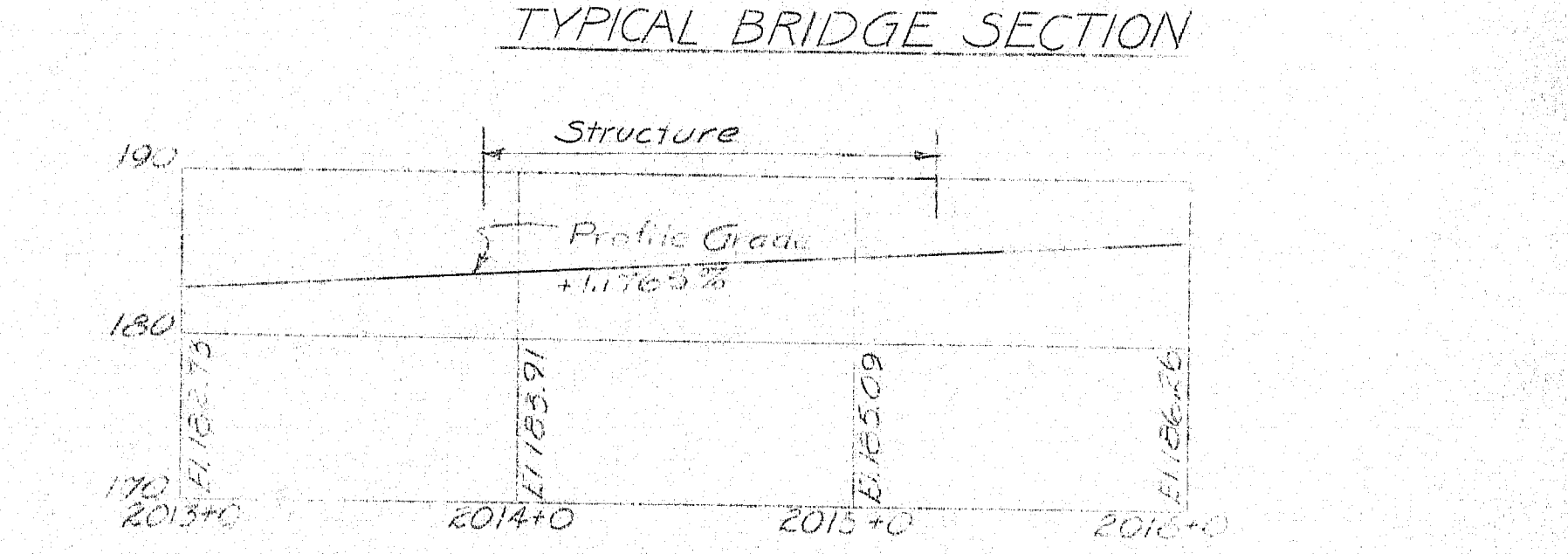
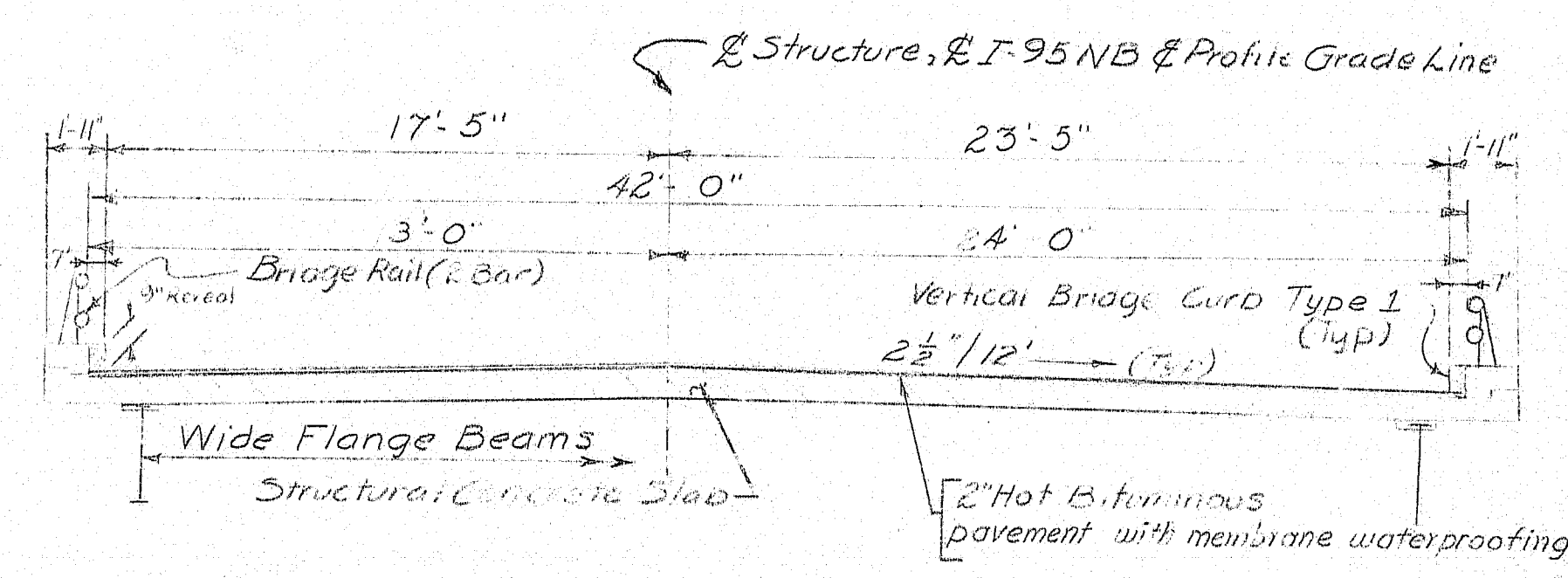
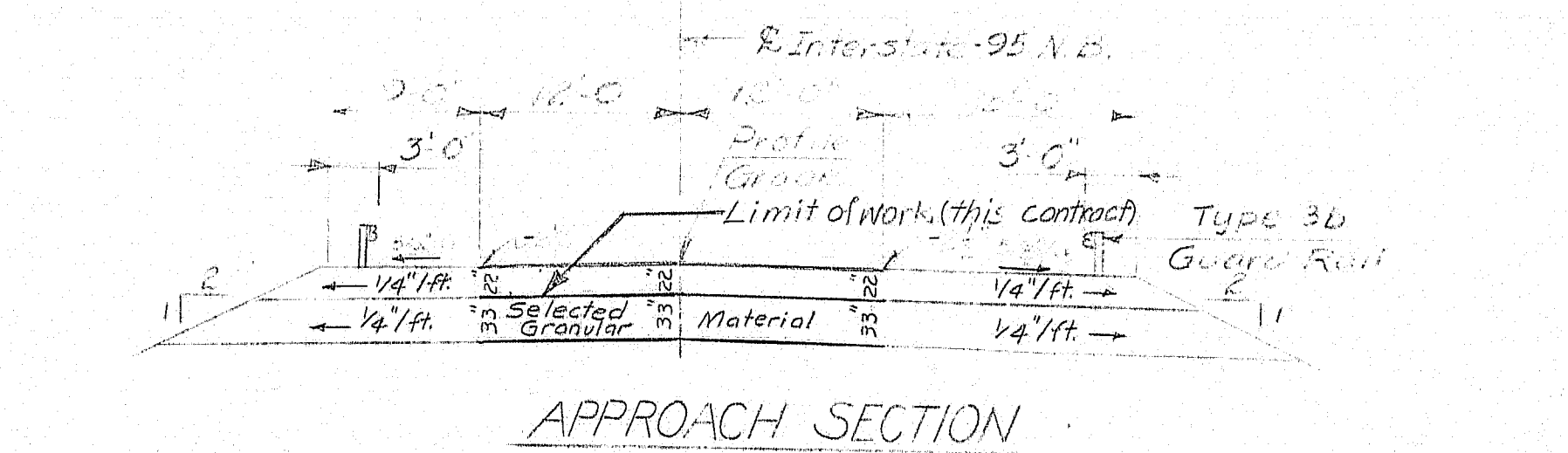
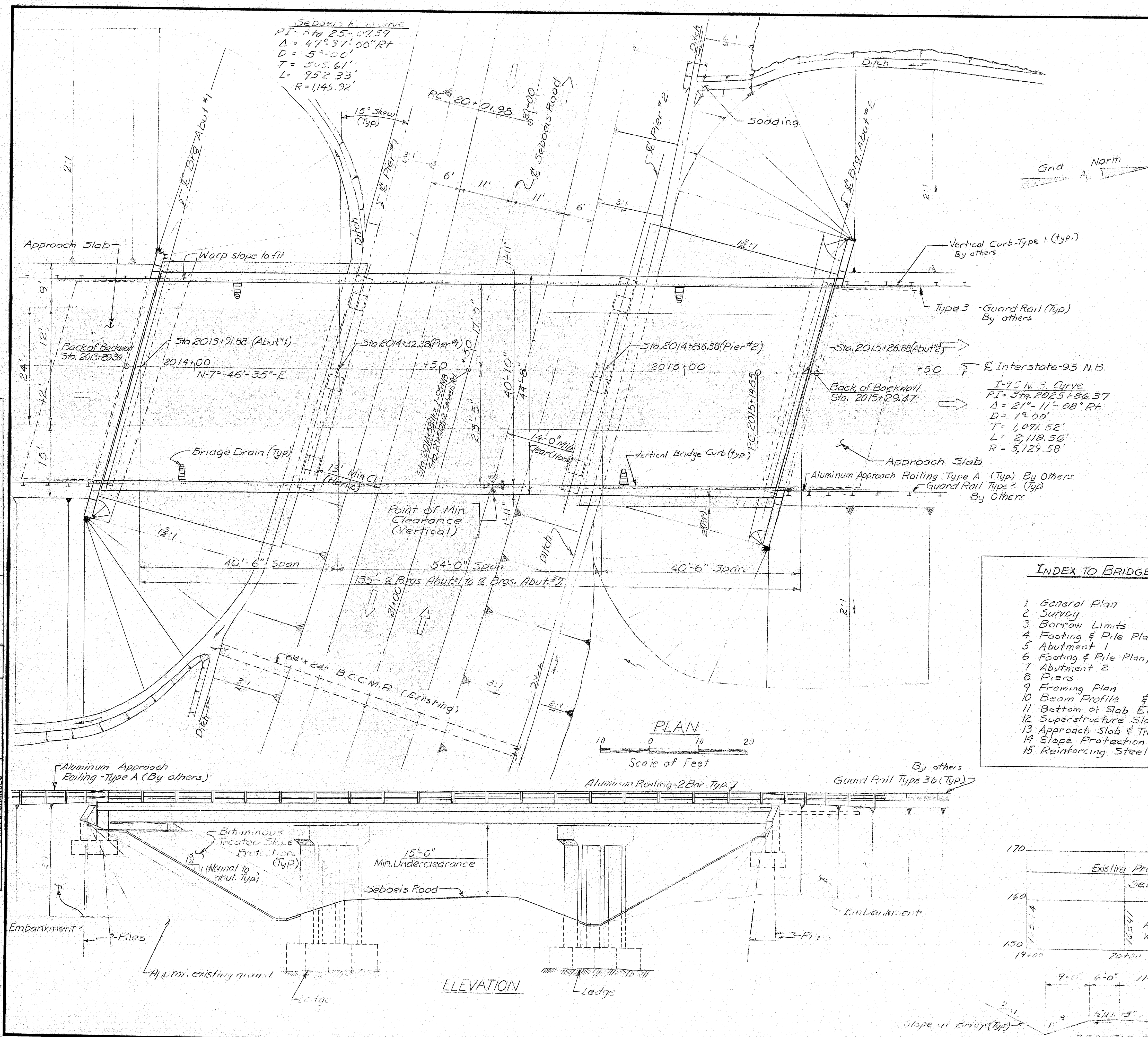


S. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8(99)	27	47



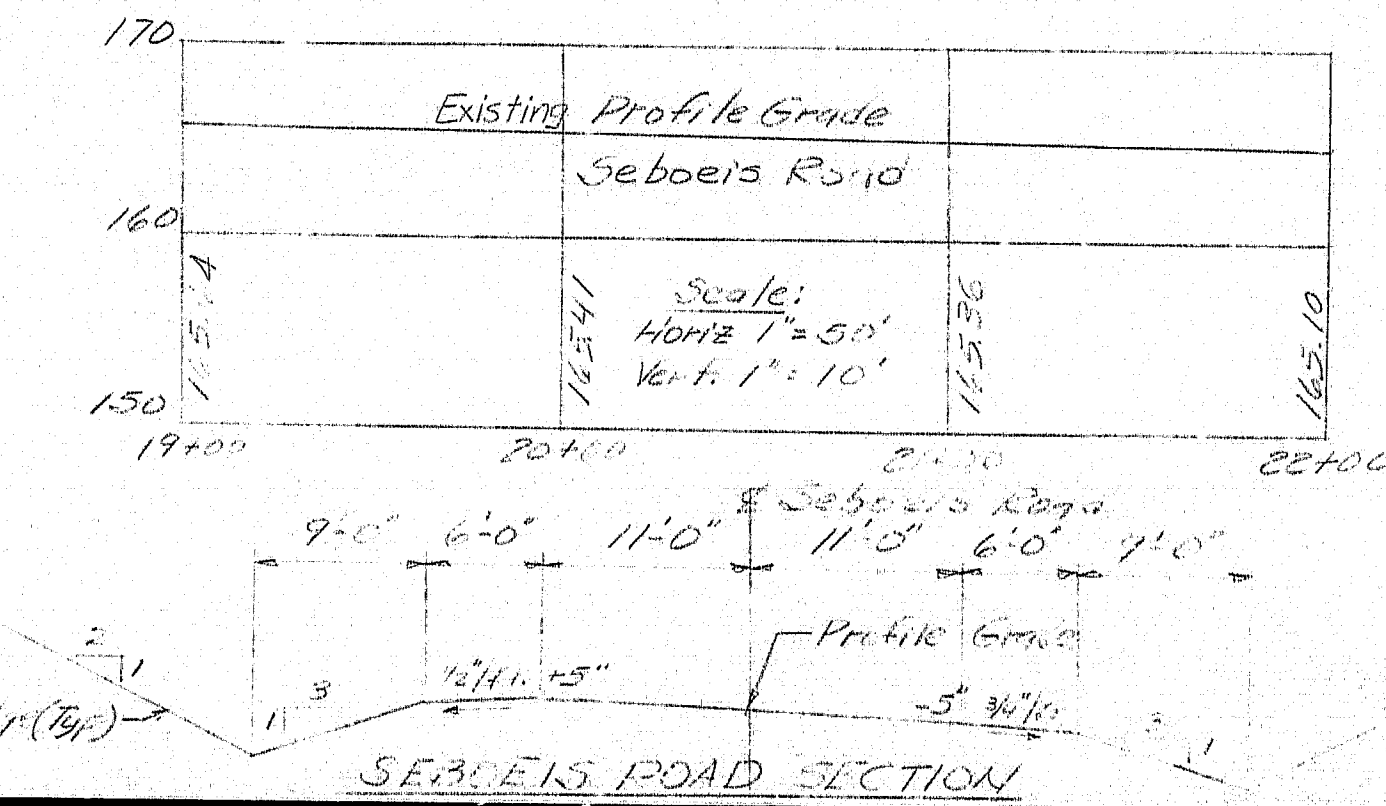
- INDEX TO BRIDGE PLANS**
- 1 General Plan
  - 2 Survey
  - 3 Borrow Limits
  - 4 Footing & Pile Plan, Abutment 1
  - 5 Abutment 1
  - 6 Footing & Pile Plan, Abutment 2
  - 7 Abutment 2
  - 8 Piers
  - 9 Framing Plan
  - 10 Beam Profile & Armored Joint
  - 11 Bottom of Slab Elevations
  - 12 Superstructure Slab
  - 13 Approach Slab & Transition Rail
  - 14 Slope Protection
  - 15 Reinforcing Steel

**REFERENCES**

BD 101-14-Bearing Pedestals  
 BD 104-13-Armored Joint Shear Connectors & Drain  
 BD 113-12-Diaphragms & Cross-frames  
 BD 114-13-Aluminum Railing, 2-Bar (Semi-Ellipse)

Aug. 69 (10) Field Office  
 Aug. 69 (10) Barricades, Warning Signs, Monuments & Project Markers.  
 Soil Surveys  
 Right of Way Map

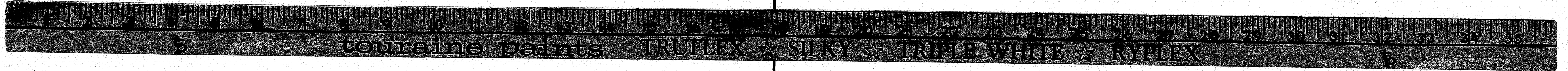
**NOTE:**  
 This sheet shows the completed stage construction project. This contract requires the construction of the bridge structure and part of Interstate 95 N.B. embankments.



STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
**INTERSTATE 95 (N.B.)**  
 OVER  
**SEBOEIS ROAD**  
 IN THE TOWN OF  
**HOWLAND**  
**PENOBSCOT COUNTY**  
 GENERAL PLAN  
 SHEET 1 OF 15 AUGUSTA, MAINE SEPT. 1973

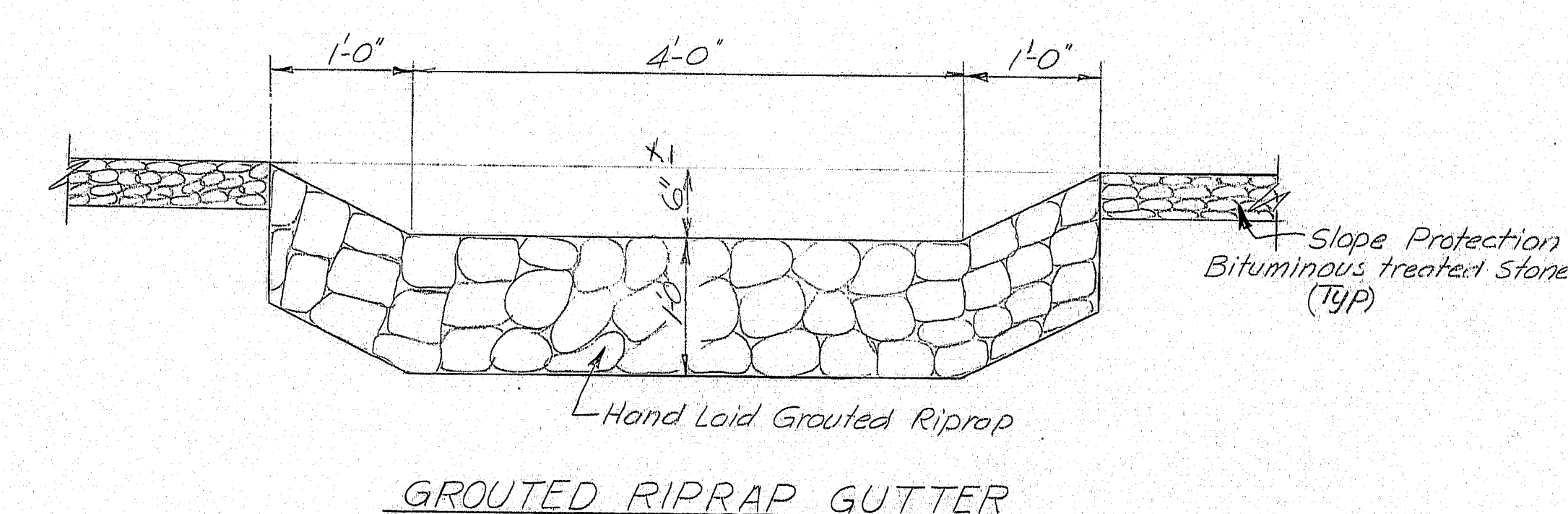
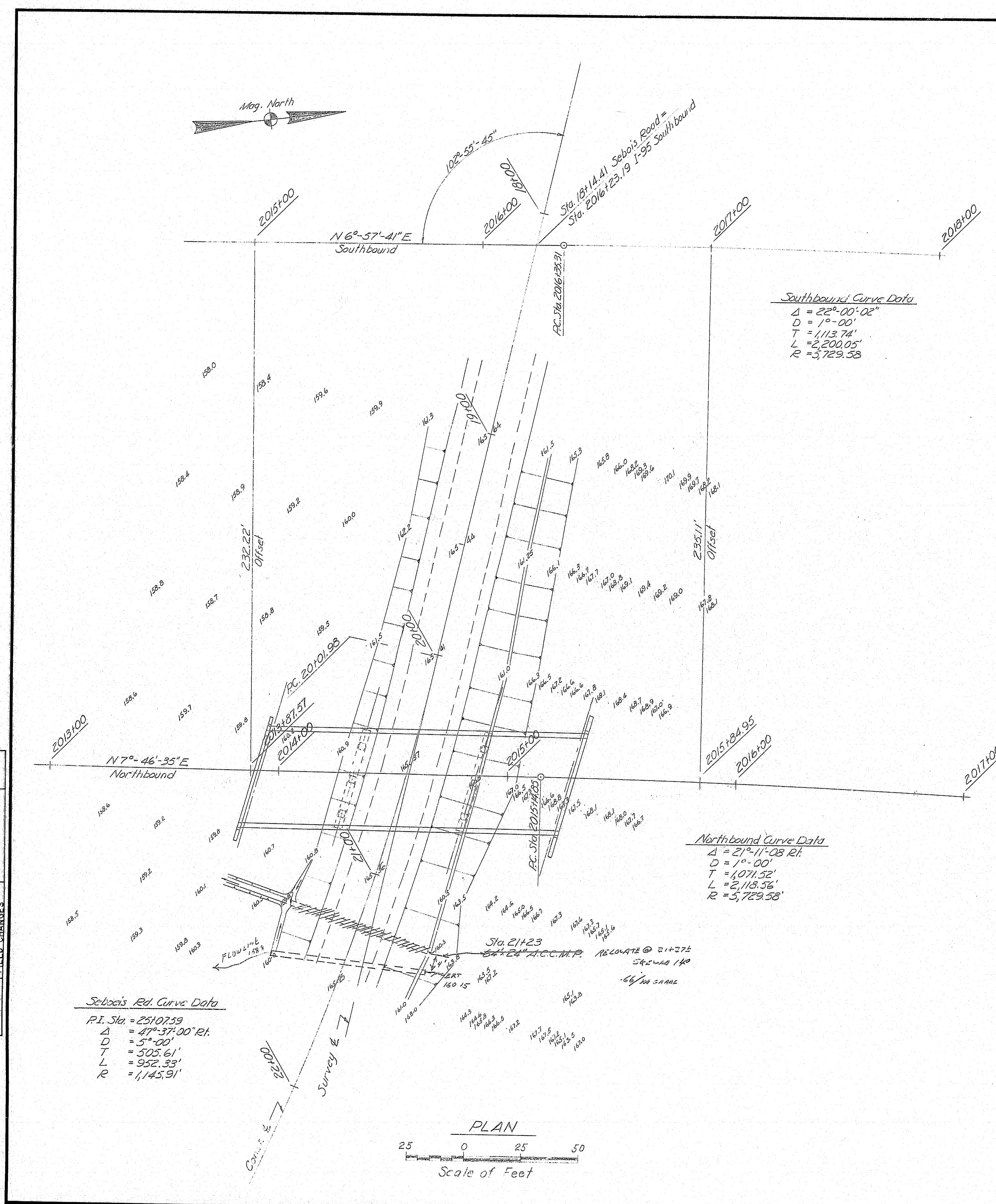
As Built 1976 HNF

145-82





S. P. N.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(9)	21	47



#### CONSTRUCTION NOTES

1. All utility plant shall be adjusted by the respective utilities unless otherwise indicated.
2. Where the granular borrow is required, material shall meet the requirements for Underwater Back fill given in sub-section 703.19 of the Standard Specifications.
3. A grouted riprap gutter shall be constructed under bridge drains and shall extend to the ditch.
4. All Structural Earth Excavation required at piers in order to reach the ledge foundation, will be paid for at 100% of the contract unit price for Item 206.10.
5. Bituminous treated slope protection shall be placed in front of both abutments.
6. A layer of granular borrow 1 foot thick shall be placed under the slope protection, except if, in the opinion of the Engineer, the existing embankment material is suitable.

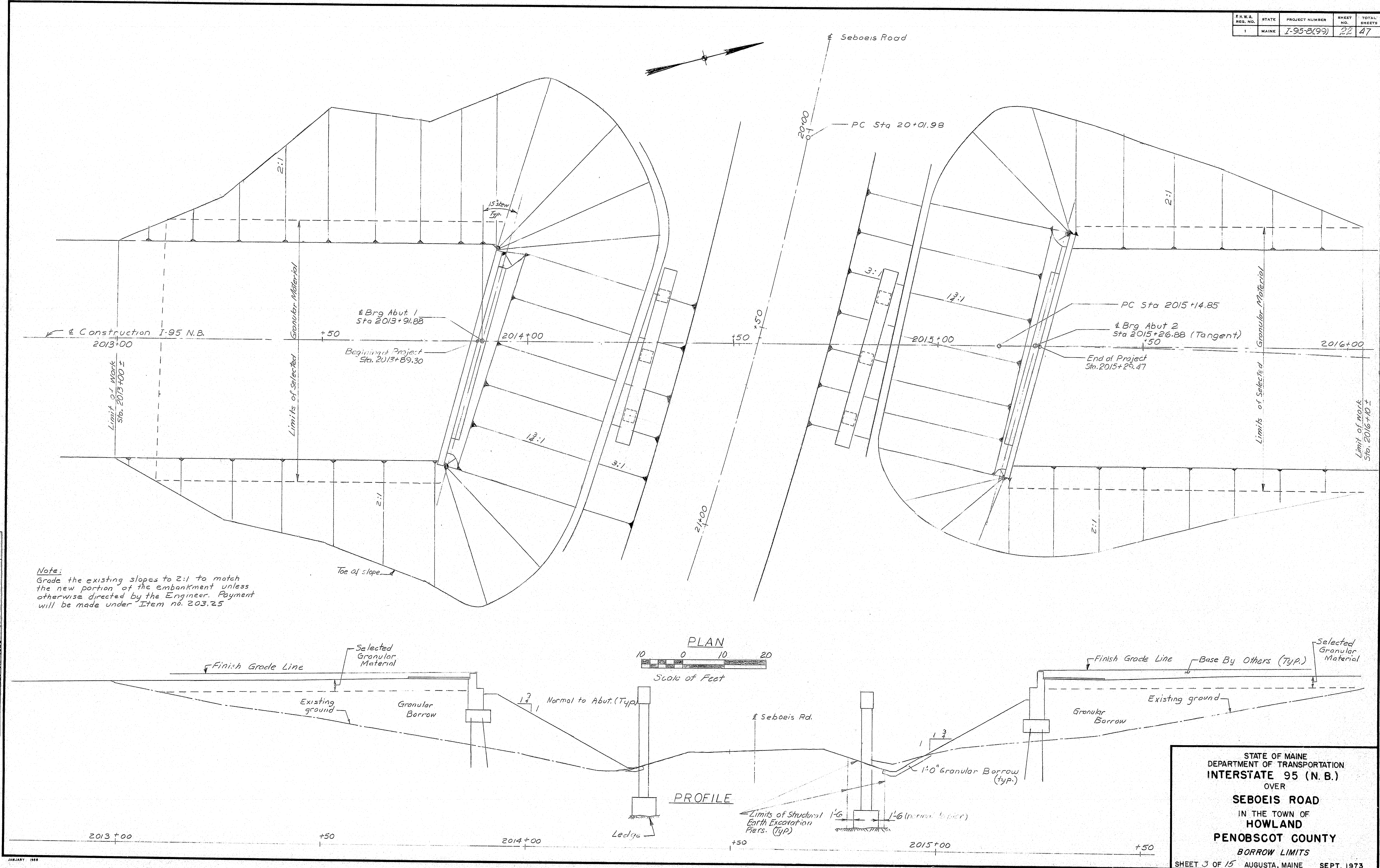
STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
**INTERSTATE 95 (N.B.)**  
 OVER  
**SEBOEIS ROAD**  
 IN THE TOWN OF  
**HOWLAND**  
**PENOBSCOT COUNTY**  
 SURVEY

SHEET 2 OF 15 AUGUSTA, MAINE NOV. 1971

145-83



F.R.W.A. Proj. No.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(99)	27	47

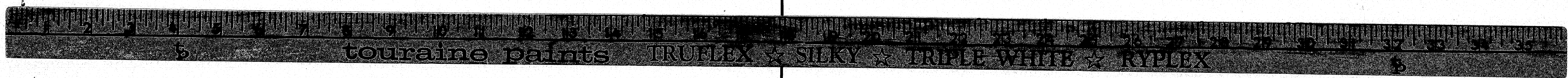


Note: Grade the existing slopes to 2:1 to match the new portion of the embankment unless otherwise directed by the Engineer. Payment will be made under Item no. 203.25

DESIGN - DETAILED	BY	DATE
PLANS	W. P. Johnson	8/73
REVISIONS		
FIELD CHANGES		

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
INTERSTATE 95 (N.B.)  
OVER  
SEBOEIS ROAD  
IN THE TOWN OF  
HOWLAND  
PENOBSCOT COUNTY  
BORROW LIMITS  
SHEET 3 OF 15 AUGUSTA, MAINE SEPT. 1973

145-84





Technical drawing of a bridge deck showing top and bottom views with reinforcement details.

