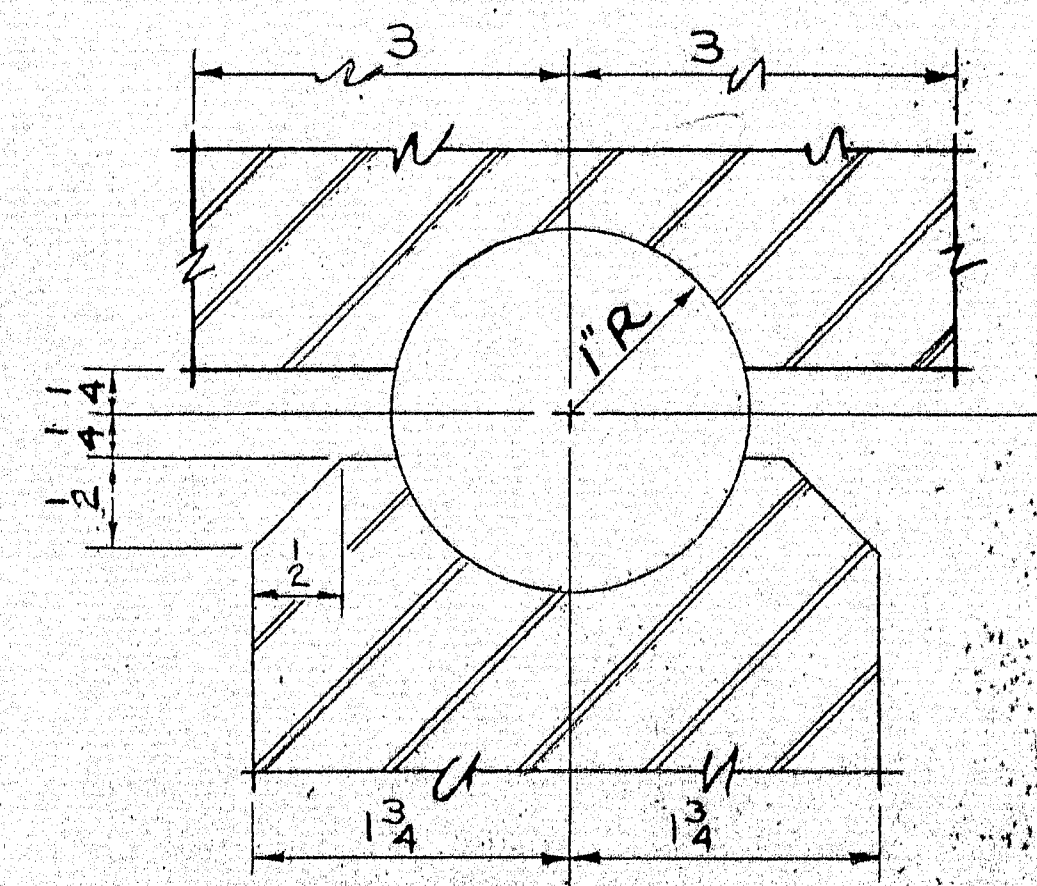
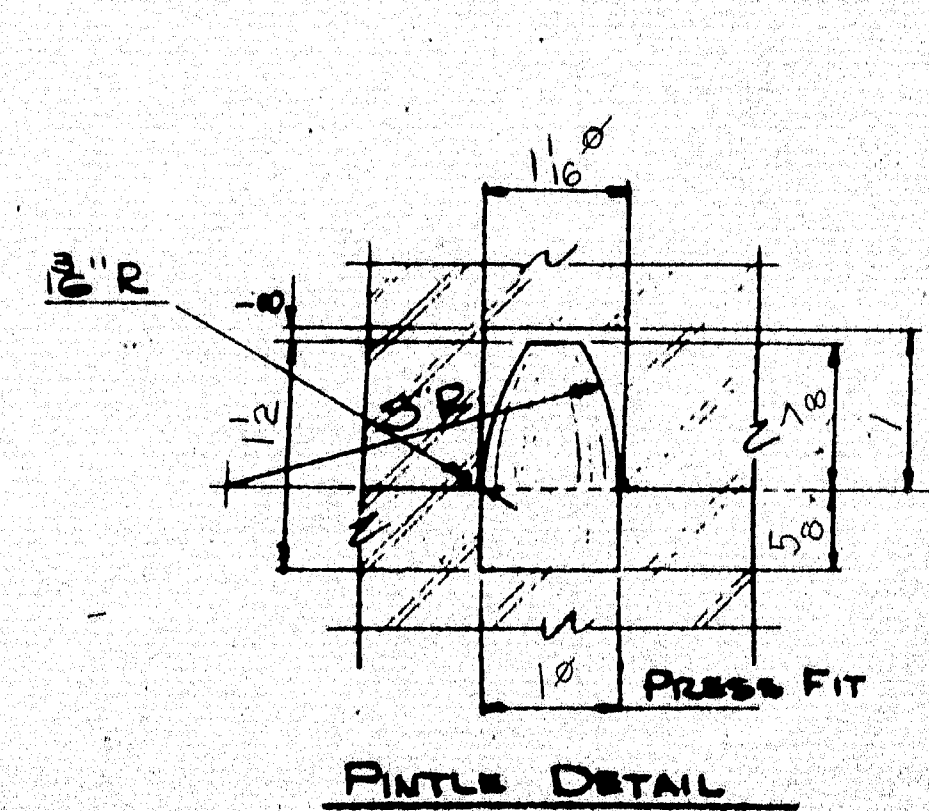
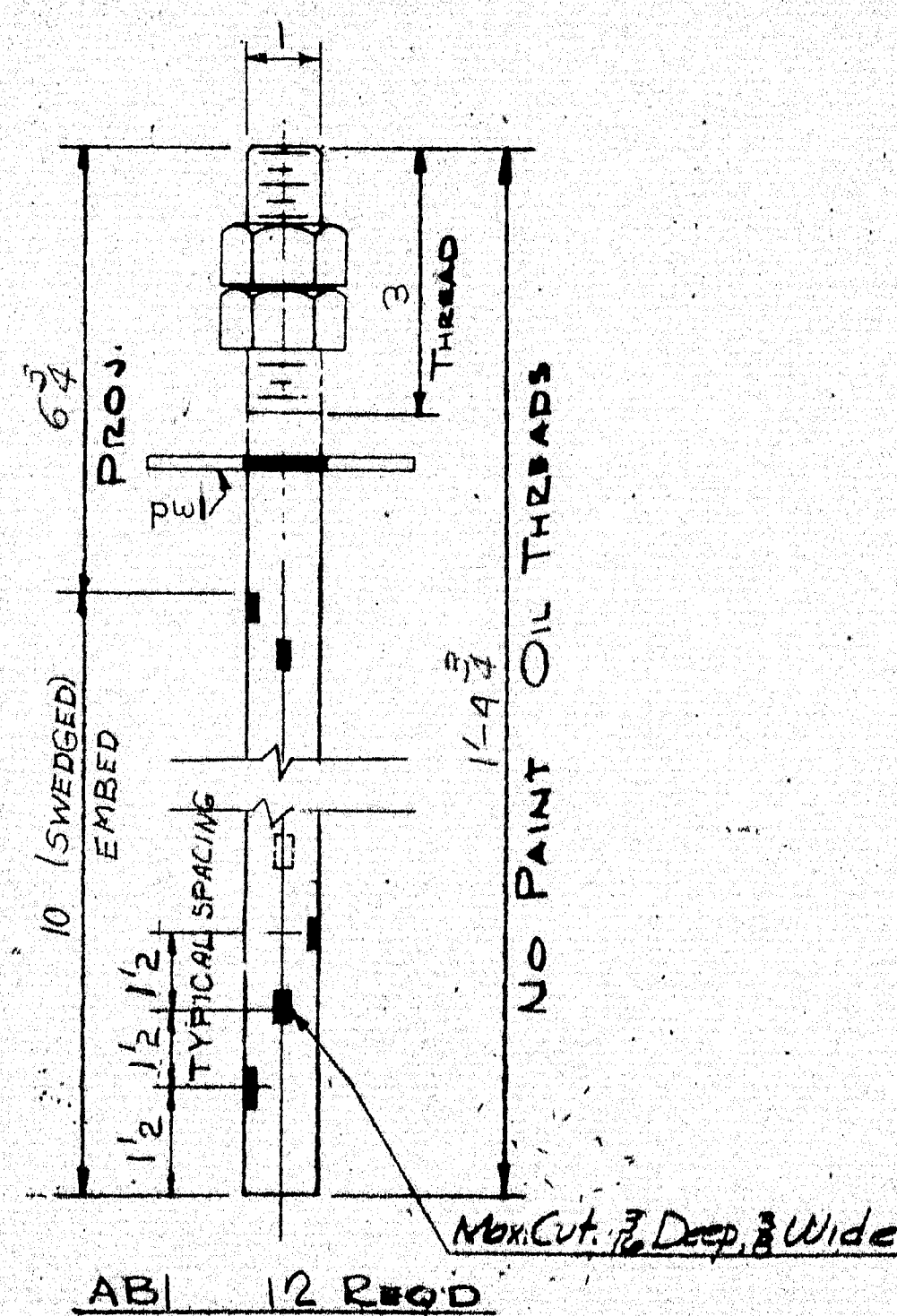
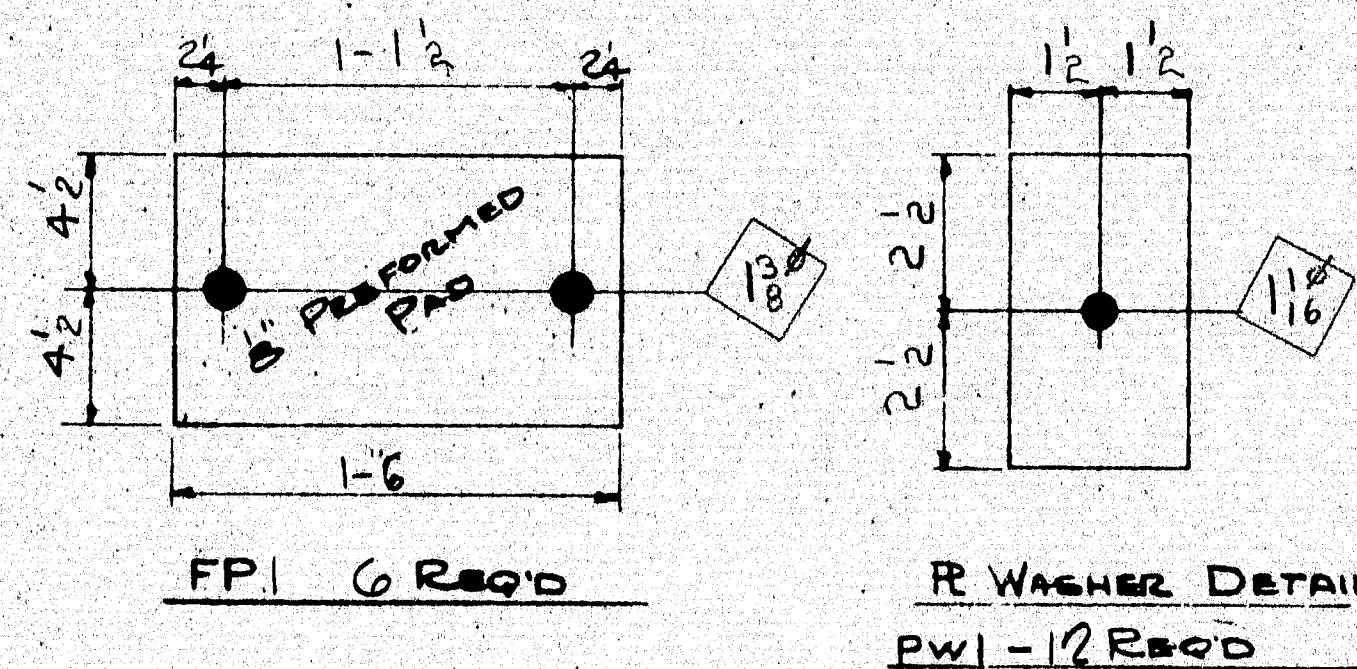
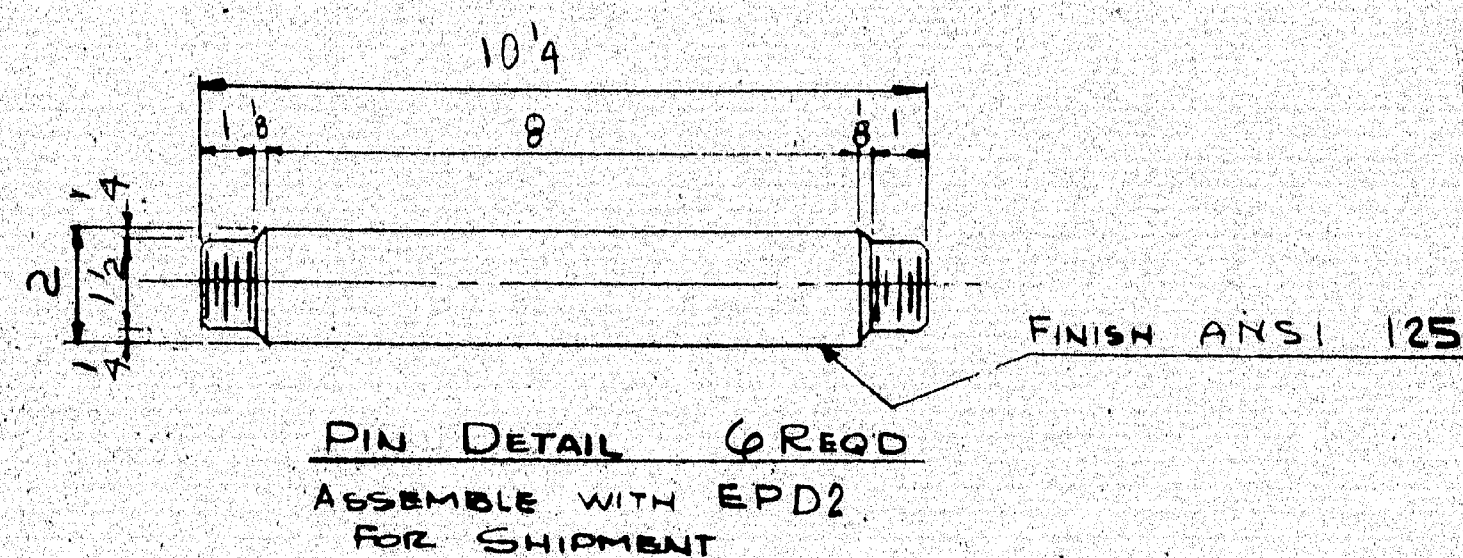
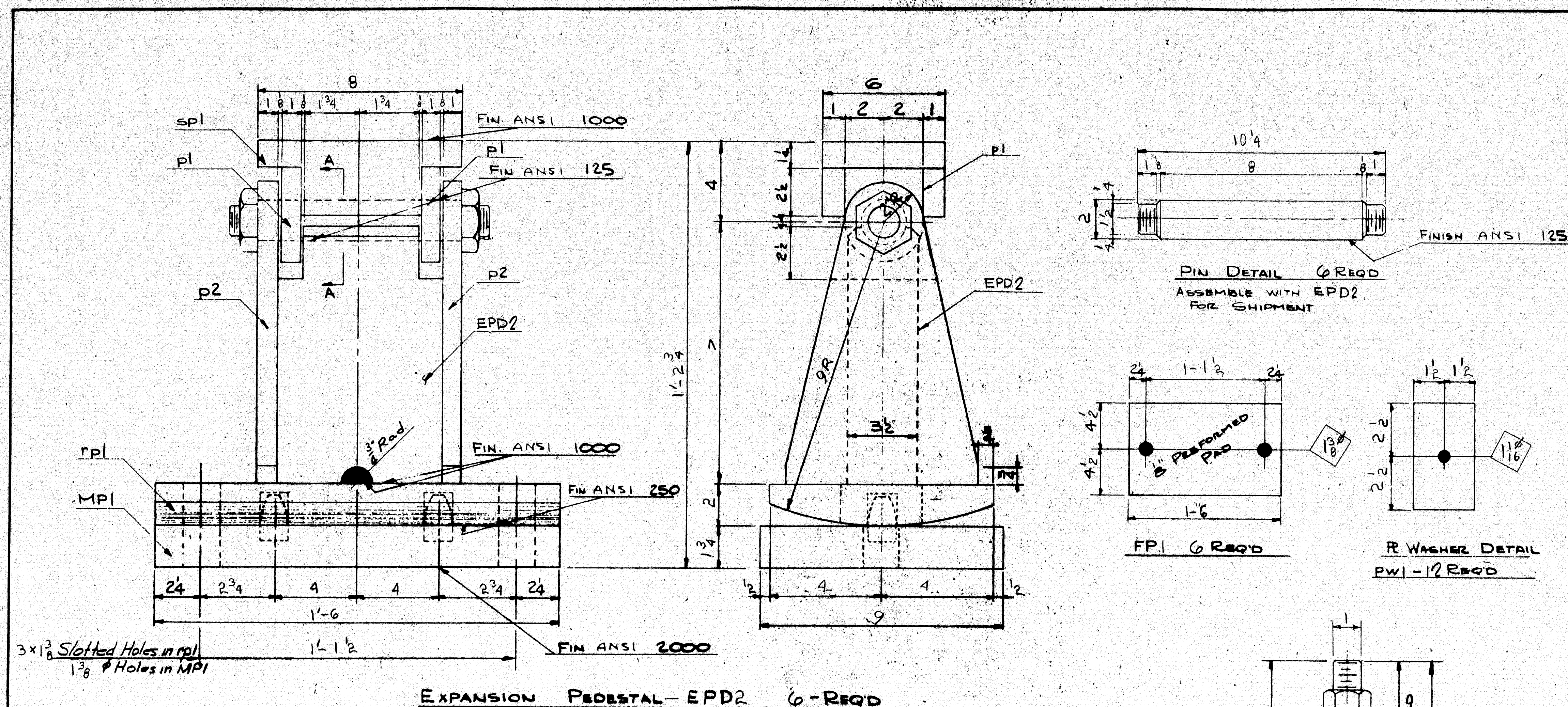


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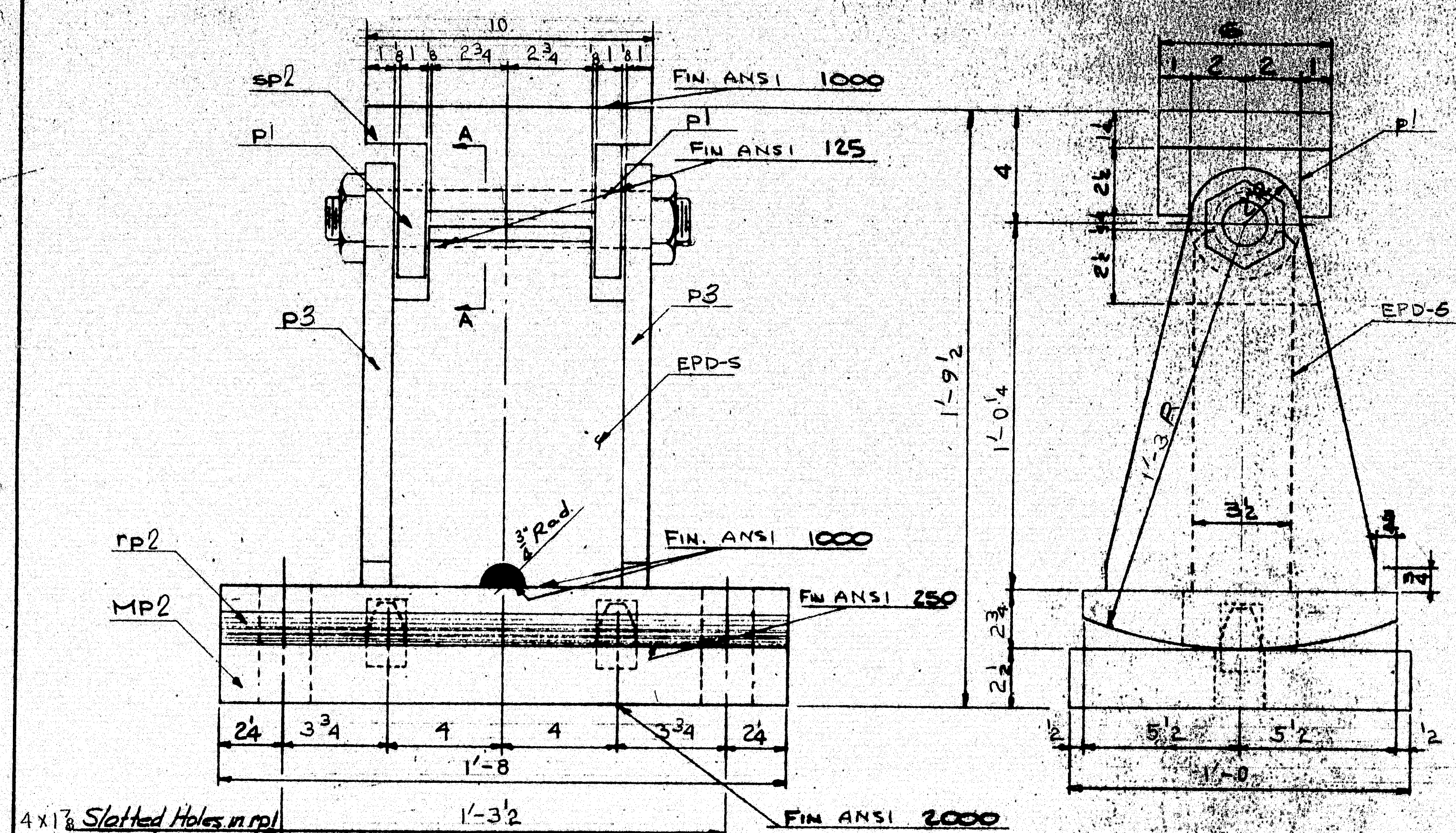
**Pin Note:**  
The diameter of the pin hole shall not exceed that of the pin by more than 1/50 inch.

**NOTE:**  
ALL SURFACES WITH ANSI 125 finish coat with mixture of white lead and tallow.

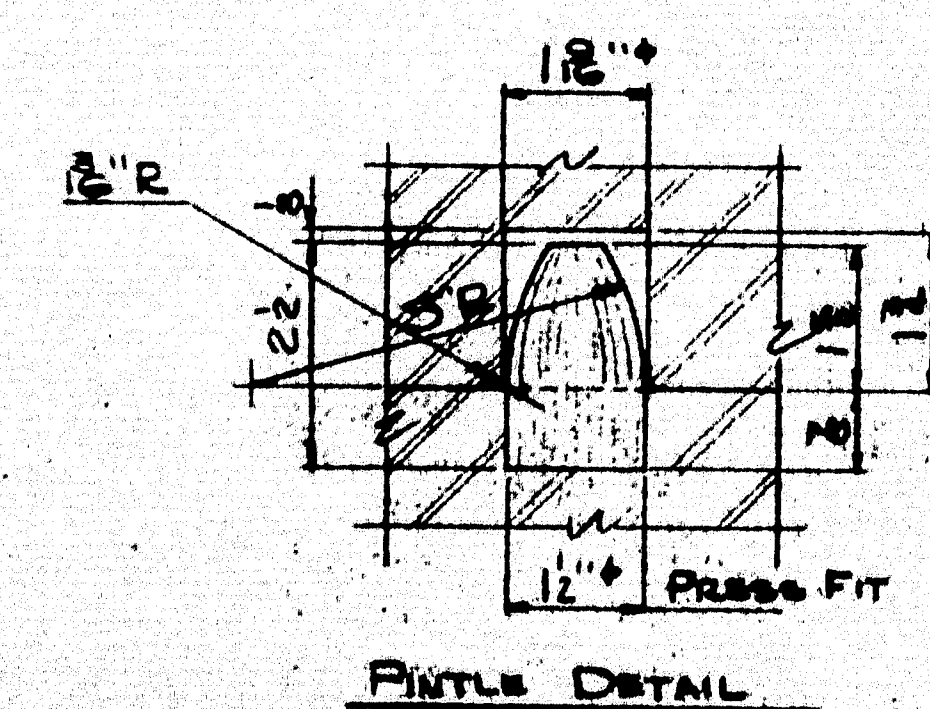
SHIP		BILL OF MATERIAL			JOB NO. 8-81		DWG. NO. 51-1	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS	
SHOP ASSEMBLY								
MPI	6		R 1 3/4 X 9	1	6	3/4		
	12	p1	Bar 4 X 1	0	4 3/4	3/4		
	12	p2	Bar 6 1/2 X 1	0	9	3/4		
	6	FP1	Bar 8 X 2	1	6	3/4		
	6	SP1	Bar 6 X 3 3/4	0	8	3/4		
EPD2	6		Bar 6 X 3 1/2	0	6 3/4	3/4		
FP1	6		Pad 1/8 X 9	1	6		PERFORMED PAD REQ. NO. 11516	
	6	SHOP	Bar 2" Ø	0	10 1/4	4/F	Bridge Pin	
	12	D.	1 1/2" LOMAS NUTS			4/6	RECEIVED PIN NUT	
	12	SHOP	Bar 1" Ø	0	1 1/2	3/2	Pin tie	
ABI	12		Bar 1" Ø	1	4 3/4	3/4		
PWI	12		Bar 3 X 1/2	0	5	4/A		
	24	SHOP	1" Ø Hex. NUTS			4/8	A325, Type 3	
ITEM NO. - 504.7001								
PROJ. NO. - I-95-9(83)								
SOLE PLATE "SP1" TO BE FIELD WELDED TO STRINGERS								
STEEL: ASTM A588, UNLESS NOTED								
WELDING ELECTRODE SEE WELDING PROCEDURES								
SHOP CONN. WELDED: 2" CONT. FILLETS: PROC. 301F								
FIELD CONN. WELDED 152								
HOLES: AS NOTED								
PAINT: NONE								
SPECIAL CLEANING: BLAST CLEAN (SSPC-SP10)								
APPROVED: 4-2-79								
EXPLAN. PEDESTAL DETAILS @ ABUT. #1								
PRINT DIST.			Bancroft & Martin Inc.					
20	3-5-79	APP	South Portland, Maine 04106					
22	4-2-79	FA	JOB: I-95 N.B. OVER WEST BRANCH					
20	do	FFB	MATTAWAMKEAG RIVER					
30	4-2-79	Shop	ISLAND FALLS, MAINE					
10	4-2-79	OFFICE	CUSTOMER: CIAMBRO CORP.					
			DESIGNER: MAINE DEPT. TRANS.					
REV.			ORDER NO.	JOB NO.		DRAWING NO.		
CHECKED	3-5-79	GM						
DRAWN	2-9-79	BB			8-81		51-1	

162-166 EPD-2

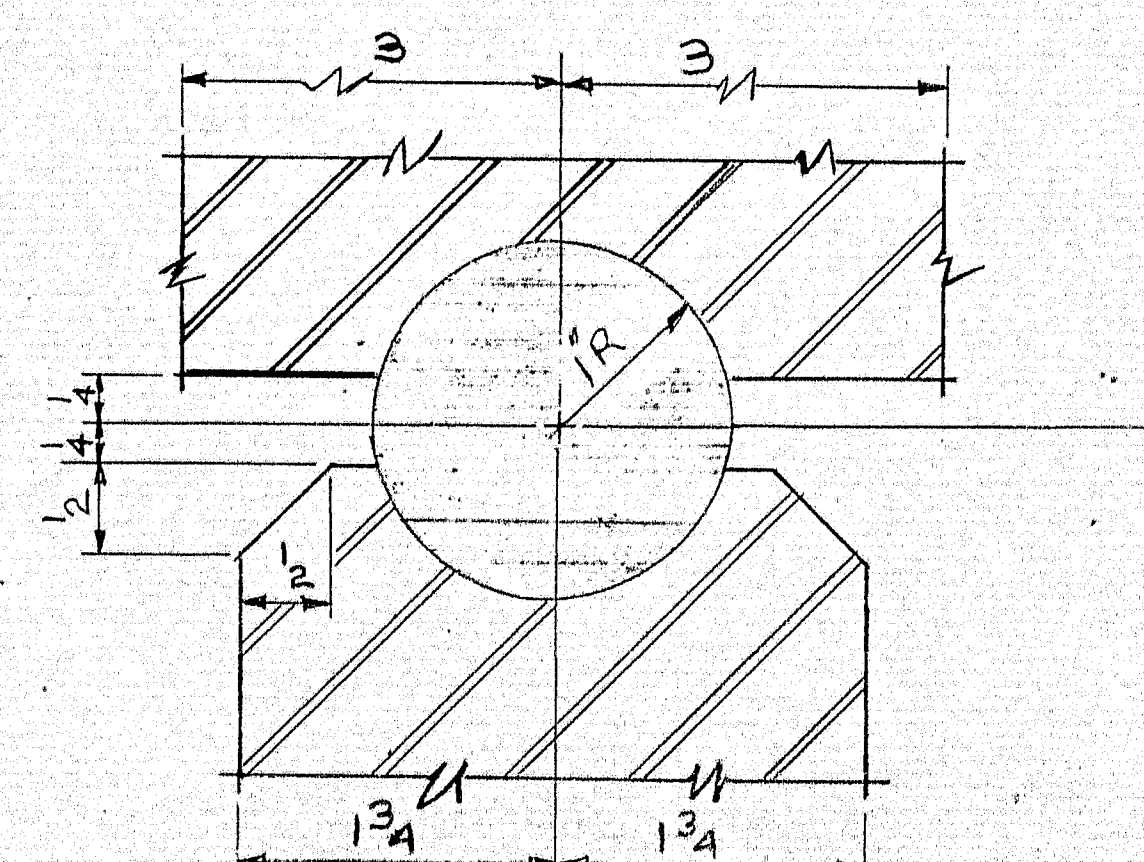




EXPANSION PEDESTAL-EPD-5 6-REQD

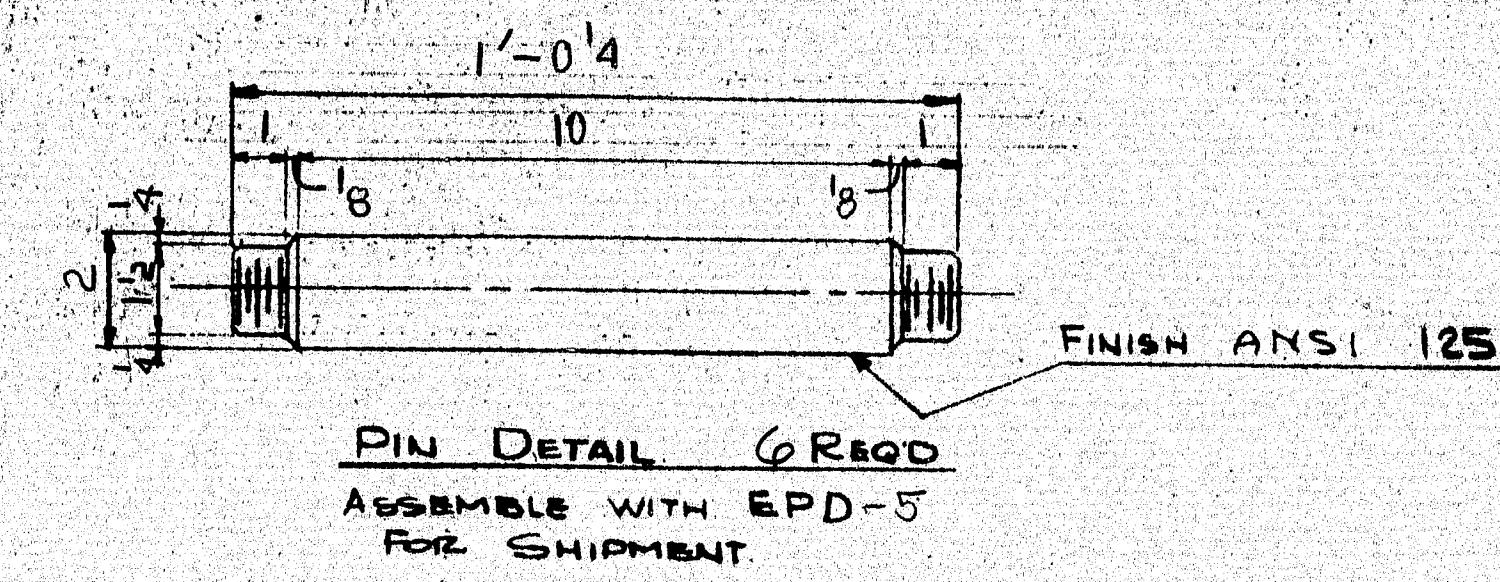


PINTLE DETAIL

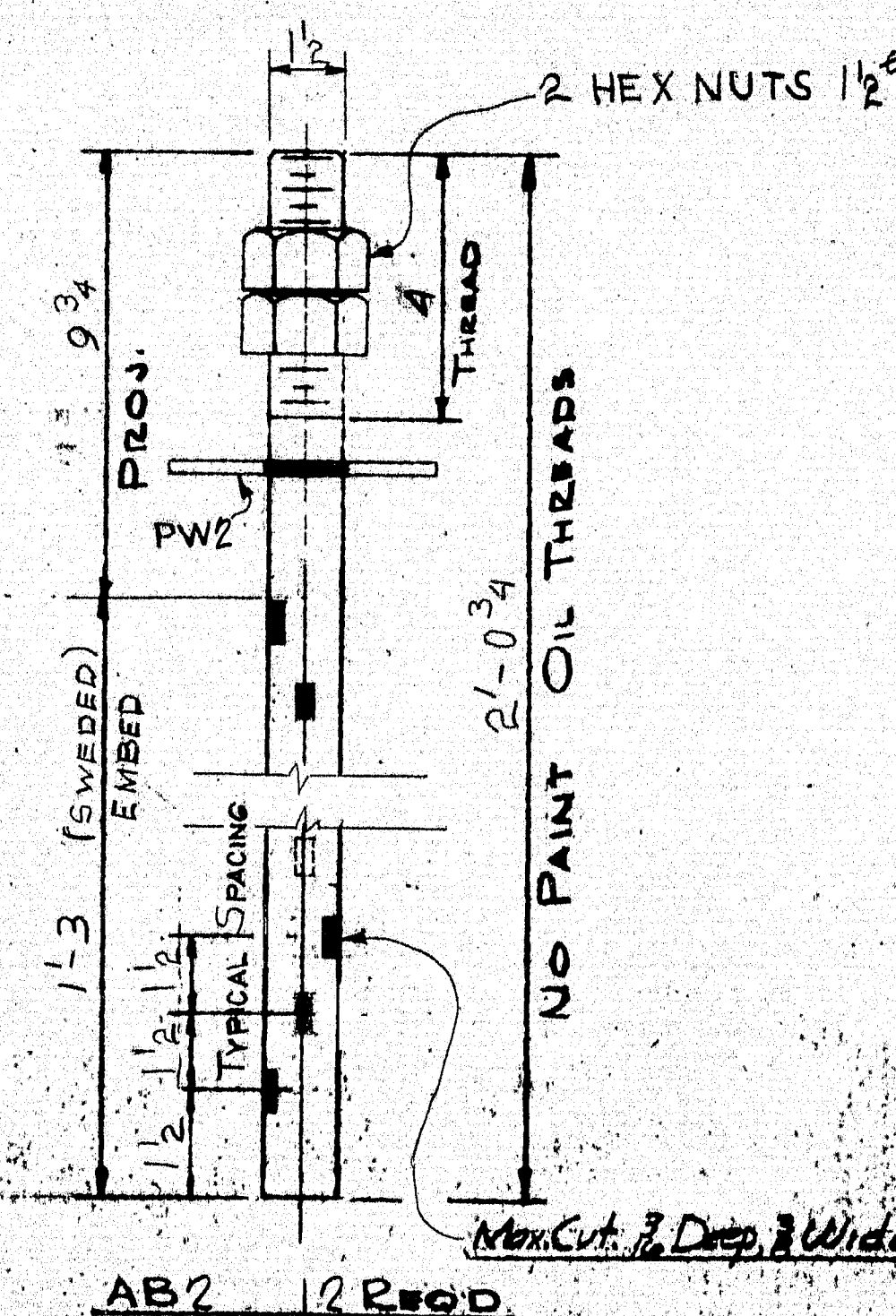
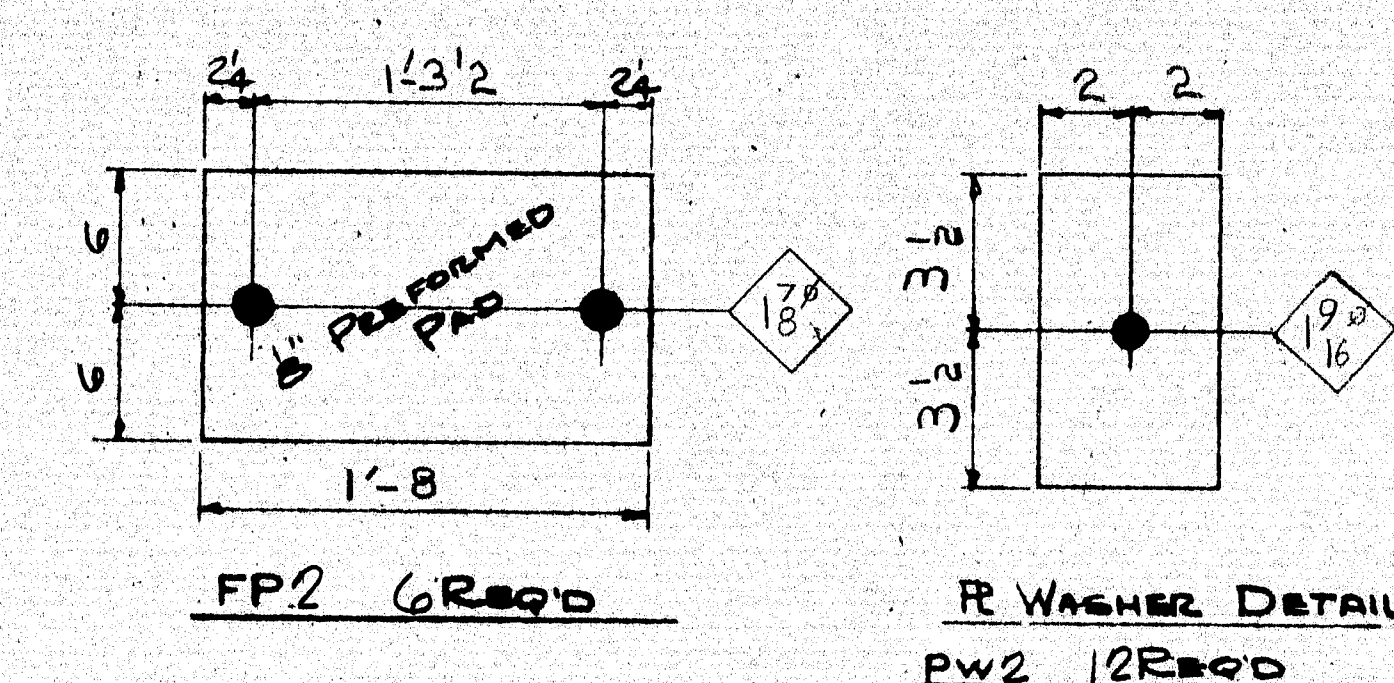


SECTION A-A

Pin Note:  
The diameter of the pin hole shall not exceed that of the pin by more than 1/50 inch.



PIN DETAIL 6 REQD  
ASSEMBLY WITH EPD-5  
FOR SHIPMENT.



NOTE:  
All surfaces with ANSI 125 with mixture of white lead and tallow.

SHIP		BILL OF MATERIAL			JOB NO. 8-81		DWG. NO. 51-2	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS	
			SHOP ASSEMBLY					
MP2	6		R 2 1/2 X 12	1	8	3/5		
	12	B1	Bar 4 X	0	4 3/4	3/4		
	12	P3	R 1 X 9 1/2	1	2 1/4	3/4		
	6	FP2	R 2 3/4 X 11	1	8	3/4		
	6	SP2	Bar 6 X 3 3/4	0	10	3/2		
EPD5	6		Bar 8 X 3 1/2	1	0	3/4		
FP2	6		Pad 8 X 12	1	8		PERFORMED PRO REQ. NO. 11576	
	6	SHOP	Bar 2" <sup>1</sup> / <sub>2</sub>	1	0 4	4/E	BRIDGE PIN	
	12	D.	1 1/2" <sup>1</sup> / <sub>2</sub> NUT			4/4	RECESSED NUT	
	12	SHOP	Bar 1 1/2" <sup>1</sup> / <sub>2</sub>	0	2 1/2	3/4	PIN TLE	
AB2	12		Bar 1 1/2" <sup>1</sup> / <sub>2</sub>	2	0 3/4	3/W		
PW2	12		Bar 4 X 1 1/4	0	7	3/K		
	24	SHOP	1 1/2" HEX. NUTS			4/L	A325, Type 3	
<div>BARE STEEL</div>								
ITEM NO. - 504,7001								
PROD. NO. - I-95-9(83)								
SOLE PLATE "SP2" TO BE FIELD WELDED TO STRINGER								
STEEL ASTM A588, UNLESS NOTED								
WELDING ELECTRODE SEE WELDING PROCEDURES								
SHOP CONN. WELDED: 2 CONT. FILLETS: PROD. 3 OF 152								
FIELD CONN. WELDED								
MOLES: AS NOTED								
PAINT: NONE								
SPECIAL CLEANING: BLAST CLEAN (SSPC-SP10)								
APPROVED: 4-2-79								
EXPAN. PEDESTAL DETAILS @ PIER #1								
PRINT DIST.		Bancroft & Martin Inc. South Portland, Maine 04106 JOB: I-95 NB, OVER WEST BRANCH MATTAWAMKEAG RIVER BLAND FALLS, MAINE CUSTOMER: CLAMRO CORP. DESIGNER: MAINE DEPT. OF TRANS.						
2p	3-15-79 App							
2s	4-2-79 FA							
2p	do EEF							
3p	4-2-79 Shop							
1p	4-2-79 OFFICE							
REV.	CHECKED	DATE	BY	ORDER NO.	JOB NO.	DRAWING NO.		
		3-5-79	KGW		8-81	51-2		
		2-9-79	BB					

BARE STEEL

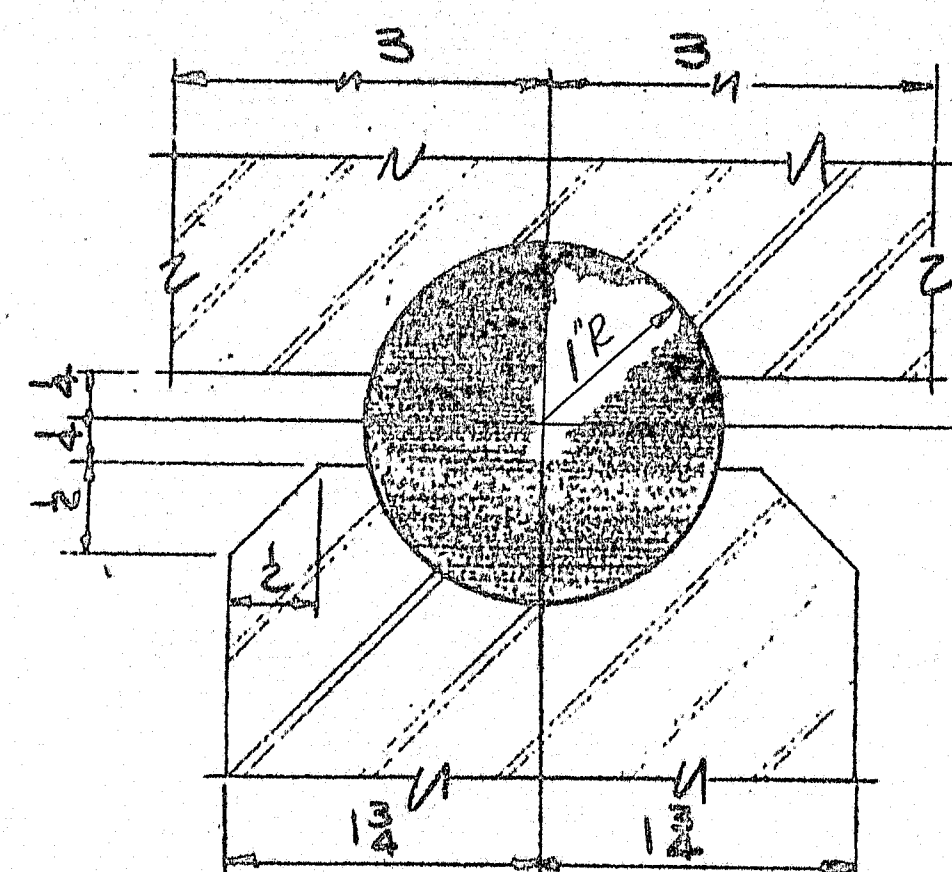
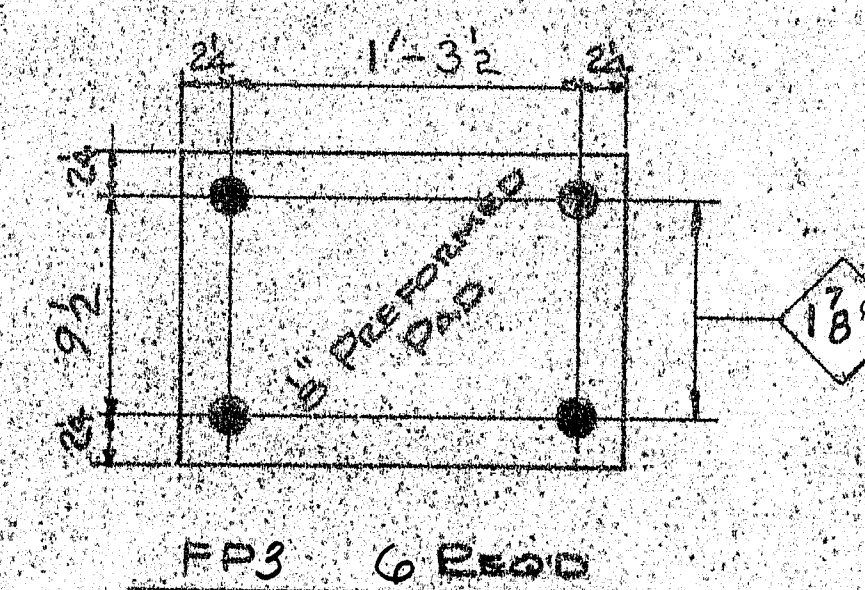
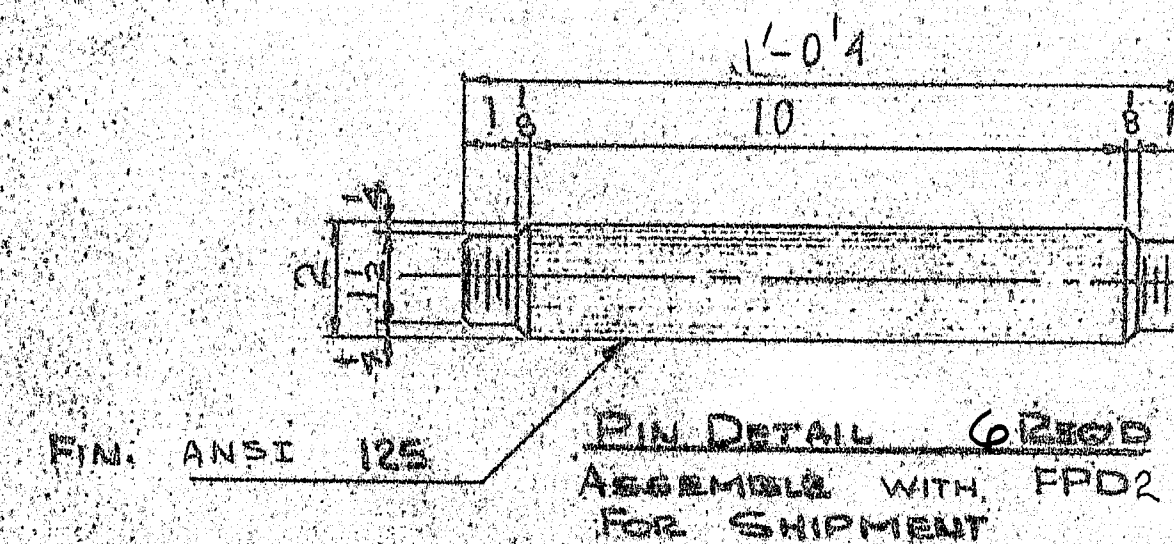
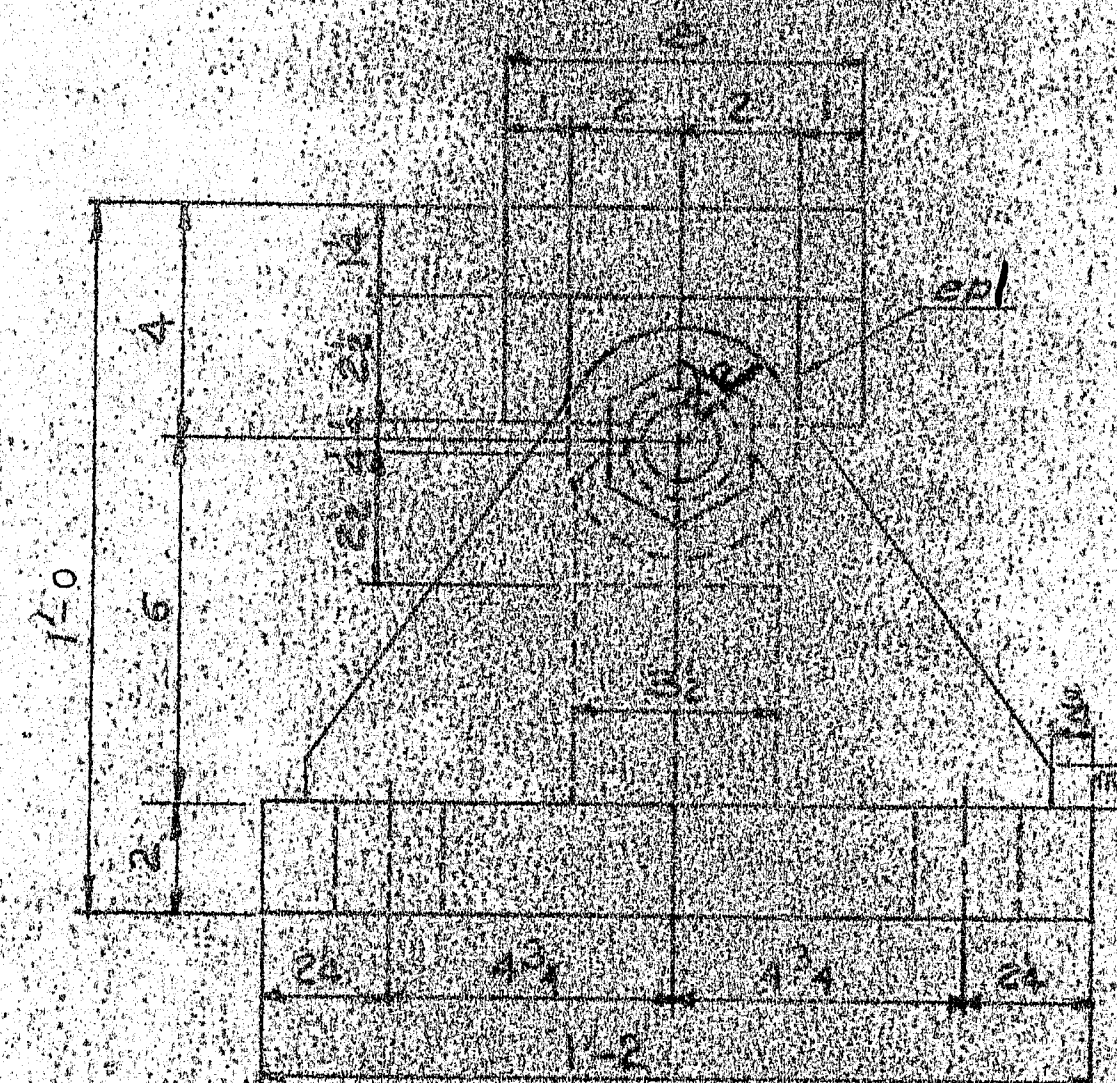
ITEM NO. = 504,7001  
PROJ. NO. = I-95-9(83)  
SOLE PLATE "SP2" TO BE FIELD WELDED TO STRINGER

STEEL ASTM A588, UNLESS NOTED  
WELDING ELECTRODE SEE WELDING PROCEDURES  
SHOP CONN. WELDED: 2" CANT. FILLETS: Proc. 301  
FIELD CONN. WELDED: 152  
HOLES AS NOTED  
PART: NONE  
SPECIAL CLEANING BLAST CLEAN (SSPC-SP10)  
APPROVED: 4-2-79

EXPAN. PEDESTAL DETAILS @ PIER #1			
PRINT DIST.	Rancroft & Martin Inc.		
2D 3/6/79	South Portland, Maine 04106		
2D 4-2-79	JOB: I-95 NB. OVER WEST BRANCH		
2D 4-2-79	MATTAWAMKEAG RIVER		
3D 4-2-79	KLAND FALLS, MAINE		
1P 4-2-79	CUSTOMER: CUMMINS CORP.		
	DESIGNER: MAINE DEPT. OF TRANS.		
REV.	ORDER NO.	JOB NO.	DRAWING NO.
CHECKED 3-5-79 RGM		8-81	51-2
DRAWN 2-4-79 BB			

162-16724 EPD-5



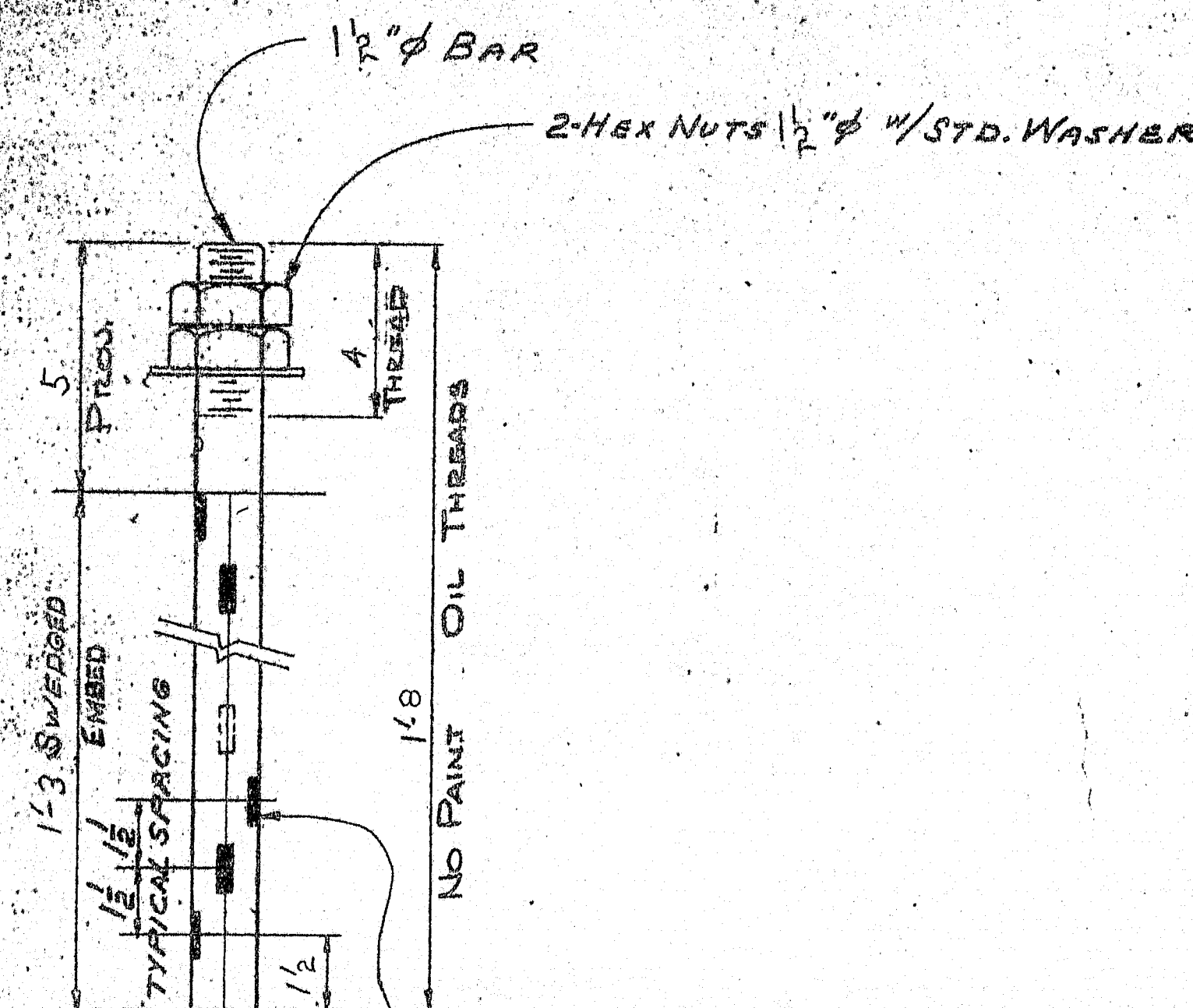


SECTION A-A

PIN NOTE:  
THE DIAMETER OF THE PIN HOLE SHALL NOT EXCEED THAT OF THE PIN BY MORE THAN  $\frac{1}{50}$  INCH.

