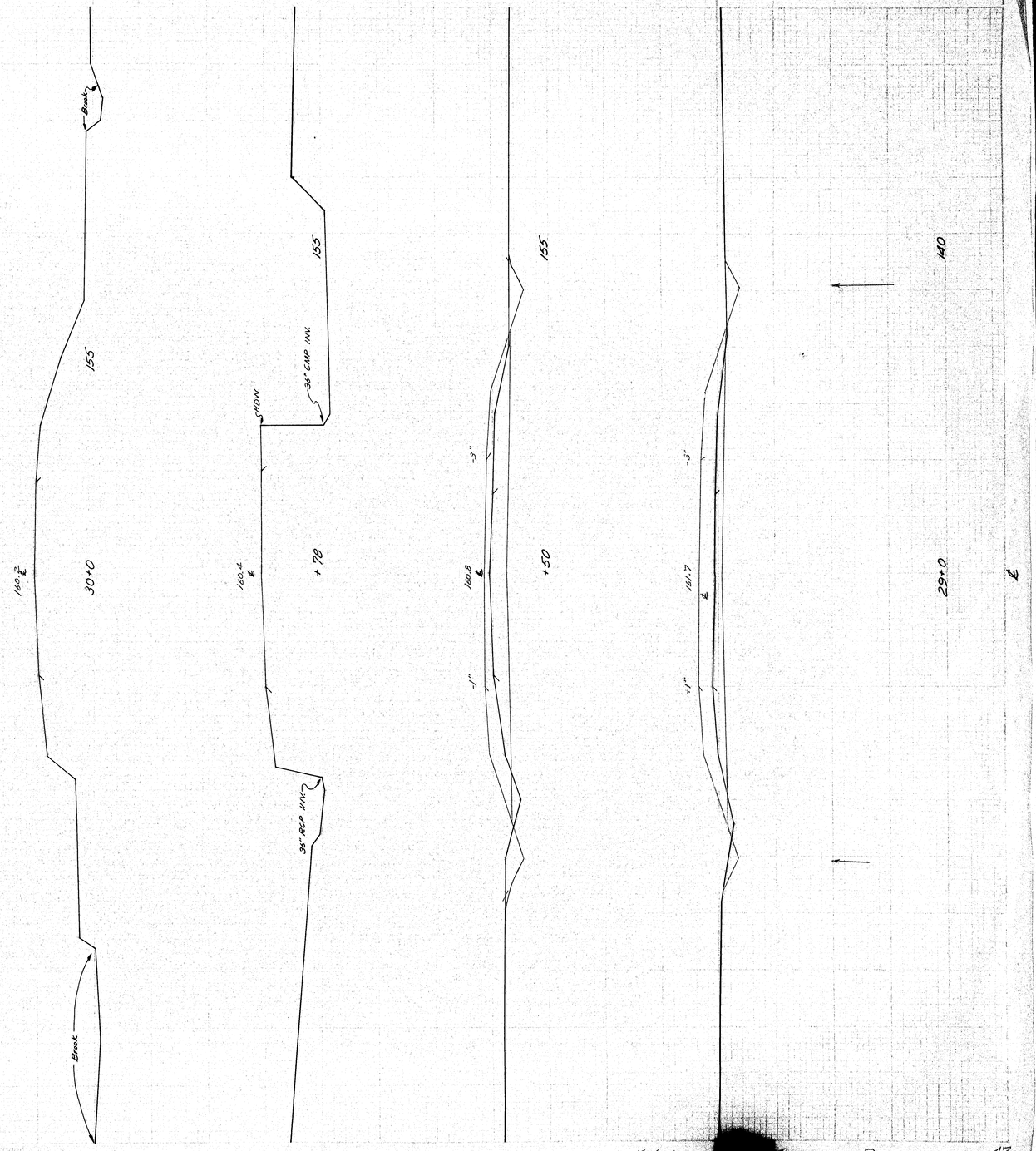
18" Gravel Base = 38.77' C.Y. Per 100 L.F.
24" Gravel Base = 59.63' C.Y. Per 100 L.F.

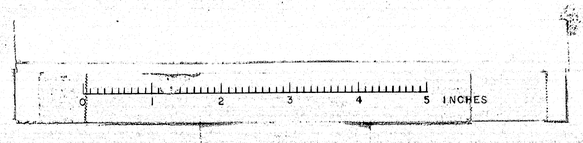
22 FT. ROADWAY

18" Gravel Base = 122.22' C.Y. Per 100 L.F.
24" Gravel Base = 162.96' C.Y. Per 100 L.F.

* Note: These quantities the same for 6' shoulder on low side of superelevated section.