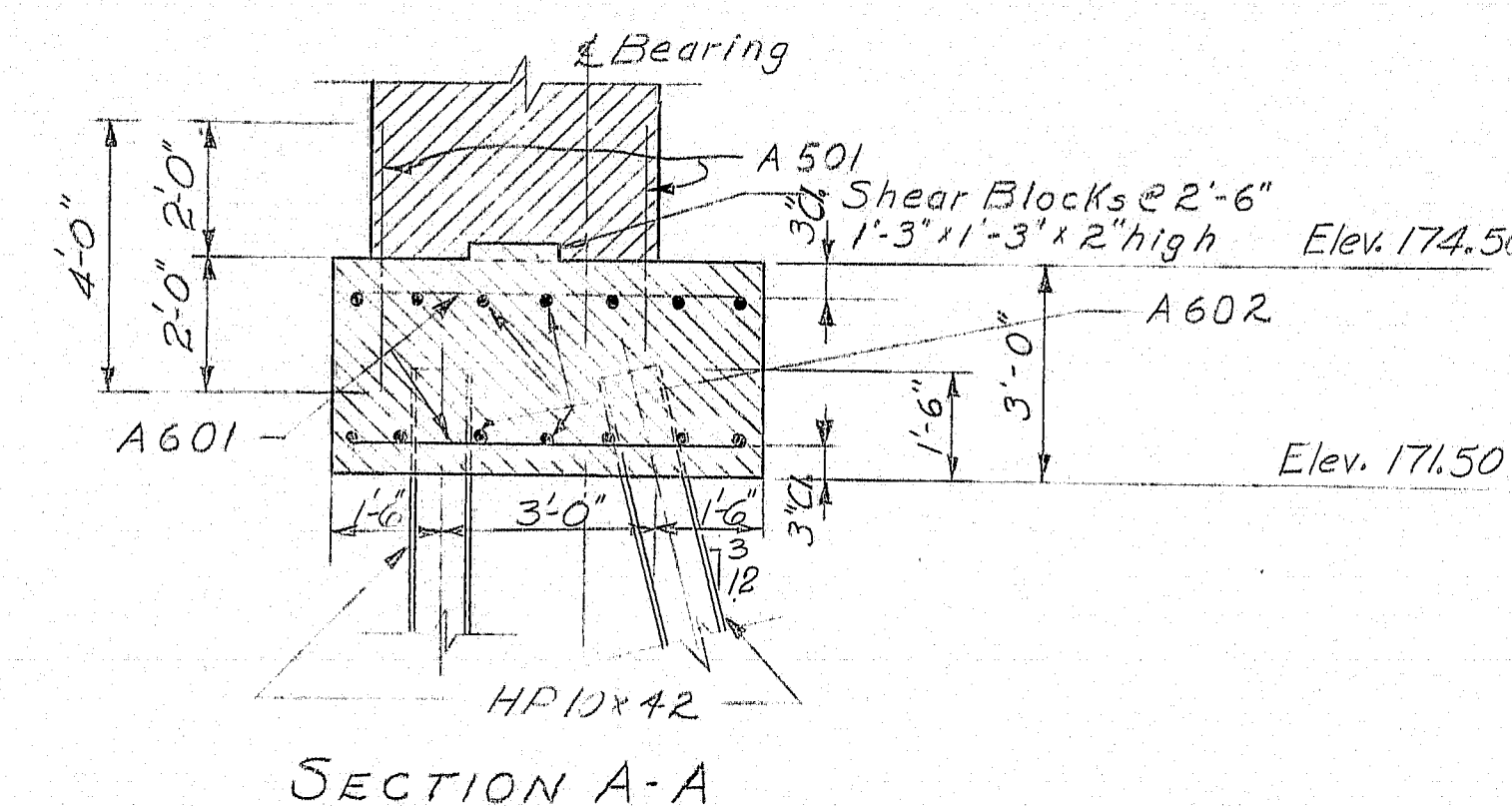
**Top View:**

- Overall width: 28'-0 1/2" (28-A501 @ 18")
- Left side reinforcement: 6-A501 @ 18" (7'-6" spacing, 5 1/2" from edge)
- Right side reinforcement: 5-A501 @ 18" (6'-0" spacing, 10 1/2" from edge)
- Center reinforcement: 28-A602 spaced as shown on Section A-A (14 Top & 14 Bottom) (5' Bearing Abut #1)
- Dimensions: 24'-0 1/4", 16'-5 3/4", 6'-0"
- Vertical dimensions: 1'-2", 2'-4", 2'-10"
- Section line: Y-Y

**Bottom View:**

- Overall width: 30'-0" (30-A501 @ 18")
- Left side reinforcement: 5-A501 @ 18" (6'-0" spacing, 5 1/2" from edge)
- Right side reinforcement: 4-A501 @ 18" (4'-6" spacing, 2'-4" from edge)
- Center reinforcement: 114-A601 @ 12" (57 Top & 57 Bottom)
- Dimensions: 24'-10 1/4", 18'-7 3/4", 4'-6"
- Vertical dimensions: 1'-0 1/2", 10'-7 3/4"
- Section line: Y-Y
- Clearance: 3" Clear (Typ)

Note: Dimensions to locate dowels are to the outside edge of the bars.



Technical drawing of a **POINTED REINFORCED PILE TIP DETAIL**. The drawing includes a side view of the pile tip, a cross-section view labeled **SECTION A-A**, and a detail of the pile tip fillet.

**Side View Dimensions:**

- Height of pile above tip: 1'-0"
- Width of pile: 2 1/2"
- Width of pile tip: 2 1/2"


**Cross-section View (SECTION A-A) Dimensions:**

- Height of pile above tip: 1'-0"
- Width of pile: 2 1/2"
- Width of pile tip: 2 1/2"

**Pile Tip Fillet Detail:**

- Radius: R 3 3/4" x 5/8" x 1'-0"
- Note: Grind to clear pile fillet (Typ.)

## PILE NOTES

1. Piles shall be driven to ledge or practical refusal.
2. All piles shall have pointed reinforced pile tips.
3. Alternate types of pointed reinforced pile tips may be used if they have at least the cross-sectional area of the pointed reinforced pile tip shown on the plan and approved by the Engineer.
4. Estimated driven length of piles are determined from available soils information, with no allowance for pile cut-offs and no allowance for uncertain pile penetration.
5. Pile marked thus , shall be battered 3 inches per foot in the direction of arrow.
6. Maximum pile load equals 55 Tons.
7. The following are the number of piles required and estimated driven lengths:  
Abutment No. 1 - 14 - HP10x42 @ 27' -  
Abutment No. 2 - 20 - HP10x42 @ 25' -

145-85



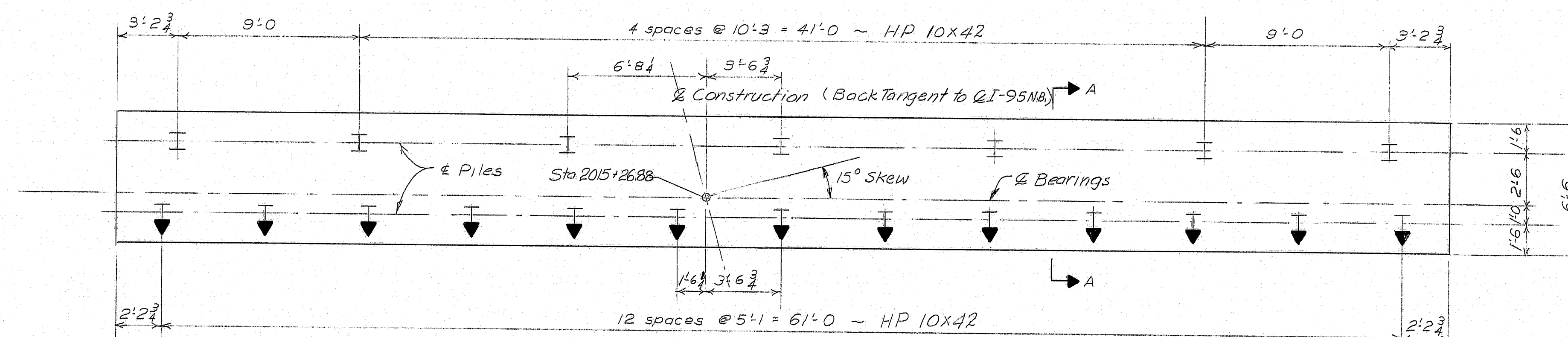




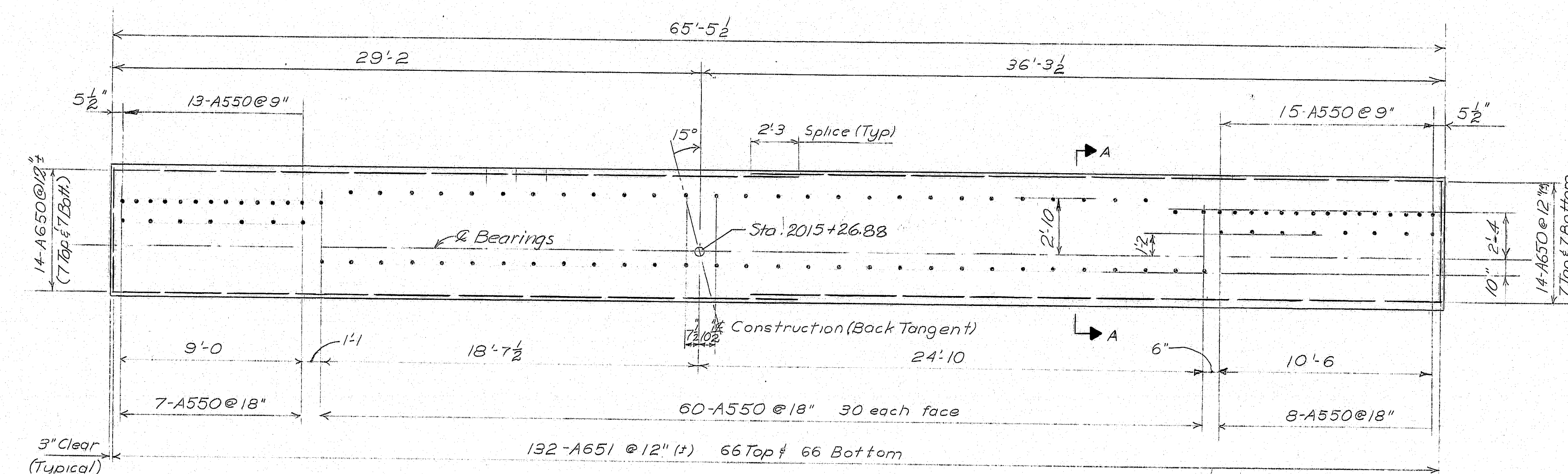
F.R.W.A. DES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-5(99)	25	47

### GENERAL ABUTMENT NOTES

1. Chamfer all exposed edges of concrete  $\frac{1}{2}$  inch unless otherwise indicated.
2. All reinforcing steel splices and embedments shall be a minimum of 38 bar diameters unless otherwise indicated.
3. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
4. Place reinforcing steel in bridge seats to clear anchor bolts.
5. Break 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 placed.
7. Waterstops are not required.
8. Protective Coating for Concrete Surfaces shall be applied to the following areas: top of concrete curbs.
9. Place 4 inch diameter drains in breastwall and wings at 20 ft maximum spacing. Exact location to be determined by the Engineer in the field.
10. Cover the vertical contraction joint on the back with two layers of heavy roofing 10 inches wide. Coat the concrete and back of each layer as applied with asphalt flashing cement. Recess the area covered  $\frac{1}{2}$  inch. See Sheet #5 for details.

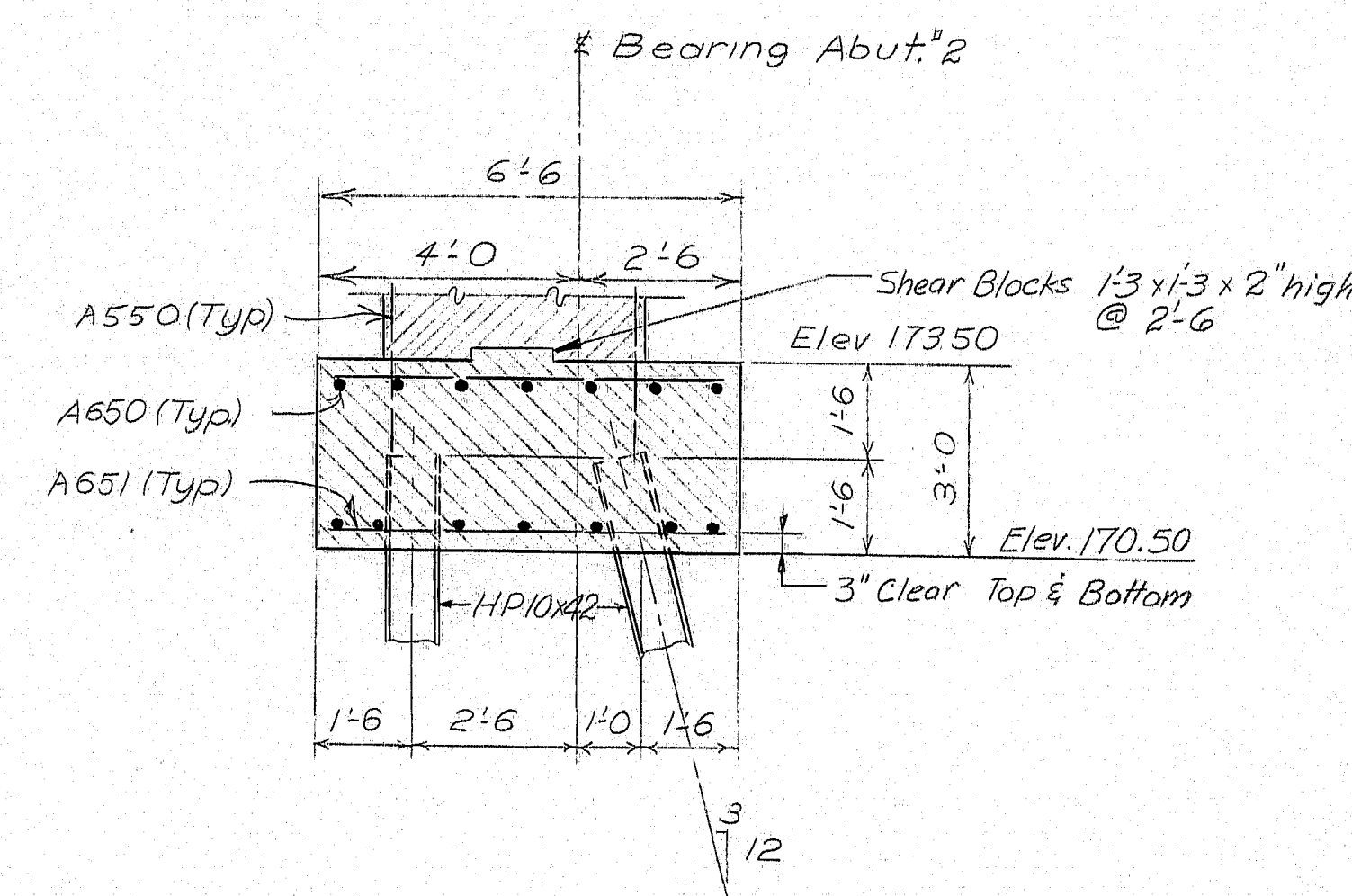


PILE PLAN



FOOTING & REINFORCING PLAN

Note: Dimensions to locate dowels are to the outside edge of the bars.



SECTION A-A

### REFERENCES

For Pile Notes, see Sheet #4  
For Reinforced Pile Tip details, see Sheet #4

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**INTERSTATE 95 (N.B.)**  
OVER  
**SEBOEIS ROAD**  
IN THE TOWN OF  
**HOWLAND**  
**PENOBSCOT COUNTY**  
**ABUTMENT NO. 2 FOOTING AND PILE LAYOUT**  
SHEET 6 OF 15 AUGUSTA, MAINE SEPT. 1973

145-87

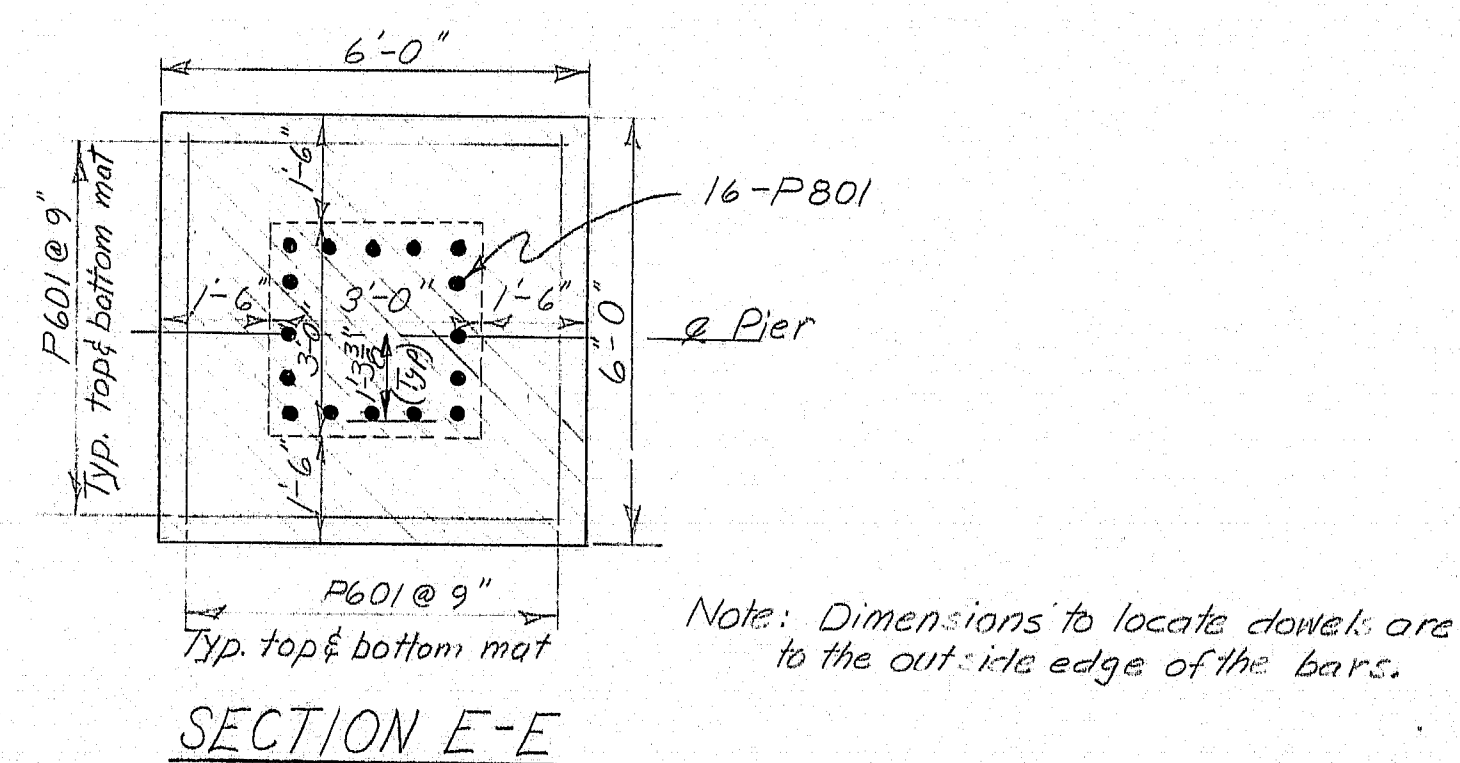
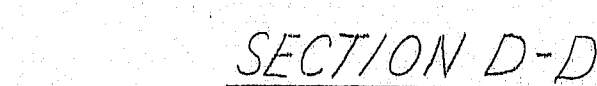
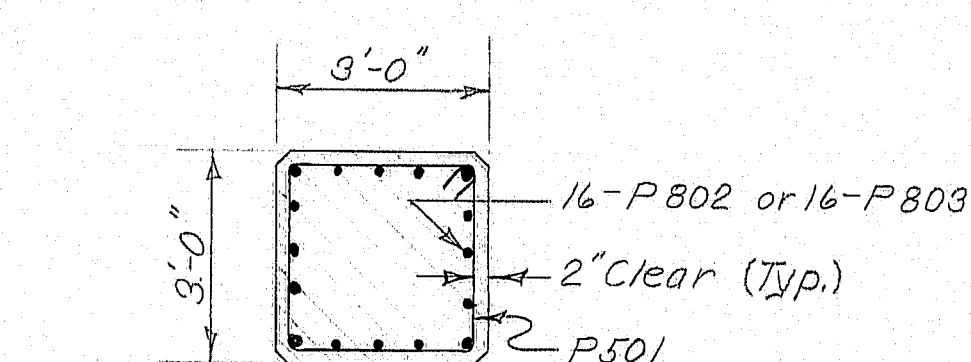
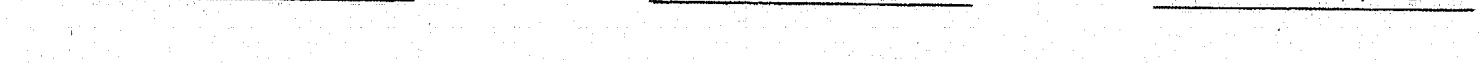
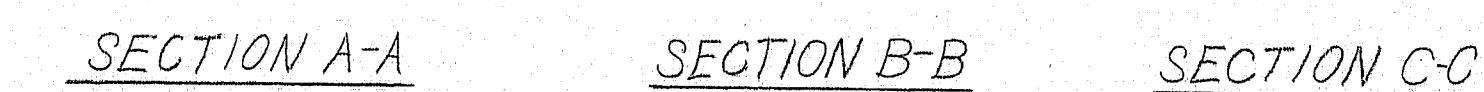
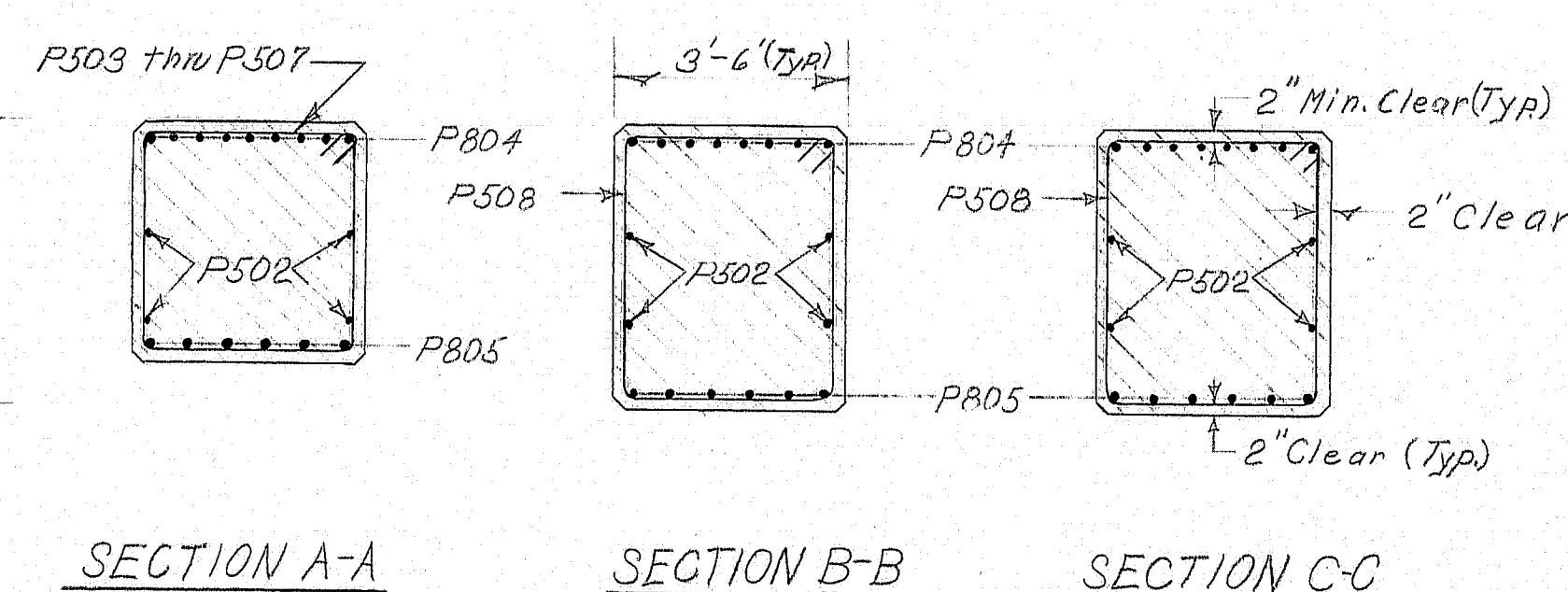
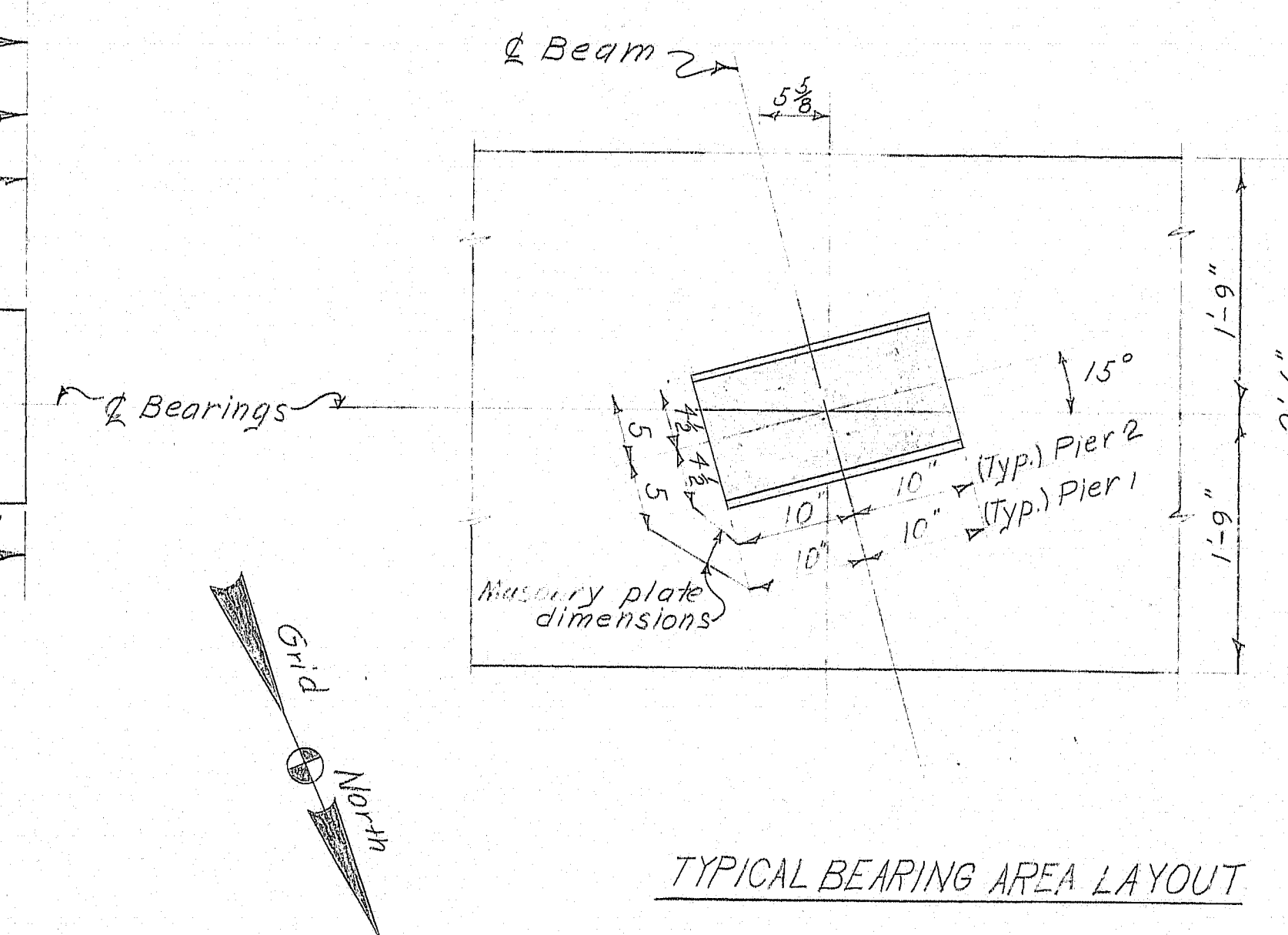
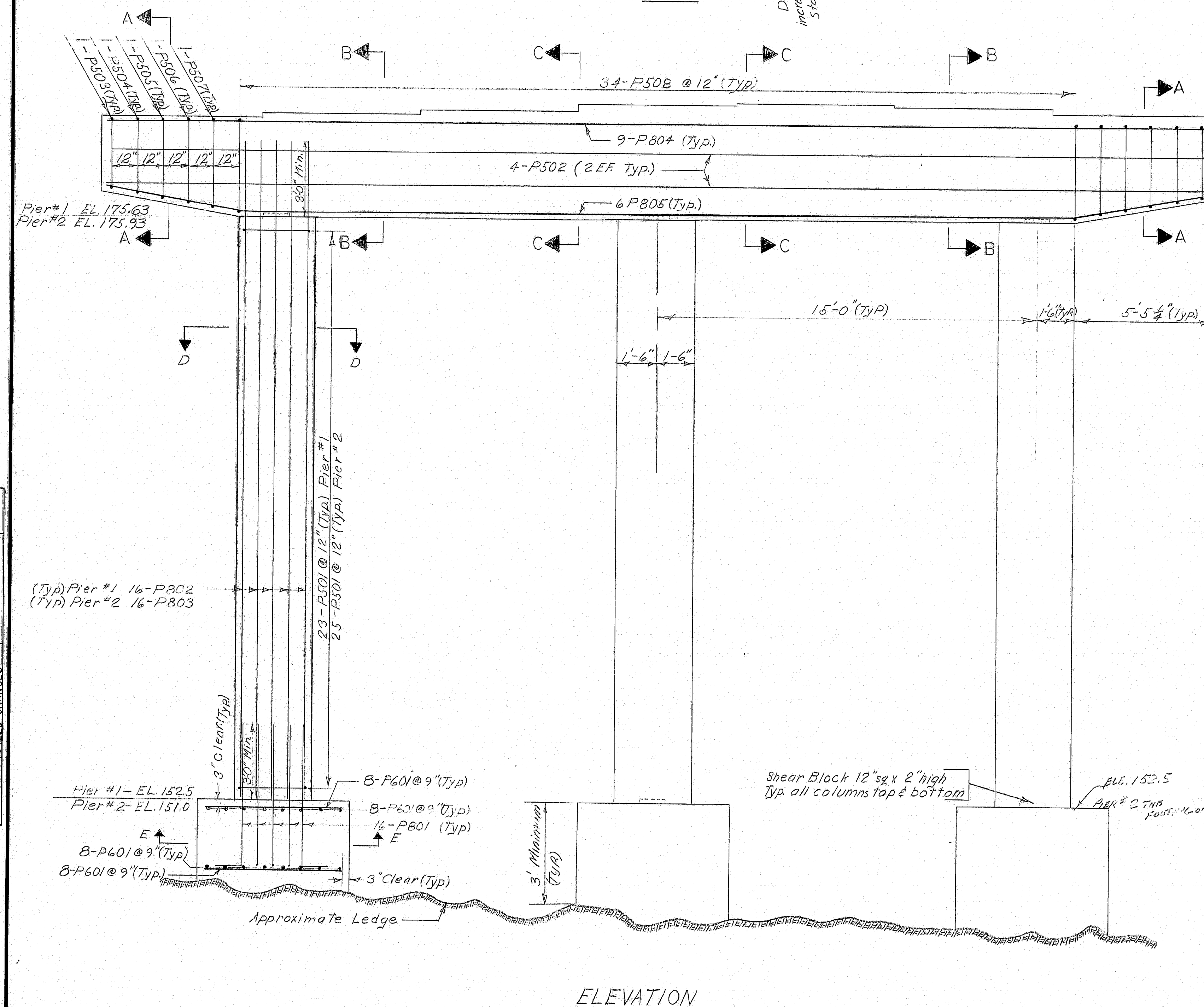
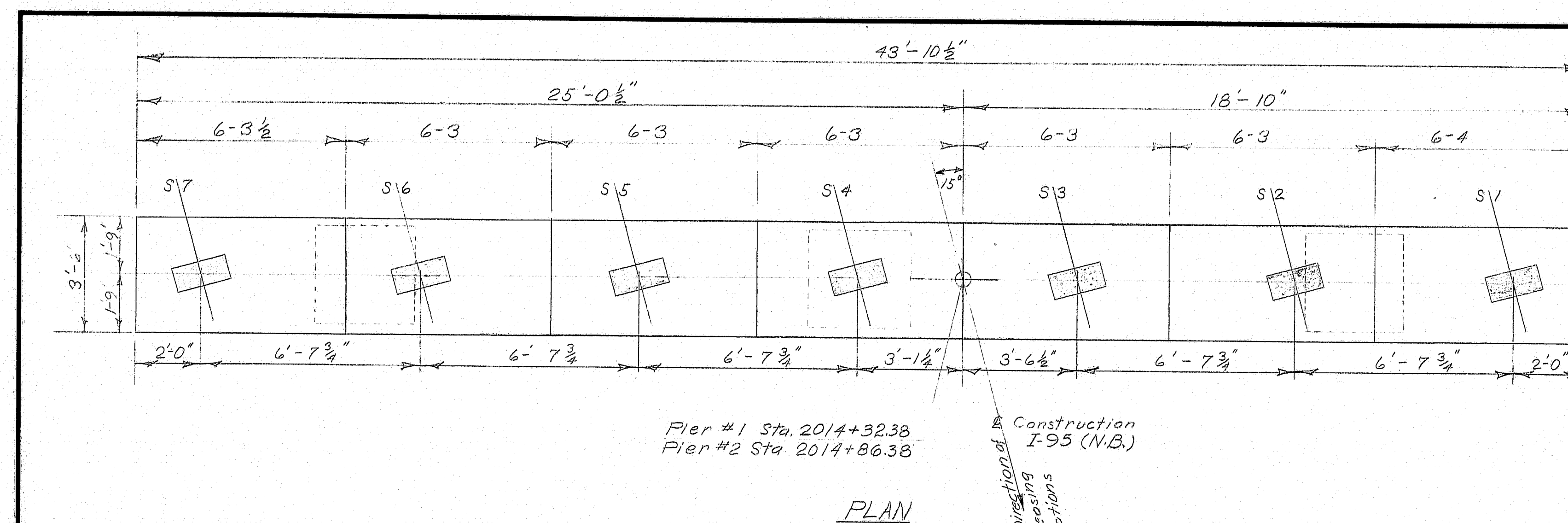
DESIGN - DETAILED	DATE
CHECKED	DATE
REVISIONS	DATE
FIELD CHANGES	DATE