NOTE:

ALL SURFACES WITH ANS. 125  
FINISH COAT WITH MIXTURE OF WHITE  
LEAD AND TALLOW.



AB3-24 REQ'D

Max. Cut  $\frac{3}{8}$ " Deep,  $\frac{3}{8}$ " Wide

SHIP		BILL OF MATERIAL			JOB NO. 8-81		DWG. NO. 51-3	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM QTY	REMARKS	
	6	WPI	Bar 2 x 14	1.8		3/A		
	12	p/	Bar 8 x 1	1.0		3/B		
	12	ep/	Bar 4 x 1	0.434		3/M		
FPB	6	1	Bar 5 3/4 x 3 1/2	0.8		3/C		
	6	SPB	Bar 6 x 3 1/4	0.10		3/D		
FPB	6		Pad 6 x 14	1.0			Pressure Pad Eng. No. 11576	
	6	shop	Bar 2.0	1.0		4/E	BRIDGE PIN	
	12	shop	1/2" HEX NUTS (LOWEY)			4/G	RECEIVED PIN NUT	
AB3	24		Bar 1 1/2"	1.8		3/F		
	48	shop	1 1/2" HEX NUTS			4/H	A325, Type 3	
FIELD	24		1 1/2" STD WASHBR			4/D	do. lds	

# BARE STEEL

ITEM NO.~	504.7001
PROJ. NO.~	I-95-9(83)

SOLE PLATE "SP3" TO BE FIELD  
WELDED TO STRINGER

STEEL: ASTM: A588 UNLESS NOTED  
WELDING ELECTRODE SEE WELDING PROCEDURES  
SHOP CONN: WELDED - 2" CONT. FILLETS PROC. 3012  
FIELD CONN: WELDED 152  
HOLES: AS NOTED  
PAINT: NONE  
SPECIAL CLEANING: BLAST CLEAN (SSPC-SP10)  
APPROVED: 4-2-79

REDONTAL DETAILS @ PIER #2

PRINT DIST.		Bancroft & Martin Inc.	
2P	3-5-79	APF	South Portland, Maine 04106 JOB: T 95 NB. OVER WEST BRANCH MATTAWAMKEAG RIVER ISLAND FALLS, MAINE CUSTOMER: CANNERO CORP. DESIGNER: MAINE DEPT. OF TRANS. ORDER NO.                      JOB NO.                      DRAWING NO. 3-5-79 REM 2-9-79 EA 8-81                      51-3
2S	4-2-79	FA	
2P	do	FF	
3P	4-2-79	Shup	
1P	4-2-79	Recke	

162-168

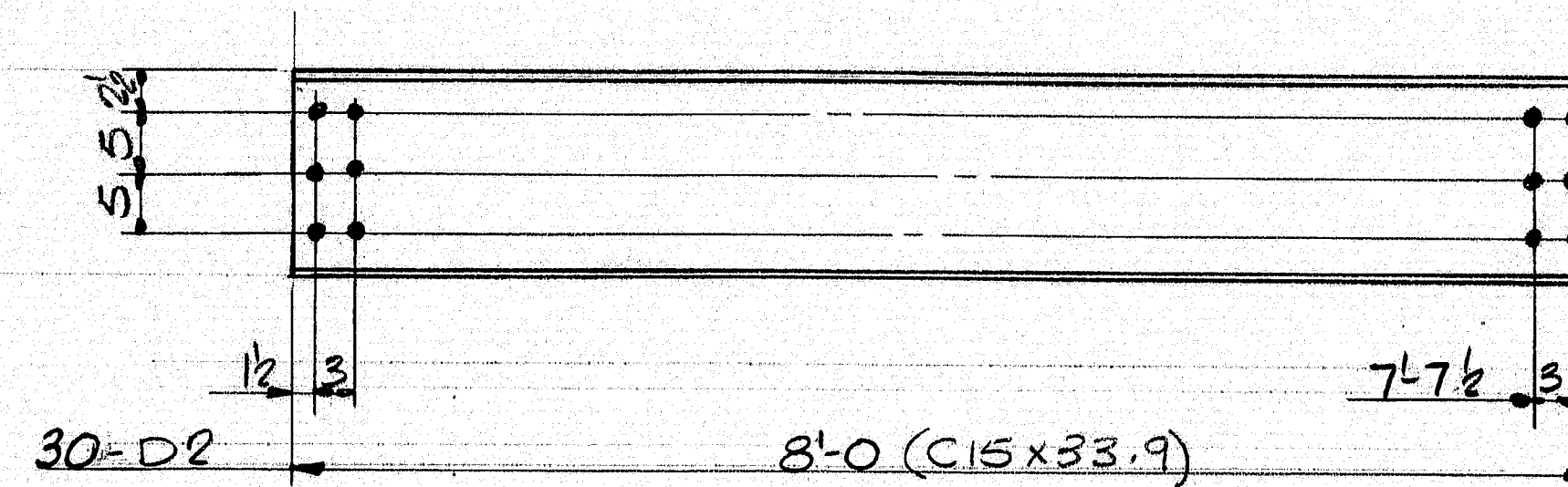






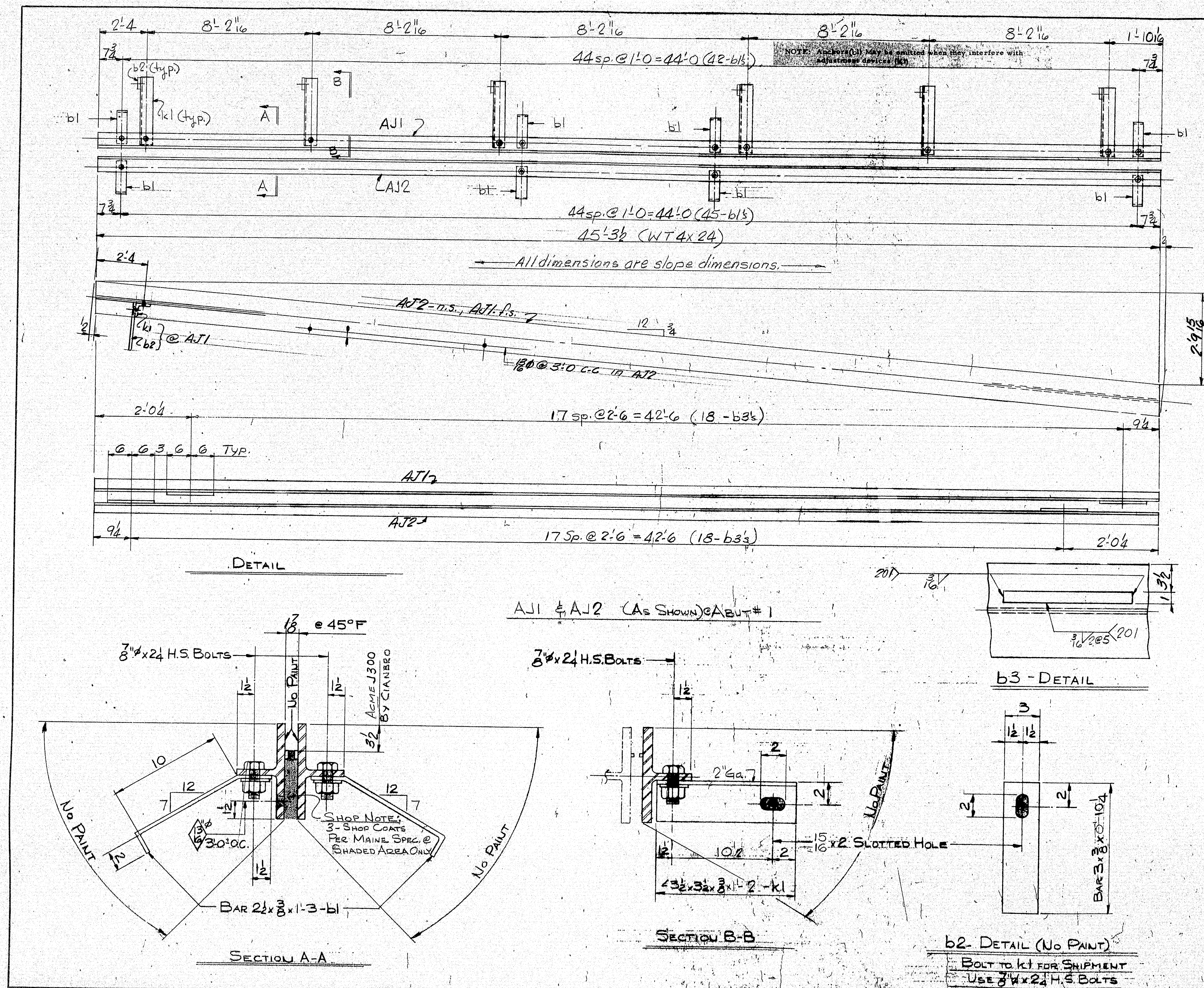




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162-174



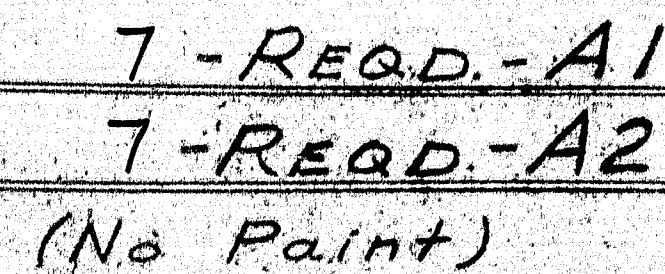
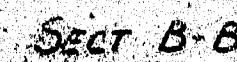


SHIP		BILL OF MATERIAL			JOB NO. 8-81		DWG. NO. 58-	
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS	
AJ1	1		WT4x24	45	4	1/1		
AJ2	1		DO	45	4	1/1		
AJ3	1		DO	45	4	1/1		
AJ4	1		WT4x24	45	4	1/1		
	</							









See State's Dwa's for location

A1	7	$2\frac{3}{4} \times 3 \times \frac{5}{16}$	1	0 $\frac{1}{2}$	1/T	ASME Shape to Fit Pipe
A2	7	do.	1	0 $\frac{1}{2}$	1/T	ASME No. Fab.
PDI	7	PIPE 6" STD	2	8 $\frac{1}{4}$	1/N	ASTM A53 Gr. B Type EAS

PROJ No. I-95-9(83)

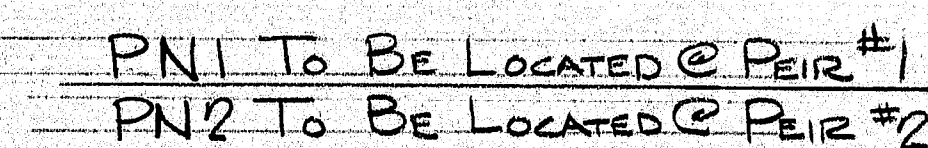
STEEL: ASTM. *A36, Unless Noted*  
WELDING ELECTRODE *See Welding Procedures*  
SHOP CONN: *Welded*  
FIELD CONN: *Welded*  
HOLES: *As Noted*  
PAINT: *NONE*  
SPECIAL CLEANING: *Blast Clean (SSPC-SP10)*  
APPROVED: *4-2-79*

## DRAINS

PRINT DIST.		Bancroft & Martin Inc.	
2p	3-5-79	App.	
25	4-2-79	E.A.	
2p	do	F&F	
3p	4-2-79	Skap	
1p	4-2-79	Decker	
		JOB: I-95 NB: OVER WEST BRANCH MATTAWAMKEAG RIVER ISLAND FALLS, MAINE	
		CUSTOMER: CIANBRO CORP.	
		DESIGNER: STATE OF MAINE DEPT. OF TRANS.	
REV.		ORDER NO.	DRAWING NO.
CHECKED	3-5-79 RGM		
DRAWN	2-14-79 BB	8-81	59-1

162-174





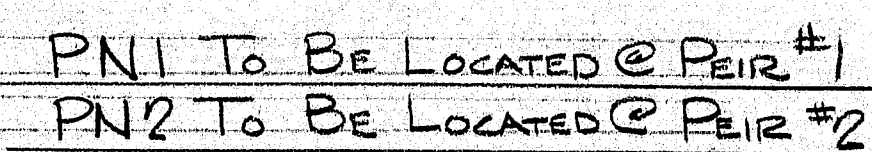
# BARE STEEL

[illegible]

162-179

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARD. IN APPROVING THIS DRAWING, FOR FABRICATION THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.





# BARE STEEL

SHIP		BILL OF MATERIAL			JOB NO.		DRAWING NO.		REV									
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.			REMARKS									
PN1	1		28x8x3/4	16	4		1/A											
PN2	1		28x8x3/4	17	14		1/B											
	30		30 CONC. STUDS	0	6		1/C											
<div>BARE STEEL</div>																		
										IT. NO. 504.7001		BR. NO.			PROJ. NO. I-95-9(33)			
FOR APPROVAL					X FOR FILES & FIELD X													
STEEL: ASTM. <input checked="" type="checkbox"/> A36 <input type="checkbox"/> A572 GR. <input type="checkbox"/> A588 GR. <input type="checkbox"/> Unless Noted <input type="checkbox"/>																		
WELDING ELECTRODE: <input type="checkbox"/> E70 <input type="checkbox"/> See Welding Proc. <input checked="" type="checkbox"/> None <input type="checkbox"/>																		
SHOP CONN: <input type="checkbox"/> Bolted <input checked="" type="checkbox"/> Welded <input type="checkbox"/> None <input type="checkbox"/>																		
FIELD CONN: <input type="checkbox"/> Bolted <input type="checkbox"/> Welded <input type="checkbox"/> None <input type="checkbox"/>																		
HOLES: <input type="checkbox"/> 13/16 <input type="checkbox"/> 15/16 <input type="checkbox"/> Unless Noted <input checked="" type="checkbox"/> None <input type="checkbox"/>																		
PAINT: <input checked="" type="checkbox"/> None <input type="checkbox"/> Shopcoat <input type="checkbox"/> Galv. After Fab. <input type="checkbox"/> As Noted <input type="checkbox"/>																		
SPECIAL PAINT: <input type="checkbox"/> Blast Clean <input checked="" type="checkbox"/> None <input type="checkbox"/>																		
SPECIAL CLEANING: <input type="checkbox"/> Blast Clean <input checked="" type="checkbox"/> None <input type="checkbox"/>																		
PIER NOSINGS @ PIER #1 & 2																		
APPROVED: 3-2-79			<div>Bancroft &amp; Martin Inc.</div> <div>South Portland, Maine 04106</div> <div>JOB: I-95 NB, OVER WEST BRANCH</div> <div>MATTAWAMKEAG RIVER</div> <div>ISLAND FALLS, MAINE</div> <div>CUSTOMER: CIAMBRO CORP.</div> <div>DESIGNER: STATE OF MAINE DEPT. OF TRAN.</div>															
PRINT DIST.																		
2p 2/18/79 DPH																		
3p 3-5-79 F&B																		
12p 3-5-79 F&B																		
25 2-5-79 F&B																		
1p 4-2-79 OFFICE																		
REV. <input type="checkbox"/>			ORDER NO.															
CHECKED 3-5-79 RSM			JOB NO.															
DRAWN 2-8-79 BB			DRAWING NO.															
			REV															
			8-81															
			61-1															

162-175

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING, FOR FABRICATION THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.



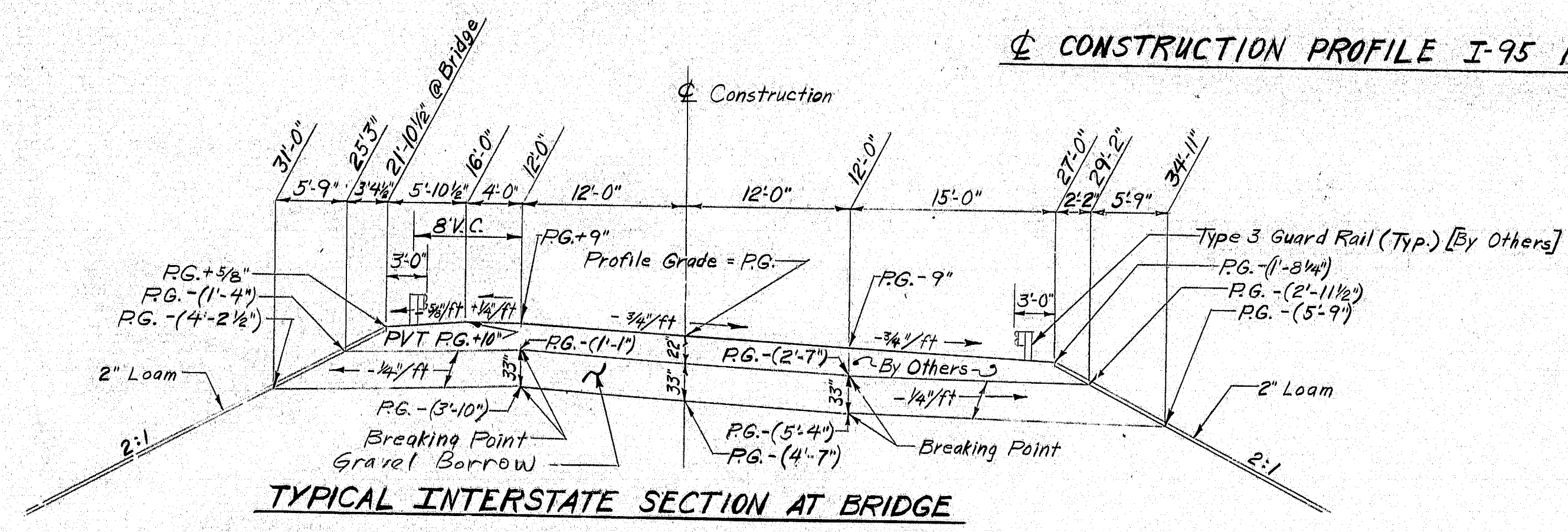
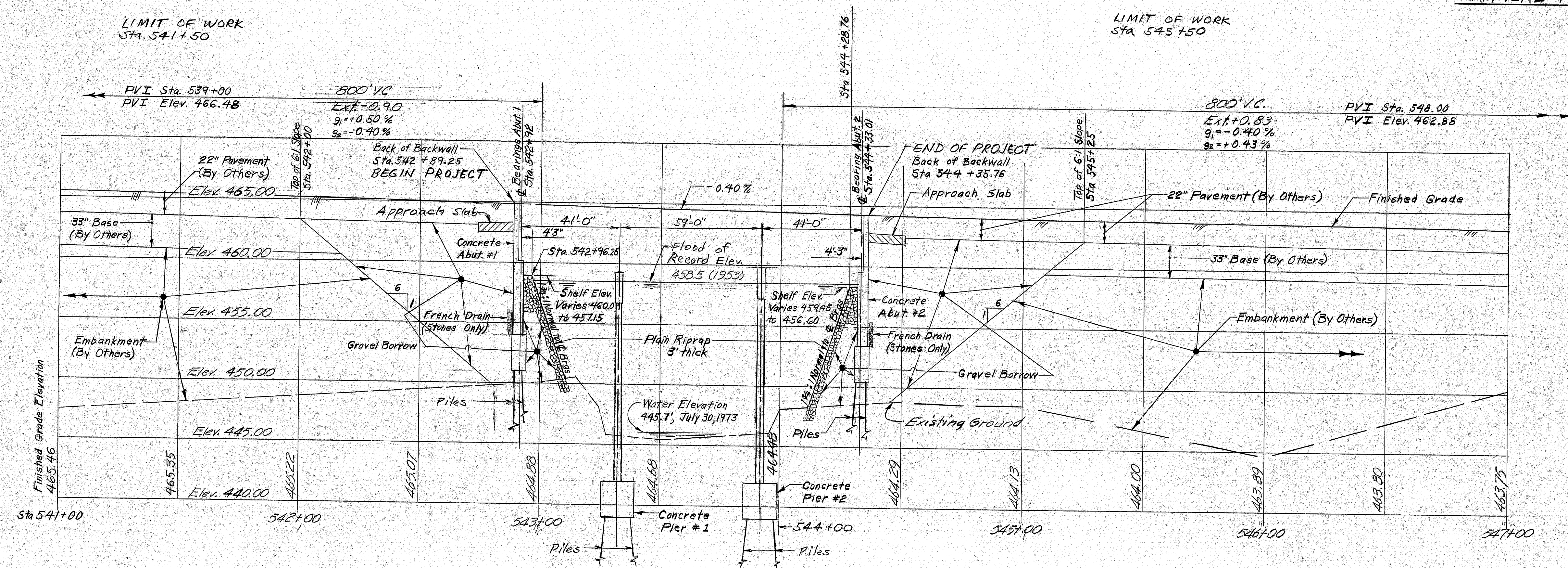
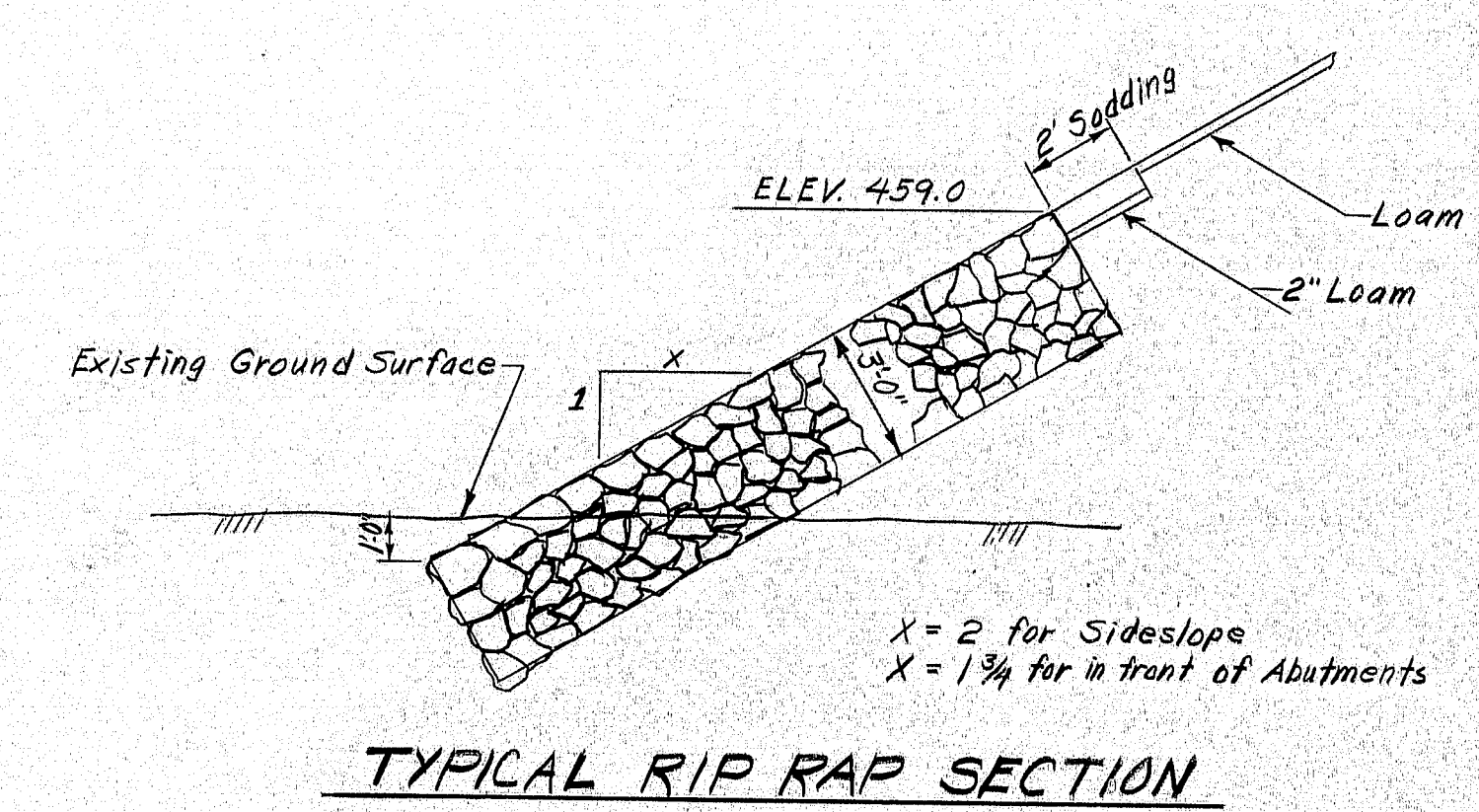








F.W.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(83) 8 I-95-9(84)	27	51



For construction between Sta. 542+00 ± & Abutment #1 and for construction between Abutment #2 & Sta. 545+25 ± with the following exception: the left berm varies from 21'-0\"/>

#### GENERAL CONSTRUCTION NOTES

1. Slopes shall be loamed unless otherwise directed by the Engineer.
2. Seeding - Method No. 2 and Mulch all slopes as directed by the Engineer.
3. Loam depth is 2\"/>

#### REFERENCES

1. See Abutment Sheets #32 & #33.
2. See Approach Slab Sheet #34.

As B.O.L. 1979 B.M. 5-1-80

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**INTERSTATE 95 NB  
OVER  
WEST BRANCH  
MATTAWAMKEAG RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY**

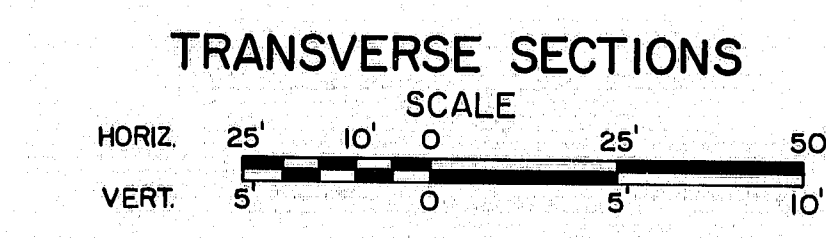
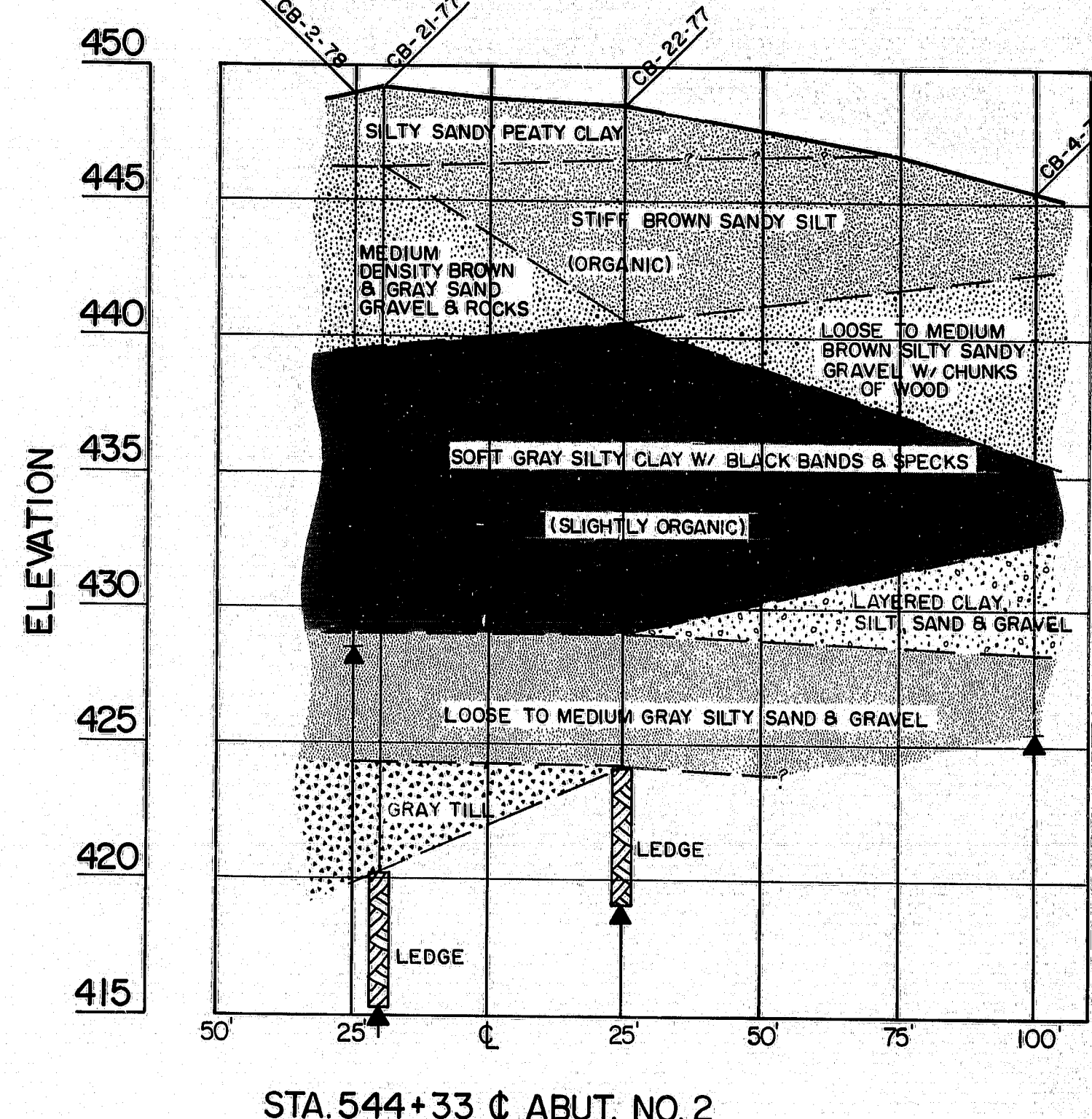
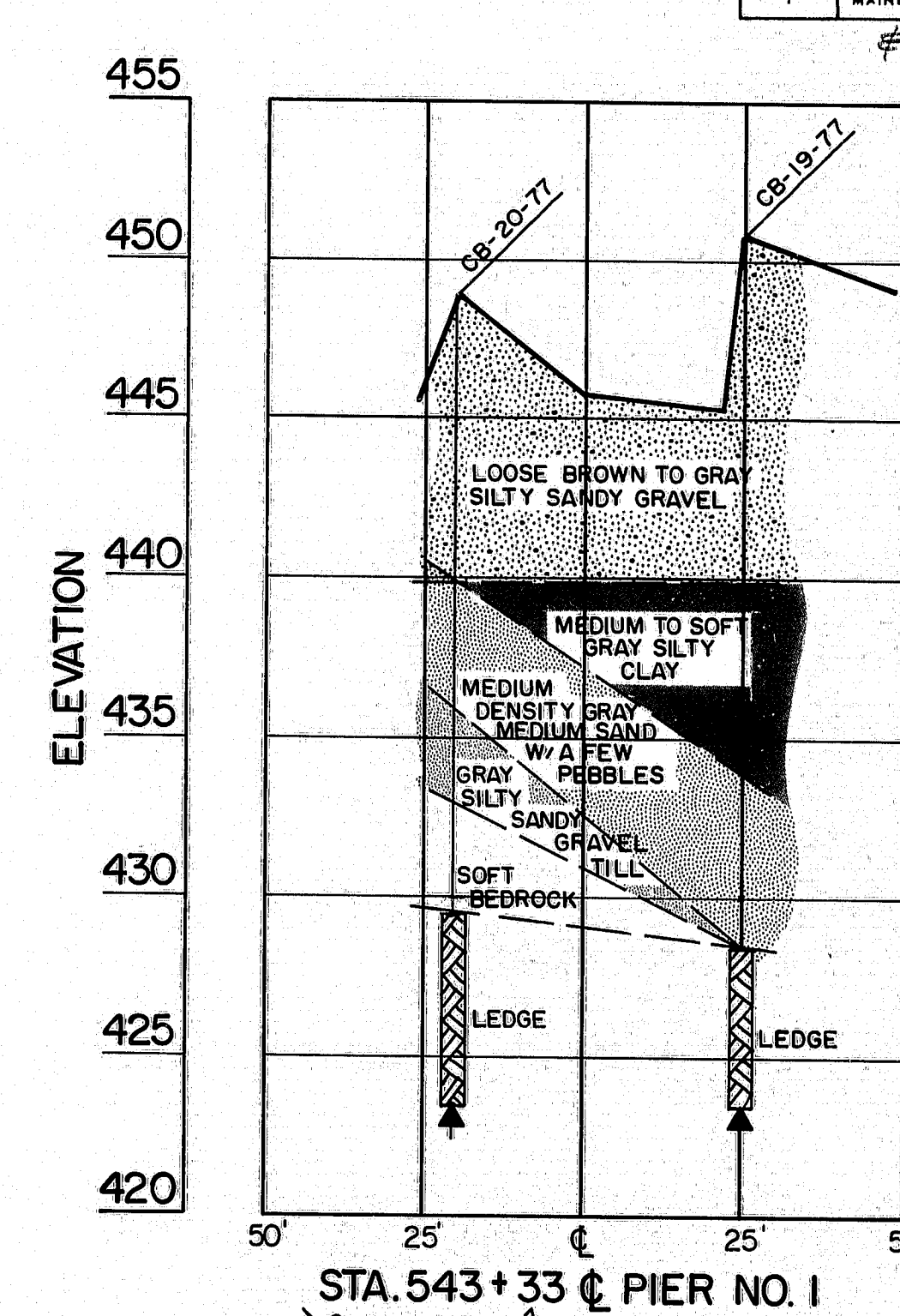
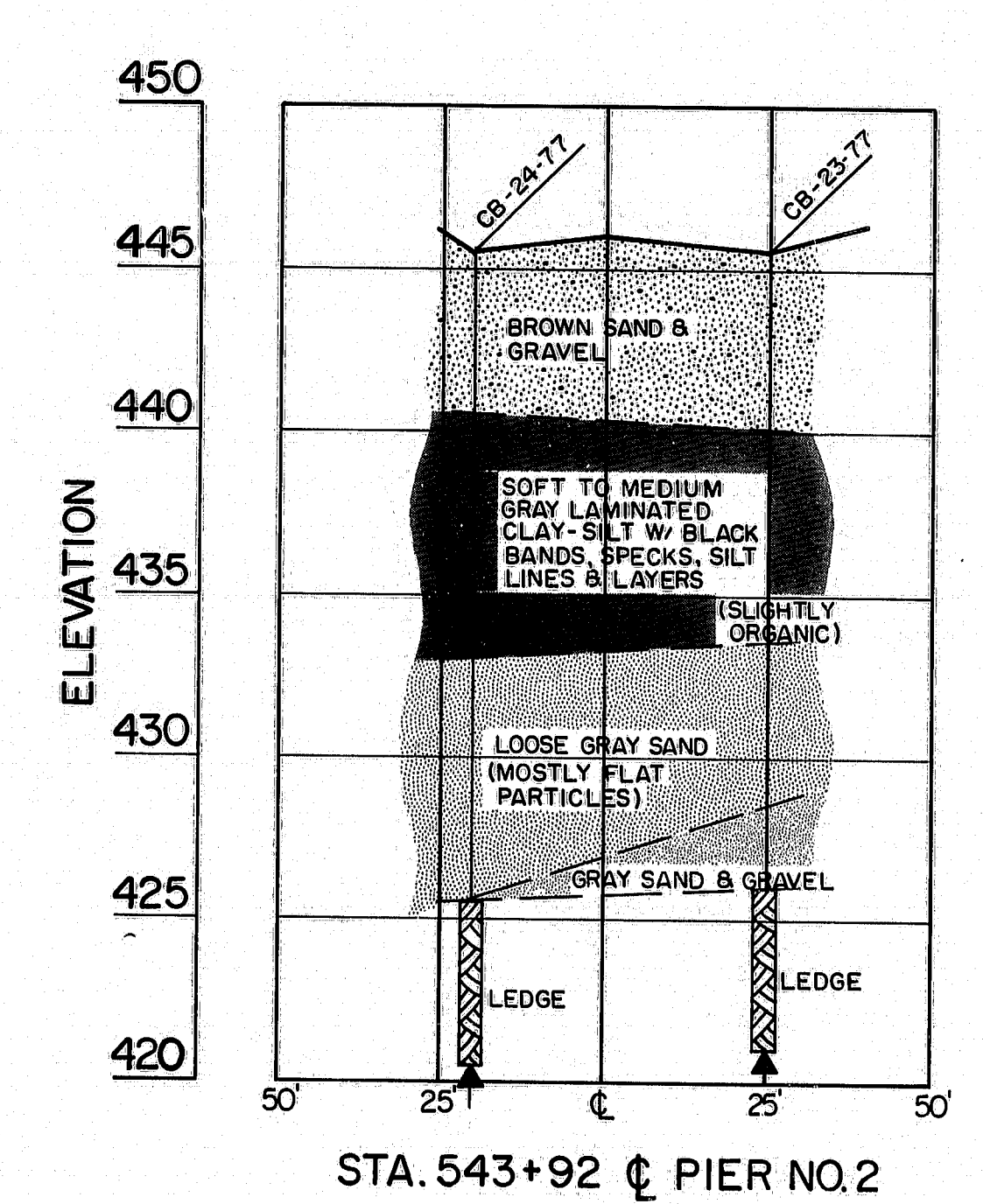
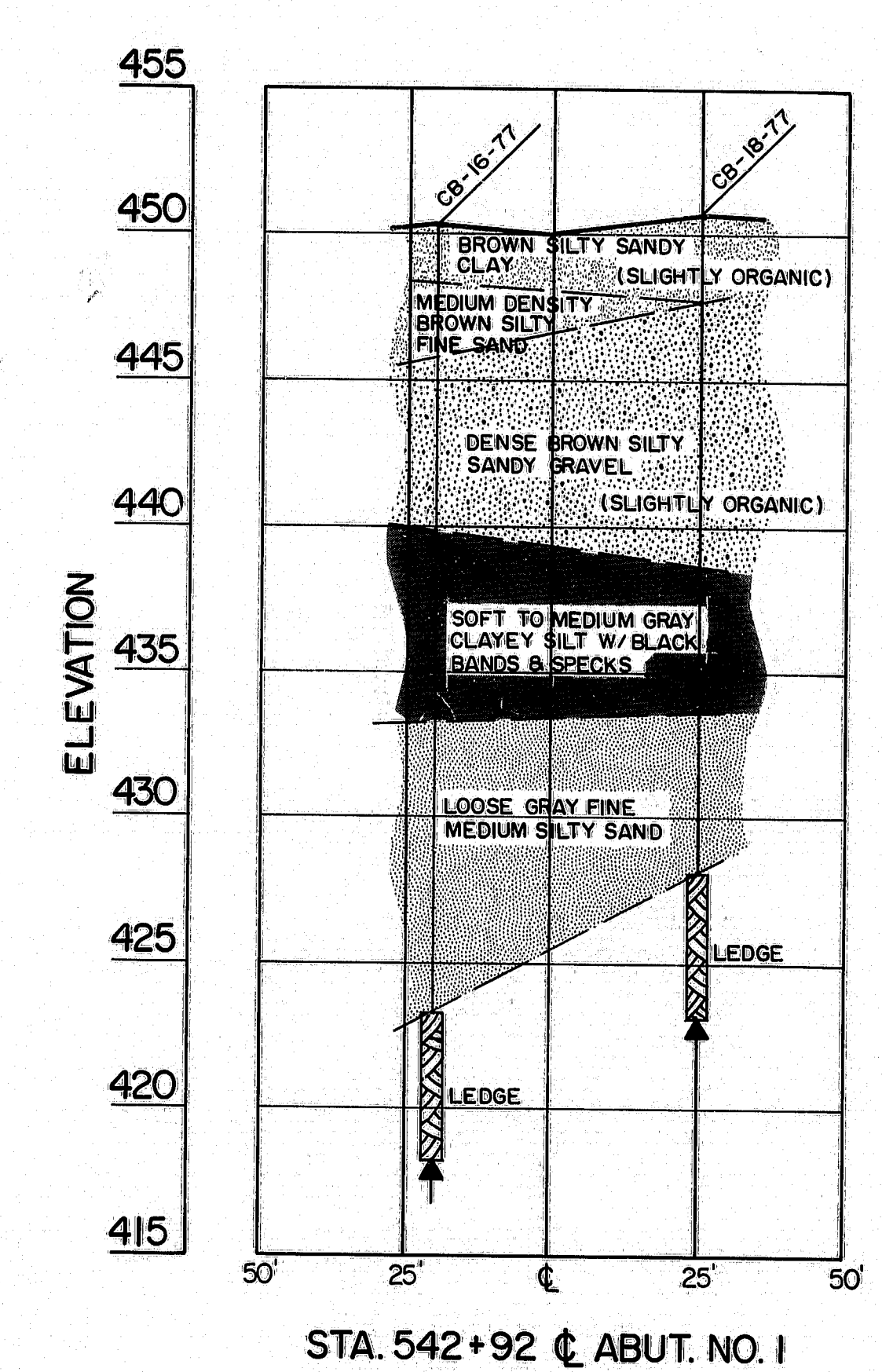
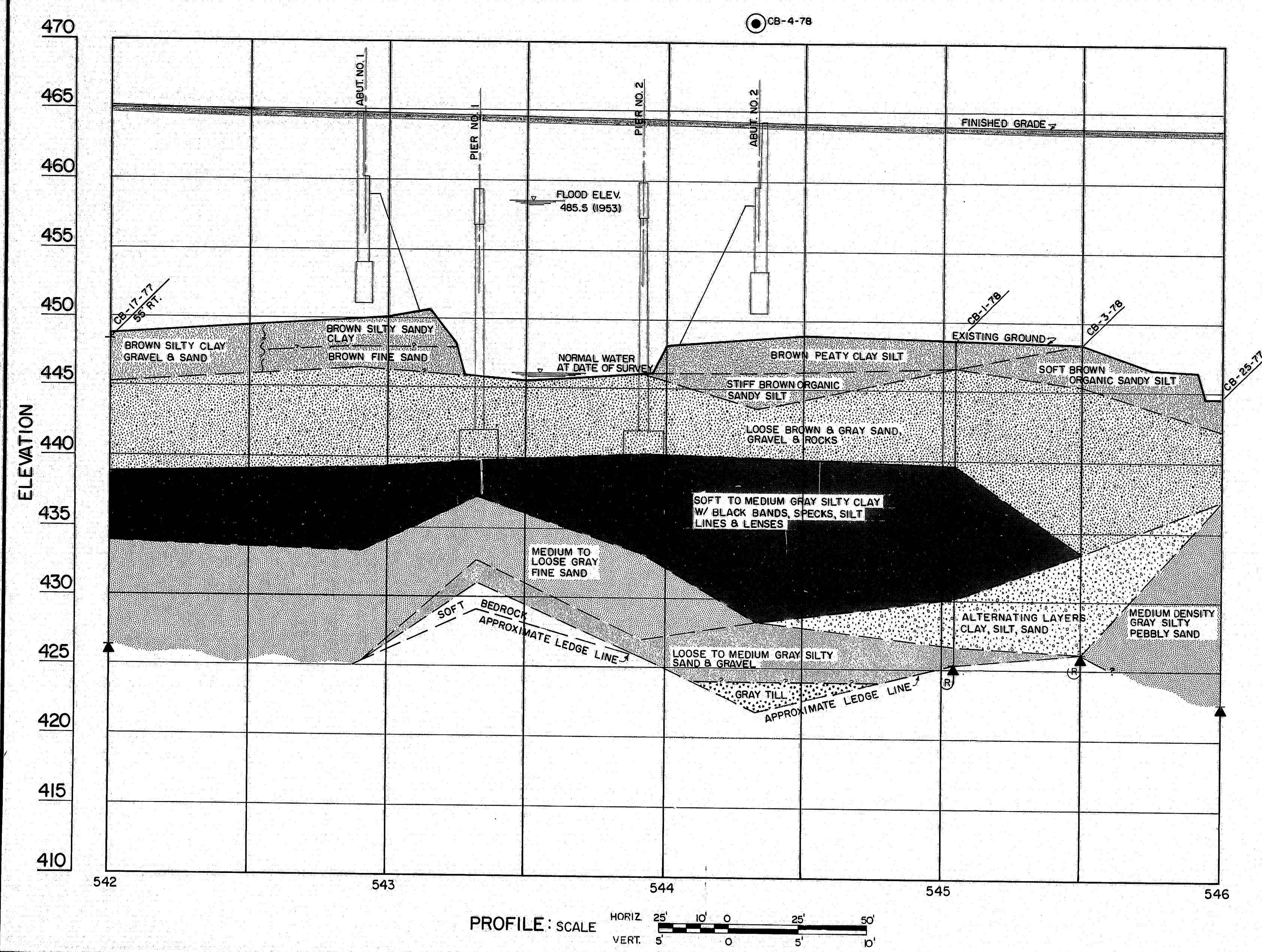
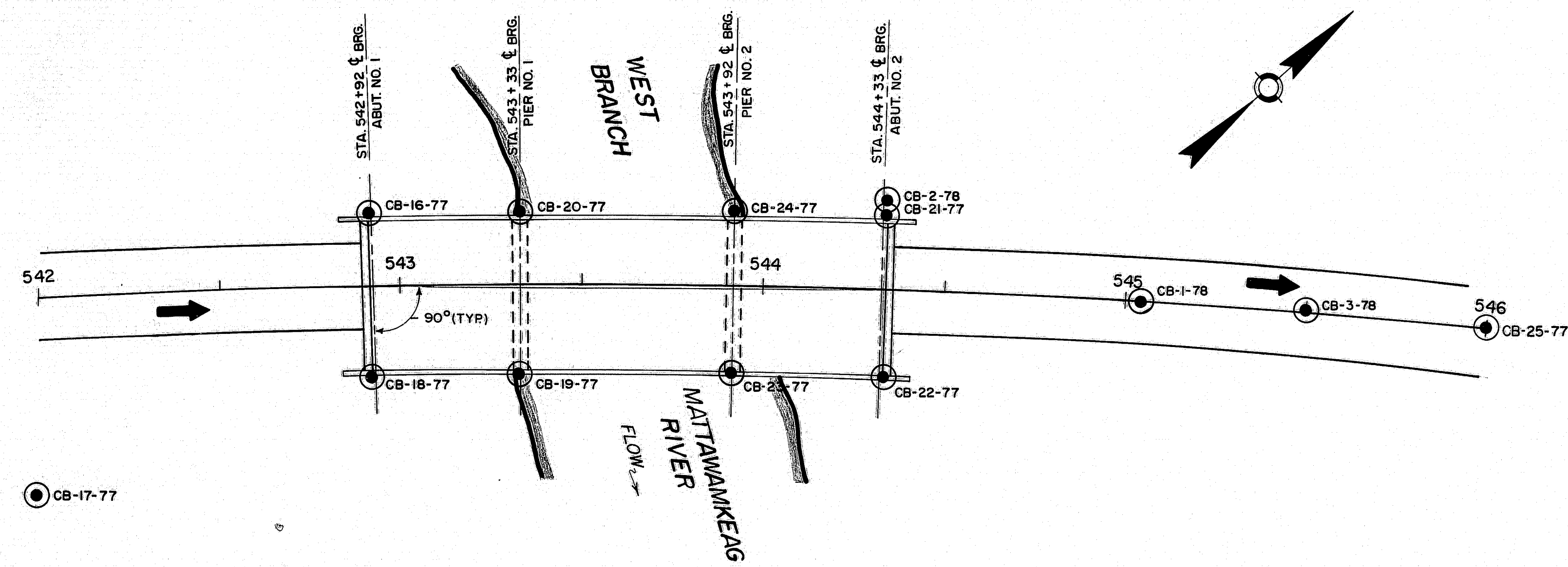
PROFILE AND CONSTRUCTION LIMITS  
SHEET 27 OF 51 AUGUSTA, MAINE SEPT 1978

166-7

Plotted By G.M. F.B. 77  
Checked By E.H. 77  
PROJECT DESIGN ENGINEER  
DESIGN - DETAILED  
CHECKED  
REVISIONS  
FIELD CHANGES



F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(83)	28	51
		# 2-95-7(84)		