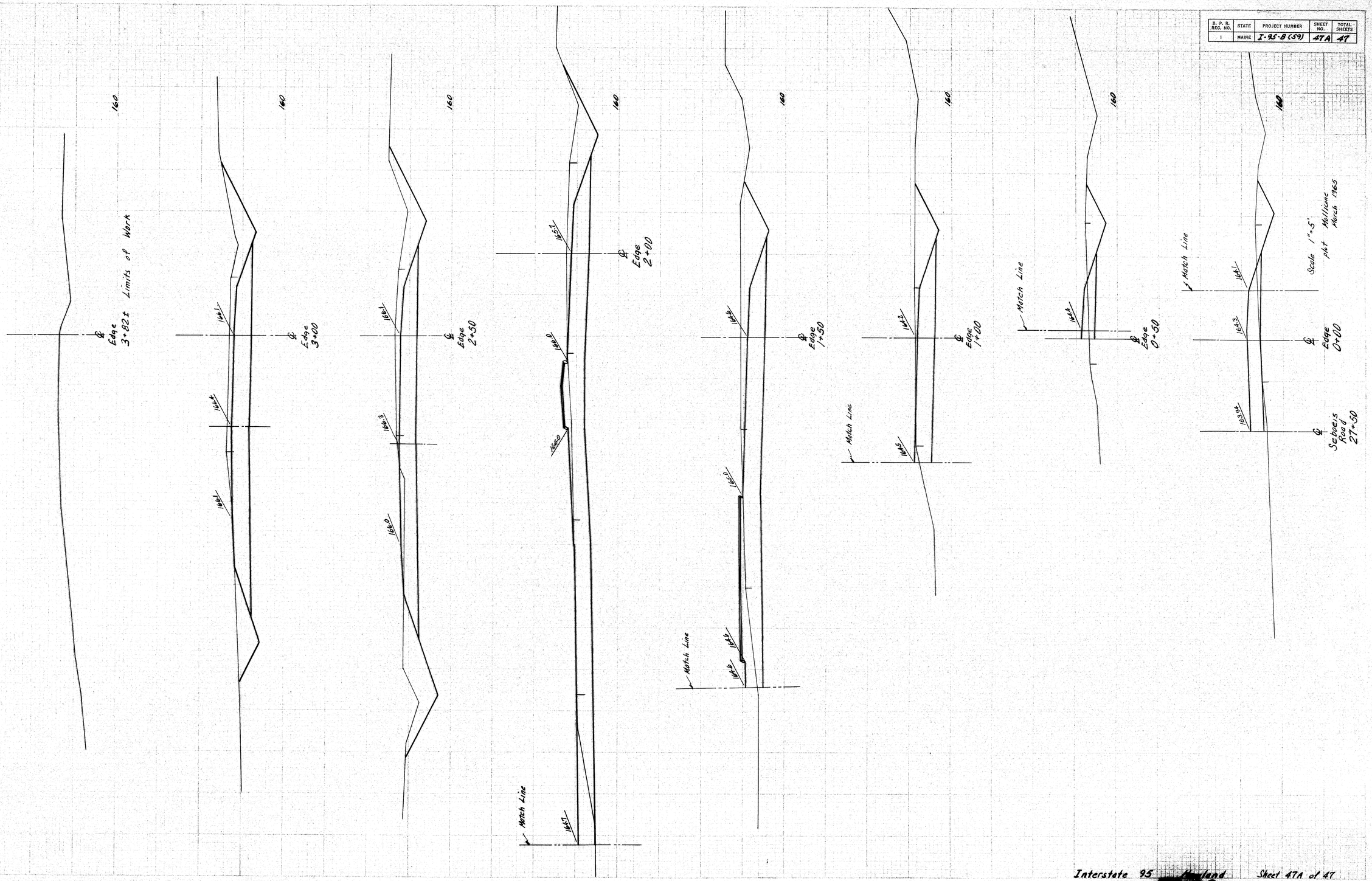
SEBOEIS ROAD





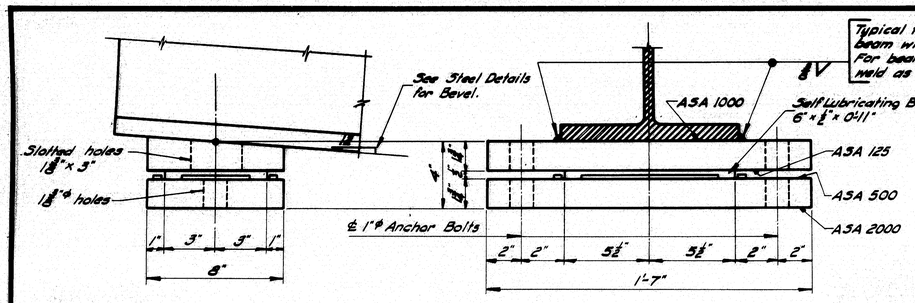
Harris [redacted] SEBOEIS ROAD 47

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(59)	47A	47

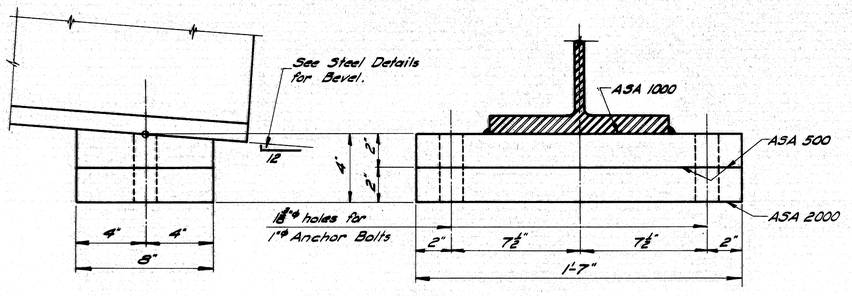


0 1 2 3 4 5 INCHES

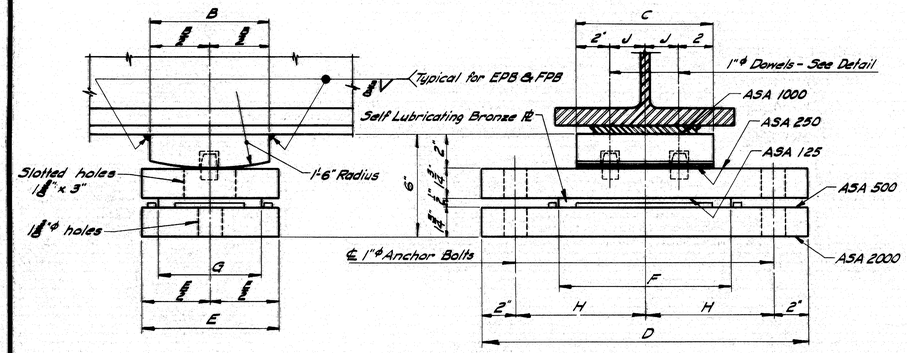
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



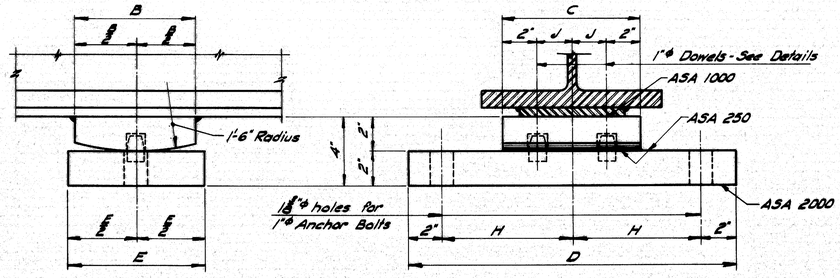
EXPANSION PEDESTAL - EPA



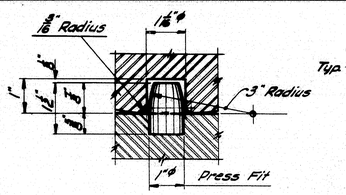
FIXED PEDESTAL - FPA



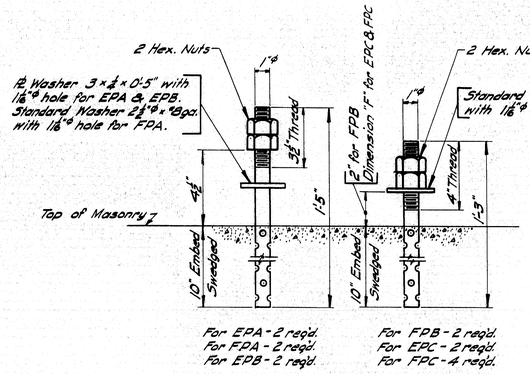
EXPANSION PEDESTAL - EPB



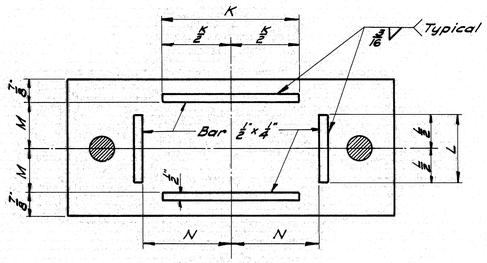
FIXED PEDESTAL - FPB



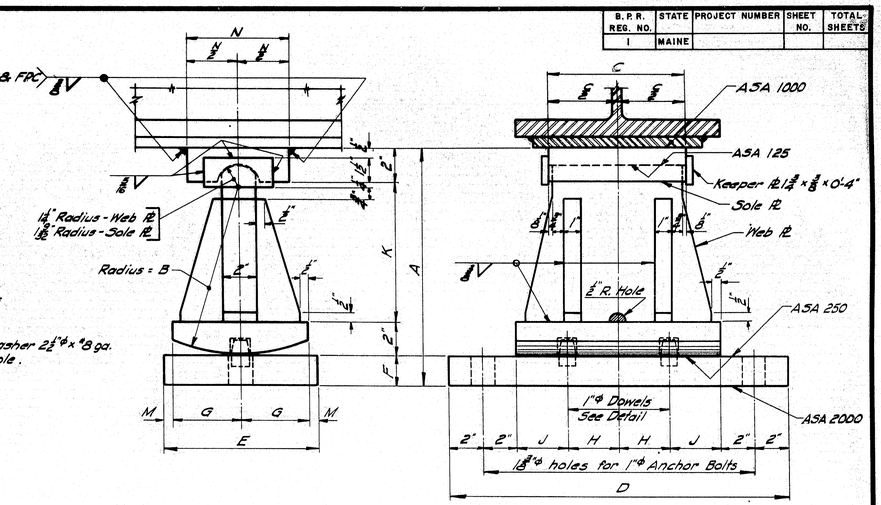
DOWEL DETAIL



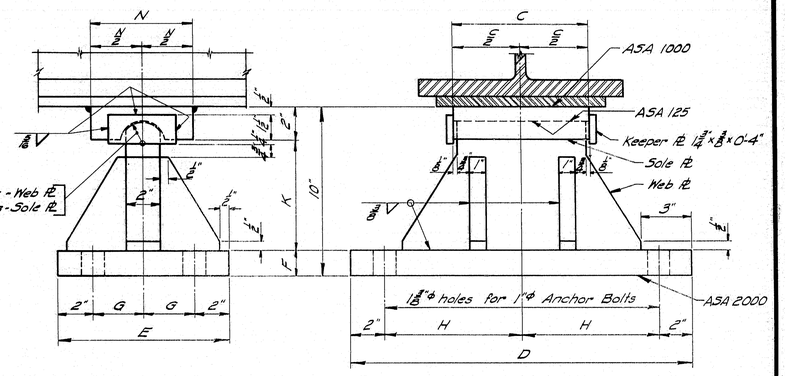
ANCHOR BOLT DETAIL



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 ½ 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	—	—	—	—	—	—	—	—	—	6"	4"	3½"	5⅝"
FPA	130 K	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 K	—	6"	8"	1'-7"	8"	10"	6"	7½"	2"	8"	4"	3½"	5⅝"
EPB-2	165 K	—	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3½"	6⅝"
EPB-3	224 K	—	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4½"	1'-2"	5"	3½"	6⅝"
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	9½"	6"	8"	1'-8"	8"	1½"	3½"	3"	3"	4½"	—	½"	6"
EPC-2	100 K	11½"	8"	8"	1'-8"	8"	1½"	3½"	3"	3"	6½"	—	½"	6"
EPC-3	130 K	1'-2"	10"	8"	1'-9"	9"	1½"	4"	3"	3"	8½"	—	½"	7"
EPC-4	160 K	1'-2"	10"	8"	1'-10"	9"	1½"	4"	4"	3"	8½"	—	½"	7"
EPC-5	190 K	1'-2½"	10"	9"	2'-0"	10"	2"	4½"	5"	3"	8½"	—	½"	8"
EPC-6	220 K	1'-4½"	1'-0"	10"	2'-0"	1'-0"	2¼"	5"	5"	3"	10½"	—	1"	8"
EPC-7	250 K	1'-4½"	1'-0"	1'-0"	2'-2"	1'-0"	2¼"	5"	5"	4"	10½"	—	1"	8"
FPC-1	100 K	—	—	8"	1'-8"	9"	1½"	2½"	8"	—	6½"	—	1"	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"	1½"	4"	10"	—	6½"	—	—	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