PLANS









E.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TO SHE
1	MAINE	1-95-8(99)	27	4

	BEARING ELEVATION						
Beam#	7	6	5	4	3	2	1
Pier#1	179.59	179.72	179.85	179.98	180.00	179.91	179.8
Pier#2	179.69	180.03	180.16	180.29	180.30	180.21	180.1

Notes:

1. Chamfer all exposed edges of concrete  $\frac{1}{2}$  inch unless otherwise indicated.
2. Reinforcing steel shall have 2 inches minimum cover unless otherwise indicated.
3. Place reinforcing steel in pier cap to clear anchor bolts.
4. All reinforcing steel splices and embedments shall be a minimum of 36 bar dia meters.
5. Maximum calculated footing pressure —  
9 tons per square foot

DESIGN CRITERIA  
1. Critical AA. SHD. Loading Group V  
2. Wind - 100 M.P.H.

REFERENCES  
For bearing pedestal details, see Standard Details  
BD 101-74

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
INTERSTATE 95 (N.B.)  
OVER  
SEBOEIS ROAD  
IN THE TOWN OF  
HOWLAND  
PENOBSCOT COUNTY

*PIERS*

SHEET 8 OF 15    AUGUSTA, MAINE    SEPT. 1973

145-89



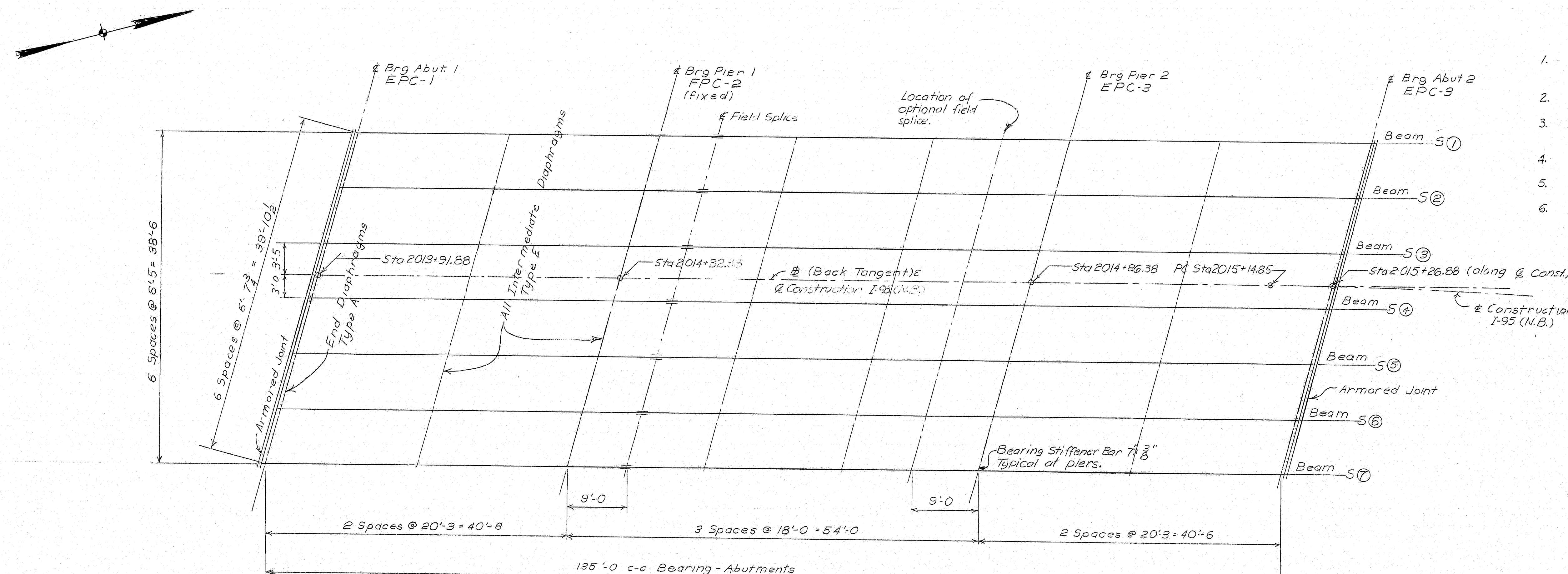
PRJ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-B(99)	28	47

# STRUCTURAL STEEL NOTES

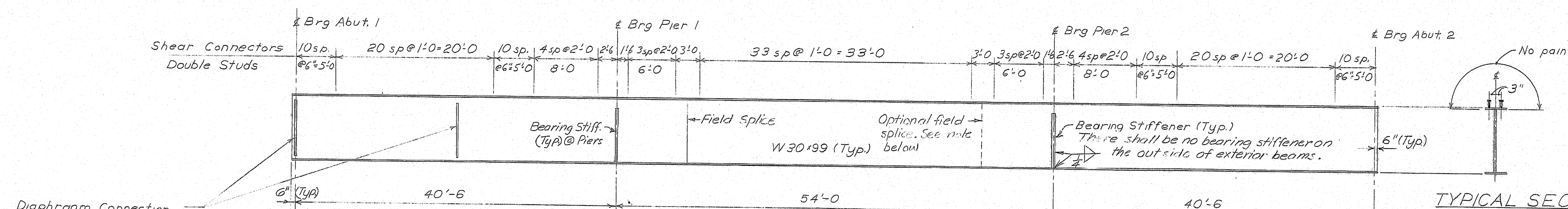
1. Diaphragm connection plate may be either be plumb or normal to the top flange.
2. All steel shall be ASTM A36.
3. All bolts shall be 7/8" High Strength ASTM designation A-325. Holes shall be 1/8"  $\phi$ .
4. Bearing Pedestals shall be normal to Beams.
5. All Beams shall have Shear Connectors.
6. Total number of shear connectors 1848 (1848\*)

## REFERENCES:

Bearing Pedestals - BD 101-72  
 Shear Connectors - BD 104-73 & Sheet #10  
 Armored Joint - BD 104-73 & Sheet #10  
 Diaphragms - BD 113-72  
 For Beam Profile see Sheet #10



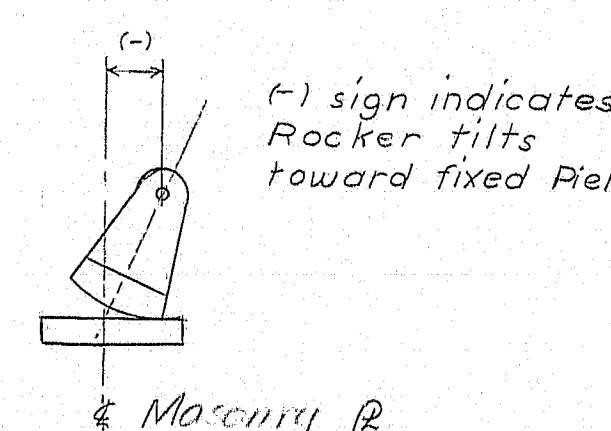
FRAMING PLAN  
 Dimensions are horizontal



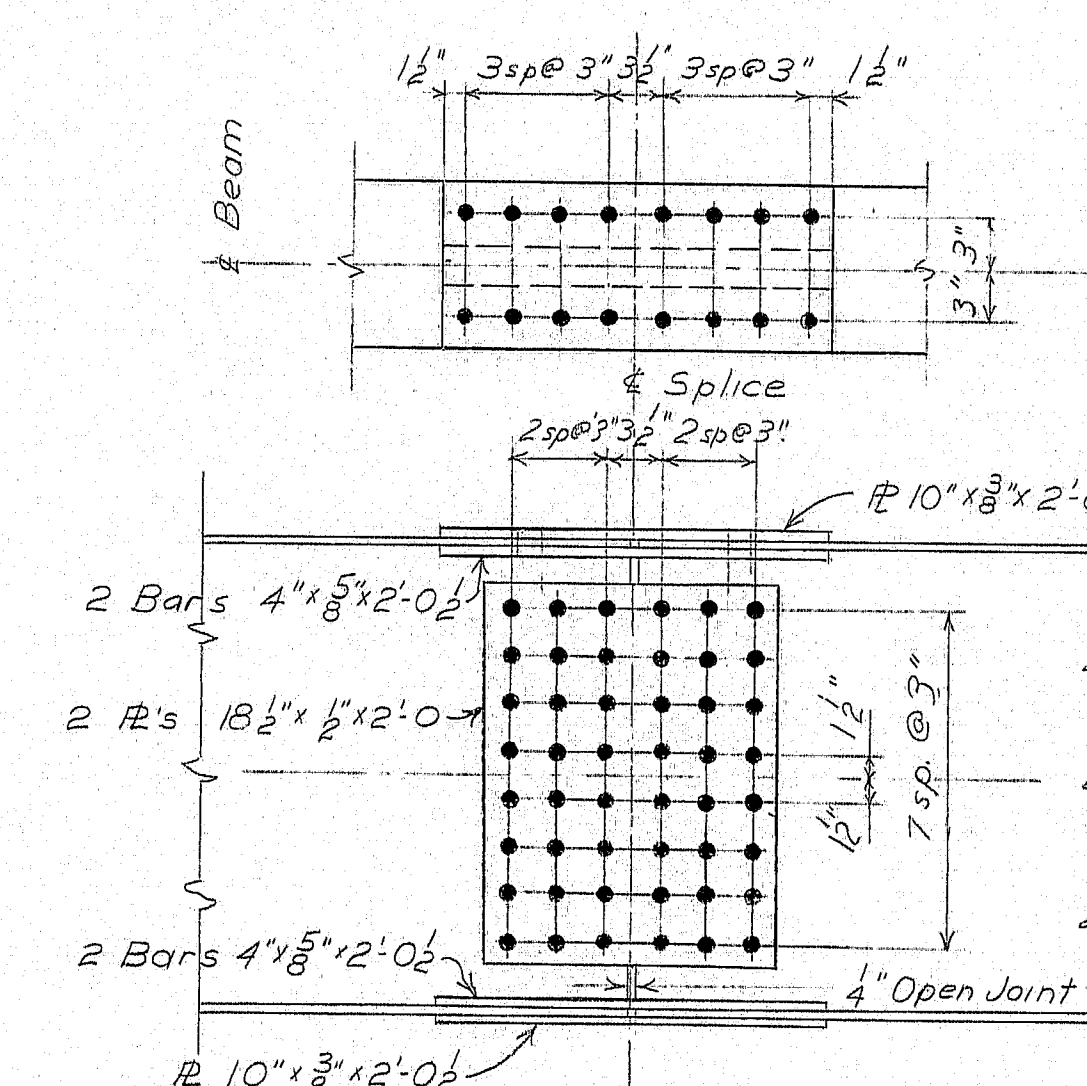
BEAM ELEVATION 1 THRU 7  
 Dimensions are horizontal

Note: At the construction, optional additional field splice per beam may be used at the optional splice location. The details of the optional splice shall be the same as shown in 'Splice Details'.

Note: No adjustment of bearing pedestals is anticipated due to placement of superstructure slab. However, the contractor is responsible for setting in final position as indicated in the adjoining table after superstructure concrete is placed.



Temperature Degrees F & time of setting	ROCKER SETTING DATA			
	Temp.	Abut 1	Pier 2	Abut 2
-15°	-0.18"	-0.4"	-0.18"	-0.18"
0°	-0.18"	-0.18"	-0.18"	-0.18"
15°	-0.18"	-0.18"	-0.18"	-0.18"
30°	-0.18"	-0.18"	-0.18"	-0.18"
45°	0	0	0	0
60°	0.18"	0.18"	0.18"	0.18"
75°	0.18"	0.18"	0.18"	0.18"
90°	0.18"	0.18"	0.18"	0.18"
105°	0.18"	0.18"	0.18"	0.18"



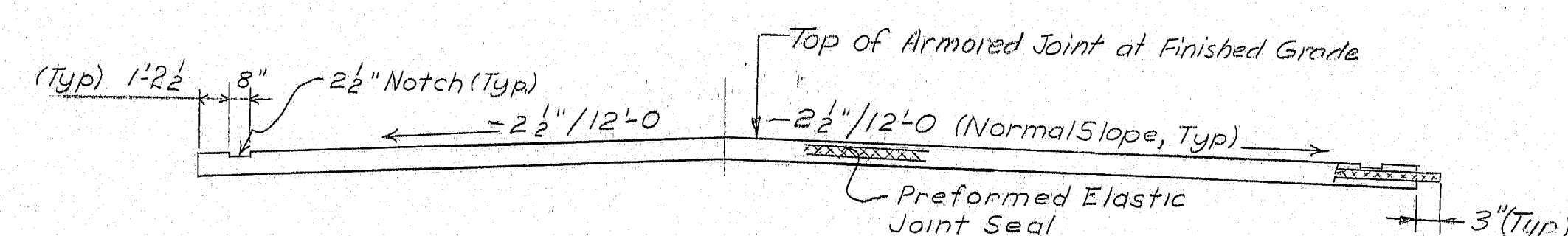
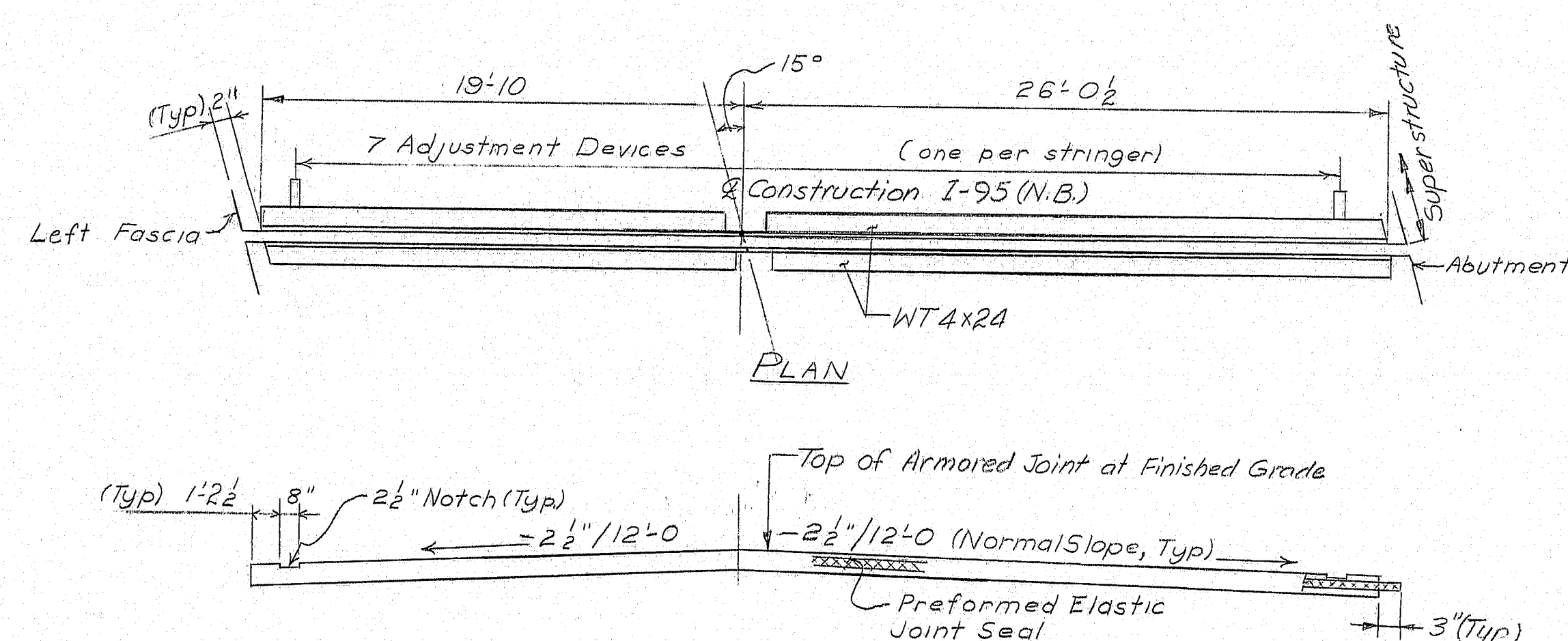
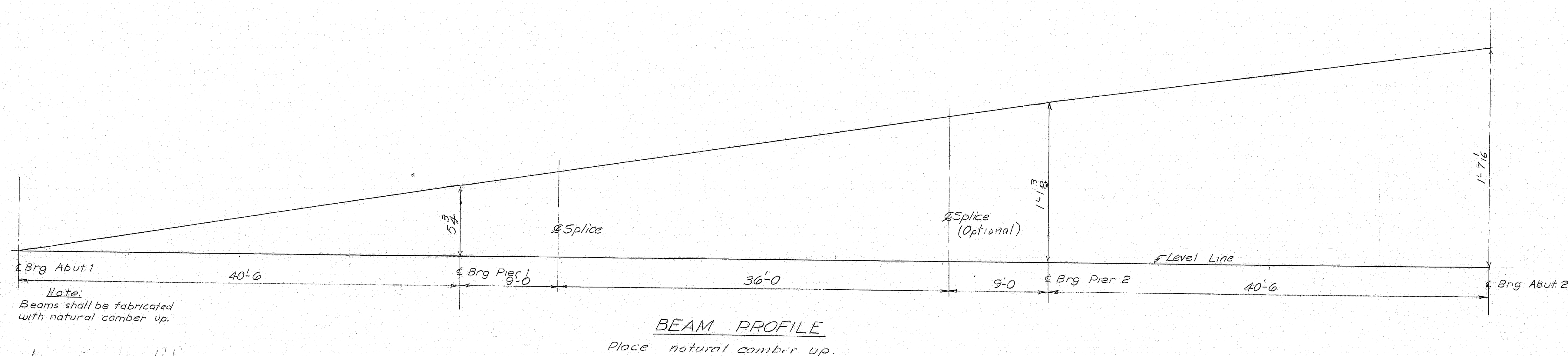
SPICE DETAILS

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
**INTERSTATE 95 (N.B.)**  
 OVER  
**SEBOEIS ROAD**  
 IN THE TOWN OF  
**HOWLAND**  
**PENOBSCOT COUNTY**  
 FRAMING PLAN  
 SHEET 2 OF 5 AUGUSTA, MAINE SEPT. 1973

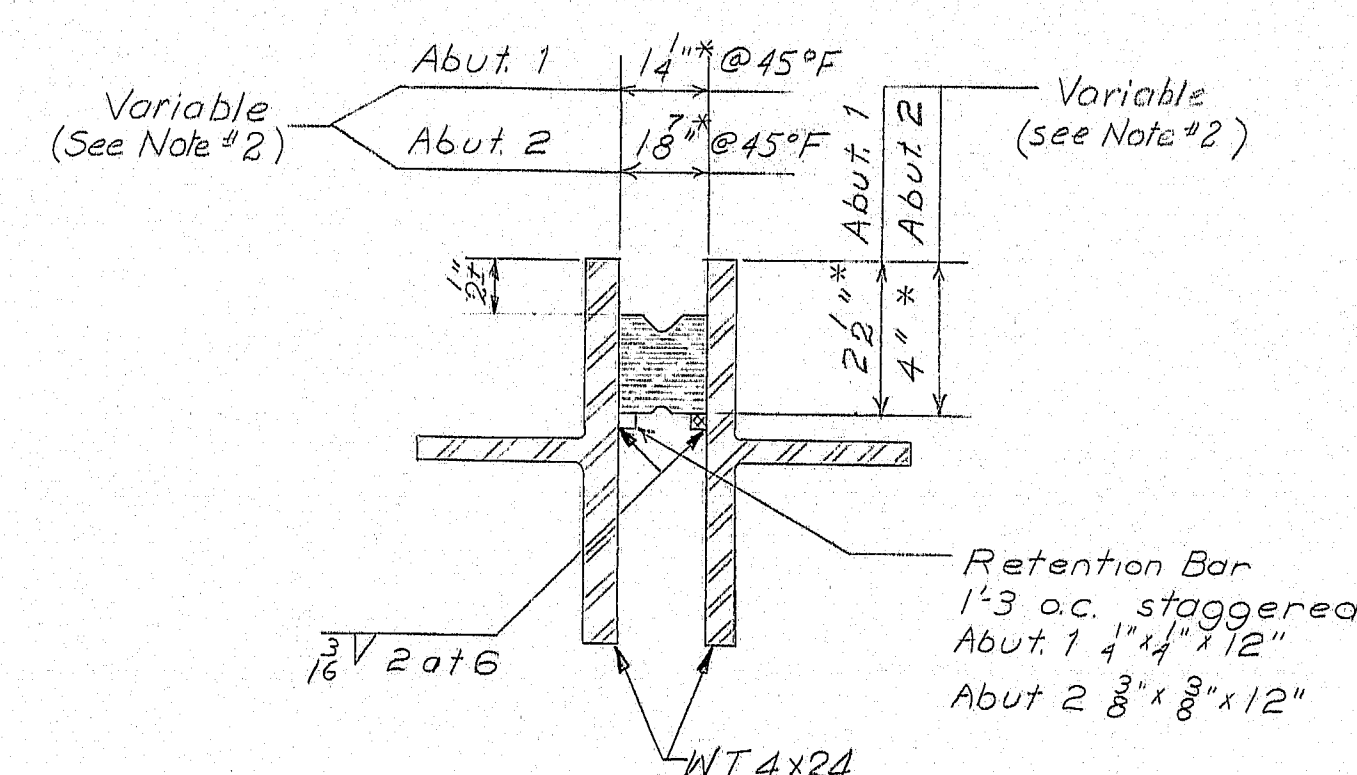
145-90



F.R.W.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(99)	29	47



**ARMORED JOINT DETAIL**  
Abutment 1 shown - Abutment 2 similar



Reference:  
Armored Joint - BD 104-73

**ARMORED JOINT NOTES:**

- The seals furnished shall be as follows:  
Location Movement Rating  
Abut 1 0.500"  
Abut 2 1.250"
- The dimensions shown, are for design only and are subject to change due to differences in seals as supplied by various manufacturers. Do not use for setting of joint opening during construction.
- The seal characteristics shall be submitted to the engineer for approval, prior to the fabrication of the armored joint.
- The following movements, due to dead loads (slab, curb, and wearing surface), shall be taken into account when setting the armored joint:  
Location Open  
Abut 1 16"  
Abut 2 16"
- The maximum joint opening at 30°F shall be:  
Abut 1 1.500 inches  
Abut 2 2.500 inches

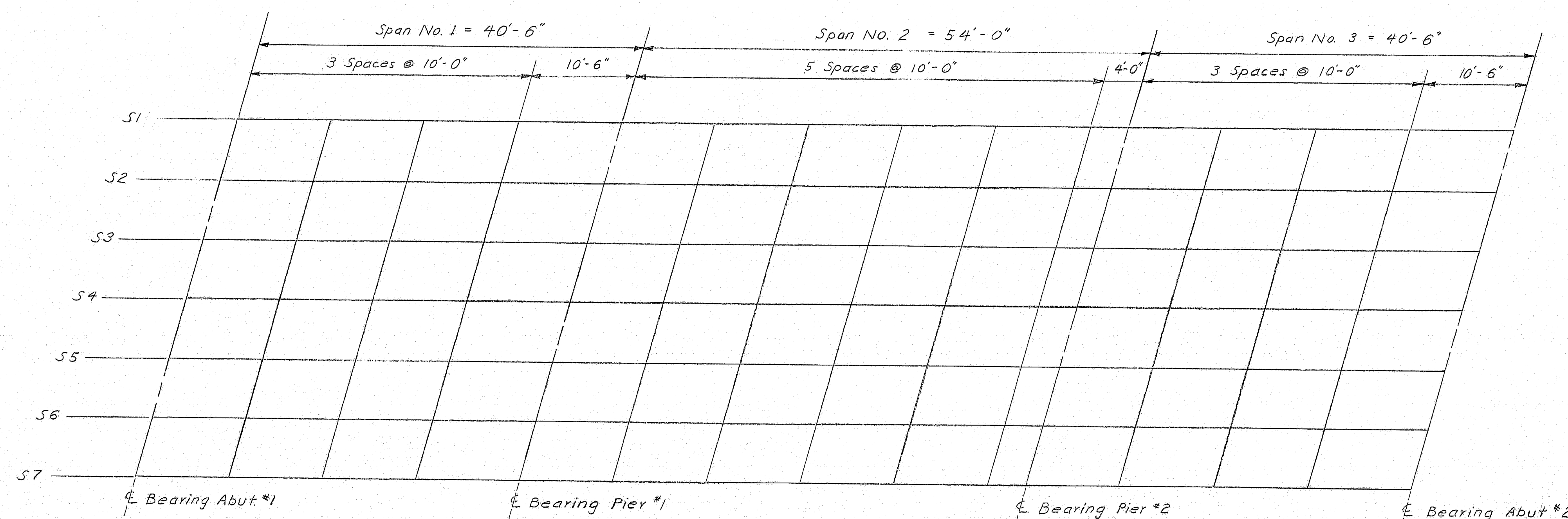
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**INTERSTATE 95 (N.B.)**  
OVER  
**SEBOEIS ROAD**  
IN THE TOWN OF  
**HOWLAND**  
**PENOBSCOT COUNTY**  
**BEAM PROFILE AND ARMORED JOINT**

SHEET 10 OF 15 AUGUSTA, MAINE SEPT. 1973

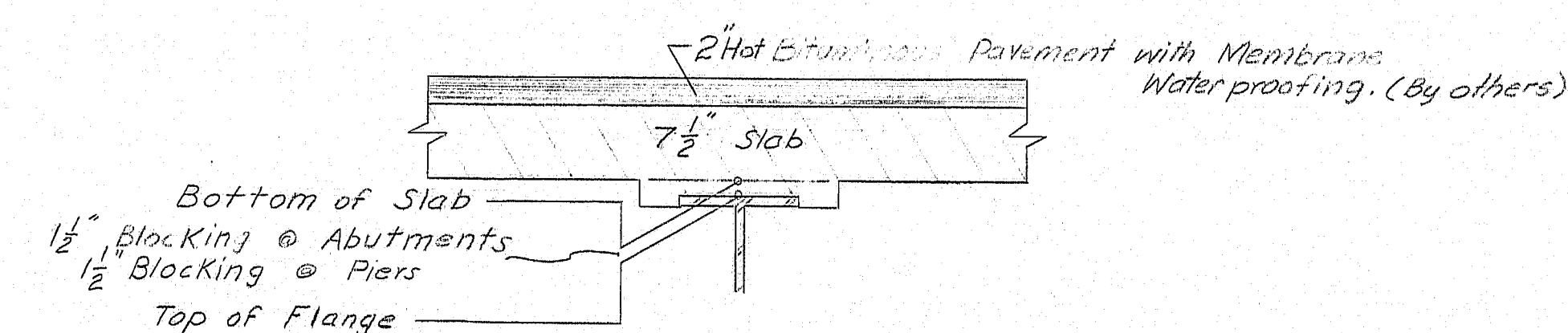
145-91

2031 2000





### BLOCKING POINT DIAGRAM



BLOCKING DETAIL

(Do not use to set forms.)

