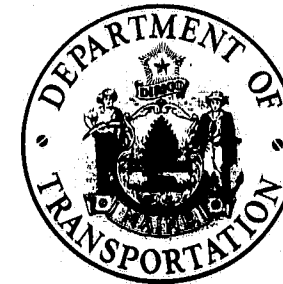


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



BUREAU OF HIGHWAYS
INTERSTATE 95 - NORTHBOUND
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
PROJECT NUMBER I-95-91881285
LENGTH OF PROJECT 0.021 MILES

SPECIFICATIONS

DESIGN..... A.A.S.H.T.O. Specifications for Highway Bridges,
1977 and Interim Specifications 1978.

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

DESIGN LOADING

LIVE LOAD..... HS25 (MODIFIED FOR INTERSTATE)

MATERIALS

CONCRETE..... Wearing Surface Class AA
Slope Protection Class Y
All Other Class A

REINFORCING STEEL..... A.S.T.M. A615..... Grade 60

STRUCTURAL STEEL..... Beam Flanges A.S.T.M. A572
Drains..... A.S.T.M. A36 & A.S.T.M. A53..... Grade B
All Other..... A.S.T.M. A36
High Strength Bolts..... A.S.T.M. A325

BASIC ALLOWABLE STRESSES

CONCRETE..... $n=9$ $f_c = 1,200$ p.s.i.

REINFORCING STEEL..... $f_s = 24,000$ p.s.i.

STRUCTURAL STEEL..... A.S.T.M. A572..... $f_s = 27,000$ p.s.i.
A.S.T.M. A53..... $f_s = 20,000$ p.s.i.
A.S.T.M. A36..... $f_s = 20,000$ p.s.i.
A.S.T.M. A325..... $f_y = 25,000$ p.s.i.

INDEX OF SHEETS

SHEET

SUBJECT

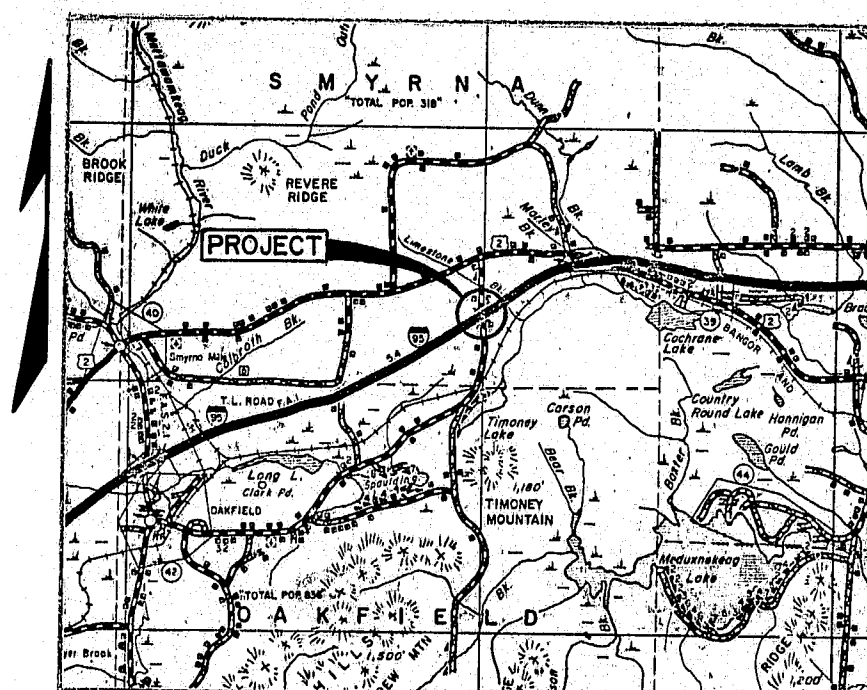
1. TITLE SHEET
2. QUANTITIES
3. GENERAL PLAN
4. PROFILE & SURVEY
- 5&6. FOUNDATION SURVEY and BORING DETAILS
7. FOOTINGS
8. ABUTMENT No. 1
9. ABUTMENT No. 2
10. ABUTMENT and WING DETAILS
- 11&12. STRUCTURAL STEEL
13. SUPERSTRUCTURE
14. SLOPE PROTECTION and APPROACH SLABS
15. END POSTS
16. REINFORCING STEEL SCHEDULE

BRIDGE STANDARD DETAILS

17. BD 101-74 BEARING PEDESTALS Apr. 1974 Rev. 3-1-77
18. BD 104-77 ARMORED JOINT, DRAIN, SHEAR CONNECTORS, MISC.
STRUCTURAL DETAILS Feb. 1977 Rev. 3-1-77
19. BD 113-78 CROSSFRAMES and DIAPHRAGMS June 1978
20. BD 114-77 ALUMINUM BRIDGE RAILING 2-BAR Dec. 1977

HIGHWAY STANDARD DETAILS

21. (2) August 1969



LOCATION MAP



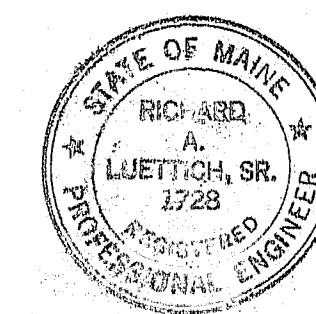
SCALE OF MILES

INTERSTATE 95-NB
TRAFFIC DATA

A.D.T. 1979 1325
A.D.T. 1999 1930
D.H.V. 276
T.(%) 20
D.(%) 100
V. 70mph
P.S.D.(%) N/A
18 KIPS = Equiv. P2.5 4.00

TIMONEY RD.
TRAFFIC DATA

A.D.T. 1979 250
A.D.T. 1999 375
D.H.V. 41
T.(%) 10
D.(%) 55
V. N/A
P.S.D.(%) N/A
18 KIPS = Equiv. P2.5 7



APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
COMMISSIONER
BUREAU DIRECTOR AND CHIEF ENGINEER

DATE

May 4, 1979

May 4, 1979

As Built by A. Williams 2-2-82

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

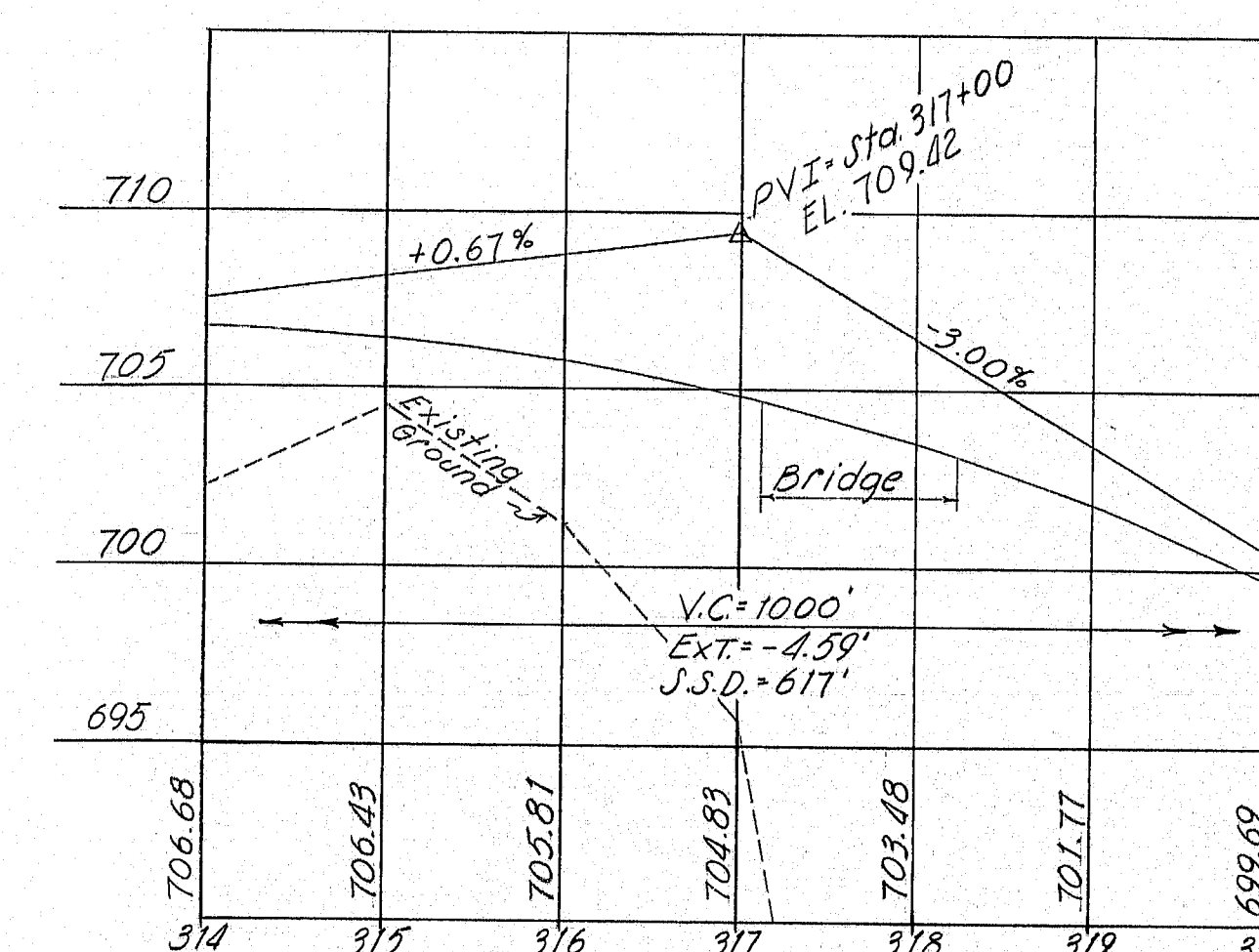
DIVISION ADMINISTRATOR DATE

NOTE:

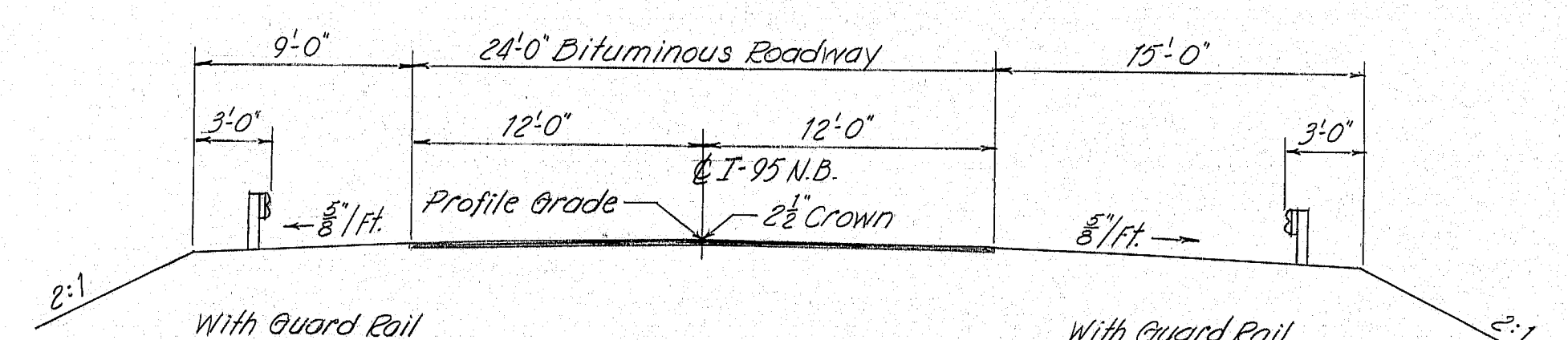
All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of June 1968) and Supplements thereto, except as modified on the plans and in the Special Provisions.

174-106

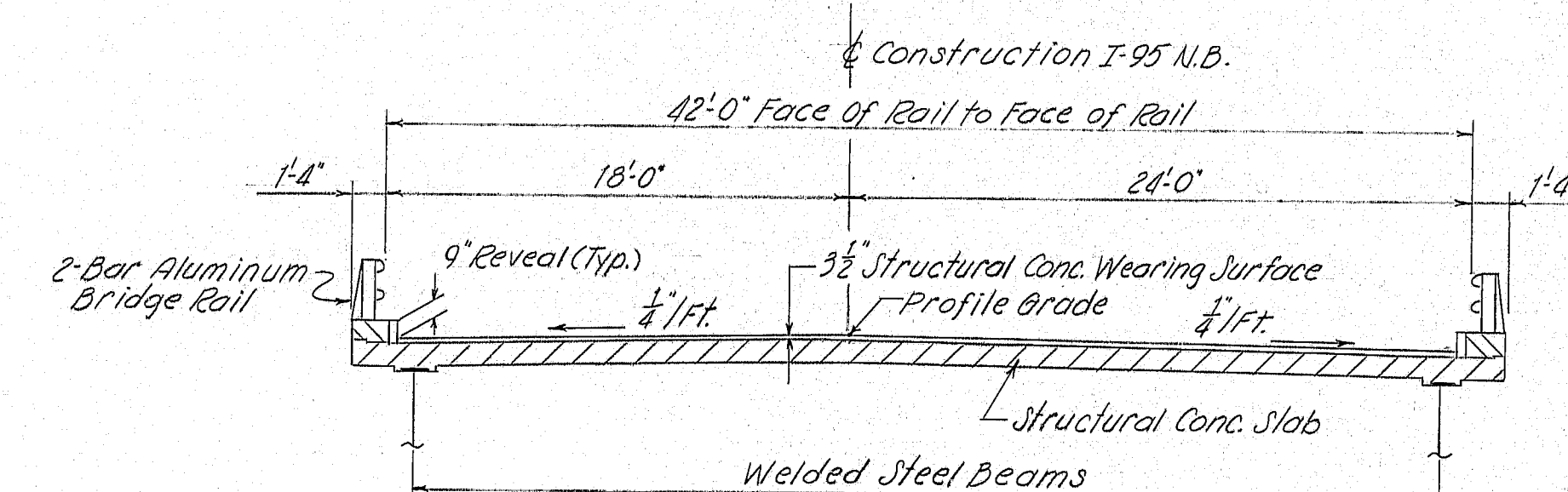
F.D.N.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(88)	3	21



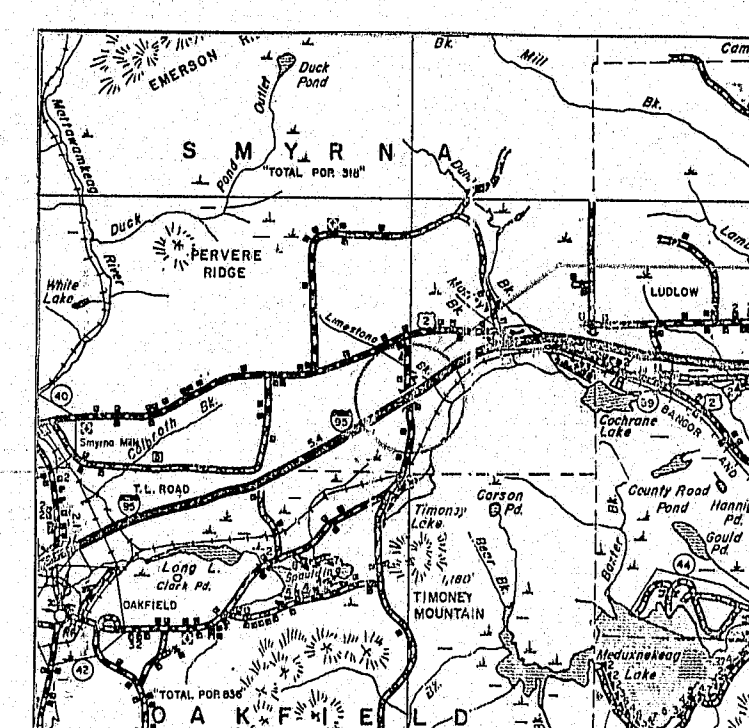
PROFILE I-95 N.B.



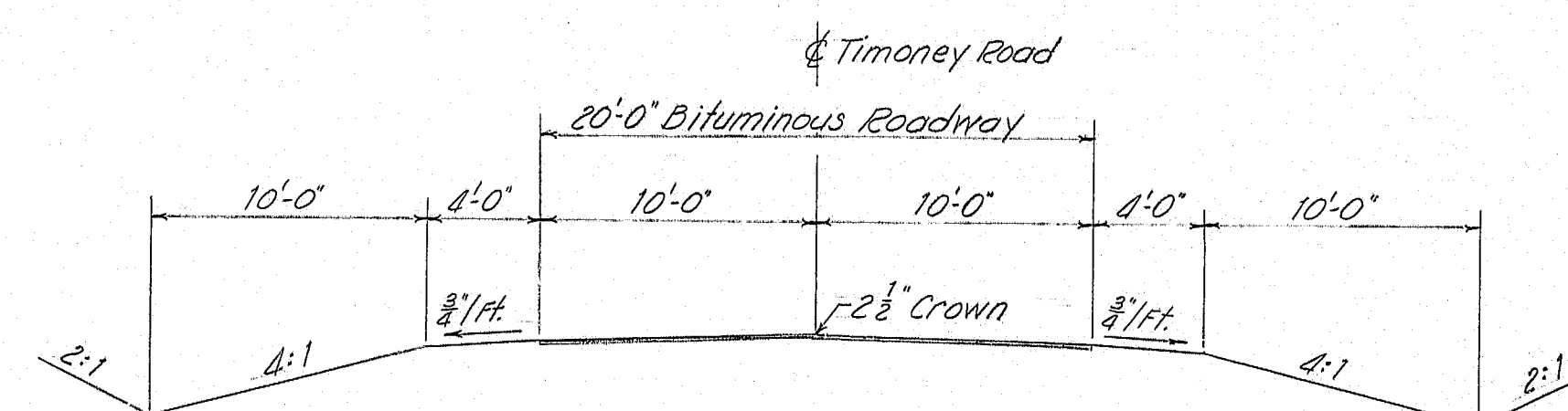
TYPICAL SECTION I-95 N.B.
(By Others)



TYPICAL BRIDGE SECTION



LOCATION MAP
SCALE IN MILES



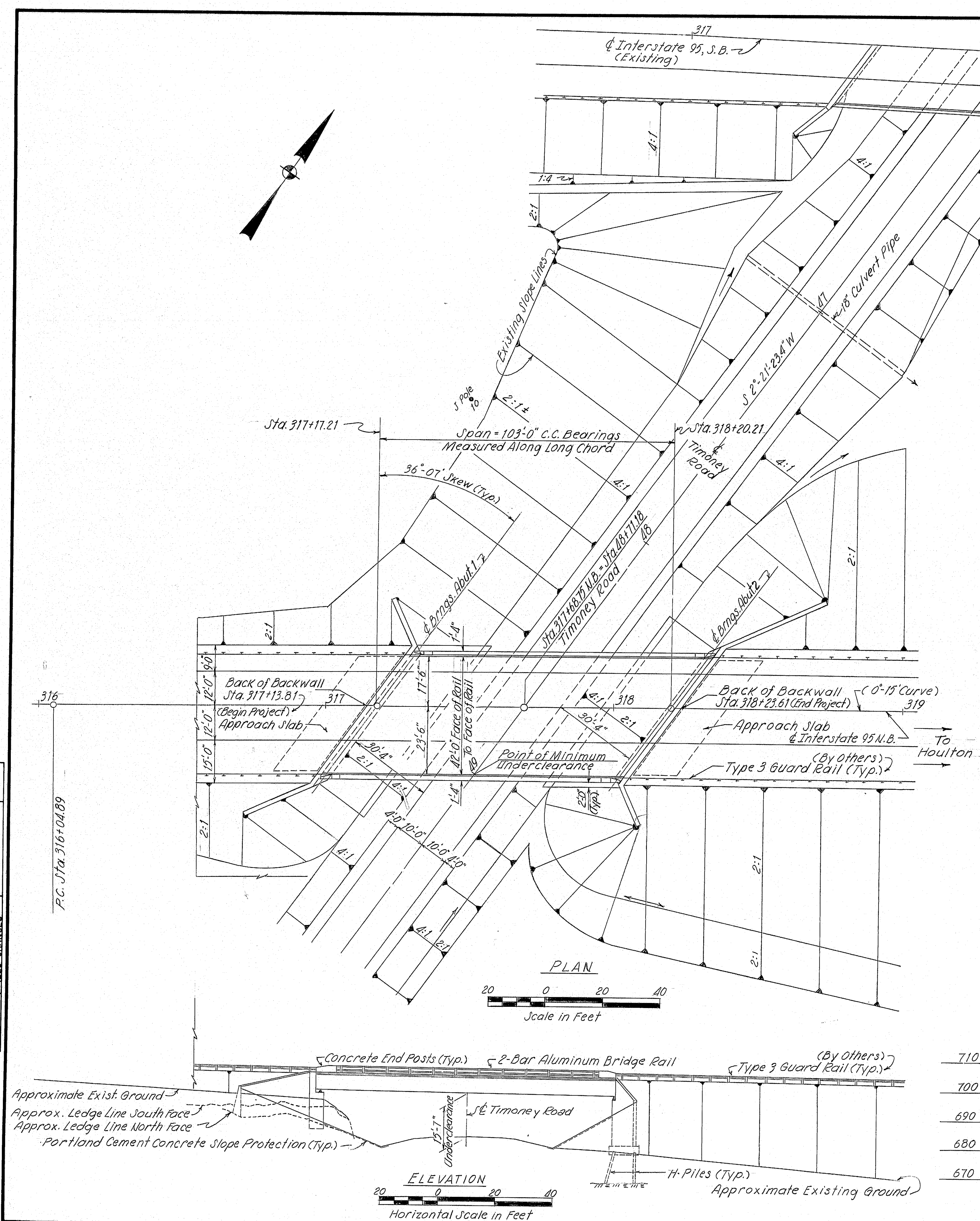
TYPICAL SECTION TIMONEY ROAD
(Existing)

References:
M.D.O.T. Field Survey Notebook # 4590, 4598

As Built STATE OF MAINE 0112-2-82
DEPARTMENT OF TRANSPORTATION
INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
GENERAL PLAN
SHEET 3 OF 21 AUGUSTA, MAINE AUG. 1979

174-108

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	8-78
REVISIONS	8-78
FIELD CHANGES	



PLAN

Scale in Feet

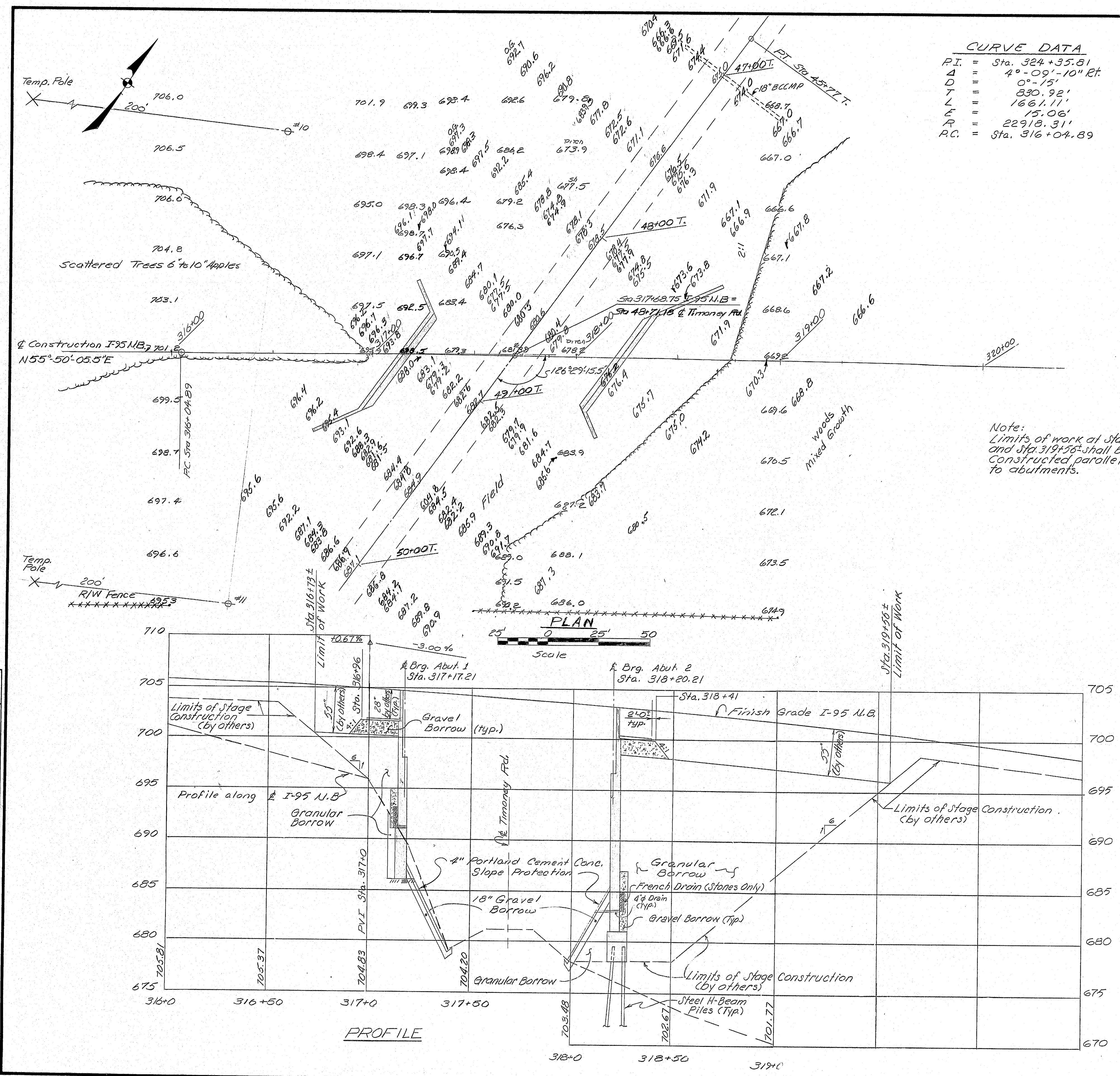
ELEVATION
Horizontal Scale in Feet

F.R.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(88)	4	21

CURVE DATA
 P.I. = Sta. 324+35.81
 Δ = 4°-09'-10" Rt.
 D = 5°-15'
 L = 330.32'
 E = 1661.11'
 A = 22918.31'
 R.C. = Sta. 316+04.89

NOTE:
 All utility facilities shall be adjusted by the
 respective utilities unless noted.
 Utilities are:
 Continental Telephone Co.
 Eastern Maine Electric Coop.

Note:
 Limits of work at Sta. 316+73±
 and Sta. 319+55± shall be
 constructed parallel
 to abutments.



Plotted by: M.M.S. 3-78
 Checked by:

PROJECT	DATE	BY
DESIGN - DETAILED	10-78	EWB
CHECKED	12-78	EWB
REVISIONS		
FIELD CHANGES		

Bridge #1394

As Built STATE OF MAINE 2-2-82
 DEPARTMENT OF TRANSPORTATION

INTERSTATE-95 N.B.
 OVER
TIMONEY RD.
 IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY

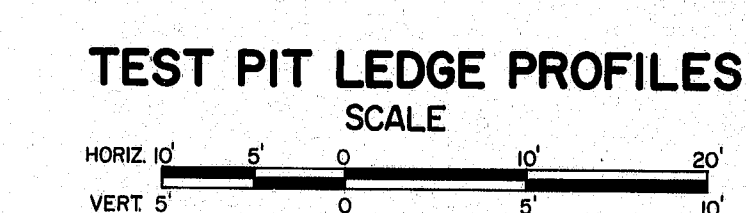
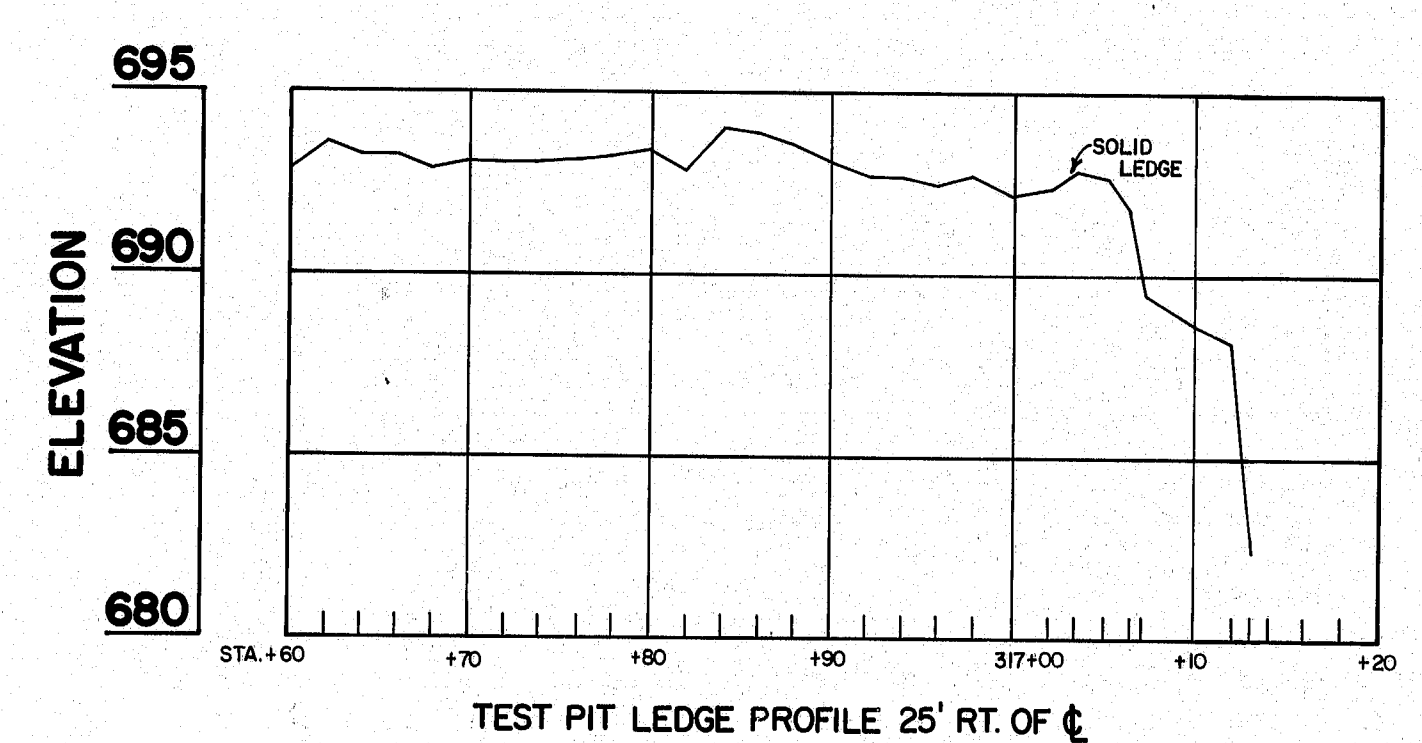
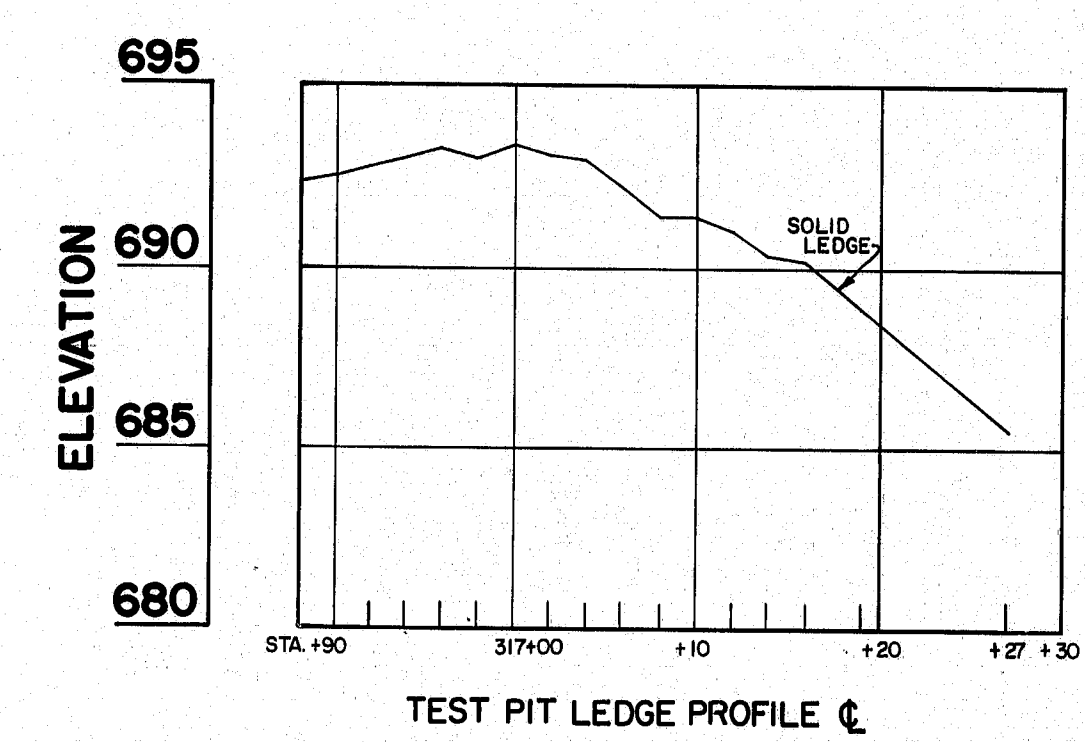
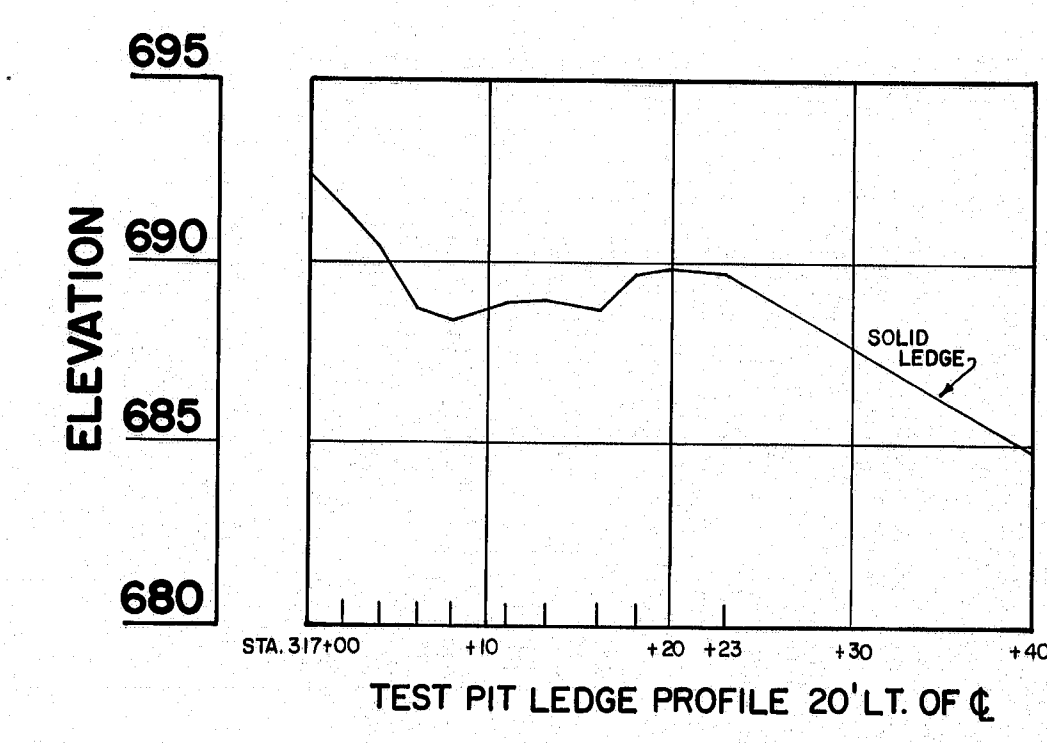
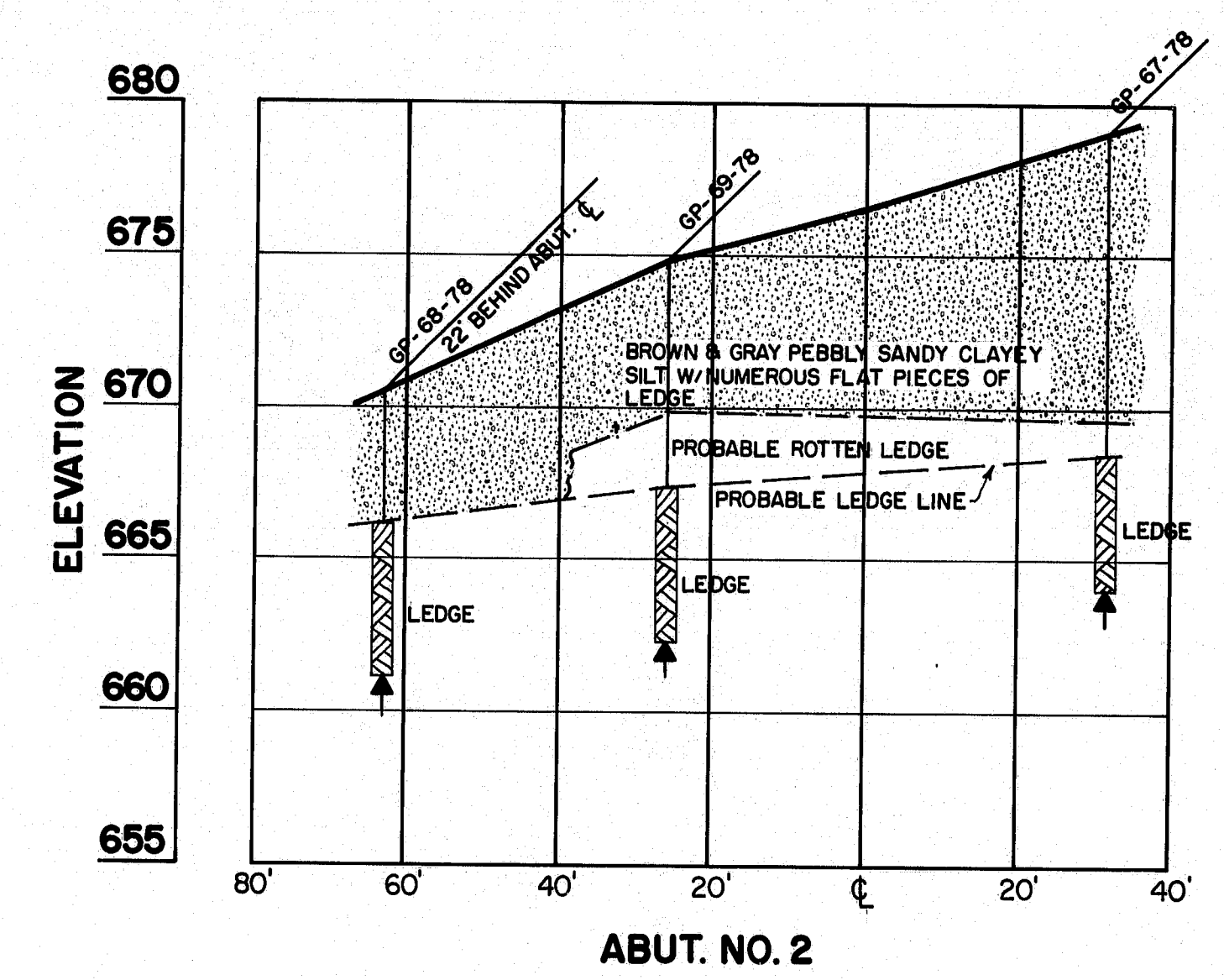
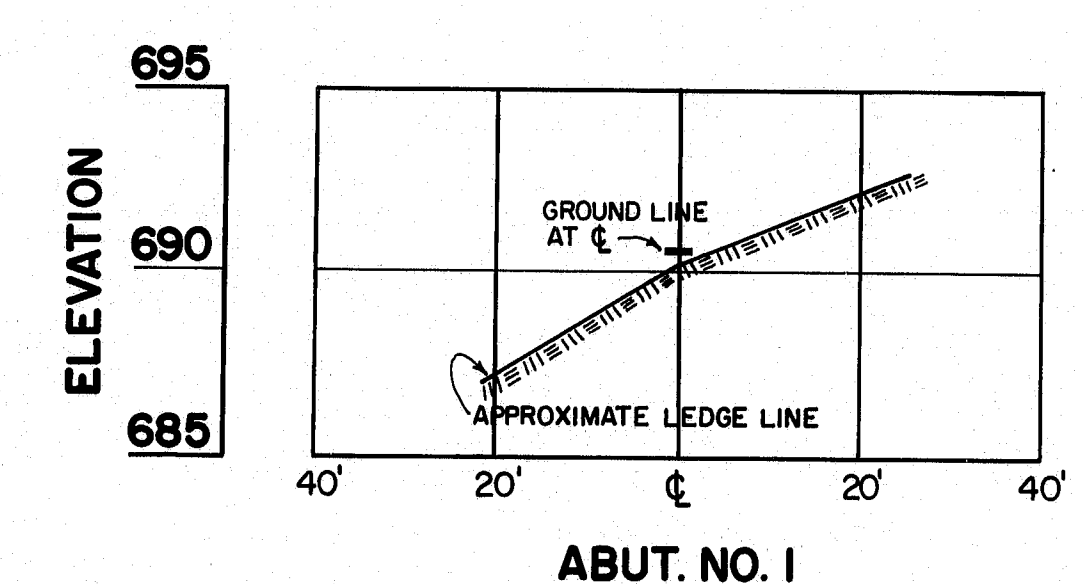
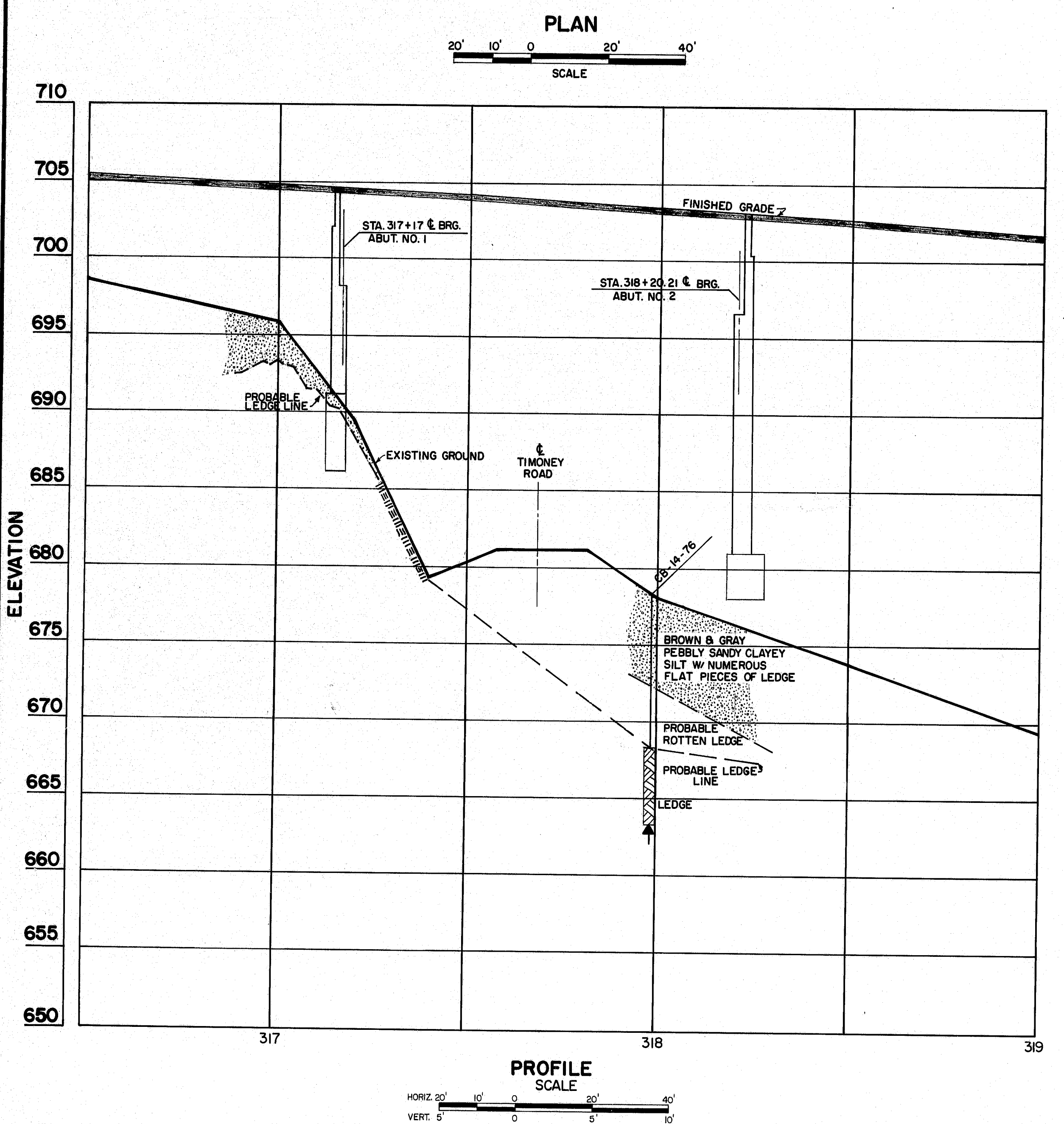
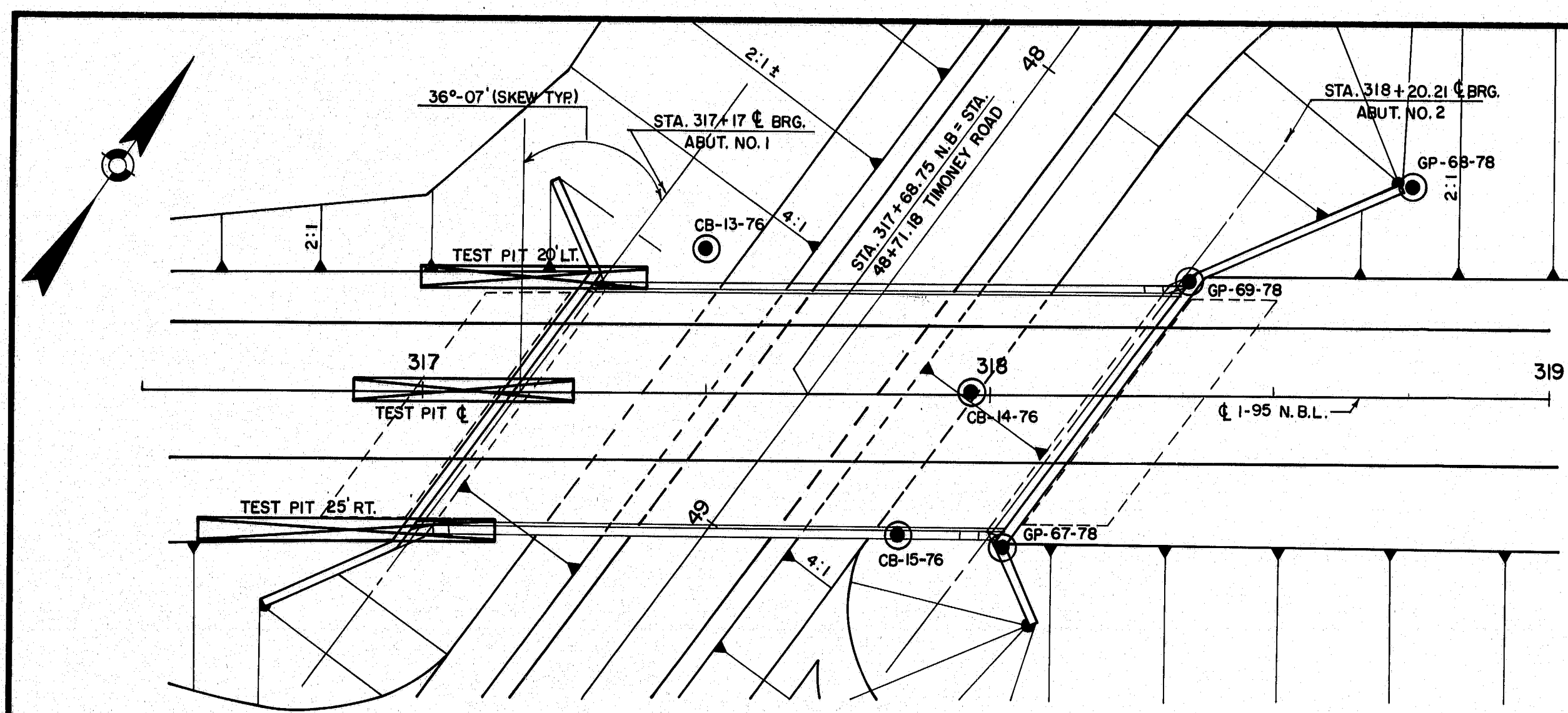
PROFILE & SURVEY

SHEET 4 OF 21 AUGUSTA, MAINE FEB. 1974

Survey Books:
 95/2744, 4590, 4592, 4594 & 4598

174-109

F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(88)	5	21



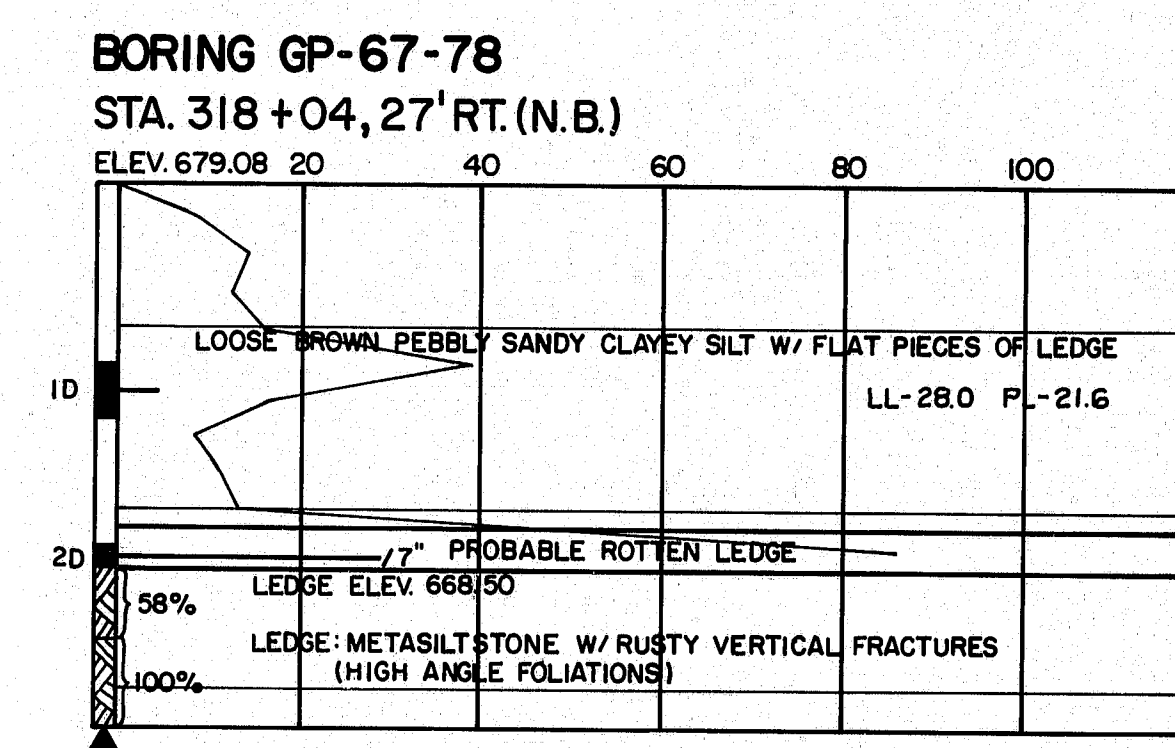
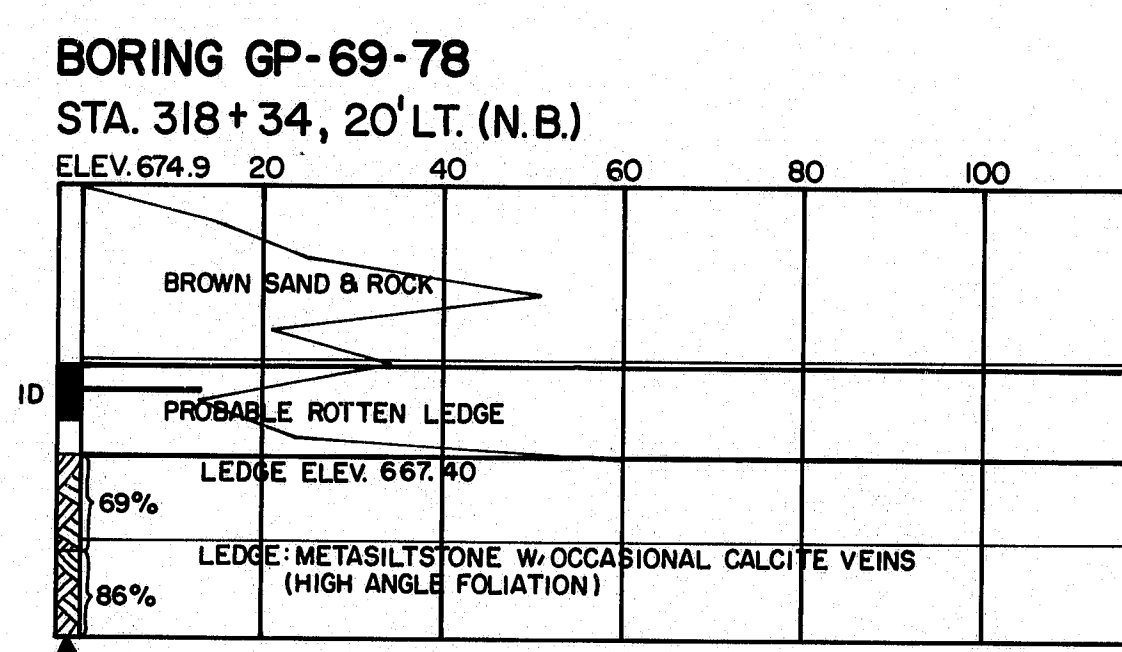
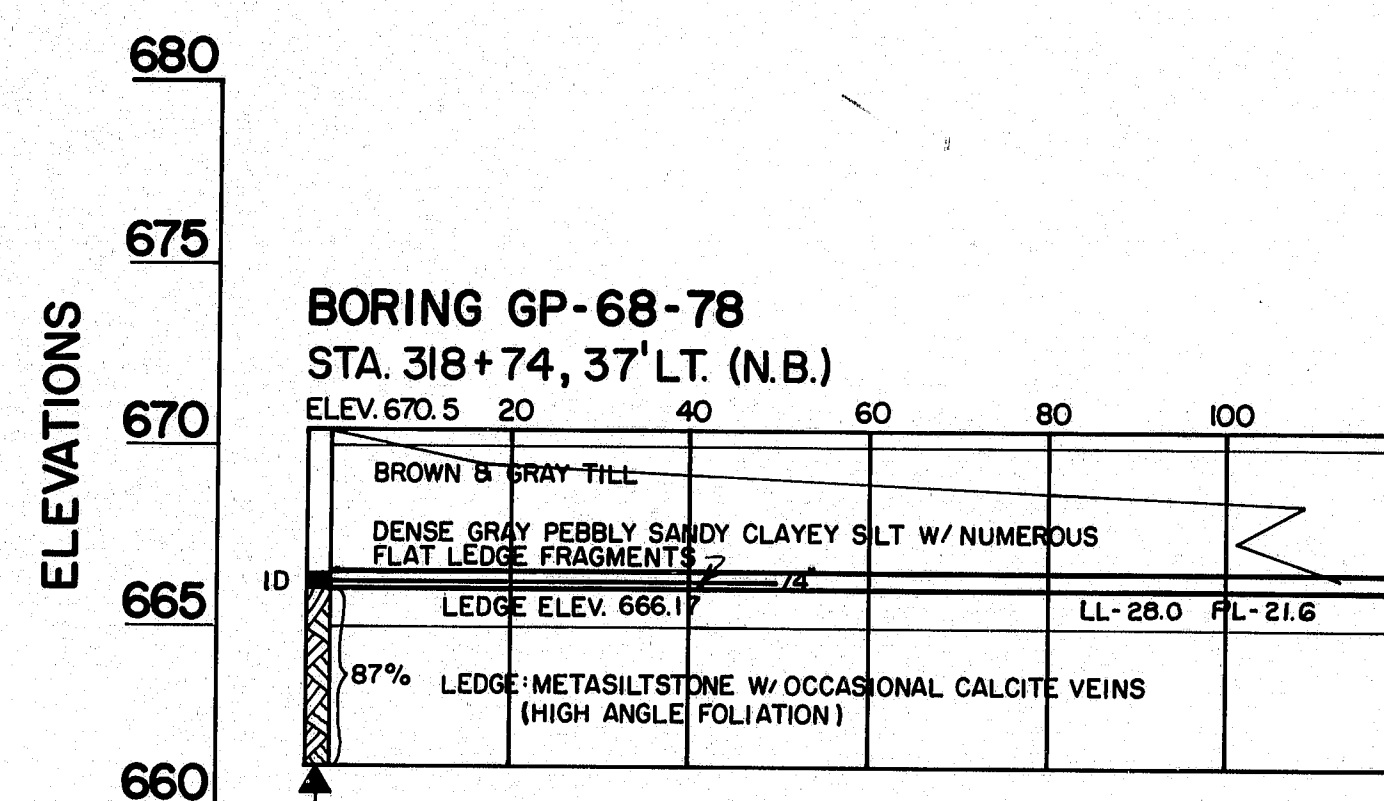
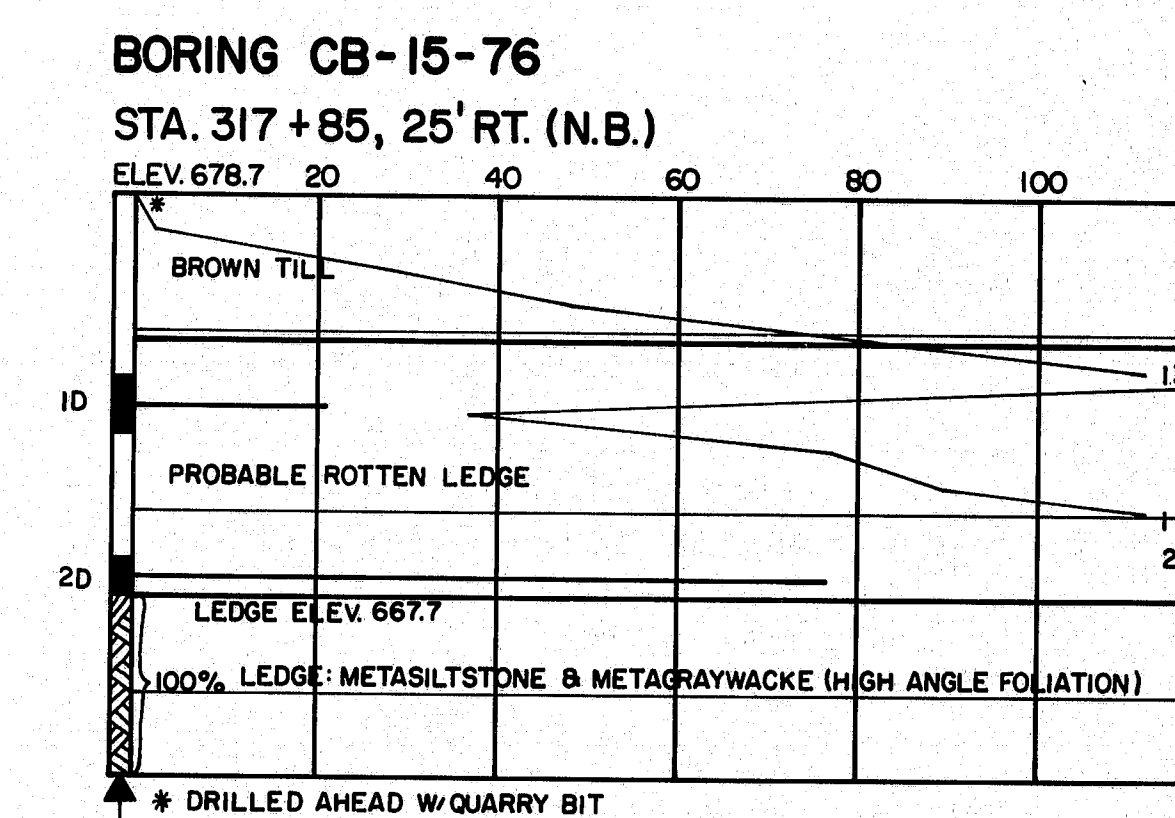
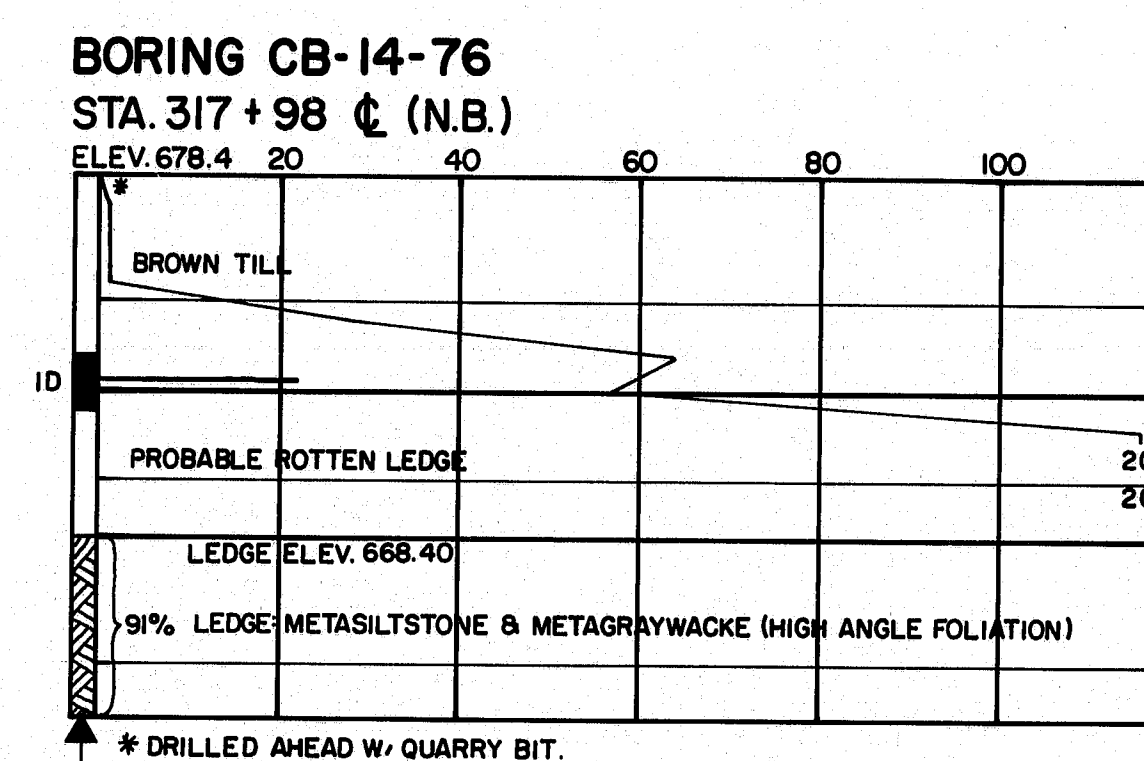
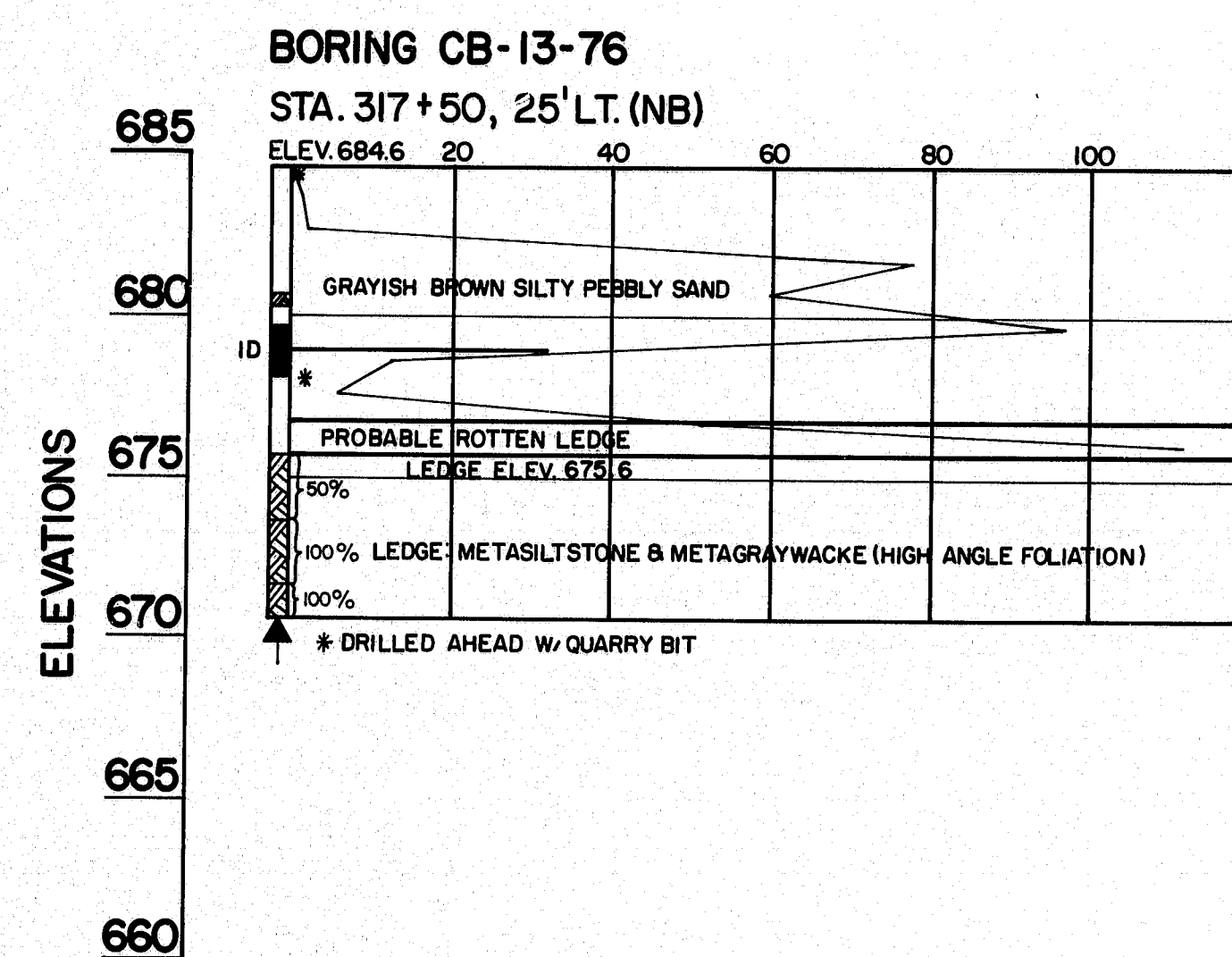
As Built STATE OF MAINE AUG-2-2-82
DEPARTMENT OF TRANSPORTATION

INTERSTATE-95 N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
FOUNDATION SURVEY
SHEET 5 OF 21 AUGUSTA, MAINE AUG. 1979

174-110

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	CHM	8/77
CHECKED		
REVISIONS		
FIELD CHANGES		

F.R.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(88)	6	21



BORING NOTES

- All samples and vane are made ahead of casing
- Water elevation
- 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
- S & H Sampler # 1290's
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- Bottom of boring (may not be bottom of soil strata)
- Locations cored by diamond bit and percent recovery of rock

As Built STATE OF MAINE AUG 2-2-82
DEPARTMENT OF TRANSPORTATION

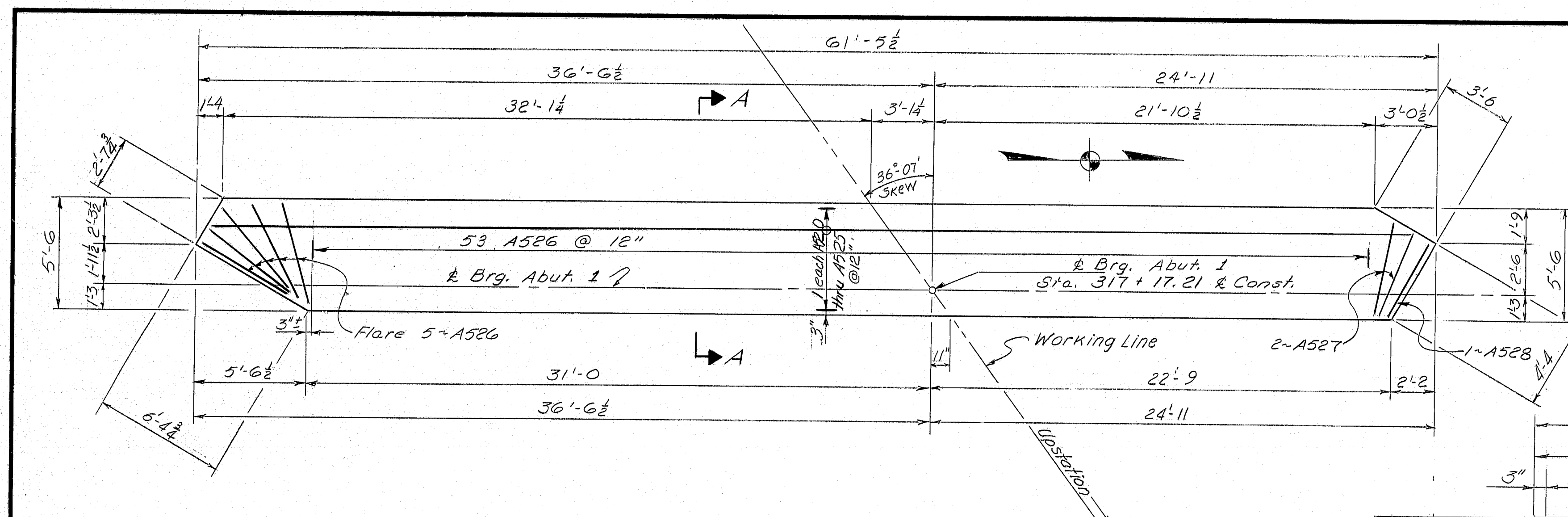
INTERSTATE-95 N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY

FOUNDATION SURVEY
SHEET 6 OF 21 AUGUSTA, MAINE, AUG. 1979

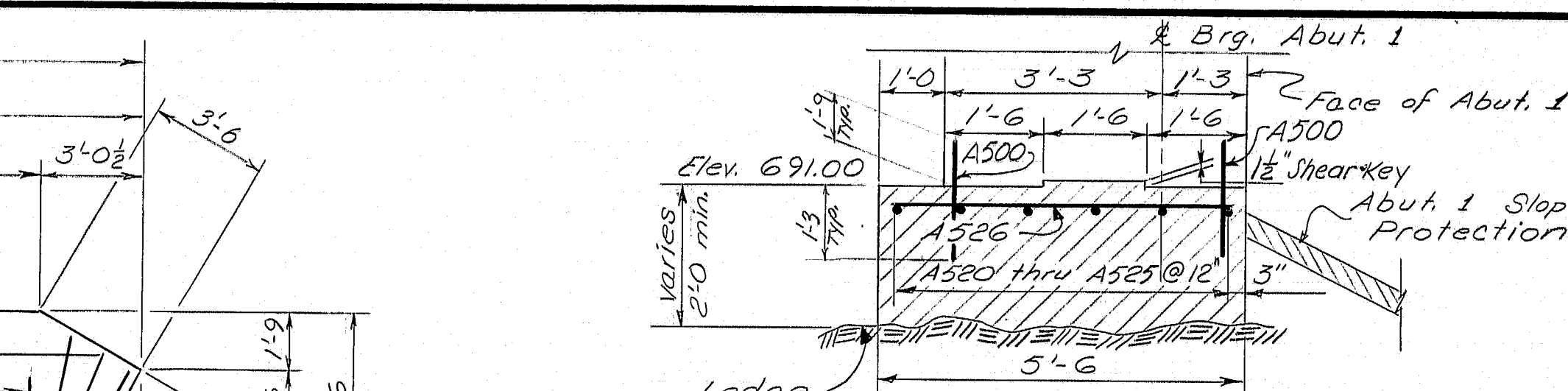
174-111

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	CHW/ML	4-77
DESIGN DETAIL		
REVISIONS		
FIELD CHANGES		

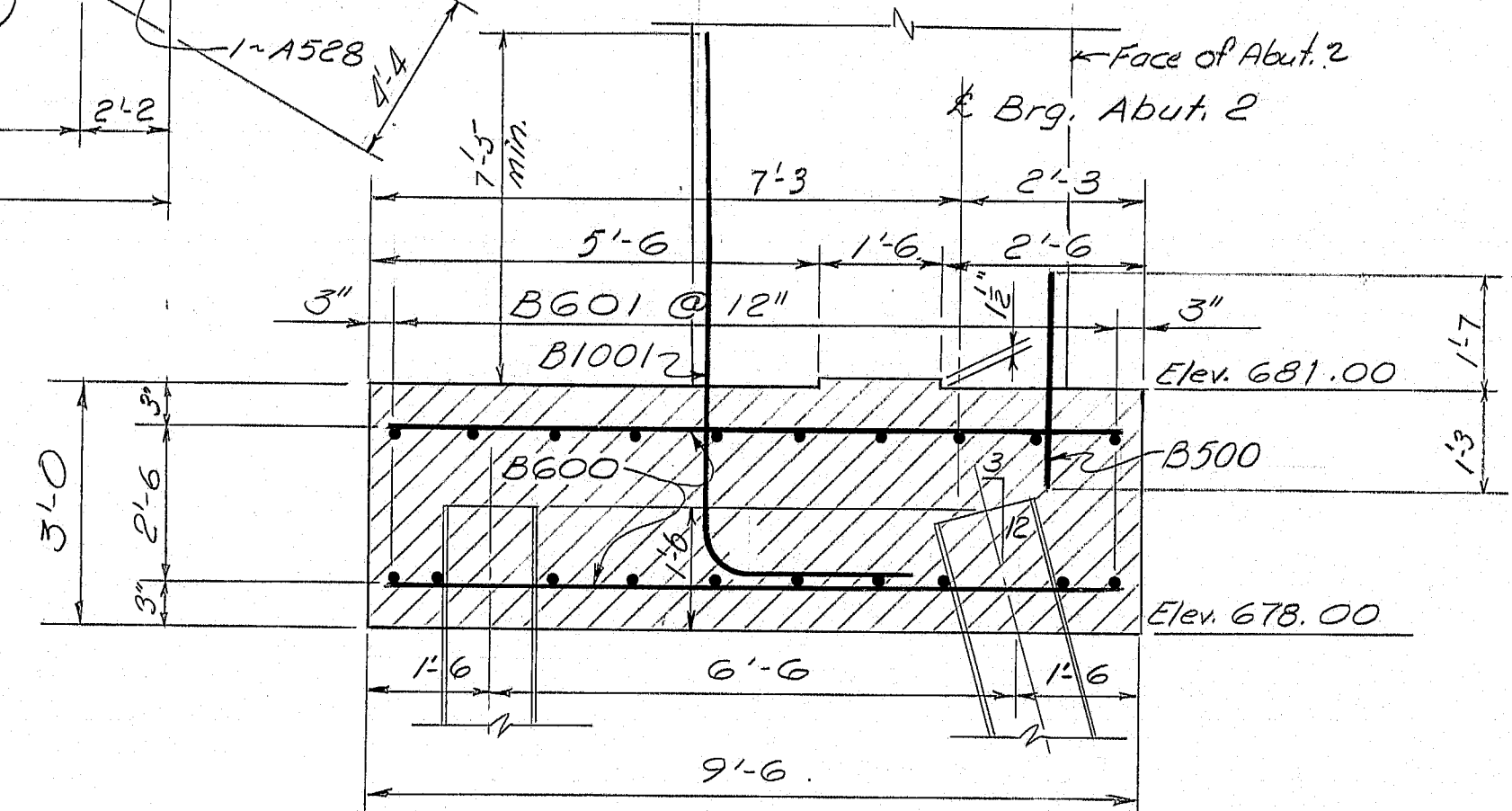
JANUARY 1988



ABUTMENT 1 FOOTING PLAN



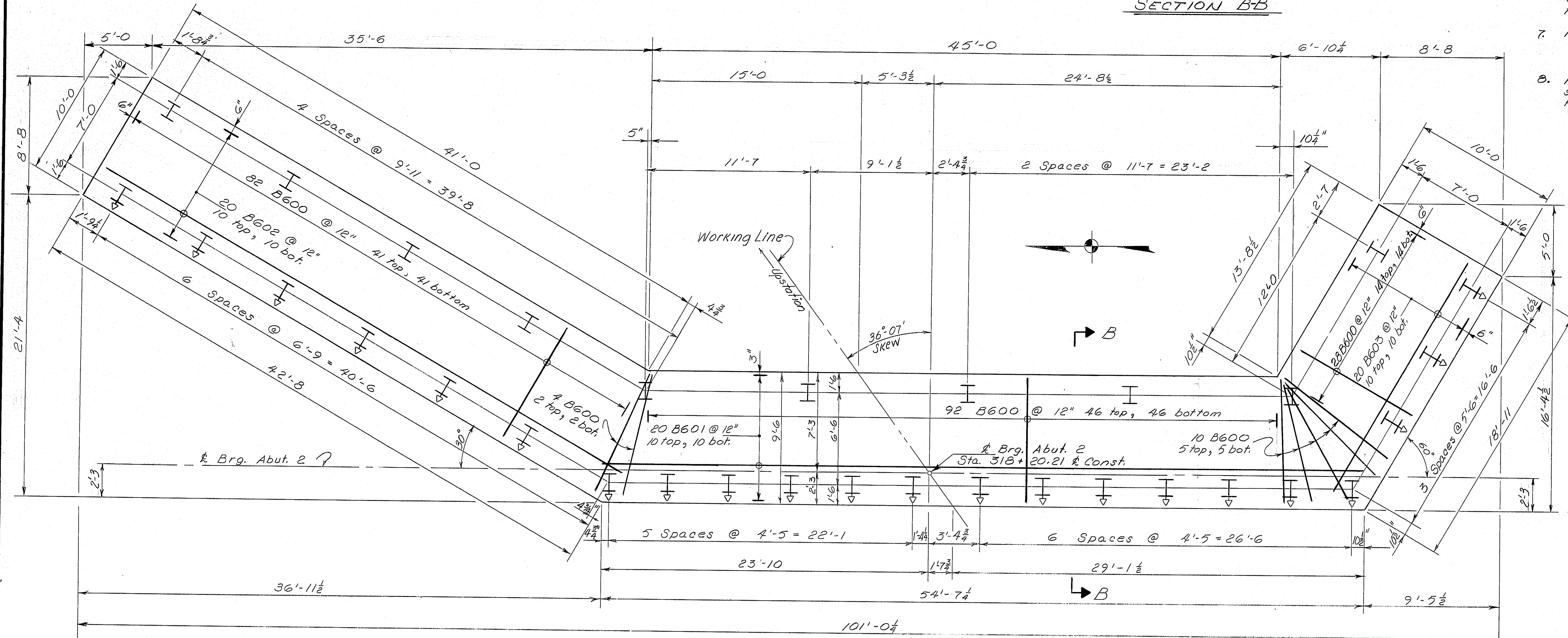
SECTION AA



SECTION BB

STEEL H Beam PILE NOTES

1. Piles shall be driven to ledge or practical refusal.
 2. All piles shall have Pointed Reinforced Pile Tips as shown on Standard Detail BD 104-77.
 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 plans and are approved by the Engineer.
 4. Estimated driven lengths of piles are determined from available soils information with no allowance for uncertain pile penetration.
 5. Embedment of piles in footing may vary between 1'-0 and 2'-0 and the actual embedment length up to 1'-6 will be included in the measurement for payment.
 6. Piles marked thus ∇ shall be battered 3 inches per foot in the direction of the arrow.
 7. Maximum pile load: 90 tons
- B. Following are number of piles required size of piles and estimated driven lengths for Abutment 2:
32 HP 14 x 73 @ 12 ft.



ABUTMENT 2 FOOTING PLAN

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	CHW	6-29
DESIGN-DETAILED	CHW	6-29
CHECKED	PLW	6-29
REVISIONS		
FIELD CHANGES		

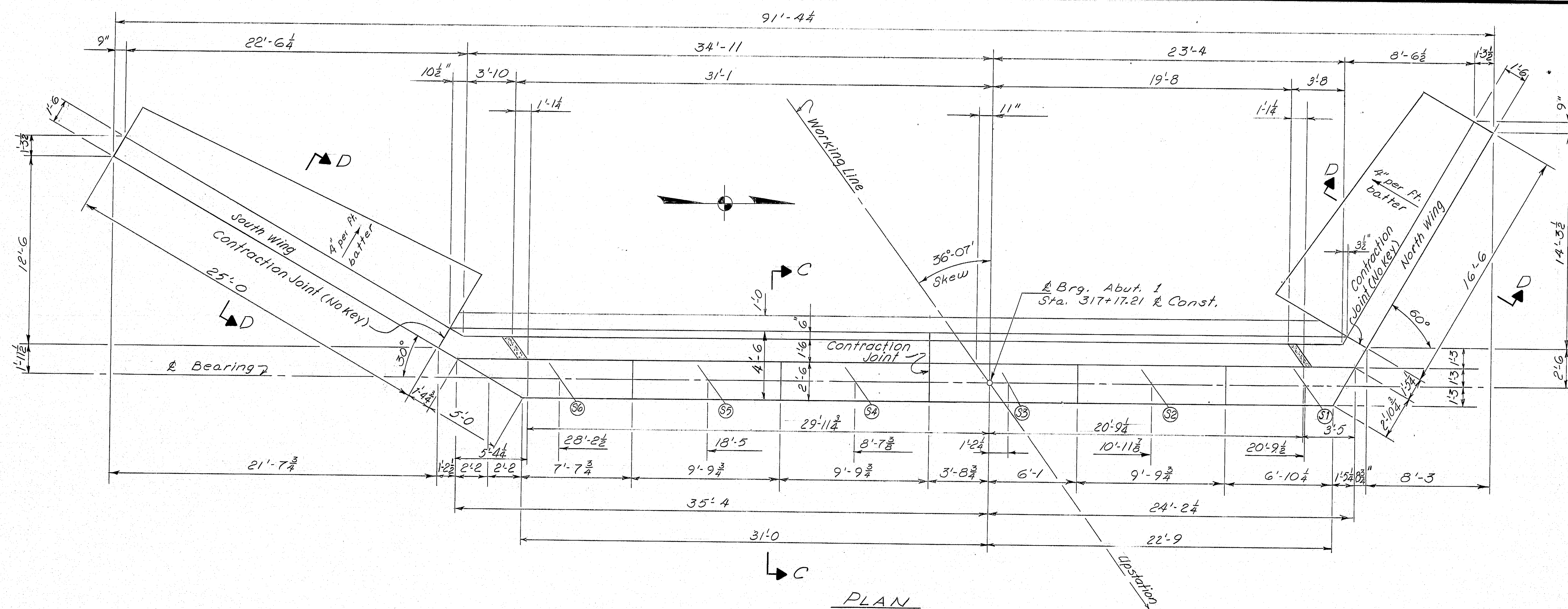
As Built STATE OF MAINE CW 2-2-82
DEPARTMENT OF TRANSPORTATION

INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
FOOTINGS

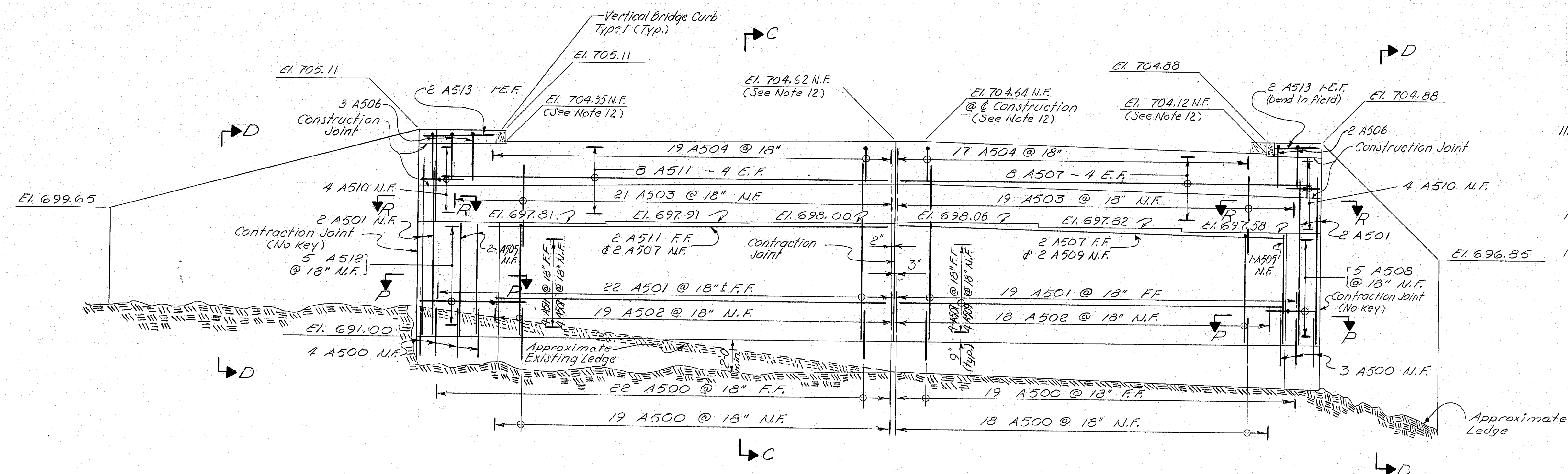
SHEET 7 OF 21 AUGUSTA, MAINE AUG. 1979

174-112

F.R.W.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-9(88)	8	21



PLAN



ELEVATION

LEGEND
F.F. — Far Face
N.F. — Near Face
E.F. — Each Face

ABUTMENT NOTES

- Chamfer all exposed edges of concrete a consistent dimension between $\frac{1}{2}$ " and $\frac{3}{4}$ " inclusive, unless otherwise indicated.
- Reinforcing steel shall have 2 inches cover unless otherwise indicated.
- Place reinforcing steel in bridge seats to clear anchor bolts.
- Break bond at vertical contraction joints by a method approved by the Engineer.
- Polyvinylchloride waterstops as shown on Standard Details BD 104-77 shall be placed in all vertical contraction and construction joints.
- Waterstops are not required in horizontal construction joints.
- Protective Coating for Concrete Surfaces shall be applied to the following areas:
Backwalls - top of backwall down back face 1'-0" below finish grade.
Wings - top of abutment parapets and down back face 1'-0" below ground level.
- Place 4" diameter drains in breastwall and wings at 20 foot maximum spacing. Exact location to be determined in field by the Engineer. Outlet thru Slope Protection.
- Welding to reinforcing steel will be allowed in the top 2' of the abutment backwall.
- To allow for the adjustment for the movement due to dead load deflections of the superstructure, and to aid in the proper alignment of the joint armor, the concrete which anchors the portion of the joint armor in the top of the abutment backwall shall be placed after all the superstructure structural slab concrete is in place, unless other methods, which will provide the proper alignment of the joint armor, are approved by the Engineer.
- Payment for Structural Rock excavation below elevation 682.0 will be made at 1 1/2 times the contract unit price for Item 206.09, Structural Rock Excavation - Abuts. & Ret. Walls.
- Top of Abutment elevations to be adjusted to match profile of Superstructure slab.
- If ledge is removed below elevation 682.0 at North Wing or elevation 683.0 at South Wing, that wing shall be redesigned.

References:
For Footing Details see Sht. 7
For Abut. 2 Details see Sht. 9
For Sections C-C & D-D see Sht. 10
For Sections P-P & R-R see Sht. 10

As Built STATE OF MAINE 2-2-82
DEPARTMENT OF TRANSPORTATION

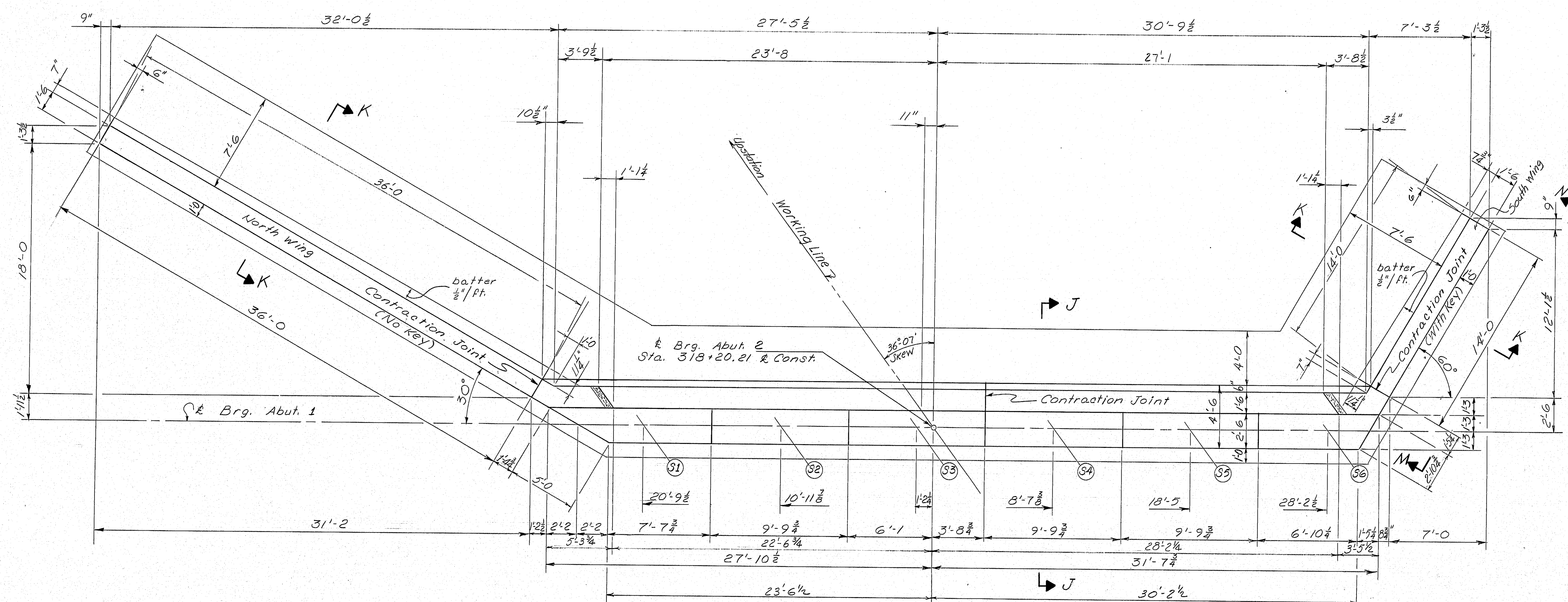
INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY

ABUTMENT No. 1

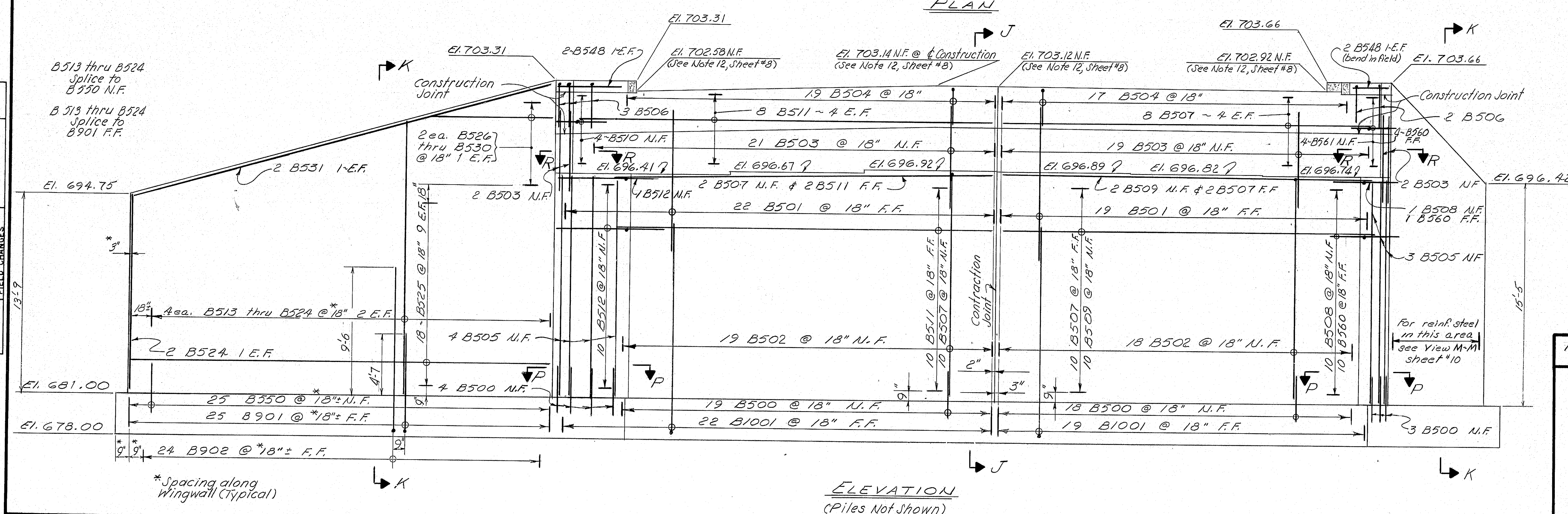
SHEET 8 OF 21 AUGUSTA, MAINE AUG. 1979

174-113

PROJECT DESIGN ENGINEER	DATE	BY
DESIGN - DETAILED	2/1/79	D.M.D.
CHECKED	2/1/79	P.L.M.
REVISIONS		
FIELD CHANGES		
PLANS		



PLAN



References:
For Footing Details see sht.
For Abut. 1 Details see sht. 6
For Sections J-J & K-K see sht. 1
For Sections P-P & R-R see sht. 1
For View M-M see sht. 1
(South wing)

LEGEND

N. F. Near Face
F. F. Far Face
E. F. Each Face

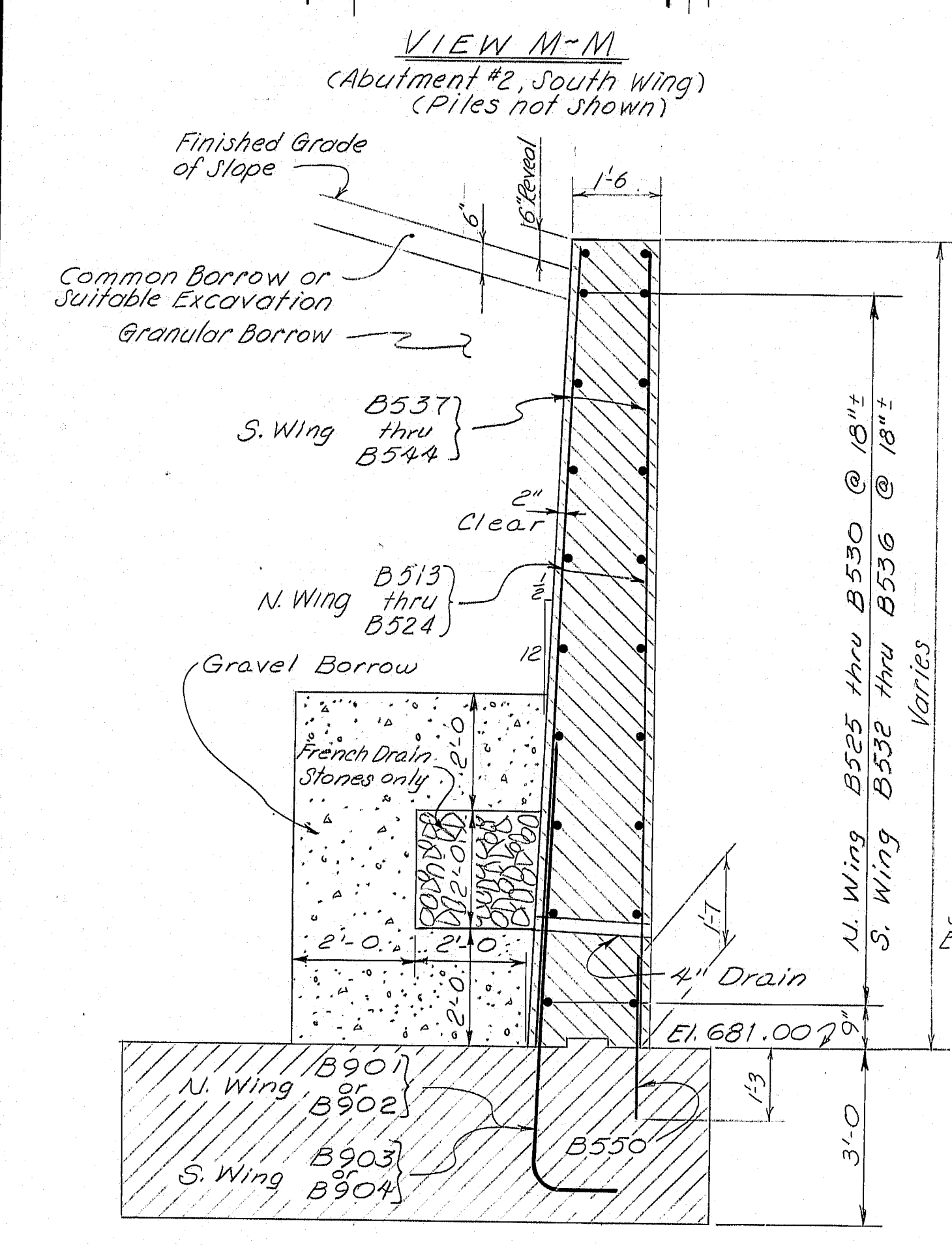
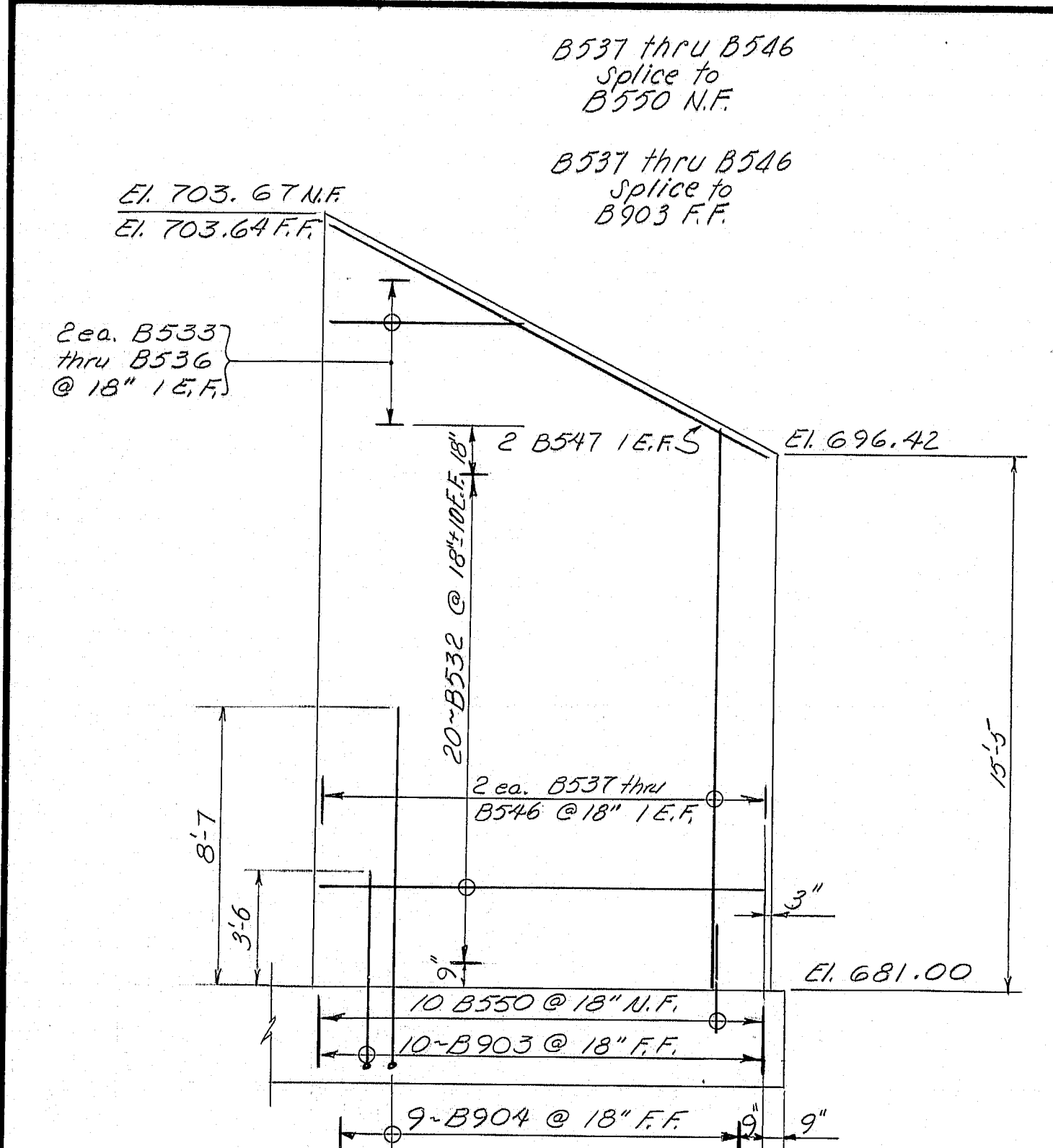
As Built STATE OF MAINE *aw* 2-2-82
DEPARTMENT OF TRANSPORTATION

INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
ABUTMENT No. 2

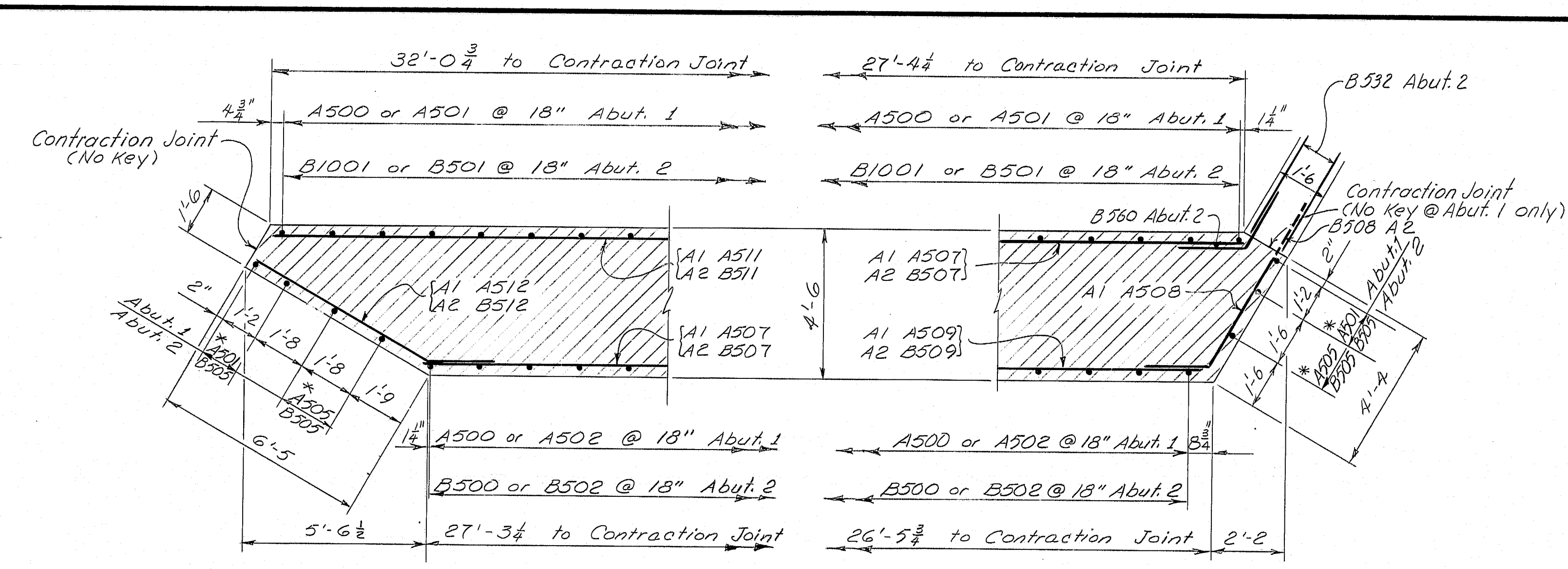
SHEET 9 OF 21 AUGUSTA, MAINE AUG. 1979

174-114

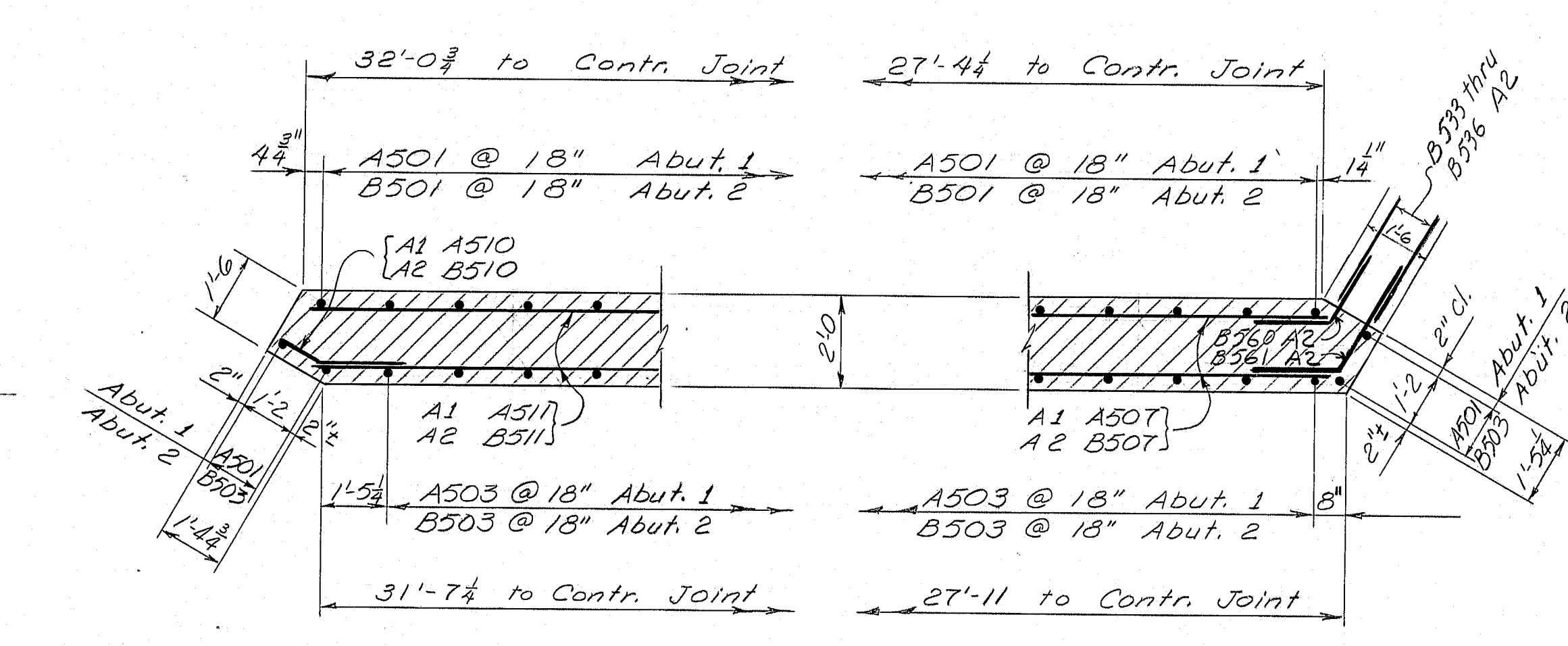
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	2-95-9(88)	10	21



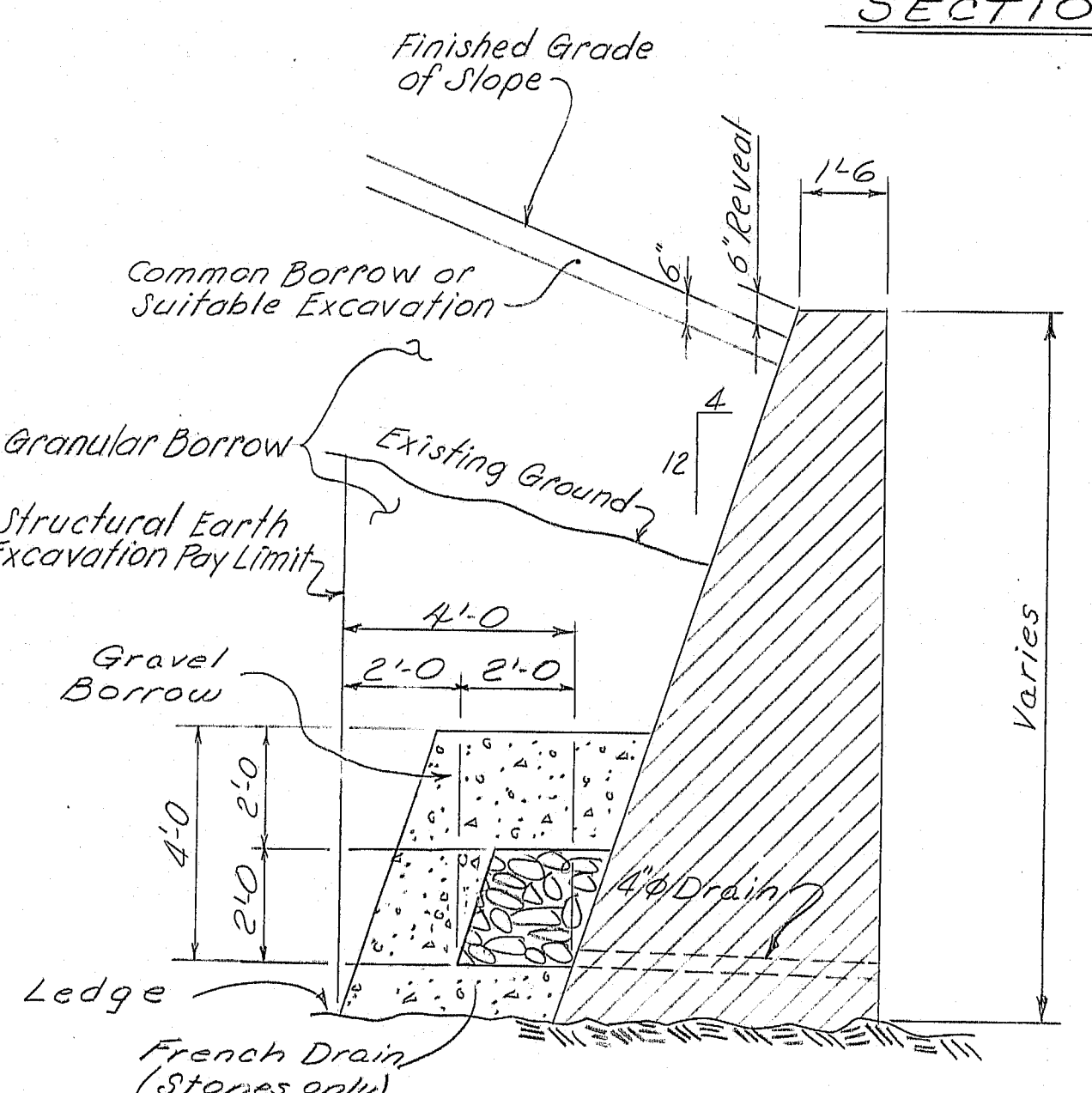
SECTION K-K
(Abutment #2)
(Piles and footing rebars not shown)



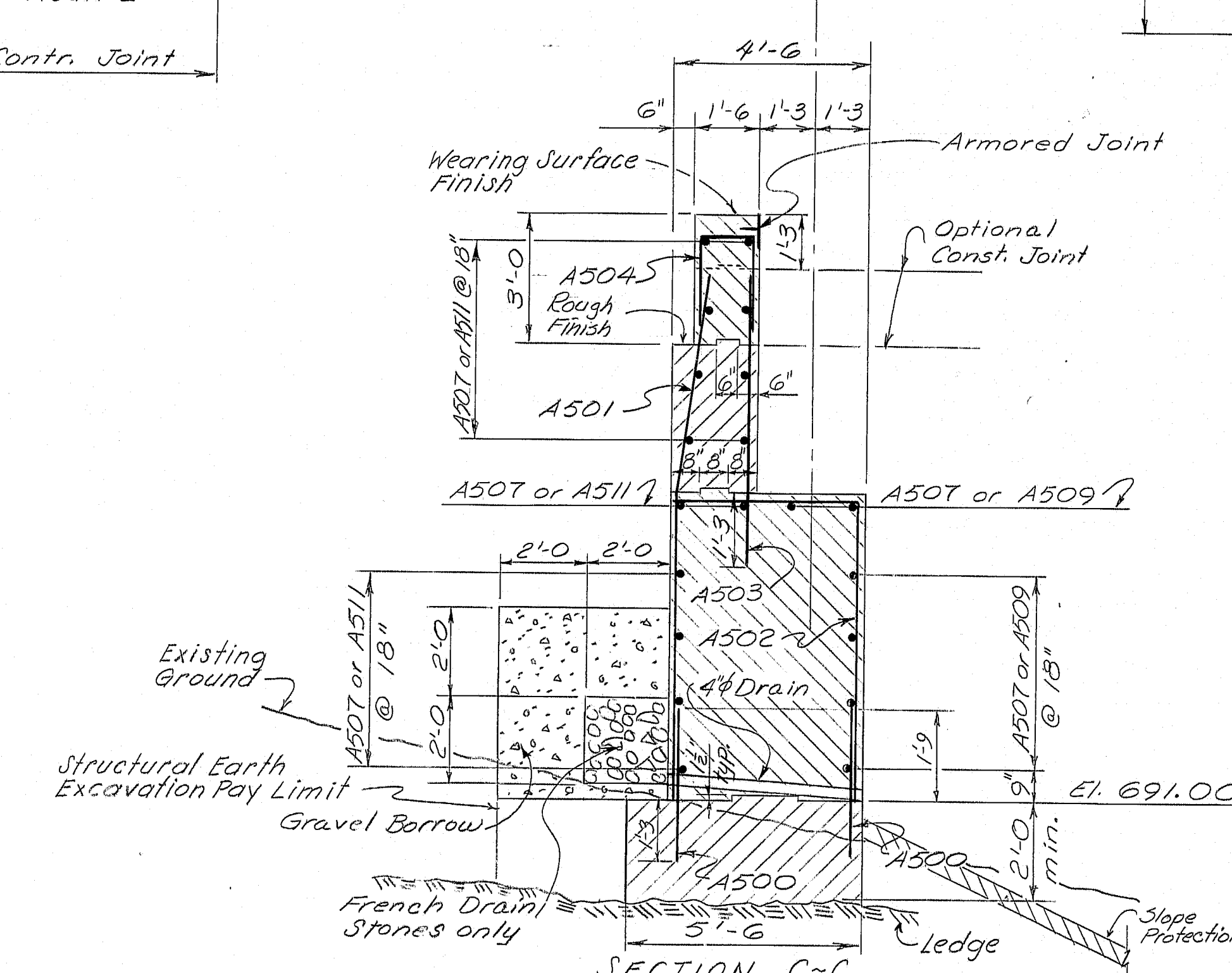
SECTION P-P



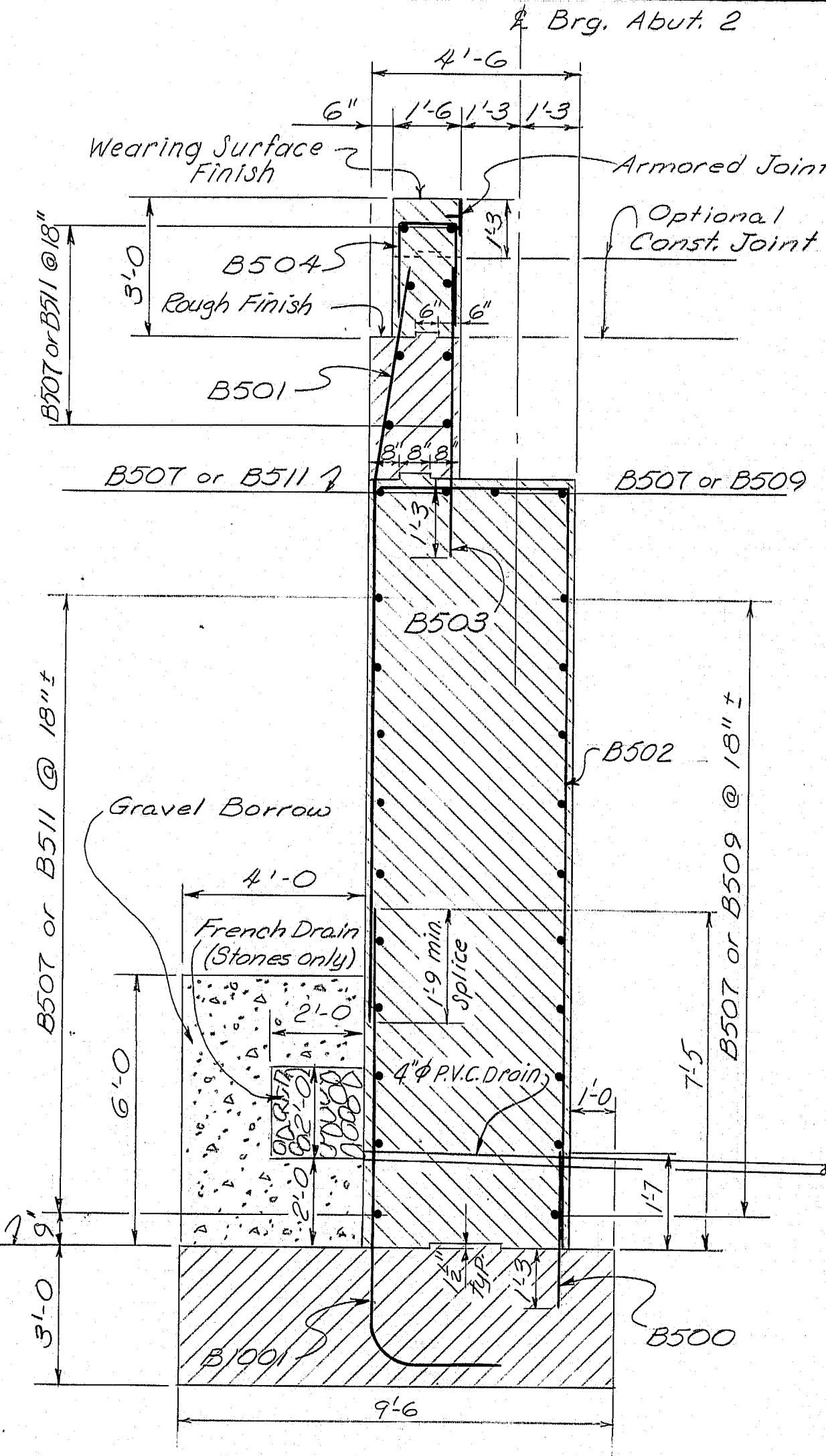
SECTION R-R



SECTION D-D
(Abutment #1)



SECTION C-C
(Abutment #1)
(Footing rebars not shown)



SECTION J-J
(Abutment #2)
(Piles and footing rebars not shown)

- LEGEND**
- N. Wing = North Wing
 - S. Wing = South Wing
 - ea. = each
 - E.F. = Each Face
 - N.F. = Near Face
 - F.F. = Far Face
 - A1 = Abut. #1
 - A2 = Abut. #2

As Built STATE OF MAINE 2-2-82
DEPARTMENT OF TRANSPORTATION

INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
ABUTMENT and WING DETAILS
SHEET 10 OF 21 AUGUSTA, MAINE AUG. 1979

174-115

F.H.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(38)	11	21

	C	D	H
EPC-4 (Modified)	11"	2'1"	5'2"
FPC-2 (Modified)	11"	1'11"	9'2"

STRUCTURAL STEEL NOTES

1. Camber ordinates, as shown, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.
2. No transverse butt weld splices will be allowed in the flange plates or web plates within 10 feet from the point of maximum positive moment.
3. Butt weld splices in flanges shall be not less than one foot from transverse welds in the web plates.
4. 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.
5. Cross frame or diaphragm connection plates may be either plumb or normal to the top flange.
6. The Bearing Setting Chart, on sheet 12, indicates the required final position of the bearings. It is anticipated that the bearings at Abutment 1 will move $\frac{1}{2}$ inch away from the fixed bearings due to the placement of the superstructure concrete. No separate payment will be made for resetting bearings to the final position if an adjustment is required.

- ### REFERENCES
1. For Armored Joint see Standard Details (BD 104-77).
 2. For Bearing Pedestals see Standard Details (BD 101-74).
 3. For Diaphragms & Crossframes see Standard Details (BD 113-78).
 4. For Bearing Stiffener Notes see Standard Details (BD 113-78).

BASIC ALLOWABLE STRESSES

Structural Steel: ASTM A572 $F_y = 27,000$ psi.
 ASTM A36 $F_y = 20,000$ psi.
 ASTM A325 (High Strength Bolts) $F_u = 25,000$ psi.

MATERIALS

Structural Steel: Top and Bottom Flanges ASTM A572
 High Strength Bolts ASTM A325
 All other ASTM A36

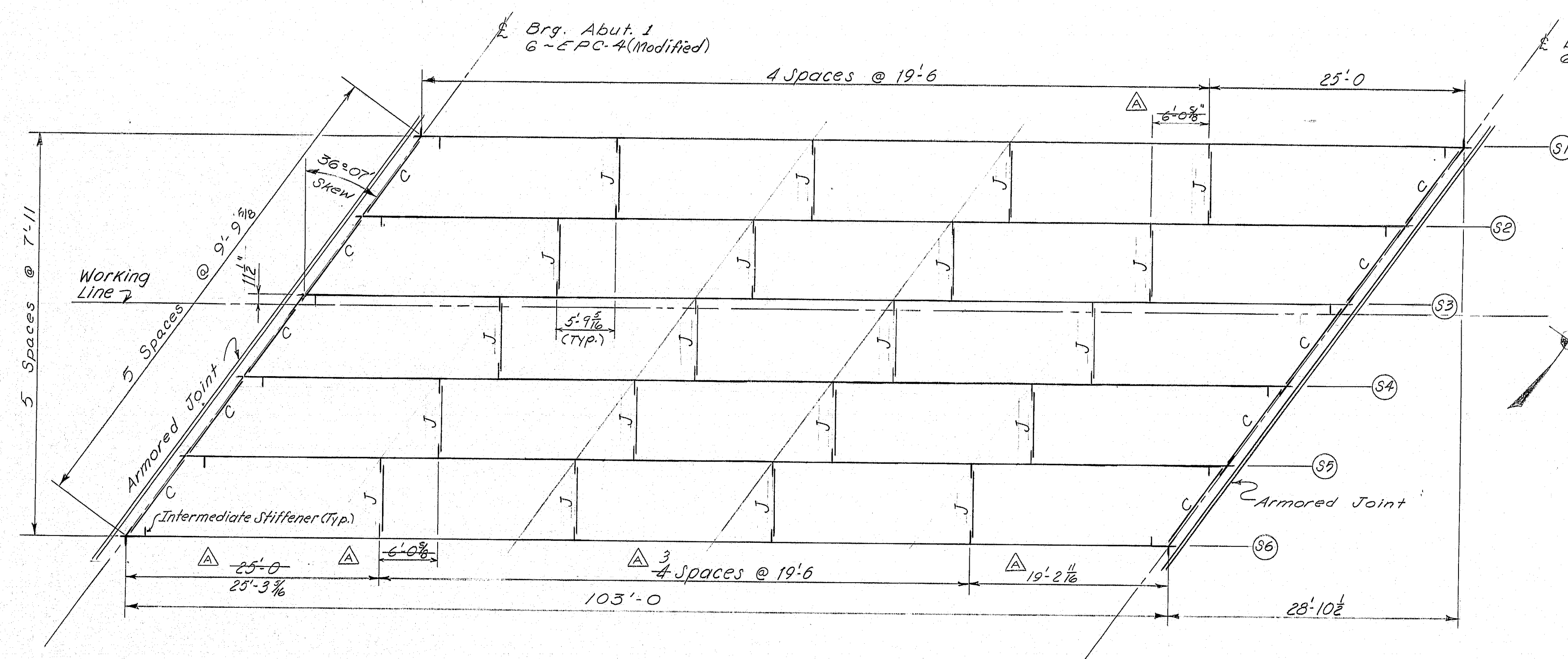
Revised Mar 20, 1980

As Built STATE OF MAINE 2-1-82
 DEPARTMENT OF TRANSPORTATION

INTERSTATE-95N.B.
 OVER
 TIMONEY RD.
 IN THE TOWN OF
 SMYRNA
 AROOSTOOK COUNTY
 STRUCTURAL STEEL

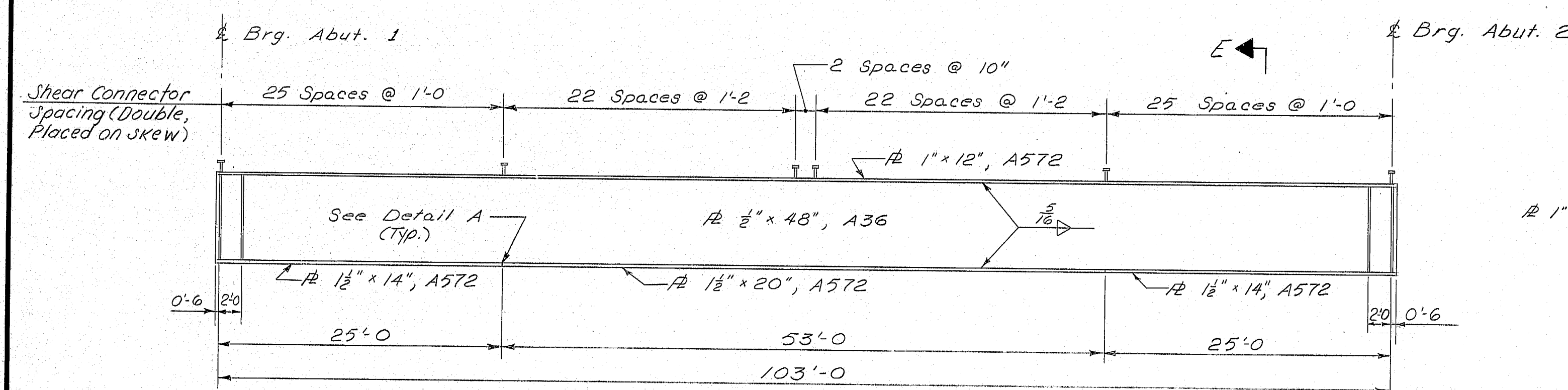
SHEET 11 OF 21 AUGUSTA, MAINE AUG. 1979

174-116



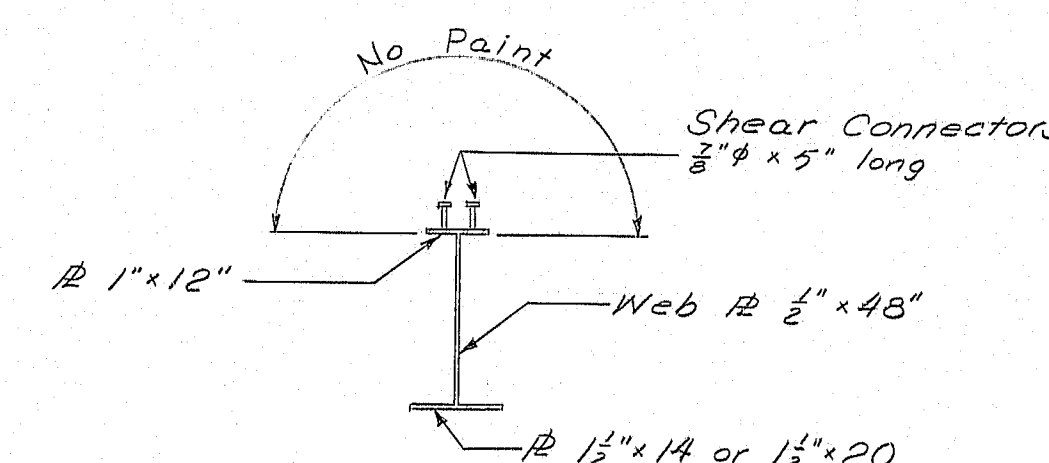
FRAMING PLAN

All dimensions are horizontal

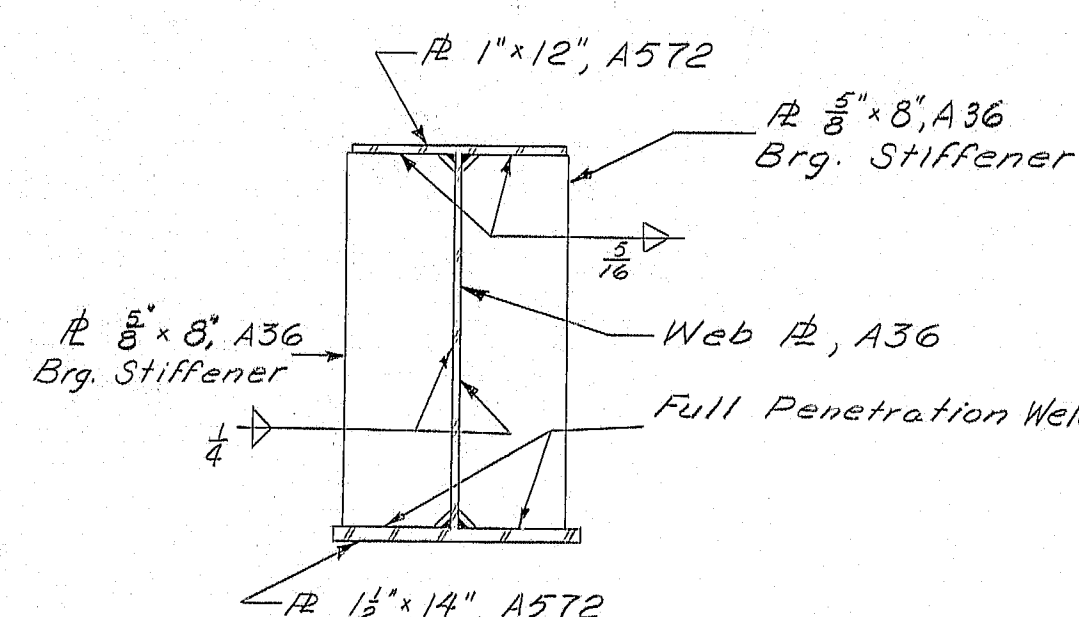


STRINGER ELEVATION

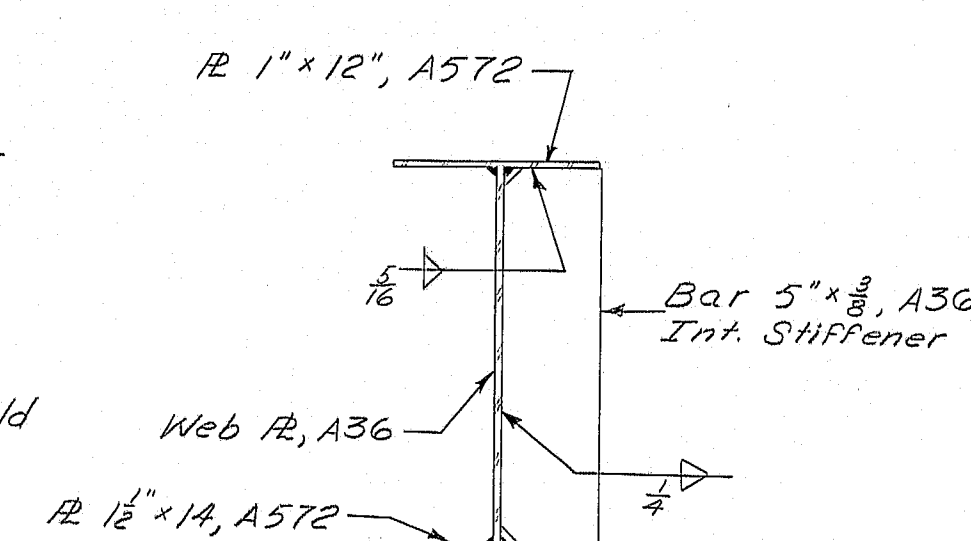
Total shear connectors required 1164
 Total weight 1164 lbs.



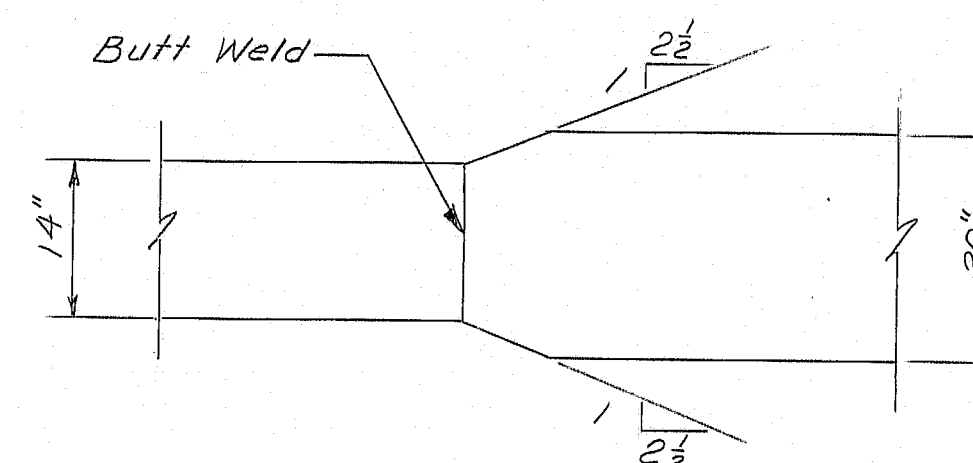
SECTION E-E



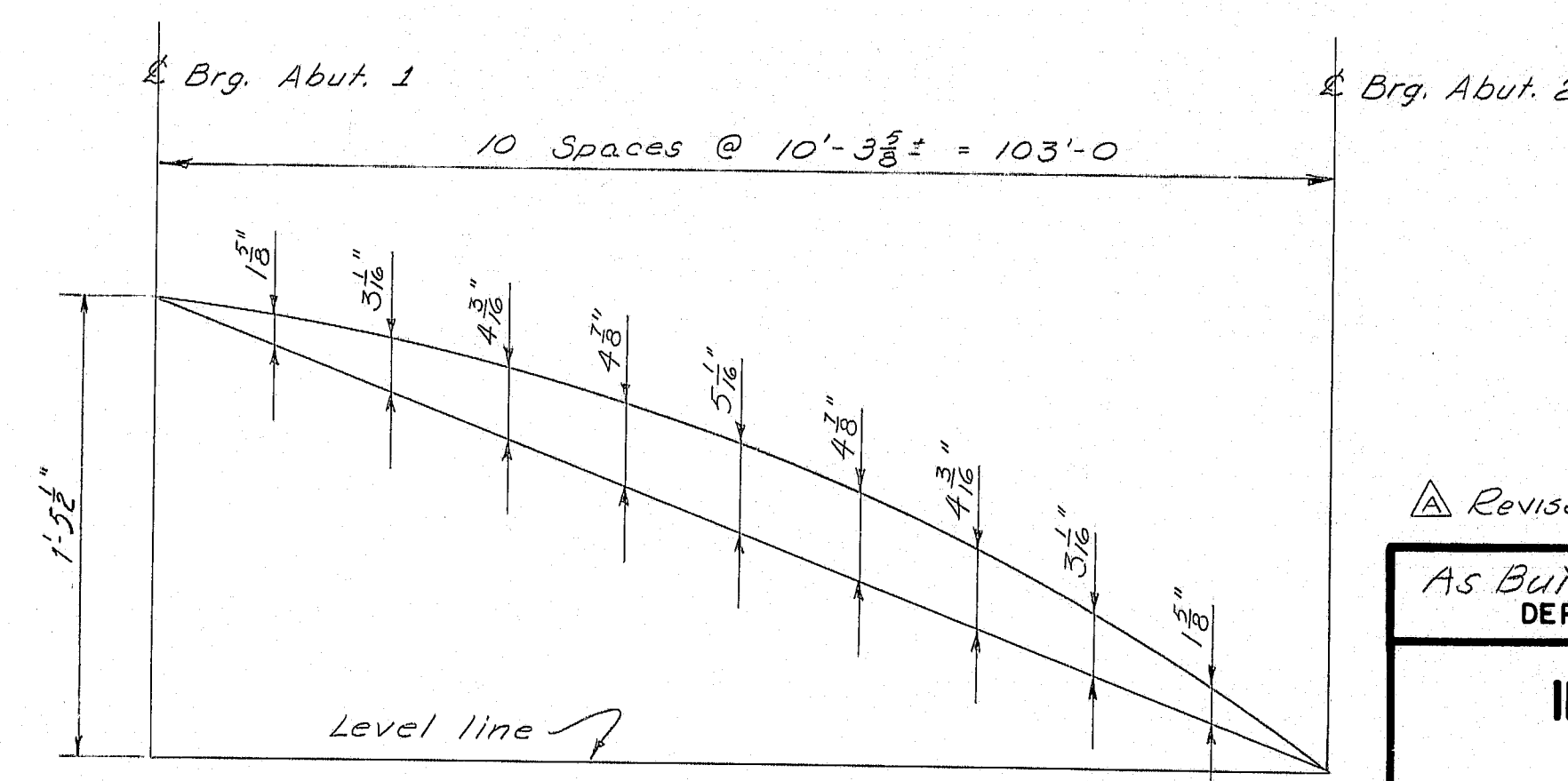
BEARING STIFFENER DETAIL



INTERMEDIATE STIFFENER DETAIL



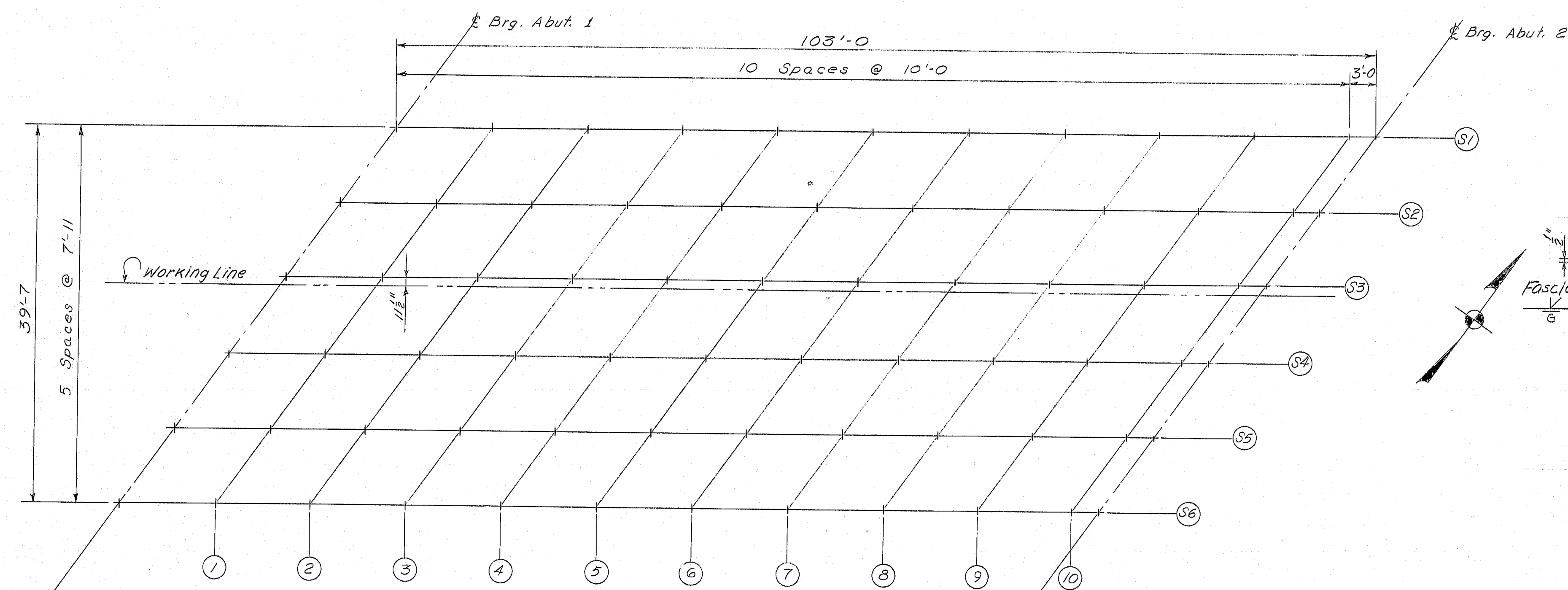
DETAIL A



CAMBER DIAGRAM

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	R.W.M.	D.M.D.
CHECKED	PJM	6-79
REVISIONS		