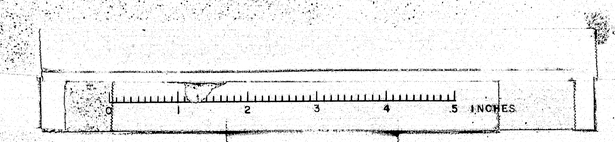
STANDARD DETAILS

(BD 101 - 64)

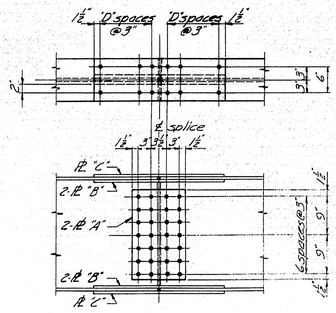
BEARING PEDESTALS

JANUARY 1964

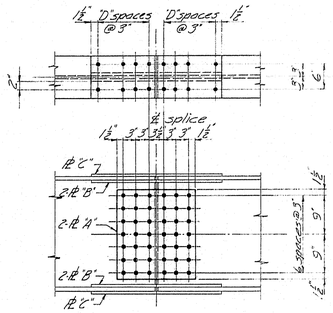
96-63



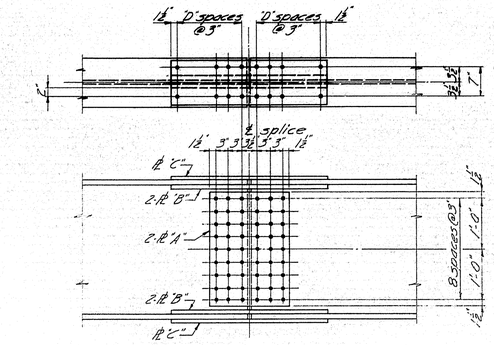
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
I	MAINE			



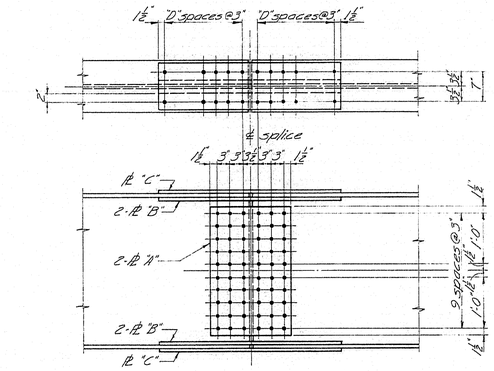
27 WF 84



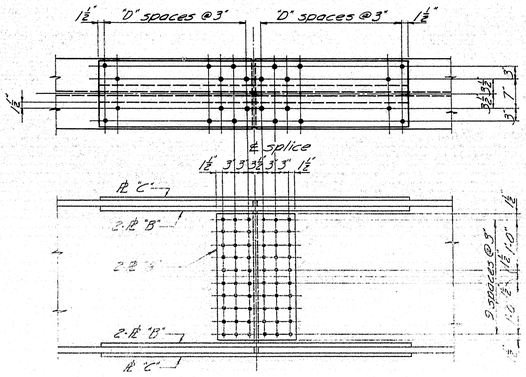
27 WF 94, 102, 114



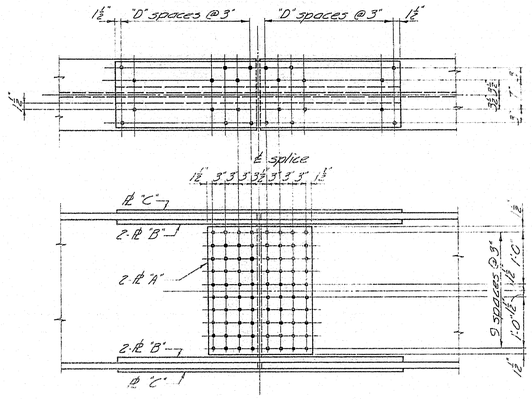
33 WF 118, 130, 141, 152



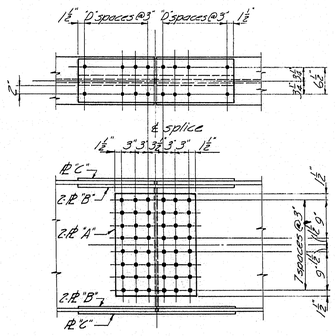
36 WF 135, 150, 160, 170, 182, 194



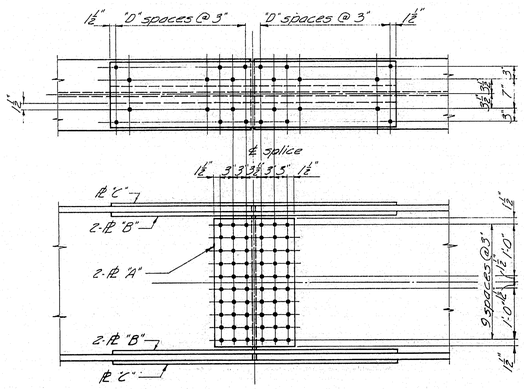
36 WF 245, 280



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	12⅝ x ⅝	4 x 7/16	10 x ⅝	3
27 WF 94	3520 K'	119 K	18⅝ x 7/16	4 x ½	10 x ⅜	3
27 WF 102	3862 K'	126 K	18⅝ x 7/16	4 x 7/16	10 x 7/16	4
27 WF 114	4341 K'	140 K	18⅝ x ½	4 x ½	10 x ½	4
30 WF 99	3921 K'	139 K	18⅝ x ½	4 x ½	10 x ⅜	3
30 WF 108	4360 K'	147 K	18⅝ x ½	4 x 7/16	10 x 7/16	4
30 WF 116	4780 K'	152 K	18⅝ x ½	4 x ⅜	10 x 7/16	4
30 WF 124	5170 K'	159 K	18⅝ x ½	4 x 7/16	10 x ½	4
30 WF 132	5539 K'	166 K	18⅝ x ½	4 x ⅜	10 x ⅜	5
33 WF 118	5287 K'	164 K	18⅝ x ½	4 x 7/16	11 x 7/16	4
33 WF 130	5978 K'	173 K	18⅝ x ½	4 x ⅜	11 x 7/16	5
33 WF 141	6604 K'	181 K	18⅝ x ½	4 x ½	11 x ½	5
33 WF 152	7193 K'	191 K	18⅝ x ½	4 x ⅜	11 x 7/16	6
36 WF 135	6473 K'	191 K	18⅝ x ⅝	4 x 7/16	11 x 7/16	4
36 WF 150	7436 K'	202 K	18⅝ x ⅝	4 x 7/16	11 x ½	5
36 WF 160	8005 K'	212 K	18⅝ x ⅝	4 x ⅜	11 x 7/16	6
36 WF 170	8574 K'	221 K	18⅝ x ⅝	½ x 9/16	11 x ⅝	6
36 WF 182	9204 K'	237 K	18⅝ x ⅝	½ x 9/16	11 x 11/16	7
36 WF 194	9838 K'	253 K	18⅝ x ⅝	4 x 1	11 x ¾	8
36 WF 230	12574 K'	247 K	18⅝ x ½	6 x 1	16 x ⅝	10
36 WF 245	13441 K'	260 K	18⅝ x ½	6 x 1	16 x 11/16	11
36 WF 260	14330 K'	276 K	18⅝ x ⅝	6 x 1¼	16 x ¾	12
36 WF 280	15551 K'	291 K	18⅝ x ¾	6 x 1⅜	16 x 15/16	13
36 WF 300	16678 K'	312 K	24⅛ x ¾	6 x 1⅜	16 x ⅞	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

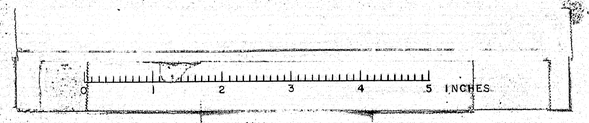
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 103-64)