BOTTOM OF SLAB ELEVATION																		
Beam Point	Abut. #1	SPAN NO. 1				Pier #1	SPAN NO. 2					Pier #2	SPAN NO. 3				Abut. #2	Beam Point
		10'-0"	20'-0"	30'-0"			10'-0"	20'-0"	30'-0"	40'-0"	50'-0"			10'-0"	20'-0"	30'-0"		
Beam S1	182.77	182.90	183.01	183.13	183.24	183.37	183.50	183.62	183.73	183.84	183.88	184.00	184.13	184.24	184.36	Beam S		
Beam S2	182.86	182.99	183.11	183.22	183.34	183.46	183.60	183.72	183.82	183.93	183.97	184.09	184.22	184.33	184.45	Beam S		
Beam S3	182.95	183.08	183.20	183.31	183.43	183.56	183.69	183.81	183.92	184.02	184.06	184.18	184.31	184.43	184.54	Beam S		
Beam S4	182.94	183.06	183.18	183.29	183.41	183.54	183.67	183.79	183.90	184.01	184.05	184.17	184.30	184.41	184.53	Beam S		
Beam S5	182.81	182.93	183.05	183.16	183.28	183.41	183.54	183.66	183.77	183.87	183.92	184.04	184.16	184.28	184.39	Beam S		
Beam S6	182.67	182.80	182.92	183.03	183.15	183.28	183.41	183.53	183.64	183.74	183.79	183.91	184.03	184.15	184.26	Beam S		
Beam S7	182.54	182.67	182.79	182.90	183.02	183.15	183.28	183.40	183.51	183.61	183.65	183.78	183.90	184.02	184.13	Beam S		

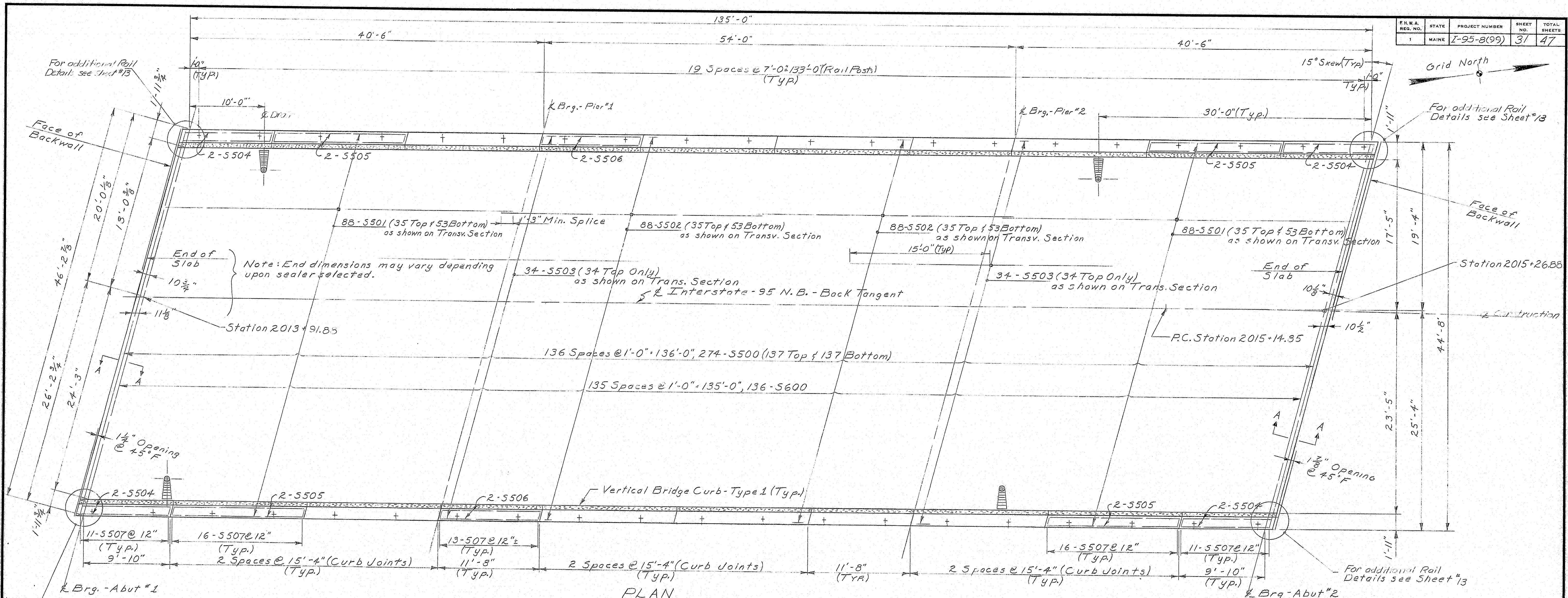
*NOTE: Bottom of slab elevations have been adjusted to compensate for concrete dead load deflections (fluid and superimposed) use in conformance with sub-section 502.10(a) of the specifications except shear connectors may be installed after bottom of slab elevations are determined.*

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED	<i>MMG</i>	<i>8/73</i>
	REVISIONS	<i>PJM</i>	<i>9/73</i>
	FIELD CHANGES		

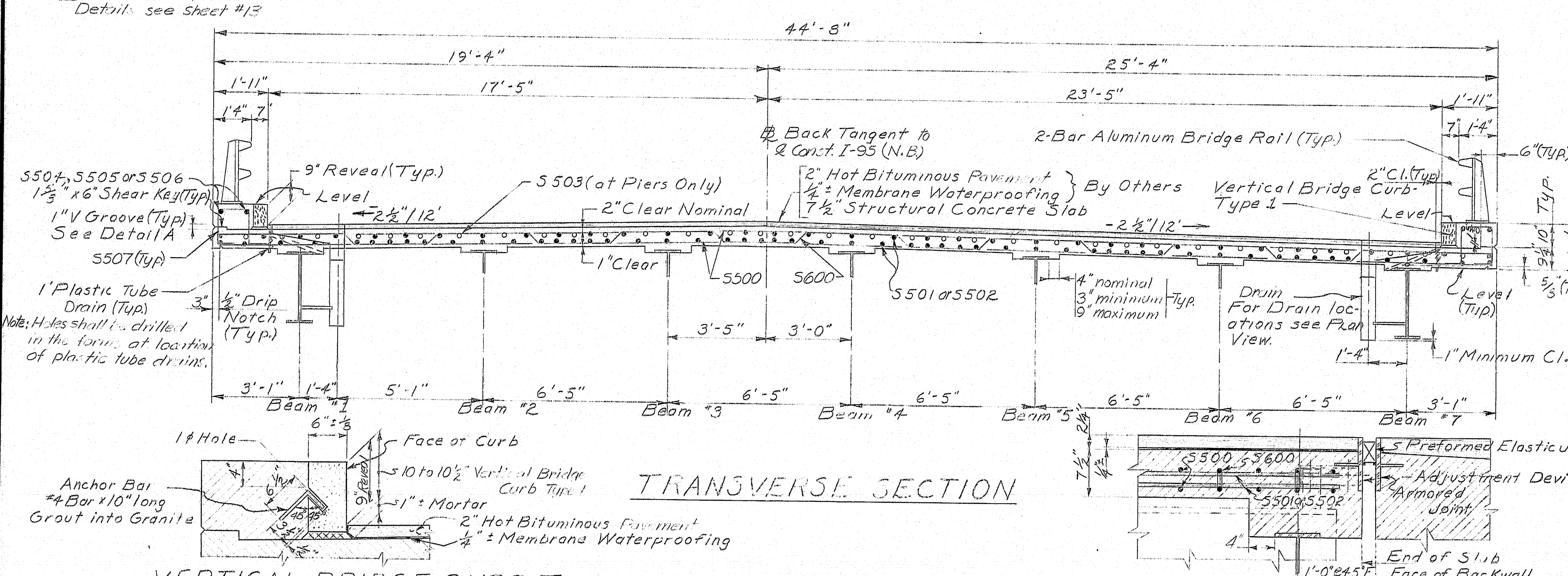
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**INTERSTATE 95 (N. B.)**  
OVER  
**SEBOEIS ROAD**  
IN THE TOWN OF  
**HOWLAND**  
**PENOBSCOT COUNTY**  
*BOTTOM OF SLAB ELEVATIONS*  
SHEET 11 OF 15    AUGUSTA, MAINE    SEPT. 1973

145-92





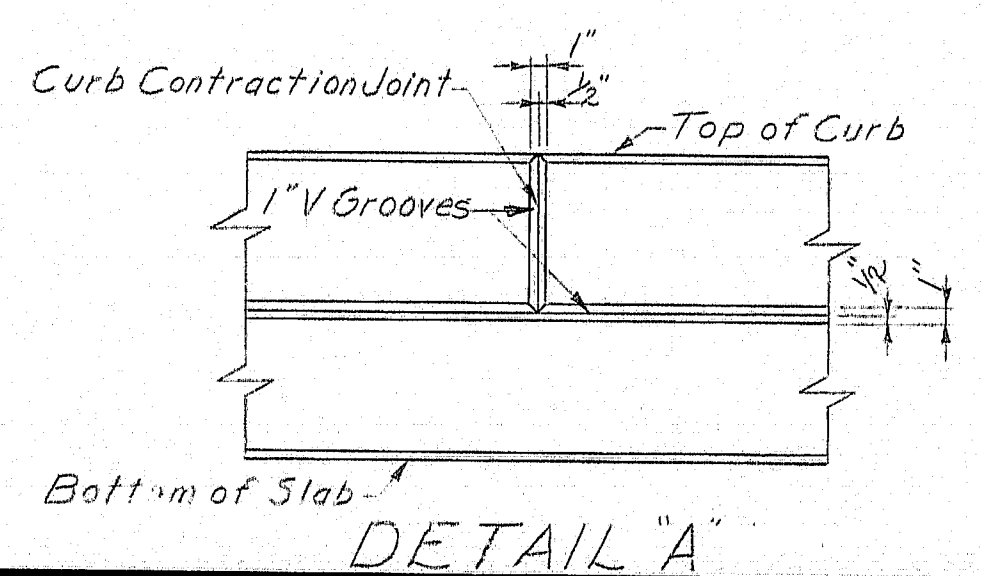
PLAN



TRANSVERSE SECTION

VERTICAL BRIDGE CURB TYPE 1

- SUPERSTRUCTURE NOTES**
1. Chamfer all exposed edges of concrete 1/2 inch unless otherwise noted.
  2. Form a 1 inch V groove on the outside faces of curbs at each contraction joint, 1/2 inch at the joint between the curb and slabs shown on Detail A.
  3. Break the bond in contraction joints in the concrete curbs by a method approved by the Engineer.
  4. Provide joints in the Vertical Bridge Curb Type 1 at each contraction joint in the concrete curb.
  5. Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
  6. Reinforcing steel splices shall be a minimum of 36 bar diameters unless otherwise indicated.
  7. Place 1 inch diameter plastic tube drains at 10 foot intervals and at low points of the superstructure along the curb as described in subsection 502.17. See Standard Detail BD104-75 for details.
  8. Mortar for bedding and to joints in the granite curb shall contain an approved non-shrink additive.
  9. Set retarding admixtures shall be used when authorized by the Engineer and in accordance with the Standard Specifications. Superstructure slab concrete shall be placed continuously.
  10. Protective Coating for Concrete Surfaces shall be applied to the following areas: All exposed surfaces of concrete curbs, and fascia surfaces of slab down to drip notch.
  11. Adjust reinforcing steel to fit around drains in a manner approved by the Engineer. Do not cut transverse bars.
  12. References: For 2-Bar Aluminum Bridge Rail Details see Standard Details (BD114-75). For Drain Details see Standard Details BD104-75. For Preformed Elastic Joint Seal & Armored Joint Seal see Sheet #10. For additional Rail Details see Sheet #13.
  13. The superstructure slab shall have a light brown finish.
  14. Each crank 5600 may be replaced with 2 (two) #6 bars, one at top and one at bottom, at the contractor's option. In either case payment will be made for crank 5600 as detailed.



DETAIL 'A'

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**INTERSTATE 95 (N.B.)**  
OVER  
**SEBOIS ROAD**  
IN THE TOWN OF  
**HOWLAND**  
**PENOBSCOT COUNTY**  
**SUPERSTRUCTURE SLAB**  
SHEET 2 OF 15 AUGUSTA, MAINE SEPT. 1973

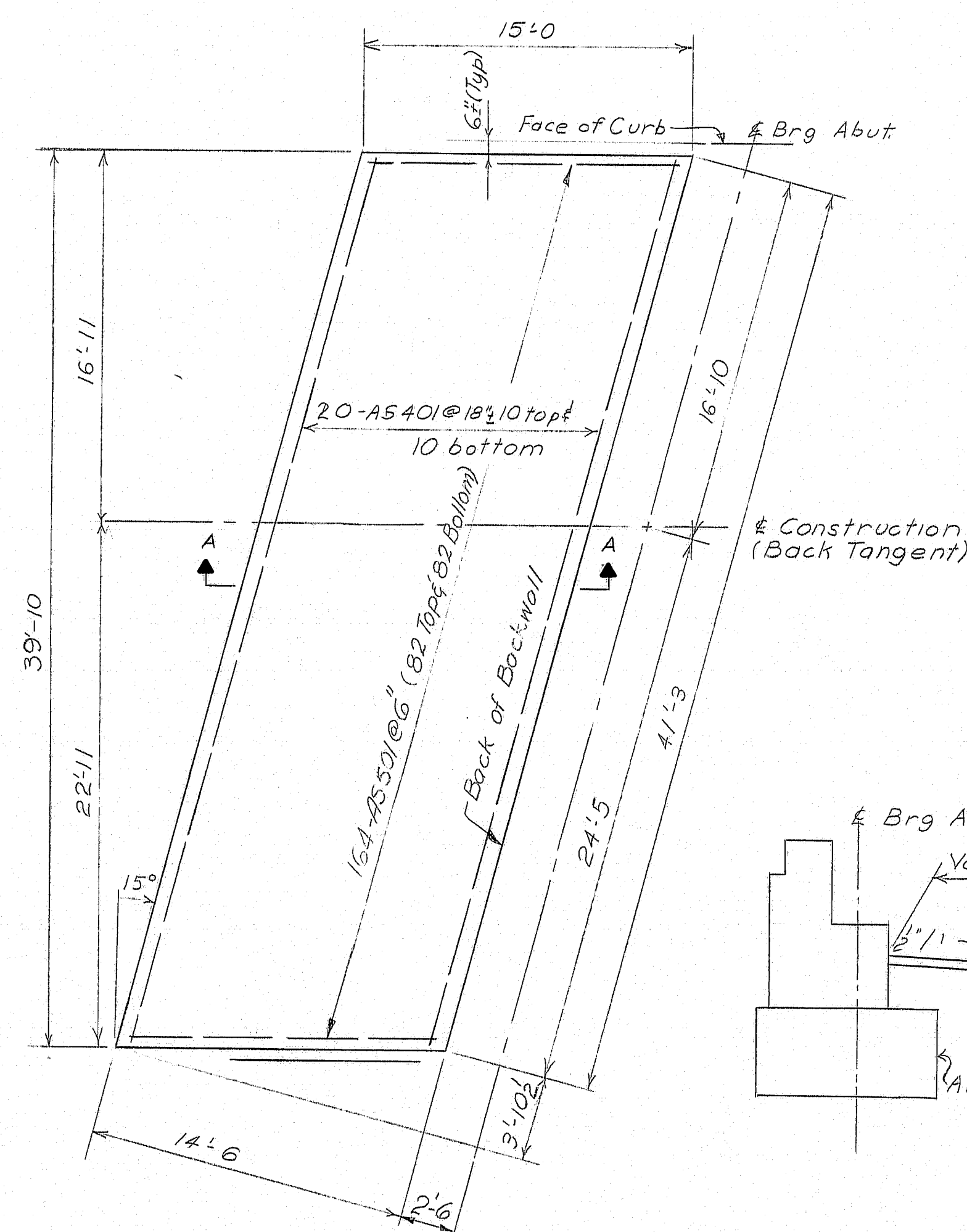
145-93

DESIGN	DATE	BY	CHKD	DATE
DESIGNED	11/10/72	W.G.		
CHECKED	11/10/72	W.G.		
REVISIONS				
FIELD CHANGES				

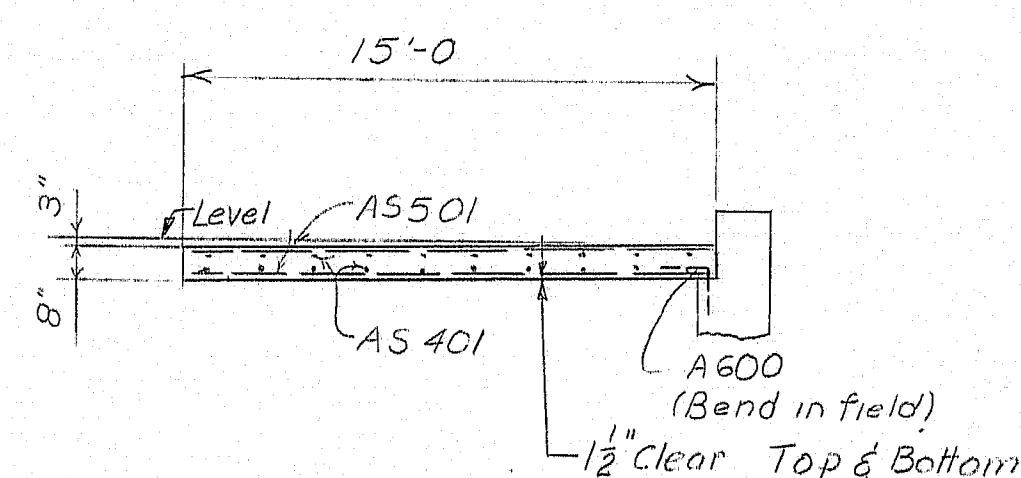
PLANS



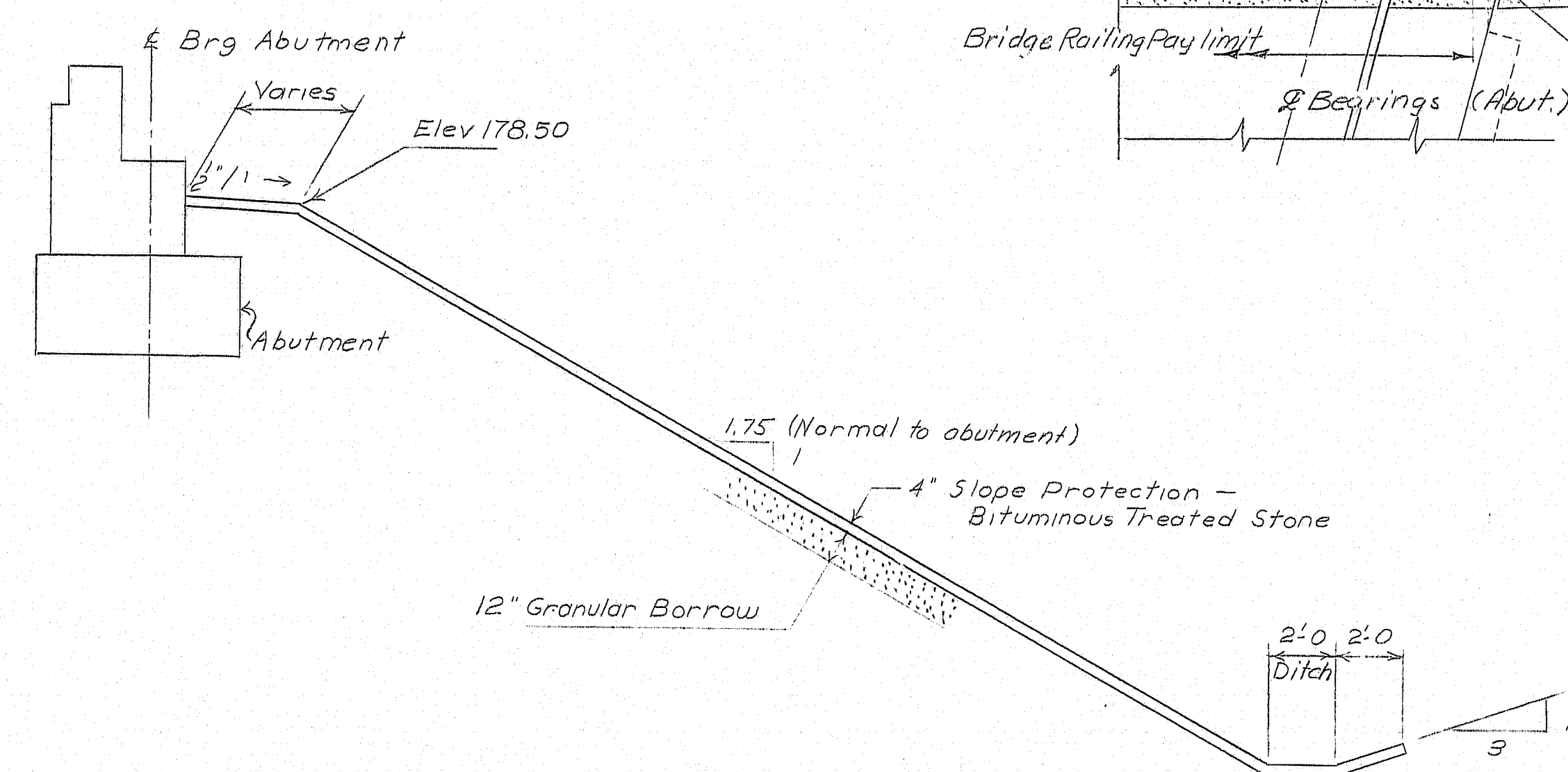
F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-B(99)	32	47



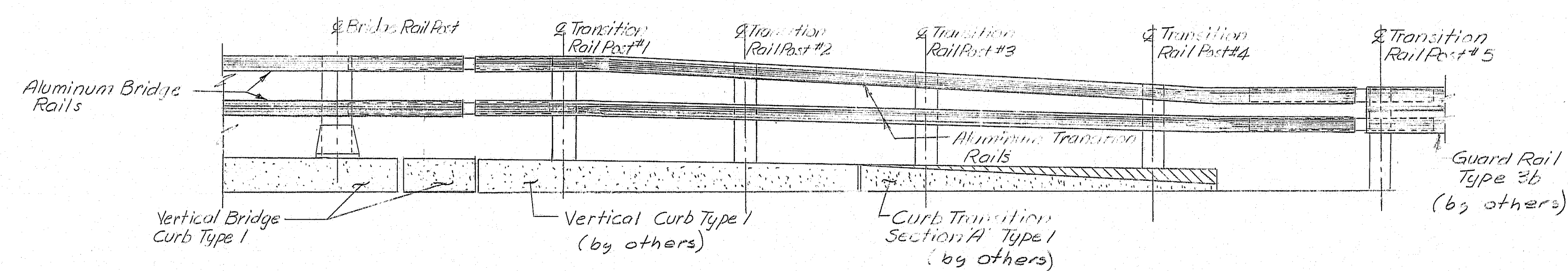
APPROACH SLAB - PLAN  
Abutment 1 shown, Abutment 2 similar



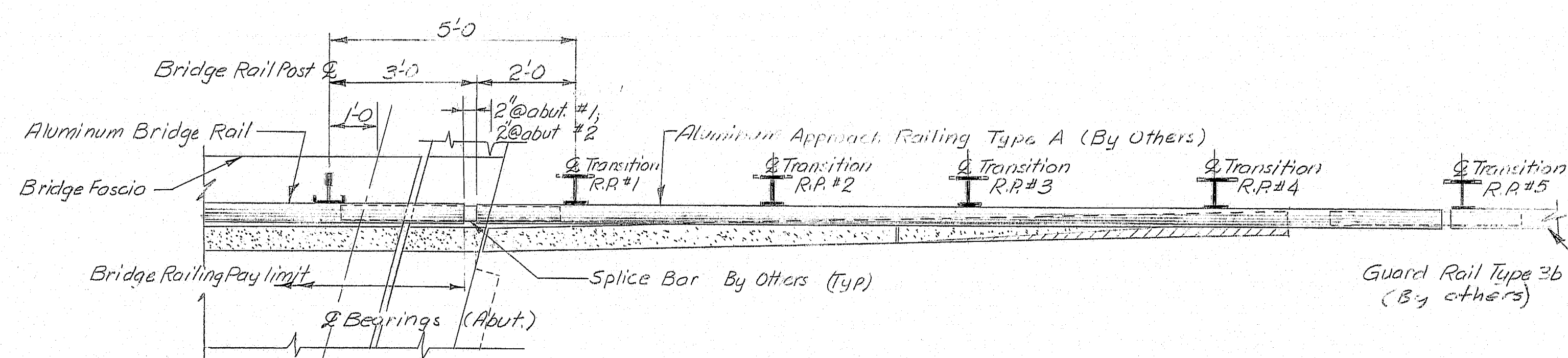
SECTION A-A



SECTION B-B  
SLOPE PROTECTION  
Referenced to sheet #14



ELEVATION



PLAN

APPROACH RAILING DETAILS

(Approach Railing by others)

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
INTERSTATE 95 (N.B.)  
OVER  
SEBOEIS ROAD  
IN THE TOWN OF  
HOWLAND  
PENOBSCOT COUNTY  
APPROACH SLABS & TRANSITION RAIL  
SHEET 13 OF 15 AUGUSTA, MAINE SEPT. 1973