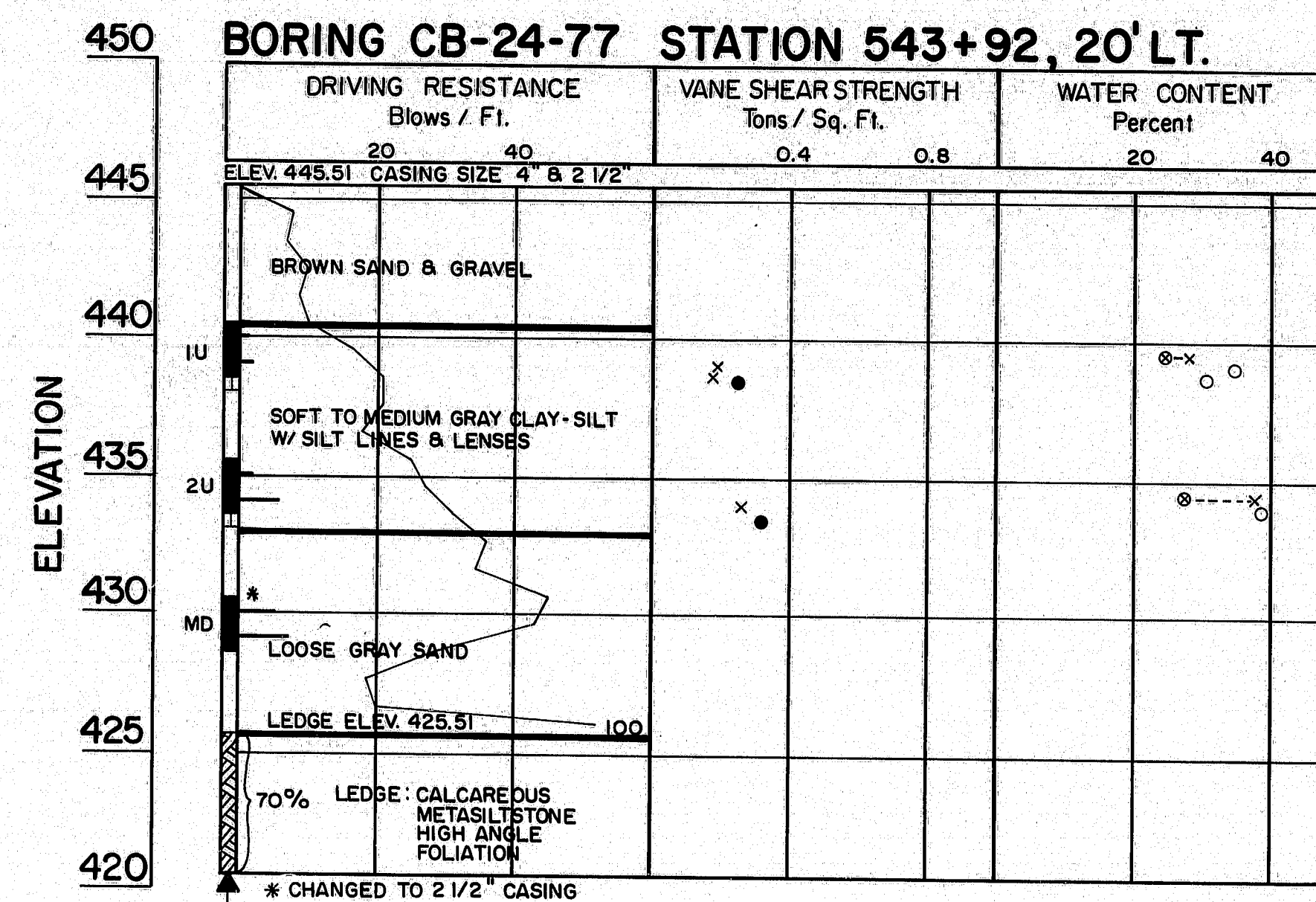
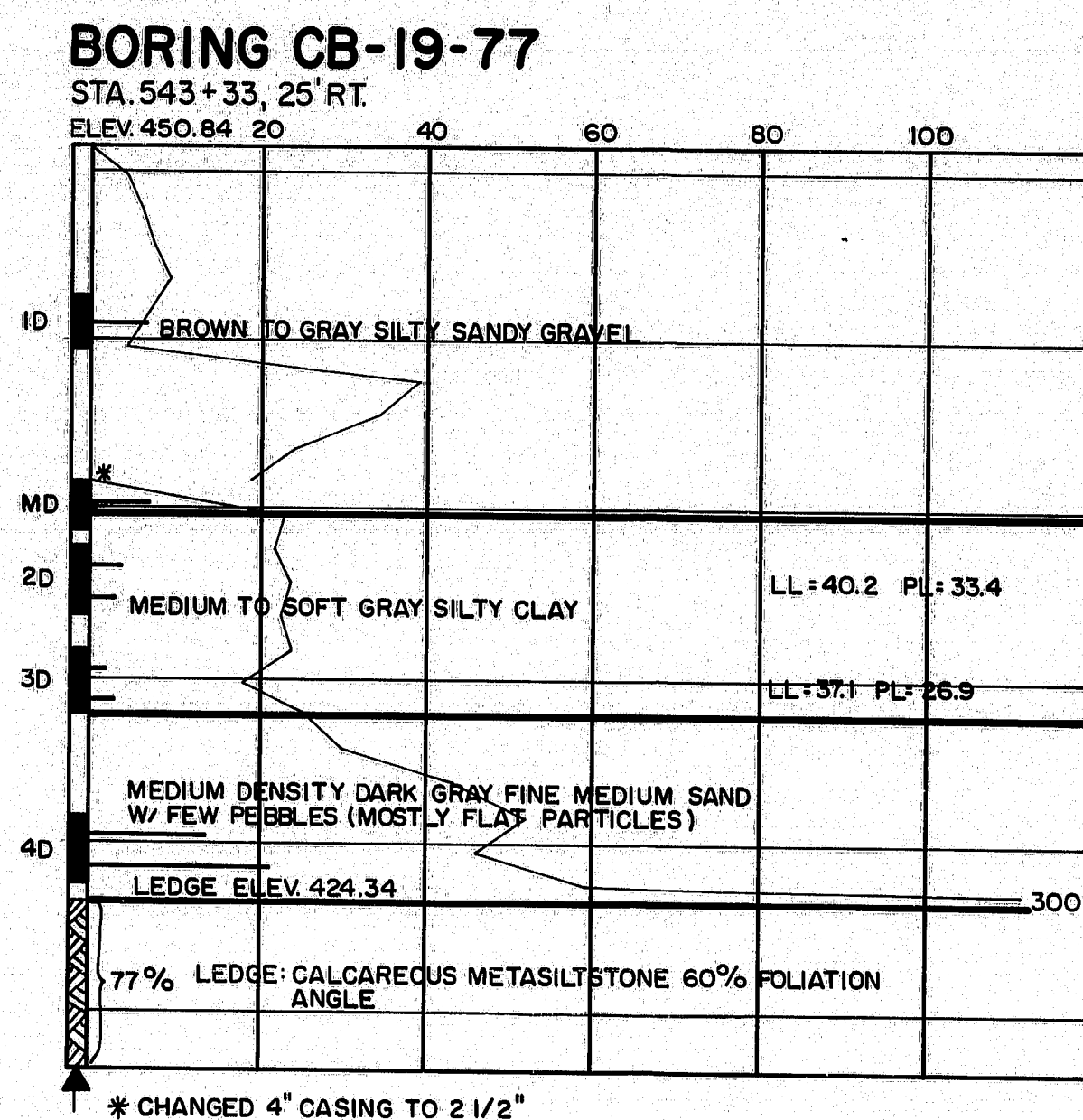
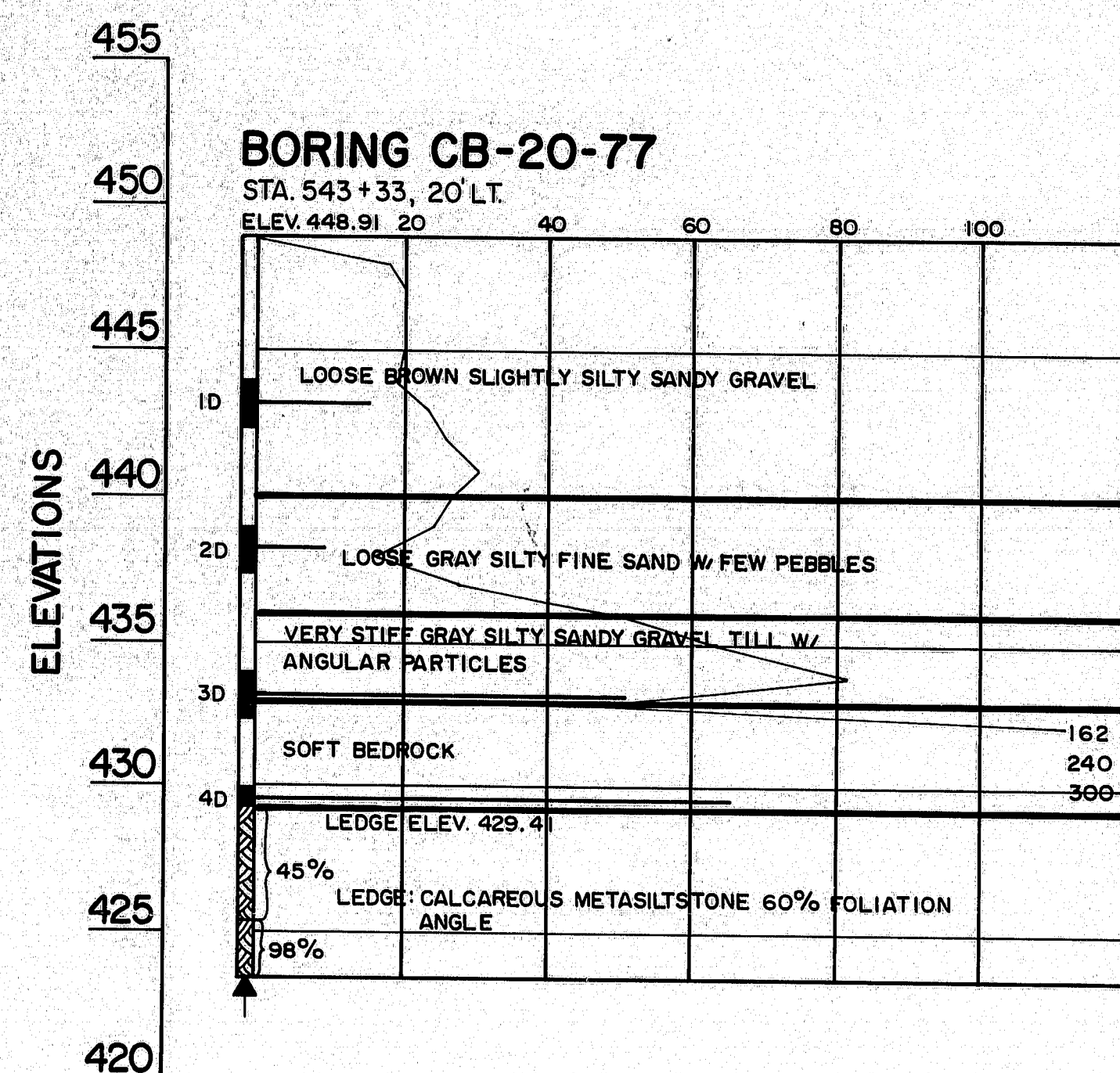
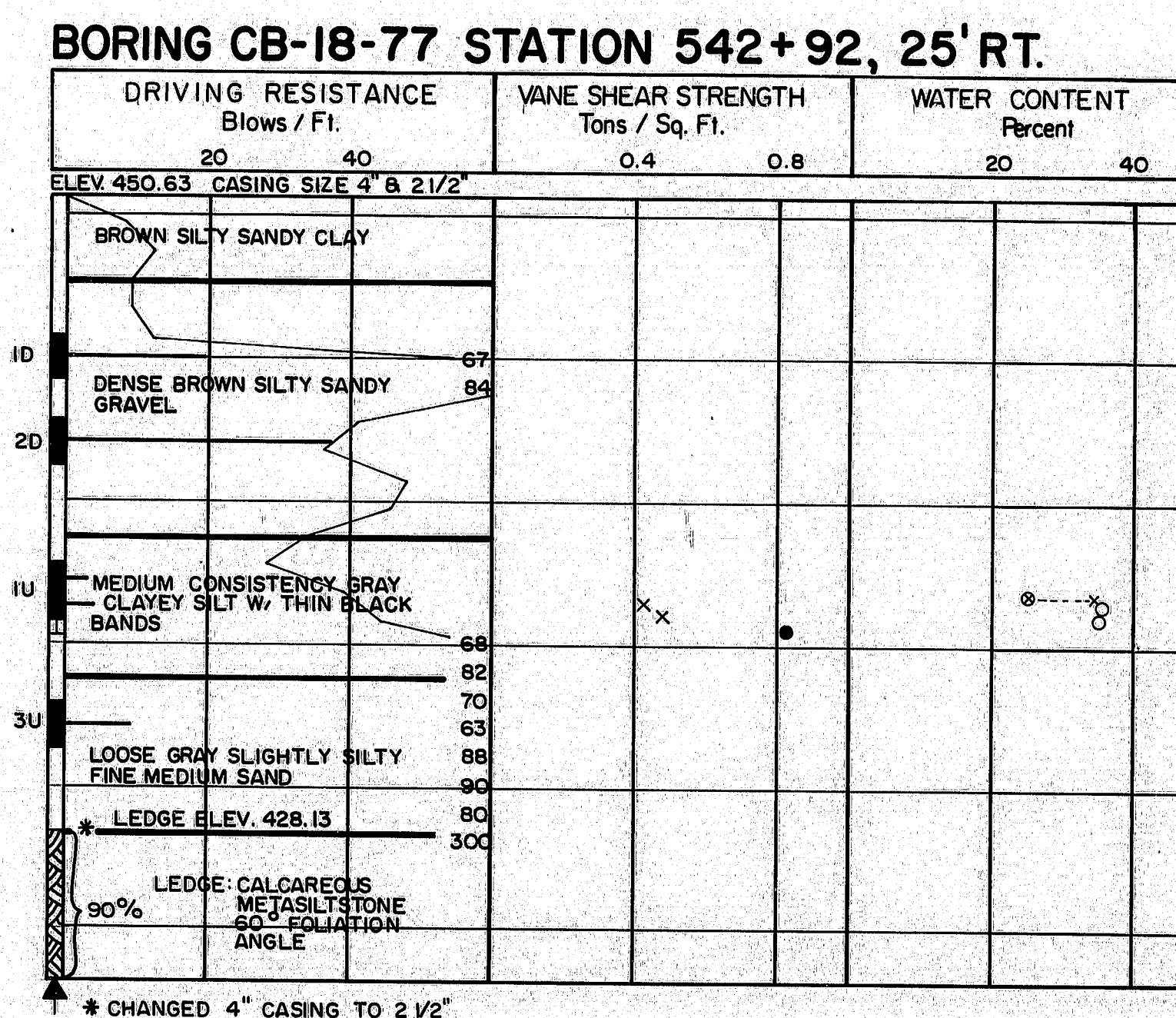
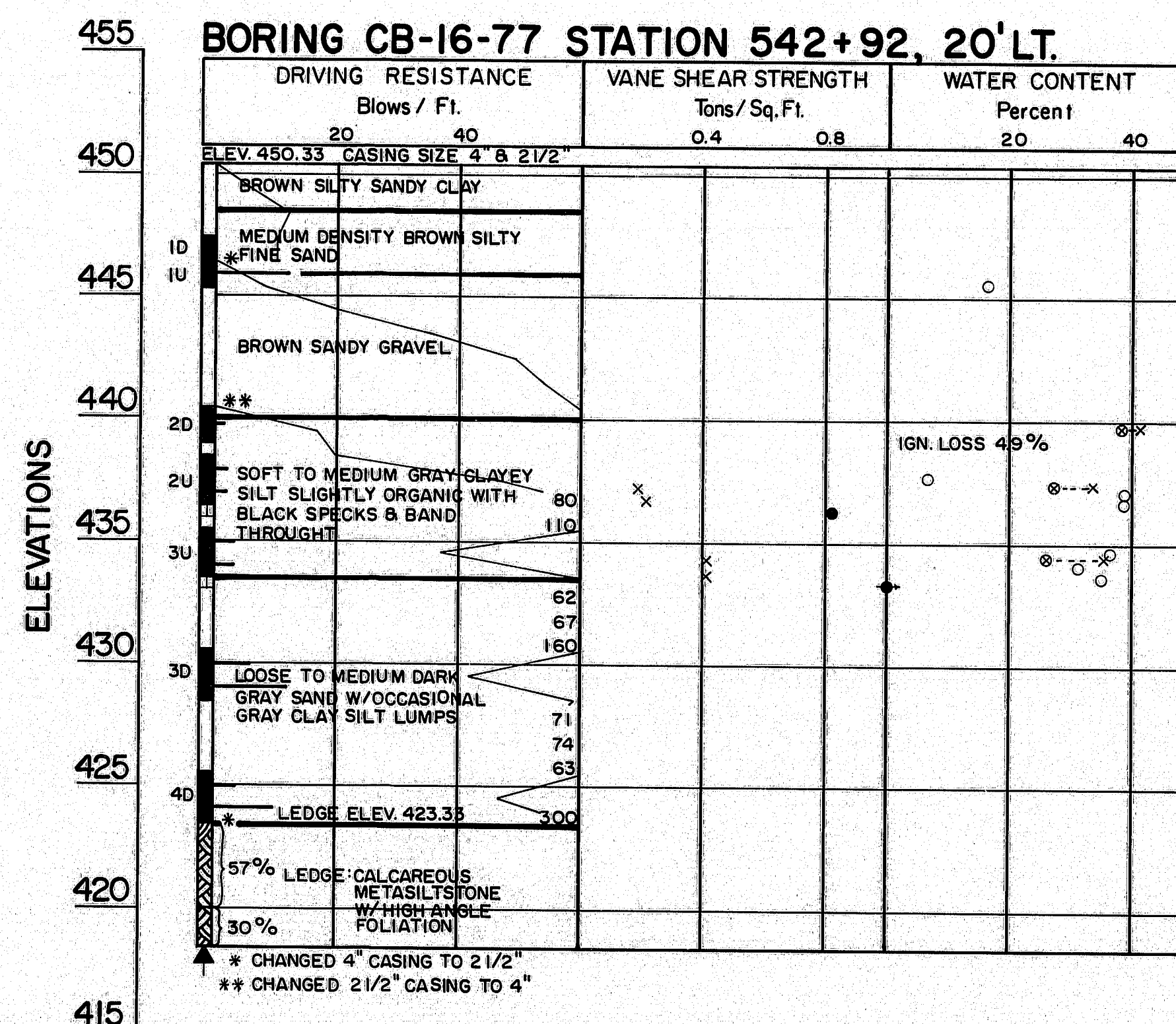
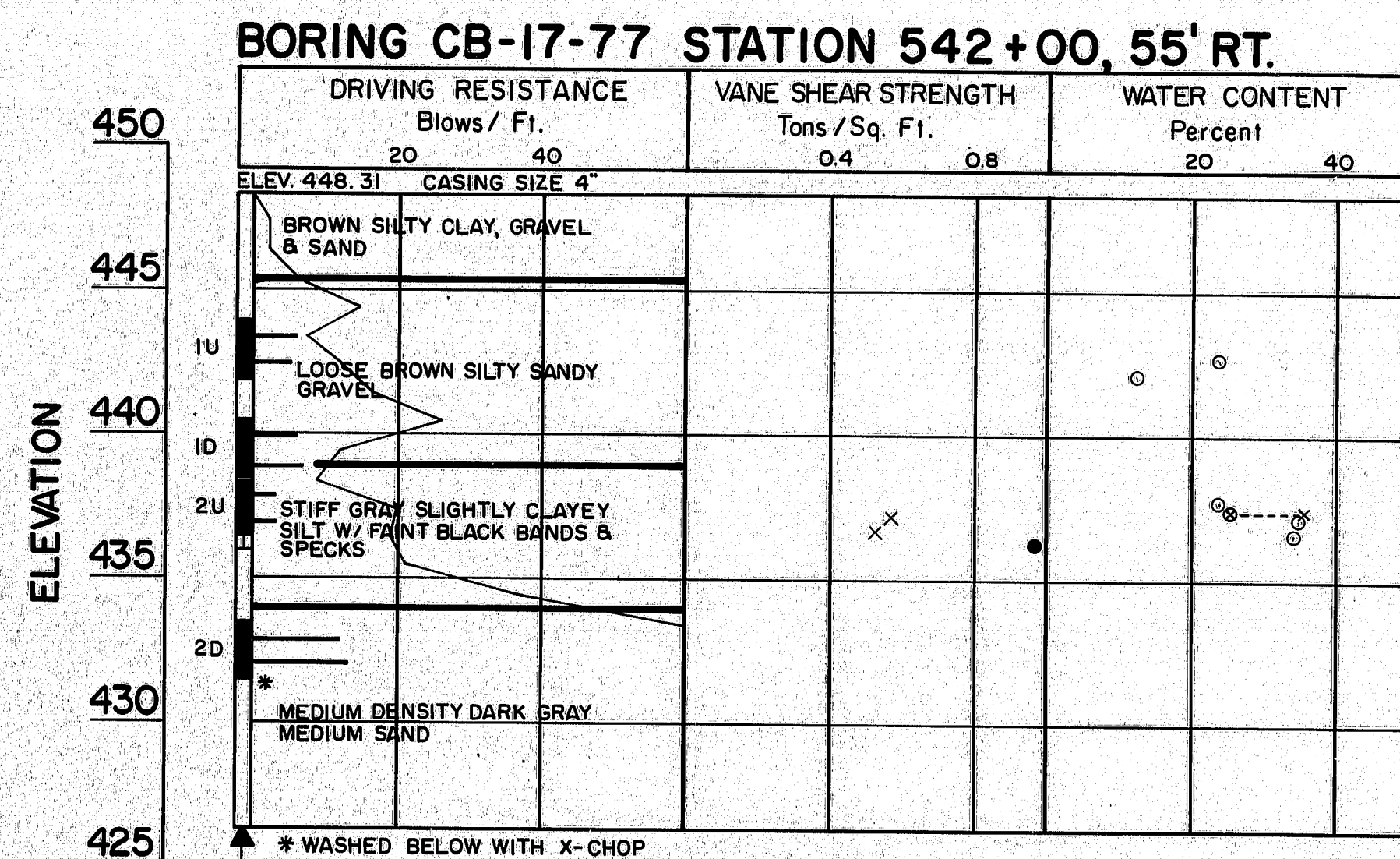
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**INTERSTATE 95 NB**  
OVER  
**WEST BRANCH MATTAWAMKEAG RIVER**  
IN THE TOWN OF  
**ISLAND FALLS**  
AROOSTOOK COUNTY  
FOUNDATION SURVEY

SHEET 28 OF 51 AUGUSTA, MAINE SEPT 1978

166-8





#### BORING NOTES

- All samples and vane tests 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
- ID S & H Sampler # 1290's
- IC 2" O.D. 16 ga. seamless tubing
- IU 3 1/2" O.D. 16 ga. seamless tubing
- IW Wash sample and number
- MD Unsuccessful sample attempt and type of sampler
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- H Sampling spoon or seamless tubing driven by static weight of drill rods and hammer
- P Piston sampler
- Field vane test
- Bottom of boring (may not be bottom of soil strata)
- Refusal of drill rods or casing (may not be ledge)
- Locations cored by diamond bit and per cent recovery of rock

#### SHEAR NOTES

- Field vane shear strengths
- Laboratory vane shear strengths
- Shear strengths in excess of capacity of equipment
- One half unconfined compressive strengths

#### WATER CONTENT NOTES

- Natural water contents, given as per cent of dry weight
- Plastic and liquid limits
- Ignition losses are given as per cent of dry weight

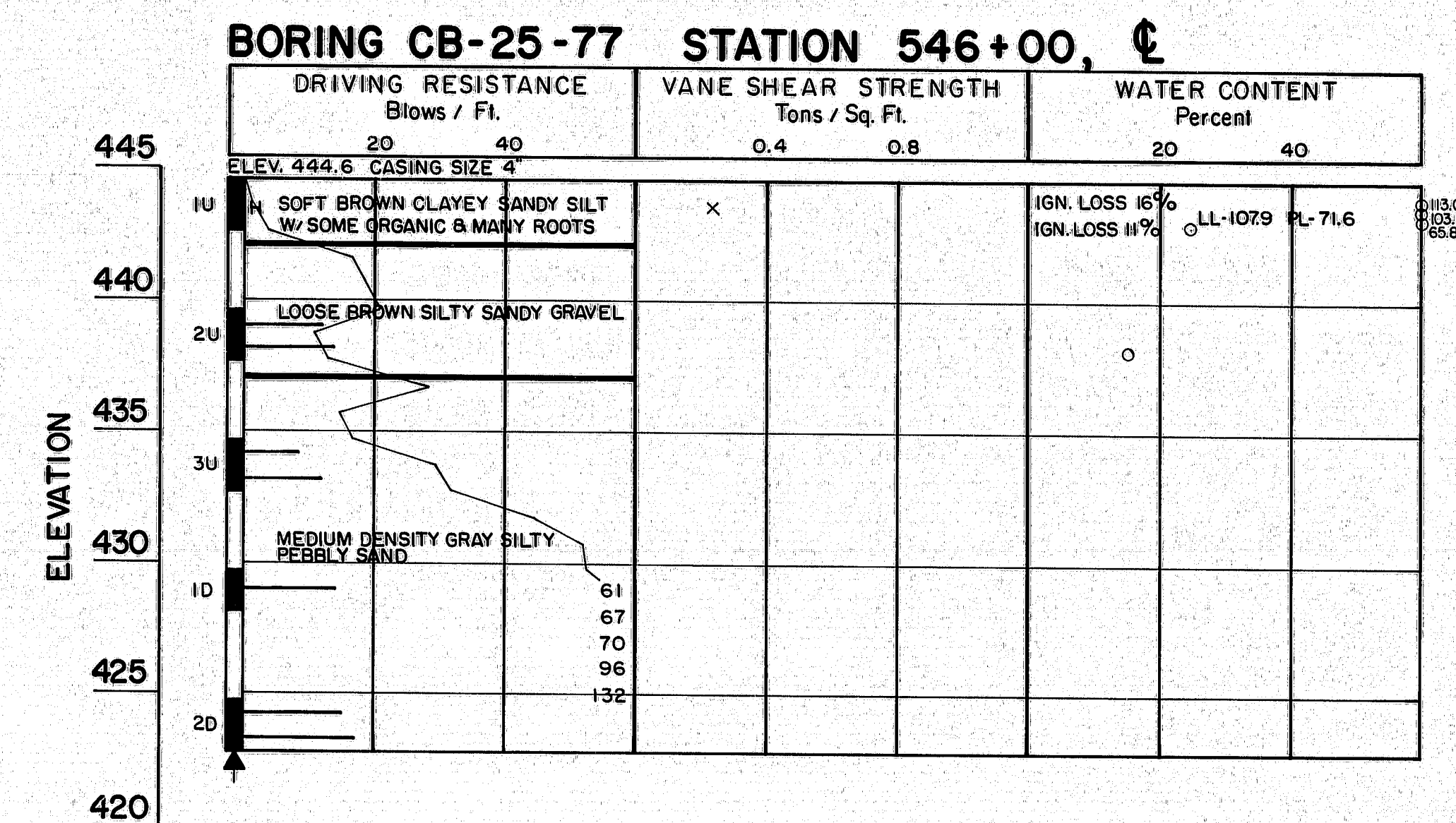
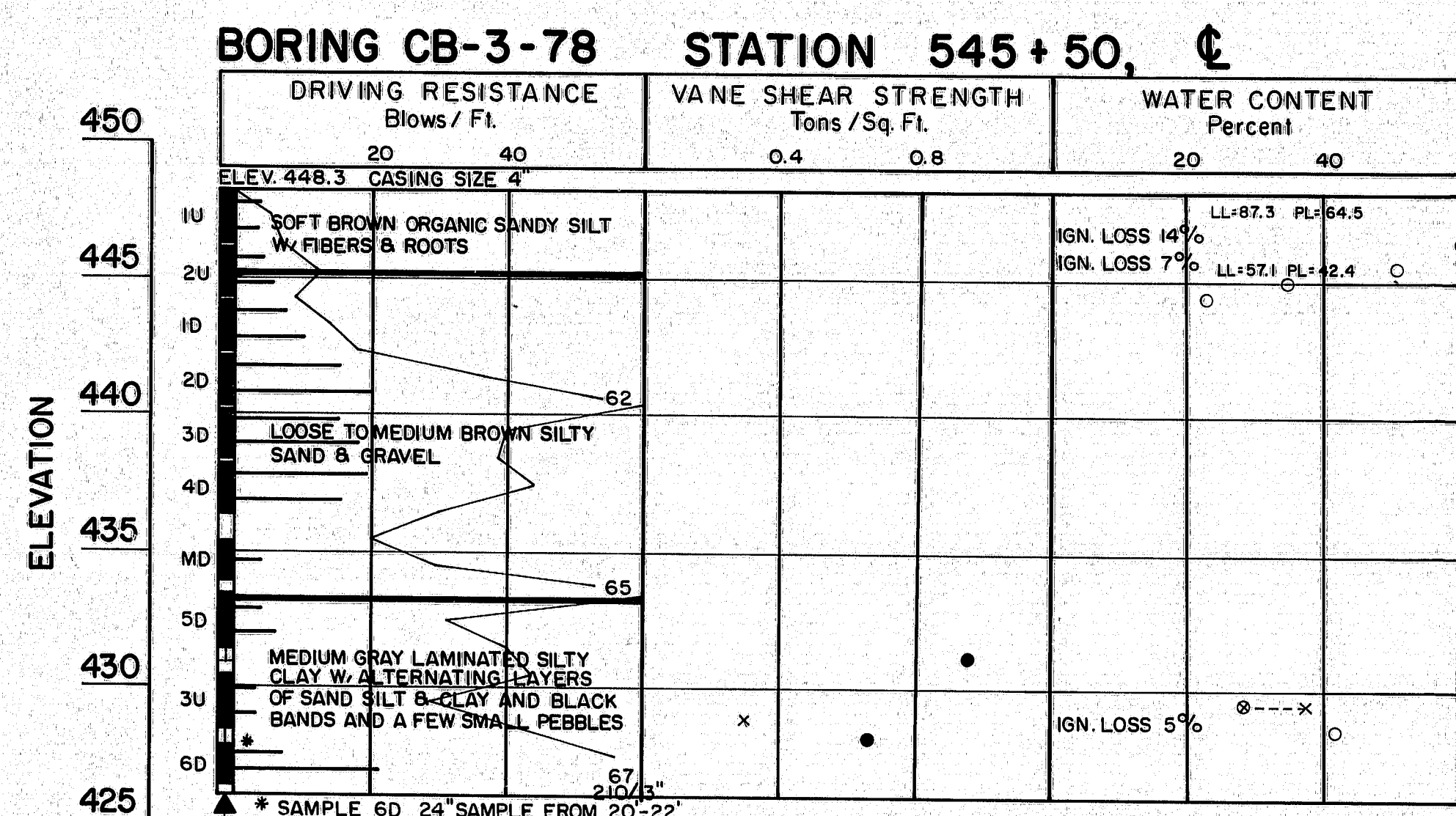
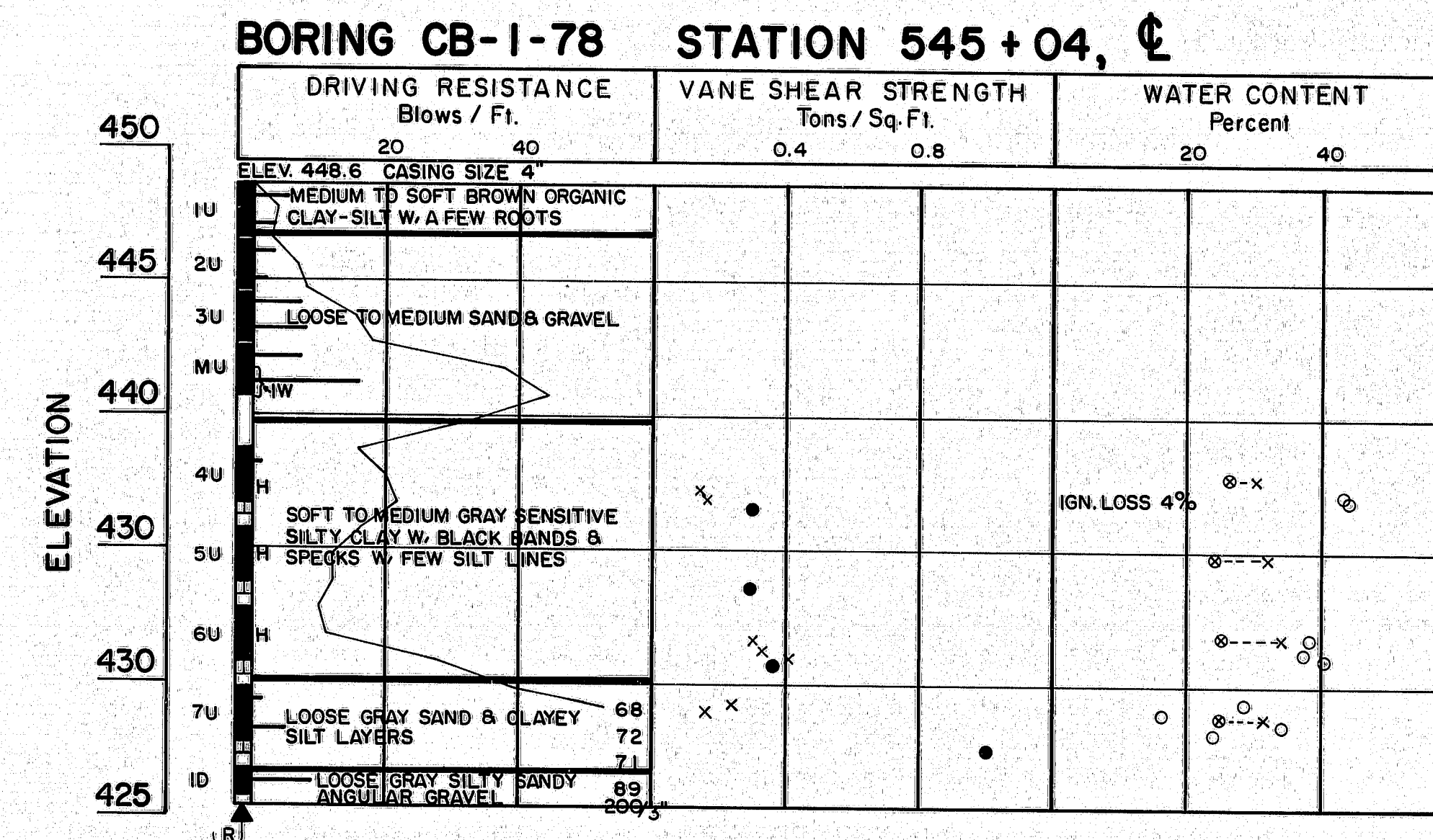
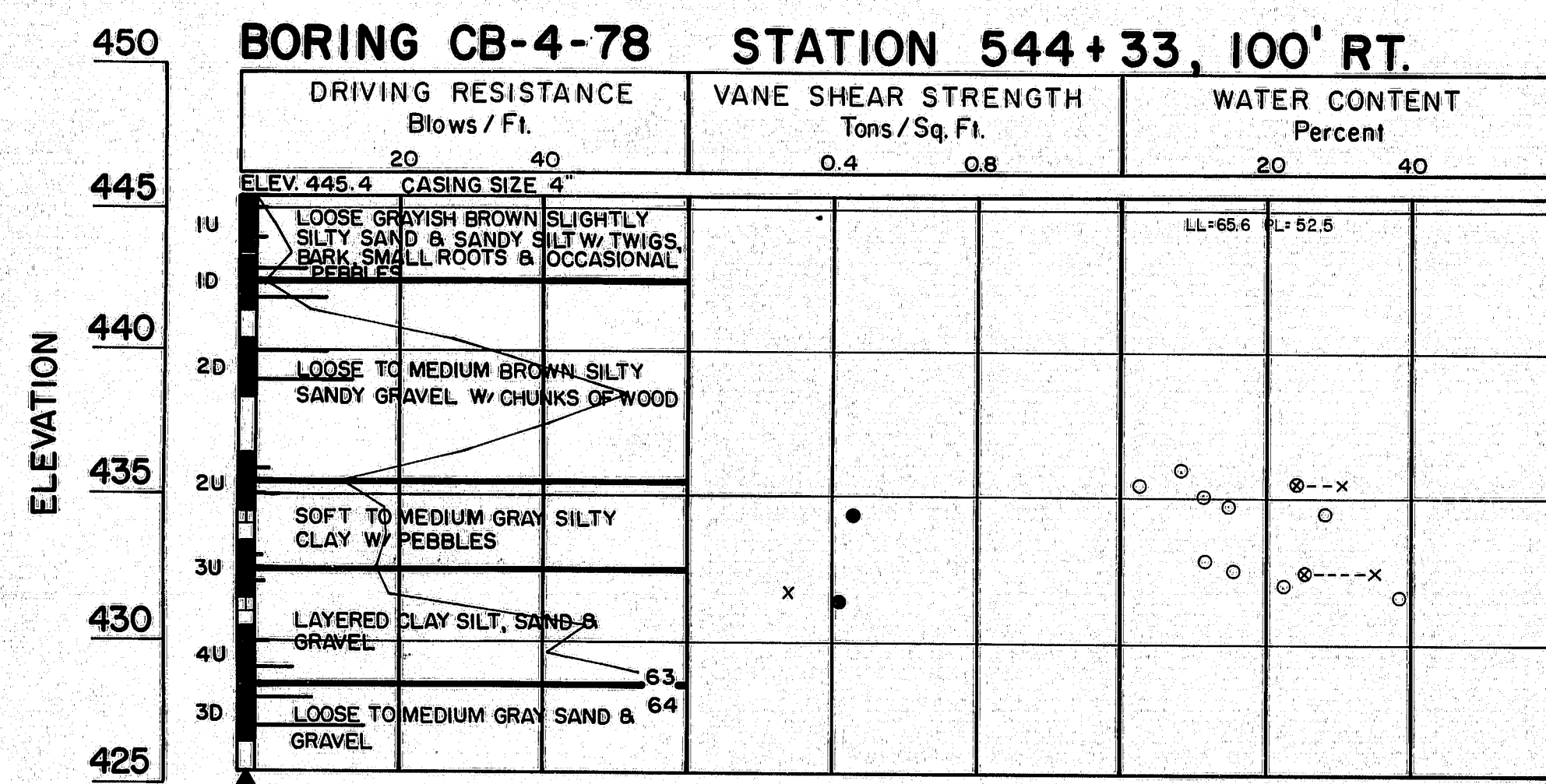
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95 N.B.  
OVER  
WEST BRANCH MATTAWAMKEAG  
RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY  
BORING DETAILS  
SHEET 29 OF 51 AUGUSTA, MAINE SEPT 1978

166-9



F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	2-95-9(83)	30	51
# 2-95-9(84)				



PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	BY
CHECKED	DATE
REVISIONS	
FIELD CHANGES	

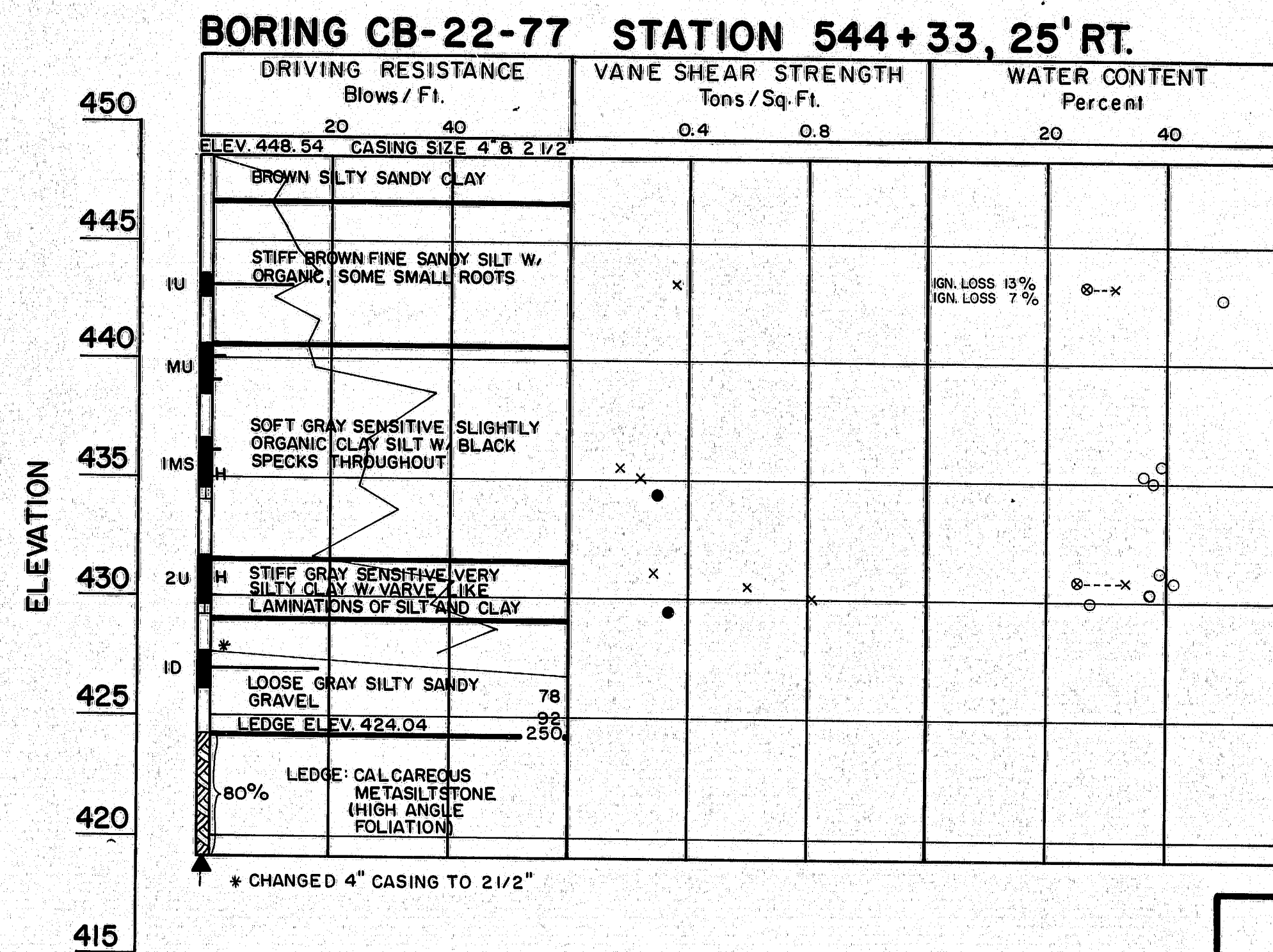
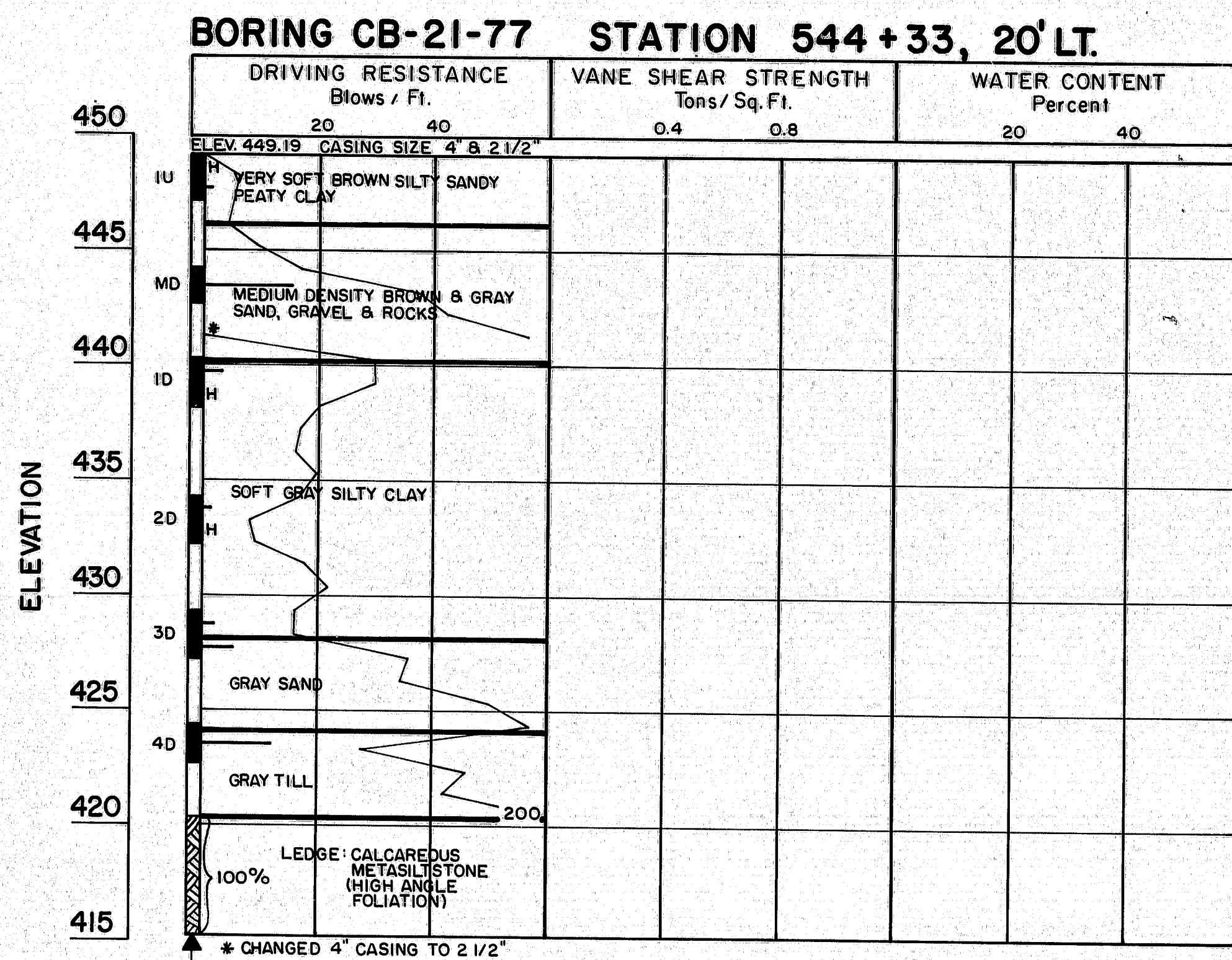
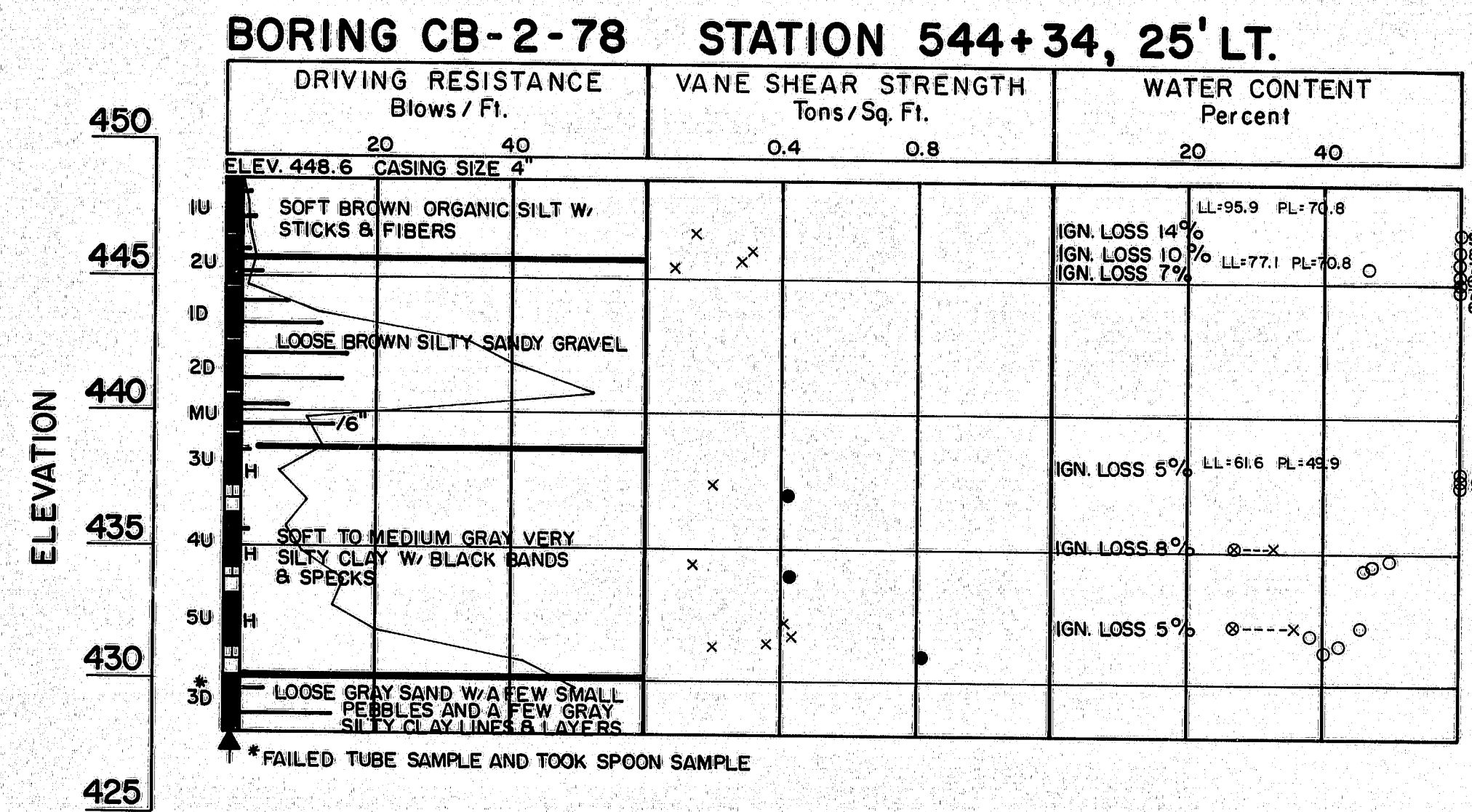
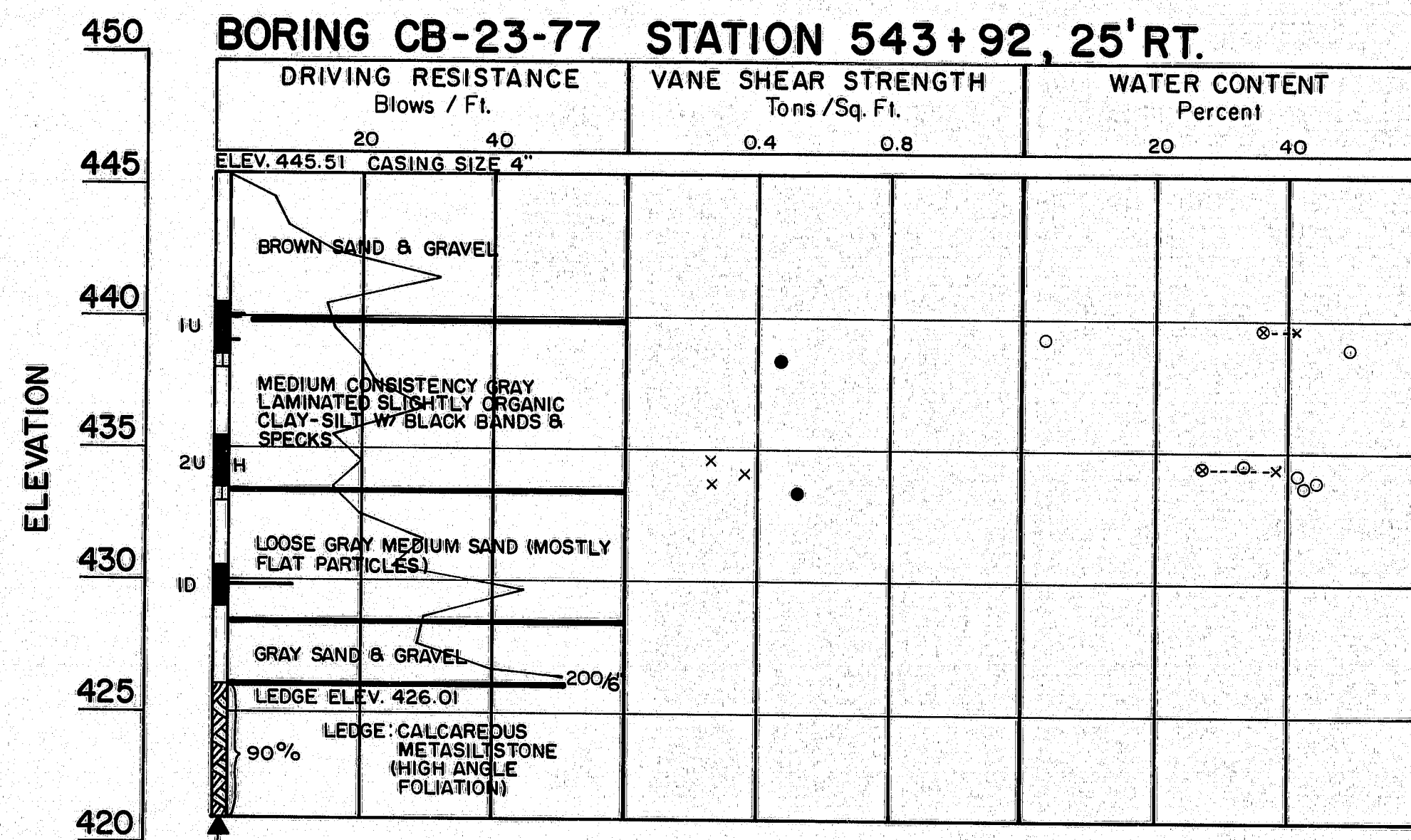
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95 N.B.  
OVER  
WEST BRANCH MATTAWAMKEAG  
RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY  
BORING DETAILS

SHEET 30 OF 51 AUGUSTA, MAINE SEPT 1978

166-10





PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	5/2/77
CHECKED	
REVISIONS	
FIELD CHANGES	

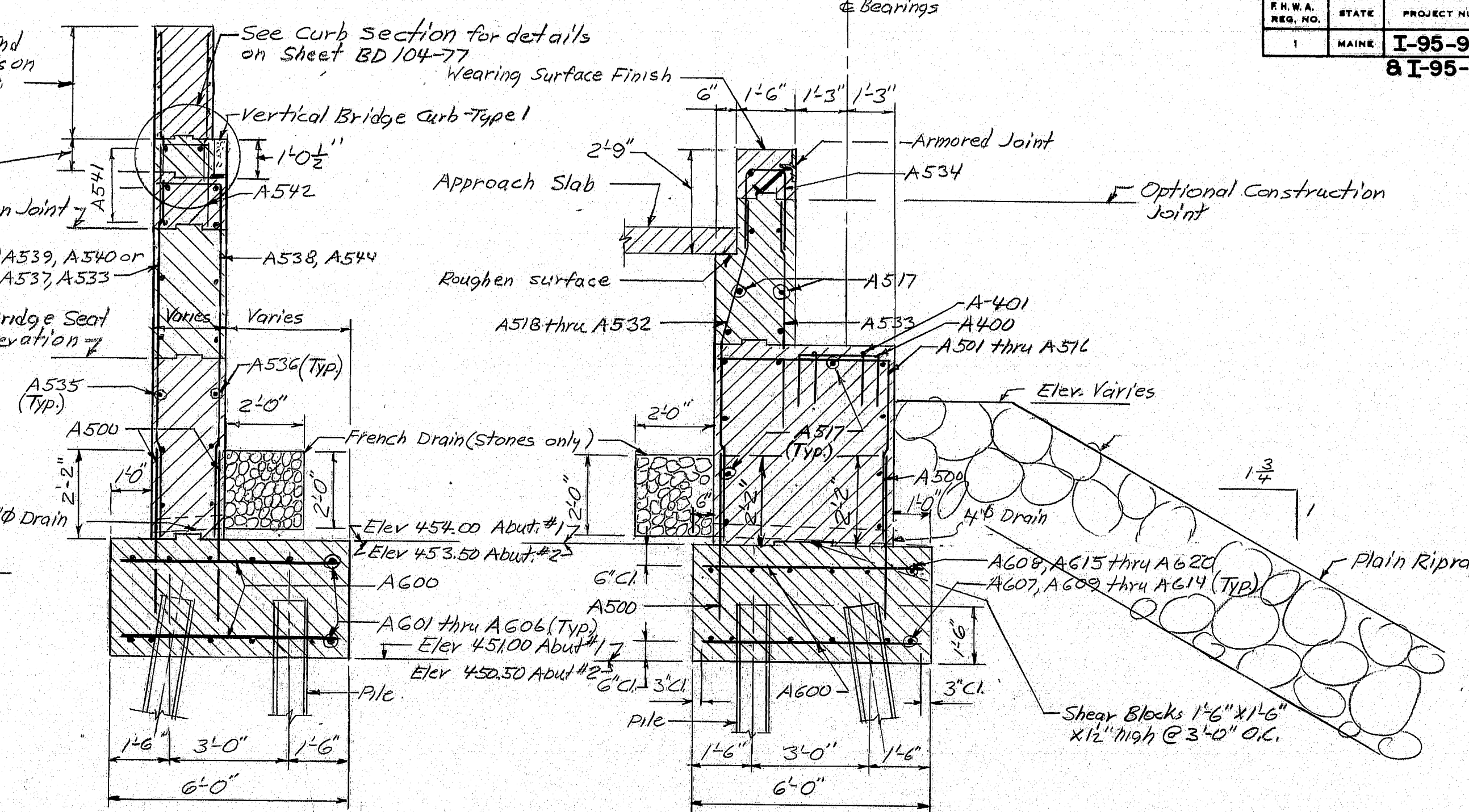
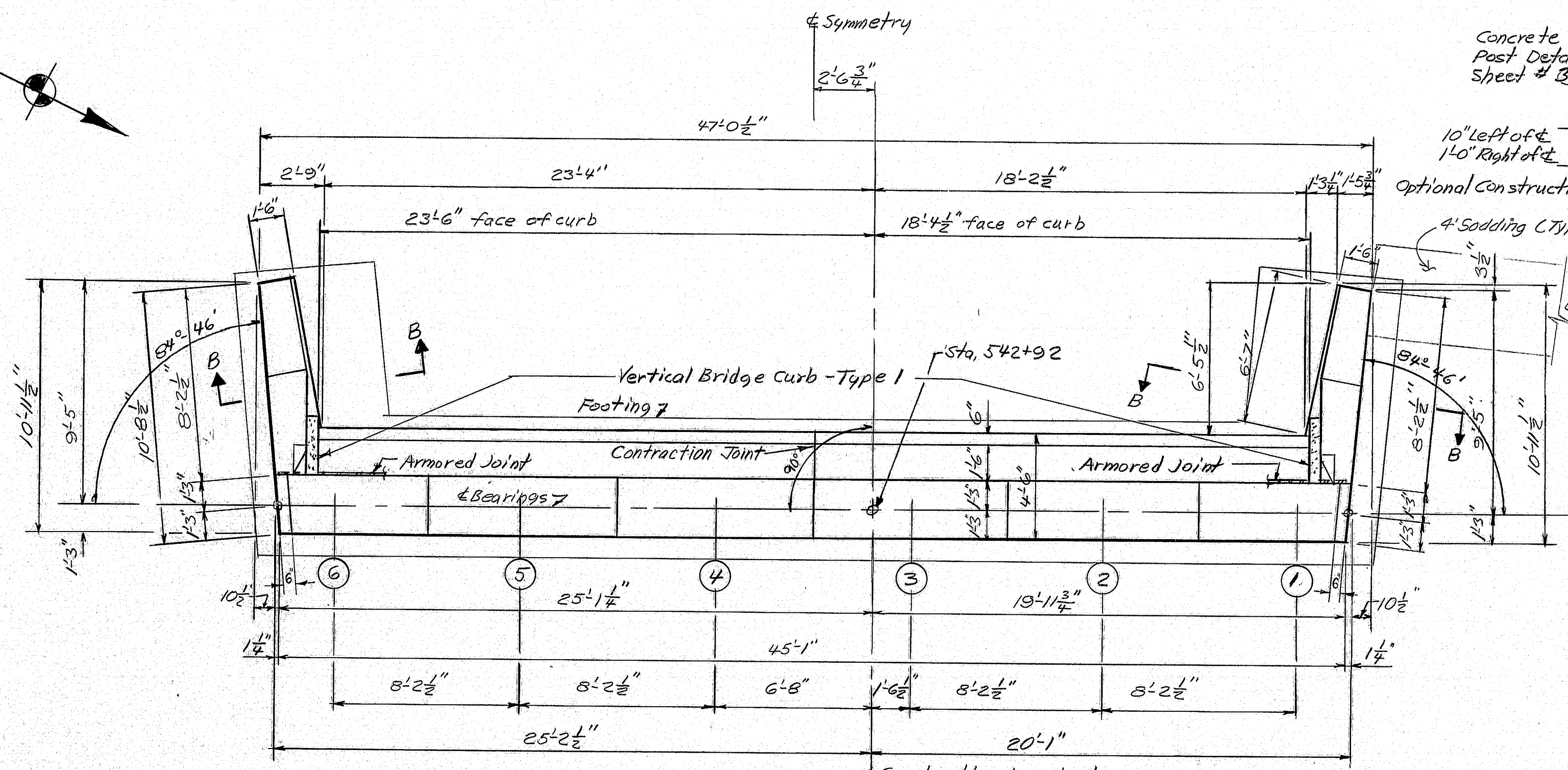
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95 N.B.  
OVER  
WEST BRANCH MATTAWAMKEAG  
RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY  
BORING DETAILS

SHEET 31 OF 51 AUGUSTA, MAINE SEPT 1978

166-11





- 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 footings may vary between 1'-0" and 2'-0" and the actual embedment length up to a maximum of 1'-6" will be included in the measurement for payment.
  6. Piles marked thus  $\nabla$  shall be battered 3 inches per foot in the direction of the arrow.
  7. Maximum pile loads: 555.5 tons.
  8. Following are pile locations, number of piles required, size of piles, and estimated driven lengths:
 

Abutment #1	16-HP10X42 X 30'-0"
Abutment #2	16-HP10X42 X 32'-0"

- ABUTMENT NOTES**
1. Chamfer all exposed edges of concrete a consistent dimension between  $\frac{1}{4}$ " and  $\frac{3}{8}$ " inclusive, unless otherwise indicated.
  2. Reinforcing steel shall have 2 inches cover, unless otherwise indicated.
  3. Place reinforcing steel in bridge seats to clear anchor bolts.
  4. Break band of vertical contraction joints by a method approved by the Engineer.
  5. Polyvinylchloride waterproofers as shown on Standard Details BD-104-77 shall be placed in all vertical contraction and construction joints.
  6. Waterstops are not required in horizontal construction joints.
  7. Protective coating for concrete surfaces shall be applied to the following areas:
    - Concrete Curb
    - Top of abutment backwall
    - Over all exposed surfaces of concrete end posts

8. Place 4" chamfer drains in breastwall and wings at 20' maximum spacing. Exact location to be determined by the Engineer in the field.
9. Welding of reinforcing steel will be allowed in the top 2' of the abutment backwall.
10. To allow for the adjustment for movement due to dead load deflections of the superstructure, and to aid in the proper alignment of the joint armor, the conc. which anchors the portion of the joint armor in the top of the abutment backwall shall be placed after all 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.
11. The abutment bridge seats and breastwalls shall be protected from rust staining in a manner similar to that used for Pier Protection (See Sheet # 36).
12. Provide 4" wide sodding strip at end of wings down the fall line to top of riprap.

