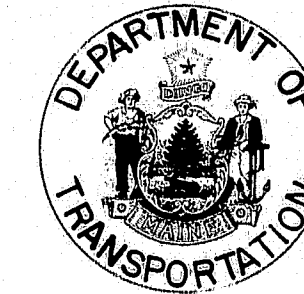


# STATE OF MAINE DEPARTMENT OF TRANSPORTATION

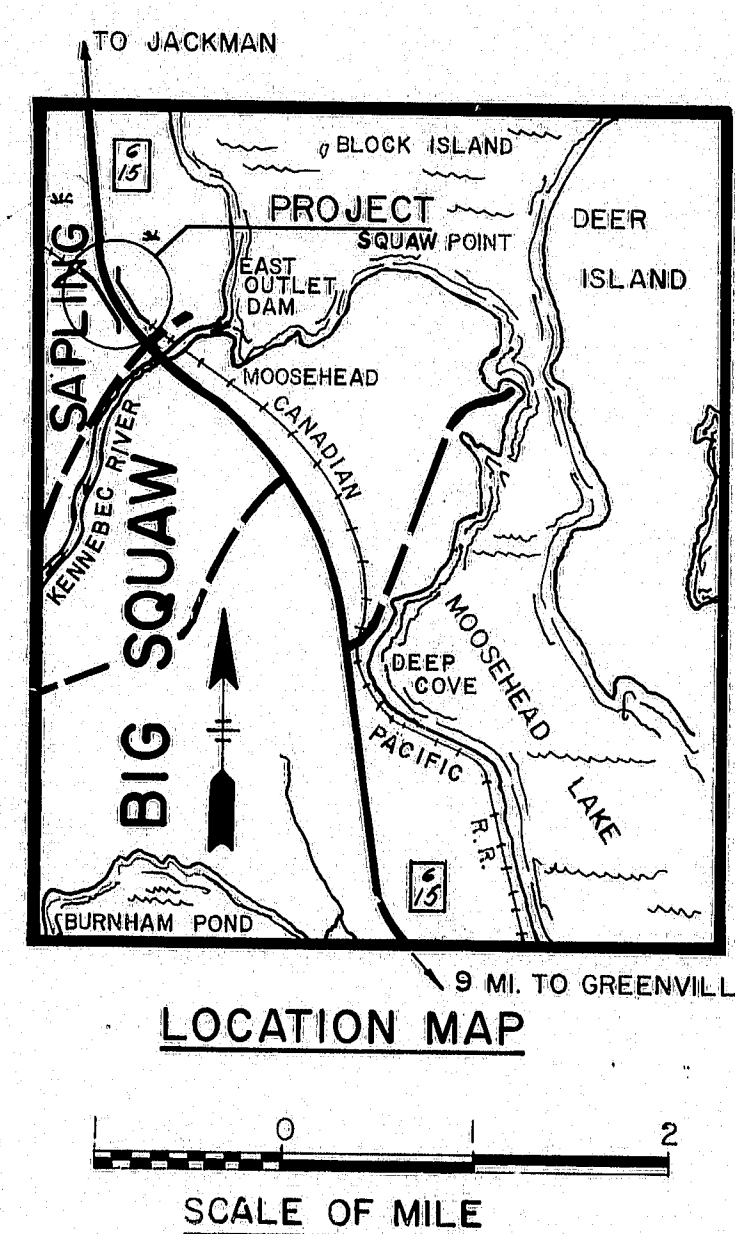


## BUREAU OF HIGHWAYS CANADIAN PACIFIC RAILWAY CROSSING IN THE TOWNSHIP OF SAPLING SOMERSET COUNTY PROJECT NO. SG-268(4) LENGTH OF PROJECT 0.322 MILES

CONVENTIONAL SIGNS	
COUNTY LINES	---
TOWN LINES	----
PROPERTY LINES	-----
R/W LINES - EXISTING	=====
R/W LINES - NEW - ACCESS CONTROL	=====
R/W LINES - NEW - NO ACCESS CONTROL	=====
CULVERT - EXISTING	=====
CULVERT - PROPOSED	=====
CURBING - EXISTING	=====
CURBING - PROPOSED	=====
TRAVELLED WAY - EXISTING	=====
TRAVELLED WAY - PROPOSED	=====
UNDERGROUND UTILITIES - EXISTING	-----
UNDERGROUND UTILITIES - PROPOSED	-----
RAILROAD - SINGLE TRACK	=====
RAILROAD - DOUBLE TRACK	=====
UTILITY POLE - EXISTING	=====
UTILITY POLE - JOINT OCCUPANCY	=====
PROPOSED UTILITY POLE - TEMPORARY	=====
PROPOSED UTILITY POLE - PERMANENT	=====
TREES	=====
WOODS	=====

*As Built Not Required for 11-8-20*

INDEX OF SHEETS	
TITLE SHEET	1
TYPICAL SECTION	2
QUANTITIES	3
DRAINAGE	4
HIGHWAY STANDARDS	5 - 10
BRIDGE STANDARDS	11 - 13
BRIDGE PLANS	14 - 20
HIGHWAY PLANS & PROFILE	21 - 22
CROSS SECTIONS	23 - 28
RIGHT OF WAY MAPS	29 - 30



**SPECIFICATIONS**  
DESIGN- AASHTO Standard Specifications for Highway Bridges 1973  
CONTRACT- State of Maine, State Highway Commission, Standard Specifications, Highways and Bridges, Revision of June 1968.

**LIVE LOADING**  
H20-44

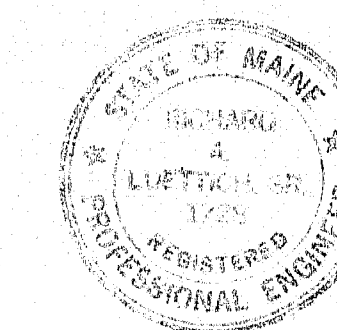
**MATERIALS**

CONCRETE- All Concrete- Class A  
REINFORCING STEEL- ASTM A615 Grade 60  
STRUCTURAL STEEL- Existing Beams- A7  
New Steel- A36

**BASIC ALLOWABLE STRESSES**

CONCRETE-  $f_c = 1,200$  psi  $n = 10$   
REINFORCING STEEL-  $f_s = 24,000$  psi  
STRUCTURAL STEEL- A7  $f_s = 18,000$  psi  
A36  $f_s = 20,000$  psi

**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.



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

DATE  
5-15-74  
5-15-74

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION 1  
APPROVED:  
DIVISION ENGINEER  
DATE

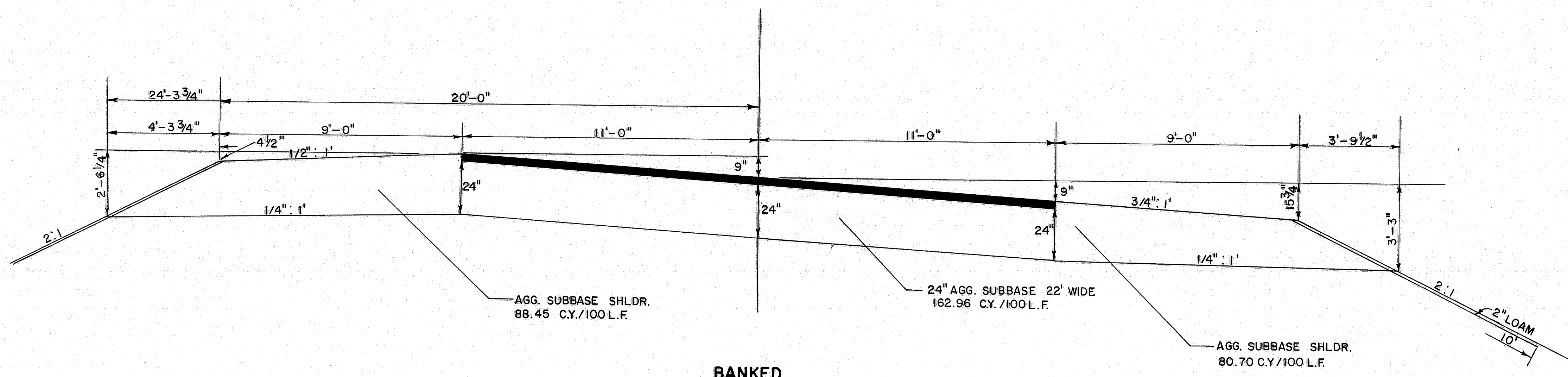
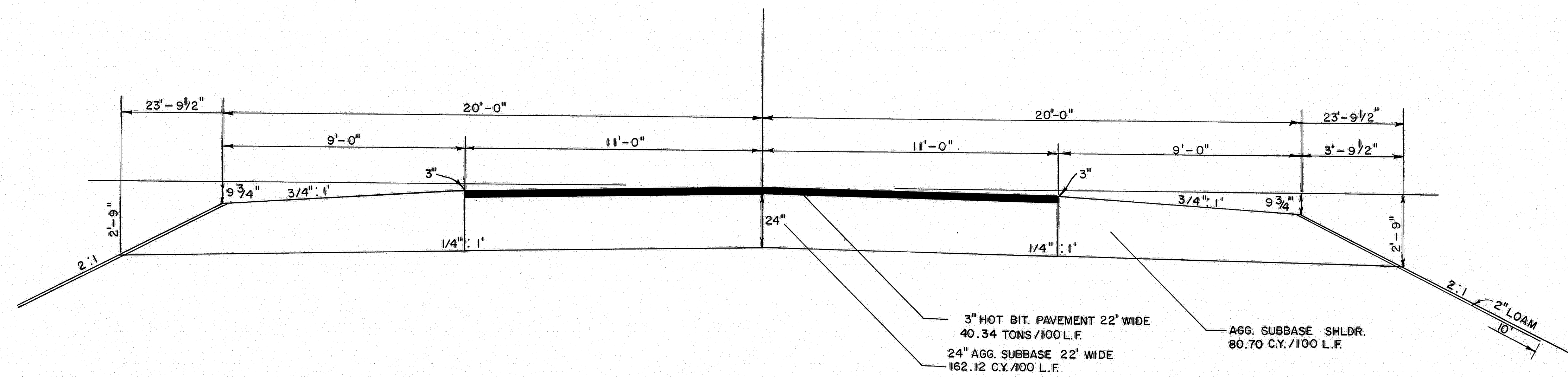
TRAFFIC DATA  
A.D.T. 1974 - 505  
A.D.T. 1994 - 808  
D.H.V. 113  
T. (%) 10  
D. (%) 60  
V. \_\_\_\_\_  
P.S.D. (%) \_\_\_\_\_  
18 KIPS \_\_\_\_\_

146-67



# 3" HOT BIT. PAVEMENT SG-0268(4)

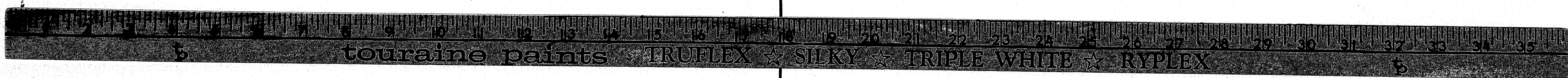
F.D.W.B. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	SG-0268(4)	2	30



PLANS	DESIGN - DETAILED	BY	DATE
	REVISION		
	FIELD CHANGES		

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
TYPICAL SECTIONS  
SAPLING SG-0268(4)  
SCALE  
SHEET OF AUGUSTA, MAINE

146-68 SAPLING SG-0268(4) CPR OVERPASS









[illegible][illegible]

New England Tel. & Tel. Co.  
Central Maine Power Co.

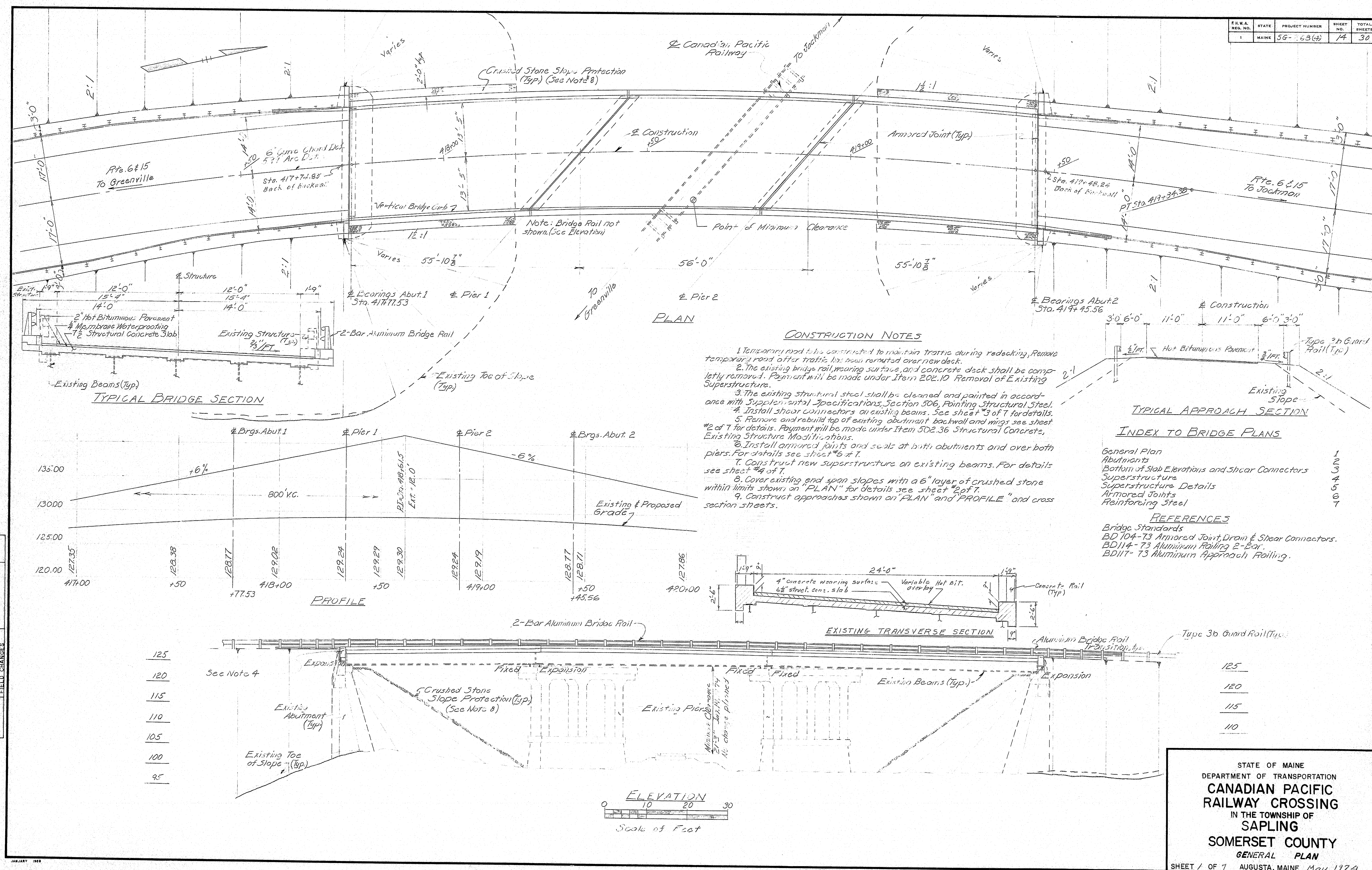
All utilities shall be adjusted by the respective utilities unless noted.

- ⊙ Existing pole
- ⊙ P Existing pole to remain
- ⊠ New pole
- ⊞ J New pole, joint occupancy

Note:  
Structural earth excavation necessary to install and remove 30"x36" C.M.P. will not be paid for directly. The cost of excavation will be considered incidental to Item 603.201.  
After removal the 30"x36" C.M.P. will become the property of the contractor.

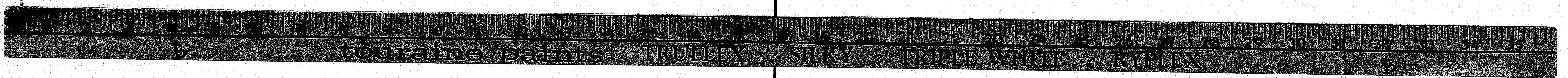


F.R.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	56-63(4)	14	30



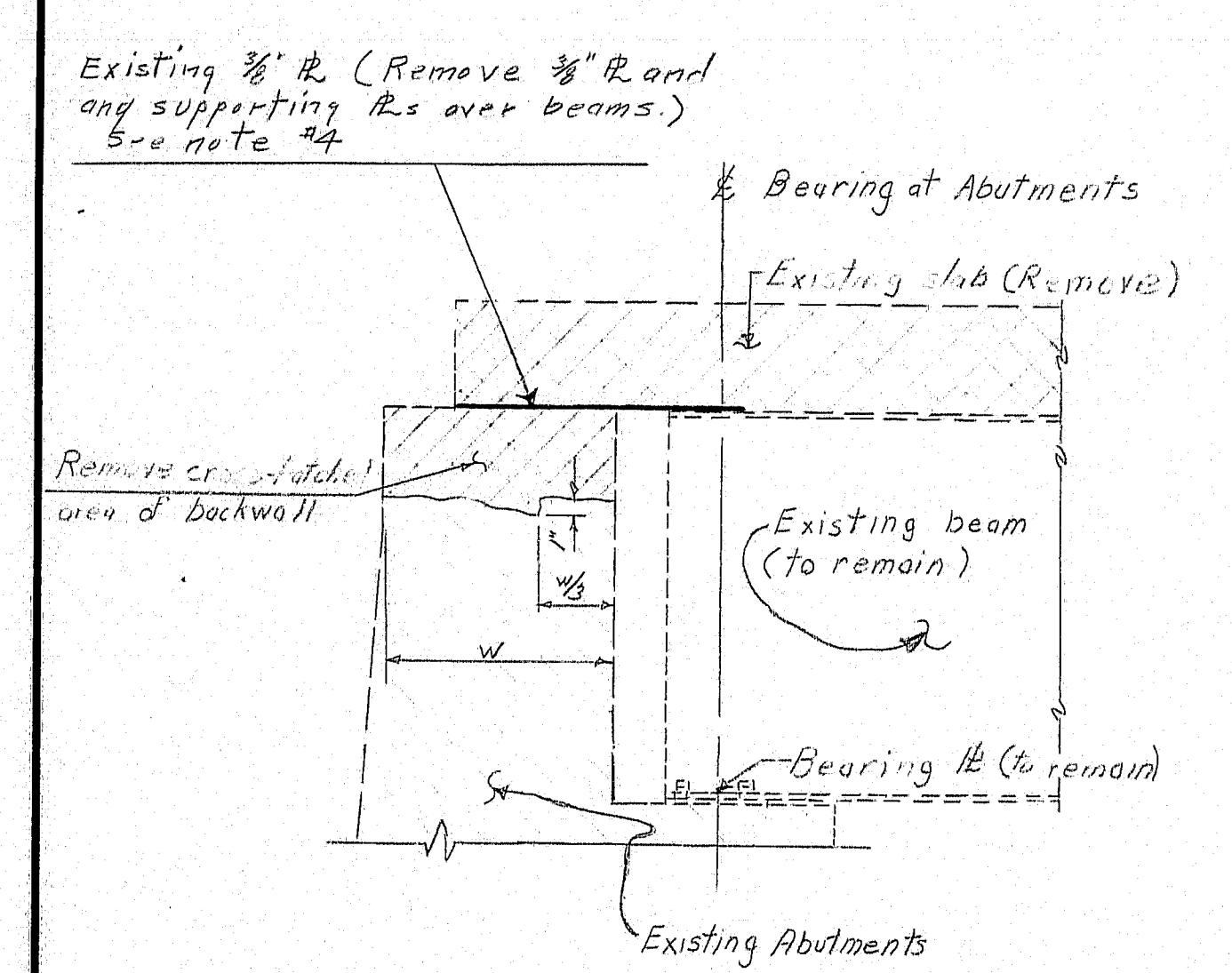
PLANS	DESIGN - DETAIL	CHECKED	DATE
	PAW. DHP		2-1-73
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**CANADIAN PACIFIC  
RAILWAY CROSSING**  
IN THE TOWNSHIP OF  
**SAPLING**  
SOMERSET COUNTY  
GENERAL PLAN  
SHEET 1 OF 7 AUGUSTA, MAINE May 1974  
146-71

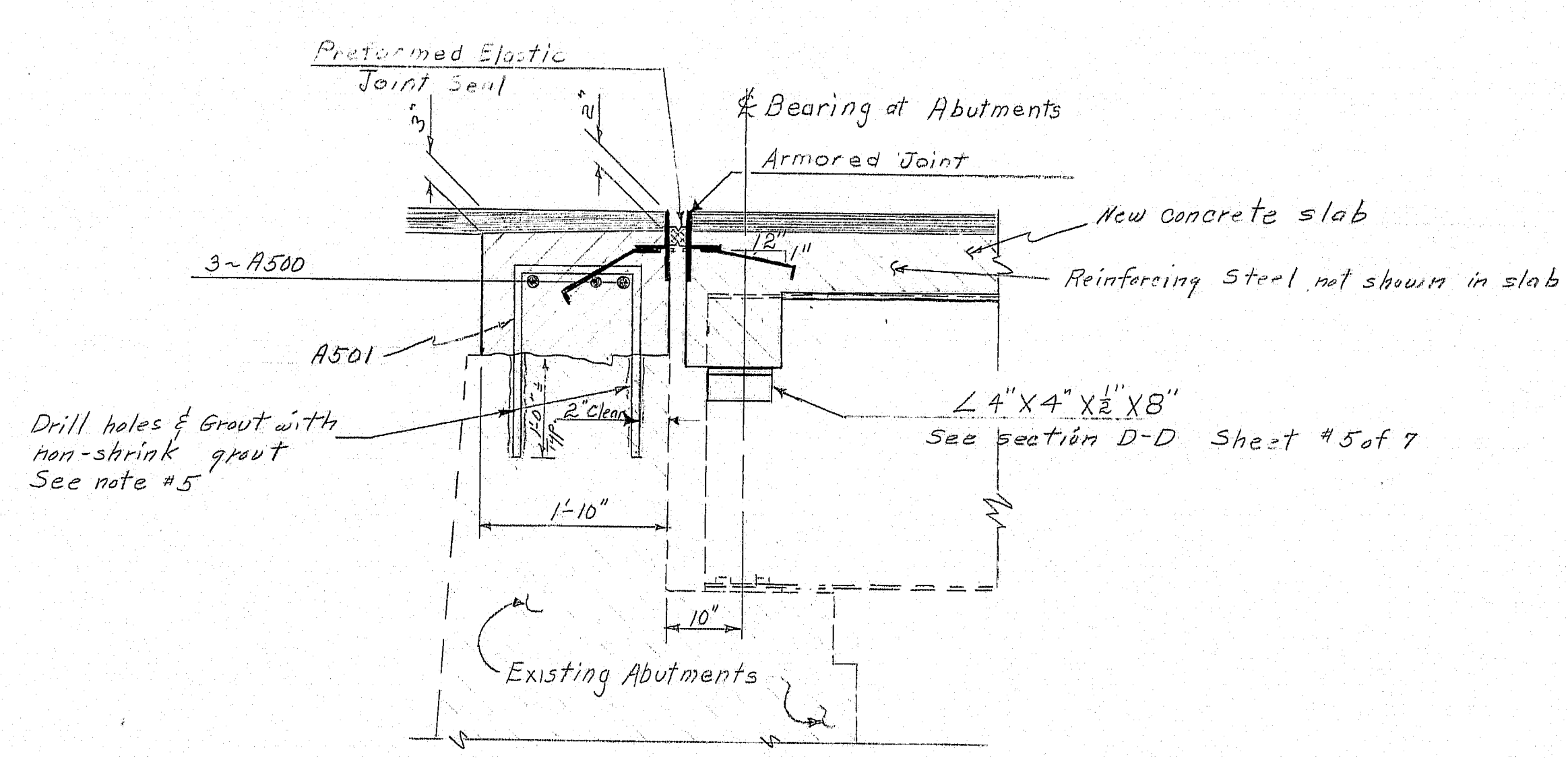




F.R.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	268(4)	15	30

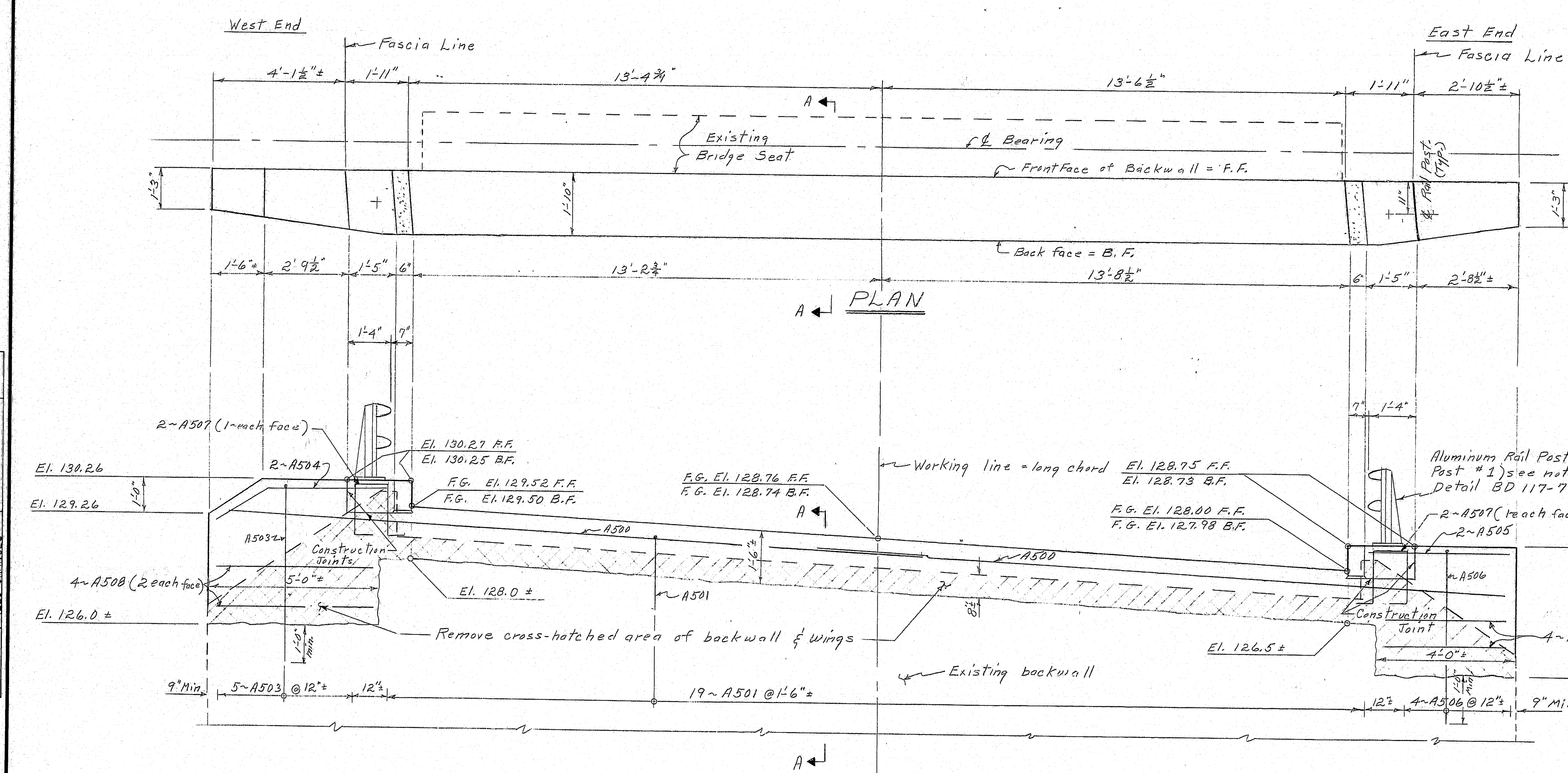


SECTION A-A (existing)



SECTION A-A

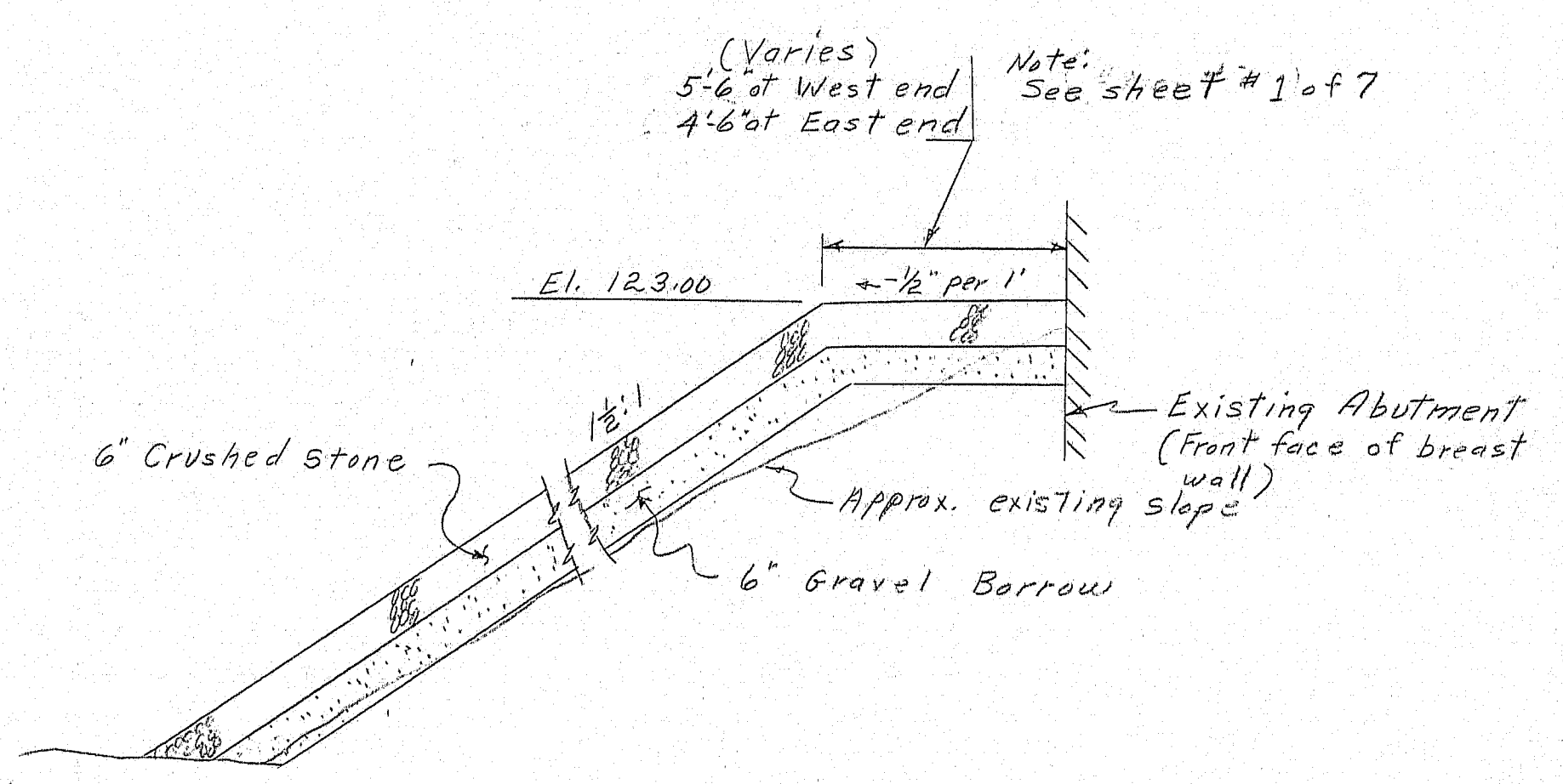
1. Chamfer all exposed edges of concrete 1/2 inch unless otherwise indicated.
2. All reinforcing steel splices and embedments shall be a minimum of 36 bar diameters unless otherwise indicated.
3. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
4. Payment for removal of existing 3/4\" R between existing backwall and existing slab and the supporting R's over beams will be considered incidental to contract items.
5. Payment for drilling holes and for grouting reinforcing steel will be considered incidental to Item 503.13.
6. Payment for removal of Abutment Concrete will be made under Item 502.36 Structural Concrete, Existing Structure Modifications.
7. All new concrete shall be bonded to existing concrete with an epoxy resin material specifically designed to bond fresh concrete to old concrete.
8. Excavation required for placing new concrete in abutments & wings will be considered incidental to contract items.
9. Protective Coating for Concrete Surfaces shall be applied to the top of the backwall & one foot down the back-face of the backwall and top of wings.
10. Bend bars A500 and A504 to fit in field.



ELEVATION

ABUTMENTS

Abutment #1 shown - Abut. #2 similar (except curb sk. w.)



CRUSHED STONE SLOPE PROTECTION

Note: Remove all vegetation and sod from the area of the crushed stone slope protection and shape the area under the gravel borrow to an even surface using additional fill if necessary. The additional fill shall be common borrow. Payment for removal of vegetation and sod to be paid under Item No. 203.30 Common Excavation.

References:  
For layout of long chord see sheet No. 5 of 7.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**CANADIAN PACIFIC  
RAILWAY CROSSING**  
IN THE TOWNSHIP OF  
**SAPLING**  
**SOMERSET COUNTY**  
ABUTMENTS  
SHEET 2 OF 7 AUGUSTA, MAINE May 1974

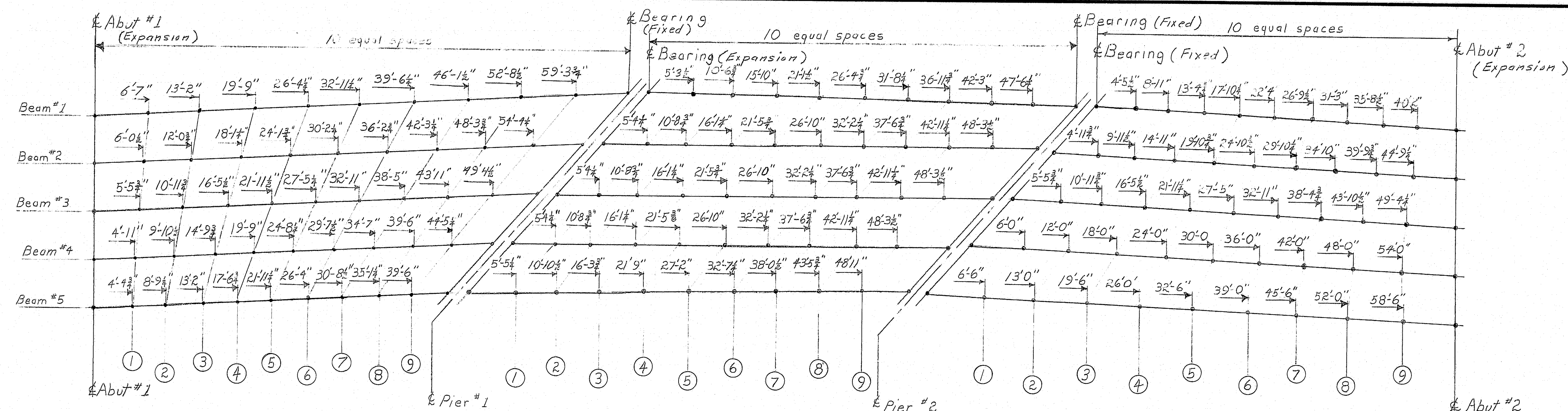
146-72

DATE	BY	DESIGN	CHECKED	REVISIONS	FIELD CHANGES
1-24	N.E.R.	DESIGNED	DESIGNED		
5-24	P.J.M.				