145-94







REINFORCING STEEL SCHEDULE																										
STRAIGHT BARS													BENT BARS													
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
			ABUTMENT #1				ABUTMENT #2				PIERS															
A501	78	4'-0	Footings Dowels	A550	103	4'-0	Footings Dowels	P502	8	43'-6	Cap	A400	28	5'-0	S	-	1'-6	2'-0	1'-6			-				Bearing Pedestals Abutment #1 & #2
A502	8	20'-9	Breast wall	A551	20	8'-9	West Wing	P601	192	5'-6	Footings	A401	28	4'-8	S	-	1'-6	1'-8	1'-6							Bearing Pedestals Abutment #1 & #2
A503	8	19'-9	Breast wall	A553	5	12'-10	East Wing	P802	48	26'-3	Columns - Pier #1	A504	4	25'-10	L	22'-8	3'-2									Breastwall Abut #1
				A554	30	4'-7	Backwall Dowels	P803	48	28'-0	Columns - Pier #2	A505	4	23'-7	L	20'-5	3'-2									Breastwall Abut #1
A506	14	11'-6	East Wing	A555	10	12'-6	West Wing	P804	18	43'-6"	Pier Cap	A510	27	7'-10	L	4'-2	3'-8									Breastwall Abut #1
A507	8	9'-0	West Wing	A556	2	19'-6	Backwall					A514	30	8'-10	S	-	3'-10	1'-2	3'-10			-				Backwall Abut #1
A508	4	7'-0	West Wing	A557	2	19'-0	Backwall					A525	3	7'-4	L	4'-2	3'-2									Breastwall Abut #1
A509	28	7'-0	Breast wall	A558	2	16'-0	Backwall					A530	4	6'-5	H	5 1/2	1'-0	1'-9	1'-0	1'-9		5 1/2				Backwall Abut #1
				A559	2	2'-7	West Wing																			
A511	9	6'-9	West Wing	A560	2	3'-4	West Wing																			
A512	11	6'-6	East Wing	A561	2	4'-2	West Wing					A552	3	9'-7	L	3'-2	6'-5									Breast wall Abut #2
A513	29	4'-9	Backwall Dowels	A562	2	4'-11	West Wing					A564	27	10'-0	L	3'-6	6'-4									Breastwall Abut #2
				A563	4	5'-2	West Wing					A567	10	12'-5	L	3'-0	9'-5									Breast wall Abut #2
A515	2	22'-9	Breast wall									A568	30	9'-4	S	-	4'-1	1'-2	4'-1		-					Backwall Abut #2
A516	2	20'-5	Breast wall	A565	30	9'-2	Breast wall					A576	4	6'-5	H	5 1/2	1'-0	1'-9	1'-0	1'-9		5 1/2				Backwall Abut #2
				A566	2	9'-0	West Wing	SUPERSTRUCTURE SLAB																		
A519	2	23'-4	Back wall					S500	274	45'-10	Slab Transverse															
A520	2	21'-10	Back wall	A569	18	23'-11	Breast wall	S501	176	40'-0	Slab Longitudinal															
A521	2	6'-10	East Wing	A570	7	5'-0	East Wing	S502	176	32'-0	Slab Longitudinal	P501	144	11'-7	H	5 1/2	2'-8	2'-8	2'-8	2'-8		5 1/2				Pier columns
A522	2	2'-10	East Wing	A571	7	8'-10	Breast wall	S503	68	30'-0	Longitudinal over Piers															
A523	2	3'-7	East Wing	A572	7	7'-6	Breast wall	S504	8	10'-4	Curb Longitudinal	P503	4	12'-9	H	5 1/2	3'-2	2'-9	3'-2	2'-9		5 1/2				Pier Cap
A524	6	4'-8	East Wing					S505	24	15'-0	Curb Longitudinal	P504	4	13'-1	H	5 1/2	3'-2	2'-11	3'-2	2'-11		5 1/2				Pier Cap
A526	2	5'-0	West Wing	A574	5	14'-9	East Wing	S506	8	11'-4	Curb Longitudinal	P505	4	13'-6	H	5 1/2	3'-2	3'-1 1/2	3'-2	3'-1 1/2		5 1/2				Pier Cap
A527	2	3'-5	West Wing	A575	2	11'-6	East Wing					P506	4	13'-10	H	5 1/2	3'-2	3'-3 1/2	3'-2	3'-3 1/2		5 1/2				Pier Cap
A528	2	4'-3	West Wing									P507	4	14'-3	H	5 1/2	3'-2	3'-5 3/4	3'-2	3'-5 3/4		5 1/2				Pier Cap
A529	4	4'-9	West Wing	A578	2	20'-4	Back wall & East Wing					P508	68	14'-7	H	5 1/2	3'-2	3'-8	3'-2	3'-8		5 1/2				Pier Cap
				A579	2	18'-0	Back wall & East Wing					APPROACH SLAB														
				A580	2	15'-0	Back wall & East Wing	A5401	40	40'-9	Abutment #1 & #2	P801	96	8'-8	J	10 1/2	9 1/2	7'-0							6"	Pier Footings Dowels
A600	28	4'-6	Approach Slab Dowels	A581	2	12'-0	East Wing	A5501	328	14'-8	Abutment #1 & #2															
A601	114	5'-6	Footings	A582	2	12'-0	East Wing					P805	12	43'-6	M	-	-	5'-3	33'-0	5'-3	-		1'-0	43'-6		Pier Cap
A602	28	29'-0	Footings	A583	2	11'-6	East Wing																			
				A584	2	10'-8	East Wing					S507	288	4'-7	S	5'	1'-4	1'-1	1'-4	-	-	5'				SUPERSTRUCTURE Curbs
				A585	2	9'-10	East Wing																			
				A586	2	9'-0	East Wing					S600	136	47'-10	B	-	4'-7	6 1/2	2'-8 1/2 x 6	3'-2 1/2 x 5	4'-7		4 1/2	45'-11		Slab Transverse
				A587	2	8'-2	East Wing																			
				A588	2	7'-5	East Wing																			
				A600	28	4'-6	Approach Slab Dowels																			
				A650	28	33'-8	Footings																			
				A651	132	6'-0	Footings																			

FWHA  
REG. NO.  
1

STATE  
MAINE

PROJECT NUMBER  
1-95-8(99)

SHEET NO.  
34

TOTAL SHEETS  
47

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

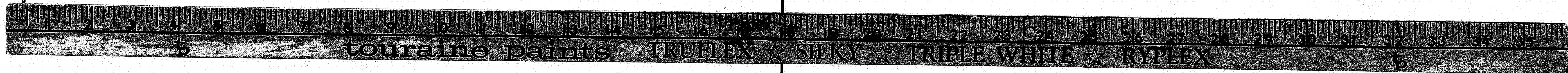
- First digit(s) following the letter of the Mark indicates size of reinf. bar.  
Mark (A502) bar size - #5  
Mark (P1001) bar size - #10  
Mark (S603) bar size - #6
- Letter of Marks A, P, & S locates bars of Abutments, Piers, and Superstructure parts respectively.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

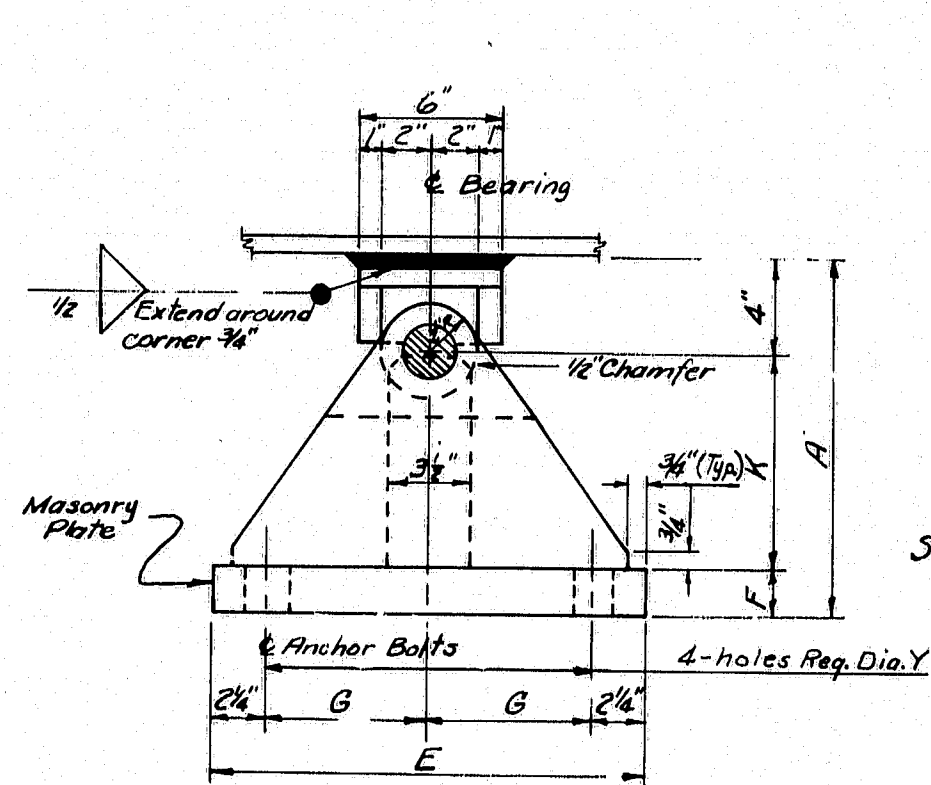
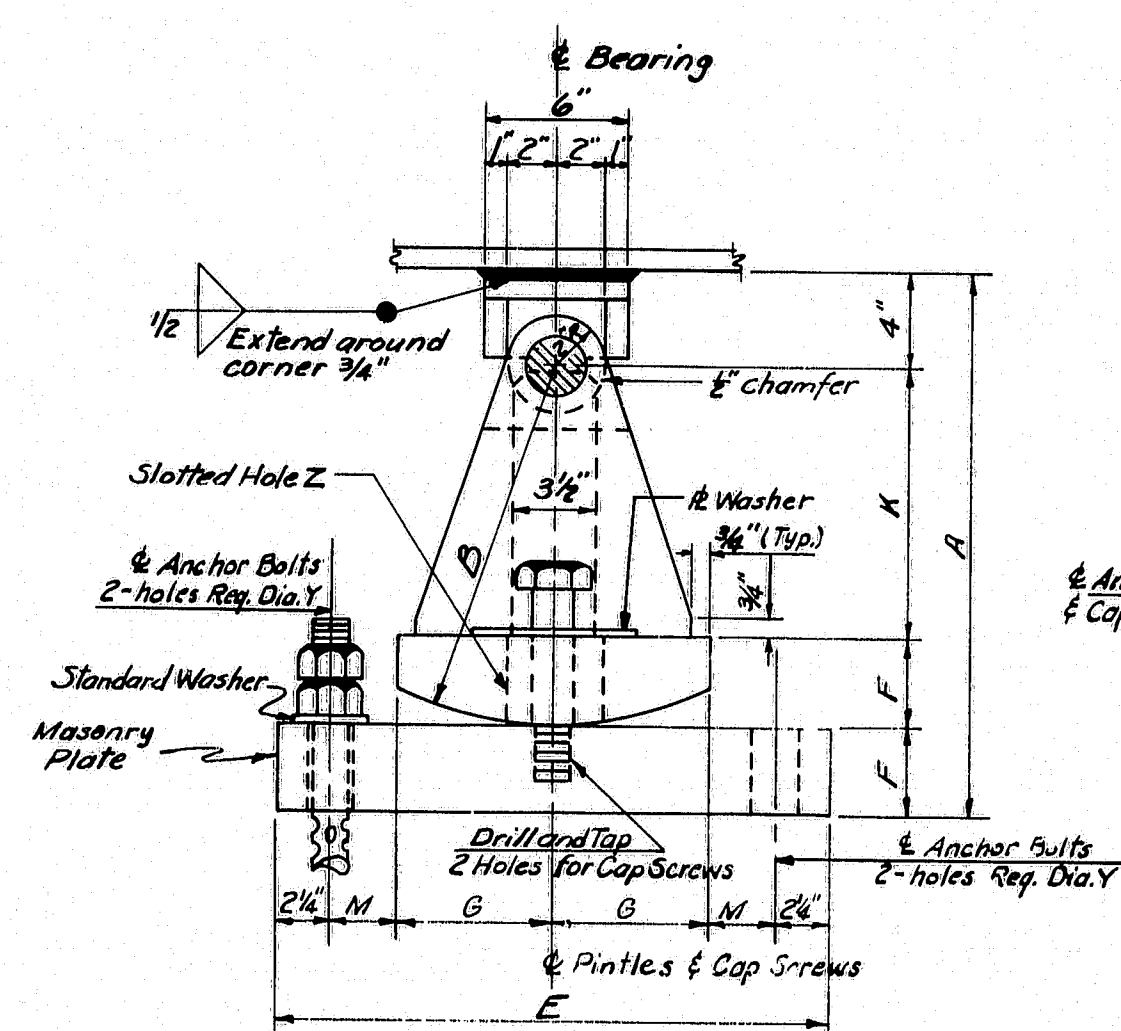
INTERSTATE 95 (N.B.)  
OVER  
SEBOEIS ROAD  
IN THE TOWN OF  
HOWLAND  
PENOBSCOT COUNTY  
REINFORCING STEEL

SHEET 15 OF 15 AUGUSTA, MAINE SEPT. 1973

14-5-96







The diagrams illustrate two types of anchor bolts used in concrete foundations:

- A1 Embedment Swaged:** This diagram shows a bolt with a swaged (flared) end embedded in concrete. Key dimensions include:
  - Embedment Depth:** The length of the bolt embedded in the concrete.
  - Swaged:** The flared portion of the bolt end.
  - Washer:** A washer with a hole size  $\frac{1}{8}$  larger than the anchor bolt diameter is shown above the nut.
  - 2-Hex Nuts:** Two hexagonal nuts are shown on the bolt.
  - 5" Thread:** The length of the threaded portion of the bolt.
  - R:** The total length of the bolt.
- Standard Washer:** This diagram shows a bolt with a standard washer and nut. Key dimensions include:
  - Embedment Depth:** The length of the bolt embedded in the concrete.
  - Swaged:** The flared portion of the bolt end.
  - 2-Hex Nuts:** Two hexagonal nuts are shown on the bolt.
  - 5" Thread:** The length of the threaded portion of the bolt.
  - R:** The total length of the bolt.

1 1/2"

3/8" Rad.

3/8"

1/2"

3/8"

3/8" Rad.

1" Ø PINTLE

Press Fit

At the location of bearing pedestals the concrete bridge seals shall be dressed one inch larger all around the 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 in 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 1/4 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

Fabricate pedestals with  $\frac{3}{4}$ " fillet welds. The diameter of the pin hole shall not exceed that of the pin by more than 30 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.

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

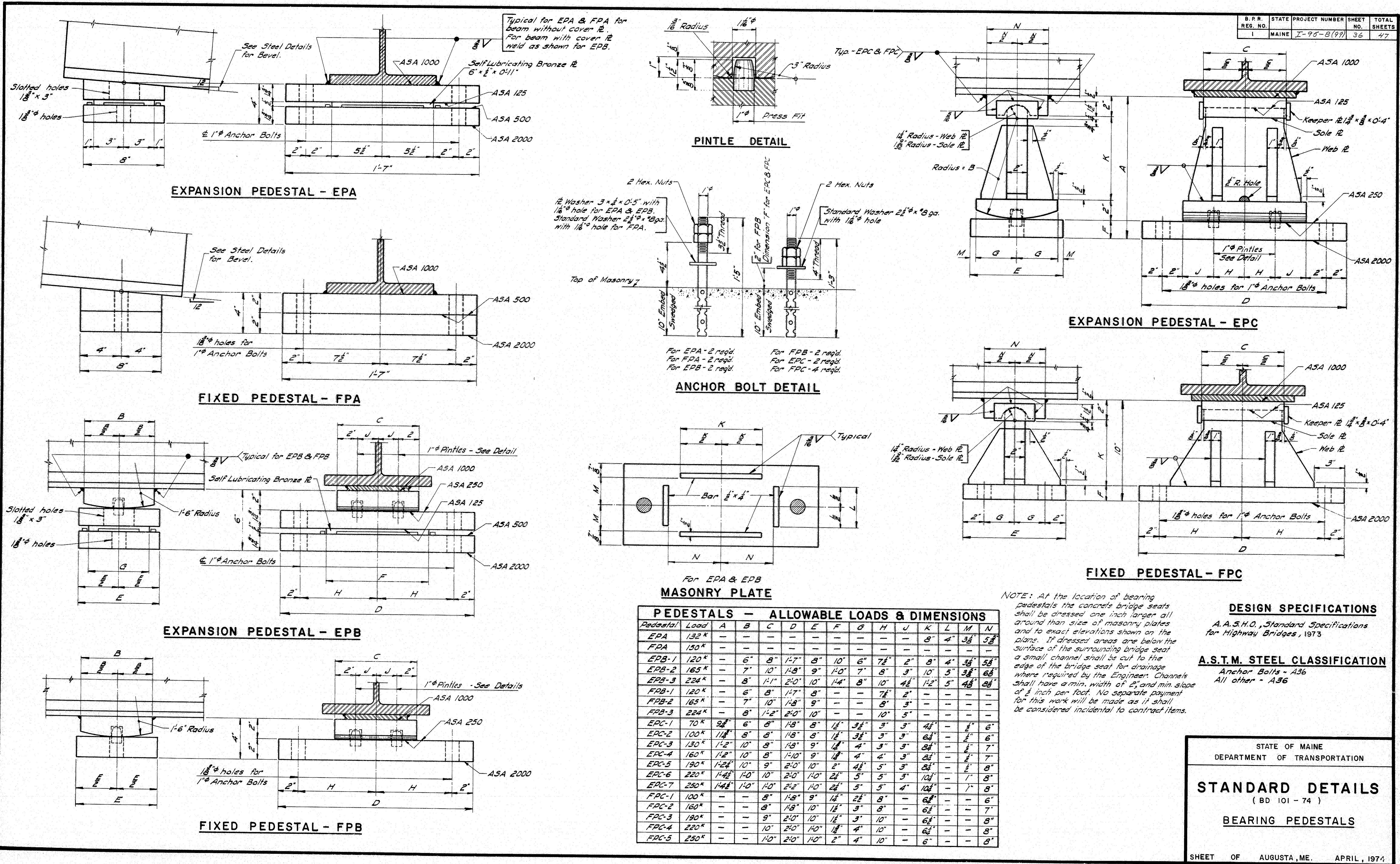
*All structural steel shall be -A36 except the following:*  
*2" Ø Pin - A36; A235, Class E or A108, Grade 1016 - 1030 inclusive.*

## BEARING PEDESTALS

AUGUSTA, MAINE      JULY 1971

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PEDESTALS - ALLOWABLE LOADS & DIMENSIONS													
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M
EPA	132K	-	-	-	-	-	-	-	-	-	-	8"	3 1/2"
FPA	150K	-	-	-	-	-	-	-	-	-	-	-	-
EPB-1	120K	-	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"
EPB-2	165K	-	7"	10"	14"	18"	22"	26"	30"	34"	38"	42"	46"
EPB-3	224K	-	8"	11"	15"	19"	23"	27"	31"	35"	39"	43"	47"
FPB-1	120K	-	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"
FPB-2	165K	-	7"	10"	14"	18"	22"	26"	30"	34"	38"	42"	46"
FPB-3	224K	-	8"	11"	15"	19"	23"	27"	31"	35"	39"	43"	47"
EPC-1	70K	2 1/2"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"
EPC-2	100K	1 1/2"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"
EPC-3	130K	1 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"
EPC-4	160K	1 1/2"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"
EPC-5	190K	1 1/2"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"
EPC-6	220K	1 1/2"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"
EPC-7	250K	1 1/2"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"
FPC-1	100K	-	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"
FPC-2	160K	-	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"
FPC-3	190K	-	9"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"
FPC-4	220K	-	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"
FPC-5	250K	-	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"

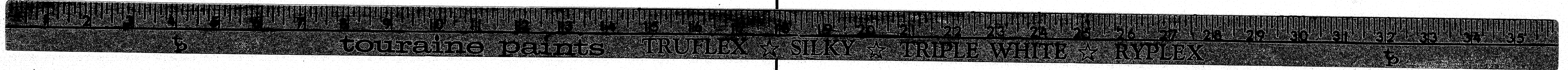
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**STANDARD DETAILS**  
(BD 101 - 74)

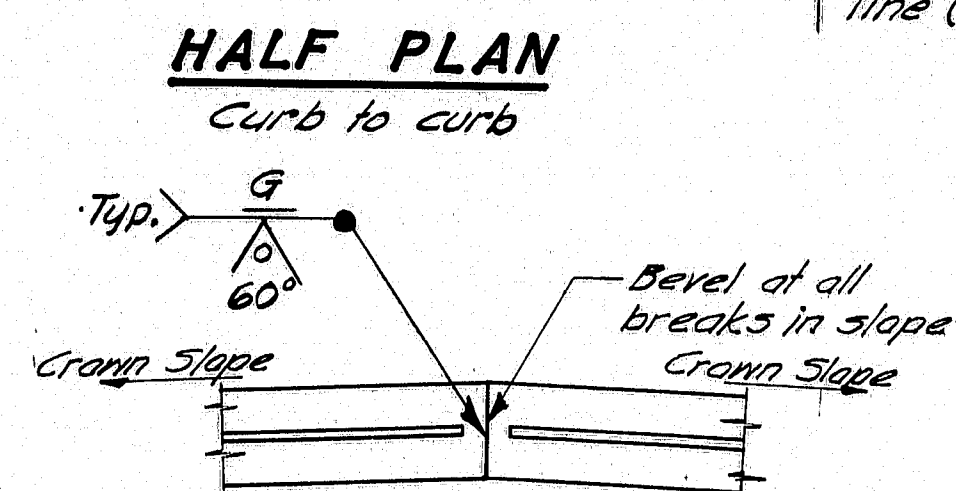
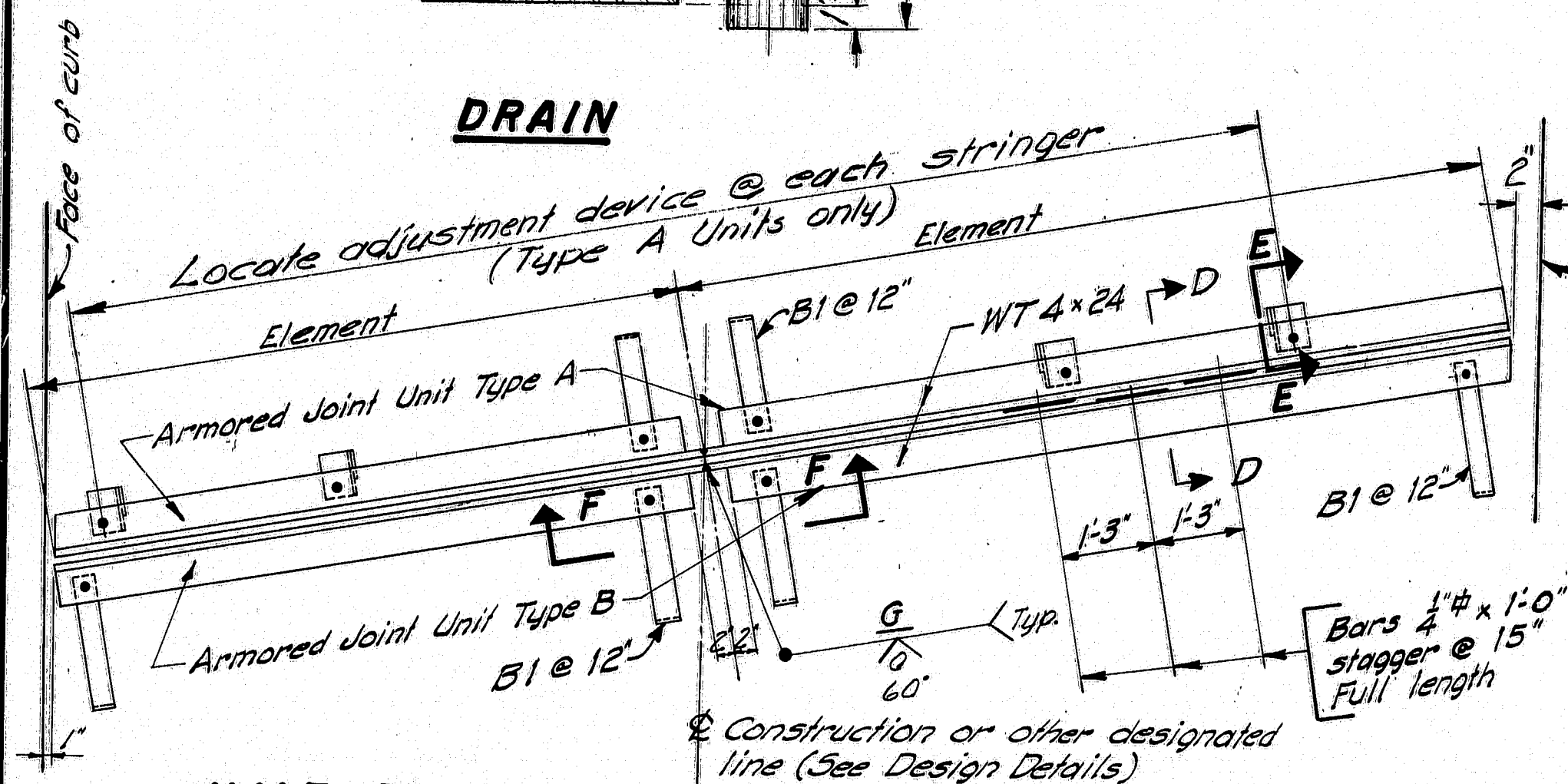
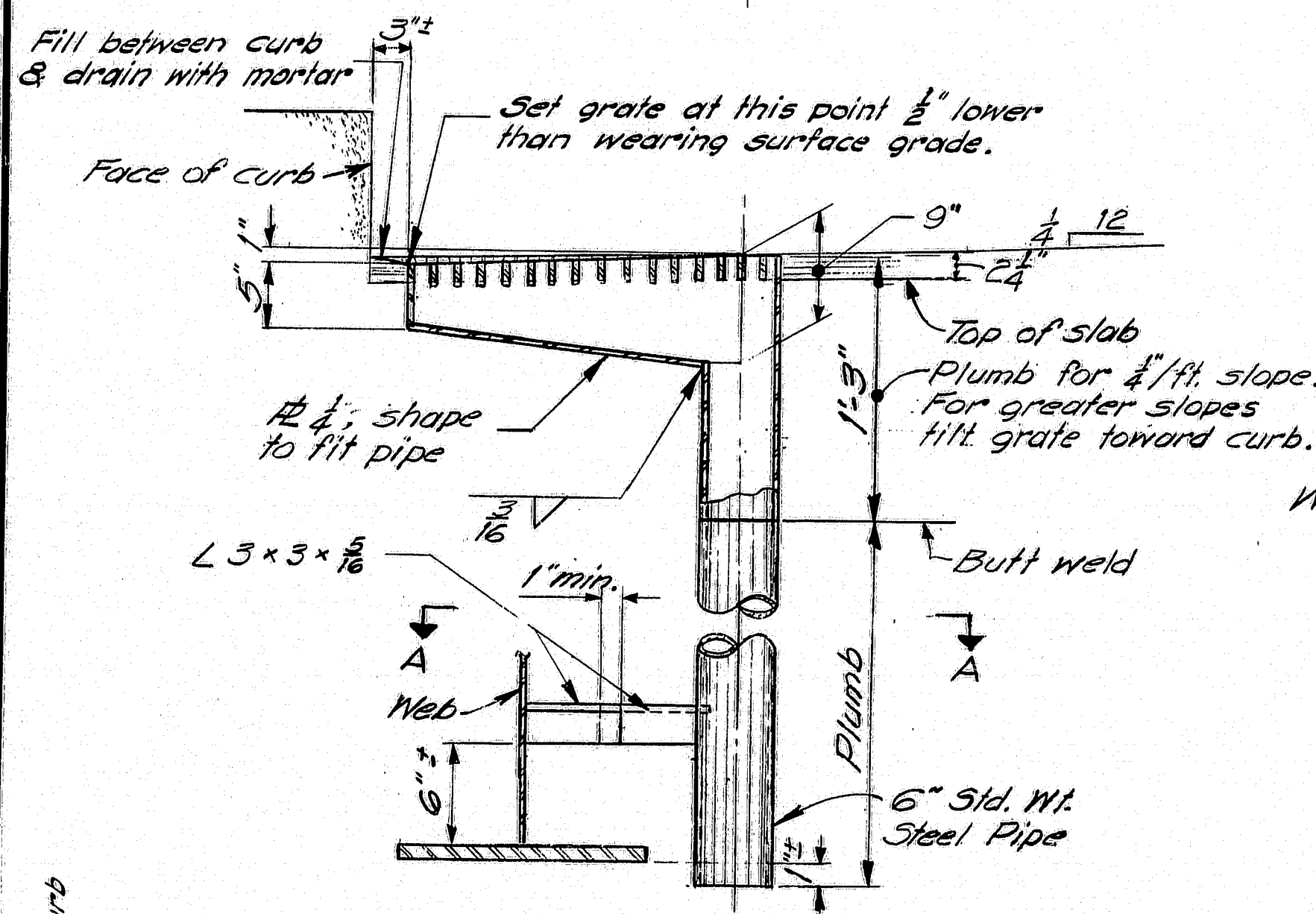
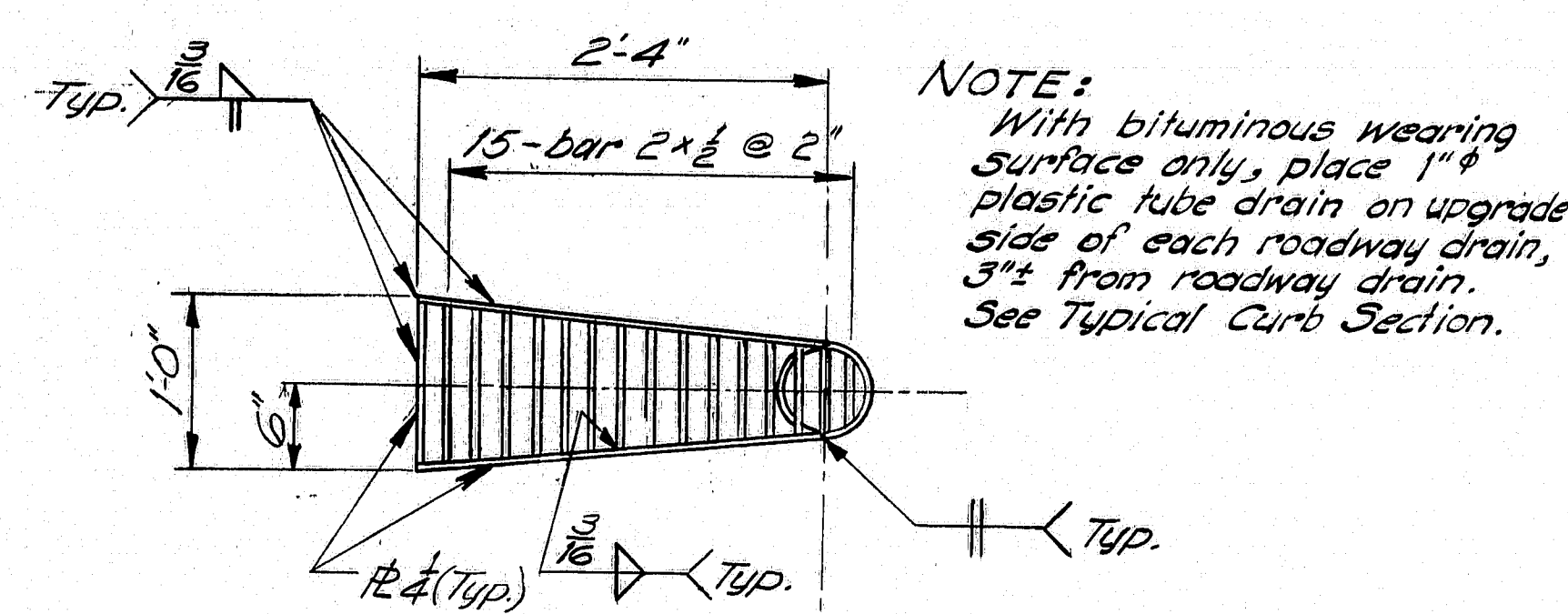
**BEARING PEDESTALS**