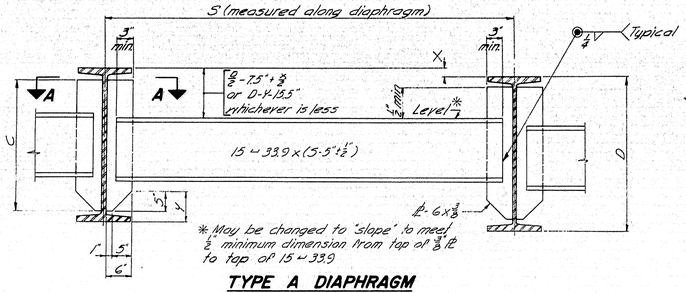
BEAM SPLICES

JANUARY 1964

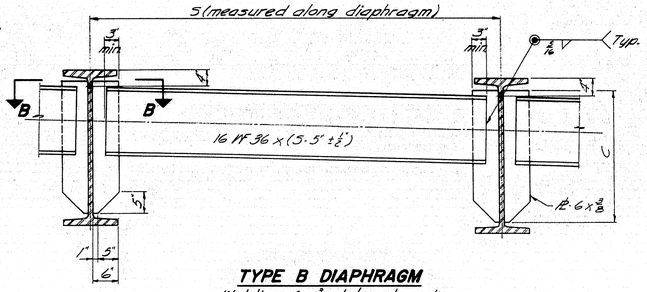
96-64



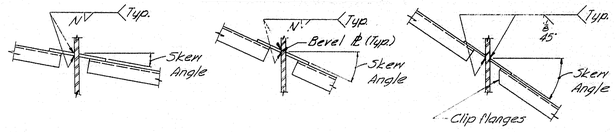
B.P.R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
I	MAINE			



TYPE A DIAPHRAGM



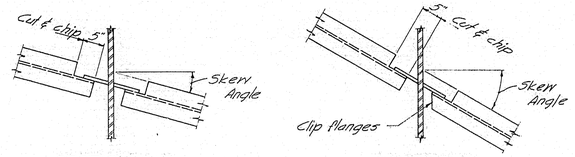
TYPE B DIAPHRAGM
Welding 6 x 3/8 plates to web same as for Type A Diaphragm.



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'



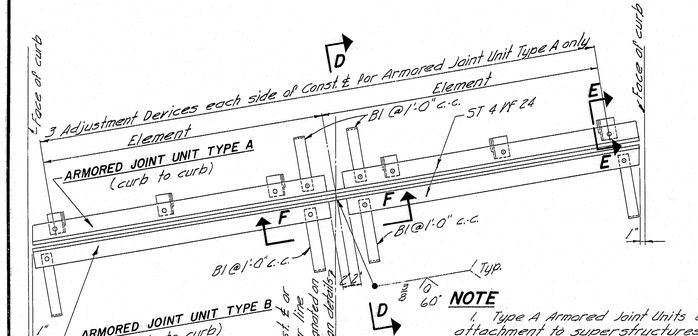
SECTION B-B
Skew Angle 0° to 25°-00'

SECTION B-B
Skew Angle over 25°-00'

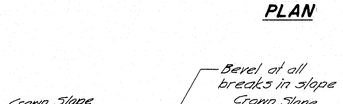
NOTE
See design details for diaphragm type, location and skew.

FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM PLATES		
BEAM	C	N
27 WF 84 to 114 incl.	1'-11"	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"

DIAPHRAGMS



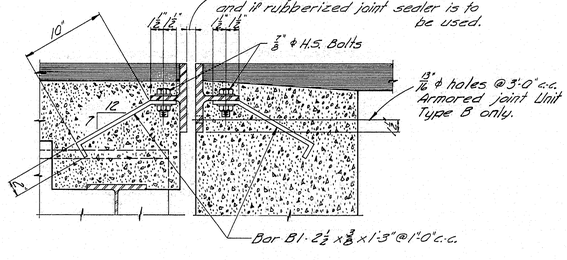
PLAN



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.

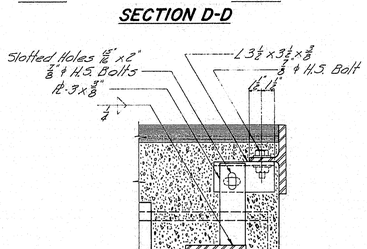
NOTE
1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two Type A Armored Joint Units shall be used.
2. If rubberized joint sealer is called for on the 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
An armored joint consists of two armored joint units. See note 1.

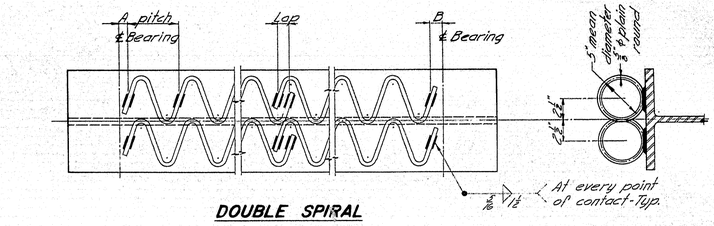


ARMORED JOINT UNIT TYPE A — ARMORED JOINT UNIT TYPE B

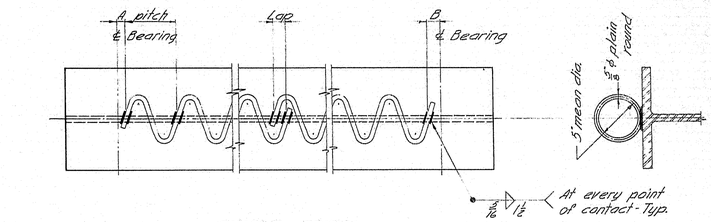
SECTION D-D



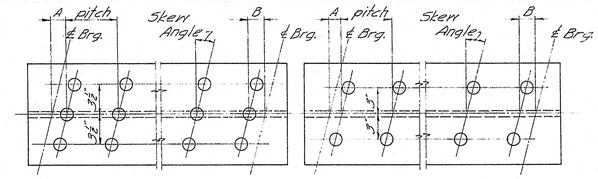
SECTION E-E
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld 3/8 PL to angle with 1/4 Fillet



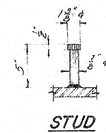
DOUBLE SPIRAL



SINGLE SPIRAL



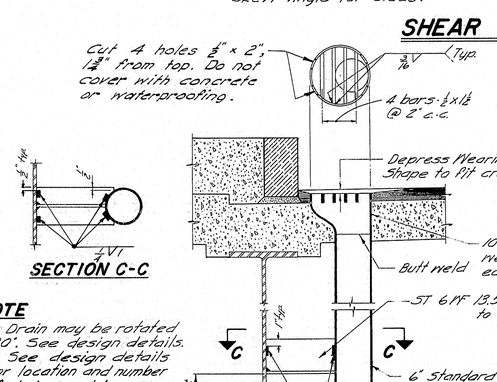
TRIPLE STUDS — **DOUBLE STUDS**



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



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
Revised Nov. 1964, Welding Drain Support.

GENERAL NOTE

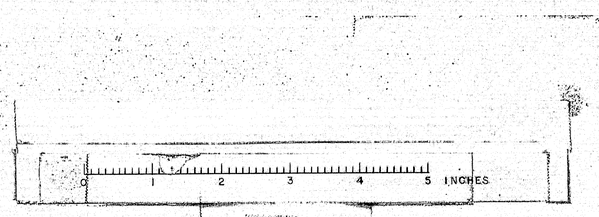
Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

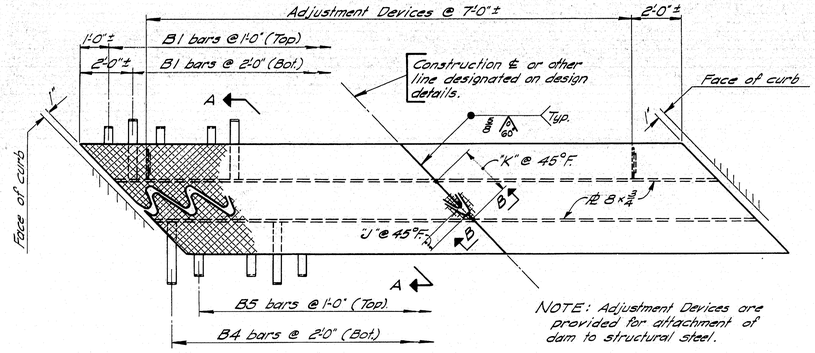
STANDARD DETAILS
(BD 104-64)
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