PLANS

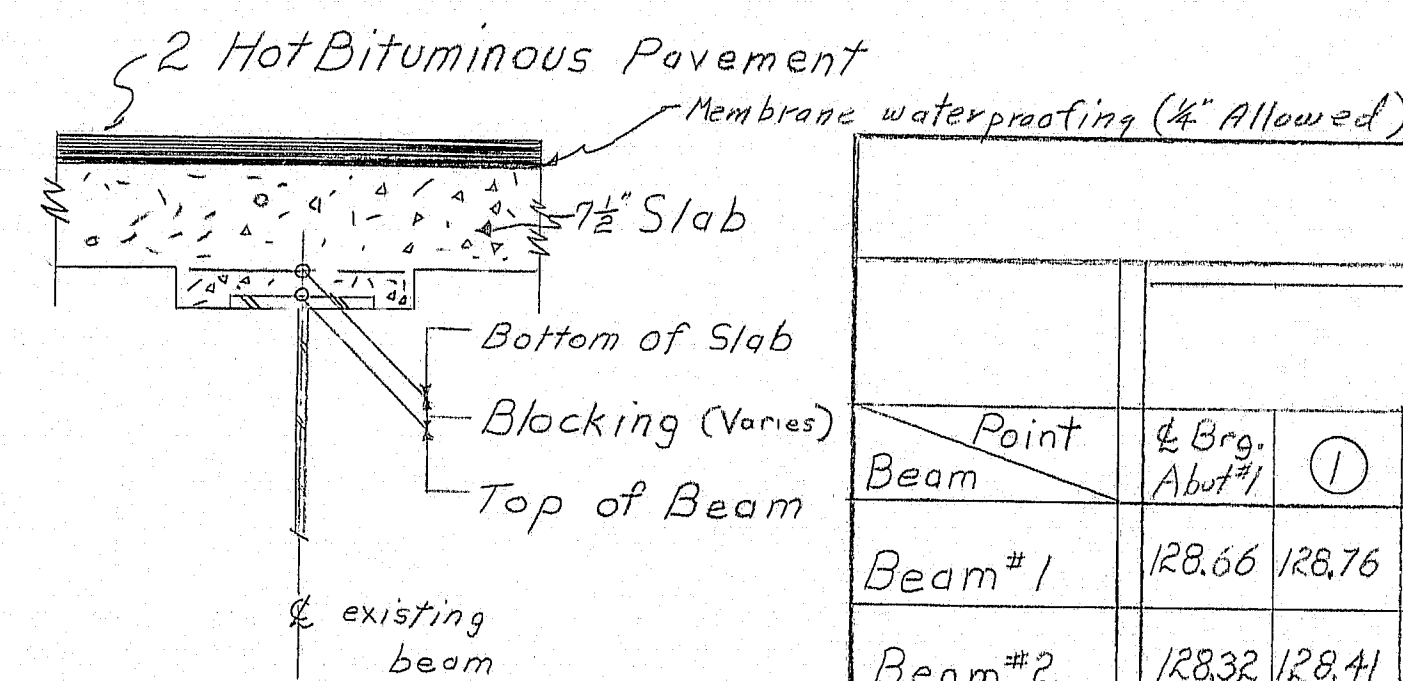


F.H.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	268(4)	16	30



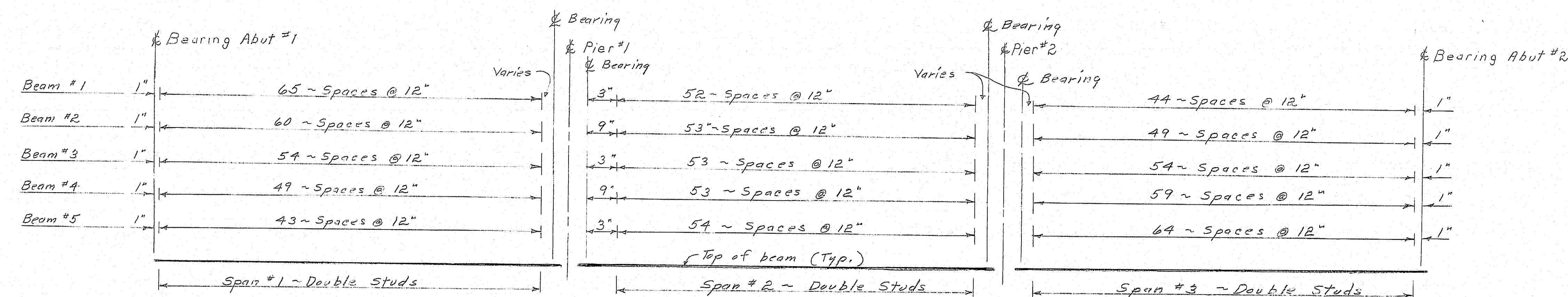
Note:  
Bottom of Slab Elevations are  
adjusted to compensate for the dead  
load deflections.

### BLOCKING PLAN



### BLOCKING DETAIL

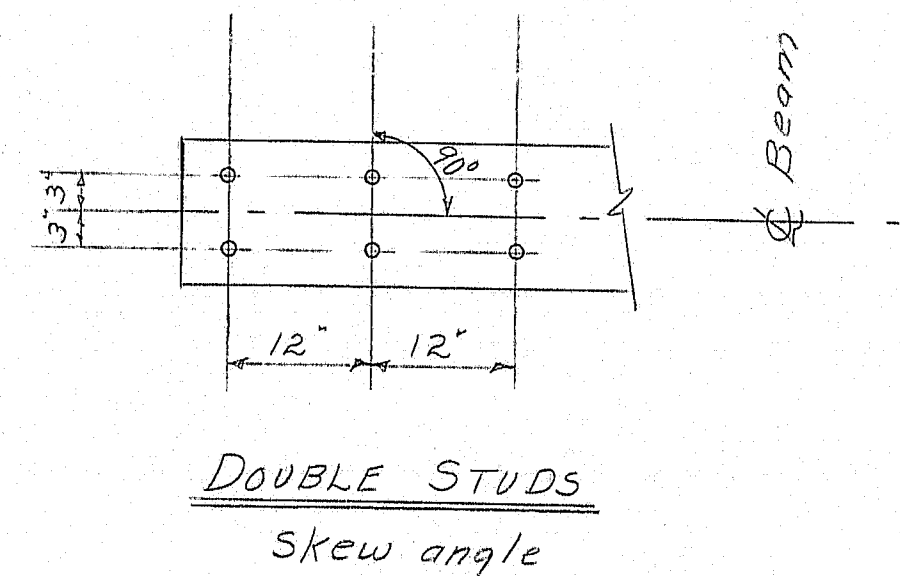
BOTTOM OF SLAB ELEVATIONS																																			
		SPAN 1											SPAN 2											SPAN 3											
Point	Beam	% Orig. Abut #1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	% Orig. Pier #1	% Orig. Pier #1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	% Orig. Pier #2	% Orig. Pier #2	①	②	③	④	⑤	⑥	⑦	⑧	⑨	% Orig. Abut #2	
	Beam #1	128.66	128.76	128.84	128.92	128.99	129.05	129.09	129.12	129.14	129.15	129.15	129.16	129.18	129.19	129.20	129.20	129.19	129.18	129.16	129.13	129.09	129.05	129.04	129.02	129.00	128.98	128.95	128.92	128.87	128.83	128.78	128.72	128.66	
	Beam #2	128.32	128.41	128.48	128.55	128.61	128.67	128.71	128.74	128.76	128.78	128.79	128.80	128.82	128.84	128.86	128.86	128.87	128.86	128.85	128.83	128.80	128.77	128.73	128.71	128.69	128.67	128.63	128.59	128.55	128.50	128.44	128.38	128.32	
	Beam #3	127.99	128.06	128.13	128.19	128.24	128.29	128.33	128.37	128.39	128.41	128.43	128.44	128.47	128.49	128.51	128.52	128.52	128.50	128.49	128.47	128.44	128.42	128.41	128.38	128.36	128.32	128.28	128.23	128.18	128.11	128.05	127.97		
	Beam #4	127.65	127.71	127.77	127.83	127.88	127.93	127.97	128.00	128.02	128.05	128.06	128.08	128.11	128.13	128.15	128.16	128.17	128.17	128.16	128.15	128.13	128.10	128.11	128.10	128.08	128.06	128.02	127.98	127.93	127.86	127.79	127.71	127.63	
	Beam #5	127.31	127.37	127.42	127.48	127.52	127.56	127.60	127.63	127.66	127.68	127.70	127.71	127.75	127.78	127.81	127.83	127.85	127.85	127.84	127.83	127.81	127.80	127.79	127.78	127.76	127.73	127.68	127.62	127.55	127.47	127.38	127.29		



### SHEAR CONNECTOR LAYOUT ON EXISTING BEAM

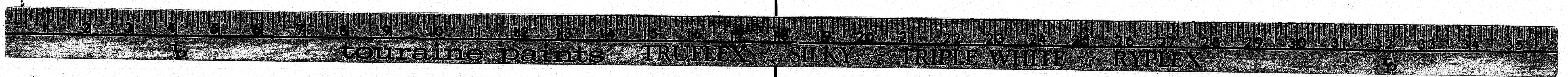
(Total studs required = 1642 studs = 1642 lbs)

Note:  
Stud details and notes are shown on Standard  
Details BD 104-73.



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**CANADIAN PACIFIC  
RAILWAY CROSSING**  
IN THE TOWNSHIP OF  
**SAPLING**  
**SOMERSET COUNTY**  
BOTTOM SLAB ELEV & SHEAR CONNECTORS  
SHEET 3 OF 7 AUGUSTA, MAINE May 1974

146-73





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STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**CANADIAN PACIFIC  
RAILWAY CROSSING**  
IN THE TOWNSHIP OF  
**SAPLING**  
**SOMERSET COUNTY**  
*SUPERSTRUCTURE*

SHEET 4 OF 7 AUGUSTA, MAINE May 1974



Hand-drawn plan view of a bridge deck layout. The diagram shows a long chord (Working Line) with 16 spaces @ 10'-0" = 160'-0". The deck width is 30'-9". The left and right fascias are shown with their respective offsets from the working line. Key stationing points are marked: Sta. 417+77.53 and Sta. 419+45.56. The left and right fascias are shown with their respective offsets from the working line.

Dimensions and offsets shown:

- Left side offsets (from left to right): 9'-0", 1'-6", 2'-11", 2'-7", 3'-0", 3'-9", 3'-6", 3'-2", 3'-7", 3'-2", 3'-3", 2'-11", 2'-6", 2'-0", 1'-4", 7'-0".
- Right side offsets (from right to left): 7'-0", 1'-4", 2'-0", 2'-6", 2'-11", 3'-3", 3'-2", 3'-7", 3'-2", 3'-6", 3'-9", 3'-0", 2'-7", 2'-11", 1'-6", 1'-10", 2'-3", 2'-9", 3'-5", 4'-1".
- Working Line = long Chord
- Left Fascia
- Right Fascia
- Bearing Abut. #1
- Bearing Abut. #2
- Sta. 417+77.53
- Sta. 419+45.56
- 16 spaces @ 10'-0" = 160'-0"
- 30'-9"
- 15'-4"
- 5'-0"
- 7'-9"
- 15'-4"
- 5'-0"
- 15'-4"
- 30'-9"

A detailed structural cross-section drawing of a pier and slab joint. The drawing shows two vertical piers separated by a central gap, with horizontal slabs extending from them. Key components and labels include:

- Pier #1 or #2**: Located at the top center.
- Reinforcing steel in slab not shown**: Label pointing to the left slab.
- Armored Joint & Seal**: Label pointing to the central joint between the piers.
- New concrete slab**: Label pointing to the right slab.
- S573 @ 1'-0"**: Two labels indicating reinforcement bar placement and spacing. One points to bars in the left slab, and the other points to bars in the right slab.
- (For location see sheet #4 of 7)**: A note associated with the S573 reinforcement label.
- Existing beam (to remain)**: Two labels pointing to the beams supporting the slabs on either side of the joint.
- Existing L<sub>s</sub> 4"x4"x½"**: Label pointing to the base support structure.
- Dimensions**: Horizontal dimensions of 1'-0" are shown for each pier's width.

Technical drawing of a cross-section of a bridge structure, showing the connection between an abutment and a pier. The drawing includes the following labels and dimensions:

- Bearing Abut. #1 or #2**: Located at the top center, indicating the bearing location.
- Armored Joint & Seal**: Located at the top left, indicating the joint between the abutment and the pier.
- Reinforcing steel in slab & obtinate back wall not shown**: Located at the top center, indicating the reinforcing steel in the slab and the obtinate back wall.
- Bottom of slab**: Located at the top right, indicating the bottom of the slab.
- Existing beam (to remain)**: Located at the middle right, indicating the existing beam to remain.
- S574** and **S600**: Located on the left side, indicating the reinforcement bars.
- 1'-3"** and **1'-0"**: Dimensions at the bottom, indicating the height and width of the structure.
- L 4" x 4" x 1/2" x 0'-9"**: Located at the bottom right, indicating the reinforcement bars to be installed on both sides of interior beams and the interior side of the exterior beams.

The diagram illustrates a bridge layout with two main sections: West Side and East Side, separated by a central gap. The layout is defined by two vertical lines representing the bridge piers.

- West Side:**
  - A horizontal line segment is labeled "f & Beam 3".
  - A vertical line segment is labeled "Bearing Abut. #1".
  - A curved line segment is labeled "90°".
- East Side:**
  - A horizontal line segment is labeled "e Beam 3 2".
  - A vertical line segment is labeled "Bearing Abut. #2".
  - A curved line segment is labeled "90°".
- Central Gap:**
  - A horizontal line segment is labeled "Long Chord = Working Line".
  - A small vertical line segment is labeled "10' 0"

Technical drawing of a bridge section showing the transition from a vertical curb to an abutment backwall. The drawing includes labels for "Vertical Bridge Curb-Type 1", "Abut. Backwall", "Aluminum Bridge Rail Type A Limits", "Aluminum Approach Rail Type A Limits", and "Transition Rail Post No. 1". Dimensions include "1 1/4" @ 45° F", "2'-7 3/4\"", "2'-4 3/4\"", "3\"", and "1'-9\"".

For details not shown see sh. #4 of 7 and Standard  
Details BD 114-73 and BD 117-73

1. Chamfer all exposed edges of concrete  $\frac{1}{2}$  inch unless otherwise indicated.
2. Form a 1 inch V-groove on the outside faces of each contraction joint in the curbs, and at the joint between the curb and slab.
3. Break the band in contraction joints in the concrete curbs by a method approved by the Engineer.
4. Provide joints in the Vertical Bridge Curb, Type 1 at each contraction joint in the concrete curb.
5. Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
6. Reinforcing steel splices shall be a minimum of 36 bar diameters unless otherwise noted.
7. Place 1 inch diameter plastic tube drains at 10 foot intervals along the easterly curb and at the low points of the superstructure as described in Subsection 502.17. Holes shall be drilled in the terms of locations of the plastic tube drains.
8. Protective Coating for Concrete Surfaces shall be applied to the following areas: top of concrete curbs, outside face of curbs down to the drip notch under the edge of slab.
9. Mortar for bedding and for joints in the granite curb shall contain an approved non-shrink additive.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**CANADIAN PACIFIC  
RAILWAY CROSSING**  
IN THE TOWNSHIP OF  
**SAPLING**  
**SOMERSET COUNTY**  
*SUPERSTRUCTURE DETAILS*

SHEET 5 OF 7 AUGUSTA, MAINE MAY 1974

146-75



F.R.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	268(4)	19	30

# SEAL NOTES

1. The Seals furnished shall be as follows:

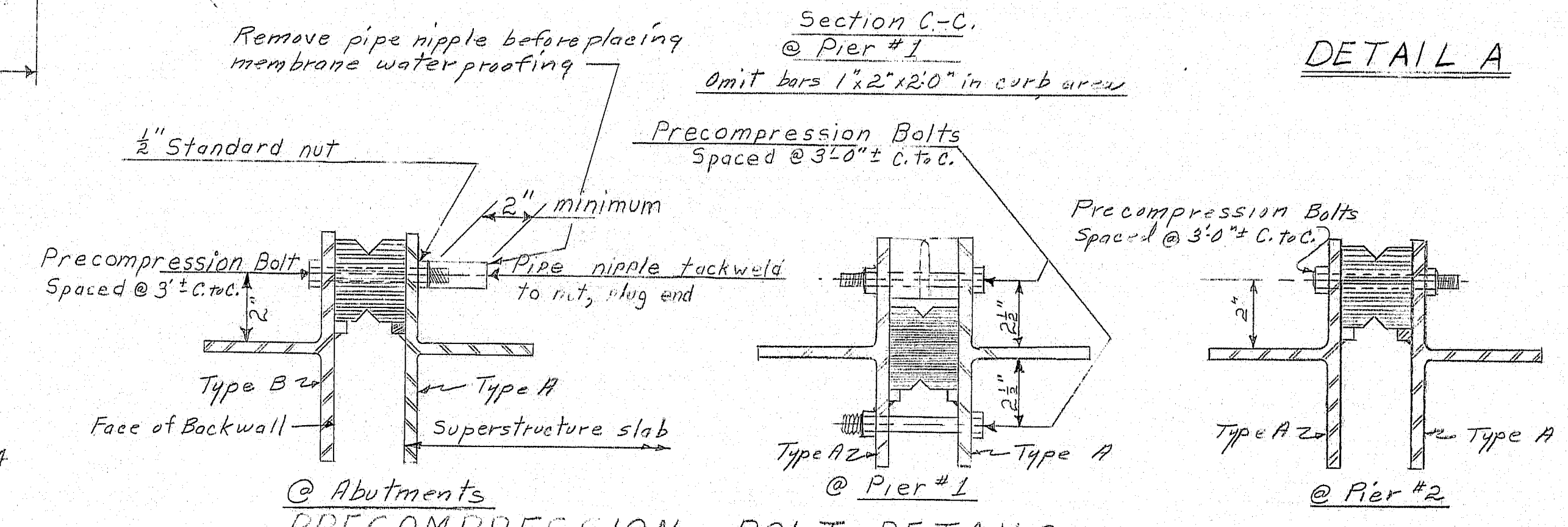
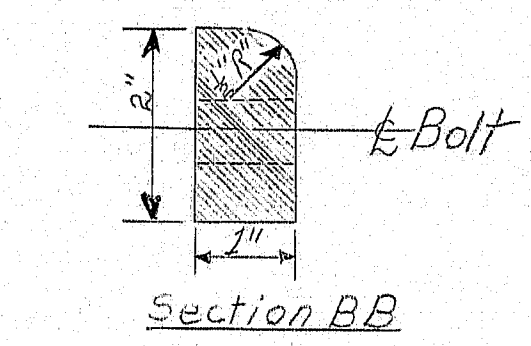
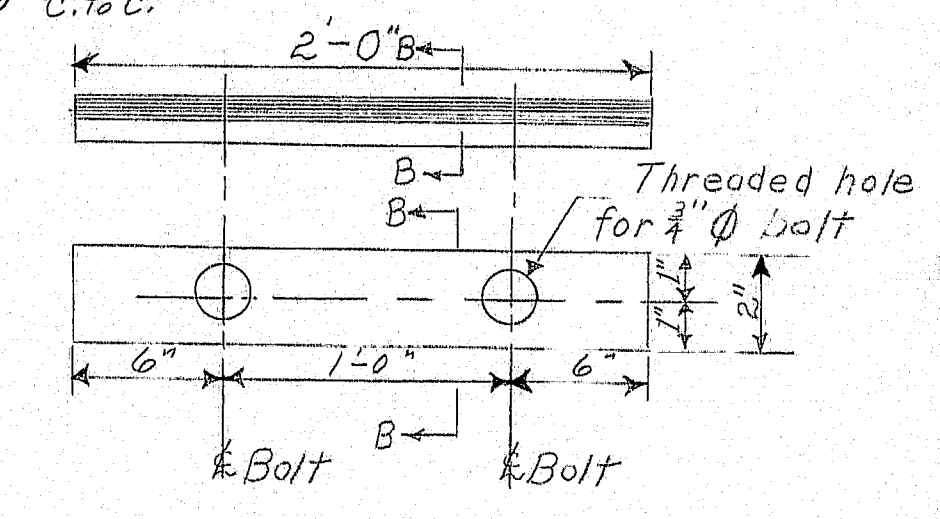
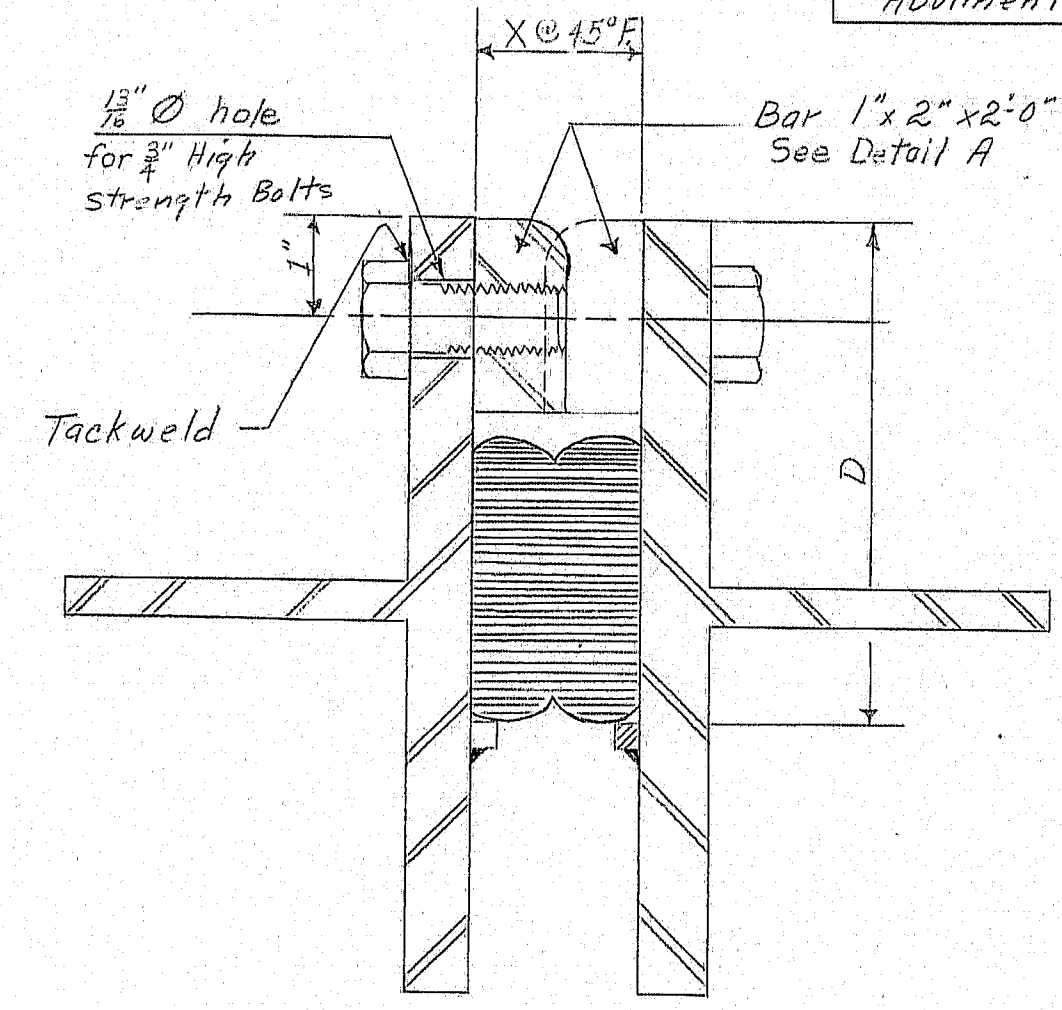
Location	Movement Rating	Retention Bar Size	Joint opening x @ 45° F	D
Abut #1	$\frac{7}{8}$ "	$\frac{3}{8}$ " x $\frac{3}{8}$ "	2 $\frac{1}{2}$ "	4"
Pier #1	$\frac{3}{4}$ "	$\frac{1}{4}$ " x $\frac{1}{4}$ "	1 $\frac{3}{4}$ "	5 $\frac{1}{4}$ "
Pier #2	$\frac{1}{2}$ "	$\frac{1}{4}$ " x $\frac{1}{4}$ "	1 $\frac{1}{4}$ " (Fixed)	2 $\frac{1}{2}$ "
Abut #2	$\frac{7}{8}$ "	$\frac{3}{8}$ " x $\frac{3}{8}$ "	2 $\frac{1}{8}$ "	4"

- The joint dimensions "x @ 45° F" shown, are for design only and are subject to change due to differences in seals as supplied by various manufacturers. Do not use for setting of joint opening during construction. Set joint opening according to the joint opening shown in the approved Armored Joint shop detail drawings.
- The seal characteristics shall be submitted to the Engineer for approval, prior to the fabrication of the armored joint.
- The following movements, due to dead loads (slab, curb, and wearing surface), shall be taken into account when setting the armored joint.
 

Location	Open
Pier #1	$\frac{1}{8}$ "
Pier #2	$\frac{1}{4}$ "
Abutments	0"

 for end of fit span  
Total for both spans } Normal to joint.

Location	Open
Pier #1	$\frac{1}{8}$ "
Pier #2	$\frac{1}{4}$ "
Abutments	0"

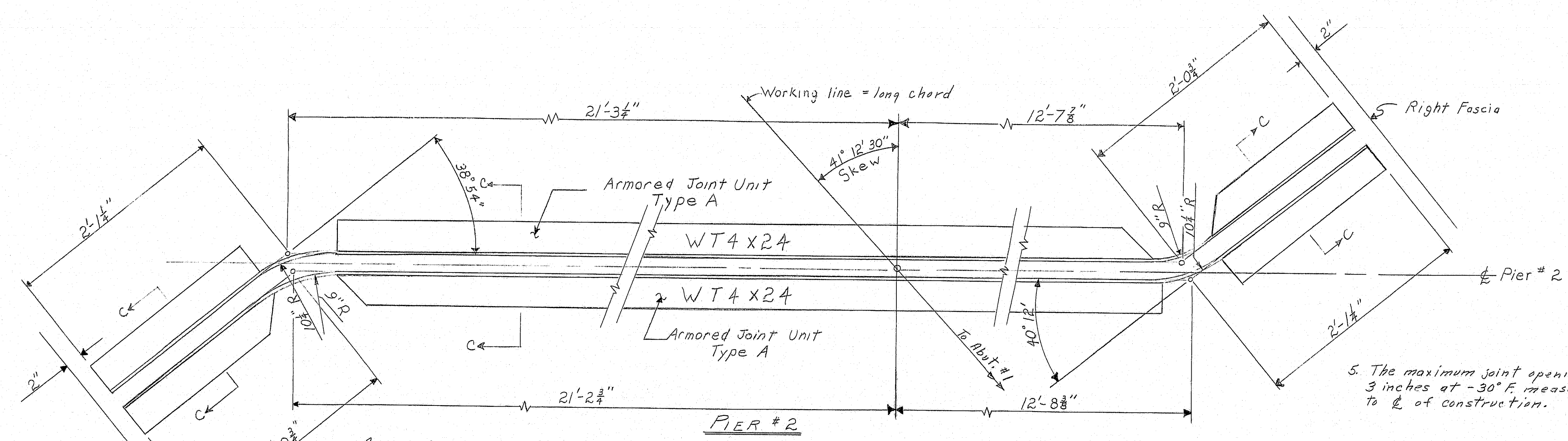


Note: Precompression Bolt to be  $\frac{1}{2}$ " Standard Bolt 5" long threaded 2  $\frac{1}{2}$ " Standard washer. Remove after armored joint is fixed in place, and plug hole to prevent concrete from filling seal.

## SHIPPING BRACKET DETAIL

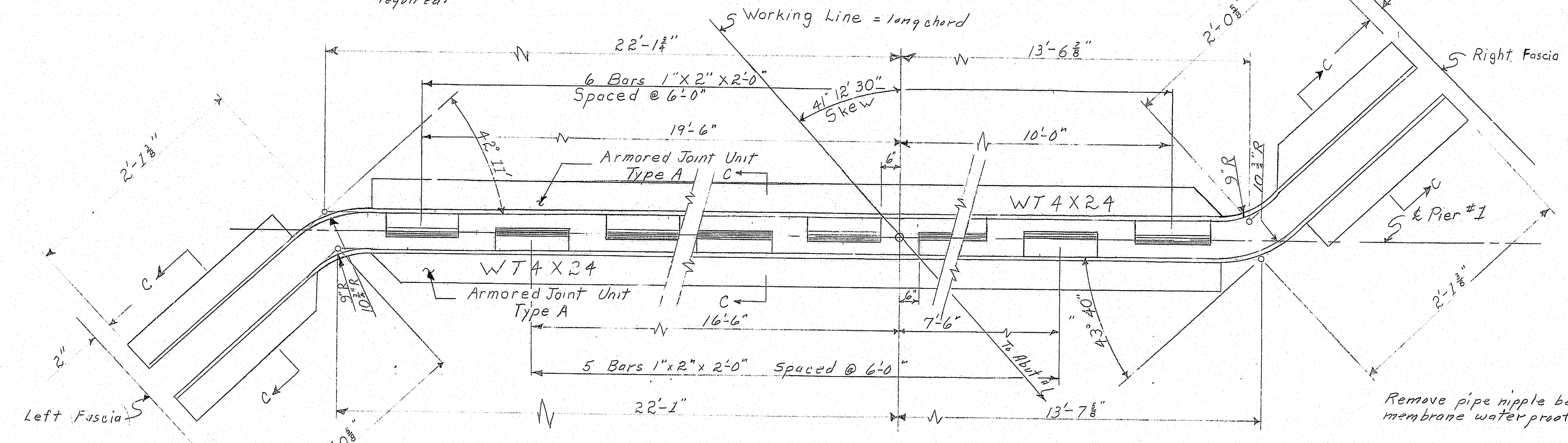
Note: The shipping brackets shown shall be installed in the shop with the bolts tightened to snug tight fit. Fabricate shipping brackets and locate precompression bolts such that armored joint will set plumb and to fit the roadway grade.

24 required; 7 each joint over Piers  
5 each joint @ Abutments

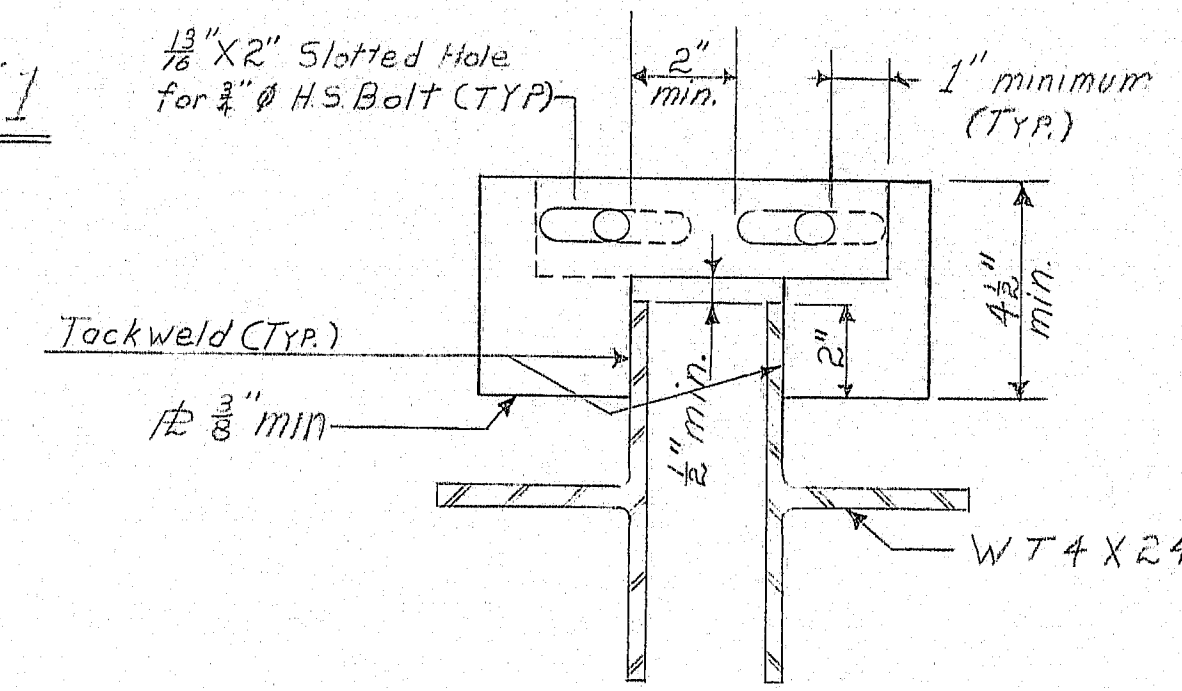


## ARMORED JOINT NOTES

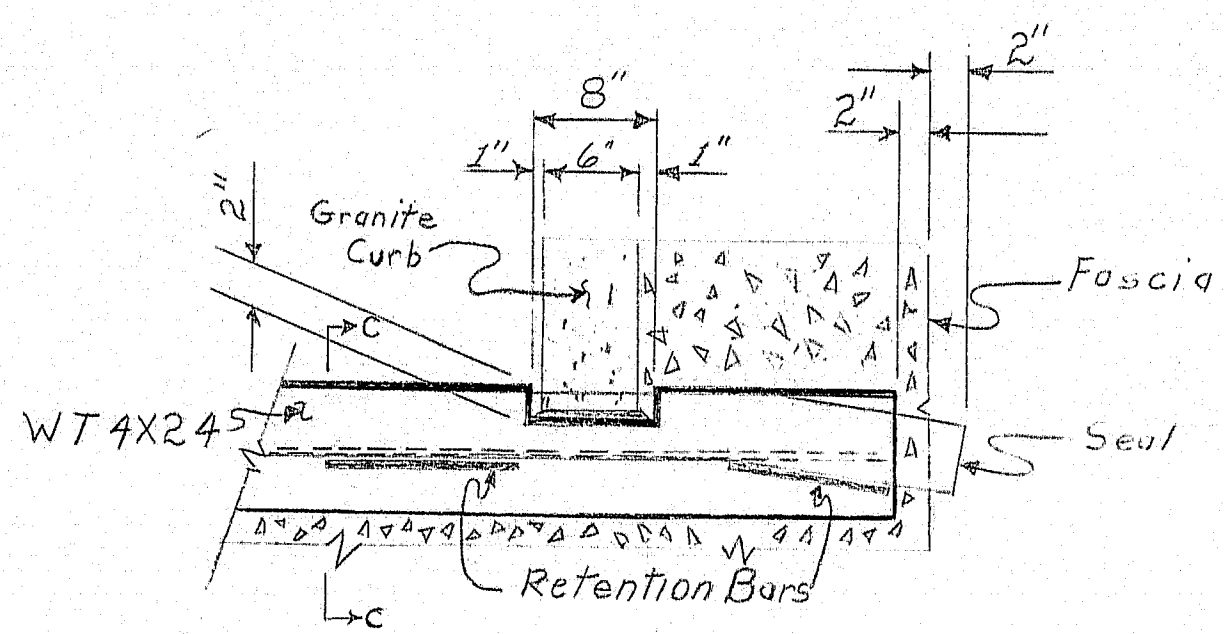
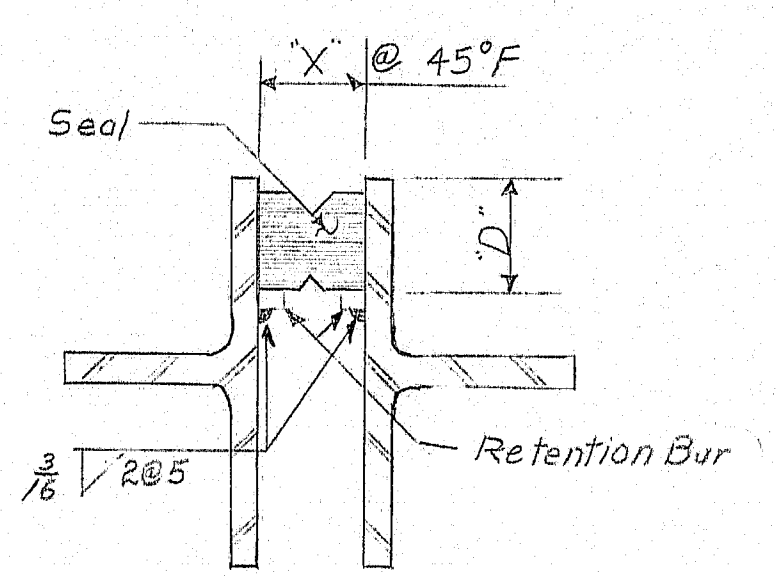
- Block out concrete around heads of precompression bolts by methods approved by the Engineer, to allow for their removal after the concrete has set, in the top of the backwall.
- The joint opening shall be checked before concrete is placed in the backwall and shall be adjusted by the contractor if necessary.
- Adjustments shall be made by loosening the bolts in the shipping brackets and tightening or loosening the precompression bolts as required.
- After joint opening adjustments are completed the shipping bracket bolts @ the abutments shall be retightened.
- Any cavities left in the concrete (see note #1) shall be filled with mortar containing an approved non-shrink additive.
- Armored Joint and seal are to be shop assembled.
- For details not shown see standard detail sheet BD 104-73.
- The shipping brackets over the abutments and piers are to be removed only after the armored joints are fixed in place on both sides of the joint.



## PIER #1



## Section CC @ Abutments & Pier #2



Armored Joint @ Curb  
Typical @ Piers and Abutments (For overall dimensions @ Front Face of Abutment Backwalls see sheet #2 of 7)

DESIGN - DETAILED	DATE
CHECKED	3-24
REVISIONS	5-24
FIELD CHANGES	

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**CANADIAN PACIFIC  
RAILWAY CROSSING**  
IN THE TOWNSHIP OF  
**SAPLING**  
**SOMERSET COUNTY**  
ARMORED JOINTS  
SHEET 6 OF 7 AUGUSTA, MAINE May 1974

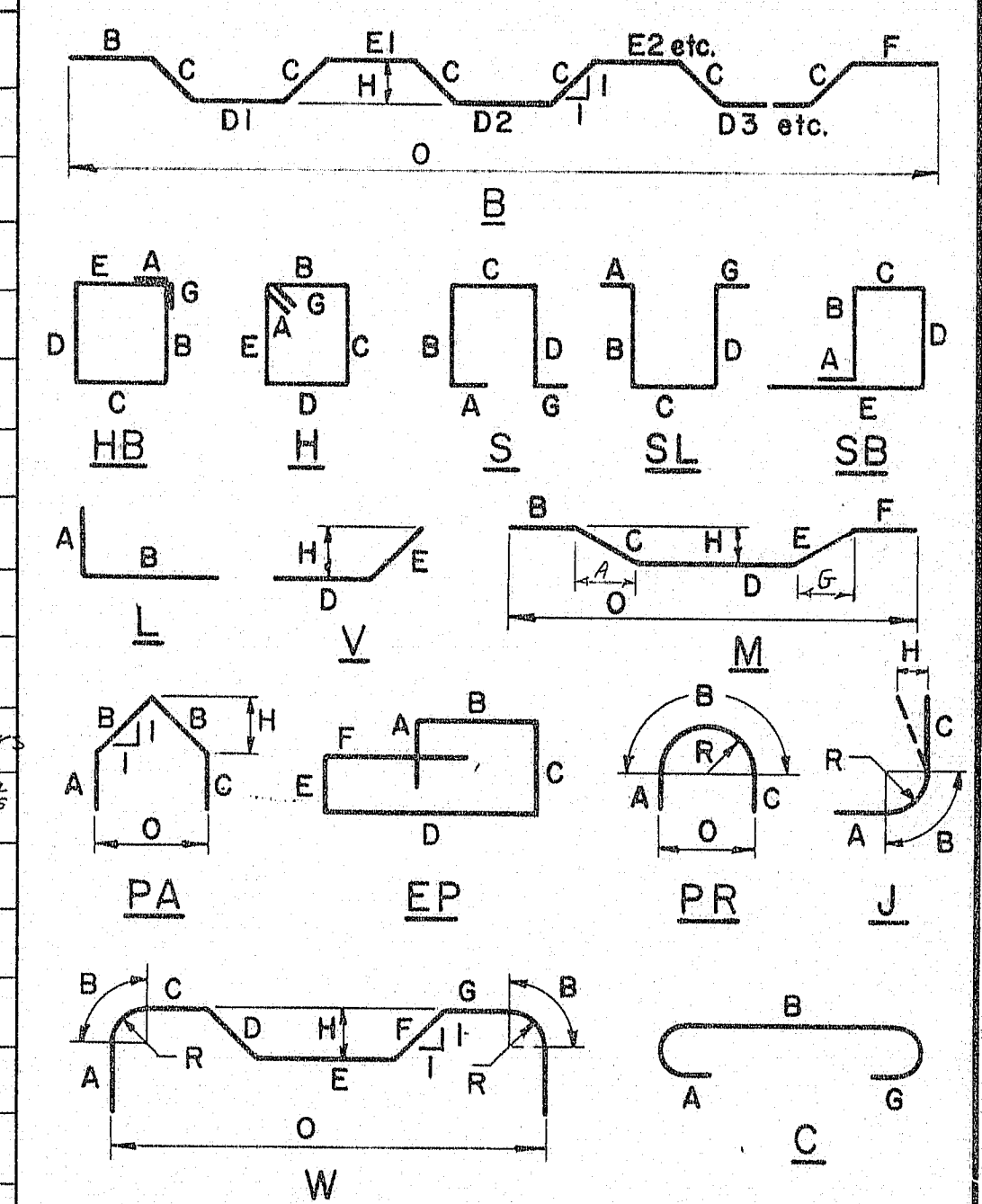
146-76



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
S500	242	30'-0"	Superstructure	S550	179	30'-0"	Slab					S501	121	31'-1"	B	—	4'-2"	6'-2"	2'-5"	2'-11"	4'-2"	—	4'-2"	29'-9"	—	Slab
S502	8	27'-6"	Slab (Spans 1 & 2) (near Pier 1)	S551	61	27'-0"	Slab (Span 2)												2'-5"	2'-11"						
S503	↑	26'-4"																	2'-5"	2'-11"						
S504	↑	25'-3"		S552	18	40'-0"	Slab (Spans 1 & 3)												2'-5"							
S505	↑	24'-2"		S553	12	38'-0"						S561	170	4'-6"	S	6"	1'-2"	1'-1"	1'-3"	—	—	6"	—	—	—	Curb (Lt.)
S506	↑	23'-1"		S554	10	36'-0"						S562	170	4'-10"	S	6"	1'-5"	1'-1"	1'-4"	—	—	6"	—	—	—	Curb (Rt.)
S507	↑	21'-11"		S555	12	33'-0"																				
S508	↑	20'-10"		S556	10	30'-0"						S570	88	5'-9"	M	2"	1'-9"	7'-2"	1'-0"	7'-2"	1'-9"	2"	7"	—	—	Haunch
S509	↑	19'-9"		S557	12	28'-0"						S571	102	5'-3"	M	2"	1'-9"	4'-2"	1'-0"	4'-2"	1'-9"	2"	4"	—	—	Haunch
S510	↑	18'-7"		S558	10	26'-0"																				
S511	↑	17'-5"		S559	12	23'-0"						S573	121	8'-6"	SB	2'-0"	1'-2"	11"	1'-5"	3'-0"	—	—	—	—	—	End of Slabs @ Piers
S512	↑	16'-4"		S560	22	20'-0"	Slab (Spans 1 & 3)					S574	40	8'-3"	SB	2'-0"	1'-2"	8"	1'-5"	3'-0"	—	—	—	—	—	End of Slabs @ Abutment
S513	↑	15'-3"										A501	38	5'-6"	S	—	2'-0"	1'-6"	2'-0"	—	—	—	—	—	—	Abutment
S514	↑	14'-2"		S563	8	15'-6"	Curbs (Lt. & Rt.)					A503	10	11'-0"	S	—	5'-0"	1'-0"	5'-0"	—	—	—	—	—	—	Wings
S515	↑	13'-0"		S564	2	19'-0"	(Lt.)					A506	8	10'-0"	S	—	4'-6"	1'-0"	4'-6"	—	—	—	—	—	—	Wings
S516	↑	11'-11"		S565	10	18'-0"	(Lt. & Rt.)					A507	8	5'-0"	S	6"	1'-6"	1'-0"	1'-6"	—	—	6"	—	—	—	Abutments
S517	↑	10'-10"		S566	10	14'-6"	(Lt. & Rt.)																			
S518	↑	9'-8"		S567	2	14'-0"	(Rt.)																			
S519	↑	8'-7"		S568	4	18'-6"	(Rt.)																			
S520	↑	7'-6"		S569	4	16'-0"	Curbs (Lt. & Rt.)																			
S521	↑	6'-4"																								
S522	↑	5'-3"																								
S523	↑	4'-1"		S600	16	5'-6"	End of Slabs																			
S524	8	3'-0"	Slab (Spans 1 & 2) (near Pier 1)																							
				S700	20	8'-0"	End of Slabs																			
S525	8	27'-6"	Slab (Span 2 & 3) (near Pier 2)	S701	10	7'-0"	End of Slabs																			
S526	↑	26'-3"		S702	2	6'-7"	End of Slabs																			
S527	↑	25'-1"																								
S528	↑	23'-10"																								
S529	↑	22'-7"		A500	12	20'-0"	Abutments																			
S530	↑	21'-4"		A504	4	5'-6"	Wings																			
S531	↑	20'-2"		A505	4	4'-0"	Wings																			
S532	↑	18'-11"		A508	8	4'-6"	Wings																			
S533	↑	17'-8"		A509	8	3'-6"	Wings																			
S534	↑	16'-6"																								
S535	↑	15'-3"																								
S536	↑	14'-0"																								
S537	↑	12'-9"																								
S538	↑	11'-7"																								
S539	↑	10'-4"																								
S540	↑	9'-1"																								
S541	↑	7'-11"																								
S542	↑	6'-8"																								
S543	↑	5'-5"																								
S544	↑	4'-3"																								
S545	8	3'-0"	Slab (Spans 2 & 3) (near Pier 2)																							

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	268(4)	20	30

# TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar.  
Bending details and hooks shall conform to the recommendations of A.C.I. Standard 315-65.  
Reinforcing Bar: ASTM A615 Grade 60

## GENERAL NOTES

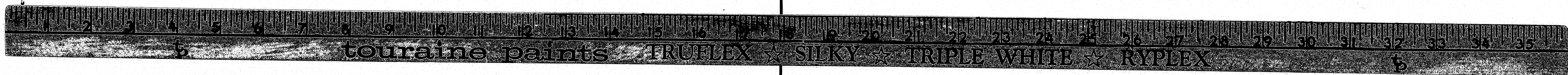
- First digit(s) following the letter of the Mark indicates size of reinf. bar.  
Mark (A 502) bar size - #5  
Mark (P 1001) bar size - #10  
Mark (S 603) bar size - #6
- Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

CANADIAN PACIFIC  
RAILWAY CROSSING  
IN THE TOWNSHIP OF  
SAPLING  
SOMERSET COUNTY

REINFORCING STEEL  
SHEET 7 OF 7 AUGUSTA, MAINE May 1974

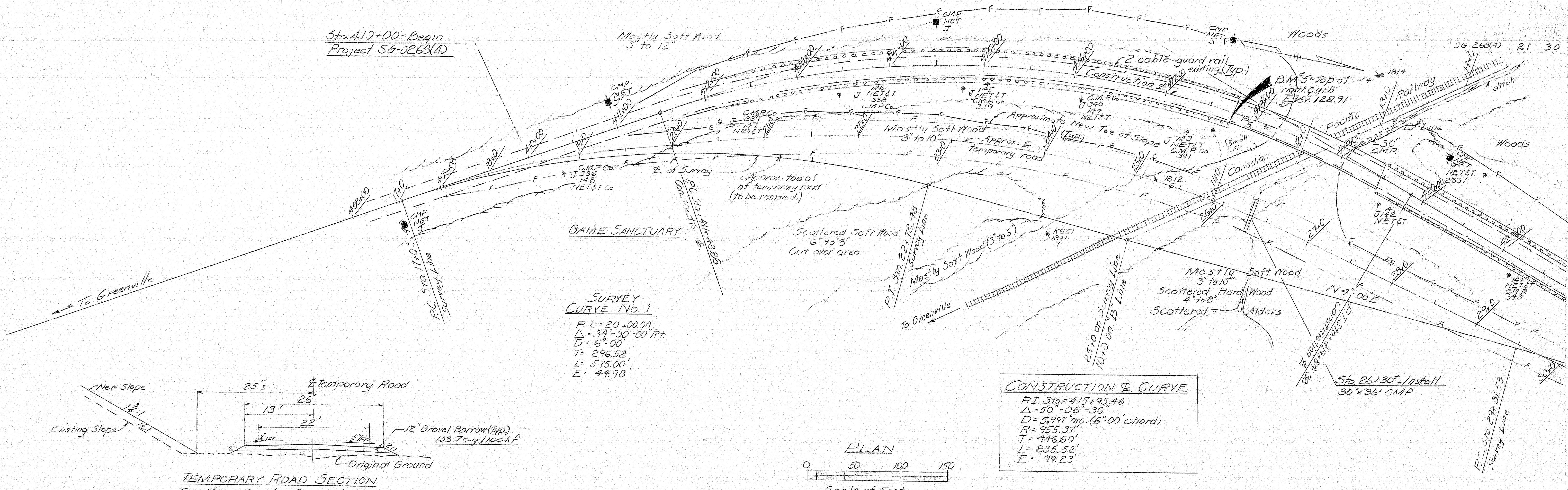
146-77





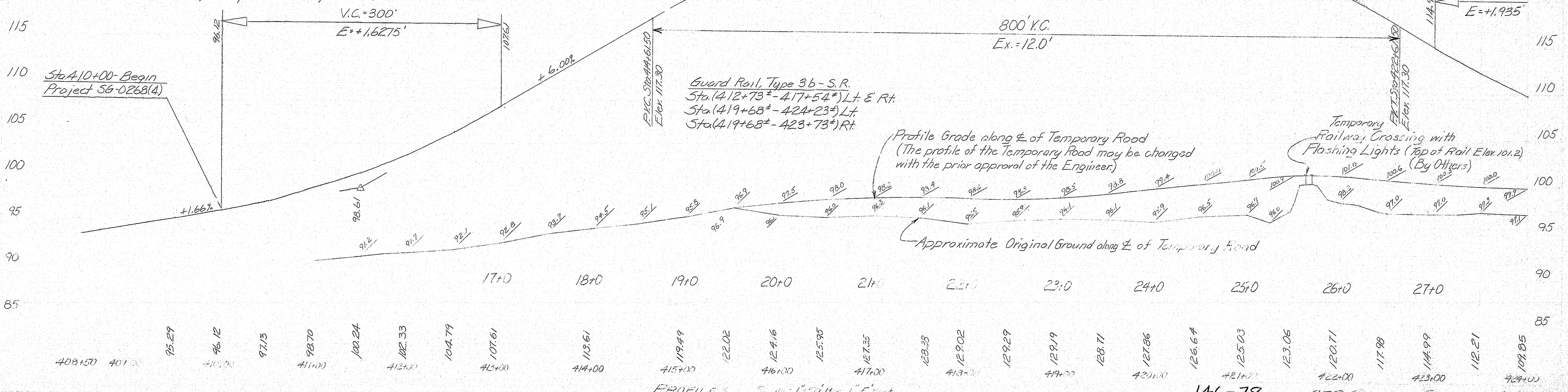
DM 174

DM 174



Notes

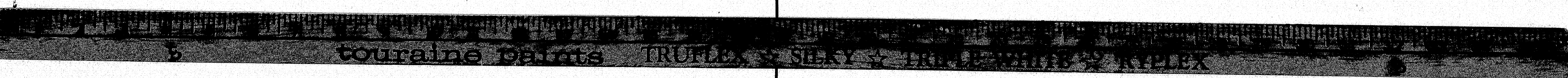
1. Material from temporary road to be used as part of A11 (413+0-424+0)
2. Depth of loam to be 2"
3. All slopes (410+0-426+0) to be seeded (Method No. 2)
4. Hay mulch to be used on all seeded areas
5. Removal of temporary road to be paid as Item 203.20



PROFILES Scale: 1"=50' HORIZ. 1"=5' VERT.

146-78

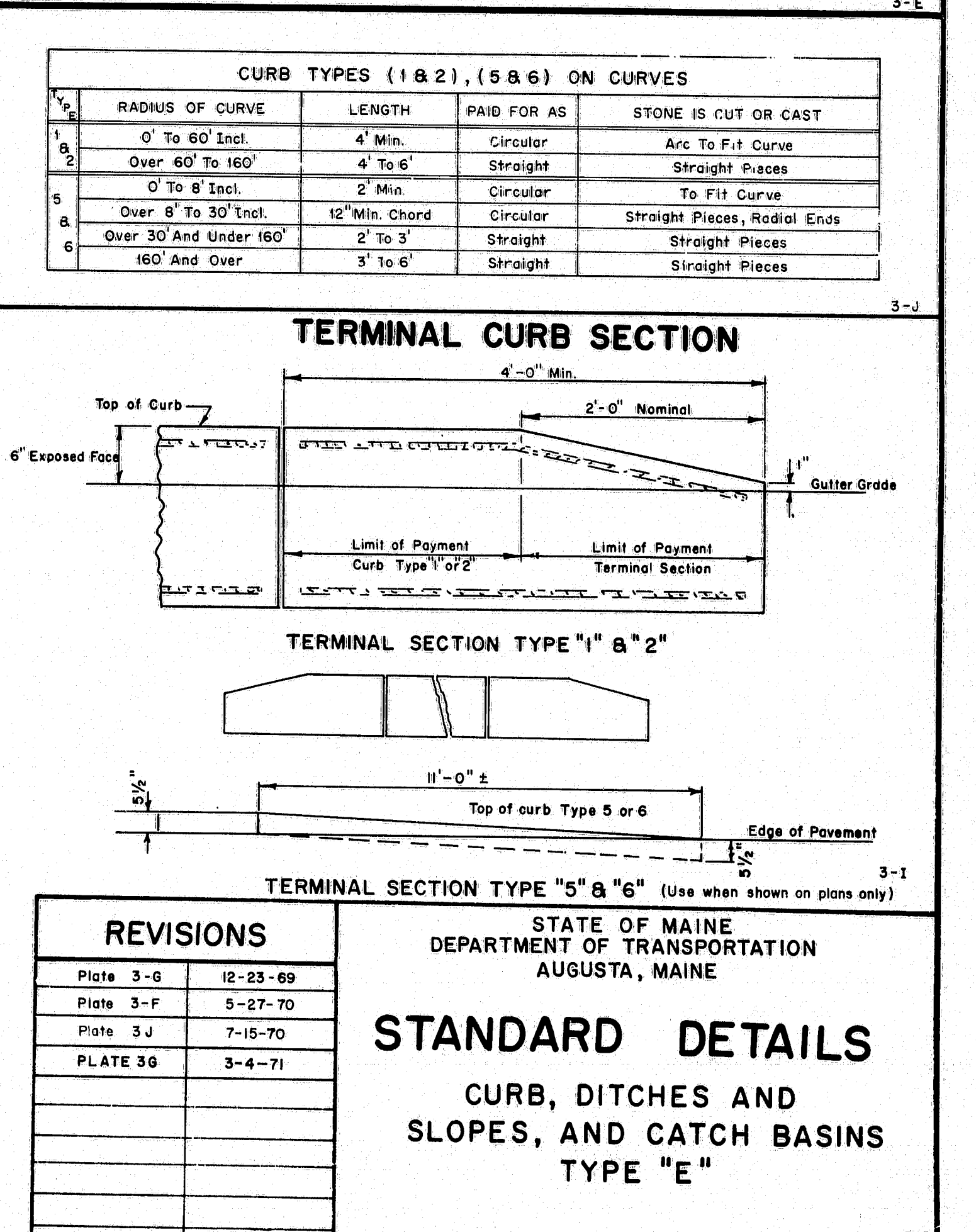
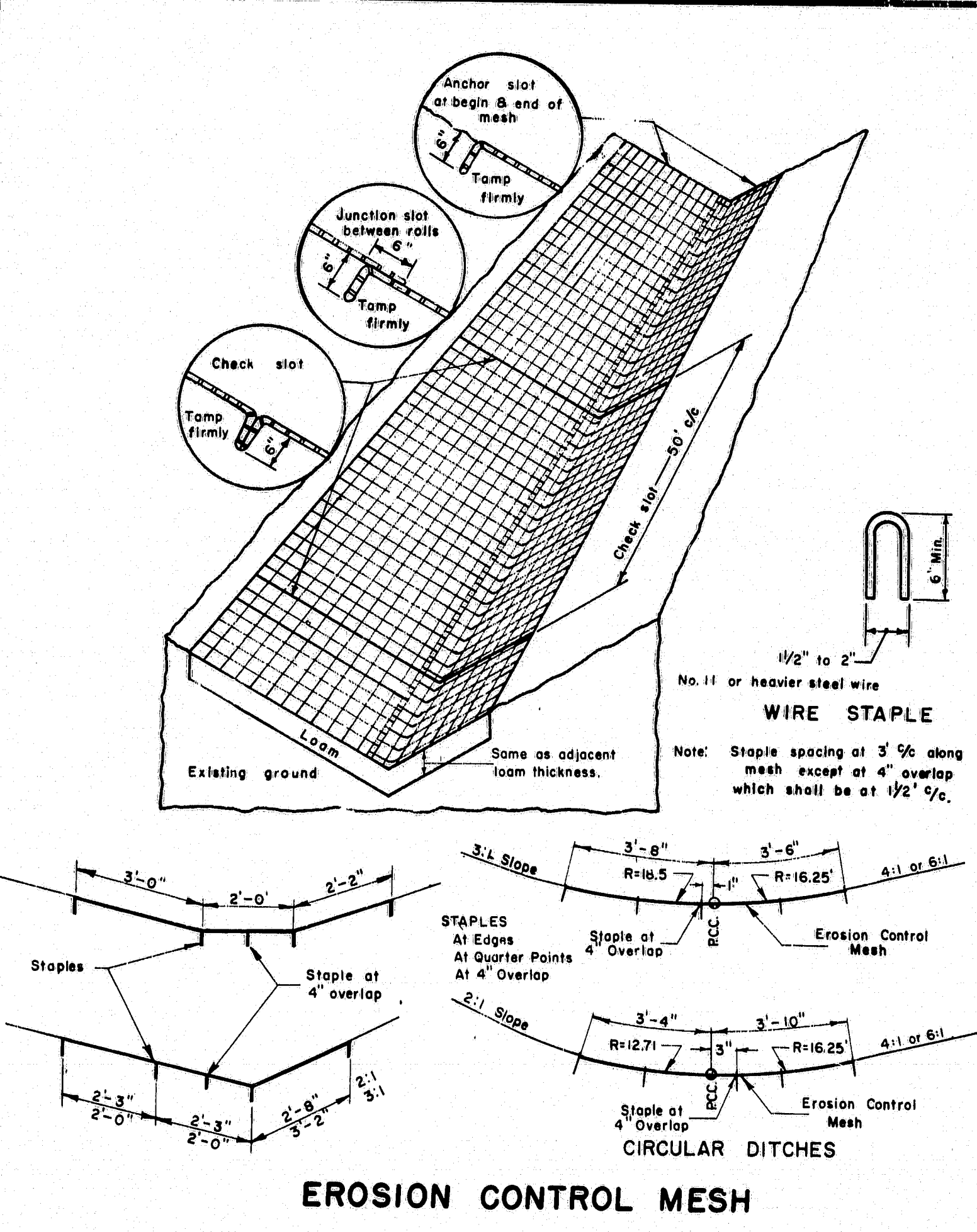
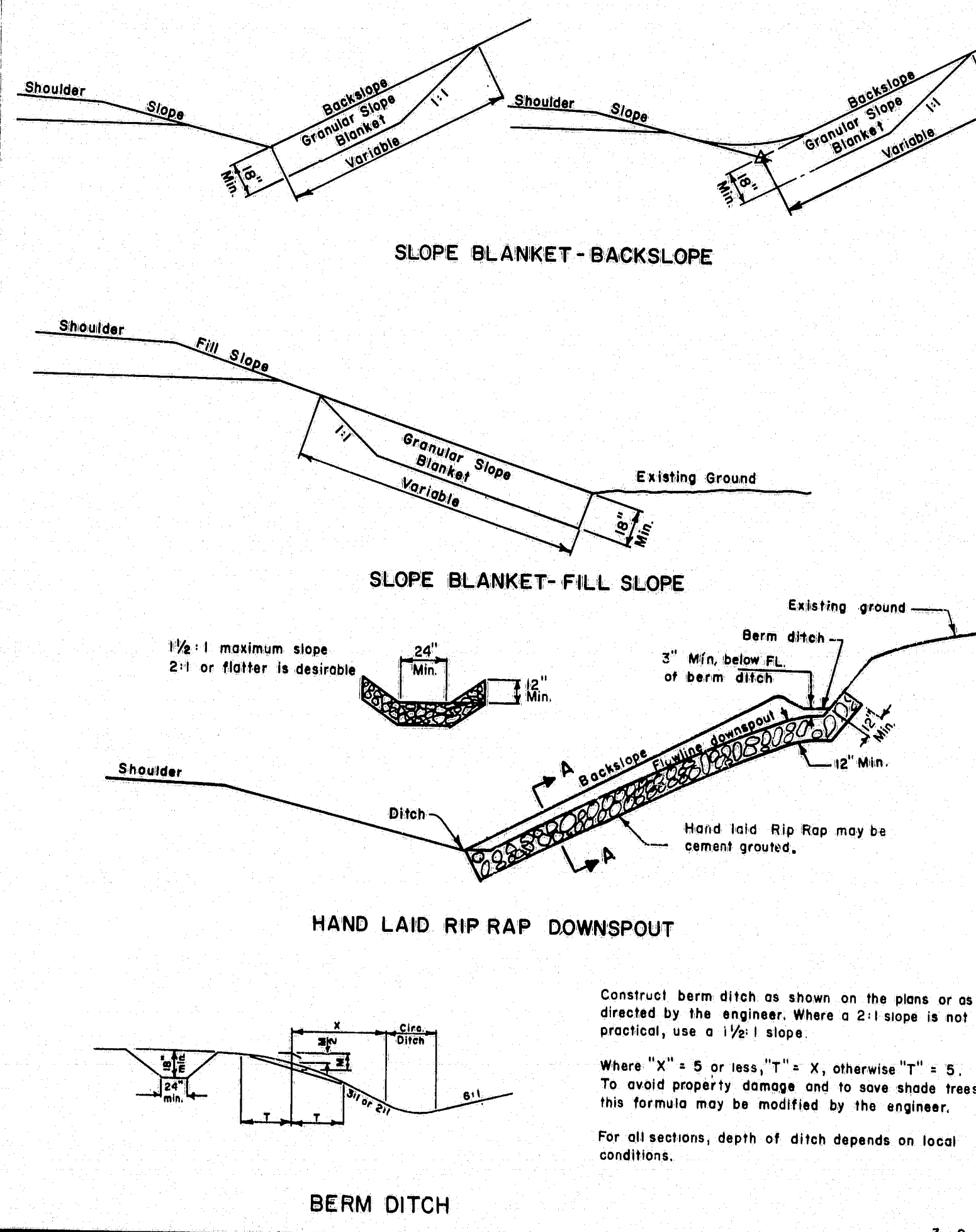
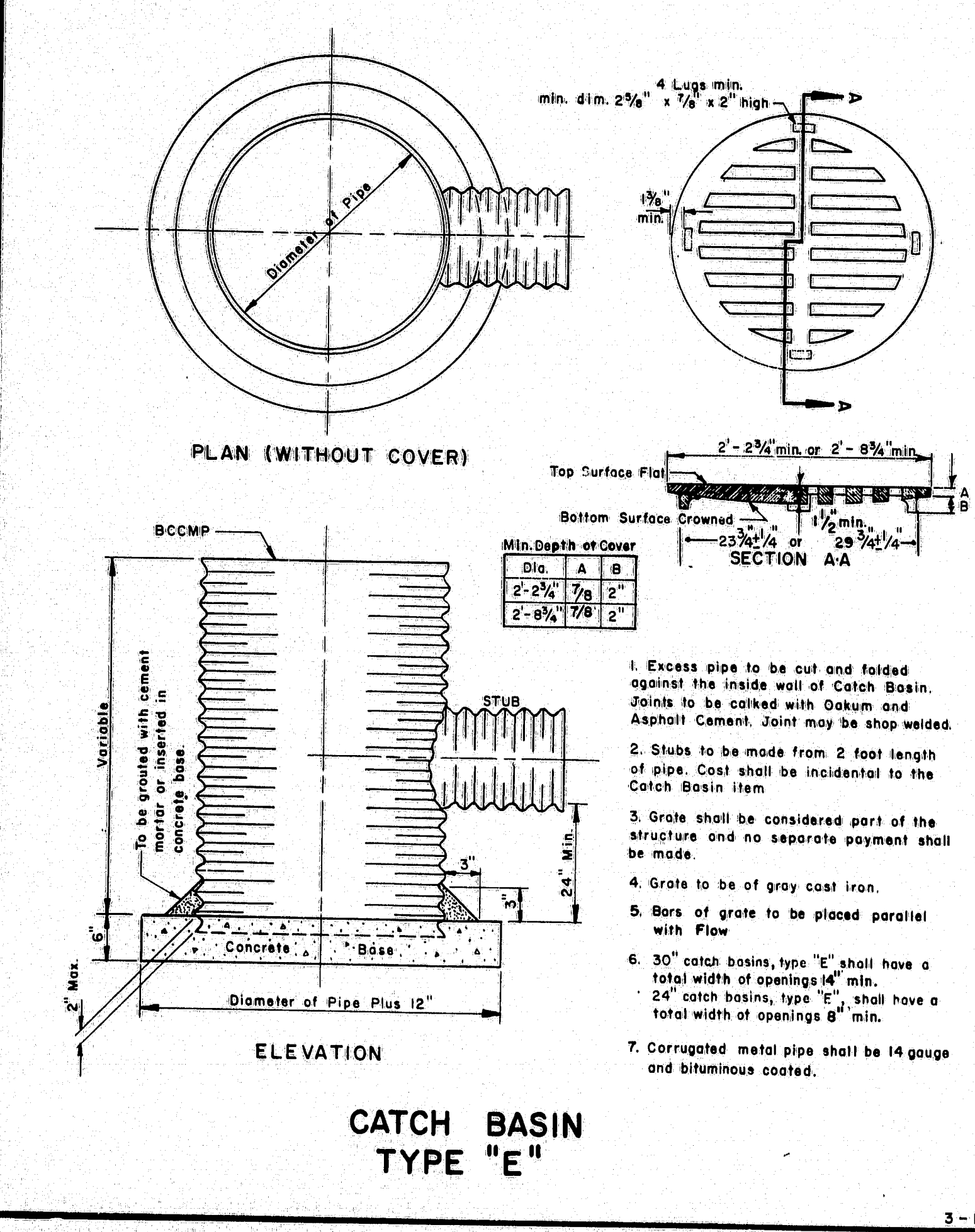
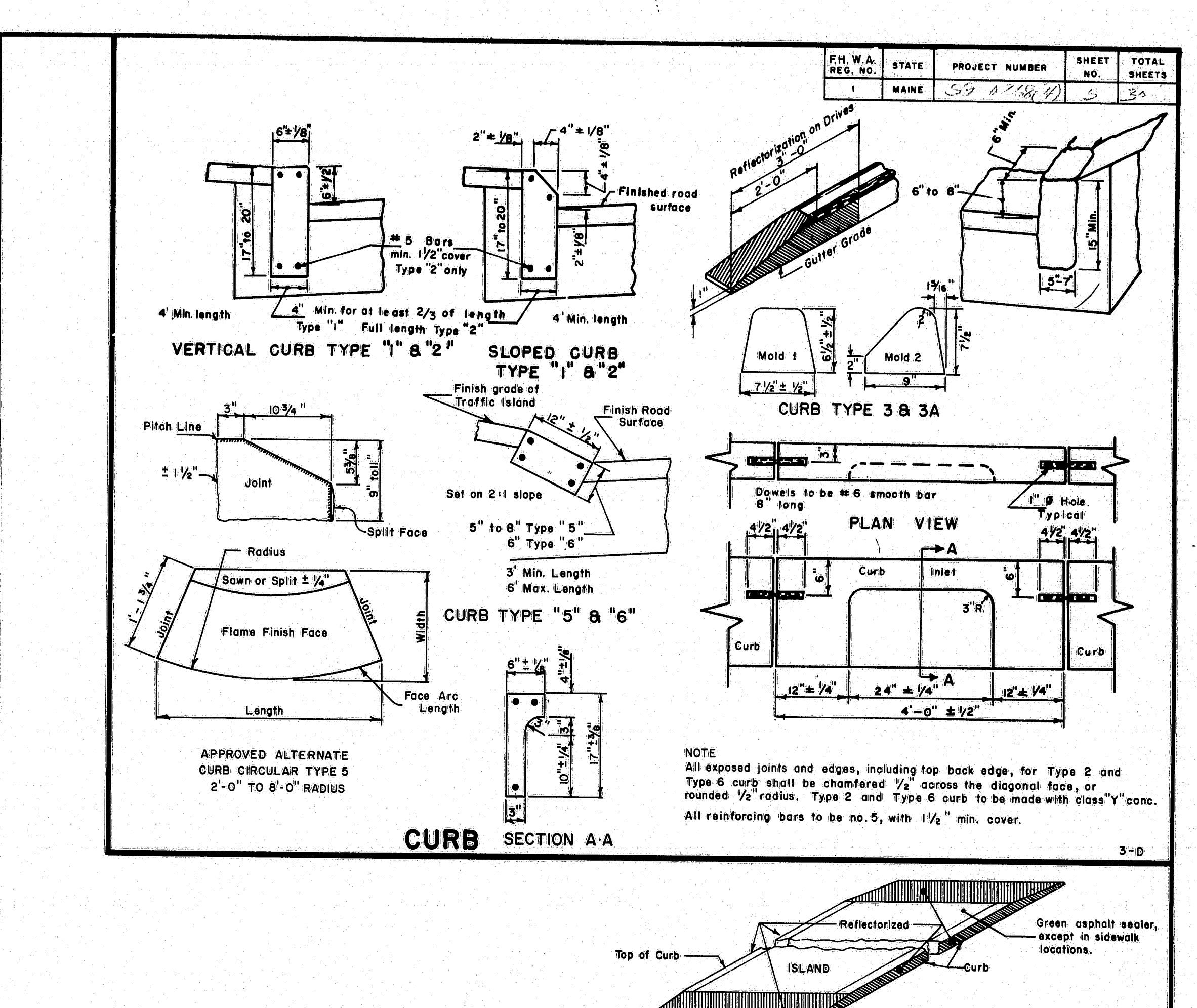
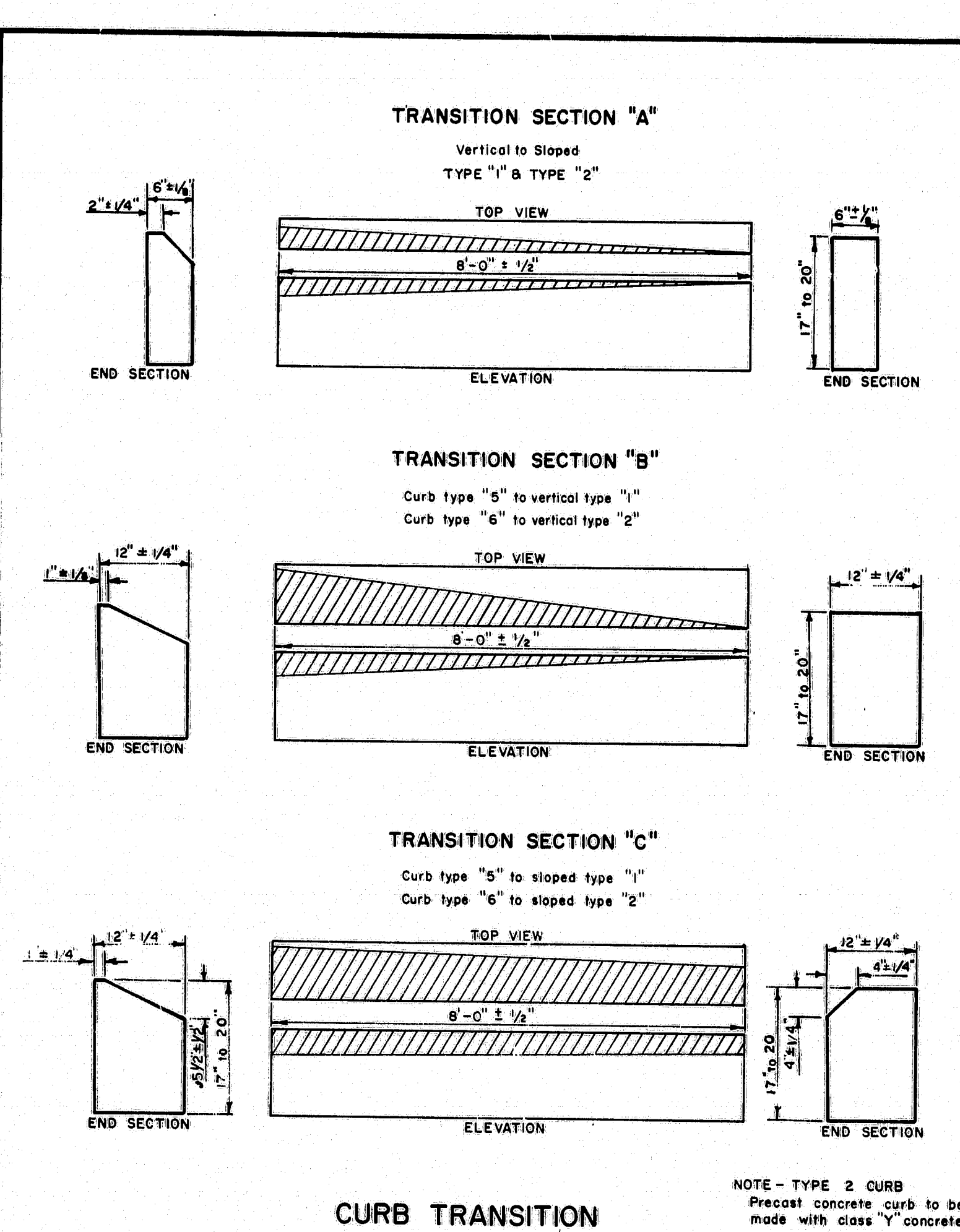
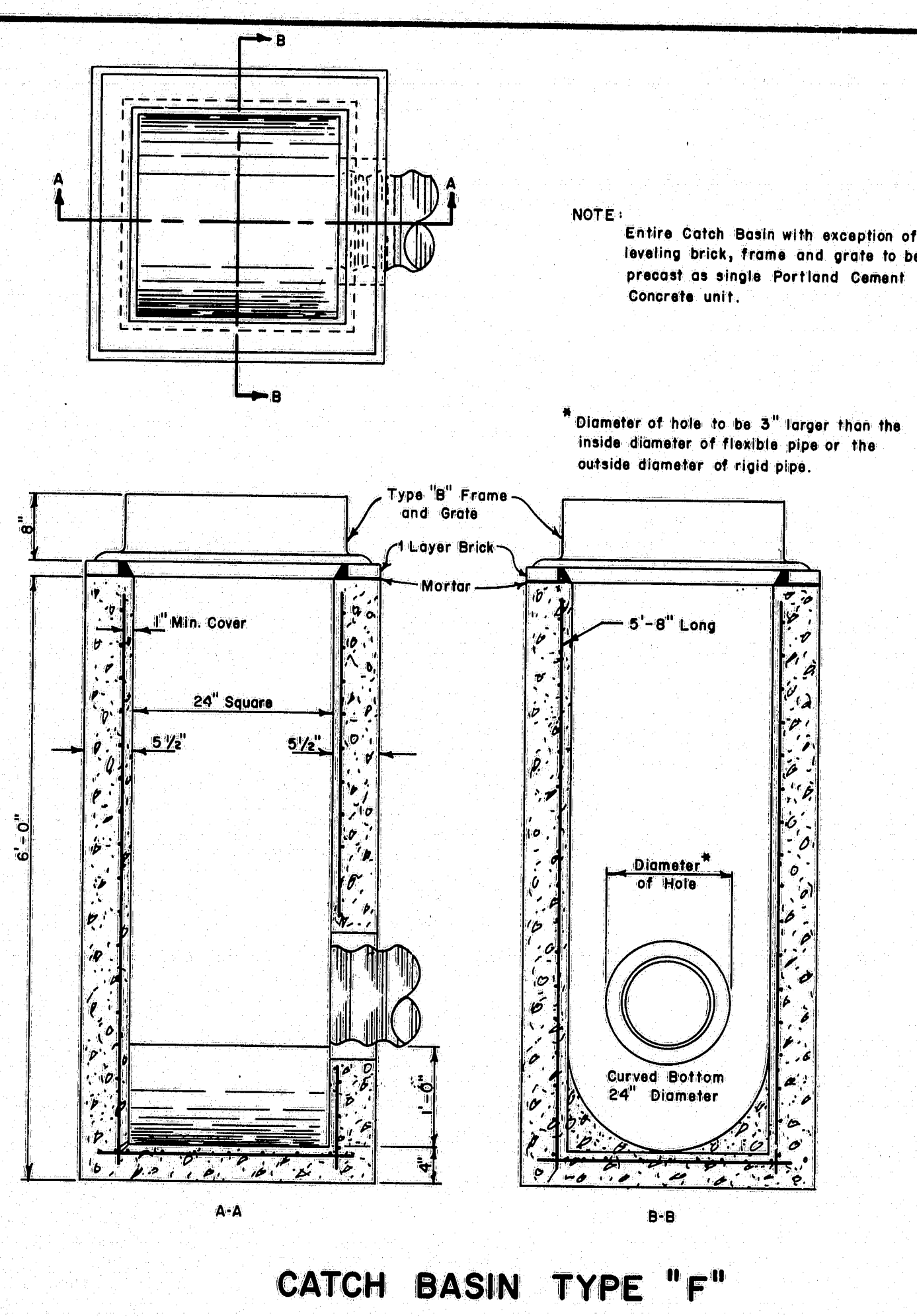
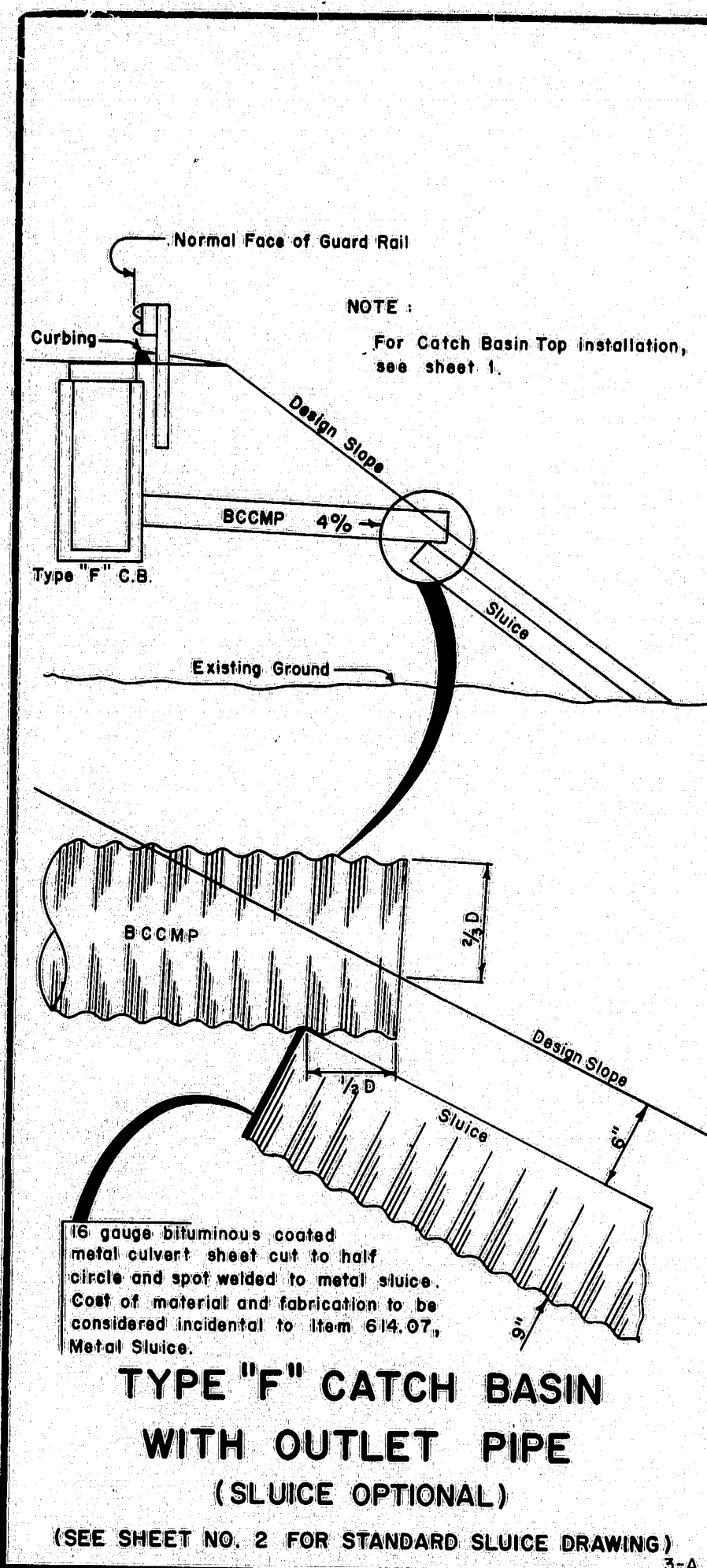
CPR CROSSING - SAILING 2 of 3









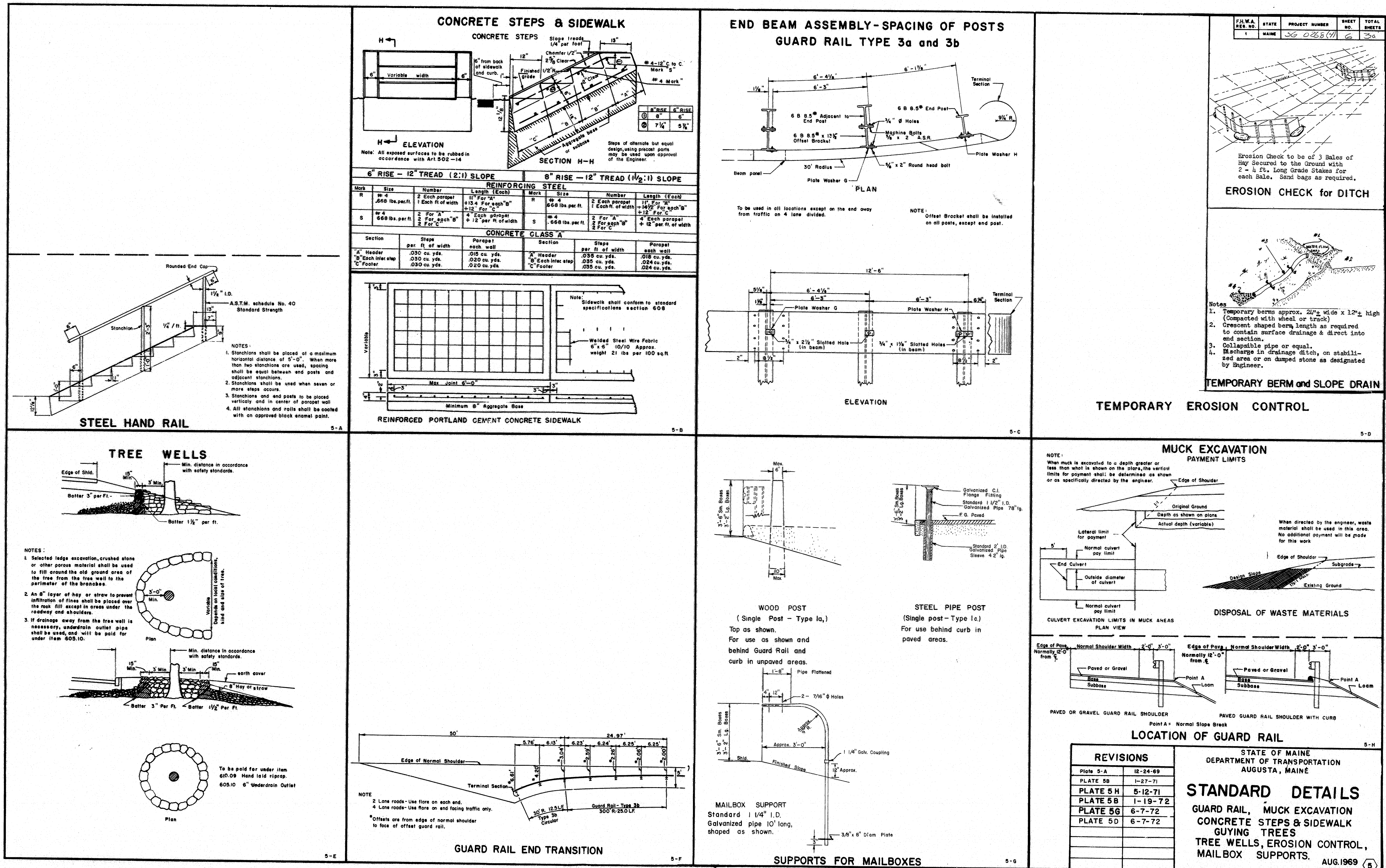


REVISIONS		STATE OF MAINE DEPARTMENT OF TRANSPORTATION AUGUSTA, MAINE	
Plate 3-G	12-23-69	<b>STANDARD DETAILS</b> CURB, DITCHES AND SLOPES, AND CATCH BASINS TYPE "E"	
Plate 3-F	5-27-70		
Plate 3-J	7-15-70		
PLATE 3-G	3-4-71		

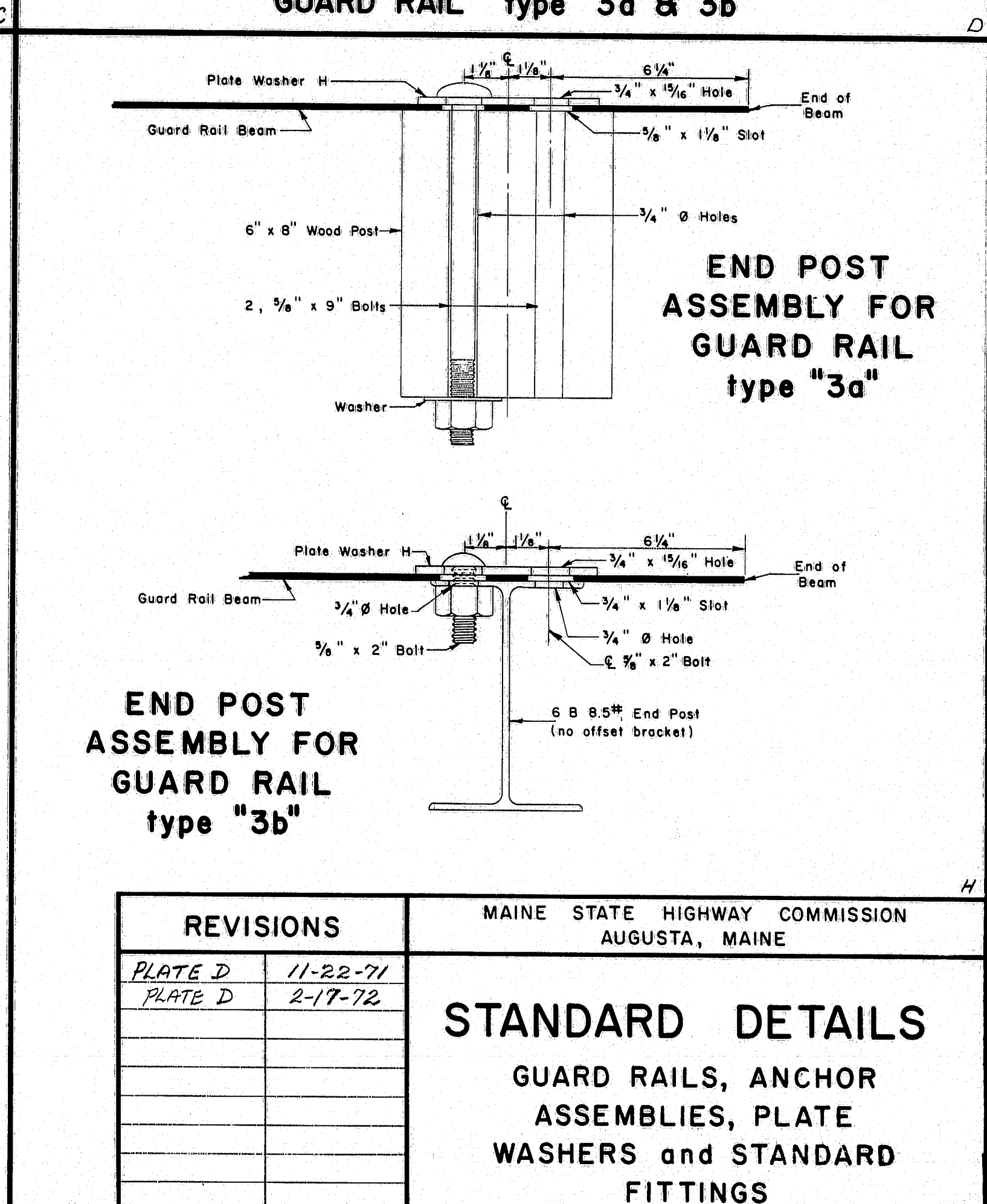
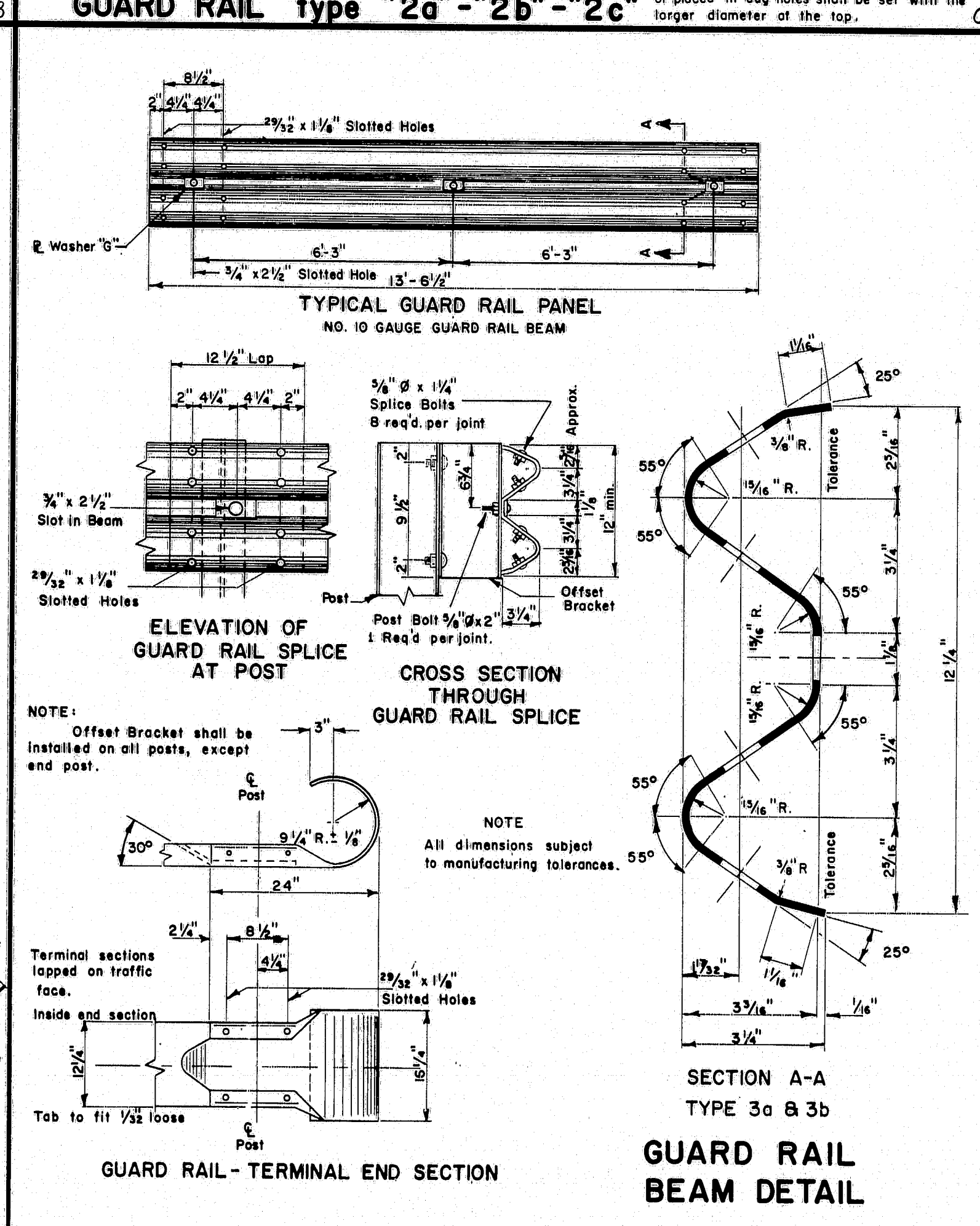
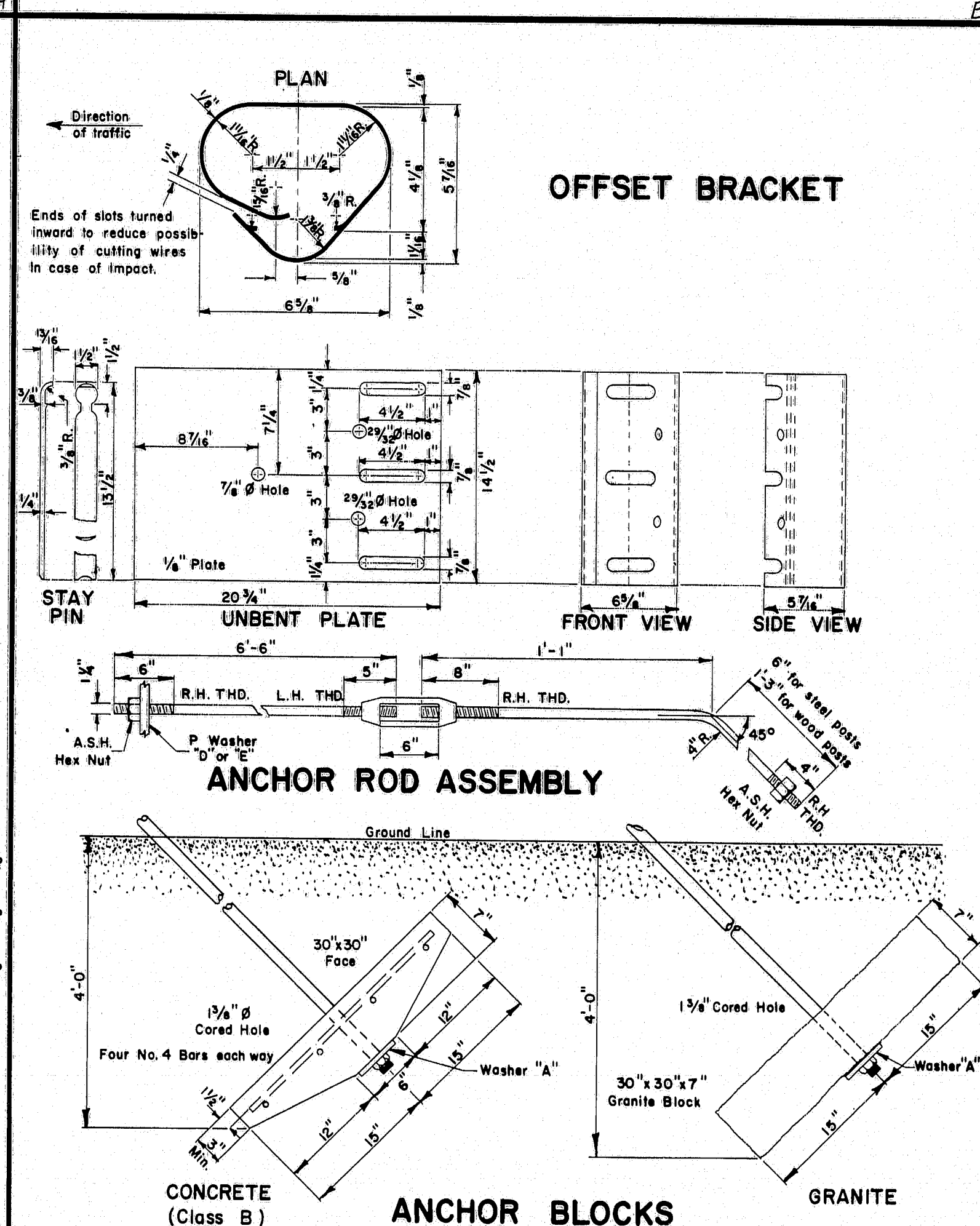
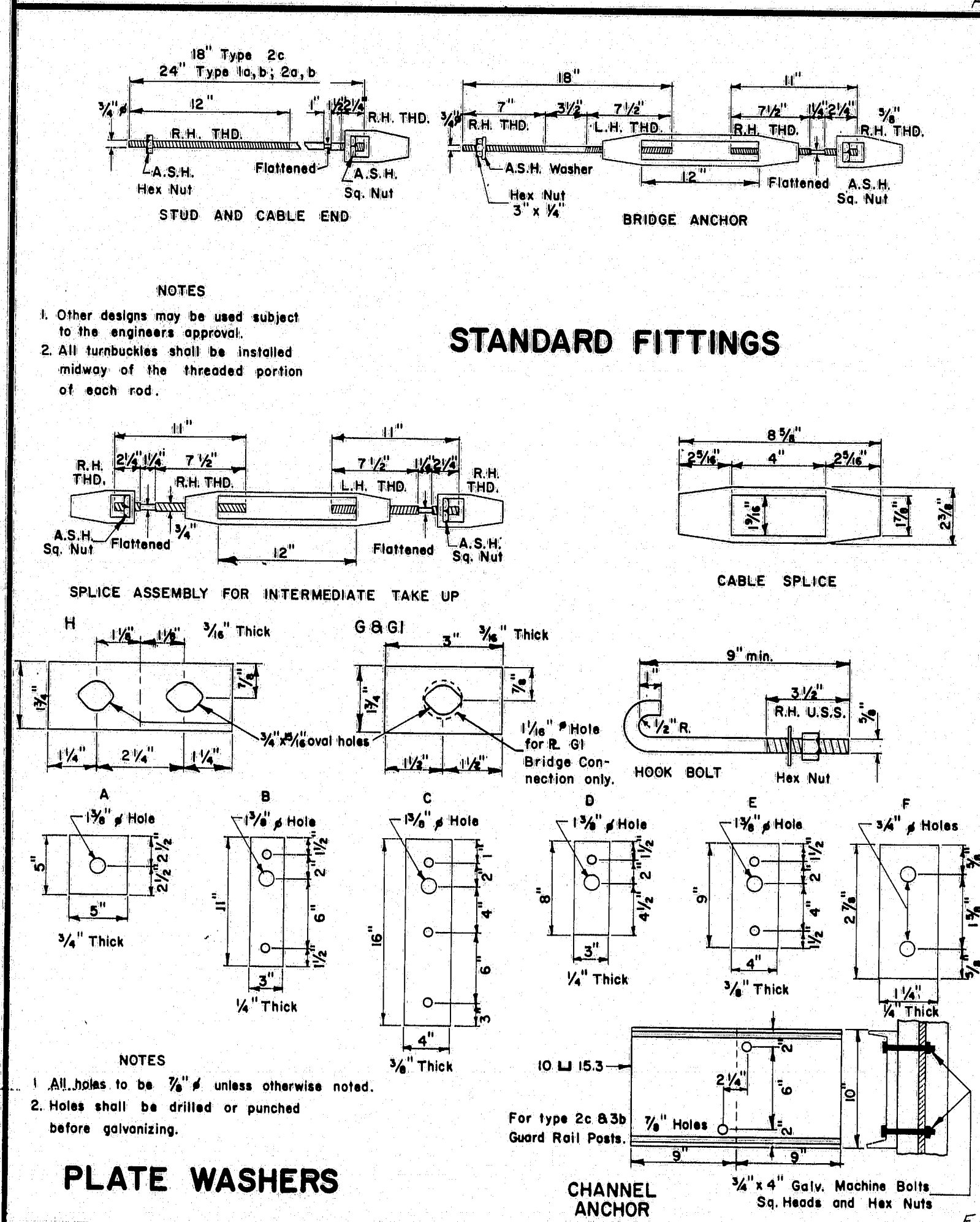
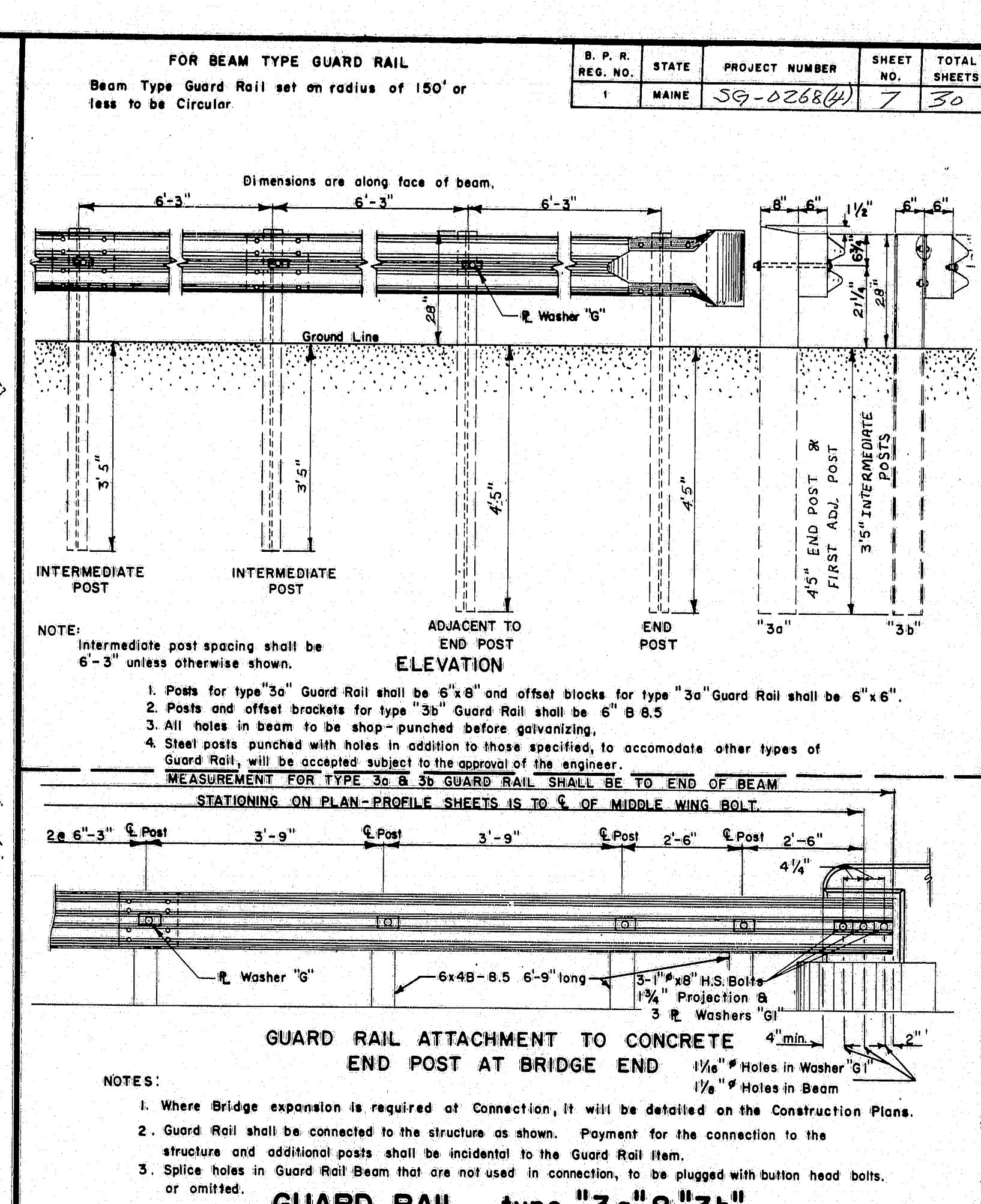
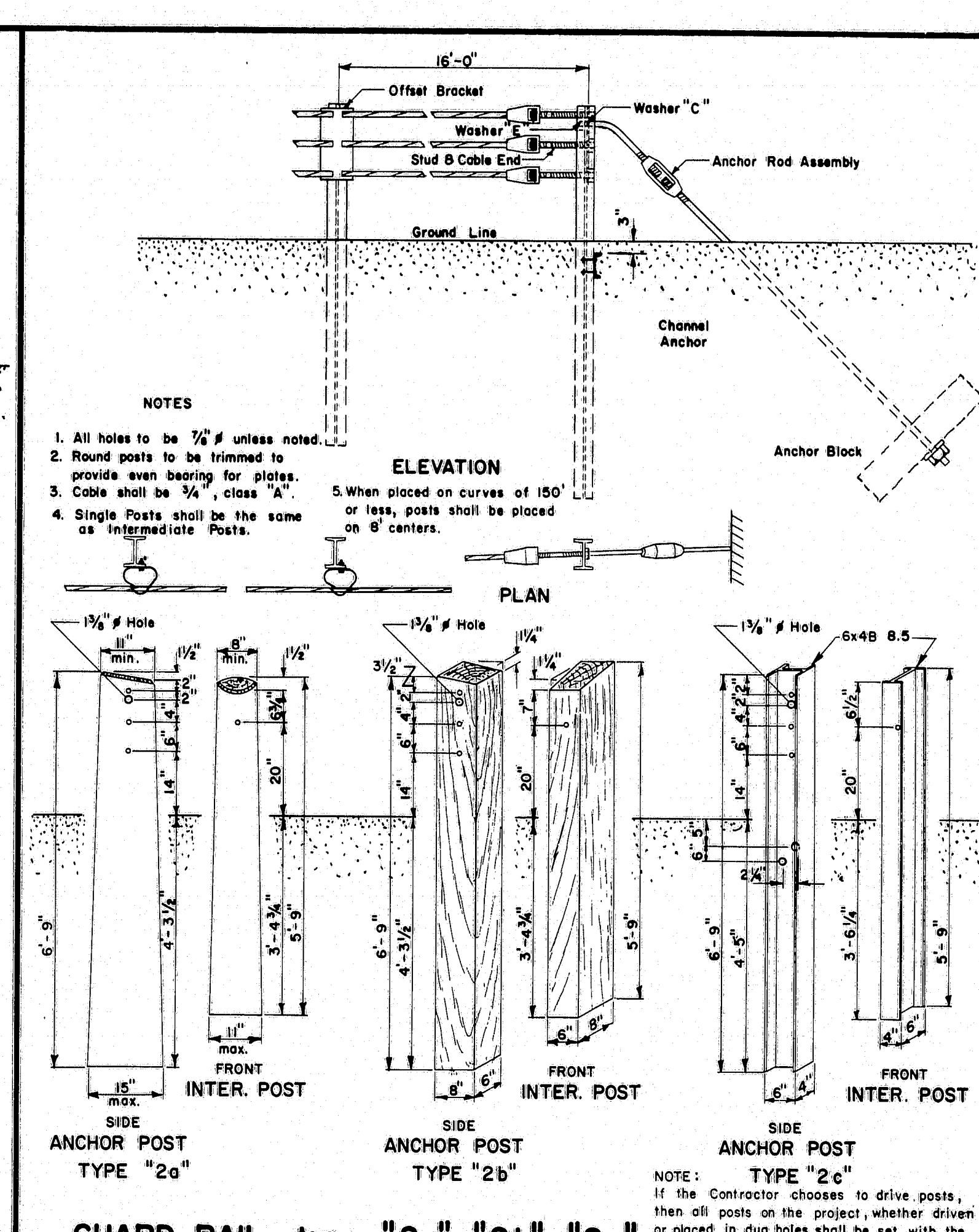
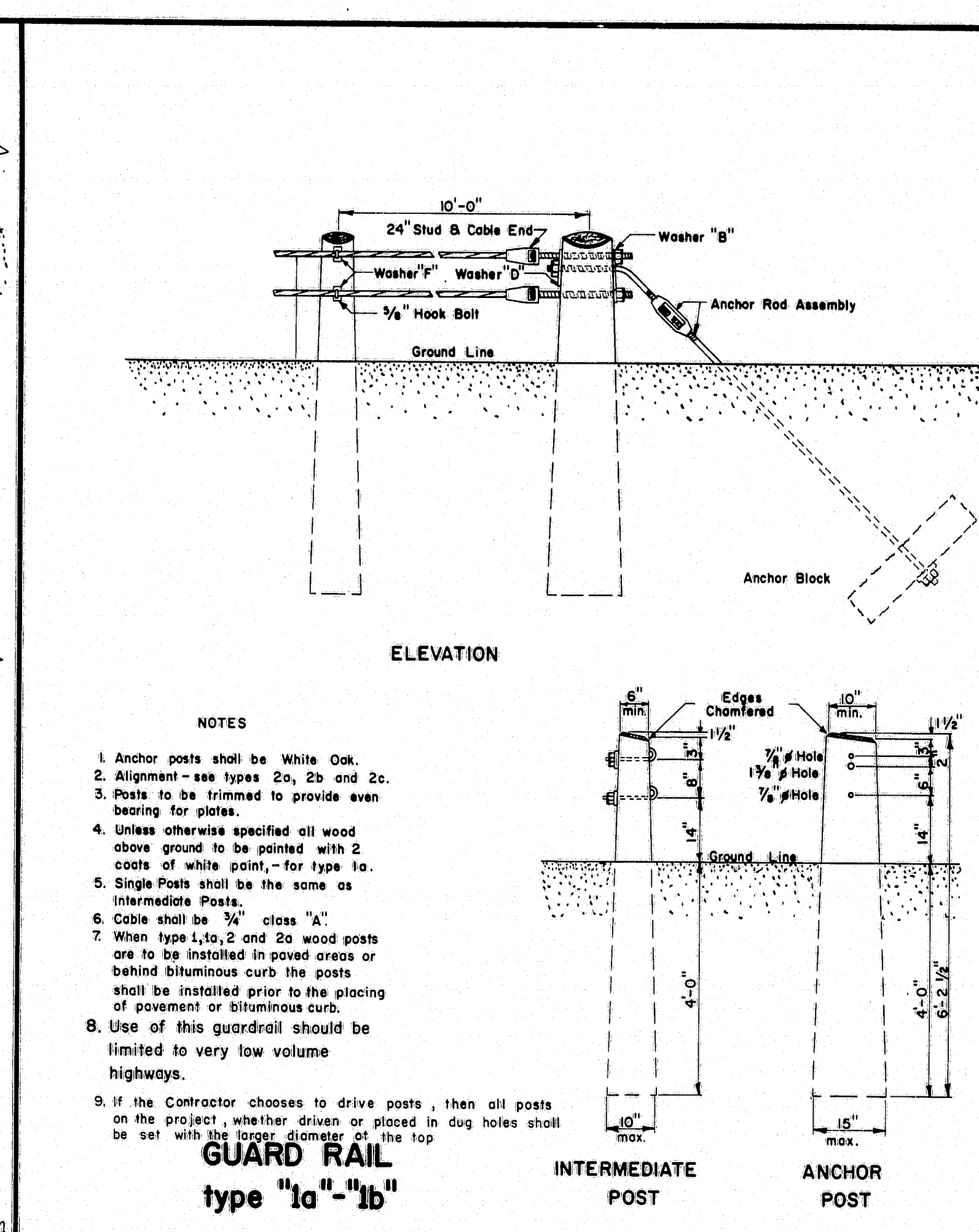
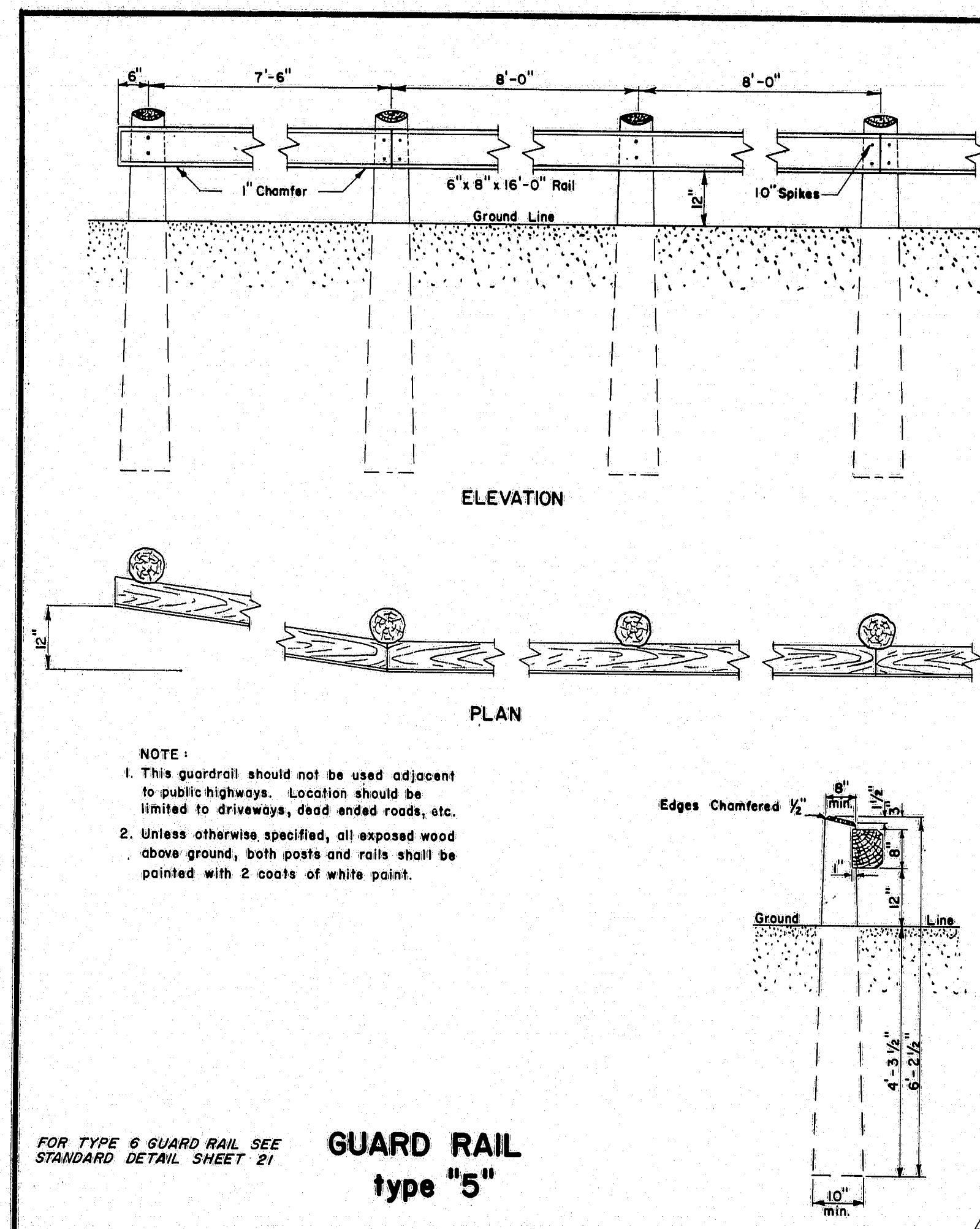
AUG. 1969

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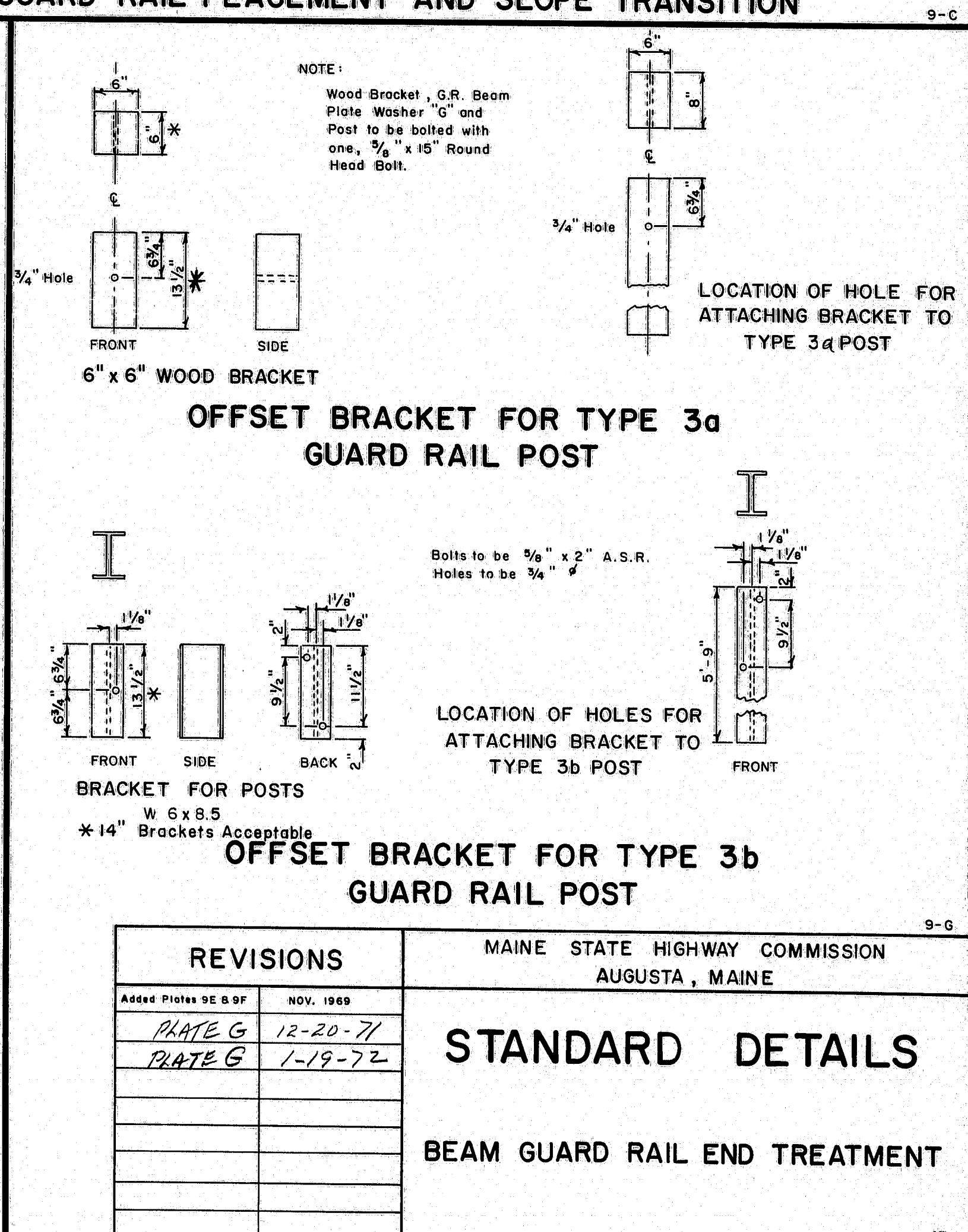
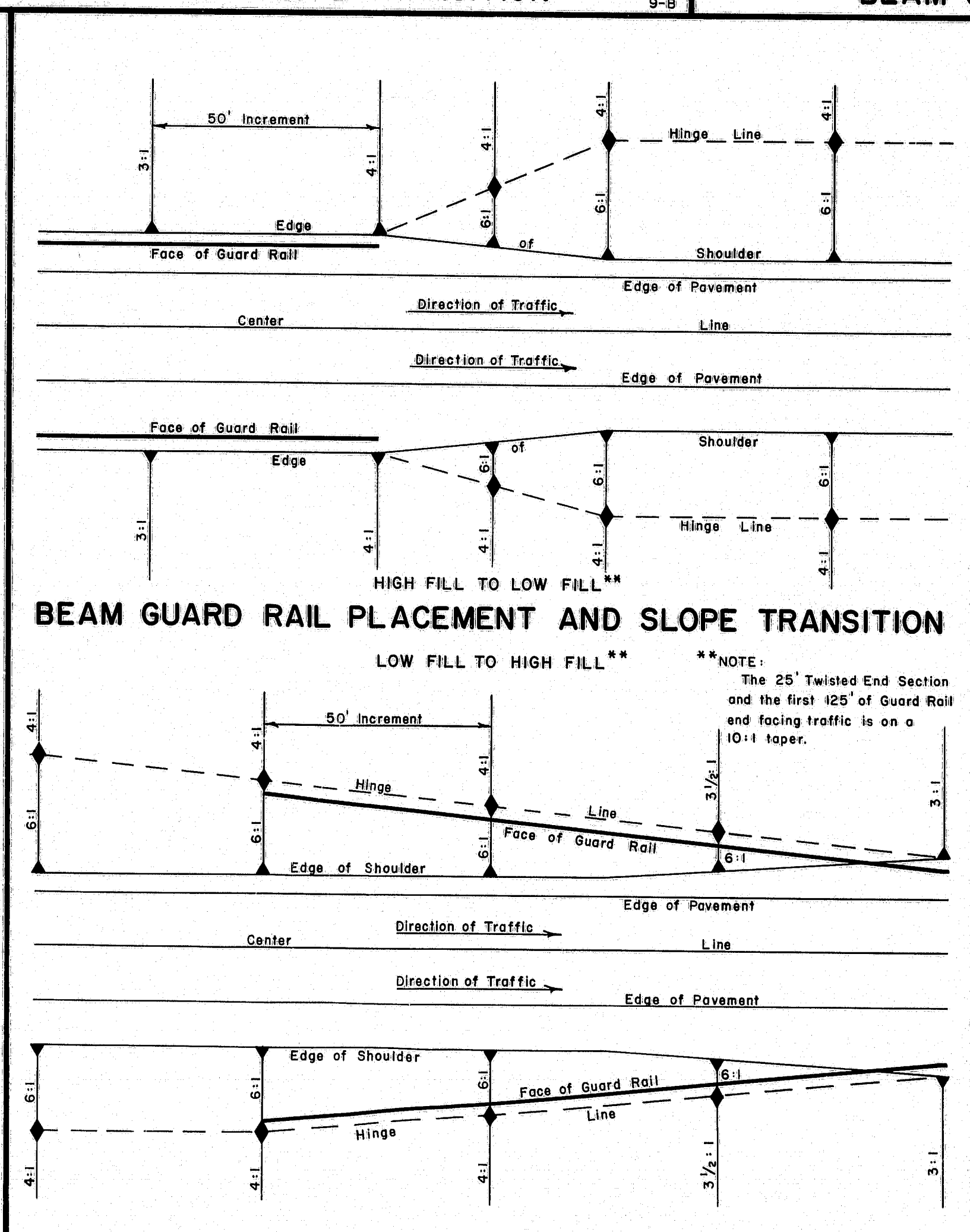
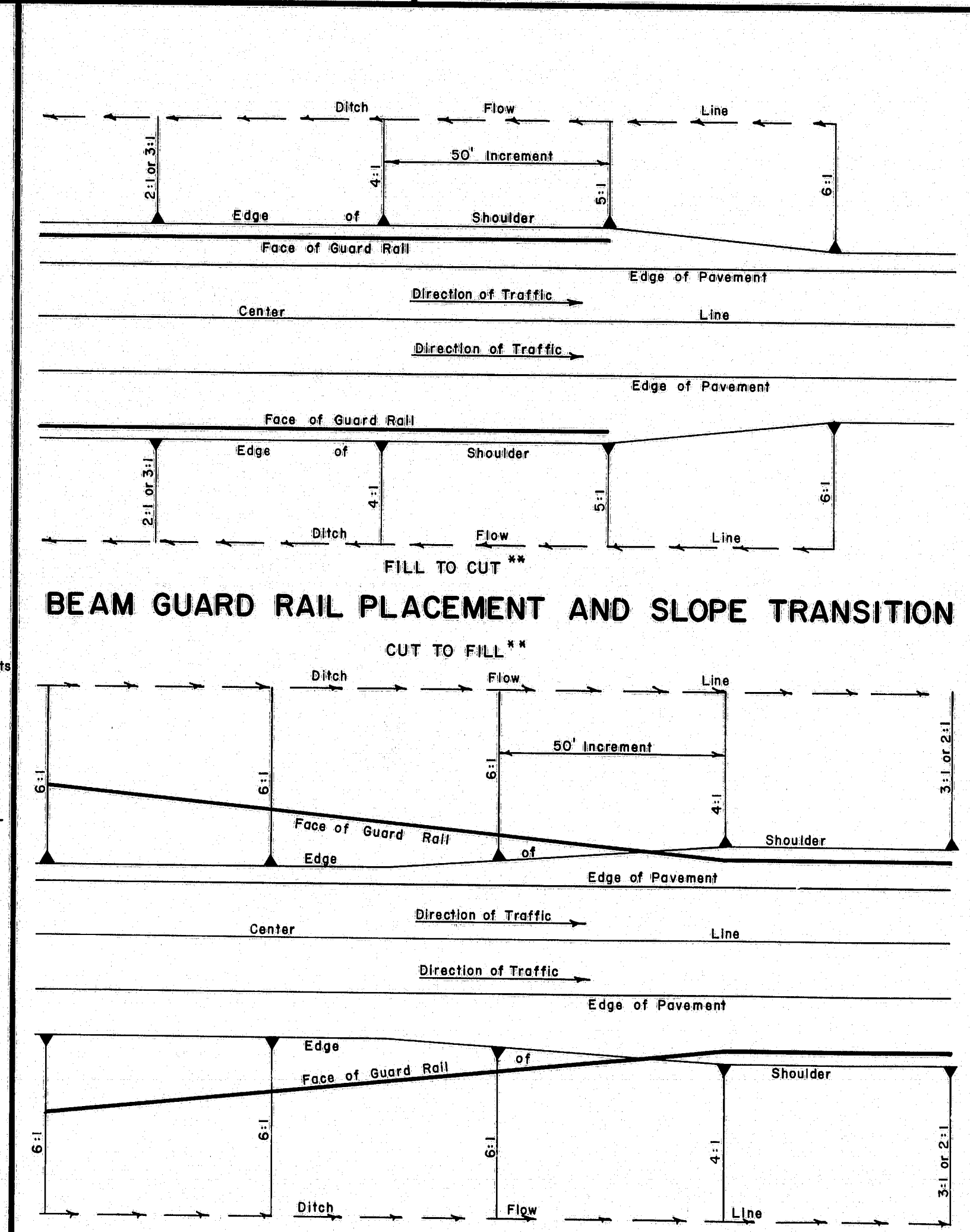
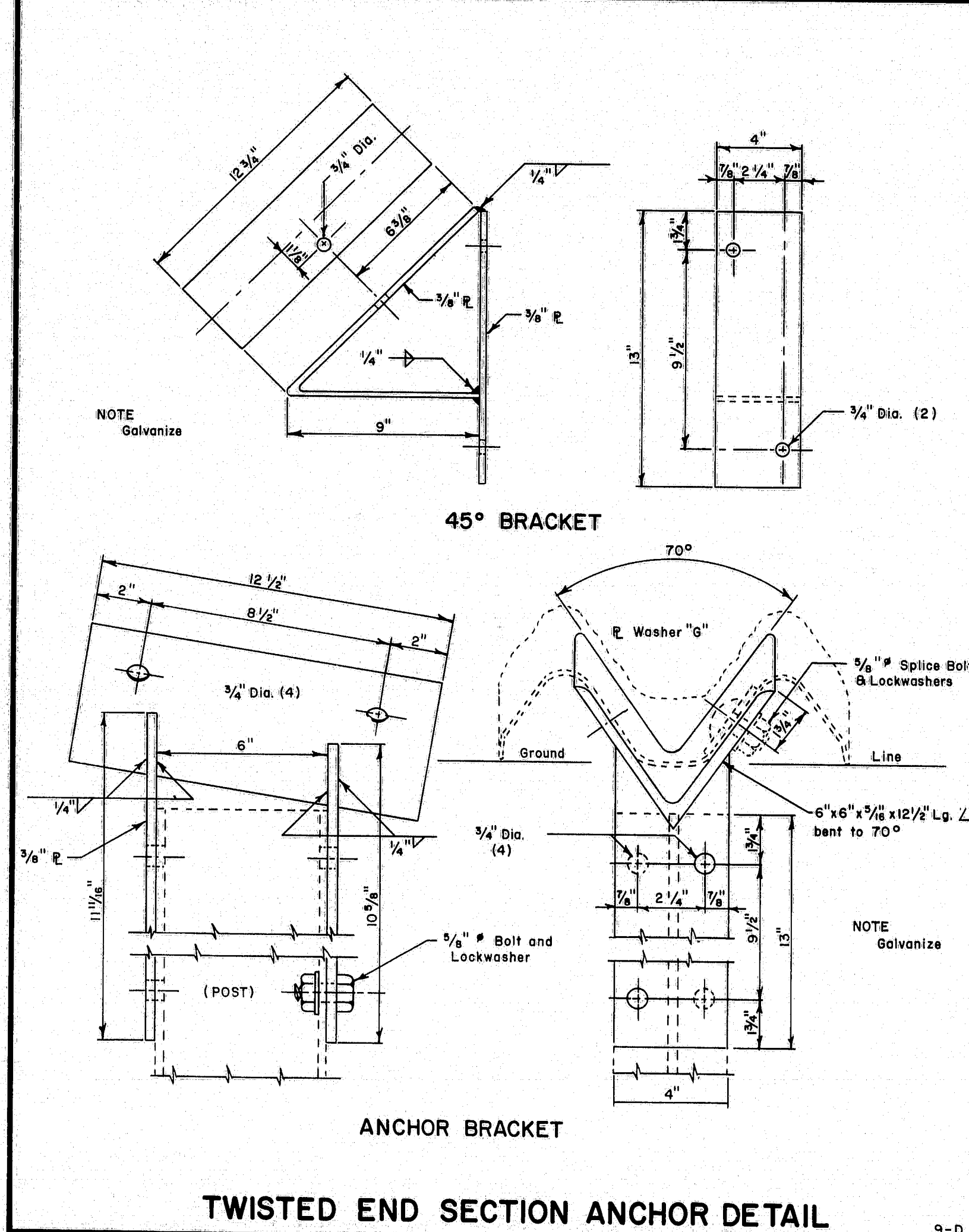
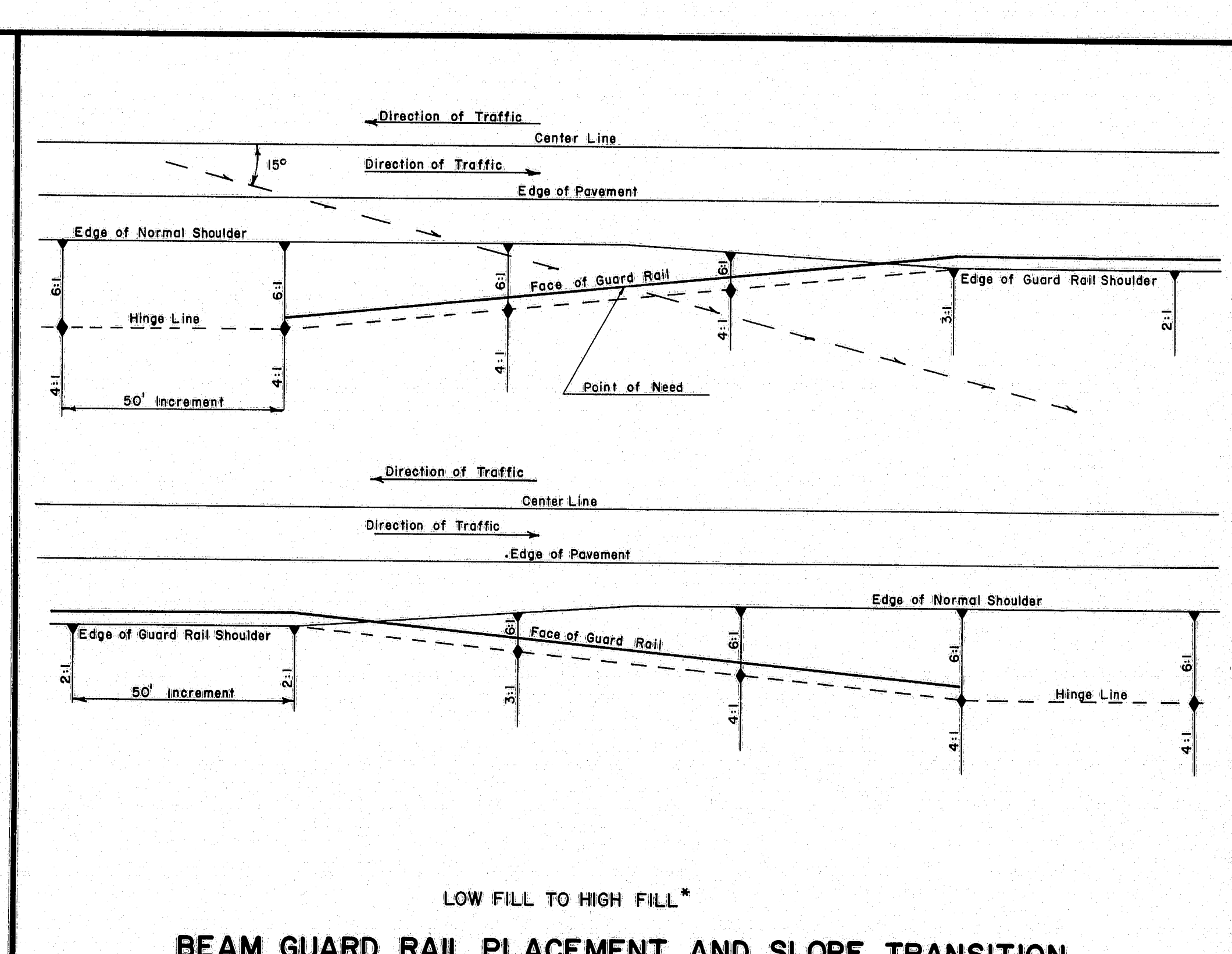
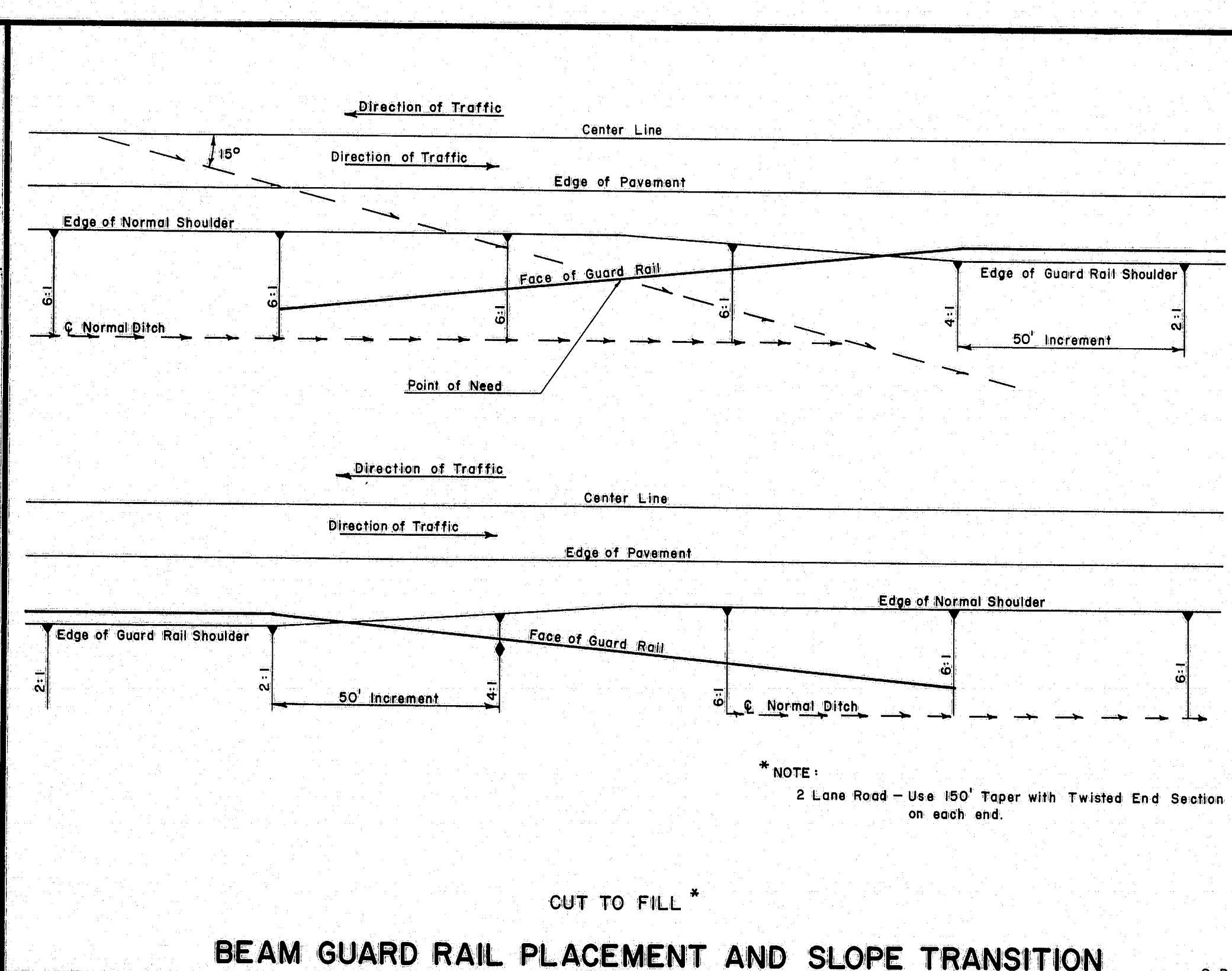
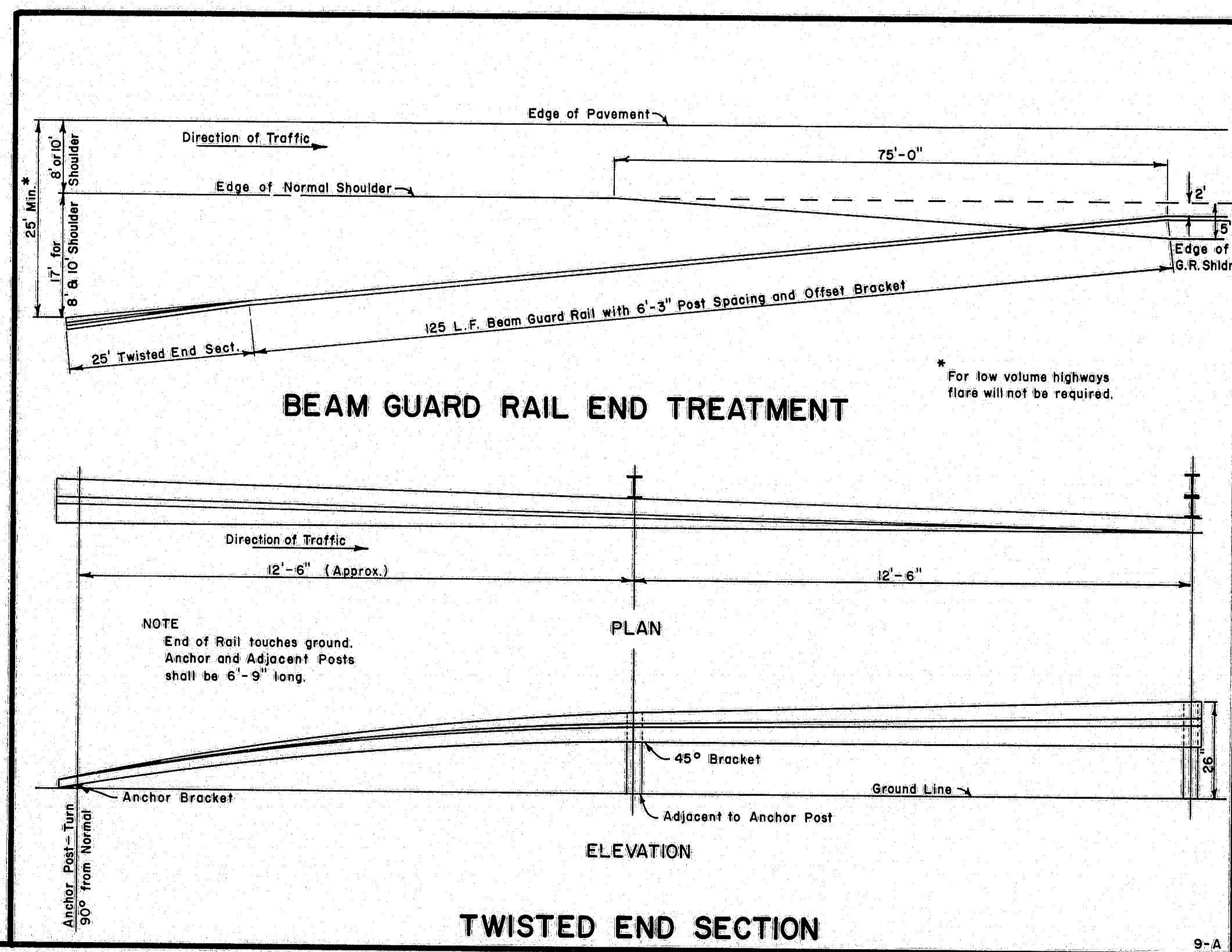






146-82

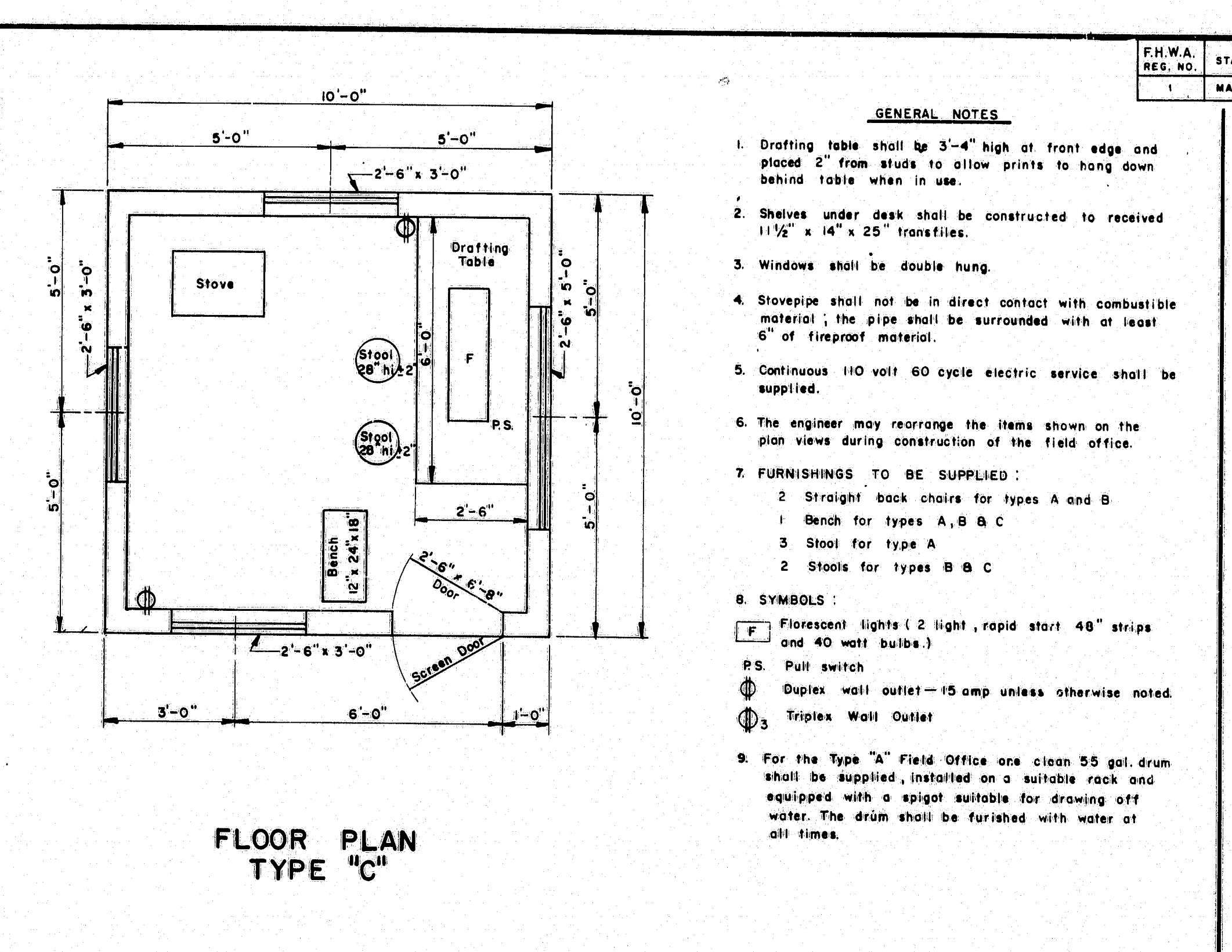
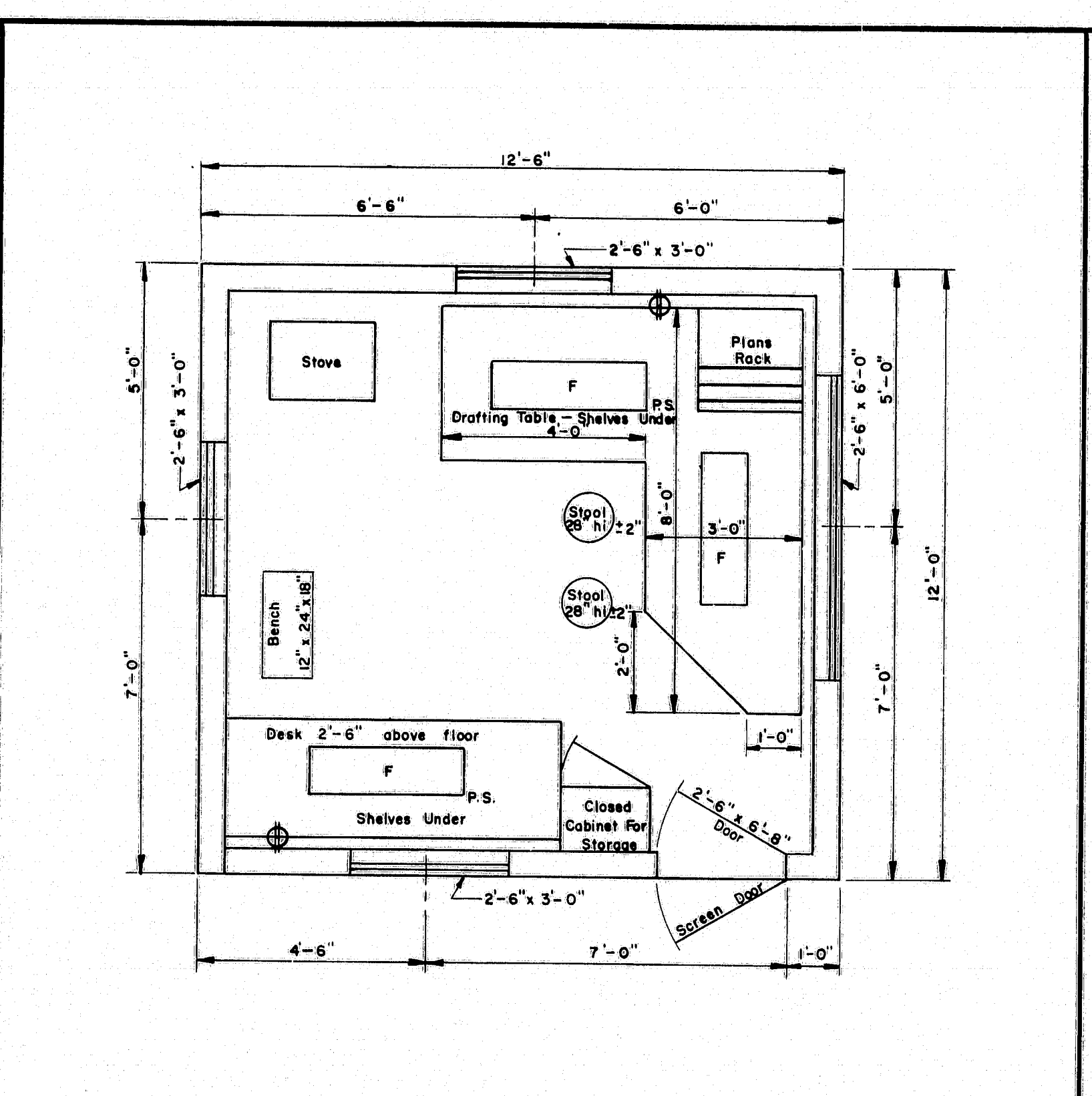
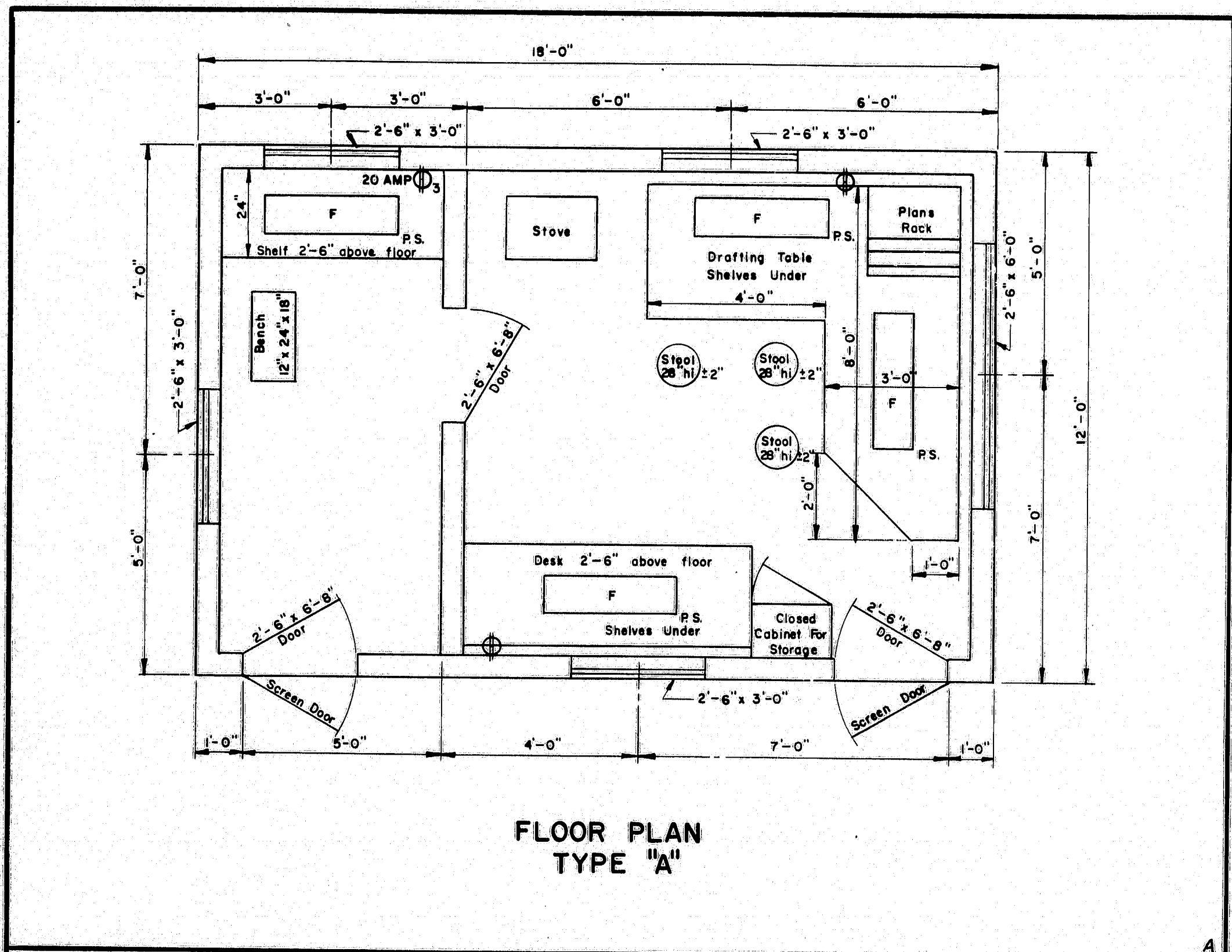






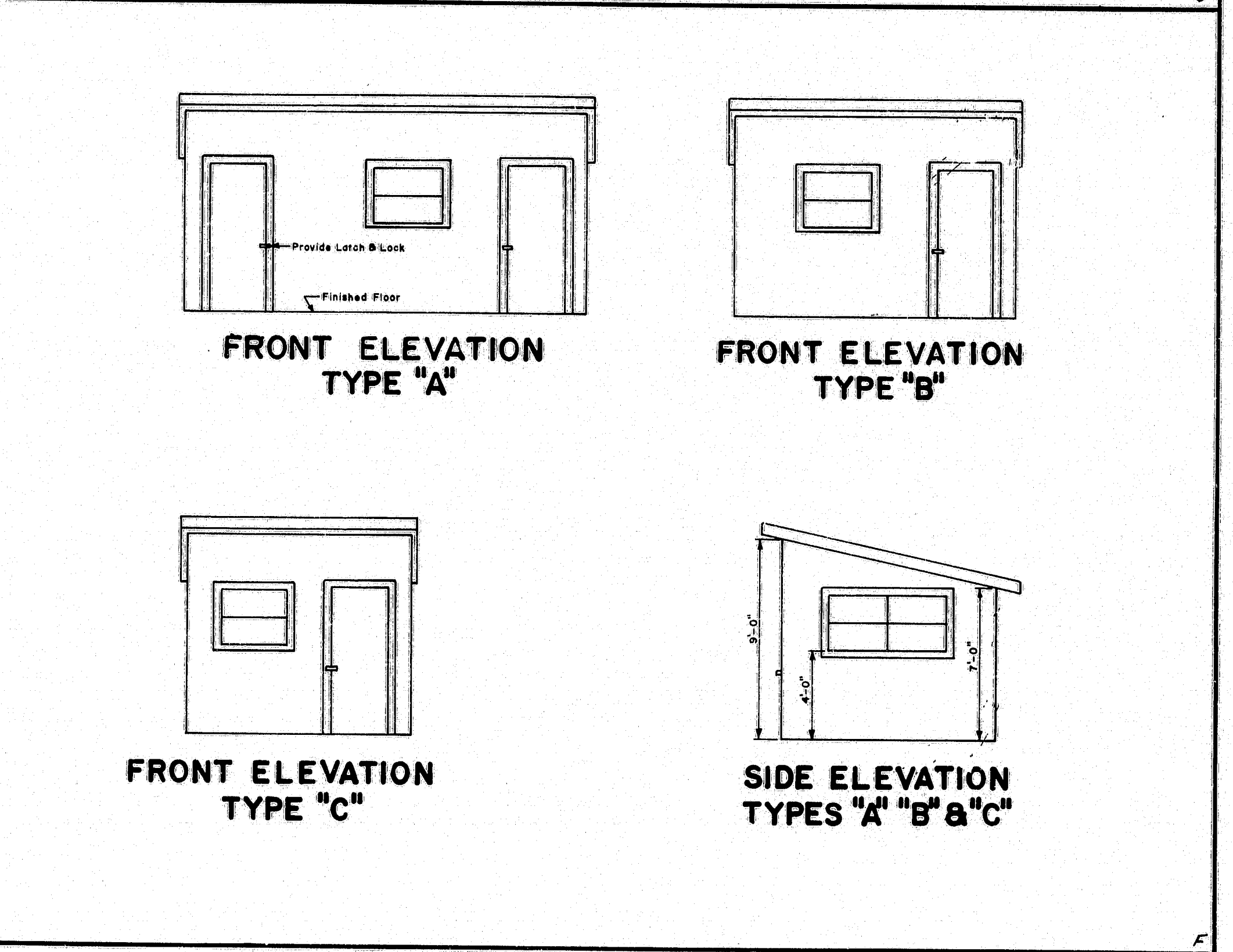
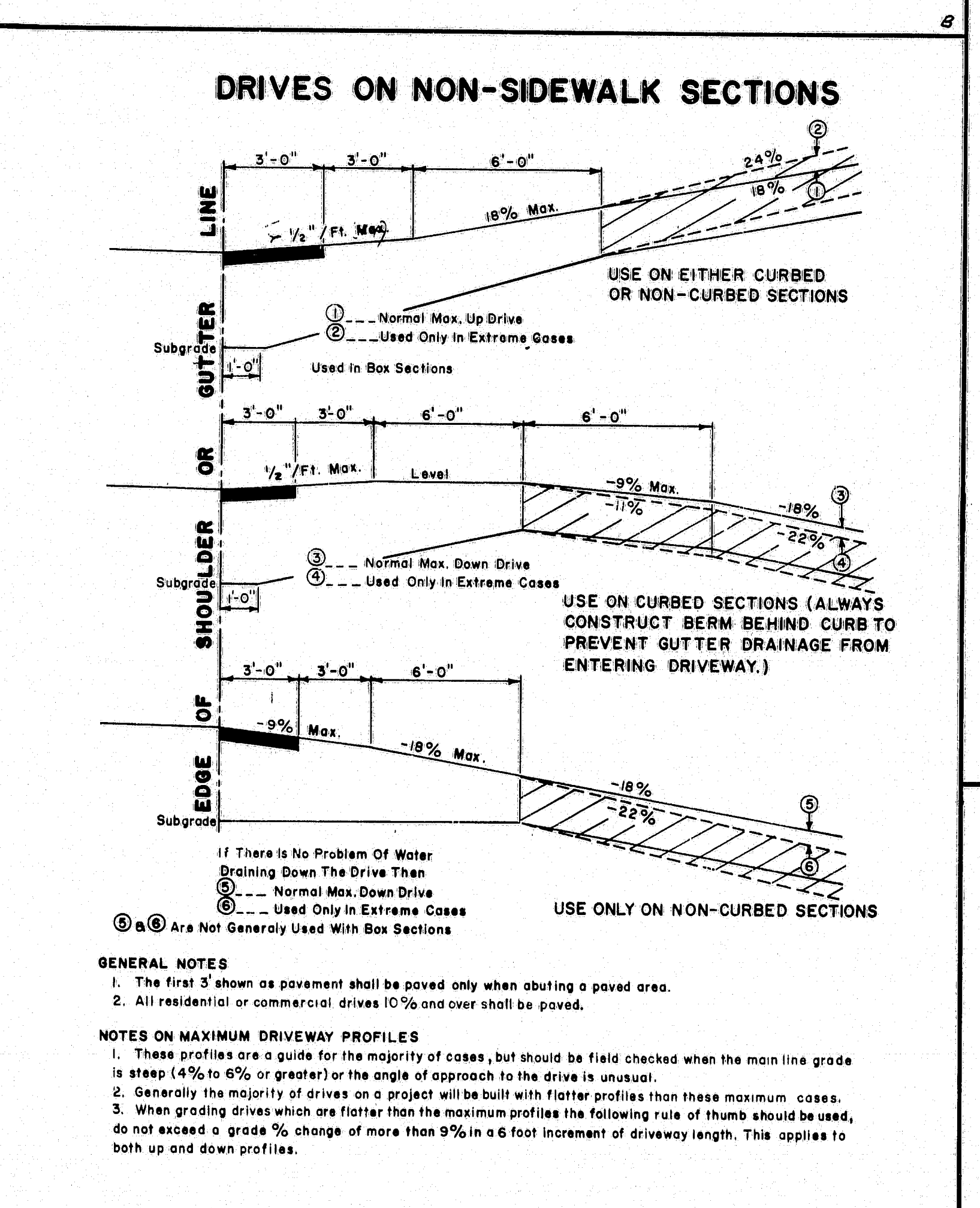
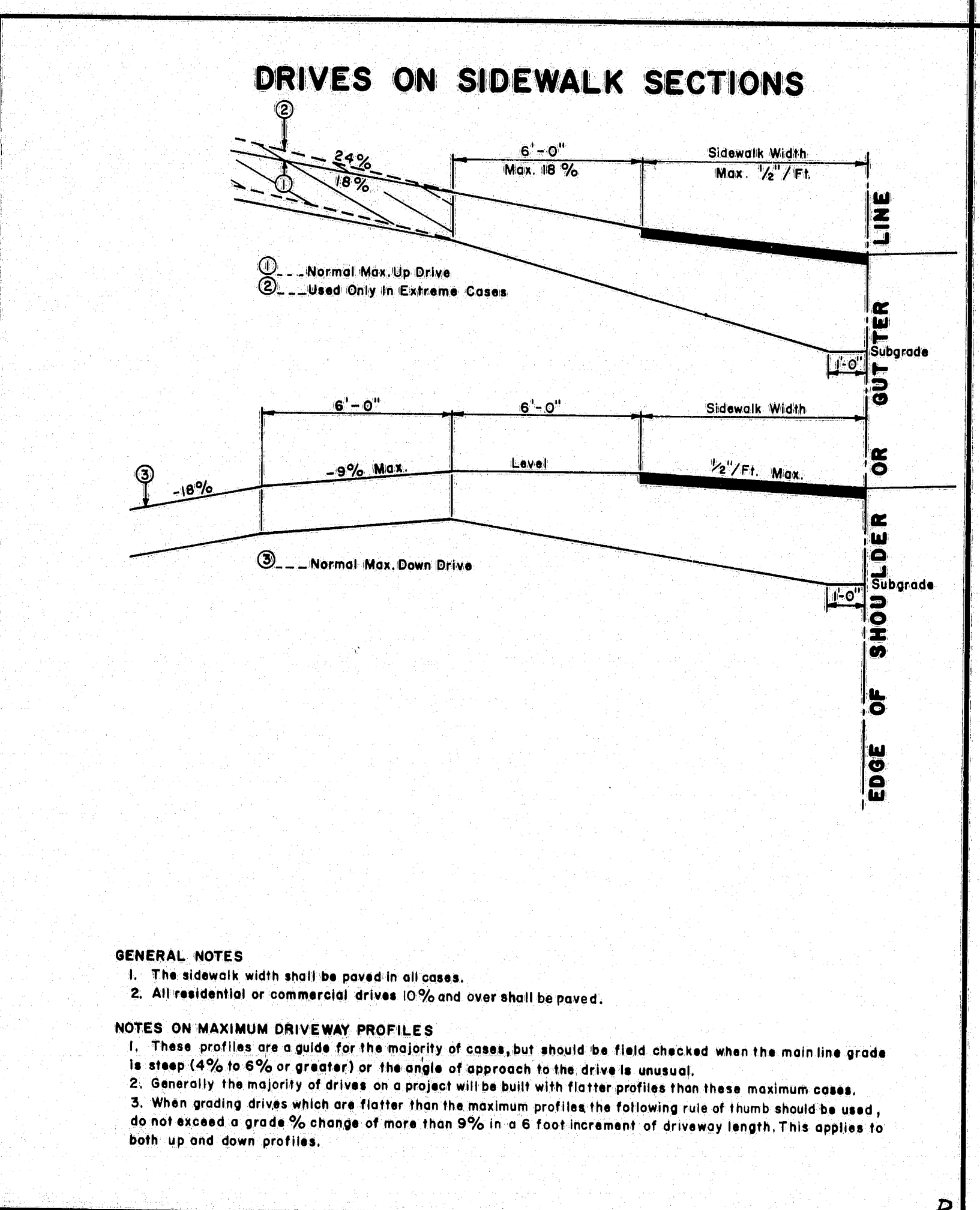






F.H.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	SG-8268(4)	7	30

- 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
    - ⊕ 3 Triplex Wall Outlet
  - For the Type "A" Field Office are clean 55 gal. drum shall be supplied, installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furnished with water at all times.



**REVISIONS**

PLATE	D'E	3-16-73

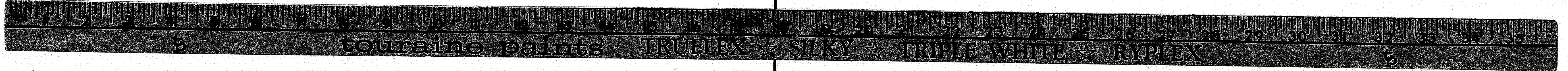
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AUGUSTA, MAINE

**STANDARD DETAILS**

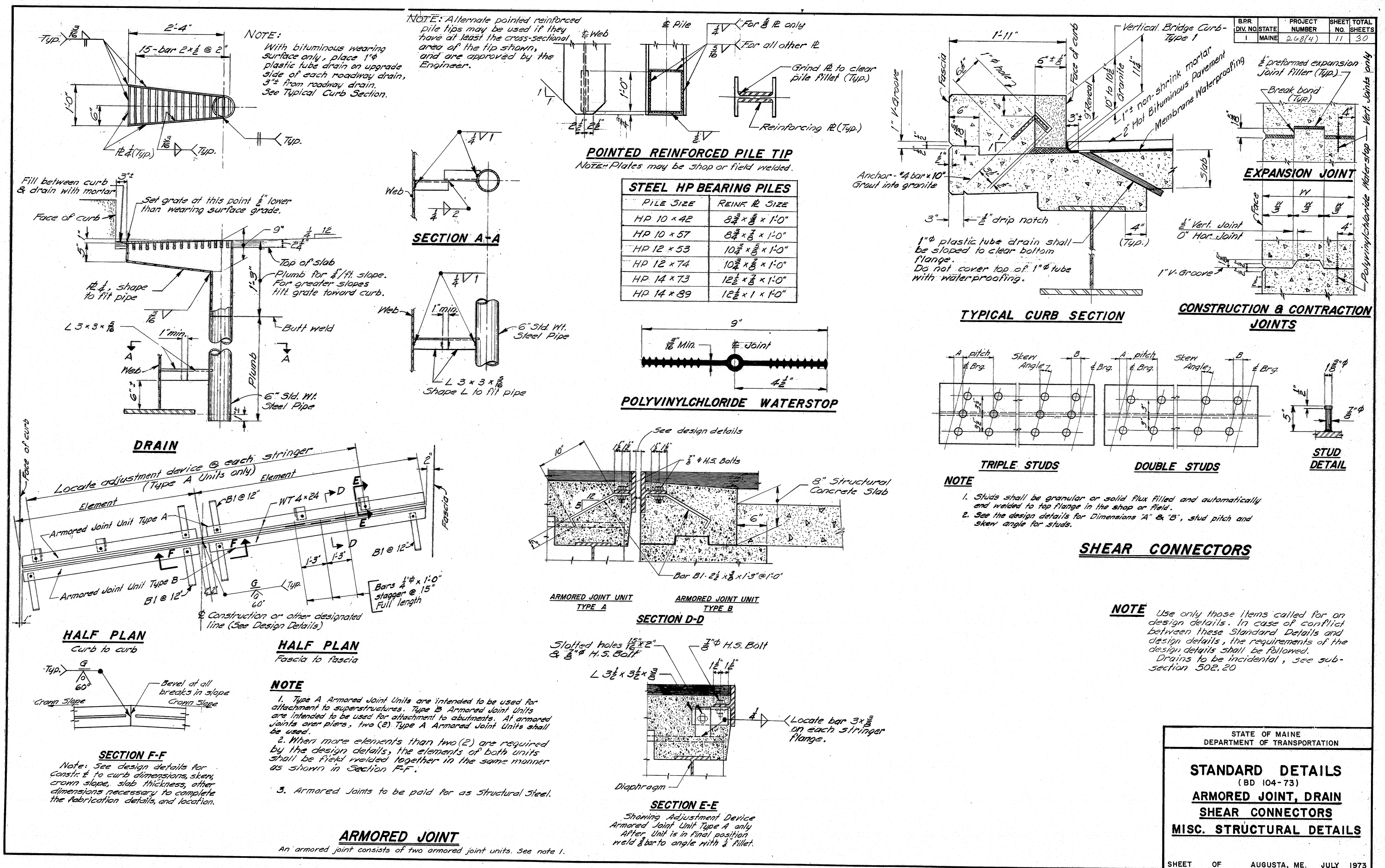
DRIVEWAY DETAILS  
FIELD OFFICES  
TESTING LABORATORY

AUG. 1969

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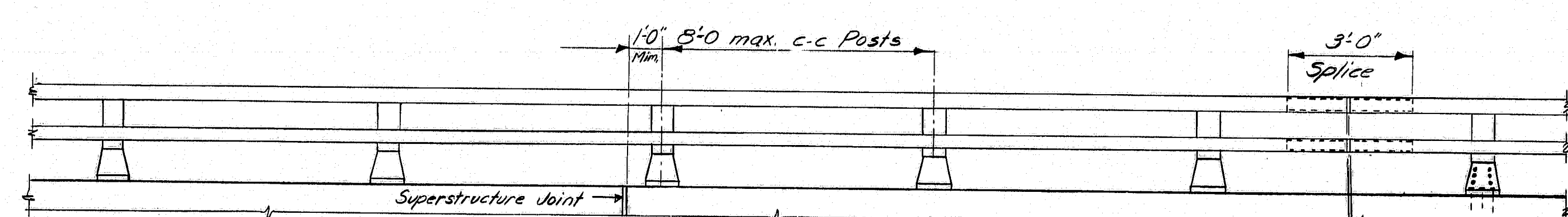






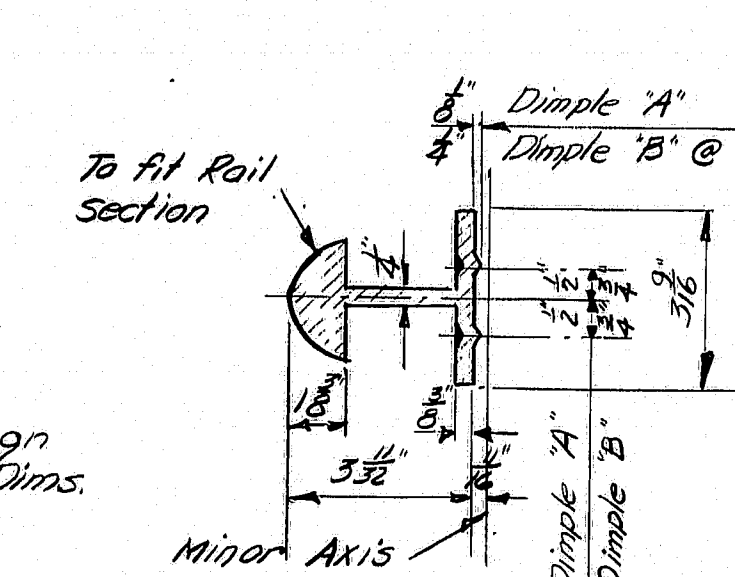
F.R.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	268(4)	12	30

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

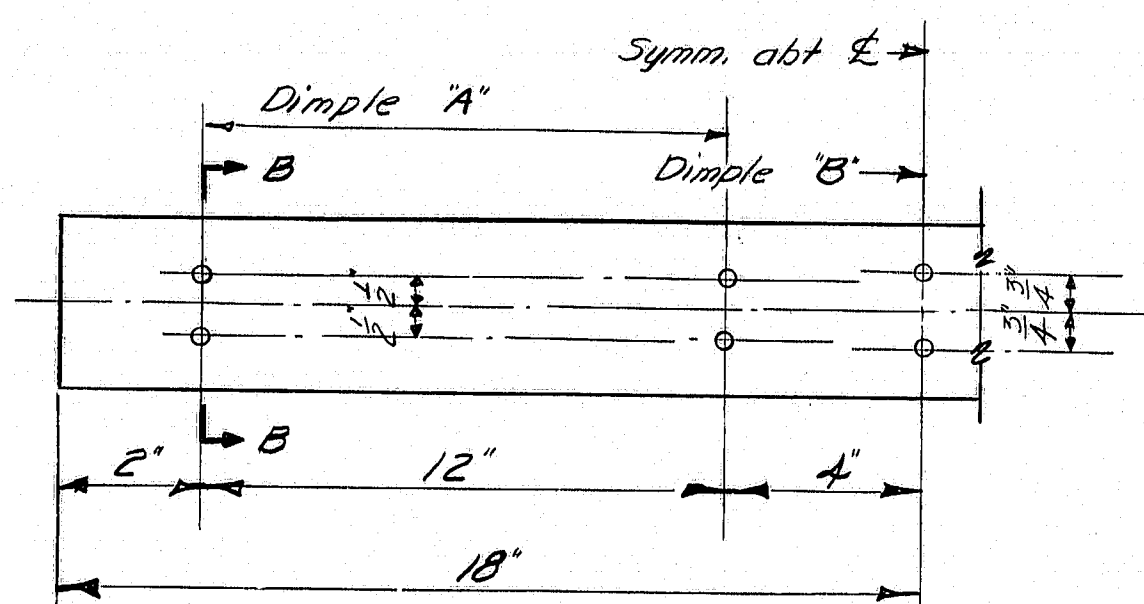


**RAIL - ELEVATION**

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.

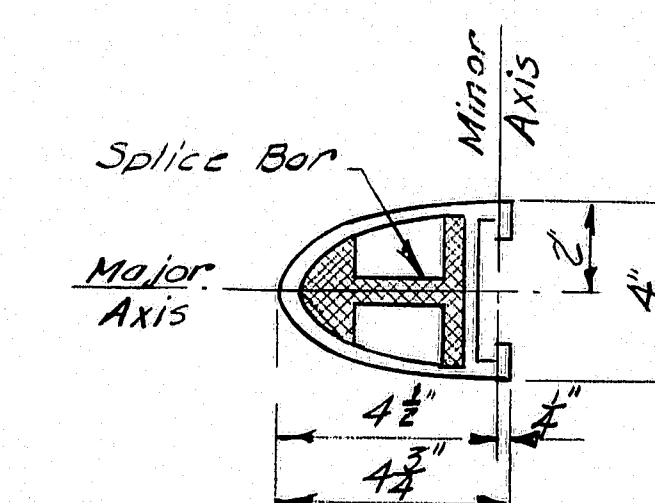


**SECTION B-B**

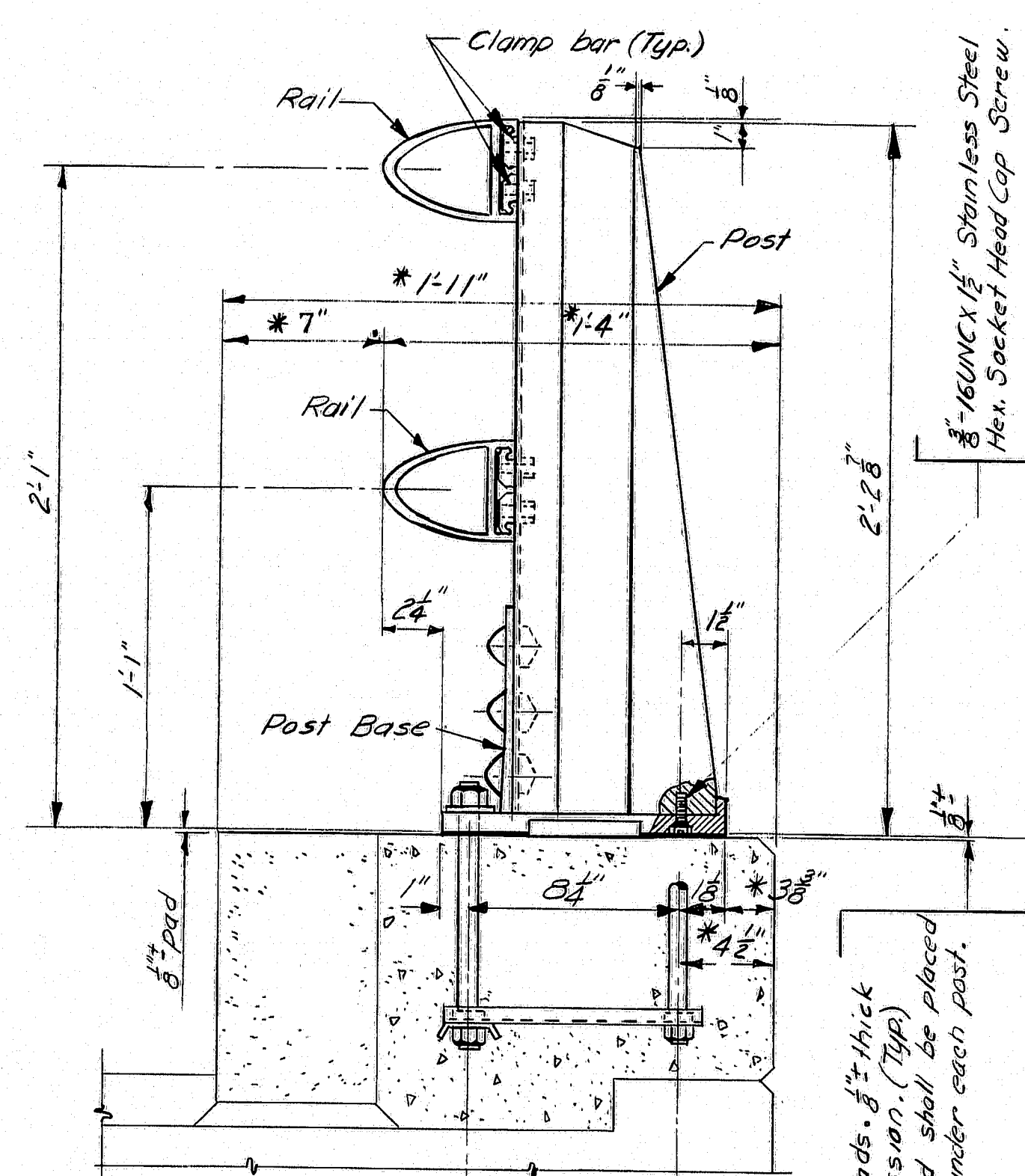


**SPLICE BAR**

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

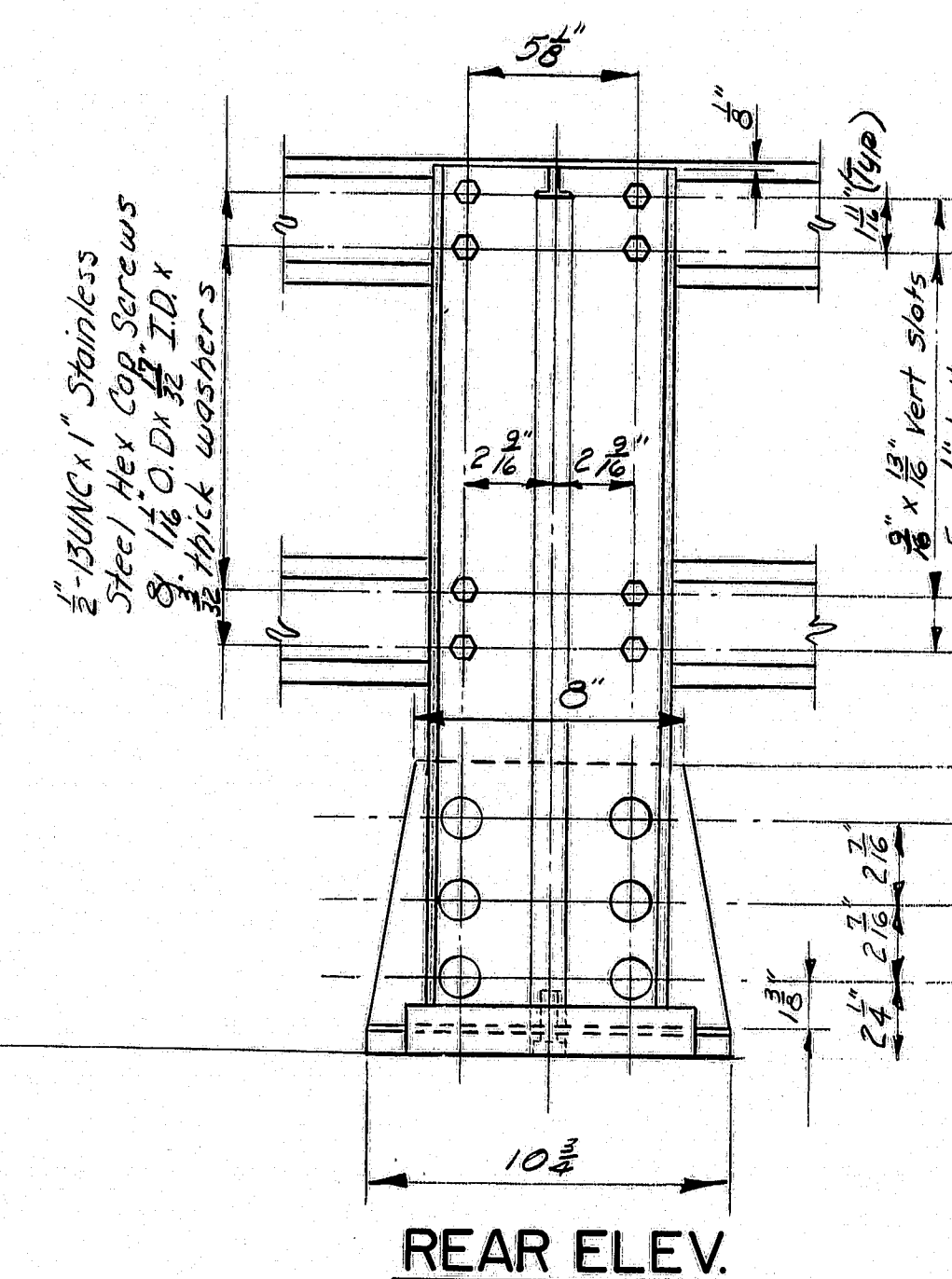


**RAIL SECTION**  
See "Rail Detail"

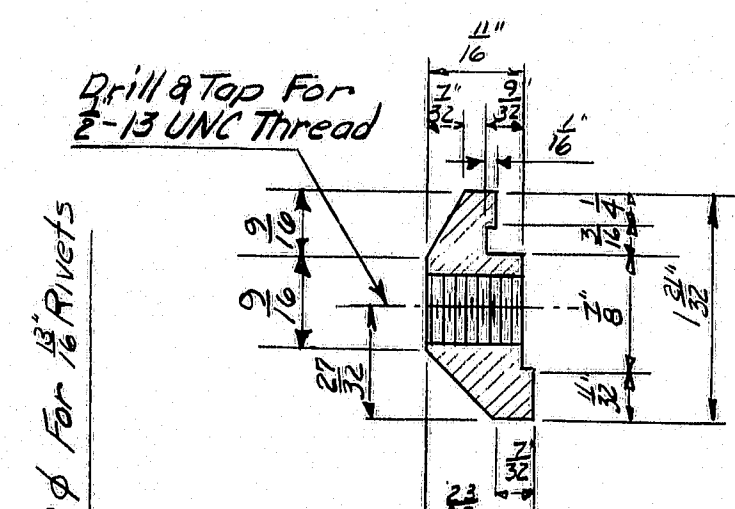


**BRIDGE RAIL (Assembly)**

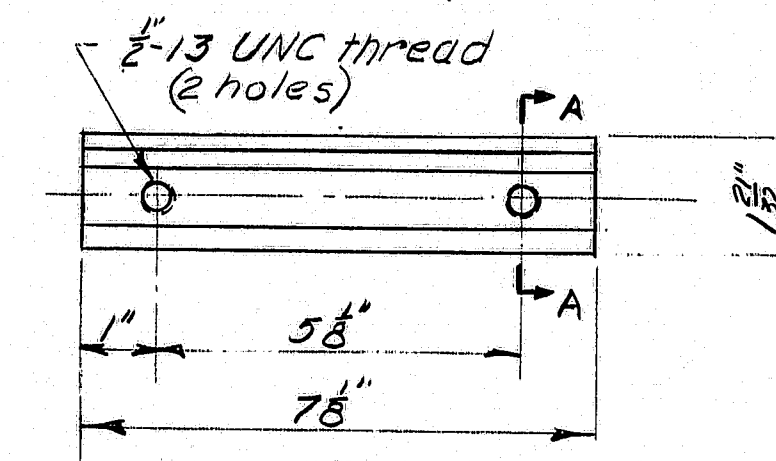
\* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



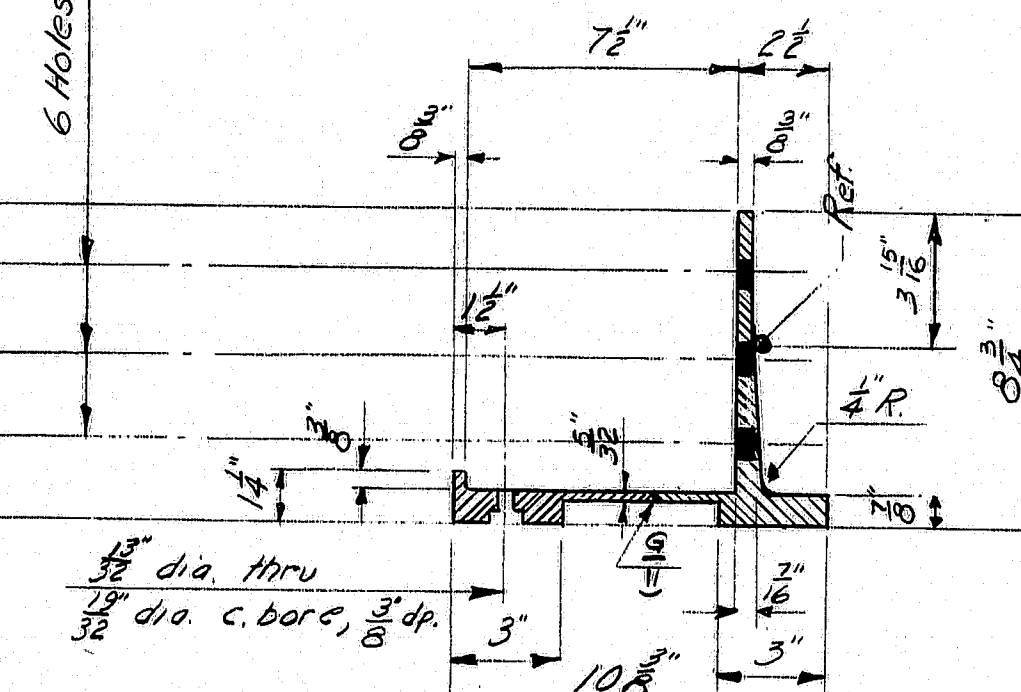
**REAR ELEV.**



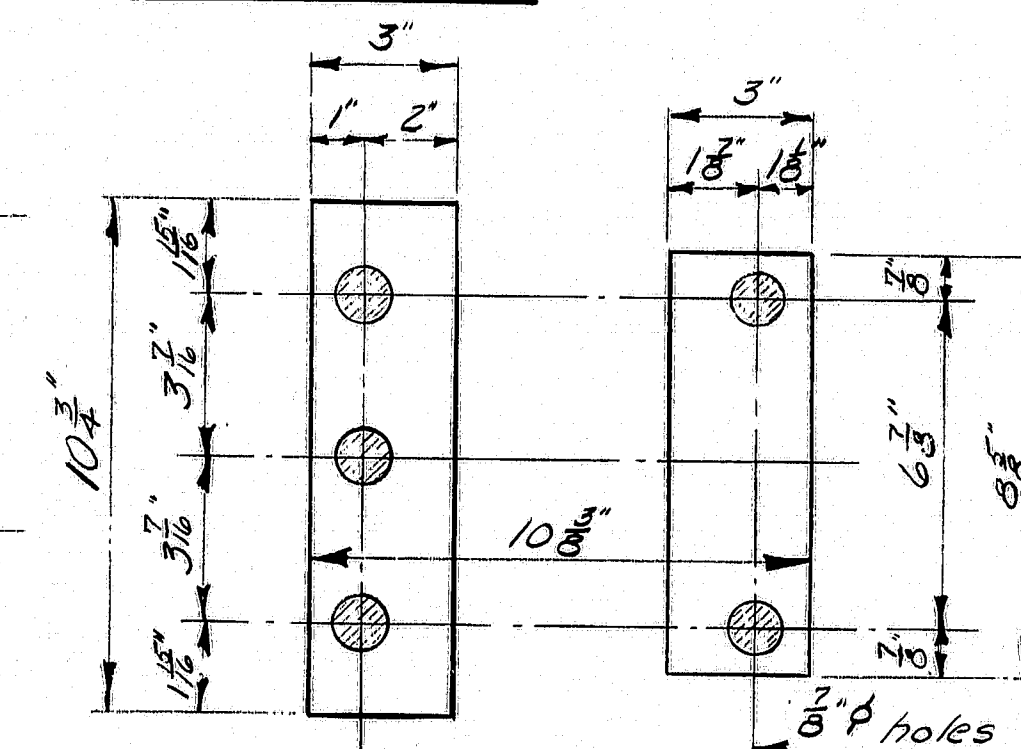
**SECTION A-A**



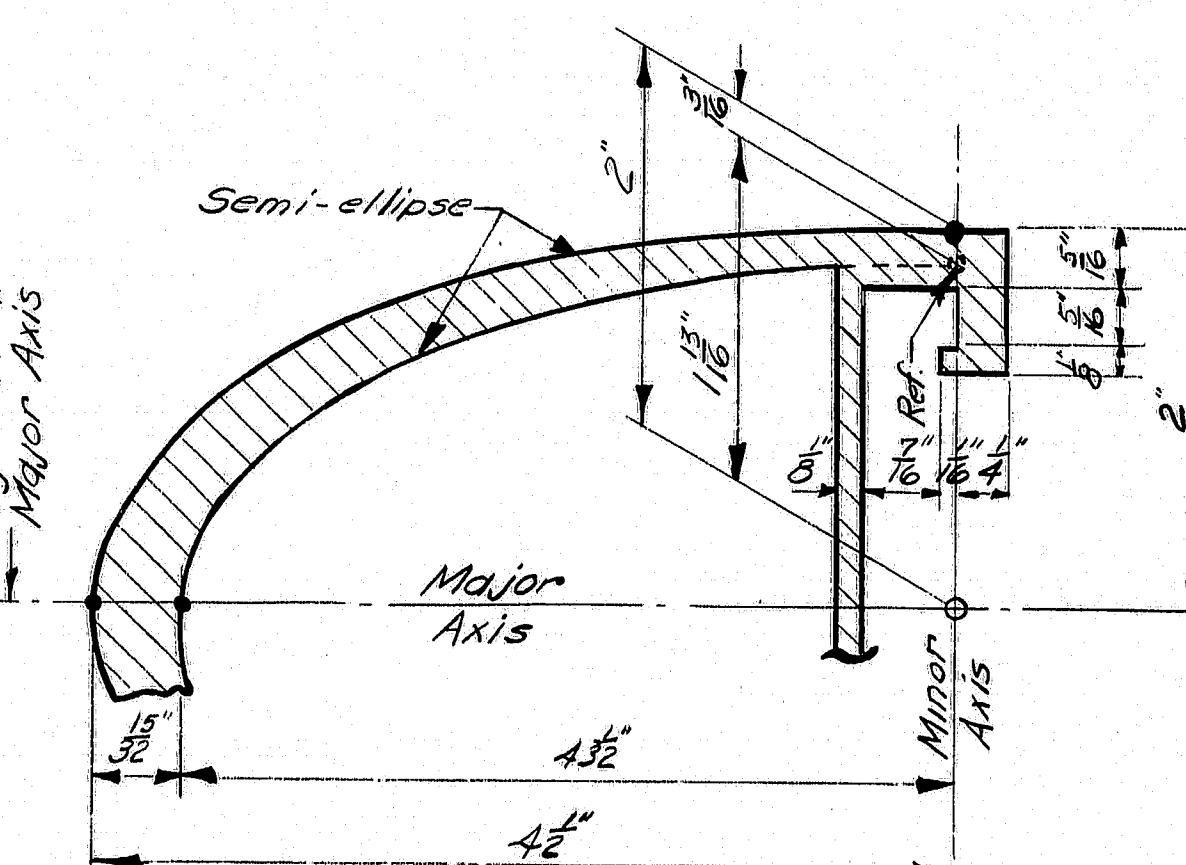
**CLAMP BAR**



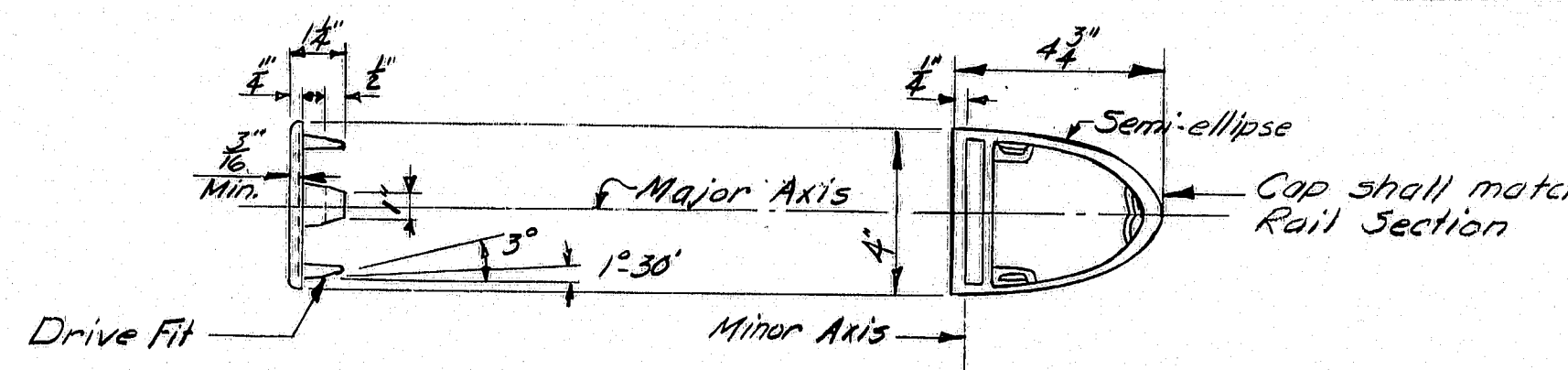
**POST BASE SECTION**



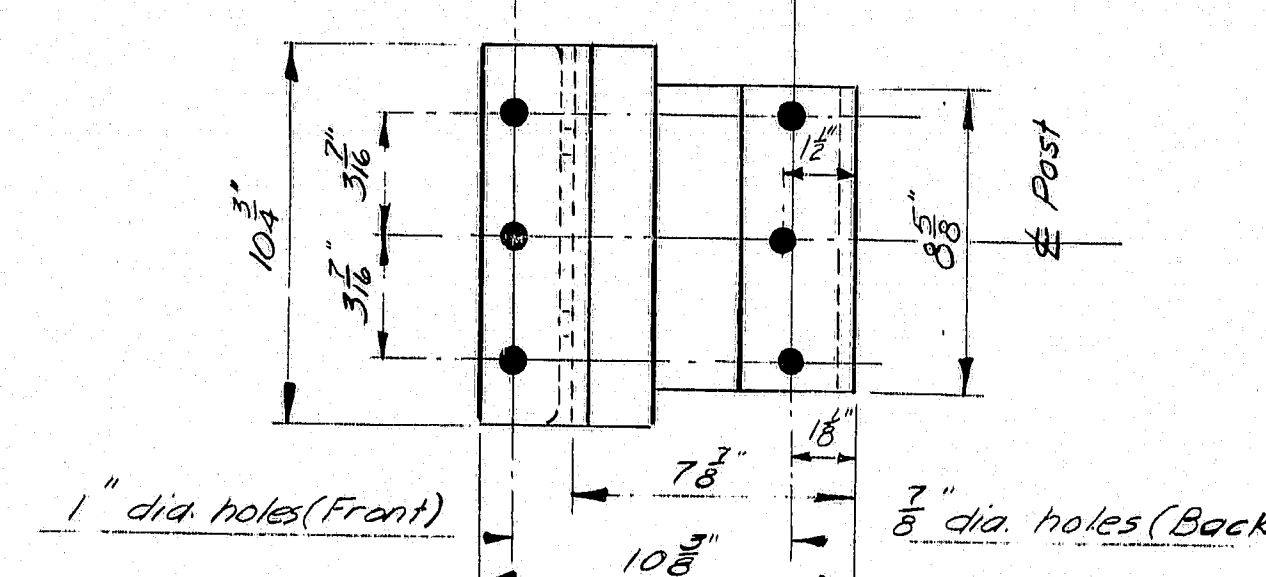
**PREFORMED PADS**



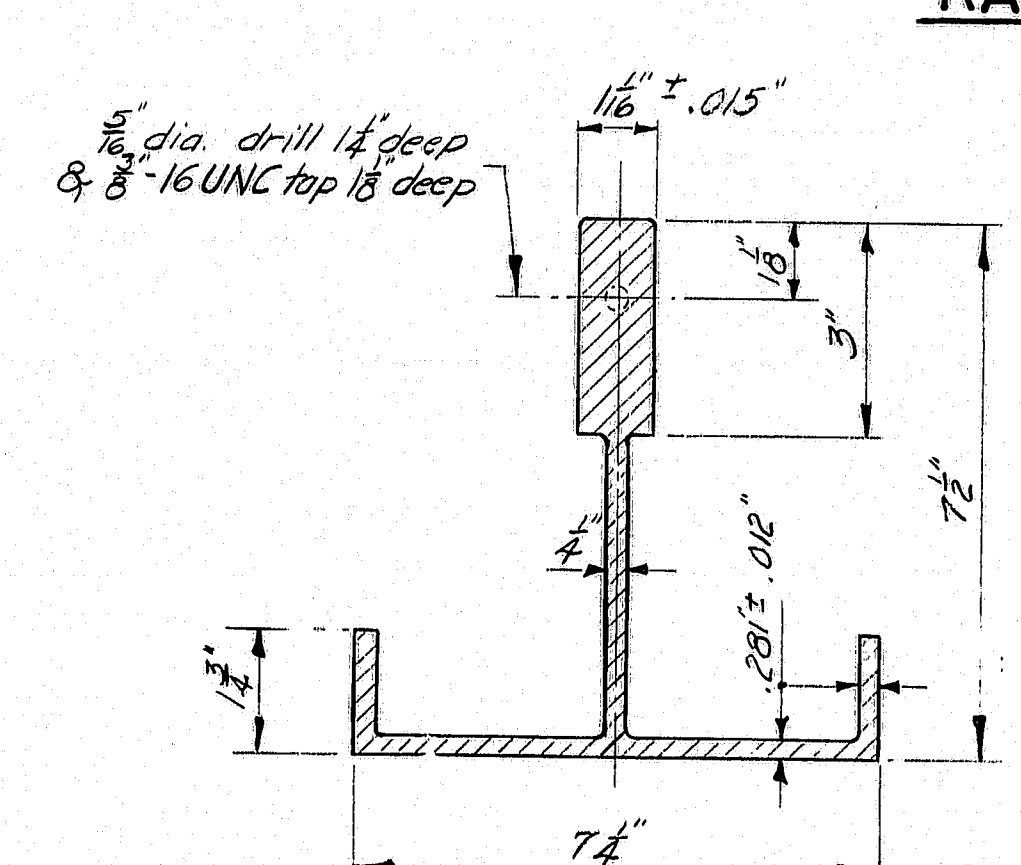
**RAIL DETAIL**



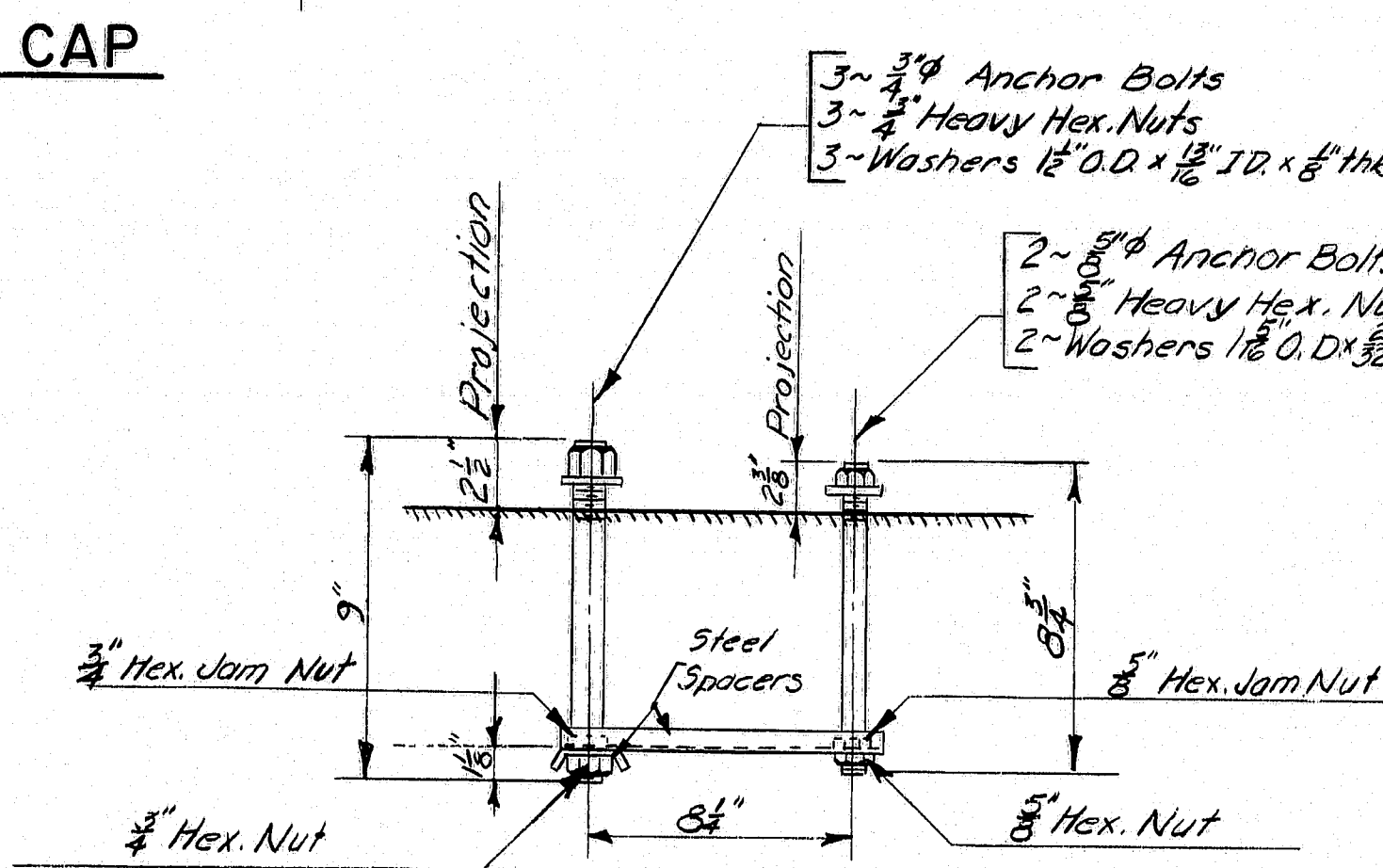
**RAIL CAP**



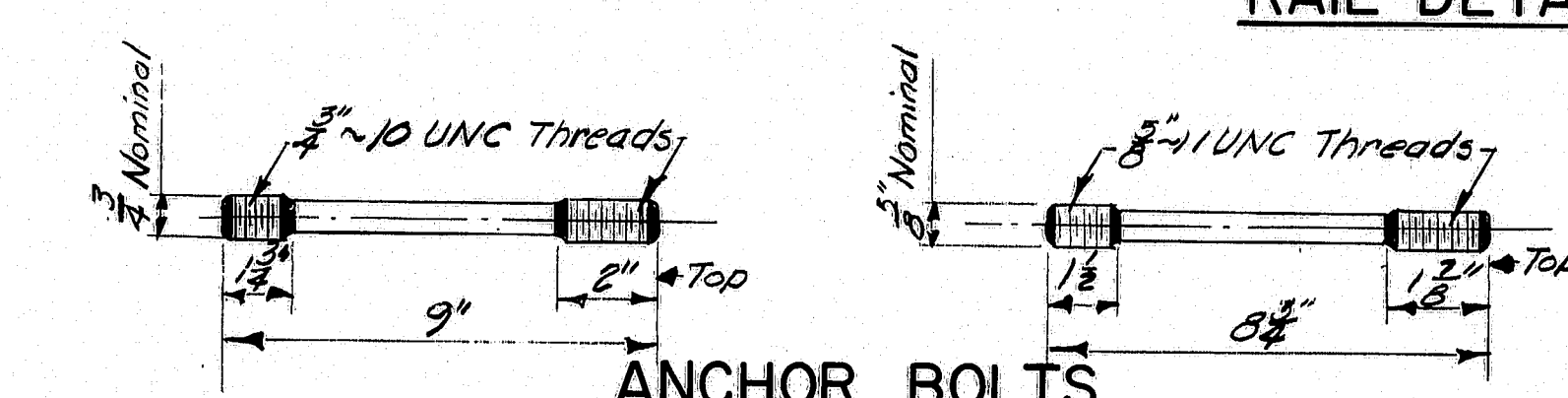
**POST BASE (Bottom View)**



**POST SECTION**

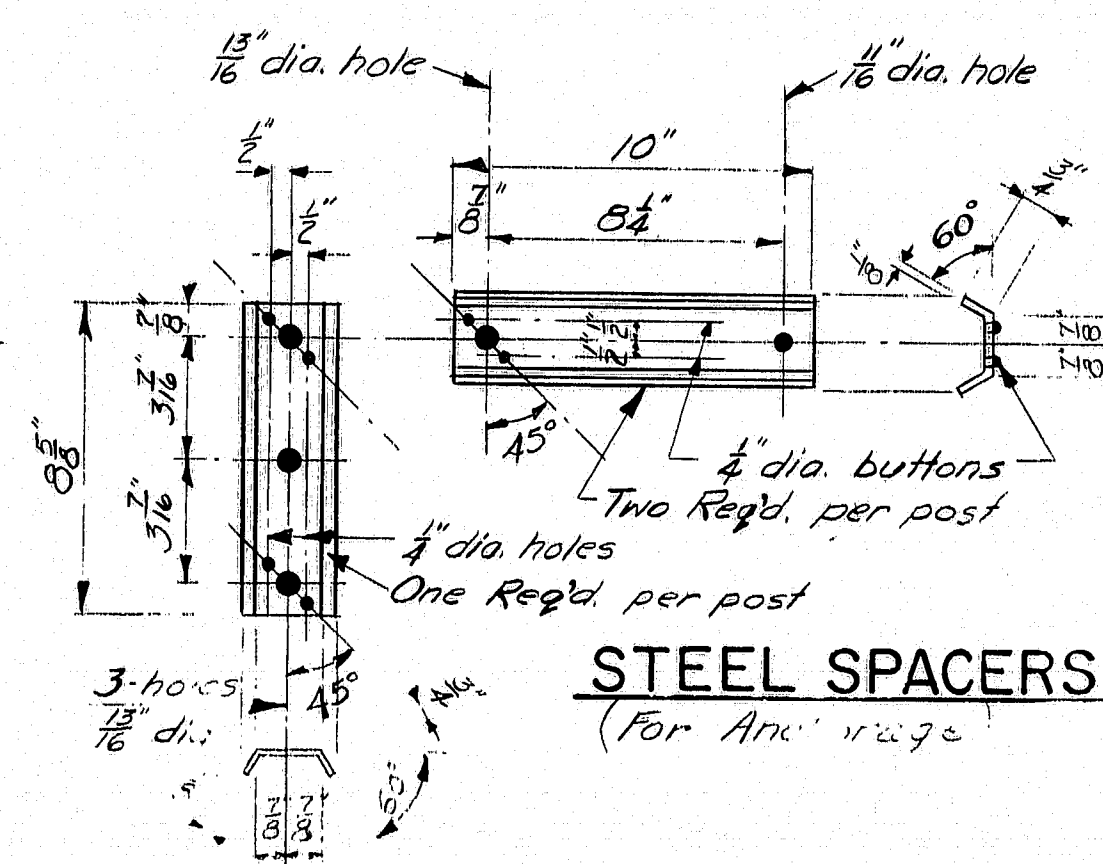


**RAIL POST ANCHORAGE (Assembly)**



**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.



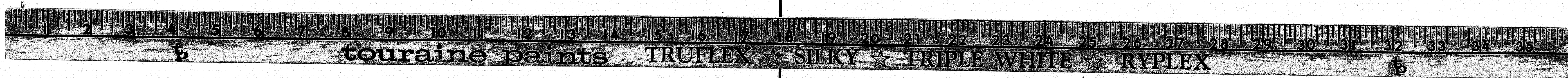
**STEEL SPACERS (For Anchorage)**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**STANDARD DETAILS**  
(BD 114-73)  
**ALUMINUM RAILING**  
2-BAR (SEMI-ELLIPSE)  
EXTRUDED POST

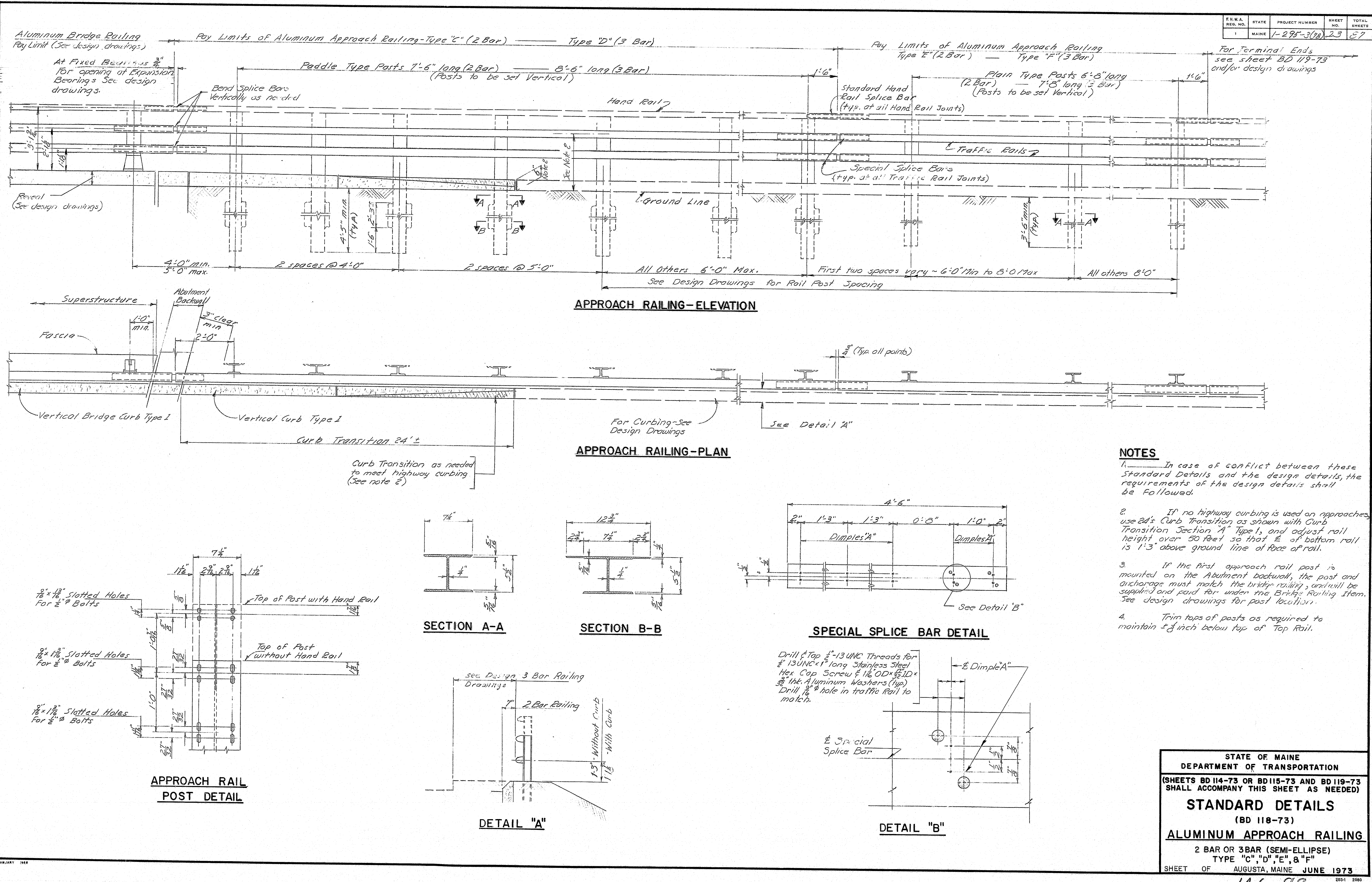
AUGUSTA, MAINE FEBRUARY 1973

146-87-Saphing

PLANS	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
	BY K. Woods	K. Woods		
	DATE			
	10/1/73			



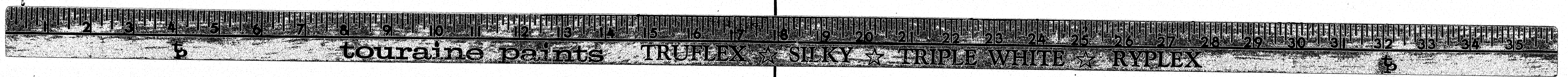




DATE	BY
DESIGN—DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	
PLANS	

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 (SHEETS BD 114-73 OR BD 115-73 AND BD 118-73  
 SHALL ACCOMPANY THIS SHEET AS NEEDED)  
**STANDARD DETAILS**  
 (BD 118-73)  
**ALUMINUM APPROACH RAILING**  
 2 BAR OR 3 BAR (SEMI-ELLIPSE)  
 TYPE "C", "D", "E", & "F"  
 SHEET OF AUGUSTA, MAINE JUNE 1973

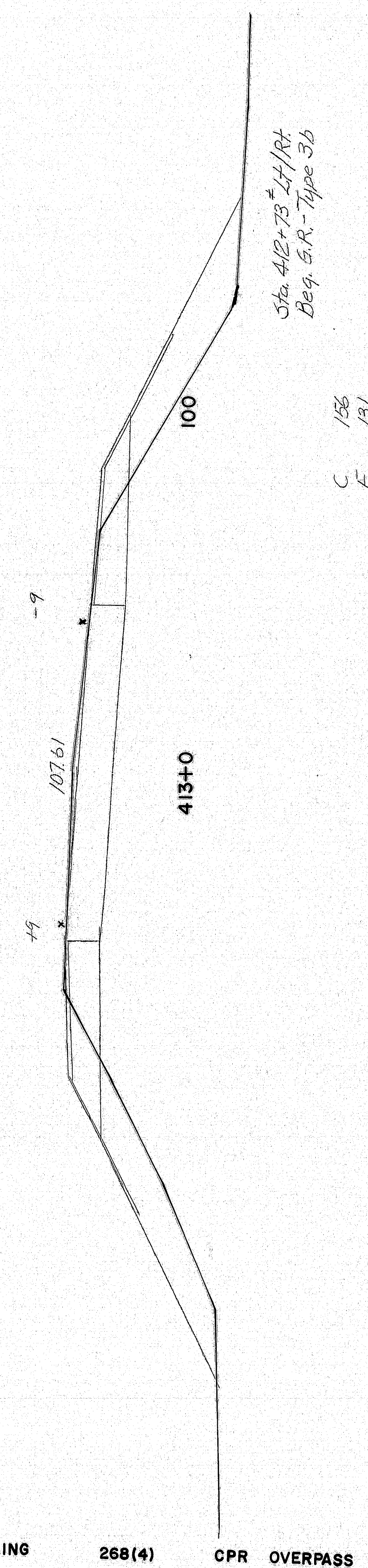
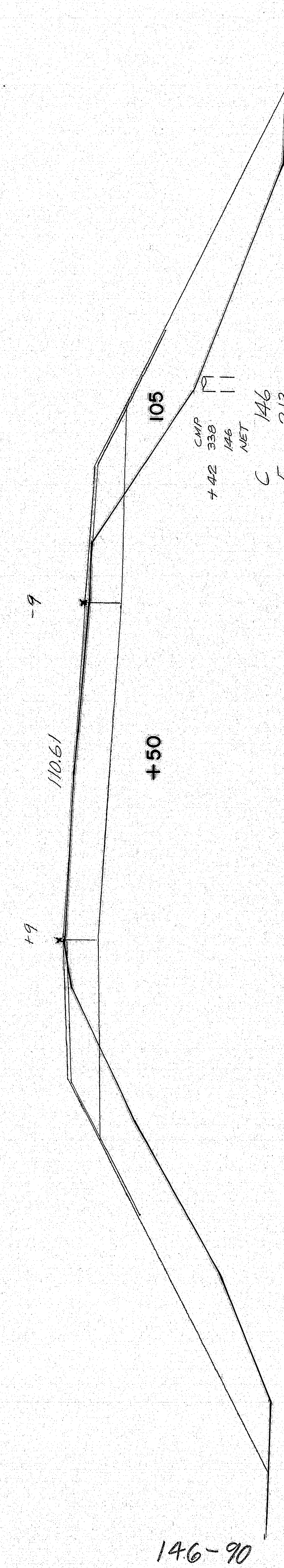
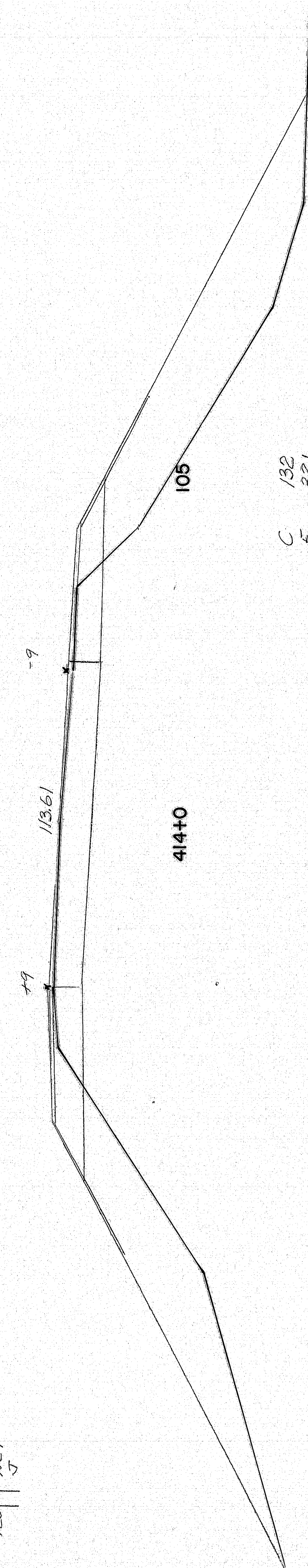
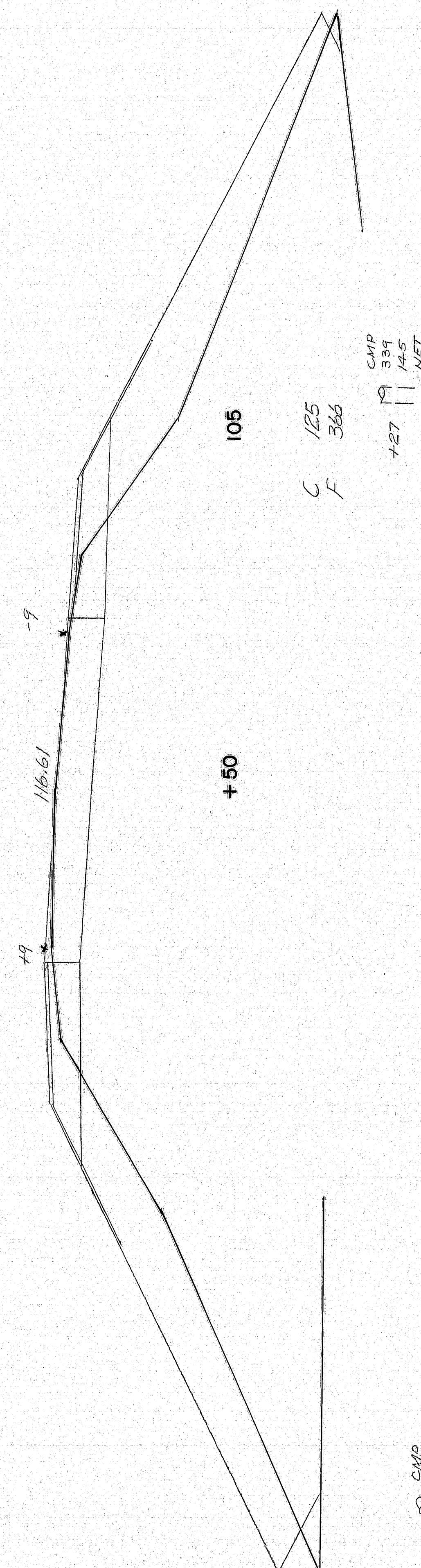
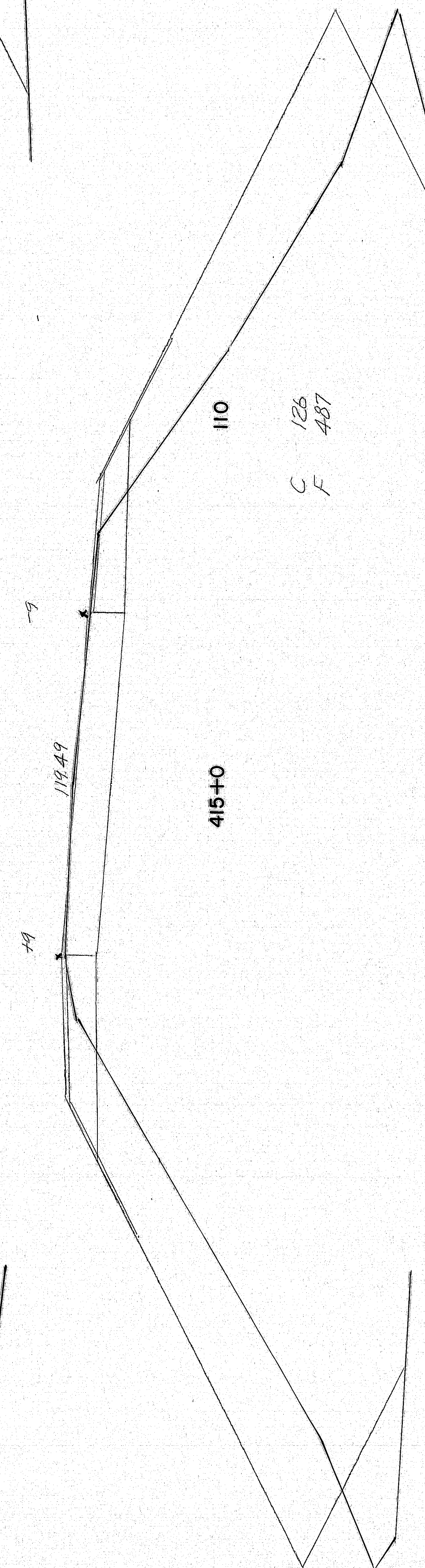
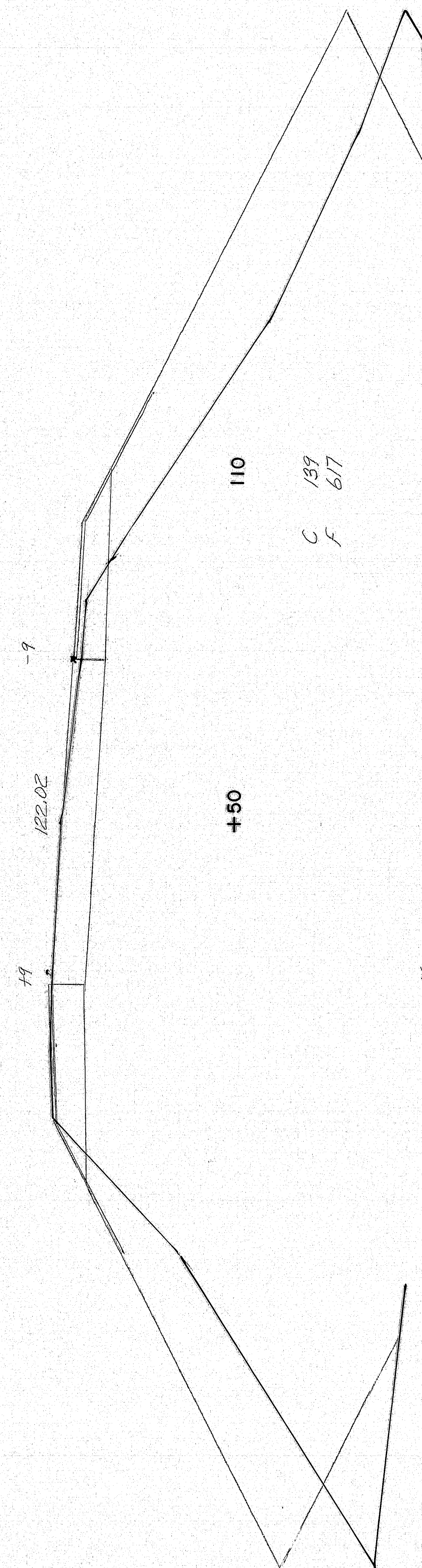
146-88



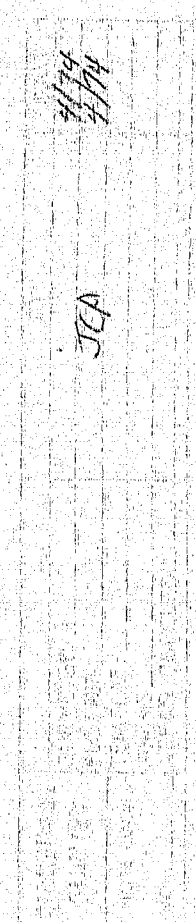
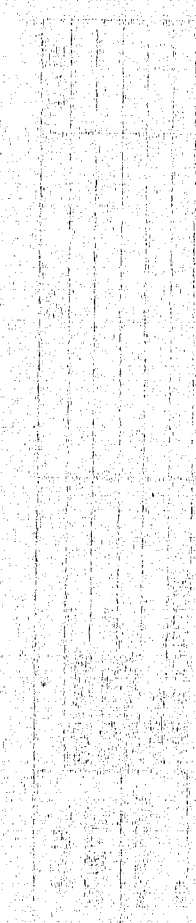




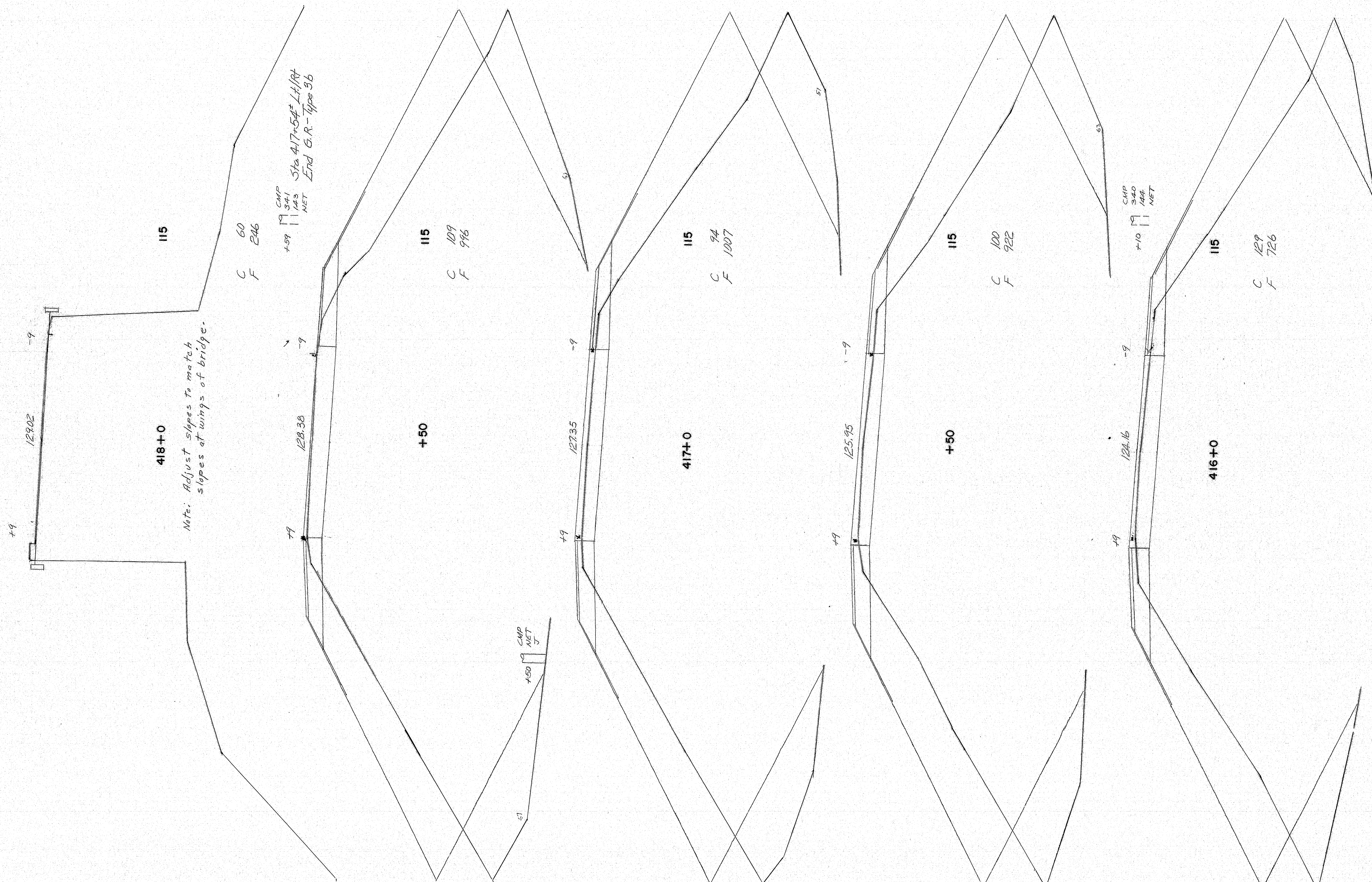




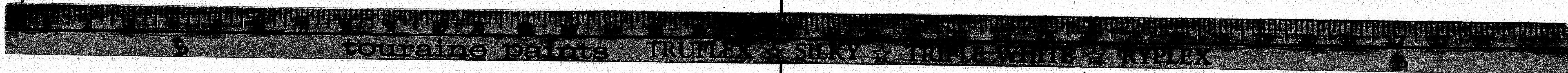




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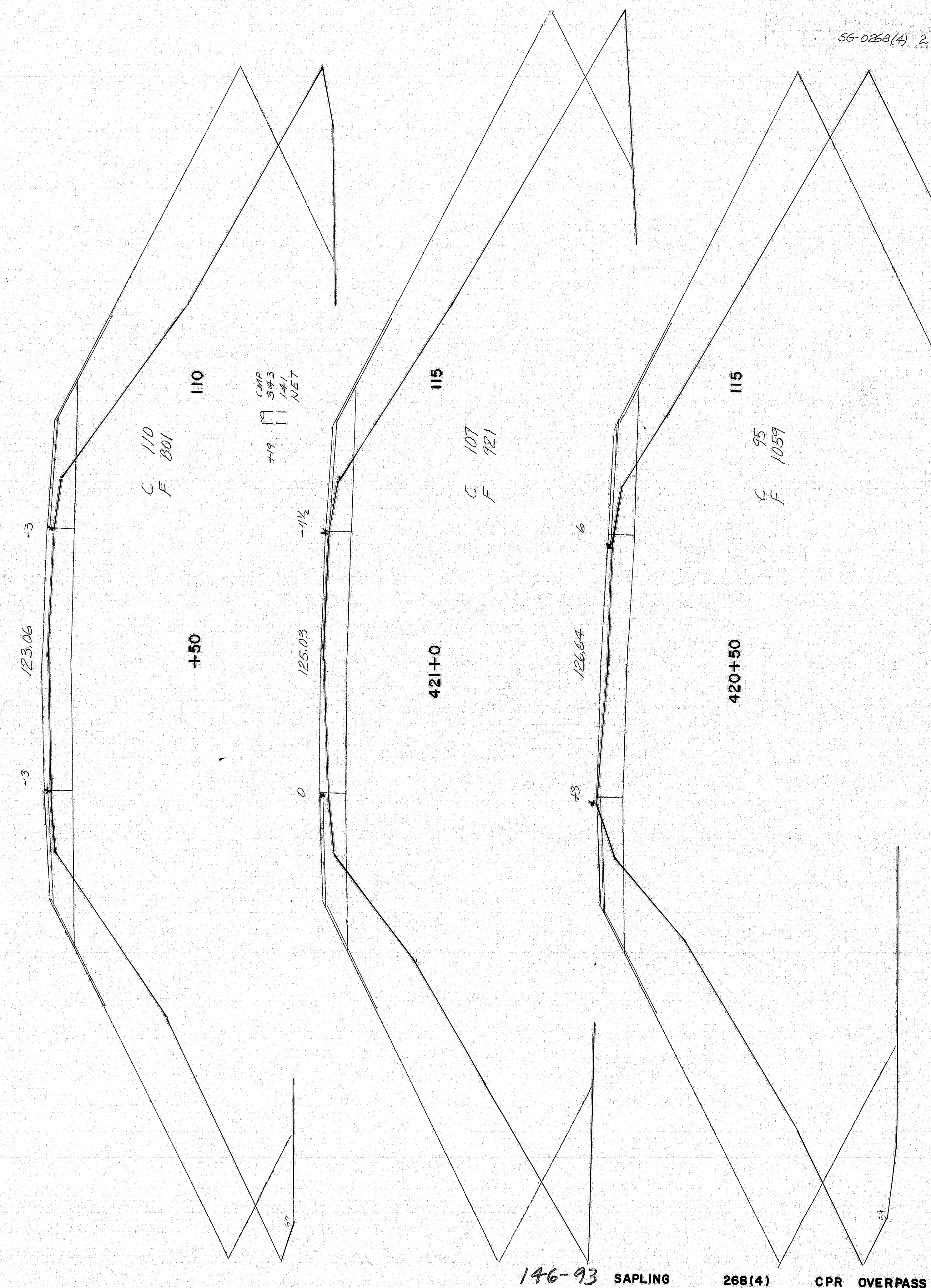
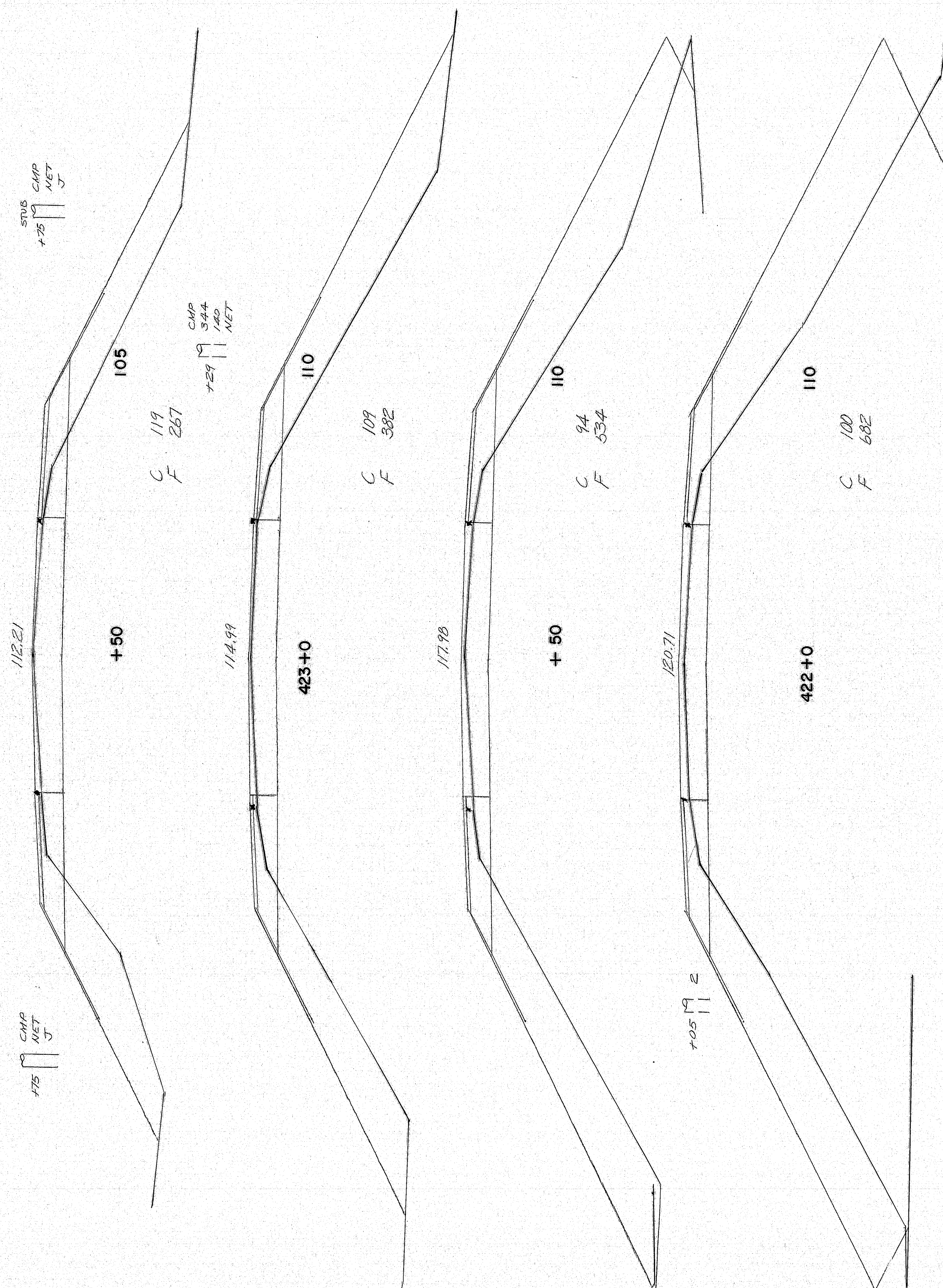
146-91 SAPLING 268(4) CPR OVERPASS



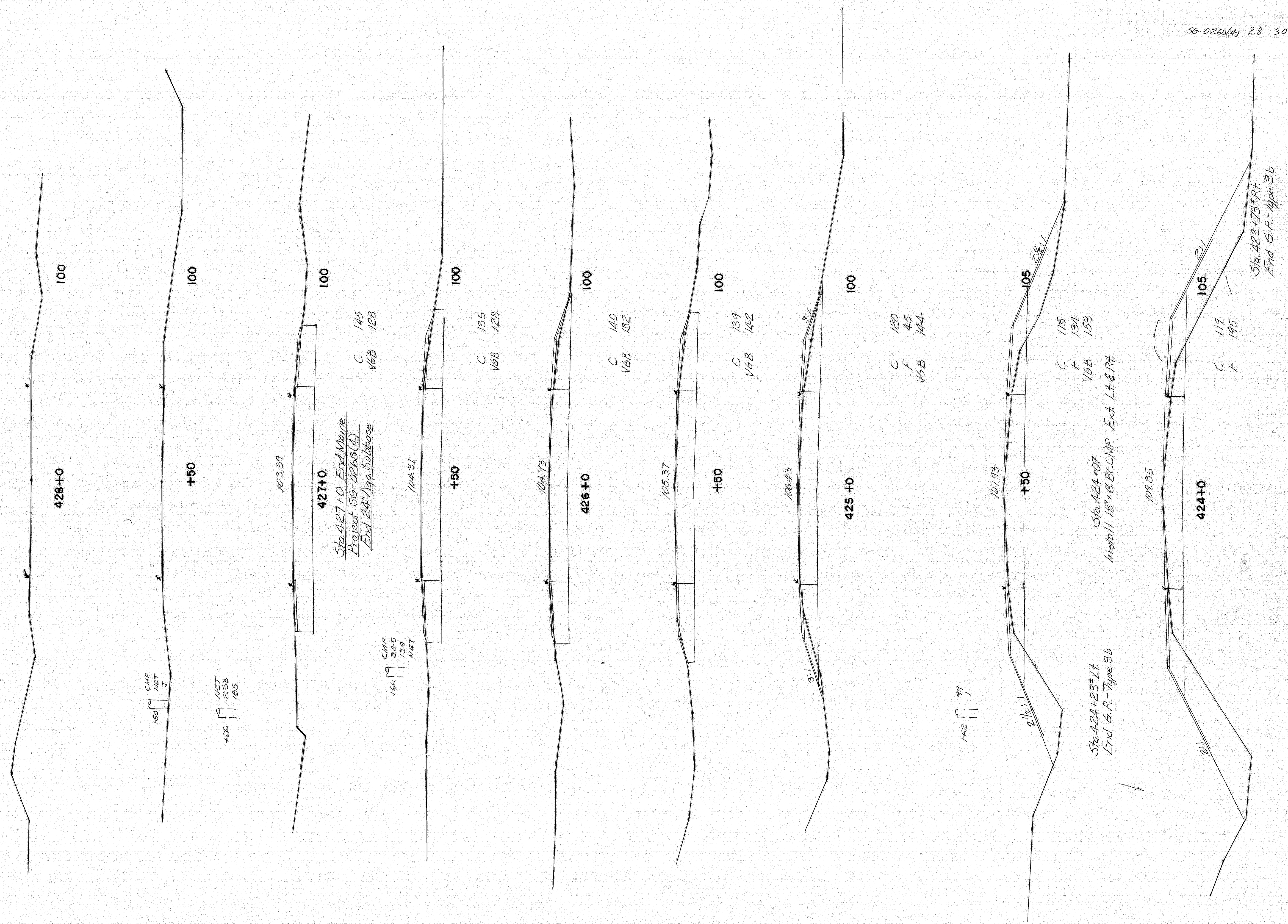






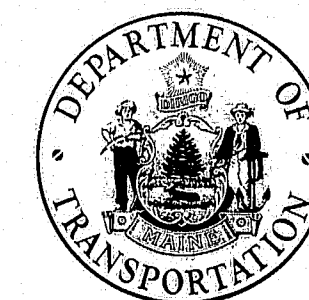






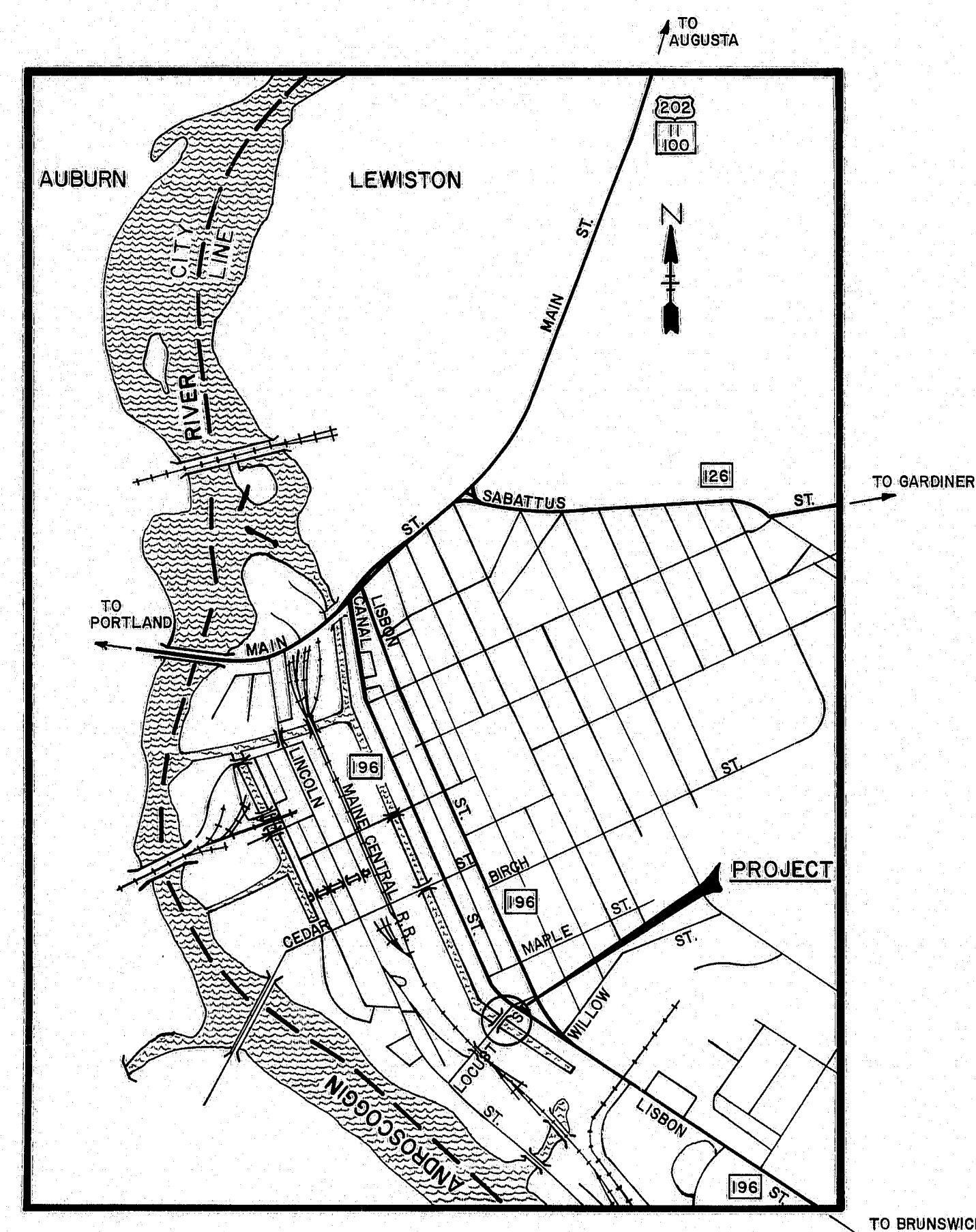


STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

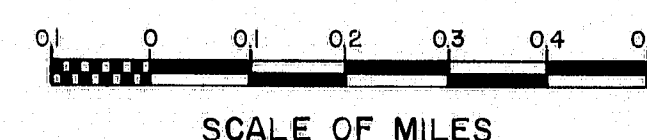


BUREAU OF HIGHWAYS  
LOCUST ST. CANAL BRIDGE  
OVER  
MAIN CANAL  
IN THE CITY OF  
LEWISTON  
ANDROSCOGGIN COUNTY  
PROJECT NO. 0047

CONVENTIONAL SIGNS	
COUNTY LINES	---
TOWN LINES	---
PROPERTY LINES	---
R/W LINES - EXISTING	---
R/W LINES - NEW - ACCESS CONTROL	---
R/W LINES - NEW - NO ACCESS CONTROL	---
CULVERT - EXISTING	---
CULVERT - PROPOSED	---
CURBING - EXISTING	---
CURBING - PROPOSED	---
TRAVELLED WAY - EXISTING	---
TRAVELLED WAY - PROPOSED	---
UNDERGROUND UTILITIES - EXISTING	---
UNDERGROUND UTILITIES - PROPOSED	---
RAILROAD - SINGLE TRACK	---
RAILROAD - DOUBLE TRACK	---
UTILITY POLE - EXISTING	---
UTILITY POLE - JOINT OCCUPANCY	---
PROPOSED UTILITY POLE - TEMPORARY	---
PROPOSED UTILITY POLE - PERMANENT	---
TREES	---
WOODS	---



LOCATION MAP



SPECIFICATIONS

DESIGN - AASHO Standard Specifications for Highway Bridges 1973

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

LIVE LOADING

HS20-44

MATERIALS

CONCRETE - Abutment 1 Footing - Class S  
All other - Class A

REINFORCING STEEL - ASTM A615 Grade 60

STRUCTURAL STEEL - Beam Webs & Flanges ASTM A572 Grade 50  
7/8 inch diameter High Strength Bolts ASTM A325  
All other - ASTM A36

BASIC ALLOWABLE STRESSES

CONCRETE -  $f_c = 1,200$  psi  $n = 10$

REINFORCING STEEL -  $f_s = 24,000$  psi

STRUCTURAL STEEL - ASTM A572 Grade 50  $f_s = 27,000$  psi  
ASTM A36  $f_s = 20,000$  psi  
ASTM A325  $f_y = 13,500$  psi

TRAFFIC DATA

A.D.T. 1973 - 3795  
A.D.T. 1993 - 5300  
D.H.V. 530  
T. (%)  
D. (%)  
V.  
P.S.D. (%)  
18 KIPS

No Abutts Required for P.M.I./com  
1-8-26

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APPROVED:

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Commissioner

DATE

Chief Engineer & Bureau Director

June 7, 1974

June 7, 1974

146-95