SHEET OF AUGUSTA, ME. APRIL, 1974

145-98







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

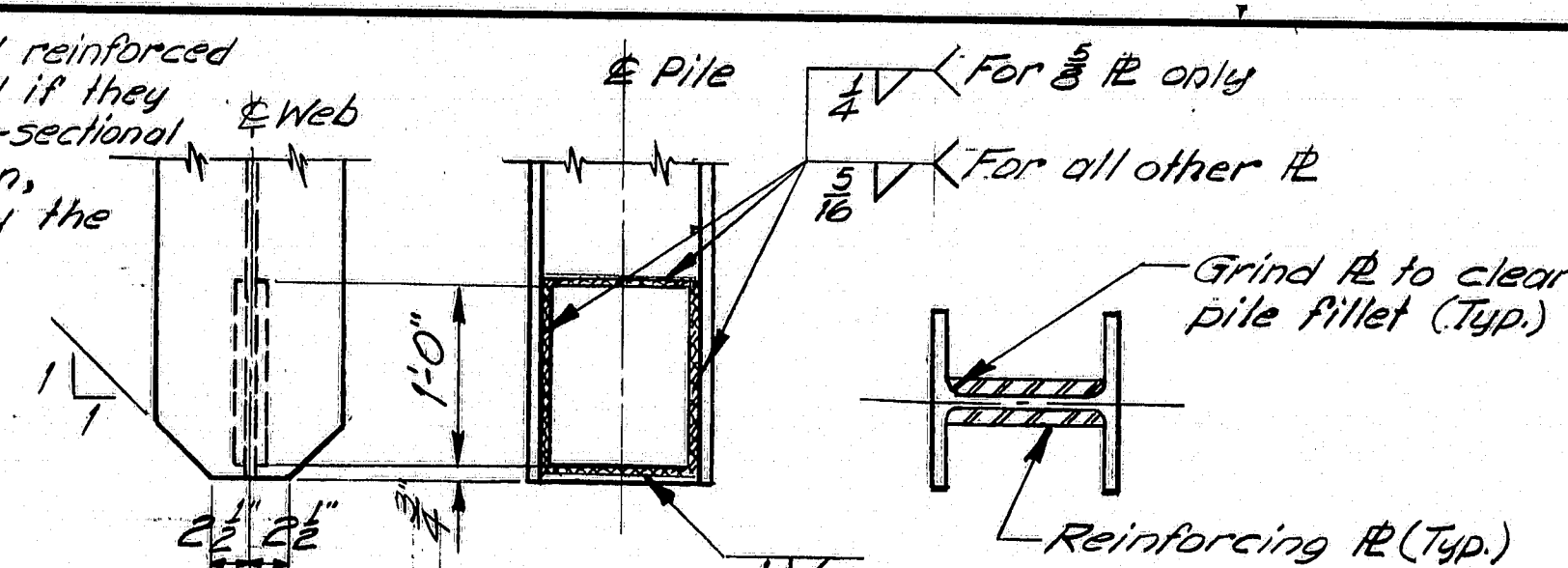
**HALF PLAN**  
Fascia to fascia

- 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. When more elements than two (2) are required by the design details, the elements of both units shall be field welded together in the same manner as shown in Section F-F.
  3. Armored Joints to be paid for as Structural Steel.

### ARMORED JOINT

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

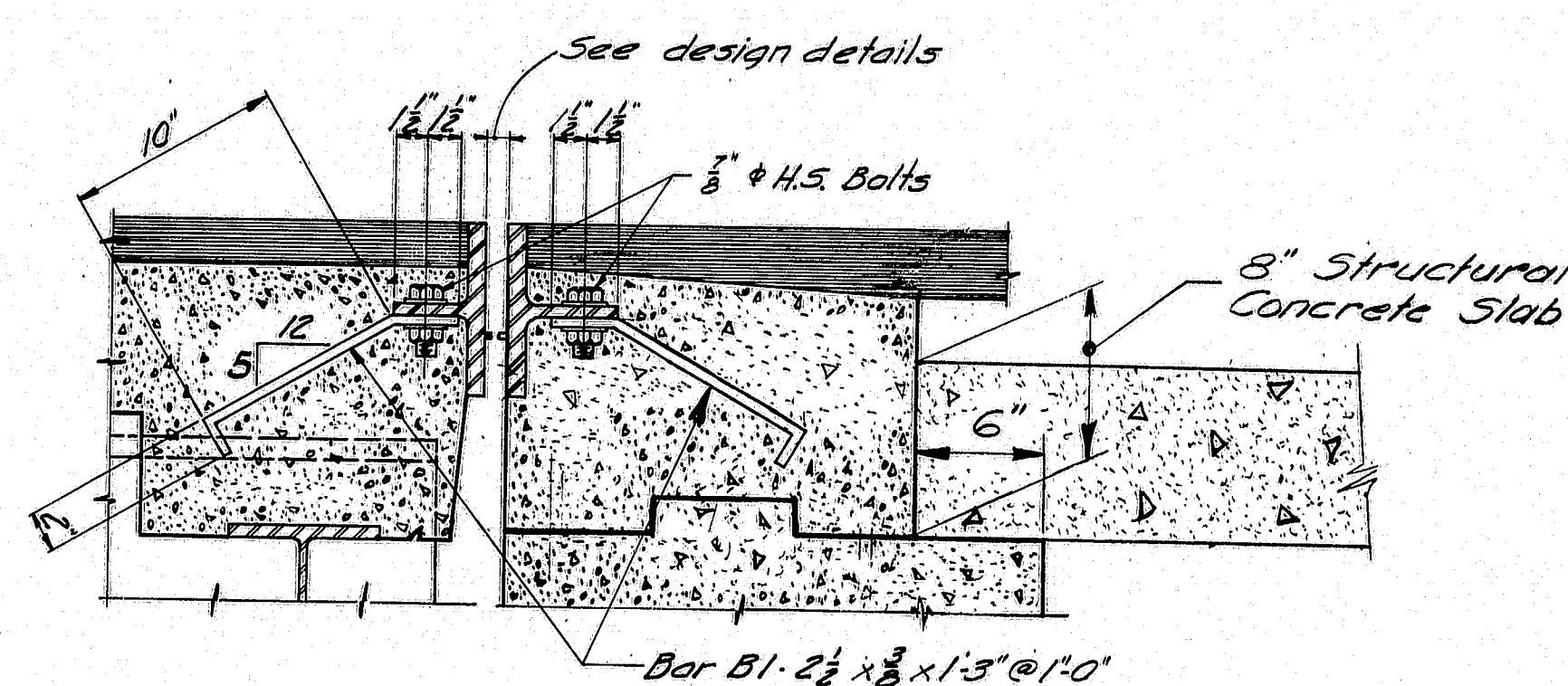
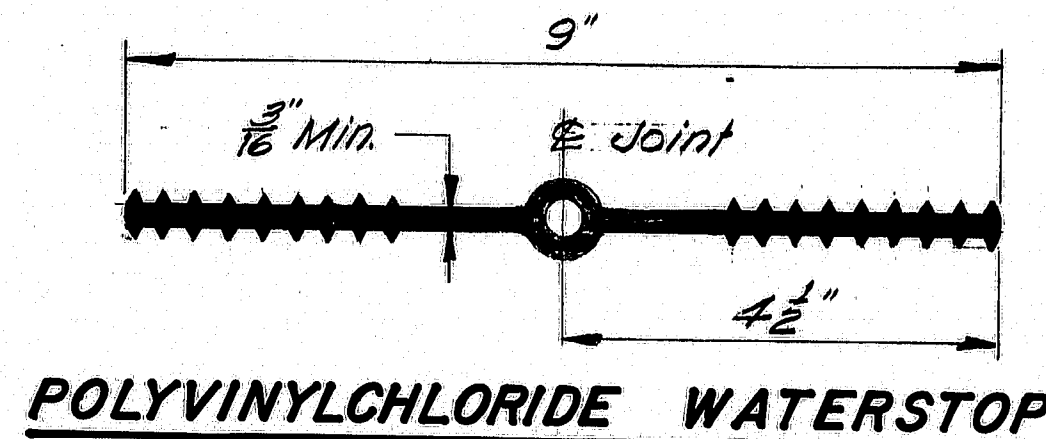
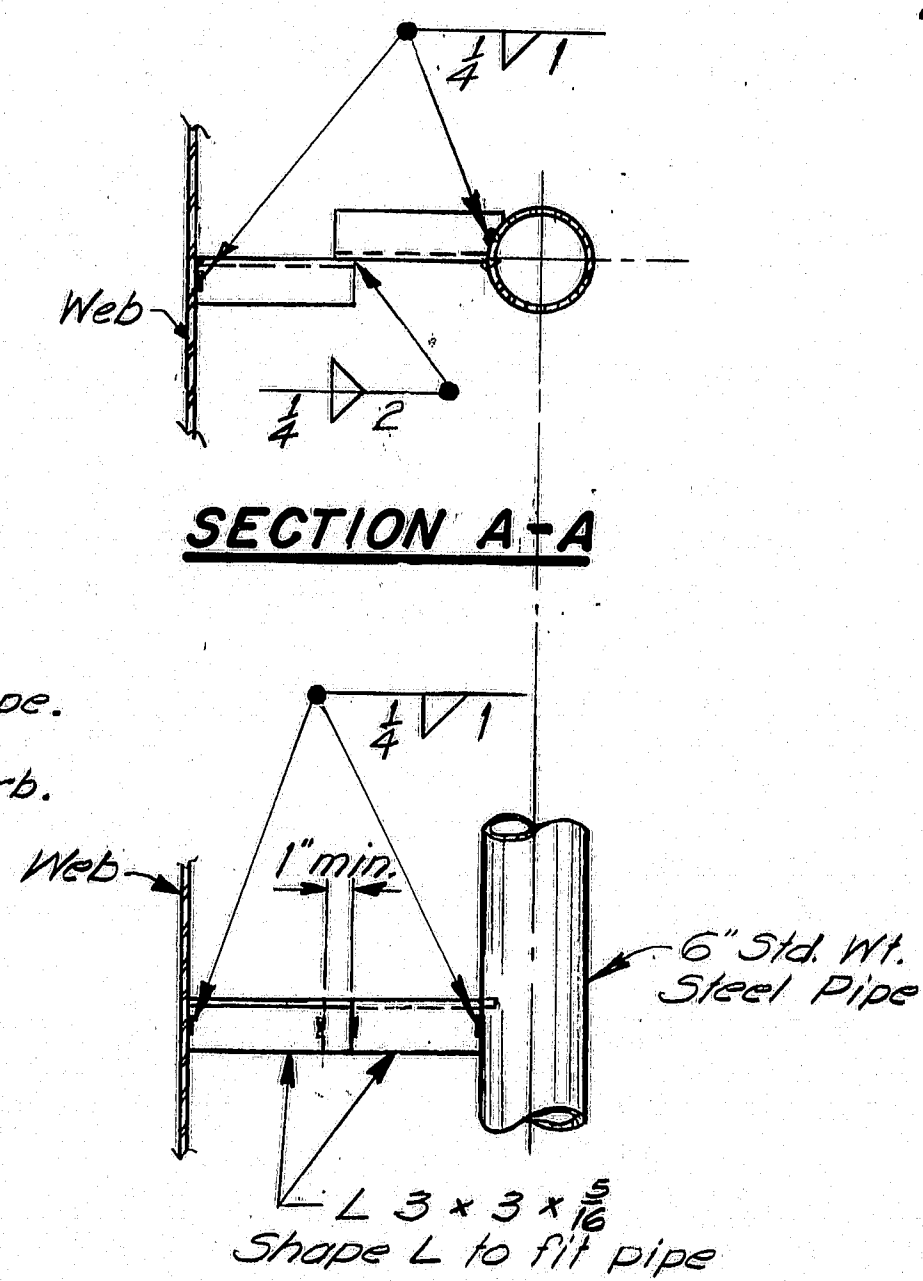
**NOTE:** Alternate pointed reinforced pile tips may be used if they have at least the cross-sectional area of the tip shown, and are approved by the Engineer.



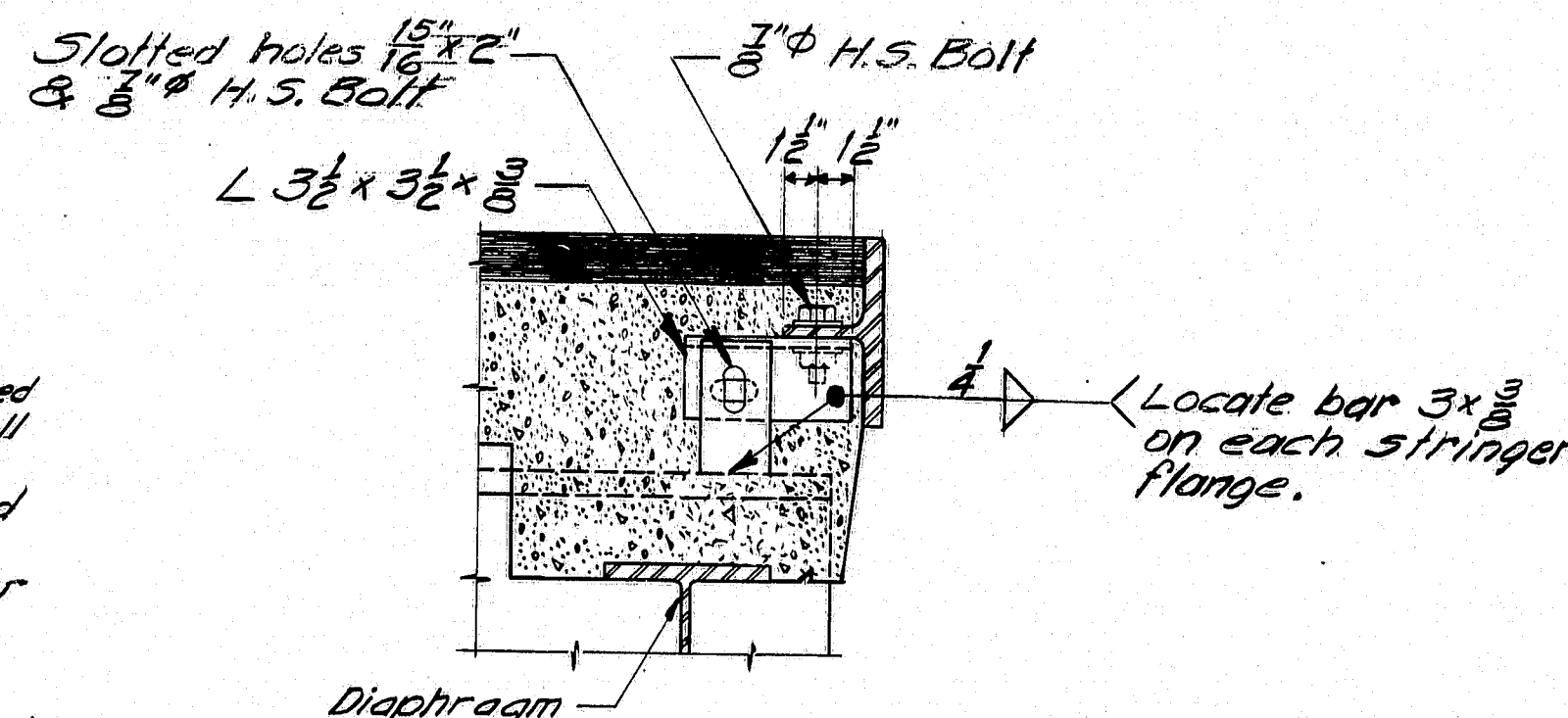
### POINTED REINFORCED PILE TIP

**NOTE:** Plates may be shop or field welded.

PILE SIZE	REINFORCING PILE SIZE
HP 10 x 42	8 3/8 x 3/8 x 1'-0"
HP 10 x 57	8 3/8 x 3/8 x 1'-0"
HP 12 x 53	10 3/8 x 3/8 x 1'-0"
HP 12 x 74	10 3/8 x 3/8 x 1'-0"
HP 14 x 73	12 3/8 x 3/8 x 1'-0"
HP 14 x 89	12 3/8 x 1 x 1'-0"

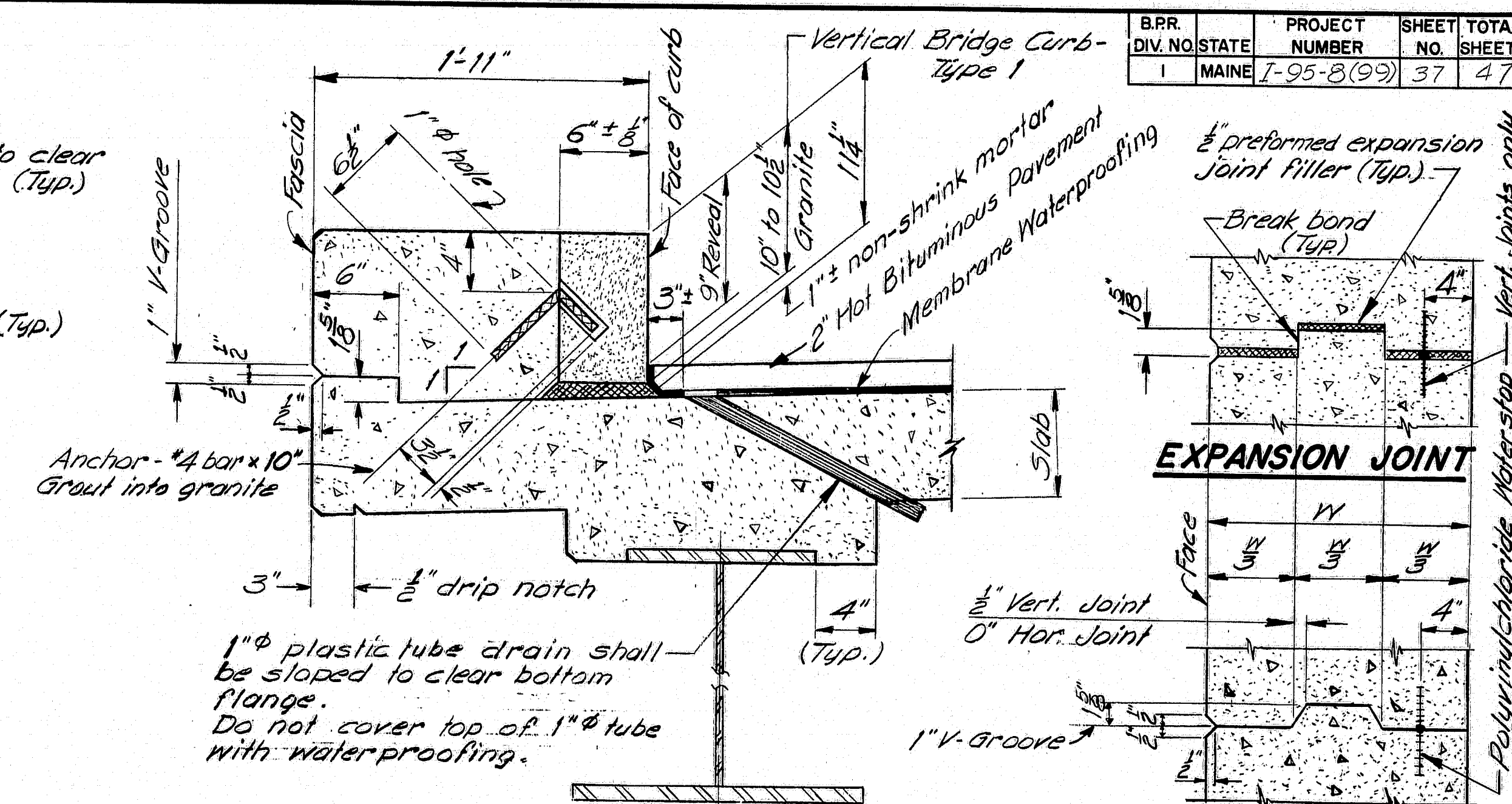


**SECTION D-D**  
Armored Joint Unit Type A  
Armored Joint Unit Type B



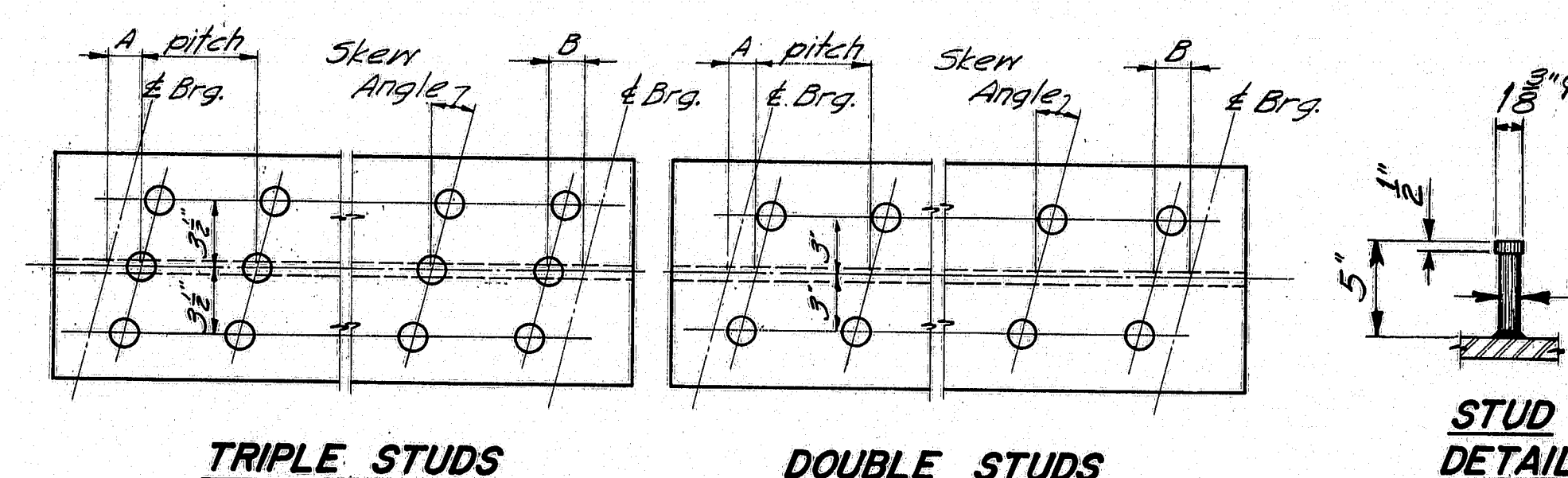
### SECTION E-E

Showing Adjustment Device  
Armored Joint Unit Type A only  
After Unit is in Final position  
weld 3/8 inch to angle with 1/2 inch fillet.