JANUARY 1964

96-65

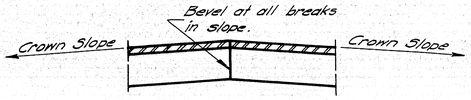


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
I	MAINE			



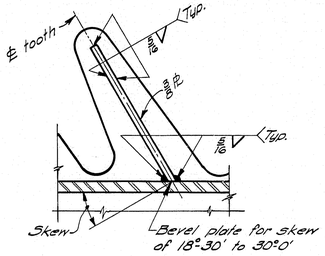
PLAN

Right skew indicated



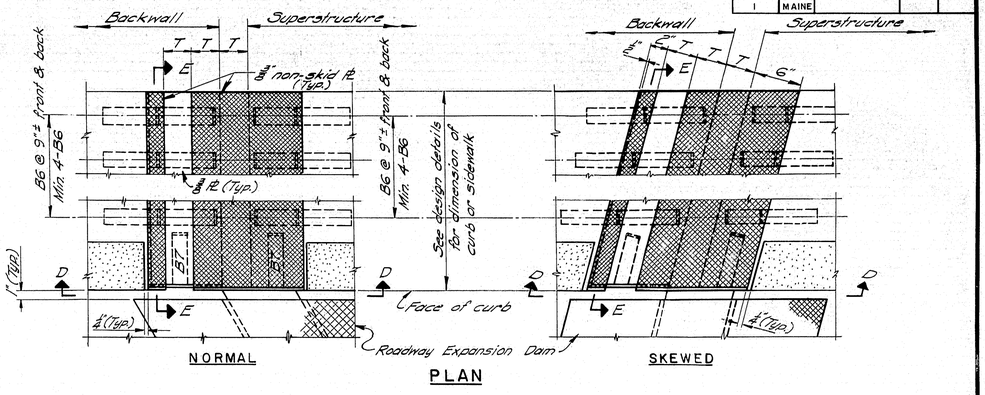
SECTION B-B

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.

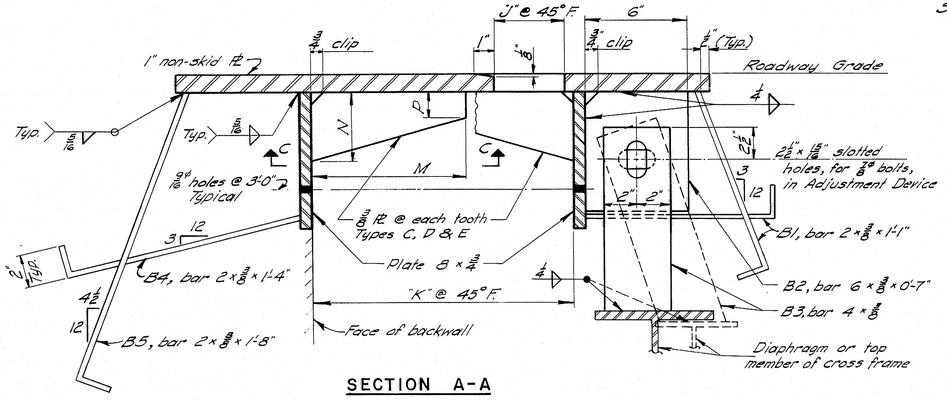


SECTION C-C

Skew ~0° to 30°0'

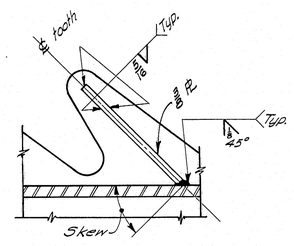


PLAN



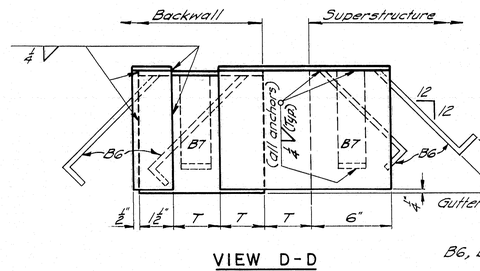
SECTION A-A

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.

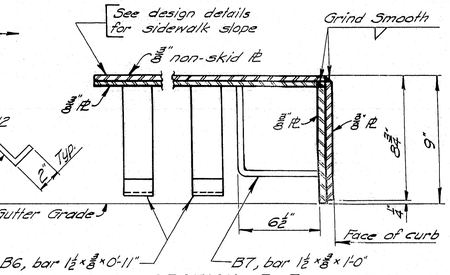


SECTION C-C

Skew over 30°



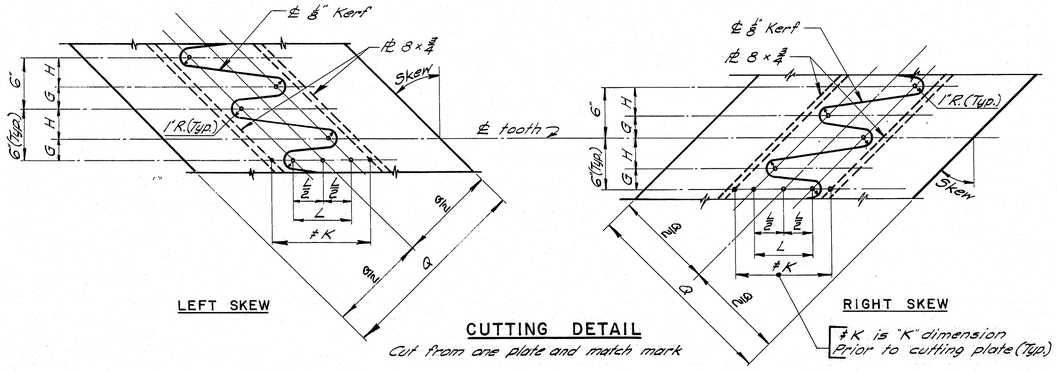
VIEW D-D



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



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

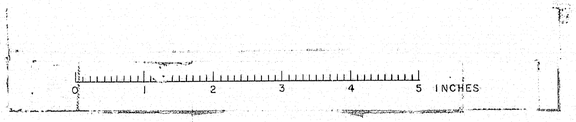
Steel Classification: A.S.T.M. A36

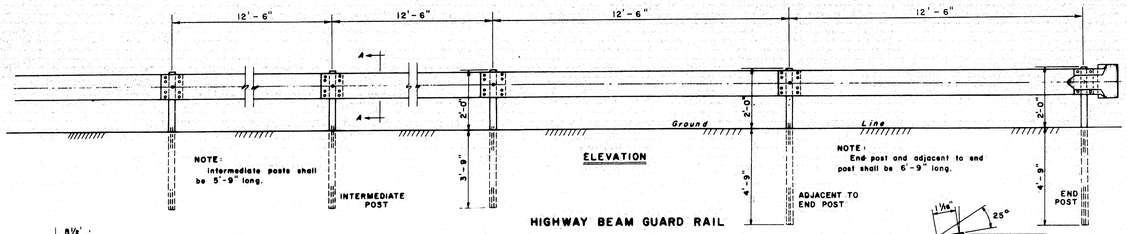
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 105 – 64)

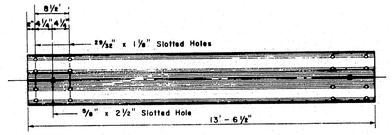
EXPANSION DAMS

APRIL 1964

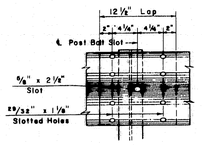




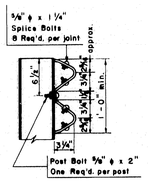
HIGHWAY BEAM GUARD RAIL



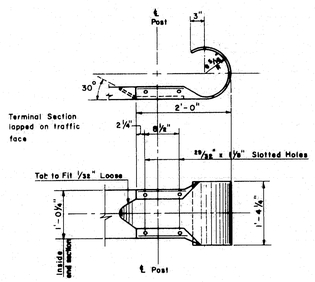
TYPICAL GUARD RAIL PANEL



ELEVATION OF GUARD RAIL SPLICE AT POST

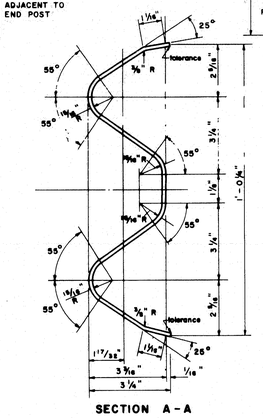


CROSS SECTION THROUGH GUARD RAIL SPLICE

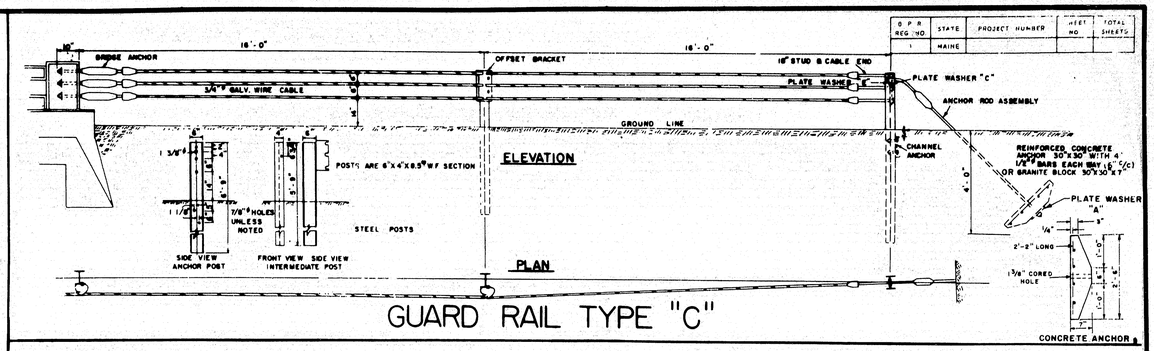


GUARD RAIL-TERMINAL END SECTION

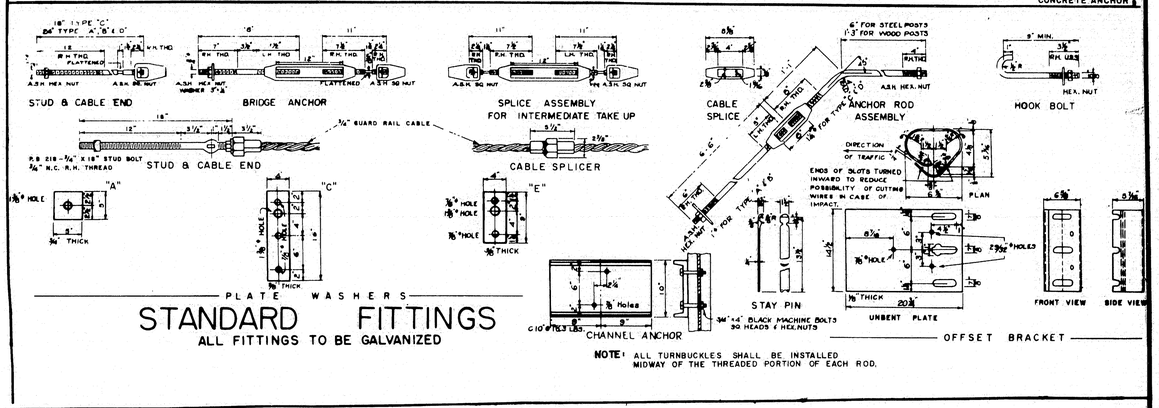
GUARD RAIL TYPE "E" "F" & "G"

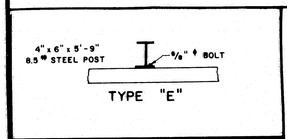


SECTION A-A

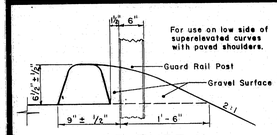


GUARD RAIL TYPE "C"

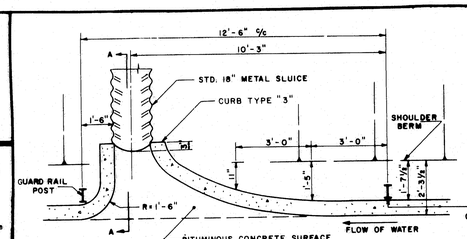




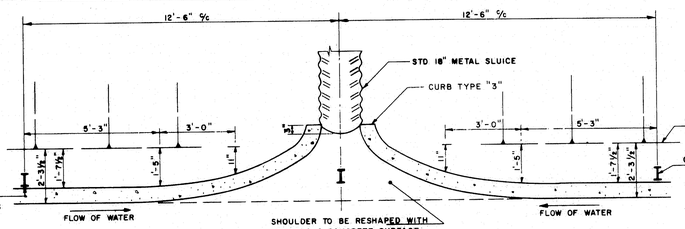
TYPE "E"



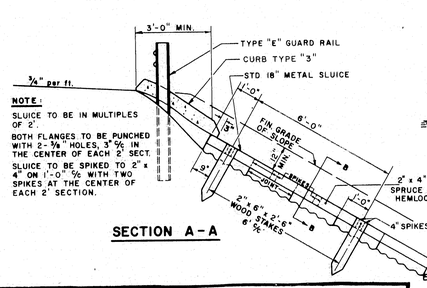
CURB TYPE 3

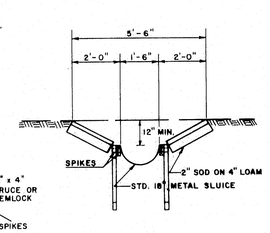


PLAN

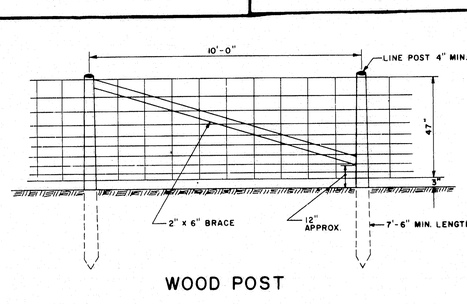


PLAN

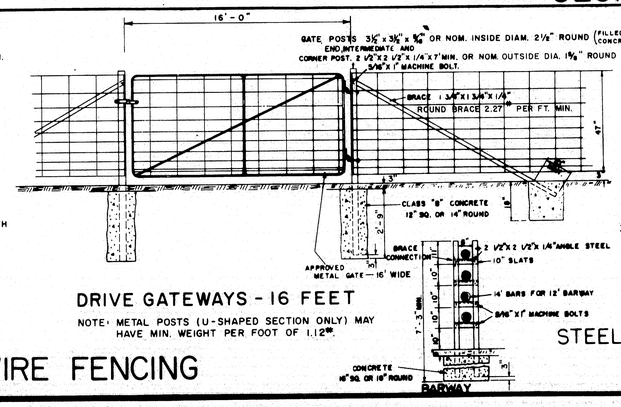




SLUICE ENTRANCE DETAIL

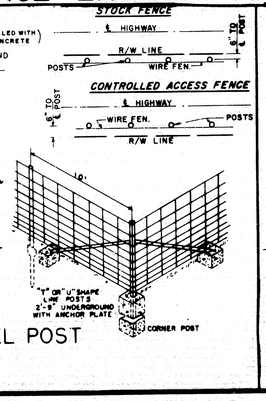


WOOD POST



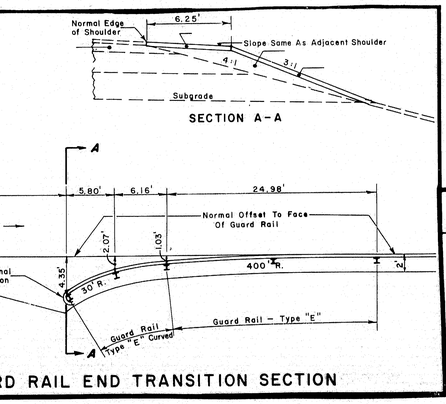
DRIVE GATEWAYS - 16 FEET

NOTE: METAL POSTS (U-SHAPED SECTION ONLY) MAY HAVE MIN. WEIGHT PER FOOT OF 1.12#.

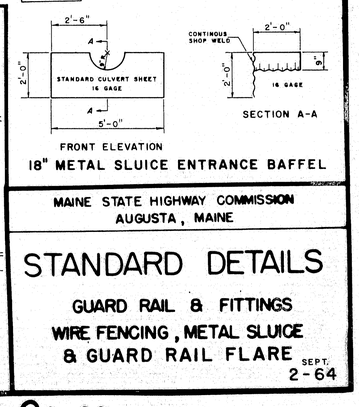


STEEL POST

WOVEN WIRE FENCING



GUARD RAIL END TRANSITION SECTION



18" METAL SLUICE ENTRANCE BAFFEL

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

GUARD RAIL & FITTINGS
WIRE FENCING, METAL SLUICE
& GUARD RAIL FLARE

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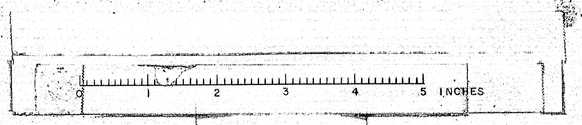
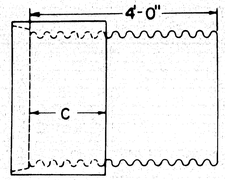


PIPE CONNECTIONS

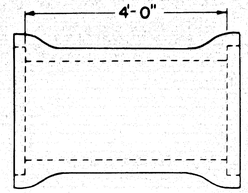


GROOVE END COMBINATION

For 24" to 72", inclusive, diameter connection between concrete and metal pipe

"C" = 17" min. for sizes 30" to 48" incl.
"C" = 23" min. for sizes over 48"

Asphalt coated corrugated metal pipe shall conform to the latest standard specifications

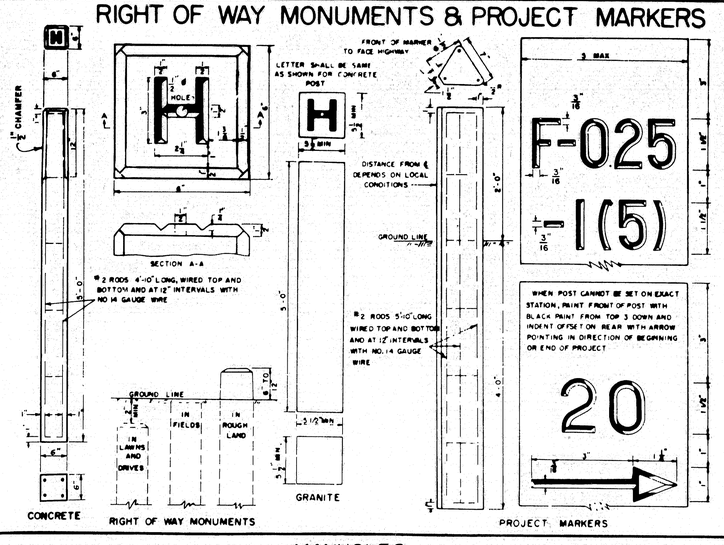


REINFORCED CONCRETE PIPE CONNECTOR DOUBLE BELL

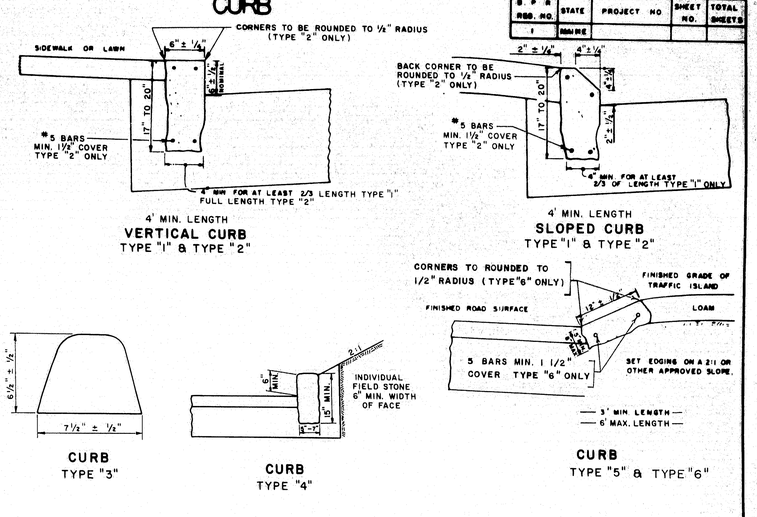
For 12" to 18", inclusive, diameter connection between concrete and metal pipe

Reinforced concrete pipe shall conform to the latest standard specifications

RIGHT OF WAY MONUMENTS & PROJECT MARKERS

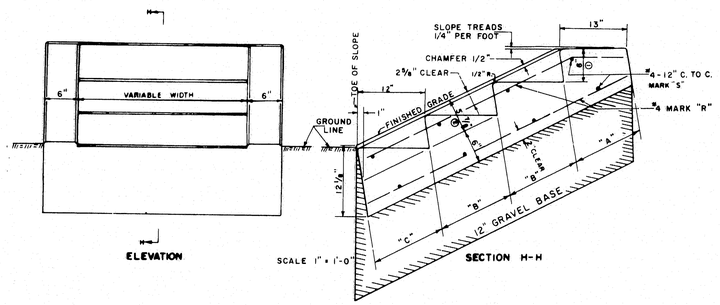


CURB



S. P. R. RSS. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE			

CONCRETE STEPS



CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
"A" HEADER	.030 CU. YDS.	.015 CU. YDS.
"B" EA. INTER ST.	.030 CU. YDS.	.020 CU. YDS.
"C" FOOTER	.030 CU. YDS.	.020 CU. YDS.

6" RISE - 12" TREAD (2:1 SLOPE)

REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH (EACH)
R	#4 .668 LBS PER FT.	2 EACH PARAPET 1 EACH FT. OF WIDTH	11" FOR "A" +13.4 FOR EACH "B" +12" FOR "C"
S	#4 .668 LBS PER FT.	2 FOR "A" 2 FOR EACH "B" 2 FOR "C"	4" EACH PARAPET +12" PER FT. OF WIDTH

PAY ITEMS

ITEM NO.	DESCRIPTION
204-10	Struct. earth excav. - drain.
204-11	Struct. rocks excav. - drain.
302-14	Gravel for foundations
705-13	Reinforcing steel, delivered
705-14	Reinforcing steel, placed
904-11	Reinforced concrete steps

NOTE:
To determine the quantity of *"Structural Excavation"* for payment refer to the *"Standard Specifications"* section 204-6D, structural earth and rock excavation-abutments and retaining wall or piers.

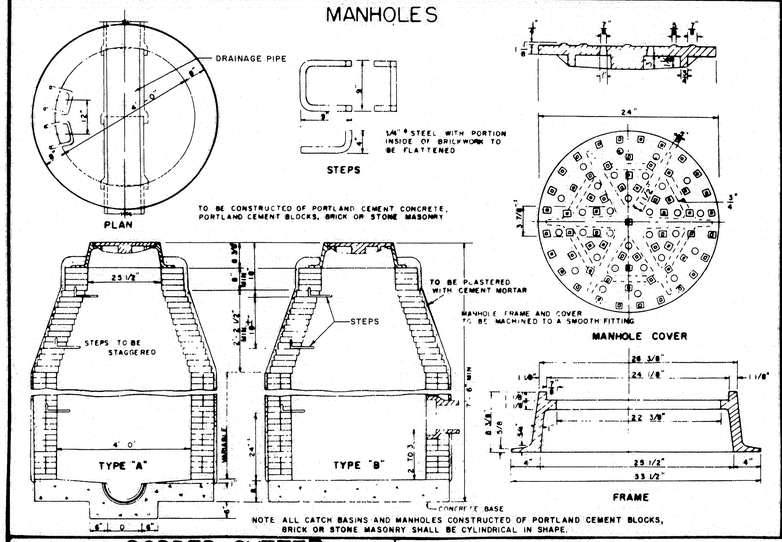
CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
"A" HEADER	.035 CU. YDS.	.018 CU. YDS.
"B" EA. INTER ST.	.035 CU. YDS.	.024 CU YDS
"C" FOOTER	.035 CU. YDS.	.024 CU YDS

8" RISE - 12" TREAD (1½:1 SLOPE)

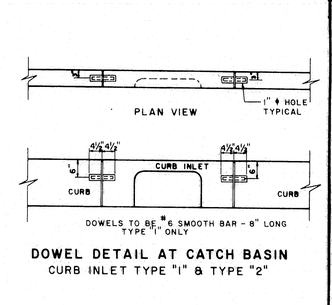
REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH (EACH)
R	#4 .668 LBS. PER FT.	2 EACH PARAPET 1 EACH FT. OF WIDTH	11" FOR "A" +14½" FOR EACH "B" +12" FOR "C"
S	#4 .668 LBS. PER FT.	2 FOR "A" 2 FOR EACH "B" 2 FOR "C"	4" EACH PARAPET +12" PER FT. OF WIDTH

①=8"
②=7 ⅝"

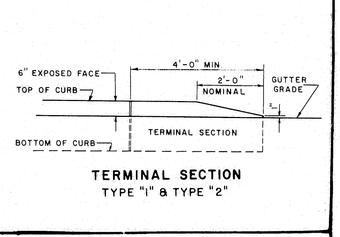
MANHOLES



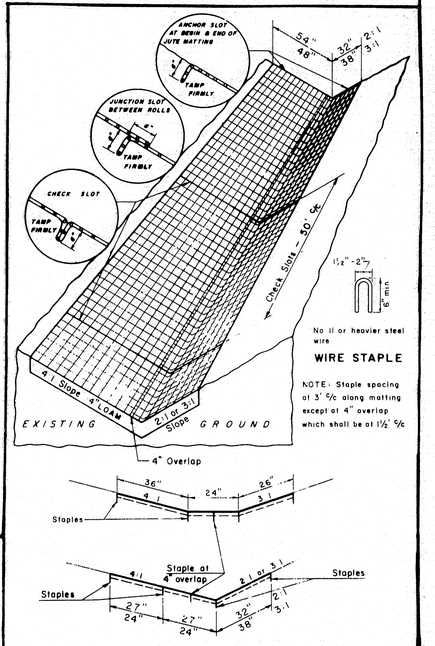
NOTE: ALL CATCH BASINS AND MANHOLES CONSTRUCTED OF PORTLAND CEMENT BLOCKS, BRICK OR STONE MASONRY SHALL BE CYLINDRICAL IN SHAPE.



DOWEL DETAIL AT CATCH BASIN
CURB INLET TYPE "1" & TYPE "2"



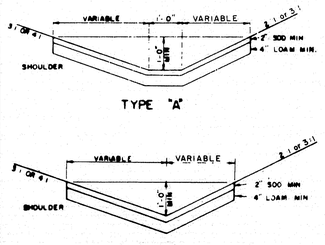
TERMINAL SECTION
TYPE "1" & TYPE "2"



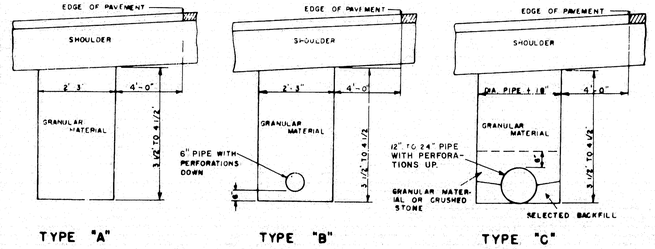
NOTE: Staple spacing at 3' ⁶/₇ along matting except at 4" overlap which shall be at 1½' ⁵/₆

JUTE MATTING - DITCH SECTION

SODDED GUTTER



UNDERDRAIN



NOTE: IF FIELD CONDITIONS WARRANT, THE ENGINEER MAY CHANGE THE DIMENSIONS DETAILED ABOVE.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

MISCELLANEOUS ITEMS

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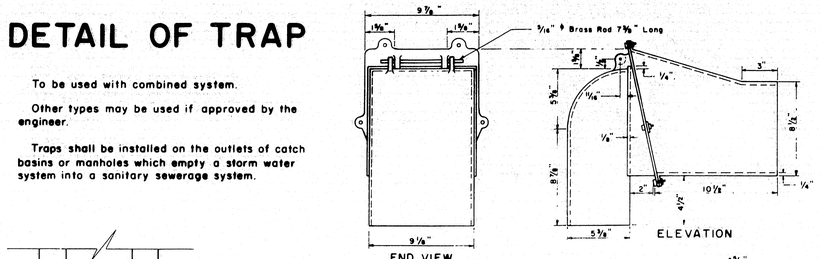
B P R REGION NO.	STATE	FEDERAL AID PROJECT NO	SHEET NO	TOTAL SHEETS
1	MAINE			

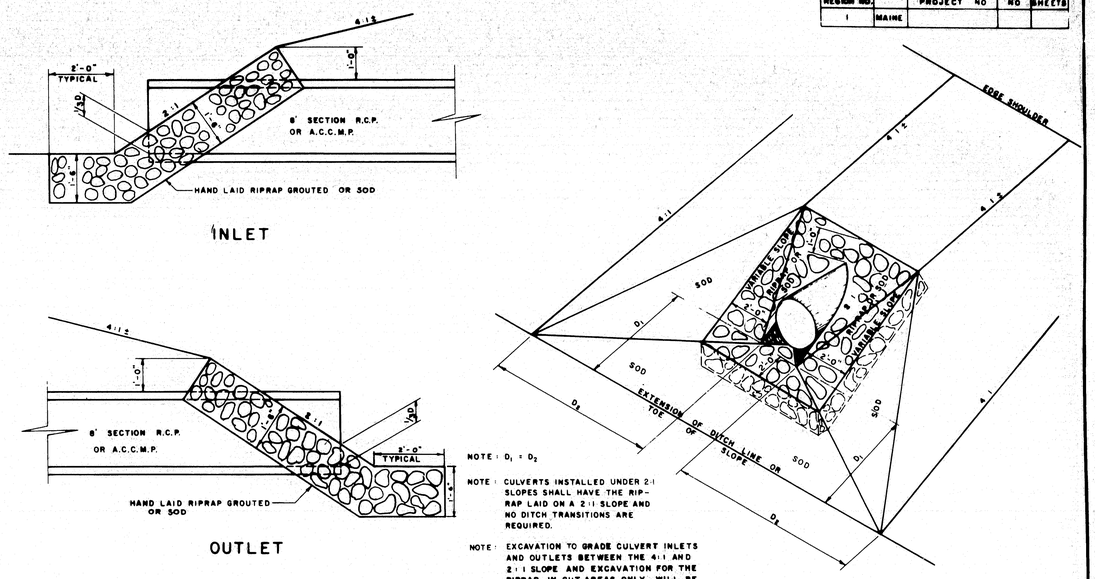
DETAIL OF TRAP

To be used with combined system.

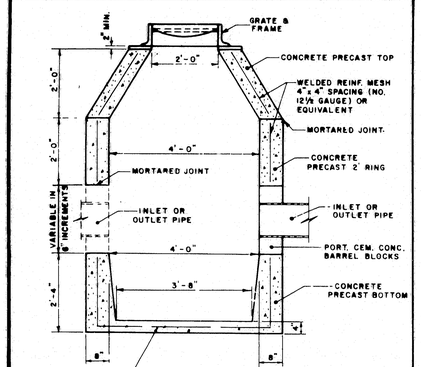
Other types may be used if approved by the engineer.

Traps shall be installed on the outlets of catch basins or manholes which empty a storm water system into a sanitary sewerage system.

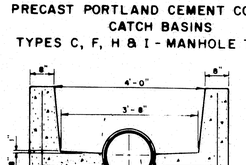




TYPICAL RIPRAP DETAIL FOR R.C.P. OR A.C.C.M.P.

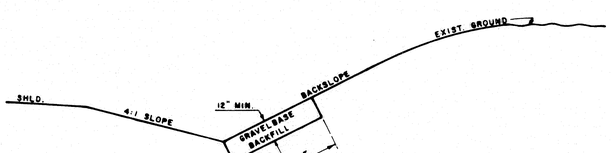


PRECAST PORTLAND CEMENT CONCRETE
CATCH BASINS
TYPES C, F, H & I - MANHOLE TYPE B

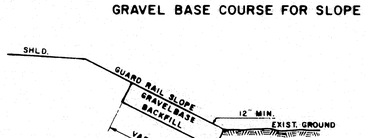


PRECAST PORTLAND CEMENT CONCRETE
CATCH BASIN TYPE G
MANHOLE TYPE A

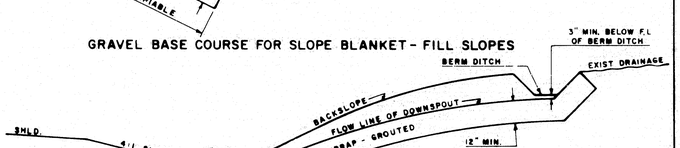
NOTE:
THE THREE SECTIONS DETAILED BELOW SHALL BE USED WHEN DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS



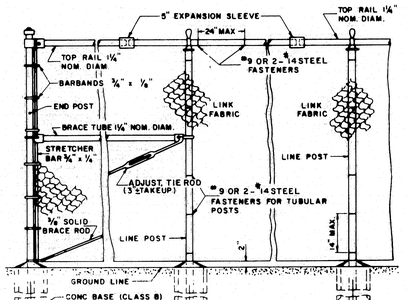
GRAVEL BASE COURSE FOR SLOPE BLANKET - BACKSLOPES



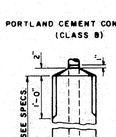
GRAVEL BASE COURSE FOR SLOPE BLANKET - FILL SLOPES



HAND LAID RIPRAP GROUTED DOWNSPOUT



PORTLAND CEMENT CONCRETE (CLASS B)

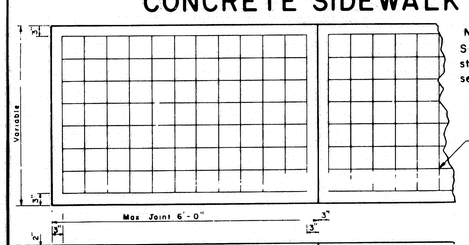


LINE, GATE AND END POST BASE

NOTE
ROUND BASES MAY BE SUBSTITUTED FOR THE SQUARE BASES SHOWN BY USING FIBRE TUBULAR FORMS. SUBSTITUTIONS SHALL BE AS FOLLOWS 13½" I.D. ROUND FOR 12" SQUARE OR 15" SQUARE

" CHAIN LINK FENCE

REINFORCED PORTLAND CEMENT CONCRETE SIDEWALK



NOTE
Sidewalk shall conform to standard specifications section 904.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

DETAIL OF TRAP, REINFORCED PORTLAND CEMENT CONCRETE SIDEWALK, CHAIN LINK FENCE, TYPICAL RIPRAP DETAIL & PRECAST CATCH BASINS & MANHOLES

SEPT. 4-64

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