**ABBREVIATIONS**

- B = Bottom  
 min. = minimum  
 O.C. = On Centers  
 Elev. = Elevation  
 C.I. = Clear  
 BF = Back Face  
 FF = Front Face  
 E.F. = Each Face  
 T = Top

**NOTES**

1. For Abutment reinforcing see sheet # 33.
2. For References see sheet # 33.

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

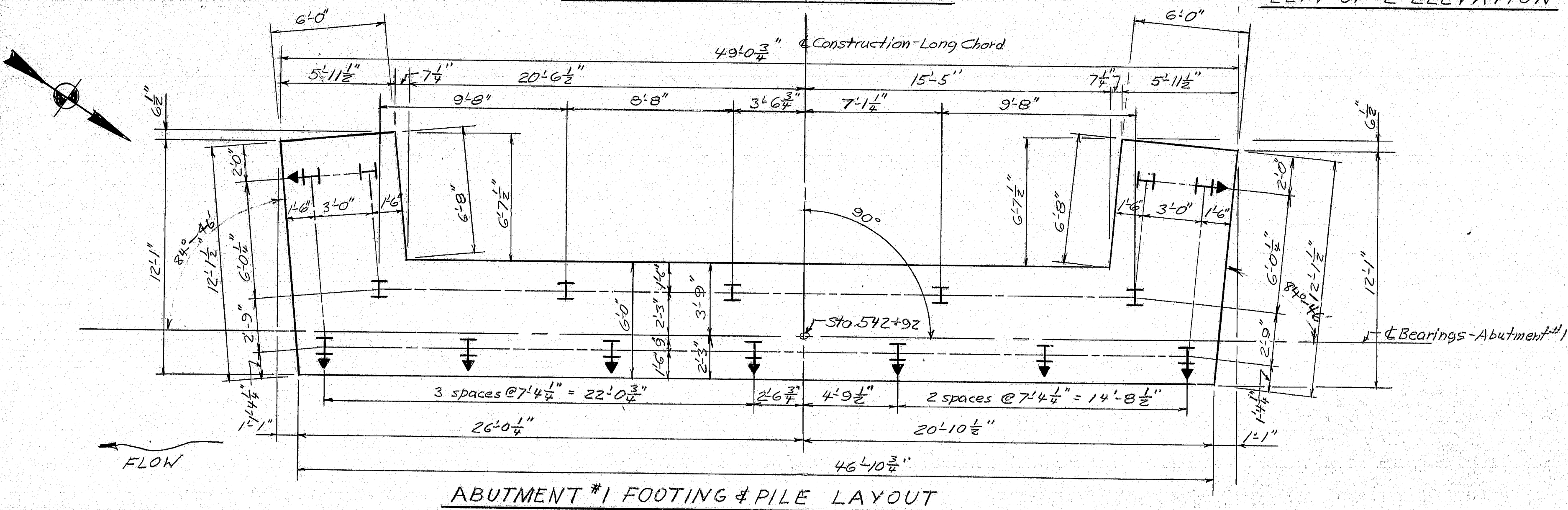
**INTERSTATE 95 NB**  
 OVER  
**WEST BRANCH**  
**MATTAWAMKEAG RIVER**  
 IN THE TOWN OF  
**ISLAND FALLS**  
**AROOSTOOK COUNTY**  
 ABUTMENT NO. 1

SHEET 32 OF 51 AUGUSTA, MAINE SEPT 1978

166-12

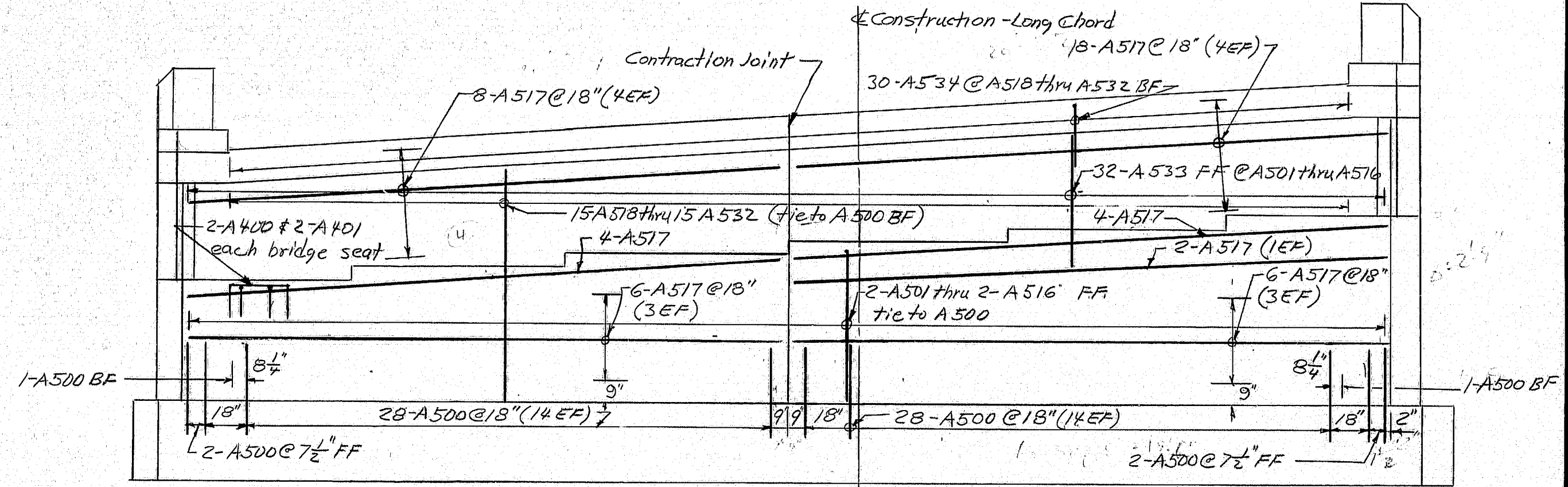
PROJECT DESIGN ENGINEER	DATE
BY	6-78
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

**RIGHT OF & ELEVATION**

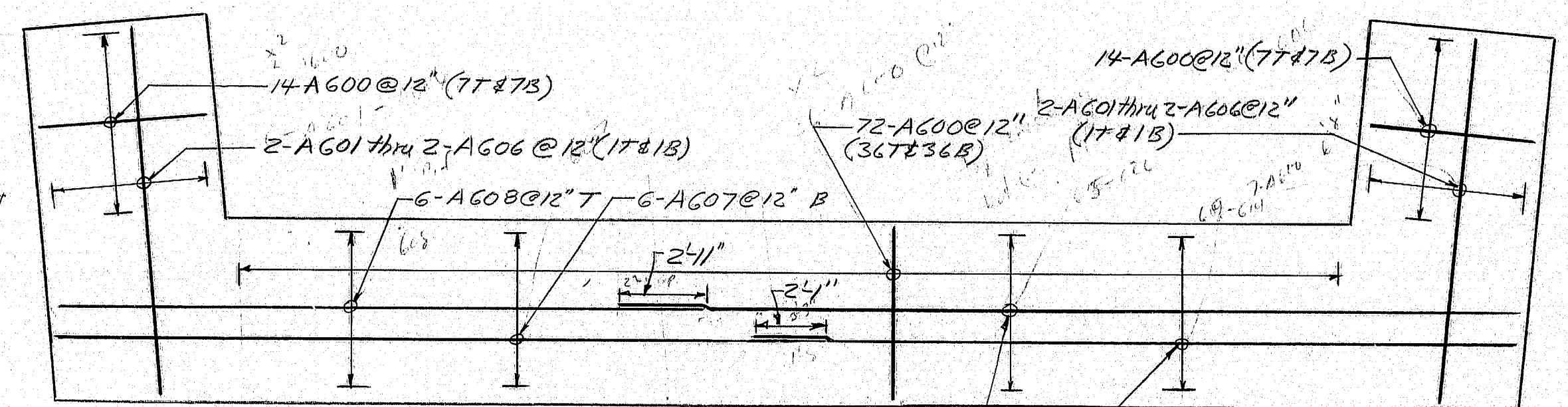


ABUTMENT #1 FOOTING & PILE LAYOUT



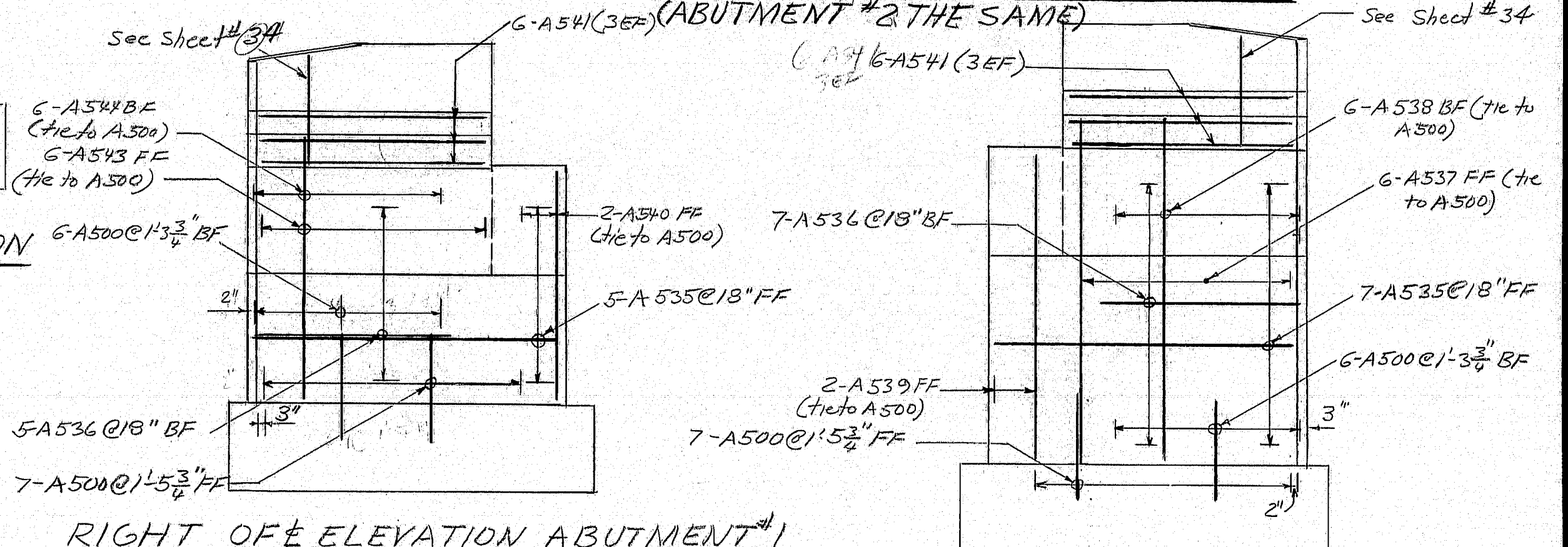


FLOW



LEFT OF & ELEVATION

### RIGHT OF ELEVATION



on) LEFT OF ELEVATION ABUTMENT #1  
(opposite hand for Abutment #2 left of Elevation)

<b>PLANS</b>	PROJECT DESIGN ENGINEER	CDH	BY	DATE
	DESIGN - DETAILED		CDH	6-78
	CHECKED		RME	6-78
	REVISIONS			
	FIELD CHANGES			

- ## NOTES

1. For Sections A-A and B-B see sheet #32.

As Built  
1979  
RMS 5-1-80

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**INTERSTATE 95 NB**  
**OVER**  
**WEST BRANCH**  
**MATTAWAMKEAG RIVER**  
**IN THE TOWN OF**  
**ISLAND FALLS**  
**AROOSTOOK COUNTY**  
**ABUTMENT NO. 2**

SHEET 33 OF 51      AUGUSTA, MAINE      SEPT 1978

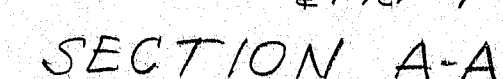
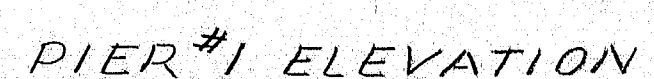
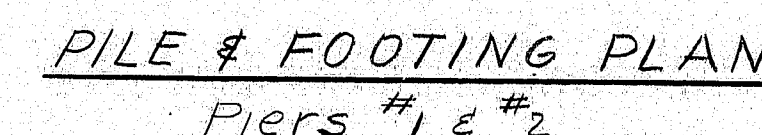
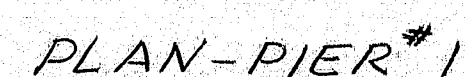
166-13





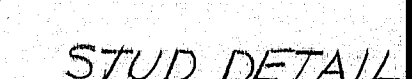
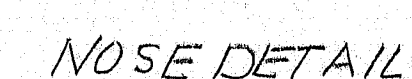


A T-95-9(84)



- ## REFERENCES

- As B. 11 + 1979 Run 5-1-80



Provide for full height from top of footing to bottom of cap.

Studs shall be granular or solid flux filled and automatically end welded to the angle in the shop.

As Built 1979 *eng 5-1-80*

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

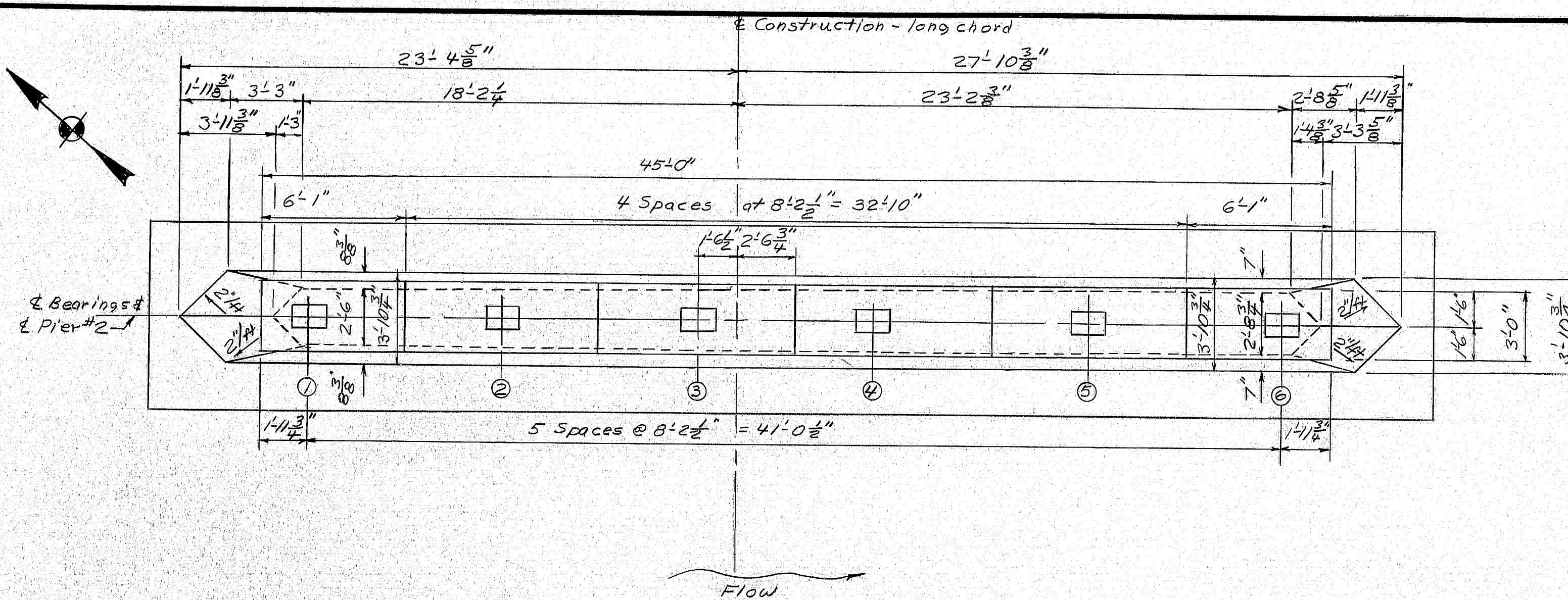
**INTERSTATE 95 NB**  
**OVER**  
**WEST BRANCH**  
**MATTAWAMKEAG RIVER**  
**IN THE TOWN OF**  
**ISLAND FALLS**  
**AROOSTOOK COUNTY**  
**PIER NO. 1**

SHEET 35 OF 51      AUGUSTA, MAINE      SEPT 1978

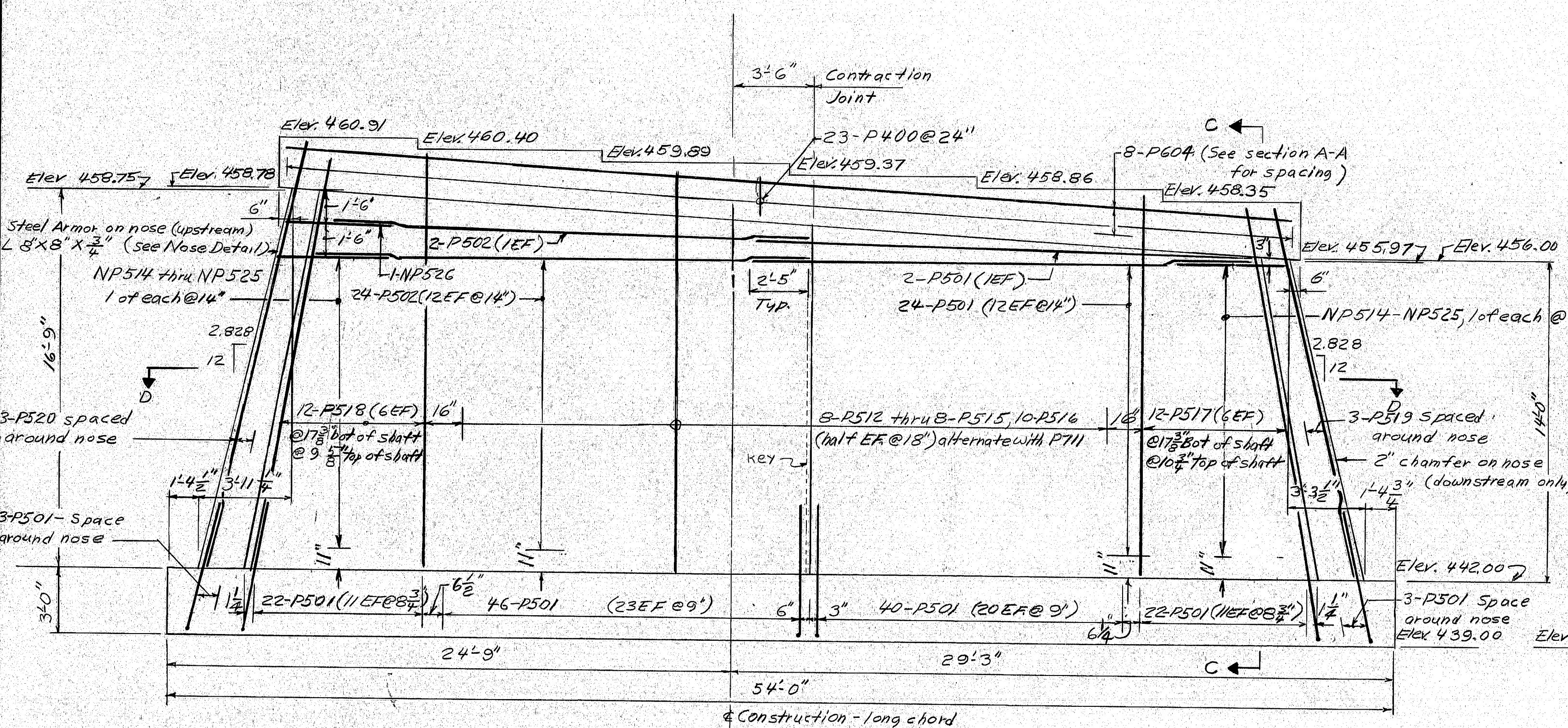
166-15

166-15

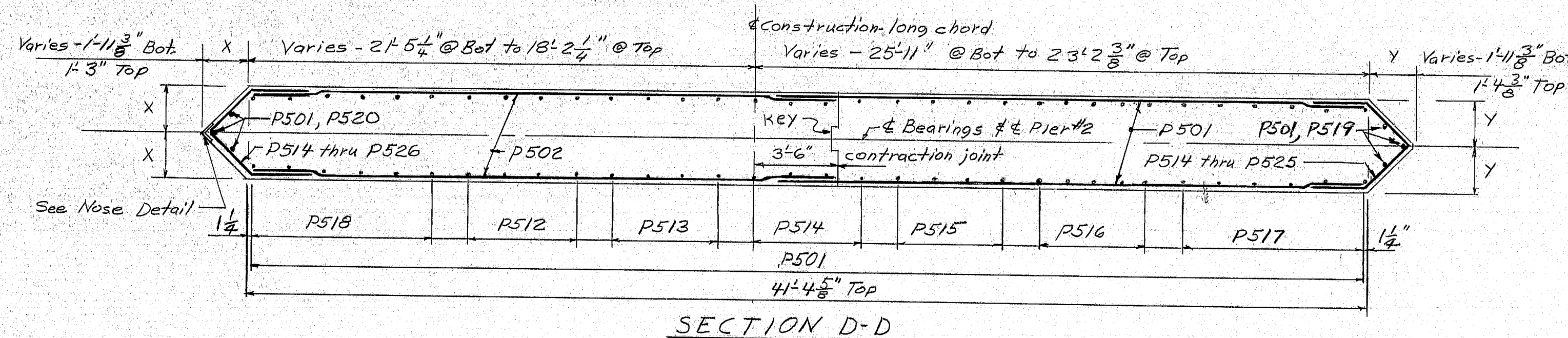




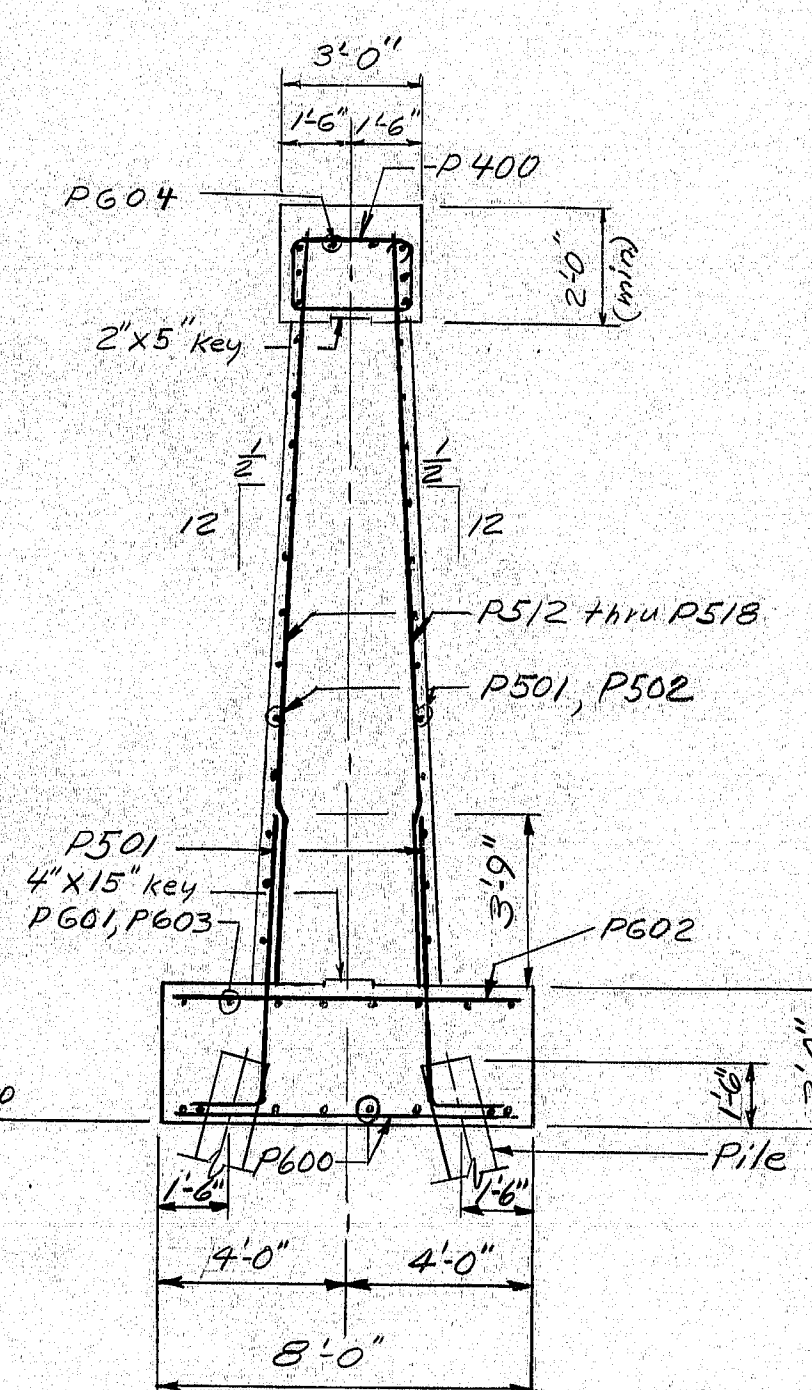
PLAN-PIER #2



PIER #2 ELEVATION



SECTION D-D



NOTE:  
For pile & footing plan for Pier #2, see Pier #1.

SECTION C-C

### PIER NOTES

1. Chamfer all exposed edges of concrete 3/4 inch unless otherwise indicated.
  2. Reinforcing steel shall have 3 inches minimum cover unless otherwise indicated.
  3. Place reinforcing steel on bridge seats to clear anchor bolts.
  4. Nose angle shall be ASTM A588 (unpainted) steel, and payment will be incidental to Item 502.23, Structural Concrete, Piers.
  5. The pier shall be protected from rust staining by leaving forms in place temporarily or by covering the concrete after removal of forms. Polyethylene sheets, or other approved material, shall be placed on and around the pier bearing areas prior to setting the bearing pedestals, and shall extend underneath the masonry plates such that water will run off the pedestals onto the sheets. Protective covering of either forms or polyethylene sheeting shall remain in place at least until concrete placement for the structural concrete slab has been completed, and as long after that time as convenient for the Contractor. In any case the Contractor shall obtain approval of the Engineer prior to removing the protective coating.
- Removal of stains will not be required unless, in the opinion of the Engineer, the Contractor has not made satisfactory effort to prevent staining.

### REFERENCES

1. For Bearing Pedestals, see Standard Details BD/100-71.
2. For Construction and Contraction Joint details, see Standard Details BD/104-77.
3. For Pile and Footing Plan, Nose Detail and Pile Notes see Pier #1 Sheet #35.

### DESIGN CRITERIA

1. Critical AASHTO Loading - Group B.
2. Buoyancy - Water level assumed at Elevation 458.5.
3. Stream Flow - Velocity of 7 feet per second, skewed at 20 degrees to longitudinal centerline of pier.
4. Wind - 100 m.p.h.
5. Ice - 12 inches thick, producing 400 p.s.i.. Transverse Ice Force = 172.8 k. Longitudinal Ice Force = 62.7 k, with water level at elevation 458.5.

PROJECT DESIGN ENGINEER	DATE
CDH	1/78
DESIGN-DETAILED	BY
CDH	1/78
CHECKED	DATE
RLC	6/78
REVISIONS	FIELD CHANGES

As B.O.H. 1979 Eng 5.1-80

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95 NB  
OVER  
WEST BRANCH  
MATTAWAKEAG RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY  
PIER NO.2

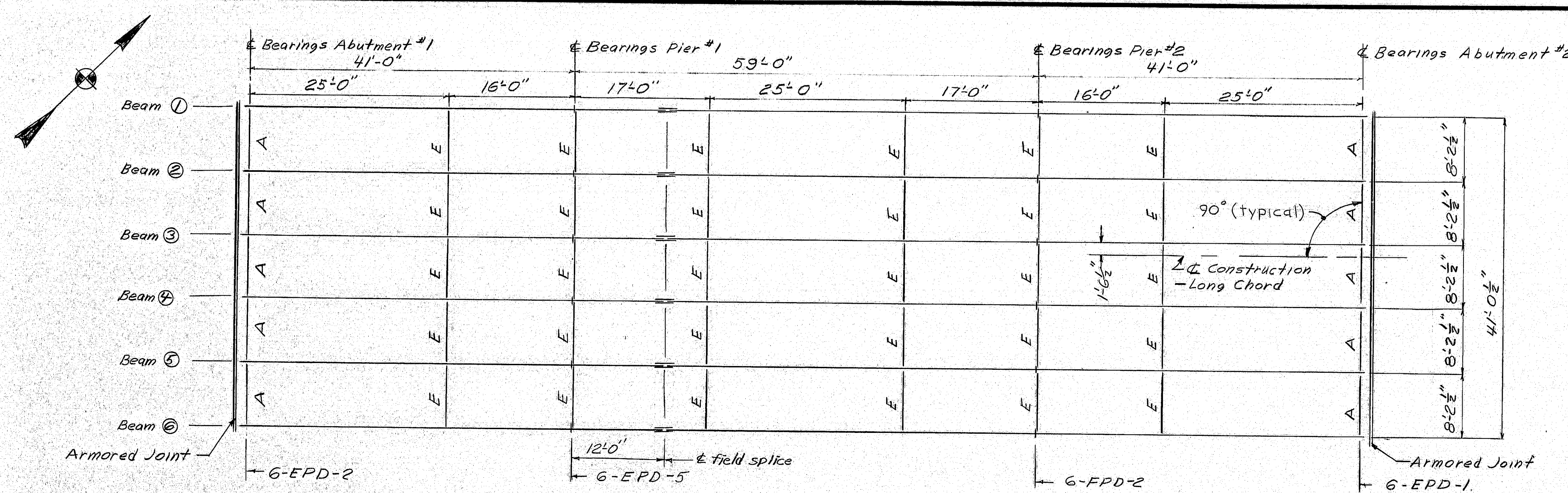
SHEET 36 OF 51 AUGUSTA, MAINE SEPT 1978

100-10



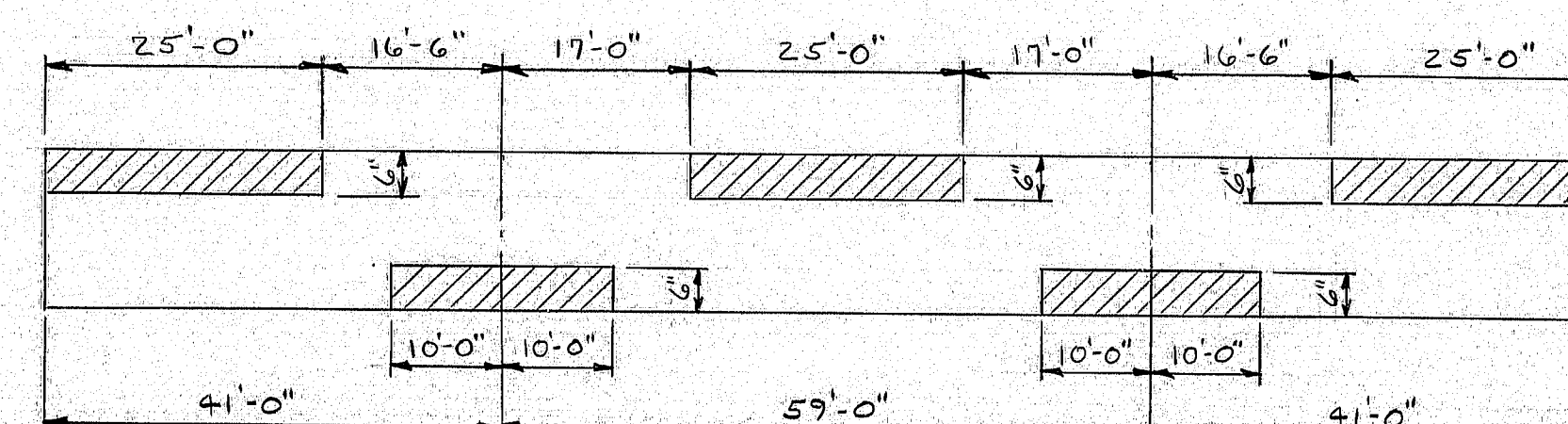
F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(83)	37	51

8 I-95-9(84)

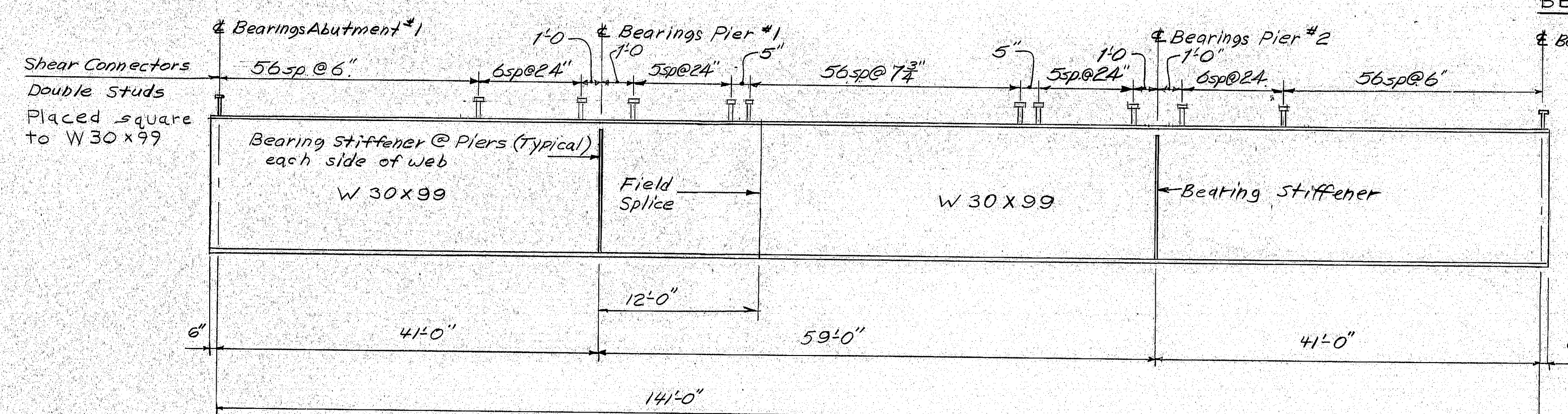


FRAMING PLAN

Areas always  
in compression

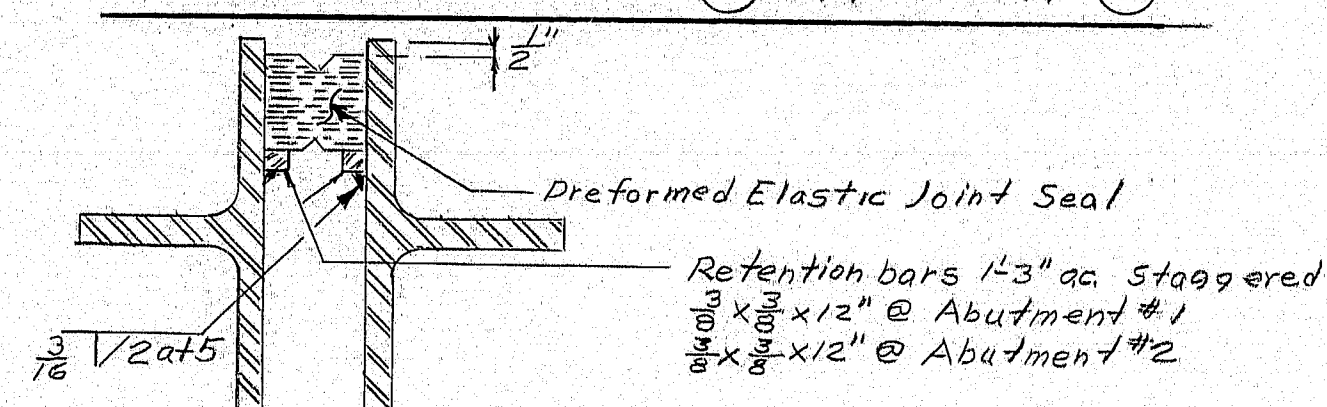


BEAM STRESS DIAGRAM



BEAM ELEVATION (1) THROUGH (6)

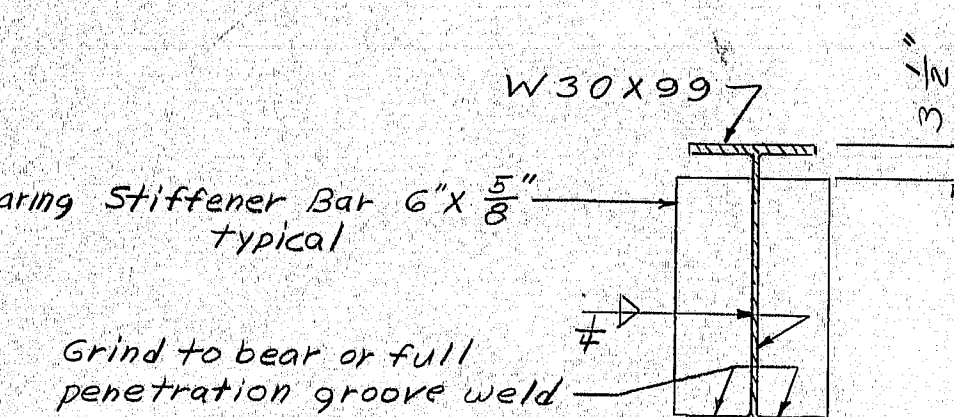
Total number of studs = 390 per beam  
Total number of studs = 2340 per bridge



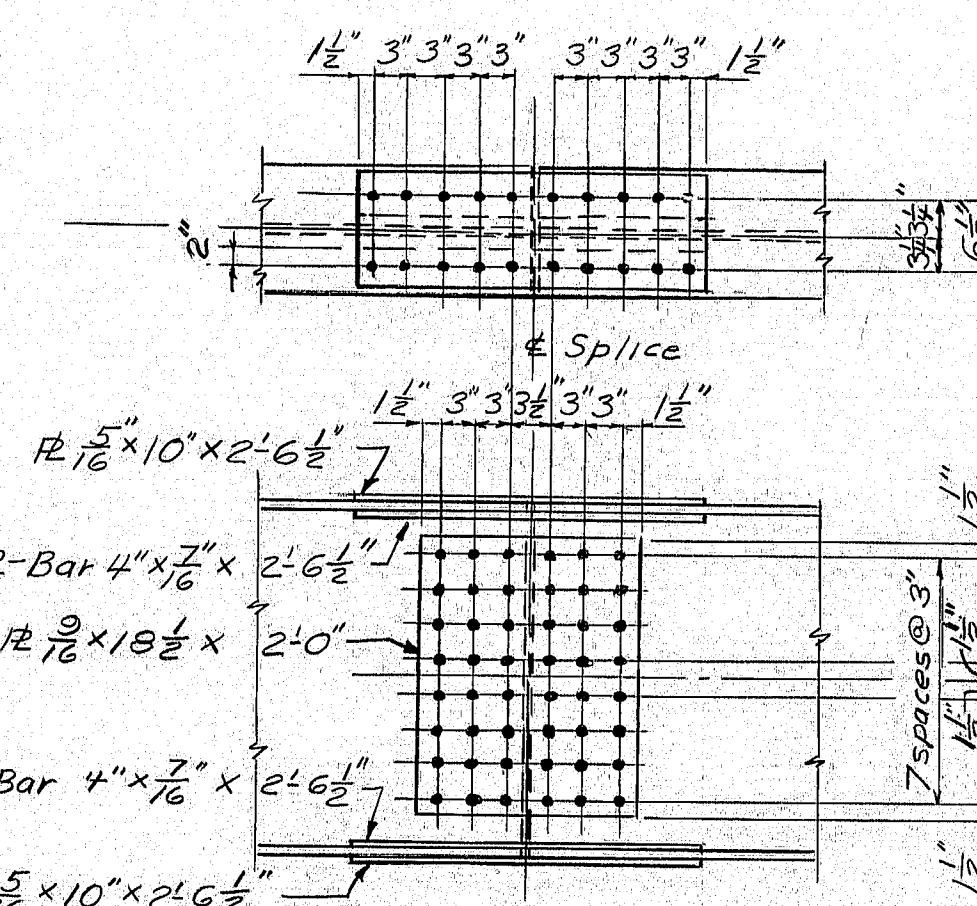
PREFORMED ELASTIC JOINT SEAL DETAILS

NOTES:

1. The seal furnished shall have a minimum movement rating of: Abutment #1 =  $\frac{1}{4}$ " & Abutment #2 =  $\frac{1}{2}$ "
2. 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.
3. The seal shall be approved by the Engineer prior to fabrication of the armored joint.
4. No movement due to dead loads, (slab, curb & wearing surface) shall be taken into account when setting the armored joint at both abutments.
5. The maximum joint opening shall be  $\frac{3}{4}$ " at abutment #1 and  $1\frac{1}{2}$ " at abutment #2; both at minus 30°F. measured parallel to & construction.



BEARING STIFFENER

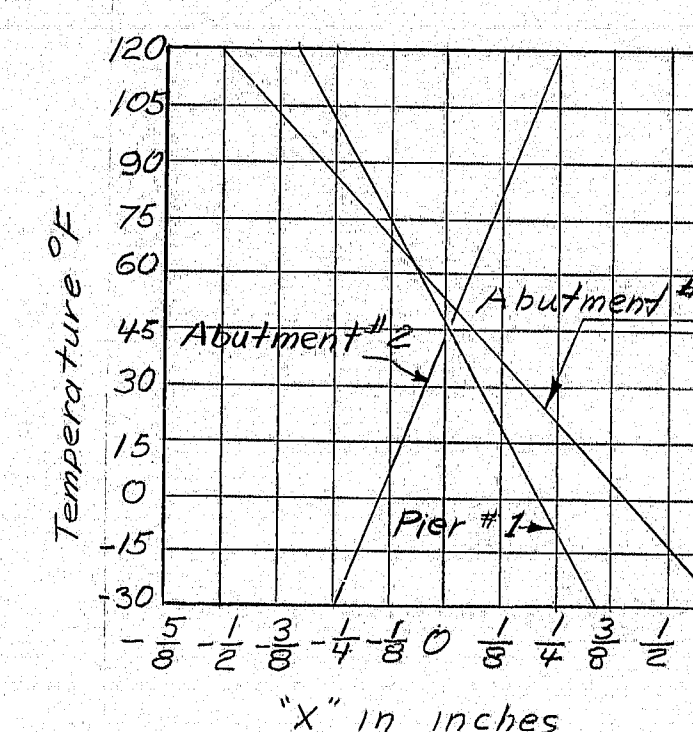


SPlice DETAILS

GENERAL NOTES

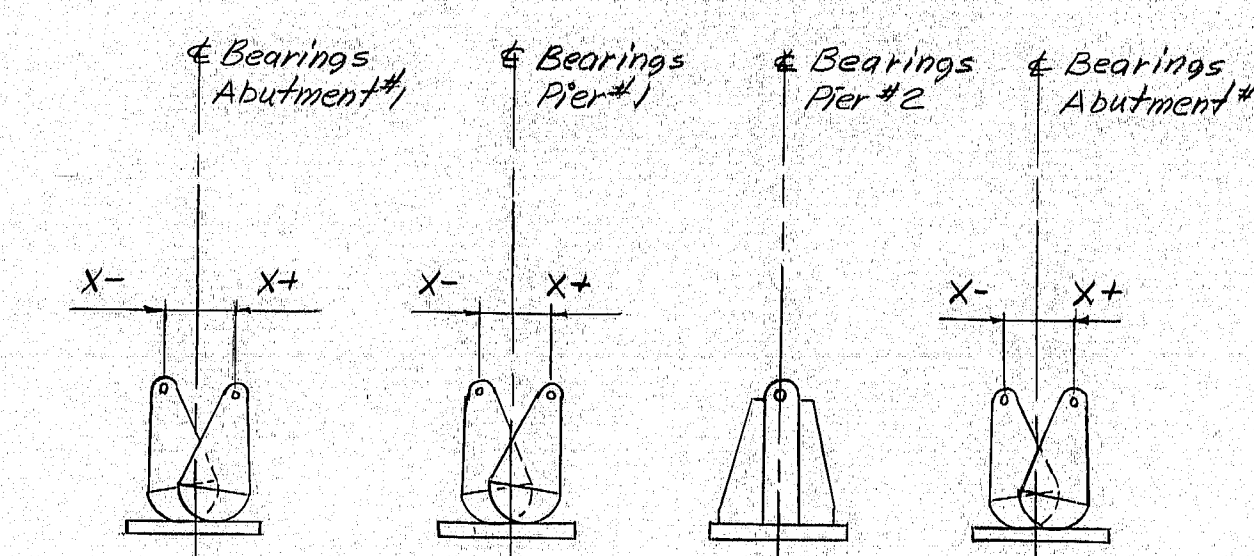
1. All steel shall be A588 (unpainted) with a basic Allowable Stress of  $f_s = 27000$  psi.
2. Bearing stiffeners shall be plumb after erection and dead loading of the structure.
3. Diaphragm connection plates may be either plumb or normal to the top flange.
4. All dimensions are horizontal.
5. Type A diaphragms @ & Bearings - Abutments; type E diaphragms elsewhere. See Standard Details BD 113-78.
6. Shear connectors shall be  $\frac{3}{8}$ "  $\phi$  welded studs 5' long. (See BD 104-77)
7. Place natural camber up.
8. For Armored Joints see Standard Details BD 104-77.
9. The Armored Joints shall extend to within 2" of the fascia.
10. All bolts shall be  $\frac{3}{4}$ "  $\phi$  High Strength Bolts, ASTM A325 with  $f_t = 13500$  psi. Holes shall be  $\frac{15}{16}$ "  $\phi$ .
11. Filler plates shall be ASTM A588 steel and mill tests for filler plate material will not be required.
12. Rocker setting data as shown shall be used as a guide only. No extra payment will be made for resetting of the rocker bearings, subsequent to the original setting, made by the contractor as required by the Engineer to make the rocker settings conform with paragraph four (4) of subsection 504.5B.

TYPICAL SECTION



ROCKER BEARING SETTING GRAPH

This graph of bearing settings compensates for longitudinal movement due to temperature change and dead load deflection. See Rocker Bearing Setting Diagram. For use before slab placement.



ROCKER BEARING SETTING DIAGRAM

As B014 1979 Rev 5-1-80

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

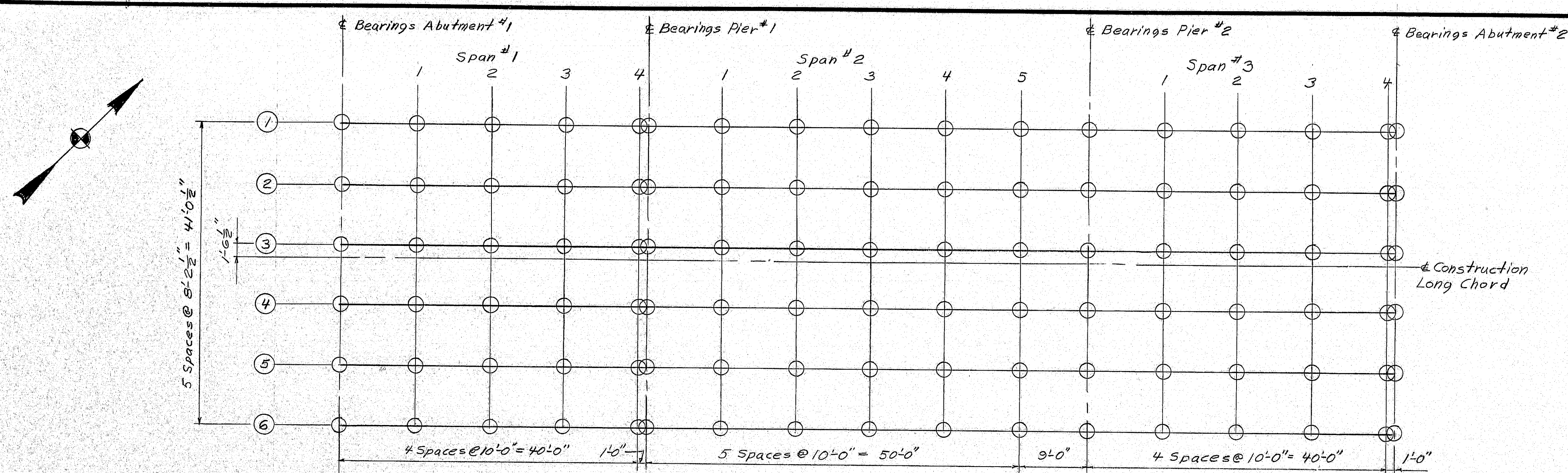
INTERSTATE 95 NB  
OVER  
WEST BRANCH  
MATTAWAKEAG RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY  
STRUCTURAL STEEL

SHEET 37 OF 51 AUGUSTA, MAINE SEPT 1978

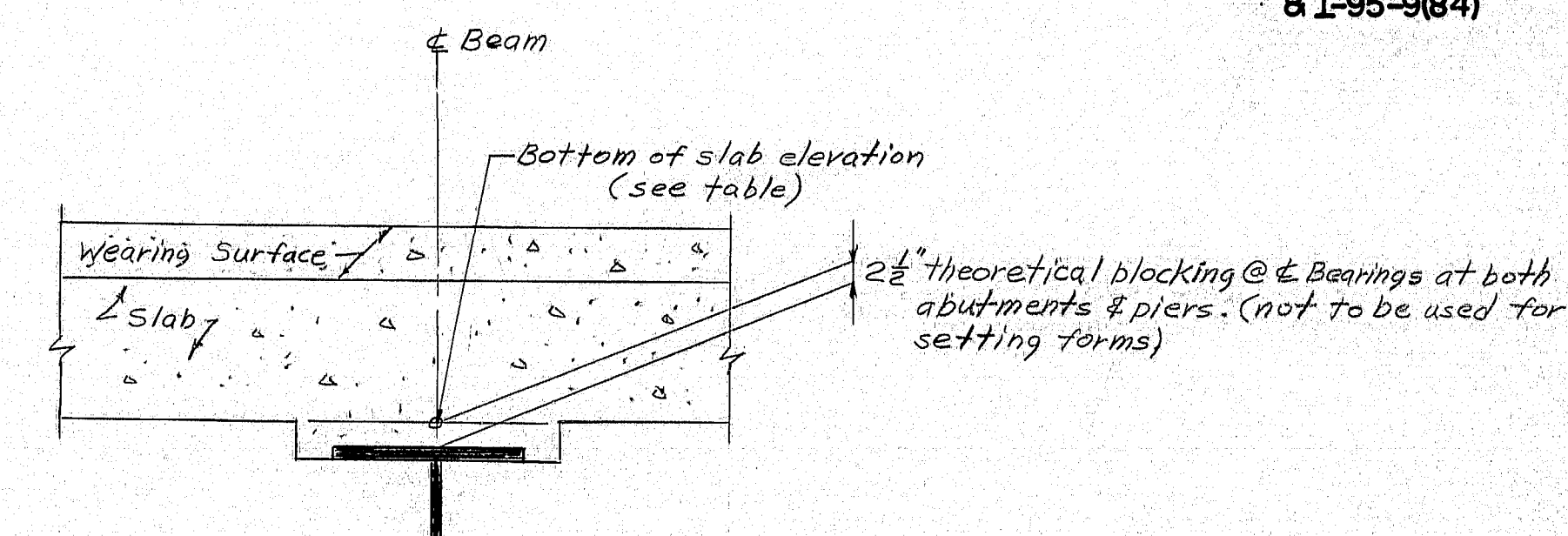
166-17



F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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8 I-95-9(84)				

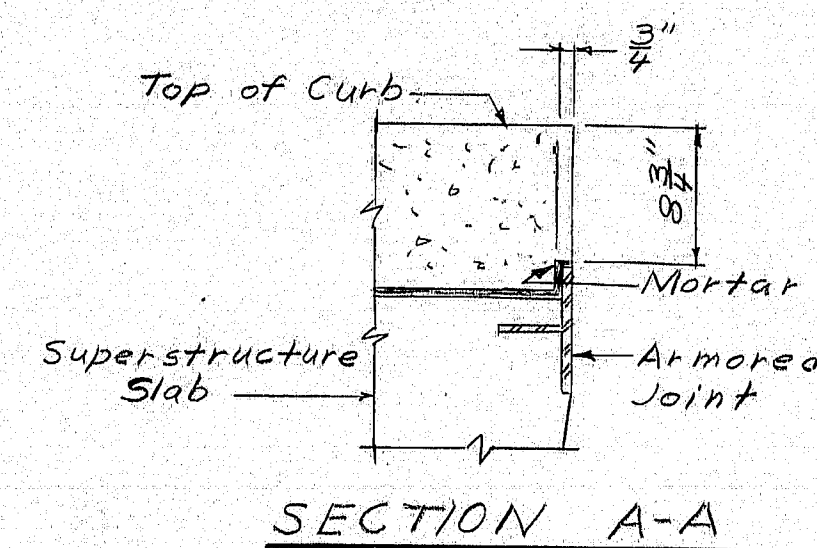
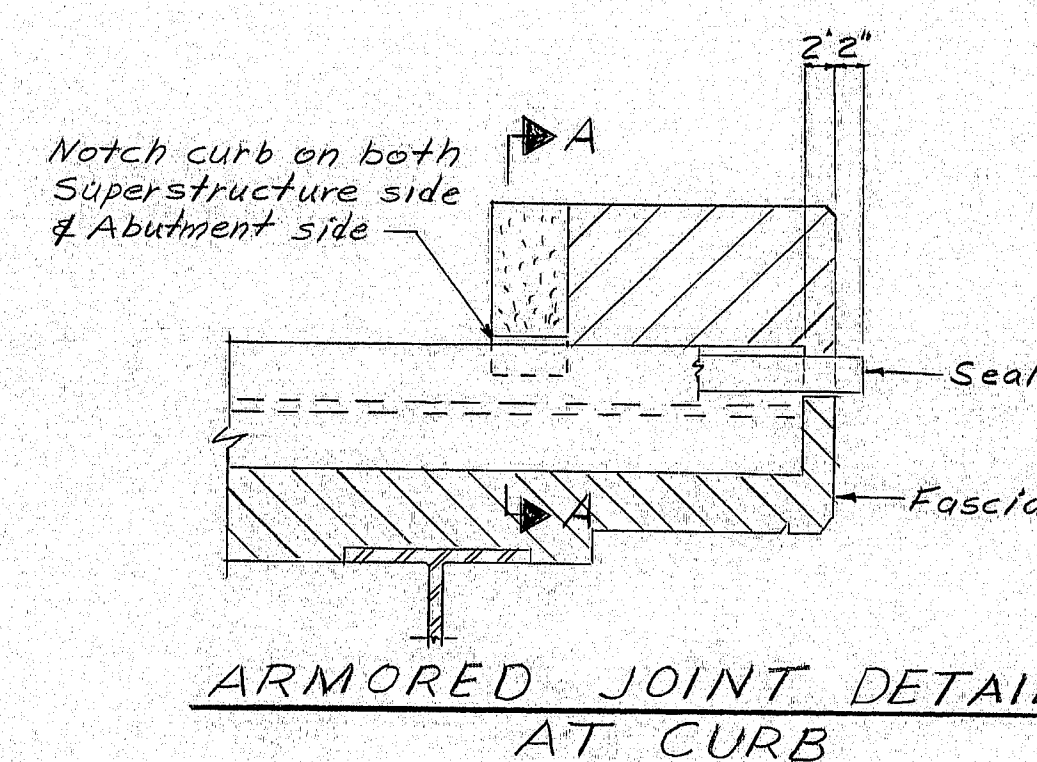


BLOCKING PLAN



BLOCKING DETAIL

BOTTOM OF SLAB ELEVATIONS																	
Point Beam	Abutment #1	1	2	3	4	Pier #1	1	2	3	4	5	Pier #2	1	2	3	4	Abutment #2
①	465.03	464.99	464.94	464.88	464.83	464.82	464.80	464.79	464.76	464.71	464.64	464.59	464.56	464.54	464.52	464.48	464.43
②	464.52	464.48	464.43	464.37	464.32	464.31	464.29	464.27	464.24	464.19	464.13	464.08	464.05	464.03	464.00	463.97	463.96
③	464.01	463.97	463.91	463.86	463.80	463.80	463.78	463.76	463.73	463.68	463.62	463.56	463.53	463.51	463.49	463.45	463.45
④	463.50	463.45	463.40	463.34	463.29	463.29	463.27	463.25	463.22	463.17	463.10	463.05	463.02	463.00	462.97	462.94	462.94
⑤	462.98	462.94	462.89	462.83	462.78	462.77	462.75	462.74	462.70	462.65	462.59	462.54	462.51	462.49	462.46	462.43	462.42
⑥	462.47	462.43	462.38	462.32	462.27	462.26	462.24	462.22	462.19	462.14	462.08	462.02	461.99	461.97	461.95	461.91	461.91
DEAD LOAD DEFLECTIONS IN FEET																	
Super	0.000	0.002	0.003	0.001	0.000	0.000	0.006	0.011	0.013	0.011	0.005	0.000	0.001	0.003	0.002	0.000	0.000
Steel	0.000	0.001	0.001	0.000	0.000	0.000	0.002	0.005	0.006	0.005	0.002	0.000	0.000	0.001	0.001	0.000	0.000
Fluid	0.000	0.010	0.010	0.003	0.000	0.000	0.018	0.040	0.048	0.038	0.016	0.000	0.003	0.010	0.010	0.000	0.000



PROJECT DESIGN ENGINEER	DATE
CDH	1-78
CHECKED	DATE
RVZ	6-78
FIELD CHANGES	

As B.O.H. 1979 emg 5-1-80

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95 NB  
OVER  
WEST BRANCH  
MATTAWAMKEAG RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROSTOOK COUNTY

BLOCKING  
SHEET 38 OF 51 AUGUSTA, MAINE SEPT 1978

166-18



8 I-95-9(84

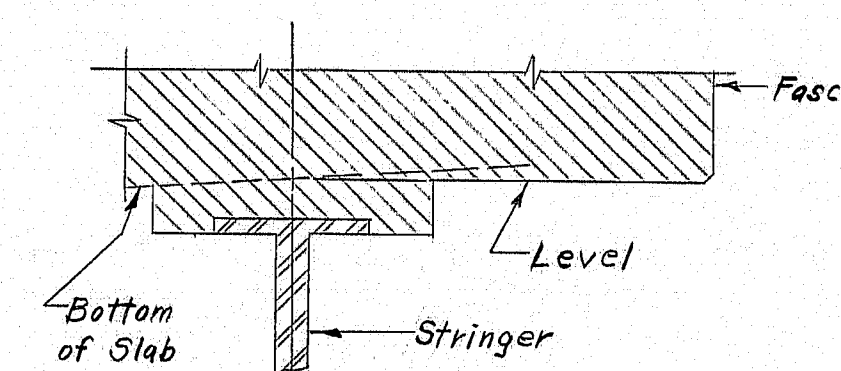
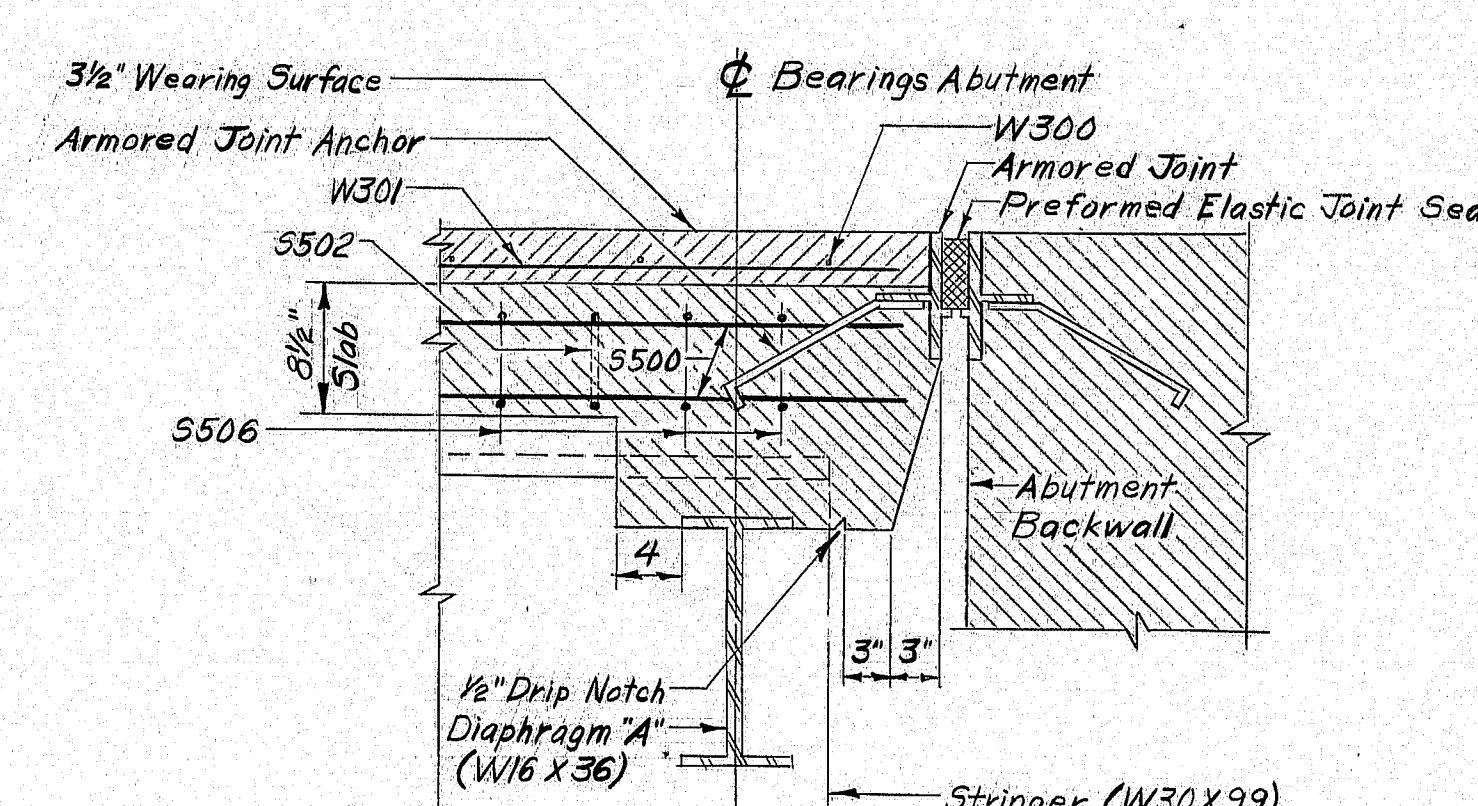


Diagram illustrating the correct method of measuring the depth of a fascia. The measurement is taken from the top surface of the fascia to the bottom of the slab, labeled as "Level" and "Bottom of Slab".

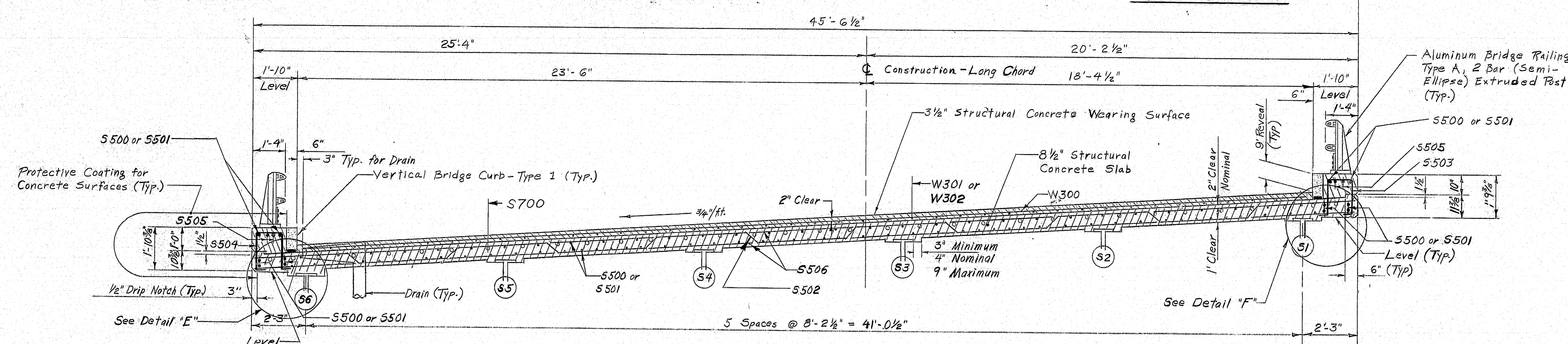
## SUPERSTRUCTURE NOTES

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Abutment #1, Downstream shown  
Abutment #2, Upstream the same  
Abutment #1 U.S. & Abutment #2 D.S. Opposite hand



SECTION A-A



Note: Section taken looking back on station

1. For Armored Joint See Standard Details BD 104-77
2. For Curb Section See Standard Details BD 104-77
3. For Aluminum Bridge Railing See Standard Details BD 114-77
4. For Drain See Standard Details BD 104-77
5. For Construction Joint See Standard Details BD 104-77
6. For Reinforcing Steel Schedule See Sheet #40.
7. For Structural Steel See Sheet #37.
8. For Armored Joint Detail at Curb See Sheet #38.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**INTERSTATE 95 NB  
OVER  
WEST BRANCH  
MATTAWAMKEAG RIVE  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY  
SUPERSTRUCTURE**

SHEET 39 OF 51      SUPERSTRUCTURE      AUGUSTA, MAINE      'SEPT 1971

11-16

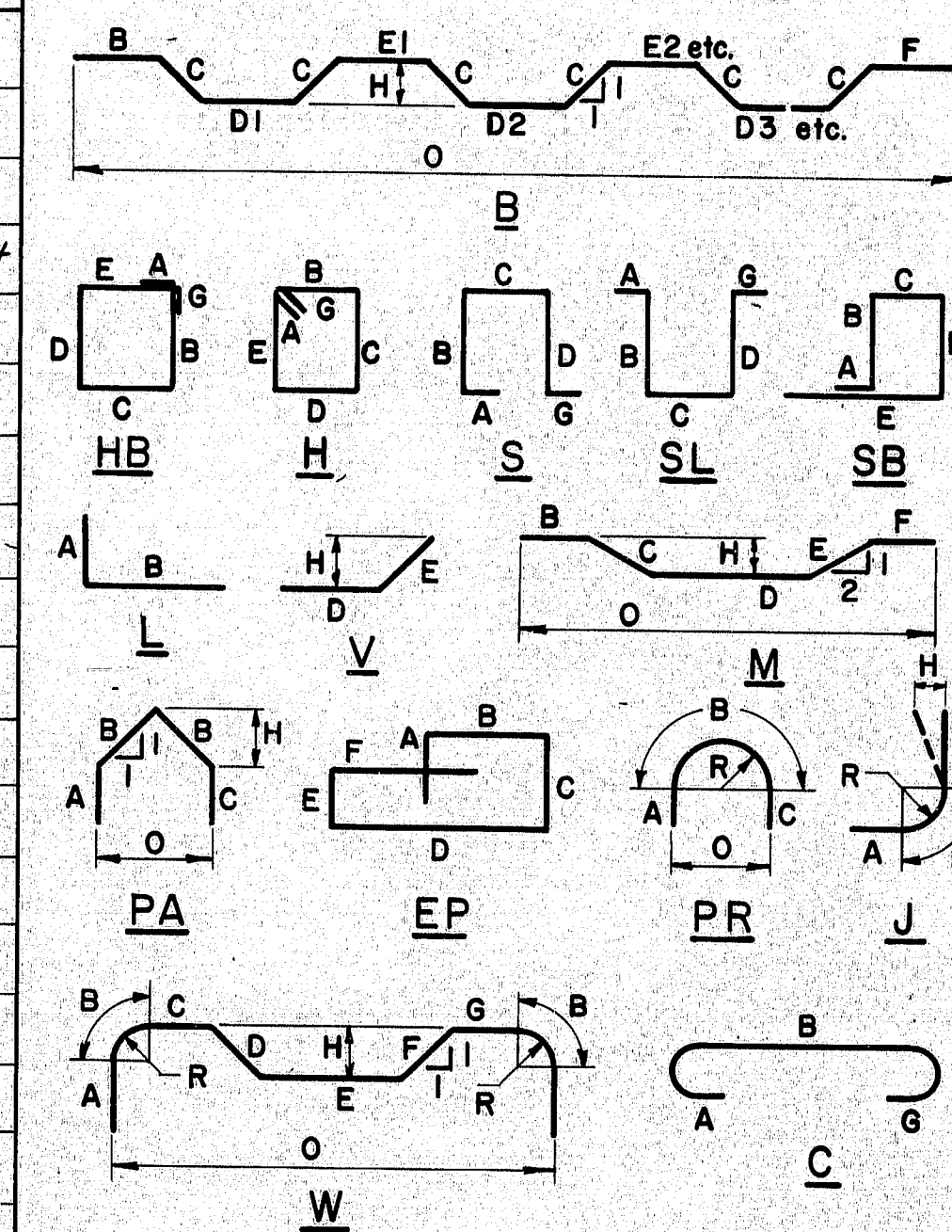
100-77



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	
<u>PIERS # 1 &amp; #2</u>				<u>ABUTMENTS</u>				<u>END POSTS</u>				<u>PIERS</u>															
NR501	52	22'-0"	Pier #1 & #2 - Shaft	A500	176	3'-5"	Footing	EP501	24	7'-10"	End Posts	P400	46	9'-1"	H	4'-6"	2'-6"	1'-8"	2'-6"	1'-8"		4'-6"					Pier #1 & #2 Cap
NR502	52	22'-3"	Pier #1 & #2 - Shaft	A517	76	22'-2"	Backwall & breastwall	<u>APPROACH SLABS</u>																			
				A518	4	10'-7"		AS400	32	40'-6"	Approach Slabs	NP514	4	15'-10"	PA	5'-7"	2'-4"	5'-7"						1'-7 3/4"	3'-3 3/4"	Pier #1 & #2 Shaft	
P600	32	28'-2"	Pier #1 & #2 - Ftg	A519	4	10'-5"		AS600	164	15'-0"	do	NP515	4	15'-1"		5'-3"	2'-3 3/4"	5'-3"						1'-7 3/4"	3'-2 3/4"		
P601	16	32'-10"	do	A520	4	10'-2"						NP516	4	14'-5"		5'-0"	2'-2 1/2"	5'-0"						1'-6 3/4"	3'-1 1/2"		
P602	216	7'-6"	do	A521	4	10'-0"						NP517	4	13'-7"		4'-8"	2'-1 1/2"	4'-8"						1'-6"	3'-0 1/4"		
P603	16	24'-6"	do	A522	4	9'-10"						NP518	4	13'-0"		4'-5"	2'-0 3/4"	4'-5"						1'-5 1/2"	2'-11 1/2"		
P604	16	44'-8"	Pier #1 & #2 - Cap	A523	4	9'-8"						NP519	4	12'-4"		4'-2"	2'-0"	4'-2"						1'-5"	2'-10"		
				A524	4	9'-5"						NP520	4	11'-7"		3'-10"	1'-11 1/4"	3'-10"						1'-4 1/2"	2'-9"		
				A525	4	9'-3"						NP521	4	10'-11"		3'-7"	1'-10 1/2"	3'-7"						1'-3 3/4"	2'-7 3/4"		
P502	8	17'-4"	Pier #1 - Shaft	A526	4	9'-1"						NP522	4	10'-1"		3'-3"	1'-9 1/2"	3'-3"						1'-3 3/4"	2'-6 1/2"		
P503	8	16'-10"		A527	4	8'-10"						NP523	4	9'-6"		3'-0"	1'-8 3/4"	3'-0"						1'-2 1/2"	2'-5 1/4"		
P504	8	16'-4"		A528	4	8'-8"						NP524	4	8'-3"		2'-8"	1'-8"	2'-8"						1'-2"	2'-4 1/4"		
P505	8	16'-4"		A529	4	8'-6"						NP525	4	8'-0"		2'-5"	1'-7"	2'-5"						1'-1 1/2"	2'-3"		
P506	10	15'-10"		A530	4	8'-4"						NP526	2	7'-10"		2'-5"	1'-6"	2'-5"						1'-0 3/4"	2'-4 1/2"		
P507	12	15'-4"		A531	4	8'-1"																					
P508	12	17'-10"		A532	4	7'-11"						P501	148	5'-8"	L		10"	4'-10"								Piers #1 & #2 Ftg.	
P509	3	15'-8"	Pier #1 - Nose	A533	64	5'-0"						<u>ABUTMENTS</u>															
P510	3	18'-2"	do	A535	24	10'-4"	Wing					A400	48	4'-8"	S	0	1'-3"	2'-2"	1'-3"			0				Bridge Seat	
				A536	24	6'-7"						A401	48	5'-0"	S	0	1'-3"	2'-6"	1'-3"			0				do	
P512	8	18'-1"	Pier #2 - Shaft	A537	12	9'-0"						A501	4	11'-1"	L	4'-2"	6'-11"										Breastwall
P513	8	17'-7"		A539	4	10'-8"						A502	4	10'-10"													

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-9(83)	40	51

8 I-95-9(84)



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 A 615 Grade 60

GENERAL NOTES

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

Ftg = Floating  
Long. = Longitudinal  
Trans. = Transverse

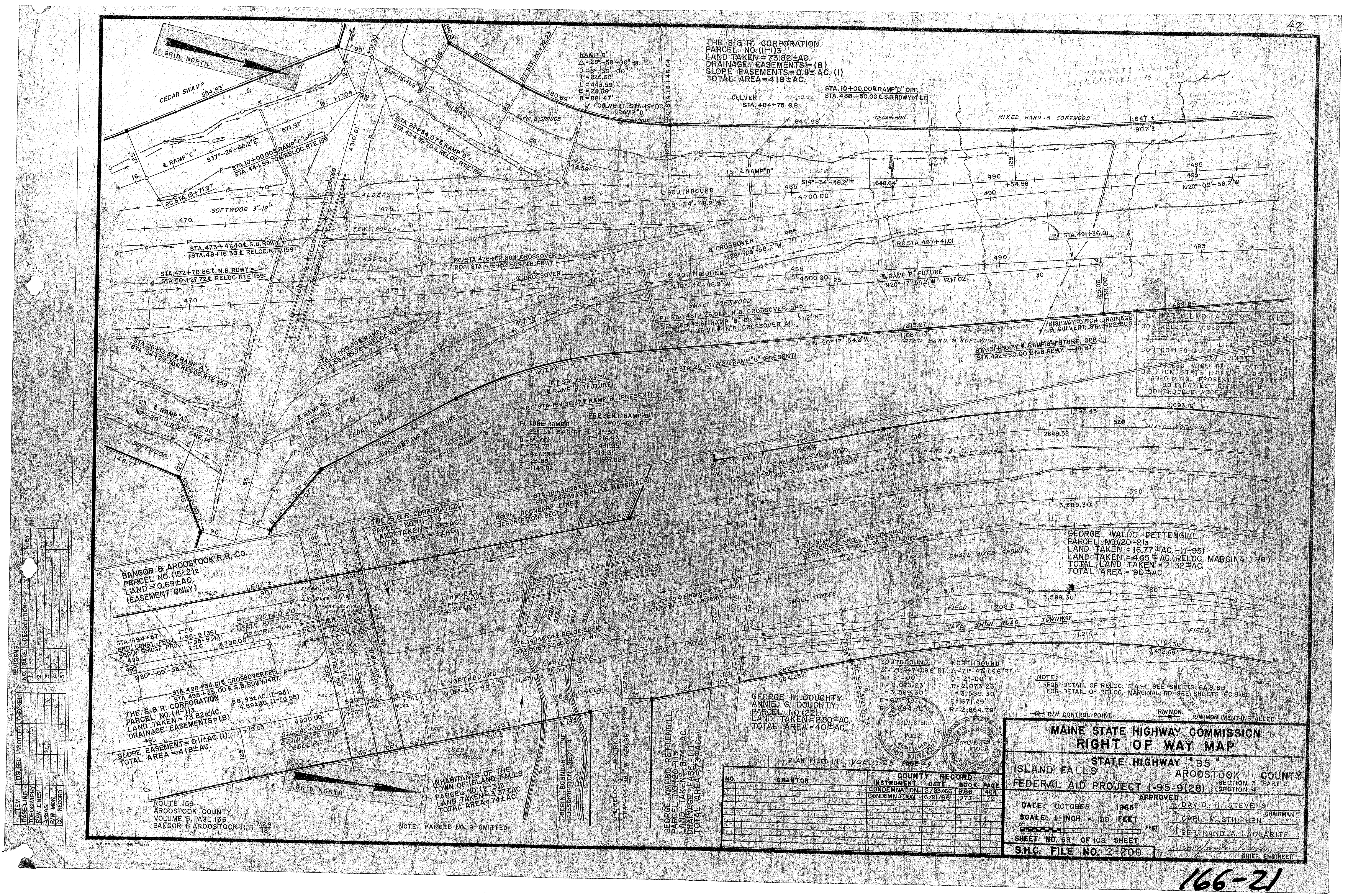
As Built 1979 2m3 5-1-80  
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**INTERSTATE 95 NB  
OVER  
WEST BRANCH  
MATTAWAMKEAG RIVER  
IN THE TOWN OF  
ISLAND FALLS  
AROOSTOOK COUNTY**

SHEET 40 OF 51      AUGUSTA, MAINE      SEPT 1978

166-20





REVISIONS	NO.	DATE	DESCRIPTION	BY
REQUIRED	1		PLATTED	
FILED	2		FILED	
RECORD	3		RECORD	

ITEM	REQUIRED	PLATTED	FILED	RECORD
BASE LINE				
RAW LINES				
AREAS				
R/W MON.				
CO. RECORD				

THE S.B.R. CORPORATION  
PARCEL NO. (11-13)  
LAND TAKEN = 73.82±AC  
DRAINAGE EASEMENTS = (8)  
SLOPE EASEMENTS = 0.11±AC (1)  
TOTAL AREA = 418±AC

BANGOR & AROOSTOOK R.R. CO.  
PARCEL NO. (15-212)  
LAND = 0.69±AC  
(EASEMENT ONLY)

THE S.B.R. CORPORATION  
PARCEL NO. (11-13)  
LAND TAKEN = 73.82±AC  
DRAINAGE EASEMENTS = (8)  
SLOPE EASEMENTS = 0.11±AC (1)  
TOTAL AREA = 418±AC

THE S.B.R. CORPORATION  
PARCEL NO. (11-13)  
LAND TAKEN = 1.56±AC  
TOTAL AREA = 3±AC

INHABITANTS OF THE  
TOWN OF ISLAND FALLS  
PARCEL NO. (12-312)  
LAND TAKEN = 3.37±AC  
TOTAL AREA = 74±AC

GEORGE H. DOUGHTY  
ANNIE G. DOUGHTY  
PARCEL NO. (22)  
LAND TAKEN = 2.50±AC  
TOTAL AREA = 40±AC

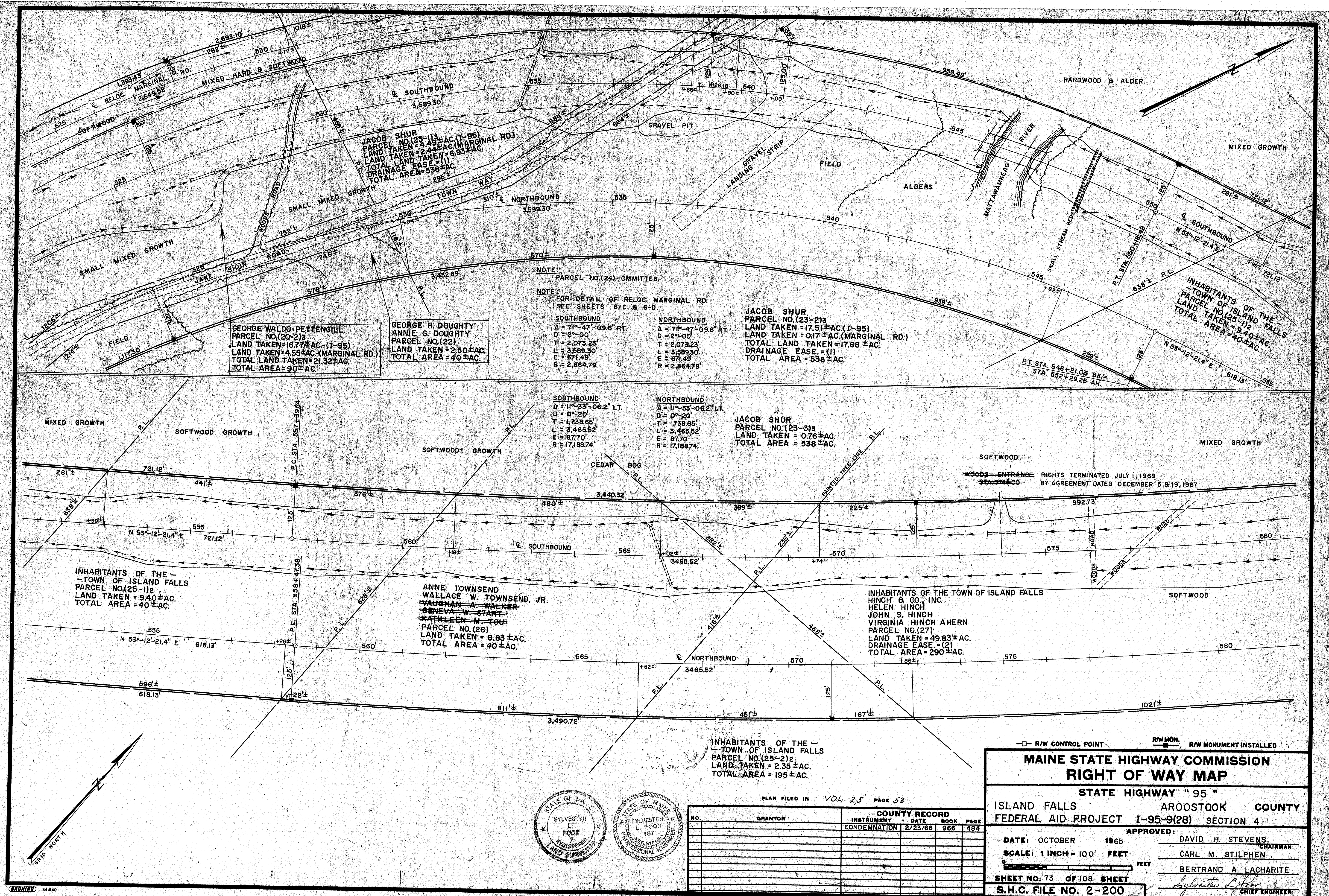
GEORGE WALDO PETTINGILL  
PARCEL NO. (20-213)  
LAND TAKEN = 16.77±AC (1-95)  
LAND TAKEN = 4.55±AC (RELOC. MARGINAL RD.)  
TOTAL LAND TAKEN = 21.32±AC  
TOTAL AREA = 90±AC

MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP			
STATE HIGHWAY "95"			
ISLAND FALLS		ARROOSTOOK COUNTY	
FEDERAL AID PROJECT 1-95-9(28)			
APPROVED: DAVID H. STEVENS, CHAIRMAN			
CARL W. STILPHEN, CHIEF ENGINEER			
DATE: OCTOBER 1966			
SCALE: 1 INCH = 100 FEET			
SHEET NO. 68 OF 108 SHEET			
S.H.C. FILE NO. 2-200			

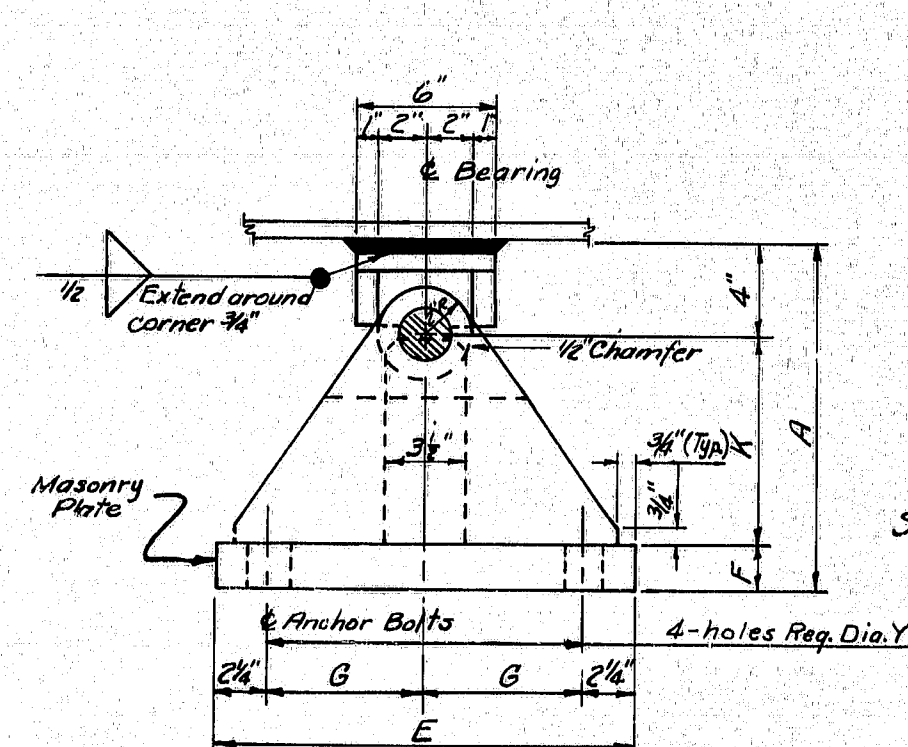
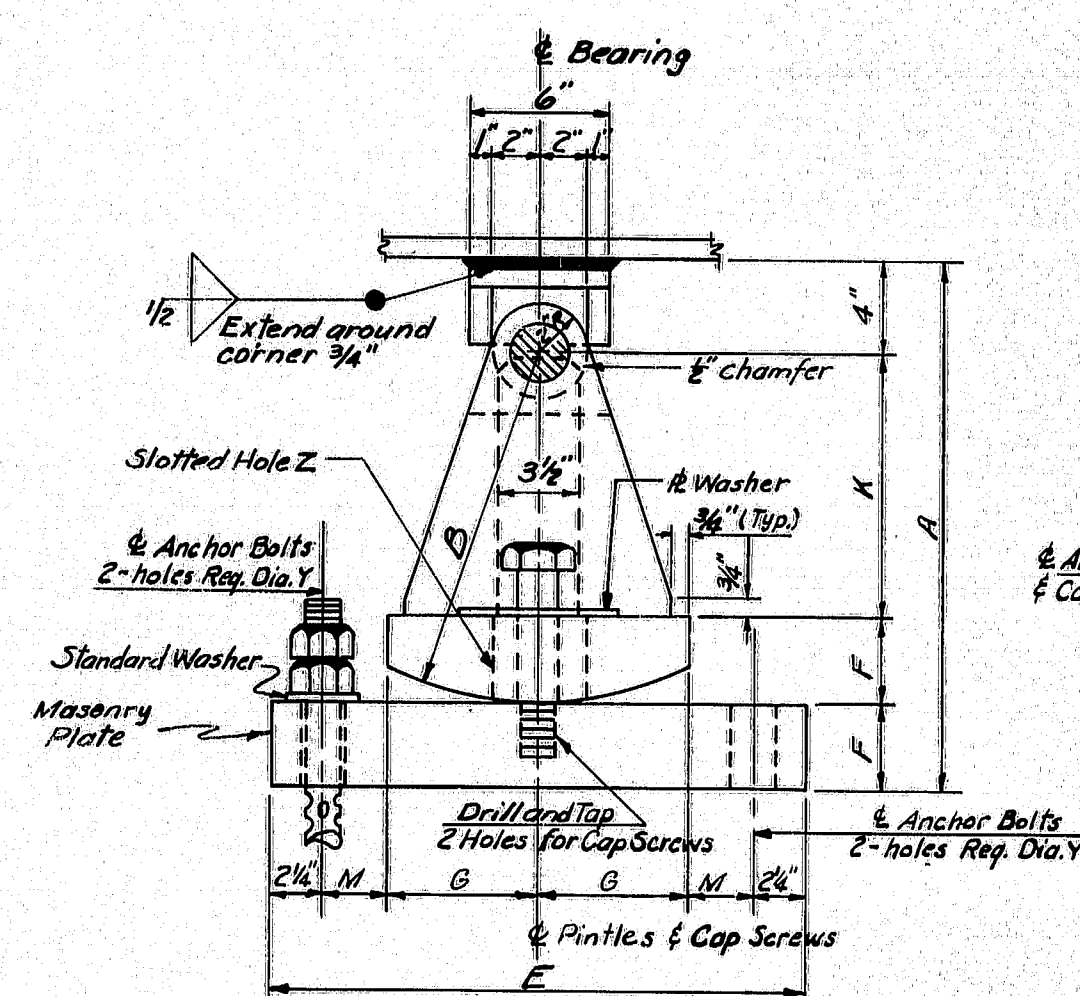


REVISIONS	NO.	DATE	DESCRIPTION	BY
1	1	10/1/65	ADJUSTED MONUMENTS CHANGED ON PARCEL (25)	C.V.B.
2	2			
3	3			
4	4			
5	5			

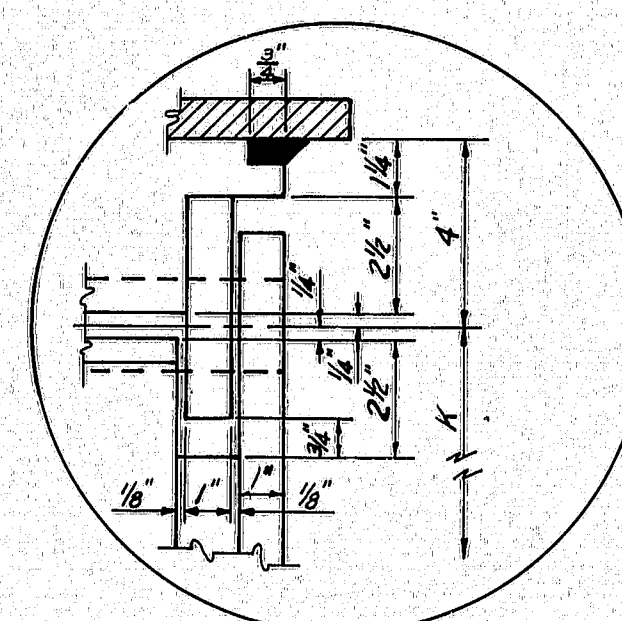
KEY	FIGURED	PLOTTED	CHECKED
BAS. LINE			
TOPOGRAPHY			
R.W. LINES			
AREAS			
R.W. MON.			
CO. RECORD			







MARK	LOAD	A	B	C	D	E	F	G	H	J	K	M	P	Q	R	S	T	V	X-Anchor Bolt Diameter	Y-Masonry Plate Hole Size	Number Anchor Bolts Required	Z-Slotted Hole for Anchor Bolts or Cap Screws	Washer Size for Anchor Bolts or Cap Screws	A1 Embedment Depth	MARK
EPD-1	100K	1'-2 1/2"	9"	8"	1'-6"	8"	1 1/2"	3 1/2"	4"	2 1/2"	7"	1 1/2"	-	3"	1'-4 1/2"	3"	4 1/2"	-	1"	1 1/8"	2	3" x 1 1/8"	3" x 5" x 1/2"	10"	EPD-1
EPD-2	100K	1'-2 1/2"	9"	8"	1'-6"	9"	1 1/2"	4"	2 1/2"	7"	1 1/2"	4"	3 1/2"	3"	1'-4 1/2"	3"	4 1/2"	-	1"	1 1/8"	2	3" x 1 1/8"	3" x 5" x 1/2"	10"	EPD-2
EPD-3	100K	1'-2 1/2"	9"	8"	1'-6"	10"	1 1/2"	4 1/2"	4"	2 1/2"	7"	1 1/2"	-	3"	1'-4 1/2"	3"	4 1/2"	-	1"	1 1/8"	2	3" x 1 1/8"	3" x 5" x 1/2"	10"	EPD-3
EPD-4	100K	1'-3 1/2"	1'-0"	8"	1'-6"	11"	1 1/2"	5"	4"	2 1/2"	10"	1 1/2"	-	3"	1'-5"	3"	4 1/2"	-	1"	1 1/8"	2	3" x 1 1/8"	4" x 7" x 1/2"	1'-3"	EPD-4
EPD-5	200K	1'-9 1/2"	1'-3"	10"	1'-8"	1'-0"	2 1/2"	5 1/2"	4"	3 1/2"	1'-0 1/2"	1 1/2"	-	4"	2'-0 1/2"	4"	6 1/2"	-	1 1/2"	1 1/8"	2	4" x 1 1/8"	4" x 7" x 1/2"	1'-3"	EPD-5
EPD-6	200K	1'-9 1/2"	1'-3"	10"	1'-8"	1'-1"	2 1/2"	6"	4"	3 1/2"	1'-0 1/2"	1 1/2"	-	4"	2'-1"	4"	6 1/2"	-	1 1/2"	1 1/8"	2	4" x 1 1/8"	4" x 7" x 1/2"	1'-3"	EPD-6
EPD-7	200K	1'-9 1/2"	1'-3"	10"	1'-8"	1'-2"	2 1/2"	6 1/2"	4"	3 1/2"	1'-0 1/2"	1 1/2"	-	4"	2'-1"	4"	6 1/2"	-	1 1/2"	1 1/8"	2	4" x 1 1/8"	4" x 7" x 1/2"	1'-3"	EPD-7
EPD-8	200K	1'-9 1/2"	1'-3"	10"	1'-8"	1'-3"	2 1/2"	7"	4"	3 1/2"	1'-0 1/2"	1 1/2"	-	4"	2'-1"	4"	6 1/2"	-	1 1/2"	1 1/8"	2	4" x 1 1/8"	4" x 7" x 1/2"	1'-3"	EPD-8
EPD-9	300K	1'-10"	1'-3"	1'-2"	2'-0"	1'-4"	3"	7 1/2"	5"	4 1/2"	1 1/2"	1 1/2"	-	6"	2'-2 1/2"	4"	8"	-	1 1/2"	1 1/8"	2	5" x 1 1/8"	4" x 8" x 1/2"	1'-3"	EPD-9
EPD-10	400K	1'-10 1/2"	1'-3"	1'-6"	2'-4"	1'-6"	3 1/2"	8 1/2"	6"	5 1/2"	1 1/2"	1 1/2"	-	8 1/2"	2'-3"	4"	8 1/2"	-	1 1/2"	1 1/8"	2	5" x 1 1/8"	4" x 8" x 1/2"	1'-3"	EPD-10
EPE-1	200K	1'-10"	1'-3"	10"	1'-7"	1'-6"	3"	4"	4"	3 1/2"	1'-0"	2 1/2"	-	4"	1'-10"	4 1/2"	-	4"	1 1/8"	1 1/8"	4	3 1/2" x 1 1/8"	3 1/2" x 4 1/2" x 1/2"	1'-3"	EPE-1
EPE-2	200K	1'-10"	1'-3"	11"	1'-8"	1'-9"	3"	5 1/2"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4 1/2"	1'-10"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4" x 1 1/8"	3 1/2" x 3 1/2" x 1/2"	1'-3"	EPE-2
EPE-3	200K	1'-10"	1'-3"	11"	1'-8"	1'-10"	3"	6"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4 1/2"	1'-10"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4" x 1 1/8"	3 1/2" x 3 1/2" x 1/2"	1'-3"	EPE-3
EPE-4	200K	1'-10"	1'-3"	11"	1'-8"	1'-11"	3"	6 1/2"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4 1/2"	1'-10"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4 1/2" x 1 1/8"	3 1/2" x 6" x 1/2"	1'-3"	EPE-4
EPE-5	200K	1'-10"	1'-3"	11"	1'-8"	2'-0"	3"	7"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4 1/2"	1'-10"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4 1/2" x 1 1/8"	3 1/2" x 6" x 1/2"	1'-3"	EPE-5
EPE-6	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	1'-6"	3"	4"	5"	4 1/2"	1'-0"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4 1/2" x 1 1/8"	3 1/2" x 4 1/2" x 1/2"	1'-3"	EPE-6
EPE-7	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	1'-8"	3 1/2"	5"	5"	4 1/2"	1 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	3" x 1 1/8"	3 1/2" x 5" x 1/2"	1'-3"	EPE-7
EPE-8	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	1'-10"	3 1/2"	6"	5"	4 1/2"	1 1/2"	2 1/2"	-	6"	1'-10 1/2"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4 1/2" x 1 1/8"	3 1/2" x 6" x 1/2"	1'-3"	EPE-8
EPE-9	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	2'-0"	3 1/2"	7"	5"	4 1/2"	1 1/2"	2 1/2"	-	6"	1'-10 1/2"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4 1/2" x 1 1/8"	3 1/2" x 6" x 1/2"	1'-3"	EPE-9
EPE-10	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	2'-3"	3 1/2"	8"	5"	4 1/2"	1 1/2"	3 1/2"	-	6"	1'-10 1/2"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	5" x 1 1/8"	3 1/2" x 7" x 1/2"	1'-3"	EPE-10
EPE-11	400K	1'-10 1/2"	1'-3"	1'-7"	2'-4"	1'-7"	3 1/2"	4 1/2"	5"	6 1/2"	1 1/2"	3 1/2"	9"	4"	1'-10"	4 1/2"	-	5"	1 1/8"	1 1/8"	4	5" x 1 1/8"	3 1/2" x 5" x 1/2"	1'-3"	EPE-11
EPE-12	400K	1'-10 1/2"	1'-3"	1'-7"	2'-4"	1'-11"	3 1/2"	6 1/2"	5"	6 1/2"	1 1/2"	3 1/2"	8 1/2"	4"	1'-10 1/2"	4 1/2"	-	5"	1 1/8"	1 1/8"	4	5" x 1 1/8"	3 1/2" x 6" x 1/2"	1'-3"	EPE-12
EPE-13	400K	1'-11"	1'-3"	1'-7"	2'-4"	2'-4"	4"	8 1/2"	5"	6 1/2"	1 1/2"	3 1/2"	8 1/2"	4"	1'-11"	4 1/2"	-	6 1/2"	1 1/8"	1 1/8"	4	6 1/2" x 1 1/8"	4" x 8" x 1/2"	1'-3"	EPE-13
EPE-14	600K	2'-1 1/2"	1'-6"	1'-11"	3'-0"	1'-10"	3 1/2"	6"	7"	8 1/2"	1'-2 1/2"	1 1/2"	5"	1'-10 1/2"	4 1/2"	-	4 1/2"	1 1/8"	1 1/8"	4	4 1/2" x 1 1/8"	4" x 8" x 1/2"	1'-3"	EPE-14	
EPE-15	600K	2'-2 1/2"	1'-6"	1'-11"	3'-0"	2'-3"	4 1/2"	9"	7"	10 1/2"	1'-3 1/2"	3 1/2"	11"	5"	1'-11"	4 1/2"	-	6 1/2"	1 1/8"	1 1/8"	4	6 1/2" x 1 1/8"	4" x 8" x 1/2"	1'-3"	EPE-15
EPE-16	800K	2'-2 1/2"	1'-6"	2'-6"	3'-10"	1'-11"	4"	6 1/2"	10"	10 1/2"	1'-2 1/2"	3 1/2"	11 1/2"	6 1/2"	1'-11"	4 1/2"	-	6 1/2"	1 1/8"	1 1/8"	4	6 1/2" x 1 1/8"	4" x 8" x 1/2"	1'-3"	EPE-16
EPE-17	800K	2'-2 1/2"	1'-6"	2'-6"	3'-10"	2'-3"	4 1/2"	9"	10"	10 1/2"	1'-1 1/2"	3 1/2"	10 1/2"	6 1/2"	1'-11 1/2"	4 1/2"	-	6 1/2"	1 1/8"	1 1/8"	4	6 1/2" x 1 1/8"	4" x 8 1/2" x 1/2"	1'-3"	EPE-17
FPD-1	100K	1'-0"	-	8"	1'-6"	9"	2"	2 1/2"	6 1/2"	-	6"	-	-	-	1'-3"	3 1/2"	-	-	1"	1 1/8"	4	-	Standard	10"	FPD-1
FPD-2	200K	1'-0"	-	10"	1'-8"	1'-2"	2"	4 1/2"	7 1/2"	-	6"	-	-	-	1'-8"	4"	-	-	1 1/2"	1 1/8"	4	-	Standard	1'-3"	FPD-2
FPD-3	300K	1'-0"	-	1'-2"	2'-0"	1'-4"	2"	3 1/2"	9 1/2"	-	6"	-	-	-	1'-8"	4"	-	-	1 1/2"	1 1/8"	4	-	Standard	1'-3"	FPD-3
FPD-4	400K	1'-3"	-	1'-6"	2'-4"	1'-6"	2"	6 1/2"	11 1/2"	-	9"	-	6 1/2"	-	1'-8"	4"	-	-	1 1/2"	1 1/8"	4	-	Standard	1'-3"	FPD-4
FPD-5	600K	1'-3"	-	1'-11"	3'-0"	1'-10"	3"	8 1/2"	1'-3 1/2"	-	8"	-	3 1/2"	-	1'-9"	4"	-	-	1 1/2"	1 1/8"	4	-	Standard	1'-3"	FPD-5
FPD-6	800K	1'-3"	-	2'-6"	3'-10"	1'-11"	3"	9 1/2"	1'-8 1/2"	-	8"	-	3 1/2"	-	1'-9"	4"	-	-	1 1/2"	1 1/8"	4	-	Standard	1'-3"	FPD-6

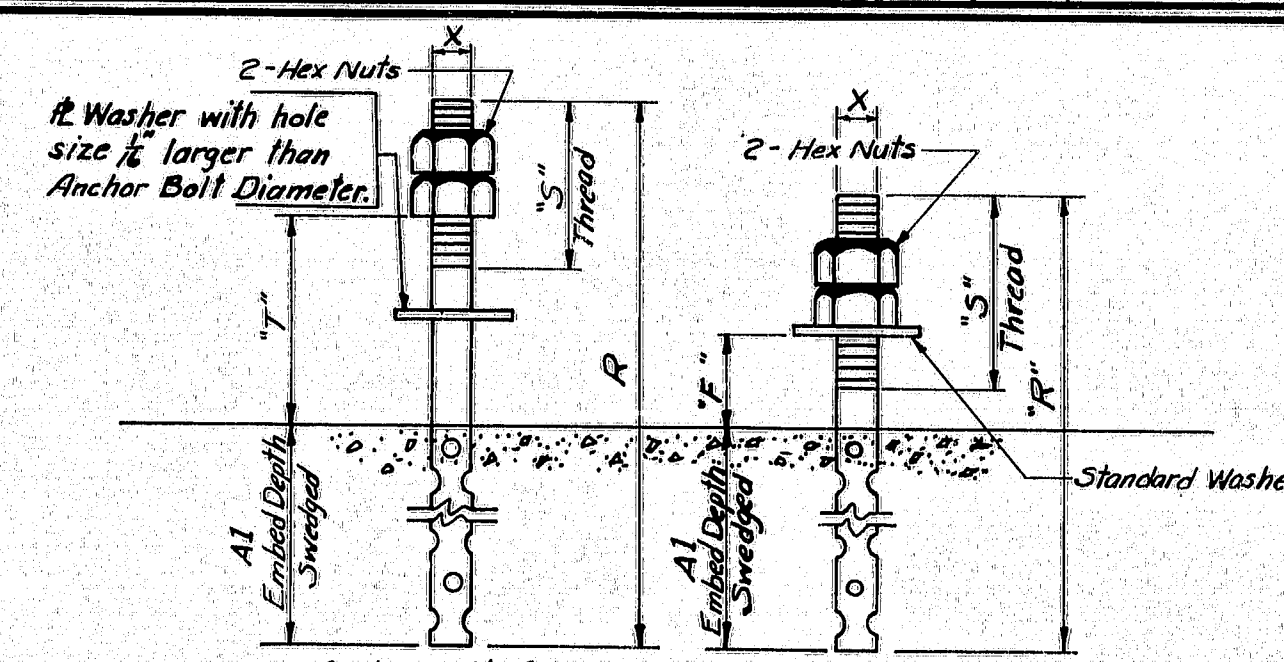


### CAP SCREW DETAIL

GENERAL NOTES:

At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut in the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and a min. slope of 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 5/16" fillet welds. The diameter of the pin hole shall not exceed that of the pin by more than 5/16 inch. Pedestals EPD-I thru EPD-9 and EPE-I 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 one drainage hole. Pedestals FPD-4 thru FPD-6 have a center stiffener and no drainage holes.



## DESIGN SPECIFICATIONS

AASHTO Standard Specifications for  
Highway Bridges 1973, Iterims 1974, '75, '76

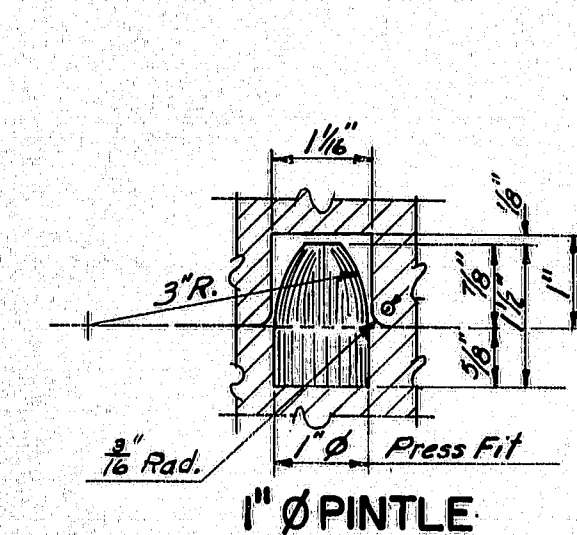
*(When structural steel is specified to be unpainted)*

(When structural steel is specified to be unpainted)

All structural steel including anchor bolts and 2"  $\phi$  pins shall be A588 unpainted

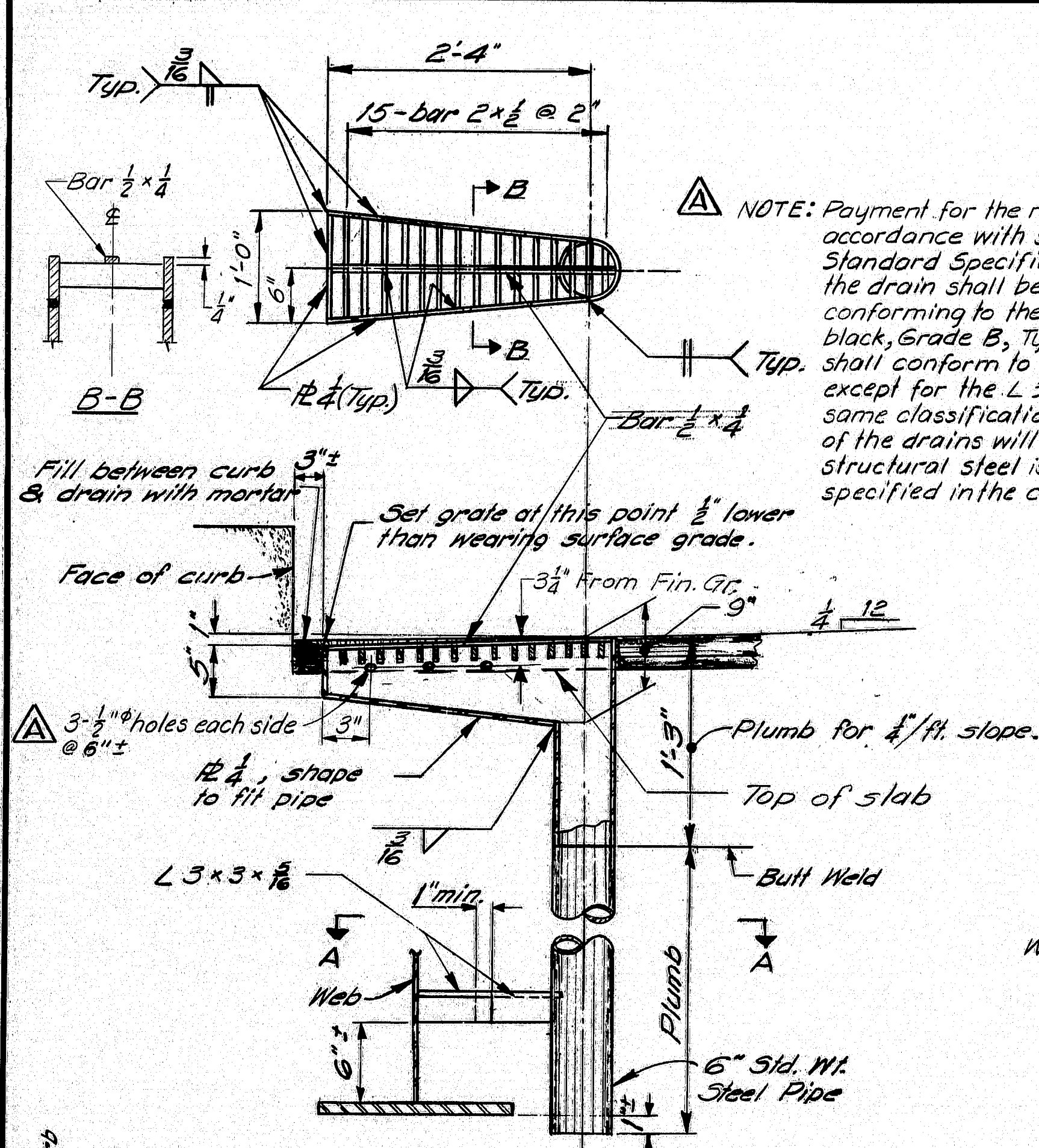
(When structural steel is specified to be painted)  
All structural steel including anchor bolts shall be A36 except the following: 2"  $\phi$  pin-A36, A668, Class D or A108, Grade 1016-1030 inclusive.

C	Revised Dimension "E" EFE-4	1-9-7
B	Change Specifications & Steel Classification	3-1-7
A	Charpy V-Notch tests are not required	2-5-7
REVISIONS		DATE

[illegible]

NOTE:  
Use 1"  $\emptyset$  Pintles with 1"  $\emptyset$  Anchor Bolts &  
1 1/2"  $\emptyset$  Pintles with 1 1/2"  $\emptyset$  Anchor Bolts.





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

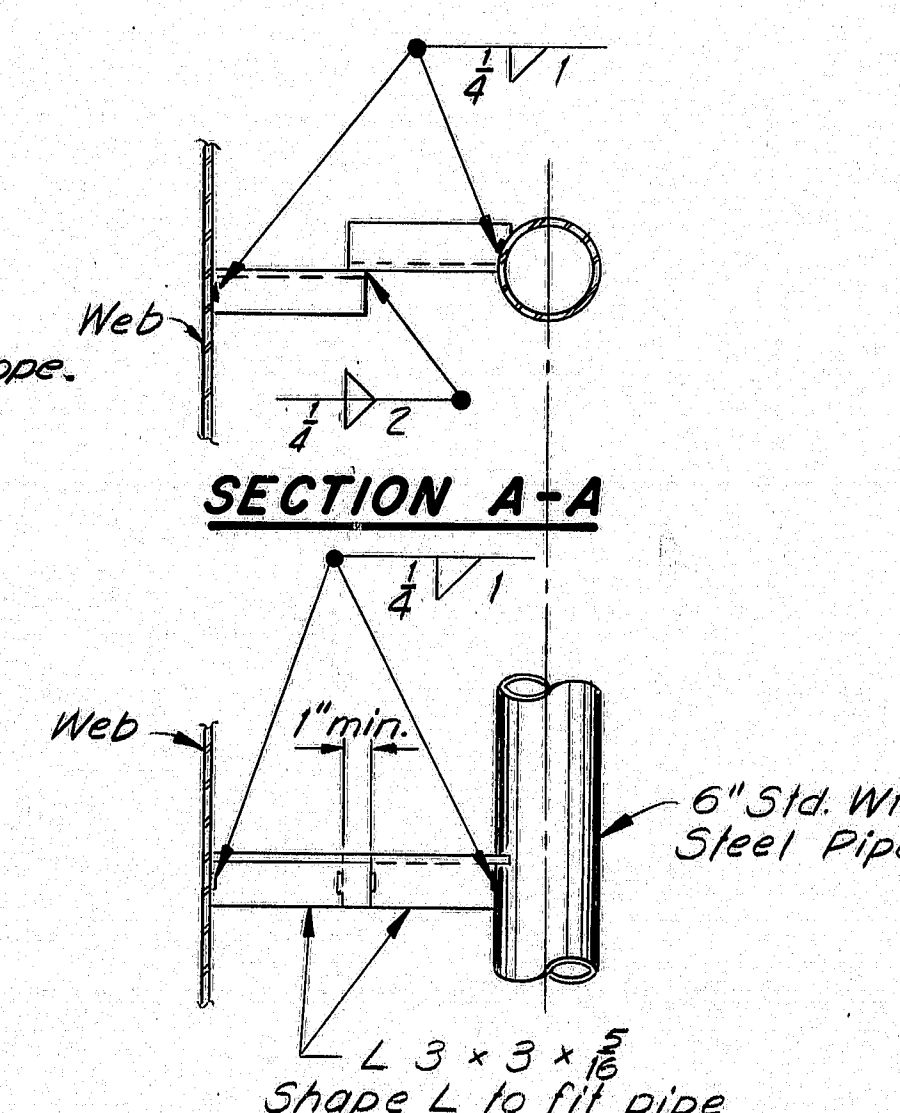
**NOTE:** Payment for the roadway drains shall be in accordance with subsection 502.20 of the Standard Specifications. The pipe portion of the drain shall be 6" standard weight pipe conforming to the specification for ASTM A53, black, Grade B, Type E or S. All bars and plates shall conform to the specification for ASTM A36 except for the L 3x3x1/8 which shall be of the same classification as the beam web. Pointing of the drains will not be required when the structural steel is unpainted, unless otherwise specified in the contract drawings.

### POINTED REINFORCED PILE TIP

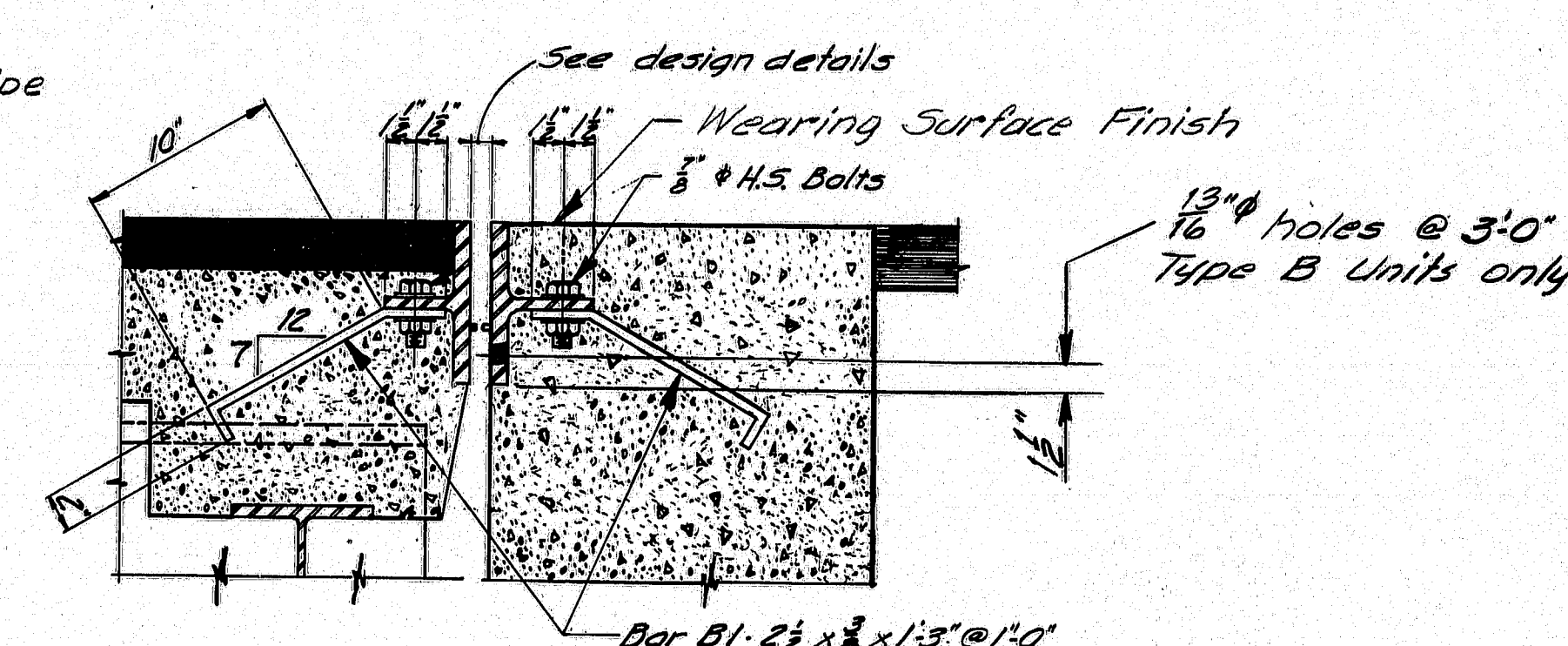
NOTE: Plates may be shop or field welded

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

### SECTION A-A



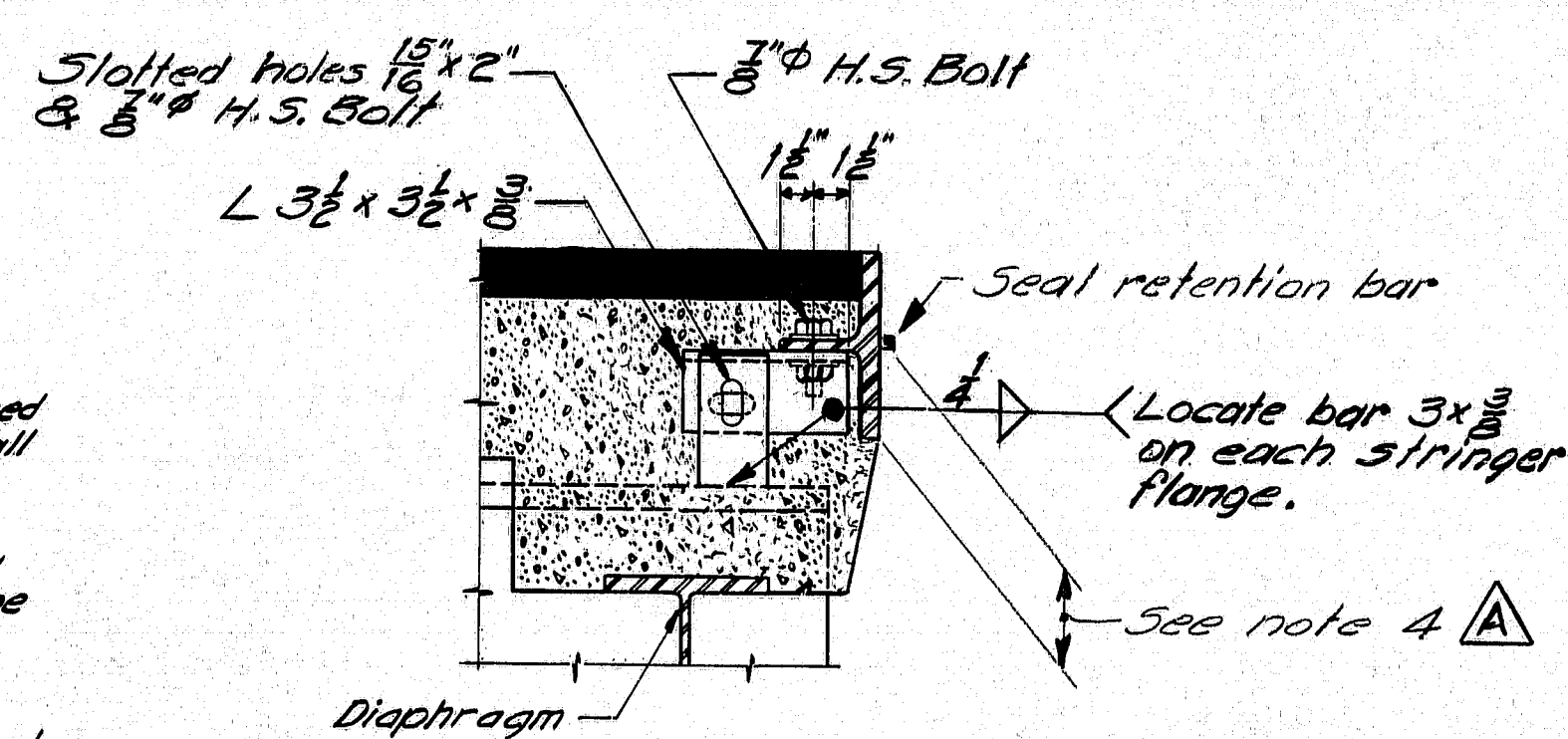
### POLYVINYLCHLORIDE WATERSTOP



### ARMORED JOINT UNIT TYPE A

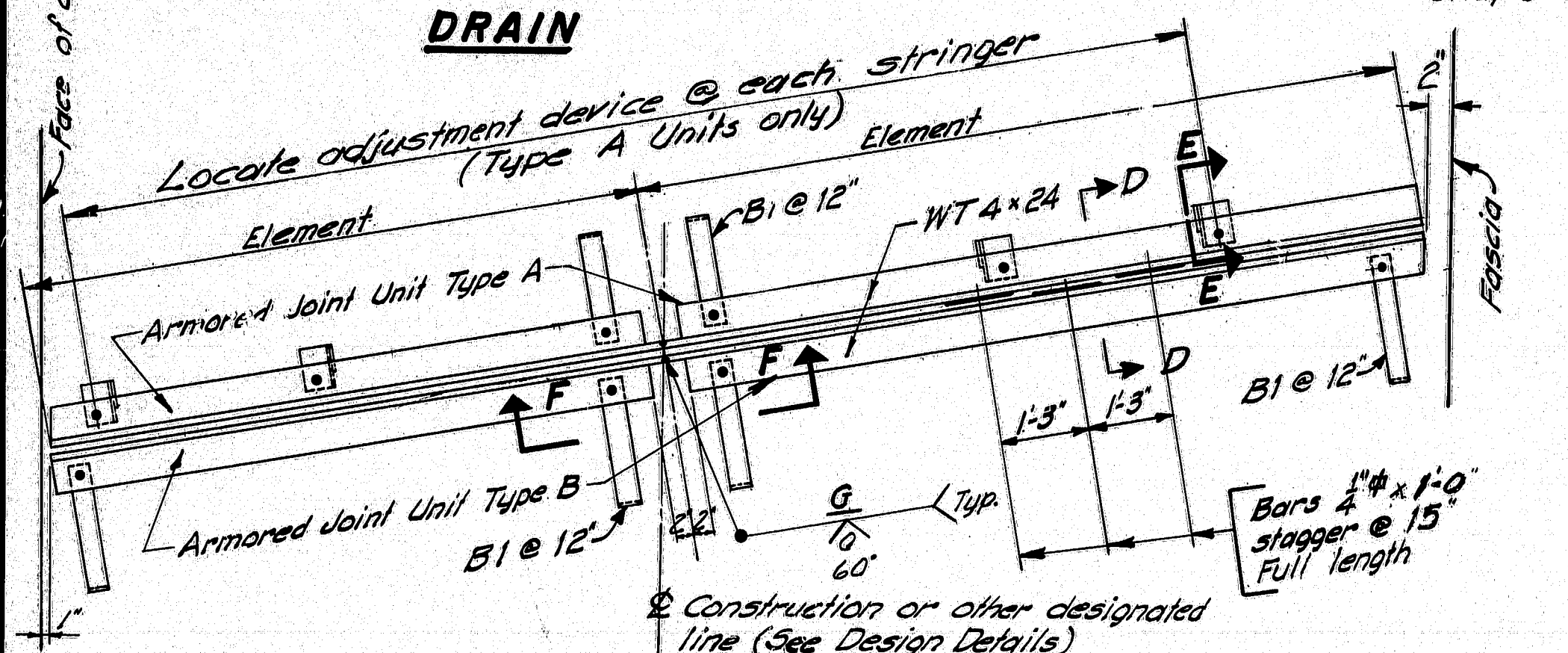
### ARMORED JOINT UNIT TYPE B

### SECTION D-D

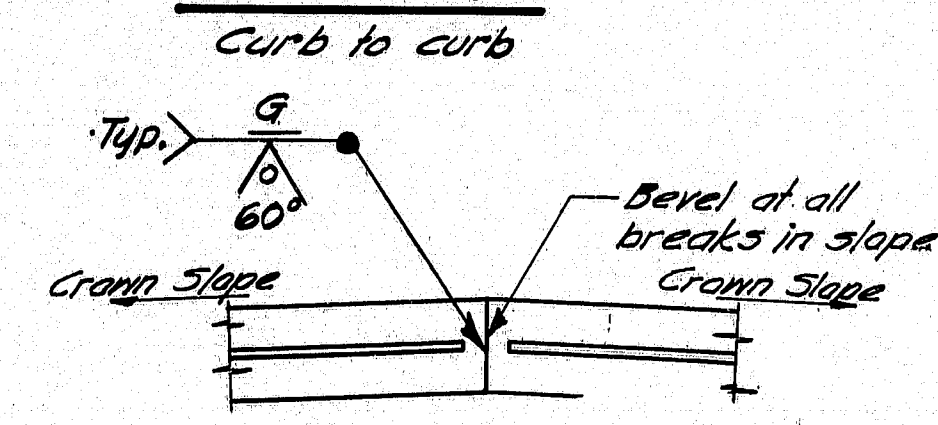


### SECTION E-E

Shaving Adjustment Device Armored Joint Unit Type A only After Unit is in final position weld 3/8 bar to angle with 1/2 fillet



### HALF PLAN



### HALF PLAN

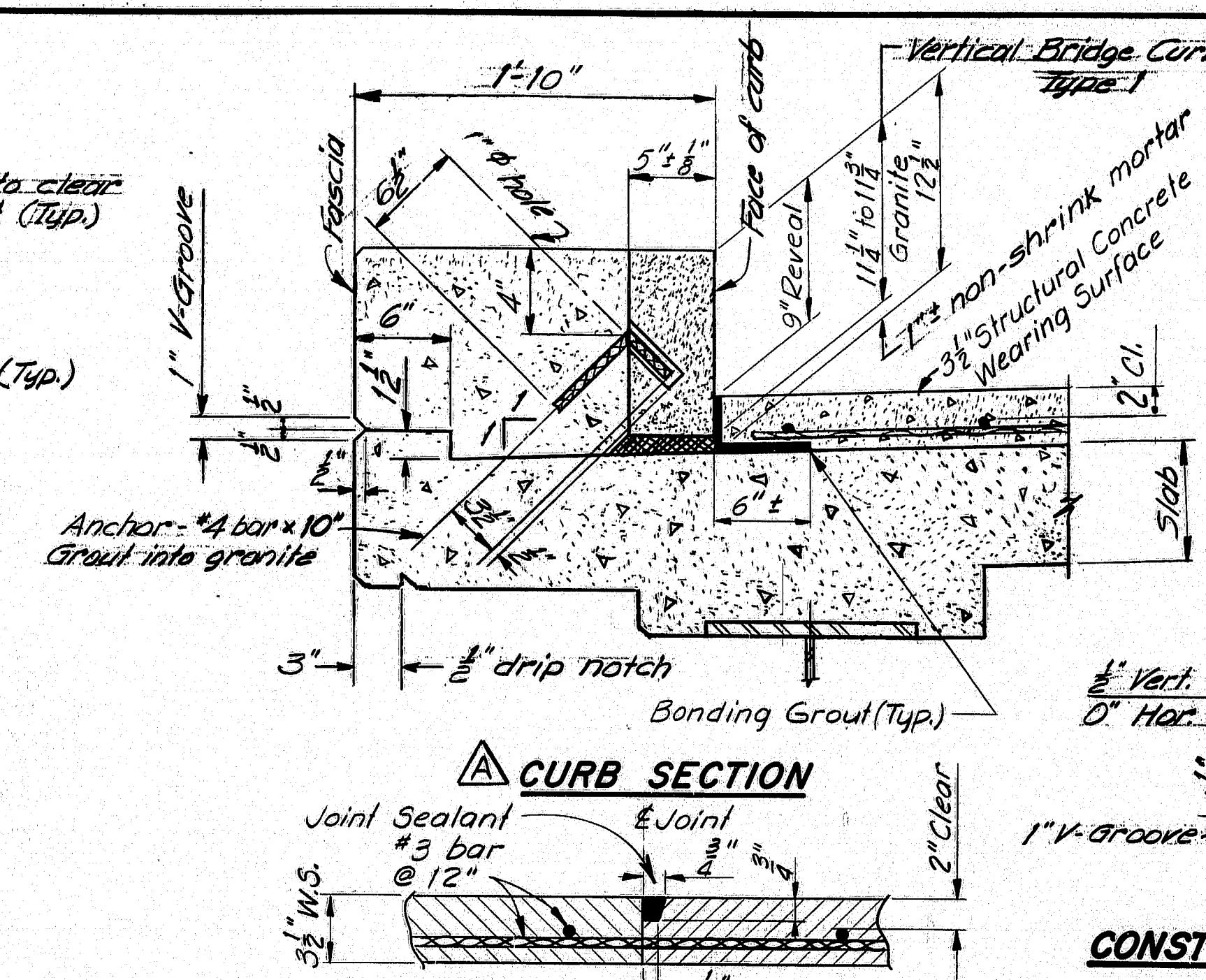
Fascia to fascia

### NOTE

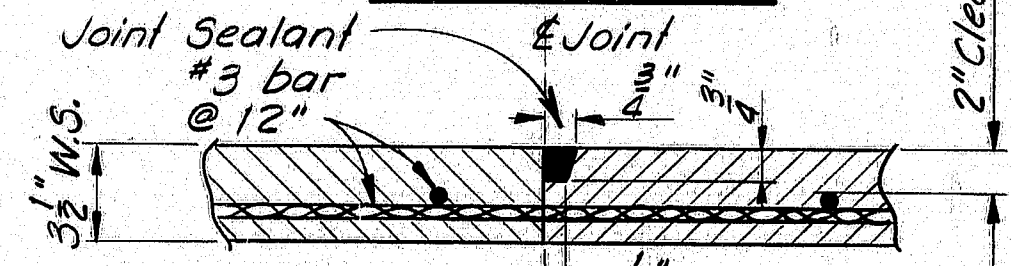
1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over plates, two (2) Type A Armored Joint Units shall be used.
2. When more elements than two (2) are required by 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.
4. All structural steel shall be A36. When structural steel is specified to be unpainted, the armored joint shall receive three coats of shop paint, on exposed areas of flanges below seal retention bars.

### ARMORED JOINT

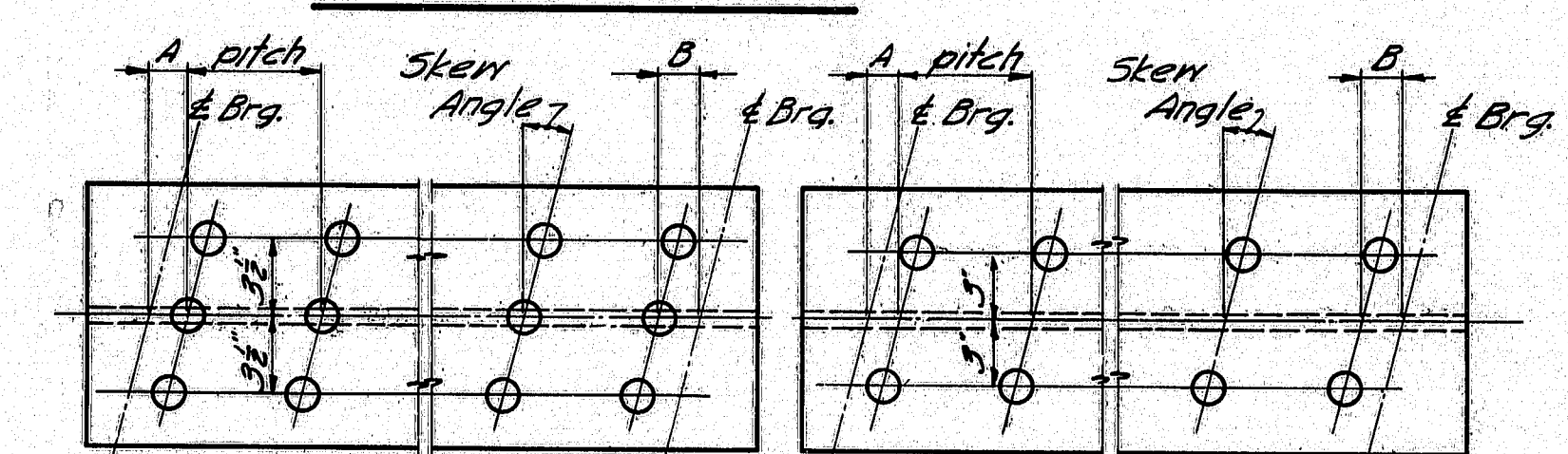
An armored joint consists of two armored joint units. See note 1.



### CURB SECTION



### CONSTRUCTION JOINT



### TRIPLE STUDS

### DOUBLE STUDS

### STUD DETAIL

- 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.

REVISIONS	DATE
Added holes and note to roadway drain.	
Add Note 4 to Armored Joint notes.	
Eliminate Hot Bit Pavt.	
Change curb and granite widths and added a concrete wearing surface	

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**STANDARD DETAILS**  
(BD 104-77)

**ARMORED JOINT, DRAIN**

**SHEAR CONNECTORS**

**MISC. STRUCTURAL DETAILS**

166-24

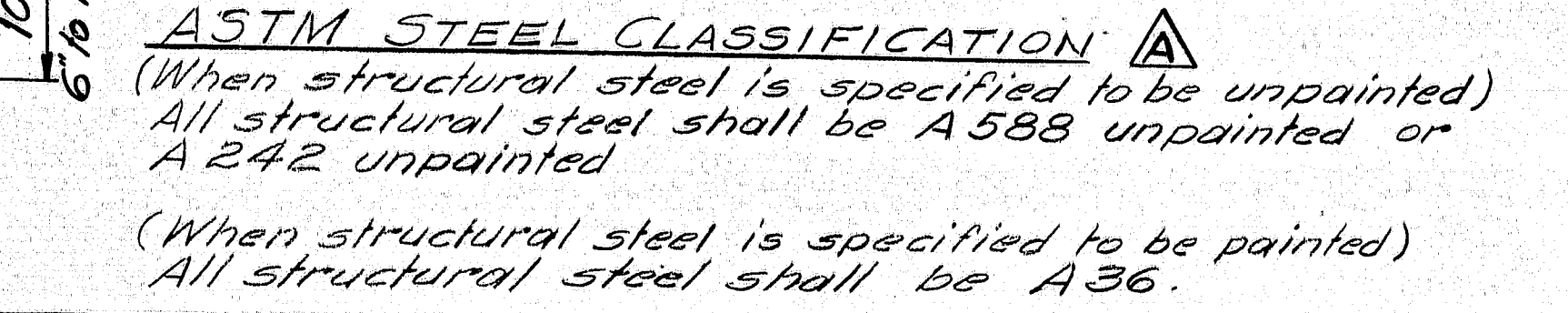
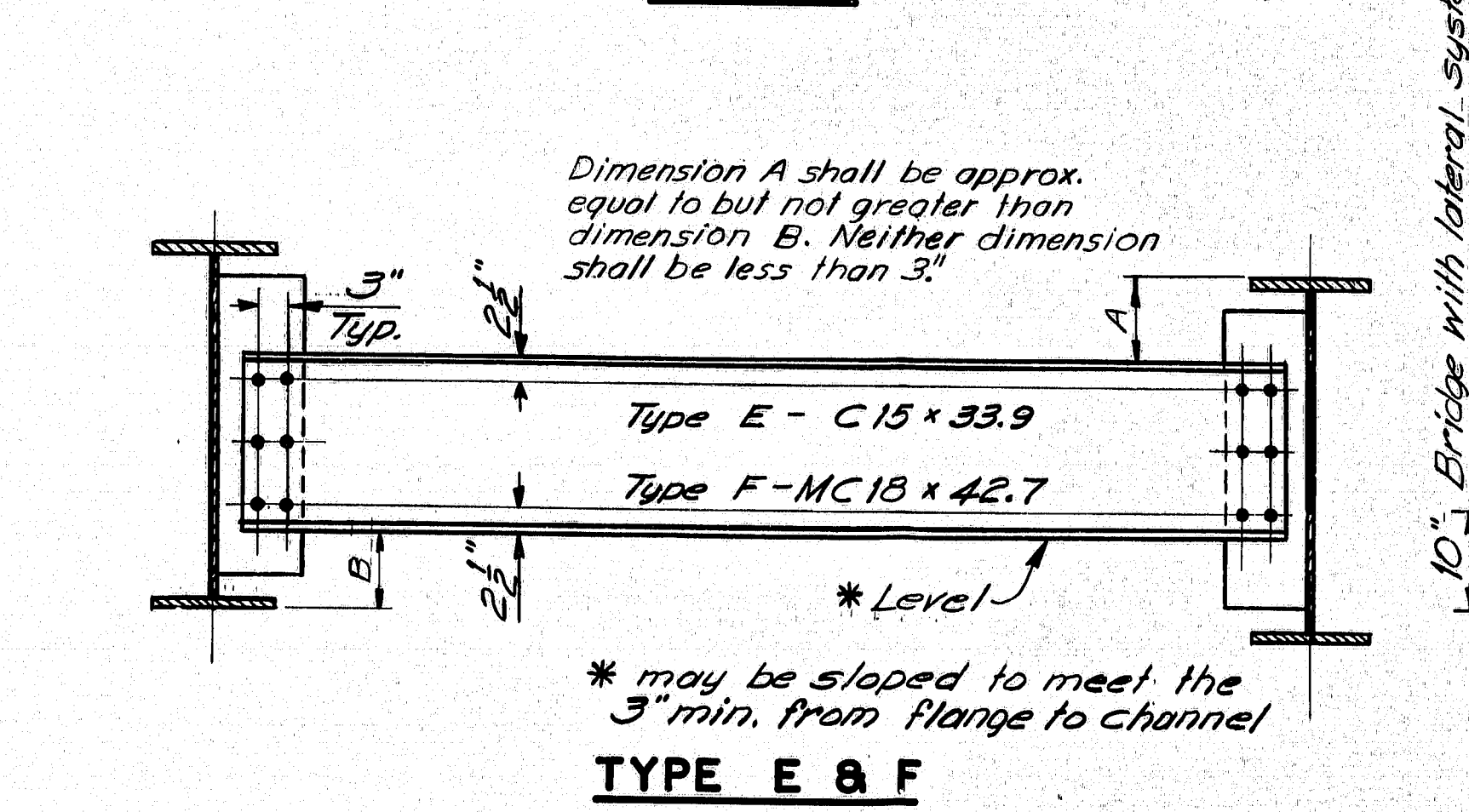
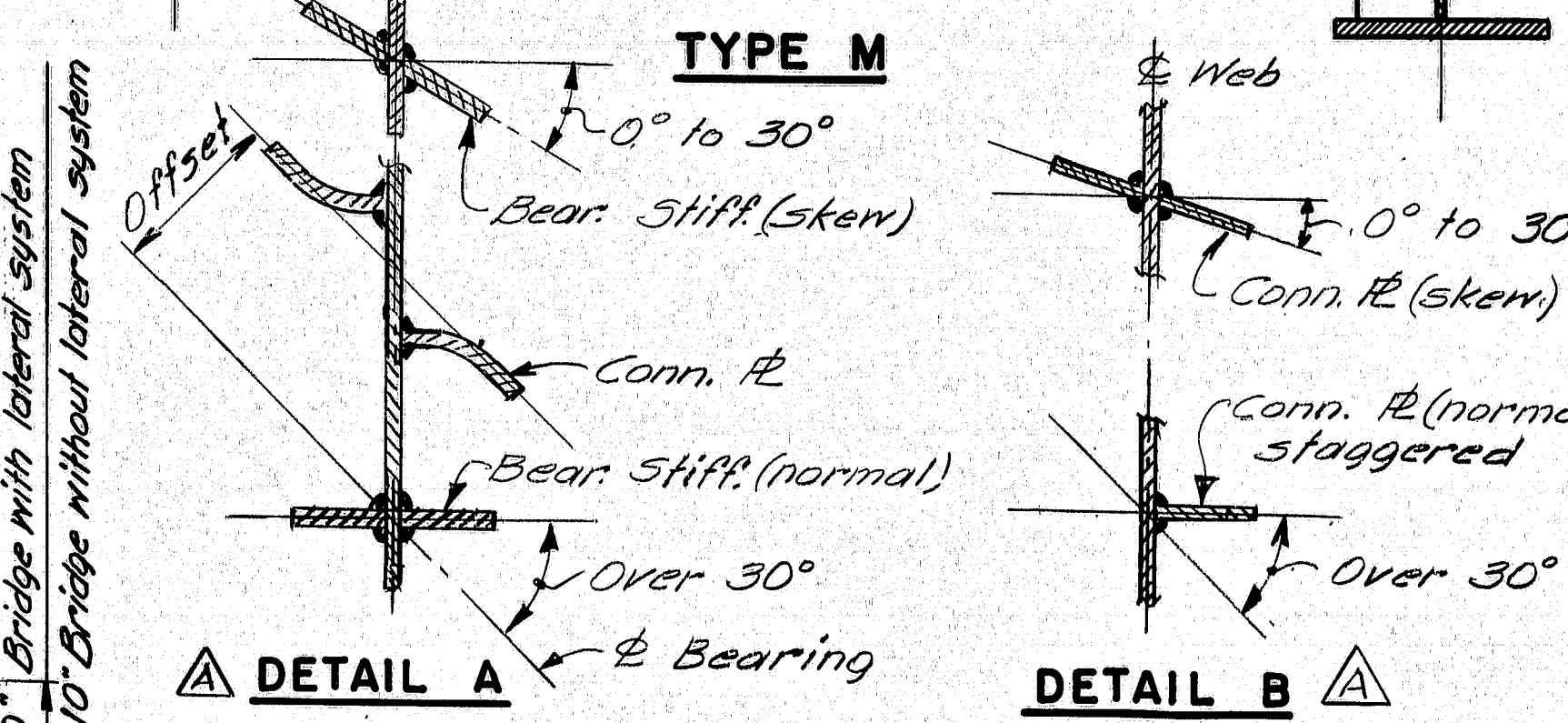
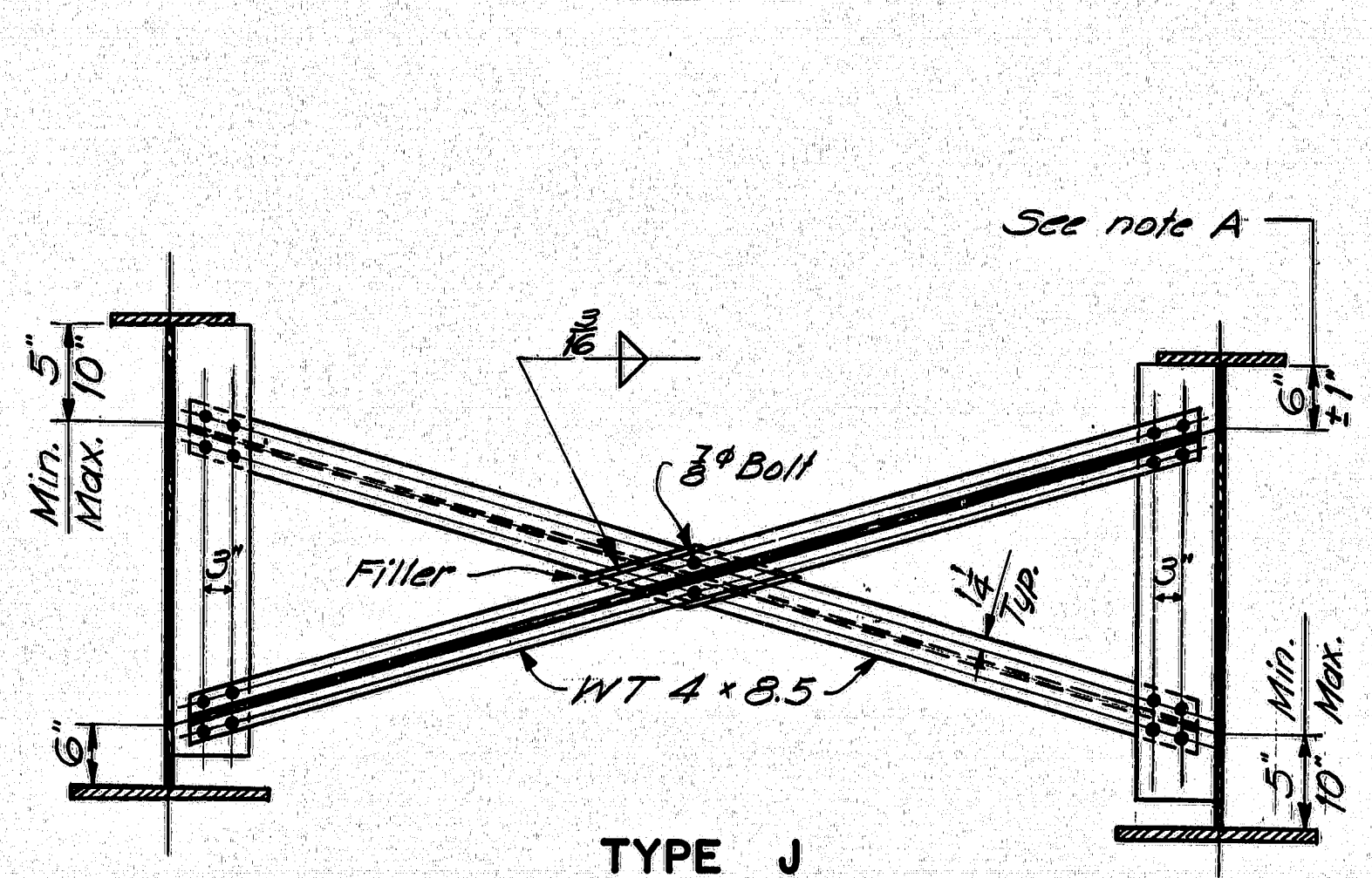
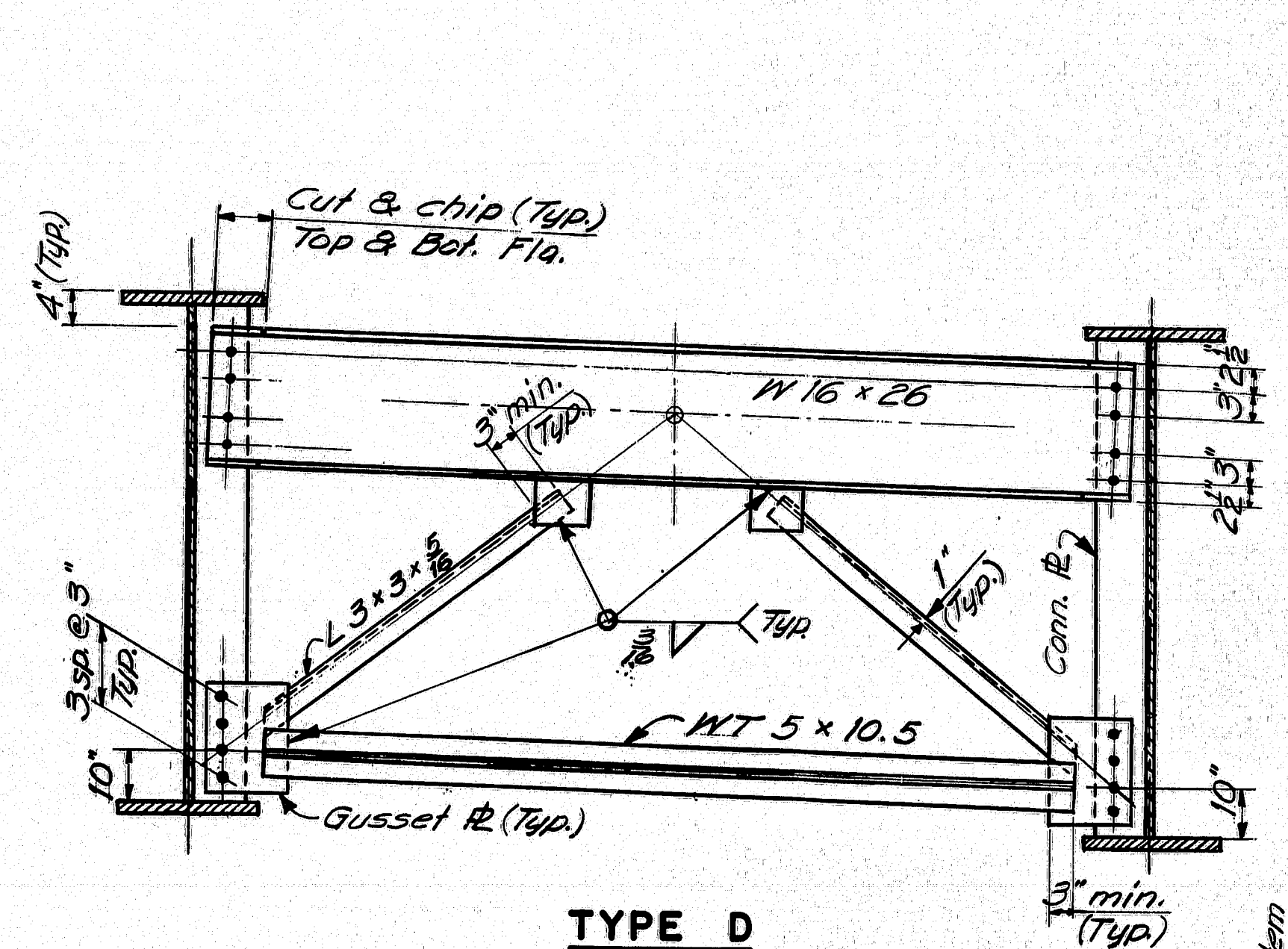
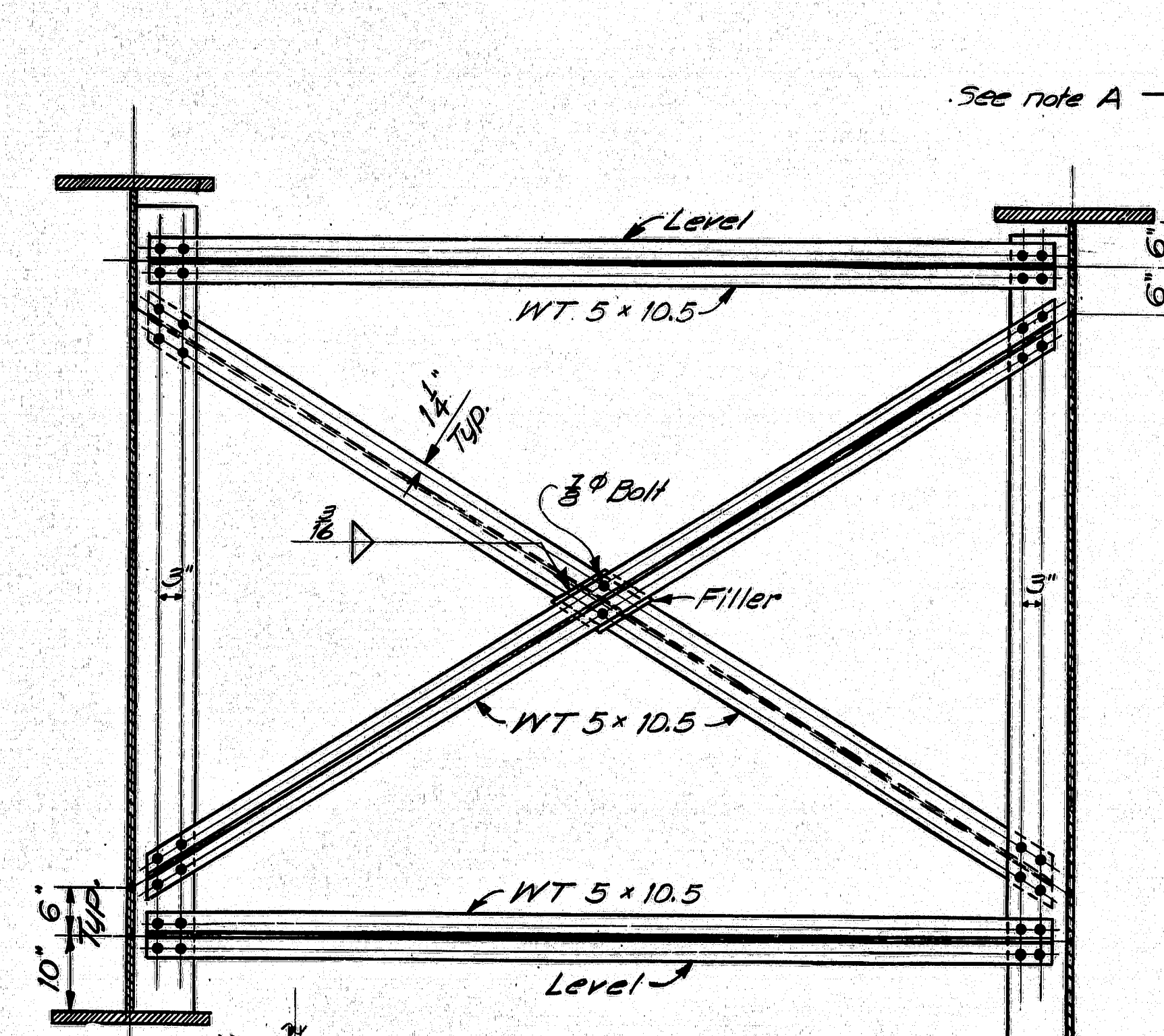
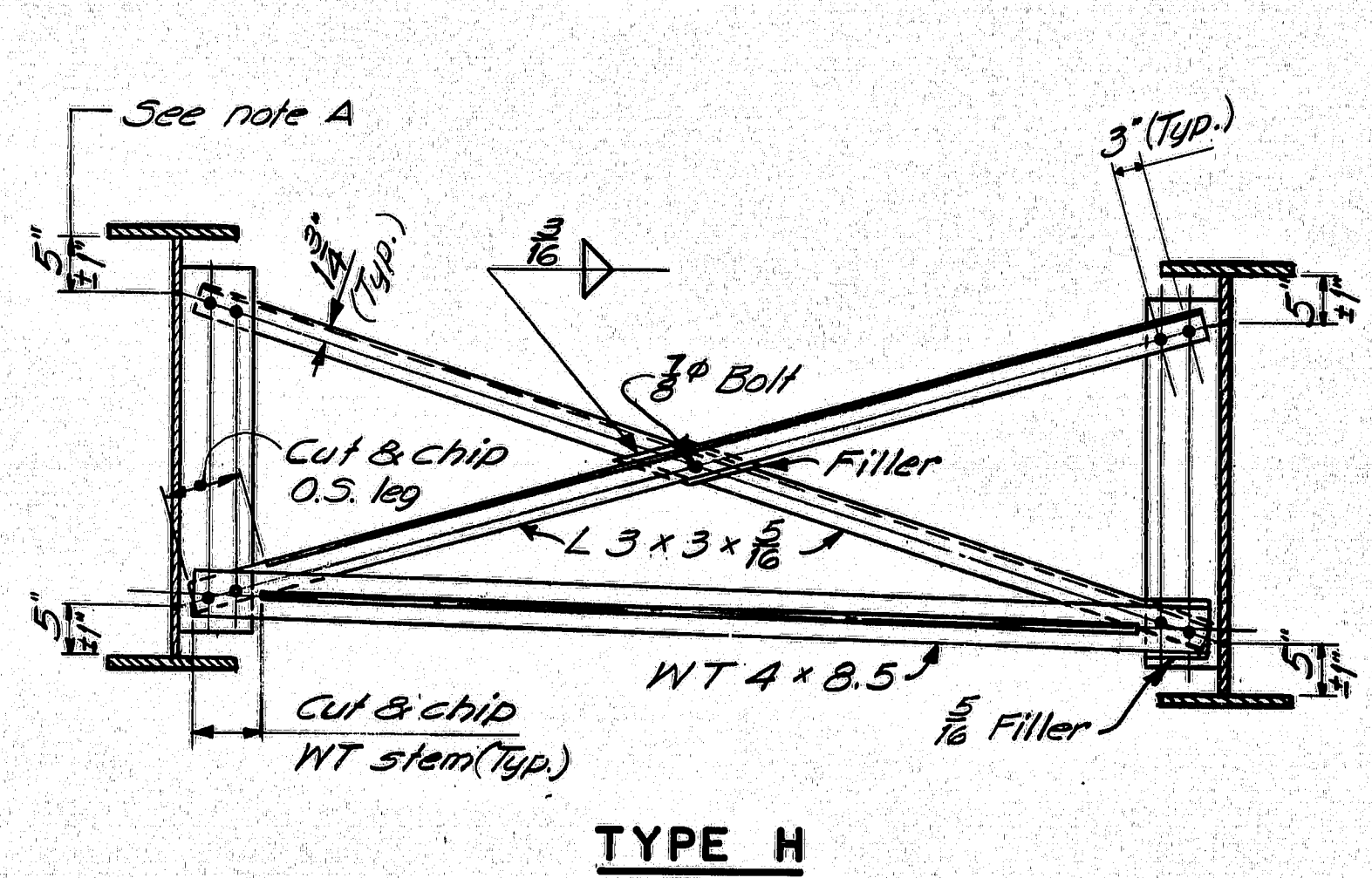
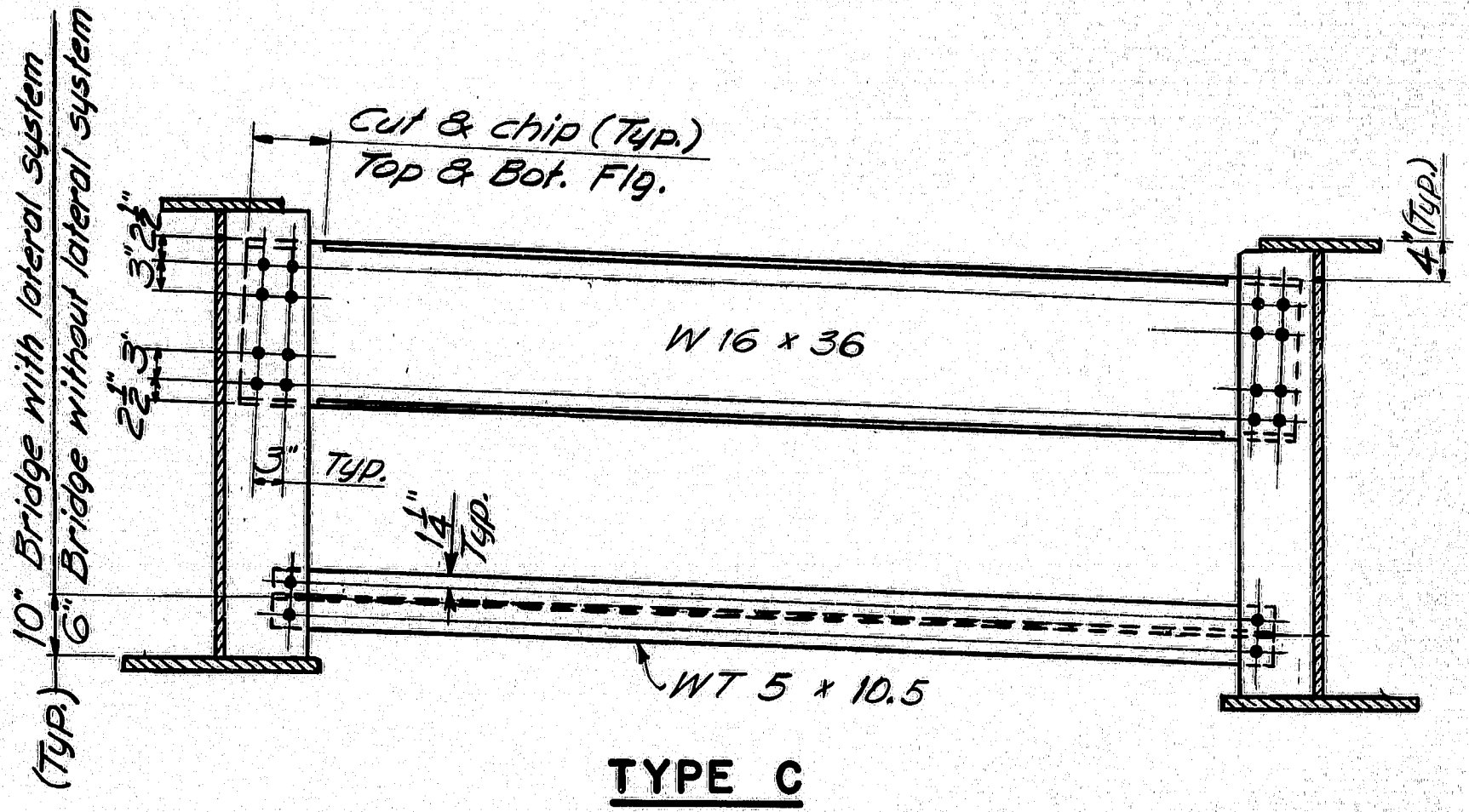
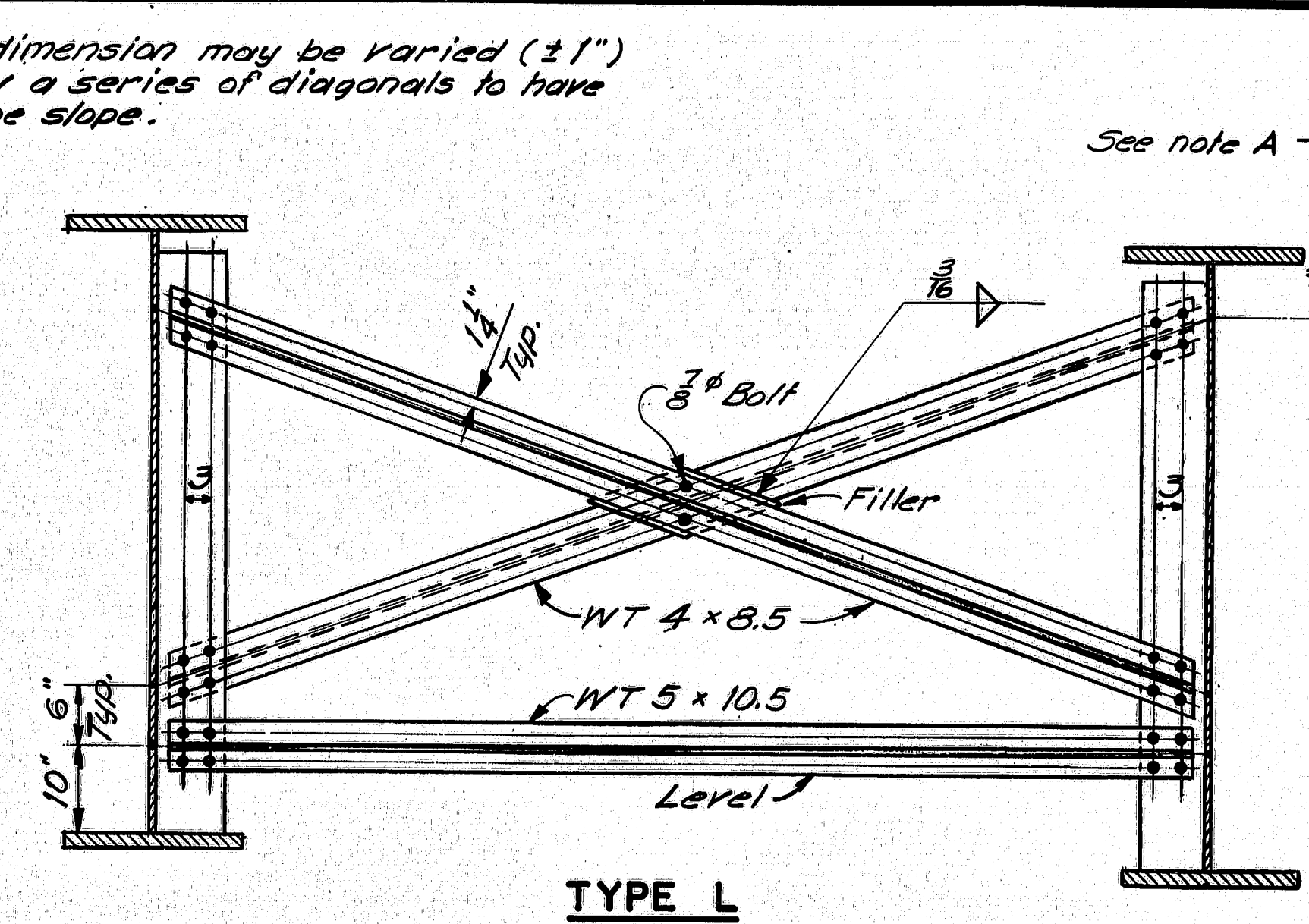
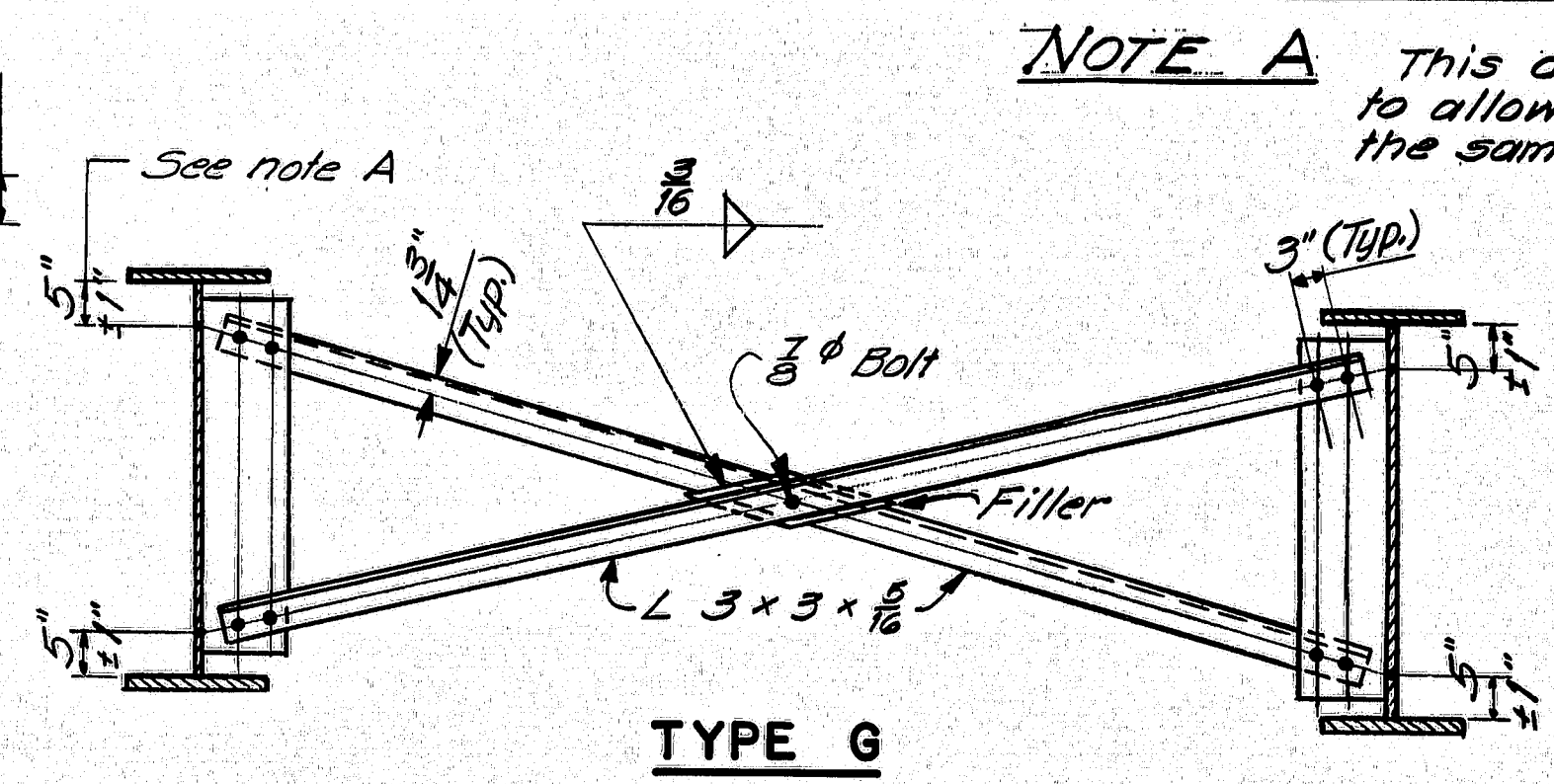
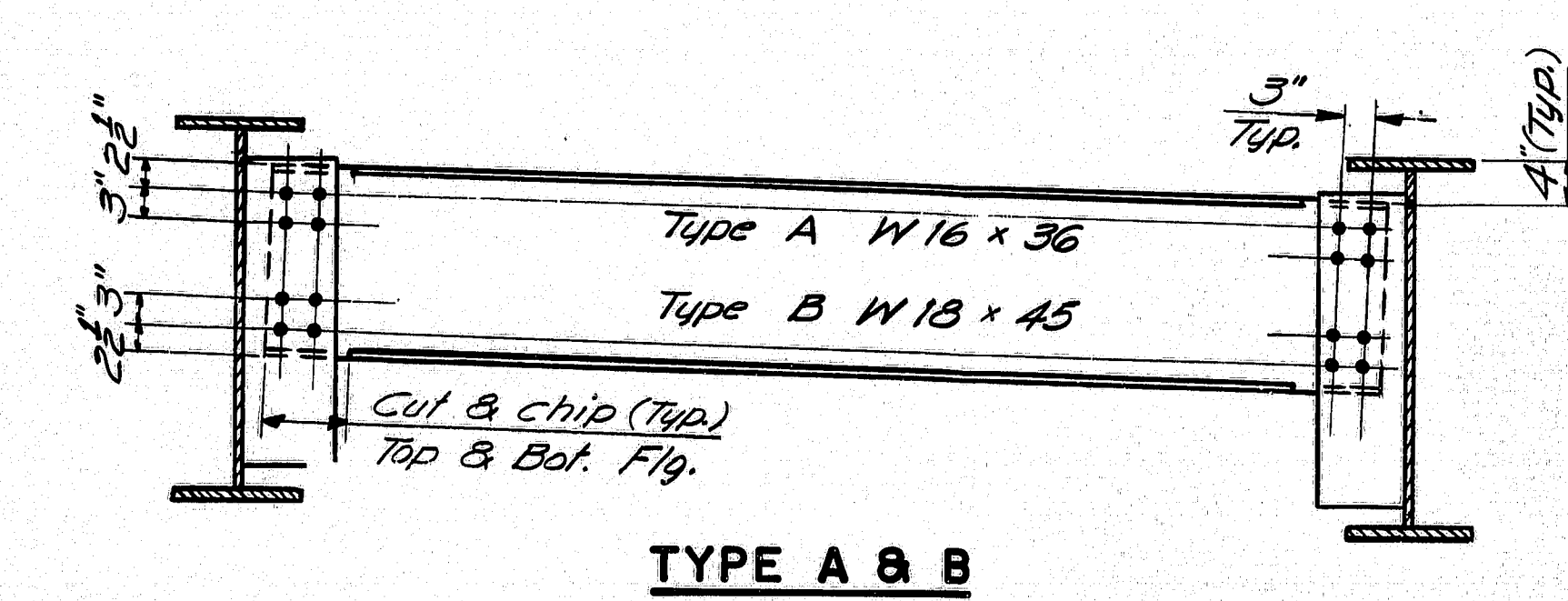


STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	1-95-9(83)	45	51

# FABRICATION NOTES

1. For location and type of cross-frame or diaphragm see design details.
2. All bolts shall be  $\frac{3}{4}$ " H.S. bolts.
3. Holes for  $\frac{3}{4}$ " H.S. bolts shall be  $\frac{15}{16}$ " and edge distances shall be  $\frac{1}{2}$ " minimum unless otherwise shown.
4. Connection plates and gusset plates shall have a minimum thickness of  $\frac{3}{8}$ " 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.
5. Connection plates shall be fastened to beam and girder webs by fillet weld both sides.  
0° to 30° skew - Skew Conn. Pl.  
Over 30° skew - Conn. Pl. normal (stagger)  
See Detail B
6. The skew angle is the angle between the connection plate and a line normal to the beam.
7. Bearing Stiffeners shall be used as connection plates when the skew is 30° or less.  
0° to 30° skew - Skew Stiffener  
Over 30° skew - Stiffener normal  
Use bent connection plates.  
See Detail A
8. All fillet weld sizes shall be the minimum for the thickness of metal being joined according to AWS Specifications for Welded Highway & Railway Bridges.
9. 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.
10. 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.
11. When a conn. plate is extended to a flange it shall be a paint tight fit except as otherwise indicated on design details.
12. Conn. plates shall be 2" clear from flanges, except as indicated by Notes 7 & 8.
13. 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.

**NOTE A** This dimension may be varied ( $\pm 1"$ ) to allow a series of diagonals to have the same slope.



**ASTM STEEL CLASSIFICATION**  
(When structural steel is specified to be unpainted)  
All structural steel shall be A588 unpainted or A242 unpainted  
(When structural steel is specified to be painted)  
All structural steel shall be A36.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**STANDARD DETAILS**  
(BD 113 - 72)

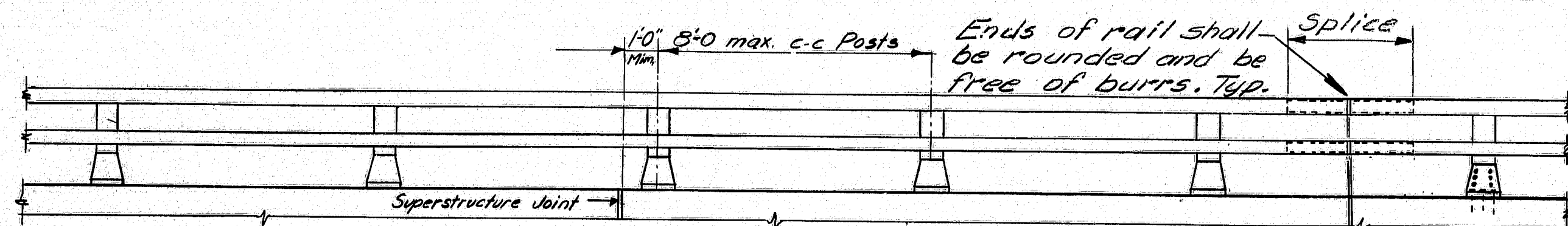
**DIAPHRAGMS & CROSSFRAMES**

REVISED MAR. 1, 1977

SHEET 45 OF 51 AUGUSTA, MAINE SEPT. 1972

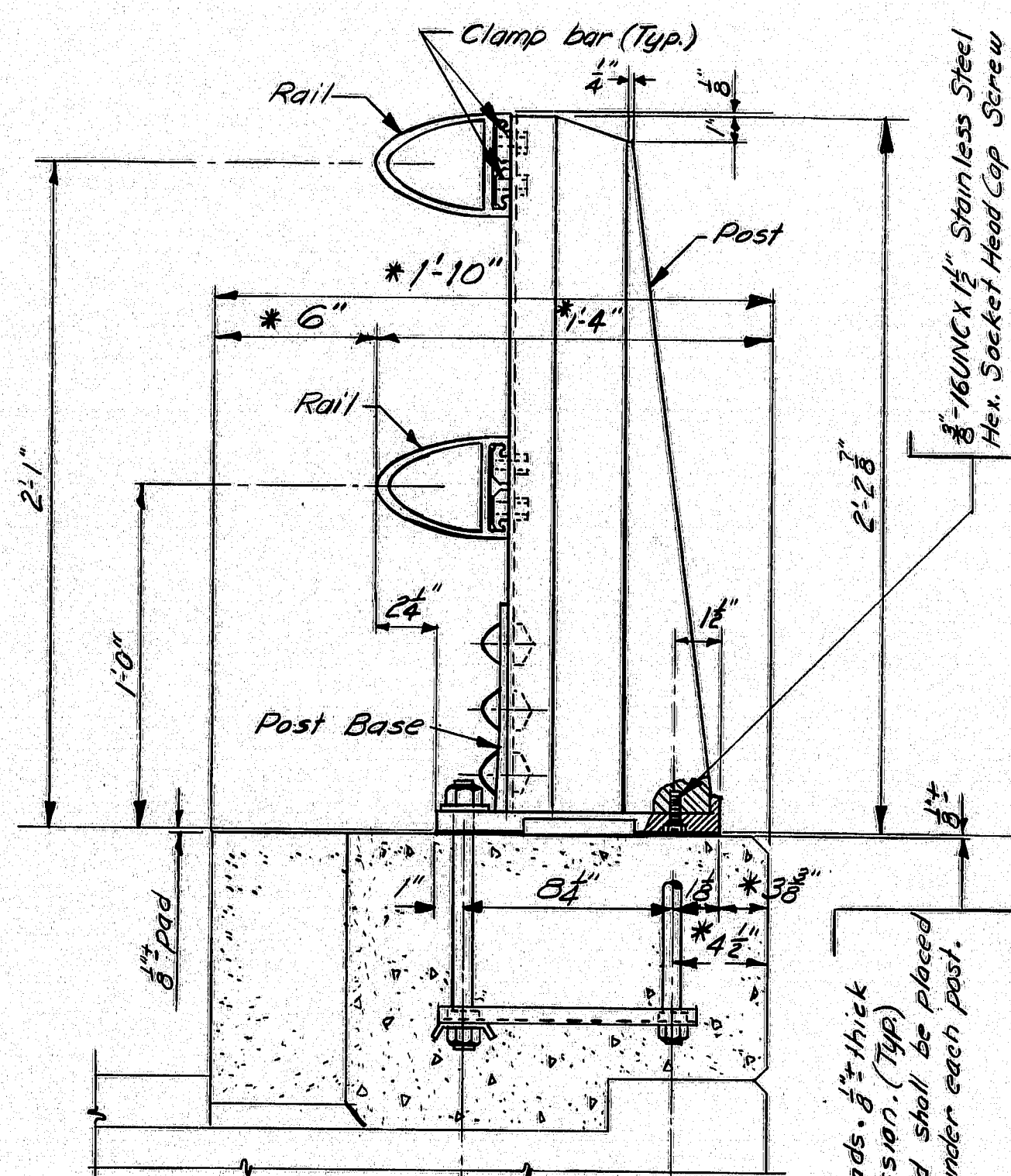
166-25





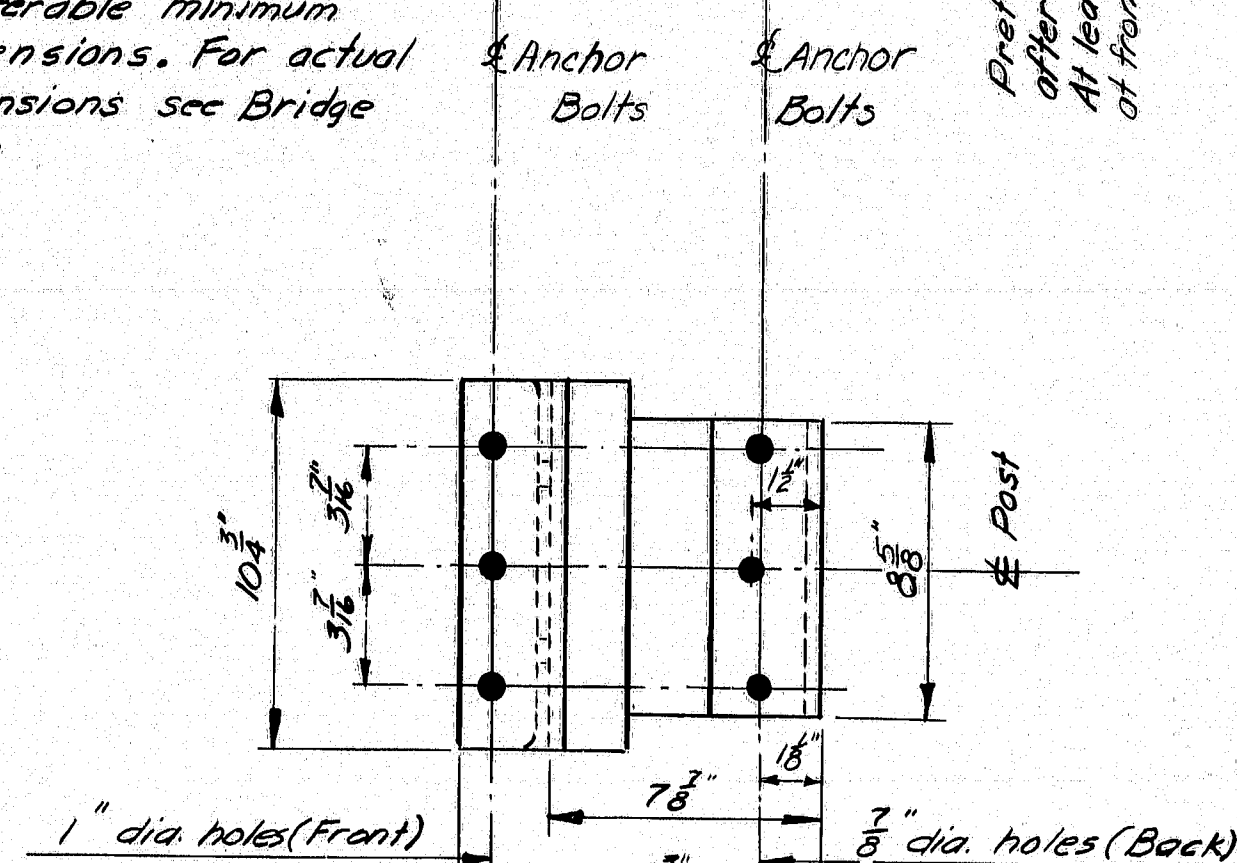
**RAILING - ELEVATION**

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.

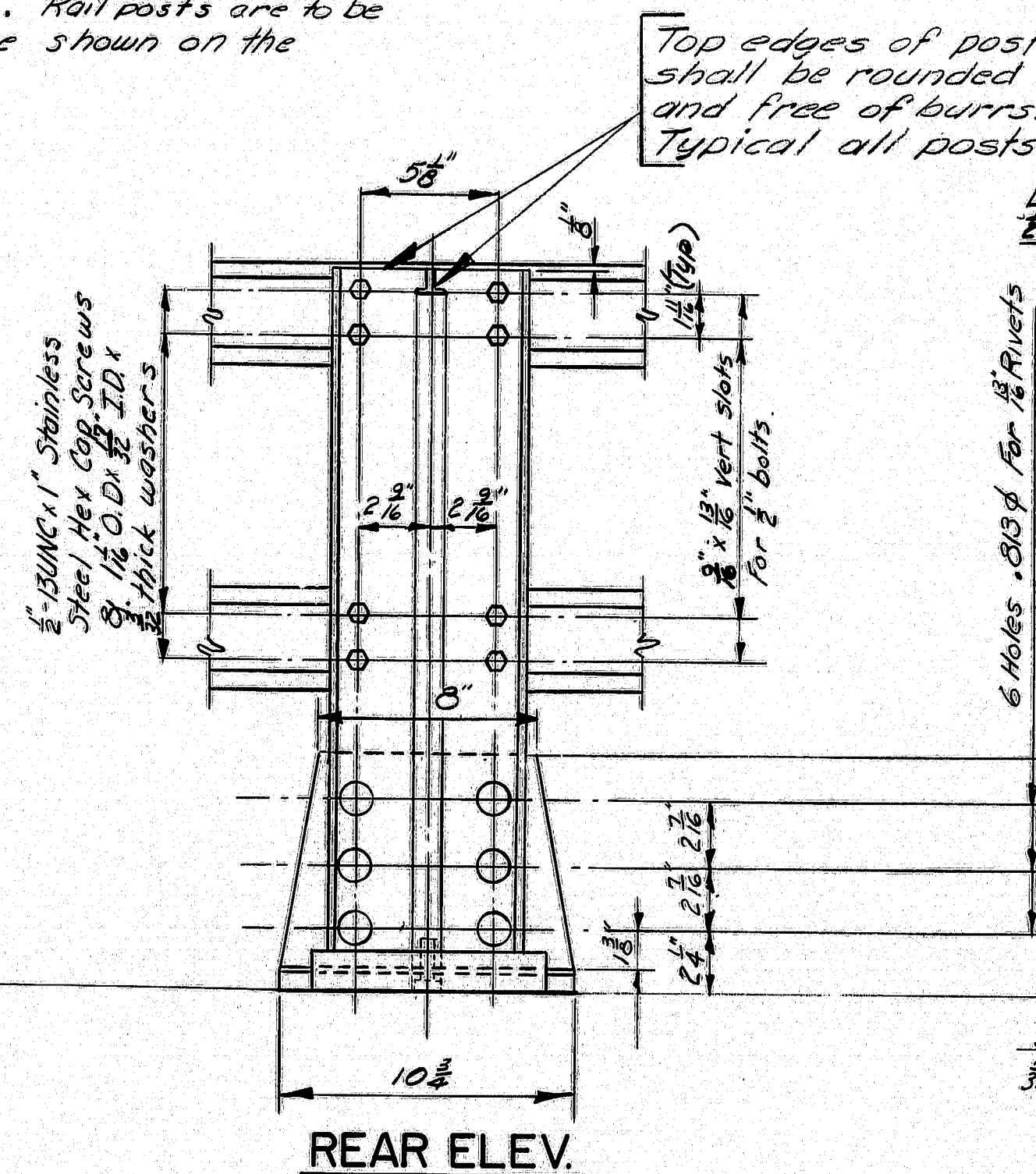


**BRIDGE RAILING (Assembly)**

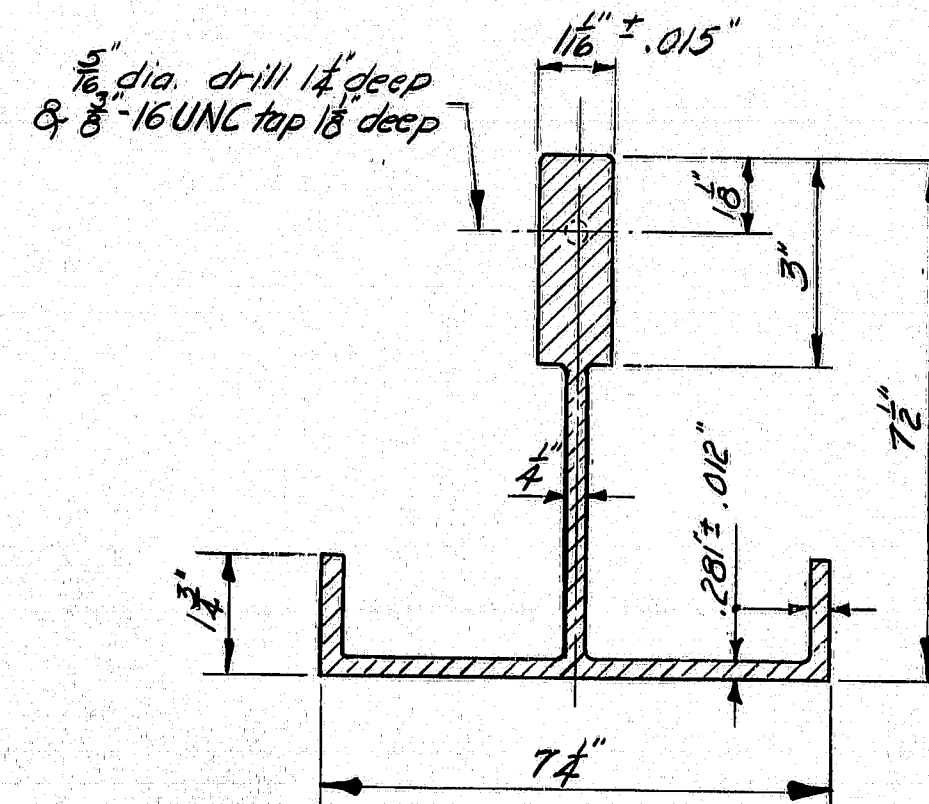
\* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



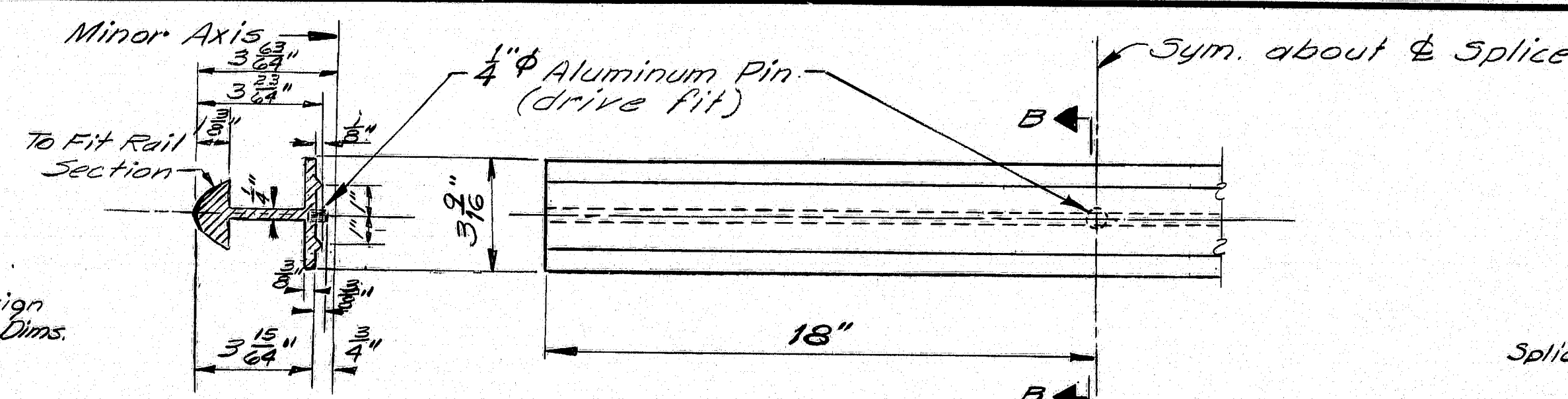
**POST BASE (Bottom View)**



**REAR ELEV.**

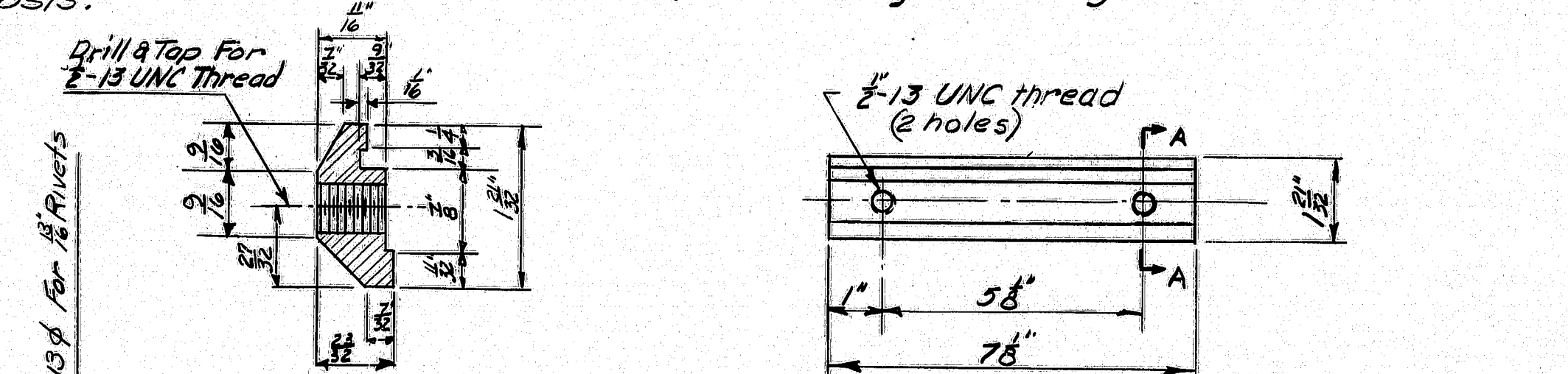


**POST SECTION**

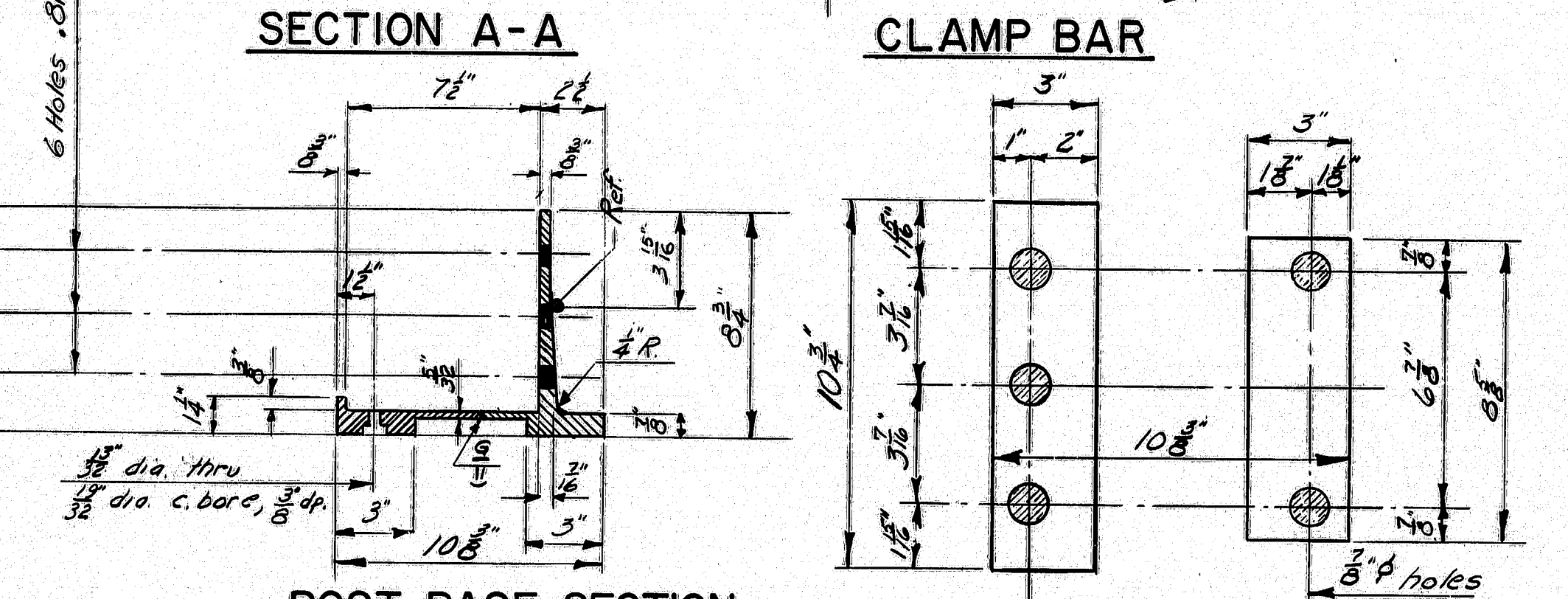


**SECTION B-B**

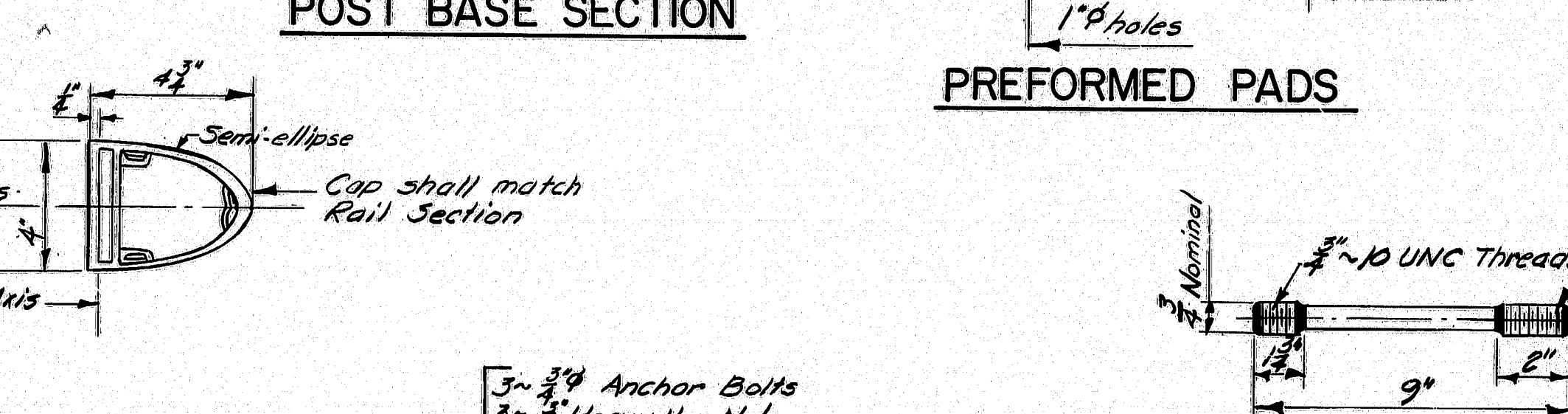
Alternate splice bars may be substituted if approved by the Engineer



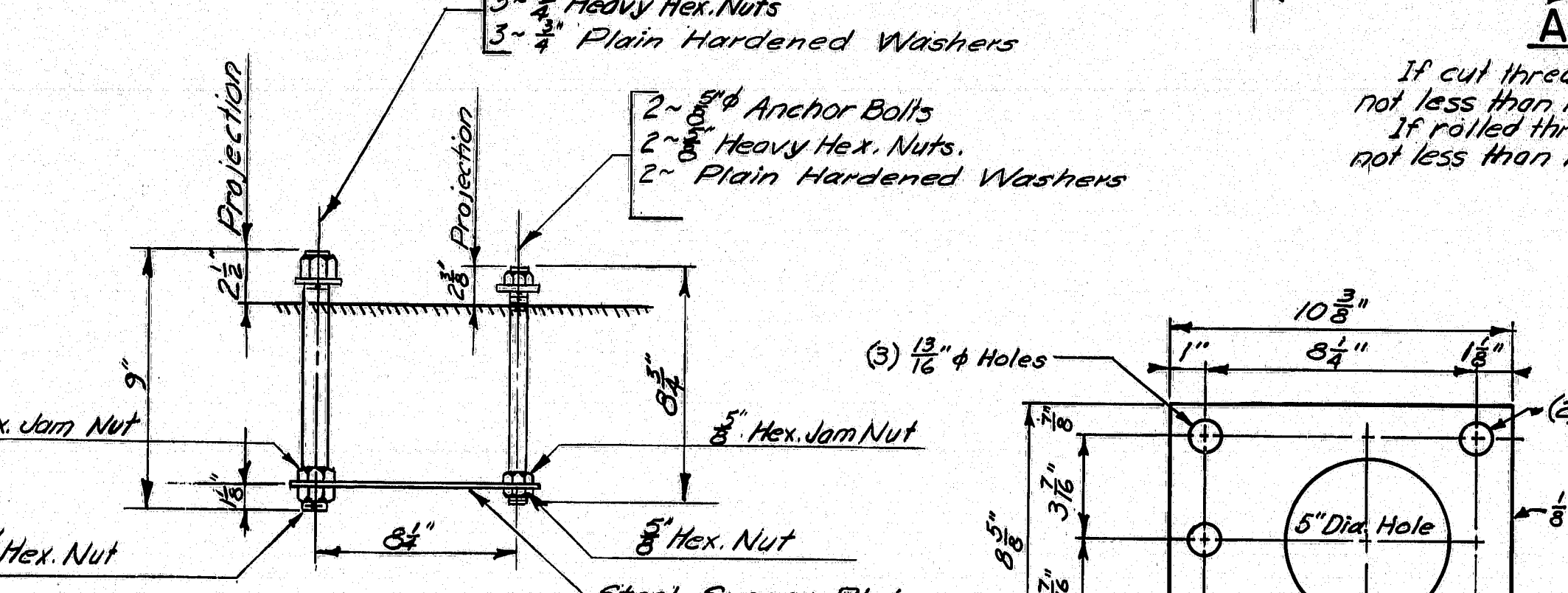
**SPLICE BAR**



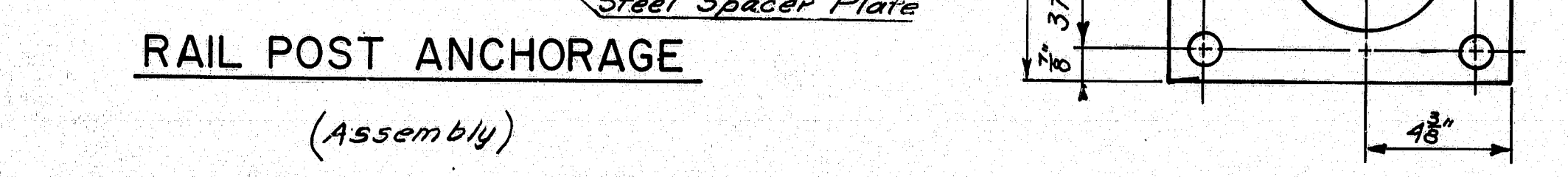
**CLAMP BAR**



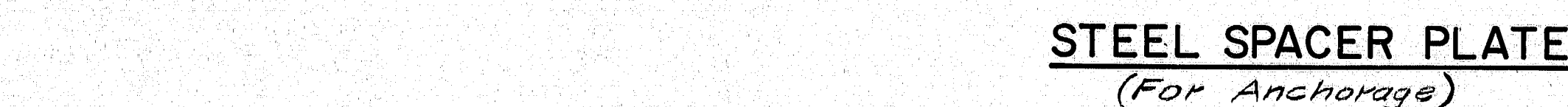
**PREFORMED PADS**



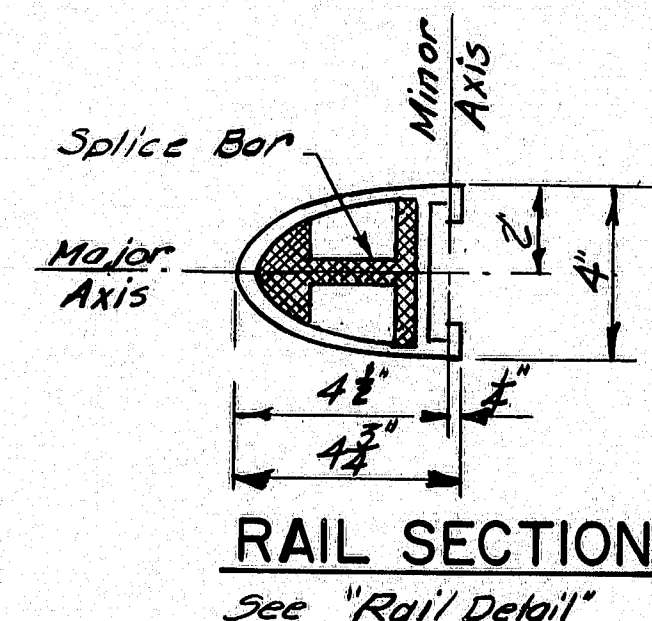
**RAIL CAP**



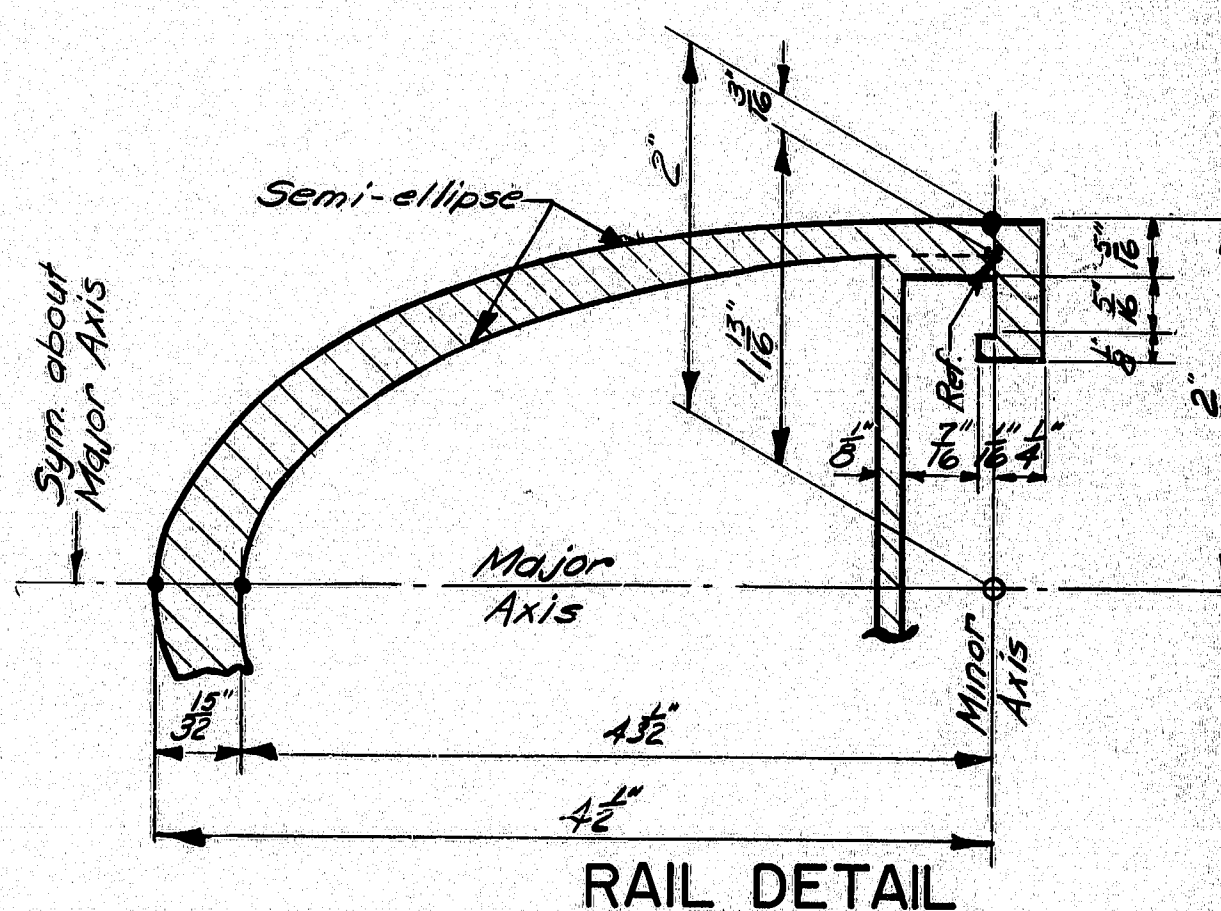
**RAIL POST ANCHORAGE (Assembly)**



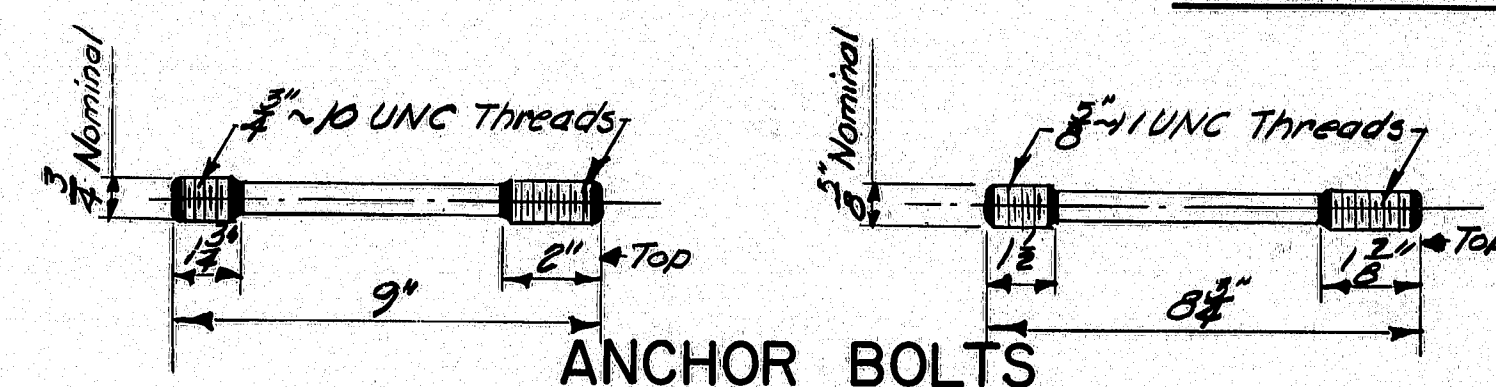
**STEEL SPACER PLATE (For Anchorage)**



**RAIL SECTION**  
See "Rail Detail"



**RAIL DETAIL**



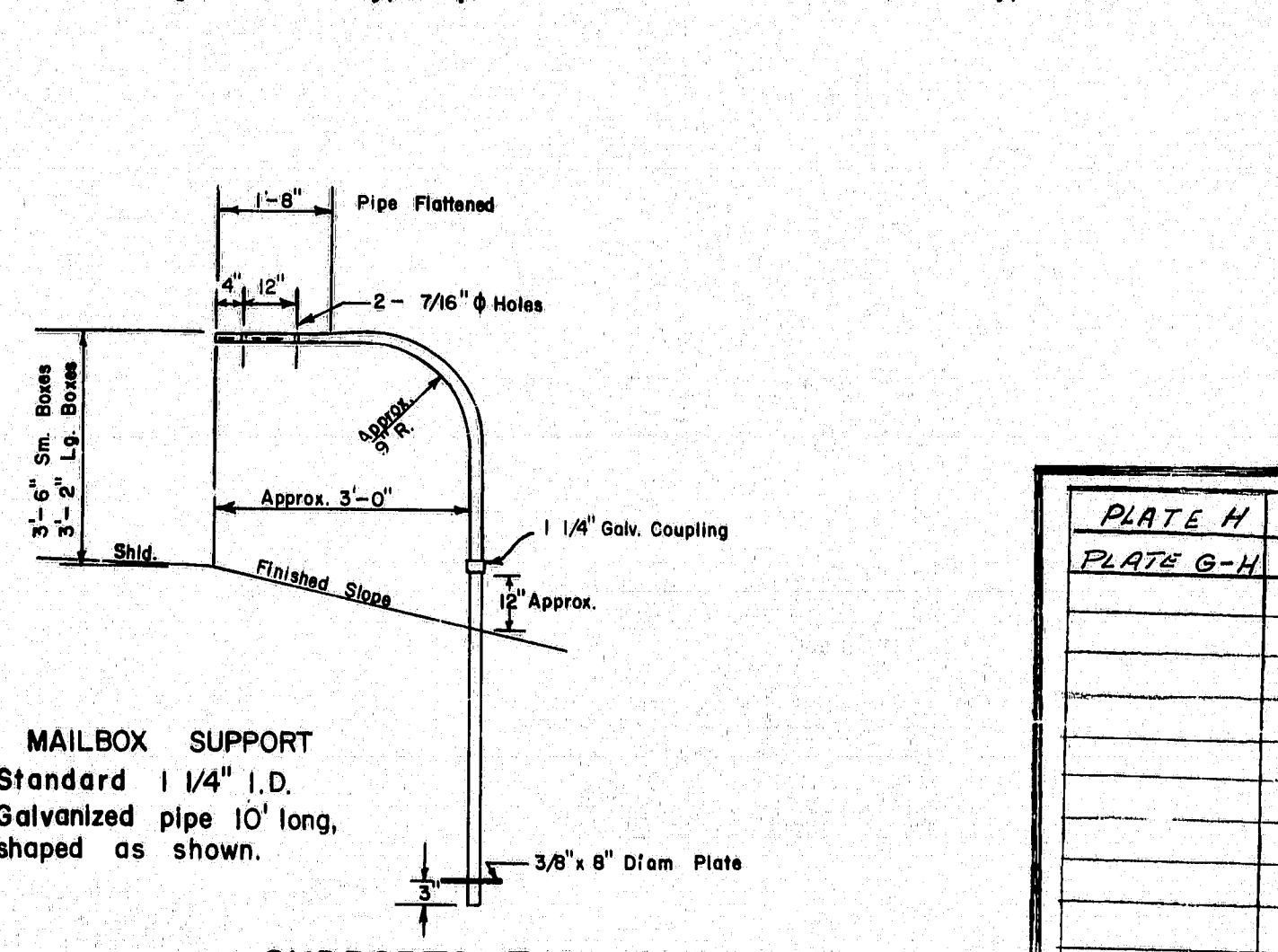
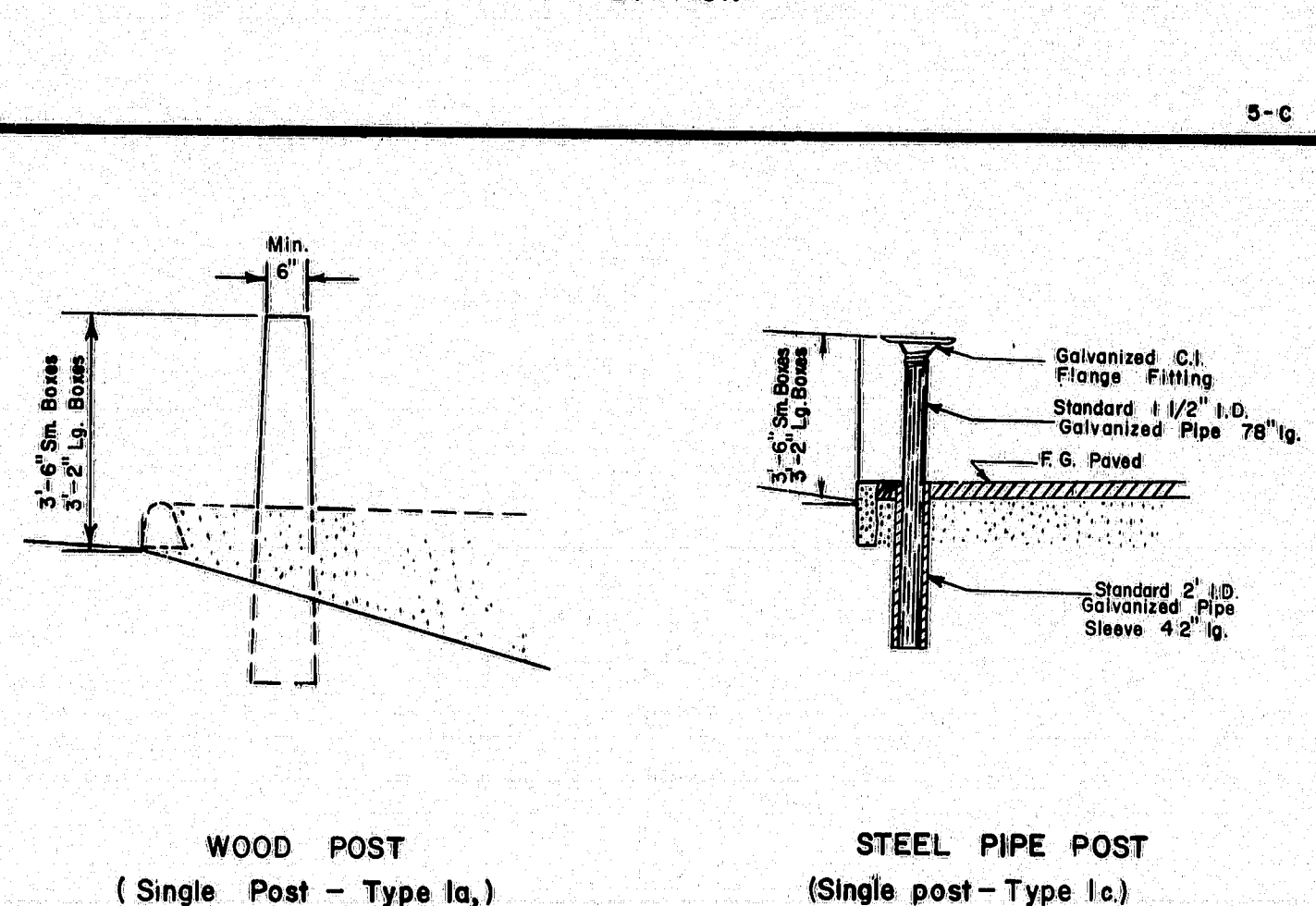
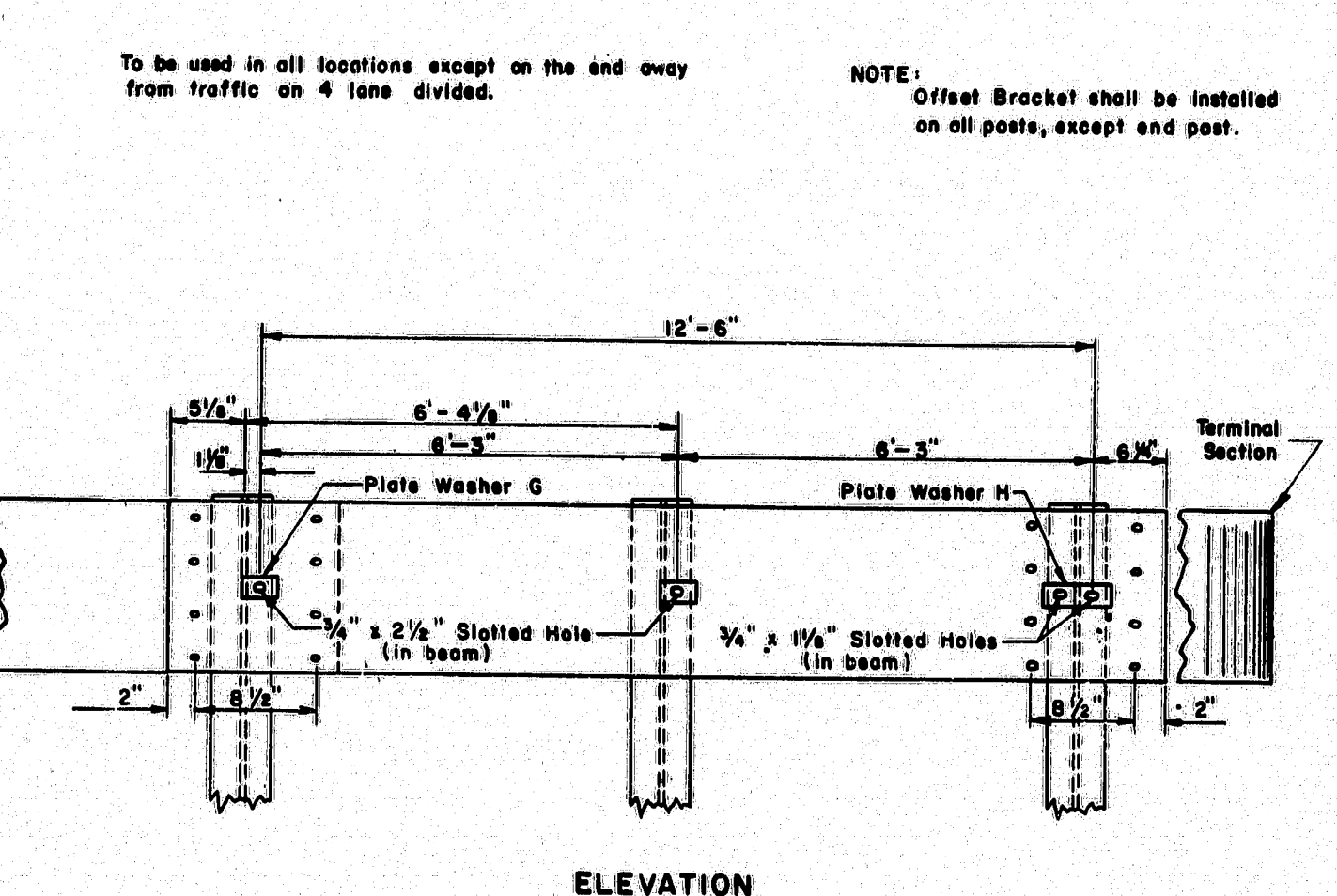
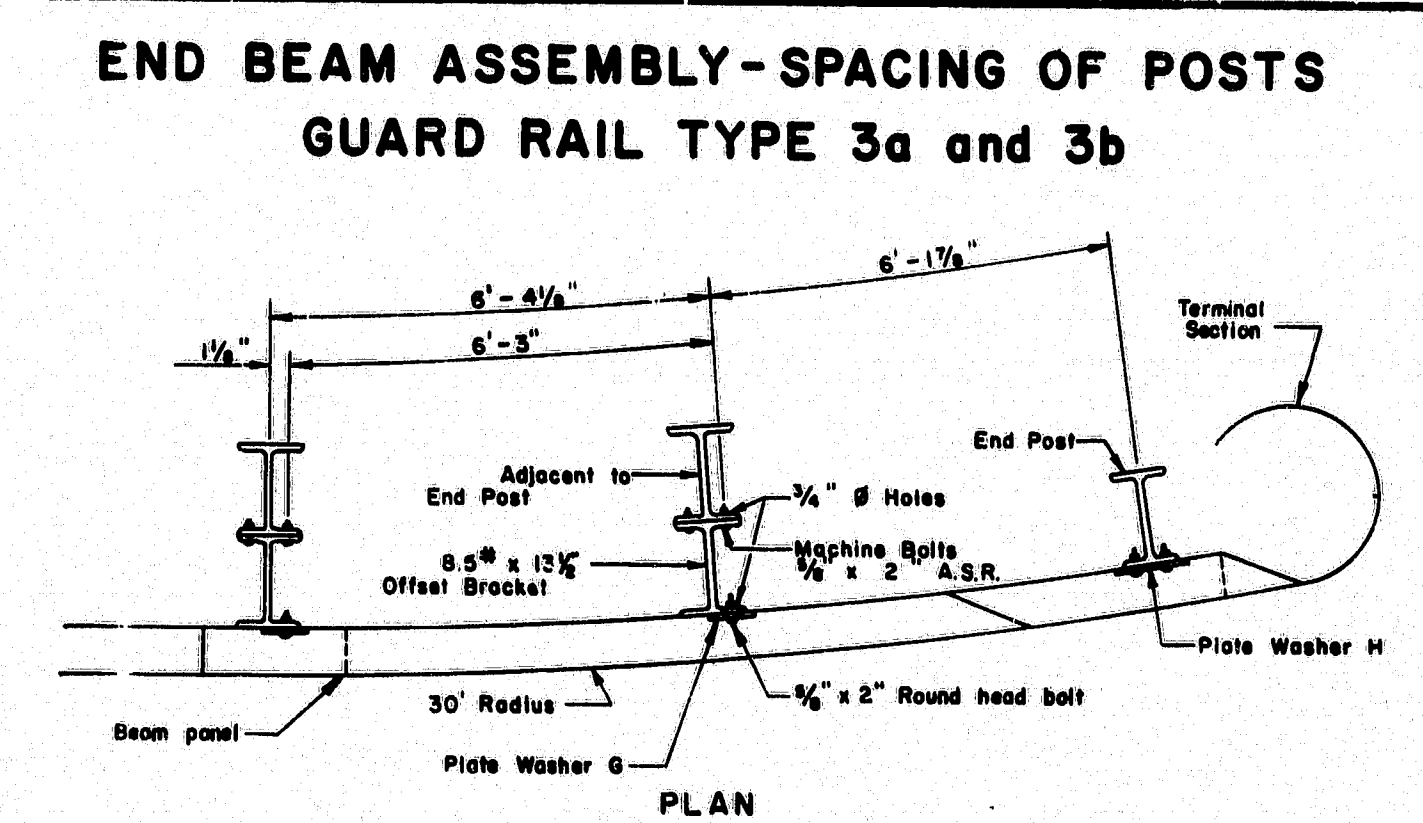
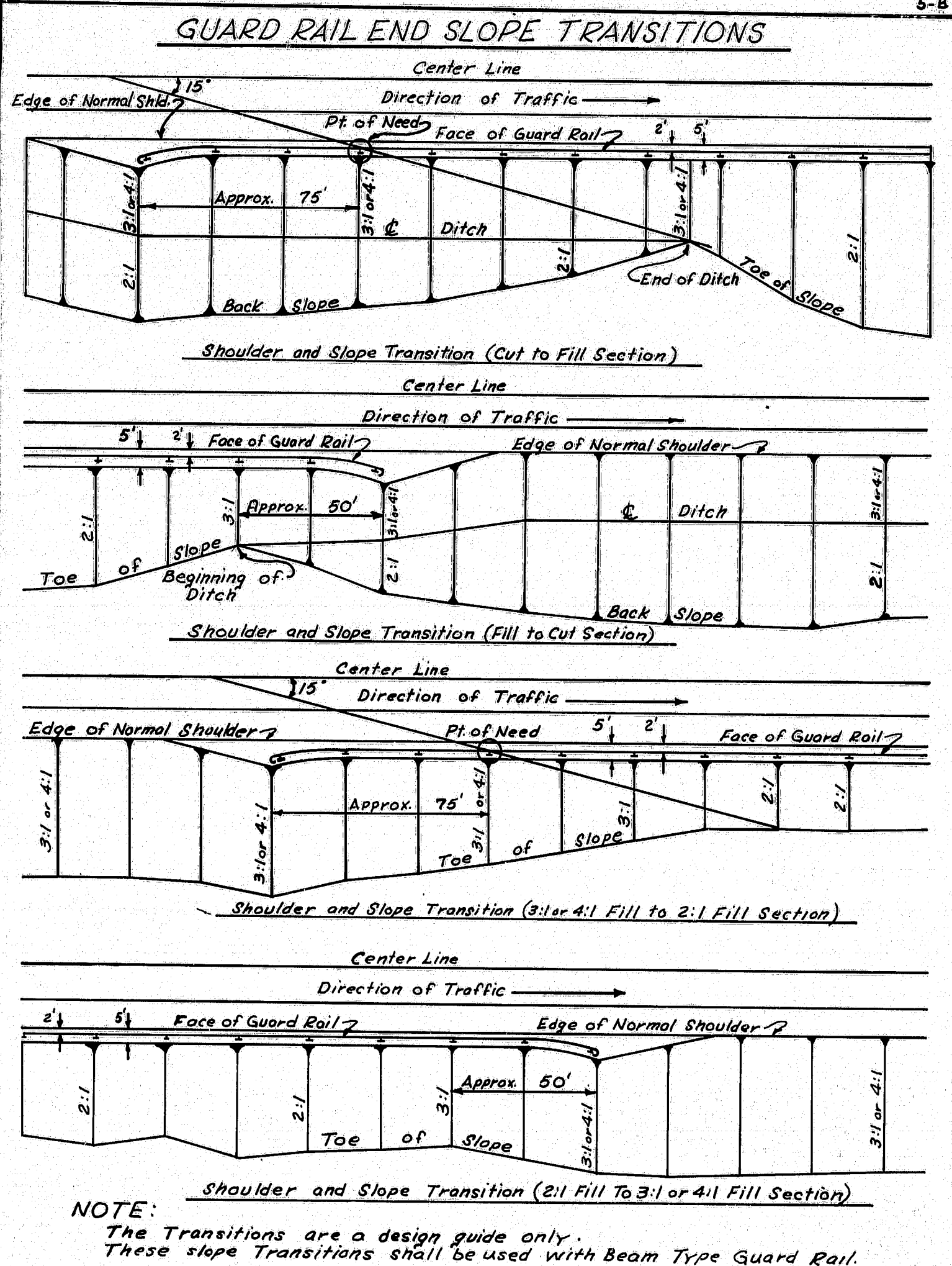
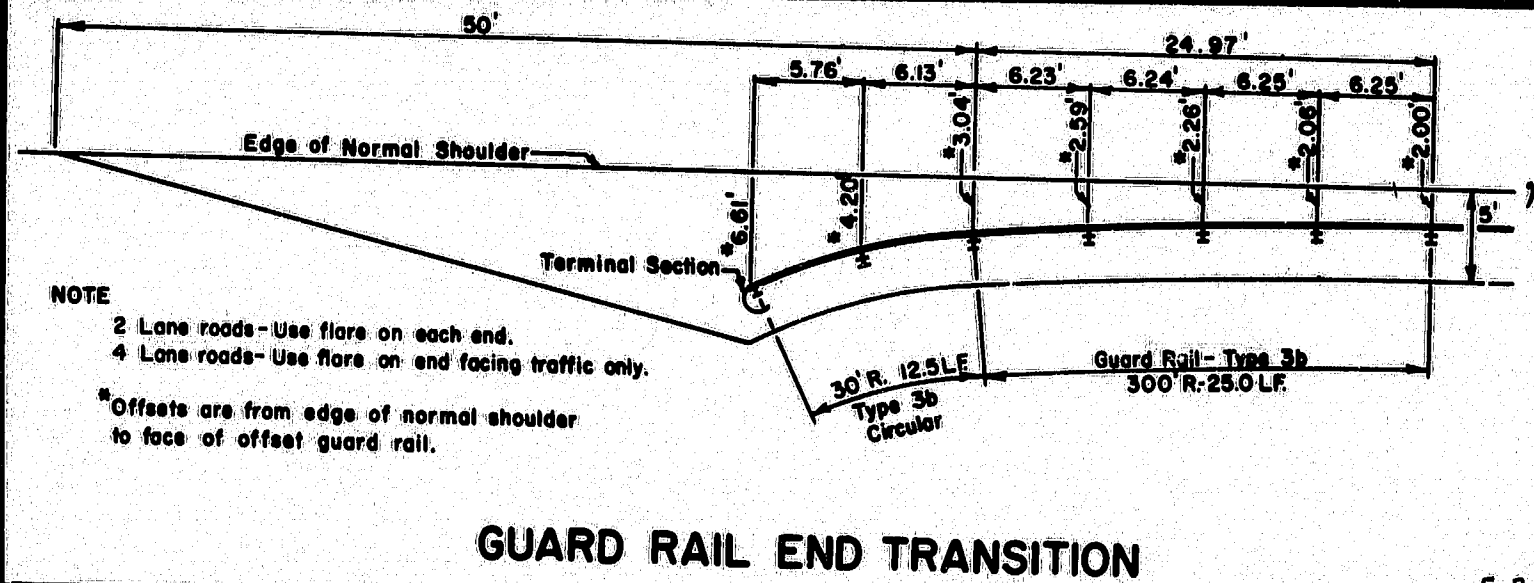
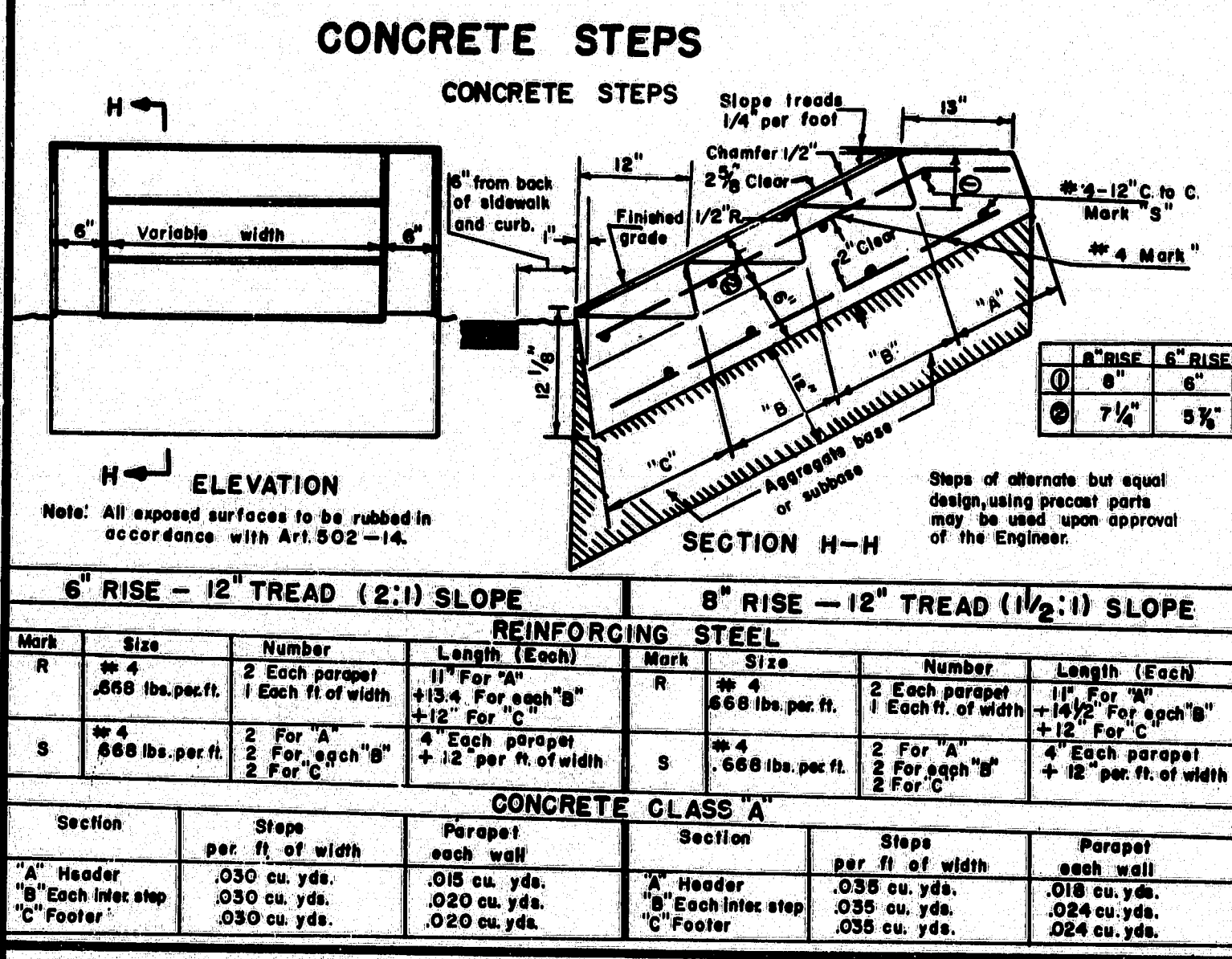
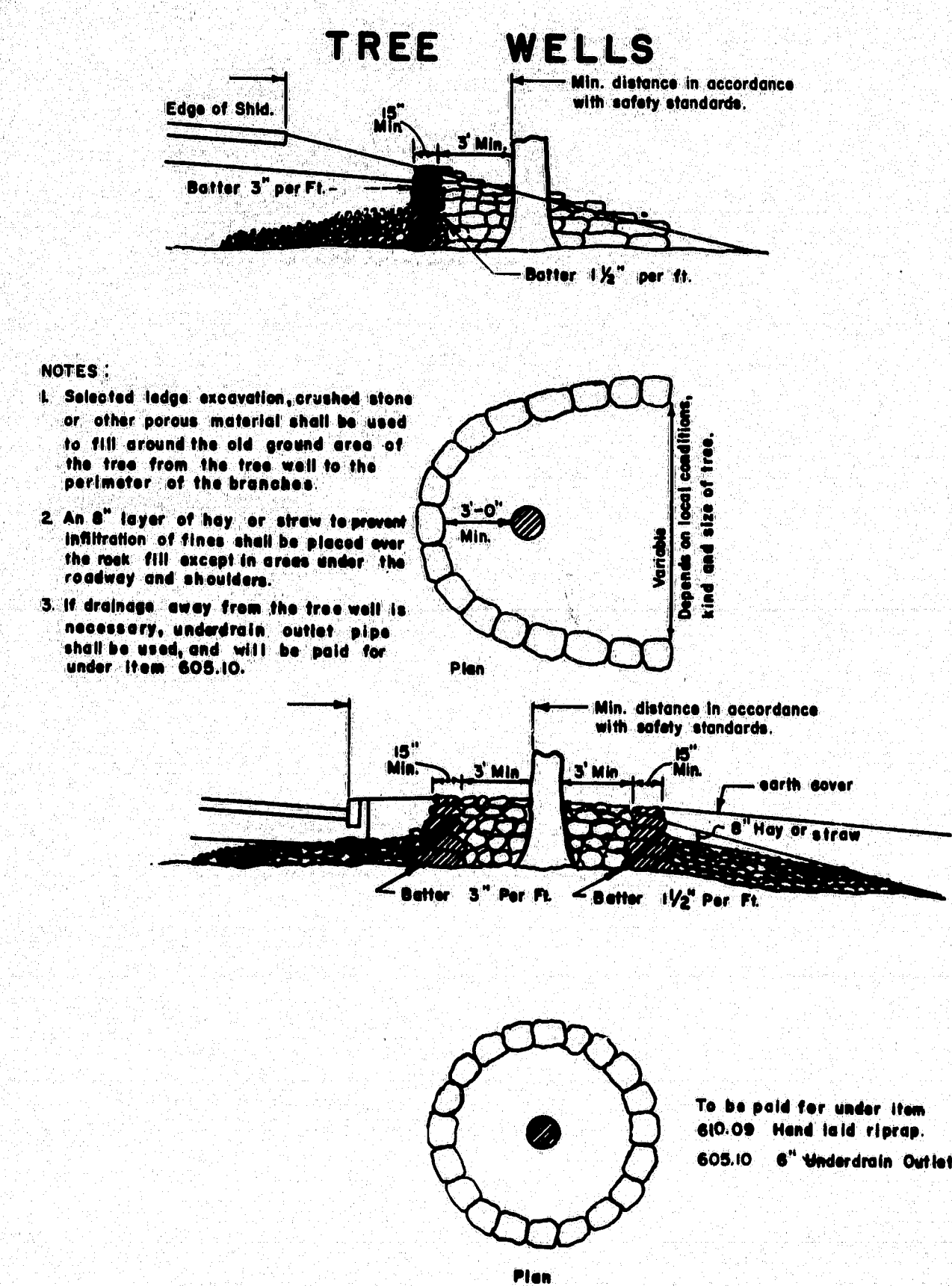
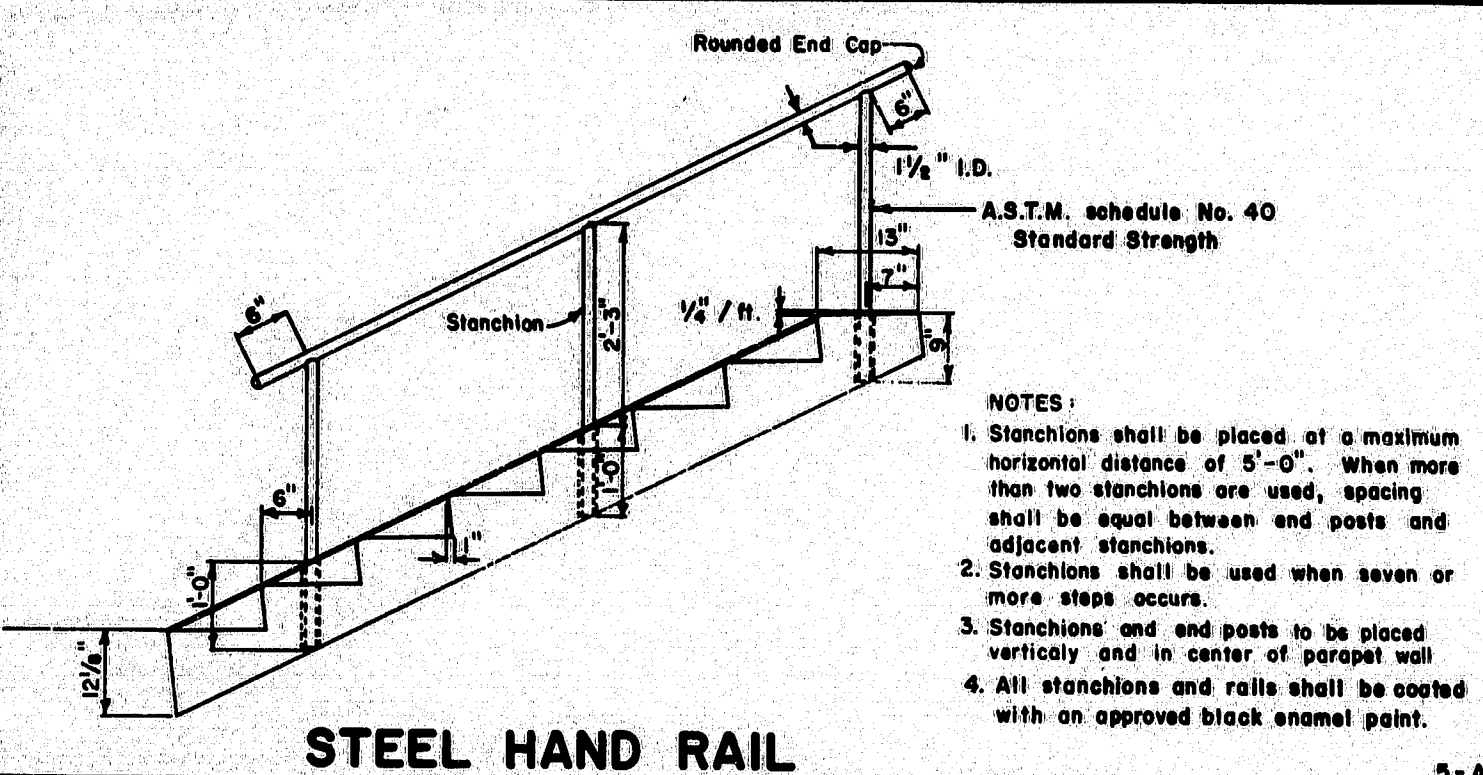
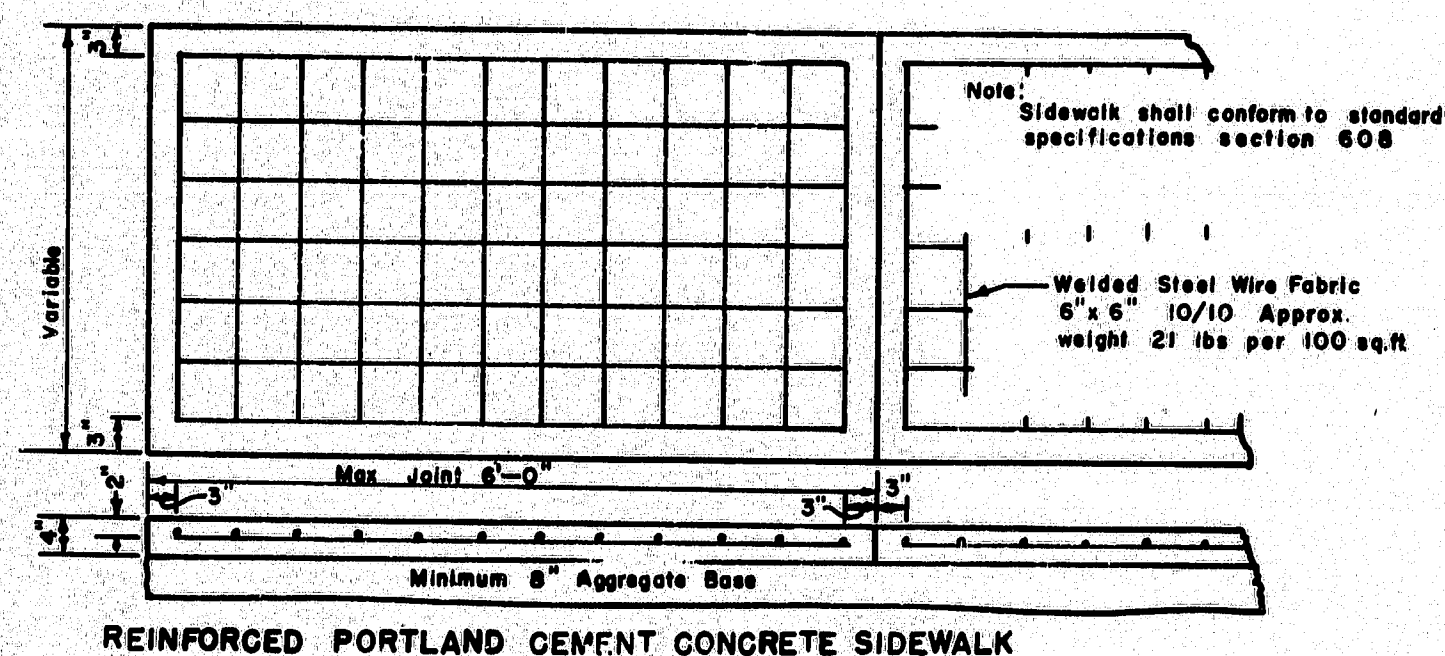
**ANCHOR BOLTS**

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.

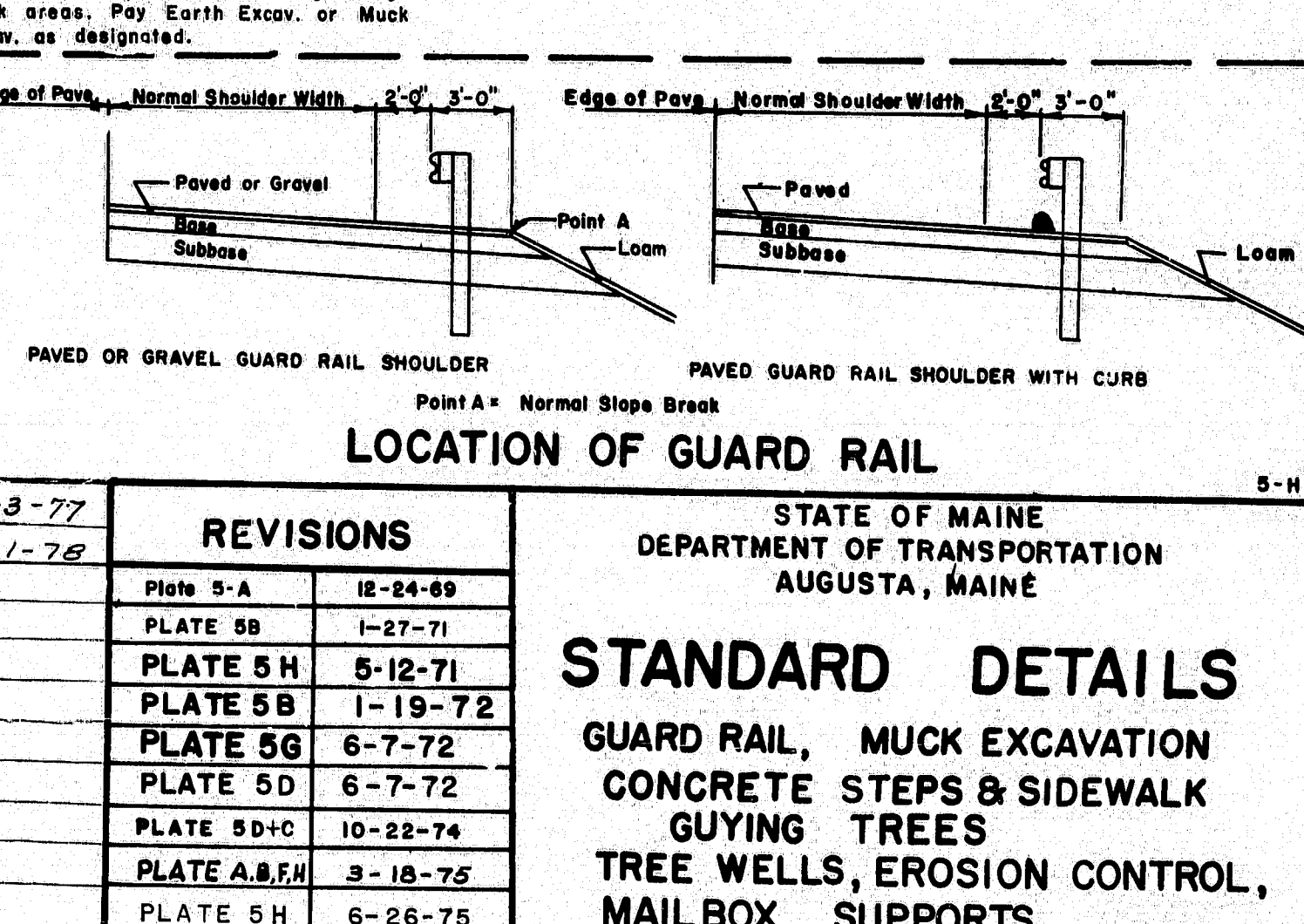
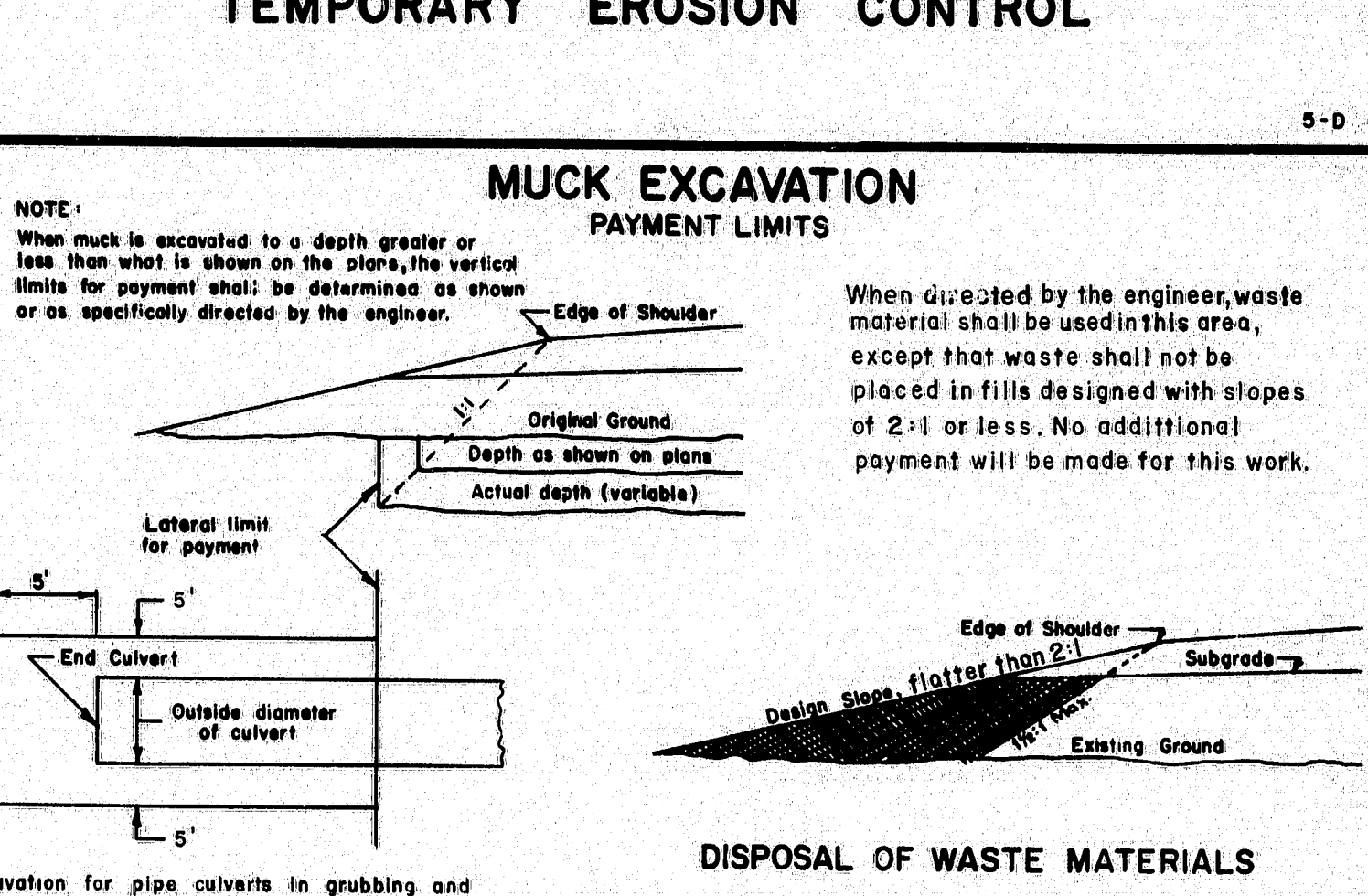
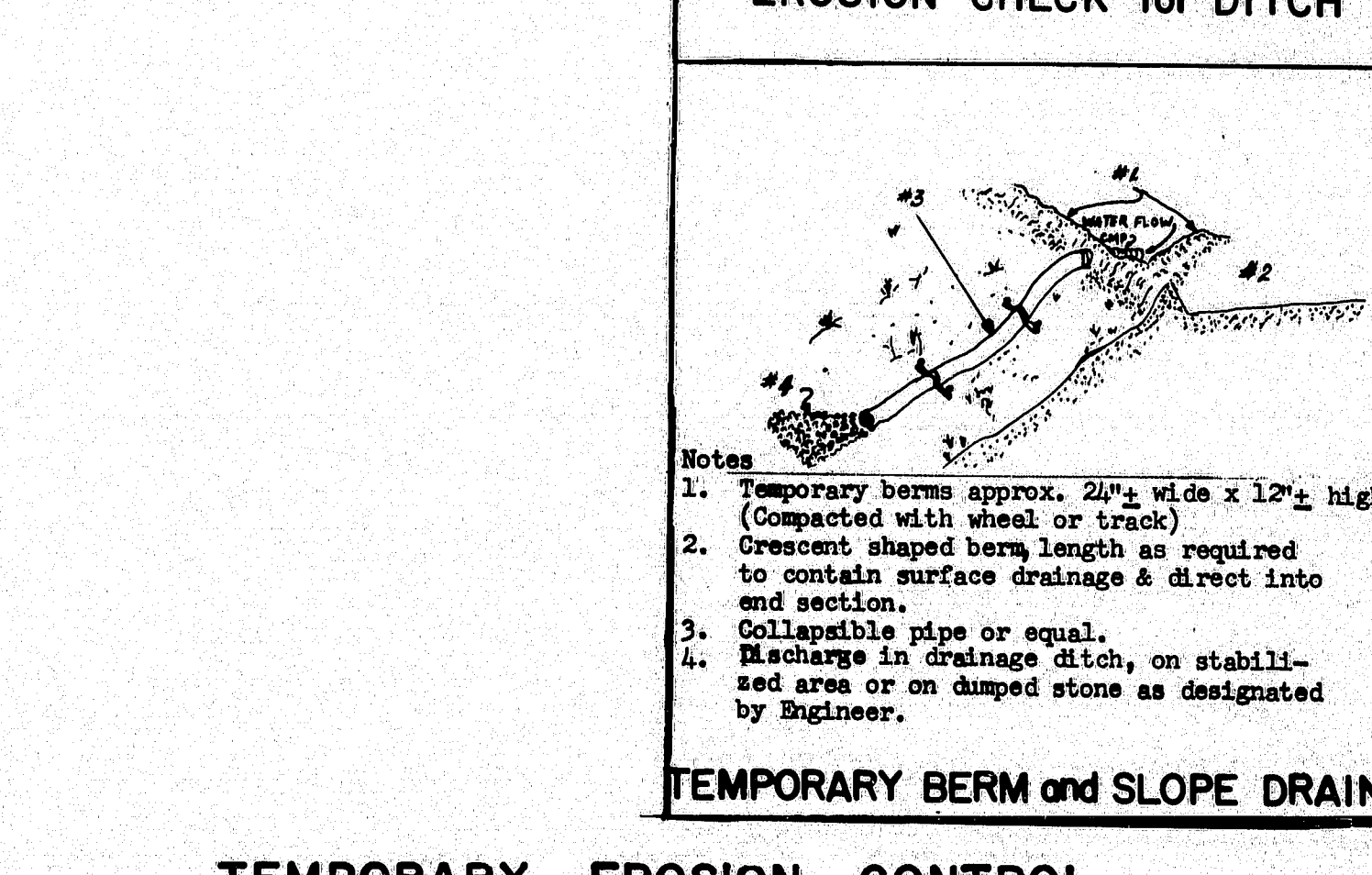
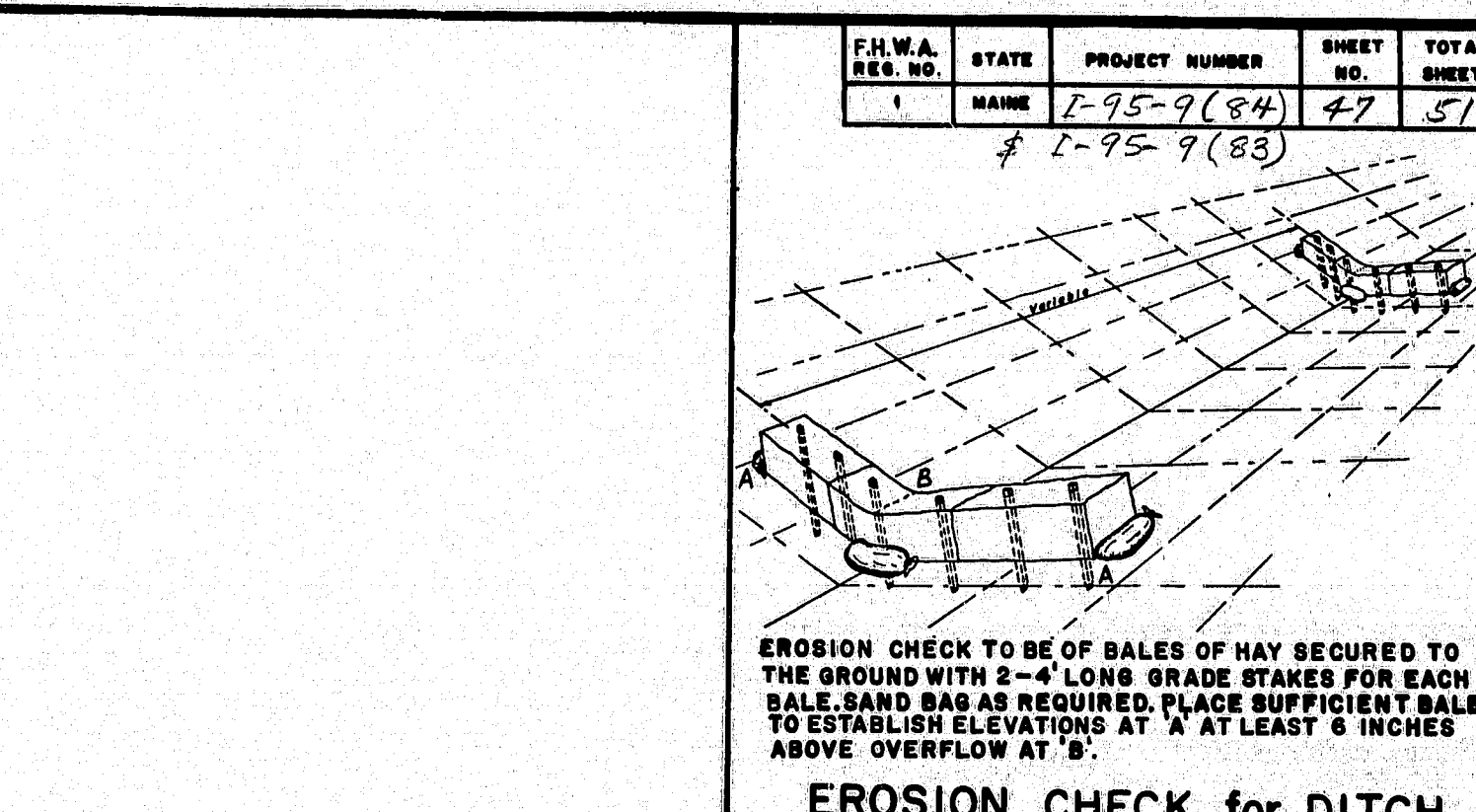
STATE OF MAINE DEPARTMENT OF TRANSPORTATION			
<b>STANDARD DETAILS</b> (BD 114-77)			
<b>ALUMINUM BRIDGE RAILING</b> 2 - BAR (SEMI-ELLIPSE) TYPE "A"			
SHEET 46 OF 51	AUGUSTA, MAINE	DEC. 1977	2014 2280

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**SUPPORTS FOR MAILBOXES**



**LOCATION OF GUARD RAIL**

PLATE	NO.	DATE
PLATE H	11-3-77	
PLATE G-H	6-1-78	

PLATE	NO.	DATE
PLATE 5-A	12-24-69	
PLATE 5B	1-27-71	
PLATE 5H	5-12-71	
PLATE 5B	1-19-72	
PLATE 5G	6-7-72	
PLATE 5D	6-7-72	
PLATE 5D+C	10-22-74	
PLATE A,B,F,H	3-15-75	
PLATE 5H	6-26-75	
PLATE G	10-14-75	

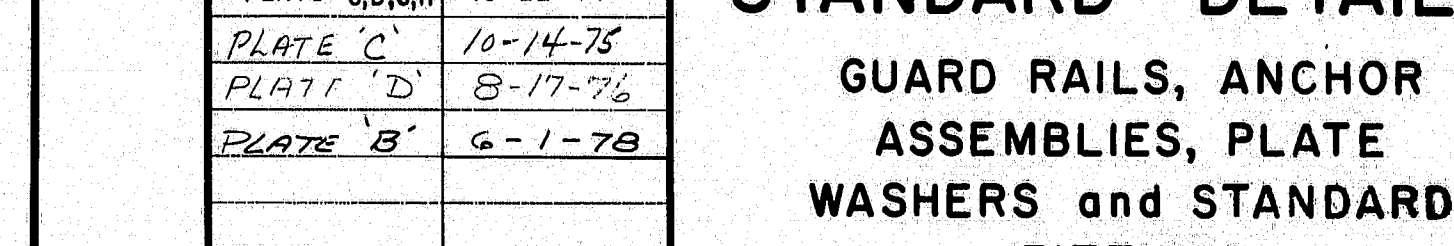
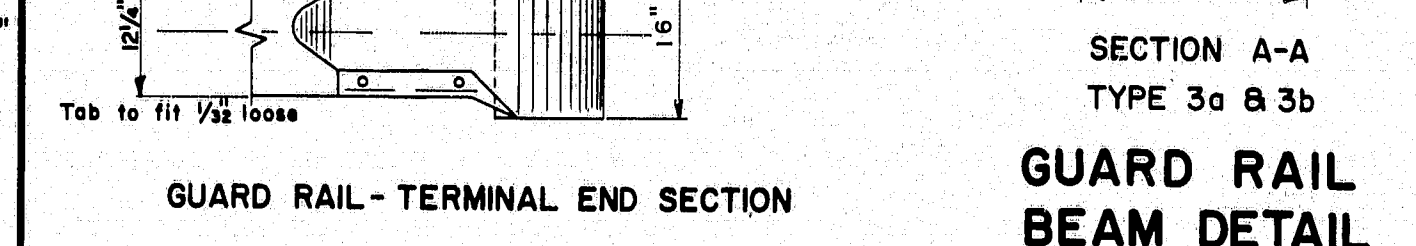
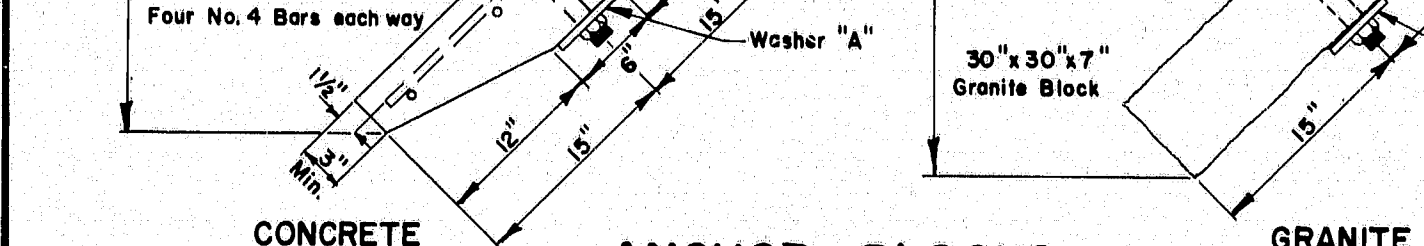
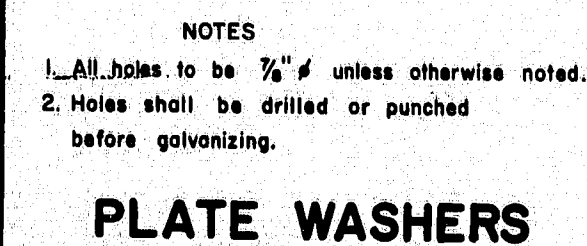
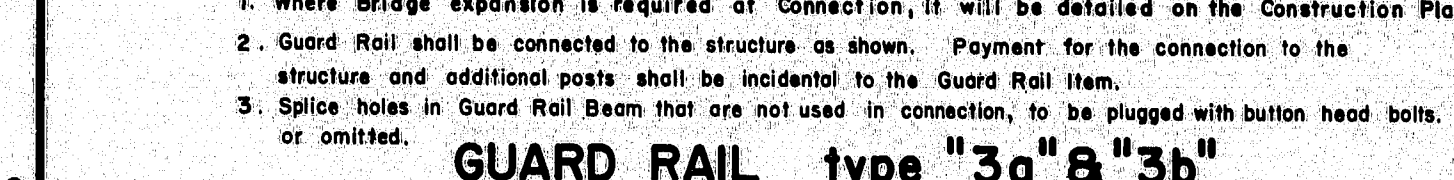
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AUGUSTA, MAINE

**STANDARD DETAILS**

GUARD RAIL, MUCK EXCAVATION  
CONCRETE STEPS & SIDEWALK  
GUARD RAILS  
TREE WELLS, EROSION CONTROL,  
MAILBOX SUPPORTS.

AUG. 1969

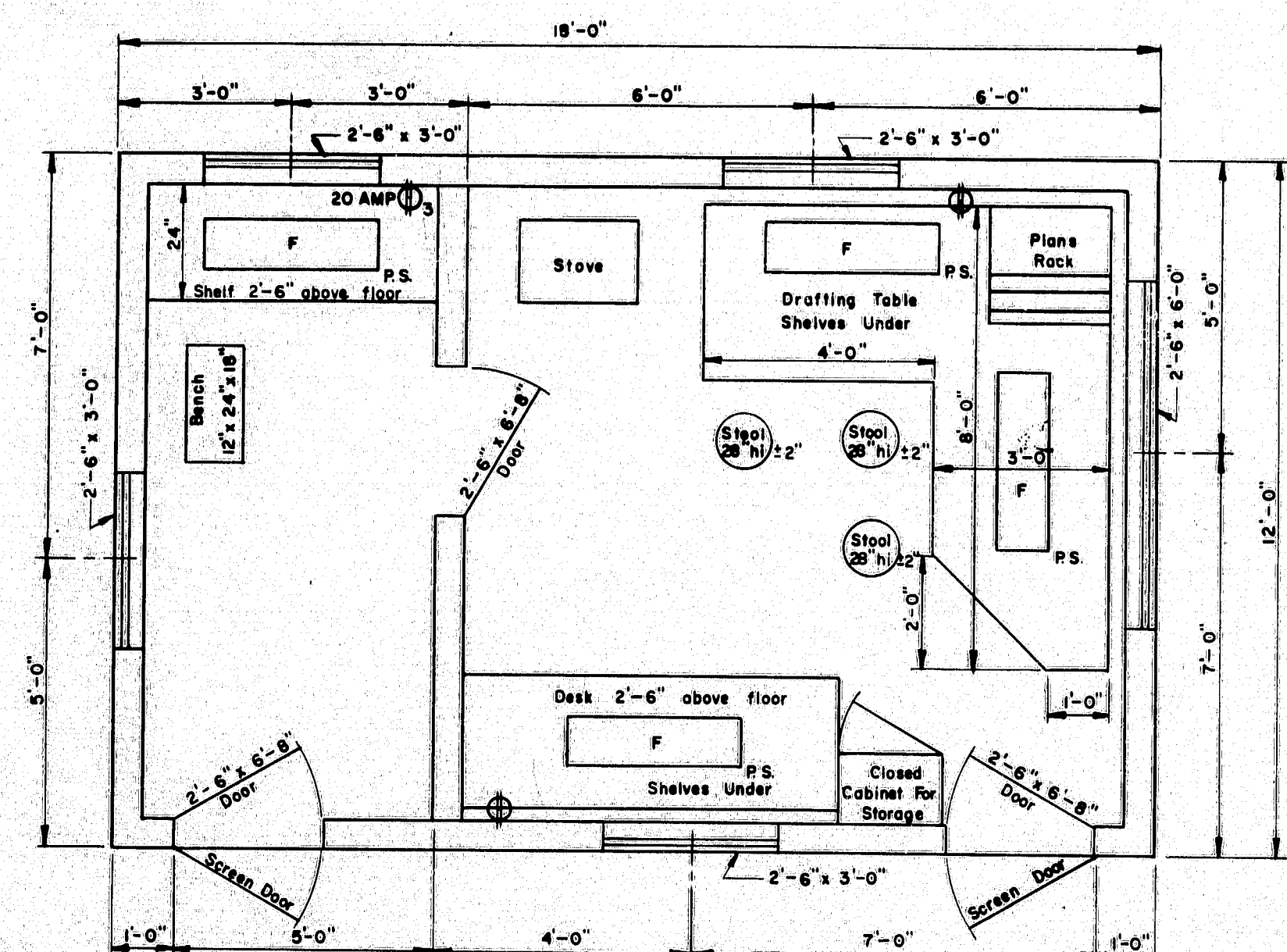




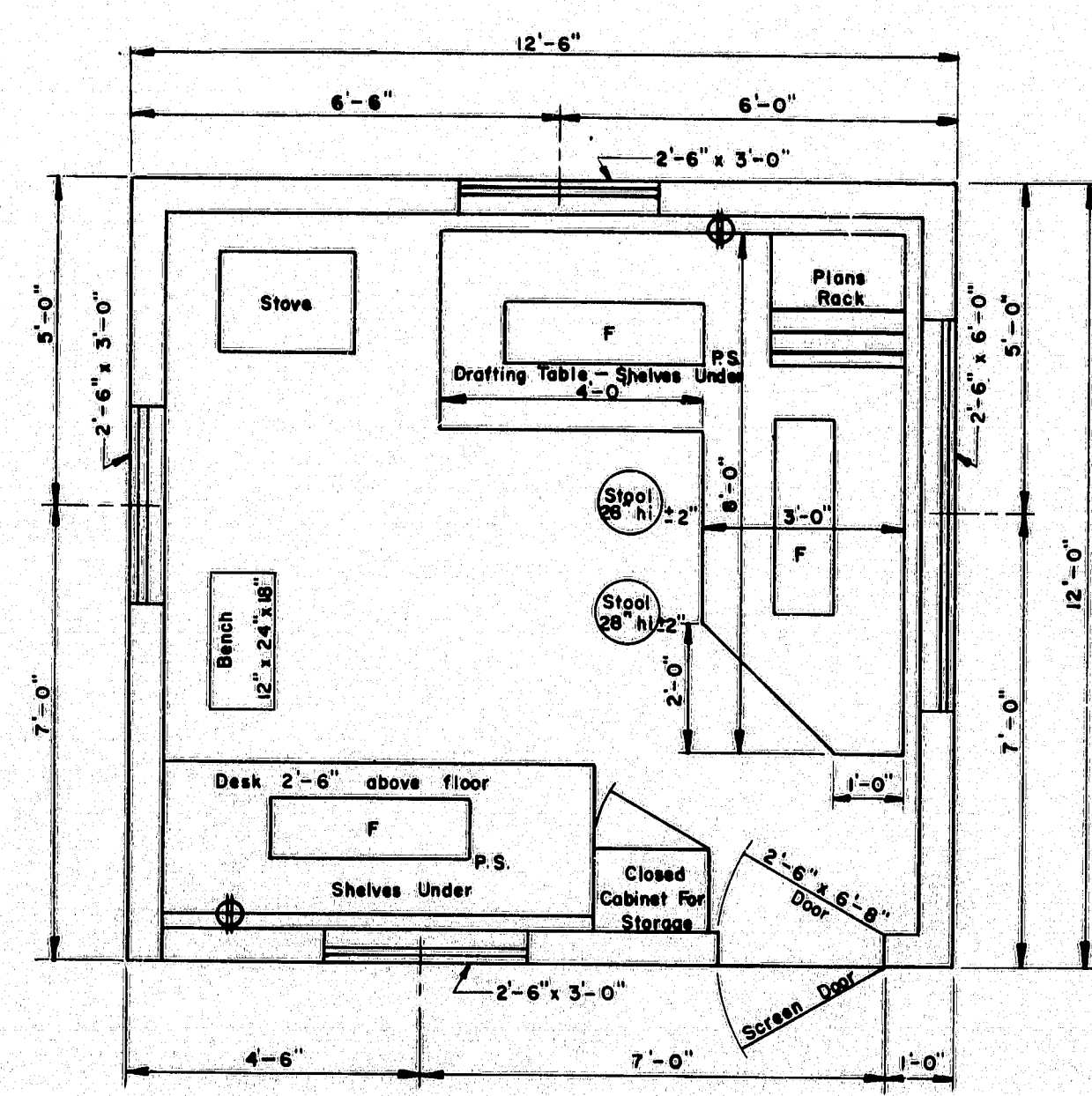




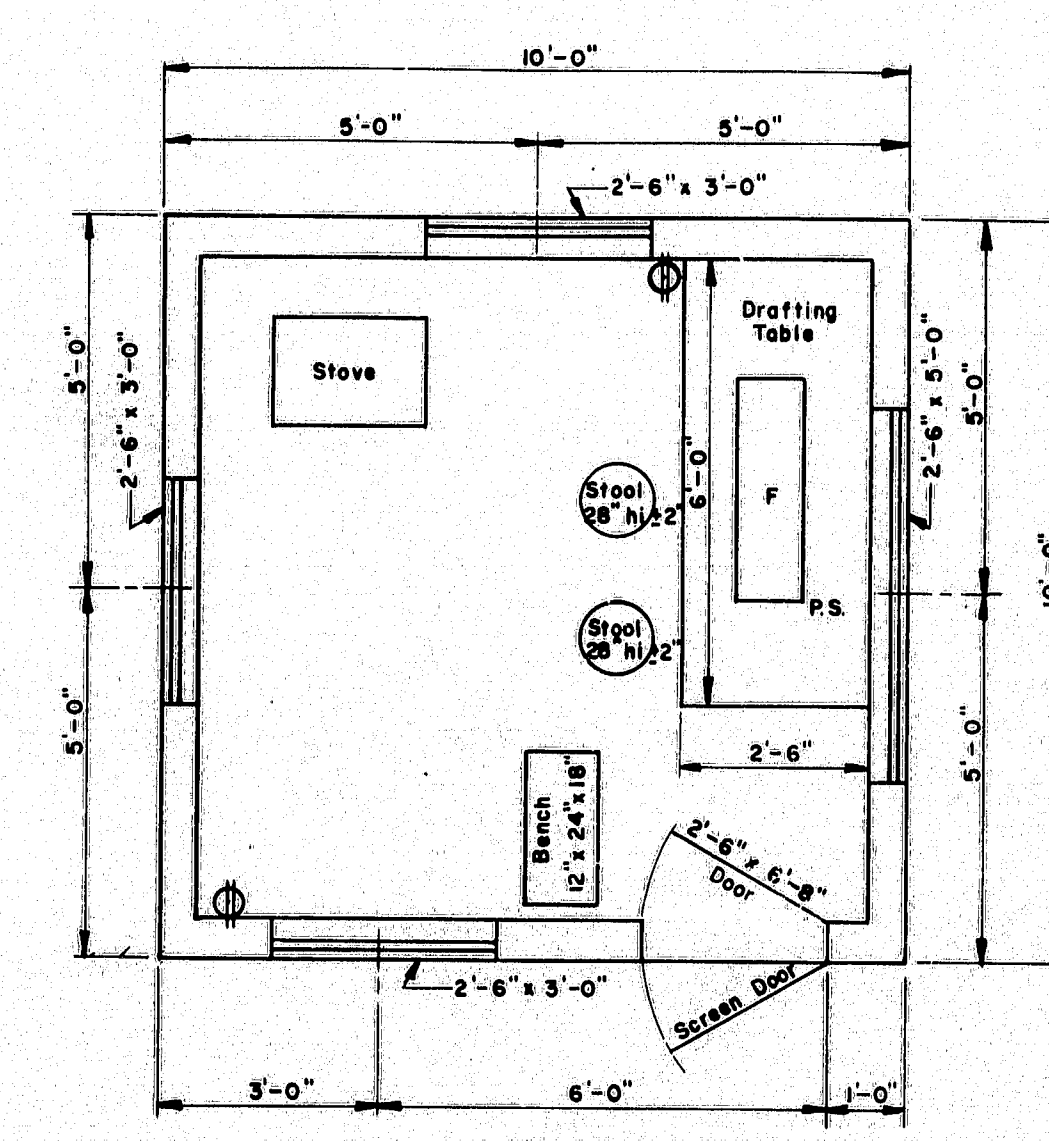




FLOOR PLAN  
TYPE "A"

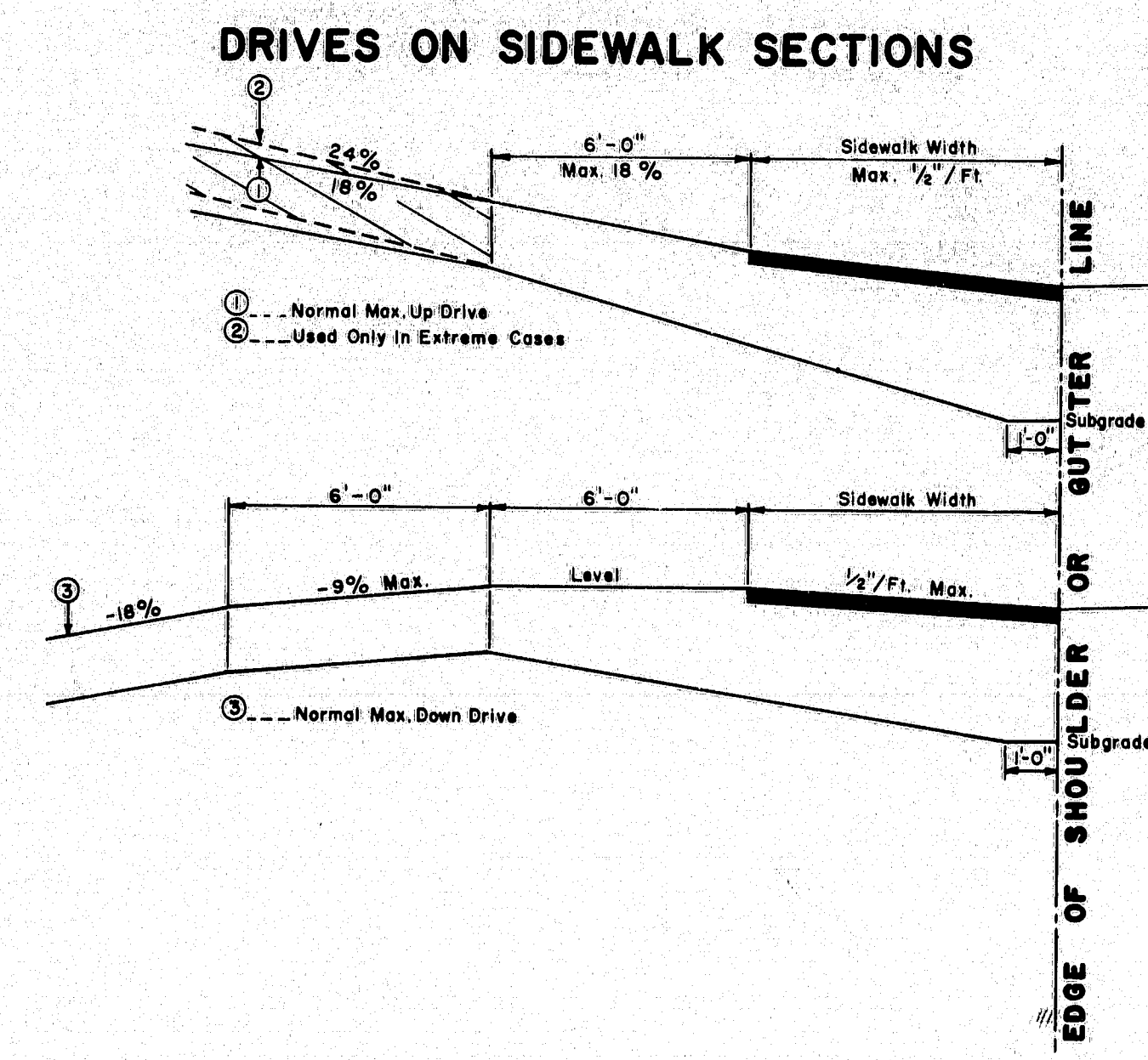


FLOOR PLAN  
TYPE "B"

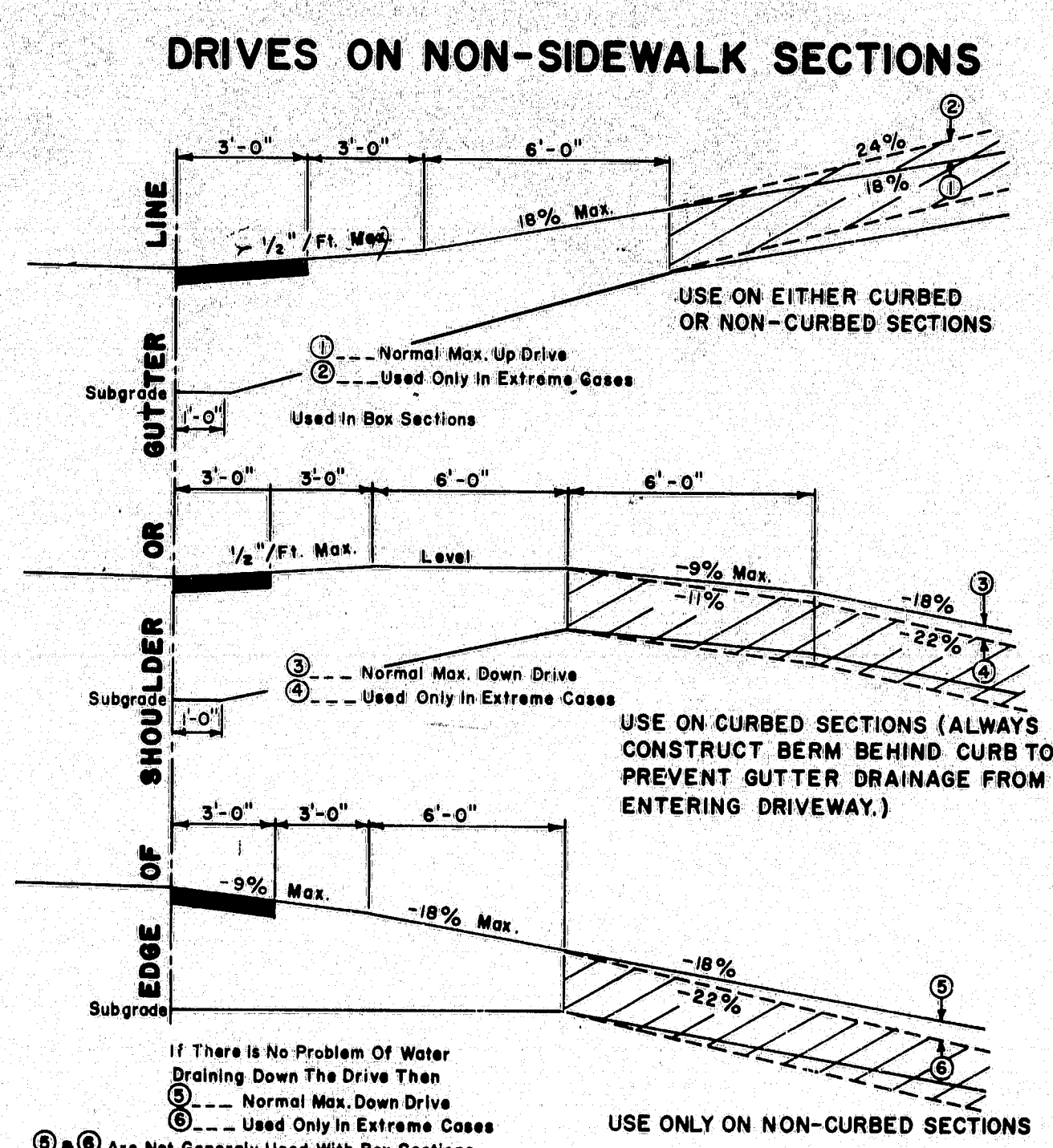


FLOOR PLAN  
TYPE "C"

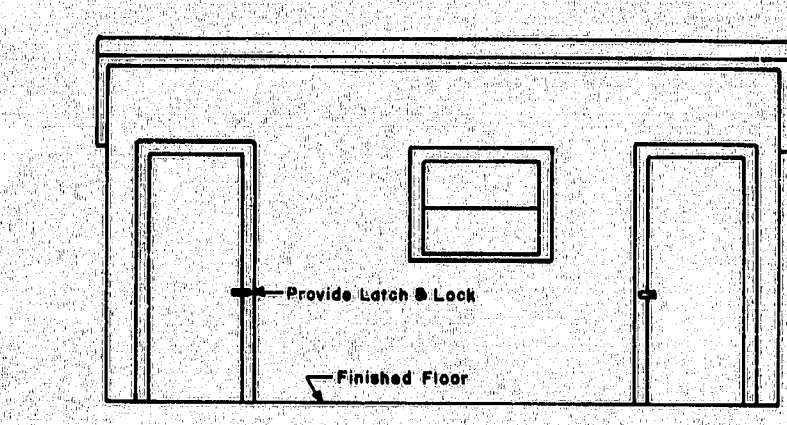
- GENERAL NOTES**
- Drafting table shall be 3'-4" high at front edge and placed 2" from studs to allow prints to hang down behind table when in use.
  - Shelves under desk shall be constructed to receive 1 1/2" x 14" x 25" transfiles.
  - Windows shall be double hung.
  - Stovepipe shall not be in direct contact with combustible material; the pipe shall be surrounded with at least 6" of fireproof material.
  - Continuous 110 volt 60 cycle electric service shall be supplied.
  - The engineer may rearrange the items shown on the plan views during construction of the field office.
  - FURNISHINGS TO BE SUPPLIED:**
    - 2 Straight back chairs for types A and B
    - 1 Bench for types A, B & C
    - 3 Stool for type A
    - 2 Stools for types B & C
  - SYMBOLS:**
    - F Fluorescent lights (2 light, rapid start 48" strips and 40 watt bulbs.)
    - P.S. Pull switch
    - ⊕ Duplex wall outlet—15 amp unless otherwise noted
    - ⊕ Triplex Wall Outlet
  - For the Type "A" Field Office one clean 55 gal. drum shall be supplied, installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furnished with water at all times.



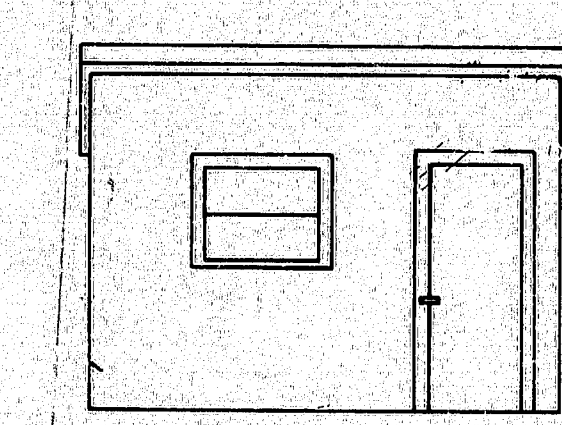
- GENERAL NOTES**
- The sidewalk width shall be paved in all cases.
  - All residential or commercial drives 10% and over shall be paved.
- NOTES ON MAXIMUM DRIVEWAY PROFILES**
- These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
  - Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
  - 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.



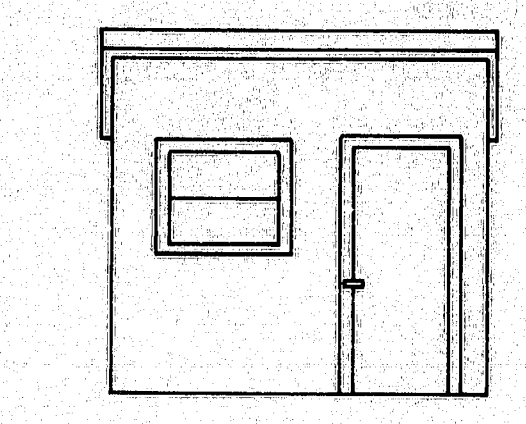
- GENERAL NOTES**
- The first 3' shown as pavement shall be paved only when abutting a paved area.
  - All residential or commercial drives 10% and over shall be paved.
- NOTES ON MAXIMUM DRIVEWAY PROFILES**
- These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
  - Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
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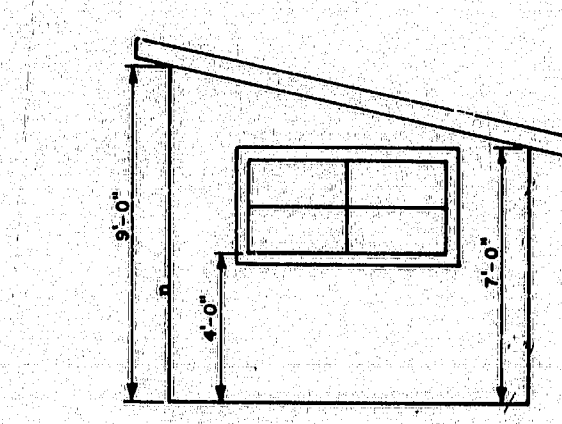
FRONT ELEVATION  
TYPE "A"



FRONT ELEVATION  
TYPE "B"



FRONT ELEVATION  
TYPE "C"



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

REVISIONS			STATE OF MAINE DEPARTMENT OF TRANSPORTATION AUGUSTA, MAINE	
PLATE	D'E	3-16-73	<b>STANDARD DETAILS</b>	
			DRIVEWAY DETAILS	
			FIELD OFFICES	
			TESTING LABORATORY	
			AUG. 1969	

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