### TYPICAL CURB SECTION

### CONSTRUCTION & CONTRACTION JOINTS



- NOTE**
1. Studs shall be granular or solid flux filled and automatically and 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

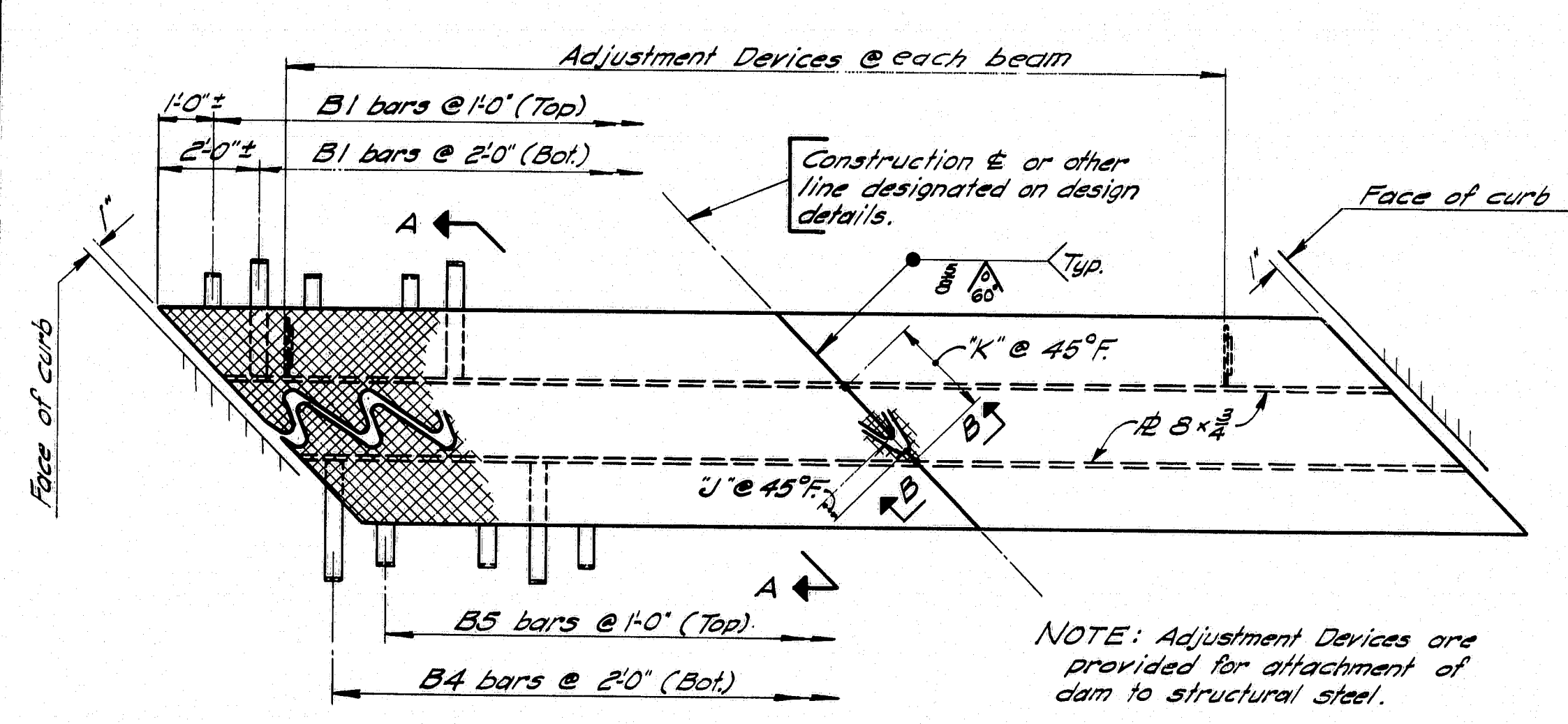
**NOTE** Use only those items called for on design details. In case of conflict between these Standard Details and design details, the requirements of the design details shall be followed. Drains to be incidental, see sub-section 302.20

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**STANDARD DETAILS**  
(BD 104-73)  
**ARMORED JOINT, DRAIN**  
**SHEAR CONNECTORS**  
**MISC. STRUCTURAL DETAILS**

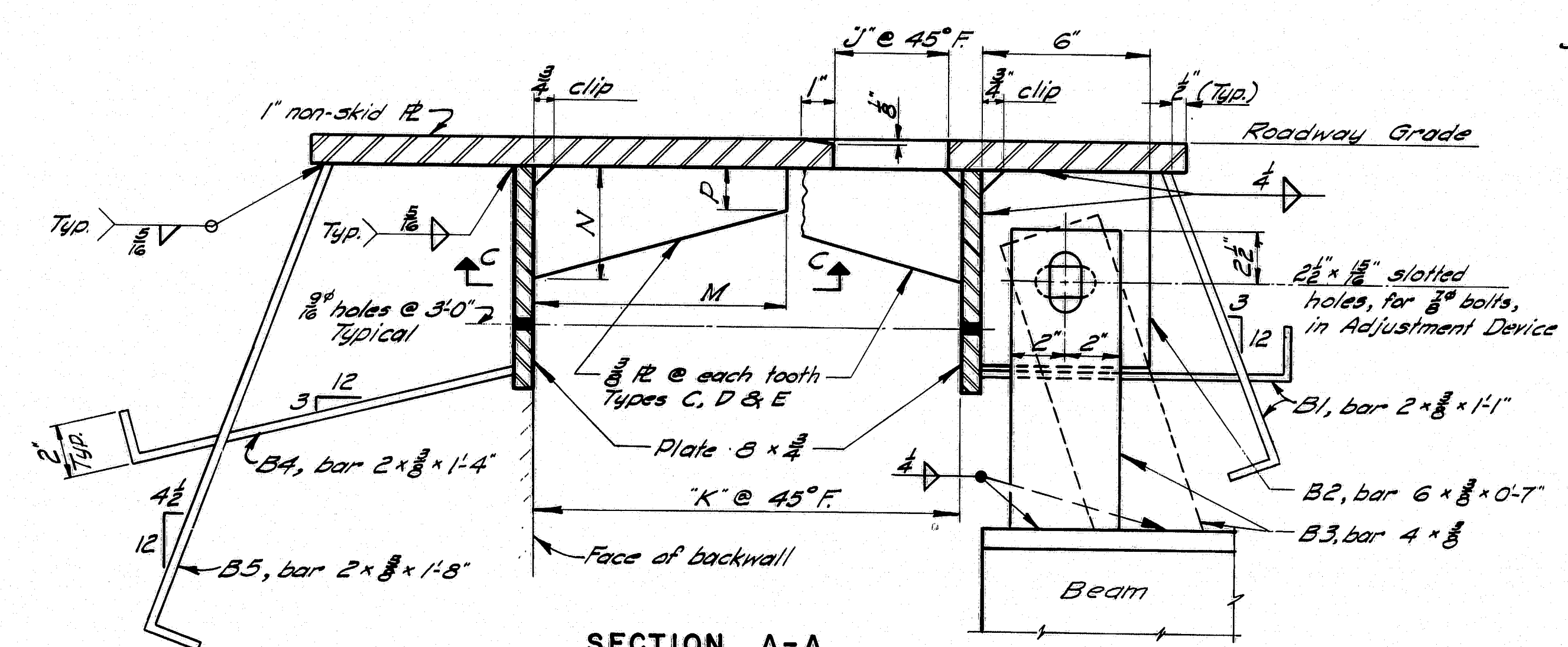
SHEET OF AUGUSTA, ME. JULY 1973

145-99

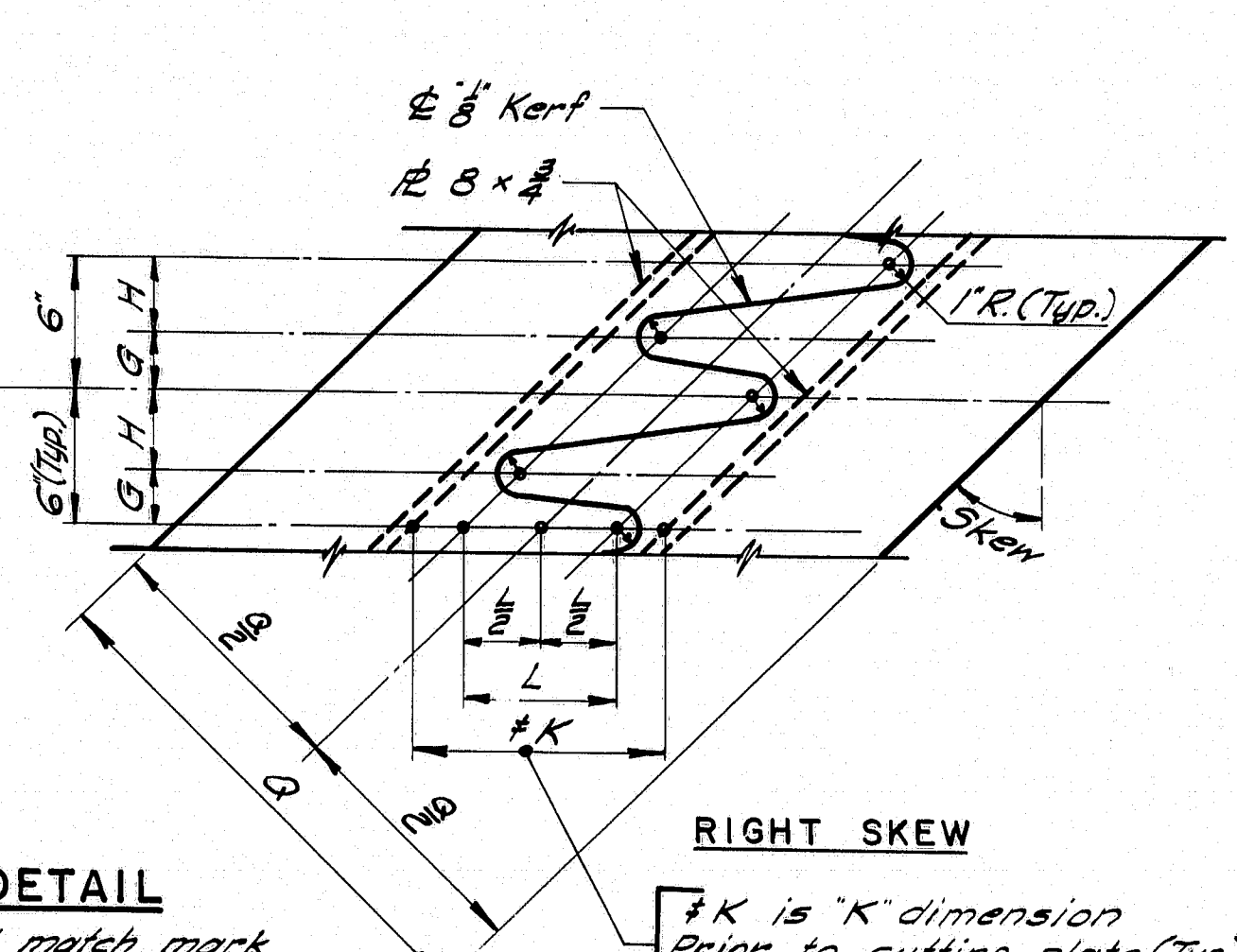
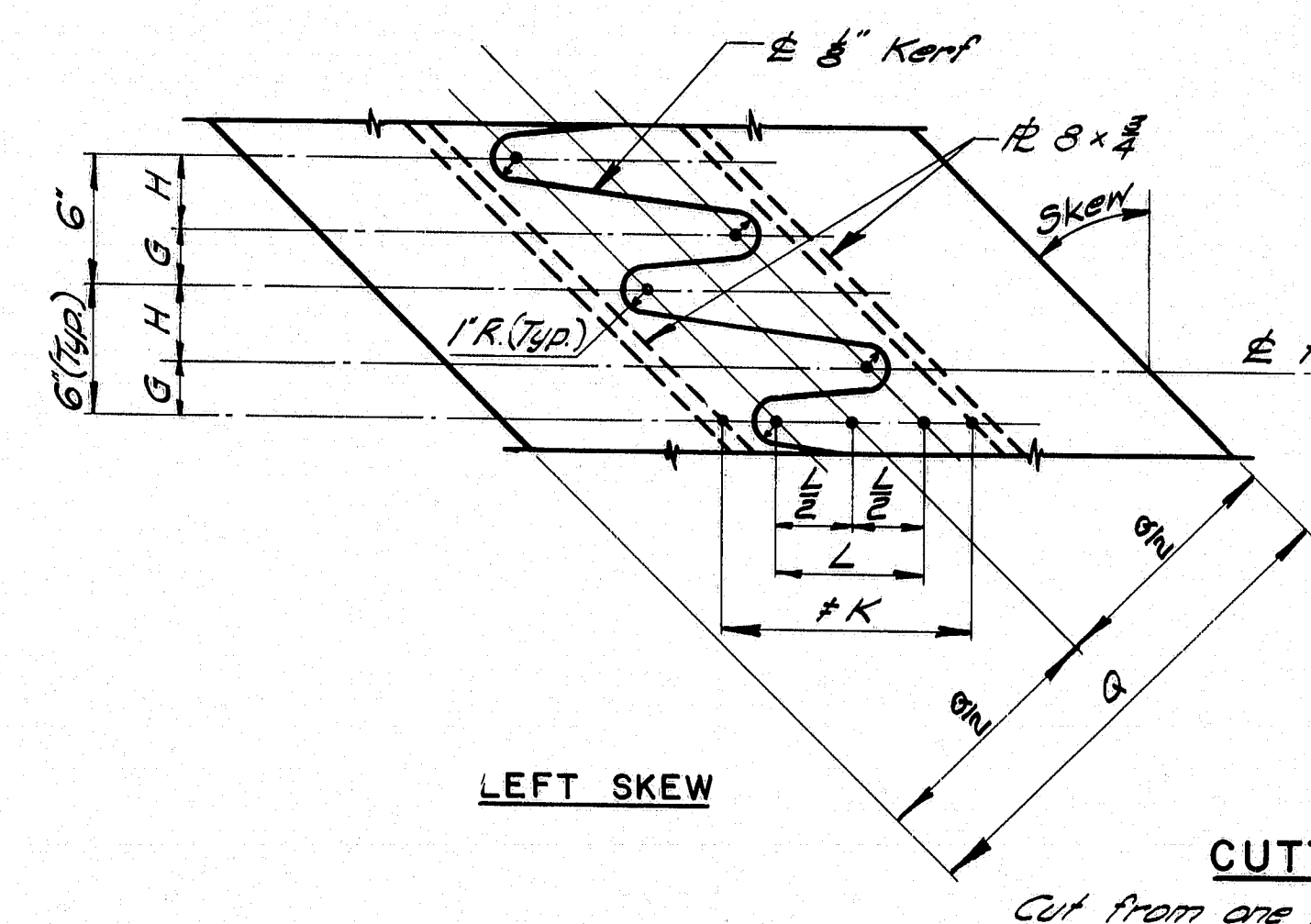




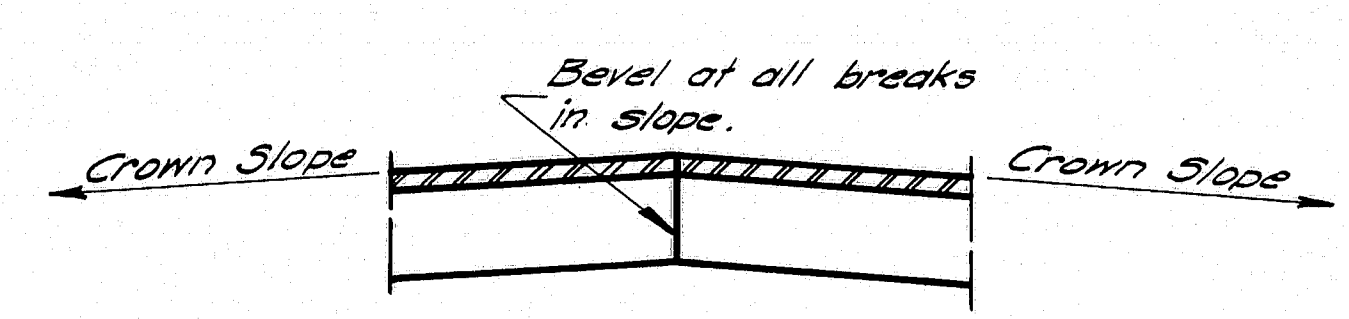
**PLAN**  
Right skew indicated



**SECTION A-A**

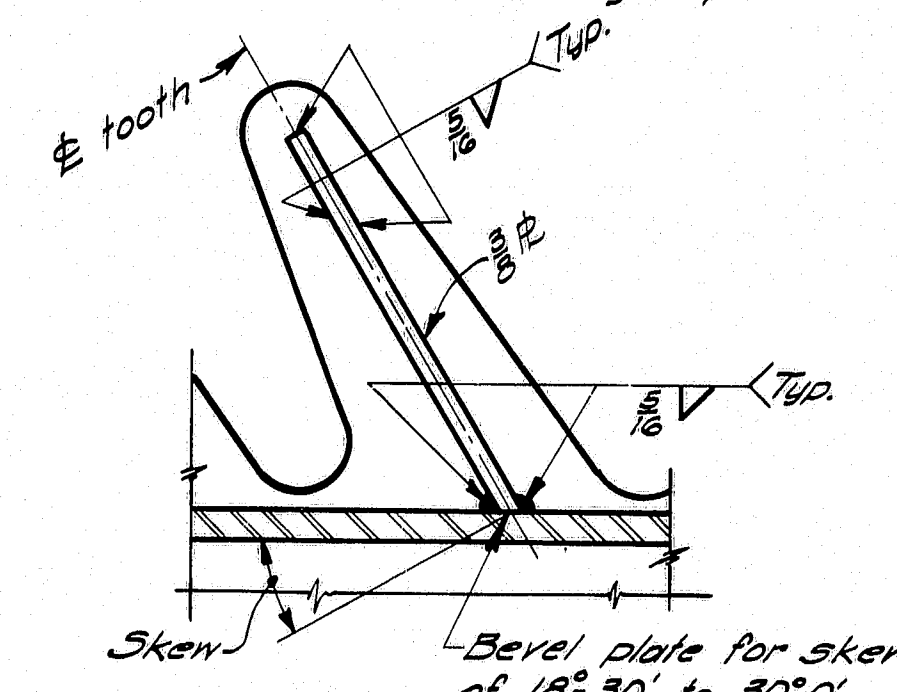


**ROADWAY EXPANSION DAM - DETAILS**

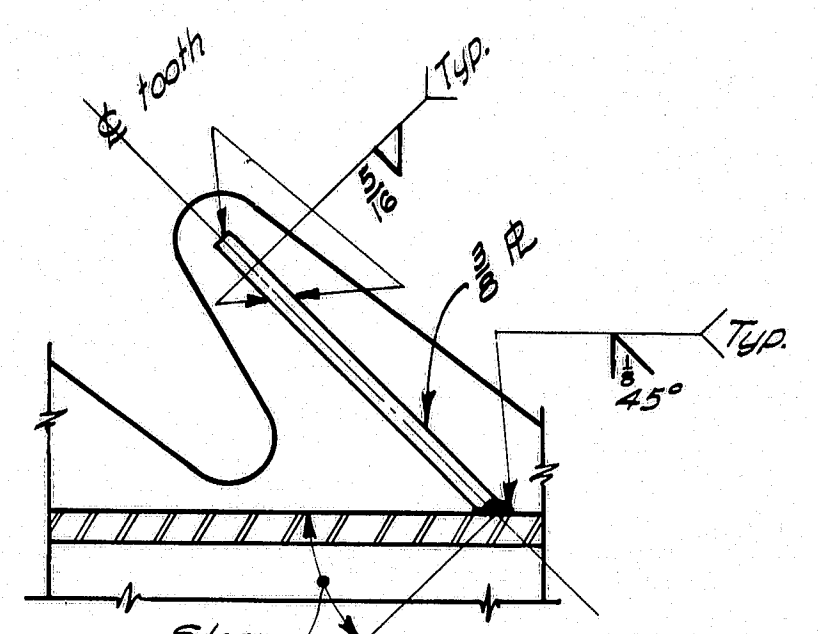


**SECTION B-B**

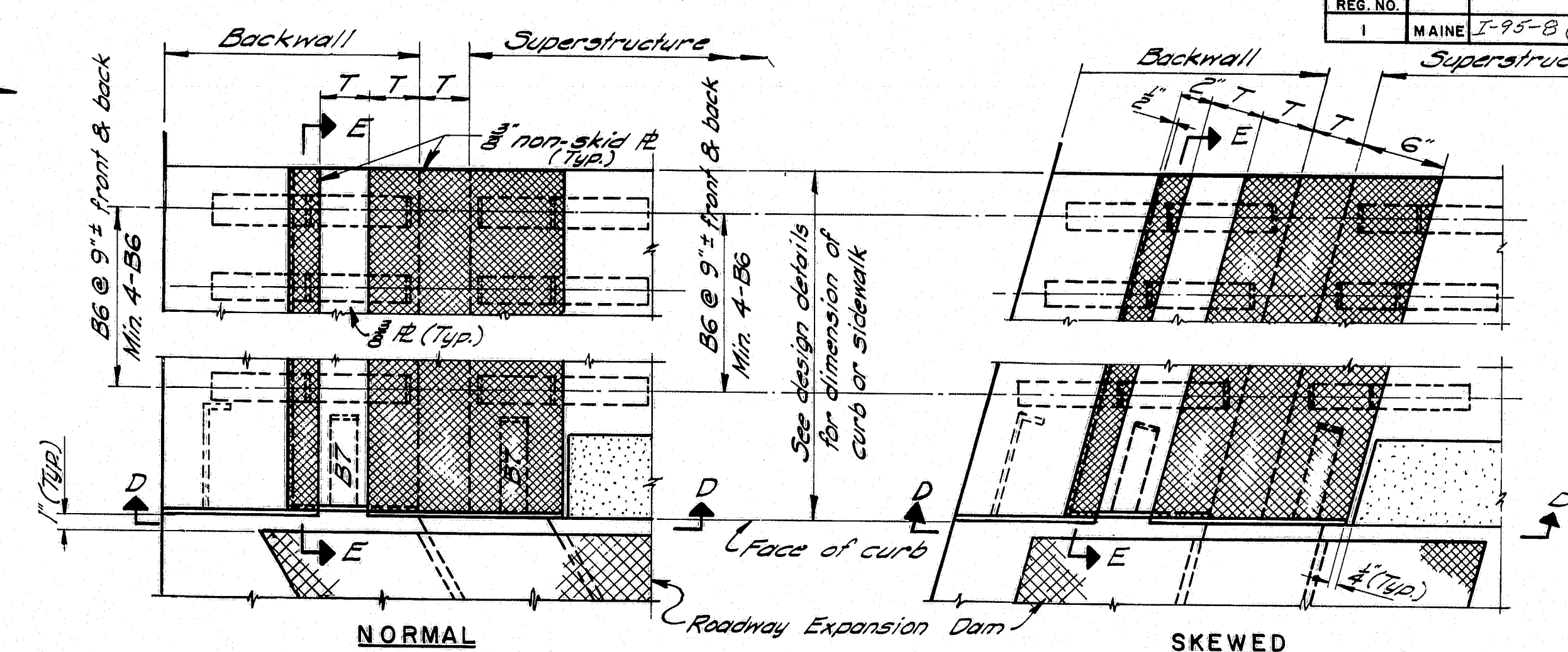
See design details for construction to curb dimensions, skew, crown slope, slab thickness, other dimensions & angles that are necessary to complete fabrication details and location of Roadway Expansion Dam.



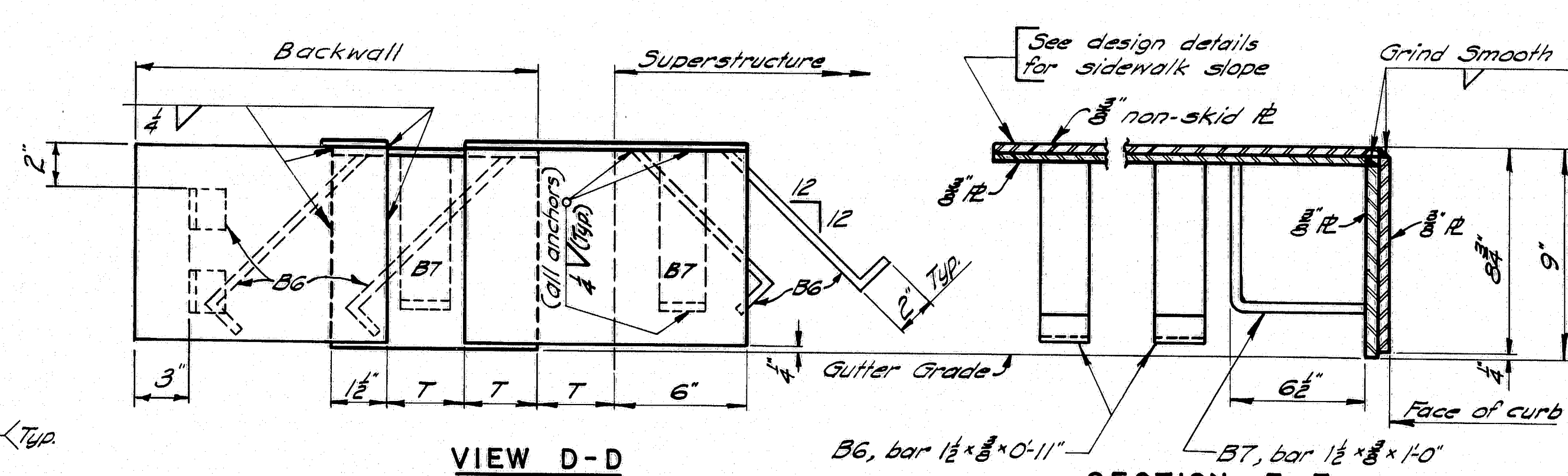
**SECTION C-C**  
Skew ~ 0° to 30°0'



**SECTION C-C**  
Skew over 30°



**PLAN**



**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**

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

**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: A572M, A36

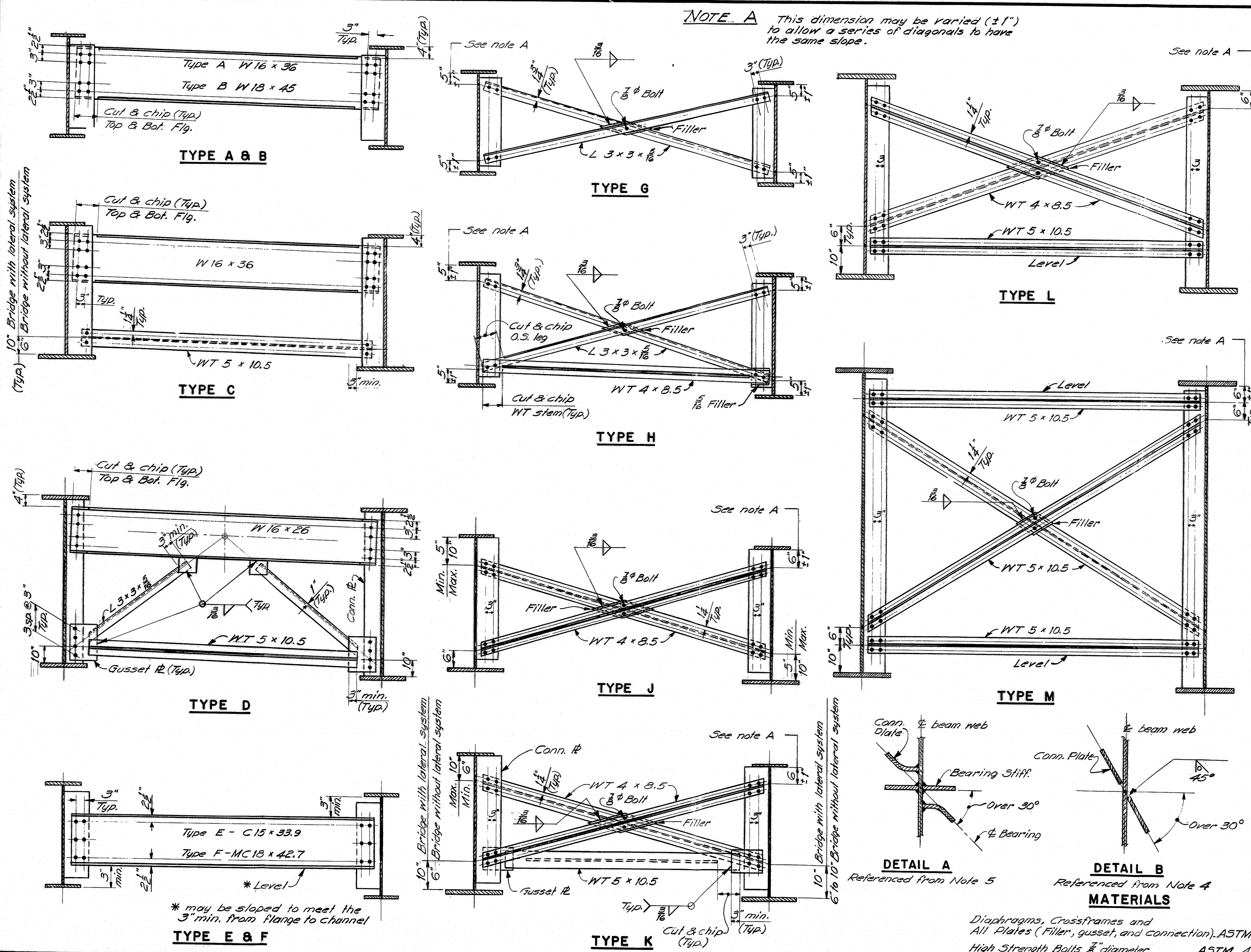
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**STANDARD DETAILS**  
(BD 105-74)

**EXPANSION DAMS**



F.H.A. NO. 1	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-8(99)	39	47



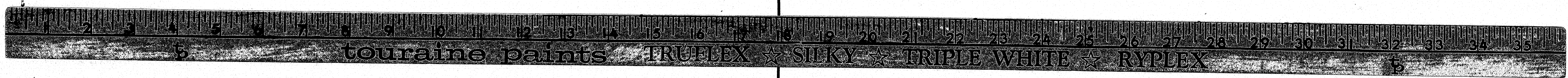
# **FABRICATION NOTES**

- For location and type of diaphragm or crossframe see design details.
- Holes for 3/4" diameter bolts shall be 1 1/8" dia. and edge distances shall be 1 1/2" minimum unless otherwise shown.
- Connection plates and gusset plates shall have a minimum thickness of 3/8" 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.
- 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.
- 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.
- All fillet weld sizes shall be the minimum for the thickness of metal being joined according to AWS Specifications for Welded Highway & Railway Bridges.
- 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.
- 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.
- When a conn. plate is extended to a flange it shall be a paint tight fit except as otherwise indicated on design details.
- Conn. plates shall be 2 1/2" clear from flanges, except as indicated by Notes 7 & 8.
- 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.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**STANDARD DETAILS**  
(BD 113 - 72)  
**DIAPHRAGMS & CROSSFRAMES**

SHEET OF AUGUSTA, MAINE SEPT. 1972

145-101





DESIGN SPECIFICATIONS  
A.A.S.H.O. Standard Specifications for  
Highway Bridges 1969 and  
Interim Specifications.

The diagram illustrates the vertical alignment of a track. It shows two parallel rails supported by ties. Key dimensions and labels include:

- 10" min.**: Dimension for the gap between ties.
- 8'-0" max. c-c Posts**: Dimension for the maximum center-to-center spacing of posts.
- Superstructure Joint**: Label for the joint in the track structure.
- 3'-0" Splice**: Dimension for the splice length of the rail.
- 1'-3/4" min.**: Dimension for the minimum length of the rail segment.
- Typ. At Superstr. Exp. Joints**: Label for typical expansion joints at the superstructure.
- See Design Drawgs. for actual Dimns.**: Reference to design drawings for actual dimensions.

**RAIL - ELEVATION**

Lengths of rail shall be attached to ties

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 the Bridge Plans.

To Fit Rail Section

Minor Axis

Dimple A

Dimple B

Dimple C

Dimensions:

- Total Width:  $3 \frac{7}{8}$
- Height:  $1$
- Radius:  $\frac{1}{2}$
- Base Thickness:  $\frac{3}{8}$
- Width of Base:  $\frac{1}{2}$

Technical drawing of a symmetrical part. The top view shows a rectangular shape with a total width of 18" and a total length of 12". The part is symmetrical about a vertical centerline, indicated by a dashed line and the text "Symm. abt C-L". The top view shows two "Dimple A" features, each with a diameter of 1/2" and a depth of 1/4". The bottom view shows two "Dimple B" features, each with a diameter of 1/2" and a depth of 1/4". The distance between the centers of the two dimples in the top view is 12". The distance between the centers of the two dimples in the bottom view is 4". The overall width of the part is 18".

NOTE - An alternate to the dimple system for holding the splice bar in position may be used if approved by the Engineer.

Diagram illustrating the dimensions of a channel section with a splice bar. The splice bar is welded to the top and bottom flanges. The dimensions shown are:

- Splice Bar
- Minor Axis
- Major Axis
- 4 1/2"
- 4 3/4"
- 1/4"
- 1/2"

See "Rail Detail"

[illegible][illegible][illegible]

Technical drawing showing two rectangular plates with dimensions and hole locations. The left plate has a width of 3" and a height of 10 1/2". It has three 1" diameter holes spaced vertically. The right plate has a width of 3" and a height of 10 1/2". It has one 1" diameter hole. The distance between the center of the top hole on the left and the center of the hole on the right is 10 1/2".