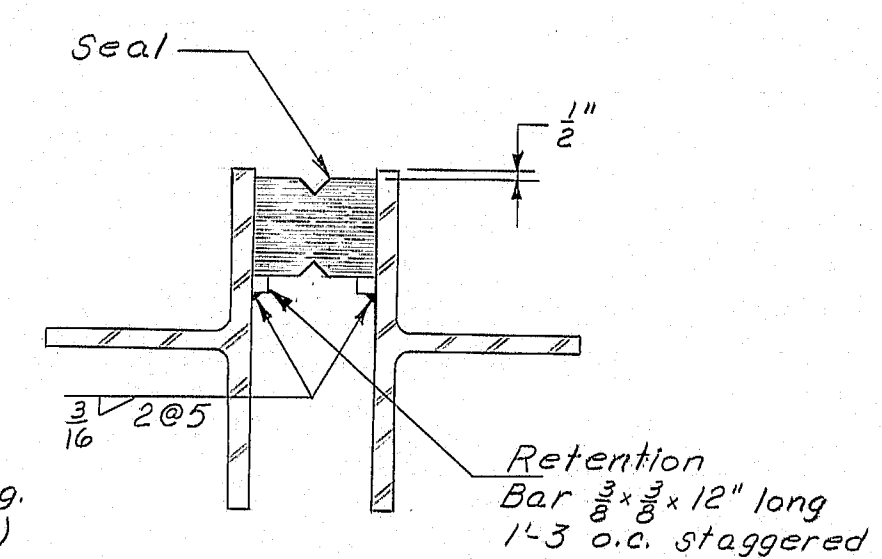
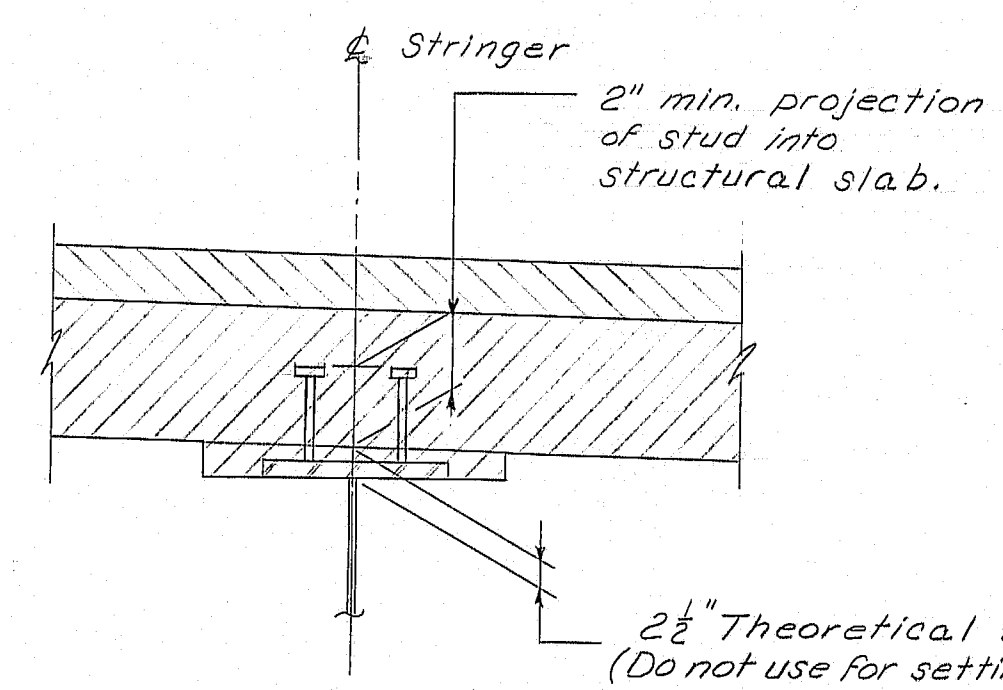
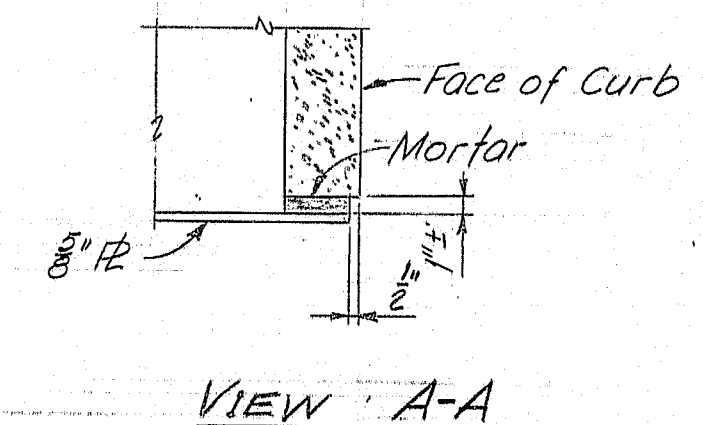
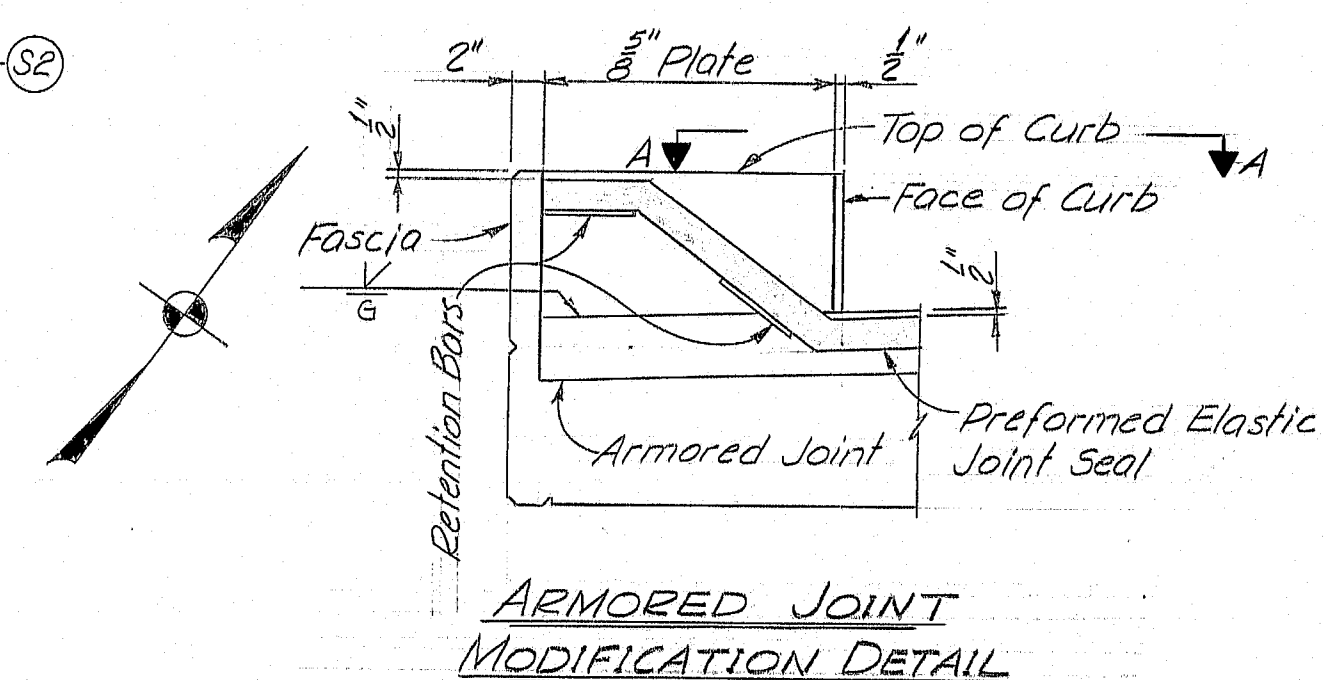
F.R.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(BB)	12	21



BLOCKING LAYOUT
All dimensions are horizontal.

Span Pts.	# Brg. A1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	# Brg. A2
Stringer S1	703.08	703.05	703.00	702.93	702.84	702.71	702.55	702.37	702.15	701.91	701.66	701.53
Stringer S2	703.32	703.29	703.24	703.18	703.08	702.96	702.80	702.62	702.40	702.17	701.91	701.84
Stringer S3	703.56	703.53	703.48	703.42	703.33	703.21	703.05	702.87	702.66	702.42	702.17	72.0 9
Stringer S4	703.50	703.48	703.43	703.37	703.28	703.16	703.01	702.83	702.62	702.39	702.14	702.06
Stringer S5	703.41	703.38	703.34	703.28	703.19	703.08	702.93	702.75	702.54	702.31	702.06	701.99
Stringer S6	703.31	703.29	703.25	703.19	703.11	702.99	702.84	702.67	702.46	702.23	701.99	701.91

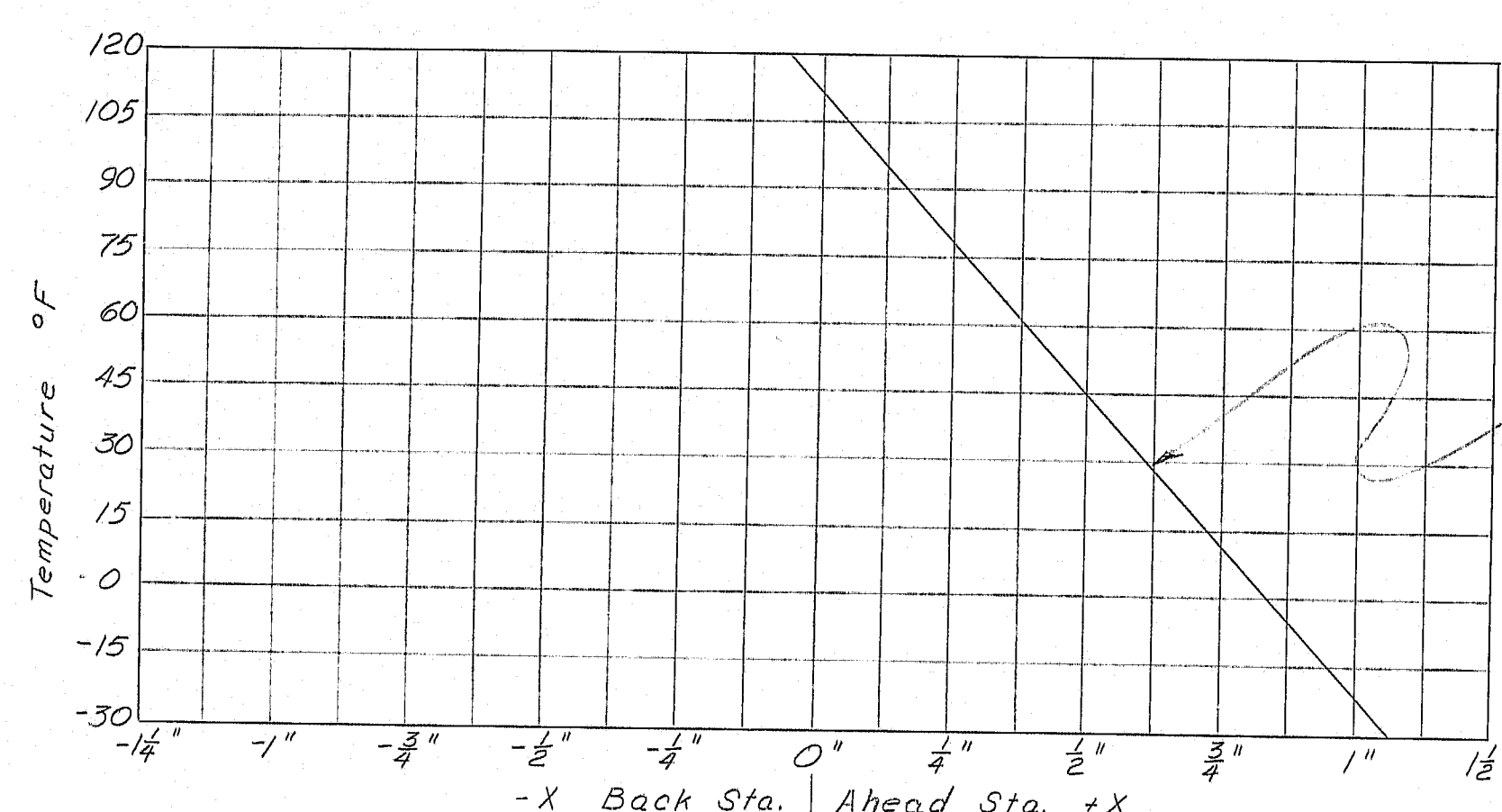
BOTTOM of SLAB ELEVATIONS



SEAL ARRANGEMENT
(In Armored Joint)

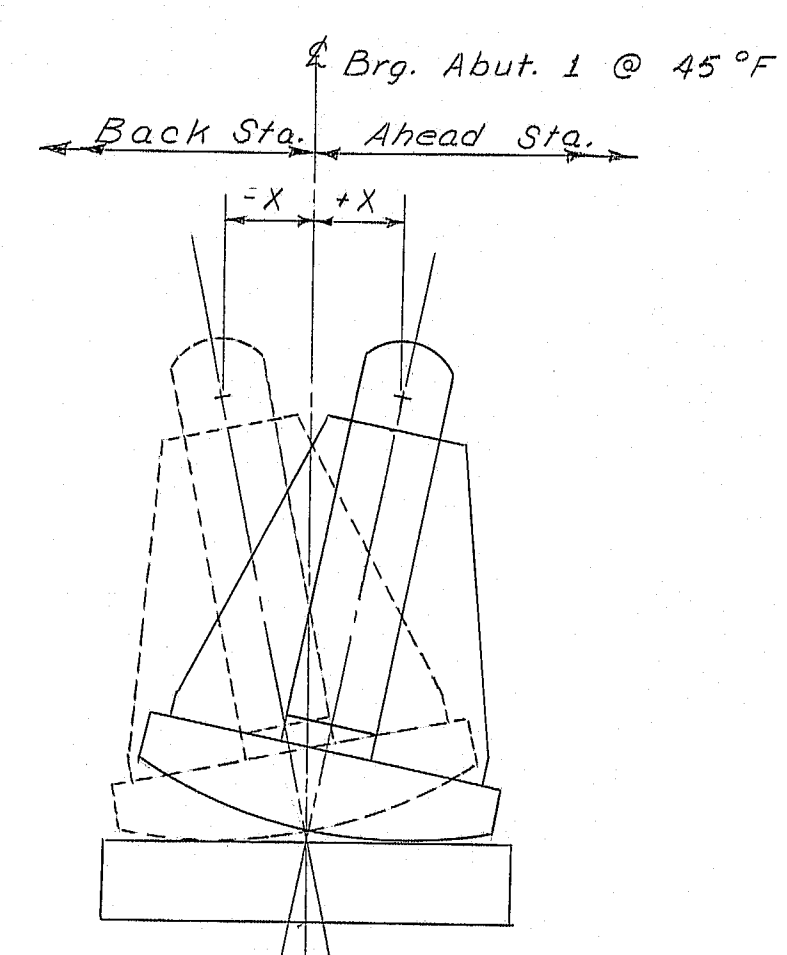
SEAL NOTES

- The seals to be furnished shall have a minimum Movement Rating of:
Abutment No. 1 1.375"
Abutment No. 2 0.500"
- The joint opening will vary depending on the dimensions of the seal selected by the Contractor. The joint opening shall be set according to the opening shown on the approved "Armored Joint" shop detail drawings.
- The seal shall be approved by the Engineer prior to fabrication of the armored joint.



EXPANSION BEARING SETTING CHART

Note: This table compensates for longitudinal movement due to temperature change and dead load deflection.



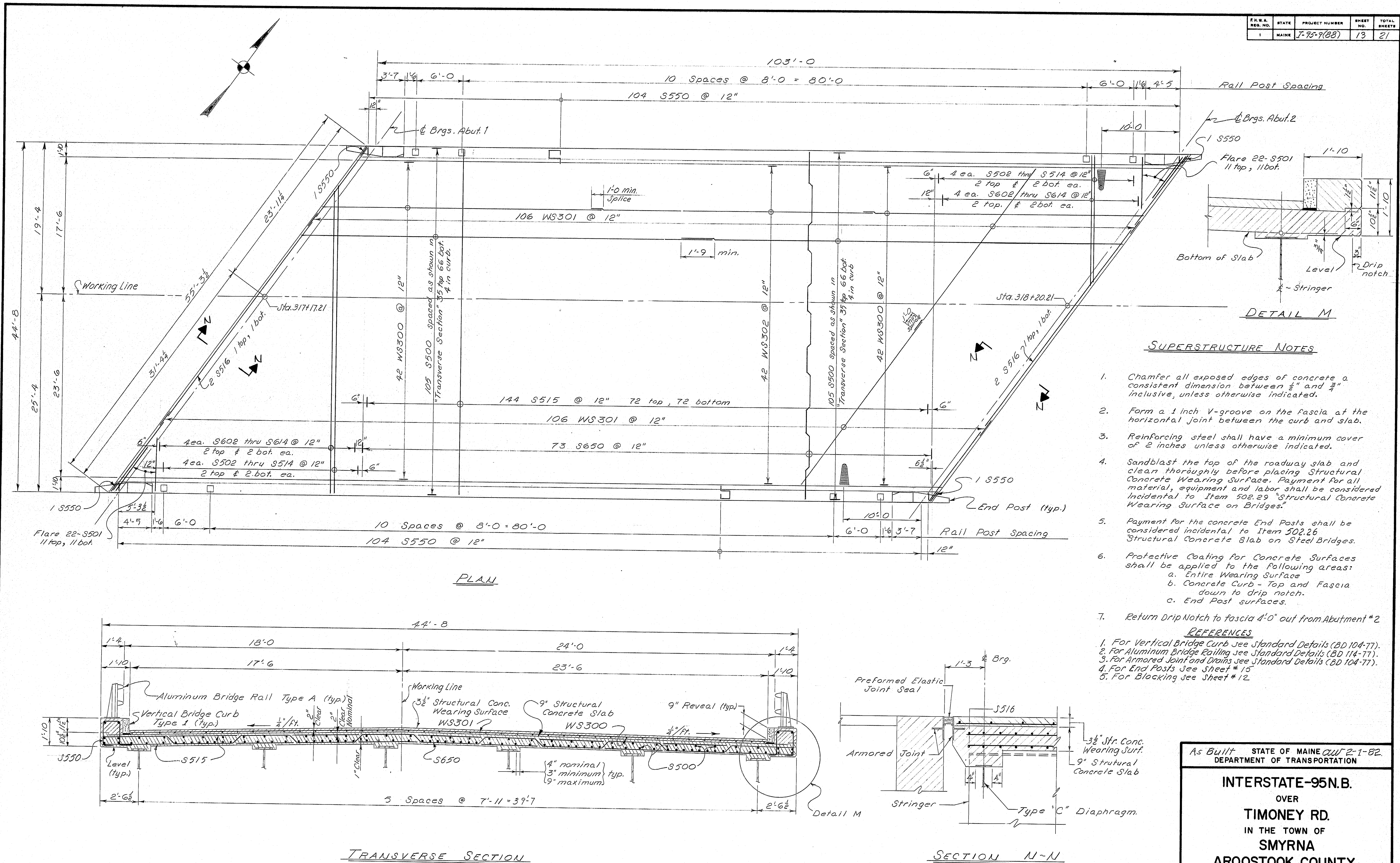
EXPANSION BEARING SETTING DIAGRAM

As Built STATE OF MAINE *CW 2-1-82*
DEPARTMENT OF TRANSPORTATION
INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
STRUCTURAL STEEL
SHEET 12 OF 21 AUGUSTA, MAINE AUG. 1979

174-117

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	EWB	1-97
REVISIONS	FWB	6-77
FIELD CHANGES		

F.R.W.A. PROJ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	174-118	13	21



- SUPERSTRUCTURE NOTES**
- Chamfer all exposed edges of concrete a consistent dimension between $\frac{1}{4}$ " and $\frac{3}{4}$ " inclusive, unless otherwise indicated.
 - Form a 1 inch V-groove on the fascia at the horizontal joint between the curb and slab.
 - Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
 - Sandblast the top of the roadway slab and clean thoroughly before placing Structural Concrete Wearing Surface. Payment for all material, equipment and labor shall be considered incidental to Item 502.29 "Structural Concrete Wearing Surface on Bridges."
 - Payment for the concrete End Posts shall be considered incidental to Item 502.26 "Structural Concrete Slab on Steel Bridges."
 - Protective Coating for Concrete Surfaces shall be applied to the following areas:
 - Entire Wearing Surface
 - Concrete Curb - Top and Fascia down to drip notch.
 - End Post surfaces.
 - Return Drip Notch to fascia 4'-0" out from Abutment #2
- REFERENCES**
- For Vertical Bridge Curb see Standard Details (SD 104-77).
 - For Aluminum Bridge Railings see Standard Details (SD 114-77).
 - For Armored Joint and Drains see Standard Details (SD 104-77).
 - For End Posts see Sheet # 15.
 - For Blocking see Sheet # 12.

As Built STATE OF MAINE QJW 2-1-82
DEPARTMENT OF TRANSPORTATION

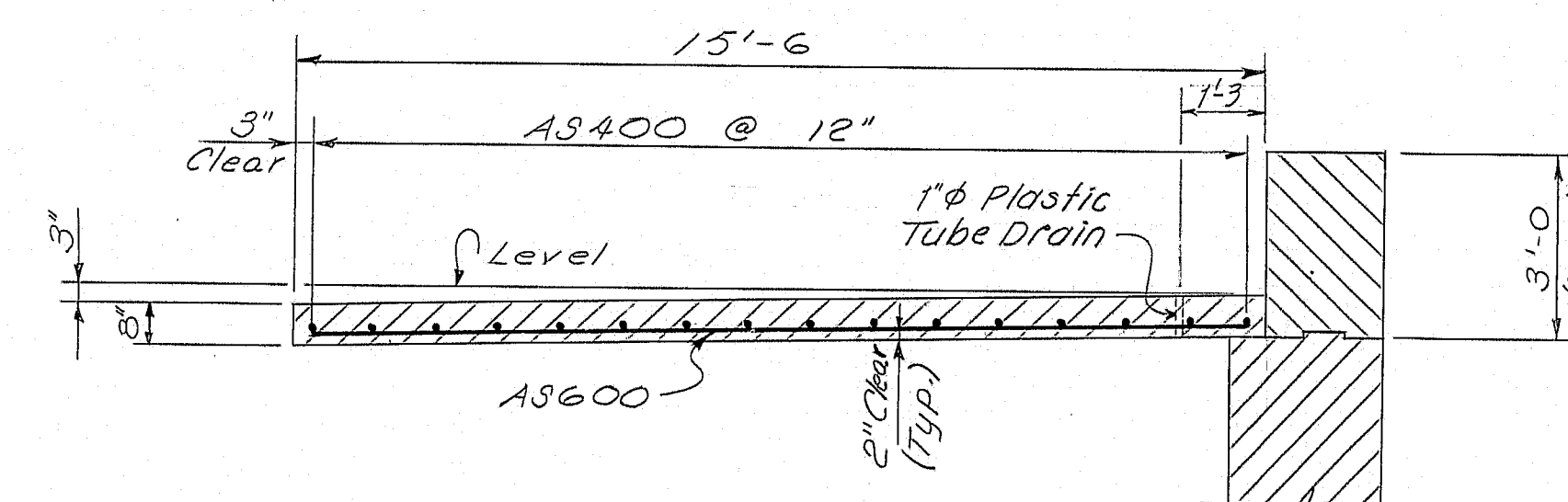
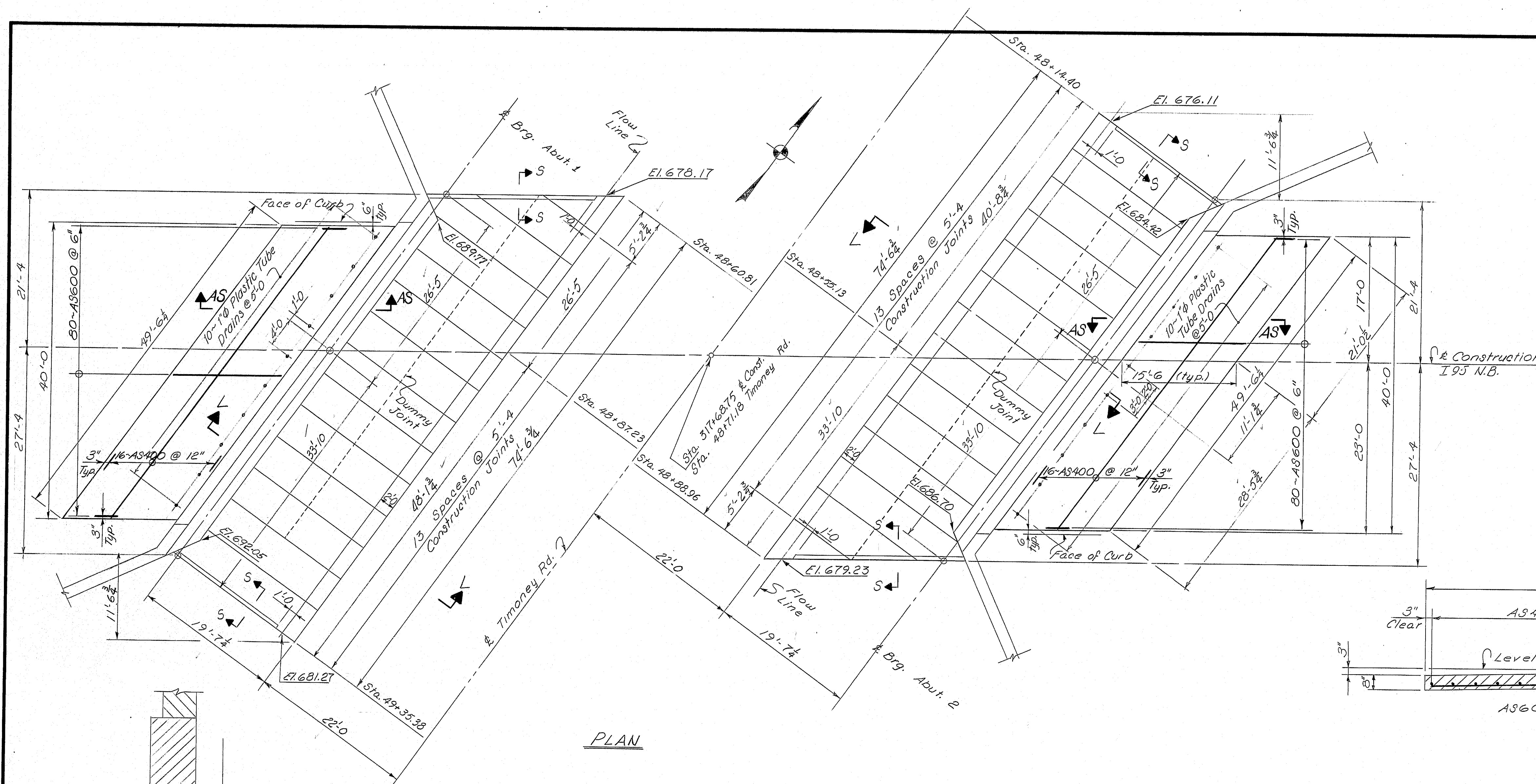
**INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
SUPERSTRUCTURE**

SHEET 13 OF 21 AUGUSTA, MAINE AUG. 1979

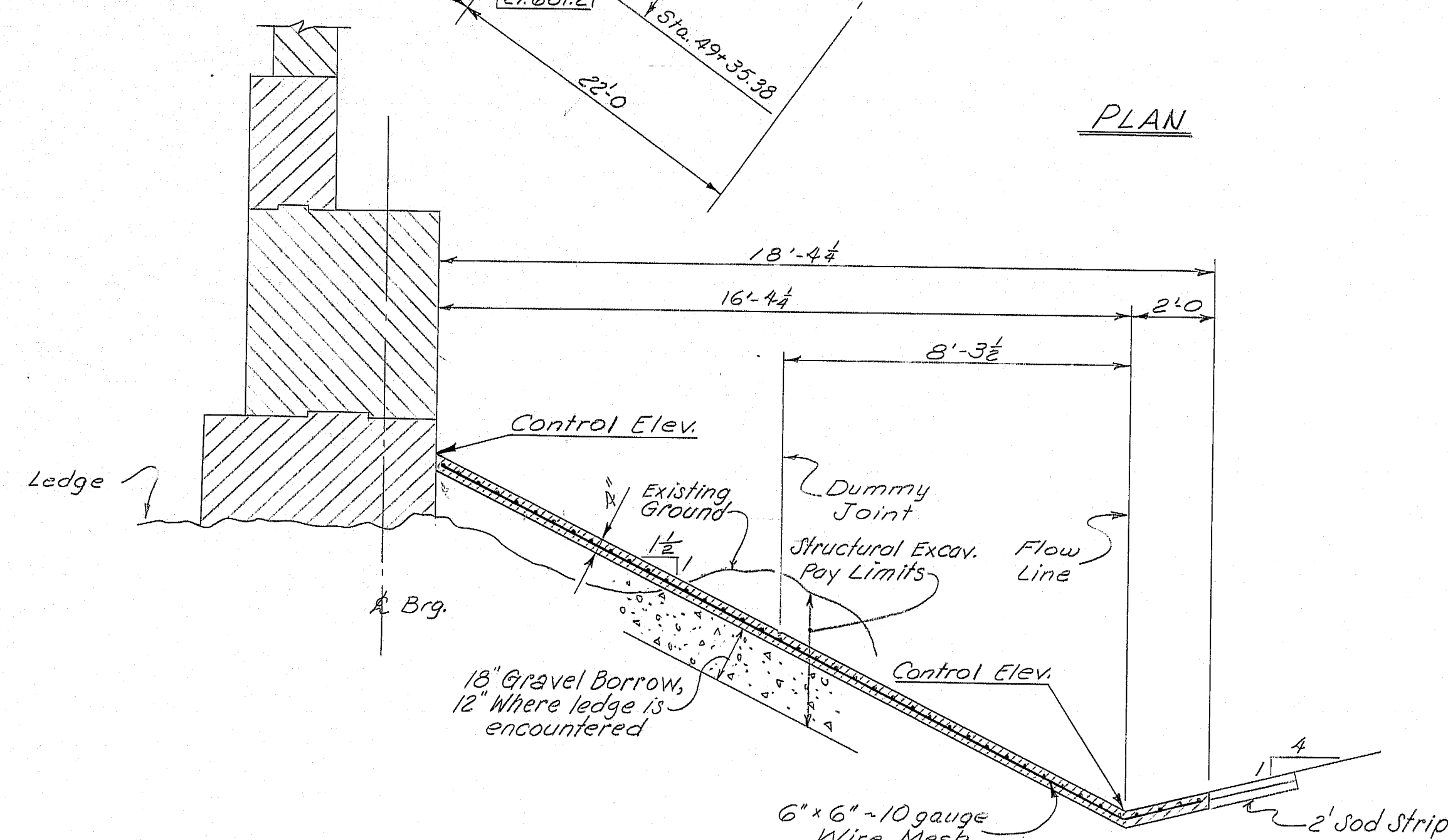
174-118

F.R.N.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-9(88)	14	21

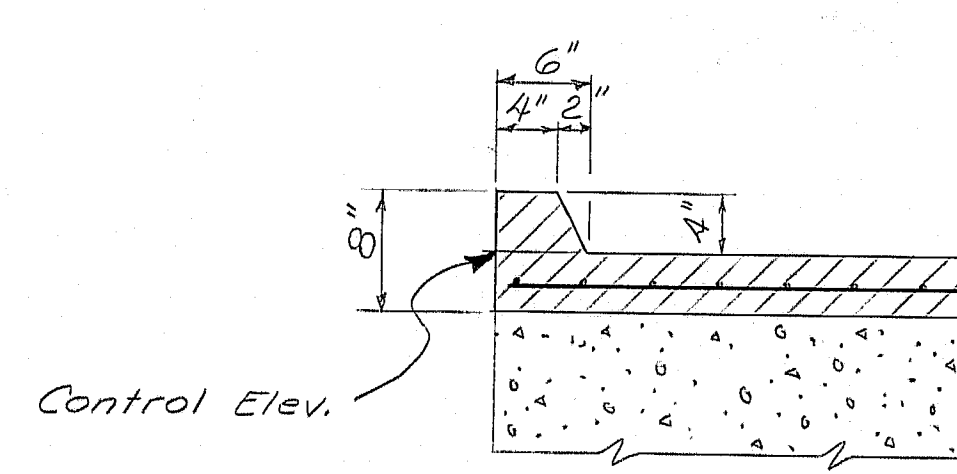
- Notes:
1. All structural earth excavation shall be paid for under Item 206.08, Structural Earth Excavation Abutments and Retaining Walls.
 2. Structural rock excavation shall be paid for under Item 206.09, Structural Rock Excavation Abutments and Retaining Walls.



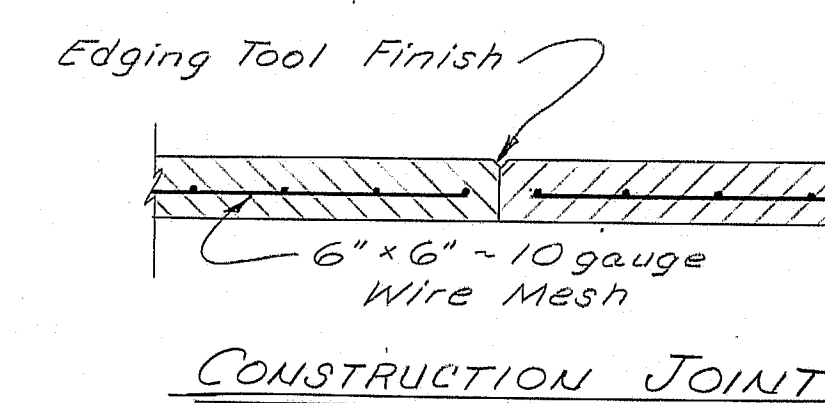
SECTION AS-AS
(Approach Slab)



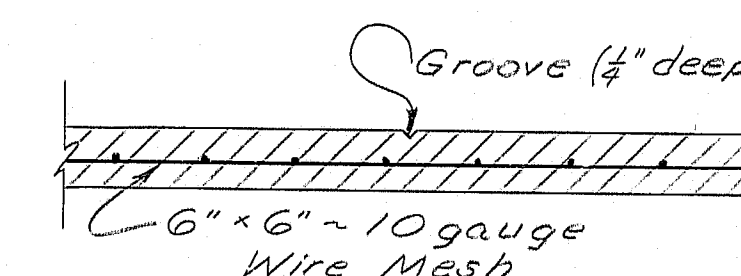
SECTION L-L
Abut. 1 shown
Abut. 2 opposite hand 2:1 slope



SECTION S-S



CONSTRUCTION JOINT



DUMMY JOINT

Revised, As Built CW 2-2-82

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

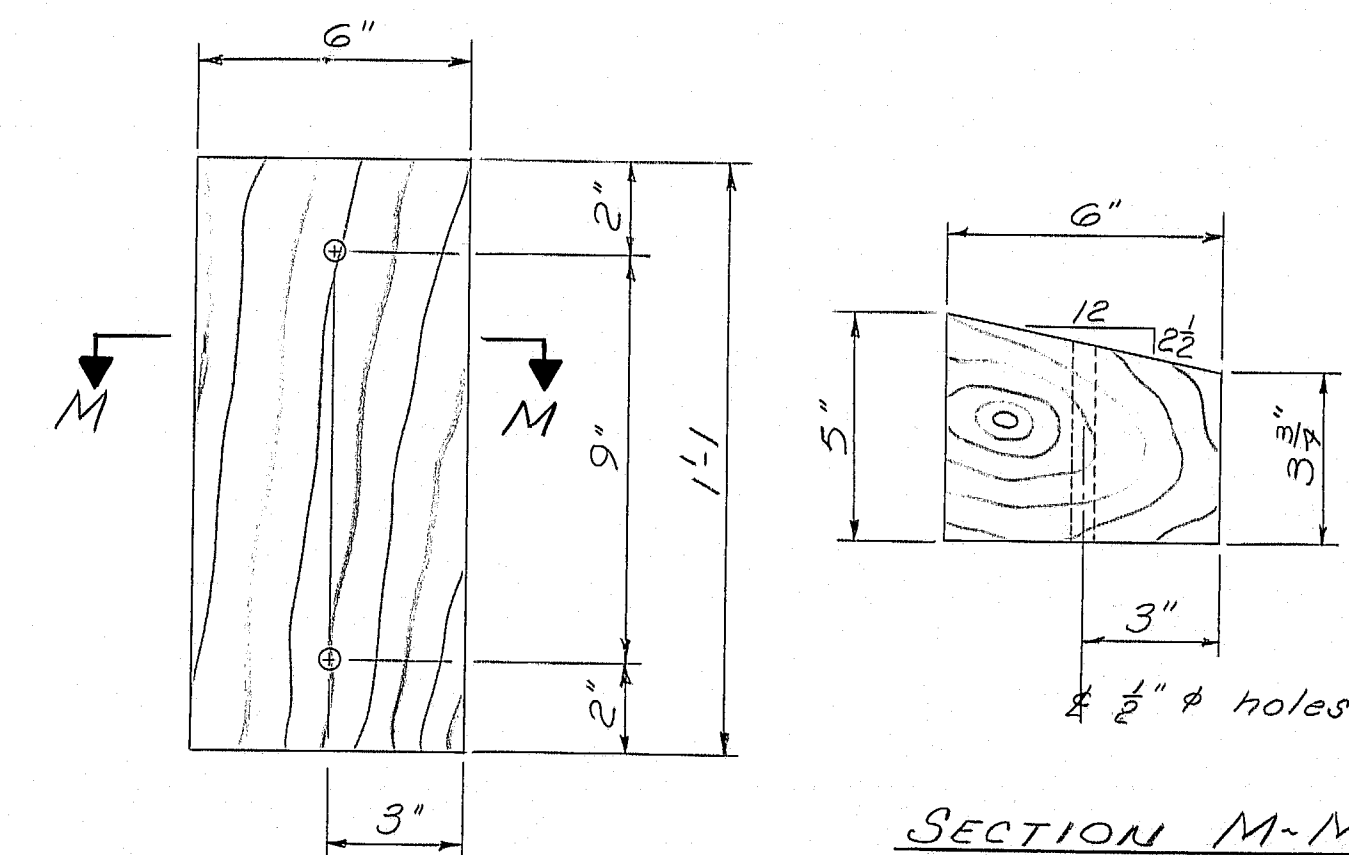
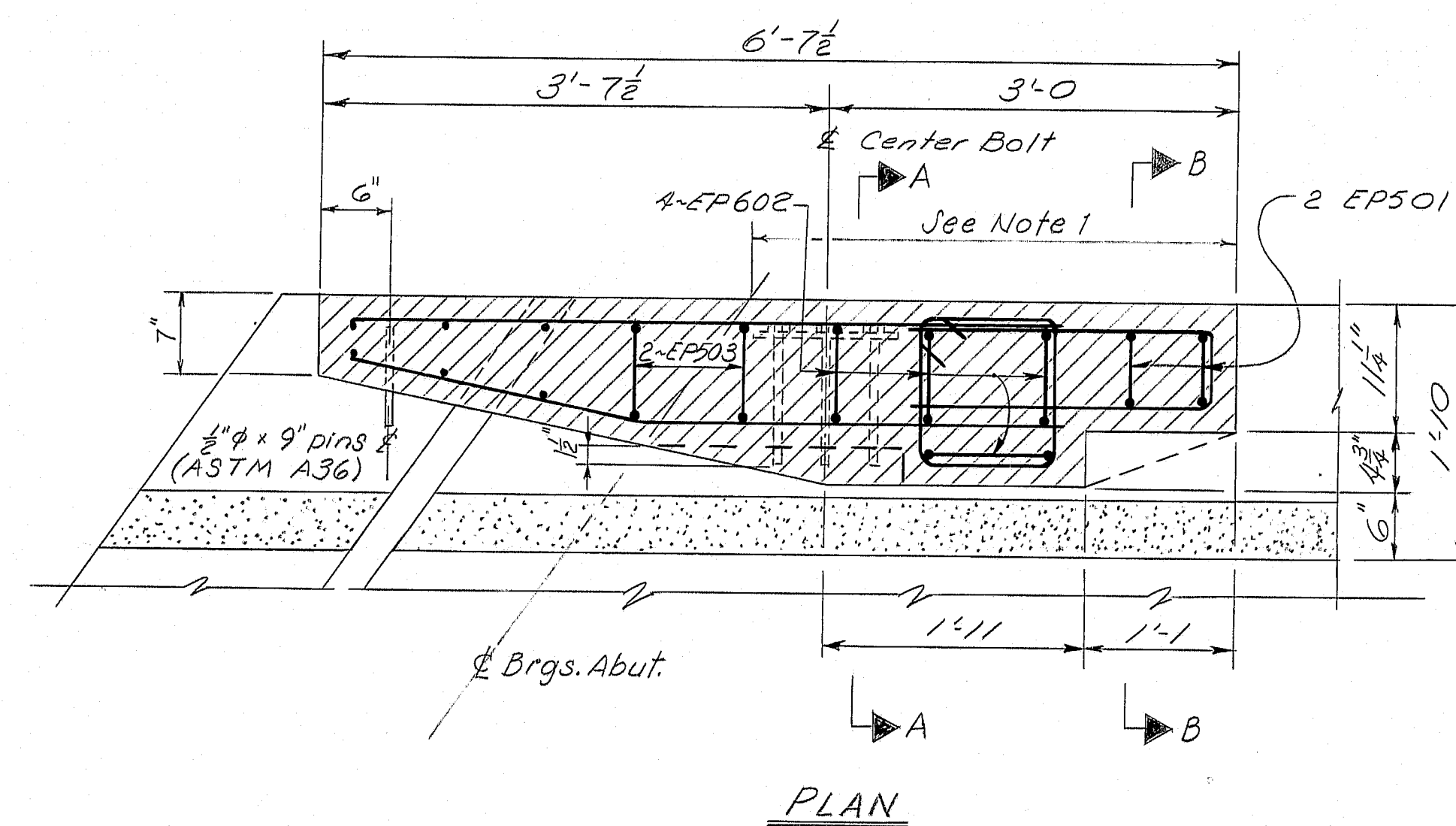
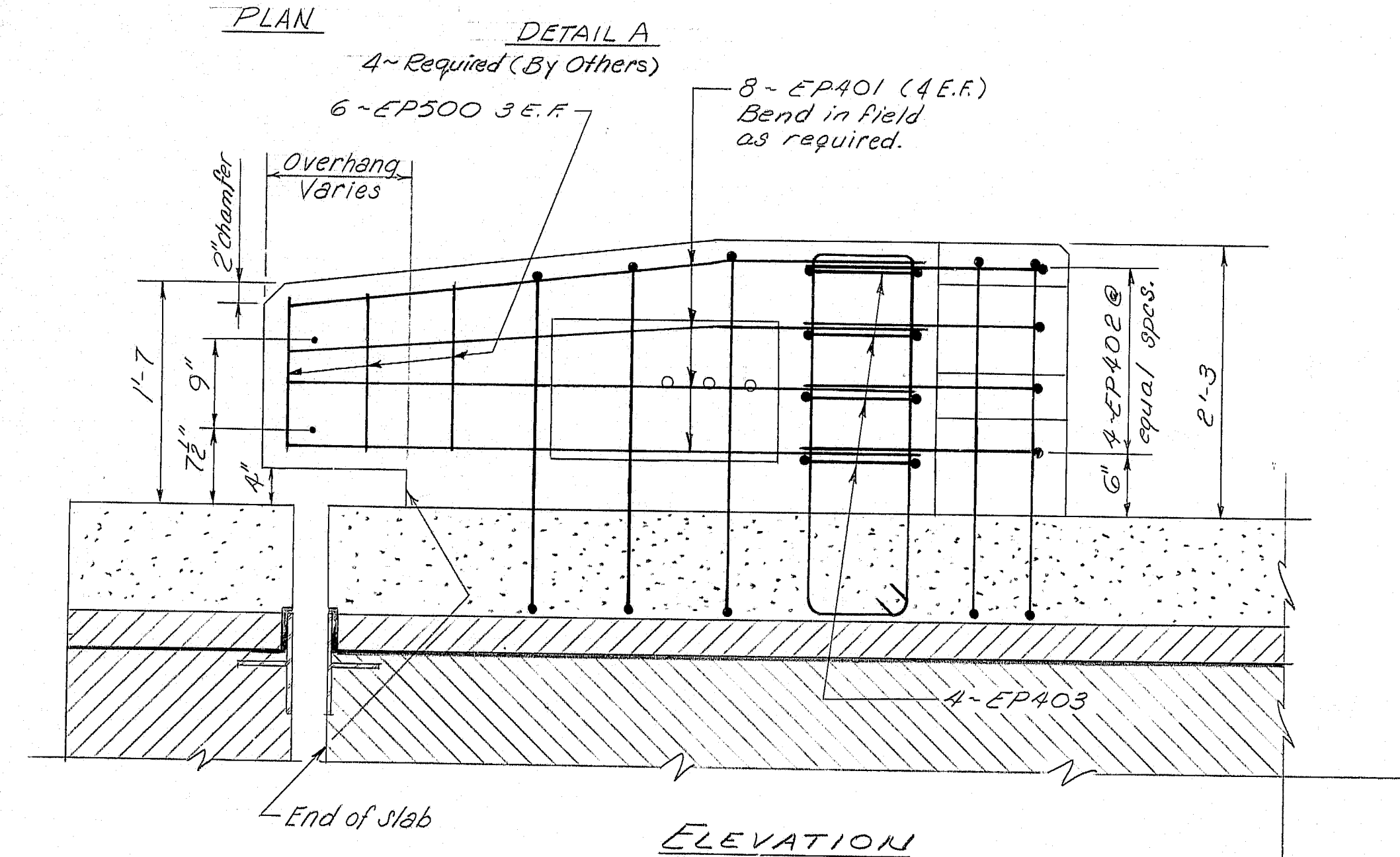
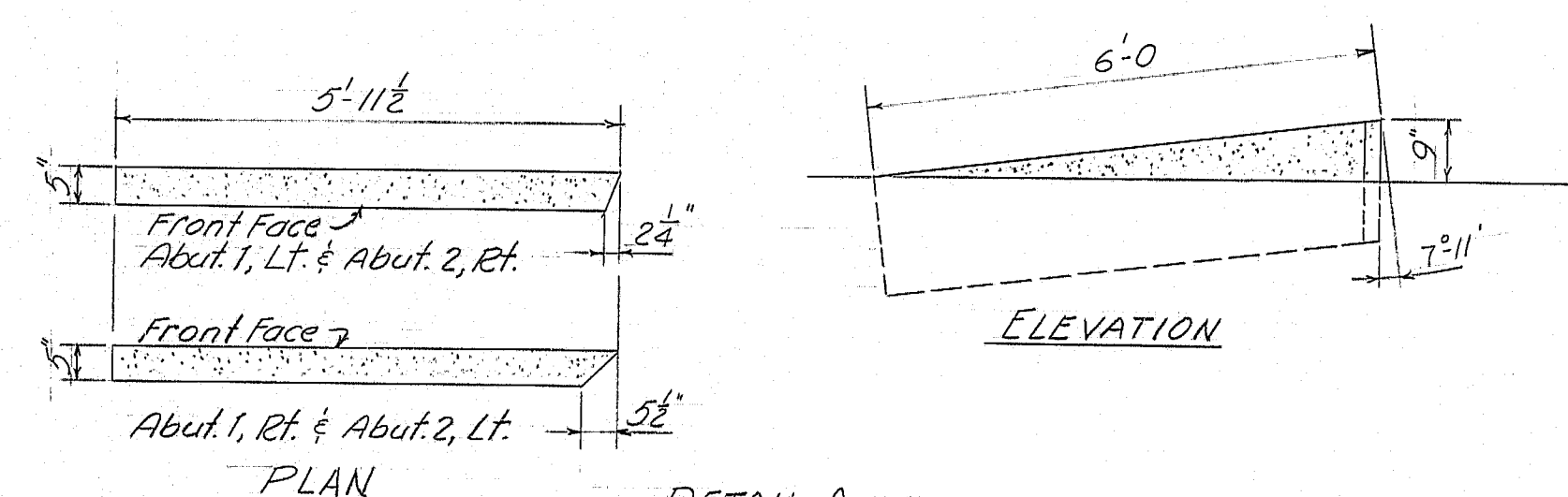
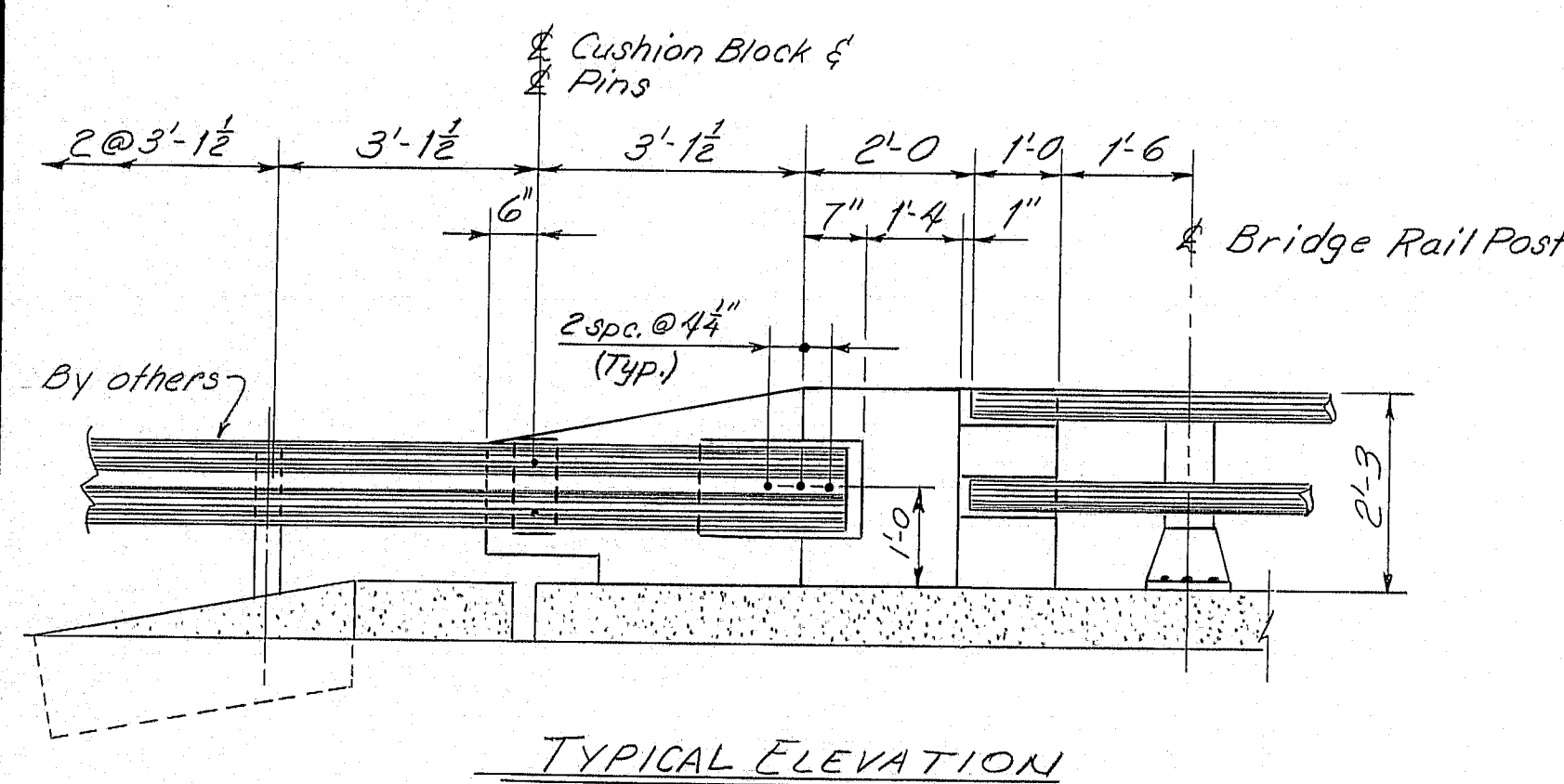
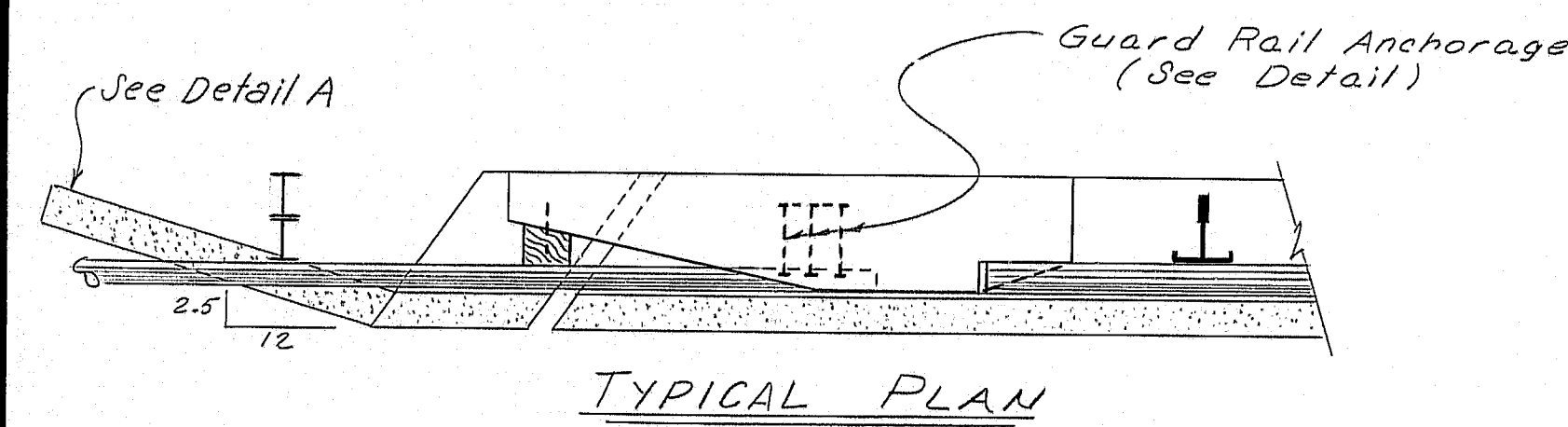
INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
SLOPE PROTECTION & APPROACH SLABS

SHEET 14 OF 21 AUGUSTA, MAINE AUG. 1979

174-119

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	DMH	1-79
CHECKED	PLM	6-79
REVISIONS		
FIELD CHANGES		

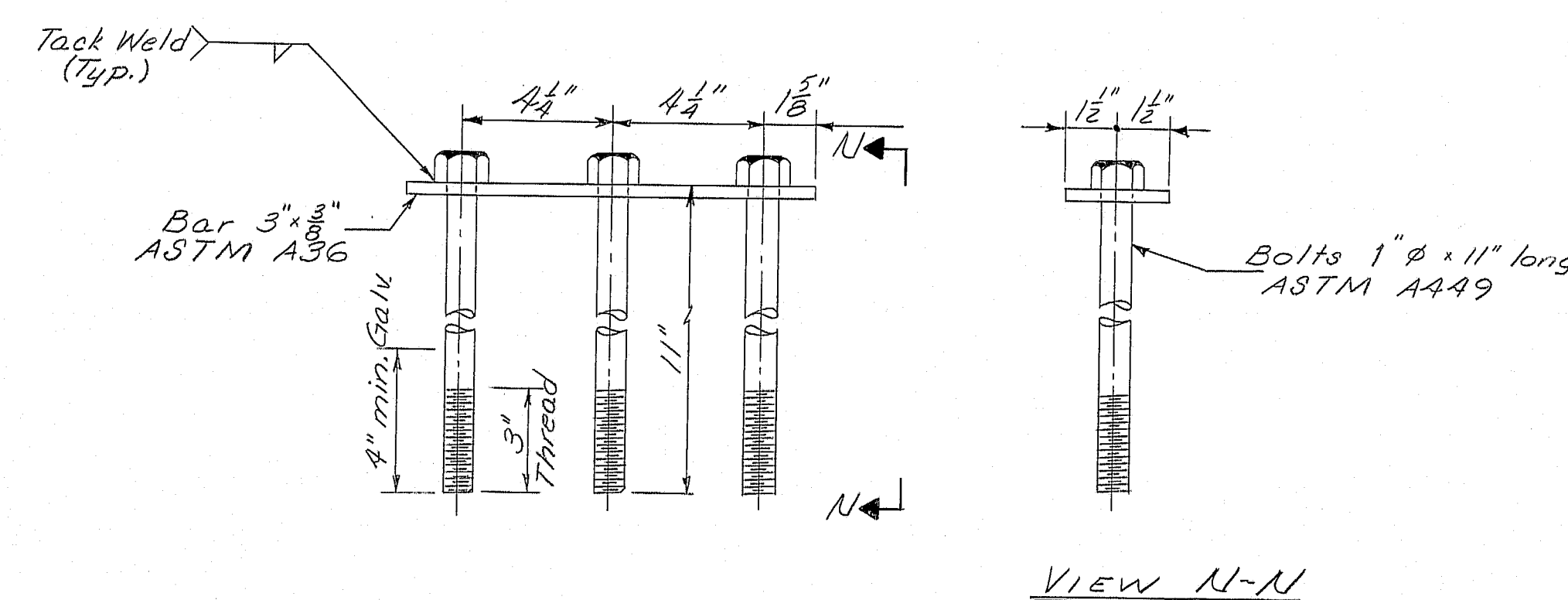
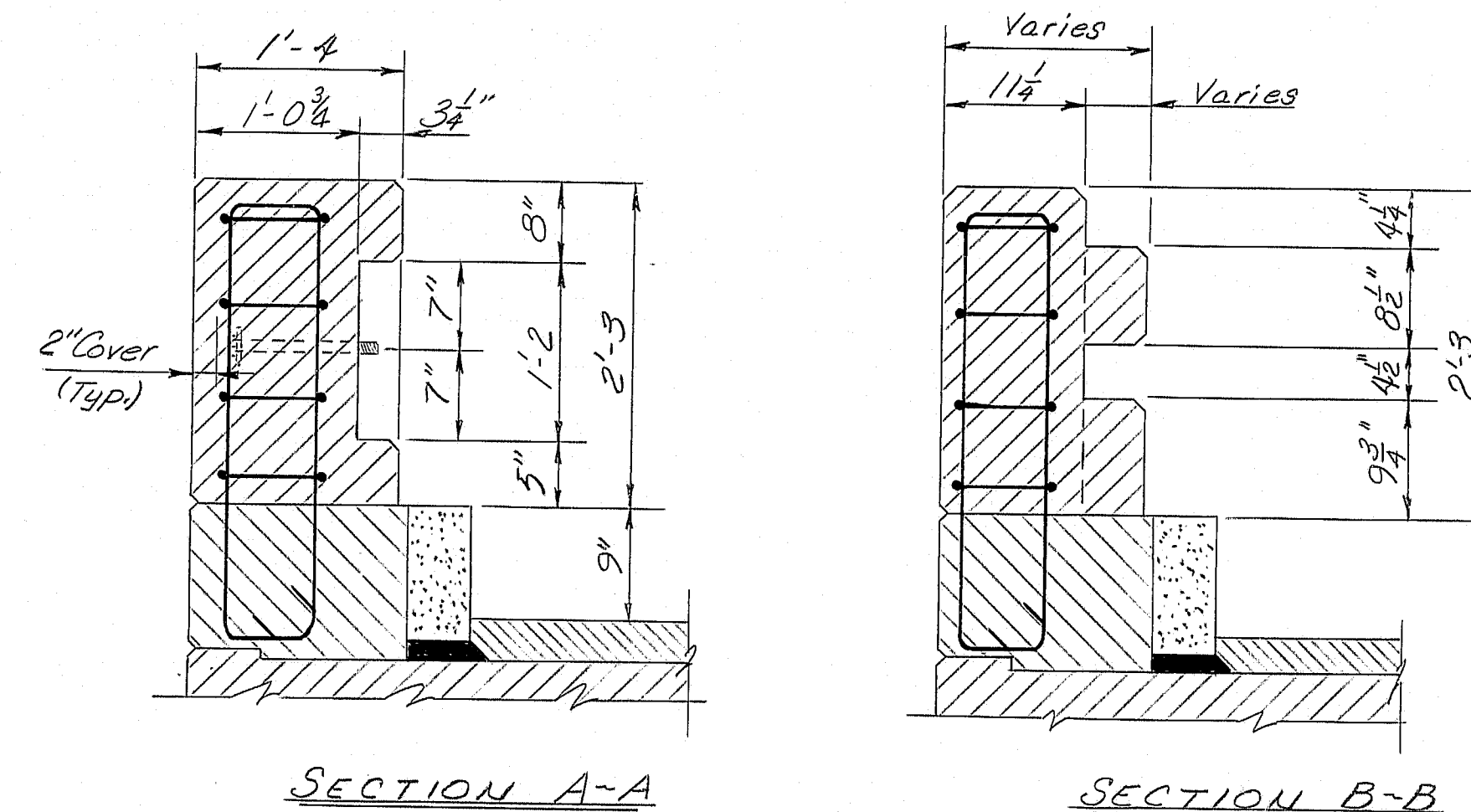
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	I-95-9(88)	15	21



CUSHION BLOCK DETAIL

NOTES

- For location of End Posts on Superstructure see sheet 13.
- Nuts for 1" anchor bolts will be incidental to Item 502.26, Str. Conc. Roadway Slabs on Steel Bridges. Nuts shall conform to A.S.T.M. A563 Grade DH and shall be galvanized in accordance with the provisions of A.S.T.M. A153.
- Additional holes in the Modified Guard Rail Section shall be made by drilling, punching or any other method that produces a neat clean hole of the required size. Burning of holes will not be allowed. (To be done by others).
- Cushion Block shall be as specified in subsection 710.07, paragraph b) and shall be treated in accordance with the provisions of subsection 606.03 (b) of the Standard Specifications. Payment will be incidental to Item 502.26, Str. Conc. Roadway Slabs on Steel Bridges.
- Guard Rail Anchorage will be incidental to superstructure concrete, Item 502.26.
- Pins for Cushion Block shall be galvanized in accordance with the provisions of A.S.T.M. A153. Payment will be incidental to Item 502.26, Str. Conc. Roadway Slabs on Steel Bridges.



GUARD RAIL ANCHORAGE

As Built STATE OF MAINE *CUU 2-1-82*
DEPARTMENT OF TRANSPORTATION

INTERSTATE-95N.B.
OVER
TIMONEY RD.
IN THE TOWN OF
SMYRNA
AROOSTOOK COUNTY
END POST DETAILS
SHEET 15 OF 21 AUGUSTA, MAINE AUG. 1979

174-120

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 No. 1										ABUTMENT No. 2 Cont'd.										SUPERSTRUCTURE									
A500	35	3'-0	Footing dowel	B500	44	2'-10	Footing dowel	W8300	34	30'-0	Wearing Surface	A502	37	10'-7	L	4'-2	6'-5										Breastwall		
A501	45	11'-11	Breastwall & Backwall	B501	41	15'-5	Breastwall & Backwall	W8301	212	25'-8	Wearing Surface	A504	36	5'-10	S	-	2'-4	1'-2	2'-4								Backwall		
A503	40	6'-5	" "	B503	44	6'-0	" "	W8302	42	47'-0	Wearing Surface	A506	5	7'-4	S	-	3'-1	1'-2	3'-1								Backwall		
A505	3	6'-2	Breastwall	B505	7	15'-3	Breastwall					A508	5	6'-4	V				4'-2	2'-2				1'-10 1/2		Breastwall			
A507	20	27'-0	Breastwall & Backwall	B507	32	27'-0	Breastwall					A510	8	3'-5	V				2'-2	1'-3				1'-1		Backwall			
A509	6	26'-2	Breastwall	B509	12	26'-2	Breastwall	S500	210	53'-7	Longitudinal	A512	5	8'-4	V				6'-2	2'-2				1'-1		Breastwall			
A511	14	31'-3	Breastwall & Backwall	B511	20	31'-3	Breastwall	S501	44	6'-11	Corners NE & SW																		
A513	4	4'-0	Backwall	B513	4	21'-9	Wing North	S502	8	9'-8	Transverse																		
				B514	4	21'-1		S503		12'-5																			
				B515	4	20'-4		S504		15'-1																			
				B516	4	19'-8		S505		17'-10						ABUTMENT No. 2													
A520	1	57'-1	Footing	B517	4	18'-11		S506		20'-7		B502	37	19'-4	L	4'-2	15'-2										Breastwall		
A521	1	59'-4	Footing	B518	4	18'-3		S507		23'-4		B504	36	5'-10	S	-	2'-4	1'-2	2'-4								Backwall		
A522	7	60'-0	Footing	B519	4	17'-6		S508		26'-1		B506	5	7'-4	S	-	3'-1	1'-2	3'-1								Backwall		
A523	1	58'-2	Footing	B520	4	16'-9		S509		28'-10		B508	11	7'-8	V				5'-6	2'-2				1'-10 1/2		Breastwall			
A524	1	55'-10	Footing	B521	4	16'-1		S510		31'-7		B510	8	3'-5	V				1'-3	2'-2				1'-1		Backwall			
A525	1	53'-6	Footing	B522	4	15'-4		S511		34'-4		B512	11	8'-4	V				6'-2	2'-2				1'-1		Breastwall			
A526	58	5'-0	Footing	B523	4	14'-8		S512		37'-1		B560	15	3'-6	V				2'-0	1'-6				1'-3 1/2		Breastwall			
A527	2	4'-6	Footing	B524	6	13'-7		S513		39'-10		B561	4	4'-10	V				2'-8	2'-2				1'-10 1/2		Breastwall			
A528	1	4'-0	Footing	B525	18	35'-8		S514	8	42'-7																			
				B526	2	33'-6		S515	144	44'-4	Transverse	B901	25	8'-5	J	1'-0	9 1/2"	6'-8							3 1/4"	6"	North Wing		
				B527	2	27'-2		S516																					

FHWA RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-9(88)	16	21

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
<p>1. First digit(s) following the letter of the Mark indicates size of reinf. bar.</p> <p style="margin-left: 40px;">Mark (A 502) bar size - #5</p> <p style="margin-left: 40px;">Mark (P 1001) bar size - #10</p> <p style="margin-left: 40px;">Mark (S 603) bar size - #6</p> <p>2. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.</p>

As Built STATE OF MAINE *AW 2-1-82*
 DEPARTMENT OF TRANSPORTATION

INTERSTATE-95N.B.

OVER

TIMONEY RD.

IN THE TOWN OF

SMYRNA

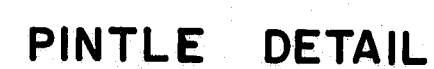
AROOSTOOK COUNTY

REINFORCING STEEL SCHEDULE

SHEET 16 OF 21 AUGUSTA, MAINE AUG. 1979

PLANS	DESIGN - DETAIL	BY	DATE
	CHECKED	<i>R.M.M.</i>	<i>D.M.D.</i>
	REVISIONS	<i>PJM</i>	<i>2-79</i>
	FIELD CHANGES		

174-121



NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are on the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of 1/8 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.





DESIGN SPECIFICATIONS

AASHTO, Standard Specifications for Highway Bridges. 1973, Interims thru 1977

A A.S.T.M. STEEL CLASSIFICATION

(When structural steel is specified to be unpainted)
All structural steel including anchor bolts shall be A588 unpainted.

(When structural steel is specified to be painted)
All structural steel including anchor bolts shall be A36.

	Delete Std. Washer size & change radius	6-14-7
	Change Specifications & Steel Classification	3-1-7
REVISIONS		DATE

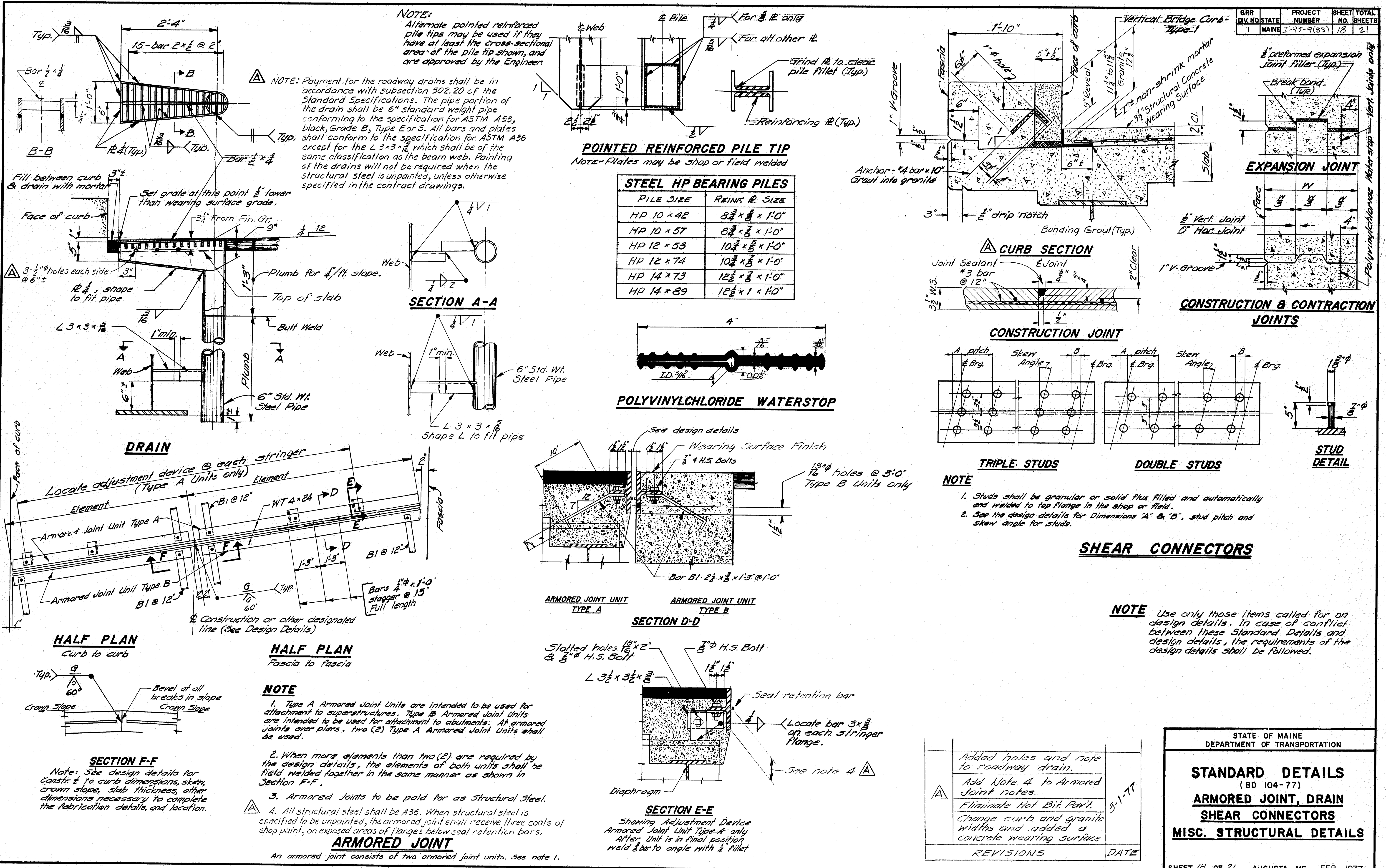
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

BEARING PEDESTALS

SHEET 17 OF 21 AUGUSTA, ME. APRIL, 1974

174-122



174-123

F.R.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(88)	19	21

FABRICATION NOTES

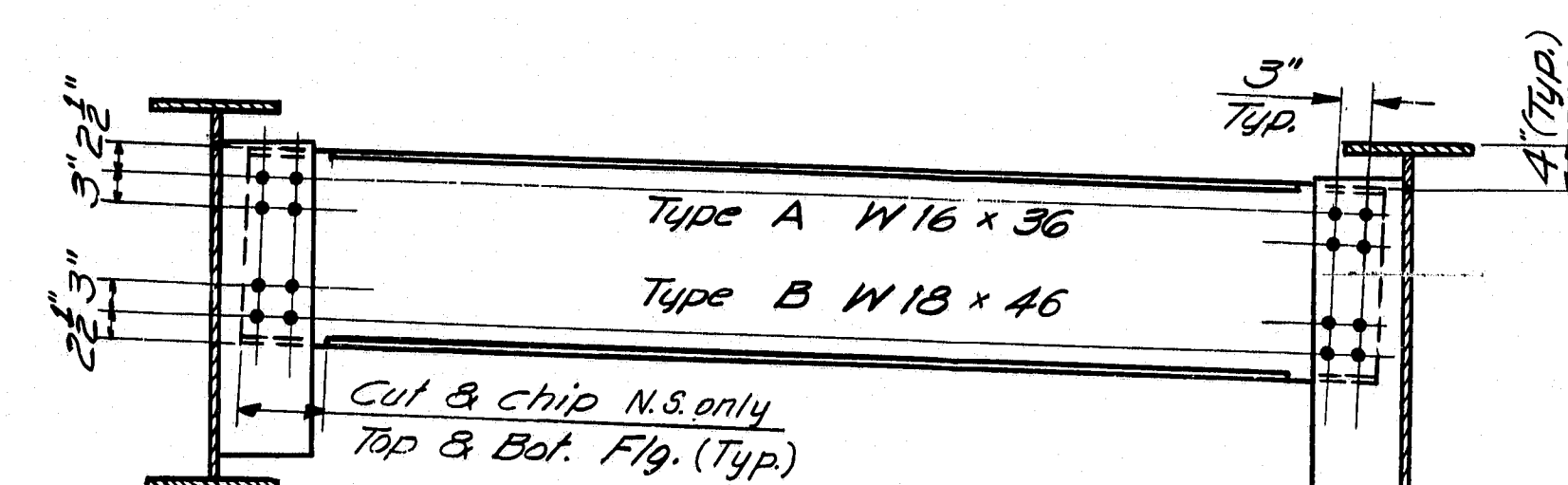
- 1.) All bolts shall be $\frac{7}{8}$ " ϕ H.S. Bolts. Holes for bolts shall be $\frac{1}{16}$ " ϕ and edge distances shall be $1\frac{1}{2}$ " min. unless otherwise shown.
- 2.) Connection Plates and gusset plates shall have a minimum thickness of $\frac{3}{8}$ " and shall have sufficient width to provide erection clearances. For bearing stiffeners or intermediate stiffeners and for bent connection plates the plate size will be given on the design details.
- 3.) Connection Plates shall be fastened to web plates by fillet welds as shown. All fillet welds shall be the minimum size as specified in A.A.S.H.T.O. Standard Specifications for Highway Bridges, Art. 1.7.26, unless otherwise shown on design plans.
- 4.) Connection Plates shall be $3\frac{1}{2}$ " clear from flanges, except as indicated by notes 5 & 6.
- 5.) Connection Plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression.
- 6.) Connection Plates shall extend to the bottom flange at points where lateral bracing is attached and on welded beams and girders in areas where the bottom flange is always in compression.
- 7.) When a connection plate is extended to a flange it shall fit within $\frac{1}{16}$ " except if the design details show it is to be welded.
- 8.) Bearing Stiffeners at end bearings shall extend to both top and bottom flanges and shall be welded to both flanges. Weld at bottom flange shall be a full penetration weld. Weld at top flange shall be a fillet weld both sides (see Note 3).
- 9.) Bearing Stiffeners at other than end bearings shall extend to both top and bottom flanges, shall be welded to the bottom flange with a full penetration weld and shall fit within $\frac{1}{16}$ " at top flange.
- 10.) Intermediate Stiffeners shall extend to both top and bottom flanges, shall be welded to the compression flange with a fillet weld on both sides (see Note 3) and shall fit within $\frac{1}{16}$ " at the tension flange.
- 11.) Use only those items called for on the design details. In case of conflict between these standard details and design details, the design details shall be followed.
- 12.) All dimensions shown as " - \pm 1" are variable in order to allow a series of crossframes to have the same slopes and/or dimensions.
- 13.) All connection plates and stiffeners that are extended to a flange shall be clipped $3\frac{1}{2}$ ", except as indicated by note 14.
- 14.) Bearing stiffeners at end bearings shall be clipped 1" at top and bottom. Bearing stiffeners at all other bearings and intermediate stiffeners shall be clipped 1" at the compression flange.
- 15.) For unpainted applications all steel for diaphragms and crossframes shall be A.S.T.M. - A588 or A242. For bridges specified to be painted the steel for diaphragms and connection plates shall be A.S.T.M. - A36, except other steel classifications may be used subject to the approval of the Engineer.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

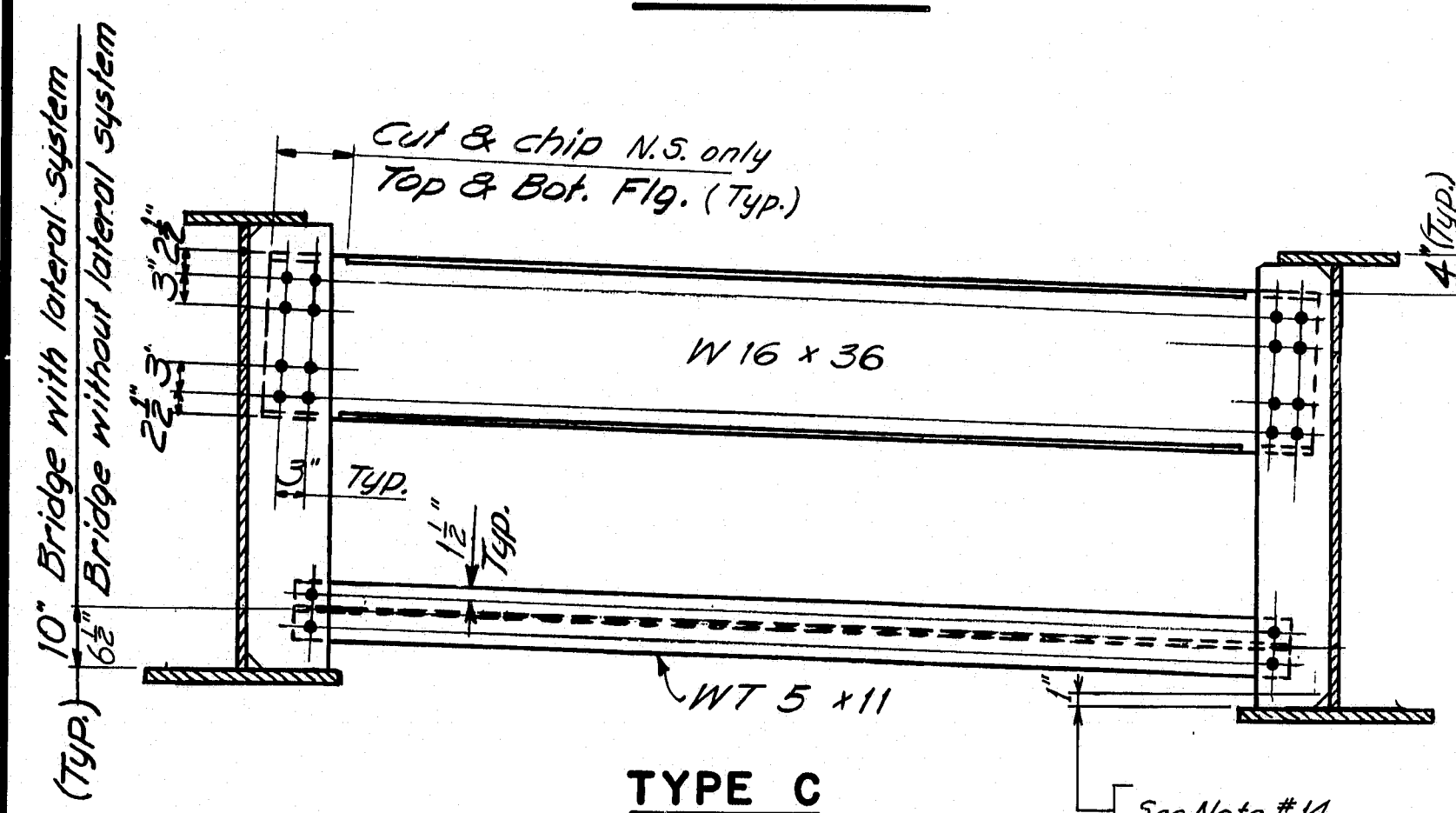
STANDARD DETAILS (BD 113 - 78) DIAPHRAGMS & CROSSFRAMES

SHEET 19 OF 21 AUGUSTA, MAINE June 1978

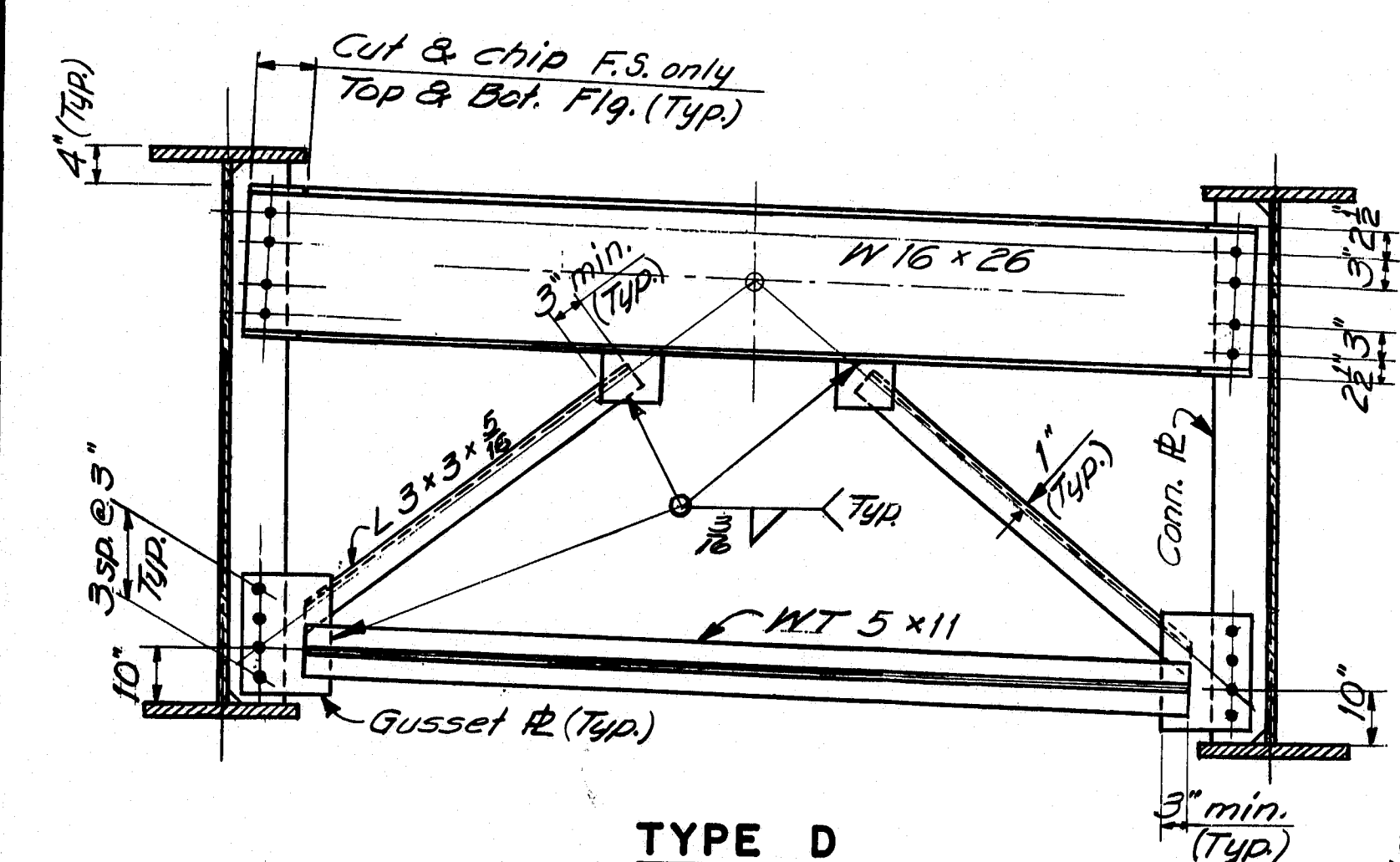
174-124



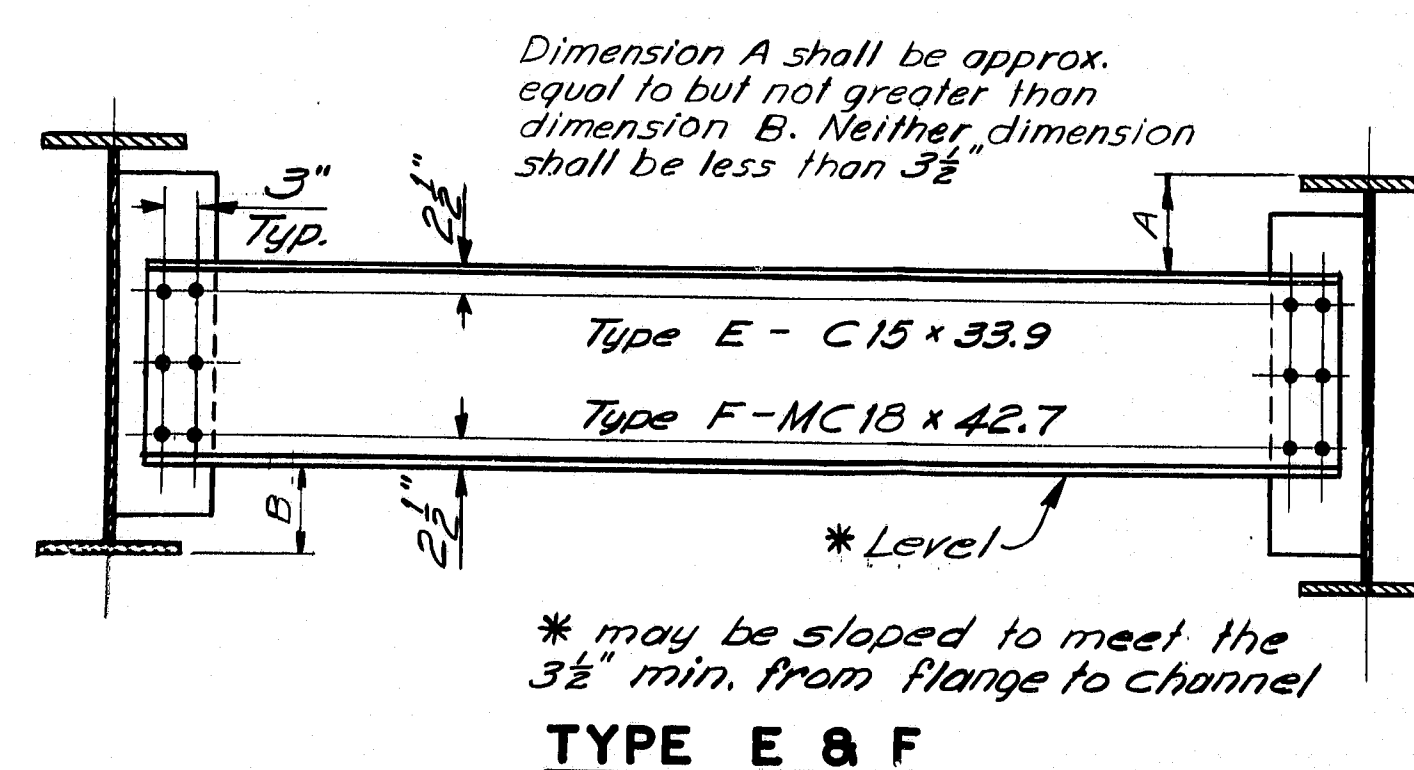
TYPE A & B



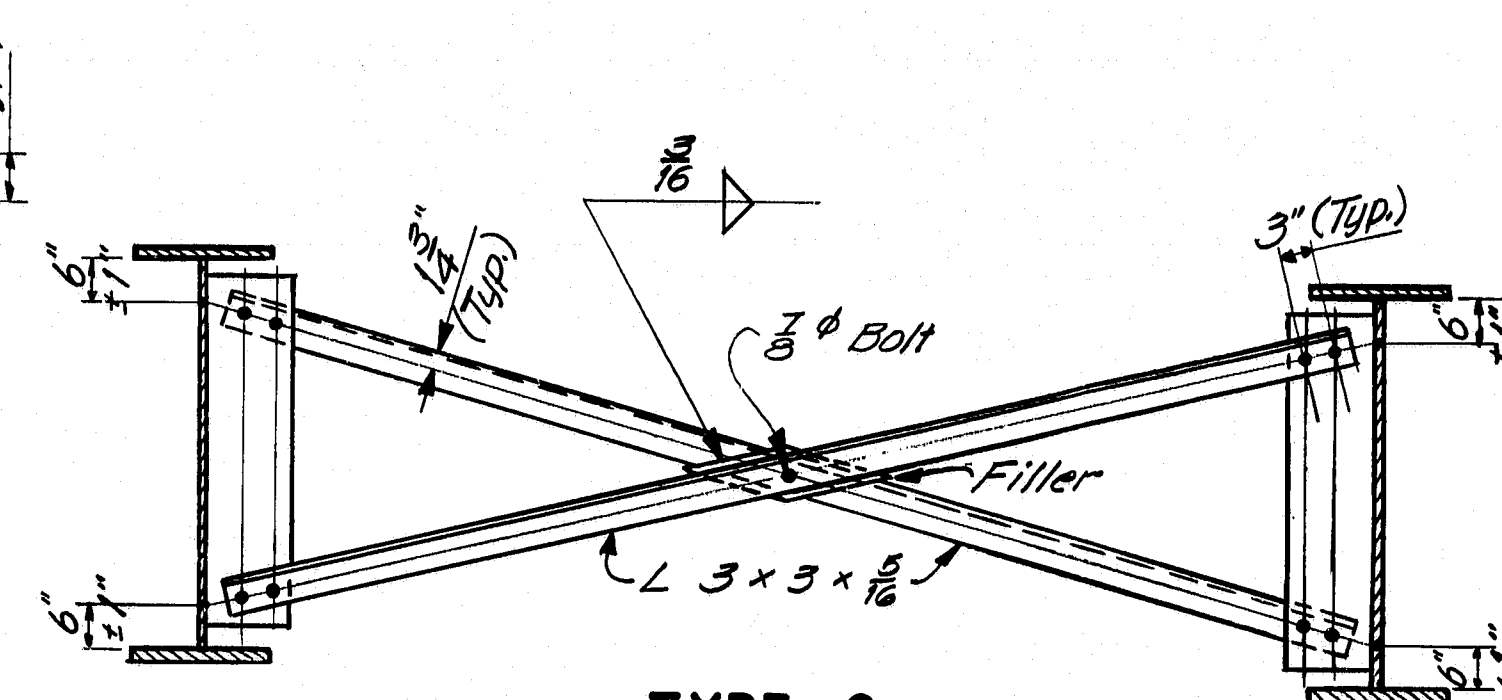
TYPE C



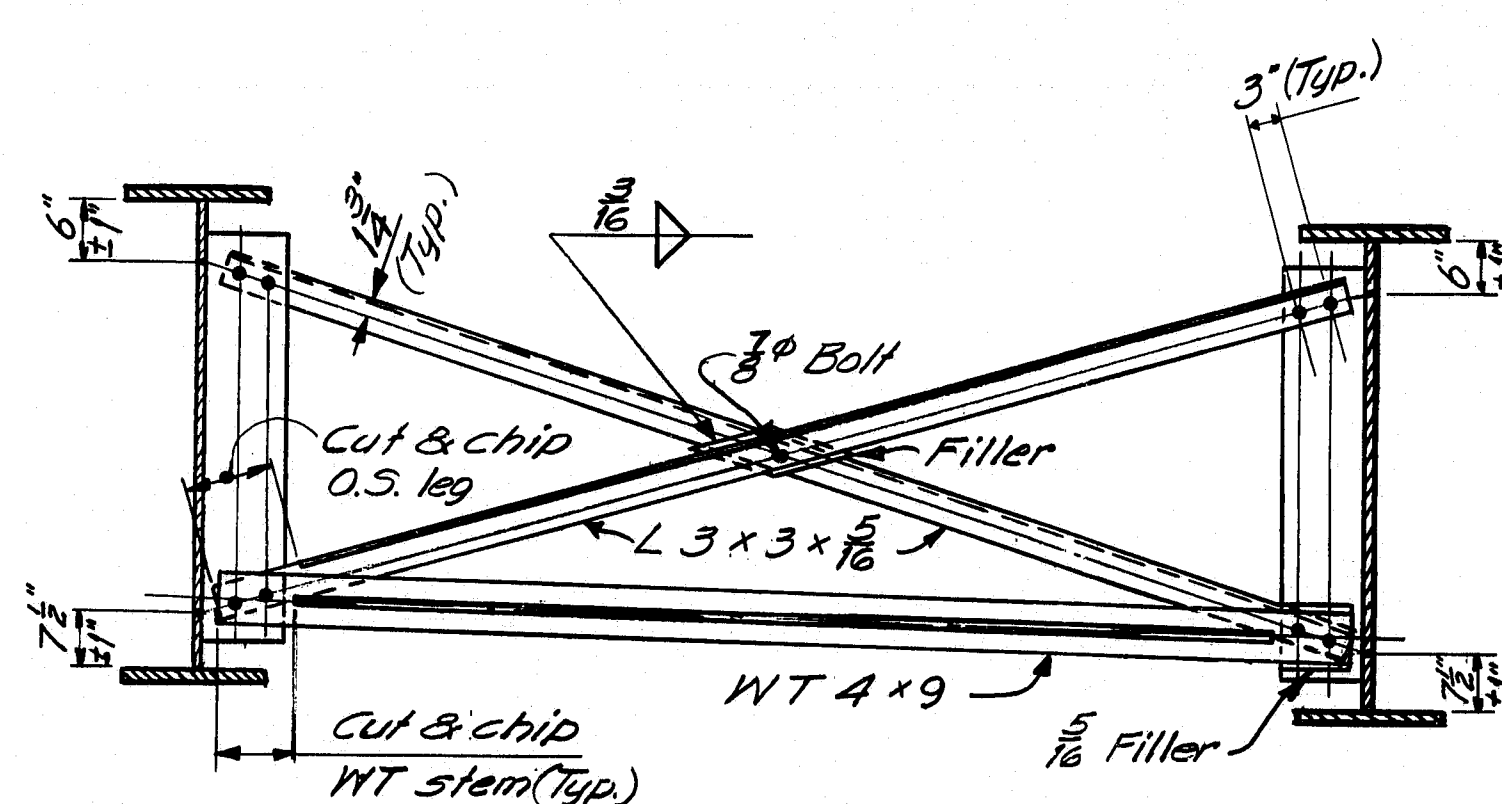
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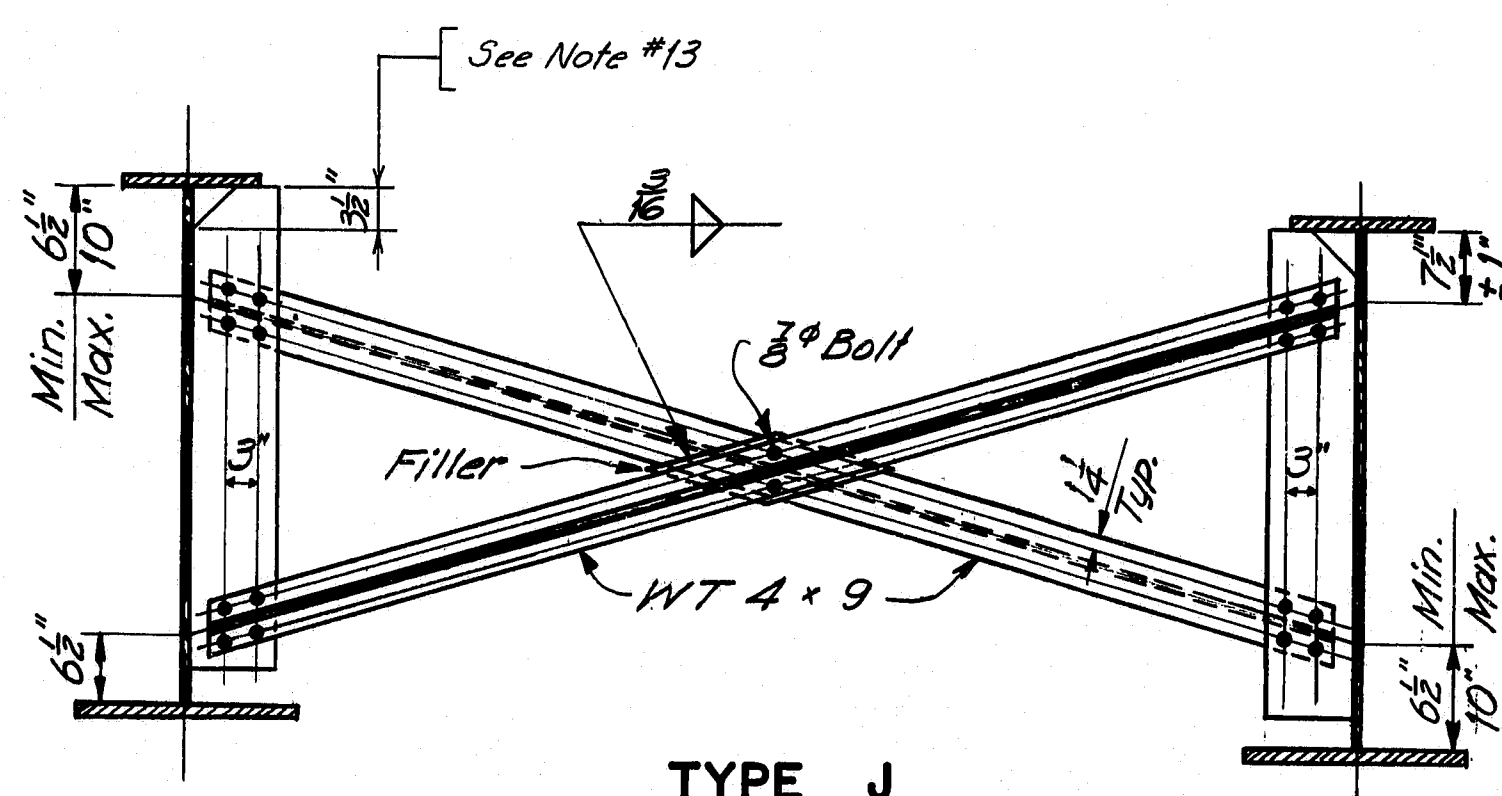
TYPE E & F



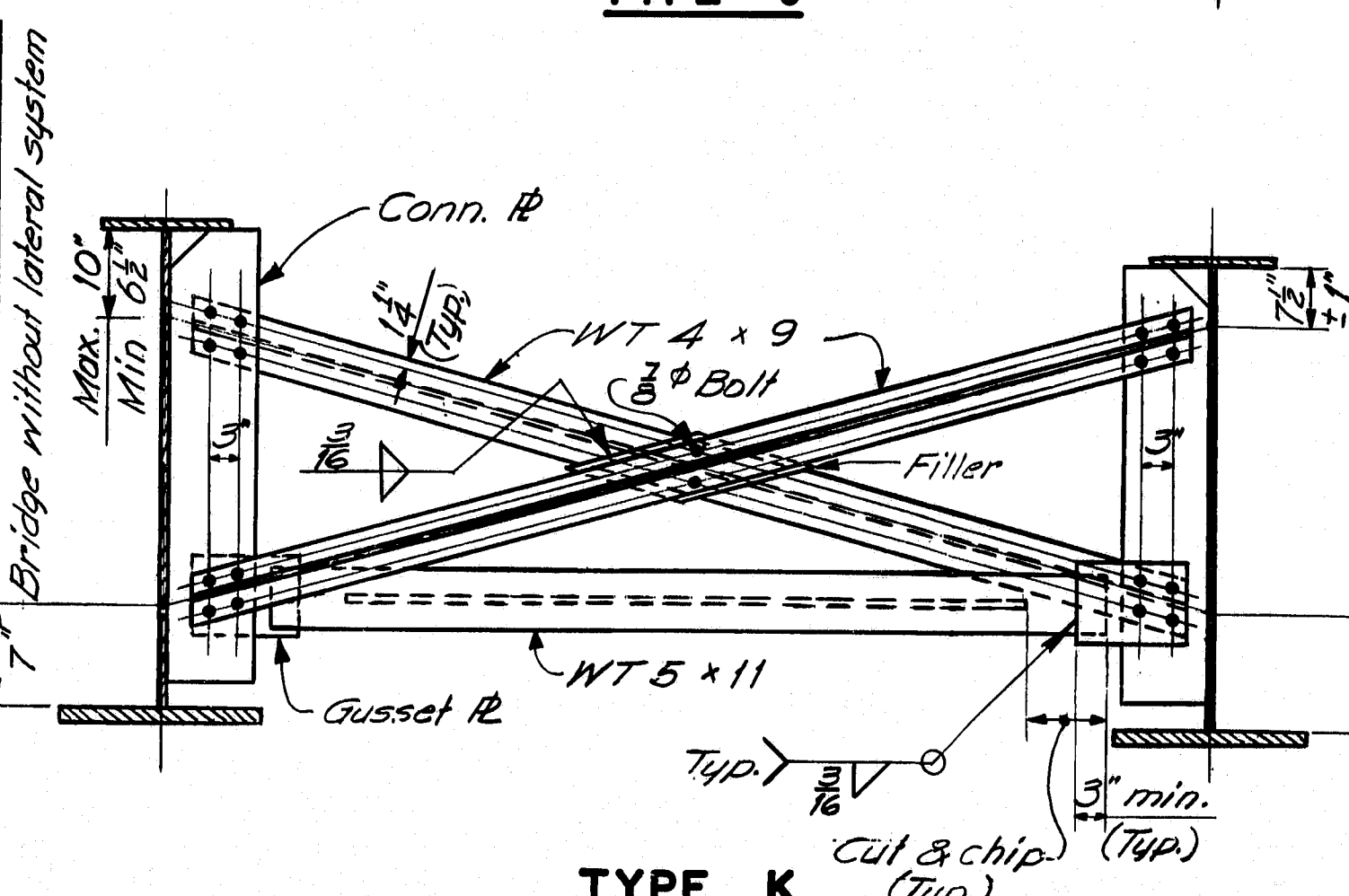
TYPE G



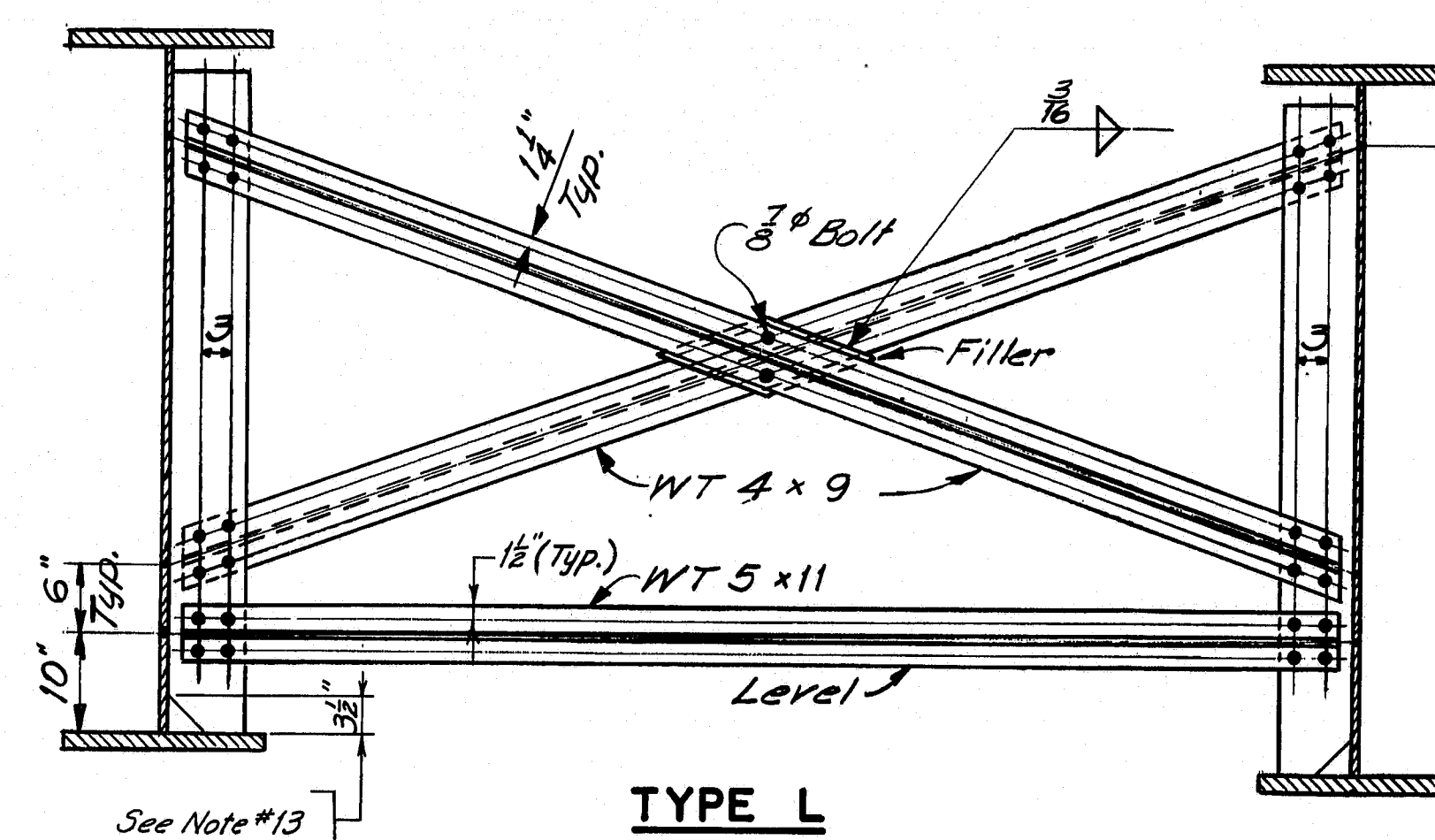
TYPE H



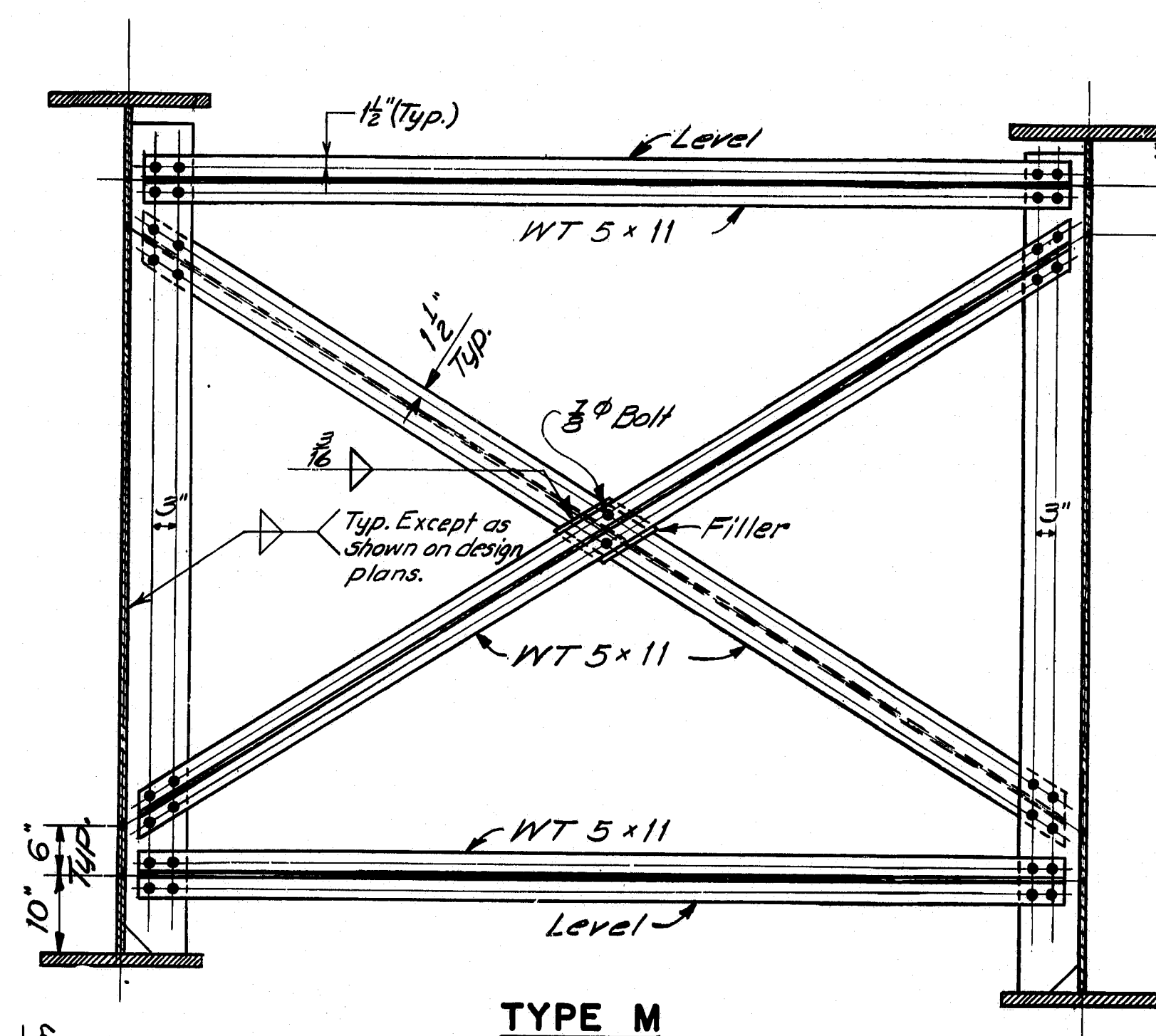
TYPE J



TYPE K



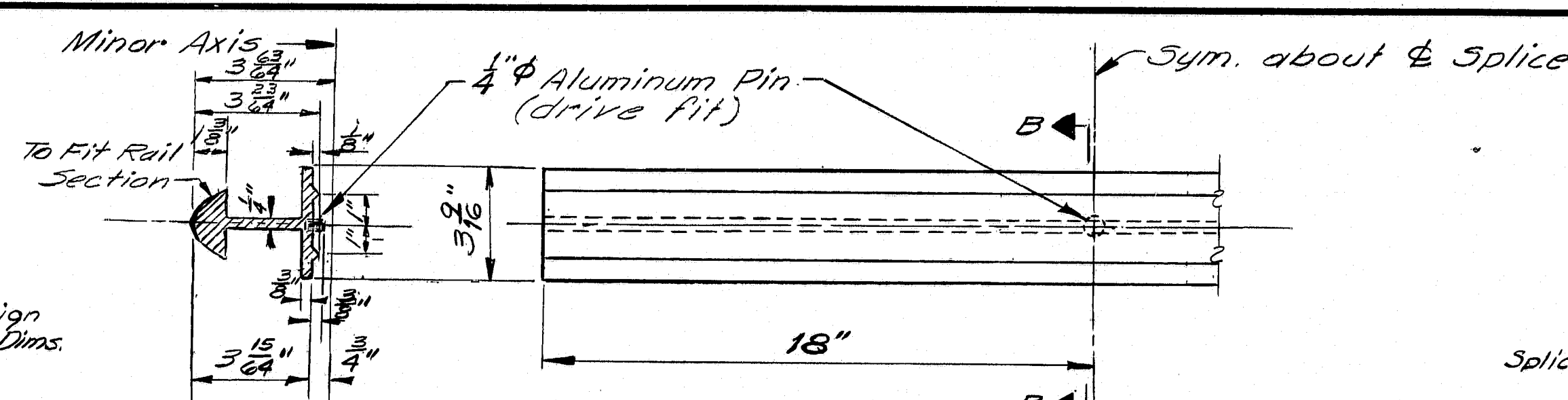
TYPE L



TYPE M

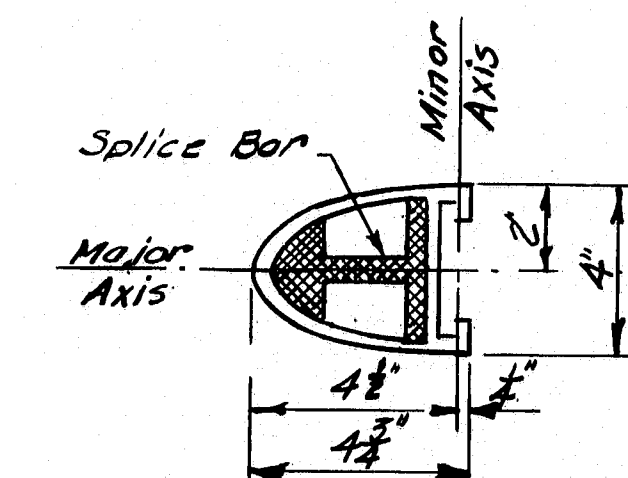
DESIGN SPECIFICATIONS
AASHTO Standard Specifications
for Highway Bridges 1973, and
Interims 1974, '75, '76, '77

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.

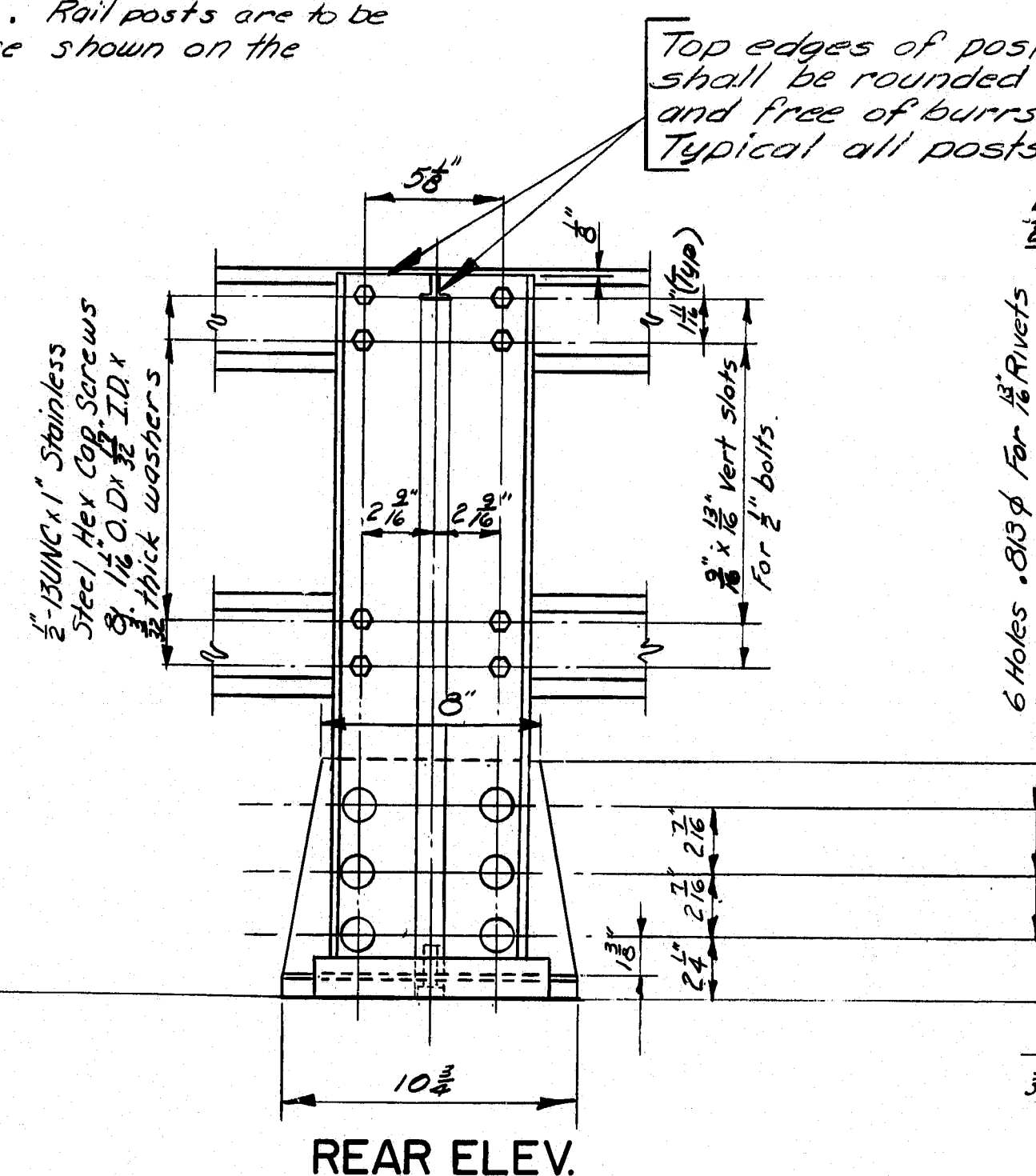


SPLICE BAR

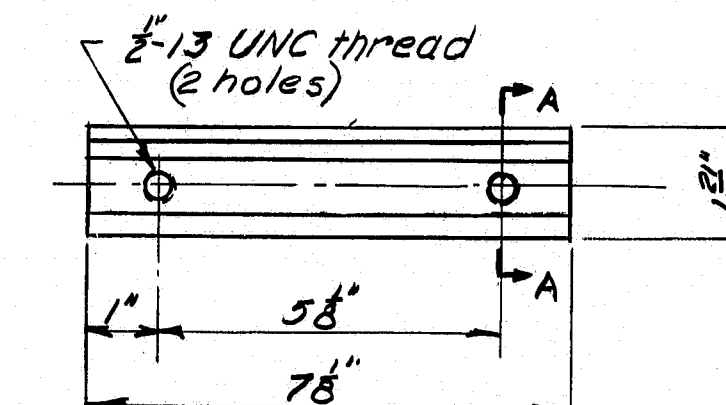
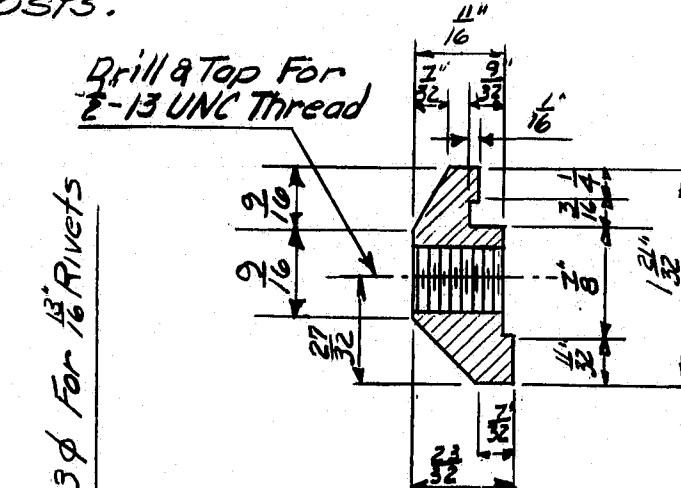
SPLICE BAR
Alternate splice bars may be substituted
if approved by the Engineer



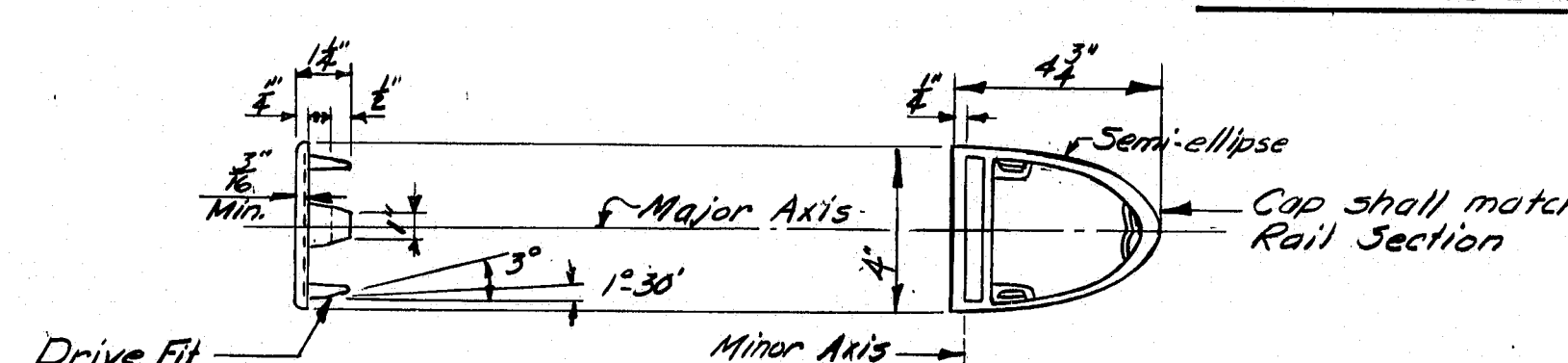
RAIL SLOTS
see "Rail Detail"



CLAMP BAR

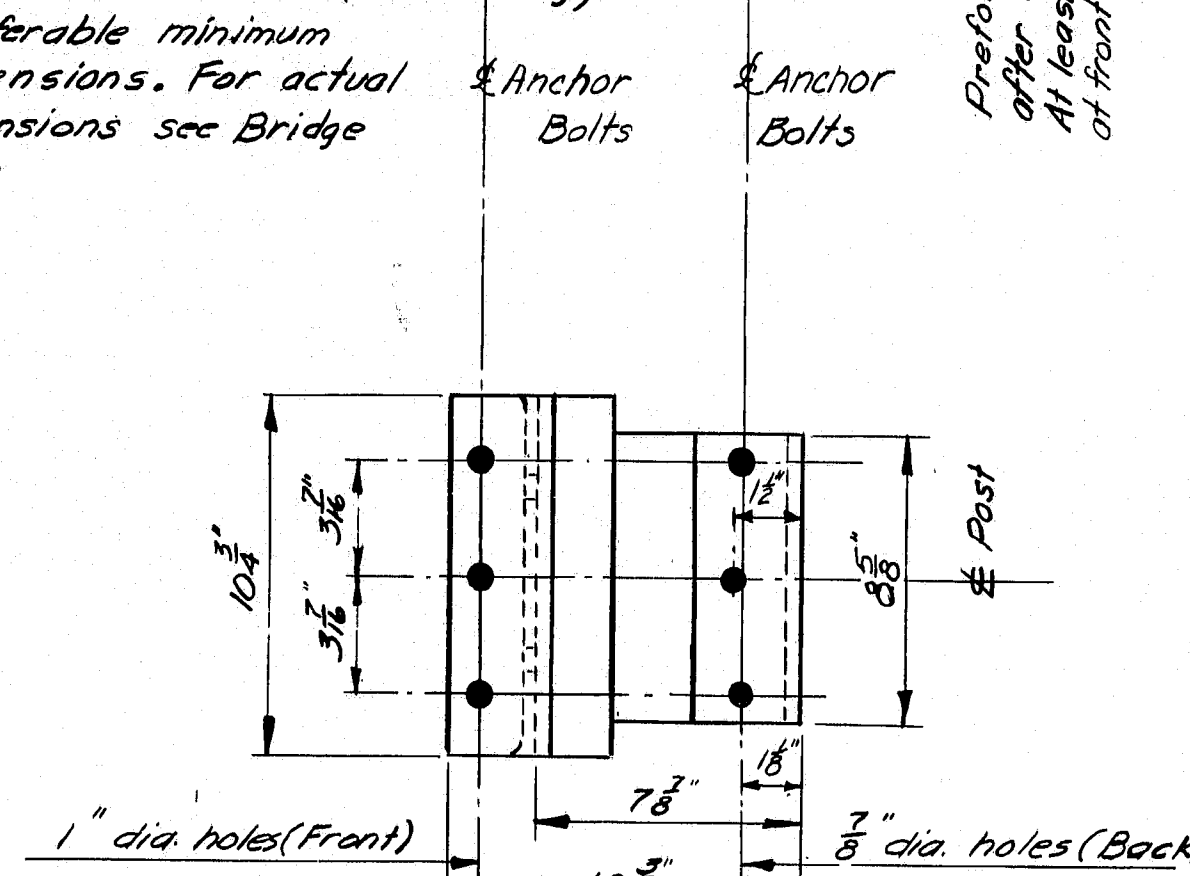


PREFORMED PADS

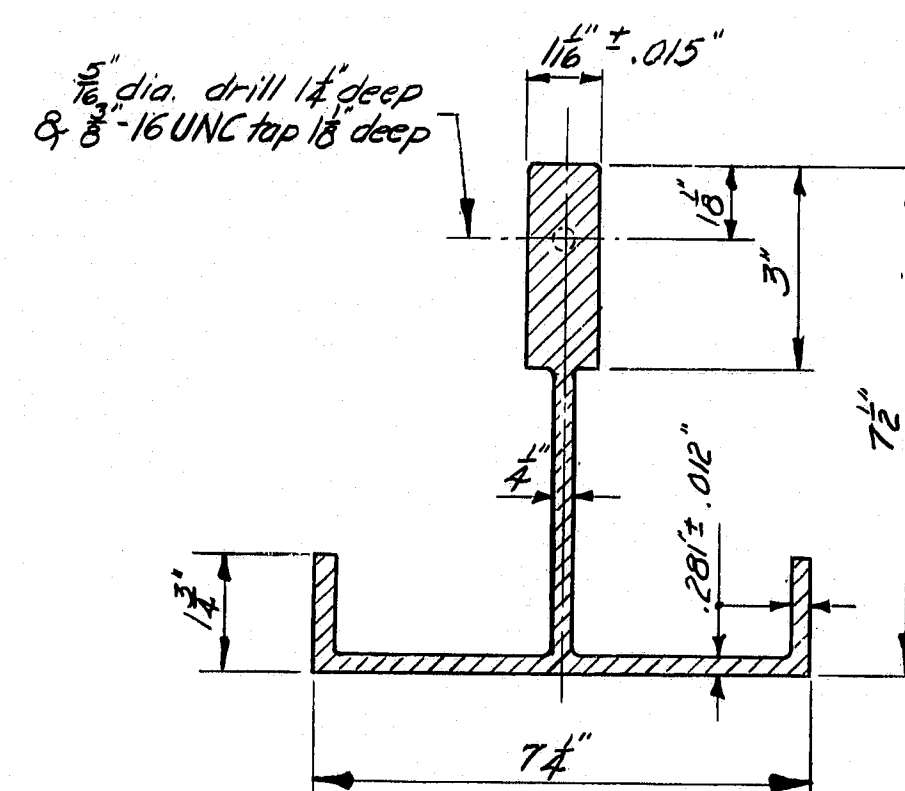


BRIDGE RAILING

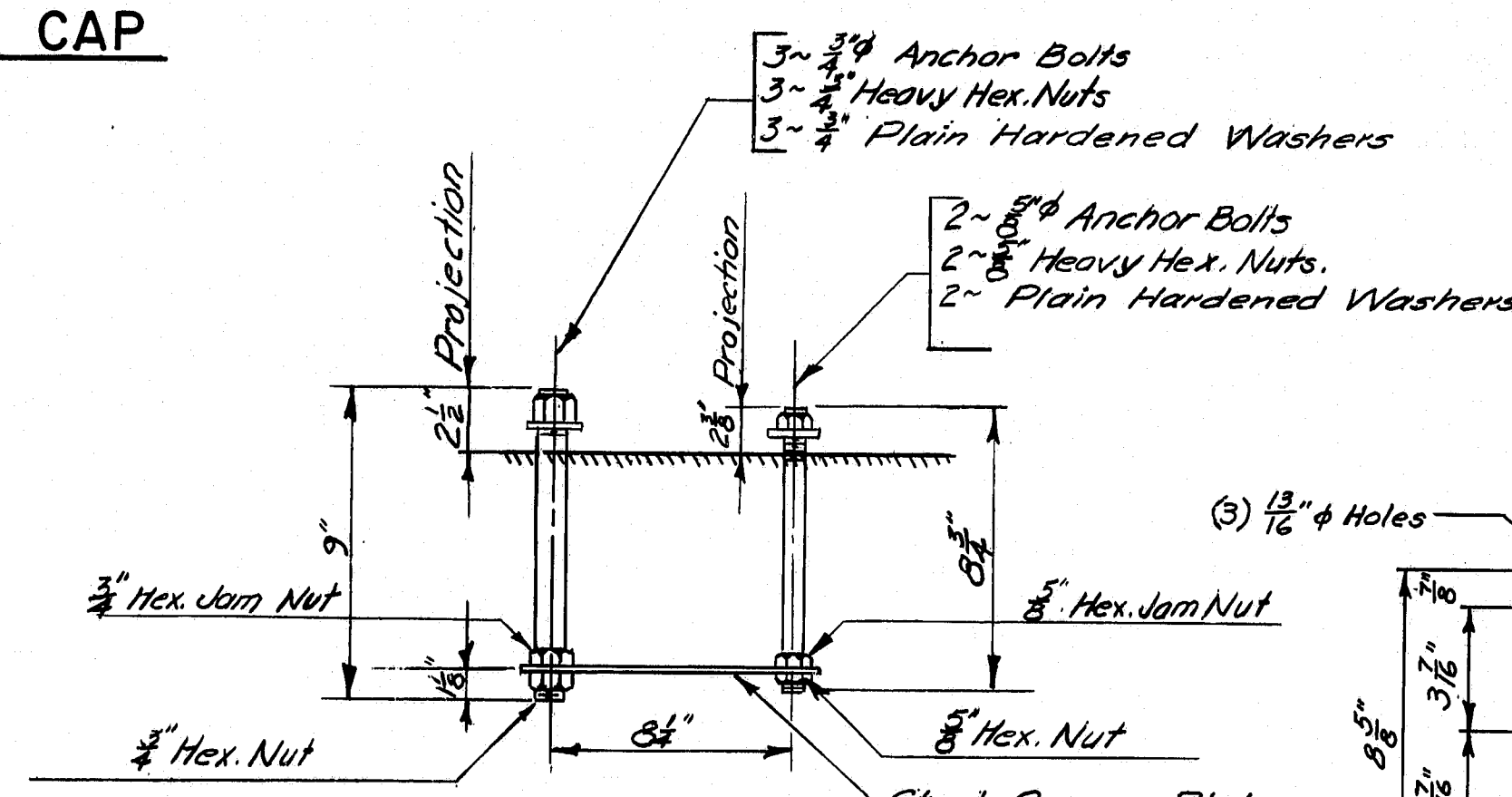
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



POST SECTION

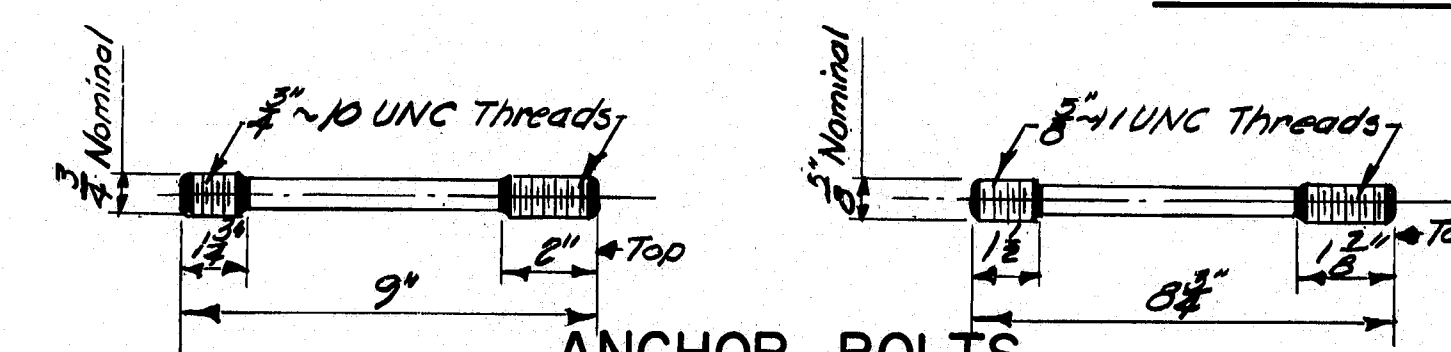


STEEL SPACER PLATE
(For Anchorage)



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 root diameter of the threads.



STANDARD DETAILS
(8D 114 - 77)
ALUMINUM BRIDGE RAILING
2 - BAR (SEMI-ELLIPSE)
TYPE "A"

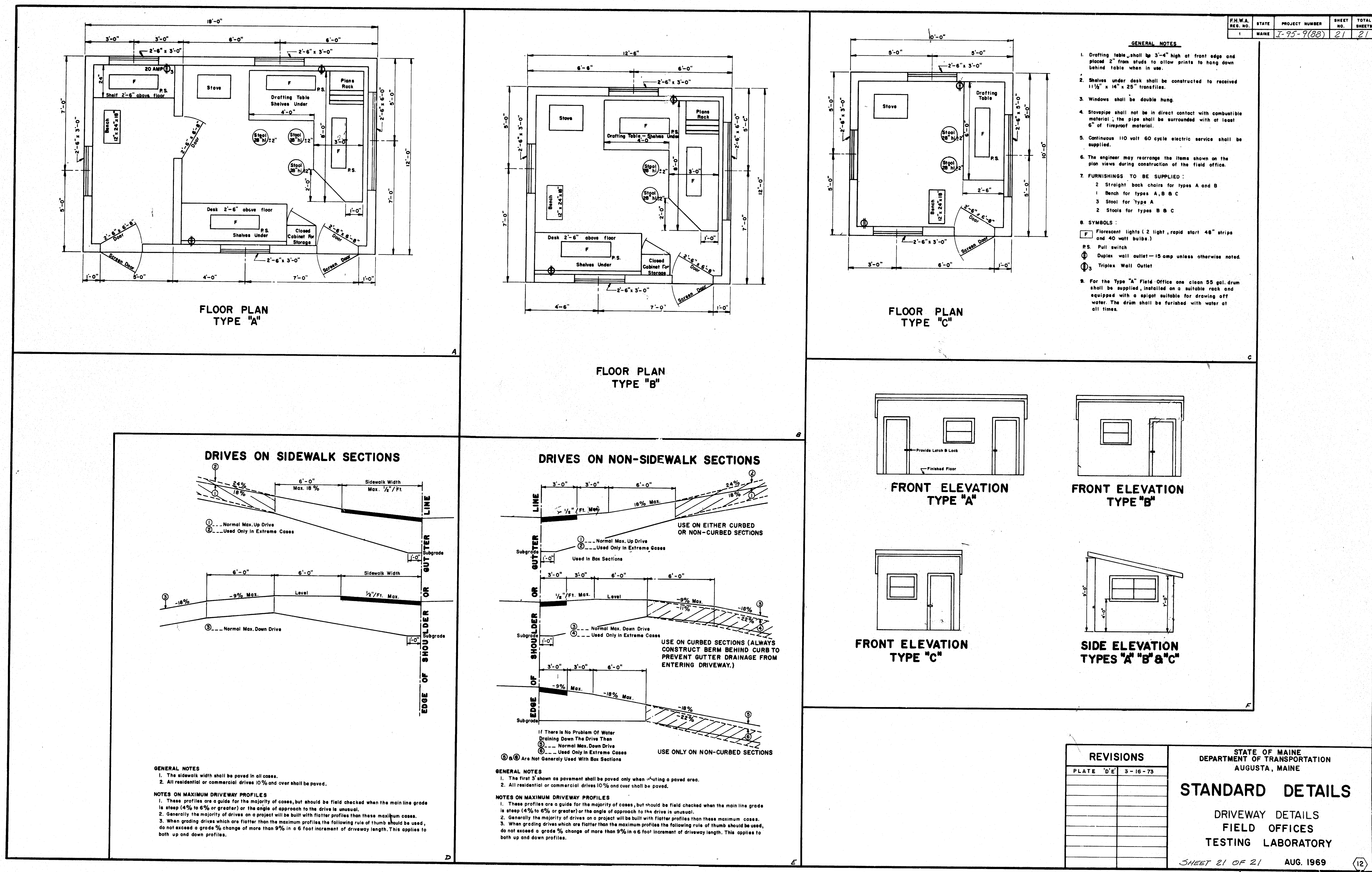
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