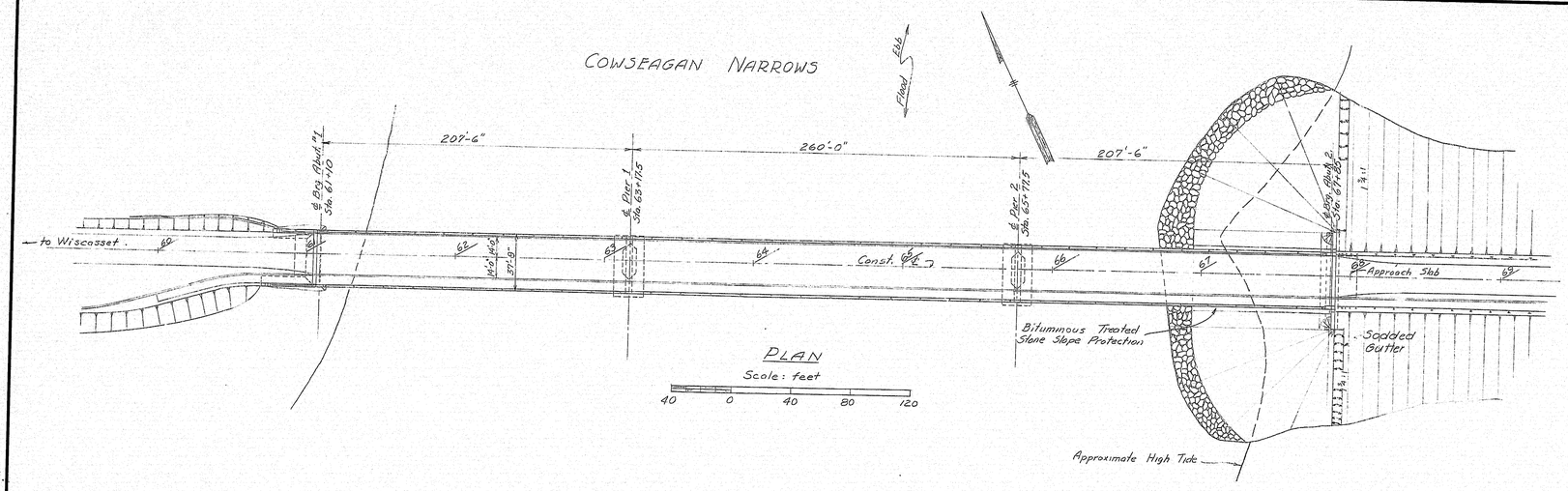
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011B	14	105

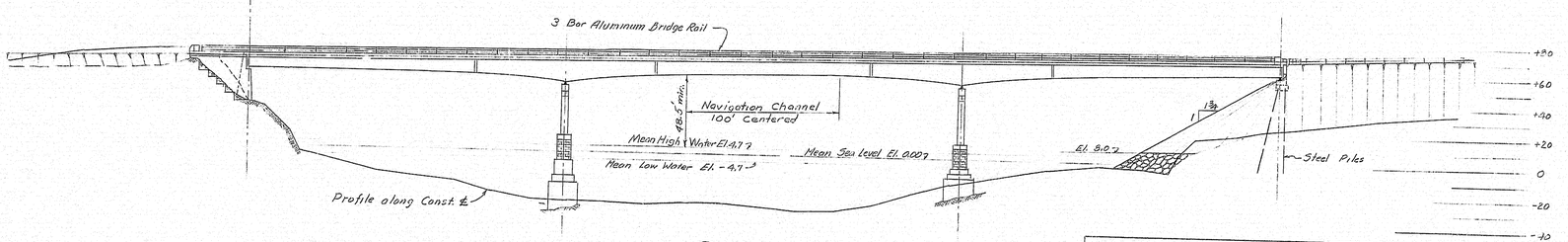
COWSEAGAN NARROWS



PLAN

Scale: feet

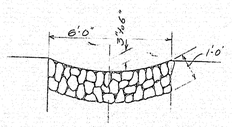
40 0 40 80 120



PROFILE

Scale: feet, Horiz. & Vert.

40 0 40 80 120



GROUTED RIPRAP GUTTER

(To be installed in front of Abut. 2; refer to General Note No. 8)

SPECIFICATIONS

DESIGN - AASHO standard specifications for Highway Bridges 1969 and interim specifications 1970, 1971 & 1972.

CONTRACT - State of Maine, State Highway Commission, Standard Specifications, Highways & Bridges, Revision of June 1968.

DESIGN LOADING

LIVE LOAD - HS20-44

MATERIALS

CONCRETE - Seals - - - - Class S
All other - - Class A

REINFORCING STEEL - ASTM A615 Grade 60

STRUCTURAL STEEL - ASTM A572 Grade 50 & A36 as shown

BASIC ALLOWABLE STRESSES

CONCRETE - f_c = 1200 psi. n = 10

REINFORCING STEEL - f_s = 24,000 psi.

STRUCTURAL STEEL - ASTM A572 Gr.50 - f_s = 27,000 psi.
ASTM A36 f_s = 20,000 psi.
ASTM A325 F_v = 13,000 psi.

GENERAL NOTES

1. All utility plant shall be adjusted by respective utility unless otherwise noted.
2. Refer to highway plans for Construction limits, Right of Way and additional utility plant details.
3. Bituminous treated stone slope protection shall be placed in front of Abut. #2. The exact limits and elevations will be determined in the field by the Engineer.
4. A layer of granular borrow 2'-0" thick shall be placed under the slope protection, except if in the opinion of the Engineer the existing embankment material is suitable.
5. The material used to construct embankments in areas where piles are to be driven shall meet the requirements of sub-section 501.07 of the Standard Specifications.
6. Where granular borrow is required, the material shall meet the requirements for Underwater Backfill given in sub-section 703.19 of the Standard Specifications.
7. A strip of sod 4'-0" wide shall be placed behind abut. #2 wings as shown. The center of the strip shall be recessed 3 to 6 inches to form a gutter. Two inches of loam shall be placed under the sod.
8. A grouted riprap gutter shall be constructed under bridge drains at abut. 2 & shall extend to Elev. 8.

INDEX OF BRIDGE PLANS

REFERENCES

Highway Plans
Bridge Standards
- BD 100-71
- BD 104-71
- BD 105-64
- BD 113-72
- BD 115-73
- BD 116-73

Soils Survey
- Foundation Survey
- Boring Details

Prod. Design Engineer - J. Chandler

PLANS	BY	DATE
DESIGN - DETAILED	F.E.K.	1-19-73
CHECKED	G.D.T.	1/19/73
QUANTITIES		
FIELD CHANGES		

JANUARY 1968

MICROFILMED ON HIGHWAY Reel 185

Project Design Engineer : J. Chandler

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT WISCASSET
LINCOLN COUNTY
GENERAL PLAN
SHEET 1 OF 25 AUGUSTA, MAINE APRIL 1973

203-1 2080

153-119

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	15	105

ESTIMATED BRIDGE QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.25	Granular Borrow	1300	Cu.Yd.
206.08	Structural Earth Excavation, Abuts. & Ret. Walls	10	Cu.Yd.
206.09	Structural Rock Excavation, Abuts. & Ret. Walls	120	Cu.Yd.
206.10	Structural Earth Excavation, Piers	355	Cu.Yd.
206.11	Structural Rock Excavation, Piers	50	Cu.Yd.
403.08	Hot Bituminous Pavement, Grading C	234	Tons
501.216	Steel H-Beam Piles, 79 lb./Ft.	840	L.F.
502.21	Structural Concrete, Abuts. & Retaining Walls	560	Cu.Yd.
502.23	Structural Concrete, Piers	638	Cu.Yd.
502.24	Structural Concrete, Piers (placed under water)	1017	Cu.Yd.
502.26	Structural Concrete, Rdwy. & Sdwk. Slabs on Steel Bridges	1	L.S.
502.31	Structural Concrete, Approach Slabs	1	L.S.
503.12	Reinforcing Steel, Fab. & Delivered	240,000	Lb.
503.13	Reinforcing Steel, Placing	240,000	Lb.
504.70	Structural Steel, Fab. & Delivered	1	L.S.
504.71	Structural Steel, Erection	1	L.S.
505.08	Shear Connectors	1	L.S.
506.14	Field Painting, Structural Steel	1	L.S.
507.142	Aluminum Bridge Railing, Type B	702	L.F.
507.143	Aluminum Bridge Railing, Type C	709	L.F.
508.10	Membrane Waterproofing	2106	S.Y.
511.0701	Cofferdam, Pier 1	1	L.S.
511.0702	Cofferdam, Pier 2	1	L.S.
512.07	French Drains (Stones only)	20	Cu.Yd.
513.10	Slope Protection, Bituminous Treated Stone	430	Sq.Yd.
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective Coating for Concrete Surfaces	2000	Sq.Yd.
525.06	Granite Masonry	1620	S.F.
609.13	Vertical Bridge Curb, Type 1	711	L.F.
609.17	Sloped Bridge Curb, Type 1	676	L.F.
610.09	Hand Laid Riprap	40	Cu.Yd.
610.12	Portland Cement for Riprap Grout	16	Barrel
616.08	Sodding	90	S.Y.
634.176	Bituminous Fibre Junction Box	3	Each
634.184	2" Steel Conduit Exposed or In Trench	50	L.F.
634.191	2" Non-Metallic Conduit	350	L.F.
638.02	Navigation Lights	1	L.S.

ESTIMATED QUANTITIES FOR LUMP SUM ITEMS

502.26	Structural Concrete, Rdwy. & Sdwk. Slab on Steel Bridge (including all end post concrete)	902
502.31	Structural Concrete, Approach Slabs.	20
504.70 & 71	Structural Steel	1,467,500
505.08	Shear Connectors	3650

PLANS

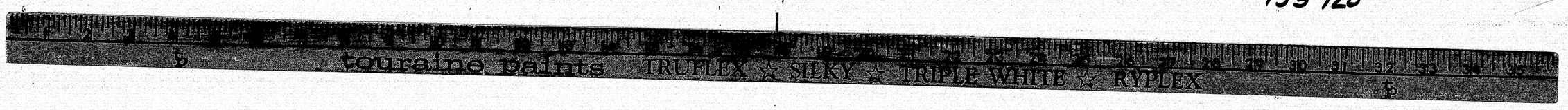
	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

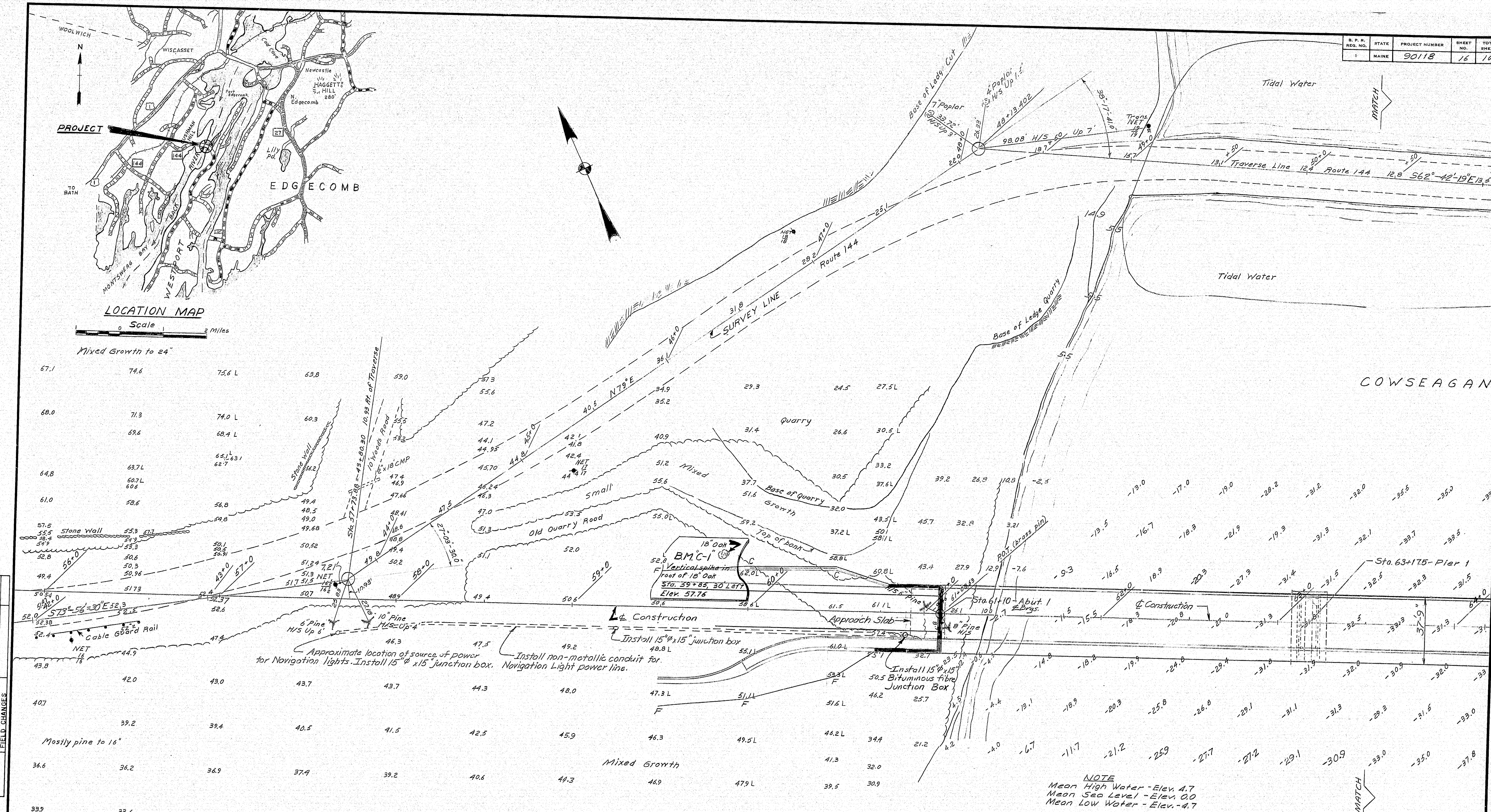
JANUARY 1968

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
ESTIMATED BRIDGE QUANTITIES
SHEET 2 OF 25 AUGUSTA, MAINE APRIL 1973

203-1 2080

153-120





PLAN

Scale of Feet

SPECIFICATIONS

Design:
AASHO. Standard Specifications for Highway Bridges 1969 & Interim Specifications 1970, 1971 & 1972
Contract:
State of Maine, State Highway Commission, Standard Specifications, Highways & Bridges, Revision of June, 1968

LOADING

HS20-44

HYDROLOGY DATA

Drainage Area: Tidewater

TRAFFIC DATA

1972 AADT = 550
1992 AADT = 854

NOTE

Coast Guard Permit Required

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	16	105

PLANS		BY	DATE
Preliminary		R.C.B.	6-9-72
Plotted		C.F.H.	5-10-72
DESIGN - DETAILED			
CHECKED		G.O.T.	4/13/72
REVISIONS			
FIELD CHANGES			

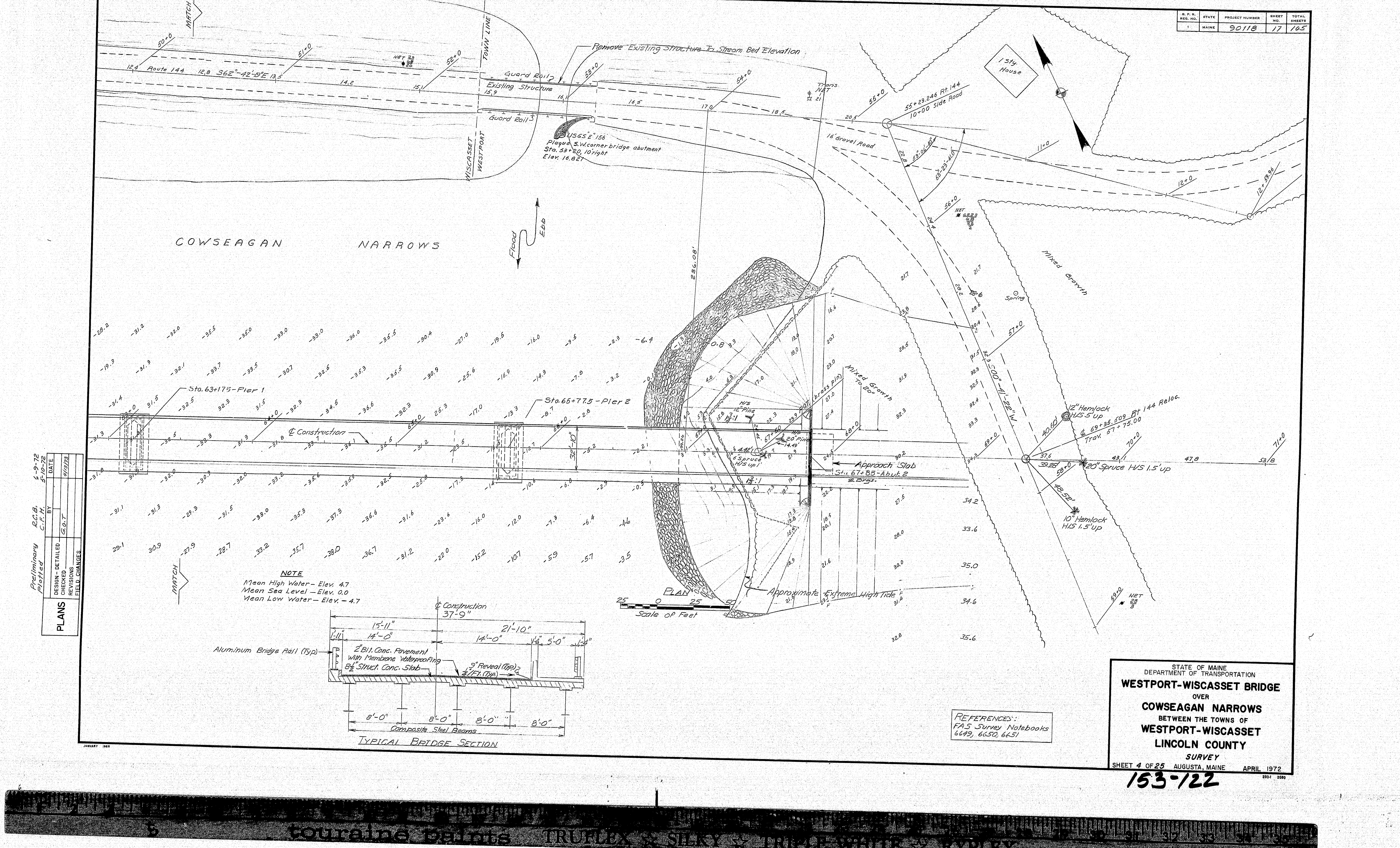
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY

SURVEY

SHEET 3 OF 25 AUGUSTA, MAINE APRIL 1972

153-121



F.A.P. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	17	105

MATCH
TOWN LINE
Route 144
S62°-42'-18"E
Remove Existing Structure To Stream Bed Elevation
Guard Rail
Existing Structure
Guard Rail
WISCASSET
WESTPORT
USGS E 156
Plaque S.W. corner bridge abutment
Sta. 53+20, 10' right
Elev. 16.821
1 Sty. House
55+23.246 Rt. 144
10+00 Side Road
16' Gravel Road
COWSEAGAN NARROWS
Flood
Ebb
Mixed Growth
Spring
Sta. 63+17.5 - Pier 1
Sta. 65+77.5 - Pier 2
℄ Construction
Mixed Growth To 20'
Approach Slab
Sta. 67+85 - Abut. 2
12" Hemlock H/S 5' up
℄ 69+35.509 Rt. 144 Reloc.
Trav. 57+75.00
20" Spruce H/S 1.5' up
10" Hemlock H/S 1.5' up
NOTE
Mean High Water - Elev. 4.7
Mean Sea Level - Elev. 0.0
Mean Low Water - Elev. -4.7
PLAN
Scale of Feet
Approximate Extreme High Tide
℄ Construction
37'-9"
15'-11"
21'-10"
14'-0"
14'-0"
5'-0"
Aluminum Bridge Rail (Typ)
2" Bit. Conc. Pavement with Membrane Waterproofing
8½" Struct. Conc. Slab
9" Reveal (Typ)
8'-0"
8'-0"
8'-0"
8'-0"
Composite Steel Beams
TYPICAL BRIDGE SECTION
Preliminary R.C.B. 6-9-72
Plotted C.F.H. 5-10-72
PLANS
DESIGN-DETAILED
CHECKED G.O.T. 9/13/72
REVISIONS
FIELD CHANGES
REFERENCES:
FAS Survey Notebooks
6649, 6650, 6651
JANUARY 1969

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
SURVEY

SHEET 4 OF 25 AUGUSTA, MAINE APRIL 1972

153-122

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	18	105

PROFILE

PLANS	BY	DATE
DESIGN - DETAILED		
CHECKED	G.O.T	4/13/73
REVISIONS		
FIELD CHANGES		

Preliminary R.C.B. 6-9-72
Plotted C.F.H. 5-10-72

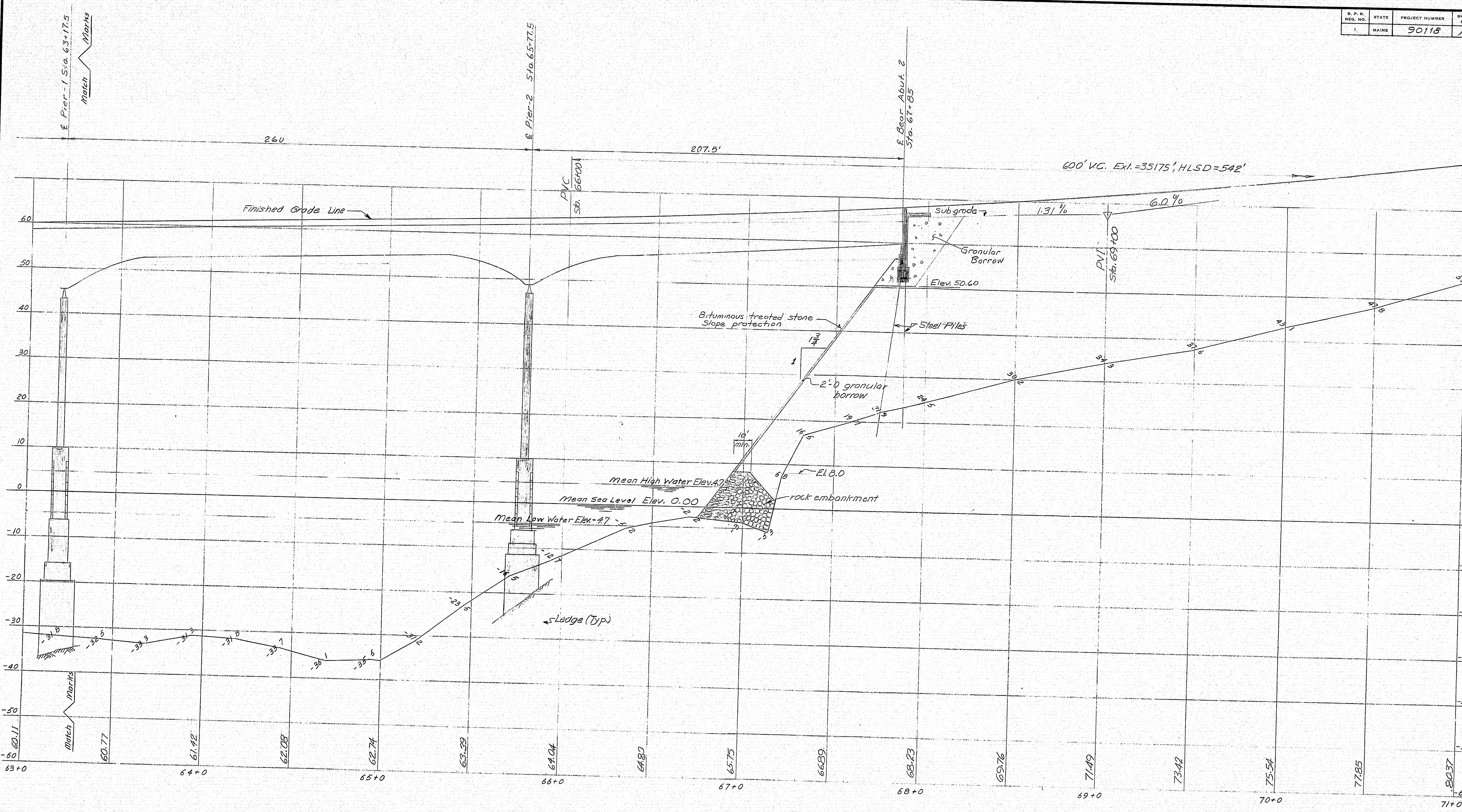
JANUARY 1968

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
PROFILE
SHEET 5 OF 25 AUGUSTA, MAINE APRIL 1972

153-123

203-1 2080

S.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	19	105



PROFILE

PLANS		BY	DATE
Preliminary		K.G.B.	6-9-72
Plotted		C.R.H.	5-10-72
	DESIGN-DETAILED	S.O.T.	4/15/72
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

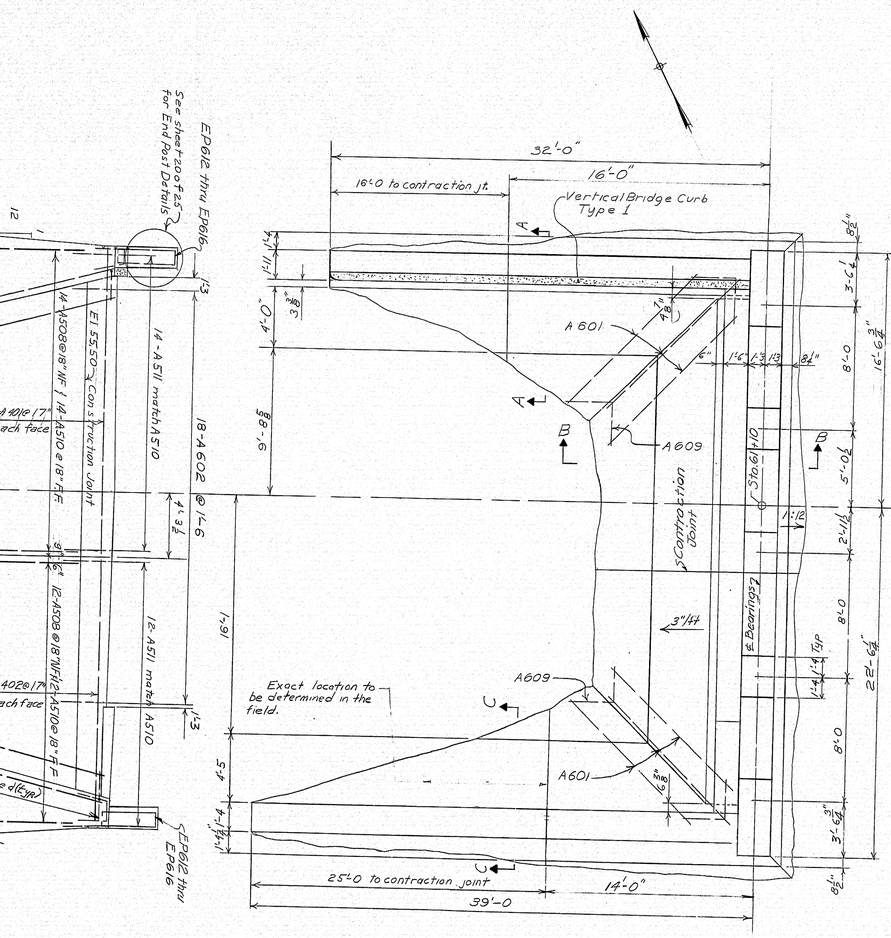
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

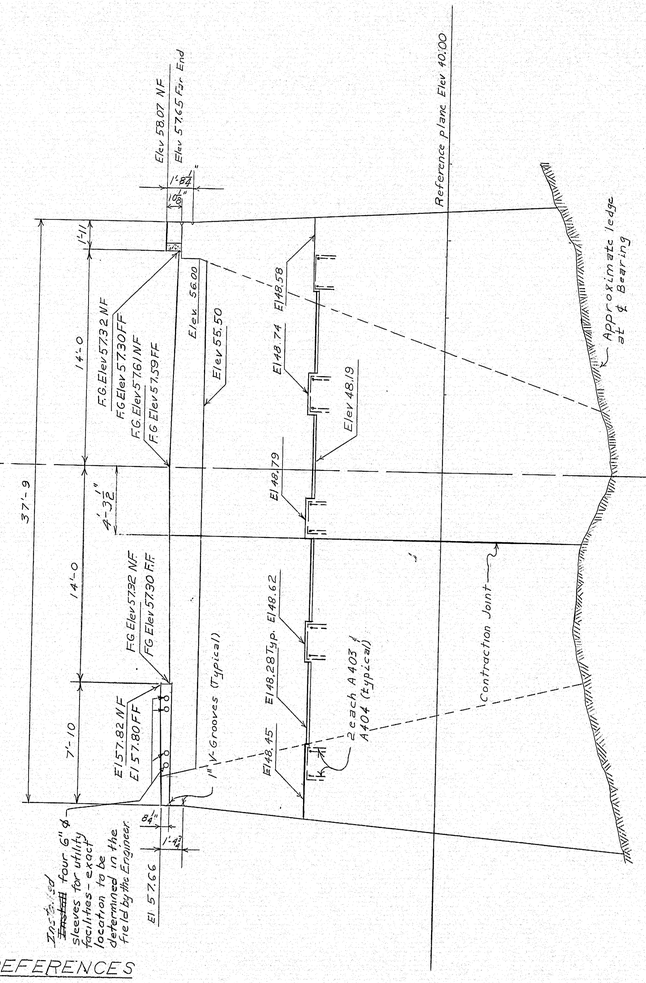
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
PROFILE

SHEET 6 OF 25 AUGUSTA, MAINE APRIL 1972

153-124

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	20	105

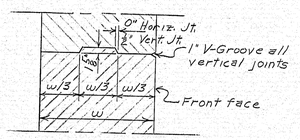




REAR ELEVATION

PLAN

FRONT ELEVATION



CONSTRUCTION ℄ CONTRACTION JOINT DETAIL

REFERENCES

For Abutment Notes see sheet 8 of 25

For Sections see sheet 8 of 25

For End Posts see sheet 20 of 25

For Bridge Curb Detail see sheet 20 of 25

For Bridge Rail see Standard Detail BD115-73 and sheet 20 of 25

For Armored Joint see Standard Details 1 sheet 15 of 25

PLANS	BY	DATE
DESIGN - DETAILED	ZBC	Portland Dec '72
CHECKED	G.O.T.	4/1973
REVISIONS		
FIELD CHANGES		

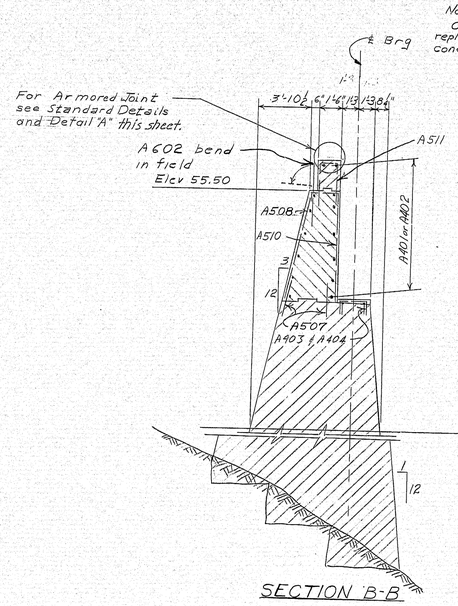
Revised as built Arnold A. Castner 3/20/75

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
ABUTMENT 1
SHEET 7 OF 25 AUGUSTA, MAINE APRIL 1973

JANUARY 1968

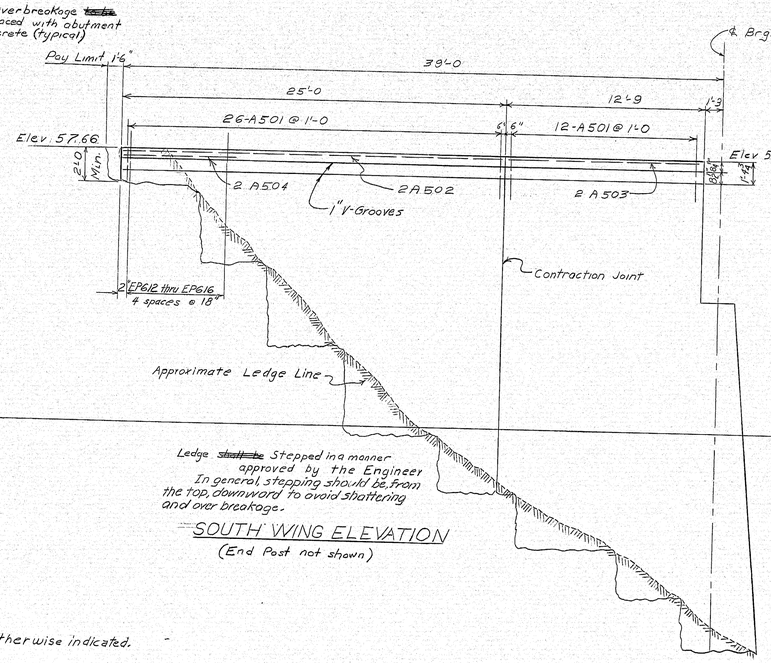
153-125

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	21	105

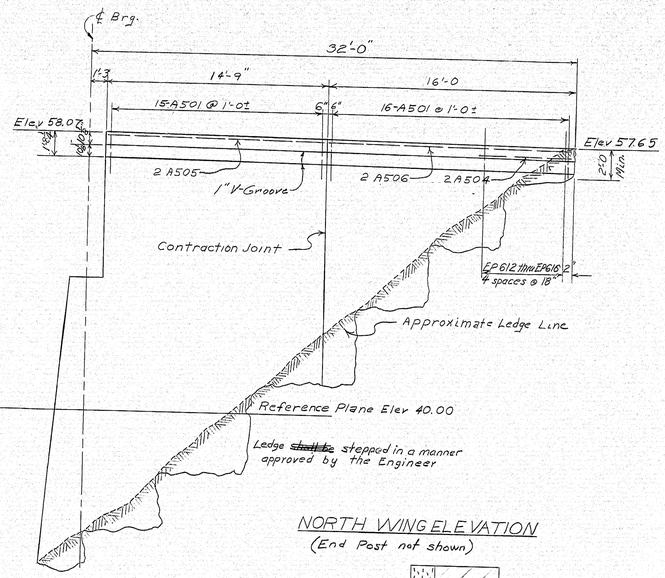


SECTION B-B
ABUTMENT NOTES

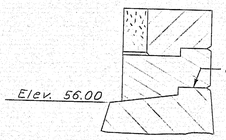
Note
Overbreakage ~~to be~~ replaced with abutment concrete (typical)



SOUTH WING ELEVATION
(End Post not shown)

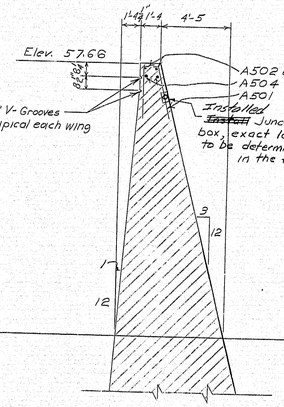


NORTH WING ELEVATION
(End Post not shown)

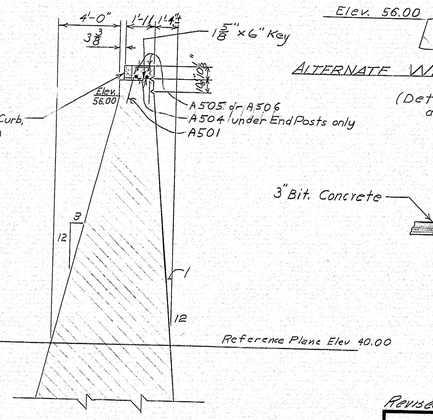


ALTERNATE WING CONSTRUCTION DETAIL
(Details except as shown same as in Section A-A)

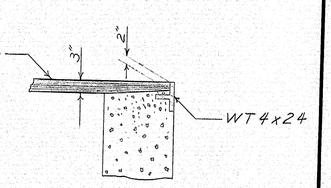
1. ~~Chamfered~~ all exposed edges of concrete ¾ inch unless otherwise indicated.
2. All reinforcing steel splices and embedments shall be a minimum of 24 bar diameters unless otherwise indicated. Tension splices approved during construction and not shown on plans shall have a 36 bar diameter lapped length.
3. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
4. Place reinforcing steel in bridge seats to clear anchor bolts.
5. ~~Broke~~ bond at vertical contraction joints by a method approved by the Engineer.
6. Place concrete in top of abutment backwalls after the superstructure slab ~~has been~~ was placed.
7. Waterstops are not required in vertical and horizontal joints.
8. Protective Coating for Concrete Surfaces ~~shall be~~ applied to the following areas: all exposed surfaces of wing walls, and Abutment 2 Backwall and breastwall.
9. All structural earth excavation required at abutment #1 in order to reach the ledge foundation ~~will be~~ was paid for at 100% of the contract unit price for Item 206.08.
10. Placed 4 inch diameter drains in breastwall and wings at 20 ft maximum spacing and at all low points in ledge. Exact number and location ~~to be~~ determined by Engineer in the field. French Drain (stones only) ~~shall be~~ constructed according to Section 512.
11. Provided joints in the Vertical Bridge Curb, Type I at each contraction joint in the wing walls.



SECT C-C



SECT A-A



DETAIL "A"

Revised As Built [illegible] 3/20/75

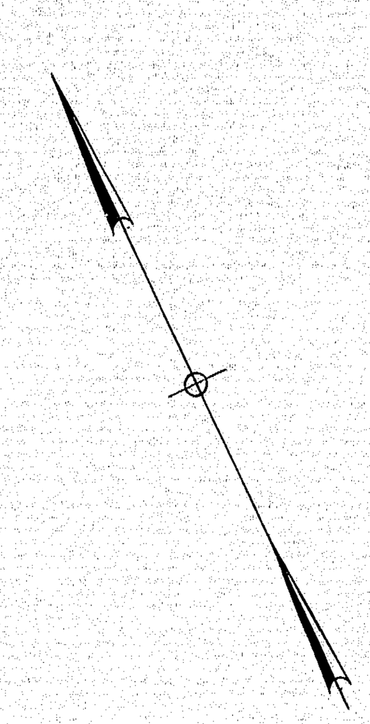
PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED	EBC	Dec. '72
	REVISIONS	G.O.T.	11/73
	FIELD CHANGES		

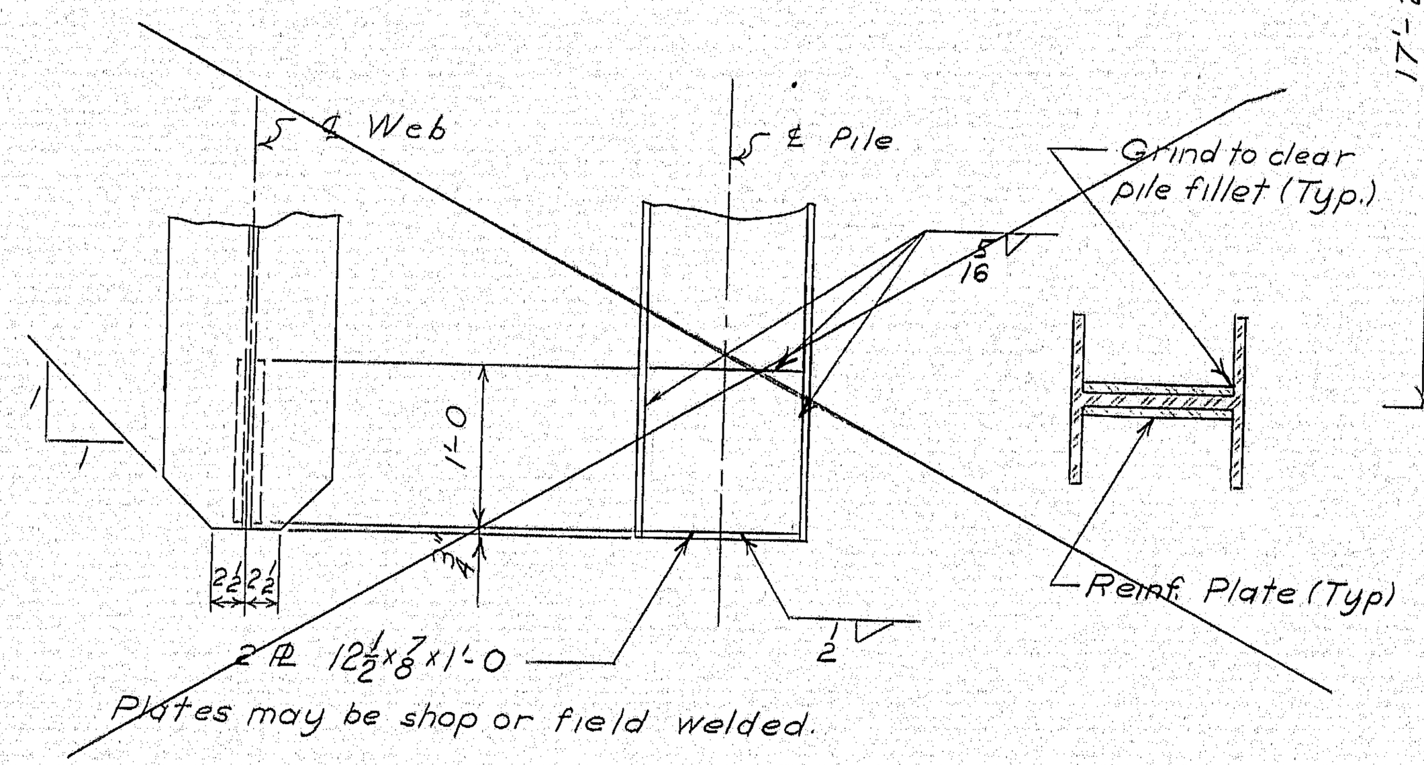
JANUARY 1968

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
ABUTMENT 1 - WINGS
SHEET 8 OF 25 AUGUSTA, MAINE APRIL 1973

153-126

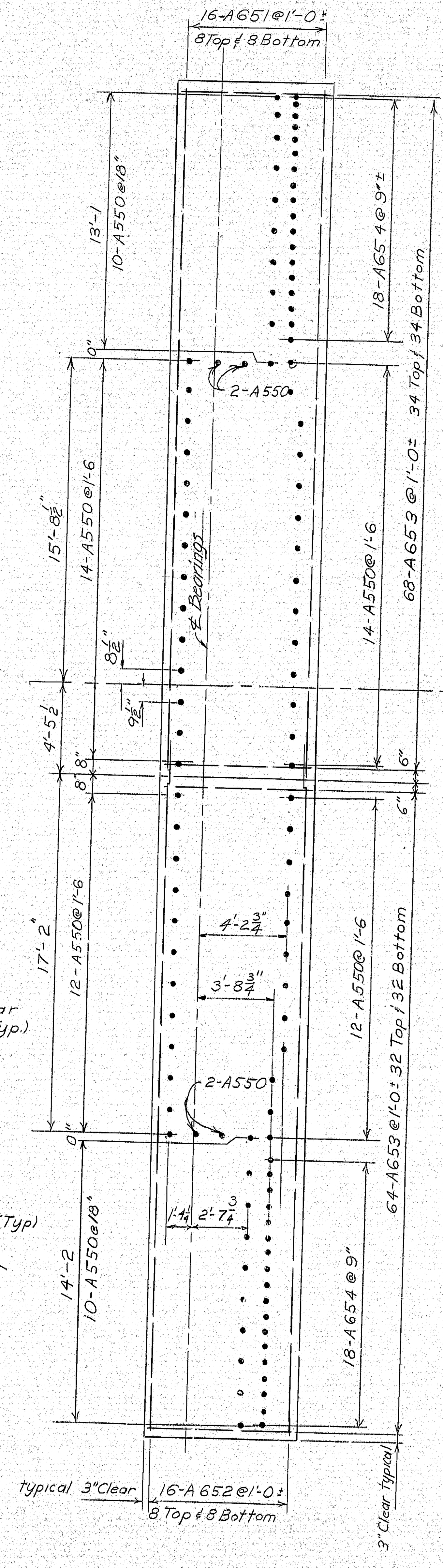
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011 B	22	105



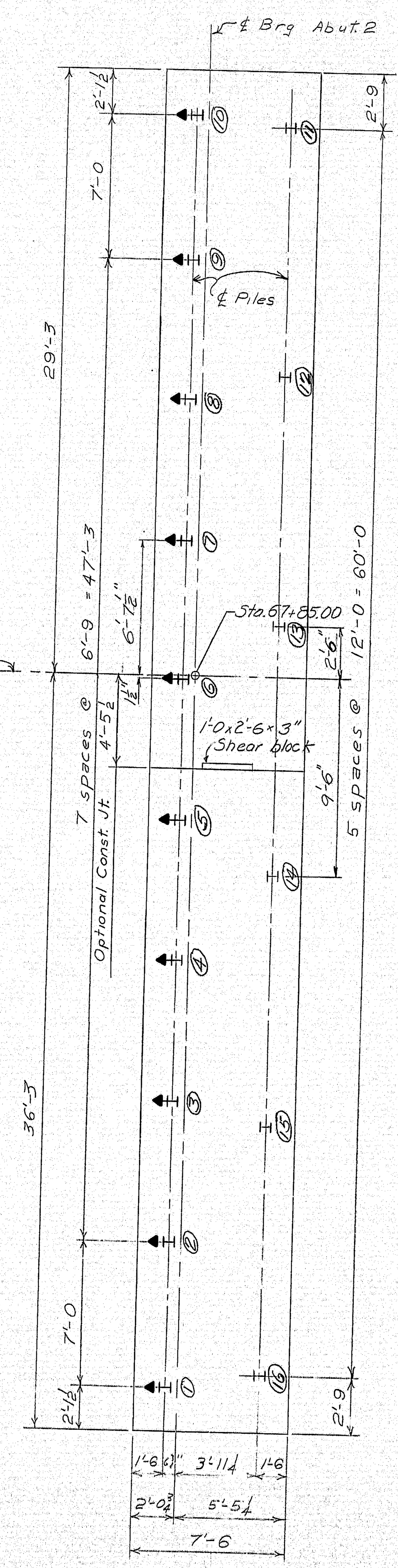


POINTED REINFORCED PILE TIP

Used Pile Point



REINFORCING PLAN



FOOTING & PILE PLAN

PILE NOTES

1. Piles ~~shall be~~ driven to ledge or practical refusal.
2. All piles shall have pointed reinforced tips.
3. (used) Alternate types of pointed reinforced pile tips may be used if they are approved by the Engineer.
4. Estimated driven lengths of piles are determined from available soils information with no allowance for pile cut-offs and no allowance for uncertain pile penetration.
5. Piles marked thus, ⊢+, ~~shall be~~ were battered 1 1/2 inches per foot in the direction of the arrow.
6. Maximum pile load equals: 96 tons.
7. Following are pile locations, number of piles required, size of piles and estimated driven lengths:
   Abutment No. 2 8-HP14x73 @ 50 ft
   8-HP14x73 @ 55 ft

PLANS		BY	DATE
	DESIGN-DETAILED	MMG Pinkham	Dec '72
	CHECKED	G.O.T.	4/18/73
	REVISIONS		
	FIELD CHANGES		

Revised As Built A.R. 3/20/75

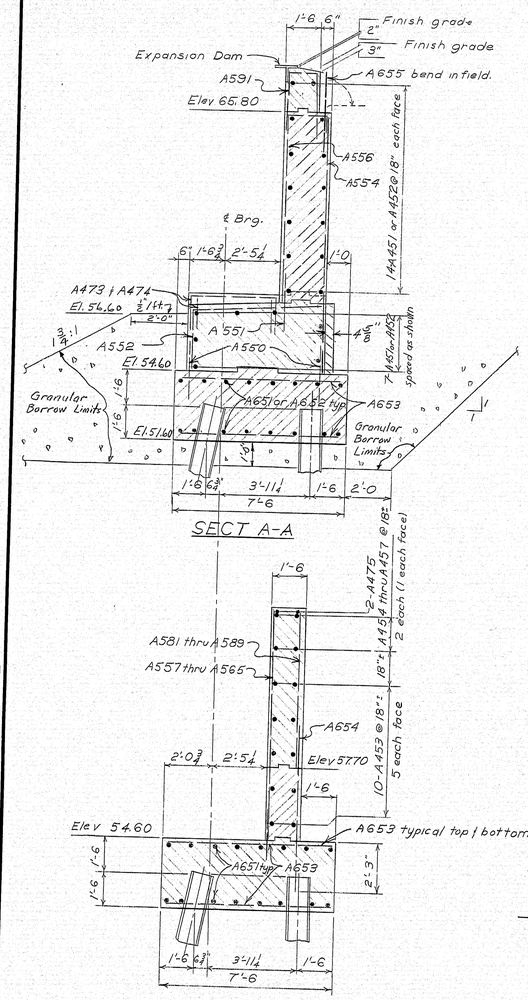
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
ABUTMENT 2 FOOTING

SHEET 9 OF 25 AUGUSTA, MAINE APRIL 1973

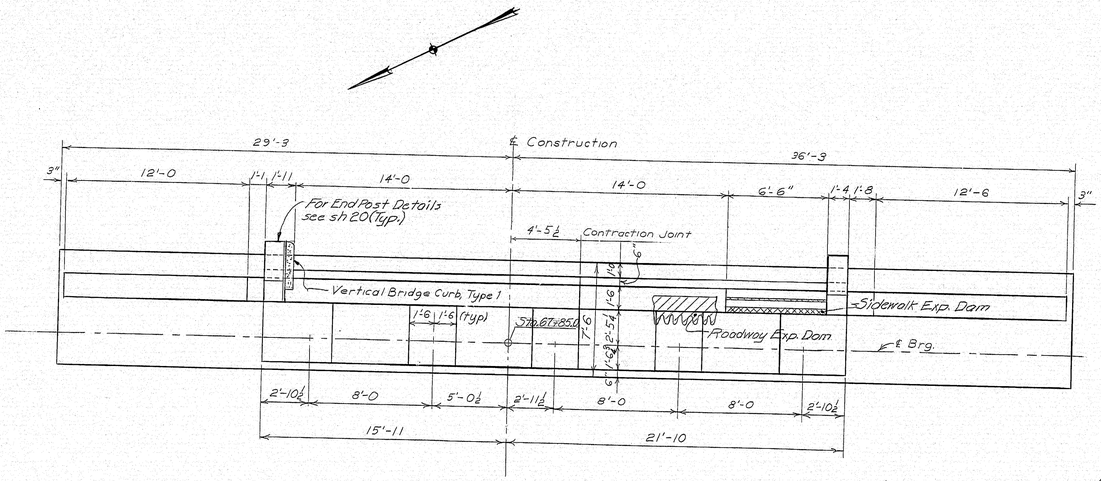
153-127

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	23	105

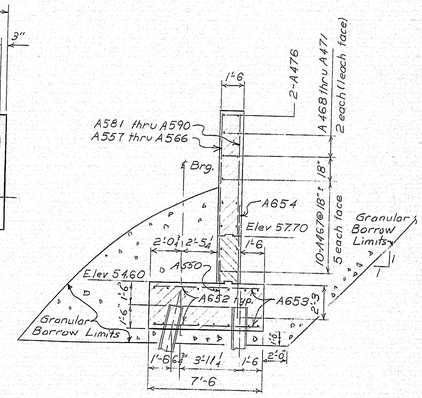


SECT A-A

SECT B-B



PLAN



SECT C-C

ELEVATION

Installed four 6" ø sleeves for utility facilities - exact location to be determined in the field by the Engineer.

REFERENCES

For Abutment Notes see sheet 8 of 25

For End Posts see sheet 20 of 25

For Bridge Curb Details see sheet 20 of 25

For Expansion Dams see Standard Detail BD 105-64 I sheet 20 of 25

For Construction and Contraction Joint Details see sheet 7 of 25

LEGEND

N.F. = Near Face
F.F. = Far Face
El. = Elevation
F.G. = Finished Grade

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

JANUARY 1968

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
ABUTMENT 2
SHEET 10 OF 25 AUGUSTA, MAINE APRIL 1973

153-128

F.H.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011B	24	105

PLANS

	BY	DATE
DESIGN - DETAILED	MMC MMC	11/72
CHECKED	CDH	1-2-73
REVISIONS		
FIELD CHANGES		

PLAN

SECTION C-C
(Anchor rod shown, see sheet #12)
Note: Auxiliary ties P506 shown hooked around longitudinal ties P501.

SECTION D-D

SECTION F-F

ELEVATION

SECTION A-A

SECTION B-B

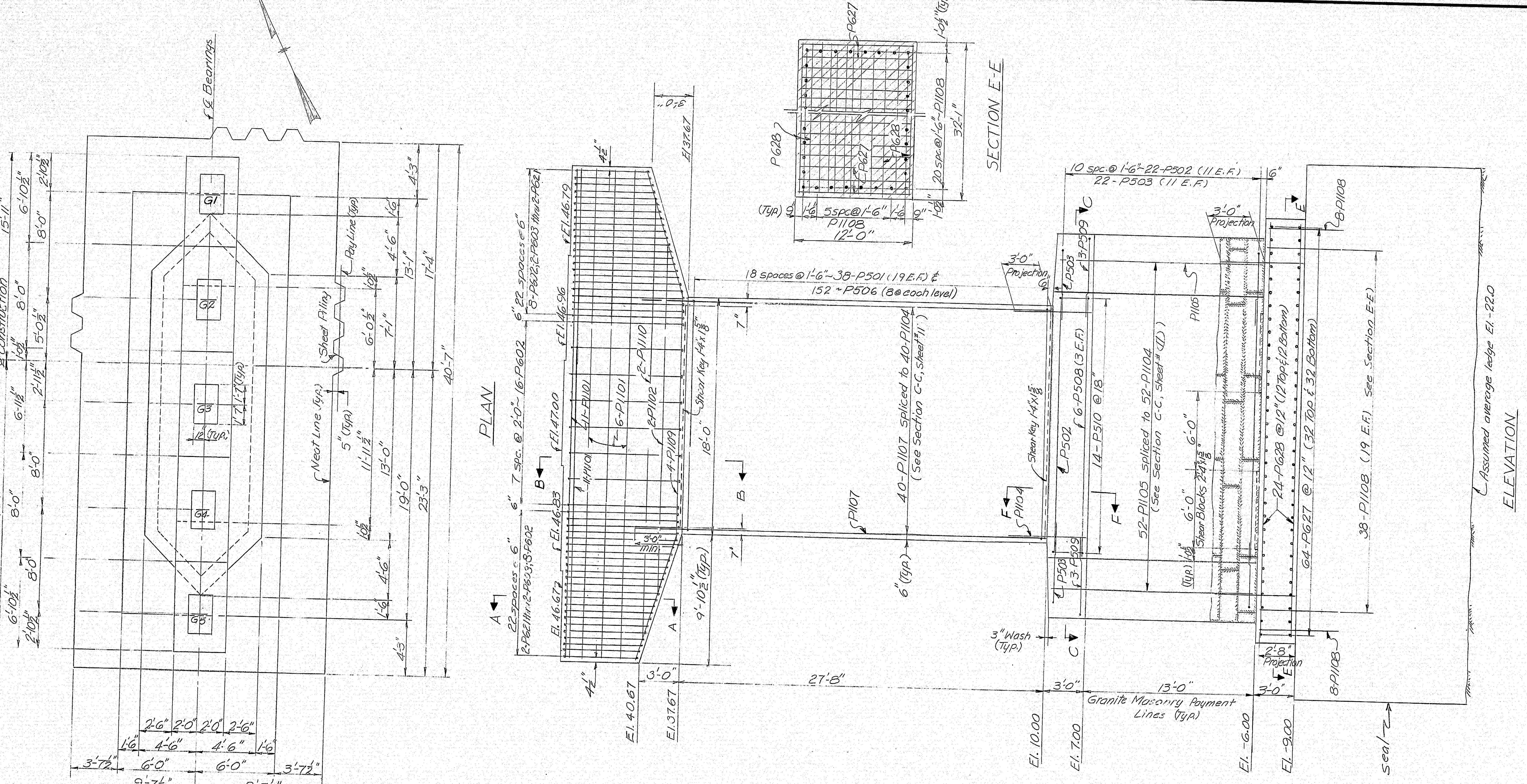
NOTES
1. For general pier notes, see sheet #12 of 25 Pier #2
2. For anchor details, see sheet #12 of 25
3. For bearing pedestal details, see sheet #16 of 25

Revised As Built AR. 3/20/75

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
PIER 1
SHEET 11 OF 25 AUGUSTA, MAINE MARCH 1973

153-129

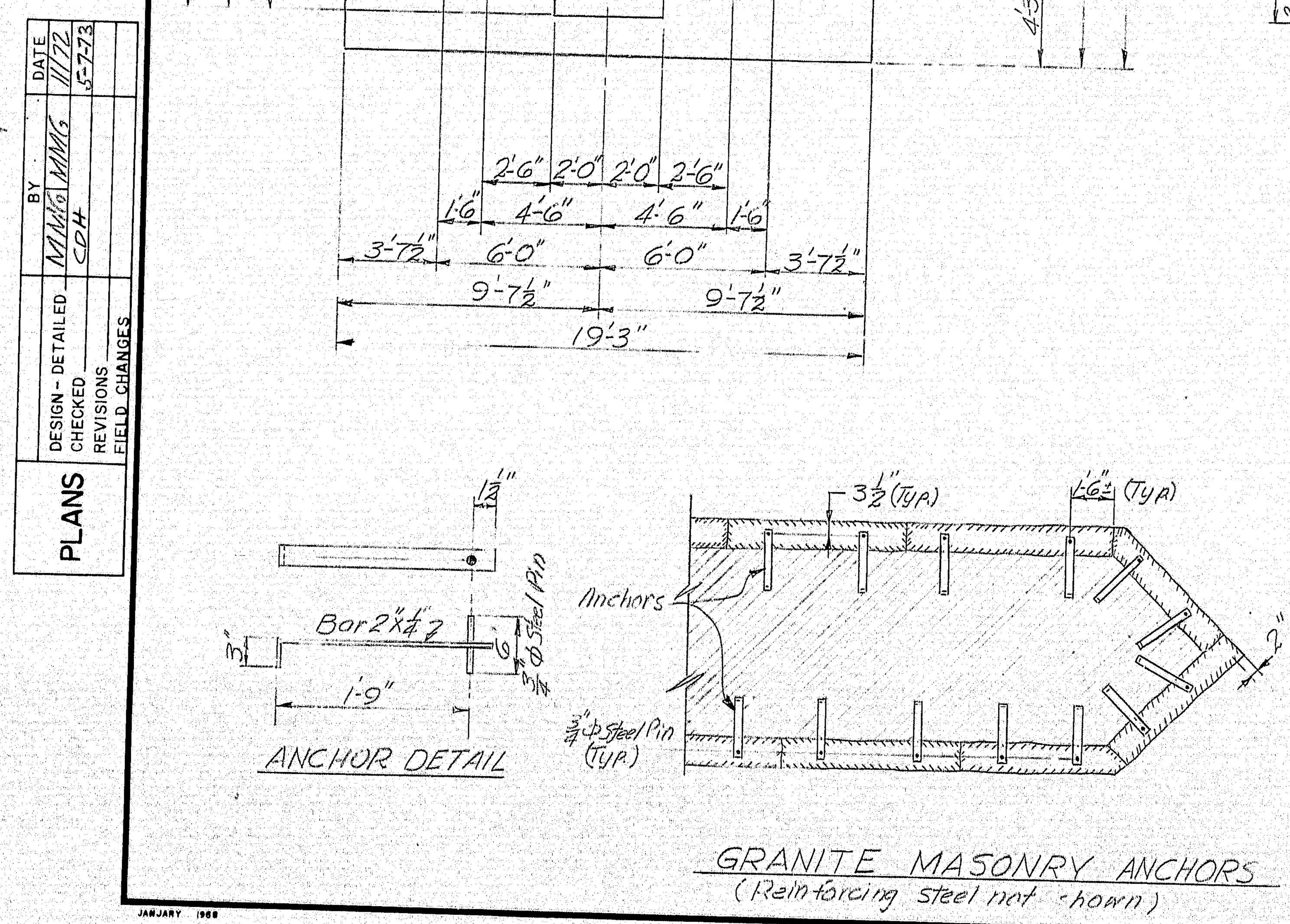
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	25	105



* Note:
Ledge shall be excavated in the area where seal are to be placed such that the average slope of the ledge will be not more than 4 feet vertical to 20 feet horizontal. Measurement and payment will be according to section 206 of the Standard Specifications except the depth measured for payment shall not extend below a horizontal plane thru the lowest point of existing ledge inside the neat lines of the seal. Typical for both piers.

It was not necessary to excavate any ledge. ARC

* Added March 22, 1973



GENERAL PIER NOTES

1- ~~Chamfer~~ chamfered all exposed edges of concrete ½ inch unless otherwise indicated

2- Reinforcing steel shall have 2 inches minimum cover above elev 10.0 and 4" min cover below elev 10.0

3- Place reinforcing steel in bridge seats to clear anchor bolts.

4- All reinforcing steel splices and embedments shall be a minimum of 36 bar diameters unless otherwise indicated.

5- The method of placing dowels in the concrete seal shall be approved by the Engineer.

6- Maximum calculated footing pressure = 6.2 Tons per square foot.

7- Seal concrete dimensions are predicated on use of MP-116, DP-2, I-27 or equivalent steel sheet piling with appropriate standard rolled corners. Pay dimensions for seal concrete shall be to the neat lines shown plus five inches all around.

8- The top of seal elevations have been set assuming a pumped head from El. 6.0 to the top of the seal and considering only the buoyant weight of the concrete seal. If the average ledge elevation is above than -33.0 at Pier #1 & -21.0 at Pier #2, the seal depth must be re-designed. The cofferdoms ~~shall be~~ were vented at El. 6.0.

9- Provide a minimum of two anchors per stone in Granite Masonry. Payment for anchors will be considered incidental to Item 525.06. Adjust granite masonry anchors to clear shaft reinforcing steel, where necessary.

10- Intermediate concrete construction joints ~~shall be~~ were at least 6" from horizontal granite joints and shear blocks ~~shall be~~ were provided.

DESIGN CRITERIA

Critical AASHO Loading ------ Group IX
Buoyancy ------ Water Level assumed at El. 4.7
Stream Flow ----- Velocity of 4 Ft. per second skewed at 10° to longitudinal axis of pier.
Wind --------- 41 psf Transverse; 12 psf Longitudinal.
Ice ----------- 6 Inches thick, producing 200 psi. Ice skewed at 10° to longitudinal center line of pier, with water Elev. at 4.7.

REFERENCES

1- For bearing pedestal details, see sheet # 16
2- For Sections A-A, B-B & C-C, see Sheet # 11 Pier #1
3- For Section F-F see sheet # 11 Pier #1

Revised As Built ARC 3/20/75

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
PIER 2

SHEET 12 OF 25 AUGUSTA, MAINE MARCH 1973

203-1 2080

153-130

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011B	26	105

℄ Bearings Abutment No. 1 ~ 5 FPD-2 ~ Fixed Bearings
℄ Abutment No. 2 ~ 5 EPE-10 ~ Expansion Bearings

℄ Pier No. 1 or Pier No. 2 ~ EPE-16 ~ Modified (5 req. Pier) Expansion Bearings

℄ Bearings Abutment No. 1 to ℄ Bearings Abutment No. 2 675'-0"

Span No. 1 or Span No. 3 207'-6"

Span No. 2 260'-0"

Symmetrical about ℄ Structure

Splice Spacings: 153'-6" | 54'-0" | 67'-6" | 62'-6" | 22'-6"

Cross Frame Connection Bars, ½x7: 6 spaces @ 25'-0" = 150'-0" | 3 spaces @ 19-2" = 57'-6" | 3 spaces @ 19-2" = 57'-6" | 2 spaces @ 25'-0" = 50'-0"

℄ Optional Splice See sh° 19 △ 31'-7½"

℄ Splice #1 | ℄ Optional Splice 30'± | ℄ Splice #2

Girder No. 1 | Girder No. 2 | Girder No. 3 | Girder No. 4 | Girder No. 5

4 spaces @ 8'-0" = 32'-0"

Cross Frames @ Abut. Type D 2'-11½"

Cross Frames Type L | Cross Frames @ Slab Joint Type D | Cross Frames Type N | Cross Frames @ Pier Type N | Cross Frames @ Slab Joint Type D

Longitudinal Stiffener

See Detail D Sh. 14 | See Detail E Sh. 14 | See Detail B Sh. 14 | Lateral Bracing (Typ.)

*See Note below | **See Note below | See Detail C Sh. 14

See Detail A Sh. 14

Abutment No. 1 Armored Joint
Abutment No. 2 Expansion Dam

STUD DETAIL

*Note:
Connection plates for lateral bracing may be welded to the girder in the field at the contractors option, where lateral bracing interferes with the installation of bottom flange splice bolts.

**Note:
Longitudinal stiffeners may be discontinuous at crossframes on interior girders.

FRAMING PLAN
Dimensions are Horizontal

point of max. positive moment

℄ Brg. Abut. No. 1 | ℄ Pier No. 1 | ℄ Pier No. 2 | ℄ Brg. Abut. No. 2

72' | 55.5' 62' | 36' 36' | 62' 55.5' | 72'

126' | 81.5' | 92' | 76' | 92' | 81.5' | 126'

BEAM STRESS DIAGRAM

NOTE
▭ = Areas of the beam which will always be in compression. All other areas will be in tension or are areas which have stress reversals.

℄ Bearings Abutments | Optional Splice (see note 10 sheet 18) | △ 30'-7½" | ℄ Splice #1 | ℄ Bearings Piers | Optional Splice (see note 10 sheet 6) | 30'± | ℄ Splice #2 | Symmetrical about ℄ Structure

Flange Plates: 30'-0" | 123'-6" | 54'-0" | 67'-6" | 30'± | 62'-6"

Shear Connector Spacings (Double Studs): 2) spaces @ 1'-6" = 3'0" | 41 spaces @ 2'-0" = 82' | 25 spaces @ 1'-6" = 37'6" | 1'-0" | 24 spaces @ 2'-0" = 48'-0" | 6'-6" | 30 spaces @ 2'-0" = 60'-0" | 6'-6" | 18 spc. @ 1'-0" = 18'-0" | 21 spc. @ 2' = 42'-0"

No Studs 4'-0" | 3'-0" | 3'-0" No Studs | 3'-6" | 4'-0" No Studs | 2'-6"

Ends to be cut plumb (Typ.) | 9" | ℄ 14 x 1⅛ A36 or A572 | Butt weld (optional) | Top Flange ℄ | 1⅛ x 14 A572 Gr. 50 | Connection Bars ½x7 | ½ x 24 A572 Gr. 50 | ⅝ Web ℄ A36 | 7⁄8 x 14 A36 | ⅝ Web ℄ A36

Typ. | Bottom Flange ℄ | Butt weld (optional) | 1⅛ x 24 A572 Gr. 50 | See splice detail Sh. ℄ 14 | Stop longit. stiff. here | Point tight fit | 1⅛ x 24 A572 Gr. 50 | 1⅛ x 22 A36 | See splice detail Sh. ℄ 14

Bearing Stiffener at Abuts ~ 1x10 | ℄ 1½ x 24 A36 or A572 40'-0" | Intermediate Stiffener Spacing Bars ½x7 | 3'-0" 3'-3½" 4 spaces @ 6'-3" | 81'-3" | 6 spaces @ 6'-3 | 7'-0" 5'-9½" | 6 spaces @ 6'-4¾" | 6'-4¾" 6'-5" | 8 spaces @ 6'-4⅝" | 6 spaces @ 6'-3" | 35'-0"

GIRDER ELEVATION
(Girder 1 shown, Girders 2 thru 5 similar)
Dimensions are Horizontal
No. of shear connectors required = 3650
No. of shear connectors required each Girder = 730.

Symmetrical about ℄ Bearings Piers

90'-10" | 50'-0" Longitudinal Stiffener | 3¾"

6'-6" | 6'-0⅜" | 7'-2⅛" | 8'-1½" | 9'-4⅛" | 11'-0⅜" | 13'-0"

Longitudinal Stiffener ℄ ½ x 7

6 spaces @ 15'-0" = 90'-0"
90'-0" Haunch

See Detail "B" | See Detail "A" | 10"

HAUNCH DETAIL
(Splices not shown)

℄ Brg. Piers (Symmetrical about ℄ Piers)

10" | 2¾" | 12" Radius Typ. | ¼" | ¾" ℄ | Brg. Stiff. ℄ 1x10 | ⅝ | 5⁄16 | ⅜ | ℄ 1½ x 24

DETAIL "A"

℄ Web ℄ | Long. Stiff ½x7 | 7" | Point tight fit | ¼ | ¾" ℄ | 9⁄16" ℄ | 10 | ⅜ | ℄ 1½ x 24 | 24" | 1'-6"

DETAIL "B"

REFERENCES
1. For Fabrication Notes, see Sh. No. 15
2. Standard Details:
Bearing Pedestals ~ BD 100-71
Shear Connectors
Armored Joint } BD 104-71
Drains
Expansion Dams BD 105-64
Diaphragms & Crossframes BD 113-72 ℄ Sh. 14
3. For Bottom of Slab Elevations, see Sh. No. 17

△ Rev. optional splice location 4/73 J.C.

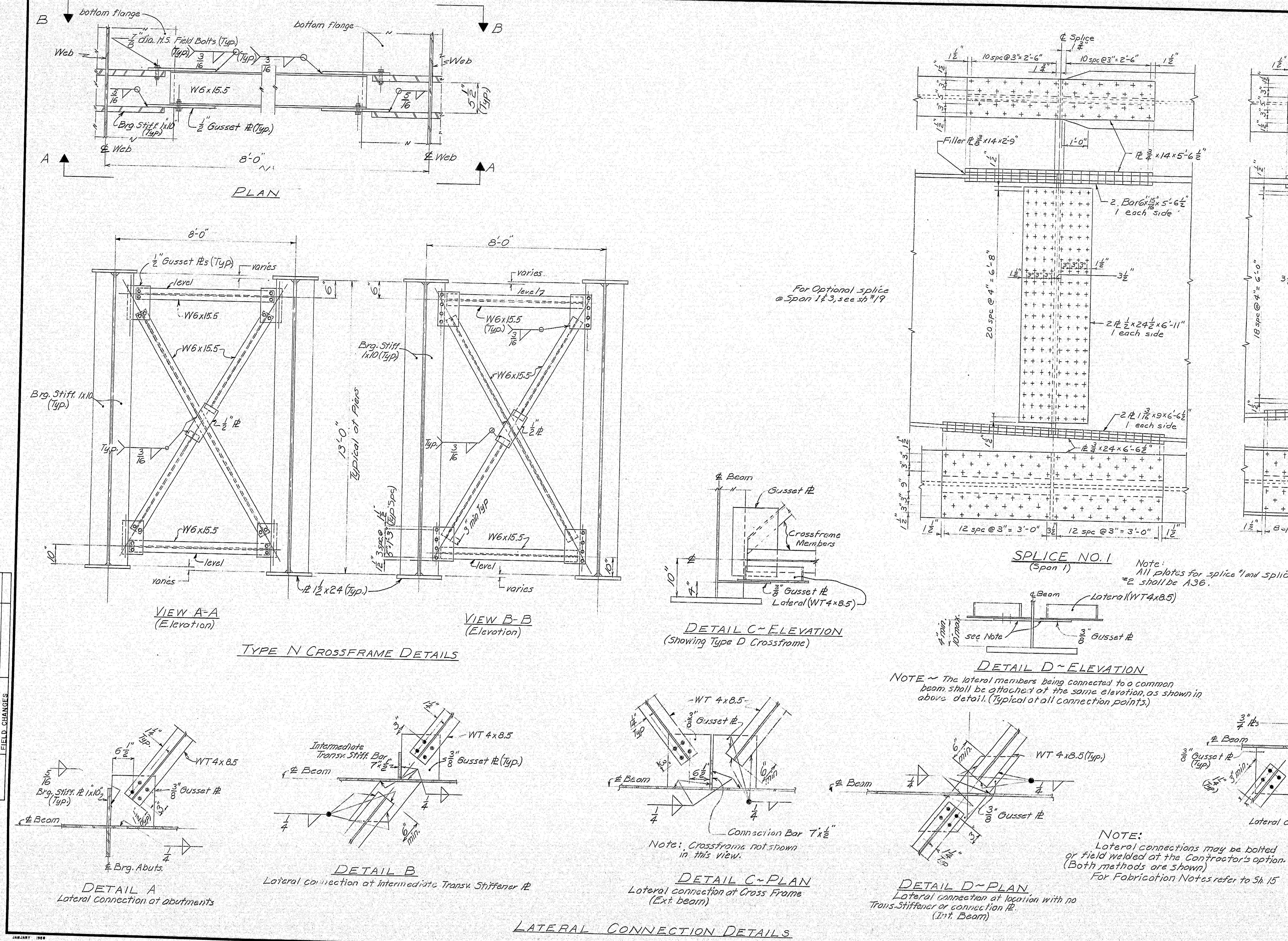
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
FRAMING PLAN
SHEET 13 OF 25 AUGUSTA, MAINE APRIL 1973

PLANS	BY	DATE
DESIGN ~ DETAILED	Chandler Paquette	Dec. 72
CHECKED	C.O.T.	Mar. 73
REVISIONS		
FIELD CHANGES		

JANUARY 1968

153-131

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011(8)	27	105



PLAN
VIEW A-A
(Elevation)
VIEW B-B
(Elevation)
TYPE N CROSSFRAME DETAILS
For Optional splice @ Span 1 & 3, see sh #19
SPLICE NO. 1
(Span 1)
SPLICE NO. 2
(Span 2)
Note: All plates for splice #1 and splice #2 shall be A36.
DETAIL C~ELEVATION
(Showing Type D Crossframe)
DETAIL D~ELEVATION
NOTE ~ The lateral members being connected to a common beam shall be attached at the same elevation, as shown in above detail. (Typical at all connection points.)
DETAIL A
Lateral Connection at abutments
DETAIL B
Lateral connection at Intermediate Transv. Stiffener ℙ
DETAIL C~PLAN
Lateral connection at Cross Frame (Ext. beam)
Note: Crossframe not shown in this view.
DETAIL D~PLAN
Lateral connection at location with no Trans. Stiffener or connection ℙ. (Int. Beam)
DETAIL E
Lateral connection at Piers (Ext. Beam)
NOTE:
Lateral connections may be bolted or field welded at the Contractor's option. (Both methods are shown)
For Fabrication Notes refer to Sh. 15
LATERAL CONNECTION DETAILS

PLANS	BY	DATE
DESIGN - DETAILED	D. Bassett	
CHECKED	G.O.T.	
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
STEEL DETAILS
SHEET 14 OF 25 AUGUSTA, MAINE APRIL 1973

153-132

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	28	105

FABRICATION NOTES

1. No transverse butt weld splices will be allowed in the flange plates or web plates within 10 feet from the points of maximum negative moment at pier or maximum positive moment. (See sh# 13.

2. Sections of flange plates or web plates between transverse butt weld splices or from field splices shall be not less than 10 feet in length unless otherwise shown on the plans.

3. Butt weld splices in flanges shall be not closer than one foot from transverse welds in the web plates.

4. One longitudinal butt weld splice in the web will be allowed in the haunched sections of the girders. Feather edges between the longitudinal welds and the bottom flanges will not be allowed.

5. Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners may be either plumb or normal to the top flange.

6. Crossframe connection plates may be either plumb or normal to the top flange.

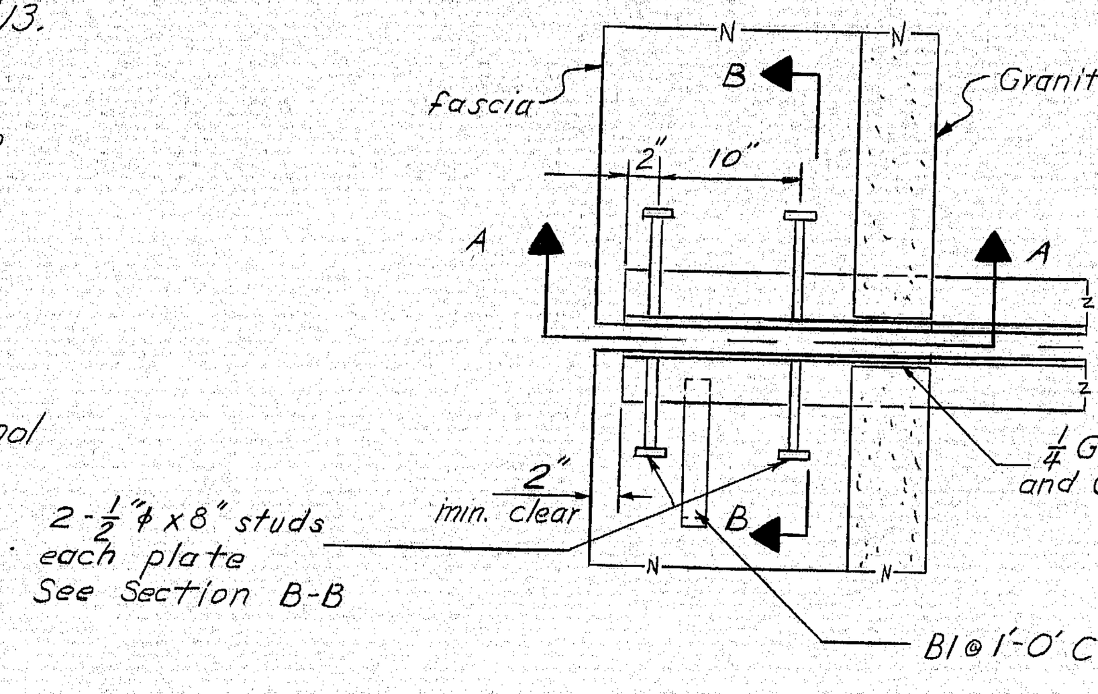
7. Filler plates may be ASTM A36 steel and mill tests for filler plate material will not be required.

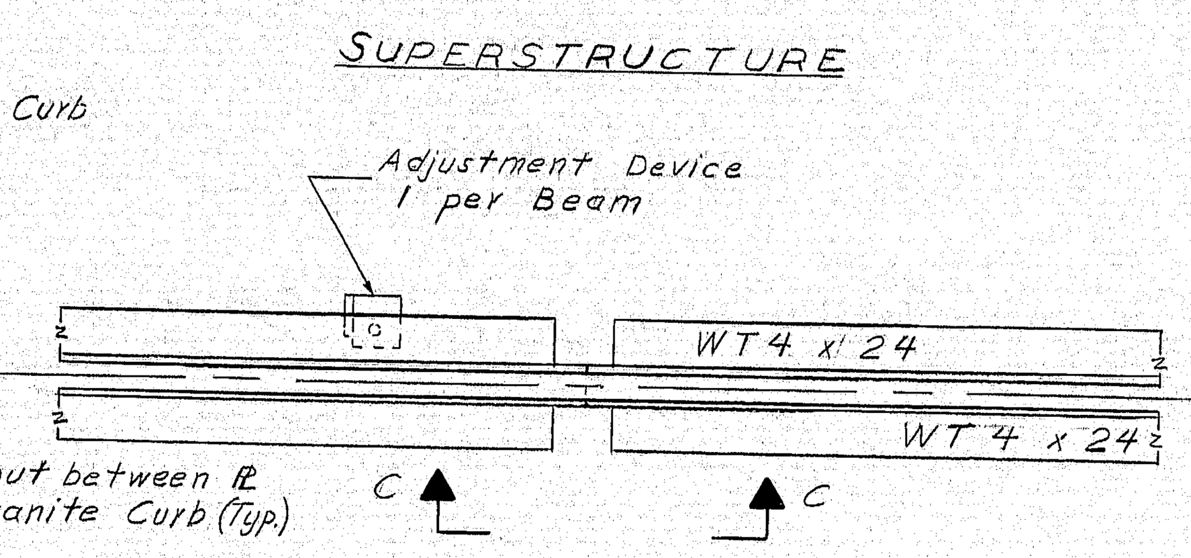
8. Intermediate stiffeners and crossframe connection plates shall extend to the top and bottom flanges, and shall have a "paint tight fit", except intermediate stiffeners adjacent to abutments (6 per beam section) shall be attached to the top flange with a 5/16" double fillet weld; and intermediate stiffeners adjacent to piers (15 each side of each pier) shall be attached to the bottom flange with a 5/16" double fillet weld.

9. Bearing stiffeners shall be attached to both sides of webs at all abutments and piers, and shall have a "paint tight fit" at the top flange and shall be ground to bear at the bottom flange or attached with a full penetration groove weld.

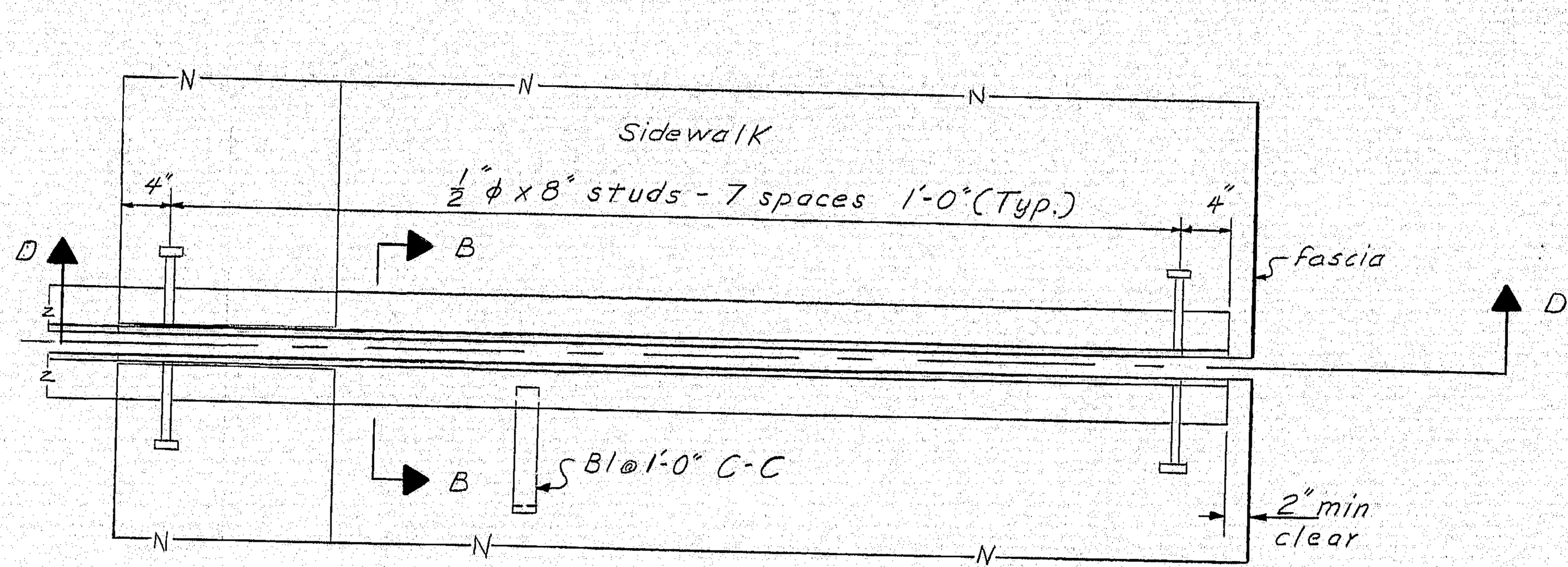
10. At the contractor's option additional bolted field splices may be utilized at locations shown on the plans. Design details will be provided upon written request by the contractor.

11. All structual steel except as otherwise indicated shall conform to ASTM A36. Girder flange plates shall conform to ASTM A572 Gr 50 where shown on framing plan. Bolts shall conform to ASTM A325.

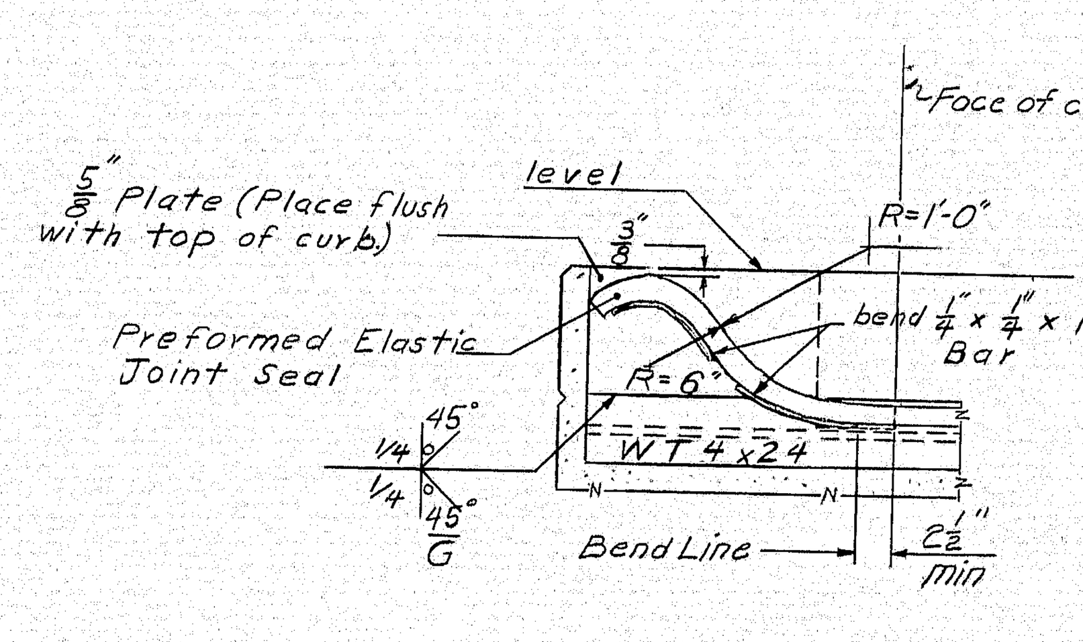




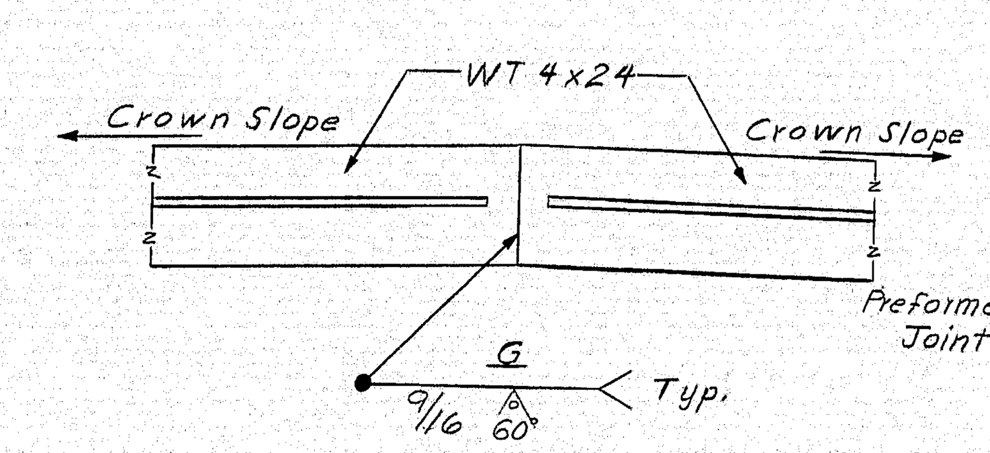
ABUTMENT No. 1



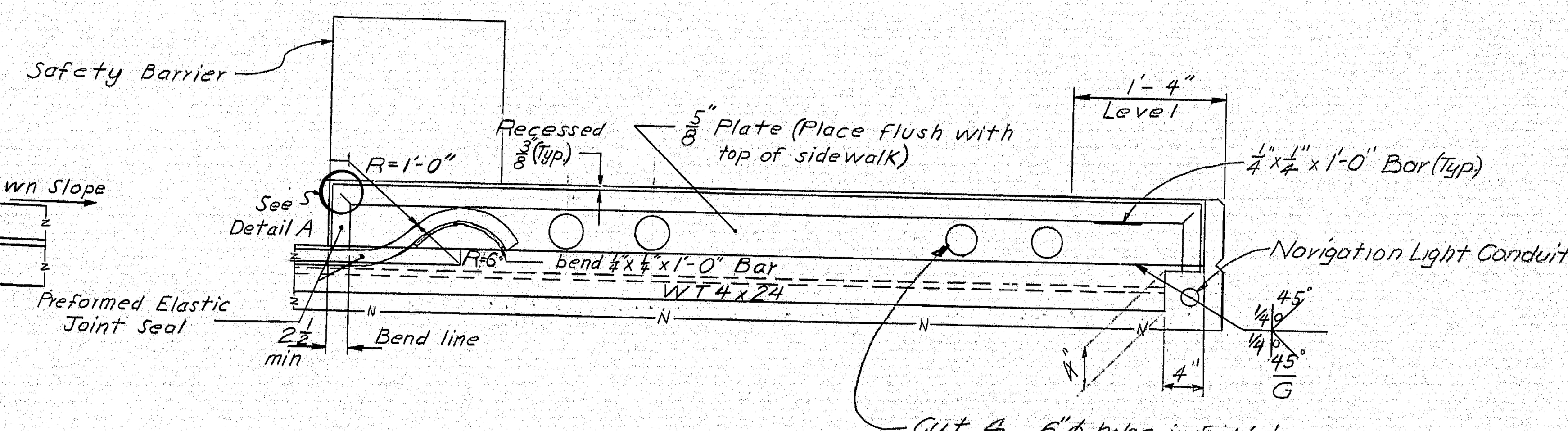
ARMORED JOINT PLAN



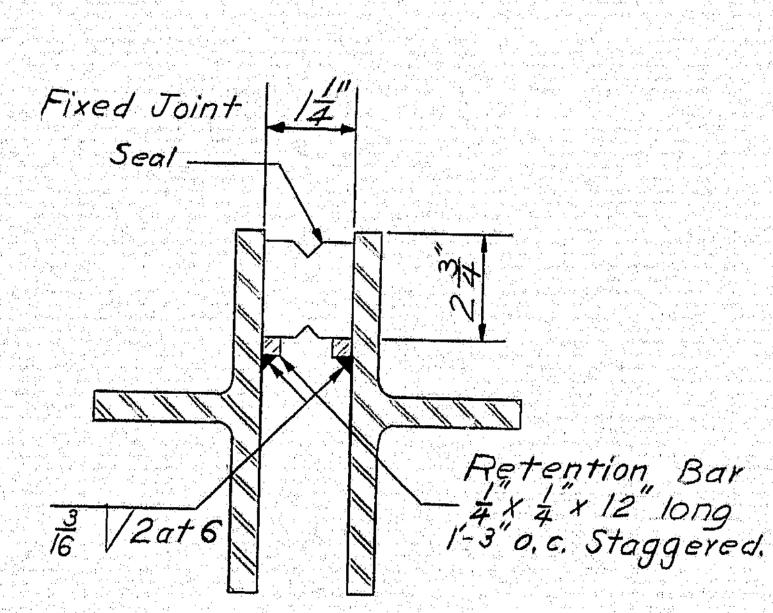
SECTION A-A



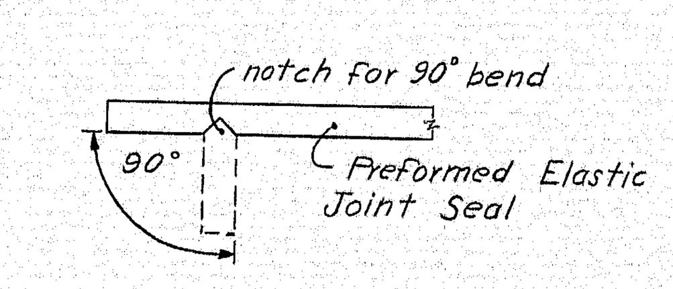
SECTION C-C



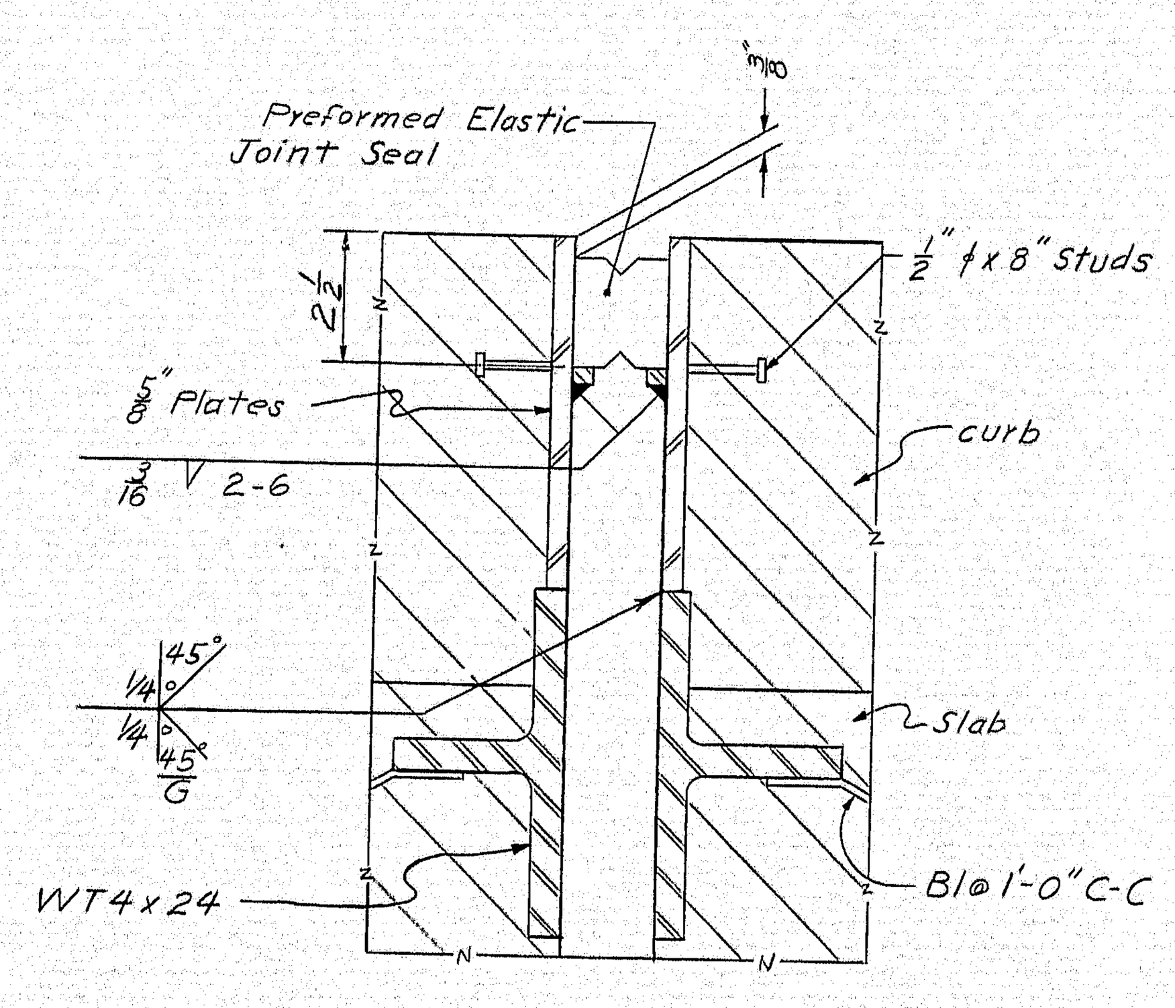
SECTION D-D



SEAL ARRANGEMENT



DETAIL A



SECTION B-B

NOTES:

1) The seal furnished shall be type A or type B and shall have a movement rating of 1/2 inch.

2) The joint opening shown, is for design only and is subject to change due to differences in seals as supplied by various manufactures. Do not use for setting of joint opening during construction.

3) The seal characteristics shall be submitted to the engineer for approval, prior to the fabrication of the armored joint.

4) A movement of 1/2 inch, due to dead loads (slab, curb, and wearing surface), shall be taken into account when setting the armored joint.

NOTE:

For armored joint details not shown, refer to Bridge Standard Details BD 104-71.

PLANS	BY	DATE
DESIGN - DETAILED	Hamilton / Hillman	Feb 73
CHECKED	G.O.T.	4/17/73
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

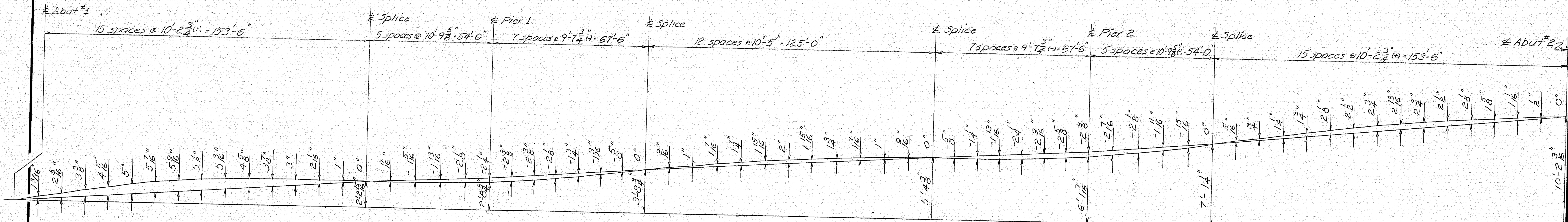
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY

ARMORED JOINT

SHEET 15 OF 25 AUGUSTA, MAINE APRIL 1973

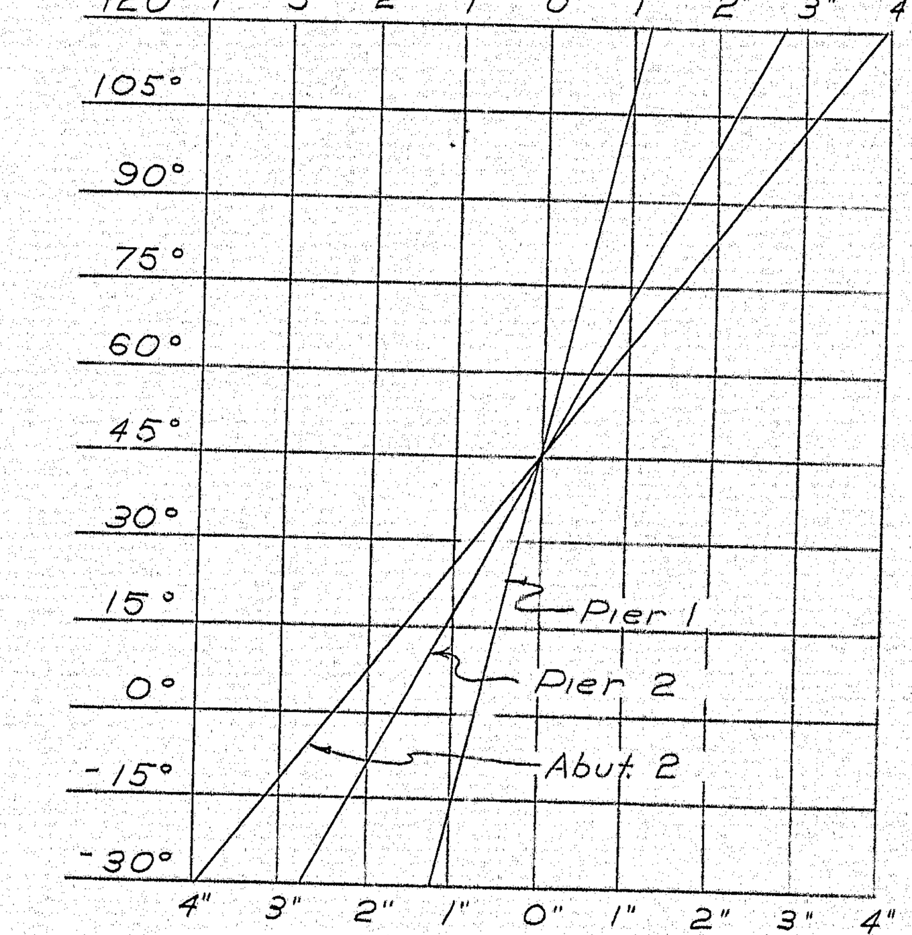
153-133

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	29	105

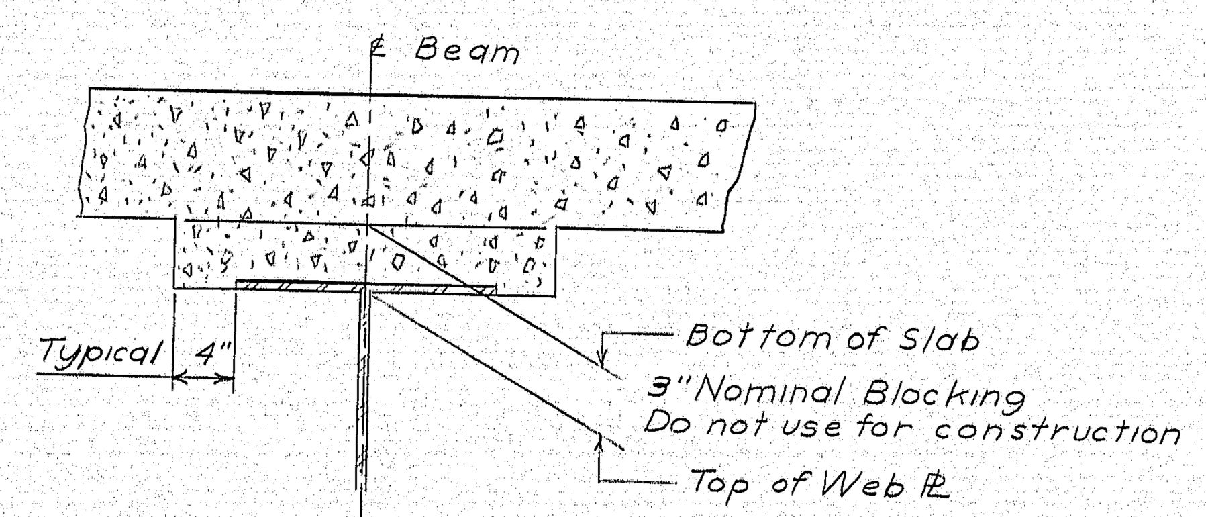


Note:
Camber ordinates shown are computed to compensate for all dead load deflections and for the curvature of the finish grade profile.

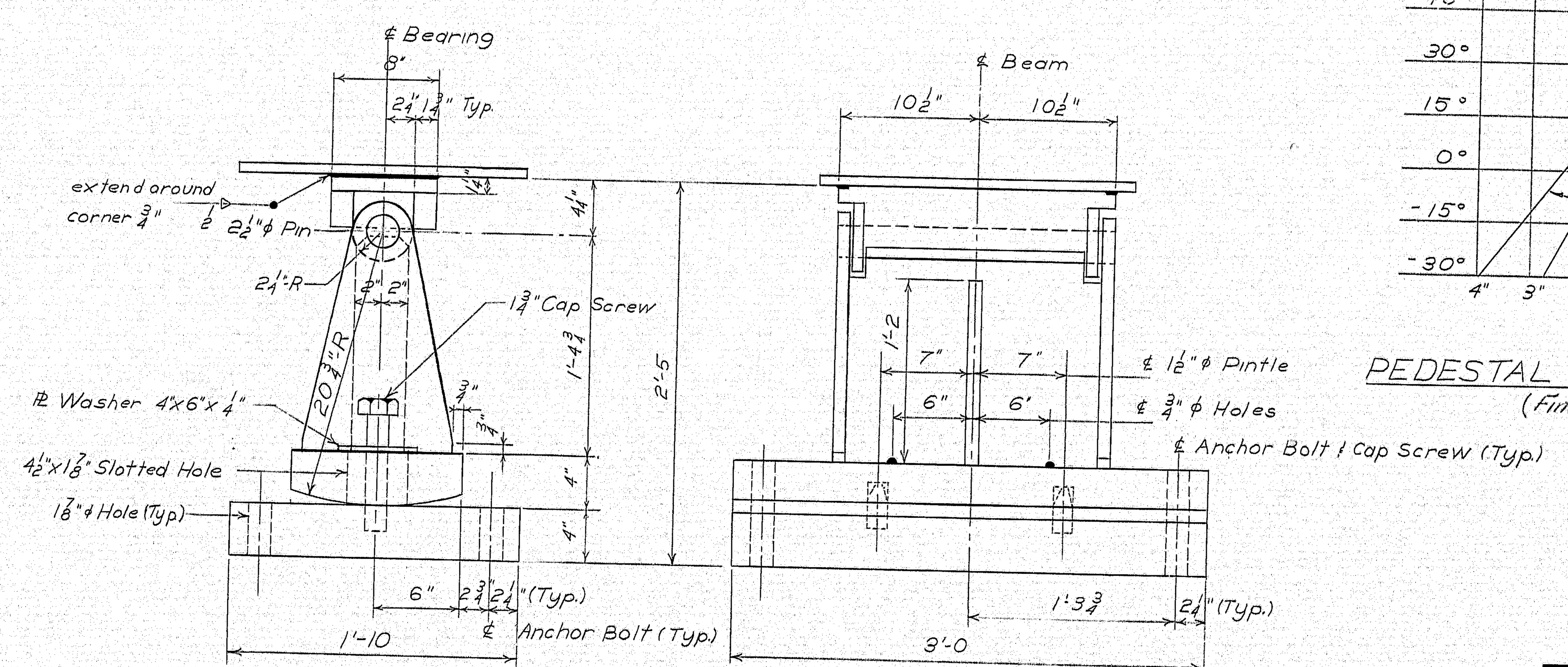
CAMBER DIAGRAM



PEDESTAL SETTING DIAGRAM
(Final Positions Shown)



BLOCKING DETAIL



See Standard Details for EPE-16 for details not shown.

BEARING PEDESTAL AT PIERS
(EPE 16 Modified, 10 Required)

PLANS	BY	DATE
DESIGN - DETAILED	MMG Pinkham	Dec 72
CHECKED	G.O.T.	1/11/73
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
CAMBER DIAGRAM - PEDESTALS
SHEET 16 OF 25 AUGUSTA, MAINE APRIL 1973

153-134

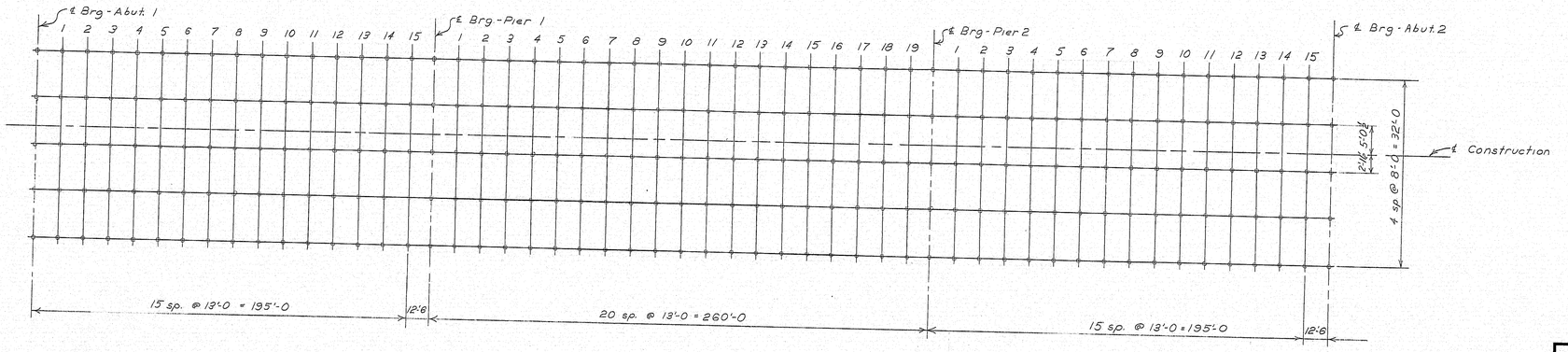
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	30	105

BOTTOM OF SLAB ELEVATIONS

	SPAN No. 1																SPAN No. 2									
POINT	℄ Brg. Abut.#1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	℄ Brg. Pier #1	1	2	3	4	5	6	7	8	9	10
Beam 1	56.46	56.74	57.02	57.28	57.53	57.74	57.93	58.10	58.24	58.36	58.47	58.57	58.67	58.78	58.90	59.03	59.18	59.32	59.50	59.69	59.90	60.12	60.33	60.54	60.75	60.94	61.11
Beam 2	56.62	56.91	57.19	57.45	57.69	57.91	58.10	58.26	58.40	58.52	58.63	58.74	58.84	58.94	59.06	59.20	59.34	59.49	59.66	59.86	60.07	60.29	60.50	60.71	60.91	61.10	61.28
Beam 3	56.67	56.95	57.23	57.49	57.74	57.95	58.14	58.31	58.45	58.57	58.68	58.78	58.88	58.99	59.11	59.24	59.39	59.53	59.71	59.90	60.11	60.33	60.54	60.75	60.96	61.15	61.32
Beam 4	56.50	56.78	57.06	57.33	57.57	57.79	57.98	58.14	58.28	58.40	58.51	58.61	58.71	58.82	58.94	59.07	59.22	59.37	59.54	59.74	59.95	60.16	60.38	60.59	60.79	60.98	61.16
Beam 5	56.33	56.62	56.90	57.16	57.40	57.62	57.81	57.97	58.11	58.23	58.34	58.45	58.55	58.65	58.77	58.91	59.05	59.20	59.37	59.57	59.78	60.00	60.21	60.42	60.62	60.81	60.99
①	.0000	.0321	.0617	.0869	.1065	.1196	.1257	.1248	.1173	.1042	.0870	.0671	.0471	.0291	.0148	.0050	.0000	-.0008	.0033	.0119	.0245	.0400	.0564	.0716	.0896	.0913	.0940
②	.0000	.0355	.0681	.0956	.1168	.1307	.1370	.1355	.1270	.1125	.0937	.0730	.0528	.0345	.0192	.0076	.0000	-.0031	-.0024	.0020	.0098	.0204	.0329	.0454	.0558	.0626	.0650
③	.0000	.0866	.1659	.2325	.2835	.3166	.3307	.3261	.3042	.2681	.2219	.1715	.1229	.0796	.0439	.0171	.0000	-.0093	-.0095	-.0001	.0177	.0425	.0728	.1034	.1290	.1459	.1518

BOTTOM OF SLAB ELEVATIONS

	SPAN No. 2 CONT'D										SPAN No. 3															
POINT	11	12	13	14	15	16	17	18	19	℄ Brg. Pier #2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	℄ Brg. Abut.#2
Beam 1	61.28	61.43	61.57	61.70	61.82	61.95	62.08	62.22	62.39	62.58	62.77	62.98	63.21	63.47	63.75	64.04	64.33	64.62	64.91	65.19	65.46	65.71	65.95	66.18	66.41	66.64
Beam 2	61.44	61.59	61.73	61.86	61.99	62.11	62.25	62.39	62.56	62.75	62.94	63.15	63.38	63.64	63.91	64.20	64.50	64.79	65.08	65.36	65.63	65.88	66.12	66.35	66.58	66.81
Beam 3	61.49	61.64	61.78	61.91	62.03	62.16	62.29	62.43	62.60	62.79	62.98	63.19	63.42	63.68	63.96	64.25	64.54	64.83	65.12	65.40	65.67	65.92	66.16	66.39	66.62	66.85
Beam 4	61.32	61.47	61.61	61.74	61.87	61.99	62.12	62.27	62.43	62.63	62.82	63.02	63.26	63.51	63.79	64.08	64.37	64.67	64.96	65.24	65.50	65.76	65.99	66.23	66.45	66.68
Beam 5	61.15	61.30	61.44	61.57	61.70	61.82	61.96	62.10	62.27	62.46	62.65	62.86	63.09	63.35	63.62	63.91	64.21	64.50	64.79	65.07	65.34	65.59	65.83	66.06	66.29	66.52
①	.0913	.0836	.0716	.0564	.0400	.0245	.0119	.0033	-.0008	.0000	.0050	.0148	.0291	.0471	.0671	.0870	.1042	.1173	.1248	.1257	.1196	.1065	.0869	.0617	.0321	.0000
②	.0626	.0558	.0454	.0329	.0204	.0098	.0020	-.0024	-.0031	.0000	.0076	.0192	.0345	.0528	.0730	.0937	.1125	.1270	.1355	.1370	.1307	.1168	.0956	.0681	.0355	.0000
③	.1459	.1290	.1034	.0728	.0425	.0177	-.0001	-.0095	-.0093	.0000	.0171	.0439	.0796	.1229	.1715	.2219	.2681	.3042	.3261	.3307	.3166	.2835	.2325	.1659	.0866	.0000



BLOCKING PLAN

① Superimposed Dead Load Deflection
② Steel Dead Load Deflection
③ Fluid Dead Load Deflection

For Blocking Detail see sheet 16 of 25

Note:
Bottom of slab elevations have been adjusted to compensate for concrete dead load deflections (fluid and superimposed). Use in conformance with subsection 502.10 (a) of the specifications.

PLANS	BY	DATE
DESIGN - DETAILED	MAG Pinkham	Dec '72
CHECKED	GCF	1/1973
REVISIONS		
FIELD CHANGES		

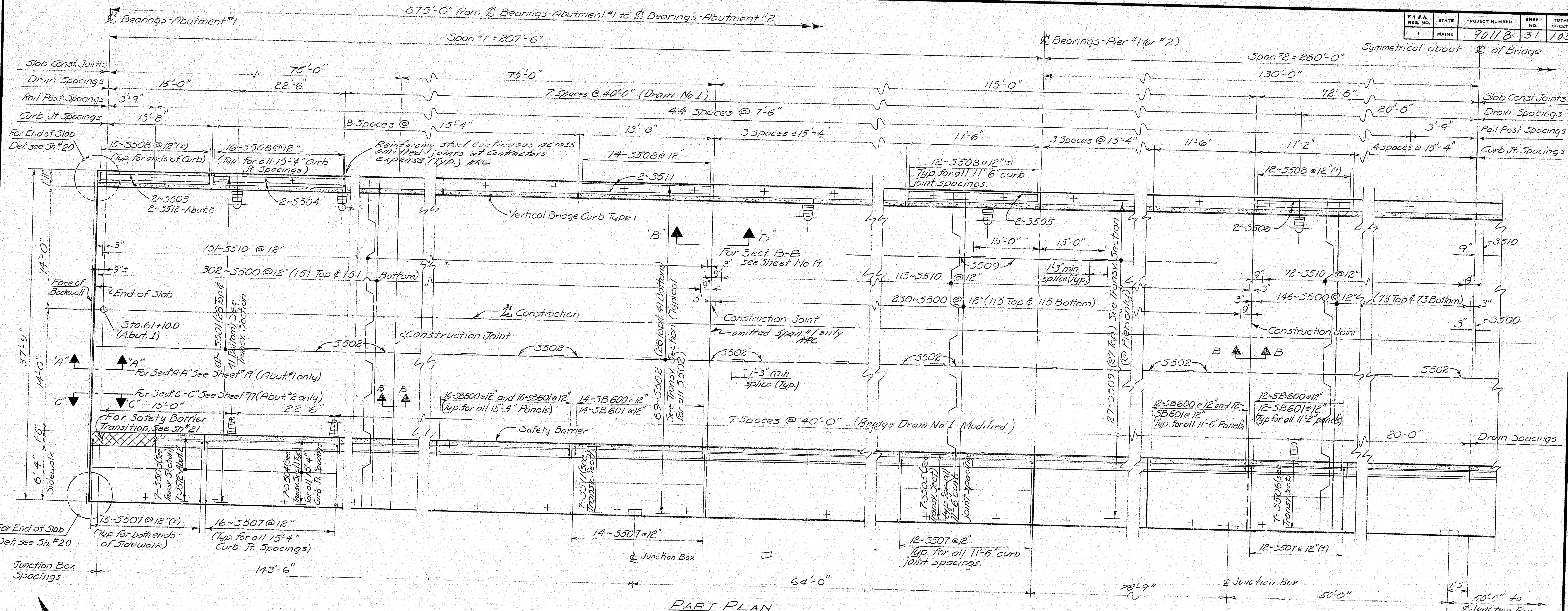
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
BOTTOM OF SLAB ELEVATIONS
SHEET 17 OF 25 AUGUSTA, MAINE APRIL 1973

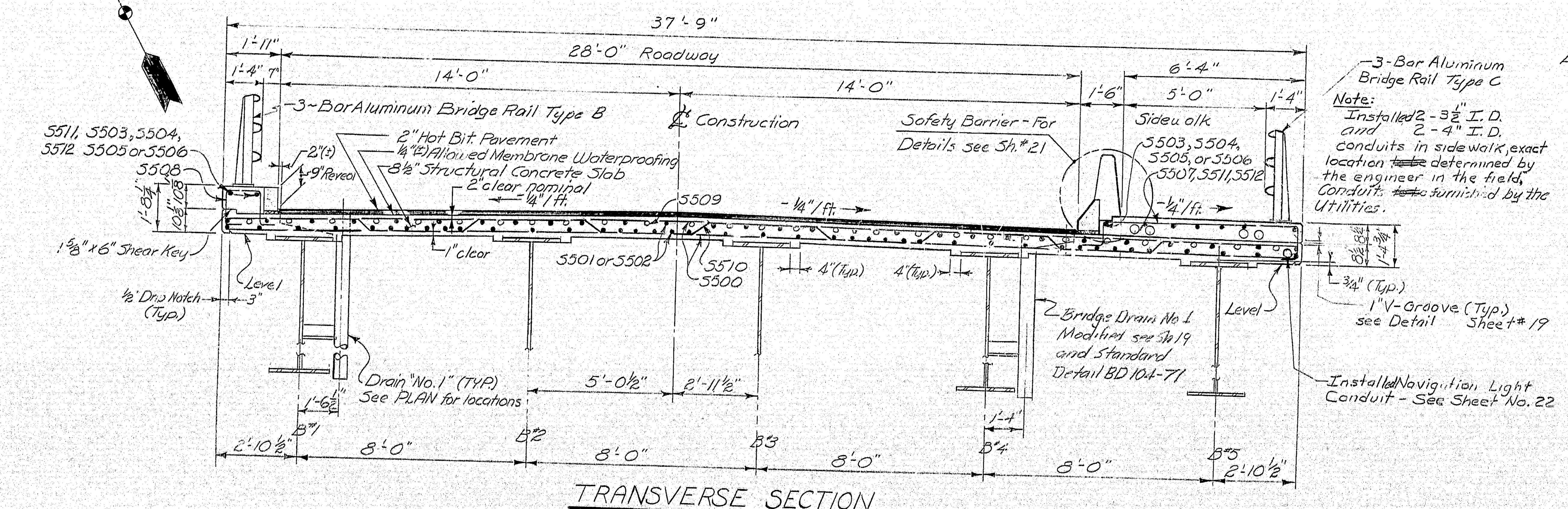
JANUARY 1968

203-1 2060

153-135

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011(8)	31	105





SUPERSTRUCTURE NOTES

1. ~~Chamfer~~ Chamfered all exposed edges of concrete 1/2" unless otherwise indicated.
2. Formed a 1" V-groove on the outside faces of each contraction joint in the curbs, at each construction joint in the slab, and at the horizontal joint between the curb and slab.
3. Broke the bond in contraction joints in the concrete curbs by a method approved by the Engineer. Did not break the bond in construction joints in the superstructure slab.
4. Provided joints in the Vertical Bridge Curb Type 1, at each contraction joint in the concrete curb.
5. Reinforcing steel had a minimum cover of 2 inches unless otherwise indicated.
6. Reinforcing steel splices were a minimum of 36 bar diameters unless otherwise indicated.
7. Placed 1 inch diameter plastic tube drains at 10 foot intervals along the curb at both sides of the superstructure, and as described in Subsection 502.17.
8. Protective Coating for Concrete Surfaces was applied to the following areas: top of concrete curb & sidewalks; Fascia to drip notch under slab; and End of concrete slab at Abutment No. 2, to drip notch under slab, safety barrier.
9. Mortar for bedding and for joints in the granite curb contained an approved non-shrink additive.
10. Panel placement was used to construct the superstructure slab. Panels were placed in the ascending numerical order indicated on the Panel Placement Diagram. (See Sheet No. 19. A minimum of 5 days shall elapse between placement of panels marked ① and ② and between panels marked ② and ③

REFERENCES

For Drain Details, see Standard Detail BD 104-71
For 3-Bar Aluminum Bridge Railing, see Standard Details BD 115-73, BD 116-73 and Sheet No. 20

Revised As Built A.R. 3/20/75

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

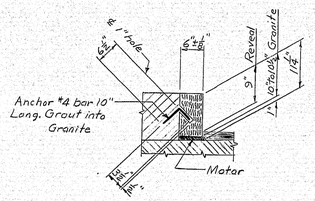
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
SUPERSTRUCTURE SLAB

SHEET 18 OF 25 AUGUSTA, MAINE APRIL 1973

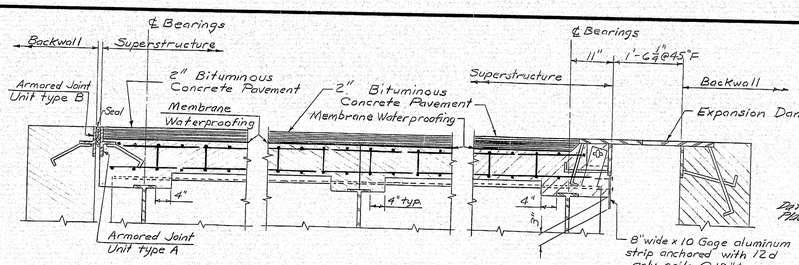
153-136

PLANS — DESIGN-DETAILED / CHECKED G.O.T. / REVISIONS / FIELD CHANGES

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	32	105



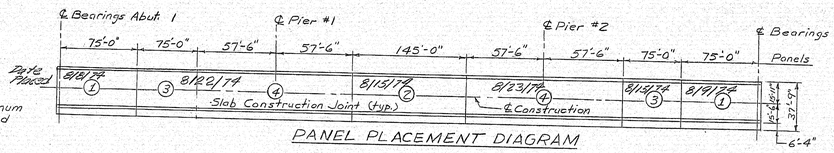
VERTICAL BRIDGE CURB TYPE I
TYPICAL SECTION



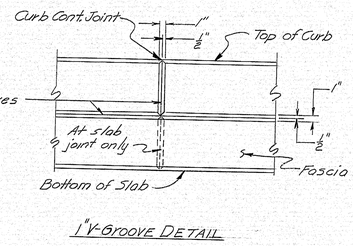
SECTION A-A
at Abutment 1

SECTION B-B
at Slab Construction Joints

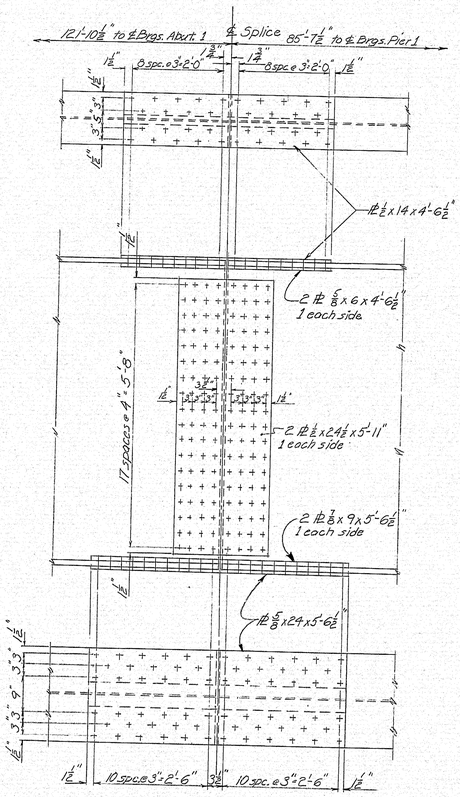
SECTION C-C
at Abutment 2



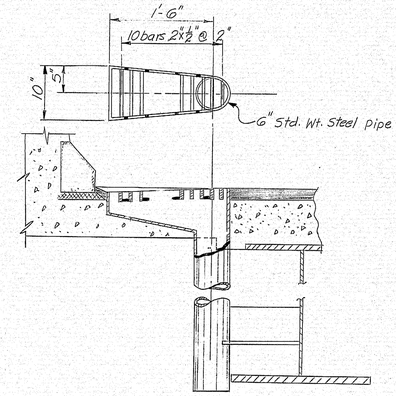
PANEL PLACEMENT DIAGRAM



1"V-GROOVE DETAIL



OPTIONAL SPLICE
Span 1 ℄ Span 3



DRAIN NO.1 (MODIFIED)

Note: For details not shown, see Standard Details, BD 104-71.

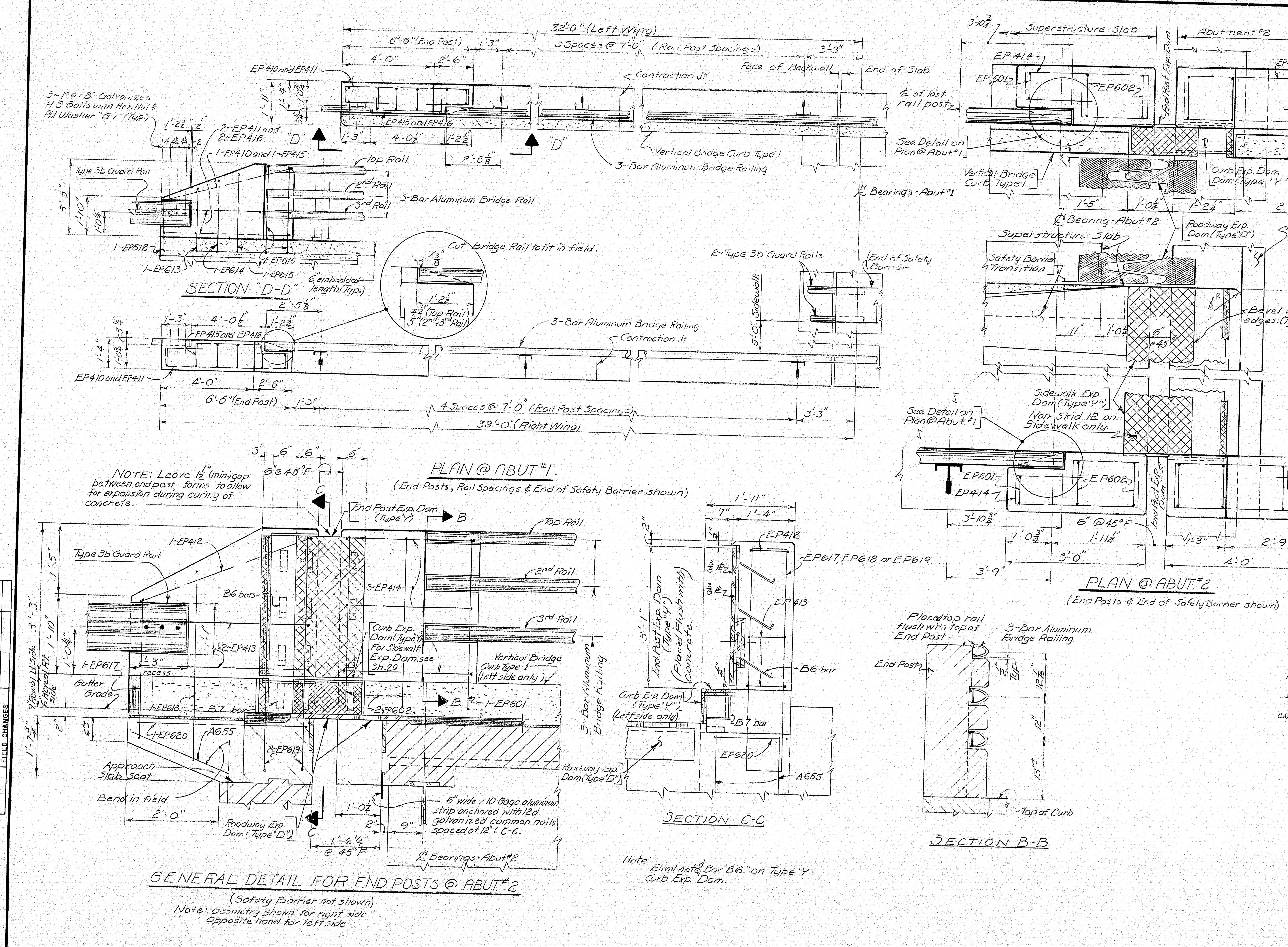
PLANS	BY	DATE
DESIGN - DETAILED	Standley	2/73
CHECKED	Petit	4/73
REVISIONS	G.O.T.	
FIELD CHANGES		

JANUARY 1968

Revised As Built GR Petit 3/20/75
Added optional splice. 4/73 D.M.P. G.O.T.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
SUPERSTRUCTURE DETAILS
SHEET 19 OF 25 AUGUSTA, MAINE APRIL 1973

153-137



NOTES

1. Chamfer all exposed edges of concrete ½".
2. Payment for Rail Anchorage ~~shall be~~ considered incidental to related Contract Items.
3. Payment for all end post concrete ~~shall be~~ was incidental to Item 502.26 Structural Concrete, Roadway & Sidewalk slabs on Steel Bridges.
4. For expansion dam details not shown see Standard Detail BD 105-64 and Sheet No. 21.
5. The final coat of paint on all exposed surfaces of expansion dams ~~shall be~~ was intermediate gray.

Revised As Built 3/20/75

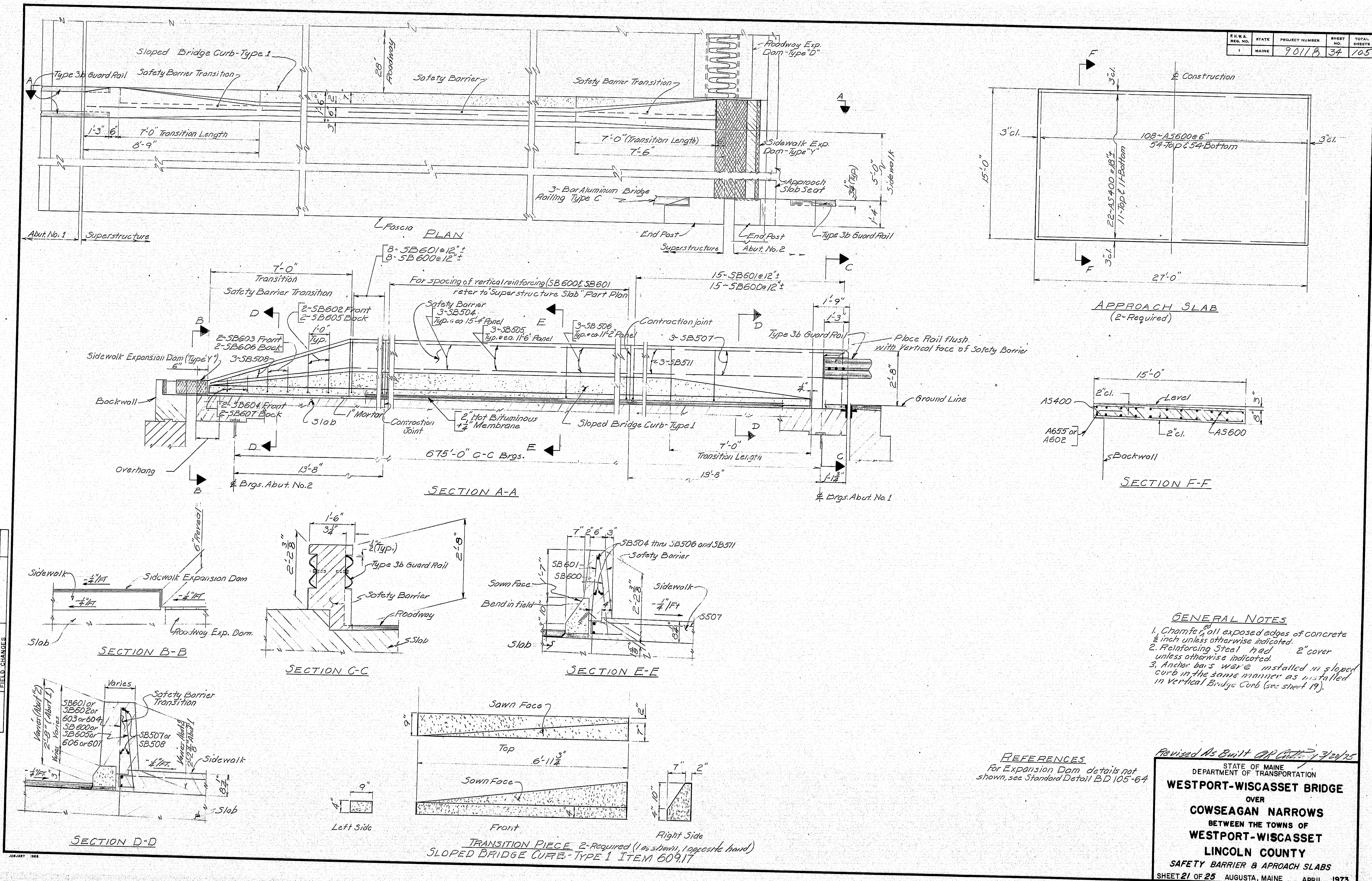
PLANS — DESIGN-DETAILED PPS 1/73 — CHECKED G.O.T. 4/13/73 — REVISIONS — FIELD CHANGES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY

END POSTS - CURBS - EXPANSION DAM
SHEET 20 OF 25 AUGUSTA, MAINE APRIL 1973

153-138



F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011(8)	34	105

PLANS — DESIGN-DETAILED J.C. Bryant Feb. 72 · CHECKED G.O.T. 4/13/73 · REVISIONS · FIELD CHANGES

GENERAL NOTES

1. Chamfer all exposed edges of concrete ¾ inch unless otherwise indicated.
2. Reinforcing Steel had 2" cover unless otherwise indicated.
3. Anchor bars were installed in sloped curb in the same manner as installed in Vertical Bridge Curb (see sheet 19).

REFERENCES

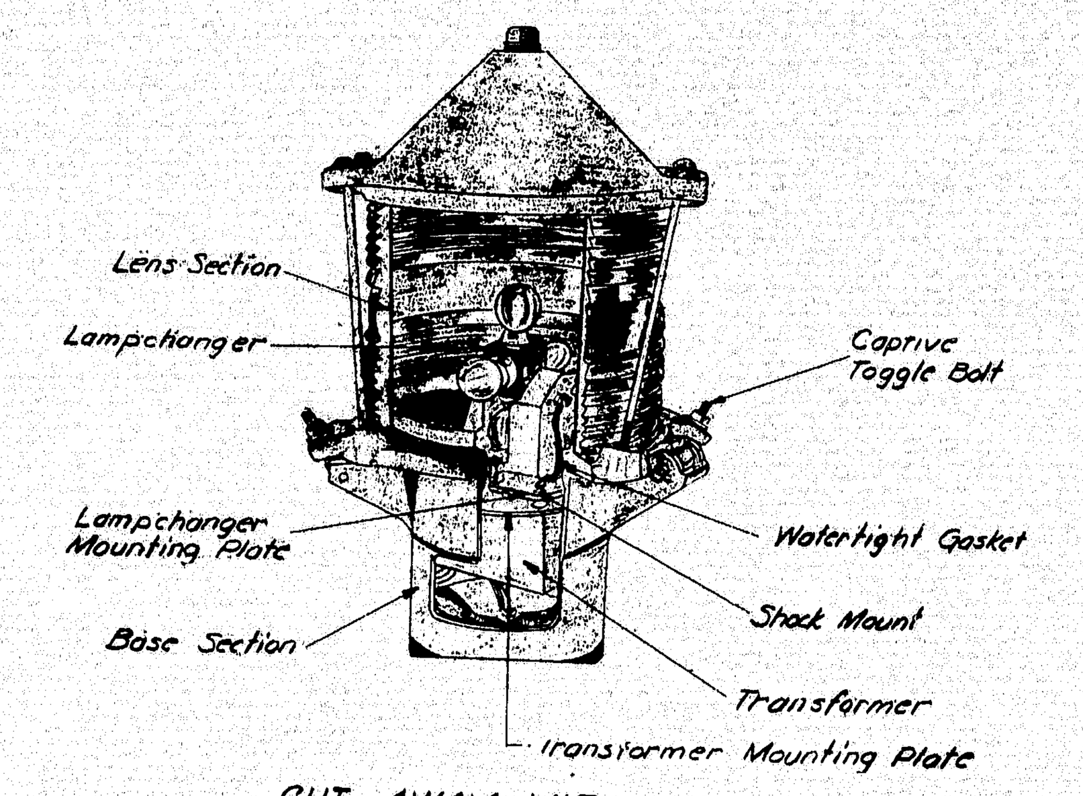
For Expansion Dam details not shown, see Standard Detail BD 105-64

Revised As Built 3/20/75

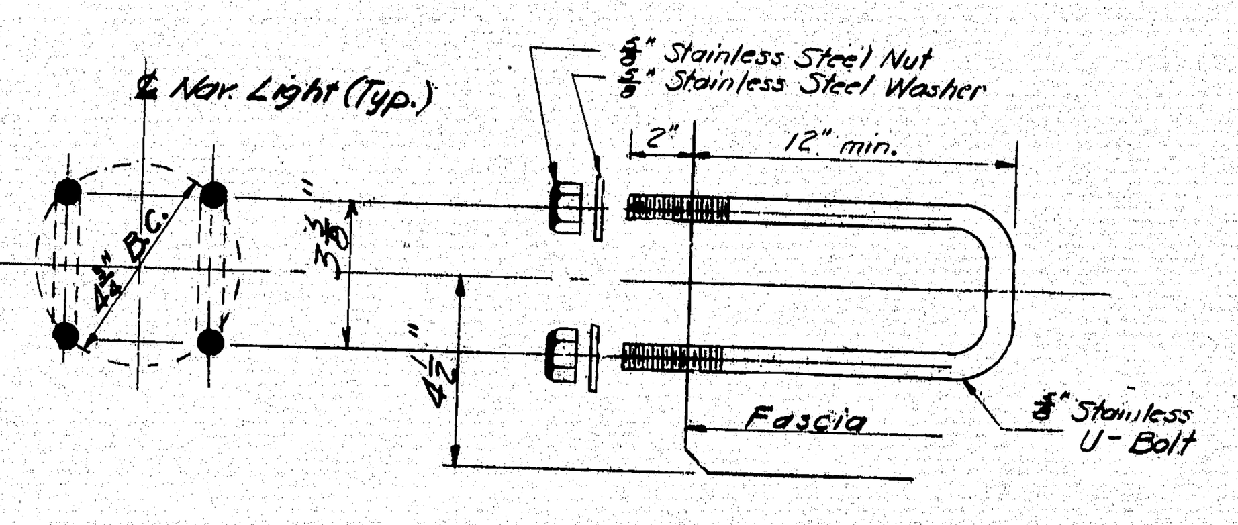
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
SAFETY BARRIER & APROACH SLABS
SHEET 21 OF 25 AUGUSTA, MAINE APRIL 1973

153-139

S.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011B	35	105

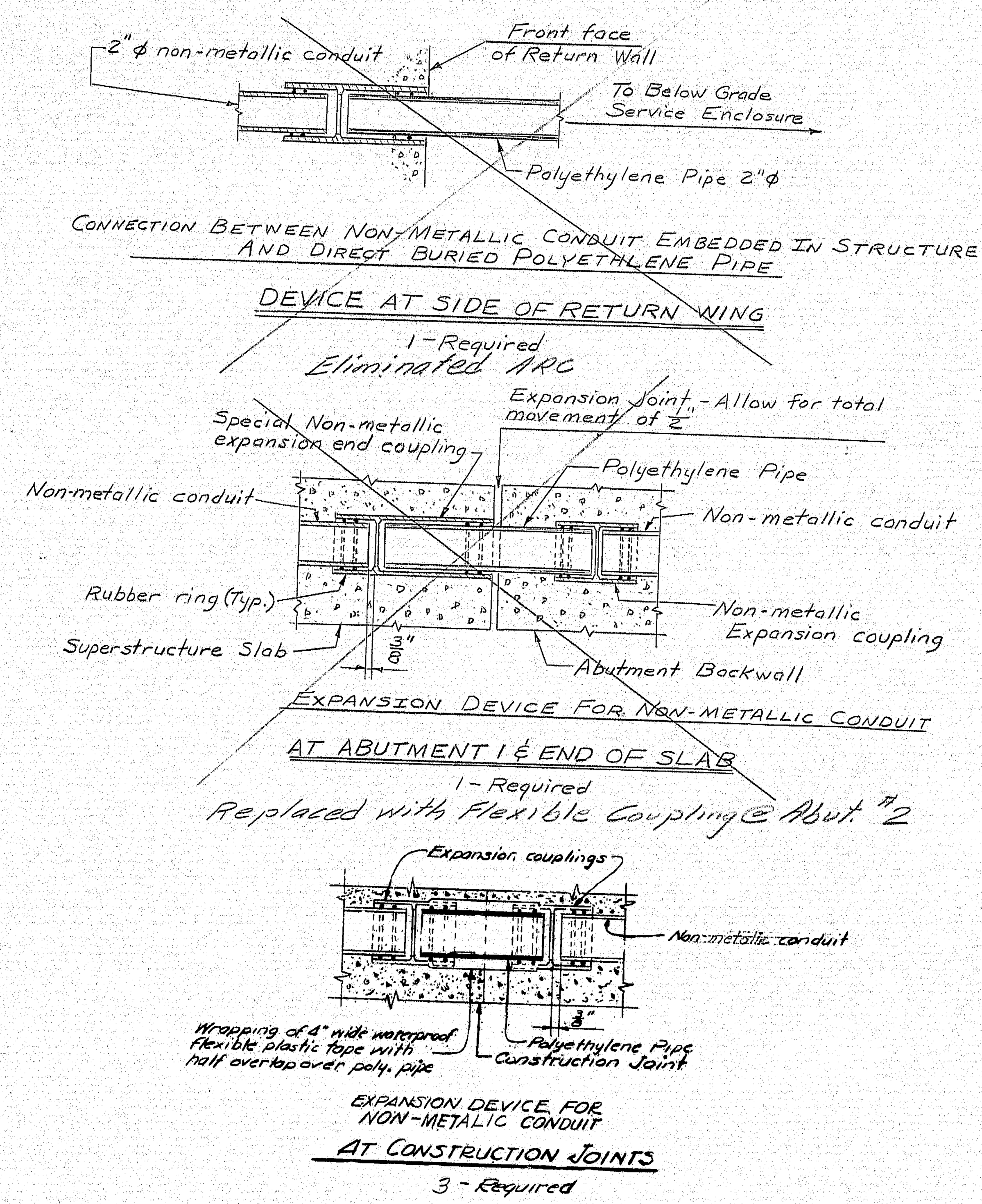


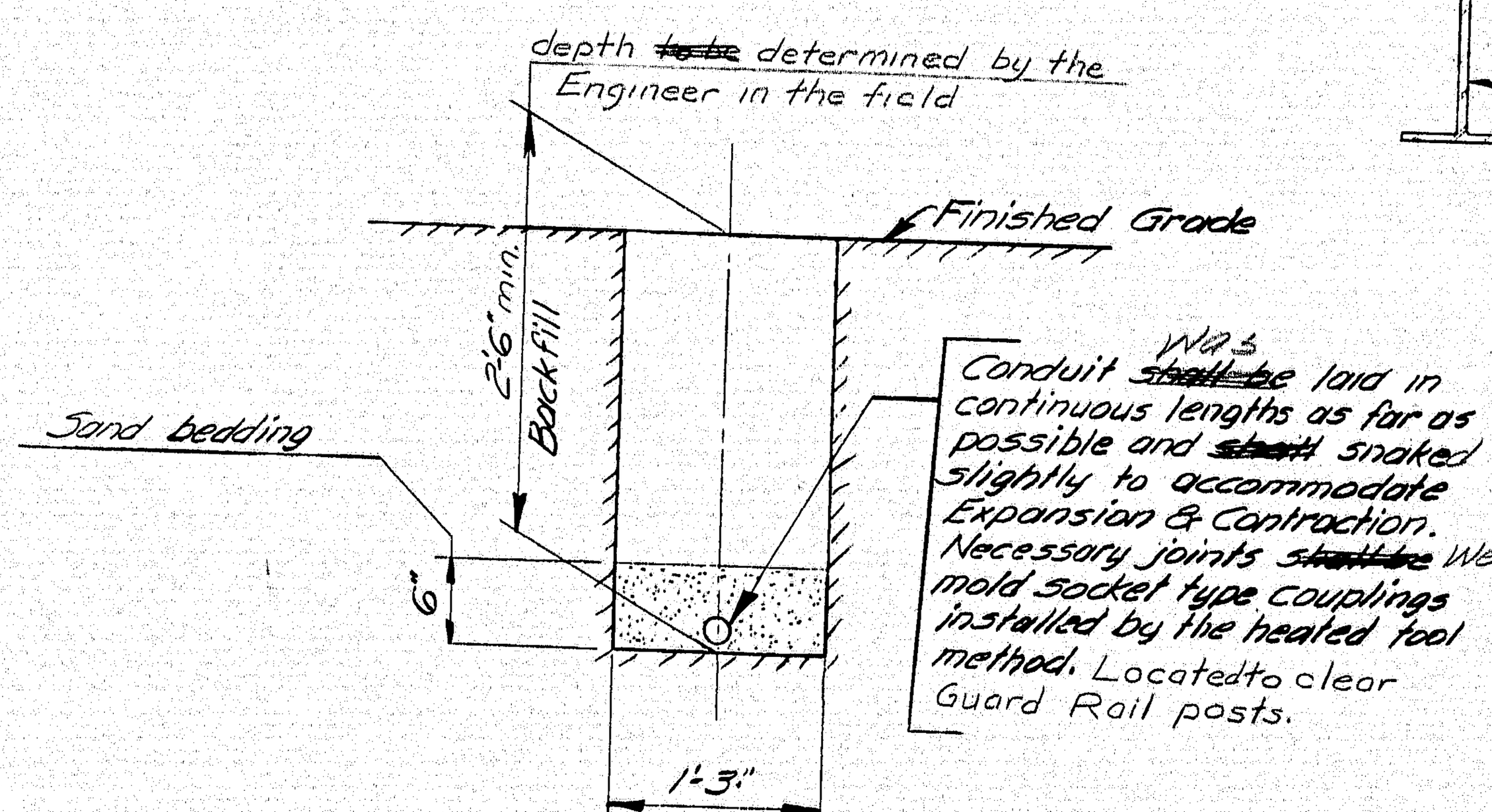
CUT-AWAY VIEW OF NAVIGATION LIGHT



NAVIGATION LIGHT ANCHORAGE

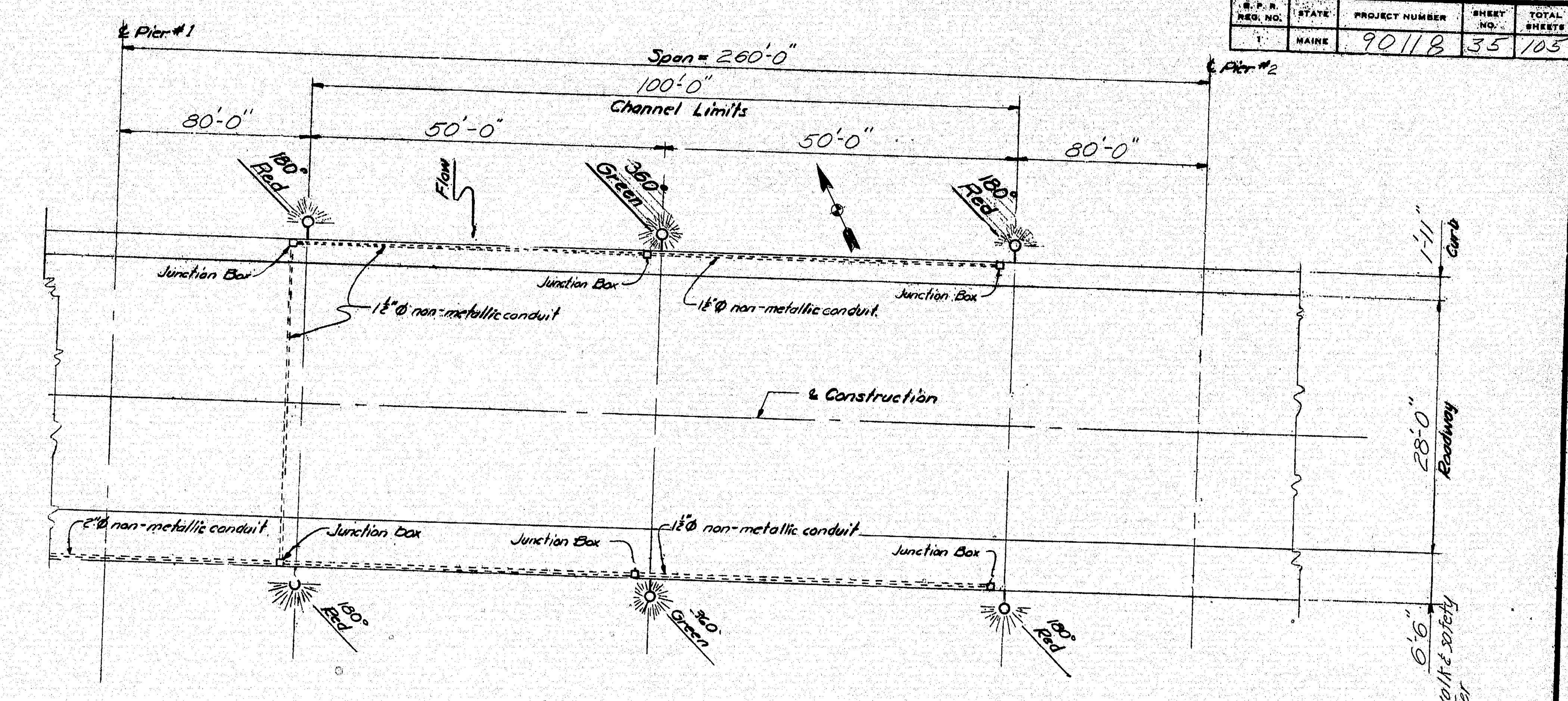
12-Required



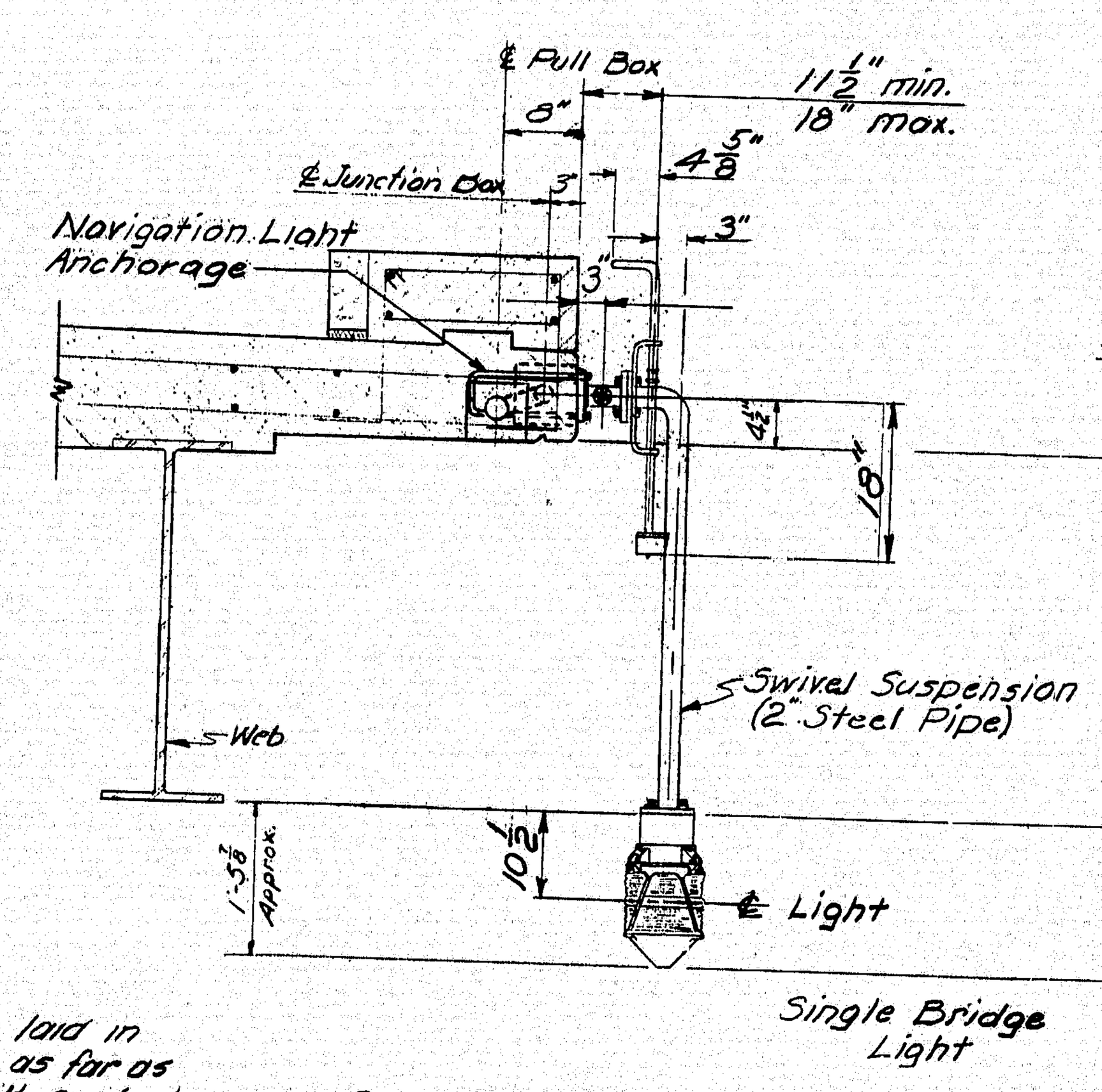


NON-METALLIC CONDUIT INSTALLATION

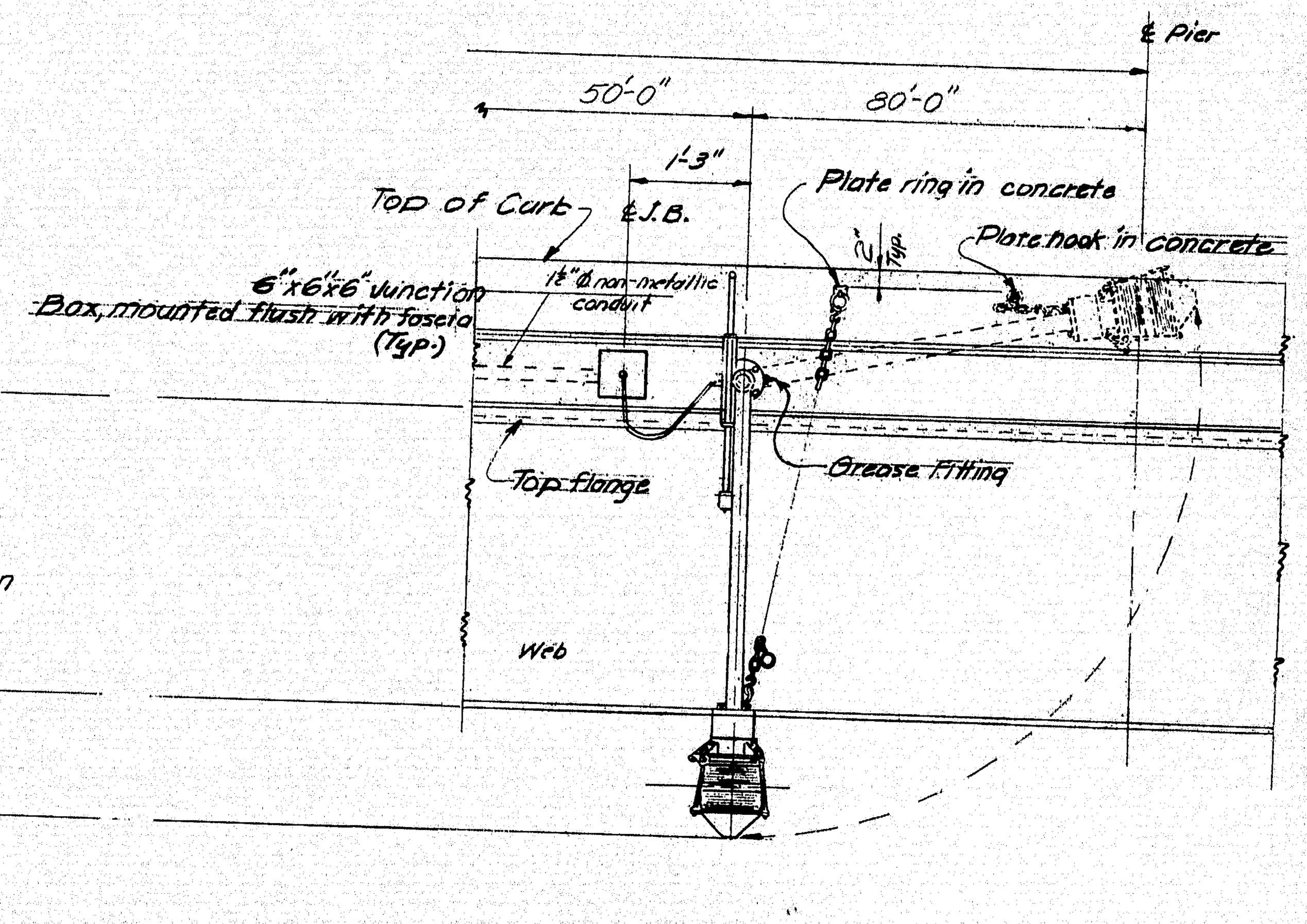
Typical for Approaches



PLAN



SIDE VIEW



PART ELEVATION

NOTES:

1. All conduit except as otherwise shown ~~shall be~~ was PVC Schedule 40, and shall be U.L. approved.
2. Junction boxes ~~shall be~~ were installed where shown on this sheet and sheets 7 and 18. 8 Required (flush mounted).
3. Provisions ~~shall be~~ were made to drain the conduit system in a manner approved by the Engineer.
4. ~~Three 15"ϕx15" long bituminous fibre junction boxes with cast iron covers shall be installed below grade on Wiscasset approach. Exact location shall be determined in the field. The cover shall be at least 18" below finish grade. See sheet 3 for approx. location.~~
5. Six navigation lights are required - four (4) 180° red & two (2) 360° green.
6. Payment for all work and materials embedded in structures was paid for under item. 638.02. Payment for furnishing and installing conduit and junction boxes in approaches was paid for at the contract unit price for the appropriate item.

Revised As Built A.R. [illegible] 3/20/75

PLANS		BY	DATE
	DESIGN - DETAILED	[illegible]	1/73
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT-WISCASSET
LINCOLN COUNTY
NAVIGATION LIGHTING DETAILS

SHEET 22 OF 25 AUGUSTA, MAINE APRIL 1973

153-140

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
	ABUTMENT No. 1		
A401	14	19'-10"	Backwall
A402	14	17'-2"	Backwall
A502	2	24'-8"	So. wing wall
A503	2	12'-5"	So. Wing wall
A504	4	6'-6	Wing walls
A505	2	14'-5"	No. wing wall
A506	2	15'-8"	No. wing wall
A507	52	4'-0"	Breastwall-Dowel
A508	26	7'-0"	Backwall
A601	6	20'-0"	Breastwall & Backwall
A602	18	4'-6"	Approach slab seat-Dowel
	ABUTMENT No. 2		
A451	21	20'-0"	Backwall+Breastwall-Hor.
A452	21	17'-0"	Backwall+Breastwall-Hor.
A453	10	14'-2"	No. wing wall-Hor.
A454	2	11'-6"	
A455	2	8'-9"	
A456	2	6'-10"	
A457	2	3'-6"	No. wing wall - Hor.
A467	10	15'-3"	So. wing wall-Hor.
A468	2	12'-7"	So. wing wall-Hor.
A469	2	10'-1"	
A470	2	7'-8"	
A471	2	5'-2"	So. wing wall-Hor.
A475	2	14'-0"	No. wing wall - Slant
A476	2	15'-6"	So. wing wall-Slant
A550	76	4'-0"	Dowels
A551	26	2'-6"	Dowels
A554	26	11'-0"	Backwall
A557	2	6'-6"	No. & So. wingwall
A558	2	7'-5"	
A559	2	8'-4"	
A560	2	9'-2"	

MARK	NO.	LENGTH	LOCATION
	ABUTMENT No. 2 (CONT)		
A561	2	9'-11"	
A562	2	10'-9"	
A563	2	11'-8"	
A564	2	12'-5"	
A565	2	13'-2"	No. & So. wingwall
A566	1	13'-7"	So. wingwall
A581	2	3'-6"	No. & So. wingwall - Vert
A582	2	4'-4"	
A583	2	5'-2"	
A584	2	6'-0"	
A585	2	6'-10"	
A586	2	7'-8"	
A587	2	8'-6"	
A588	2	9'-4"	
A589	2	10'-2"	No. & So. Wingwall-Vert
A590	1	10'-6"	So. wingwall
A651	16	33'-0"	Footing
A652	16	36'-0"	Footing
A653	132	7'-0"	Footing
A654	36	7'-3"	Wing
A655	22	4'-6"	Approach slab seat-Dowel

MARK	NO.	LENGTH	LOCATION

BENT BARS

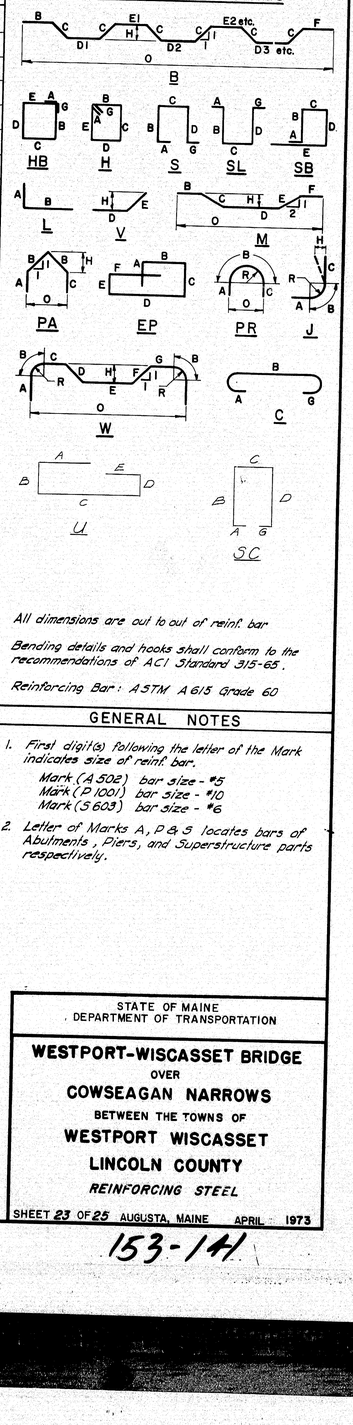
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
				ABUTMENT No. 1										
A403	10	4'-2"	S	~	1'-0"	2'-2"	1'-0"			~				Bridge Seats
A404	10	4'-4"	S	~	1'-0"	2'-4"	1'-0"			~				Bridge Seats
A405	2	10'-6"	S	0'-6"	1'-0"	7'-6"	1'-0"			0'-6"				Sidewalk
A501	69	7'-6"	S	~	3'-3"	1'-0"	3'-3"			~				Wing wall-curbs
A510	26	9'-11"	S	~	1'-3"	1'-8"	7'-0"			~				Breastwall
A511	26	8'-2"	S	~	3'-6"	1'-2"	3'-6"			~				Backwall Stirrup
A609	40	10'-0"	L	5'-0"	5'-0"									Breastwall
EP410	2	10'-7"	U	1'-7"	0'-8 3/4"	6'-2"	0'-7"	1'-6"						End Post-Slant
EP411	4	10'-4"	U	1'-5"	0'-8 3/4"	6'-2"	0'-7"	1'-5"						End Post-Hor.
EP415	2	5'-0"	S	~	0'-6"	3'-6 1/2"	0'-8"			~				End Post-Slant
EP416	4	4'-11"	S	~	0'-6"	3'-8 1/2"	0'-8"			~				End Post-Hor.
EP612	2	6'-1"	SC	0'-6"	2'-2"	0'-7 1/2"	2'-2"			0'-6"				Abut-End Post-Vert.
EP613	2	7'-4"	SC	0'-6"	2'-8 1/2"	0'-11"	2'-8 1/2"			0'-6"				
EP614	2	8'-4"	SC	0'-6"	3'-2 1/2"	0'-11"	3'-2 1/2"			0'-6"				
EP615	2	9'-4"	SC	0'-6"	3'-8 1/2"	0'-11"	3'-8 1/2"			0'-6"				
EP616	4	8'-11"	SC	0'-6"	3'-8 1/2"	0'-6"	3'-8 1/2"			0'-6"				Abut-End Post-Vert.
				ABUTMENT No. 2										
A458	2	10'-6"	S	0'-6"	1'-0"	7'-6"	1'-0"			0'-6"				Sidewalk
A473	10	4'-8"	S	~	1'-0"	2'-8"	1'-0"			~				Bridge Seats
A474	10	5'-8"	S	~	1'-0"	3'-8"	1'-0"			~				Bridge Seats
A552	26	8'-3"	L	2'-7"	5'-8"									Breastwall
A556	26	10'-11"	S	~	8'-0"	1'-8"	1'-3"			~				Backwall
A591	26	9'-2"	S	~	4'-0"	1'-2"	4'-0"			~				Backwall Stirrup
EP412	2	10'-3"	EP	0'-6"	2'-6 3/4"	1'-0"	3'-10 3/8"	0'-8 3/4"	1'-6"					End Post-Slant
EP413	4	9'-10"	EP	0'-6"	2'-5"	1'-0"	3'-8"	0'-8 3/4"	1'-6"					End Post-Hor.
EP617	2	7'-4"	SC	0'-6"	2'-10"	0'-7 1/2"	2'-10"			0'-6"				End Post haunch-Vert.
EP618	2	10'-4"	SC	0'-6"	4'-2 1/2"	0'-10 1/2"	4'-2 1/2"			0'-6"				End Post haunch-Vert.
EP619	4	12'-7"	SC	0'-6"	5'-4"	0'-10 1/2"	5'-4"			0'-6"				Abut.-End Post-Vert.
EP620	2	10'-4"	H	0'-6"	1'-0"	3'-8"	1'-0"	3'-8"		0'-6"				Abut-Backwall-haunch
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

DESIGN-DETAIL	BY	DATE
CHECKED	GAT	1/1973
REVISIONS		
FIELD CHANGES		

PLANS

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	9011 B	36	105

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar.

Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

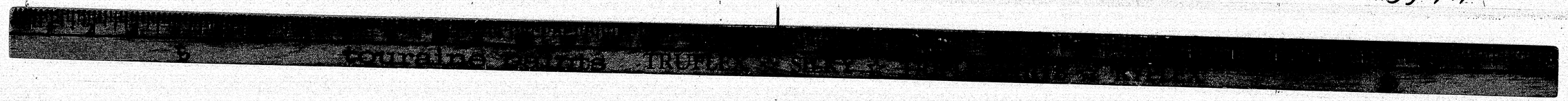
1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
   Mark (A502) bar size - #5
   Mark (P1001) bar size - #10
   Mark (S603) bar size - #6
2. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT WISCASSET
LINCOLN COUNTY
REINFORCING STEEL

SHEET 23 OF 25 AUGUSTA, MAINE APRIL 1973

153-141



REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
	SUPERSTRUCTURE		
S500	1356	37'- 5"	Slab - Transverse
S501	138	38'- 0"	Slab - Longitudinal
S502	1449	30'- 0"	Slab - Longitudinal
S503	9	14'- 3"	Curb and sidewalk
S504	324	15'- 0"	" " "
S505	28	11'- 2"	" " "
S506	18	10'-10"	Curb and sidewalk
S509	162	30'- 0"	Slab (at Piers only)
SB600	699	2'- 7"	Superstructure - Saf. Bar.
SB605	2	2'-1"	Superstr. - Saf. Bar. Trans.
SB606	2	1'-5"	" " " "
SB607	2	0'8"	Superstr. - Saf. Bar. Trans.
SB504	108	15'- 0"	Saftey Barrier - Longitud.
SB505	12	11'- 2"	" " " "
SB506	6	10'-10"	" " " "
SB507	3	14'- 9"	" " " Longitud.
SB508	3	14'-3"	Saftey Barrier - Transition
SB511	6	13'-4"	Safety Barrier Longitud.
			"
S511	18	13'-4"	Curb and sidewalk
S512	9	15'-3"	Curb and sidewalk
	APPROACH	SLABS	
AS400	44	26'-8"	Transverse Steel
AS600	216	14'- 8"	Longitudinal Steel

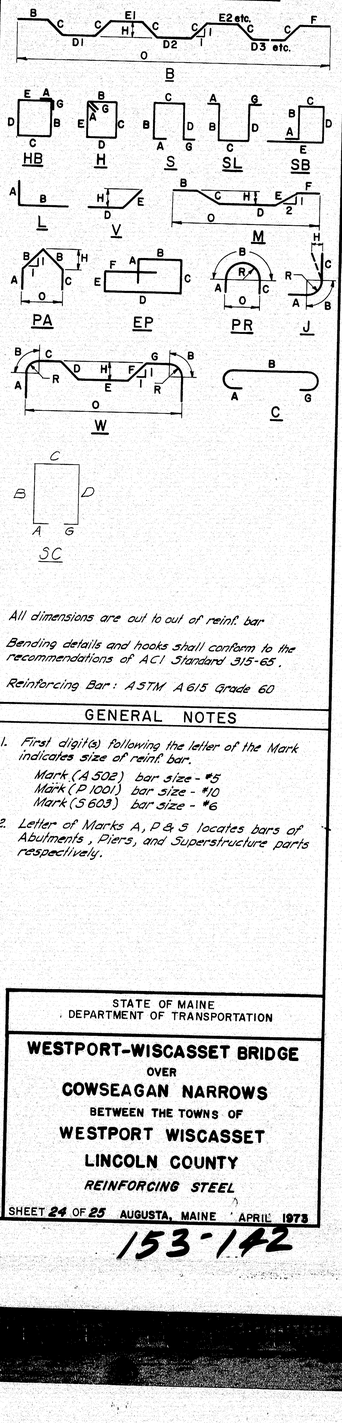
BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
			SUPERSTRUCTURE											
S507	T06	10'- 7"	S	0'-10"	1'- 1"	6'- 9"	1'- 1"			0'-10"				
S508	706	5'- 7"	S	0'-10"	1'- 5"	1'- 1"	1'- 5"			0'-10"				Sidewalk stirrup
														Curb stirrup
S510	676	38'-10"	B		4'- 7"	0'-7 3/4"	3'-3"	3'-10"	4'- 7"		0'-5 1/2"	37'-4"		Slab - Transverse
EP414	6	7'- 9"	EP	0'-8"	1'-5 1/2"	1'- 0"	2'-8"	0'-6 1/2"	1'- 5"					
EP601	2	8'-10"	SC	0'- 4"	3'-10"	0'-5 3/8"	3'-10"			0'- 4"				End Post - Hor.
EP602	4	9'- 7"	SC	0'- 6"	3'-10"	0'-10 5/8"	3'-10"			0'- 6"				Superstructure - End Post
														Superstructure - End Post
SB601	699	3'- 7"	L	2'- 7"	1'- 0"									
SB602	2	3'-1"	L	2'-1"	1'- 0"									Superstructure - Saf. Bar
SB603	2	2'- 5"	L	1'- 5"	1'-0"									Superstr. - Saf. Bar. Trans.
SB604	2	1'-8"	L	0'-8"	1'-0"									" " "
														Superstr. - Saf. Bar. Trans.

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

FHWA REF. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	37	105

TYPE - BENDING DIAGRAMS



All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
   - Mark (A502) bar size - #5
   - Mark (P1001) bar size - #10
   - Mark (S603) bar size - #6
2. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

PLANS	DESIGN - DETAIL	BY	DATE
	CHECKED	G.D.T	11/1/73
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT WISCASSET
LINCOLN COUNTY
REINFORCING STEEL

SHEET 24 OF 25 AUGUSTA, MAINE APRIL 1973

153-142

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

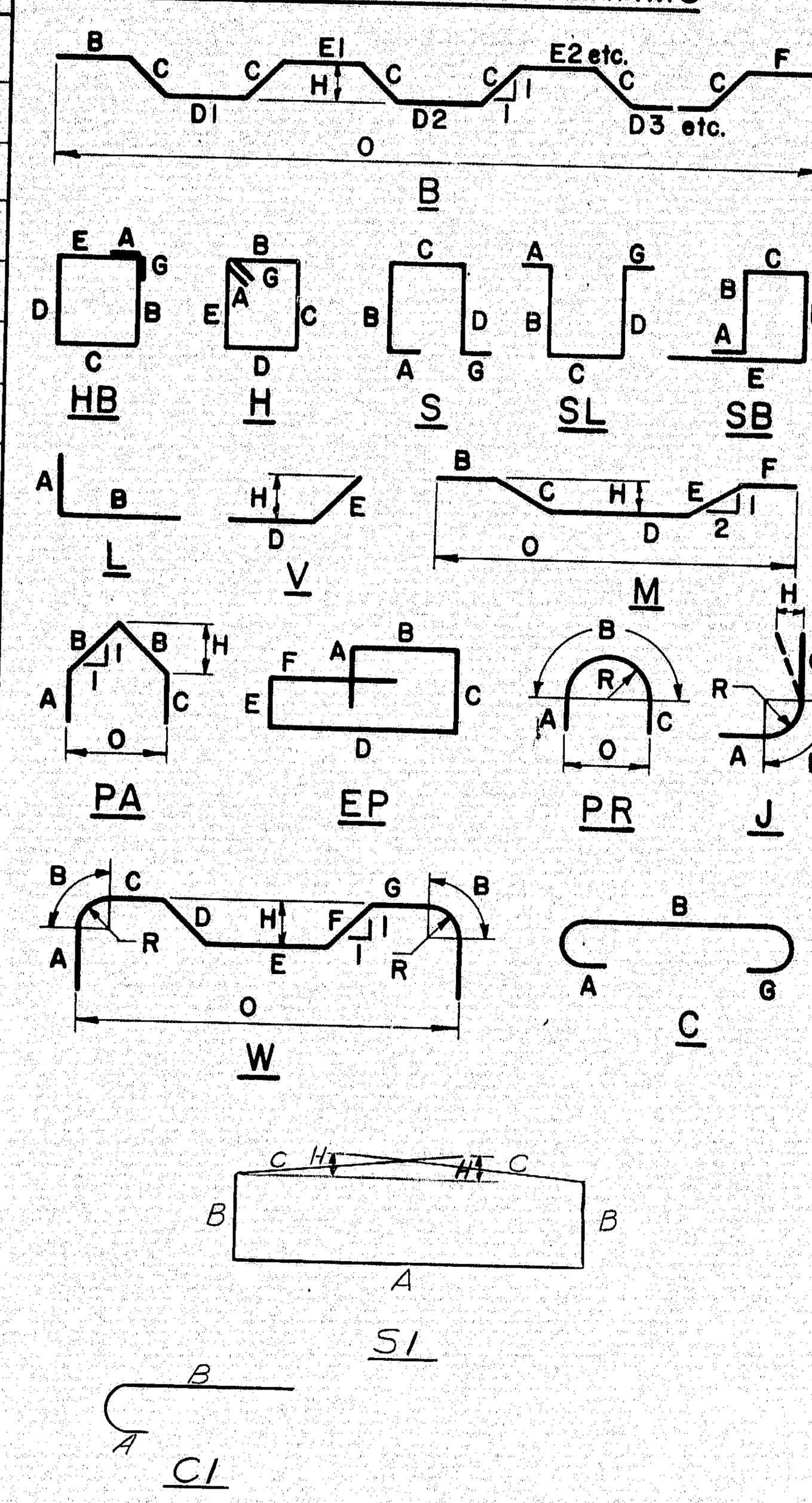
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION
PIER No. 1				PIER No. 2							
P502	22	20'-0"	Middle Shaft	P502	22	20'-0"	Middle Shaft				
P504	10	30'-0"	Lower Shaft								
P508	38	20'-0"	Middle Shaft	P508	38	20'-0"	Middle Shaft				
P625	72	14'-4"	Distribution Slab	P627	64	11'-4"	Distribution slab				
P626	30	35'-5"	Distribution Slab	P628	24	31'-5"	Distribution slab				
P1101	28	37'-5"	Cap	P1101	28	37'-5"	Cap				
P1102	2	25'-8"	Cap	P1102	2	25'-8"	Cap				
P1103	40	29'-0"	Upper Shaft	P1104	92	6'-0"	Dowels				
P1104	210	6'-0"	Dowels	P1105	52	15'-5"	Middle Shaft				
P1105	52	15'-5"	Middle Shaft	P1107	40	31'-0"	Upper Shaft				
P1106	54	5'-8"	Lower Shaft	P1108	54	5'-9"	Lower Shaft				
P1110	2	27'-8"	Cap	P1110	2	27'-8"	Cap				

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION		
				PIER No. 1												
P501	32	22'-4"	S	~	2'-6"	17'-4"	2'-6"			~				Upper Shaft		
P503	22	11'-4"	PA	1'-3"	4'-4¾"	1'-3"					3'-1¼"			Middle Shaft		
P505	10	13'-3"	S	~	1'-3"	10'-8½"	1'-3"			~				Lower Shaft		
P506	128	3'-3"	CI	0'-7"	2'-8"									Upper Shaft		
				PIER No. 2												
P501	38	22'-4"	S	~	2'-6"	17'-4"	2'-6"			~				Upper Shaft		
P503	22	11'-4"	PA	1'-3"	4'-4¾"	1'-3"					3'-1¼"			Middle Shaft		
P506	152	3'-3"	CI	0'-7"	2'-8"									Upper Shaft		
				PIER No. 1 & PIER No. 2												
	(Total No.)														(Pier 1)	(Pier 2)
P602	64	23'-1"	HB	0'-6½"	8'-8"	2'-4"	8'-8"	2'-4"		0'-6½"				Cap	32	32
P603	8	22'-10"			8'-6¼"		8'-6¼"								4	4
P604	8	22'-6"			8'-4½"		8'-4½"								4	4
P605	8	22'-2"			8'-2½"		8'-2½"								4	4
P606	8	21'-11"			8'-0¾"		8'-0¾"								4	4
P607	8	21'-7"			7'-10¾"		7'-10¾"								4	4
P608	8	21'-3"			7'-9"		7'-9"								4	4
P609	8	21'-0"			7'-7¼"		7'-7¼"								4	4
P610	8	20'-8"			7'-5¼"		7'-5¼"								4	4
P611	8	20'-4"			7'-3½"		7'-3½"								4	4
P612	8	20'-1"			7'-1¾"		7'-1¾"								4	4
P613	8	19'-9"			7'-0"		7'-0"								4	4
P614	8	19'-6"			6'-10¼"		6'-10¼"								4	4
P615	8	19'-2"			6'-8¼"		6'-8¼"								4	4
P616	8	18'-10"			6'-6½"		6'-6½"								4	4
P617	8	18'-6"			6'-4½"		6'-4½"								4	4
P618	8	18'-3"			6'-2¾"		6'-2¾"								4	4
P619	8	17'-11"			6'-1"		6'-1"								4	4
P620	8	17'-8"			5'-11¼"		5'-11¼"								4	4
P621	8	17'-4"	HB	0'-6½"	5'-9½"	2'-4"	5'-9½"	2'-4"		0'-6½"				Cap	4	4
P509	12	14'-0"	PA	1'-3"	5'-9"	1'-3"					4'-1"	8'-2"		Shaft	6	6
P510	28	22'-4"	SI	8'-4"	2'-0"	5'-0"					4"			Shaft	14	14
P1109	8	38'-3"	M		~	10'-2"	17'-11"	10'-2"	~		2'-11½"	37'-5"		Cap	4	4
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION		

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	38	105

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
   Mark (A 502) bar size - #5
   Mark (P 1001) bar size - #10
   Mark (S 603) bar size - #6
2. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

Revised As Built [signature] *3/20/75*

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

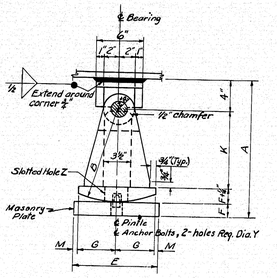
WESTPORT-WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT WISCASSET
LINCOLN COUNTY
REINFORCING STEEL

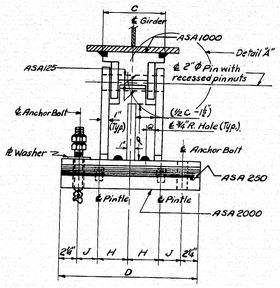
SHEET 25 OF 25 AUGUSTA, MAINE MARCH 1973

153-145

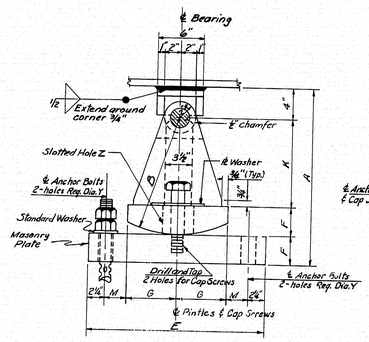
PLANS	BY	DATE
DESIGN-DETAIL	C.DH	5-7-73
CHECKED		
REVISIONS		
FIELD CHANGES		

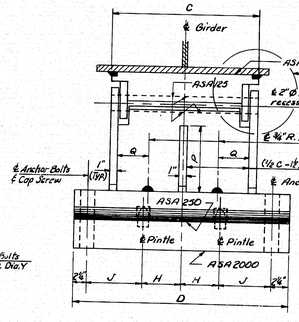
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	39	105





EXPANSION PEDESTAL — EPD





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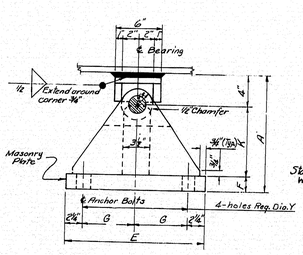
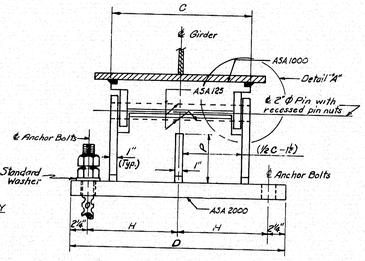
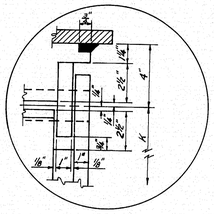
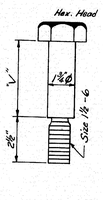




FIXED PEDESTAL — FPD



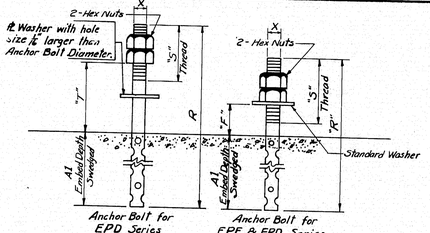
DETAIL "A"



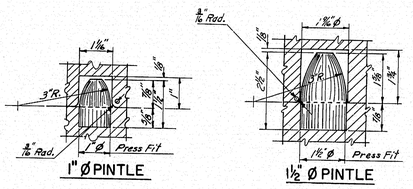
CAP SCREW DETAIL

MARK	LOAD	A	B	C	D	E	F	G	H	J	K	M	P	Q	R	S	T	V	X - Anchor Bolt Diameter	Y - Masonry Plate Hole Size	Number Anchor Bolts Required	Z - Slotted Hole for Anchor Bolts or Cap Screws	℄ Washer Size for Anchor Bolts or Cap Screws	A1 Embedment Depth	MARK
EPD-1	100K	1'-2¾"	9"	8"	1'-6"	8"	1¾"	3½"	4"	2¾"	7"	½"	–	3"	1'-4½"	3"	4½"	–	1"	1⅛"	2	3" x 1⅛"	3"x5"x¼"	10"	EPD-1
EPD-2	100K	1'-2¾"	9"	8"	1'-6"	9"	1¾"	4"	4"	2¾"	7"	½"	–	3"	1'-4½"	3"	4½"	–	1"	1⅛"	2	3" x 1⅛"	3"x5"x¼"	10"	EPD-2
EPD-3	100K	1'-2¾"	9"	8"	1'-6"	10"	1¾"	4½"	4"	2¾"	7"	½"	–	3"	1'-4½"	3"	4½"	–	1"	1⅛"	2	3" x 1⅛"	3"x5"x¼"	10"	EPD-3
EPD-4	100K	1'-3½"	1'-0"	8"	1'-6"	11"	1¾"	5"	4"	2¾"	10"	½"	–	3"	1'-5"	3"	4½"	–	1"	1⅛"	2	3" x 1⅛"	3"x5"x¼"	10"	EPD-4
EPD-5	200K	1'-9½"	1'-3"	10"	1'-8"	1'-0"	2½"	5½"	4"	3½"	1'-0½"	½"	–	4"	2'-0½"	4"	6½"	–	1½"	1½"	2	4" x 1⅛"	4"x7"x¼"	1'-3"	EPD-5
EPD-6	200K	1'-9½"	1'-3"	10"	1'-8"	1'-1"	2½"	6"	4"	3½"	1'-0½"	½"	–	4"	2'-1"	4"	6½"	–	1½"	1½"	2	4" x 1⅛"	4"x7"x¼"	1'-3"	EPD-6
EPD-7	200K	1'-9½"	1'-3"	10"	1'-8"	1'-2"	2½"	6½"	4"	3½"	1'-0½"	½"	–	4"	2'-1"	4"	6½"	–	1½"	1½"	2	4" x 1⅛"	4"x7"x¼"	1'-3"	EPD-7
EPD-8	200K	1'-9½"	1'-3"	10"	1'-8"	1'-3"	2½"	7"	4"	3½"	1'-0½"	½"	–	4"	2'-1"	4"	6⅝"	–	1½"	1½"	2	4" x 1⅛"	4"x7"x¼"	1'-3"	EPD-8
EPD-9	300K	1'-10"	1'-3"	1'-2"	2'-0"	1'-4"	3"	7½"	5"	4½"	11½"	½"	–	6"	2'-2½"	4"	8"	–	1½"	1½"	2	5" x 1⅛"	4"x8"x¼"	1'-3"	EPD-9
EPD-10	400K	1'-10½"	1'-3"	1'-6"	2'-4"	1'-6"	3½"	8½"	6"	5½"	11½"	½"	8½"	3½"	2'-3"	4"	8⅝"	–	1½"	1⅝"	2	5" x 1⅝"	4"x8"x¼"	1'-3"	EPD-10
EPE-1	200K	1'-10"	1'-3"	10"	1'-7"	1'-6"	3"	4"	4"	3¼"	1'-0"	2⅝"	–	4"	1'-10"	4½"	–	4"	1½"	1⅝"	4	3⅜" x 1⅛"	3½"x4½"x¼"	1'-3"	EPE-1
EPE-2	200K	1'-10"	1'-3"	11"	1'-8"	1'-9"	3"	5½"	4½"	3¼"	1'-0"	2⅝"	–	4½"	1'-10"	4½"	–	4"	1½"	1⅝"	4	4" x 1⅛"	3½"x5½"x¼"	1'-3"	EPE-2
EPE-3	200K	1'-10"	1'-3"	11"	1'-8"	1'-10"	3"	6"	4½"	3¼"	1'-0"	2⅝"	–	4½"	1'-10"	4½"	–	4½"	1½"	1⅝"	4	4" x 1⅛"	3½"x5½"x¼"	1'-3"	EPE-3
EPE-4	200K	1'-10"	1'-3"	11"	1'-8"	1'-10"	3"	6½"	4½"	3¼"	1'-0"	2⅝"	–	4½"	1'-10"	4½"	–	4½"	1½"	1⅝"	4	4½" x 1⅛"	3½"x6"x¼"	1'-3"	EPE-4
EPE-5	200K	1'-10"	1'-3"	11"	1'-8"	2'-0"	3"	7"	4½"	3½"	1'-0"	2⅝"	–	4½"	1'-10"	4½"	–	4"	1½"	1⅝"	4	4½" x 1⅛"	3½"x6"x¼"	1'-3"	EPE-5
EPE-6	300K	1'-10"	1'-3"	1'-2"	1'-11"	1'-6"	3"	4"	5"	4¼"	1'-0"	2⅝"	–	6"	1'-10"	4½"	–	4"	1½"	1⅝"	4	2⅝" x 1⅛"	3½"x4½"x¼"	1'-3"	EPE-6
EPE-7	300K	1'-10⅝"	1'-3"	1'-2"	1'-11"	1'-8"	3½"	5"	5"	4¼"	1'-0"	2⅝"	–	6"	1'-10"	4½"	–	4"	1½"	1⅝"	4	3" x 1⅛"	3½"x5"x¼"	1'-3"	EPE-7
EPE-8	300K	1'-10⅝"	1'-3"	1'-2"	1'-11"	1'-10"	3½"	6"	5"	4¼"	1'-0"	2⅝"	–	6"	1'-10"	4½"	–	4"	1½"	1⅝"	4	3½" x 1⅛"	3½"x6"x¼"	1'-3"	EPE-8
EPE-9	300K	1'-10⅝"	1'-3"	1'-2"	1'-11"	2'-0"	3½"	7"	5"	4¼"	1'-0"	2⅝"	–	6"	1'-10½"	4½"	–	4½"	1½"	1⅝"	4	4½" x 1⅛"	3½"x6"x¼"	1'-3"	EPE-9
EPE-10	300K	1'-10⅝"	1'-3"	1'-2"	1'-11"	2'-3"	3½"	8"	5"	4½"	1'-0"	2⅝"	–	6"	1'-10½"	4½"	–	4⅝"	1½"	1⅝"	4	5" x 1⅛"	3½"x6"x¼"	1'-3"	EPE-10
EPE-11	400K	1'-10½"	1'-3"	1'-7"	2'-4"	1'-7"	3½"	4½"	5"	6⅜"	1'-0"	2⅝"	9"	4"	1'-10"	4½"	–	5½"	1⅝"	1⅝"	4	5" x 1⅛"	3½"x7"x¼"	1'-3"	EPE-11
EPE-12	400K	1'-10½"	1'-3"	1'-7"	2'-4"	1'-11"	3½"	6½"	5"	6⅜"	1'-0"	2⅝"	9"	4"	1'-10½"	4½"	–	4"	1½"	1⅝"	4	4" x 1⅛"	3½"x5"x¼"	1'-3"	EPE-12
EPE-13	400K	1'-11"	1'-3"	1'-7"	2'-4"	2'-4"	4"	8½"	5"	6⅜"	1'-0"	2⅝"	8½"	4"	1'-10½"	4½"	–	5"	1½"	1⅝"	4	5" x 1⅛"	3½"x6"x¼"	1'-3"	EPE-13
EPE-14	600K	2'-1⅛"	1'-6"	1'-11"	3'-0"	1'-10"	3⅜"	6"	7"	8⅜"	1'-2⅝"	2⅜"	11⅛"	5"	1'-10½"	4½"	–	6⅛"	1½"	1⅝"	4	6⅛" x 1⅛"	3½" x 8" x ¼"	1'-3"	EPE-14
EPE-15	600K	2'-2⅛"	1'-6"	1'-11"	3'-0"	2'-3"	4¼"	9"	7"	8½"	1'-1⅜"	3¼"	11"	5"	1'-11"	4½"	–	4⅝"	1½"	1⅝"	4	4½" x 1⅛"	4"x5½"x¼"	1'-3"	EPE-15
EPE-16	800K	2'-2"	1'-6"	2'-6"	3'-10"	1'-11"	4"	6½"	10"	10⅜"	1'-2"	2⅜"	11⅛"	6⅜"	1'-11"	4½"	–	6⅛"	1½"	1⅝"	4	6⅛" x 1⅛"	4"x8"x¼"	1'-3"	EPE-16
EPE-17	800K	2'-2⅛"	1'-6"	2'-6"	3'-10"	2'-5"	4½"	9"	10"	10¾"	1'-1⅜"	3¼"	10⅜"	6⅜"	1'-11½"	4½"	–	5"	1½"	1⅝"	4	4½" x 1⅛"	4"x6"x¼"	1'-3"	EPE-17
																		6⅝"	1½"	1⅝"	4	6½" x 1⅛"	4"x8½"x¼"	1'-3"	
FPD-1	100K	1'-0"	–	8"	1'-6"	9"	2"	2¼"	6½"	–	6"	–	–	–	1'-3"	3½"	–	–	1"	1⅛"	4	–	Standard	10"	FPD-1
FPD-2	200K	1'-0"	–	10"	1'-8"	1'-2"	2"	4½"	7½"	–	6"	–	–	–	1'-8"	4"	–	–	1½"	1⅝"	4	–	Standard	1'-3"	FPD-2
FPD-3	300K	1'-0"	–	1'-2"	2'-0"	1'-4"	2"	5⅜"	9⅜"	–	6"	–	–	–	1'-8"	4"	–	–	1½"	1⅝"	4	–	Standard	1'-3"	FPD-3
FPD-4	400K	1'-3"	–	1'-6"	2'-4"	1'-6"	2"	6⅜"	11⅝"	–	9"	–	6½"	–	1'-8"	4"	–	–	1½"	1⅝"	4	–	Standard	1'-3"	FPD-4
FPD-5	600K	1'-3"	–	1'-11"	3'-0"	1'-10"	3"	8⅜"	1'-3⅜"	–	8"	–	5½"	–	1'-9"	4"	–	–	1½"	1⅝"	4	–	Standard	1'-3"	FPD-5
FPD-6	800K	1'-3"	–	2'-6"	3'-10"	1'-11"	3"	9½"	1'-8⅜"	–	8"	–	5½"	–	1'-9"	4"	–	–	1½"	1⅝"	4	–	Standard	1'-3"	FPD-6

ANCHOR BOLT DETAILS



PINTLE DETAILS



NOTE:
Use 1"Ø Pintles with 1"Ø Anchor Bolts & 1½"Ø Pintles with 1½"Ø Anchor Bolts.

GENERAL NOTES:

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 a min. slope of ¼ inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

Fabricate pedestals with ¼" fillet welds. The diameter of the pin hole shall not exceed that of the pin by more than ⅛ inch.

Pedestals EPD-1 thru EPD-9 and EPE-1 thru EPE-10 have no center stiffeners and have only one drainage hole.

Pedestals EPD-10 and EPE-11 thru EPE-17 have a center stiffener and have two drainage holes.

Pedestals FPD-1 thru FPD-3 have no center stiffeners and have no drainage holes.

Pedestals FPD-4 thru FPD-6 have a center stiffener and no drainage holes.

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1969

A.S.T.M. STEEL CLASSIFICATION

All structural steel shall be - A36 except the following:

2"Ø Pin - A36; A235, Class E or A108, Grade 1016 - 1030 inclusive.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

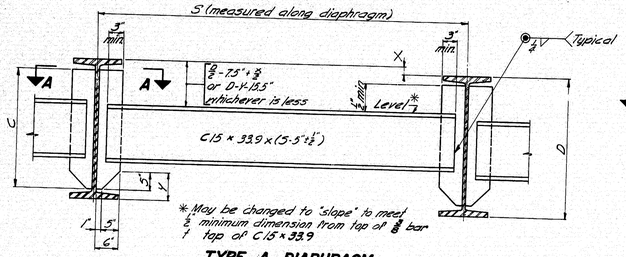
STANDARD DETAILS
(BD 100-71)

BEARING PEDESTALS

JULY 1971

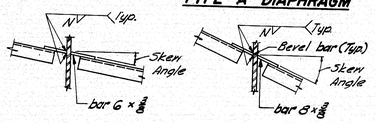
153-144

B.P.R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	40	105



* May be changed to "slope" to meet ⅛" minimum dimension from top of ⅜" bar to top of C15 x 33.9

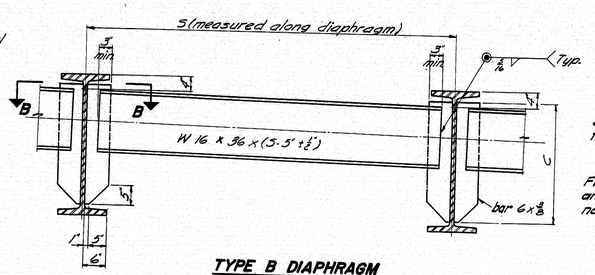
TYPE A DIAPHRAGM



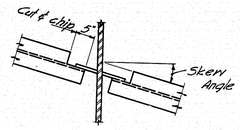
SECTION A-A
Skew Angle 0° to 10°-00'

SECTION A-A
Skew Angle over 10°-00' to 20°-00'

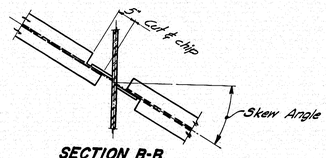
FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM BARS		
BEAM	C	N
W27 x 84 to 114 incl.	1'-11"	½"
W30 x 99 to 132 incl.	2'-2"	½"
W33 x 118 to 152 incl.	2'-5"	½"
W36 x 135 to 194 incl.	2'-7"	½"
W36 x 230 to 300 incl.	2'-6"	5/16"



TYPE B DIAPHRAGM
Welding 6 x ⅜ bars to web same as for Type A Diaphragm.

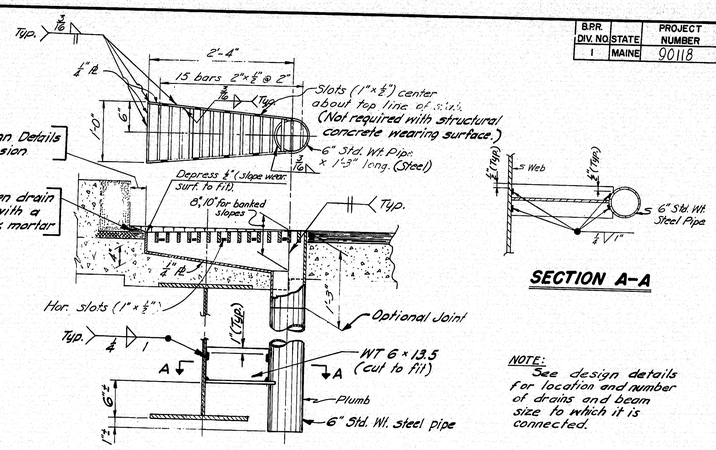


SECTION B-B
Skew Angle 0° to 10°-00'



SECTION B-B
Skew Angle over 10°-00'

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

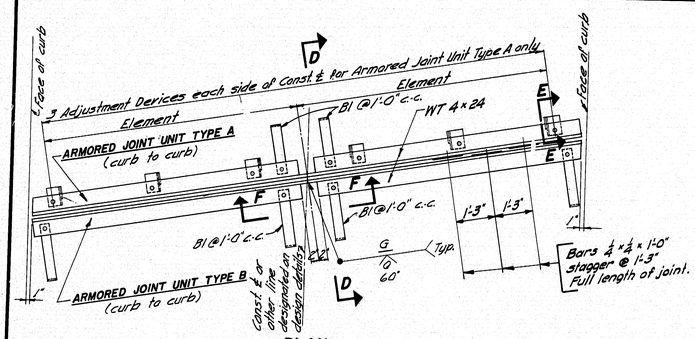


SECTION A-A

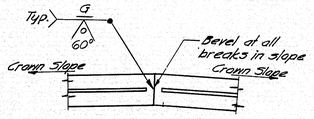
NOTE:
See design details for location and number of drains and beam size to which it is connected.

DRAIN NO. 1

DIAPHRAGMS



PLAN

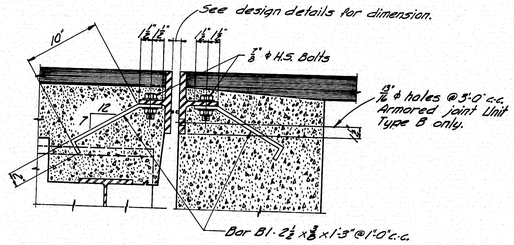


SECTION F-F
Note: See design details for Const. ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. 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'.
3. Armored Joints to be paid for as Structural Steel.

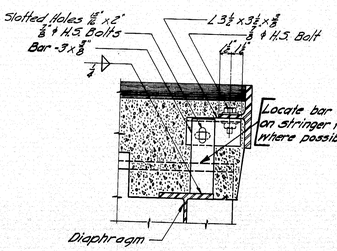
ARMORED JOINT
An armored joint consists of two armored joint units. See note 1.



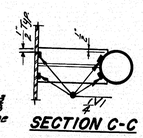
ARMORED JOINT UNIT TYPE A

ARMORED JOINT UNIT TYPE B

SECTION D-D

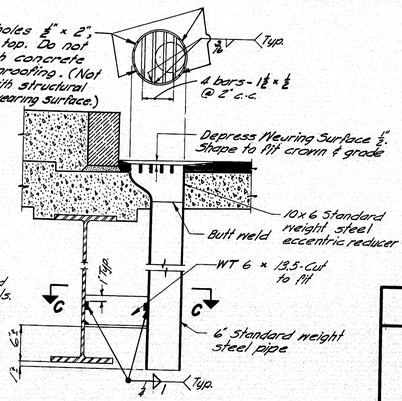


SECTION E-E
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld ⅜ bar to angle with ¼ Fillet

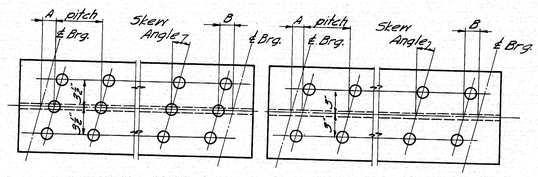


SECTION C-C

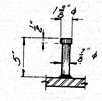
NOTE
1. Drain may be rotated 180°. See design details.
2. See design details for location and number of drains and beam size to which it is connected.



DRAIN NO. 2



TRIPLE STUDS **DOUBLE STUDS**



STUD DETAIL

NOTE
1. Studs shall be granular or solid flux filled and automatically end welded to top flange in the shop or field.
2. See the design details for Dimensions 'A' & 'B', stud pitch and skew angle for studs.

SHEAR CONNECTORS

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.
Drains to be incidental, see Section 502.20

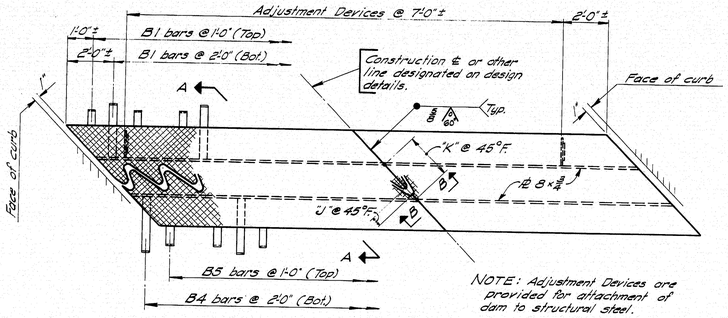
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 104-71)
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

DECEMBER 1971

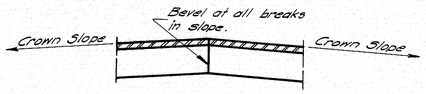
153-145

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	41	105



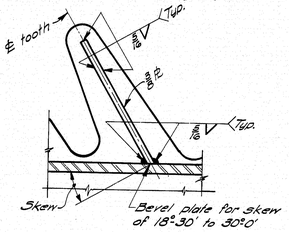
PLAN

Right Skew indicated



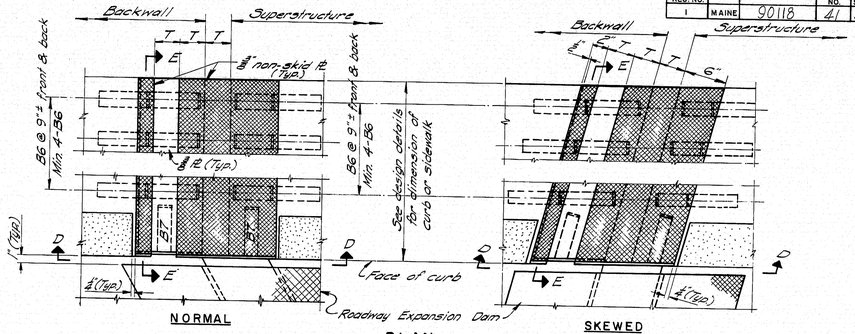
SECTION B-B

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.

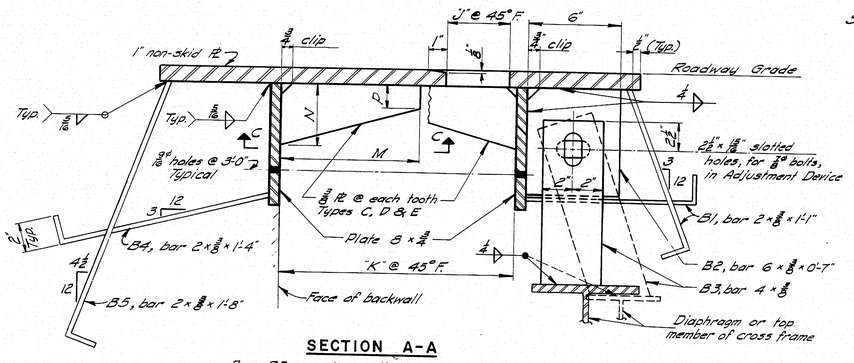


SECTION C-C

Skew ~0° to 30°0'

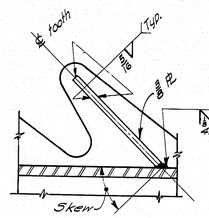


PLAN



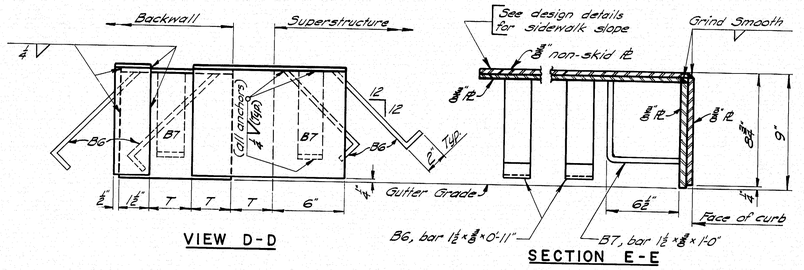
SECTION A-A

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 ¼" fillet weld.



SECTION C-C

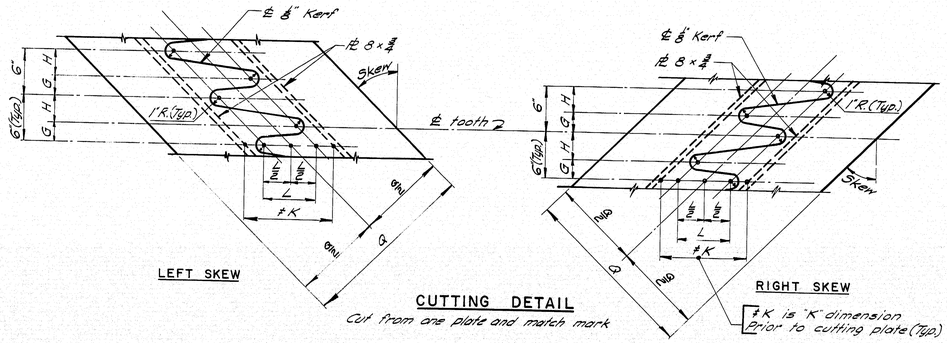
Skew over 30°



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

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

CURB AND SIDEWALK EXPANSION DAM – DETAILS



CUTTING DETAIL

Cut from one plate and match mark

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

ROADWAY EXPANSION DAM – DETAILS

TABLE OF DIMENSIONS

Type	Exp. Length	Skew	≠K	L	G	H	K@45°	J@45°	M	N	P	Q
A	100'-280'	0°-5° incl.	7"	4"	3"	3"	9"	2⅝"	—	—	—	21"
		5°-10°	7⅛"	4⅛"	2⅝"	3⅜"	9¼"	2⅝"	—	—	—	22"
		10°-20°	8"	4⅝"	2⅝"	3⅜"	10"	2⅝"	—	—	—	22"
		20°-30°	8⅞"	5⅛"	2⅝"	3¼"	10⅝"	2⅝"	—	—	—	23"
		30°-40°	9⅝"	5⅝"	2⅝"	3⅜"	11⅜"	2⅝"	—	—	—	23"
		40°-50° incl.	11⅛"	6⅝"	2⅝"	3⅝"	13⅛"	2⅝"	—	—	—	23"
B	280'-440'	0°-5° incl.	9"	6"	3"	3"	12"	3⅜"	—	—	—	23"
		5°-10°	9⅛"	6⅛"	2⅝"	3⅜"	12⅛"	3⅜"	—	—	—	24"
		10°-20°	10"	6⅝"	2⅝"	3⅜"	13"	3⅜"	—	—	—	24"
		20°-30°	10⅞"	7⅛"	2⅝"	3⅝"	13⅞"	3⅜"	—	—	—	25"
		30°-40°	12"	8"	2⅝"	3¼"	15"	3⅜"	—	—	—	25"
		40°-50° incl.	13⅝"	8⅝"	2⅝"	3⅜"	16⅛"	3⅜"	—	—	—	25"
C	440'-600'	0°-10° incl.	11⅝"	8⅛"	3"	3"	15⅛"	4⅜"	9"	4"	1⅛"	26"
		10°-20°	12"	8⅝"	2⅝"	3½"	16"	4⅜"	10"	4"	1⅛"	26"
		20°-30°	12⅞"	9⅛"	2⅝"	3⅝"	16⅞"	4⅜"	11"	4"	1⅛"	26"
		30°-40°	14"	10"	2⅝"	3¼"	18"	4⅜"	11"	4"	1⅛"	26"
		40°-50° incl.	15⅝"	10⅝"	2⅝"	3½"	19½"	4⅜"	12"	4"	1⅛"	26"
D	600'-760'	0°-10° incl.	13⅝"	10⅛"	3"	3"	18½"	5⅜"	11"	5"	2"	30"
		10°-20°	14"	10⅝"	2⅝"	3⅝"	19"	5⅜"	12"	5"	2"	30"
		20°-30°	14⅞"	11⅛"	2⅝"	3⅝"	19⅞"	5⅜"	13"	5"	2"	30"
		30°-40°	16"	12"	2⅝"	3⅝"	21"	5⅜"	13"	5"	2"	30"
		40°-50° incl.	17⅛"	13"	2⅝"	3½"	22⅜"	5⅜"	15"	5"	2"	30"
E	760'-920'	0°-10° incl.	15⅝"	12⅛"	3"	3"	21½"	6⅝"	13"	6"	2⅛"	36"
		10°-20°	16"	12⅝"	2⅝"	3⅝"	22"	6⅝"	14"	6"	2⅛"	36"
		20°-30°	16⅞"	13⅛"	2⅝"	3⅝"	22⅞"	6⅝"	15"	6"	2⅛"	36"
		30°-40°	18"	14"	2⅝"	3½"	24"	6⅝"	15"	6"	2⅛"	36"
		40°-50° incl.	19⅛"	15"	2⅝"	3½"	25⅜"	6⅝"	17"	6"	2⅛"	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)

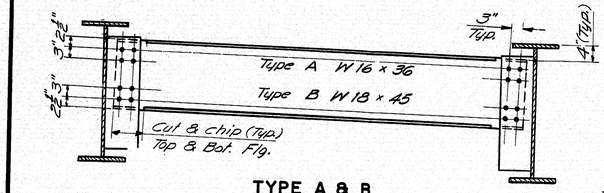
EXPANSION DAMS

APRIL 1964

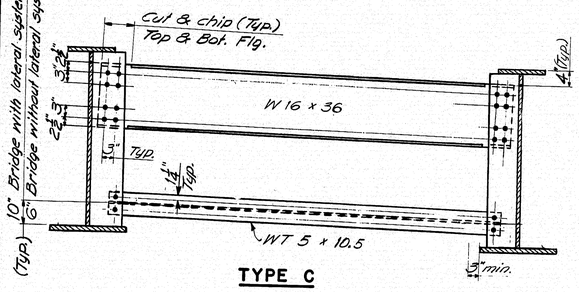
153-146

NOTE A — This dimension may be varied (±1") to allow a series of diagonals to have the same slope.

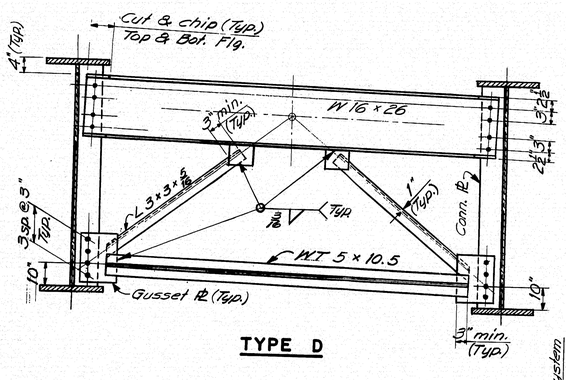
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	42	105



TYPE A & B



TYPE C



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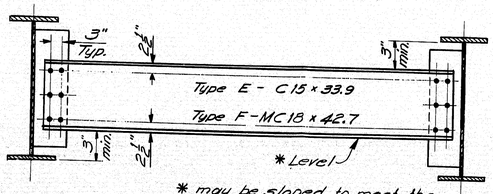
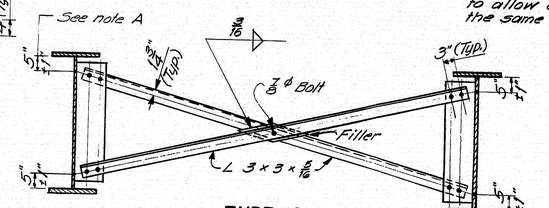
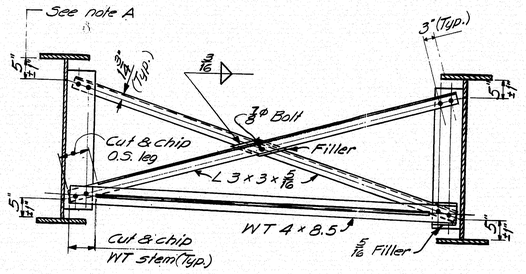


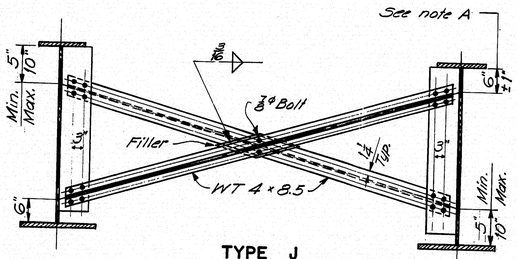
TYPE E & F



TYPE G



TYPE H



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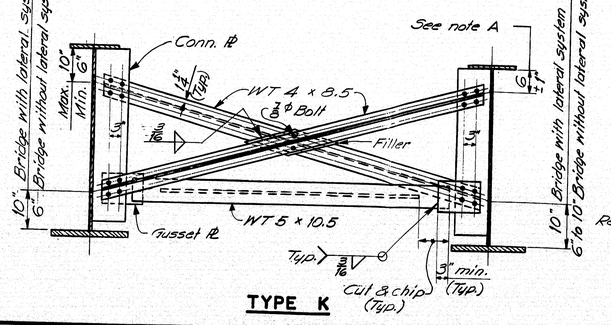

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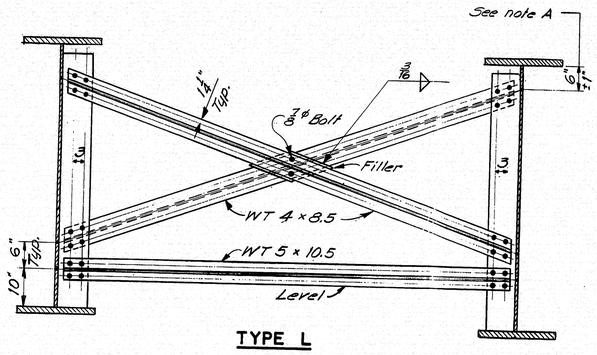

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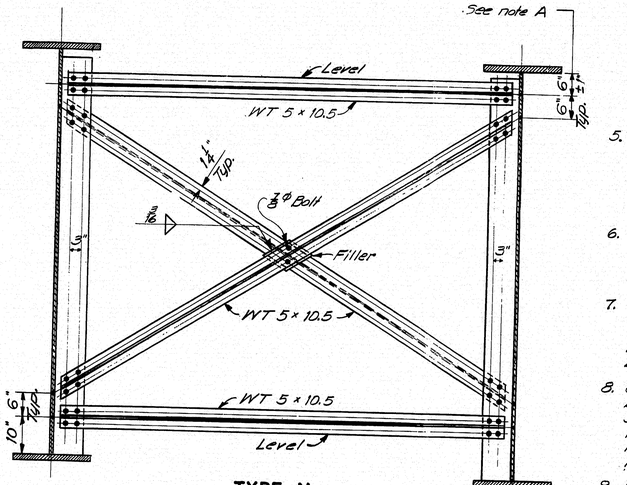
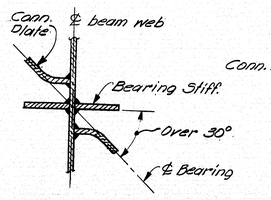
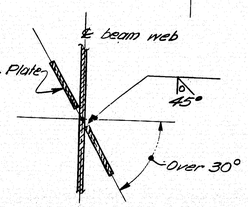


TYPE M



DETAIL A
Referenced from Note 5



DETAIL B
Referenced from Note 4

MATERIALS

Diaphragms, Crossframes and All Plates (Filler, gusset, and connection) ASTM A36

High Strength Bolts 7/8" diameter ASTM A325

FABRICATION NOTES

1. For location and type of diaphragm or crossframe see design details.
2. Holes for ⅞" diameter bolts shall be 15/16" dia. and Edge distances shall be 1¼" minimum unless otherwise shown.
3. Connection plates and gusset plates shall have a minimum thickness of ⅜" and shall have sufficient width to provide erection clearances. When bearing stiffeners or intermediate stiffeners are used as connection plates, the plate size will be given on the design details.
4. Connection plates shall be fastened to beam and girder webs as follows:
   - 0° to 30° skew — fillet weld both sides.
   - Over 30° skew — full penetration groove weld (See Detail B) except as indicated in Note 5
   - Over 45° skew — weld prequalification will be required.

   The skew angle is the angle between the connection plate and a line normal to the beam.
5. Bearing stiffeners shall be used as connection plates when the skew is not over 30°. When the skew is over 30° a bent connection plate shall be attached to the web adjacent to the bearing stiff. as shown in Detail A.
6. All fillet weld sizes shall be the minimum for the thickness of metal being joined according to AWS Specifications for Welded Highway & Railway Bridges.
7. Connection plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression or when used as a bearing stiffener or intermediate stiff.
8. Connection plates shall extend to the bottom flange when used as a bearing stiffener, at points where lateral bracing is attached & on welded beams and girders in areas where the bottom flange is always in compression.
9. When a conn. plate is extended to a flange it shall be a paint tight fit except as otherwise indicated on design details.
10. Conn. plates shall be 2⅜" clear from flanges, except as indicated by Notes 7&8.
11. Use only those items called for on the design details. In case of conflict between these standard details and the design details, the design details shall be followed.

PLANS	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
BY				
DATE				

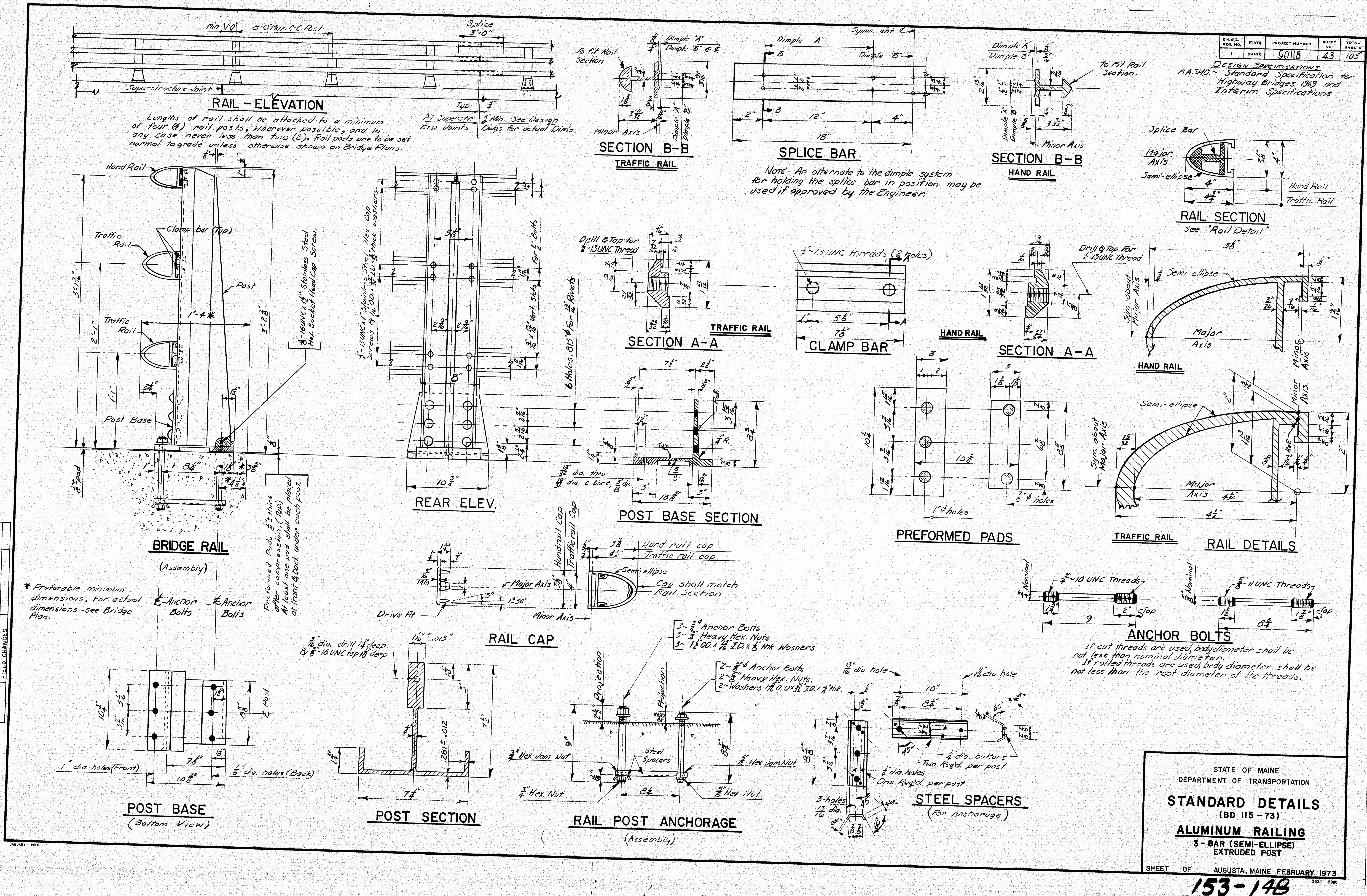
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 113 - 72)

DIAPHRAGMS & CROSSFRAMES

SHEET OF AUGUSTA, MAINE SEPT. 1972

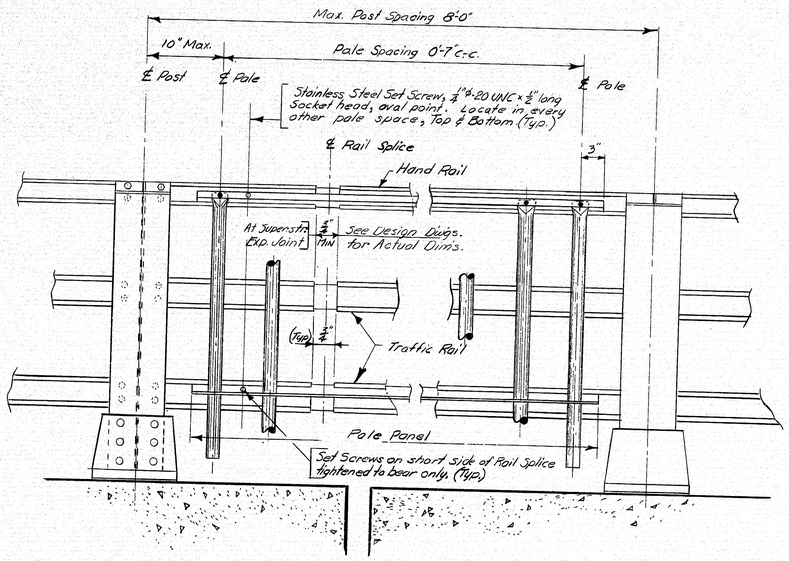
153-147



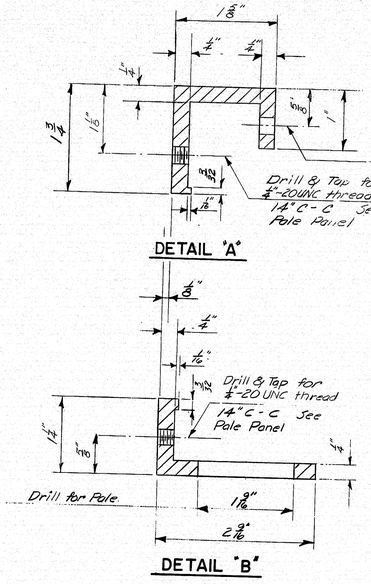
F.H.W.A. REG. NO. 1 | STATE MAINE | PROJECT NUMBER 90118 | SHEET NO. 43 | TOTAL SHEETS 105
DESIGN SPECIFICATIONS
A.A.S.H.O. ~ Standard Specification for Highway Bridges 1969 and Interim Specifications
RAIL - ELEVATION
Min. 1'0" 8'-0" Max. C-C Post
Splice 3'-0"
Superstructure Joint
Lengths of rail shall be attached to a minimum of four (4) rail posts, wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown on Bridge Plans.
At Superstr. Exp. Joints
Min. See Design Dwgs for actual Dim's.
SECTION B-B
TRAFFIC RAIL
SPLICE BAR
Note - An alternate to the dimple system for holding the splice bar in position may be used if approved by the Engineer.
SECTION B-B
HAND RAIL
RAIL SECTION
See "Rail Detail"
Hand Rail
Traffic Rail
Clamp bar (Typ)
Post
Post Base
BRIDGE RAIL
(Assembly)
REAR ELEV.
6 Holes .815" for 3/4" Rivets
SECTION A-A
TRAFFIC RAIL
CLAMP BAR
HAND RAIL
SECTION A-A
HAND RAIL
POST BASE SECTION
PREFORMED PADS
TRAFFIC RAIL
RAIL DETAILS
Semi-ellipse
Major Axis
Minor Axis
Preformed Pads 3/8" thick after compression (Typ). At least one pad shall be placed at front & back under each post.
* Preferable minimum dimensions. For actual dimensions ~ see Bridge Plan.
RAIL CAP
Hand rail cap
Traffic rail cap
Cap shall match Rail Section
Drive Fit
ANCHOR BOLTS
If cut threads are used, body diameter shall be not less than nominal diameter.
If rolled threads are used, body diameter shall be not less than the root diameter of the threads.
POST BASE
(Bottom View)
POST SECTION
RAIL POST ANCHORAGE
(Assembly)
Steel Spacers
STEEL SPACERS
(For Anchorage)
PLANS | DESIGN-DETAILED | CHECKED | REVISIONS | FIELD CHANGES
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS
(BD 115-73)
ALUMINUM RAILING
3-BAR (SEMI-ELLIPSE)
EXTRUDED POST
SHEET OF AUGUSTA, MAINE FEBRUARY 1973

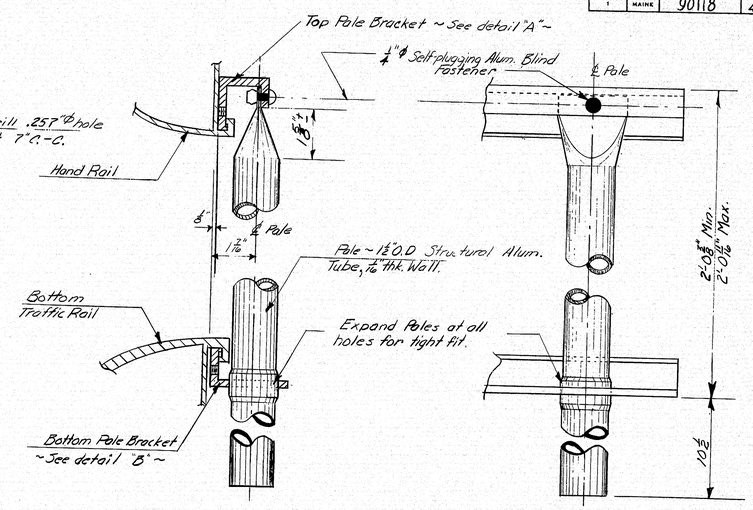
153-148

F.H.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	44	103



REAR ELEVATION

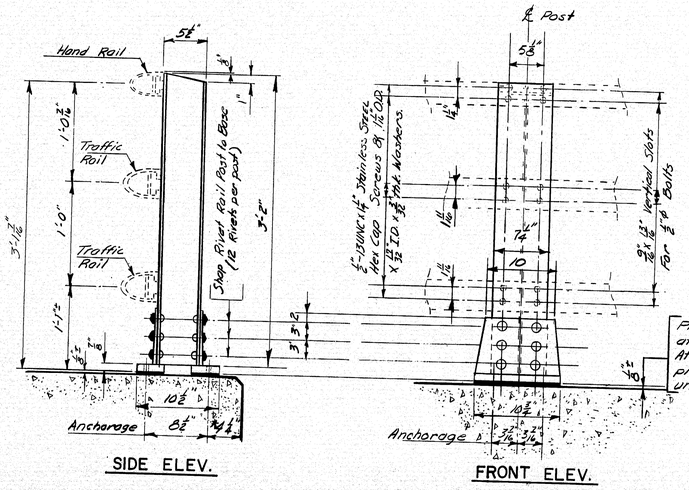




PALE PANEL DETAILS

PALES

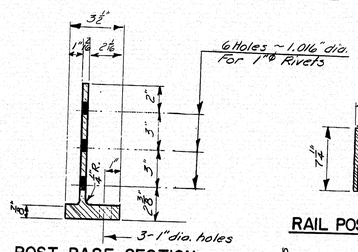
For use with 5 Bar Aluminum Rail



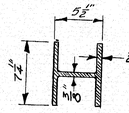
SIDE ELEV. FRONT ELEV.

RAIL POST

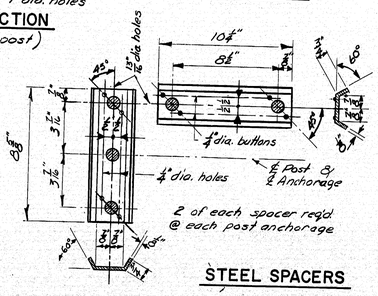
* Preferable minimum dimension. For actual dimension ~ See Bridge Plans.



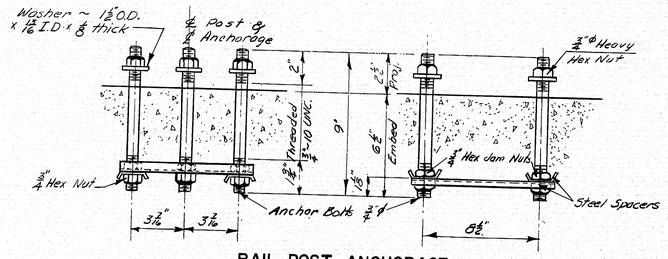
POST BASE SECTION
(2 Required per post)



RAIL POST SECTION

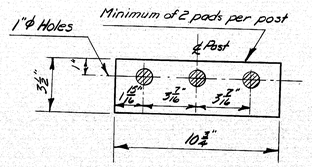


STEEL SPACERS



RAIL POST ANCHORAGE

If cut threads are used, body diameter shall be not less than nominal diameter.
If rolled threads are used, body diameter shall be not less than the root diameter of the threads.



PREFORMED PAD

HEAVY DUTY POST (3-BAR RAIL)

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED	K.L. Leach	Jan. 1973
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
(SHEET BD 115-73 SHALL ACCOMPANY THIS SHEET)

STANDARD DETAILS
(BD 116-73)

PALE PANELS & HEAVY DUTY POST

SHEET OF AUGUSTA, MAINE FEBRUARY 1973

JANUARY 1968

203-1 2060

153-149

5

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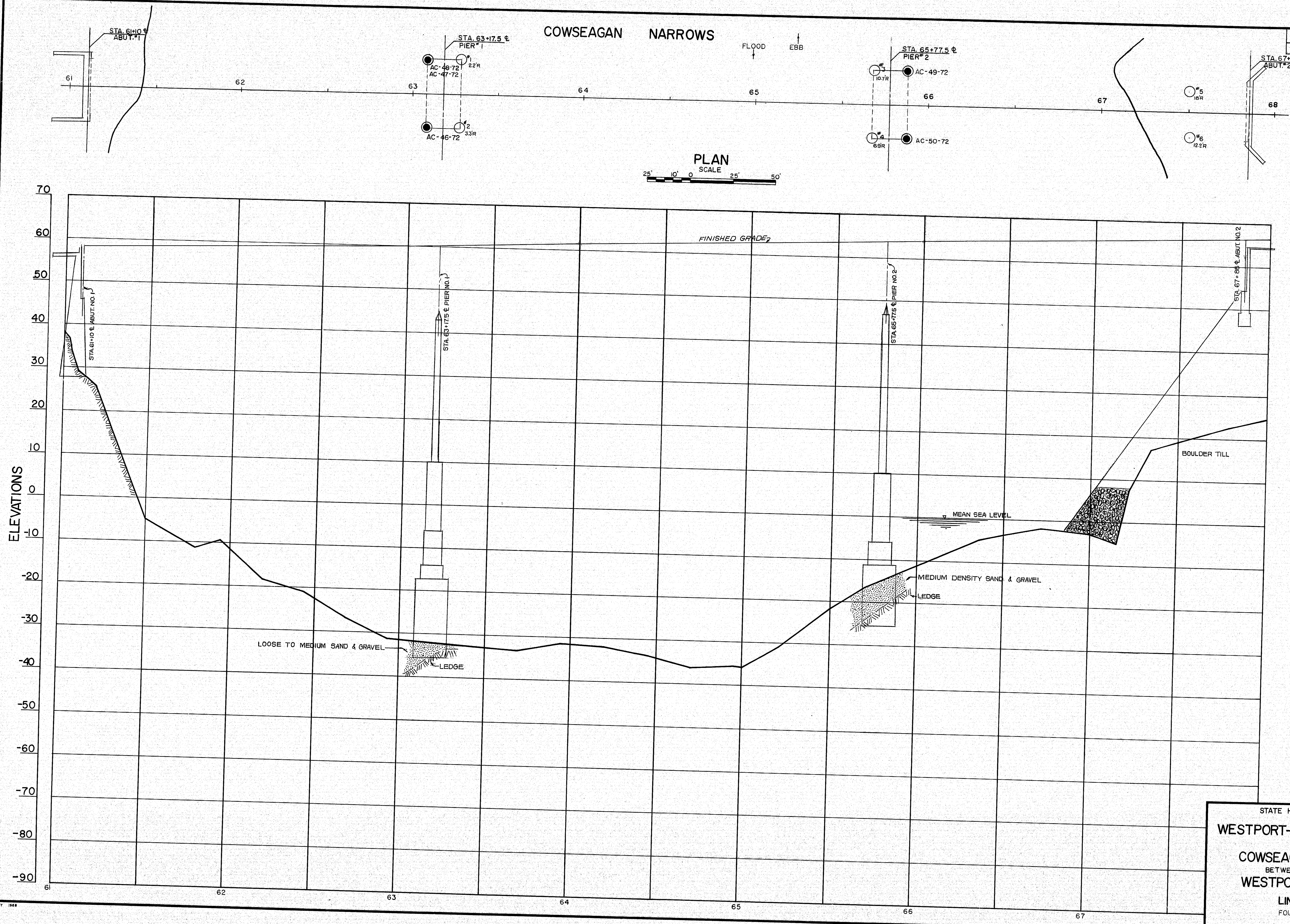

STATE HIGHWAY COMMISSION

WESTPORT-WISCASSET BRIDGE

OVER

COWSEAGAN NARROWS

BETWEEN THE TOWNS OF

WESTPORT-WISCASSET

LINCOLN COUNTY

FOUNDATION SURVEY

SHEET 1 OF 2 AUGUSTA, MAINE

153-150

203-1 2080

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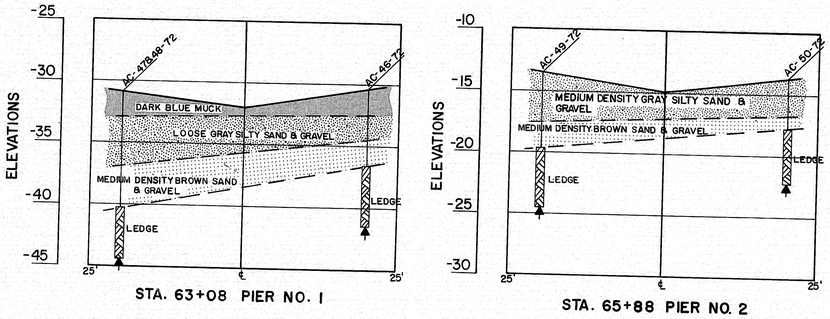
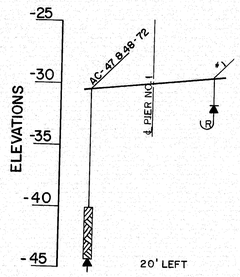


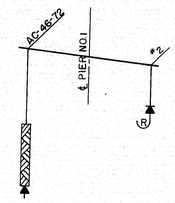
STA. 63+08 PIER NO. 1

STA. 65+88 PIER NO. 2

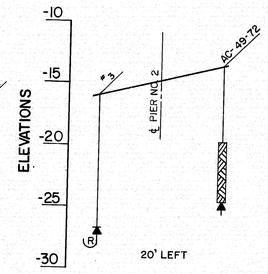
TRANSVERSE SECTIONS

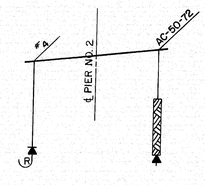
SCALE: 10' 5' 0 10' 20'





PROFILES PIER NO. 1





PROFILES PIER NO. 2

PROFILES

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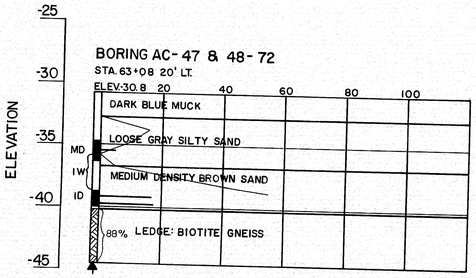
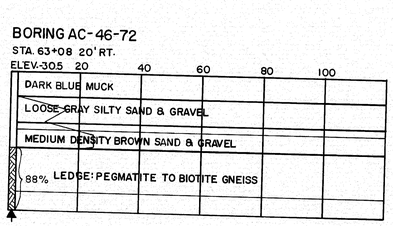
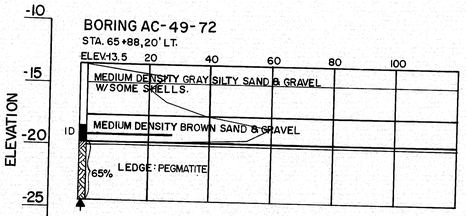
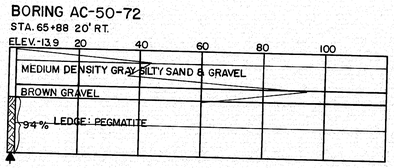








BORING NOTES

- ALL SAMPLES AND VANES ARE MADE AHEAD OF CASING
- WATER ELEVATION
- N — 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 1290'S
  - IW — WASH SAMPLE AND NUMBER
  - MD — UNSUCCESSFUL SAMPLE ATTEMPT AND TYPE OF SAMPLER
- 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)
- R — REFUSAL OF DRILL RODS OR CASING (MAY NOT BE LEDGE)
- 71% — LOCATION CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

2½" CASING USED ON ALL BORINGS

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

JANUARY 1968

STATE HIGHWAY COMMISSION

WESTPORT-WISCASSET BRIDGE

OVER

COWSEAGAN NARROWS

BETWEEN THE TOWNS OF

WESTPORT-WISCASSET

LINCOLN COUNTY

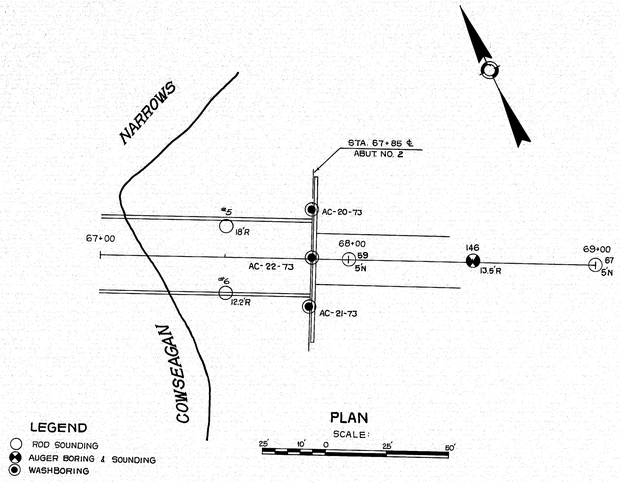
BORING DETAILS

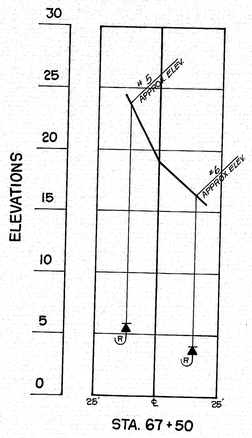
SHEET 2 OF 2 AUGUSTA, MAINE

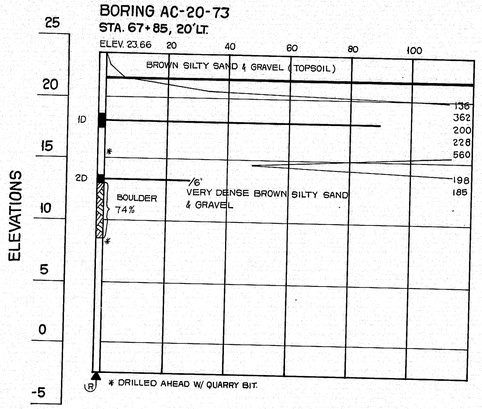
153-151

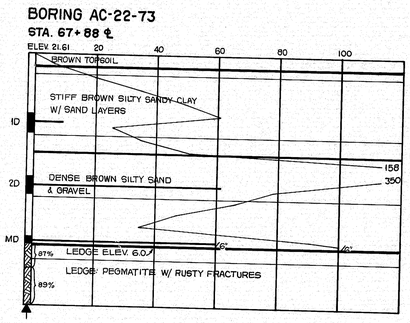
203-1 2080

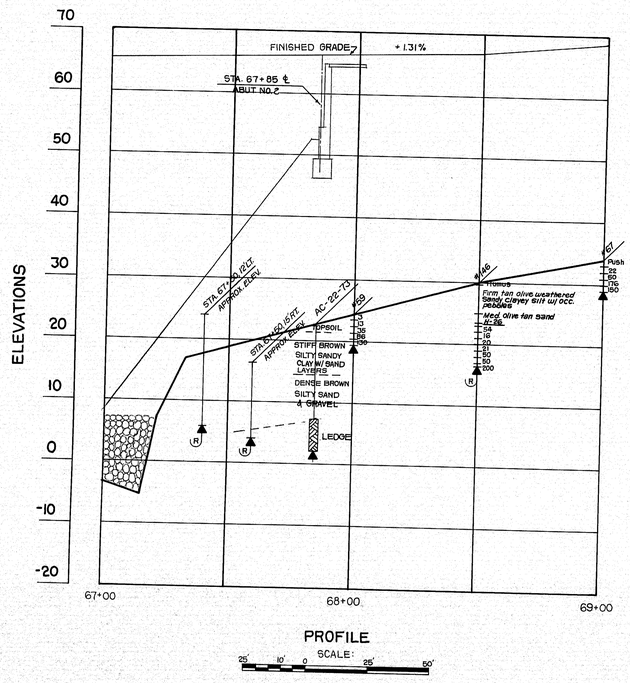
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	90118	46-A	103

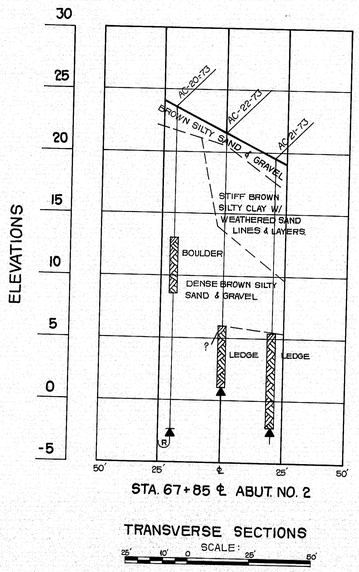


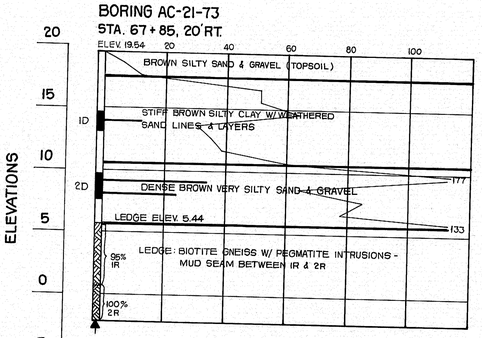












BORING NOTES

- All samples and vanes are made ahead of casing
- N — Water content
- # — 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
- ID — Number and type of dry sample
  - S & H sampler # 1290's
- MD — Unsuccessful sample attempt and type of sampler
- ▬ — 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)
- ▲ — Refusal of drill rods or casing (may not be ledge)
- Locations cored by diamond bit and per cent recovery of rock

PLANS

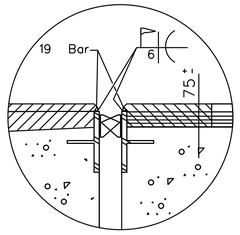
DESIGN - DETAILED	BY	DATE
CHECKED		
REVISIONS		
FIELD CHANGES		

JANUARY 1988

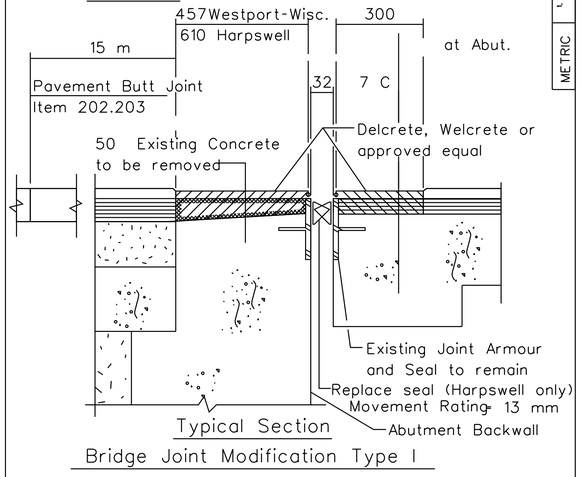
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WESTPORT—WISCASSET BRIDGE
OVER
COWSEAGAN NARROWS
BETWEEN THE TOWNS OF
WESTPORT - WISCASSET
LINCOLN COUNTY
FOUNDATION SURVEY
SHEET OF AUGUSTA, MAINE

203-1 2060

153-152



Detail "A"



Typical Section

Bridge Joint Modification Type I

Westport-Wisc. PIN 6806.00 & Harpswell PIN 6920.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

TRAFFIC DATA

AADT 1997	=1710
AADT 2017	=2570
DHV	=257
Trucks(%)	=6
D (%)	=60
18 kip eq. P2.0	=46
18 kip eq. P2.5	=45
Posted Speed	=45 mph

UTILITIES

NYNEX
Central Maine Power
Casco Cable Co.

Westport-Wisc. PIN 6806.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

Maintenance of Traffic

1.- During construction alternating one way traffic will be maintained by use of temporary traffic signals on a 3.5 m minimum lane.

2.- Payment for all the work and materials required for the maintenance of traffic, such as temporary concrete barriers, maintenance of traffic control devices, cones, drums, and temporary traffic lights as approved by the Construction Manager will be paid for under the applicable pay items.

Temporary Signals

The Temporary Signal Controller shall be a 2 phase fully actuated controller. Install loops or microwave detectors on two approaches. Initial timing shown below: (adjust as necessary)

Westport-Wisc. PIN 6806.00 & Harpswell PIN 6920.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

Scope of Work

- Remove existing bituminous pavement and membrane waterproofing.
- Modify existing armored joint at Abutment #1.
- Modify existing bridge drain grates.
- Place new membrane waterproofing and 80 mm hot bituminous pavement.
- Install pavement butt joint at Abutment #1 approach.
- Pave existing gravel sidewalk ramp at parking area at Abutment #1 Approach.
- Repair Wiscasset pier undermining with the use of grout bags and pumping grout behind them to fill in the voids.

SPECIFICATIONS

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of April 1995.

MATERIALS

CONCRETE: _____ Class A
Rehabilitate in accordance with Section 518, Rehabilitation of Structural Concrete Bridge Decks.

BASIC DESIGN STRESSES

CONCRETE: _____ f'c = 20 MPa

Westport-Wisc. PIN 6806.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WESTPORT - WISCASSET BRIDGE
OVER
MONTSWEAG BAY
BETWEEN THE TOWNS OF
WESTPORT & WISCASSET
LINCOLN COUNTY
PROJECT NO. BR-6806(001)X
PIN 6806.00
PROJECT LENGTH 0.2209 KILOMETER
BRIDGE NO. 3180

EWING NARROWS BRIDGE
OVER
EWING NARROWS RIVER
IN THE TOWN OF
HARPSWELL
CUMBERLAND COUNTY
PROJECT NO. STP-6920(001)X
PIN 6920.00
PROJECT LENGTH 0.2209 KILOMETER
BRIDGE NO. 6217

APPROVED
State of Maine
Department of Transportation

COMMISSIONER _____ DATE

CHIEF ENGINEER _____ DATE

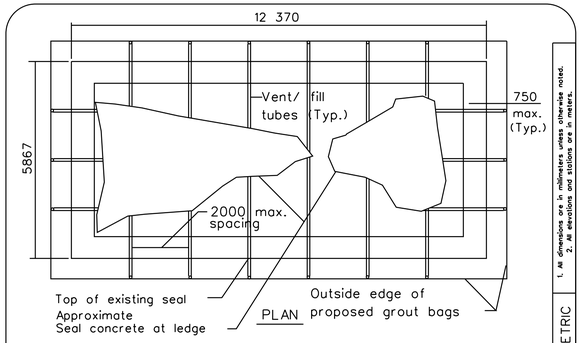
APPROVED
United States
Department of Transportation
Federal Highway Administration
Region 1

DIVISION ADMINISTRATOR _____ DATE

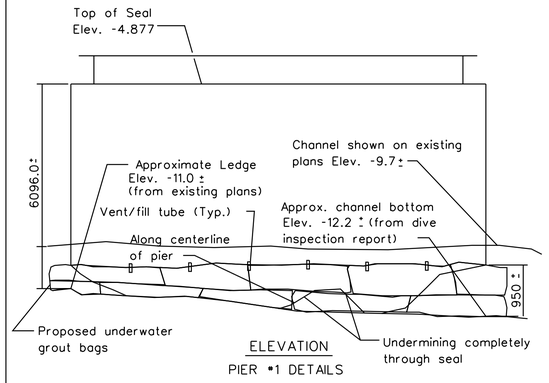
NOTE:
All work contemplated under this contract to be governed by and in conformity with the Standard Specifications(Revision of April 1995) and supplementals thereto, as modified on the plans and in the Special Provisions.

JOINTS

joints_joints.dgn



PLAN



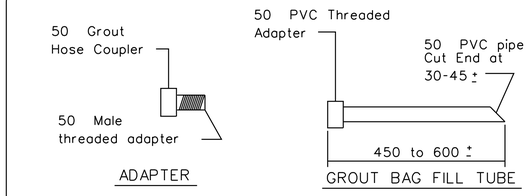
ELEVATION

PIER #1 DETAILS

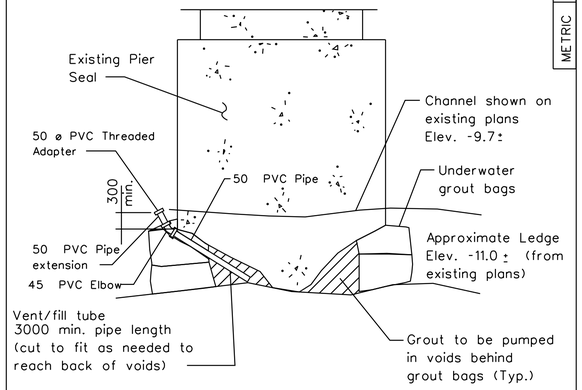
Westport-Wiscasset PIN 6806.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC



NOTE:
Other adapters and grout fill tubes may be used as approved by the Construction Manager.



PIER SECTION

VOID FILLING SET-UP

Westport-Wiscasset PIN 6806.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

PIER REPAIR NOTES:

1.- The Construction Engineer and Divers from the Department shall be ferried from shore (Wiscasset Public Landing) to the site upon request. This item shall be considered incidental to Item 659.10, Mobilization.

2.- All work, materials and payment involved in the underwater pier repair shall conform to Special Provision Section 502, Structural Concrete (Underwater Grout Bags).

3.- Disturbance to the seabed shall be limited to installation of Underwater Grout Bags. No dredging or dumping of material is authorized.

4.- Barges and boats shall be moored to the seabed independent of the existing bridge structure under Span #1.

5.- Item 629.06, Diver/Hand Labor shall cover unanticipated work activities authorized by the Construction Manager that are not part of the placement of Underwater Grout Bags.

6.- Travel by marine vessels in and out of the bridge channel shall not be impeded by construction activities. Barges shall be marked with lights at night as an aid to navigation. Signs shall be provided on barges in the bridge channel notifying marine traffic of construction activities above and below the water. These items shall be considered incidental to Item 659.10, Mobilization.

7.- Unstable material along the bottom of the undermined area shall be removed prior to grouting the bags. All bags are to be placed on ledge.

8.- All vent/fill tubes shall be spaced at no more than 2 m and shall be field cut to length. The length shall be to the back of the void and no more than the outer edge of the grout bags.

9.- All vent/fill tube connections shall be threaded or other attachment approved by the Construction Manager.

9.- Grout bags shall not be tied together with reinforcing steel or by any other means. Grout bags shall be allowed to settle to a state of equalibrium individually to fit the contours of the ledge and concrete pier seal.

10.- The grout bags shall be overlapped both horizontally and vertically to prevent any gaps between the bags. The grout bags act as a stay-in-place form.

Westport-Wiscasset PIN 6806.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

PIER REPAIR NOTES CONT.

11.- A liquid anti-washout admixture, such as RHEOMAC UW 450 or an equal product shall be added to the concrete on site as per manufacturer's recommendations. Any remaining product after the grouting operation is complete shall become the property of the Department. Bridge Maintenance Office in Augusta shall be notified to pick up the remaining product.

12.- The grout bags shall not be filled more than 300 mm average thick except the top bag which can be greater to ensure a good seal.

13.- After the grout bags and vent/fill tubes are installed, The void shall be pressure filled by starting at the lowest end and continuing around the pier. The grout shall be pumped at each vent/fill tube until it exits from the adjacent one. Rags or other flexible material shall be used to plug the vent/fill tubes after pumping operation is complete.

14.- An Underwater Inspection Report is available for the Contractors reference at the Bridge Maintenance Office in Augusta.

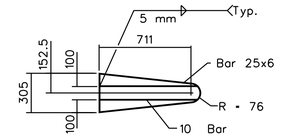
Westport-Wiscasset PIN 6806.00

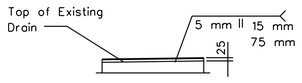
1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

PIER

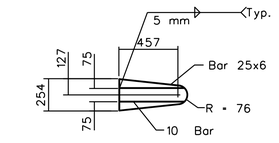
pier_pier.dgn

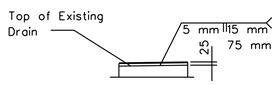




Type 1 - Bridge Drain Grate Modified

18 Req'd - Westport-Wisc. PIN 6806.00
36 Req'd - Harpswell PIN 6920.00





Modified Type 1 - Bridge Drain Grate Modified

18 Req'd - Westport-Wisc. PIN 6806.00

Westport-Wisc PIN 6806.00 & Harpswell PIN 6920.00

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

METRIC

SPRSTR

sprstr_sprstr.dgn