[illegible]

(Assembly)

* Preferable minimum dimensions. For actual dimensions see Bridge Plan.	\$ Anchor Bolts	\$ Anchor Bolts
---	-----------------	-----------------

Preformed Pads,  $\frac{1}{8}$ " thick  
after compression. (Typ)  
At least one pad shall be placed  
at front & back under each post.

[illegible]

Technical drawings of two shafts with keyways and threads. The left shaft is 1.5 inches in diameter and has a 1.5-inch long keyway with a 1/2-inch wide key. It has 10 UNC threads on a 2-inch long section. The right shaft is 1.5 inches in diameter and has a 1.5-inch long keyway with a 1/2-inch wide key. It has 8 UNC threads on a 2-inch long section. Both shafts have a total length of 9 inches.

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 root diameter of the threads.

Technical drawing of a mechanical part showing front and back views with dimensions.

**Front View Dimensions:**

- Overall height:  $10\frac{3}{4}"$
- Distance from top to first hole center:  $3\frac{1}{2}"$
- Distance between hole centers:  $3\frac{1}{2}"$
- Overall width:  $10\frac{3}{4}"$

**Back View Dimensions:**

- Overall height:  $10\frac{3}{4}"$
- Distance from top to first hole center:  $1\frac{1}{2}"$
- Distance between hole centers:  $3\frac{1}{2}"$
- Overall width:  $10\frac{3}{4}"$

**Labels:**

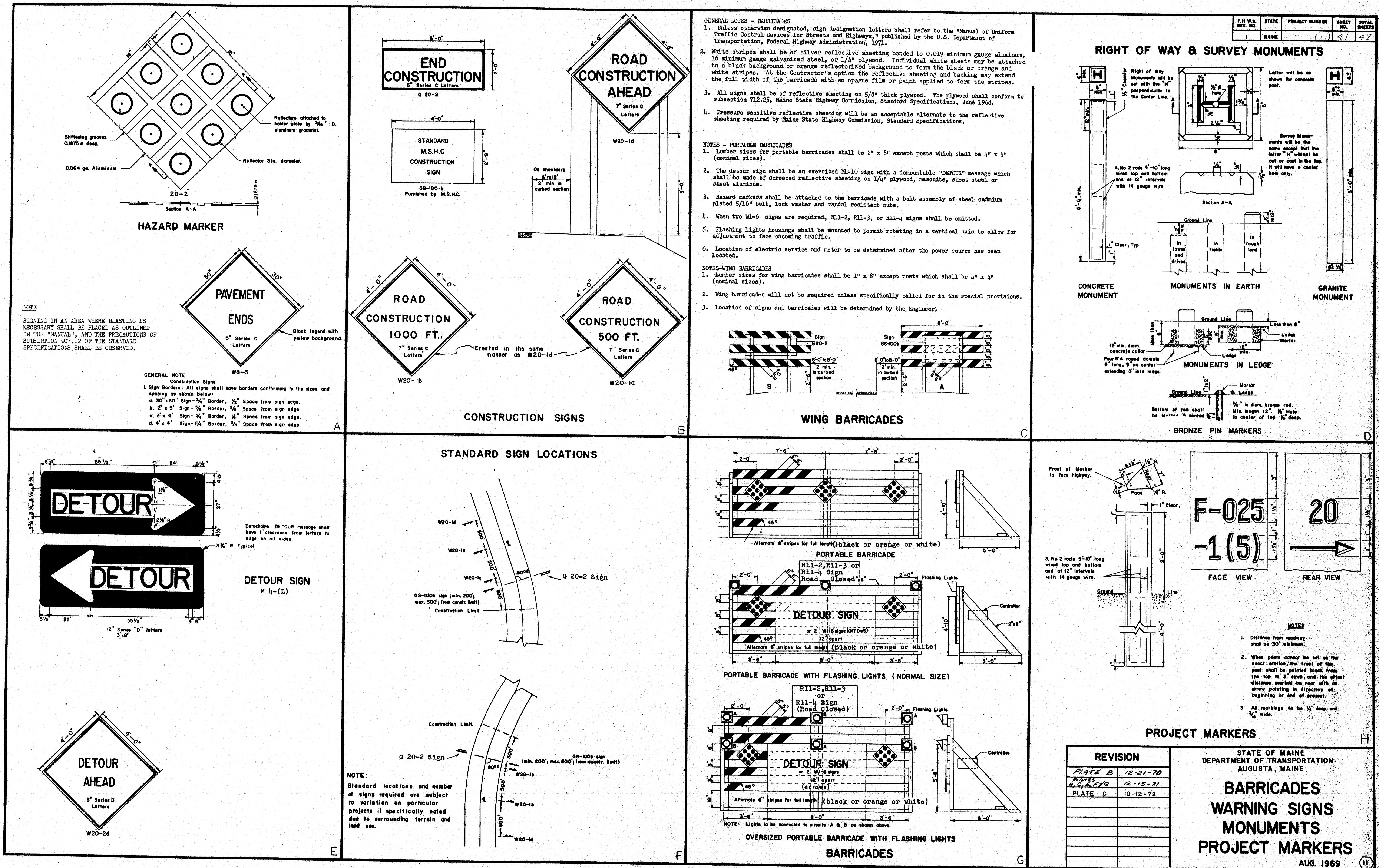
- $1" \text{ dia holes (Front)}$
- $\frac{7}{8}" \text{ dia holes (Back)}$
- $\frac{7}{8}"$  (Dimension for the back view)
- $10\frac{3}{4}"$  (Dimension for the back view)
- $7\frac{1}{2}"$  (Dimension for the back view)

[illegible]

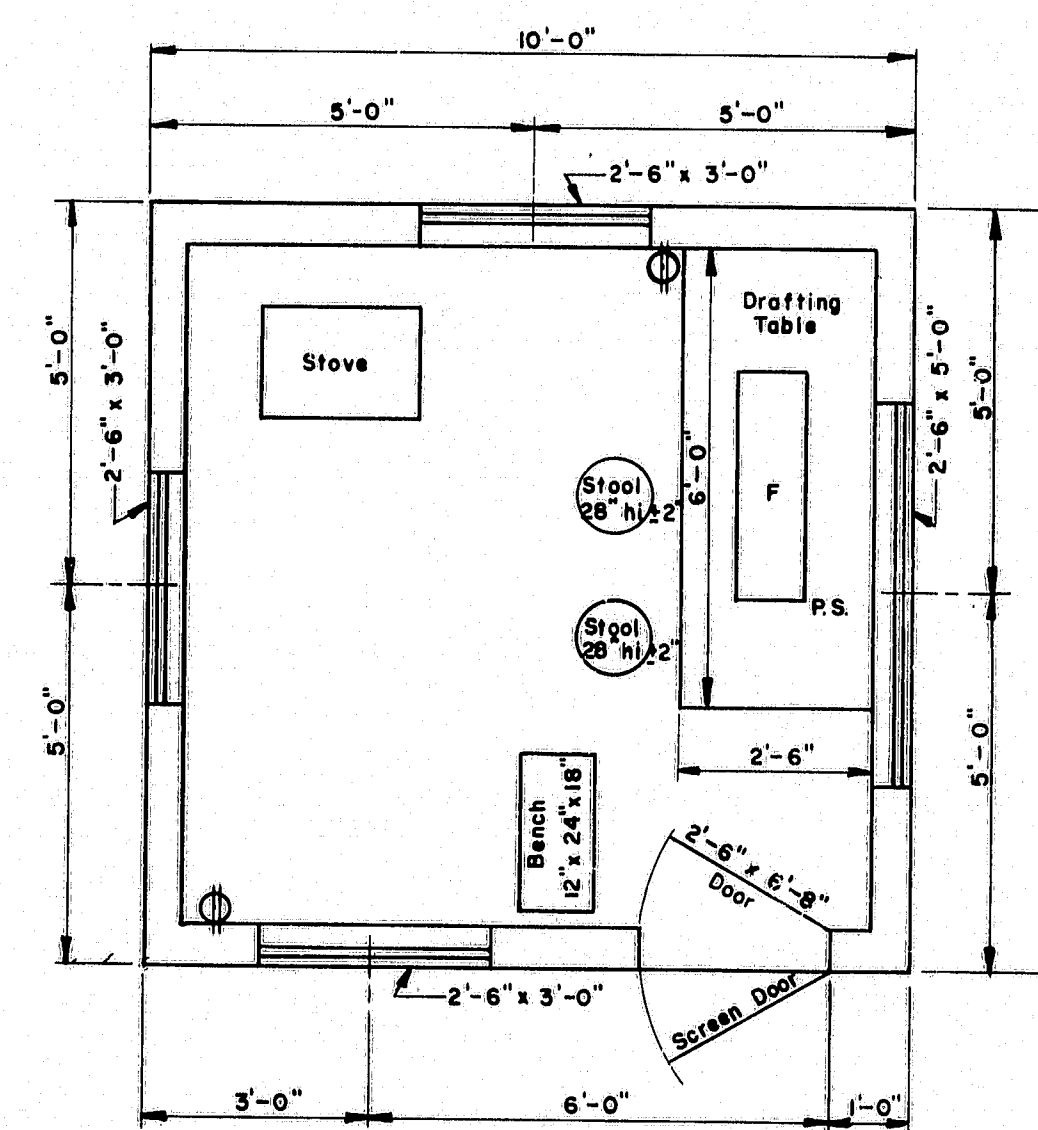
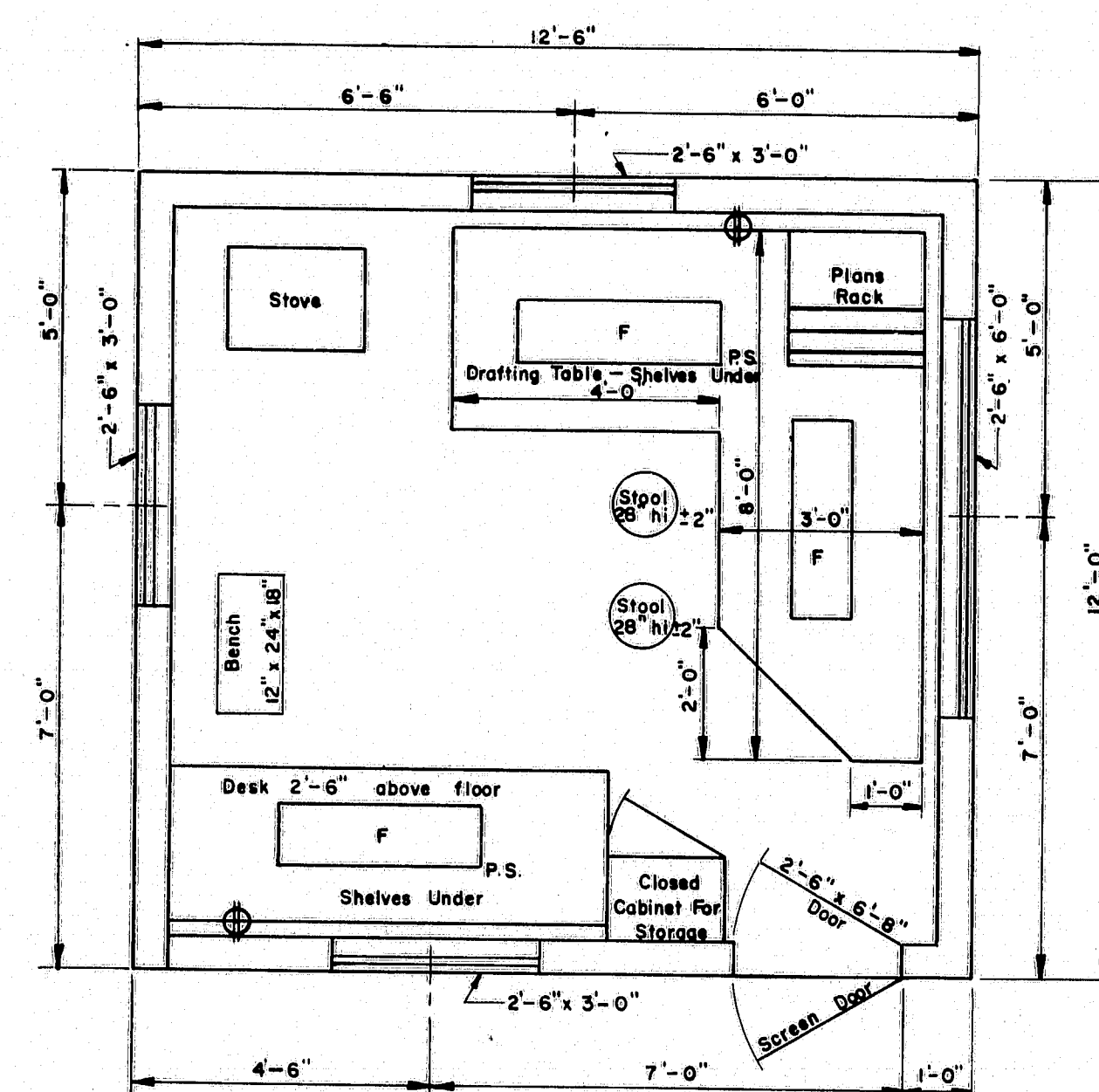
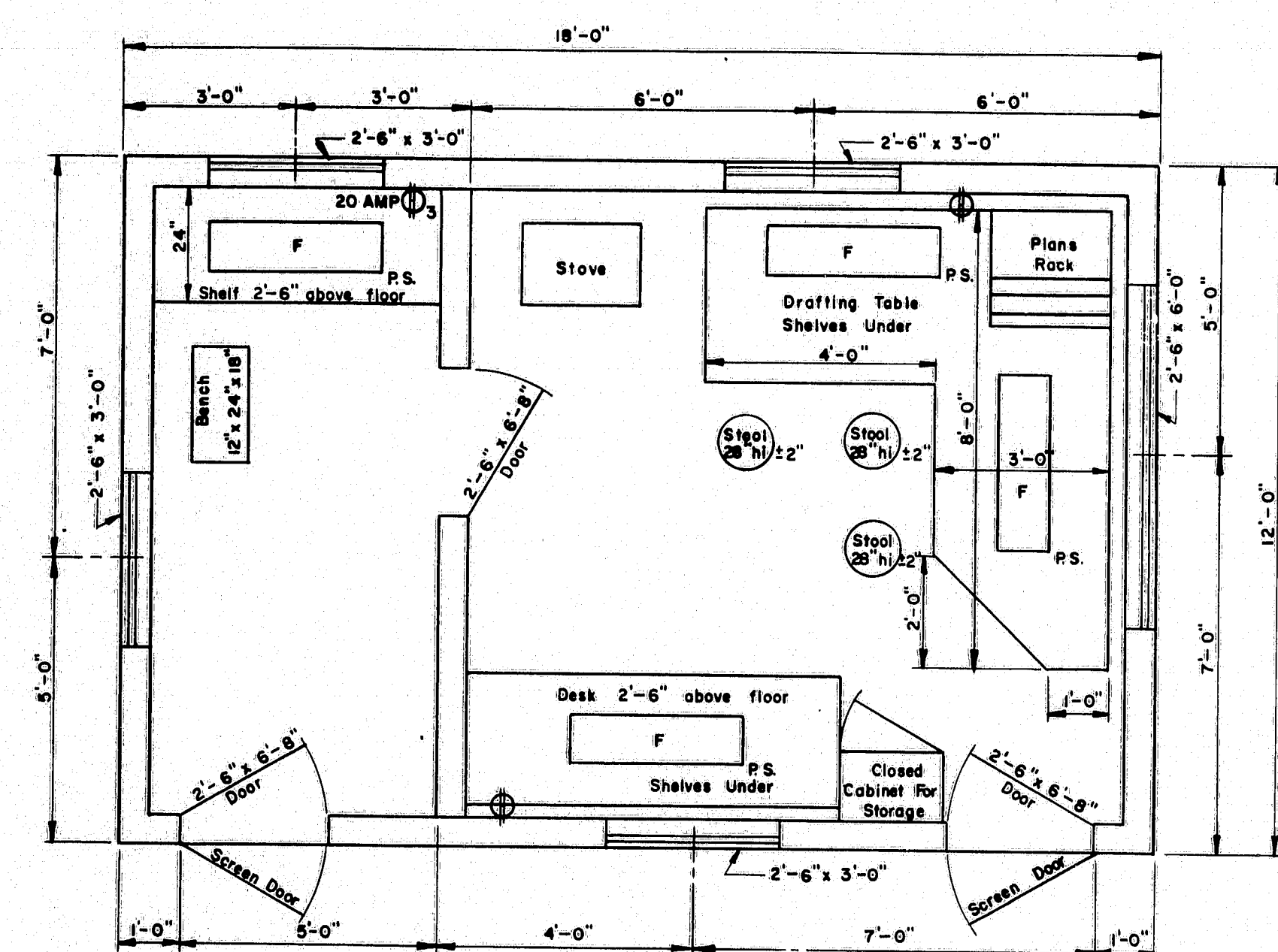
SHEET OF AUGUSTA, MAINE FEBRUARY 197

145-102







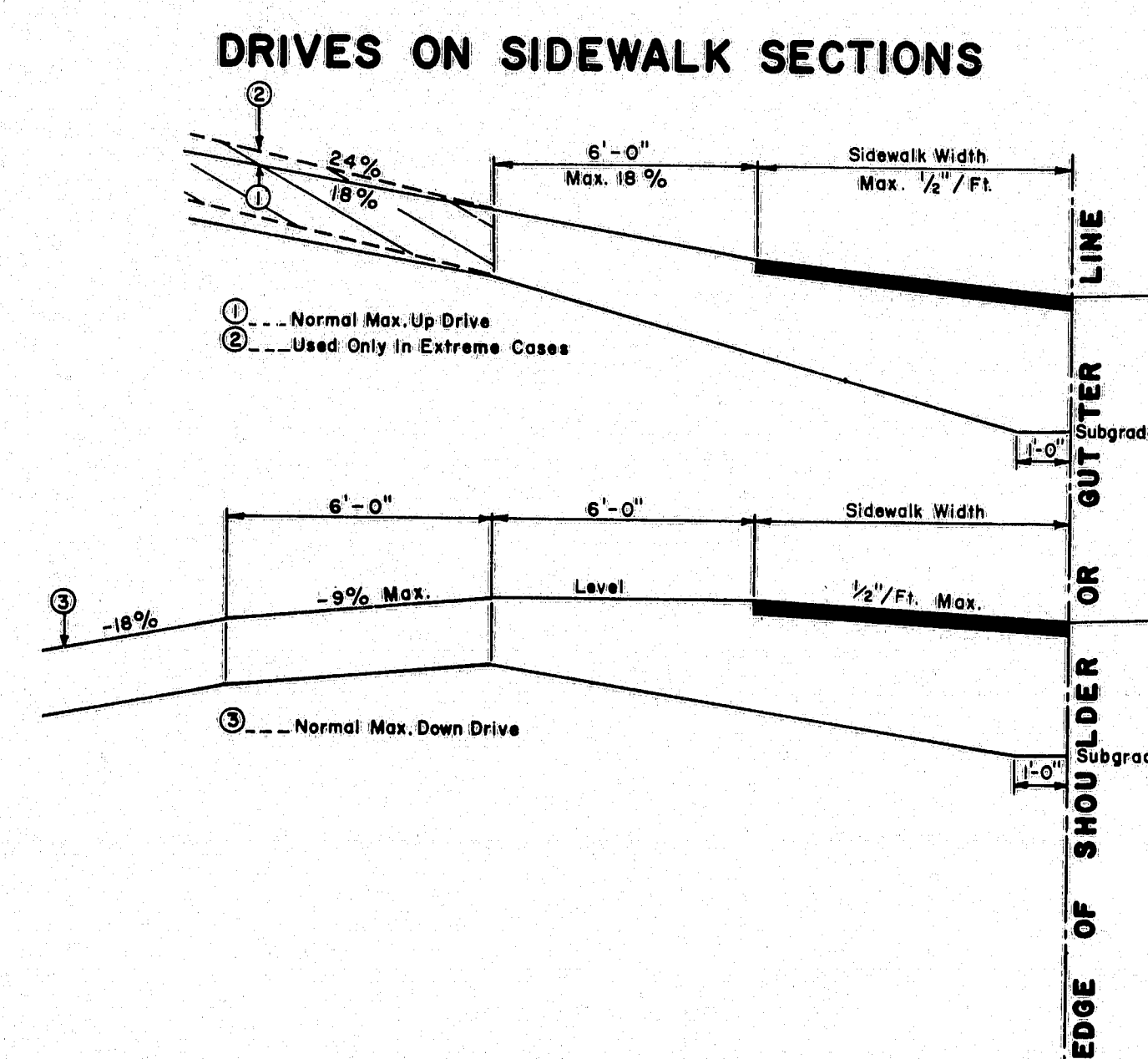


- ### GENERAL NOTES
1. Drafting table shall be 3'-4" high at front edge and placed 2' from studs to allow prints to hang down behind table when in use.
  2. Shelves under desk shall be constructed to received 11 1/2" x 14" x 25" transfiles.
  3. Windows shall be double hung.
  4. Stovepipe shall not be in direct contact with combustible material, the pipe shall be surrounded with at least 6" of fireproof material.
  5. Continuous 110 volt 60 cycle electric service shall be supplied.
  6. The engineer may rearrange the items shown on the plan views during construction of the field office.
  7. FURNISHINGS TO BE SUPPLIED :
    - 2 Straight back chairs for types A and B
    - 1 Bench for types A, B & C
    - 2 Stool for type A
    - 2 Stools for types B & C
  8. SYMBOLS :

F

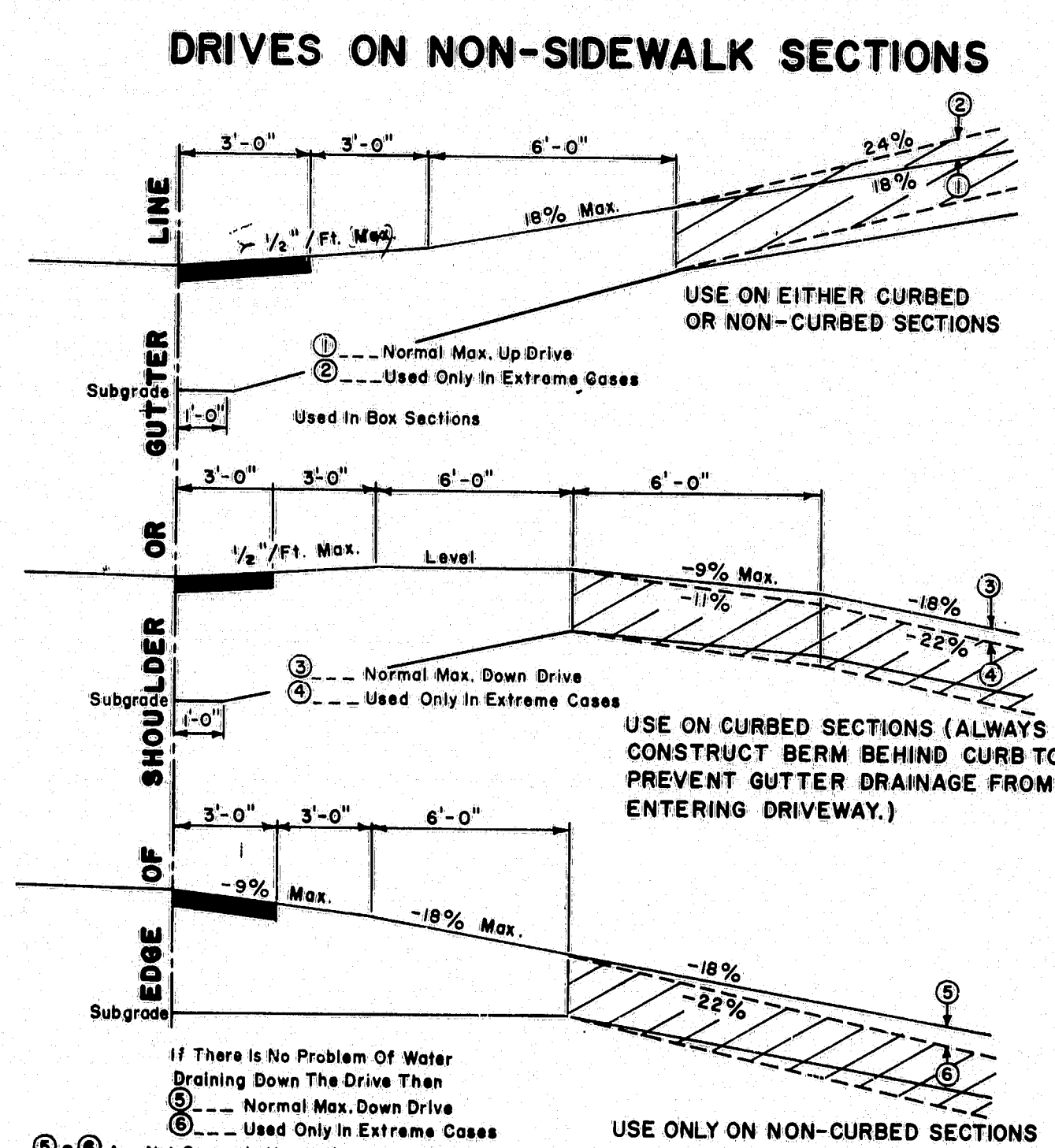
 Fluorescent lights ( 2 light , rapid start 48" strips and 40 watt bulbs.)  
P.S. Pull switch  
D Duplex wall outlet — 15 amp unless otherwise noted.  
③ Triplex Wall Outlet
  9. For the Type "A" Field Office are clean 55 gal. drum shall be supplied, installed on a suitable rack and equipped with a spigot suitable for drawing off oil. The drum shall be furnished with water at all

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95-2(19)	42	4



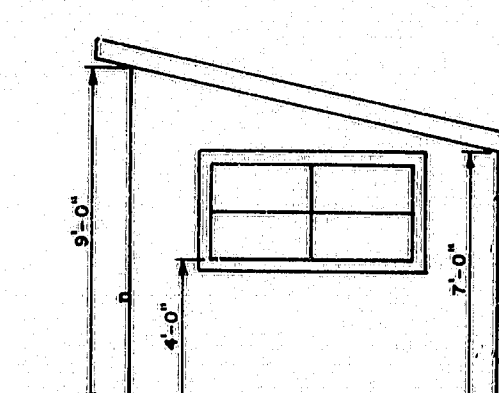
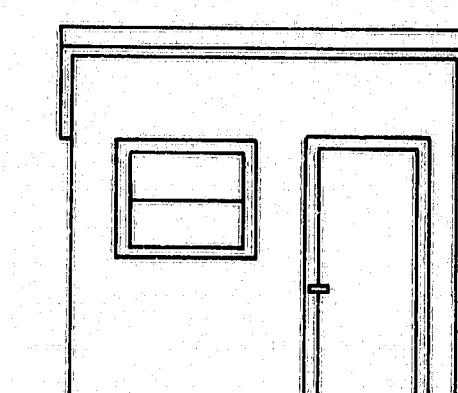
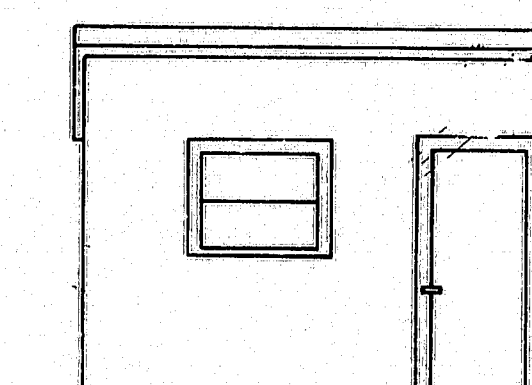
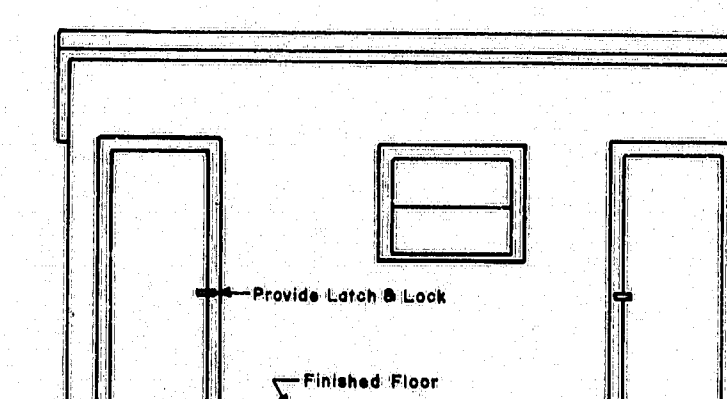
- GENERAL NOTES**
1. The sidewalk width shall be paved in all cases.
  2. All residential or commercial drives 10% and over shall be paved.

- NOTES ON MAXIMUM DRIVEWAY PROFILES**
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
  2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
  3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.



- GENERAL NOTES**
1. The first 3' shown as pavement shall be paved only when abutting a paved area.
  2. All residential or commercial drives 10% and over shall be paved.

- #### NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
  2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
  3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 3% in a 6 foot increment of driveway length. This applies to both up and down profiles.

[illegible]

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AUGUSTA, MAINE

## STANDARD DETAILS

DRIVEWAY DETAILS  
FIELD OFFICES  
TESTING LABORATORY

AUG. 1969

145-104

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX