

# STATE OF MAINE STATE HIGHWAY COMMISSION



## INTERSTATE 95

OVER

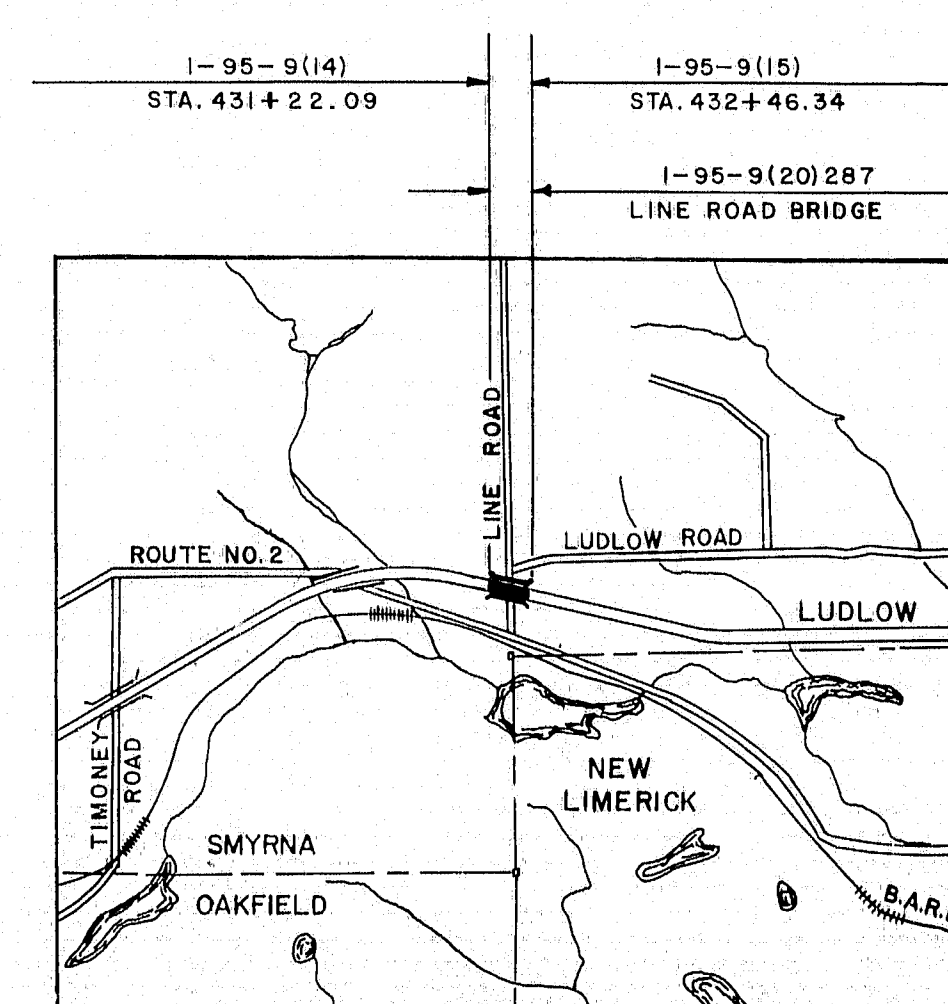
## LINE ROAD

IN THE TOWN OF

## SMYRNA - LUDLOW AROOSTOOK COUNTY

FEDERAL AID PROJECT NO. I-95-9(20)287

LENGTH OF PROJECT 0.024 MILE



**LOCATION MAP**  
APPROX. SCALE - 1" = 1 MILE

SURVEY CROSS SECTION SCALES } HOR. 1"=50' VERT. 1"=5'  
INTERSTATE 1"=10' LINE ROAD 1"=5'

### INDEX OF SHEETS

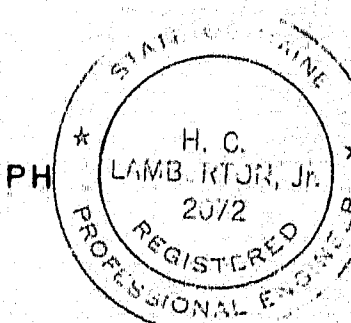
1. TITLE SHEET
2. GENERAL PLAN & QUANTITIES
3. PLANS, PROFILES & TYPICAL SECTIONS
4. CROSS SECTIONS - S.B. ROADWAY
5. CROSS SECTIONS - LINE ROAD
6. FOUNDATION SURVEY
7. ABUTMENT NO. 1
8. ABUTMENT NO. 2 - APPROACH SLAB
9. PIERS
10. STRUCTURAL STEEL & BLOCKING
11. ARMORED JOINT & CURB DETAILS
12. SUPERSTRUCTURE
13. SLOPE PROTECTION
14. REINFORCING STEEL

### STANDARD DETAILS SHEETS

- BD 101-64 BEARING DETAILS
- BD 103-64 BEAM SPLICES
- BD 104-64 DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN
- BD 107-64 STEEL RAIL
- BD 108-64 ALUMINUM RAIL

### TRAFFIC

INTERSTATE 95	LINE ROAD
1950.....A.D.T. 1966.....100	
3050.....A.D.T. 1986.....160	
370.....D.H.V. ....20	
14%.....T.	
60%.....D.	
60 MPH.....V.....50 MPH	



PROJECT COMPLETED 10 NOV. '66

APPROVED  
MAINE STATE HIGHWAY COMMISSION

*David W. Sturges* 9/9/64  
CHAIRMAN DATE  
*Paul M. Stephens* 9/9/64  
*Richard A. LaPointe* 9/9/64  
*Charles M. ...* 9/9/64  
CHIEF ENGINEER

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
NEW YORK BOSTON KANSAS CITY

*H. C. Lamb, Jr.* 11/20/64  
DATE

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

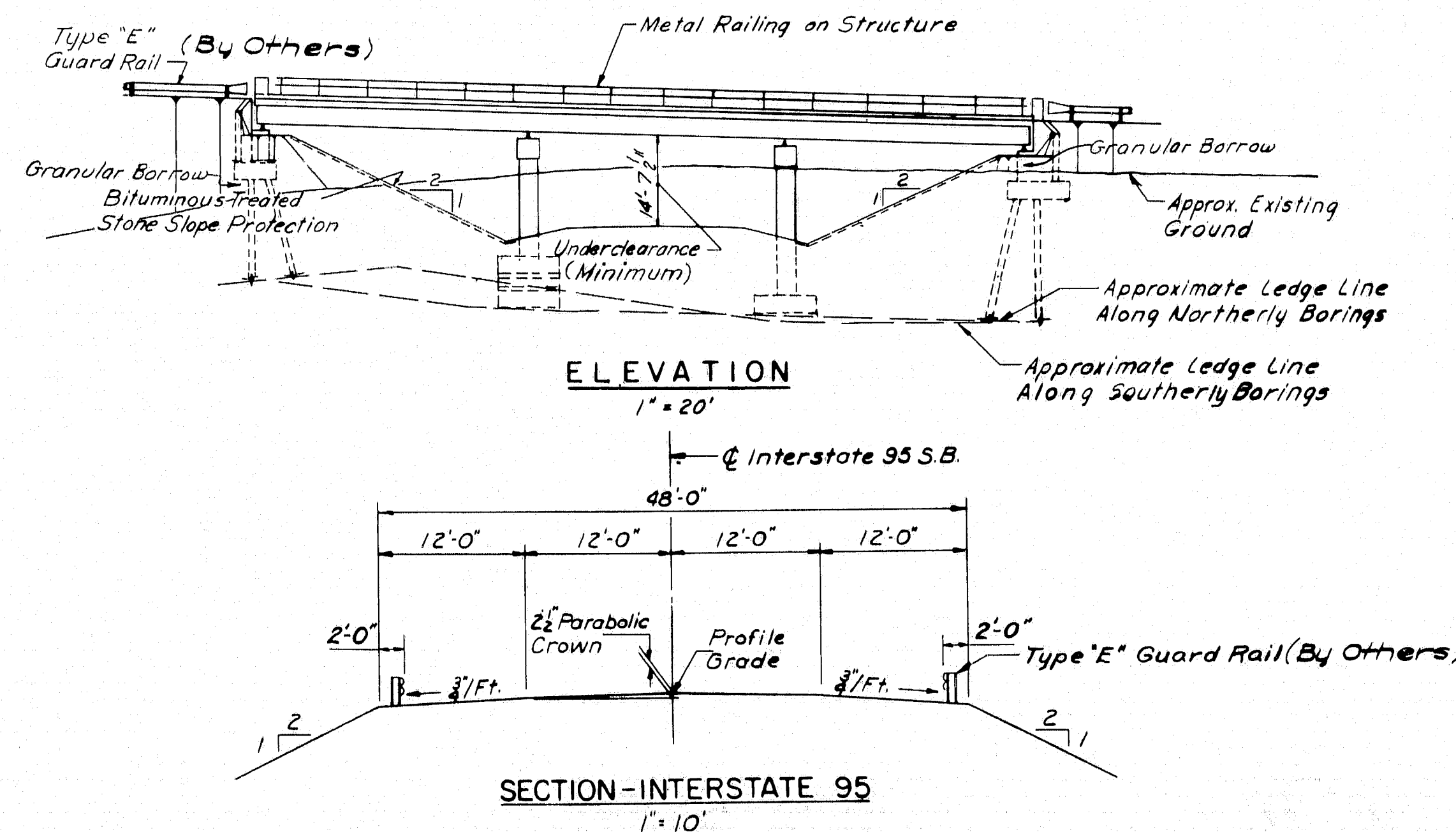
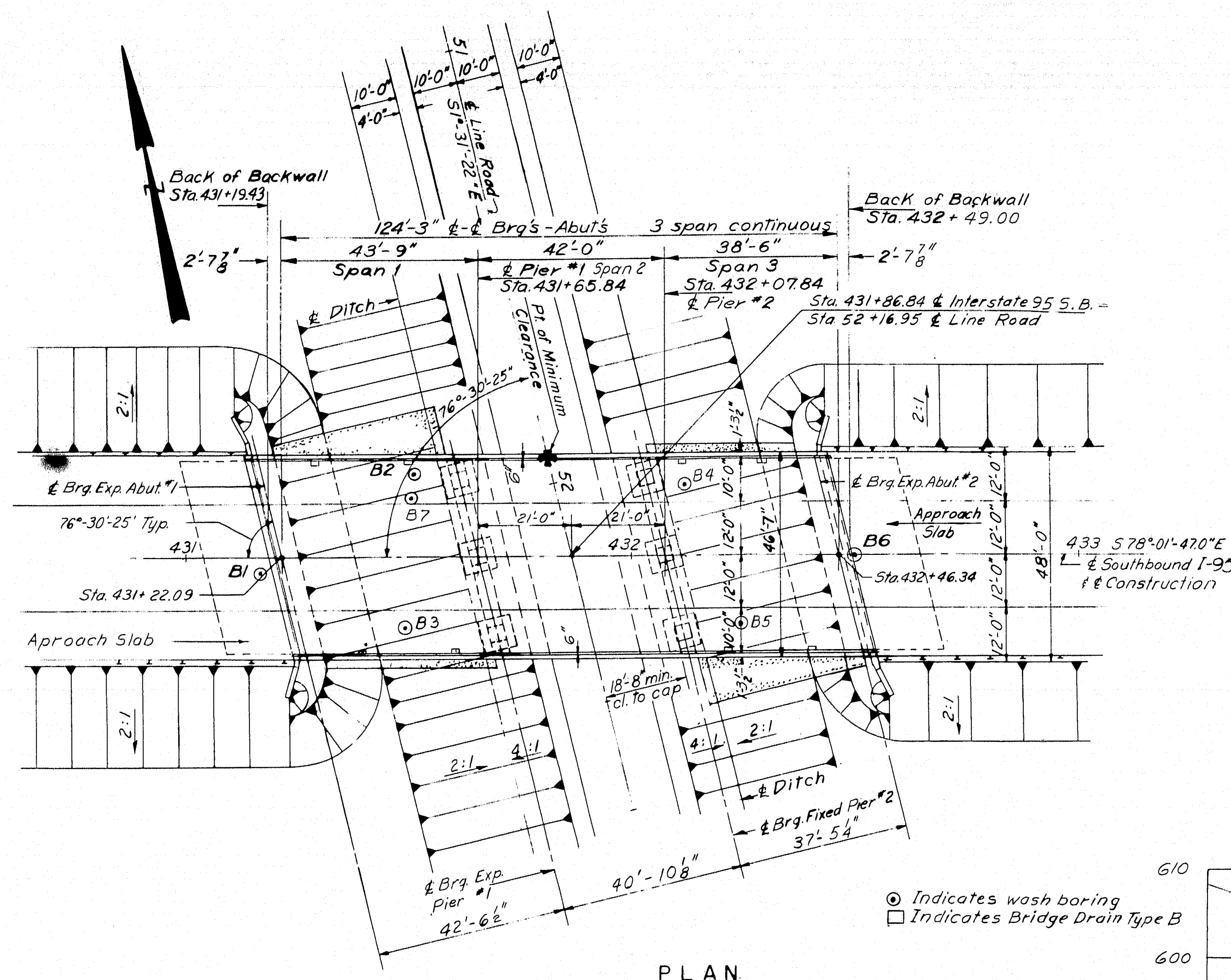
REGION 1

APPROVED

DIVISION ENGINEER DATE

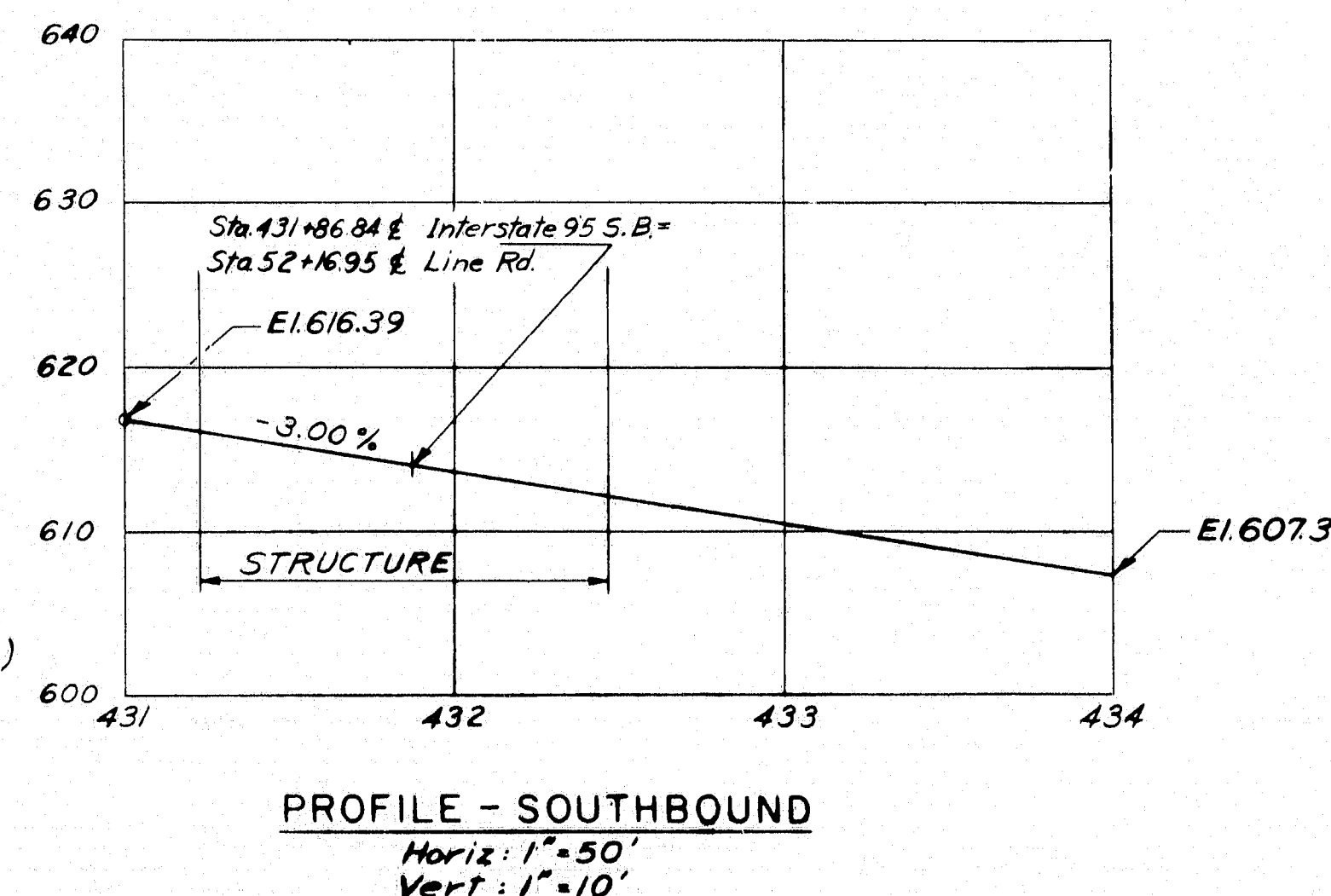
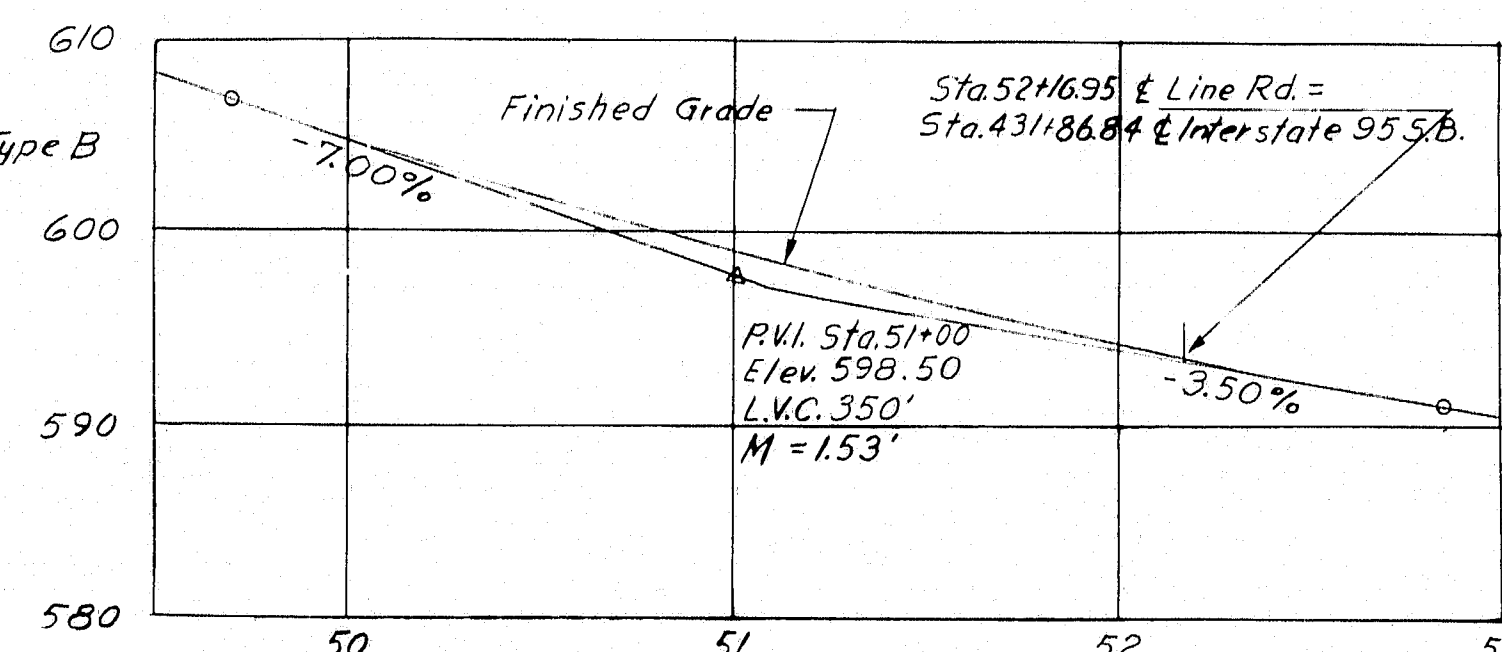
95-130 SMYRNA LUDLOW (20)





ESTIMATE OF QUANTITIES				
Item No.	Description	Unit	Quantity	Bridge Quantities
204-12	Structural Earth Exc. Abutments & Retaining Walls	Cu. Yds.	60	60 Cu. Yds.
204-14	Structural Earth Exc. Piers	Cu. Yds.	200	200 Cu. Yds.
204-15	Structural Back Exc. Piers	Cu. Yds.	10	10 Cu. Yds.
205-9	Granular Borrow	Cu. Yds.	9,500	
302-7	Gravel Base Course (I.P.M.)	Cu. Yds.	1,050	
701-33	Portland Cement Concrete, Abutments & Ret. Walls	Cu. Yds.	216	216 Cu. Yds.
701-35	Portland Cement Concrete, Piers	Cu. Yds.	121	121 Cu. Yds.
701-40	Port. Cem. Conc. Edwy. & Slab on Steel Bridges	Cu. Yds.	150	150 Cu. Yds.
701-55	Curing Box For Concrete Cylinders	Each	1	1 Each
702-103	Structural Steel, Fabricated & Delivered	L.S.	L.S.	Lump Sum
702-104	Structural Steel, Erection	L.S.	L.S.	Lump Sum
702-105	Structural Steel, Field Painting	L.S.	L.S.	Lump Sum
705-13	Reinforcing Steel, Delivered	Lbs.	74,600	74,600 Lbs.
705-14	Reinforcing Steel, Placing	Lbs.	74,600	74,600 Lbs.
708-16	Steel H-Beam Piles 42 Lbs./Ft.	Lin. Ft.	675	675 Lin. Ft.
805-8	Bridge Rail	Lin. Ft.	244	244 Lin. Ft.
807-11	Epoxy Resin Surface Sealant	Sq. Yds.	112	112 Sq. Yds.
901-24	Vertical Bridge Curb-Type 1	Lin. Ft.	253	253 Lin. Ft.
901-25	Vertical Bridge Curb-Type 1-Circular	Lin. Ft.	12	12 Lin. Ft.
908-10	Loom (I.P.M.)	Cu. Yds.	105	
910-18	Seeding Method No. 2	Units	17	
912-7	Hay Mulch	Tons	1	
913-8	Bituminous Treated Stone Slope Protection	Sq. Yds.	518	
913-9	Bituminous Concrete Gutter	Tons	14	
938-1	Warning Lights and Illuminating Signs	Group	2	

Estimated weight of Structural Steel including drains is 127,650 Lbs.



**NOTES:**  
 1. All fill within the limits as shown on profile sheet #3 shall be placed by the controlled density method.  
 2. Size of stone in granular borrow through which abutment piles are driven should not exceed 6 inches and concentrations of stones in the area shall be avoided.  
 3. Place granular borrow to elevation of abutment footing before driving piles.

### SPECIFICATIONS

**DESIGN:**  
 A.A.S.H.O. Standard Specifications for Highway Bridges 1961 with Interim Specifications, 1961, 1962, 1963 & 1964.

**CONTRACT:**  
 State of Maine, State Highway Commission, Standard Specifications for Highways and Bridges, Revision of January 1956 and Supplemental Specifications of February 1960.

### LIVE LOADING

H5-20-44 (Modified for Interstate)

### FOUNDATIONS

Abutments: 10BP42 End Bearing Piles (Capacity 37 tons)  
 Piers: Spread Footings on Ledge.

### ALLOWABLE STRESSES

Concrete (n=10) ~ f<sub>c</sub> = 1200 psi.  
 Reinforced Steel, Int. Grade ~ f<sub>s</sub> = 20,000 psi.  
 Structural Steel ~ f<sub>s</sub> = 20,000 psi. (A.S.T.M. A36)

### CONCRETE CLASSIFICATION

All concrete shall be Class 'A'

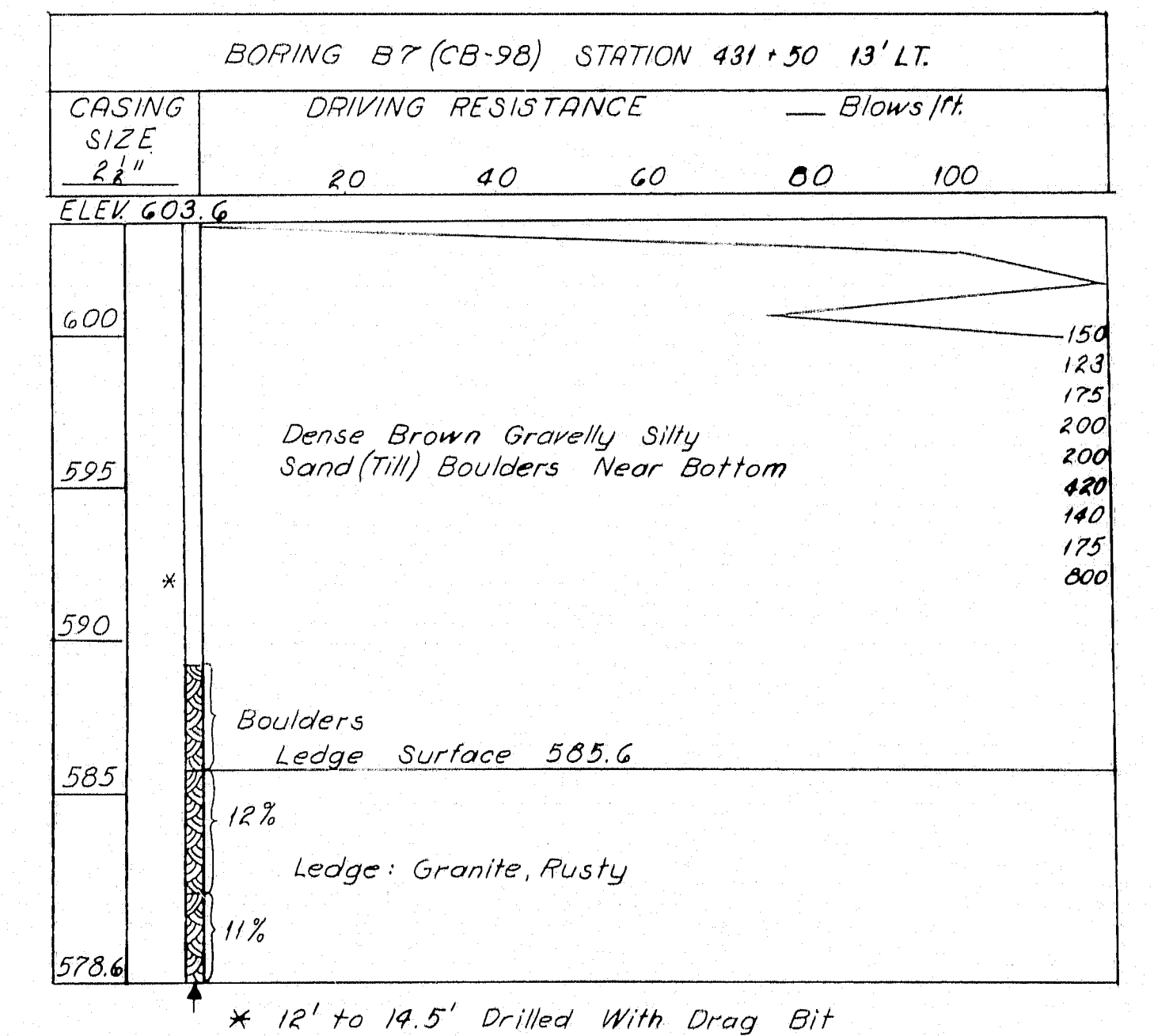
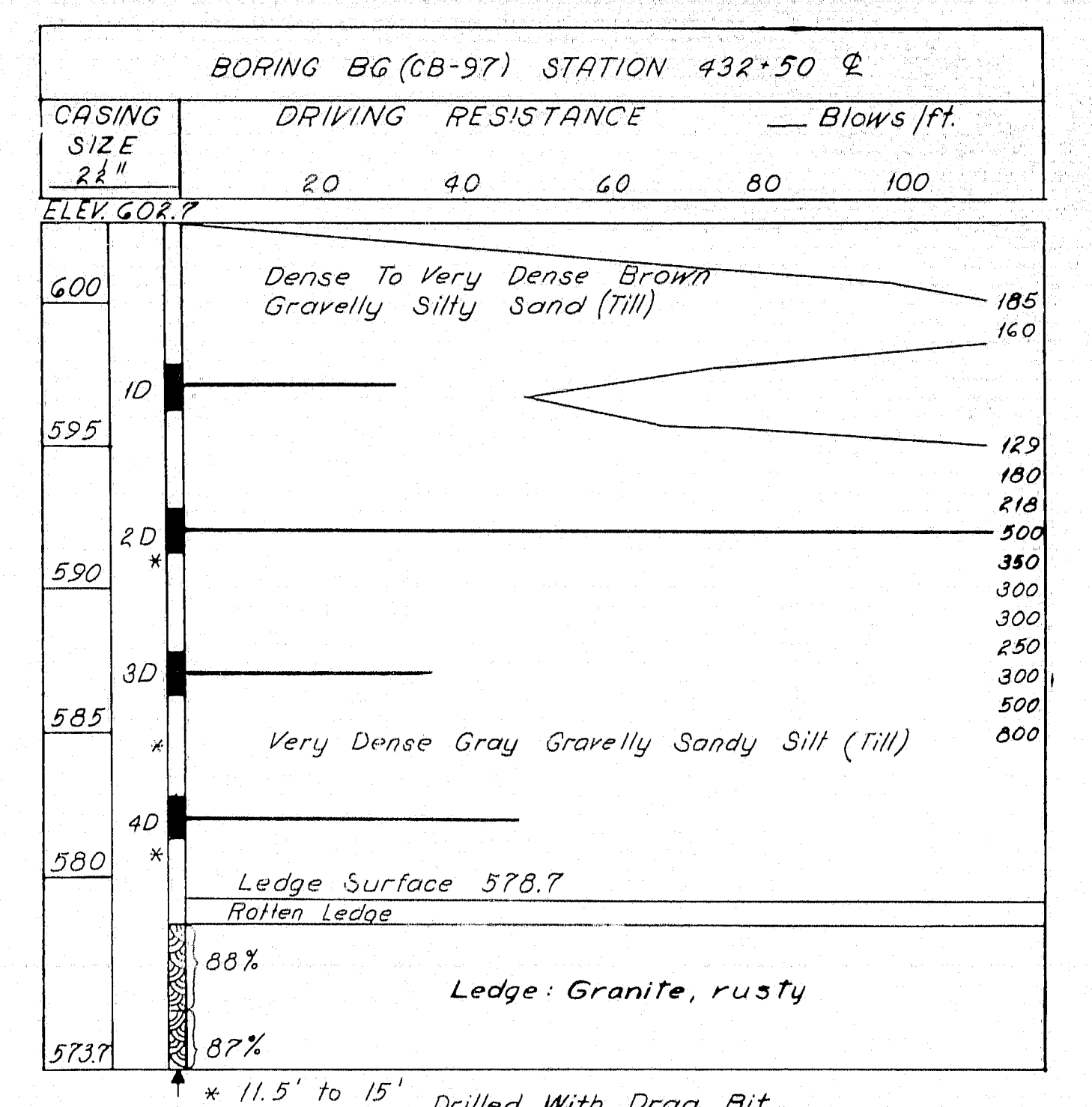
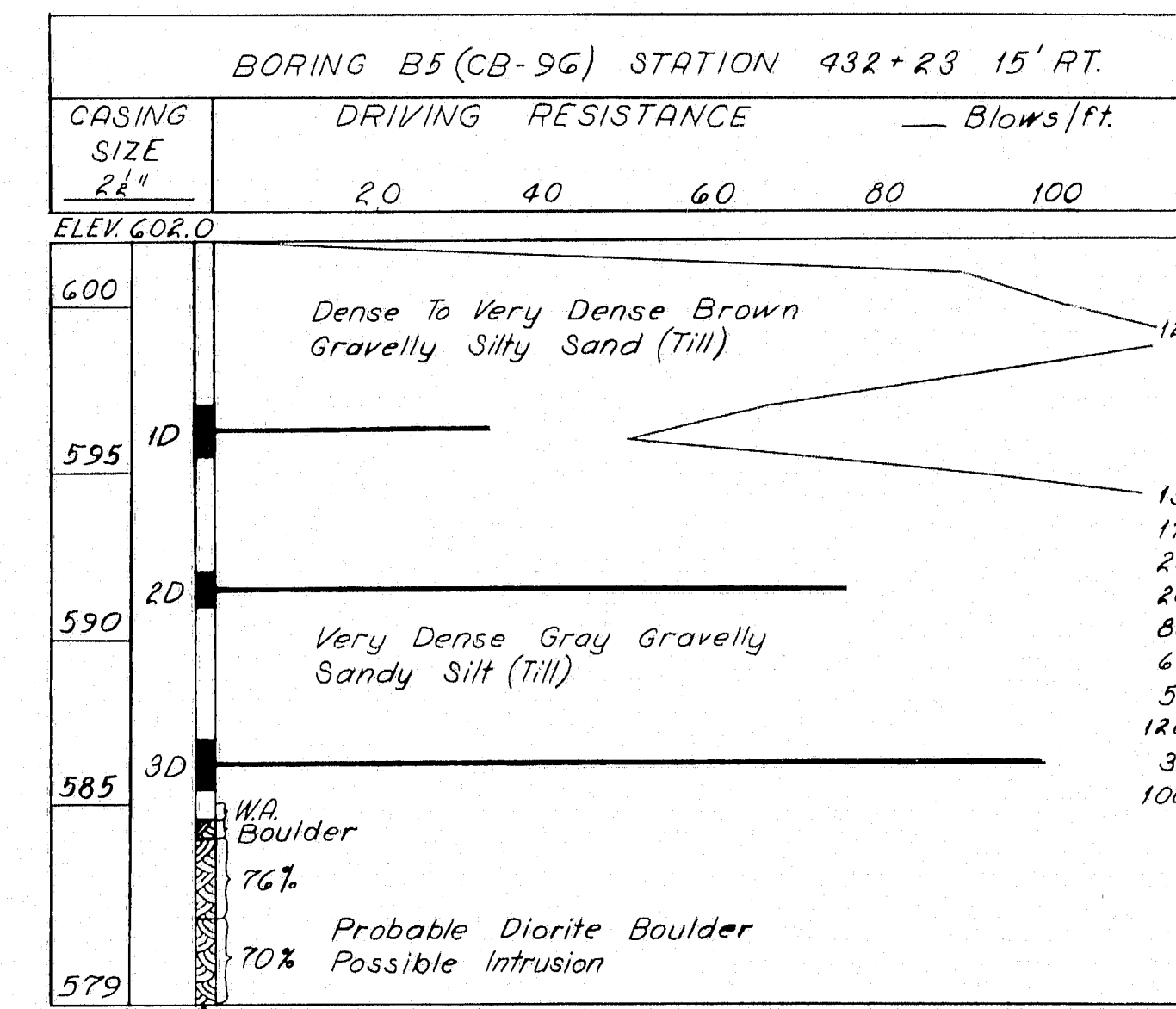
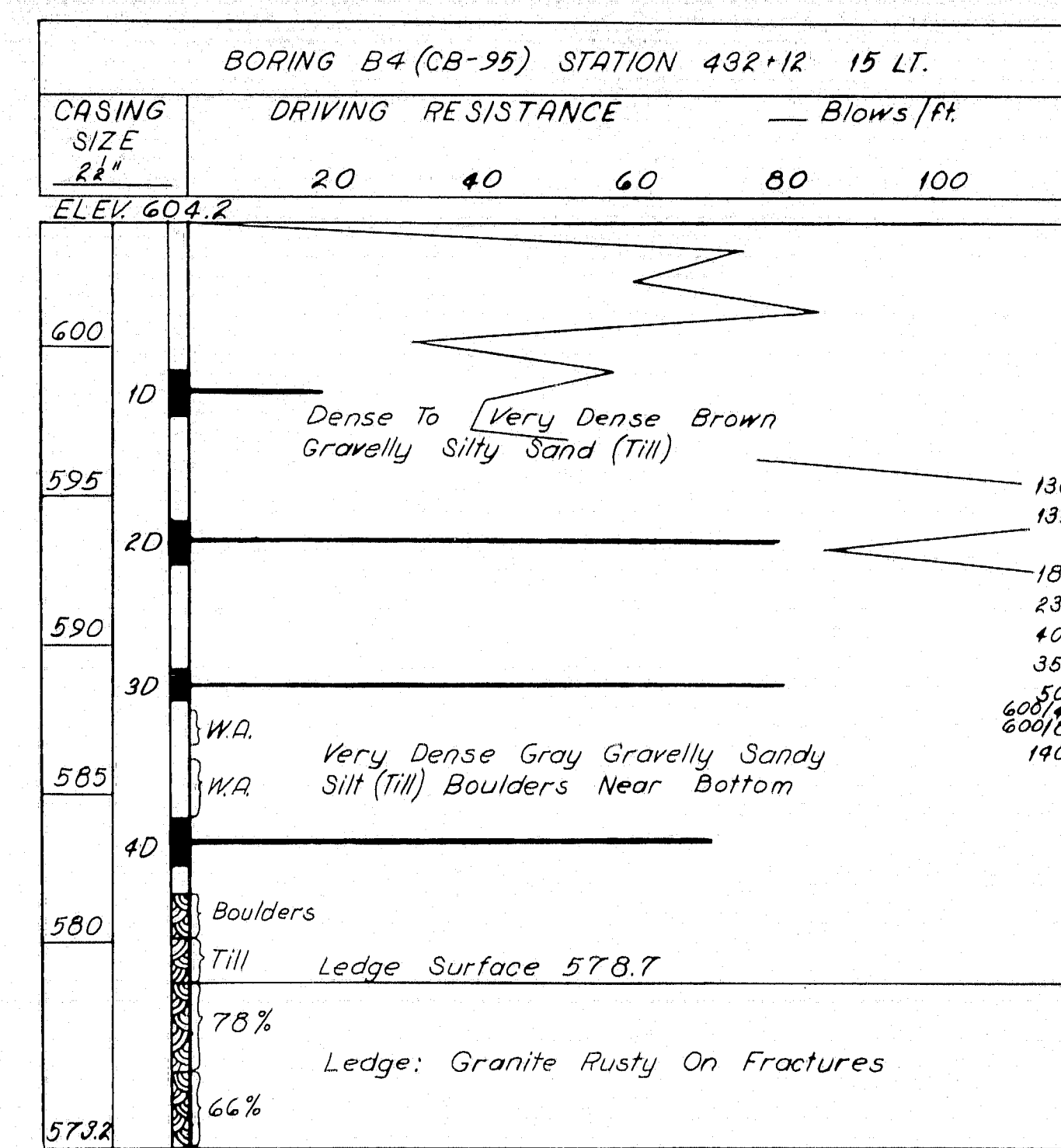
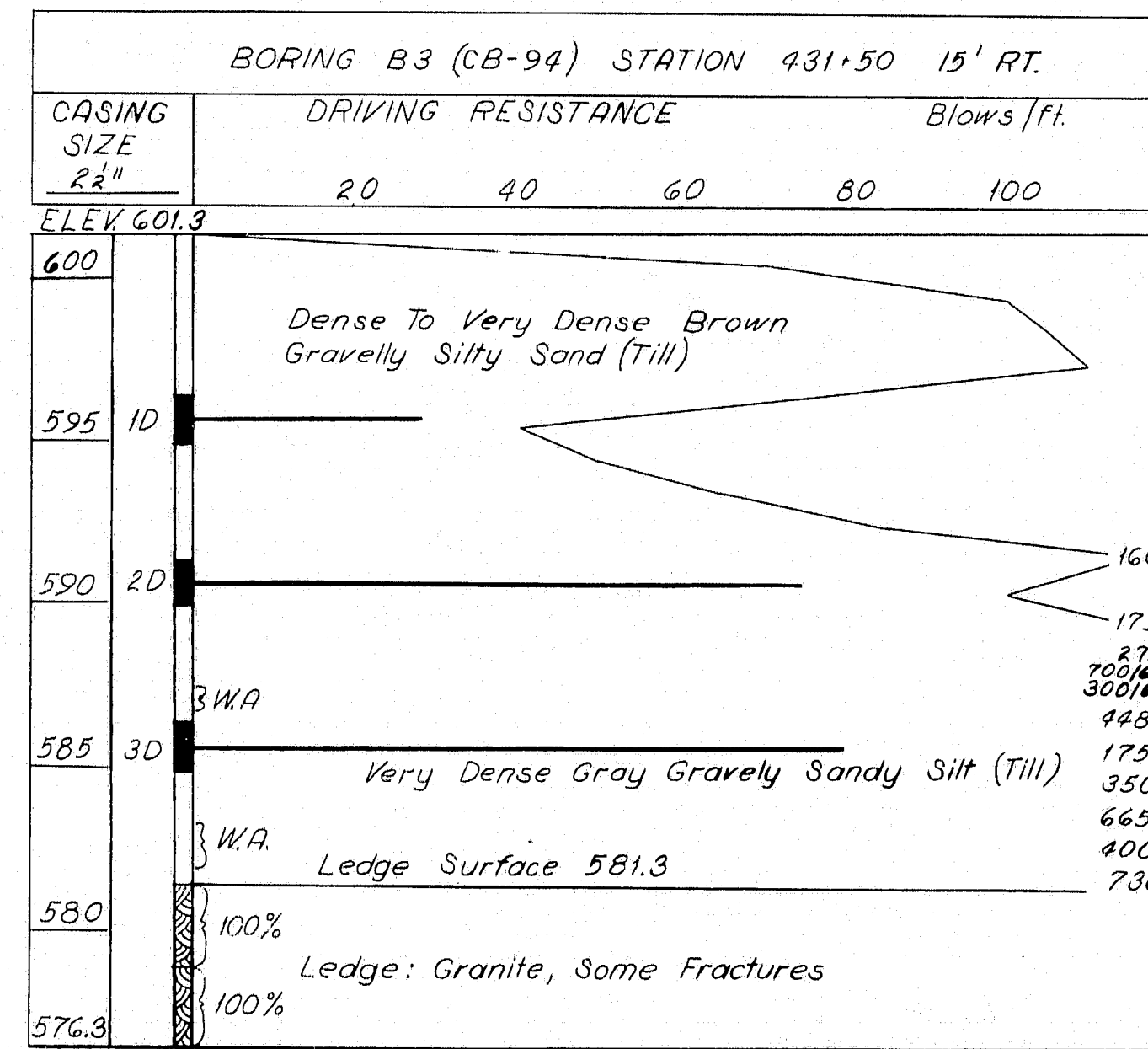
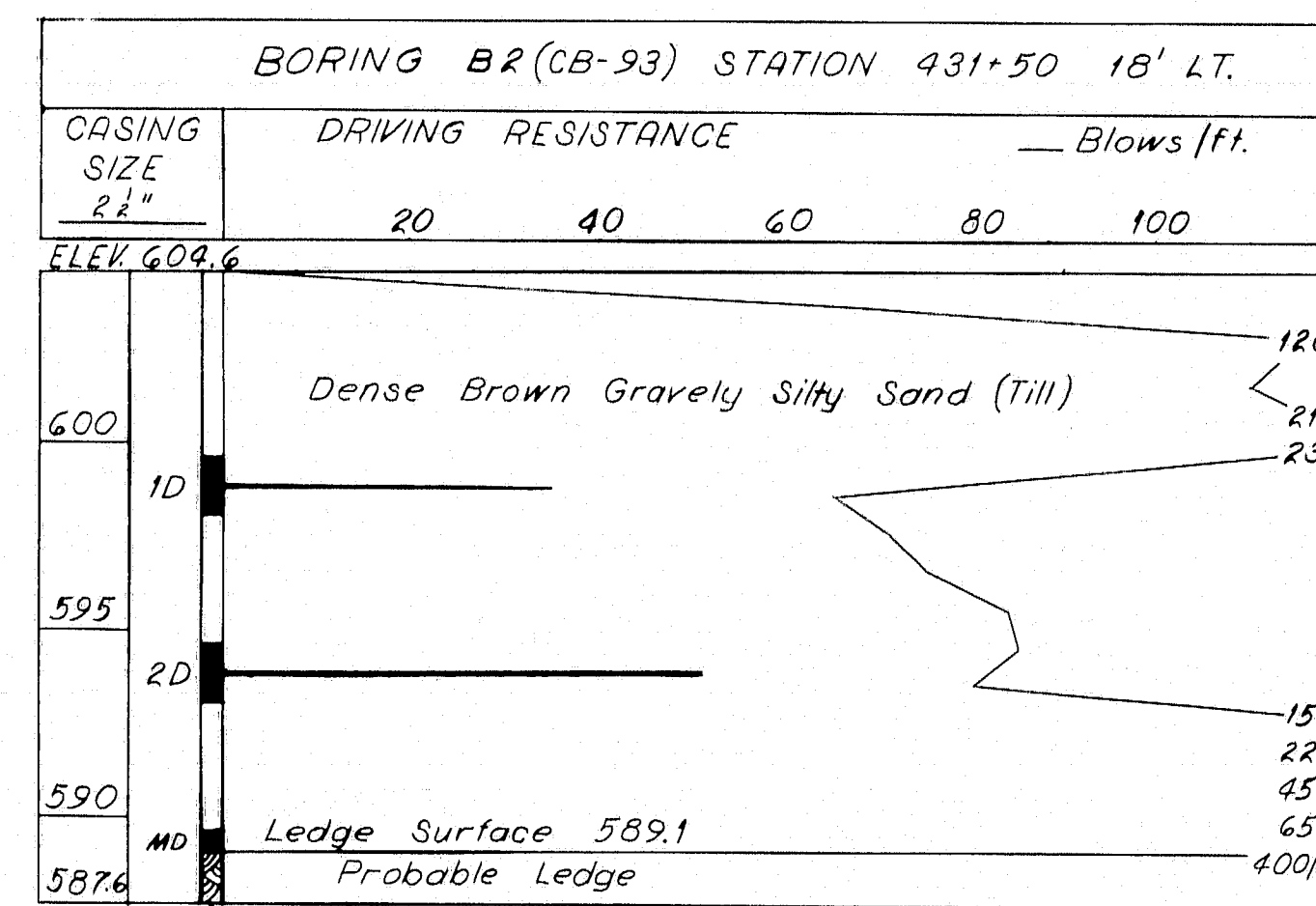
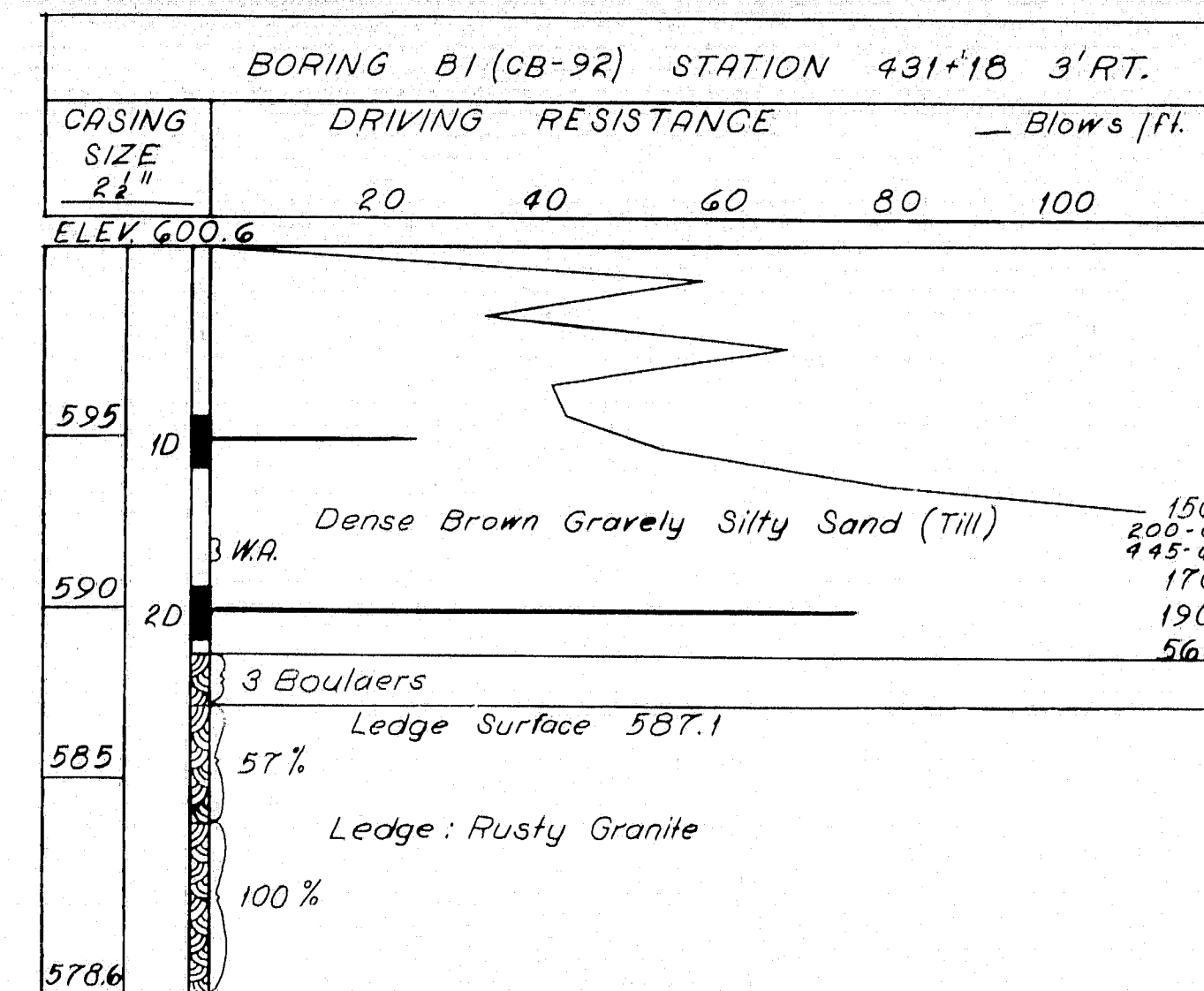
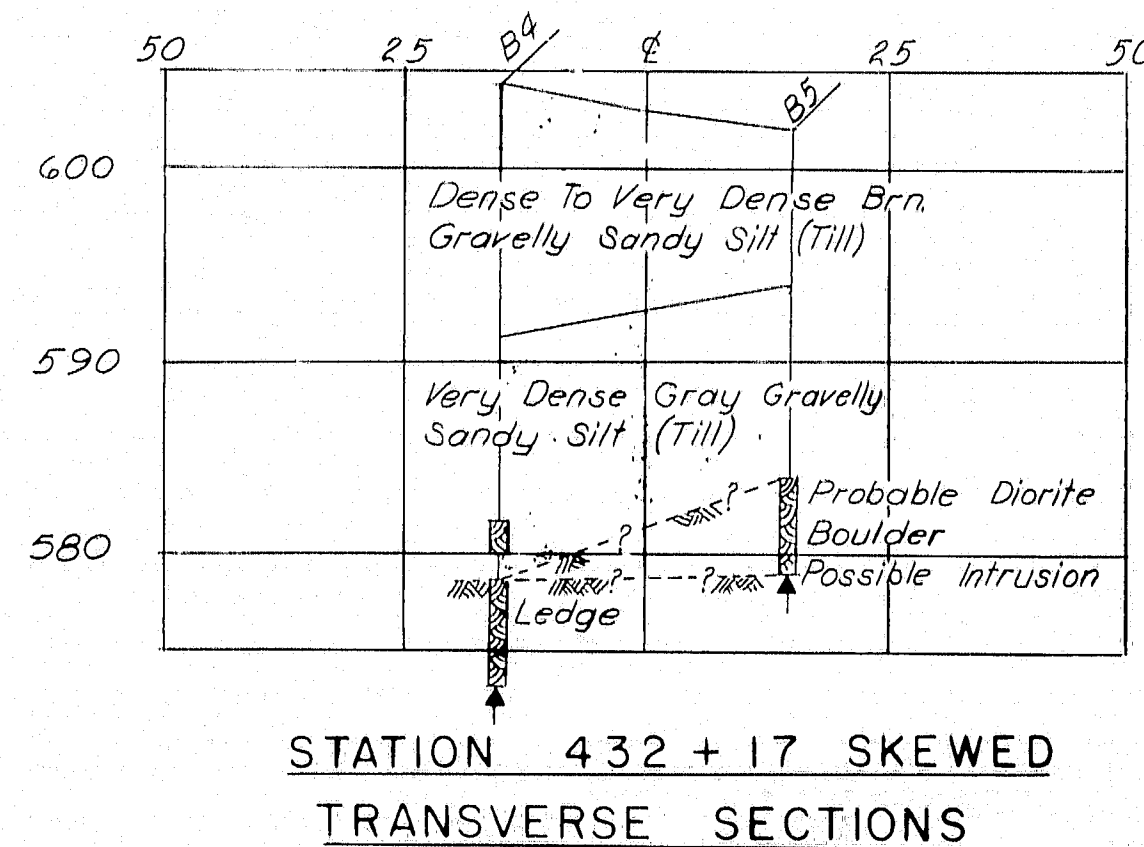
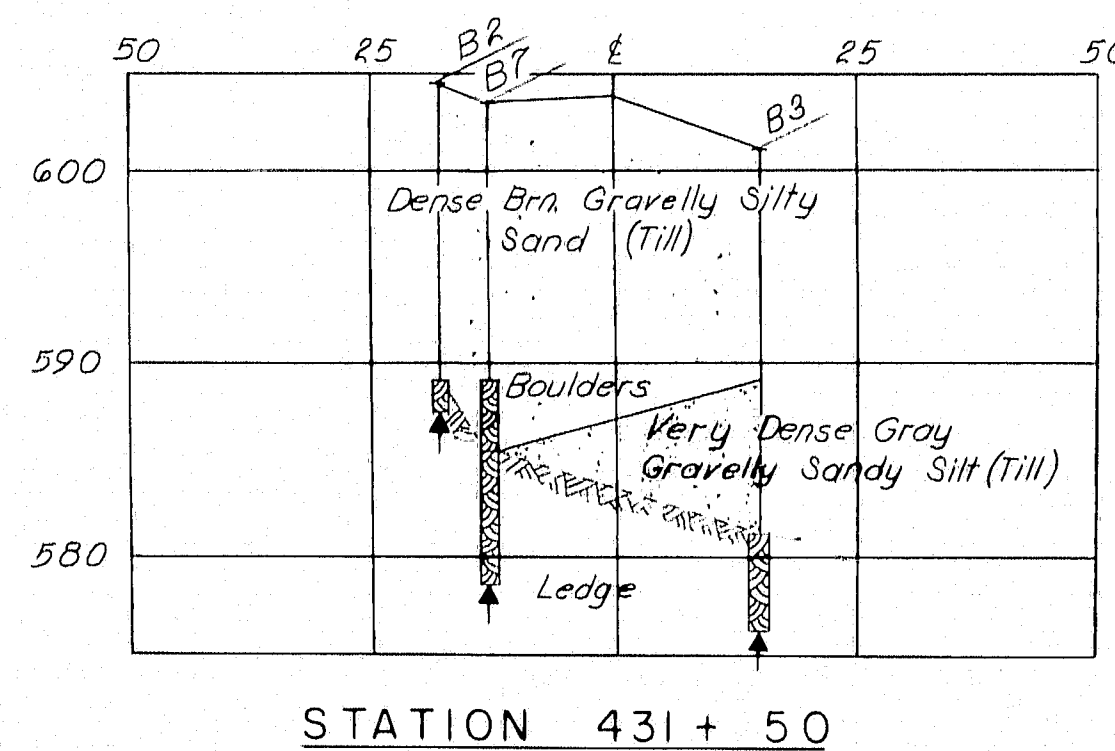
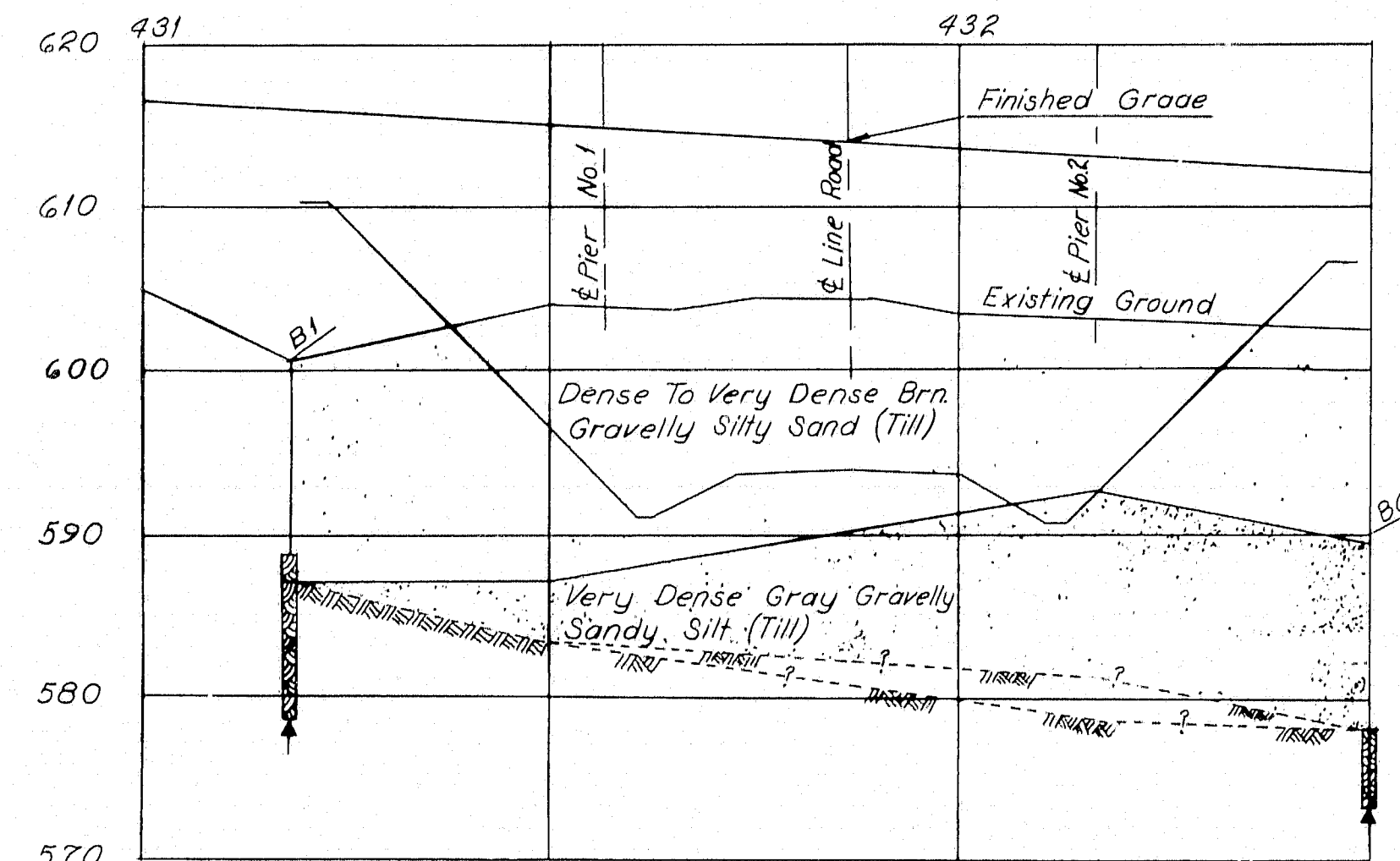
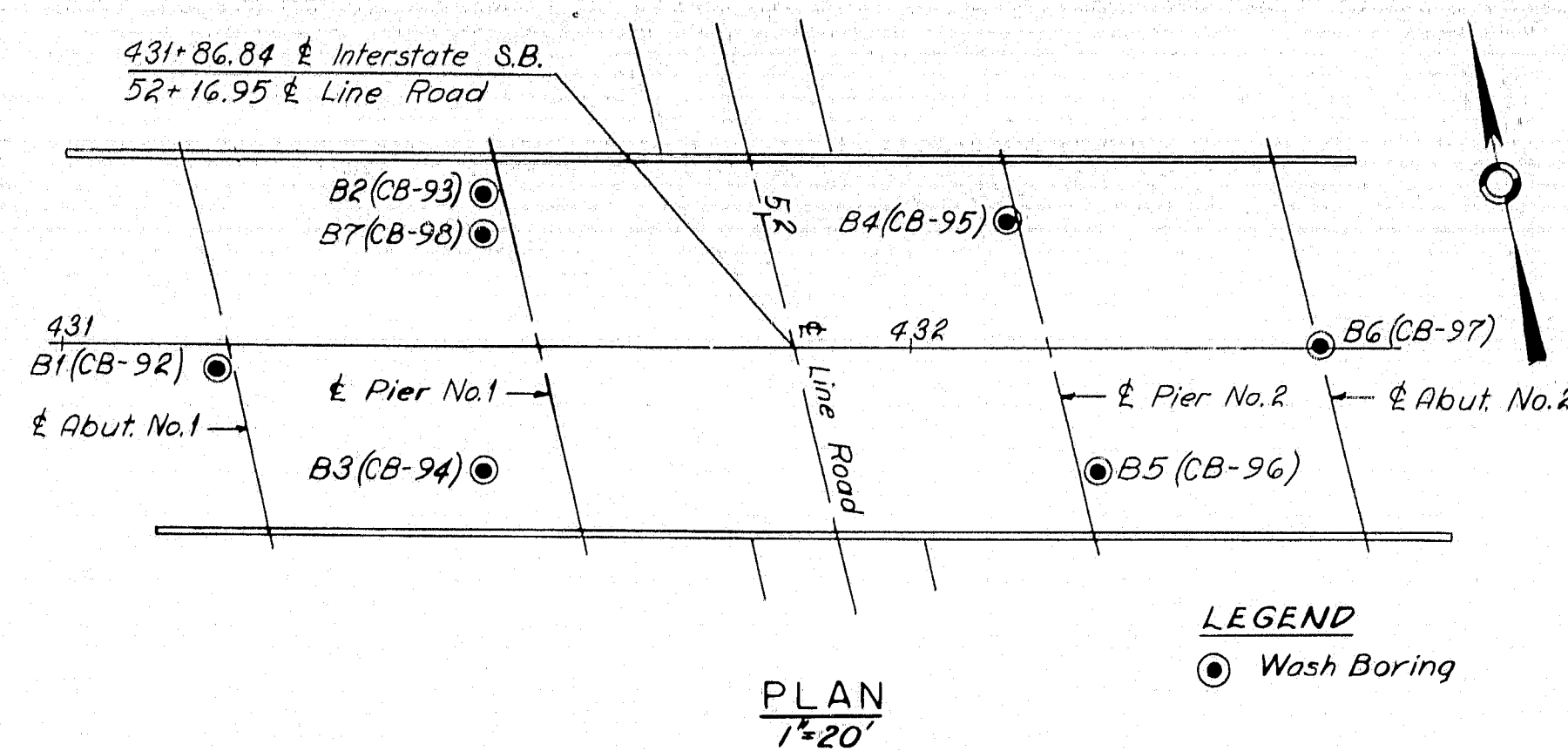
STATE HIGHWAY COMMISSION  
 BRIDGE DIVISION  
 INTERSTATE 95  
 OVER  
 LINE ROAD  
 IN THE TOWNS OF  
 SMYRNA & LUDLOW  
 AROOSTOOK COUNTY  
 GENERAL PLAN & QUANTITIES

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS

SHEET 2 OF 14 AUGUSTA, MAINE NOVEMBER, 1964

95-131 SMYRNA LUDLOW (20)





#### BORING NOTES:

- 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
- S&H Sampler #1290's
- Bottom of boring (may not be bottom of soil strata)
- Locations cored by diamond bit and percent recovery of rock
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- Unsuccessful sample attempt and type of sampler.
- MD Washed ahead
- WA

#### NOTE:

Attention is called to the fact that ground water may be encountered during excavation.

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS

NEW YORK BOSTON KANSAS CITY

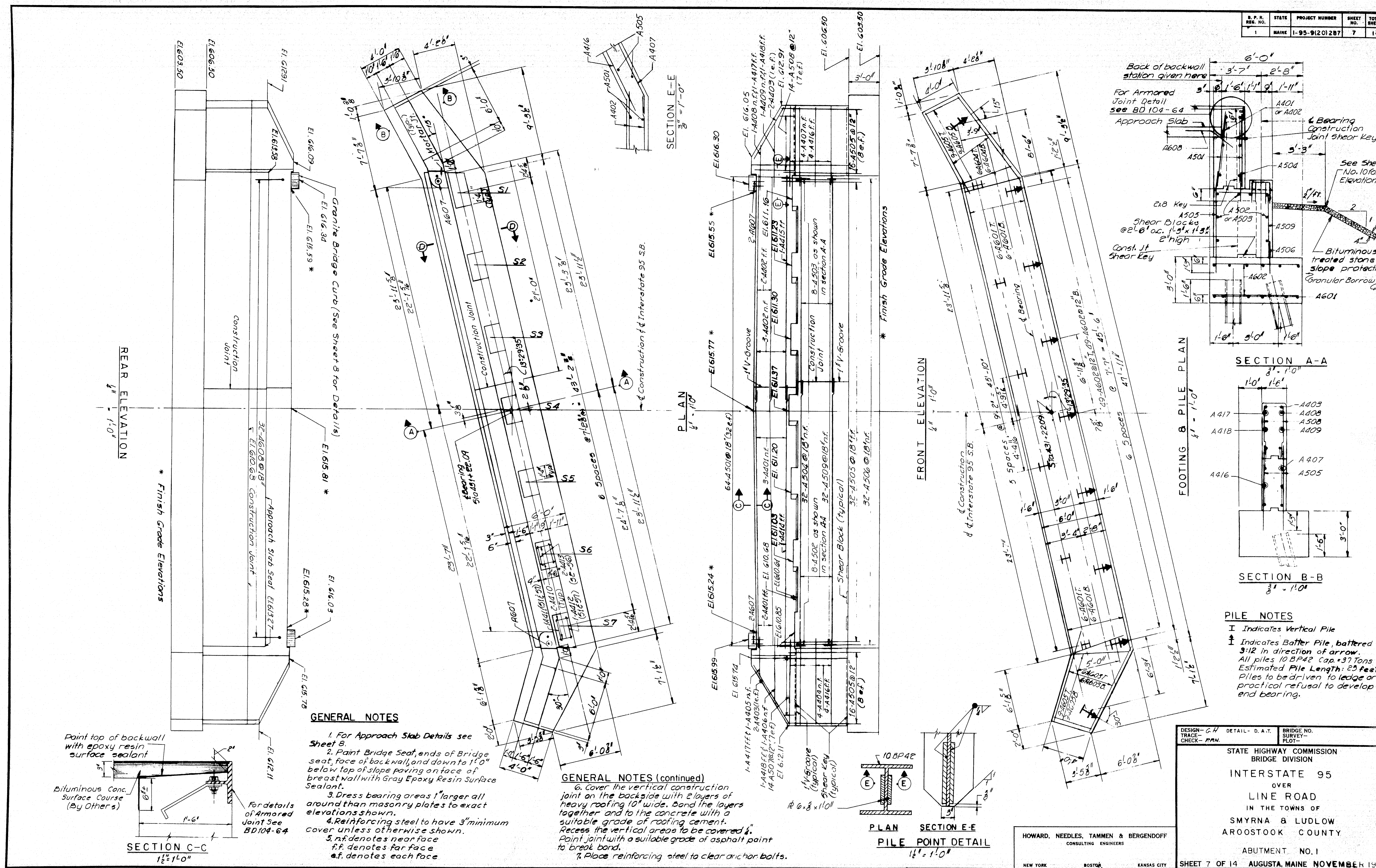
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DETAIL-R.P.K.  
BRIDGE NO. SURVEY-PLOT-  
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
INTERSTATE 95  
OVER  
LINE ROAD  
IN THE TOWNS OF  
SMYRNA AND LUDLOW  
AROSTOOK COUNTY  
FOUNDATION SURVEY

SHEET 6 OF 14 AUGUSTA, MAINE NOVEMBER 1964

95-132 SMYRNA LUDLOW (20)

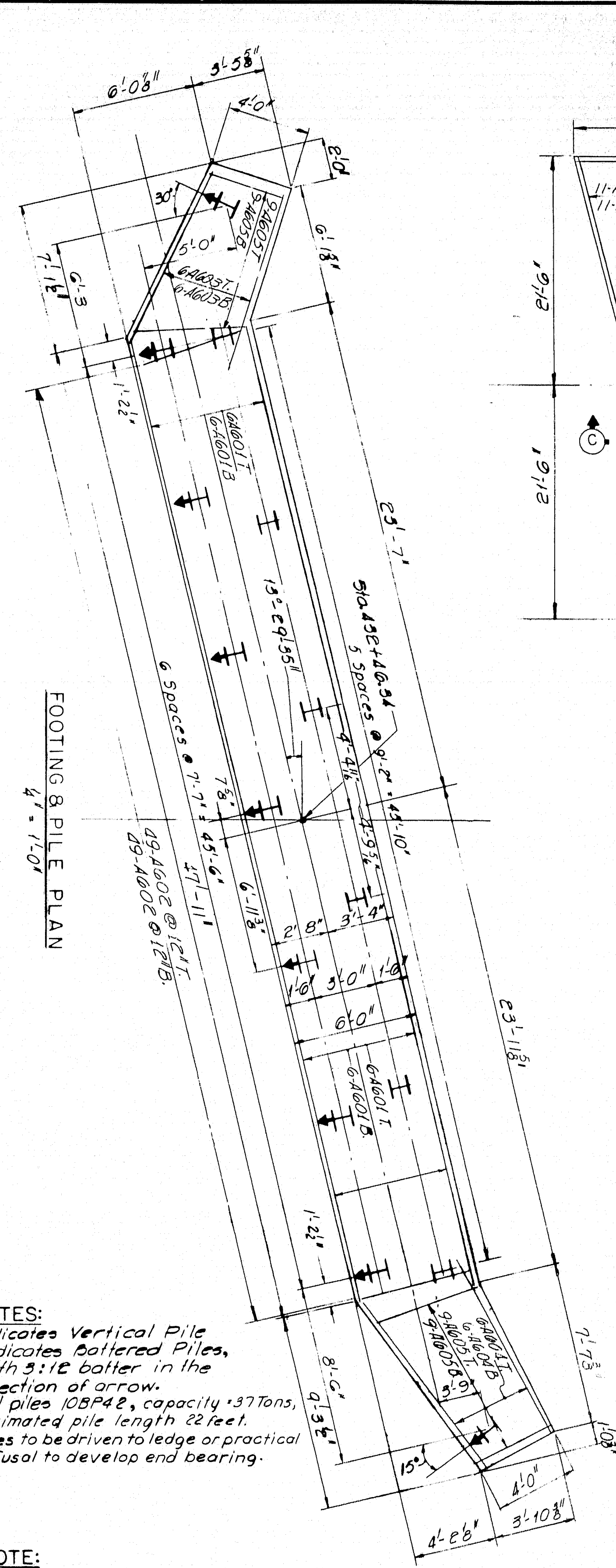
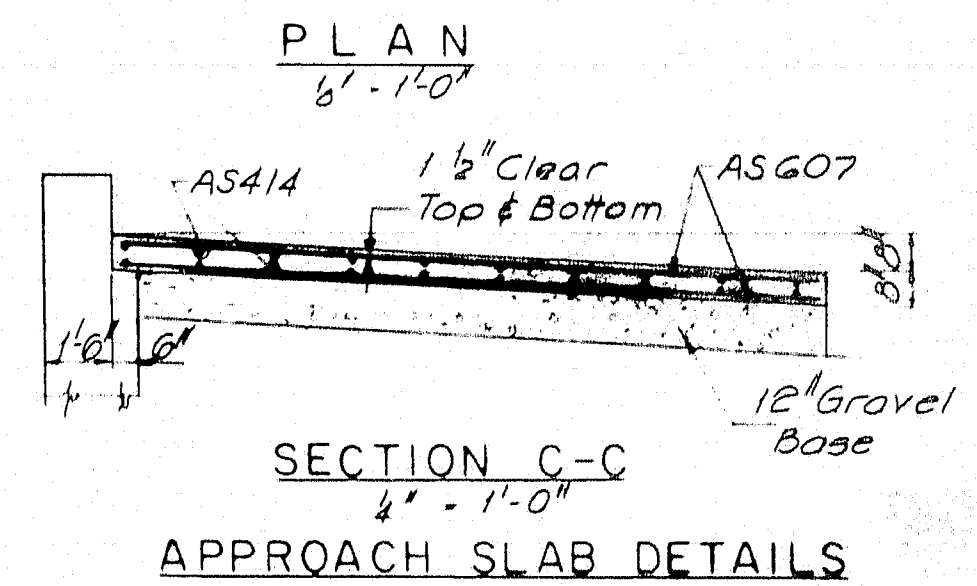
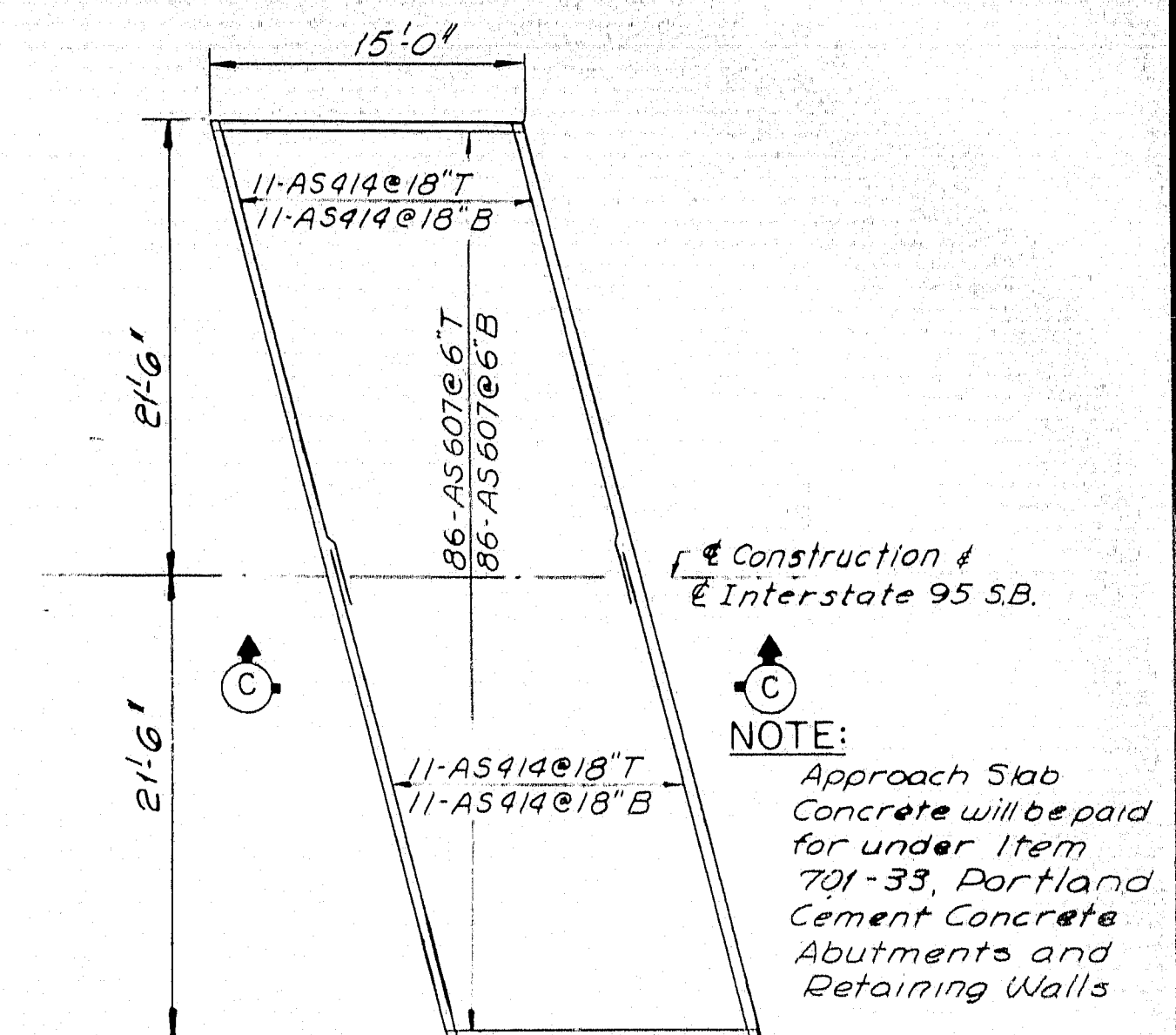


S. P. R. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-9(20)287	7	14





B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-9(20)287	8	14



- PILE NOTES:
1. I Indicates Vertical Pile
  2. B Indicates Battered Piles, with 5:12 batter in the direction of arrow.
  3. All piles 108P42, capacity 37 Tons.
  4. Estimated pile length 22 feet.
  5. Piles to be driven to ledge or practical refusal to develop end bearing.

NOTE:  
For General Notes and Sections A-A, B-B, D-D and E-E see Sheet 7.

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
NEW YORK BOSTON KANSAS CITY

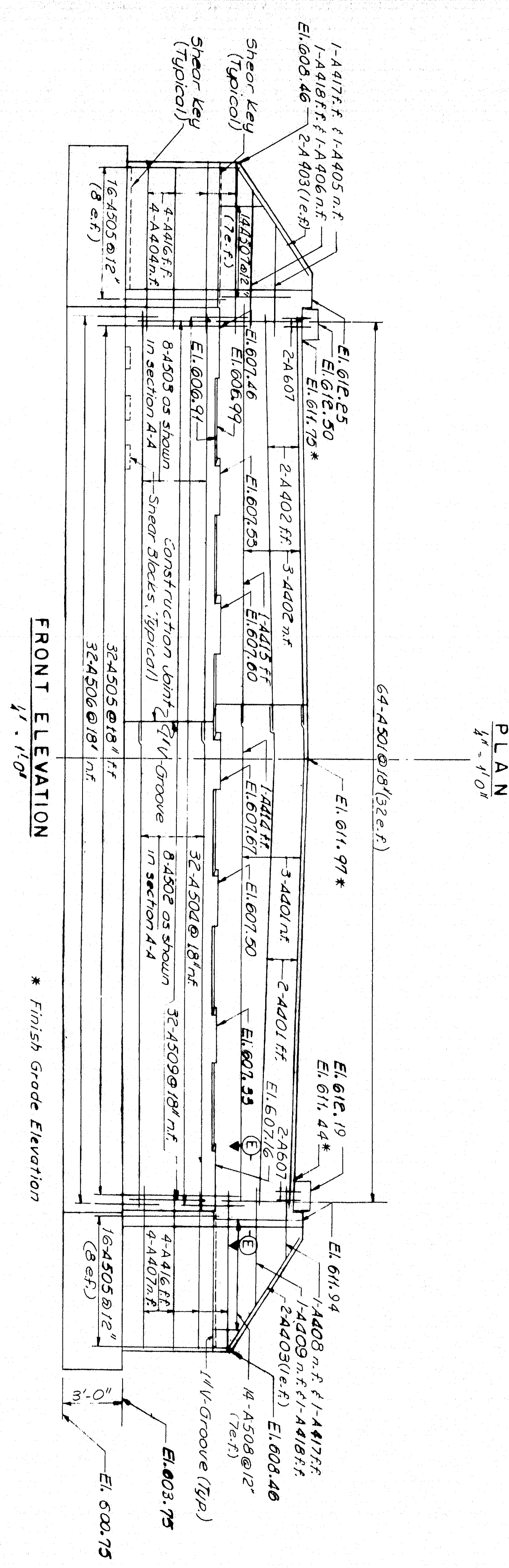
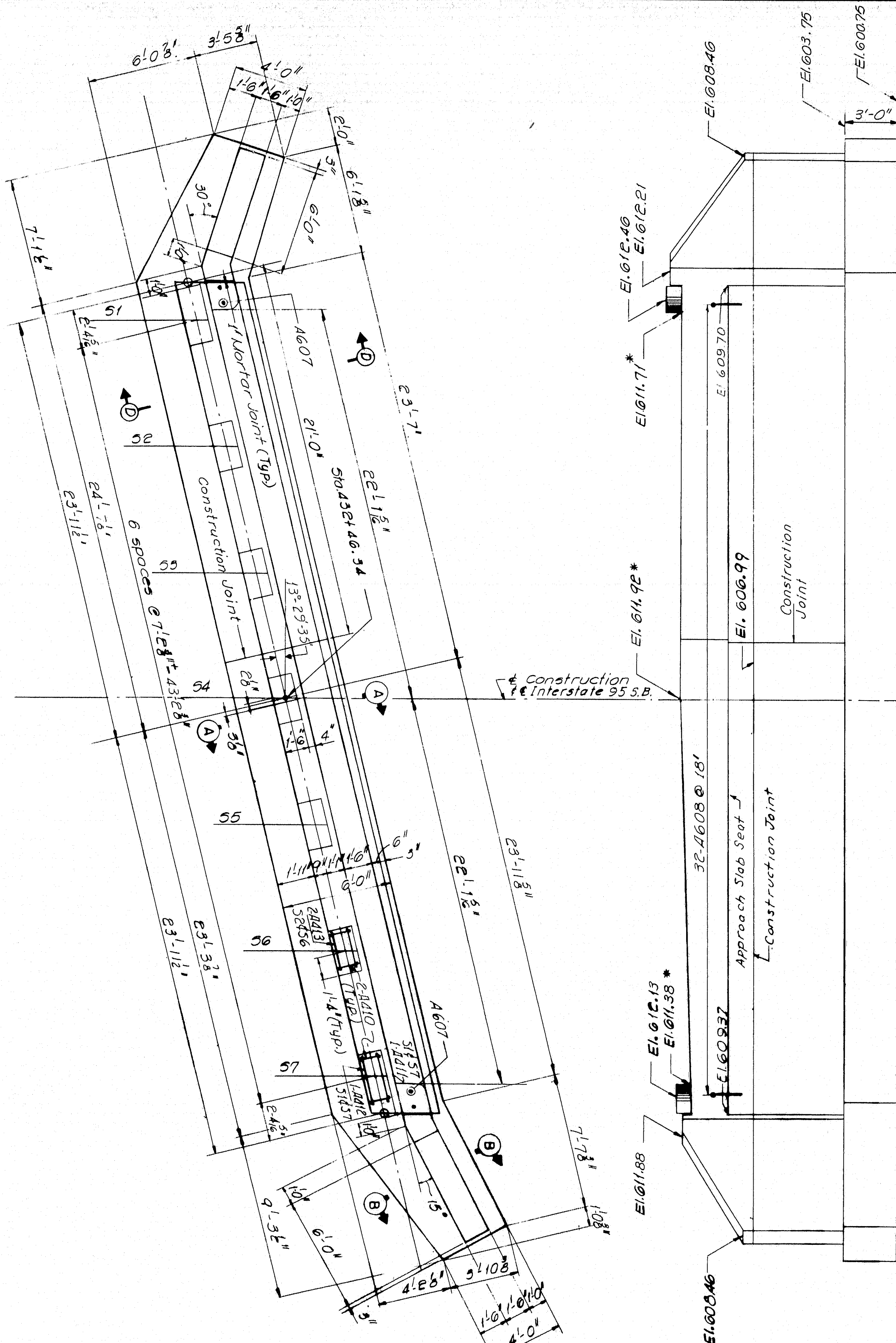
DESIGN— G.H. DETAIL D.A.T.  
TRACE—  
CHECK— P.R.N.

BRIDGE NO.  
SURVEY—  
PLOT—

STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

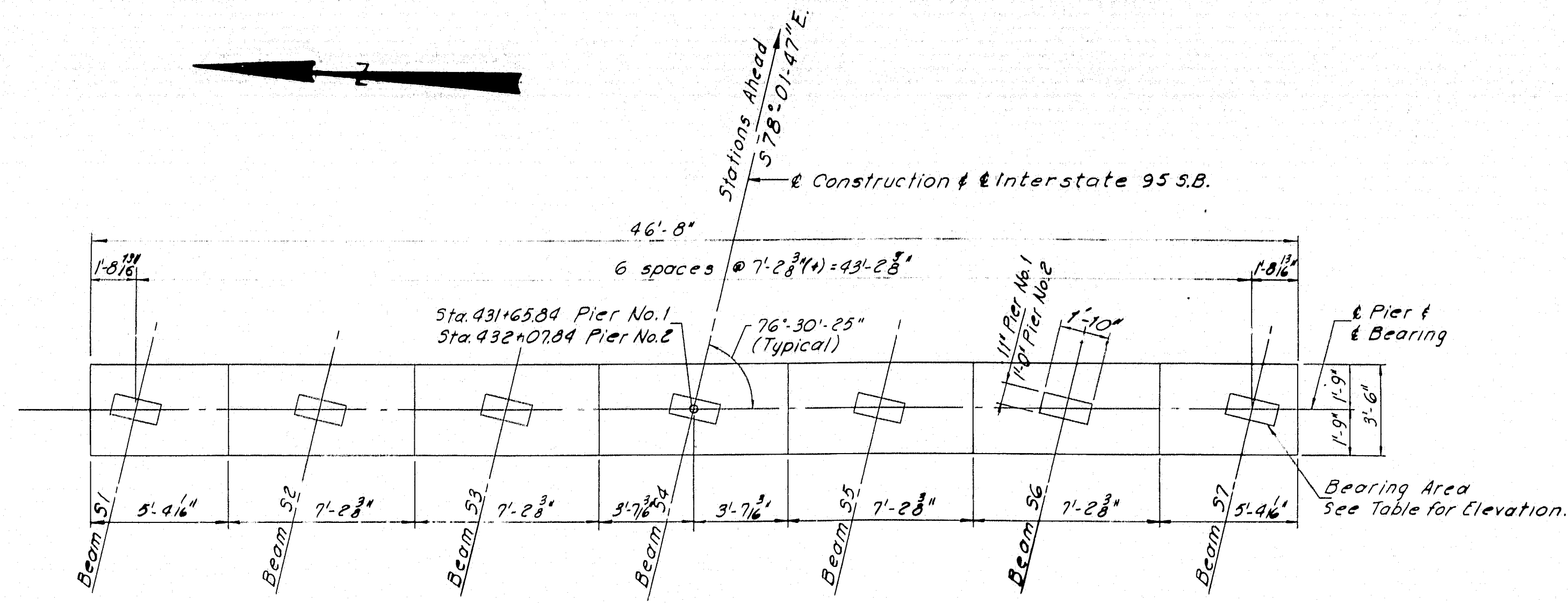
INTERSTATE 95  
OVER  
LINE ROAD  
IN THE TOWNS OF  
SMYRNA & LUDLOW  
AROSTOOK COUNTY  
ABUTMENT NO. 2

SHEET 8 OF 14 AUGUSTA, MAINE NOVEMBER 1964

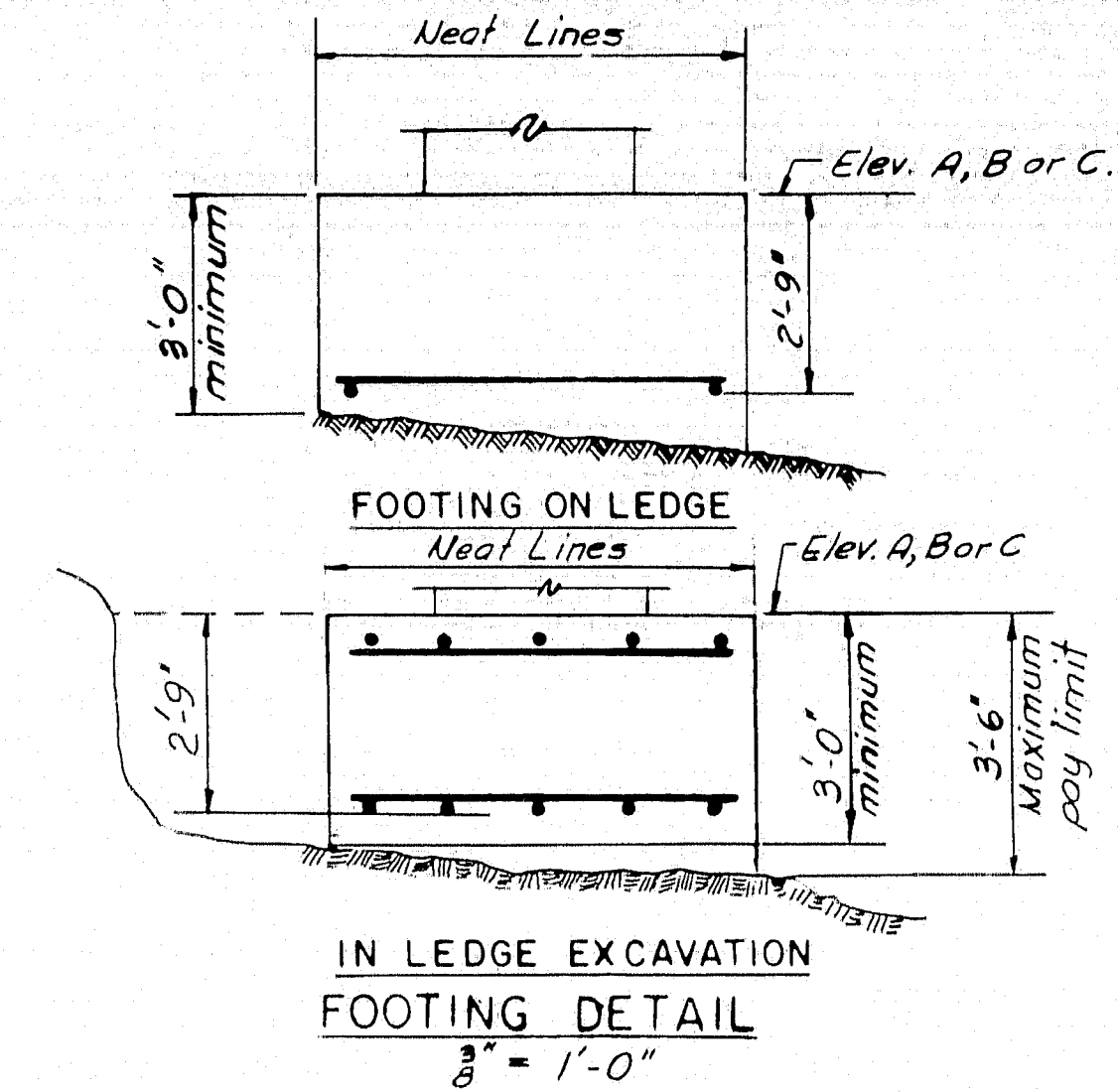


0 1 2 3 4 5 INCHES





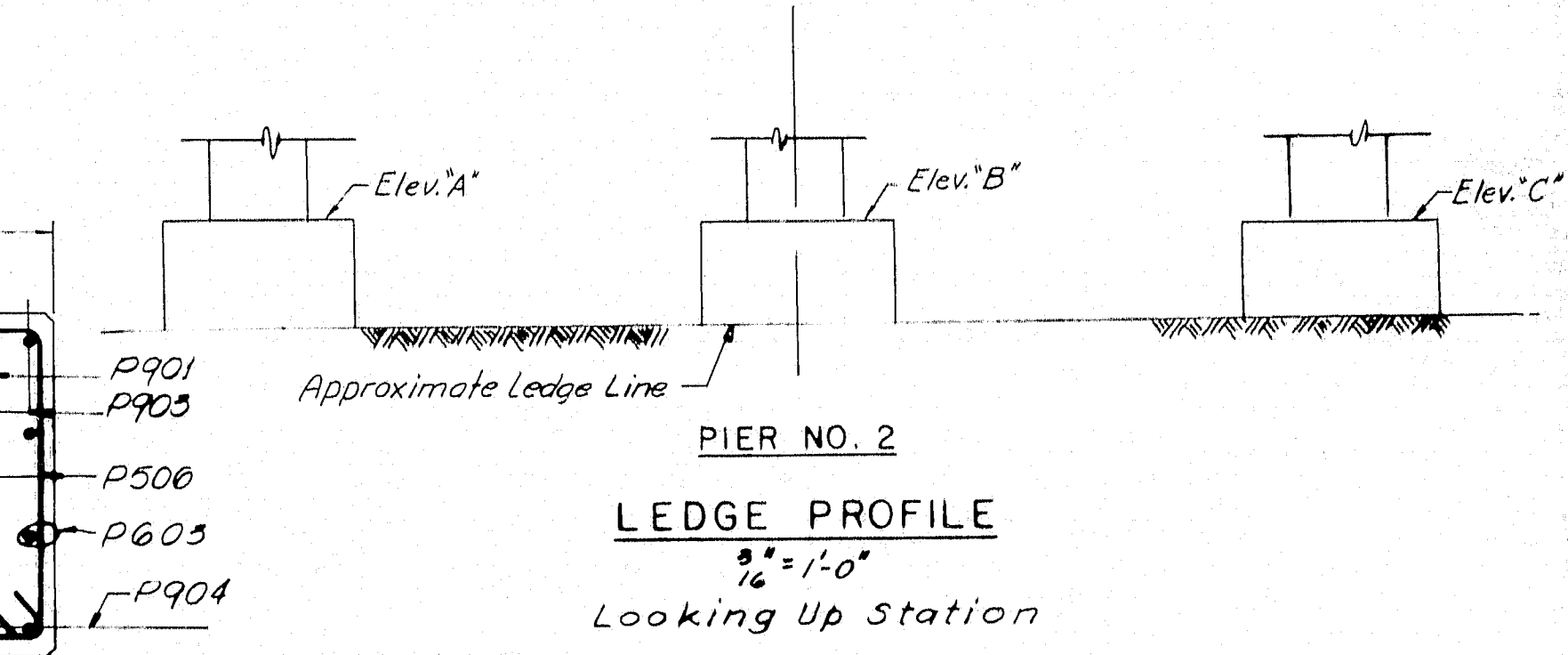
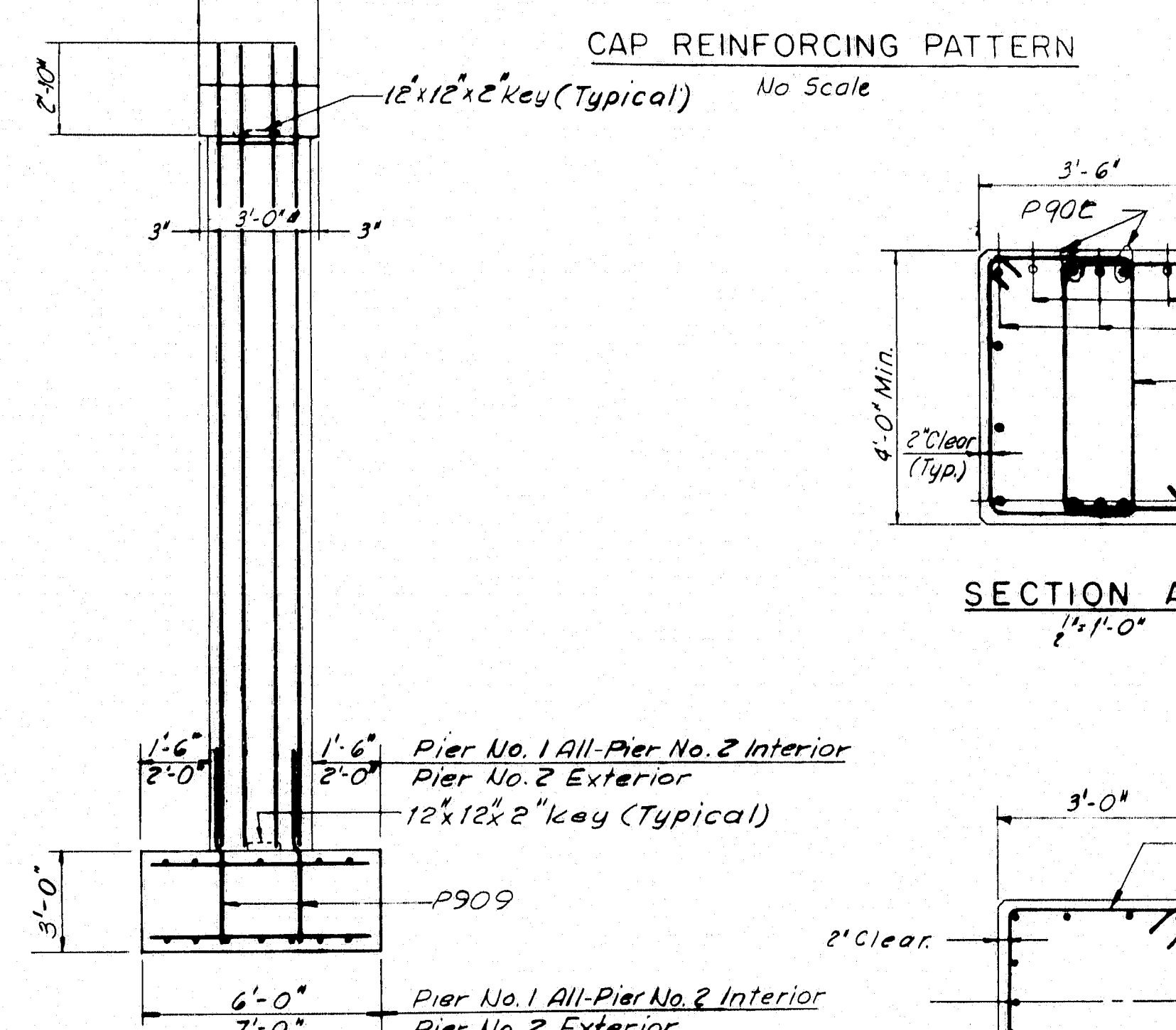
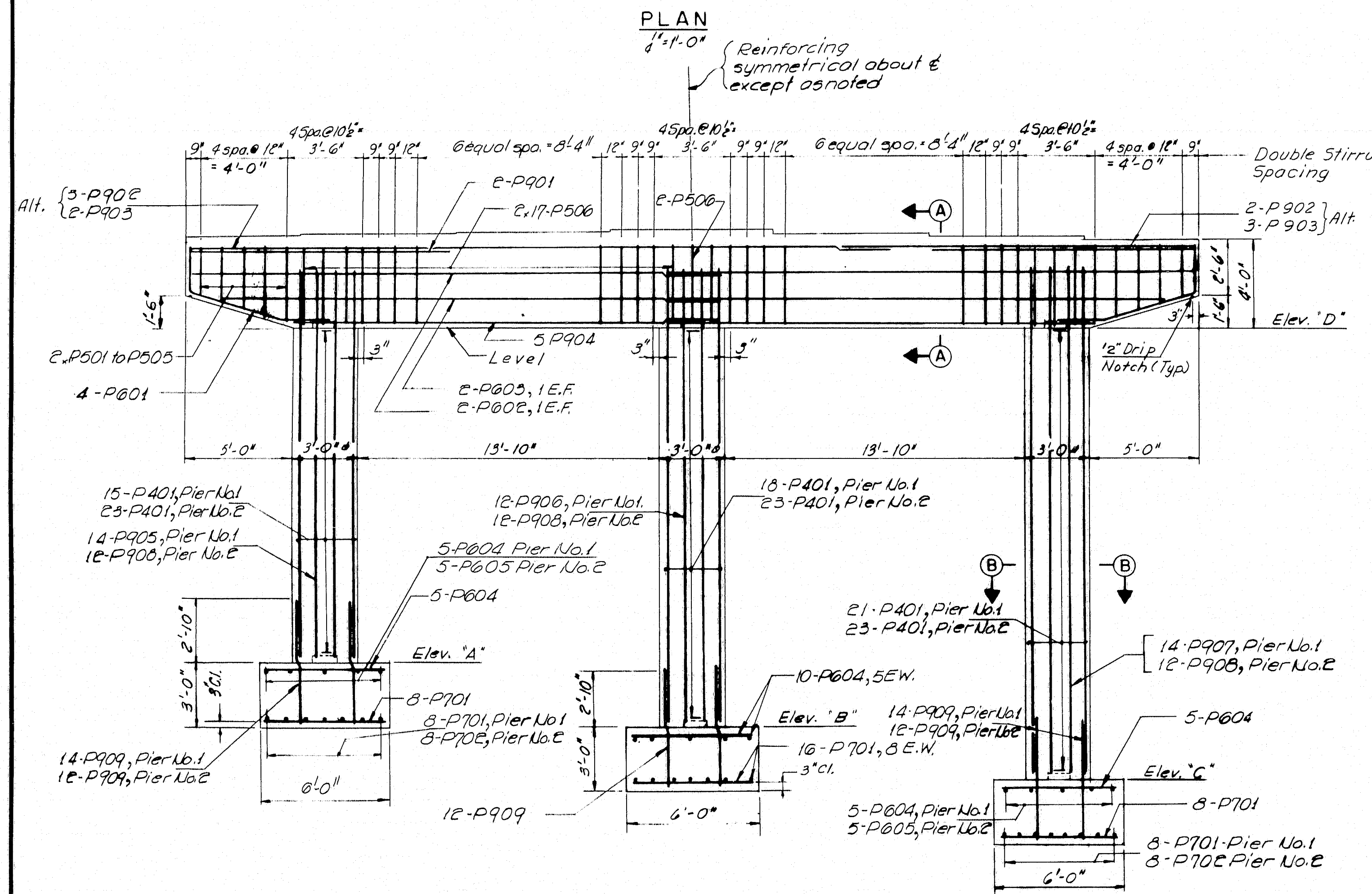
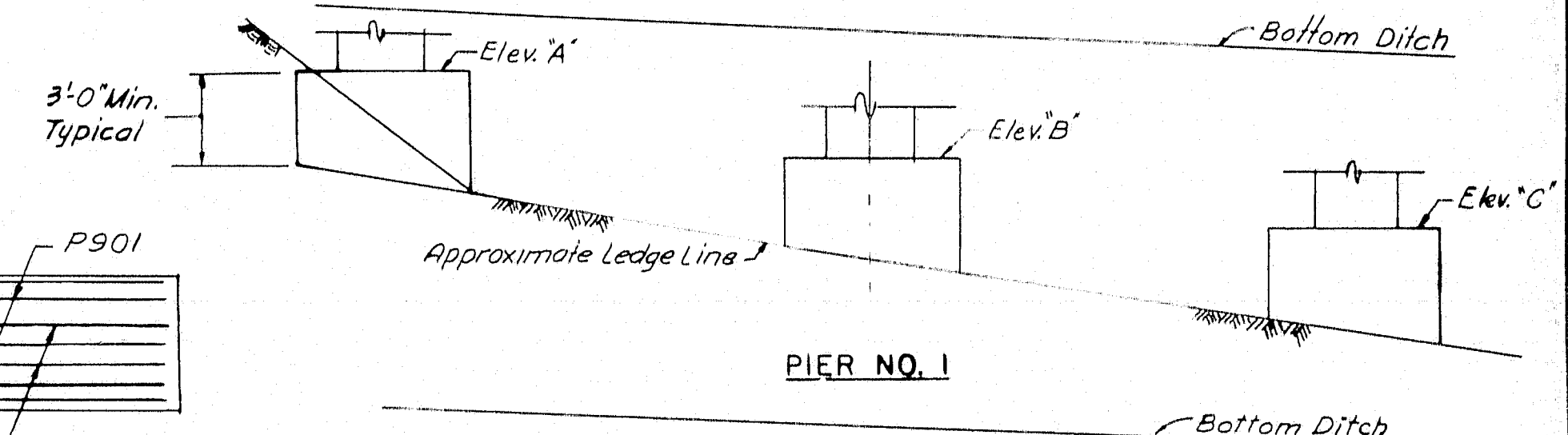
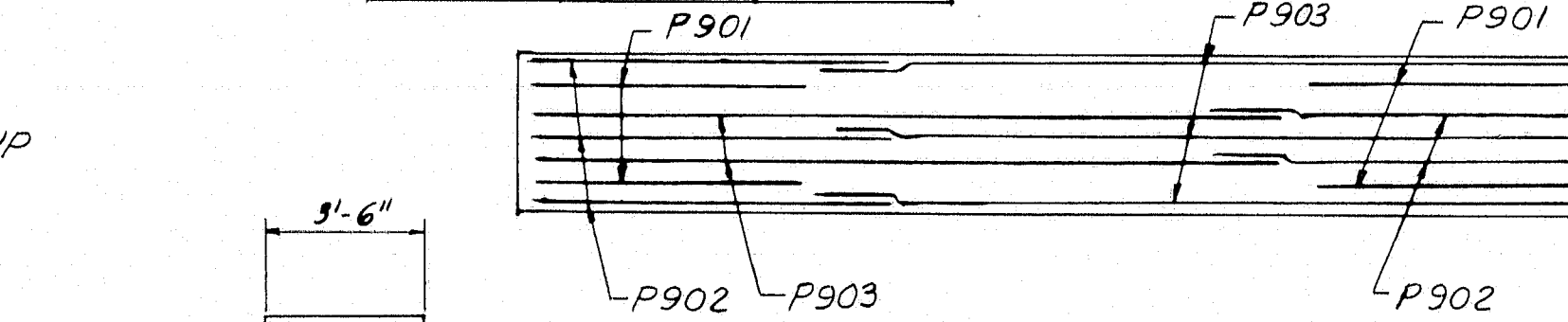
BEARING	PIER 1	PIER 2
BEAM	PIER 1	PIER 2
51	609.64	608.75
52	609.71	608.82
53	609.78	608.89
54	609.86	608.96
55	609.68	608.79
56	609.51	608.62
57	609.34	608.45



#### NOTES

- In ledge excavation, footing side forms may be omitted if approved by the Engineer. No payment will be made for concrete outside the neat lines shown.
- In case of overbreakage of ledge downward, no payment will be made for Structural Rock Excavation Piers; or for concrete more than 3'-6" below top of footing elevation shown.
- All weathered or broken ledge shall be removed before any footing concrete is placed.

ELEVATION	PIER 1	PIER 2
A	588.68	581.26
B	583.24	582.10
C	584.30	586.07
D	605.34	604.45



#### LEDGE PROFILE

Looking Up Station

#### NOTES

- Reinforcing steel to have 2" cover unless otherwise shown.
- Maximum Footing Pressures:  
Loading Group I 4.2 Tons/S.F.  
Loading Group VI 9.2 Tons/S.F. CRITICAL
- E.F. Each Face
- E.W. Each Way
- Top of footing elevation may be altered to suit field conditions. No change in top of footing elevations greater than two feet shall be made without approval of the consulting engineer.
- Dress bearing areas 1" larger all around than masonry plates to exact elevations shown.

#### SECTION B-B

EXT. COLS. PIER NO. 1

#### SECTION B-B

INT. COL. PIER NO. 1

ALL COLS. PIER NO. 2

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS

NEW YORK BOSTON KANSAS CITY

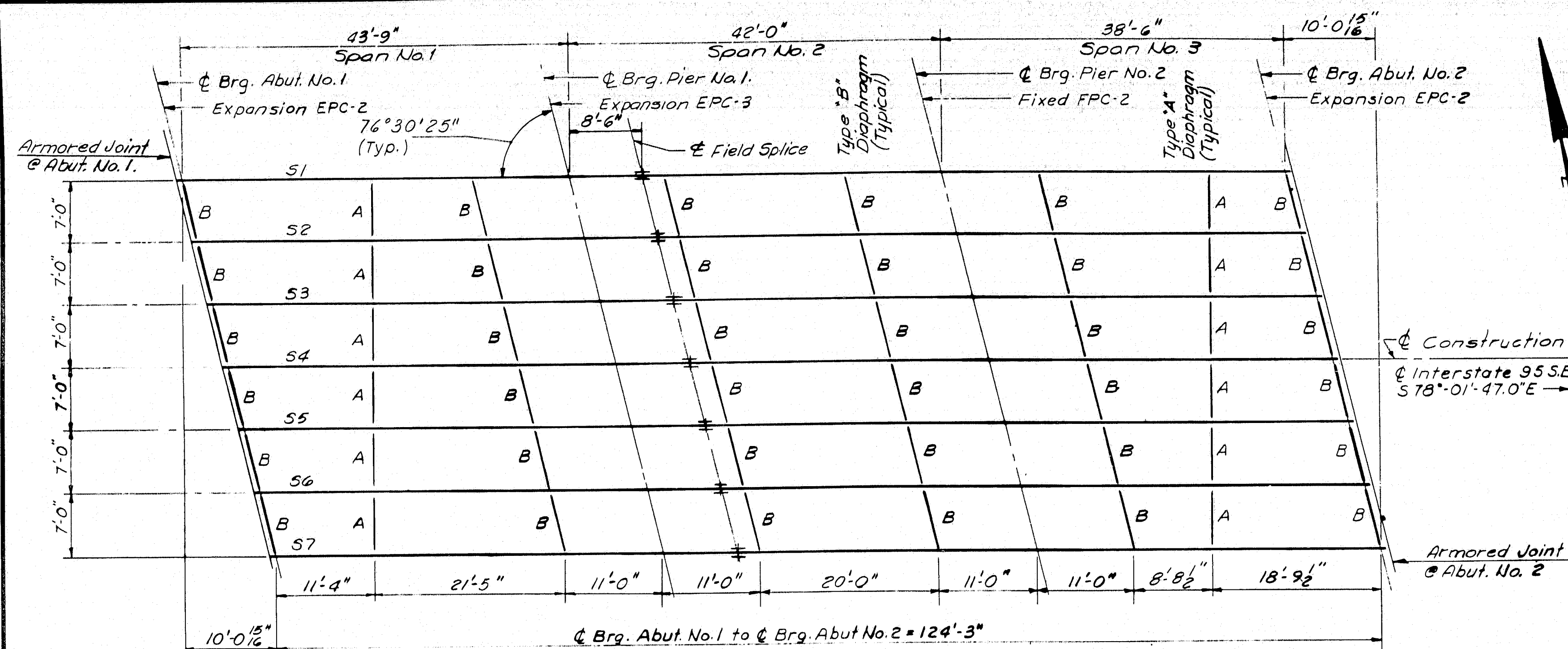
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DETAIL - J.M.S.  
BRIDGE NO. SURVEY - PLOT -  
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
INTERSTATE 95  
OVER  
LINE ROAD  
IN THE TOWNS OF  
SMYRNA & LUDLOW  
ARROOSTOOK COUNTY  
PIERS

SHEET 9 OF 14 AUGUSTA, MAINE NOVEMBER 1964

95-135

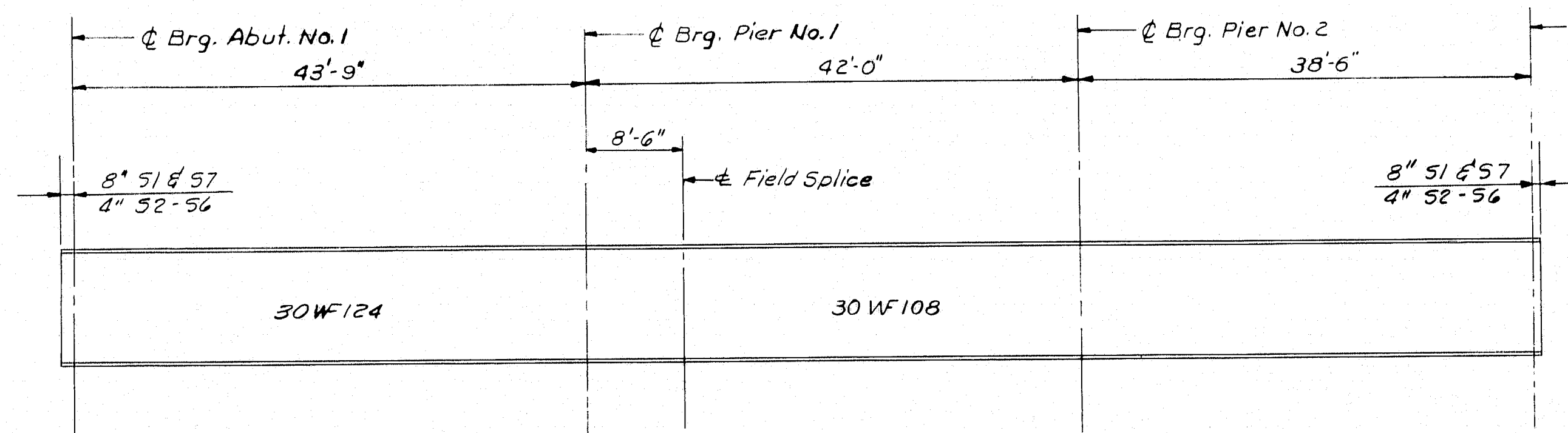
SMYRNA LUDLOW (20)





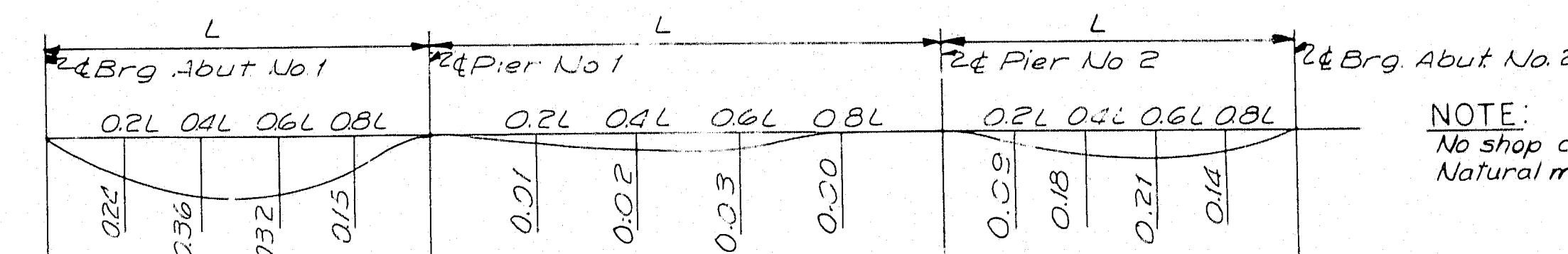
**BRIDGE DRAIN NOTES:**  
Two bridge drains on each side Span 1 & 3. Drains shall be placed so they are at least 10'-0" from Piers, exact position to be determined in field. For approximate location see sheet 2.

**ERECTION DIAGRAM**  
1"=10'

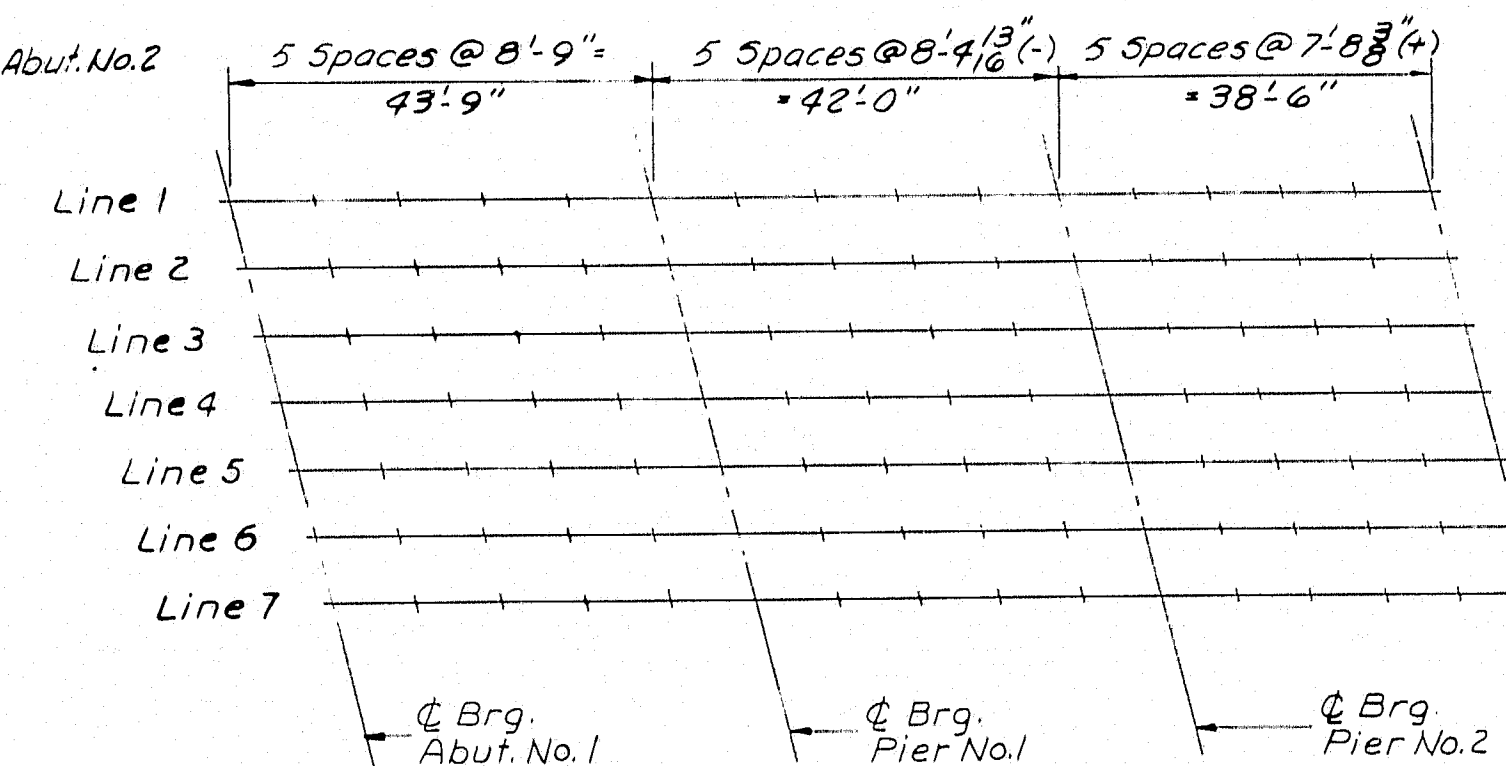


**TYPICAL STRINGER ELEVATION**  
All Dimensions Are Horizontal

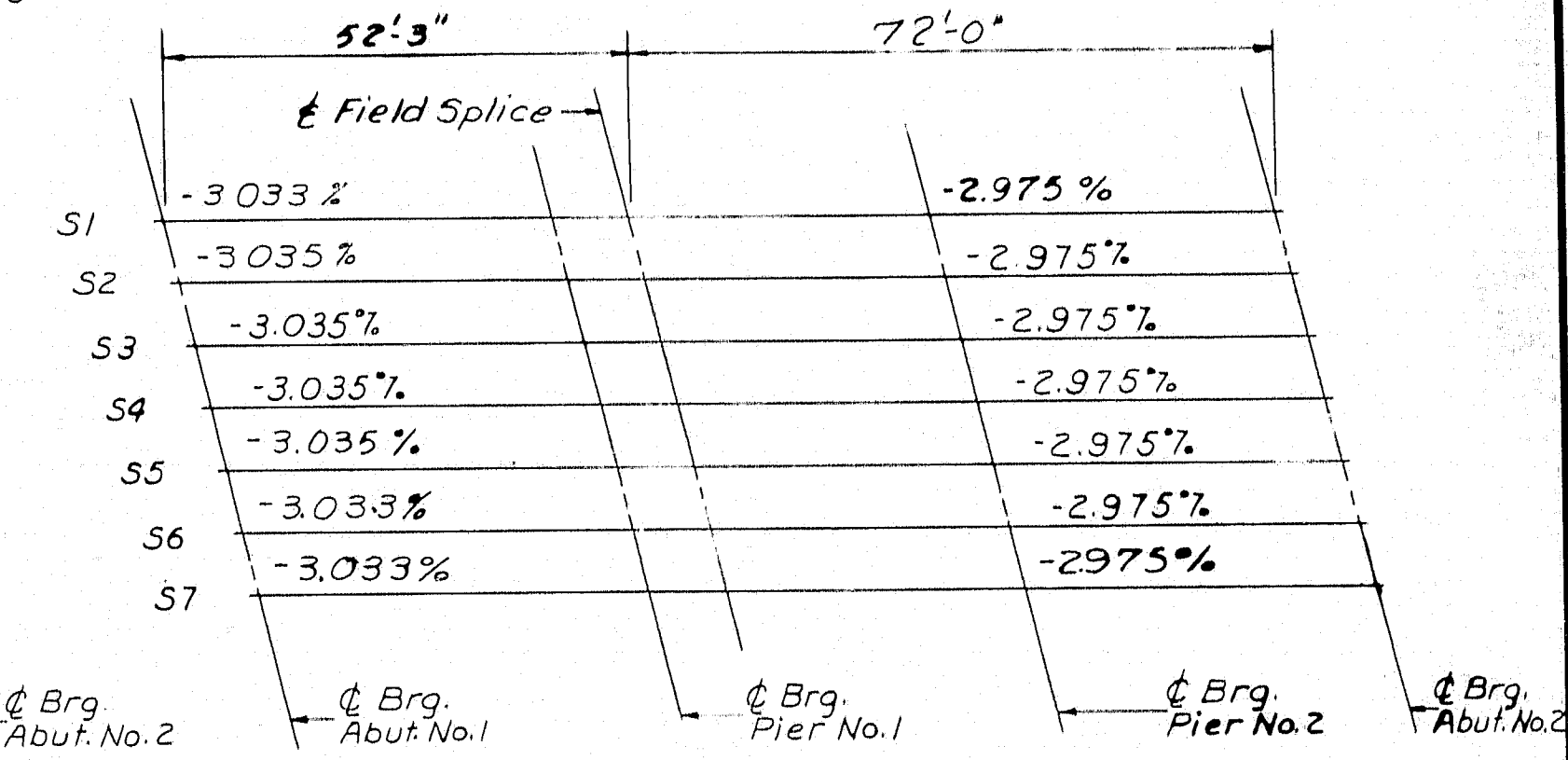
**PEDESTALS**  
14 EPC-2 Required  
7 EPC-3 Required  
7 FPC-2 Required



**DEAD LOAD DEFLECTION DIAGRAM**  
ALL DEFLECTIONS IN INCHES



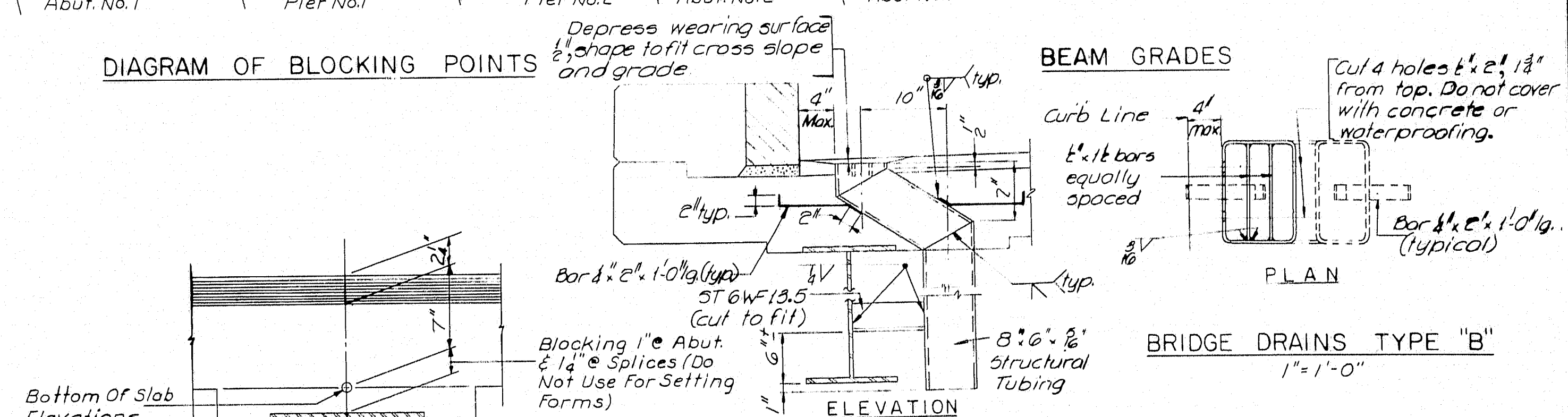
**DIAGRAM OF BLOCKING POINTS**



**BEAM GRADES**

	Abut. No. 1	SPAN NO. 1				Pier No. 1	SPAN NO. 2				Pier No. 2	SPAN NO. 3				Abut. No. 2
		8'-9"	17'-6"	26'-3"	35'-0"		8'-4 1/2"	16'-9 3/8"	25'-2 3/8"	33'-7 1/4"		7'-8 3/8"	15'-4 3/4"	23'-1 1/4"	30'-9 5/8"	
Line 1	614.74	614.50	614.25	613.98	613.71	613.43	613.18	612.93	612.68	612.42	612.17	611.95	611.72	611.50	611.26	611.02
Line 2	614.81	614.57	614.32	614.05	613.78	613.50	613.25	613.00	612.75	612.49	612.24	612.02	611.79	611.57	611.33	611.09
Line 3	614.89	614.64	614.39	614.12	613.85	613.57	613.32	613.07	612.82	612.56	612.31	612.09	611.87	611.64	611.40	611.16
Line 4	614.96	614.71	614.46	614.19	613.92	613.64	613.39	613.14	612.89	612.64	612.38	612.16	611.94	611.71	611.47	611.23
Line 5	614.78	614.54	614.29	614.02	613.75	613.47	613.22	612.97	612.72	612.46	612.21	611.99	611.76	611.54	611.30	611.06
Line 6	614.61	614.37	614.12	613.85	613.58	613.30	613.05	612.80	612.55	612.29	612.04	611.82	611.59	611.37	611.13	610.89
Line 7	614.44	614.20	613.95	613.68	613.40	613.13	612.88	612.63	612.37	612.12	611.87	611.64	611.42	611.19	610.96	610.71

**BOTTOM OF SLAB ELEVATIONS AT BLOCKING POINTS**



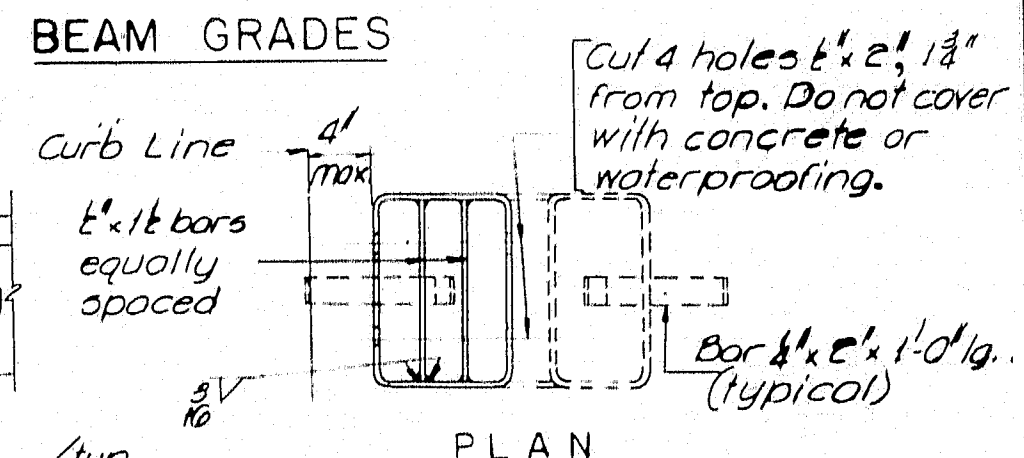
**BLOCKING DETAIL**  
No Scale

**NOTE:**  
To compensate for dead load deflections as well as possible irregularities in beams, set the bottom of slab elevations at the points indicated before any of the slab form work is started.

**REFERENCE**  
Splice - See Standard Details BD 103-64  
Diaphragms - See Standard Details BD 104-64  
Pedestals - See Standard Details BD 101-64  
Armored Joint - See Standard Details BD 104-64

**SPECIFICATION**  
Fabrication and Erection: State of Maine Standard Specifications, Highways and Bridges, Revision of Jan 1956 and Supplementary Specifications of Feb., 1960.  
Design and Detail: AASHTO Standard Specifications of 1961, and Interim Specifications 1961, 1962, 1963, 1964.  
Materials: Except as otherwise noted on the standard details, all materials shall conform to A.S.T.M. designation A-36.

**NOTE:**  
No shop camber required. Natural mill camber to be placed up.



**BRIDGE DRAINS TYPE "B"**  
1"=1'-0"

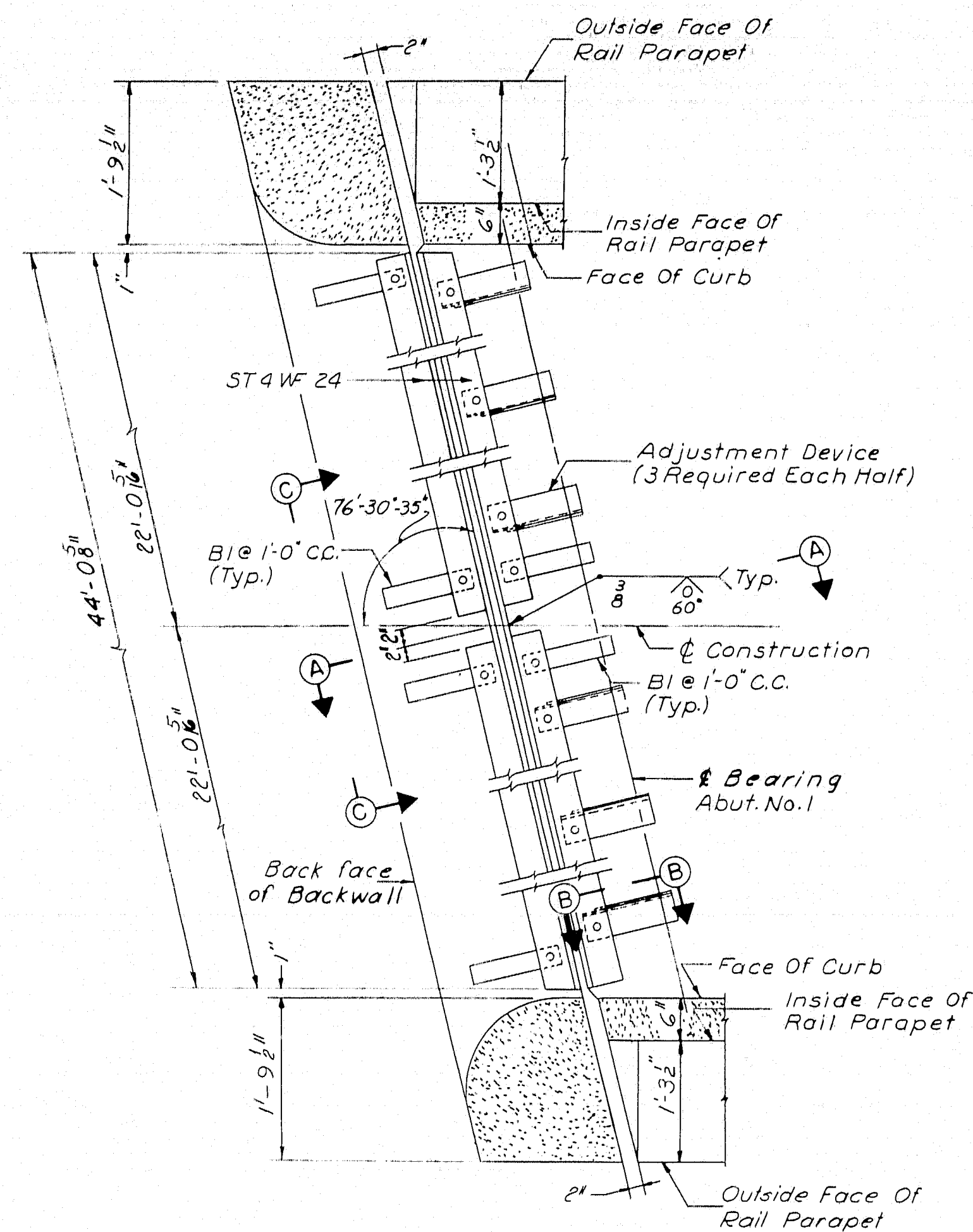
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS

DESIGN-C.H. DETAIL-R.D.F. BRIDGE NO. SURVEY-PLOT-  
CHECK-P.R.N.  
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
INTERSTATE 95  
OVER  
LINE ROAD  
IN THE TOWNS OF  
SMYRNA & LUDLOW  
AROSTOOK COUNTY  
STRUCTURAL STEEL & BLOCKING  
SHEET 10 OF 14 AUGUSTA, MAINE NOVEMBER 1964

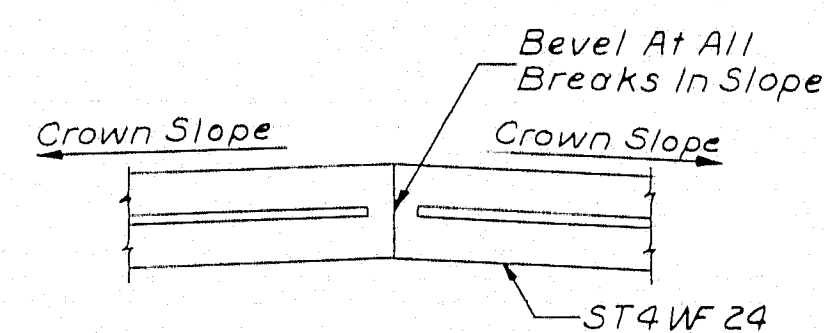
95-136 SMYRNA LUDLOW (20)



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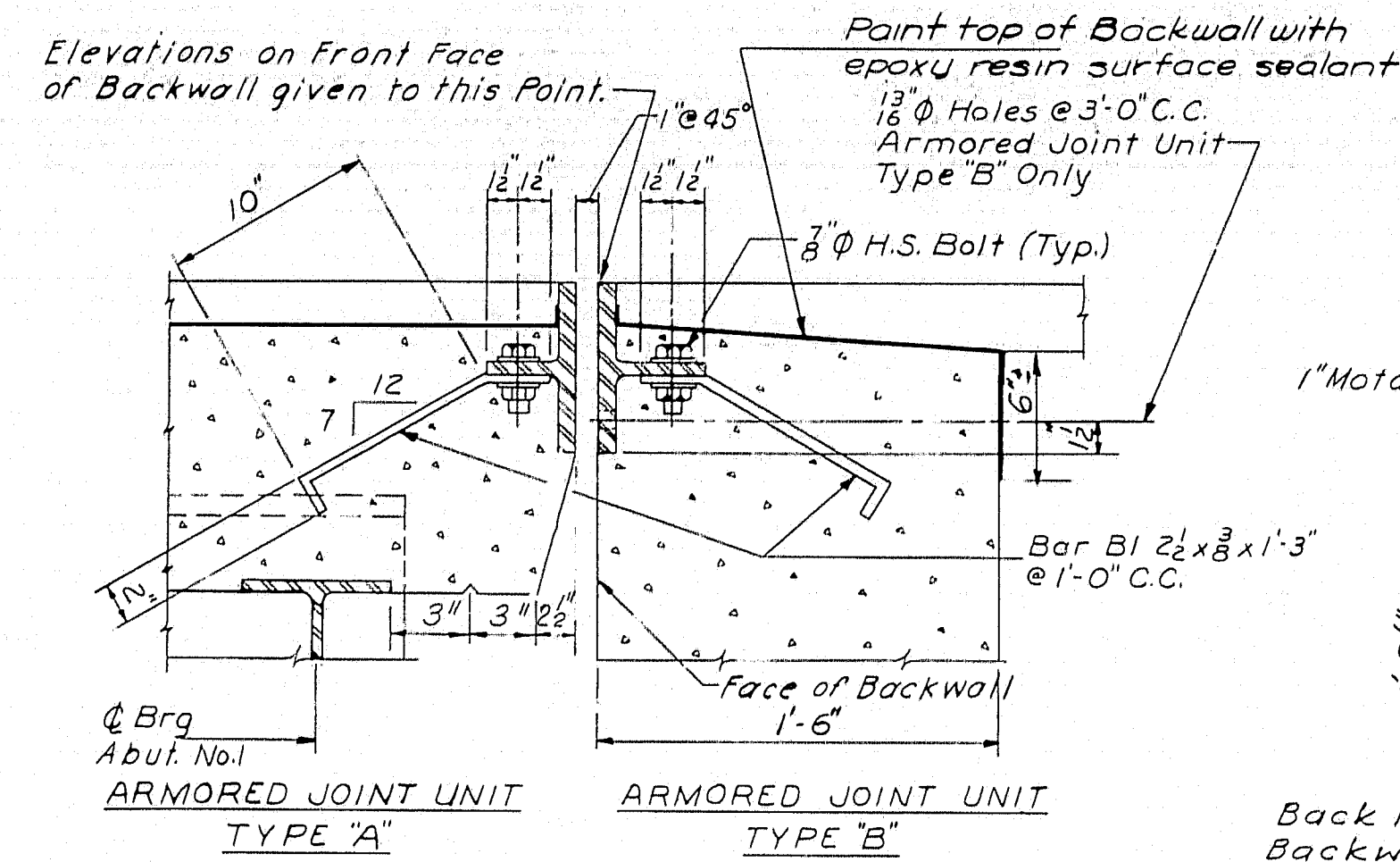
PLAN  
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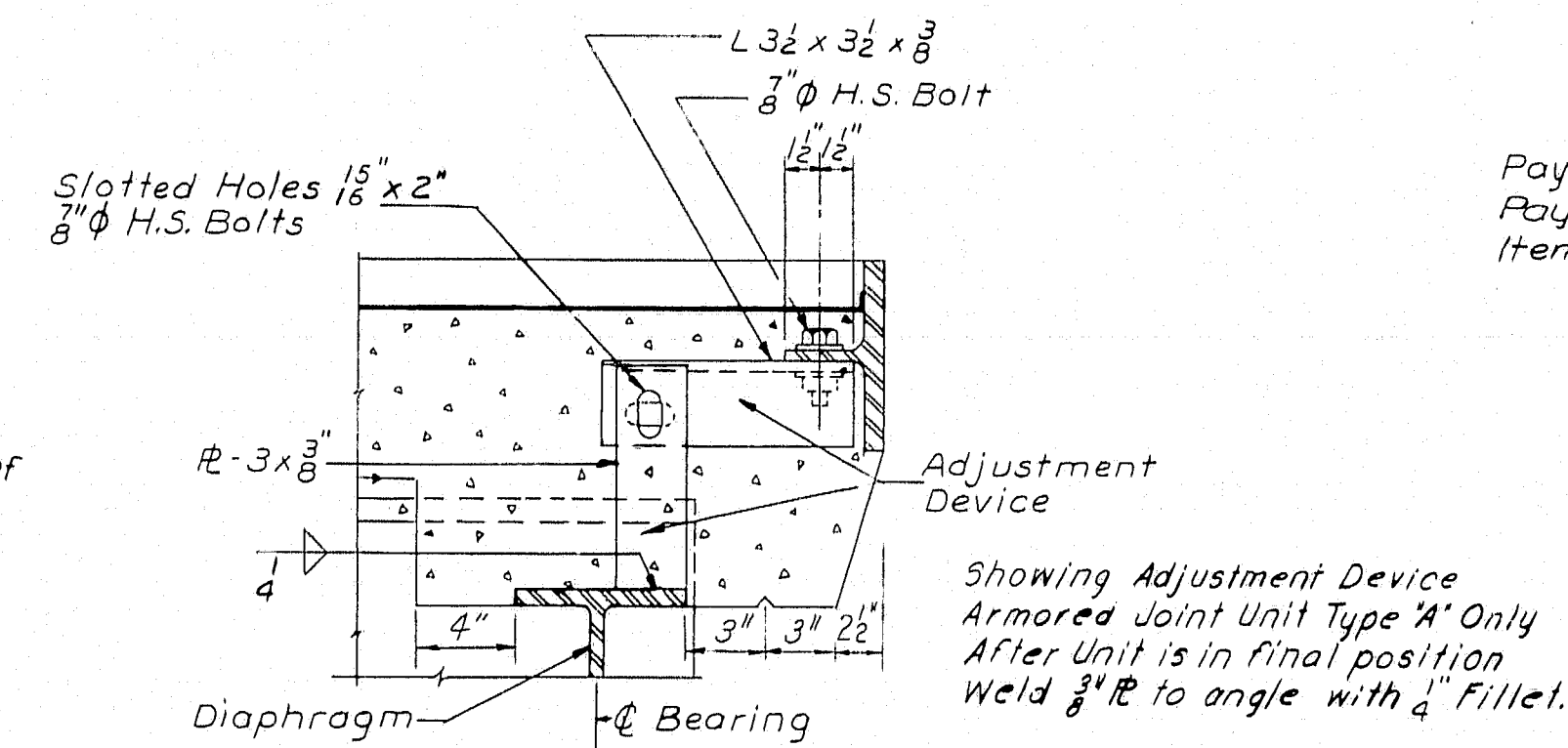
SECTION C-C

#### ARMORED JOINT

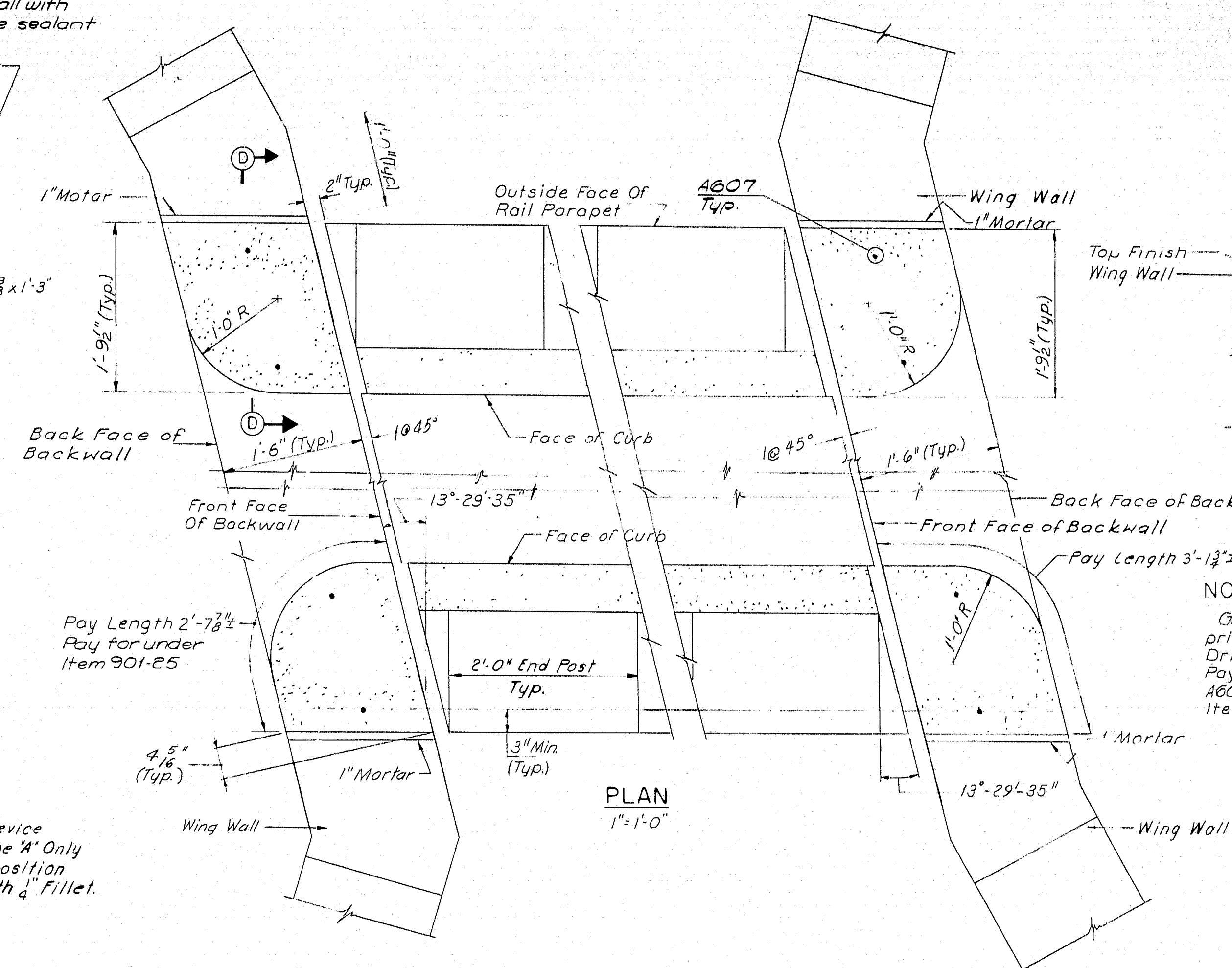
Abutment No.1 Shown - Abutment No.2 Similar  
For additional details, see "Standard Details  
BD 104-64"



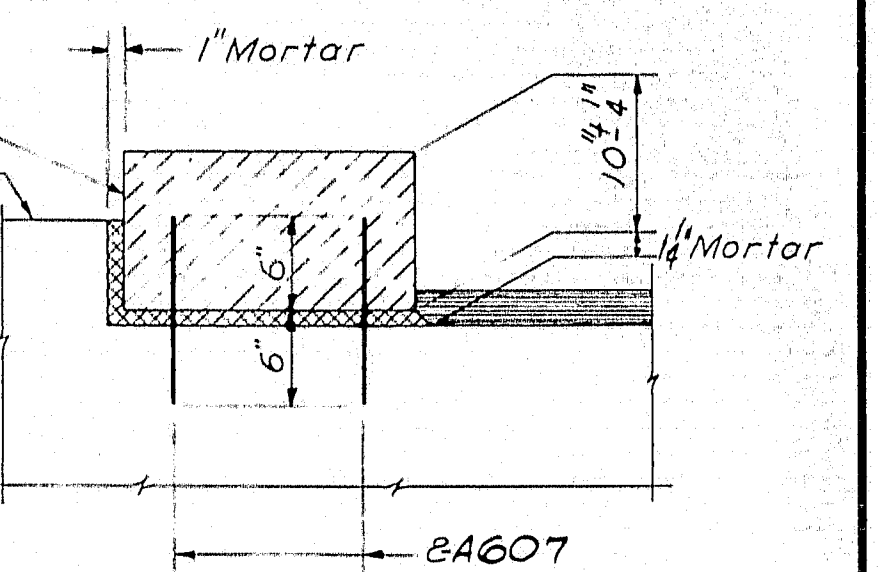
SECTION A-A  
1 1/2"=1'-0"



SECTION B-B  
1 1/2"=1'-0"



PLAN  
1"=1'-0"



SECTION D-D  
1"=1'-0"

NOTE:  
Grout A607 bars into 1/4" holes in stone prior to setting stone on backwall. Drill 1/4" holes in backwall to suit A607 bars. Payment for drilling and grouting of A607 bars to be included in the price for Item 705-14 Reinforcing Steel, Placing.

#### GRANITE BRIDGE CURB DETAILS AT ABUTMENT BACKWALLS

Granite Bridge Curb means Vertical Bridge Curb. Type 1 Items 901-24 & 901-25.

DESIGN - I.S. TRACE - CHECK - F.R.U.	DETAIL - R.D.F.	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION INTERSTATE 95 OVER LINE ROAD IN THE TOWNS OF SMYRNA & LUDLOW AROSTOOK COUNTY ARMORED JOINT & CURB DETAILS		
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS NEW YORK BOSTON KANSAS CITY	SHEET 11 OF 14 AUGUSTA, MAINE NOVEMBER 1964 SMYRNA LUDLOW (20)	

95-137

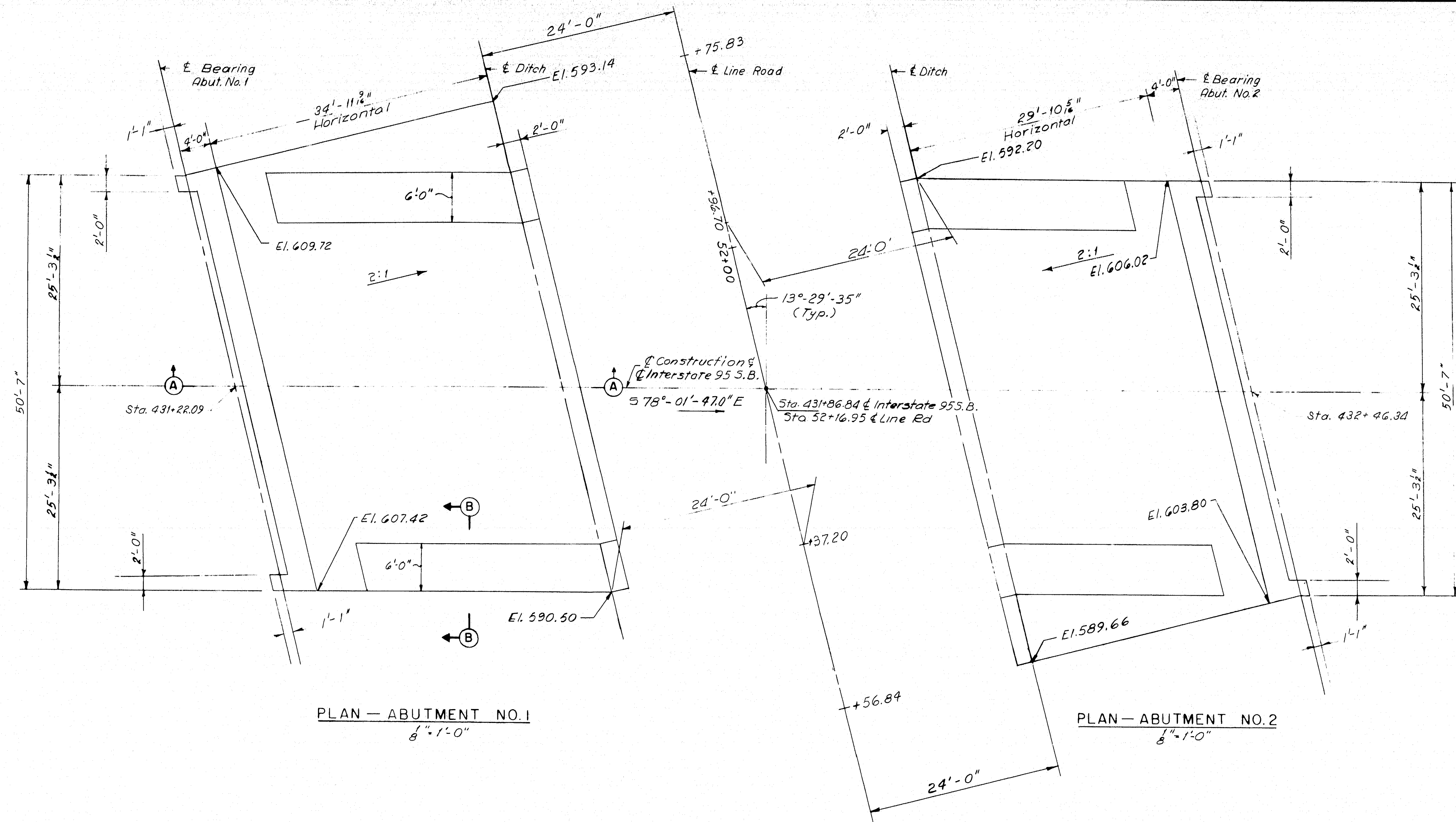
0 1 2 3 4 5 INCHES





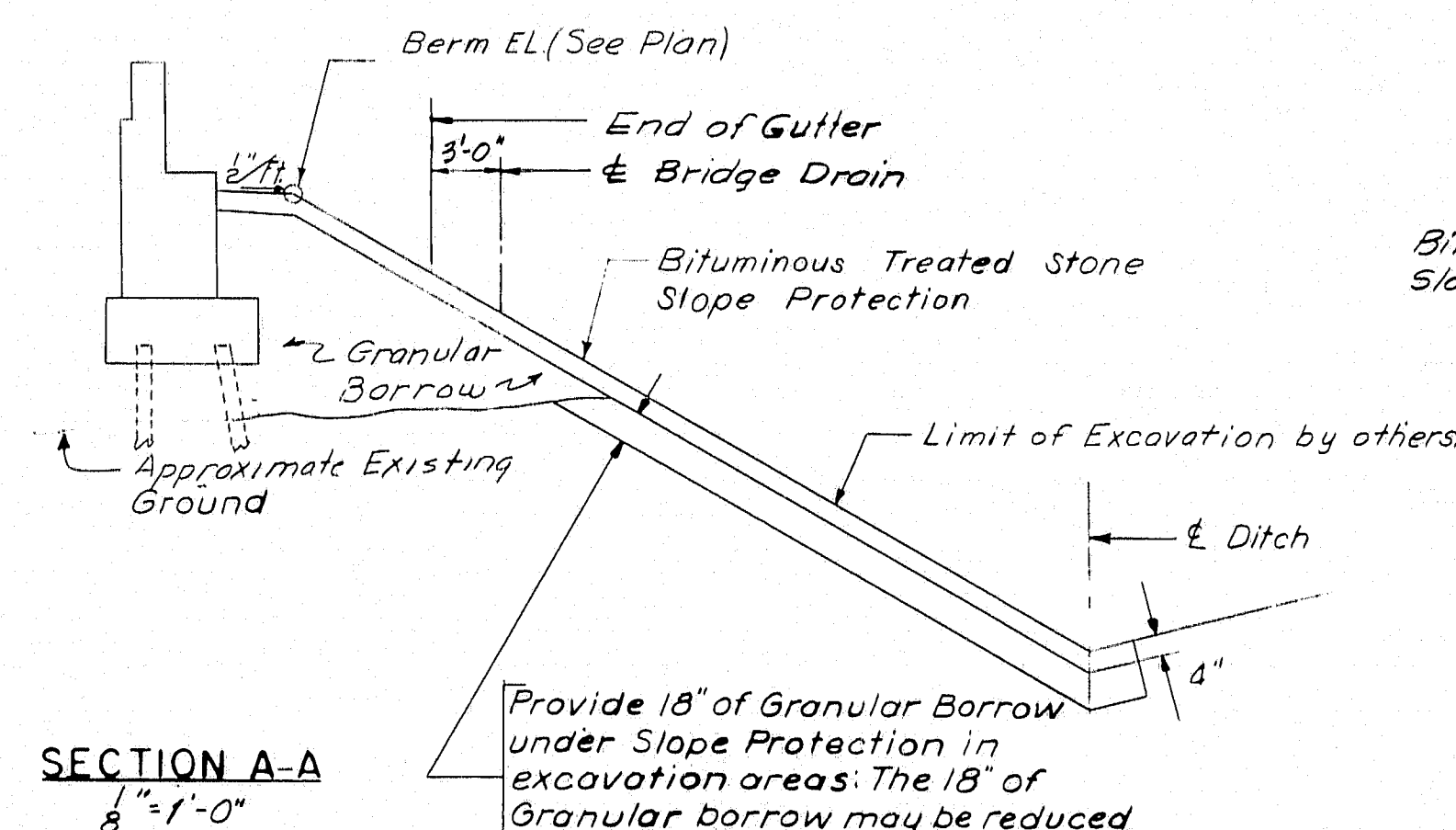


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-9(20) 287	13	14



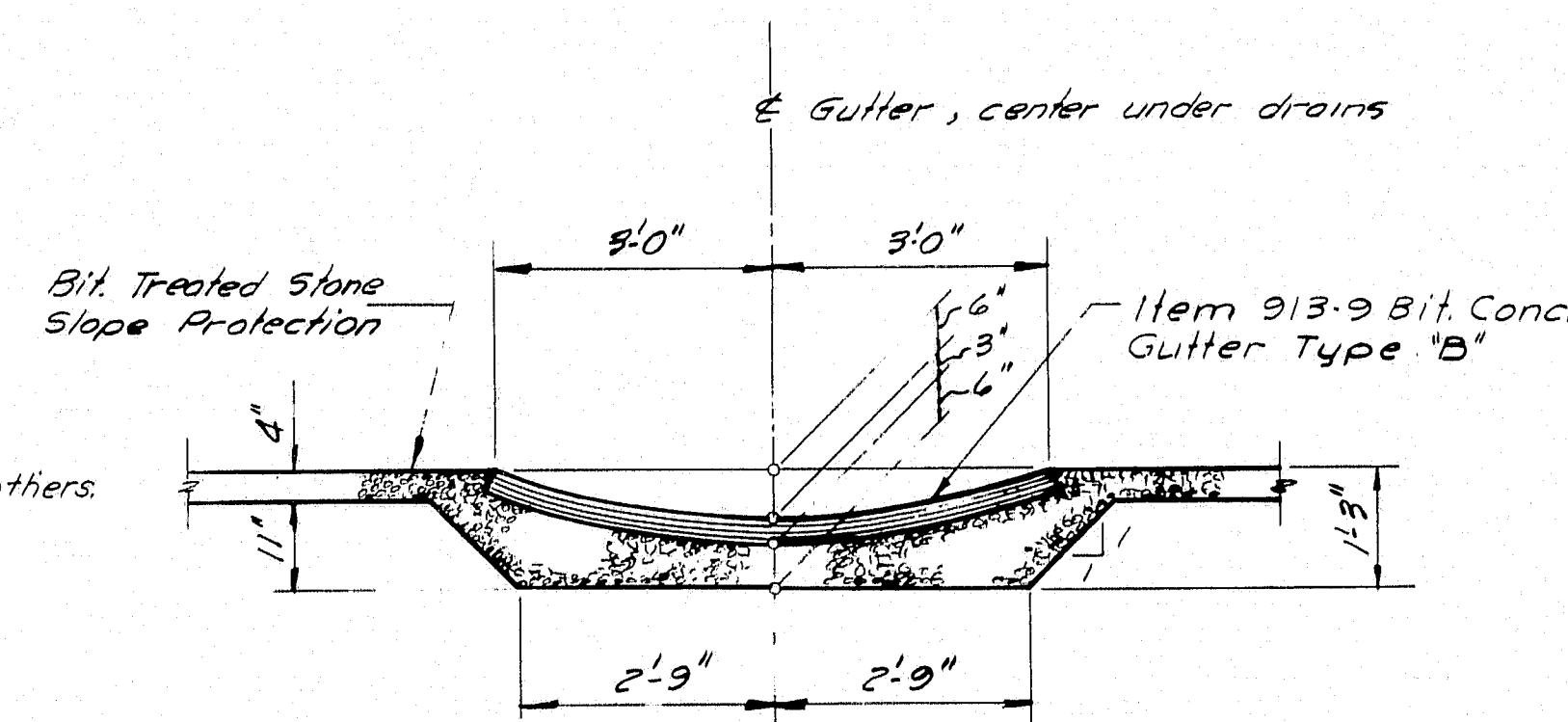
PLAN — ABUTMENT NO. 1  
8" = 1'-0"

PLAN — ABUTMENT NO. 2  
8" = 1'-0"



SECTION A-A  
8" = 1'-0"

Provide 18" of Granular Borrow under Slope Protection in excavation areas. The 18" of Granular borrow may be reduced or omitted if in the opinion of the Engineer the existing material is suitable. Payment for earth excavation in the area of the Slope Protection will be made under Item 204-12 Str. Earth Excavation Abutments & Retaining Walls.



BITUMINOUS CONCRETE GUTTER  
SECTION B-B  
8" = 1'-0"

NOTE:  
Payment for Bit Treated Stone Slope Protection placed beneath the gutter shall be made at the contract unit price for Item 913-B Bit Treated Stone Slope Protection per square yard.

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
NEW YORK BOSTON KANSAS CITY

DESIGN— TRACE— CHECK— P.R.N.	DETAIL—R.P.K.	BRIDGE NO. SURVEY— PLOT—
		STATE HIGHWAY COMMISSION BRIDGE DIVISION INTERSTATE 95 OVER LINE ROAD IN THE TOWNS OF SMYRNA & LUDLOW AROOSTOOK COUNTY SLOPE PROTECTION

SHEET 13 OF 14 AUGUSTA, MAINE NOVEMBER 1964

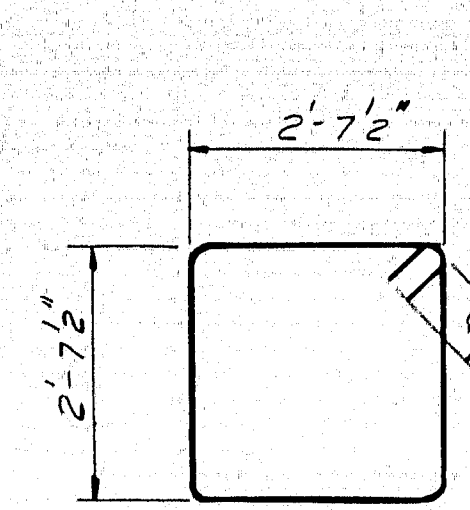
95-139 SMYRNA LUDLOW (20)

0 1 2 3 4 5 INCHES

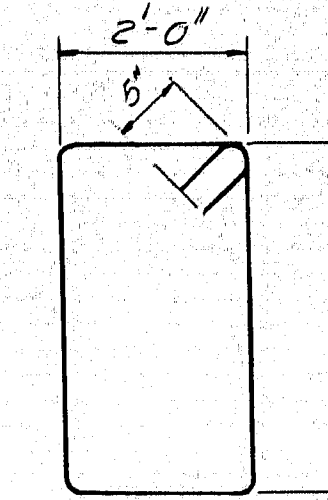


MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
<b>ABUTMENTS</b>					
<b>STRAIGHT BARS</b>		<i>Total is for two abutments</i>			
A401	4	10	26'0"		Back wall
A402	4	10	22'9"		Back wall
A403	4	8	6'9"		Wingwall
A414	4	2	24'6"		Back wall
A415	4	2	21'3"		Back wall
A416	4	16	9'0"		Wingwall
A417	4	4	4'9"		"
A418	4	4	7'3"		Wingwall
A501	5	128	4'0"		Backwall Abutment No. 1
A502	5	16	25'6"		Stem
A503	5	16	24'0"		"
A504	5	64	3'0"		Stem
A505	5	128	6'9"		Stem & Wingwall
A506	5	64	2'6"		Stem
A507	5	28	4'3" to 6"		Wingwall 4 Groups of 7
A508	5	28	2'6" to 5'2"		Wingwall 4 Groups of 7
A601	6	48	25'0"		Footing
A602	6	196	5'6"		"
A603	6	24	9'0"		"
A604	6	24	10'0"		"
A605	6	72	3'6" to 5'6"		Footing
			3"		8 Groups of 9
A607	6	8	1'0"		Curb Dowels
<b>BENT BARS</b>					
A404	4	8	9'0"		Wingwall
A405	4	2	4'3"		"
A406	4	2	6'9"		"
A407	4	8	9'0"		"
A408	4	2	4'9"		"
A409	4	2	7'3"		Wingwall
A410	4	28	4'0"		Pads
A411	4	4	5'0"		"
A412	4	4	5'3"		"
A413	4	20	5'2"		Pads
A509	5	64	7'3"		Stem
A608	6	64	3'6"		Approach Slab Dowels
<b>APPROACH SLAB</b>					
A5414	4	88	22'0"		
A5607	6	344	14'6"		
<b>PIER 1</b>					
<b>BENT BARS</b>					
P401	4	54	11'4"		Column
P501	5	4	9'7"		Cap
P502	5	4	10'2"		"
P503	5	4	10'9"		"
P504	5	4	11'4"		"
P505	5	4	11'11"		"
P506	5	70	12'1"		"
P601	6	8	8'6"		Cap
<b>STRAIGHT BARS</b>					
P602	6	4	24'0"		Cap
P603	6	4	22'6"		"
P604	6	30	5'6"		Footing
P701	7	48	5'6"		Footing
P901	9	4	12'0"		Cap
P902	9	5	16'5"		"
P903	9	5	33'3"		"
P904	9	10	19'2"		Cap
P905	9	14	18'2"		Column
P906	9	12	21'2"		"
P907	9	14	23'8"		Column
P909	9	40	5'8"		Footing

MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
<b>PIER 2 LINE ROAD</b>					
<b>BENT BARS</b>					
P401	4	69	11'4"		Column
P501	5	4	9'7"		Cap
P502	5	4	10'2"		"
P503	5	4	10'9"		"
P504	5	4	11'4"		"
P505	5	4	11'11"		"
P506	5	70	12'1"		"
P601	6	8	8'6"		Cap
<b>STRAIGHT BARS</b>					
P602	6	4	24'0"		Cap
P603	6	4	22'6"		Cap
P604	6	20	5'6"		Footing
P605	6	10	6'6"		Footing
P701	7	32	5'6"		Footing
P702	7	16	6'6"		Footing
P901	9	4	12'0"		Cap
P902	9	5	16'5"		"
P903	9	5	33'3"		"
P904	9	10	19'2"		Cap
P908	9	36	23'10"		Column
P909	9	36	5'8"		Footing
<b>SUPERSTRUCTURE</b>					
<b>STRAIGHT BARS</b>					
S502	5	140	13'9"		Slab Transverse
S503	5	140	35'4"		"
S504	5	140	17'4"		"
S505	5	140	31'9"		"
S506	5	111	33'5"		Slab Longitudinal
S507	5	111	28'2"		"
S508	5	322	21'8"		"
S509	5	111	19'8"		Slab Longitudinal
S511	5	20	10'8"		Safety Walk
S512	5	4	19'8"		"
S513	5	4	15'8"		"
S514	5	4	17'3"		"
S515	5	4	17'0"		Safety Walk
S401	4	40	1'8"		End Post
<b>BENT BARS</b>					
S402	4	16	8'7"		End Post
S501	5	138	24'0"		Slab Transverse (Truss)
S510	5	280	4'11"		Safety Walk
S516	5	138	26'5"		

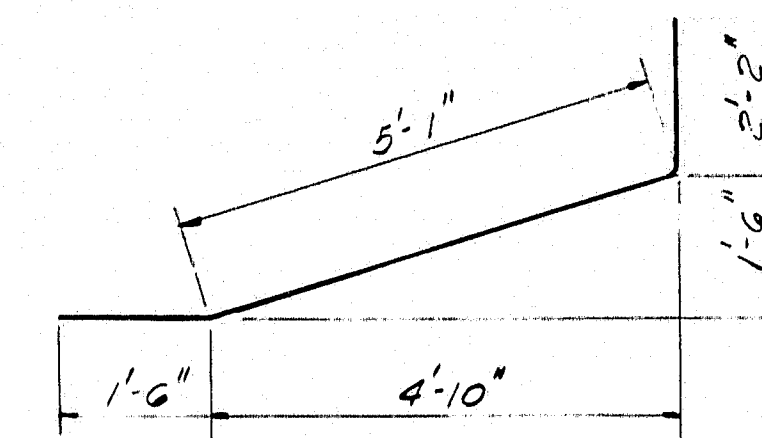


P 401

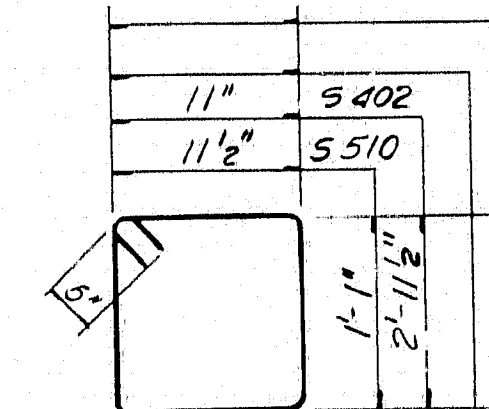


P501 TO P506

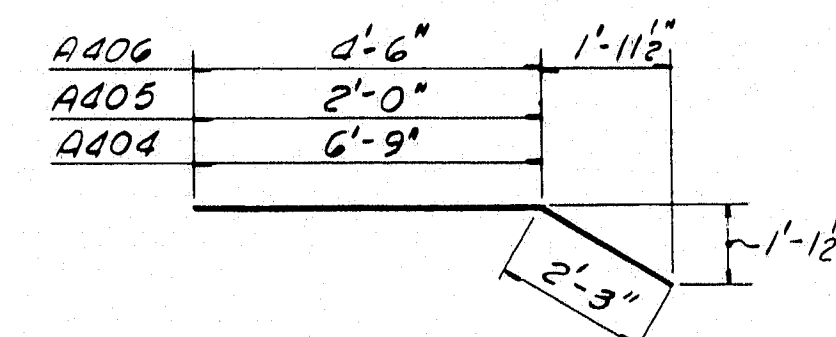
P 501 2'-4 1/2"  
P 502 2'-8"  
P 503 2'-11 1/2"  
P 504 3'-3"  
P 505 3'-6 1/2"  
P 506 3'-7 1/2"



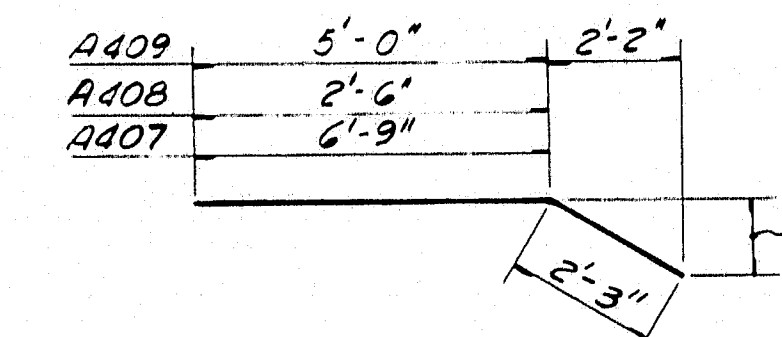
P 601



S 510 & S 402



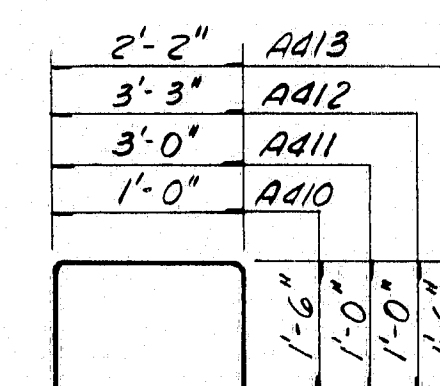
A 404 TO A 406



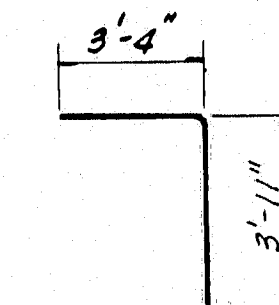
A 407 TO A 409

**NOTES:**

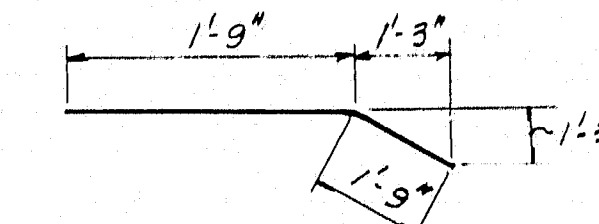
1. All dimensions are to the centerline of bars
2. All reinforcing bars shall be Intermediate grade steel.
3. Reinforcing steel to have 1" Minimum cover unless otherwise shown.



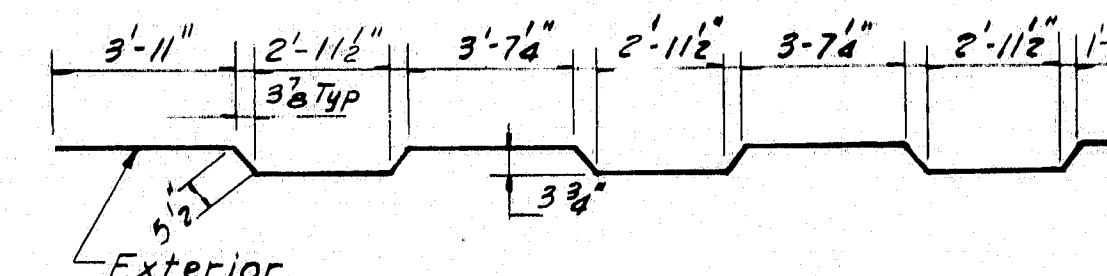
A 410 TO A 413



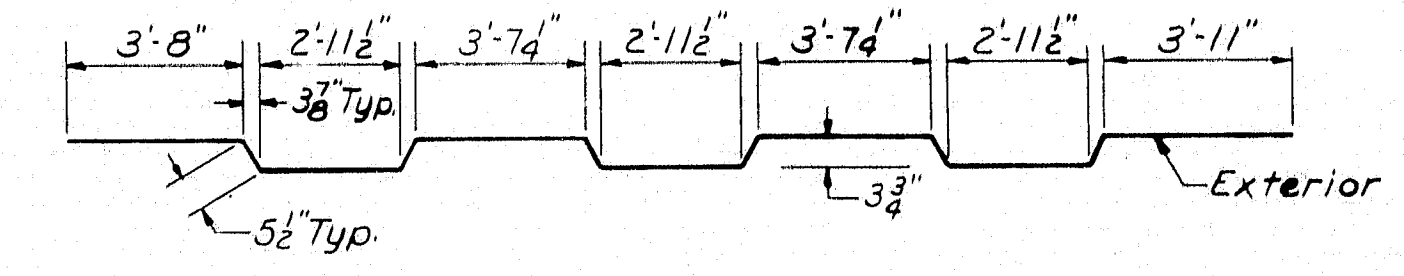
A 509



A 608



S 501



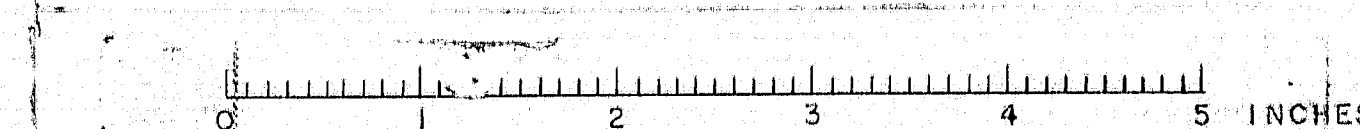
S 516

DESIGN - EFK. DETAIL - JRA. TRACE - CHECK - RRU	BRIDGE NO. SURVEY - PILOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE 95 OVER LINE ROAD IN THE TOWNS OF SMYRNA & LUDLOW AROSTOOK COUNTY REINFORCING STEEL	

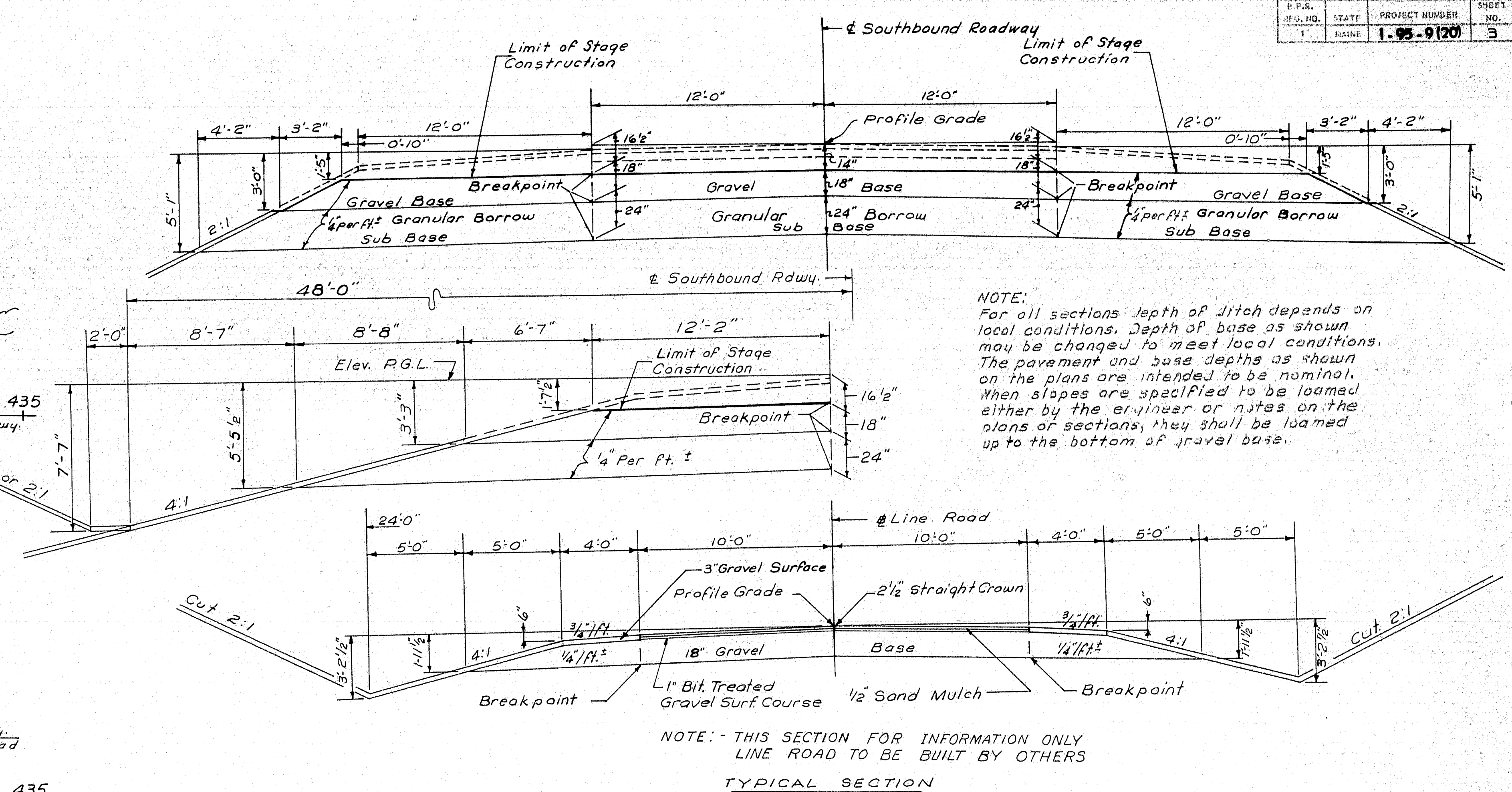
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
NEW YORK BOSTON KANSAS CITY

SHEET 14 OF 14 AUGUSTA, MAINE NOVEMBER 1964

95-140 SMYRNA LUDLOW (20)







NOTE:  
For all sections depth of ditch depends on local conditions. Depth of base as shown may be changed to meet local conditions. The pavement and base depths as shown on the plans are intended to be nominal. When slopes are specified to be loamed either by the engineer or notes on the plans or sections, they shall be loamed up to the bottom of gravel base.

NOTE:- THIS SECTION FOR INFORMATION ONLY  
LINE ROAD TO BE BUILT BY OTHERS

TYPICAL SECTION

Limit Of Wor.  
Sta. 434+00

1. ALL LOAM AREAS AND DEPTHS MUST BE AUTHORIZED BY THE ENGINEER UNLESS SPECIFICALLY CALLED FOR ON THE TYPICAL SECTIONS, PLANS OR IN THE SPECS. LOAMING OF SLOPES HAS BEEN ESTIMATED ON A 2" DEPTH.

2. ALL 2:1 FILL SLOPES SHALL BE LOAMED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

3. ALL UTILITIES ARE TO BE ADJUSTED AS NECESSARY BY THE RESPECTIVE UTILITIES UNLESS NOTED.

4. THE UTILITIES INVOLVED IN THIS CONTRACT ARE MAINE PUBLIC SERVICE CO. AND KATAHDIN FARMERS TEL. CO.

5. SEEDING METHOD NO. 2 AND HAY MULCH  
ON ALL SLOPES OR AS DIRECTED BY  
THE ENGINEER.

Base courses  
By Others

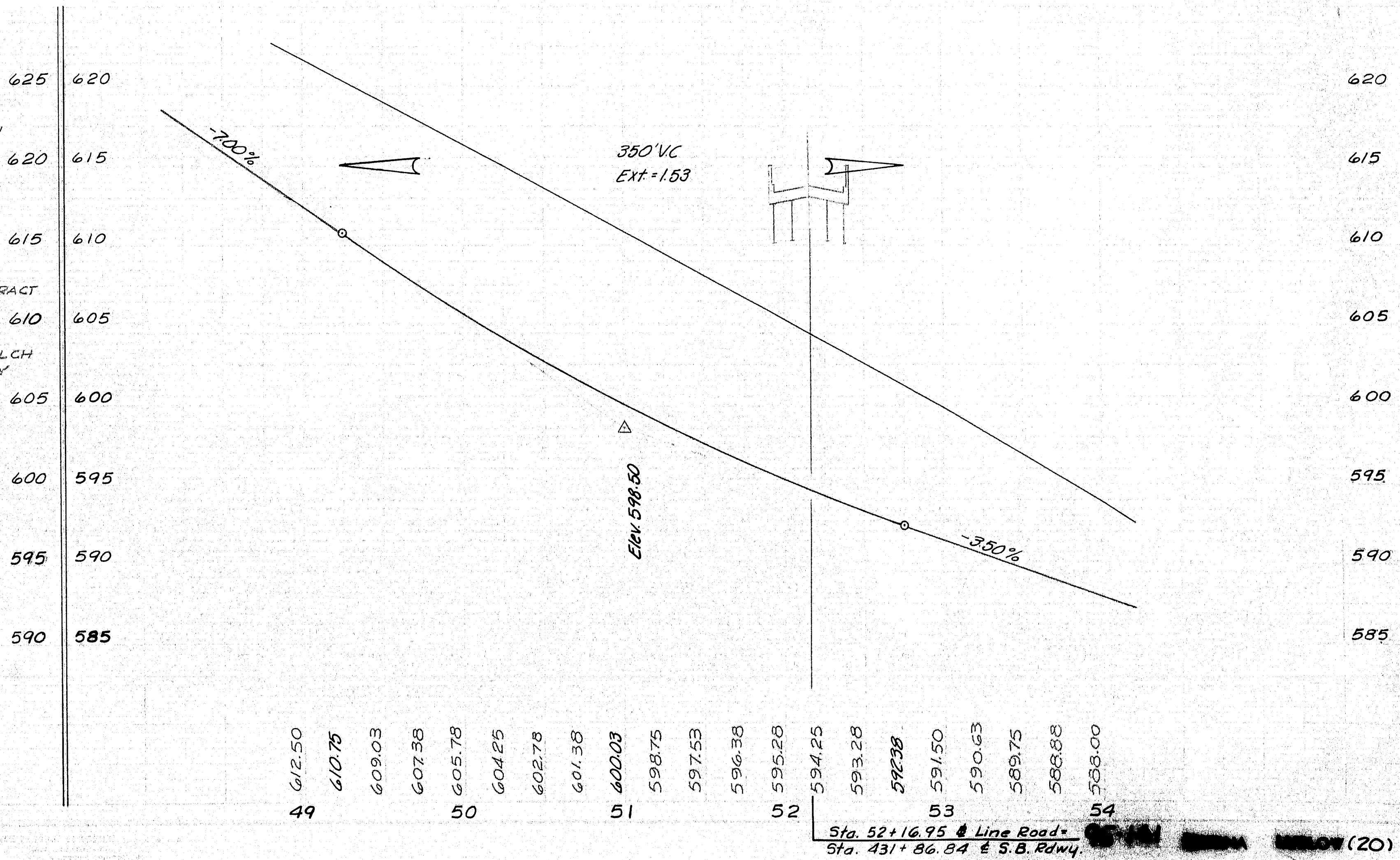
Embarkment  
By Others

54  
1.64  
1.89  
5.14  
4.39

34 435

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*Journal of Management Studies*, 20(6), 791-807.





INVT S.B.  
JAY S.B.A

4-64  
6-64

274

604.39

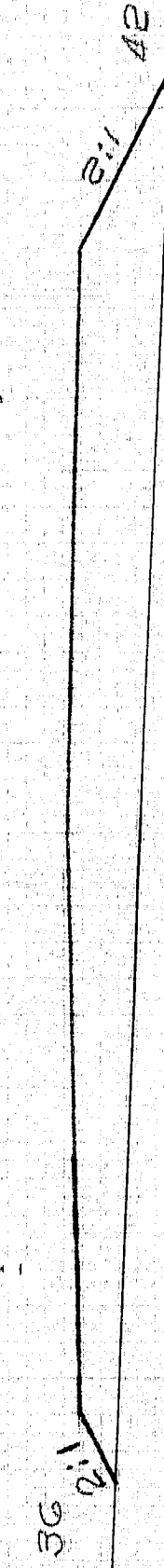
435+0  
LIMIT OF WORK STA 434+00

607.39



434+0

610.39



433+0  
FULL SECTION STA 432+60  
STA 432+46.34  
BEGIN PROJECT I-95-9-15  
END PROJECT I-95-9-20

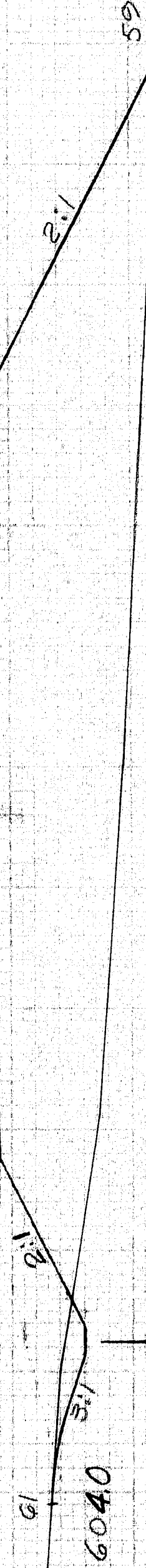
F=154

432+34  
SECTION

SECTION STA 431+38

431+38  
STA 431+22.09  
BEGIN PROJECT I-95-9-20  
END PROJECT I-95-9-14

SECTION STA 431+10



431+0

NOTE:  
DITCH BETWEEN STA 430+50 AND  
STA 429+00 LEFT BY OTHERS.  
DITCH BETWEEN STA 430+50 AND LINE  
ROAD LEFT, THIS "COUNTERACT." PRISMATIC  
WILL BE MADE UNDER ITEM 204-12

2-4 U.B.  
Sta 430+50 S.B.  
Install: By Precompacted Method  
42"x124" R.C.P. Class III  
Place Hand Laid Riprap Grouted  
Around Inlet and Outlet  
(By Others)

Inn 603.5 Sta 430+00

Inn 603.0 @ CULVERT INLET PEAT APPLIES TO  
STA 430+54.2'

430+0

LIMIT OF WORK STA 429+50

F=1810

2-4 U.B.

622.55



429+0

600

S.B. SECTIONS 429+00 TO 435+00

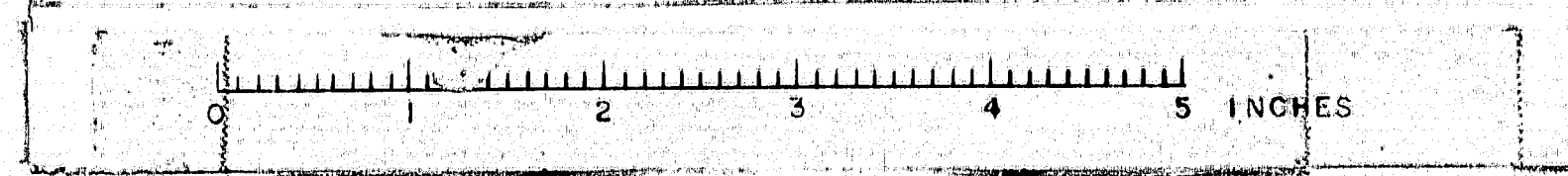
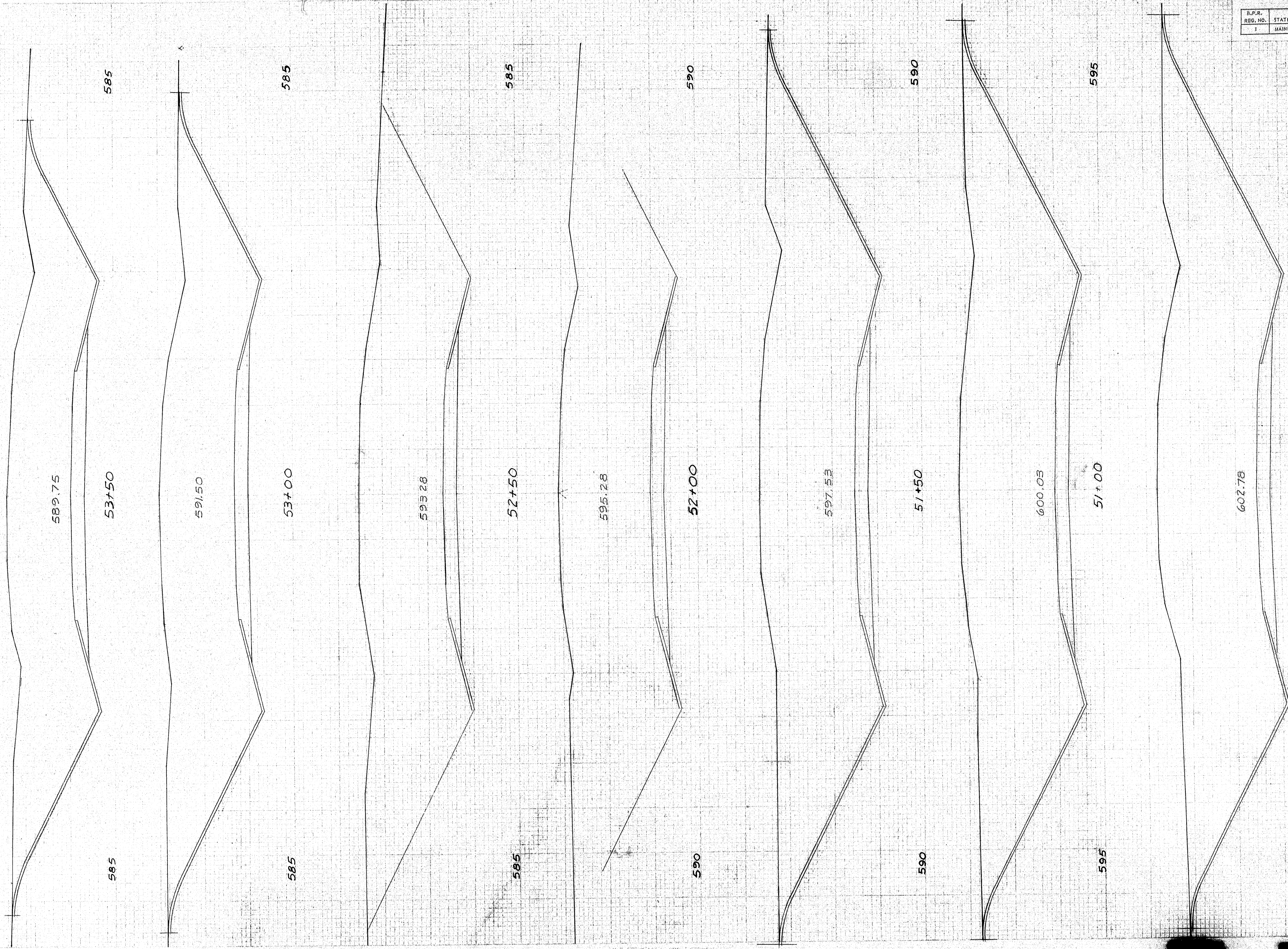


HAY CREEK

12-63

6-64

15.24

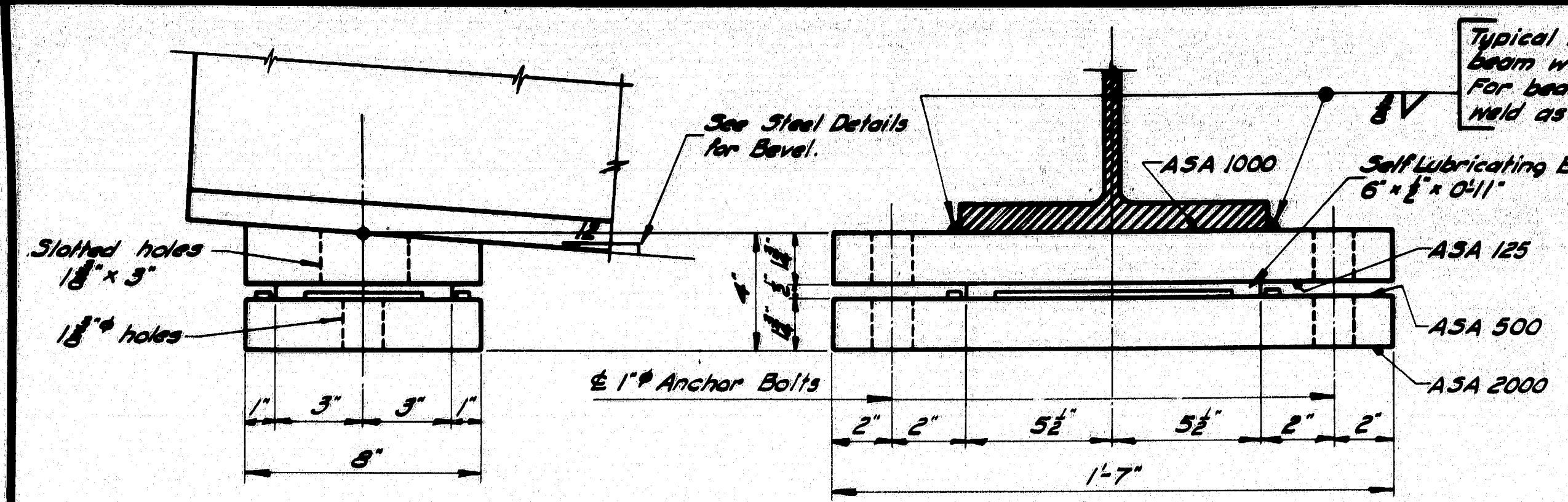


D.P.R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	16-111	5	14

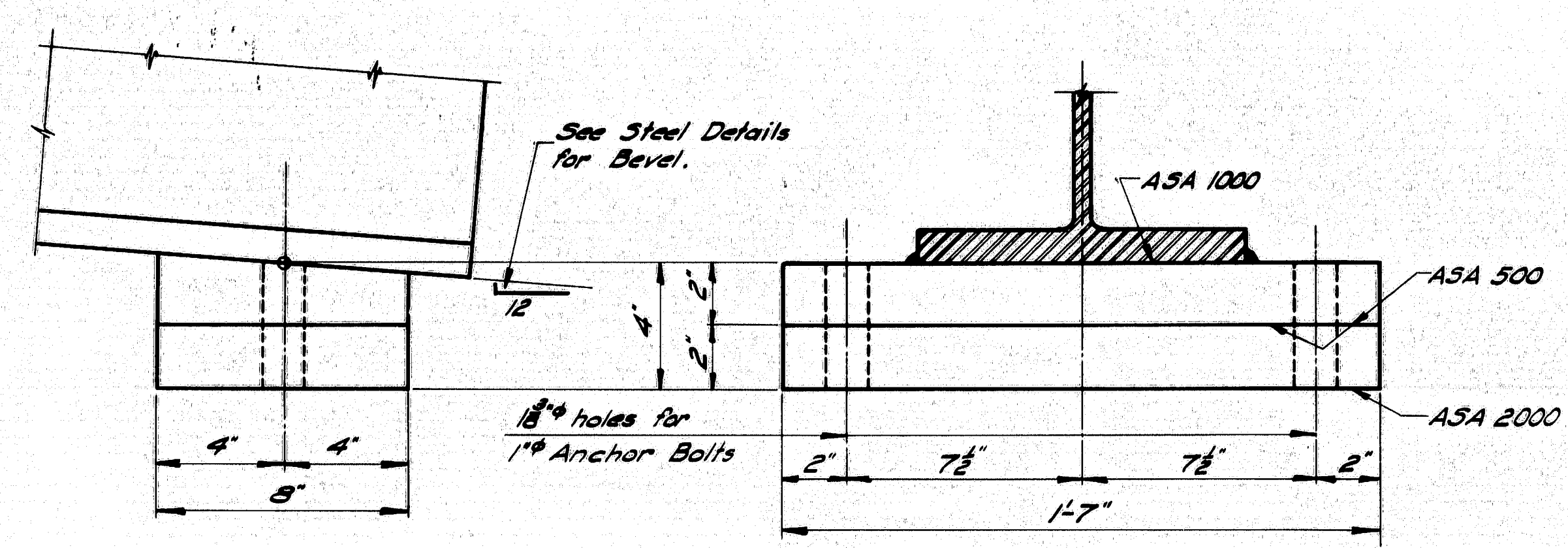
NOTE:  
FOR INFORMATION ONLY.  
LINE ROAD TO BE BUILT  
BY OTHERS.

LINE ROAD

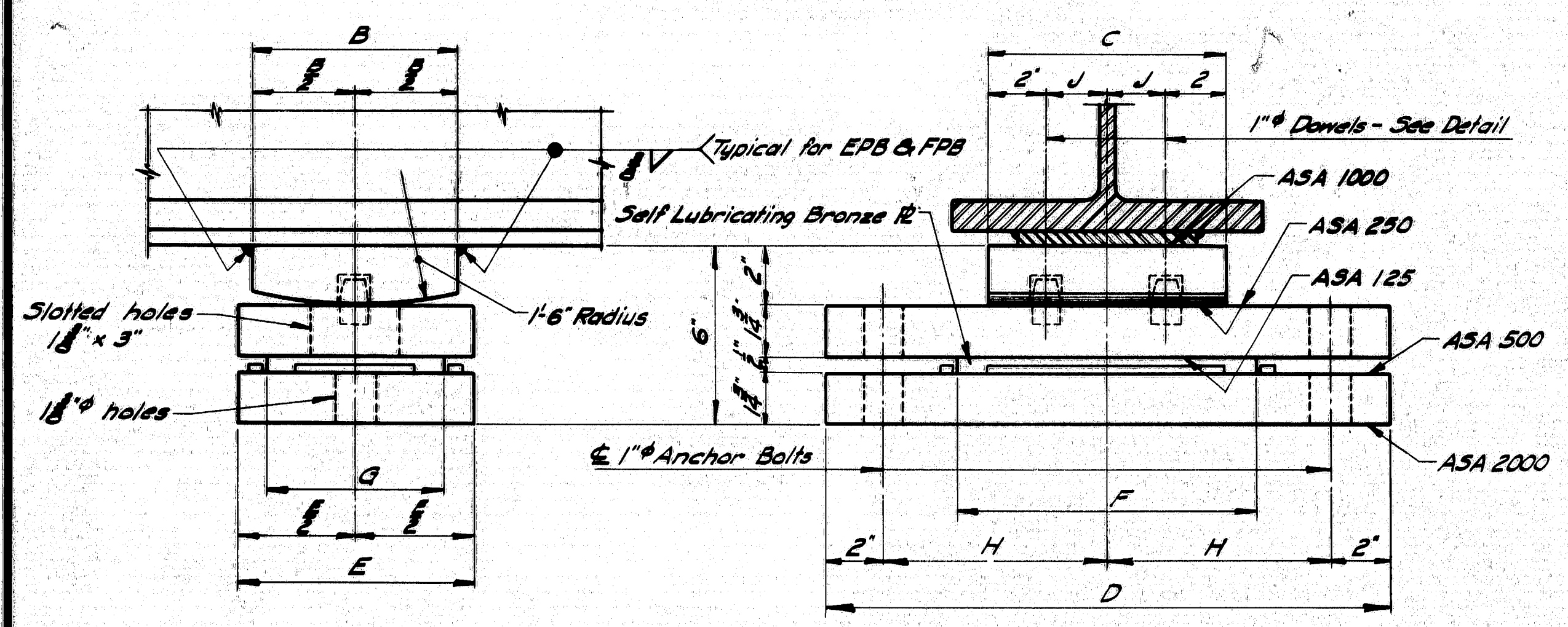




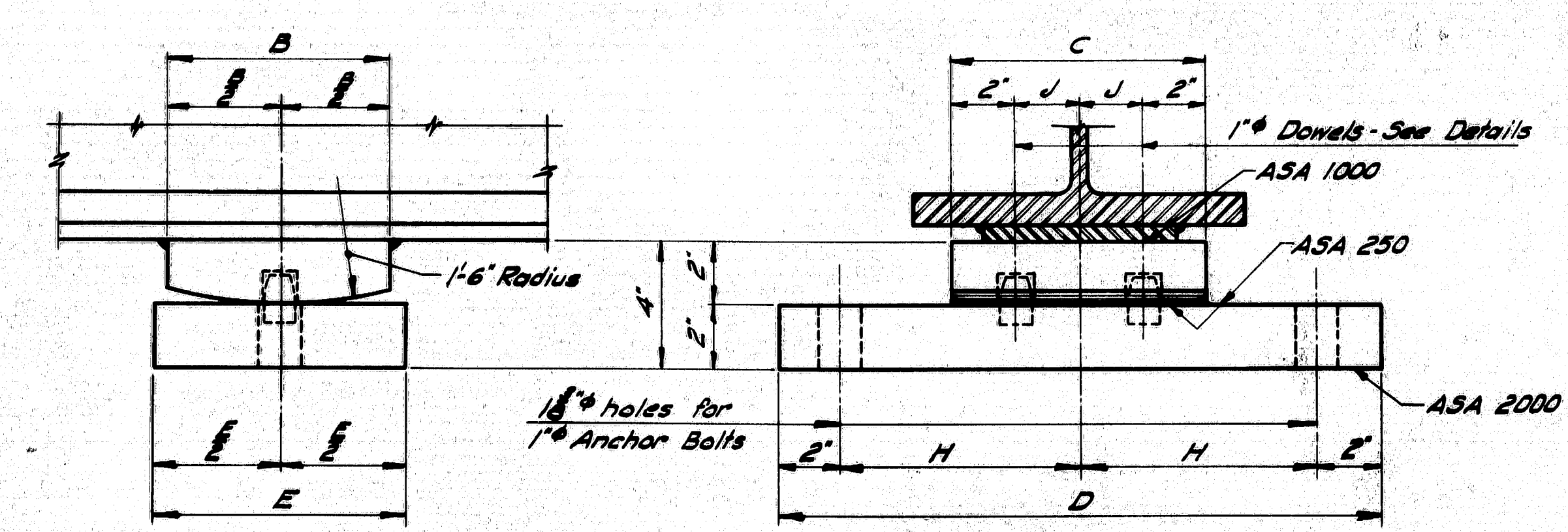
**EXPANSION PEDESTAL - EPA**



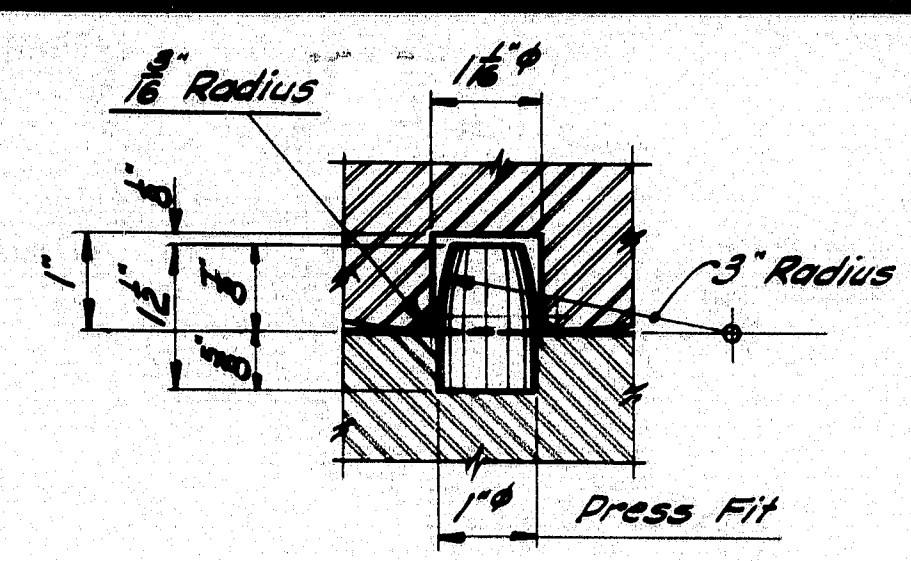
**FIXED PEDESTAL - FPA**



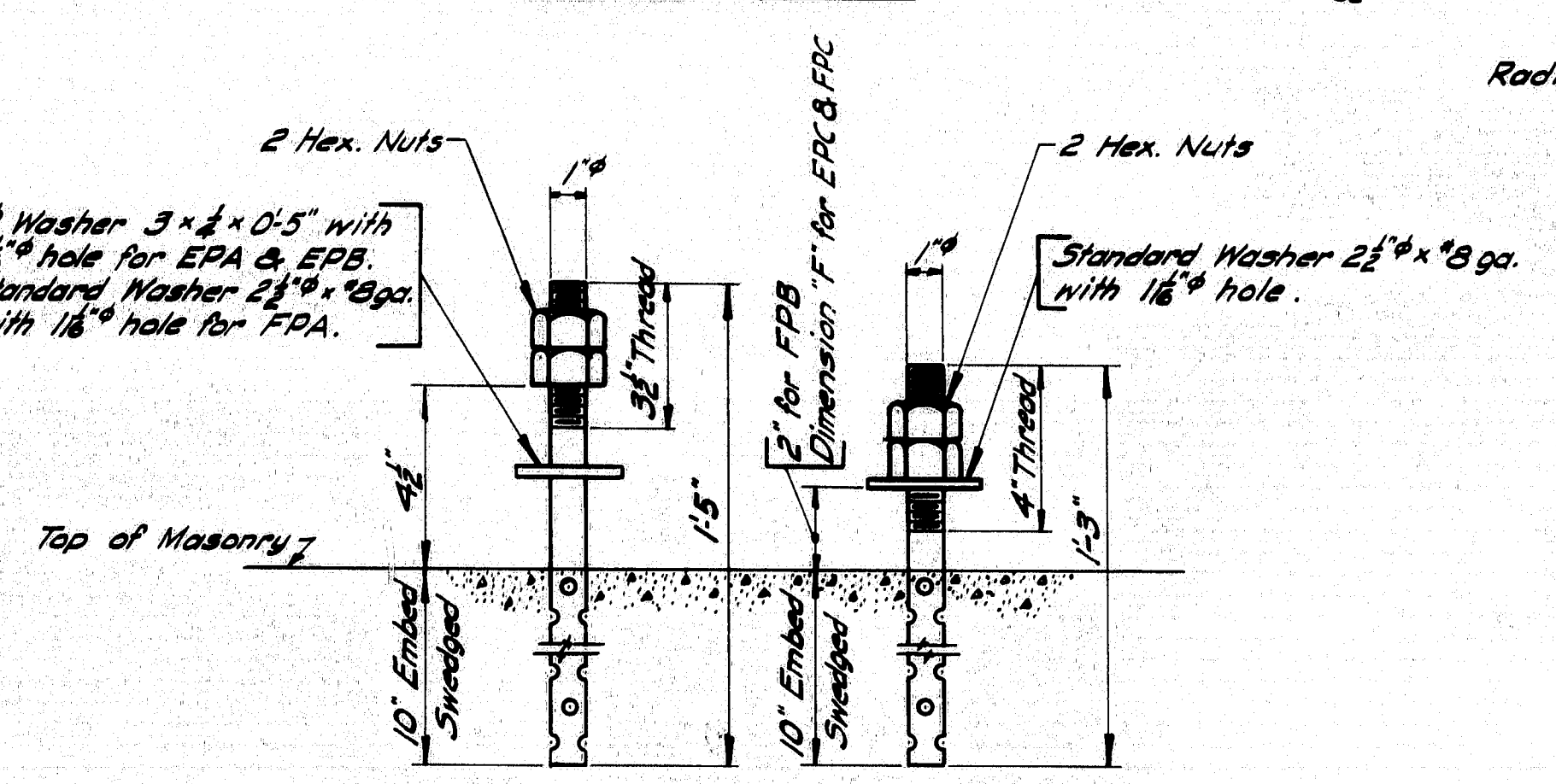
**EXPANSION PEDESTAL - EPB**



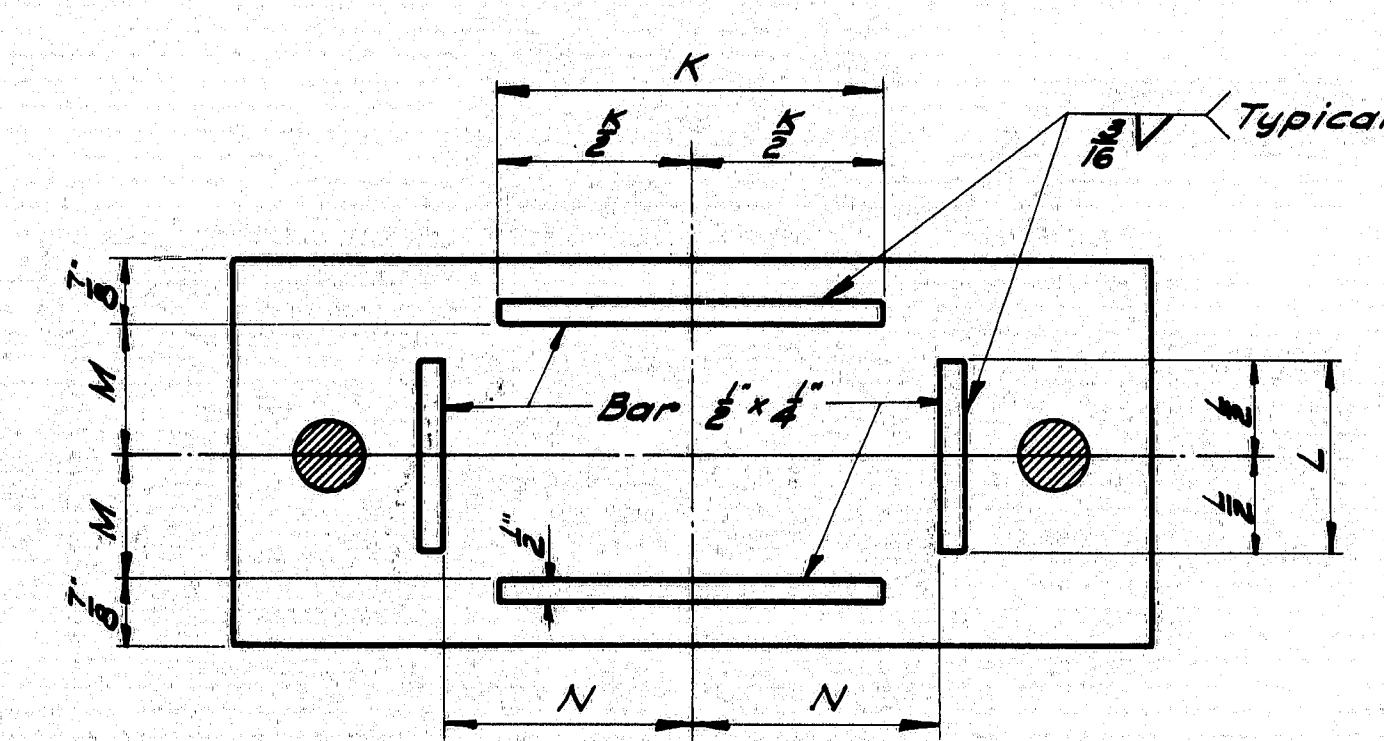
**FIXED PEDESTAL - FPB**



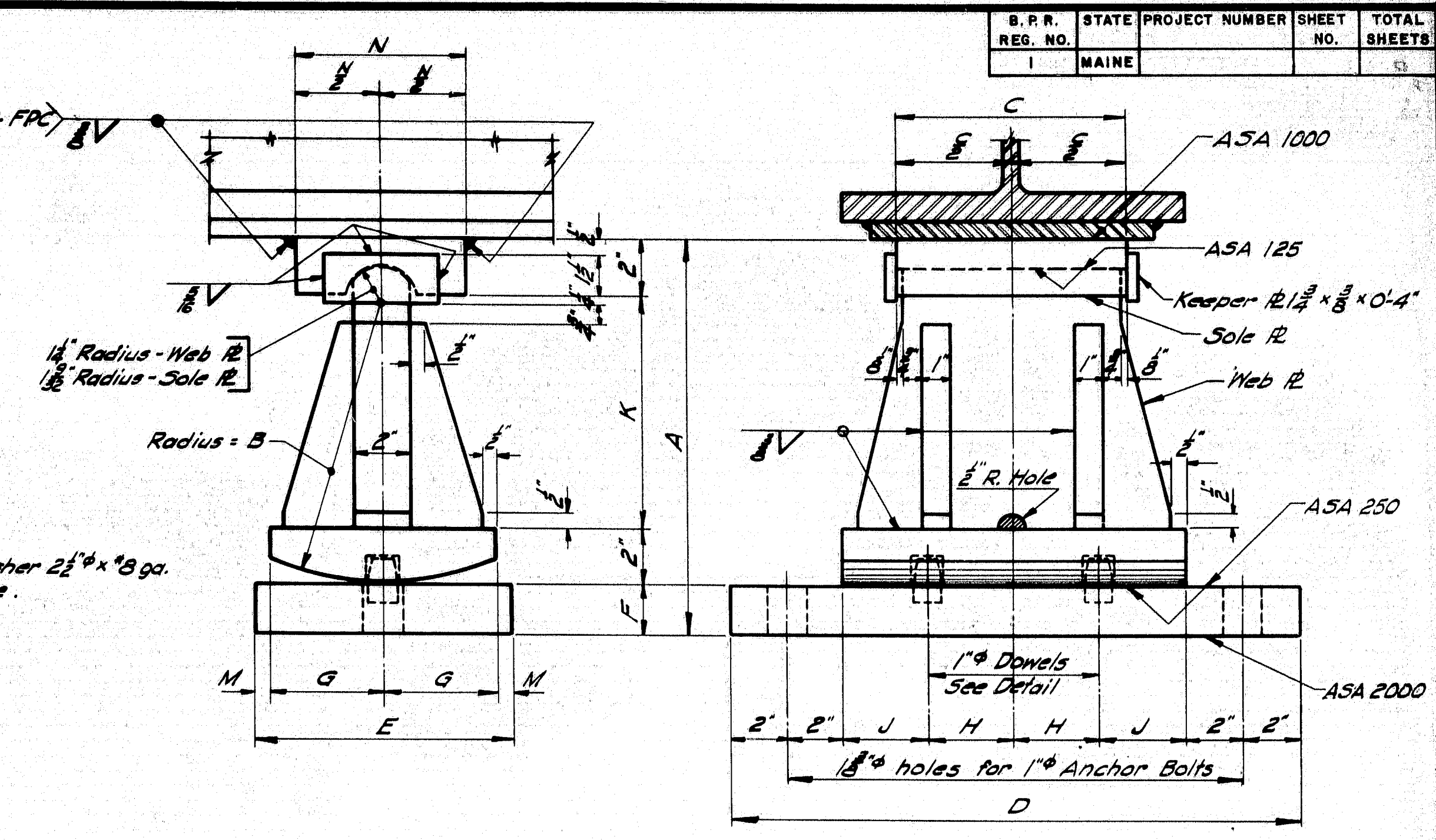
**DOWEL DETAIL**



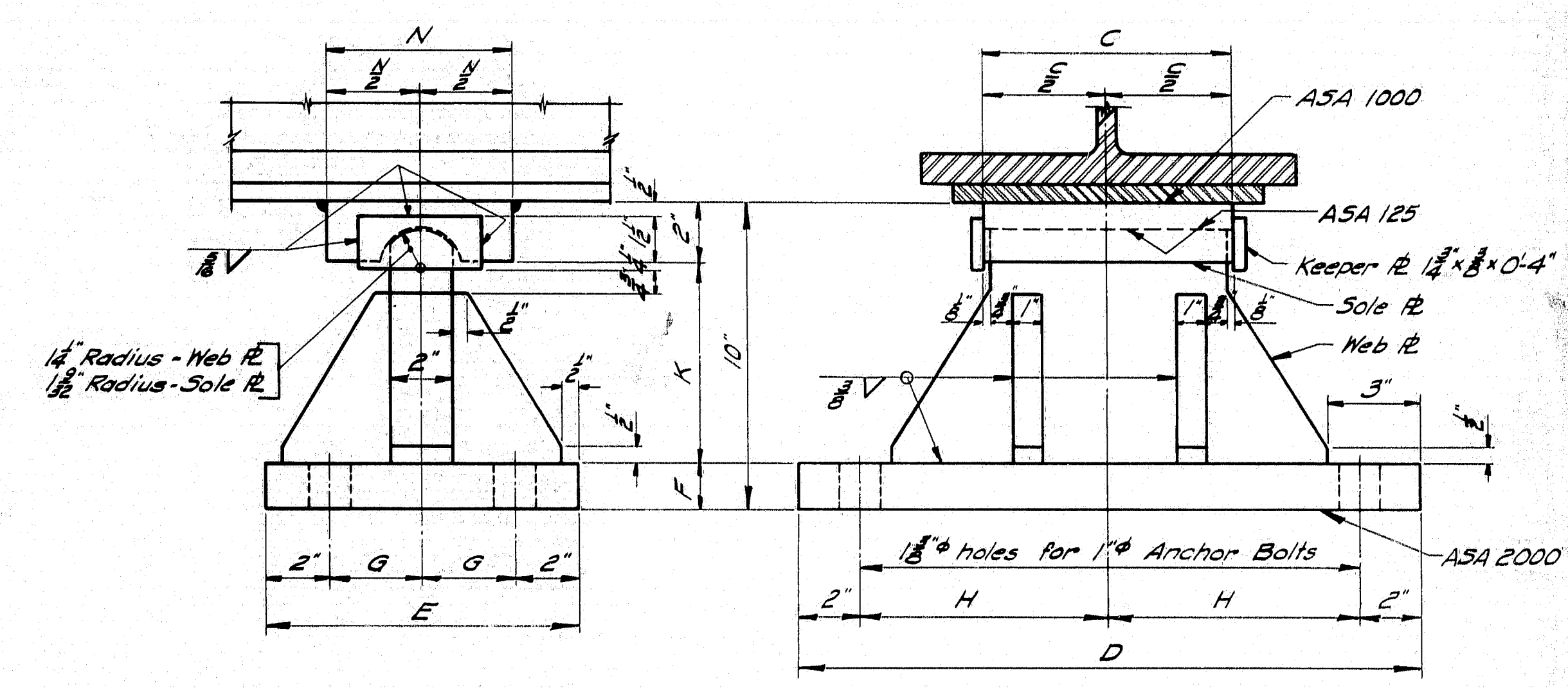
**ANCHOR BOLT DETAIL**



**MASONRY PLATE**



**EXPANSION PEDESTAL - EPC**



**FIXED PEDESTAL - FPC**

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

**DESIGN SPECIFICATIONS**

A.A.S.H.O., Standard Specifications for Highway Bridges, 1961, with Interim Specifications, 1961 & 1962

**A.S.T.M. STEEL CLASSIFICATION**

Anchor Bolts - A7, A36, or A307  
All other - A36

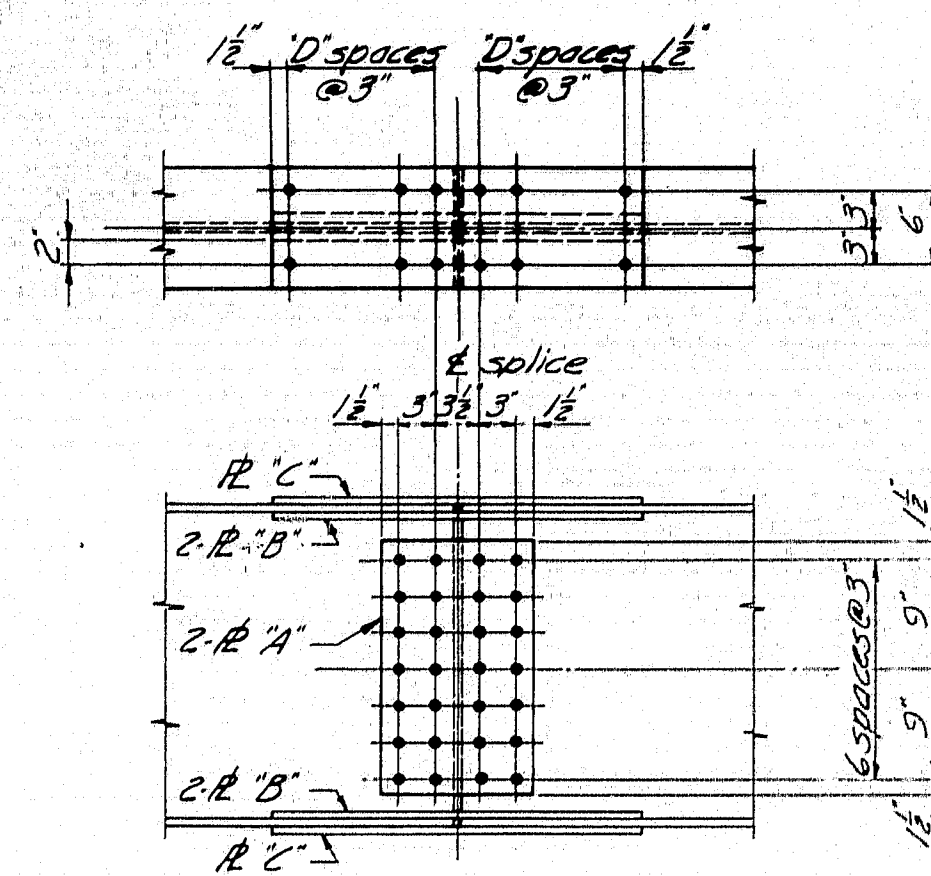
PEDESTALS - ALLOWABLE LOADS & DIMENSIONS													
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	N
EPA	132 K	-	-	-	-	-	-	-	-	-	8"	4"	5 1/2"
FPA	130 K	-	-	-	-	-	-	-	-	-	-	-	-
EPB-1	120 K	-	6"	8"	1'-7"	8"	10"	6"	7 1/2"	2"	8"	4"	5 1/2"
EPB-2	165 K	-	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	6 1/2"
EPB-3	224 K	-	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4 1/2"	1'-2"	5"	3 1/2"
FPB-1	120 K	-	6"	8"	1'-7"	8"	-	-	7 1/2"	2"	-	-	-
FPB-2	165 K	-	7"	10"	1'-8"	9"	-	-	8"	3"	-	-	-
FPB-3	224 K	-	8"	1'-2"	2'-0"	10"	-	-	10"	5"	-	-	-
EPC-1	70 K	9 1/2"	6"	8"	1'-8"	8"	1'-2"	3 1/2"	3"	3"	4 1/2"	-	6"
EPC-2	100 K	11 1/2"	8"	8"	1'-8"	8"	1'-2"	3 1/2"	3"	3"	6 1/2"	-	6"
EPC-3	130 K	1'-2"	10"	8"	1'-8"	9"	1'-2"	4"	3"	3"	8 1/2"	-	7"
EPC-4	160 K	1'-2"	10"	8"	1'-8"	9"	1'-2"	4"	3"	3"	8 1/2"	-	7"
EPC-5	190 K	1'-2"	10"	9"	2'-0"	10"	2"	4 1/2"	5"	3"	8 1/2"	-	8"
EPC-6	220 K	1'-4"	1'-0"	10"	2'-0"	1'-0"	2 1/2"	5"	5"	3"	10 1/2"	-	8"
EPC-7	250 K	1'-4"	1'-0"	1'-0"	2'-2"	1'-0"	2 1/2"	5"	5"	4"	10 1/2"	-	8"
FPC-1	100 K	-	-	8"	1'-8"	9"	1'-2"	3 1/2"	8"	-	6 1/2"	-	6"
FPC-2	160 K	-	-	8"	1'-8"	10"	1'-2"	3"	8"	-	6 1/2"	-	7"
FPC-3	180 K	-	-	9"	2'-0"	10"	1'-2"	3"	10"	-	6 1/2"	-	8"
FPC-4	220 K	-	-	10"	2'-0"	1'-0"	1'-2"	4"	10"	-	6 1/2"	-	8"
FPC-5	250 K	-	-	1'-0"	2'-0"	1'-0"	2"	4"	10"	-	6"	-	8"

MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

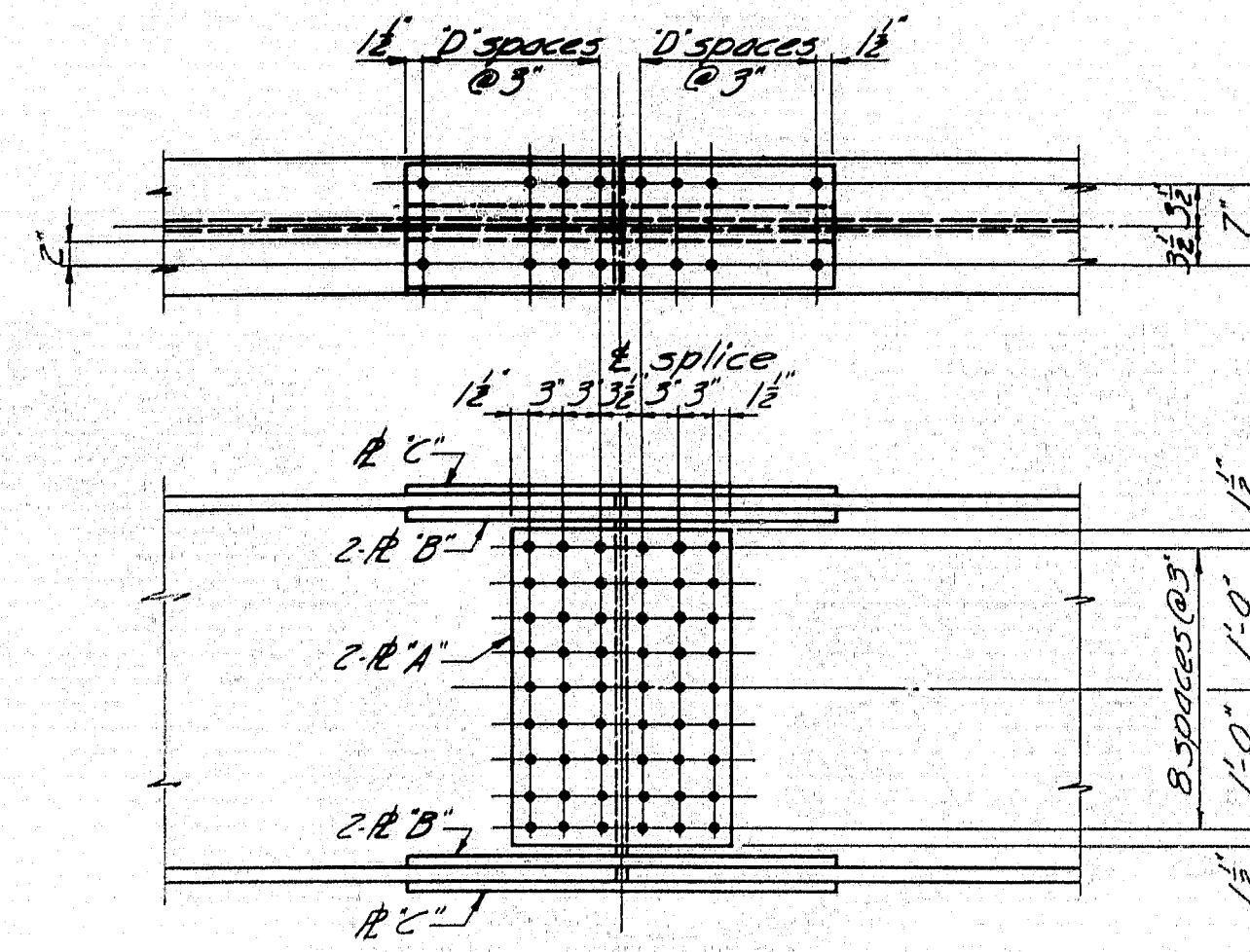
**STANDARD DETAILS**  
( BD 101 - 64 )

**BEARING PEDESTALS**

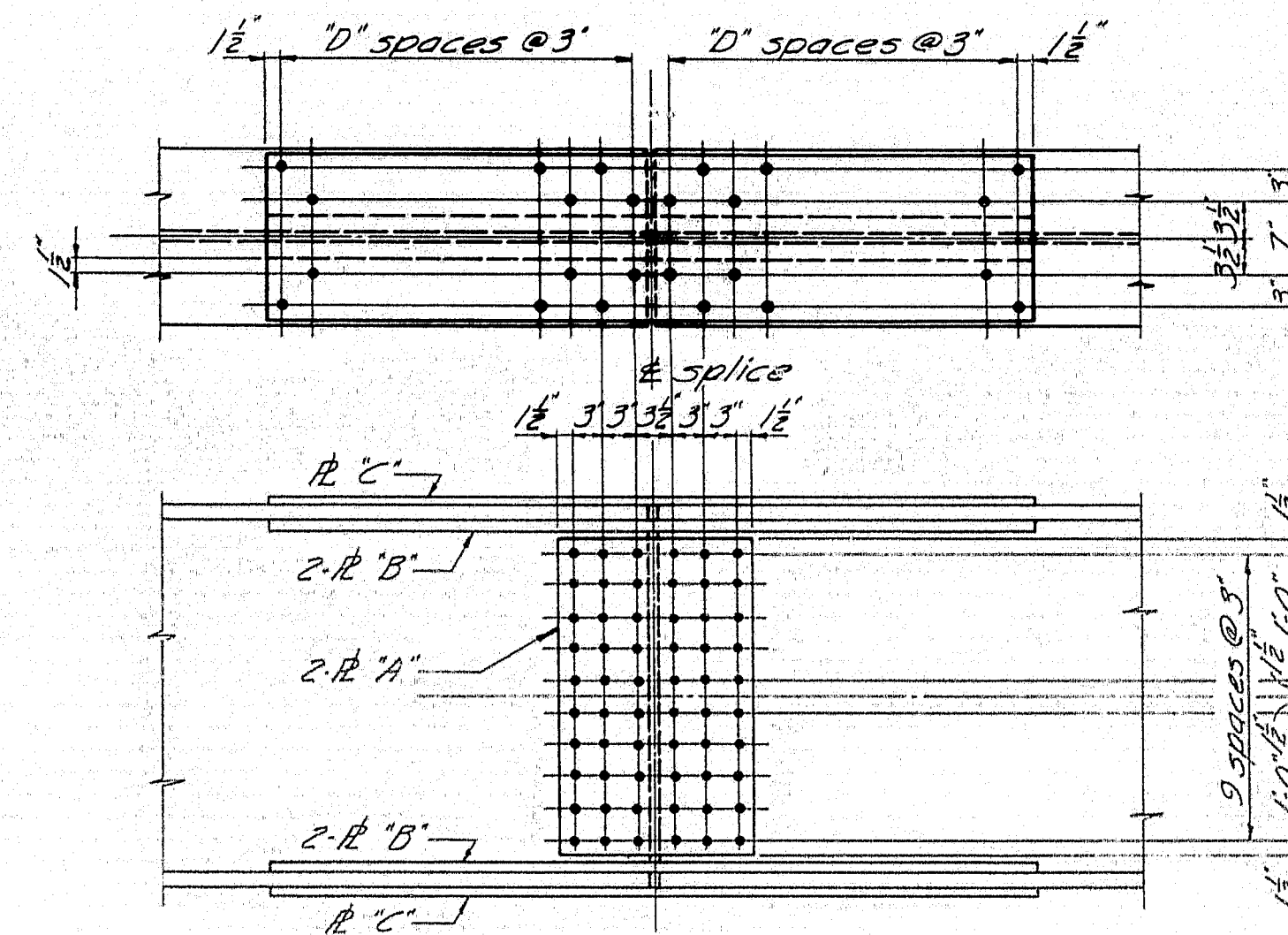




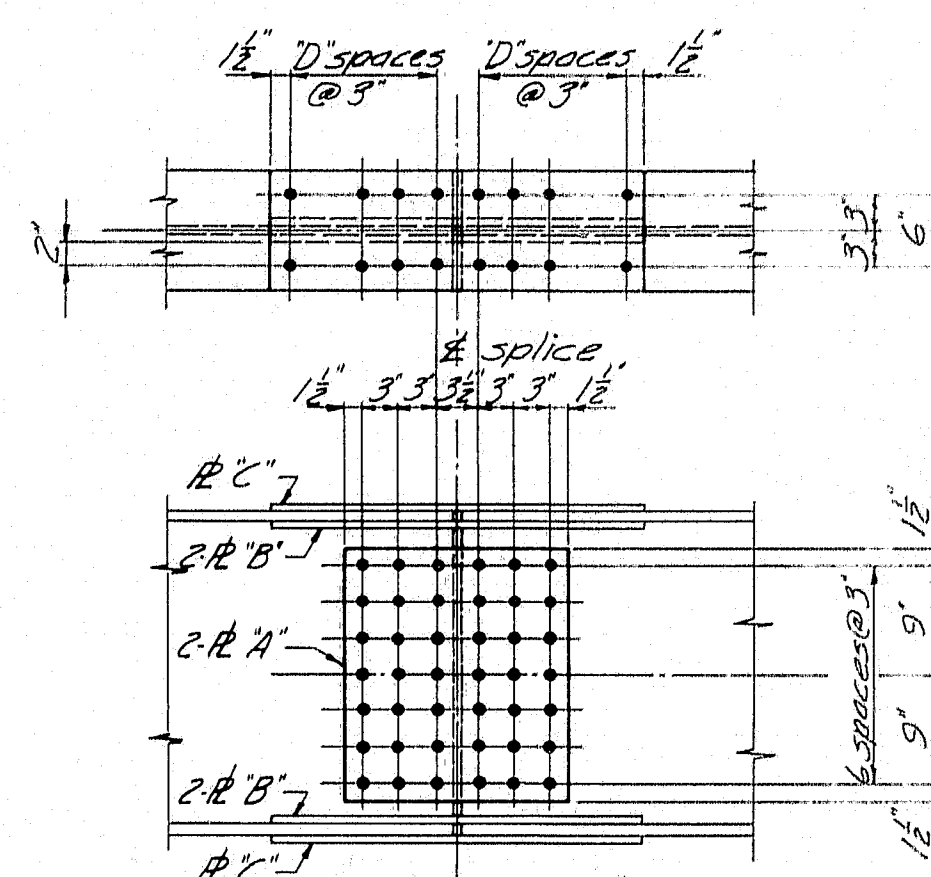
**27 WF 84**



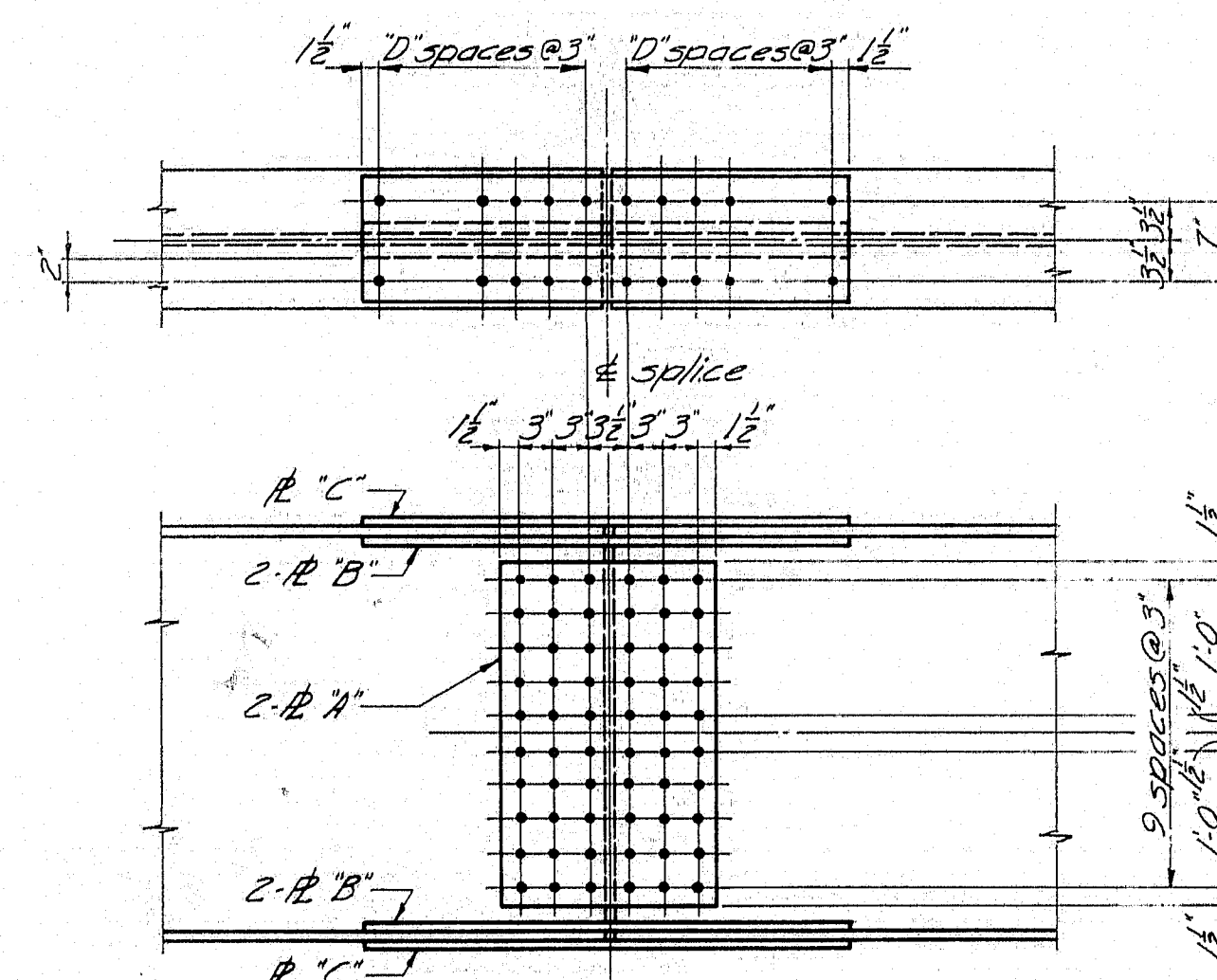
**33 WF 118, 130, 141, 152**



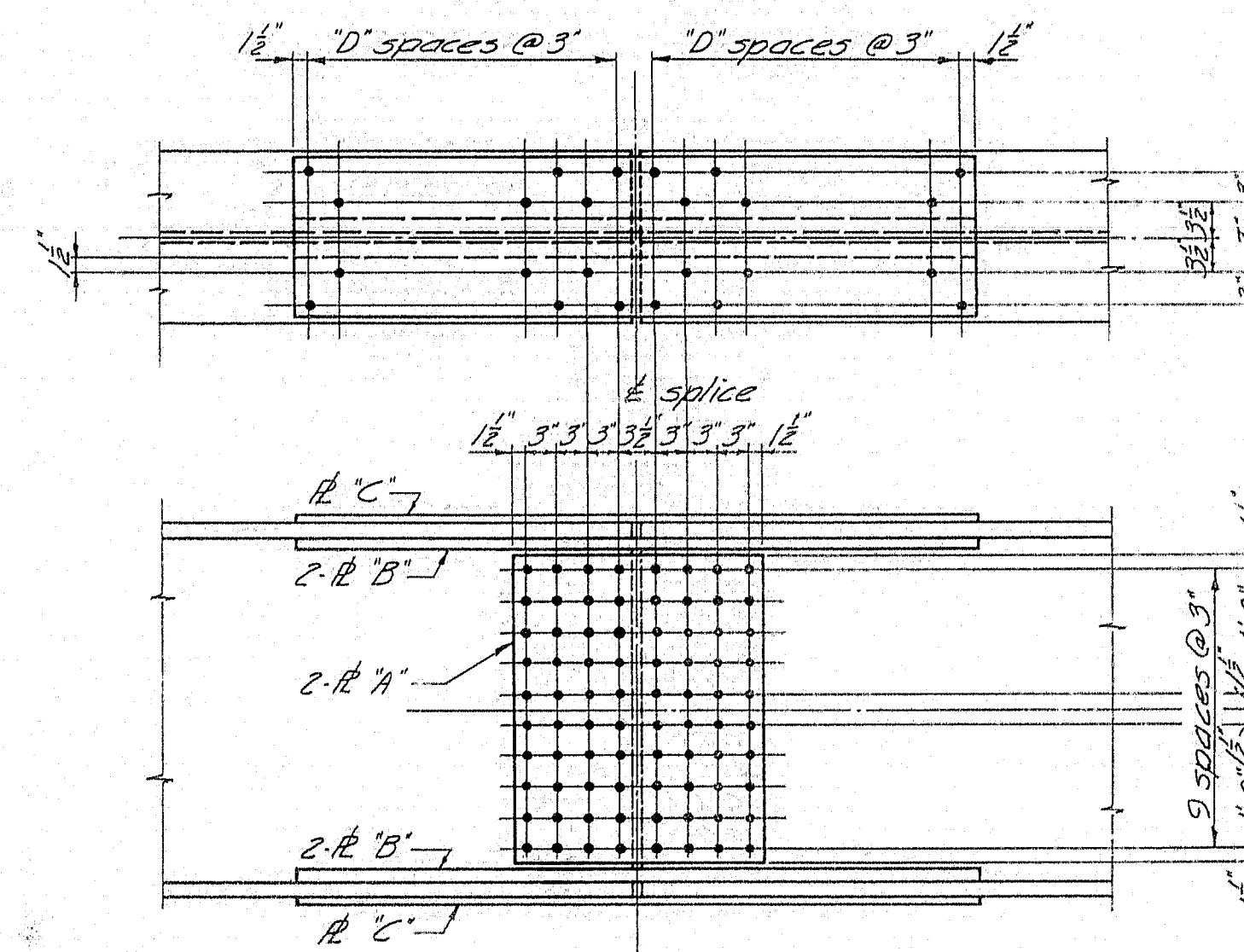
**36 WF 245, 280**



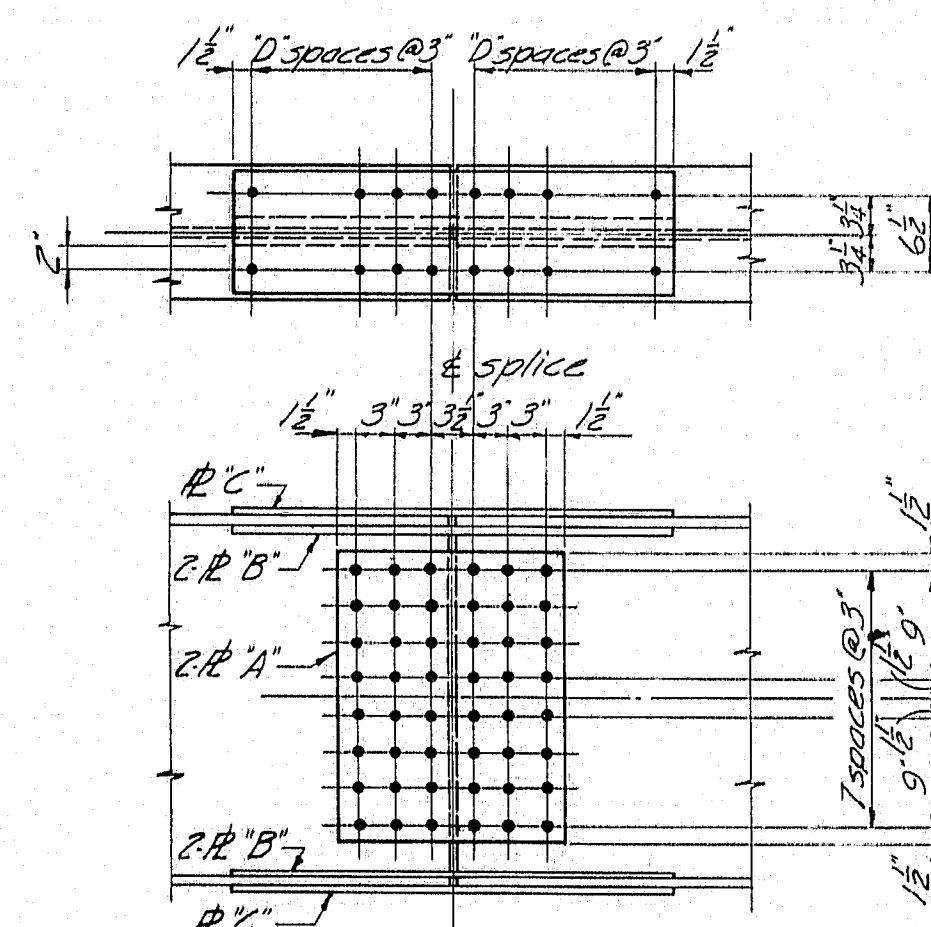
**27 WF 94, 102, 114**



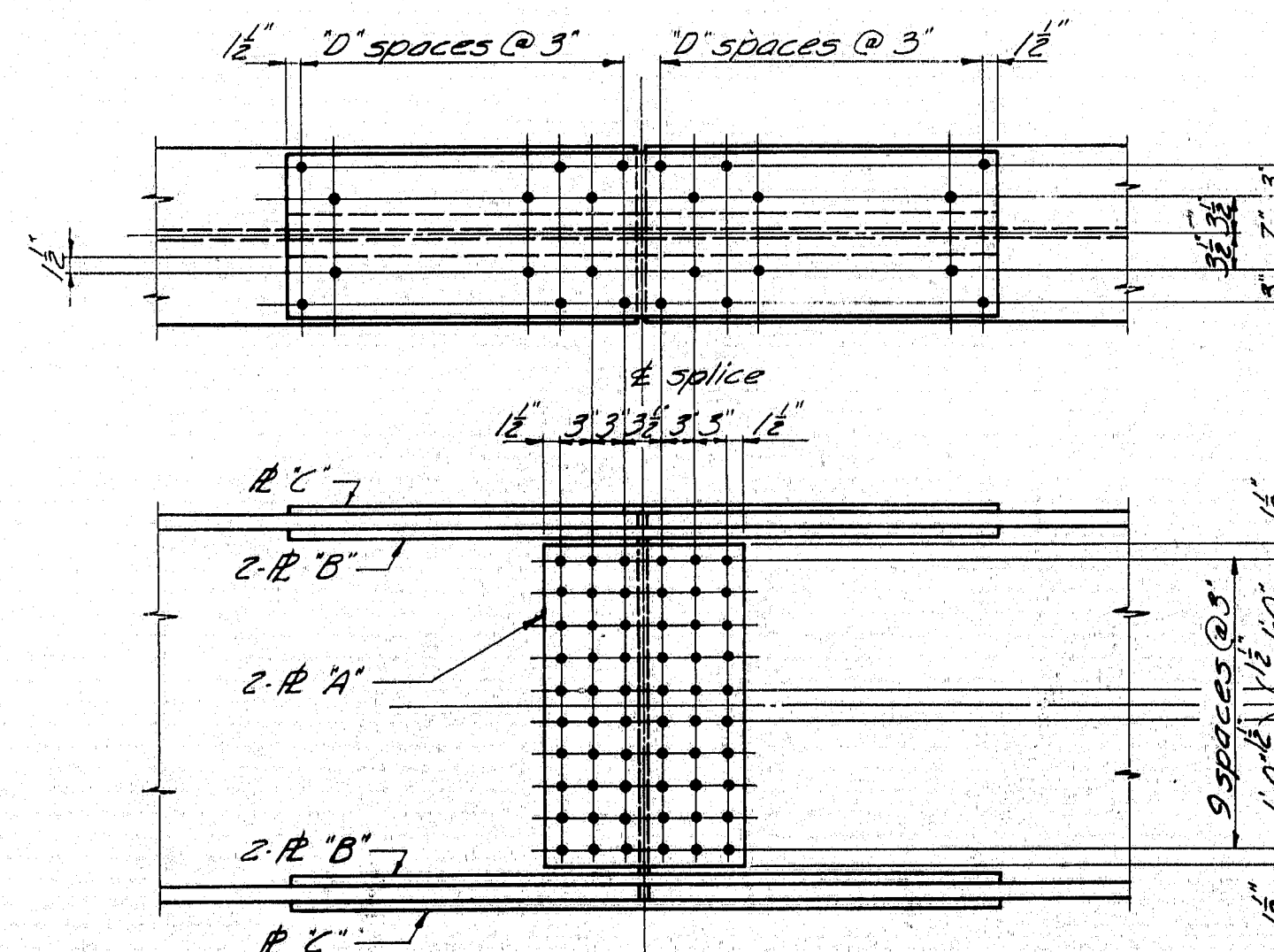
**36 WF 135, 150, 160, 170, 182, 194**



**36 WF 300**



**30 WF 99, 108, 116, 124, 132**



**36 WF 230, 260**

### SPLICE DESIGN, PLATES AND FLANGE HOLES

BEAM	BEND. M.	SHEAR	PLATE "A"	PLATE "B"	PLATE "C"	"D"
27 WF 84	3070 <sup>K</sup>	111 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	3
27 WF 94	3520 <sup>K</sup>	119 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	3
27 WF 102	3862 <sup>K</sup>	126 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	4
27 WF 114	4341 <sup>K</sup>	140 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	4
30 WF 99	3921 <sup>K</sup>	139 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	3
30 WF 108	4340 <sup>K</sup>	147 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	4
30 WF 116	4790 <sup>K</sup>	152 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	4
30 WF 124	5170 <sup>K</sup>	159 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	4
30 WF 132	5539 <sup>K</sup>	168 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	10 x <sup>1</sup> / <sub>2</sub>	5
33 WF 118	5287 <sup>K</sup>	164 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	4
33 WF 130	5918 <sup>K</sup>	173 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	5
33 WF 141	6604 <sup>K</sup>	181 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	5
33 WF 152	7193 <sup>K</sup>	191 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	6
36 WF 135	6473 <sup>K</sup>	191 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	4
36 WF 150	7436 <sup>K</sup>	202 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	5
36 WF 160	8005 <sup>K</sup>	212 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	6
36 WF 170	8574 <sup>K</sup>	221 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	6
36 WF 182	9204 <sup>K</sup>	237 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x <sup>1</sup> / <sub>2</sub>	11 x <sup>1</sup> / <sub>2</sub>	7
36 WF 194	9838 <sup>K</sup>	253 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	4 x 1	11 x <sup>1</sup> / <sub>2</sub>	8
36 WF 230	12574 <sup>K</sup>	247 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	6 x 1	16 x <sup>1</sup> / <sub>2</sub>	10
36 WF 245	13441 <sup>K</sup>	260 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	6 x 1	16 x <sup>1</sup> / <sub>2</sub>	11
36 WF 260	14330 <sup>K</sup>	276 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	6 x 1 <sup>1</sup> / <sub>2</sub>	16 x <sup>1</sup> / <sub>2</sub>	12
36 WF 280	15551 <sup>K</sup>	291 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	6 x 1 <sup>1</sup> / <sub>2</sub>	16 x <sup>1</sup> / <sub>2</sub>	13
36 WF 300	16676 <sup>K</sup>	312 <sup>K</sup>	12 <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub>	6 x 1 <sup>1</sup> / <sub>2</sub>	16 x <sup>1</sup> / <sub>2</sub>	14

### GENERAL NOTES

1. Splice connections to be made with  $\frac{3}{8}$ " high tensile strength bolts. Holes to be  $\frac{1}{8}$ "  $\phi$ .
2. The design bending moment is 90% of the net resisting moment of the beam with an allowable stress of 20,000 p.s.i. The design shear is 75% of the shear strength of the gross section of the web with an allowable stress of 12,000 p.s.i.
3. If beams of different sizes are to be spliced, use splice details shown for the smaller of the beams being spliced unless otherwise directed by design details. See design details for filler thickness. Place fillers to limits of splice plates only, with no extensions.
4. See design details for slopes of beams in order to correctly fabricate berels at the splices.

### A.S.T.M. STEEL CLASSIFICATION

High Tensile Strength Bolts.....A-325  
Splice Plates.....A-36

### DESIGN SPECIFICATIONS

AASHTO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 & 1962

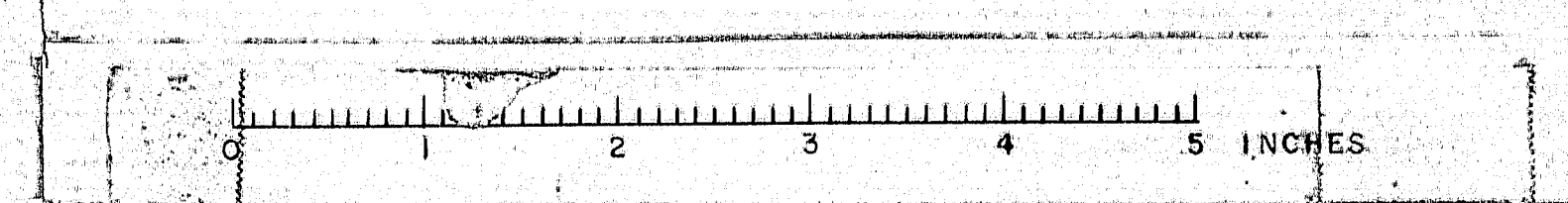
MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

**STANDARD DETAILS**  
(BD 103-64)

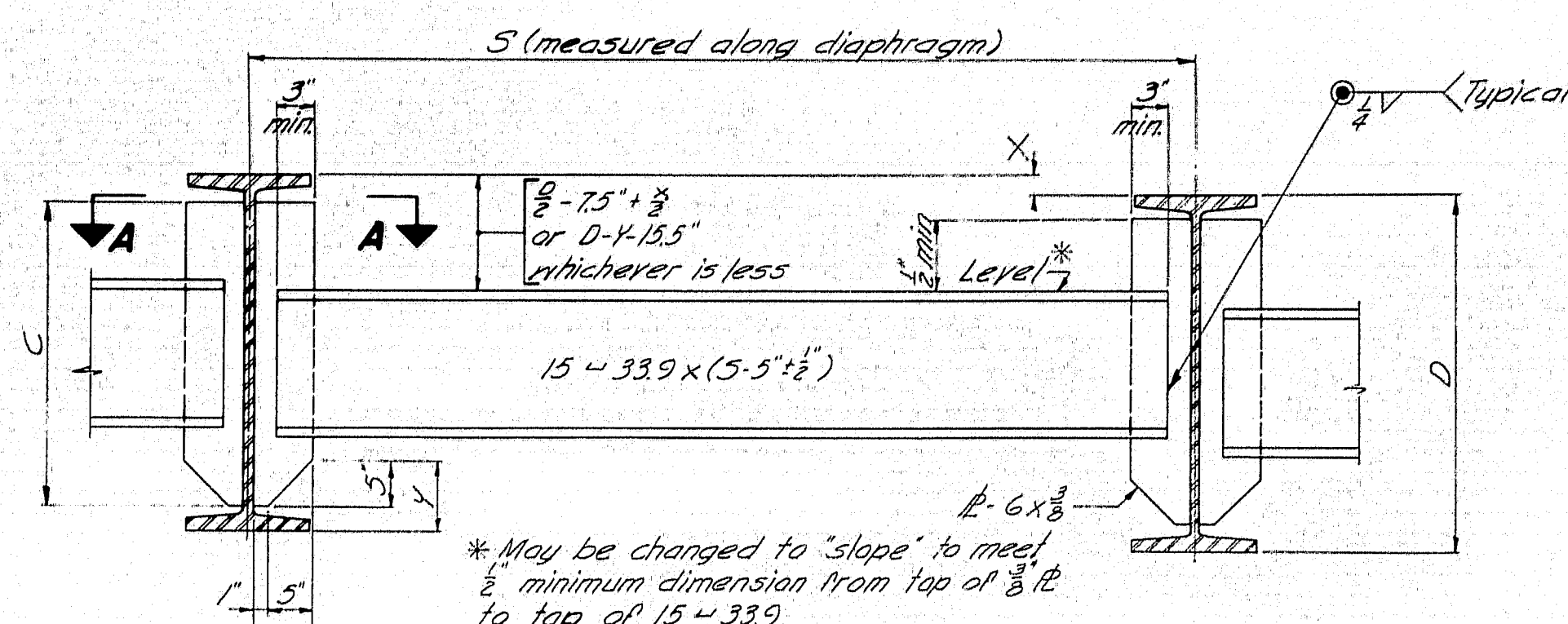
**BEAM SPLICES**

JANUARY 1964

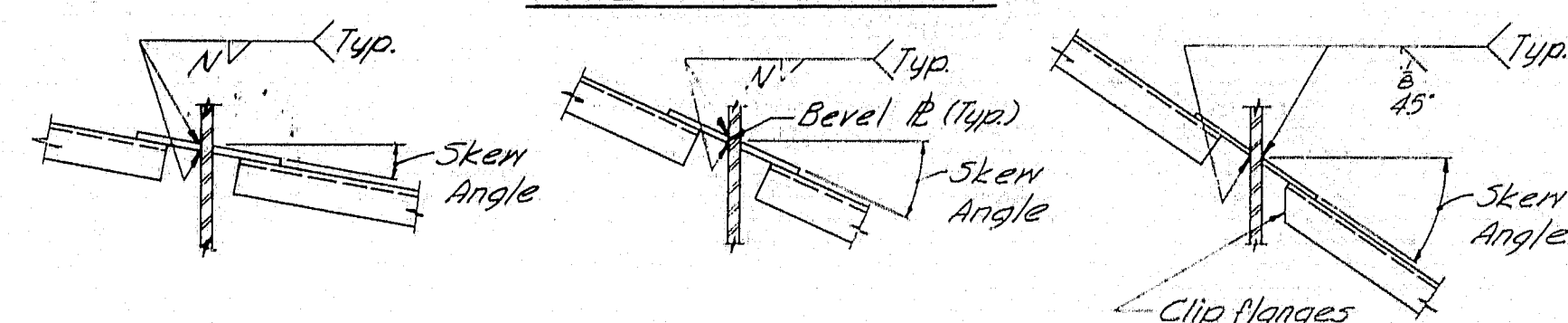
**95-145**







**TYPE A DIAPHRAGM**

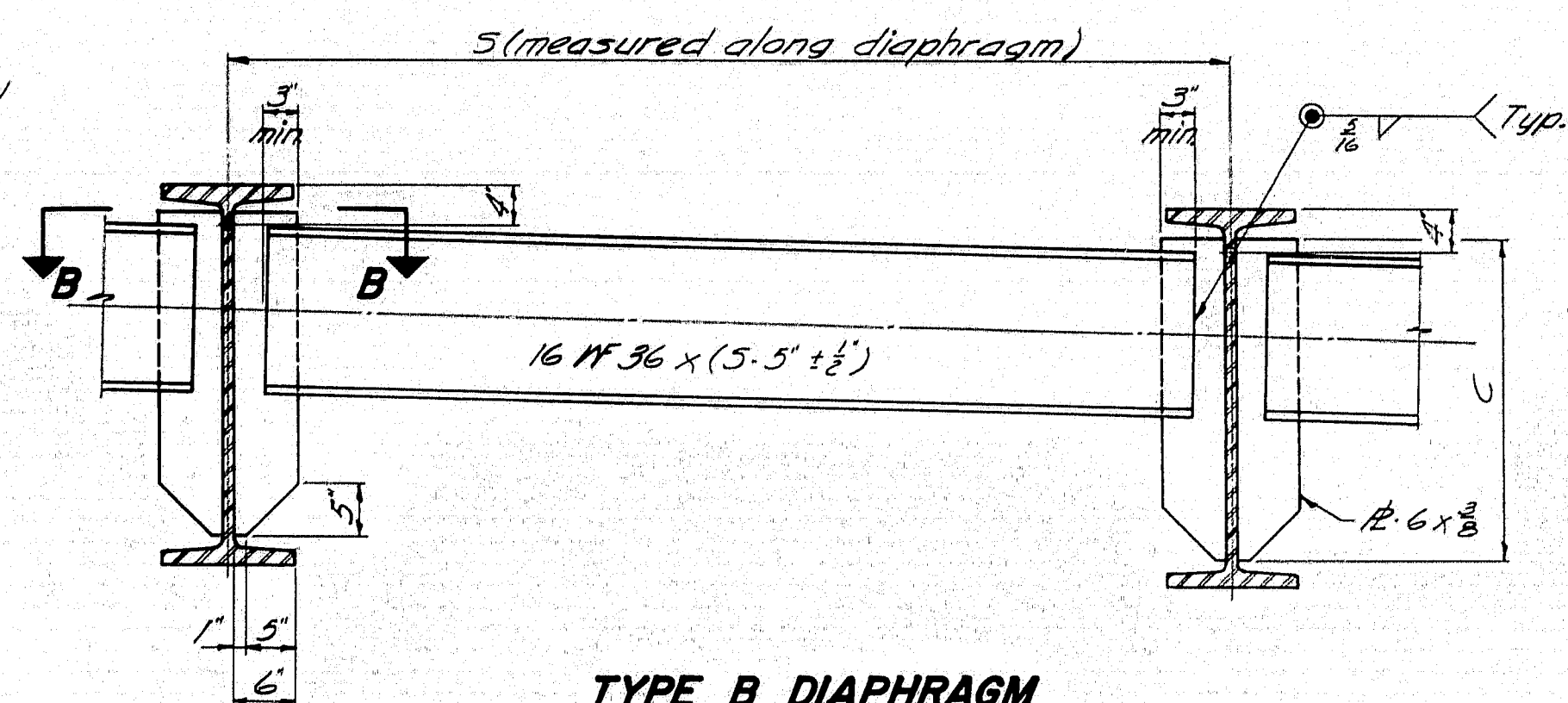


**SECTION A-A**  
Skew Angle 0° to 15°-30'

**SECTION A-A**  
Skew Angle over 15°-30° to 30°-00'

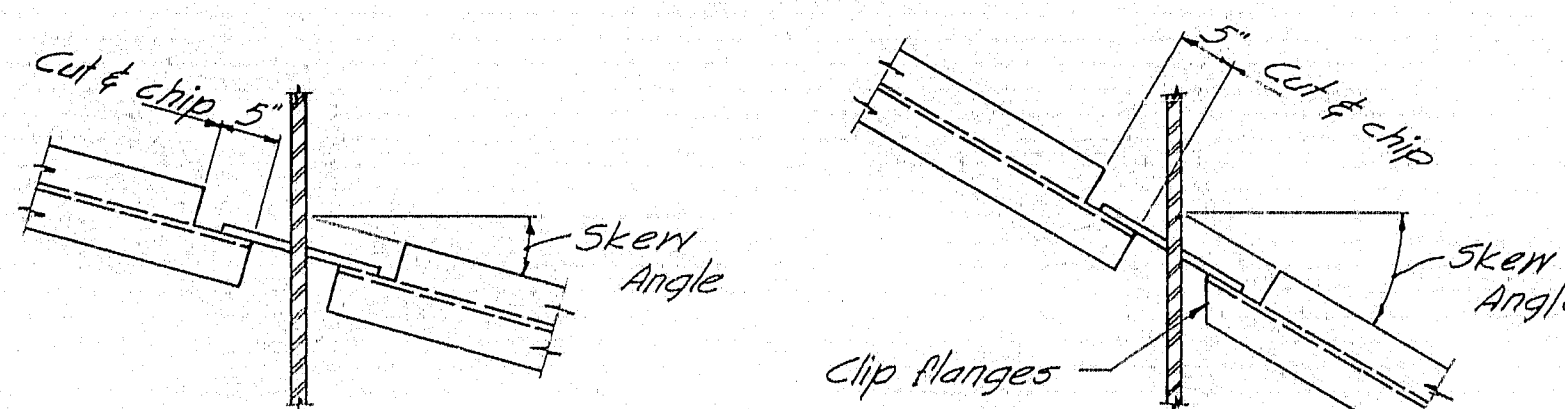
**SECTION A-A**  
Skew Angle over 30°-00'

Fillet Weld Size "N" & DIMENSION "C" FOR DIAPHRAGM PLATES		
BEAM	C	N
27 WF 84 to 114 incl.	1'-11"	1/2"
30 WF 99 to 132 incl.	2'-2"	1/2"
33 WF 118 to 152 incl.	2'-5"	1/2"
36 WF 135 to 194 incl.	2'-7"	1/2"
36 WF 230 to 300 incl.	2'-6"	1/2"



**TYPE B DIAPHRAGM**

Welding 6x3/8 plates to web same as for Type A Diaphragm.

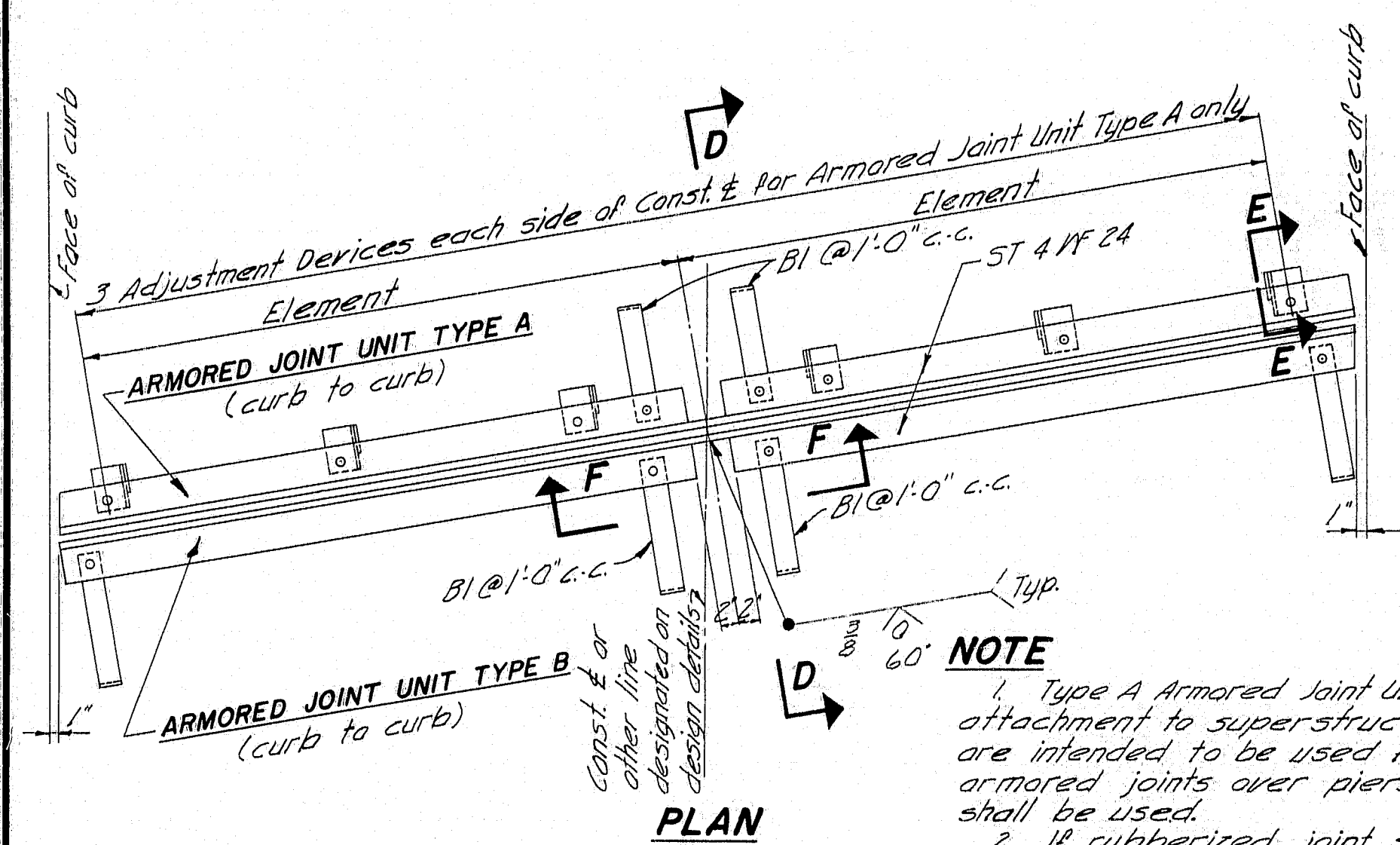


**SECTION B-B**  
Skew Angle 0° to 25°-00'

**SECTION B-B**  
Skew Angle over 25°-00'

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

## DIAPHRAGMS



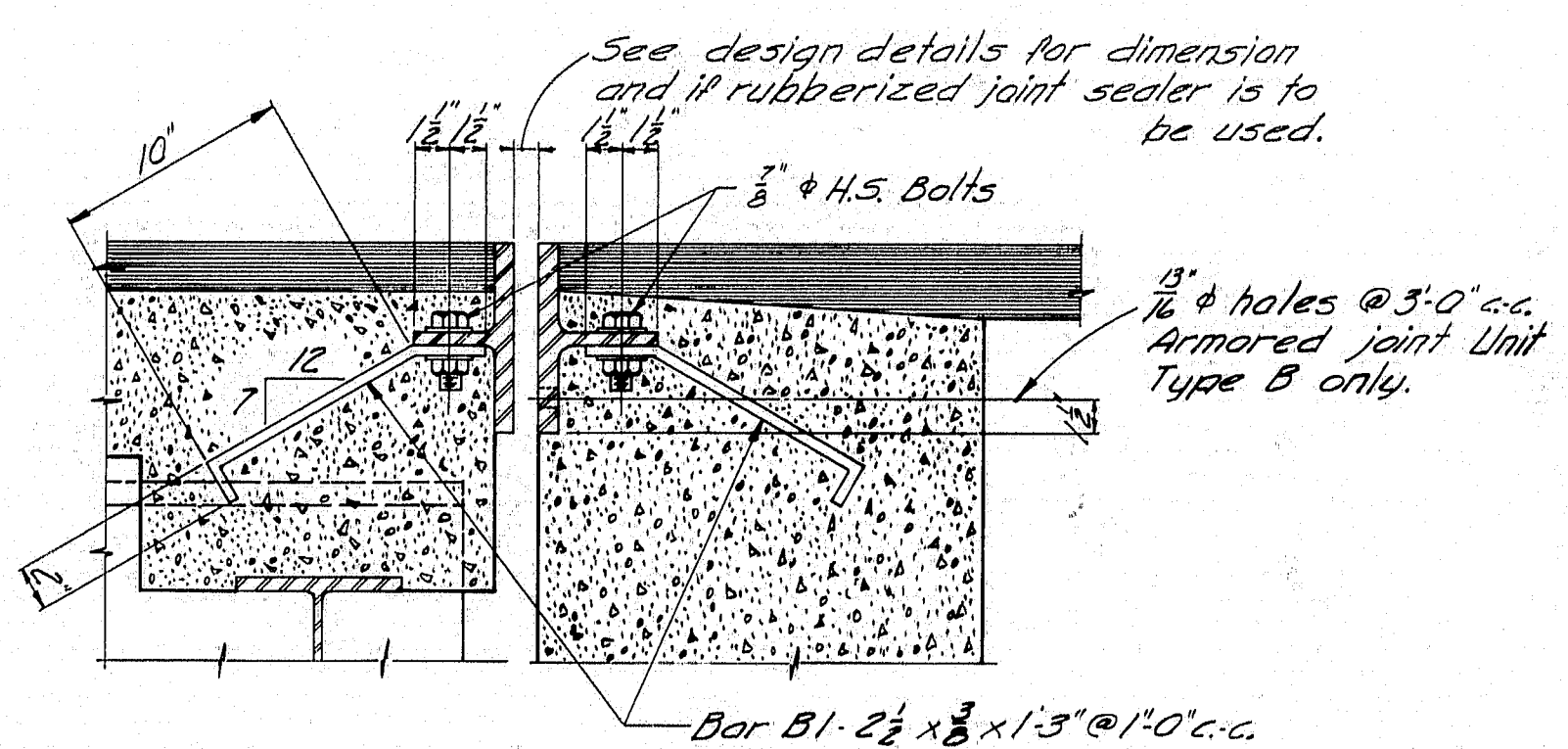
**PLAN**

**NOTE**

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two Type A Armored Joint Units shall be used.
2. If rubberized joint sealer is called for on the design details the area to which it is to be bonded shall not be painted and it shall be supported on non-bituminous material. At the Contractor's option the supporting material may be left in place or be removed. If the supporting material is left in place, it shall be compressible in accordance with specification AASHTO M153-54. In either case bond between the supporting material and the rubberized joint sealer shall be prevented by a 1" minimum thickness of Polyurethane foam.
3. If more elements than the two shown in the 'Plan' are required by the design details, there shall be three adjustment devices for each element for Armored Joint Unit Type A and the elements of both units shall be field welded together in the same manner as shown in the 'Plan'.
4. Armored Joints to be paid for as Structural Steel.

## ARMORED JOINT

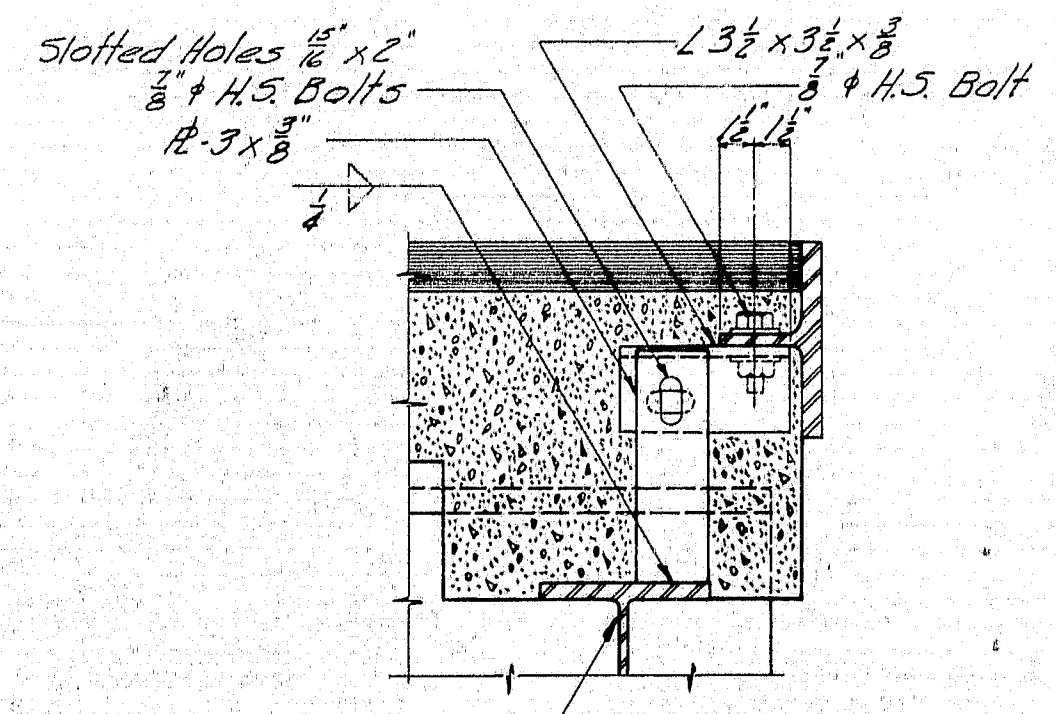
An armored joint consists of two armored joint units. See note 1.



**ARMORED JOINT UNIT TYPE A**

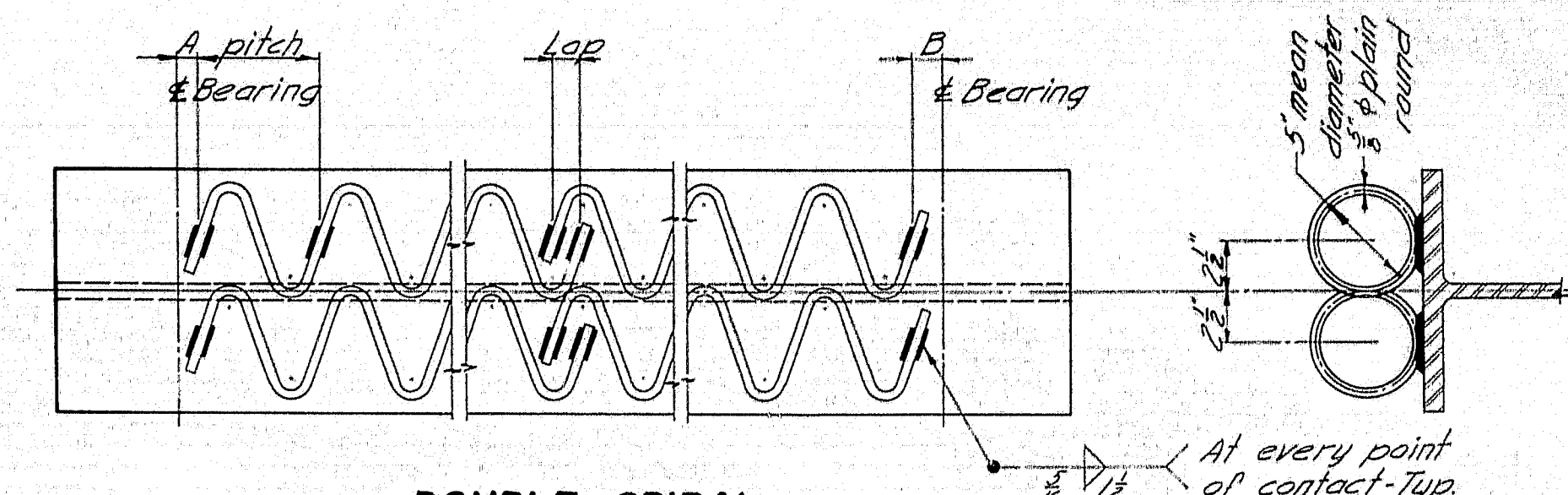
**ARMORED JOINT UNIT TYPE B**

**SECTION D-D**

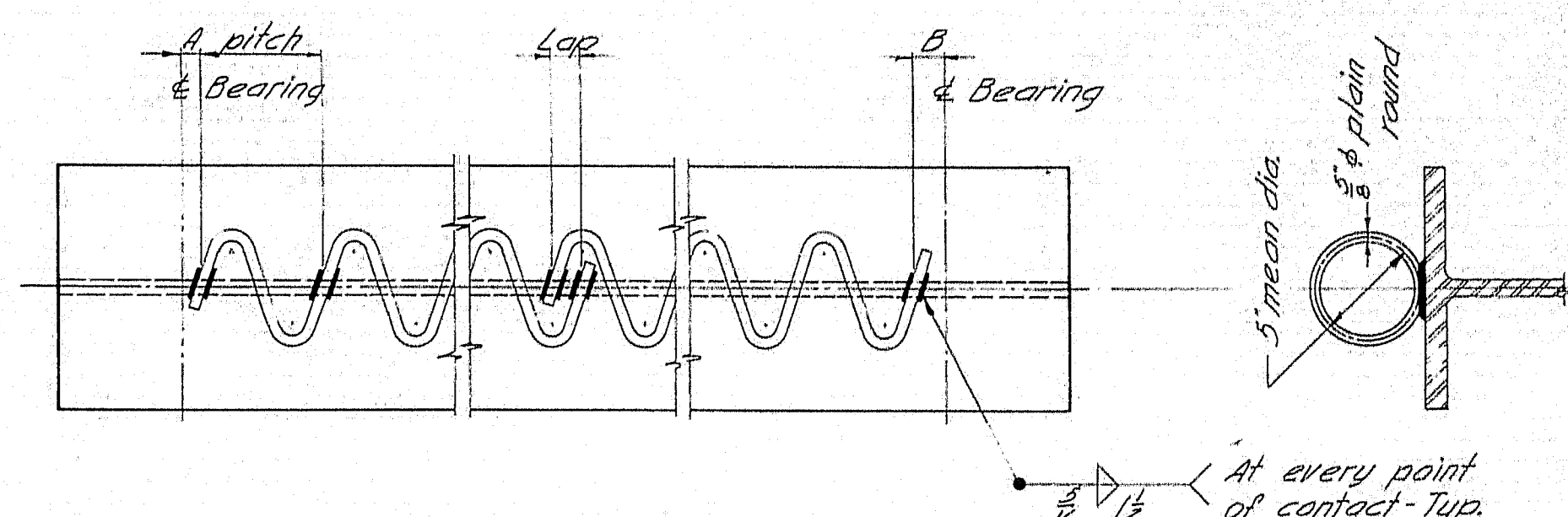


**SECTION E-E**

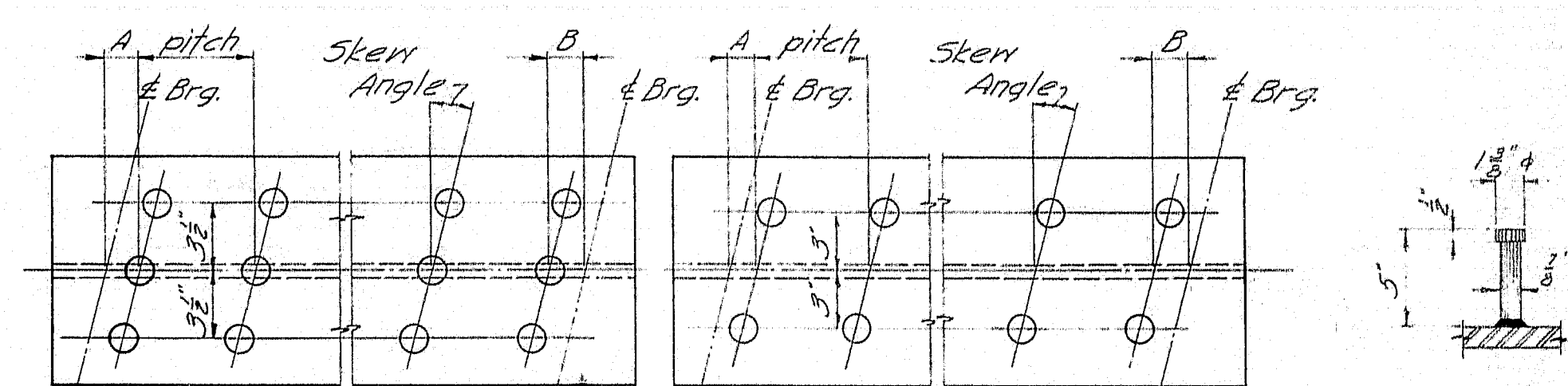
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld 3/8" to angle with 1/2" fillet



**DOUBLE SPIRAL**



**SINGLE SPIRAL**



**TRIPLE STUDS**

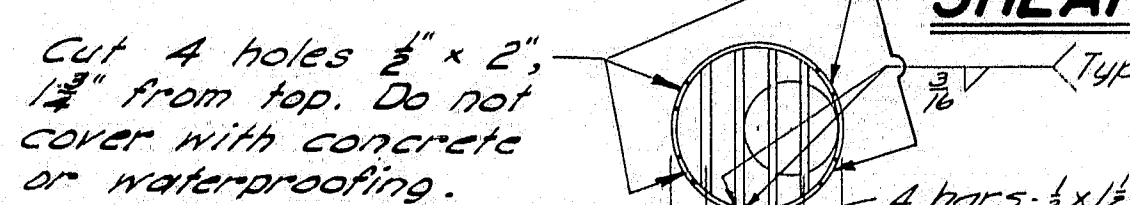
**DOUBLE STUDS**

**STUD DETAIL**

**NOTE**

1. Spiral reinforcing or studs may be used at the option of the Contractor.
2. If studs are used they shall be granular or solid flux filled and automatically end welded to the top flange in the shop or field.
3. Studs are a patented product. If the Contractor elects to use them, he shall pay the royalty and payment to the contractor will be included in the lump sum price for Shear Connectors.
4. See the design details for Dimensions "A" and "B", spiral and stud pitch and Skew Angle for Studs.

## SHEAR CONNECTORS



**SECTION C-C**

**NOTE**

1. Drain may be rotated 180°. See design details.
2. See design details for location and number of drains and beam size to which it is connected.
3. Drains to be paid for as structural steel.

## DRAIN

Revised Nov 1964, Welding Drain Support

## GENERAL NOTE

Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.

MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

## STANDARD DETAILS

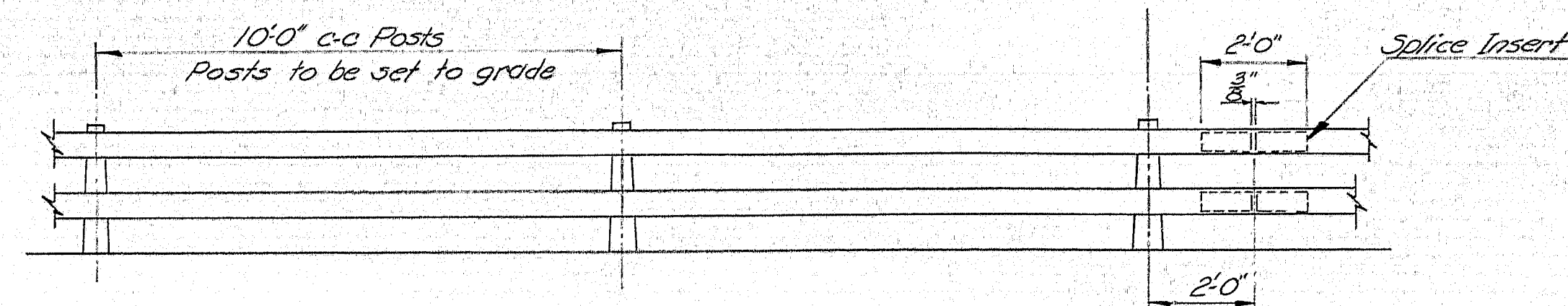
(BD 104-64)

DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

JANUARY 1964

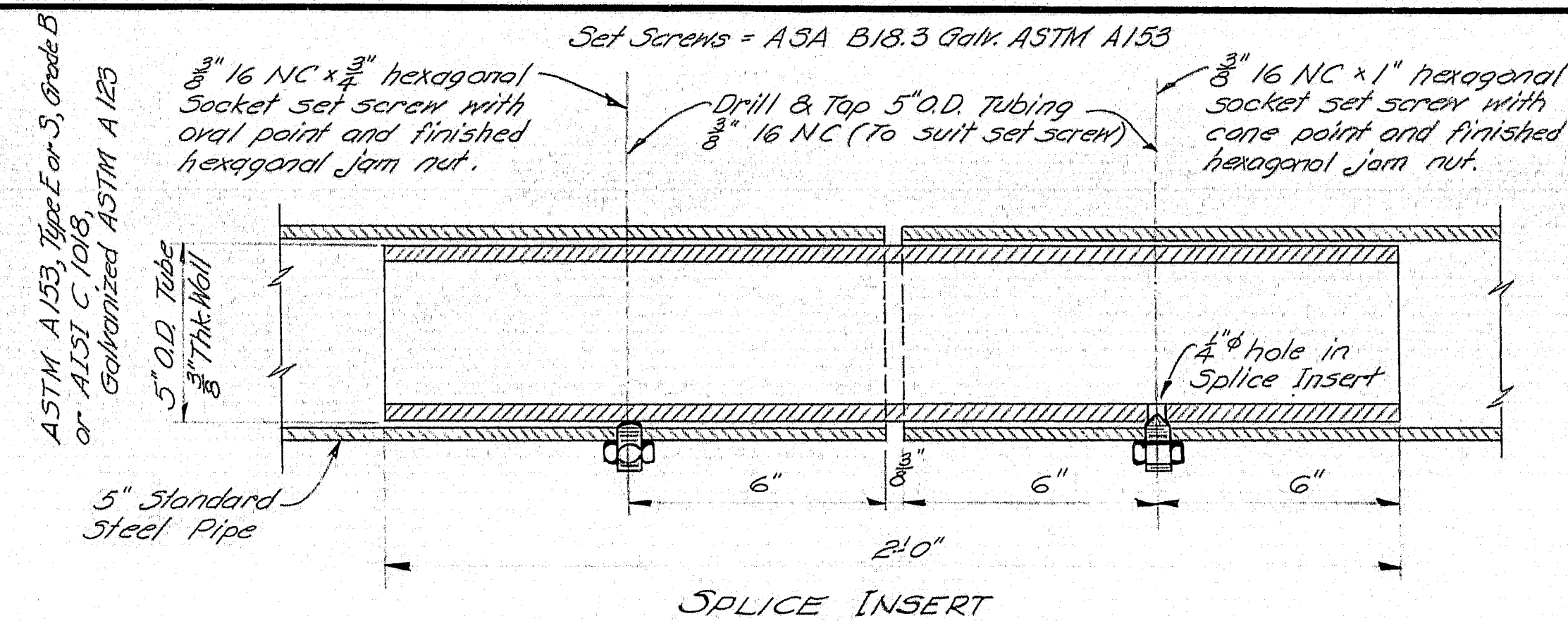


D. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			53

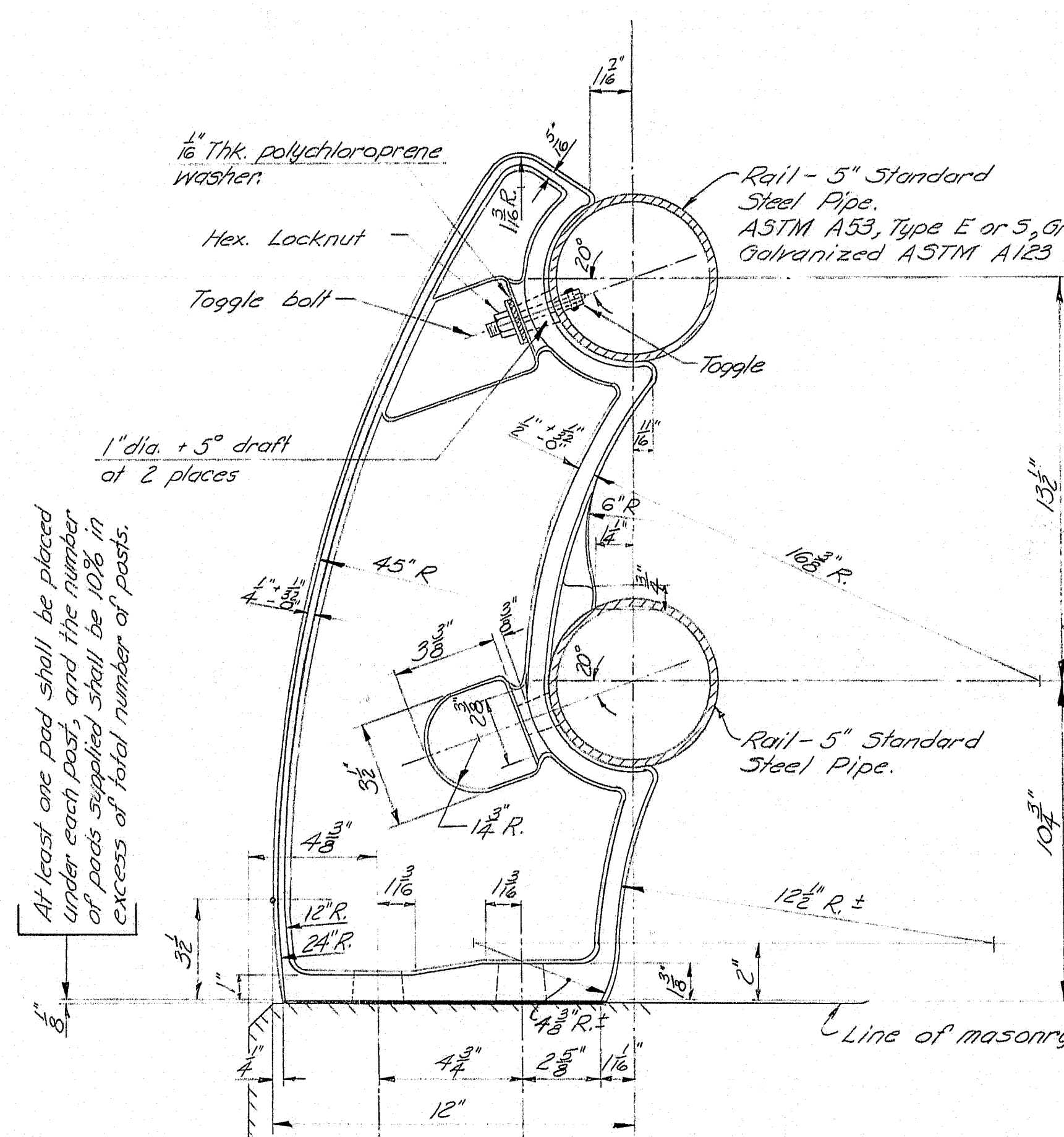


RAIL ELEVATION

Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.

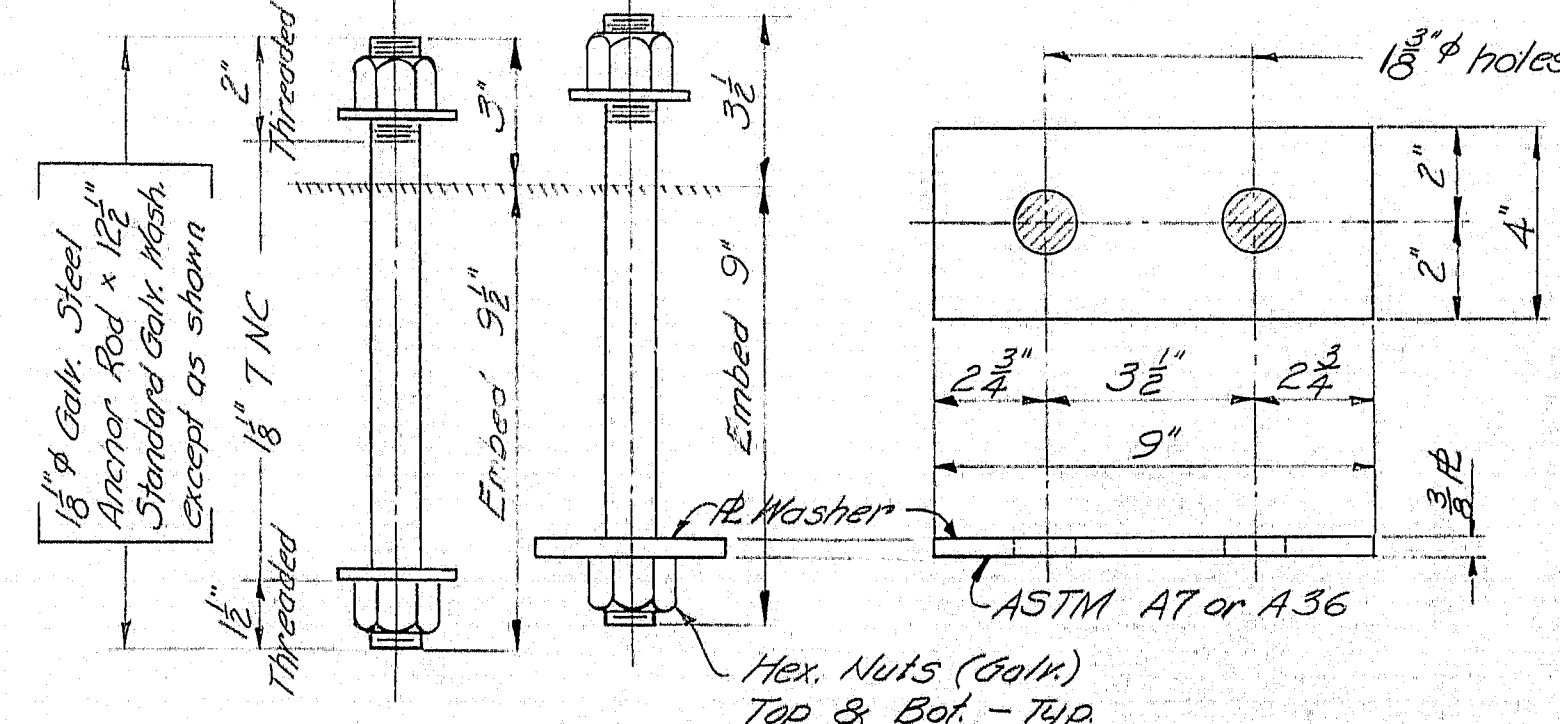


SPICE INSERT



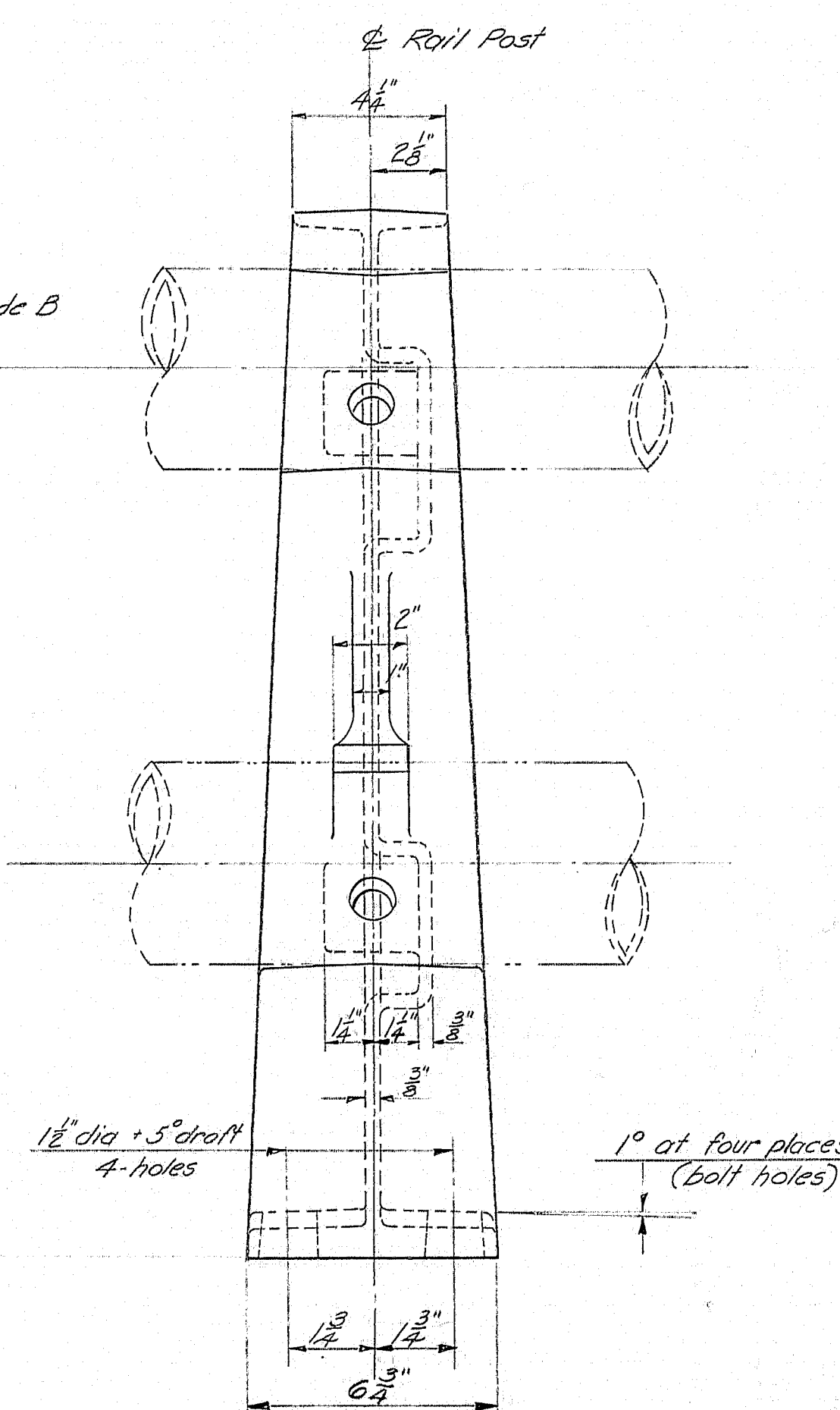
RAIL POST

ASTM A27, Grade 65-35, Galvanized ASTM A153

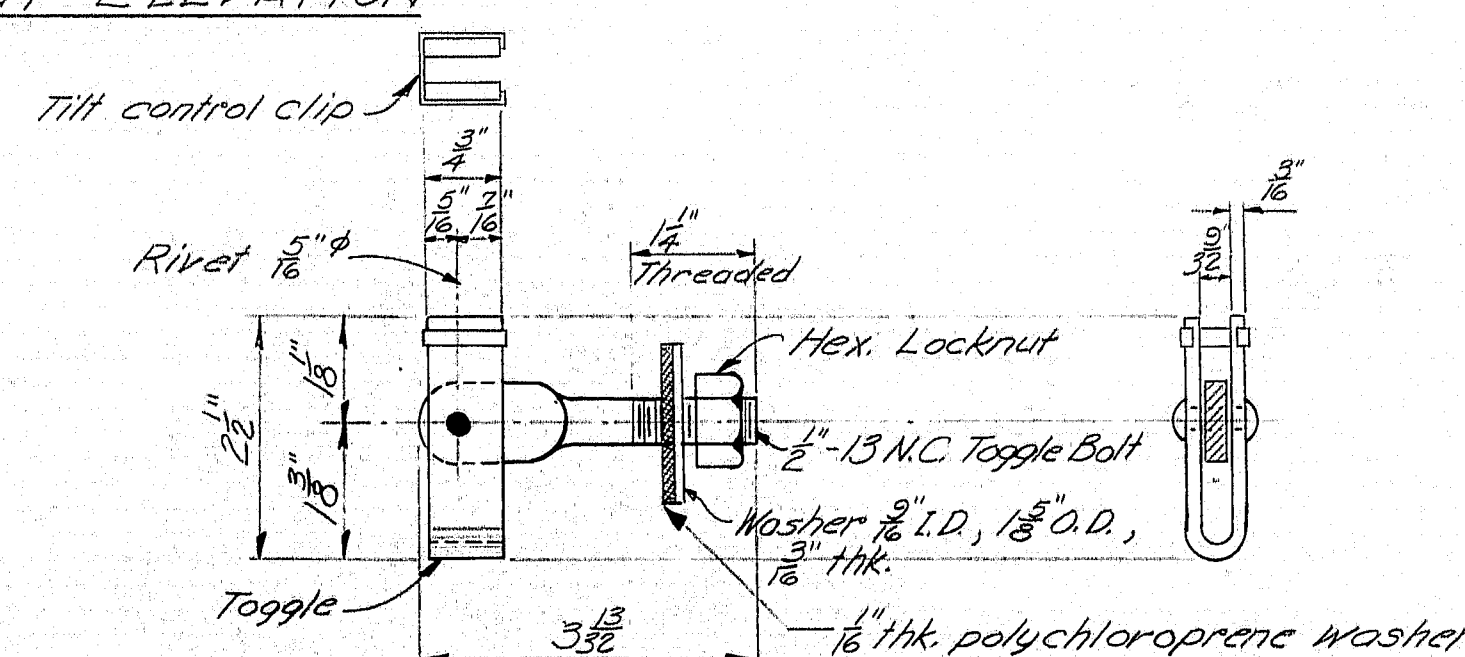


RAIL POST ANCHORAGE

Bolts, Nuts, & Std Washers = ASTM A325 Galvanized ASTM A153

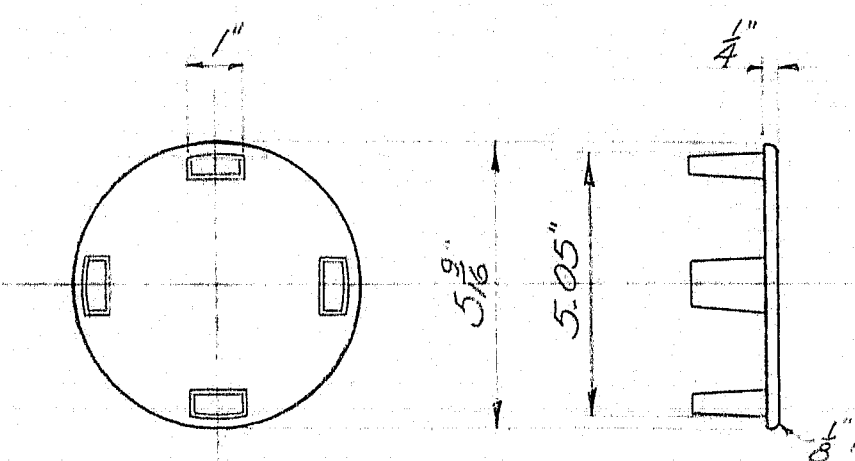


FRONT ELEVATION



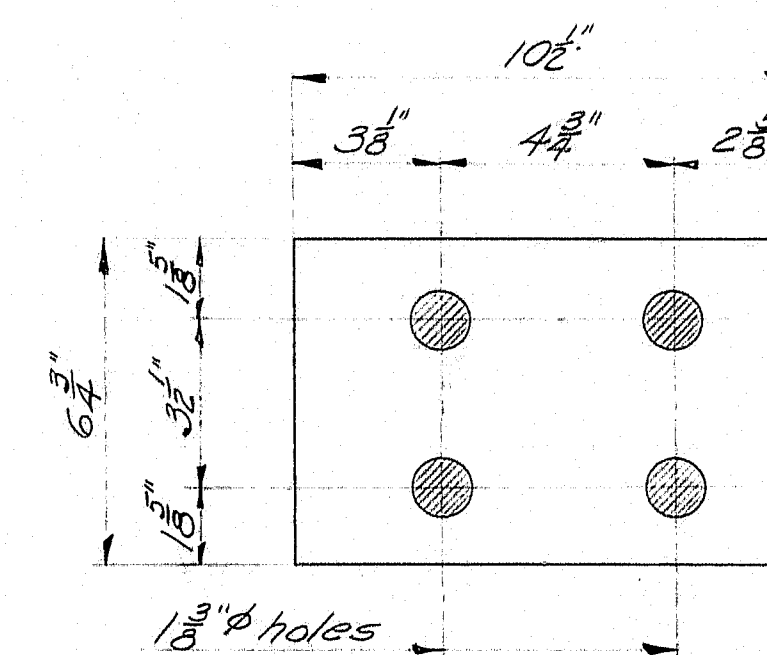
TOGGLE BOLT DETAIL

Cadmium Plate metal parts ASTM A165-55, Type N5, .0005" thick



RAIL CAP

ASTM A27, Grade 65-35, Galv. ASTM A153



PAD

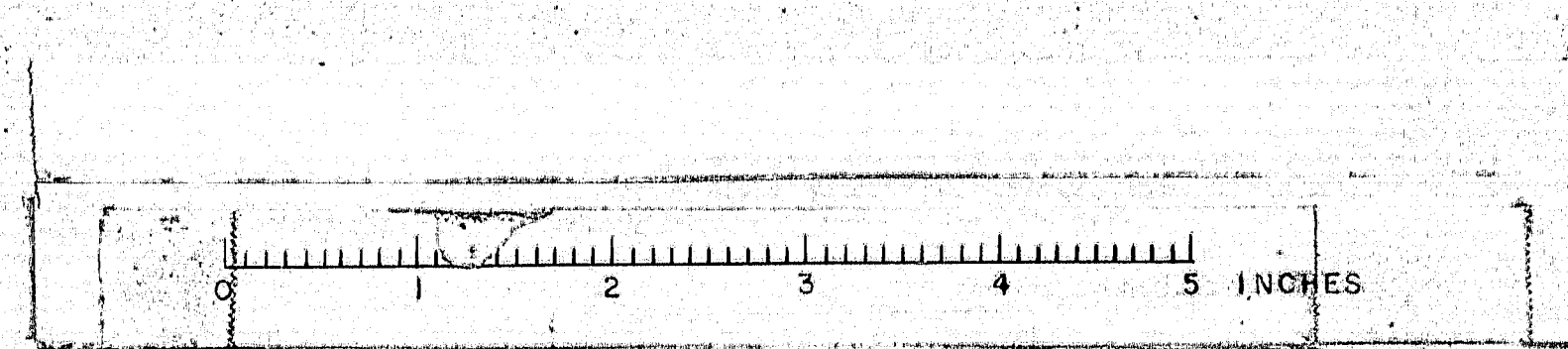
At each rail post  
See Article 702-80 Supplemental Specifications  
of Feb. 1960.

# DESIGN SPECIFICATIONS

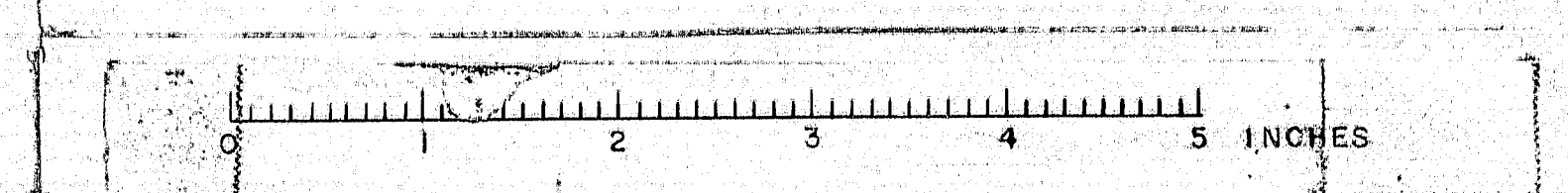
A.A.S.H.O. Interim Specifications  
Int. I (64)

DESIGN- TRACE- CHECK-	BRIDGE NO. SURVEY- PLOT-
	STATE HIGHWAY COMMISSION BRIDGE DIVISION
	STANDARD DETAILS (BD 107 - 64)
	STEEL RAIL (2-BAR PIPE RAIL) CAST POST
SHEET OF	AUGUSTA, MAINE OCT. 1964

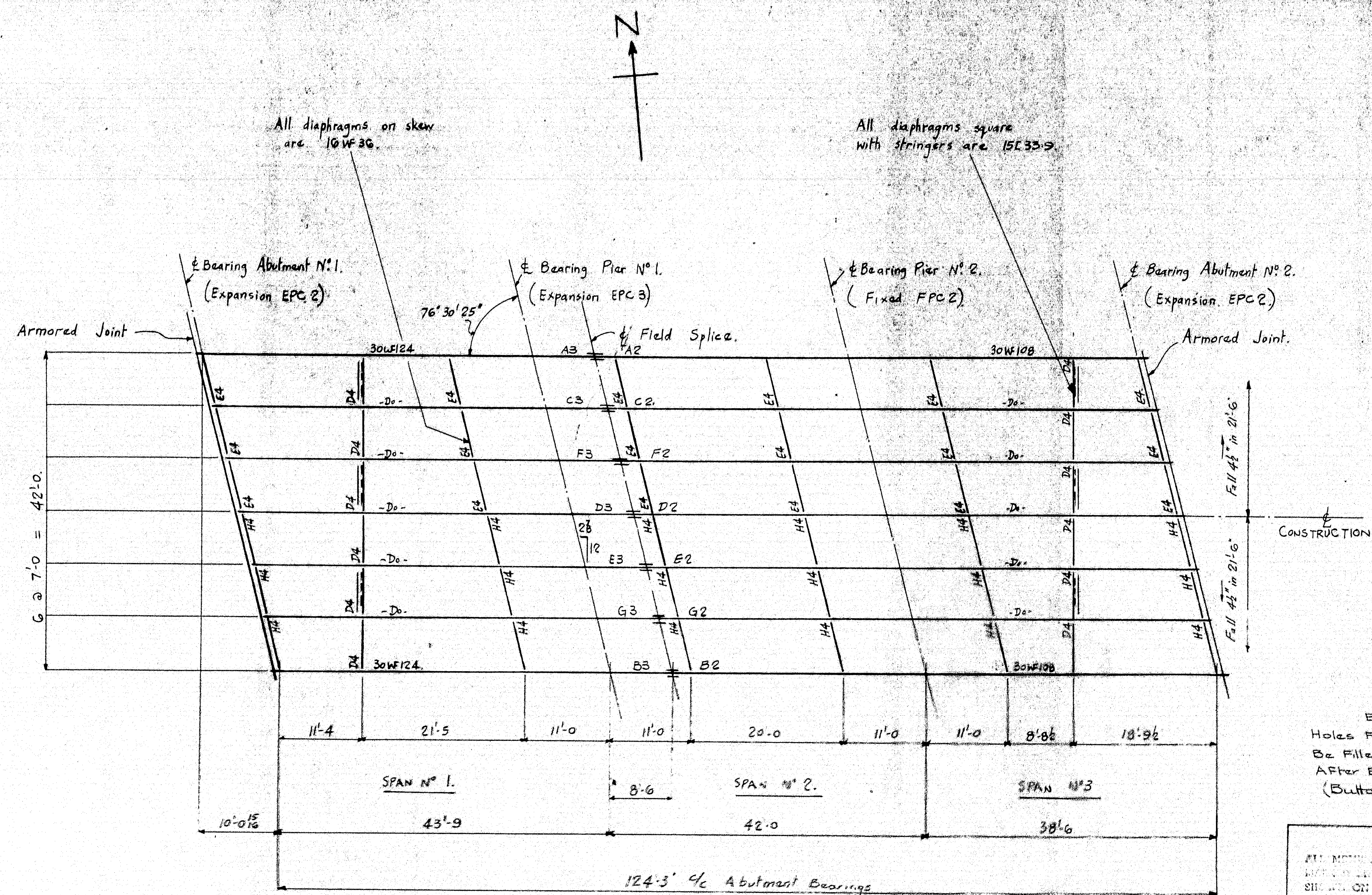
95-147



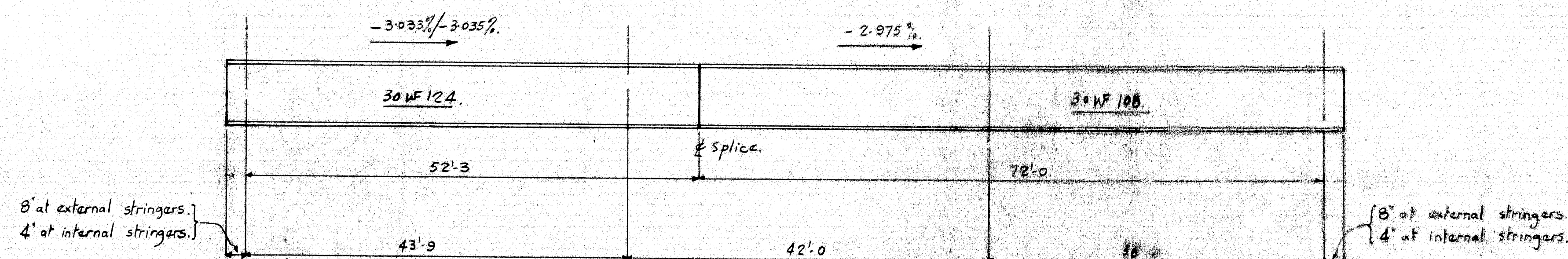








ERECTION DIAGRAM.  
ALL DIMENSIONS ARE HORIZONTAL.



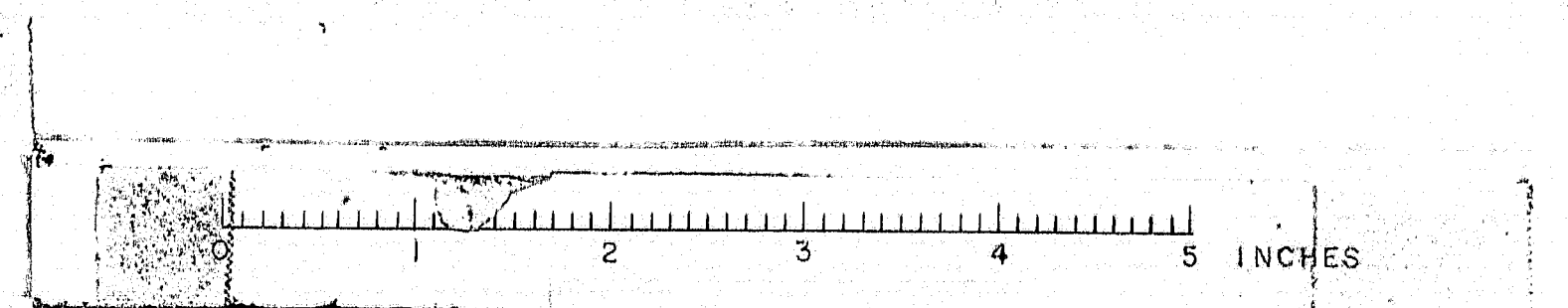
TYPICAL STRINGER ELEVATION.  
NO CAMBER  
ALL DIMENSIONS HORIZONTAL.

Erection Note.  
Holes For Flaming Brackets To  
Be Filled With Carriage Bolts  
After Erection Is Complete.  
(Button Head On Outside)

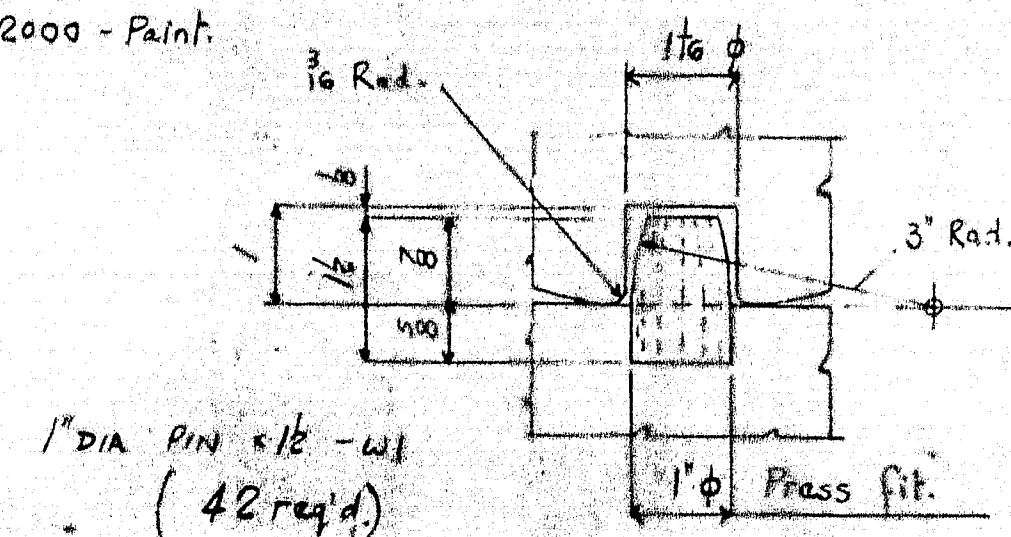
ERECTOR NOTE  
ALL DIMENSIONS ARE TO BE  
MAINTAINED IN THE LOCATION AS  
SHOWN ON THIS DRAWING.

- NOTES
- 1) All steel to be ASTM. A36.
  - 2) Stringers are to be fabricated with natural camber up.
  - 3) Paint:- Commercial blast clean followed by one shop coat of paint as per specs. in S.H.C. letter dated March 31 1965. Note: No paint to be applied within 2' of splice holes.
  - 4) All splices to be match-drilled. See sheet 'X'.
  - 5) See sheet 5 for armored joints.

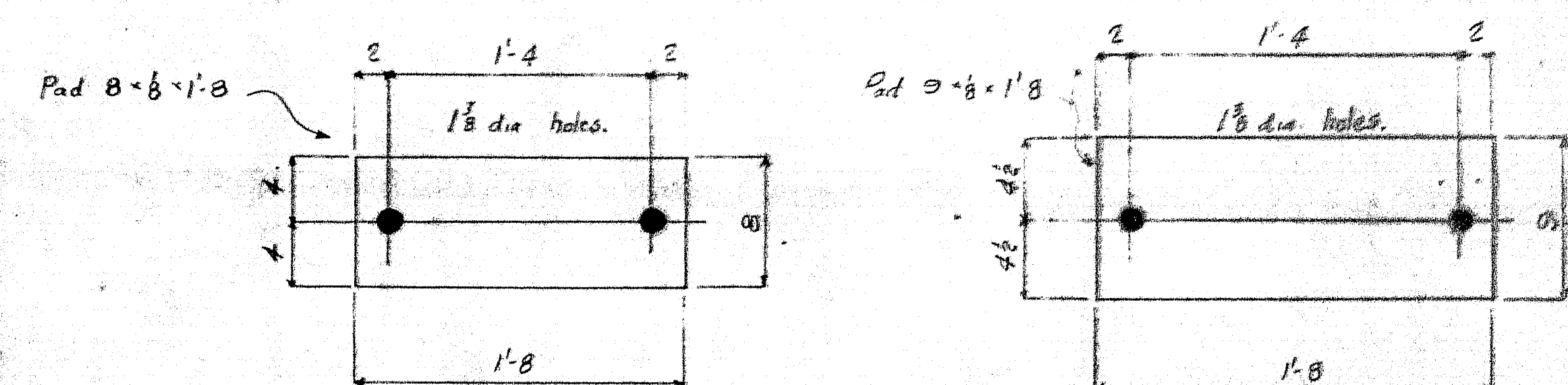
REVISIONS	DESCRIPTION	ARRANGEMENT OF STEELWORK	DRAWN BY	DATE
A		INTERSTATE 95 OVER LINE ROAD.	RWS	APRIL 1965
B		SMYRNA & LUDLOW.	QWS	9 May 65
C		(STATE HIGHWAY COMMISSION)		
D				
E				
F		CUSUMER. CIANCHETTE BROS.		
G		AUGUSTA IRON WORKS	ORDER	1942
H		AUGUSTA, MAINE		
J				





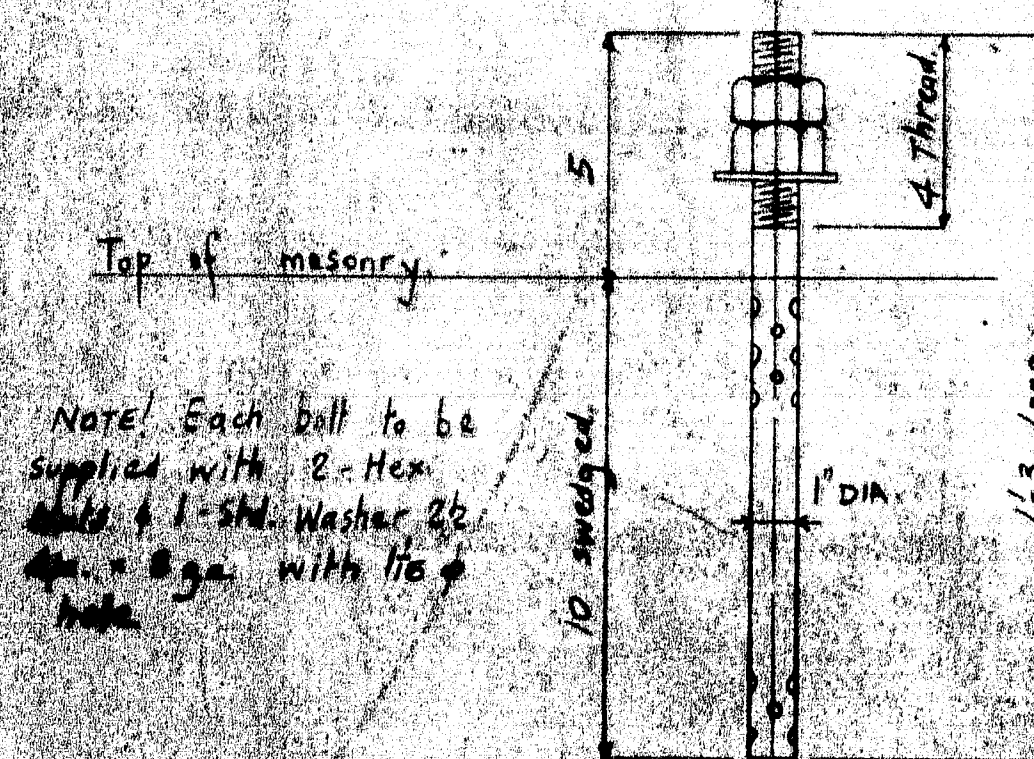


DOUGEL DETAIL



14 PREFORMED PADS REQ'D  
(FOR BEARINGS EPC?)

7- PREFORMED PADS REQ.  
(FOR BEARINGS EPC3)



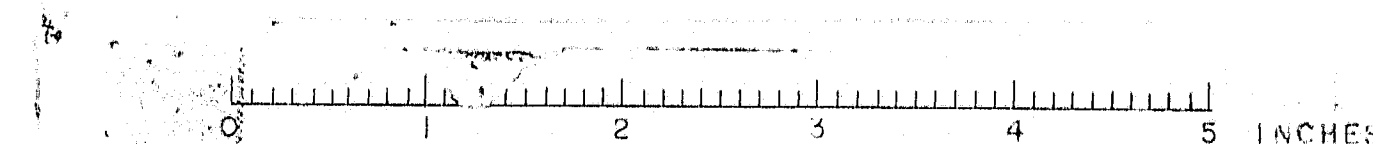
NO PAINT.  
THREADS OILED

SHOP NOTE!  
Preformed pads are  
of rubber composition.

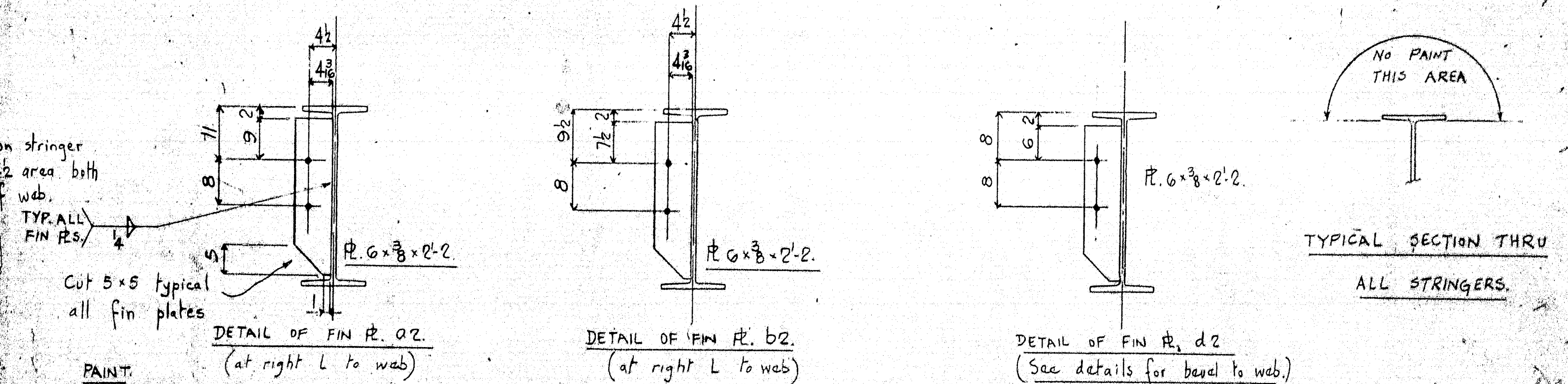
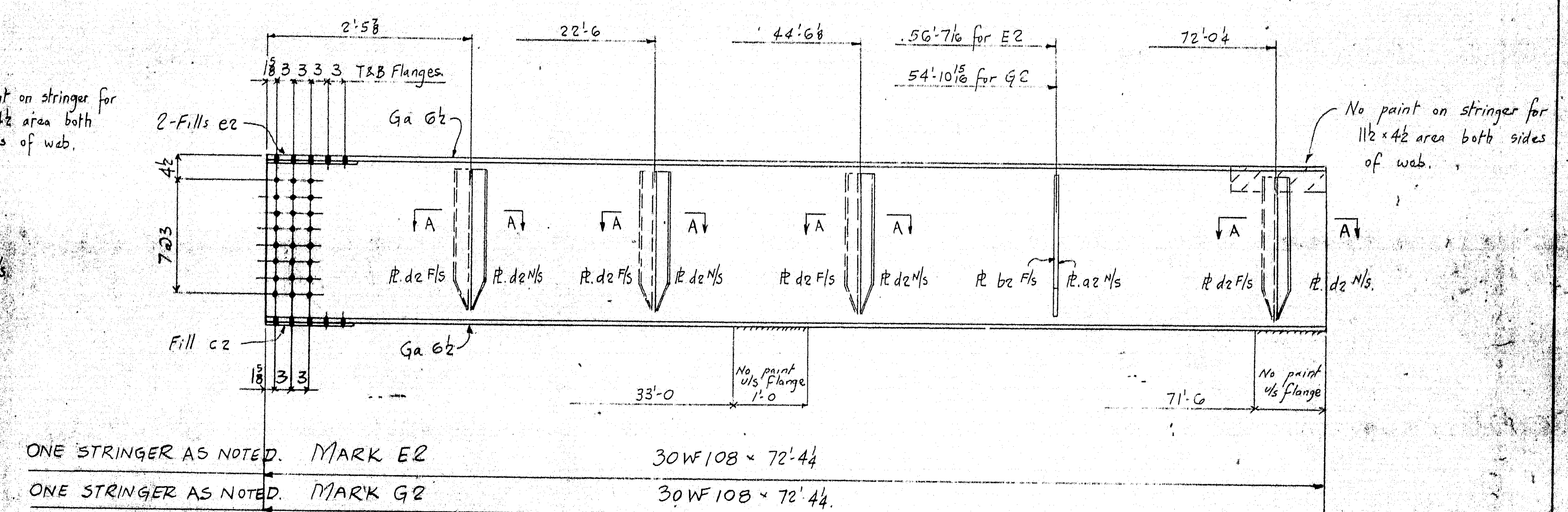
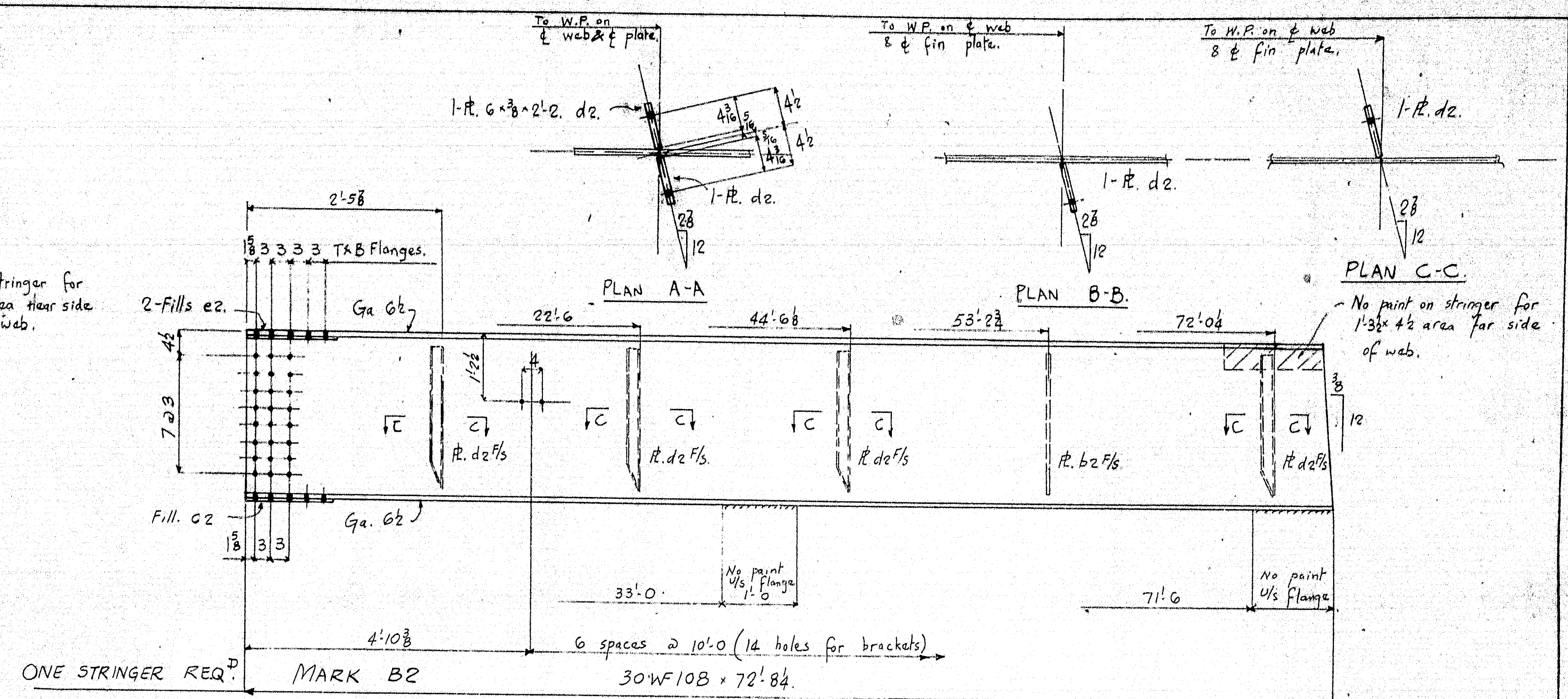
7-PREFORMED PADS REQ  
(FOR BEARINGS FRC2)

PAINT See Sheet E1  
 PAINT M-50 as per  
 specs. On unfinished surfaces  
 of bearings & as noted.  
 Finished surfaces A.S.A. 125  
 & A.S.A. 1000 AS NOTED  
 Welding - As Per Specs &  
 • Special Priming on

REVISIONS	DESCRIPTION	BRIDGE BEARINGS ANCHOR BOLTS & PADS.	
A	WORK	DRAWN BY	W. D.
B	INTER STATE 95 OVER LINE ROAD.	BOB	MARK
C	SMYRNA & LUDLOW.	CHECKED BY	D.M.
D	(STATE HIGHWAY COMMISSION)	BOB	25 MAR 68
E			
F	CUSTOMER	C. J. ANCHETTE	BROS
G			
H	AUGUSTA IRON WORKS AUGUSTA, MAINE	ORDER	1942

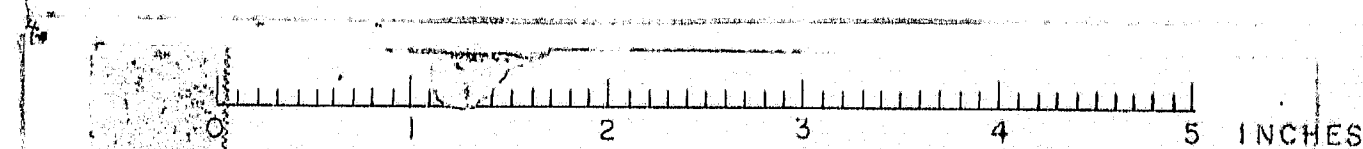




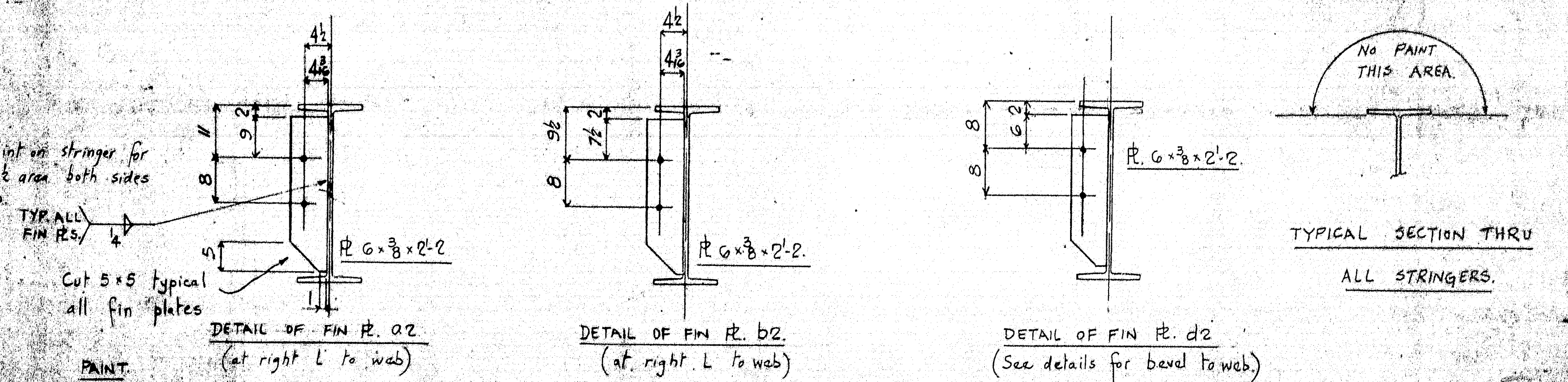
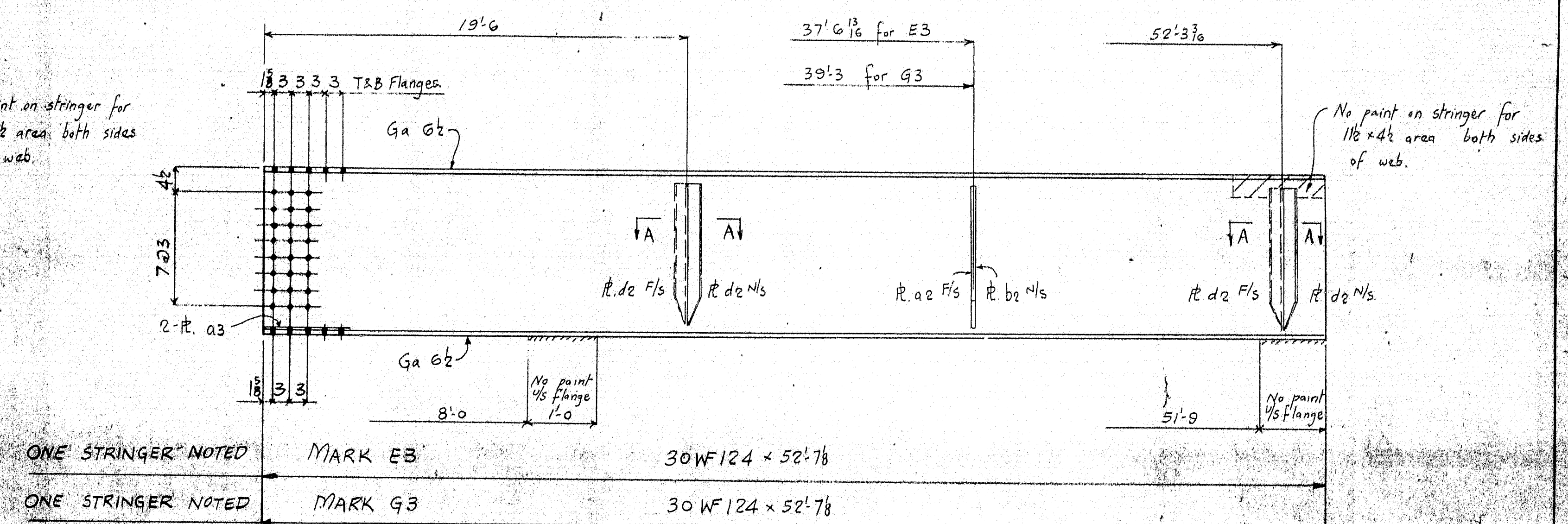
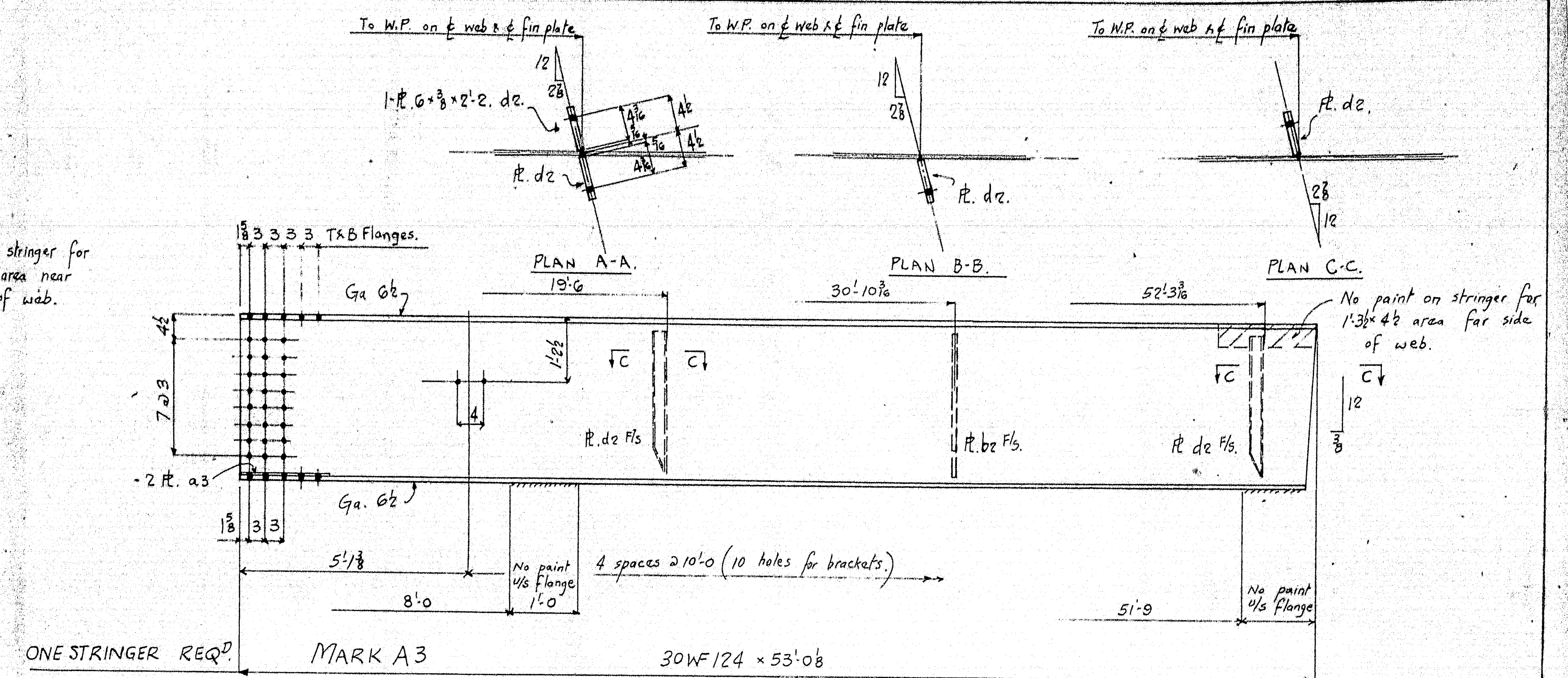


Holes  $\frac{1}{8}$  dia - See sheet X for splices.  
For splice pls see sheet 4  
For match marking - of  
splice pls, see sheet X  
 Welding - As Per Specs. & Special  
 Provision.

REVISONS	DESCRIPTION	DETAILS OF STRINGERS
JOB	INTERSTATE 95 OVER LINE ROAD SMYRNA & LUDLOW (STATE HIGHWAY COMMISSION)	DRAWN BY R.S. CHECKED BY R.D.G. April 20, 1942 May 9, 42
DESIGN	CIANCHETTE BRGS	SHEET 2
BY	AUGUSTA IRON WORKS AUGUSTA, MAINE	ORDER 1942







PAINT. (at right l to web)

One shop coat of M-50 paint except where noted and as follows.

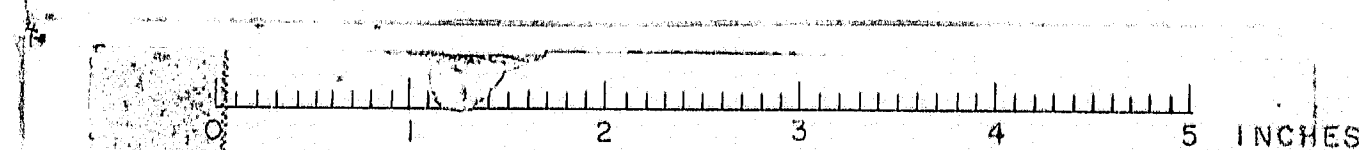
- 1) No paint on fin plates.
- 2) No paint to be applied within 2" of open holes for splices.
- 3) See Sheet E1. For Paint Note.

DETAIL OF FIN R. b2.  
(at right L to web)

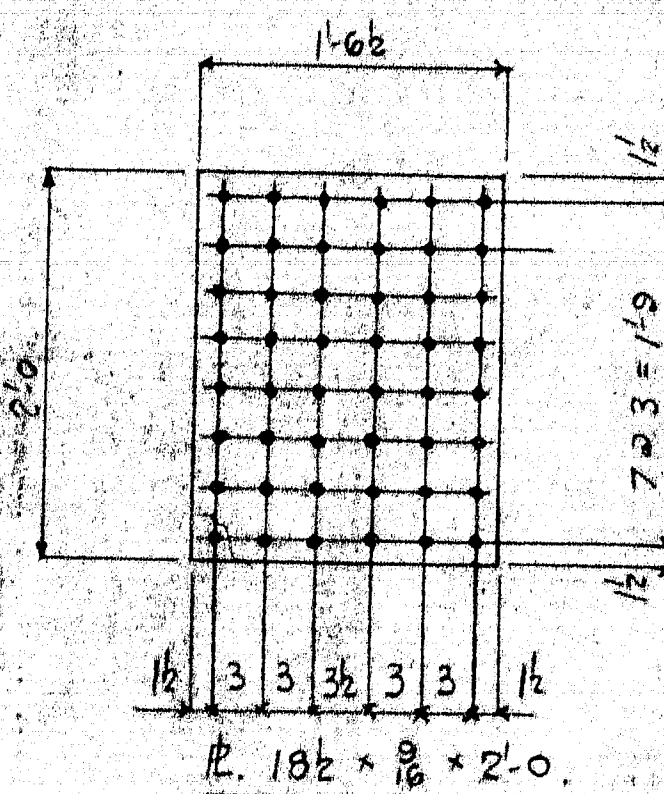
Holes  $\frac{1}{8}$  dia. - See sheet X for splices.  
For splice pls see sheet 4 -  
For match marking of  
splice pls. see sheet X.

Welding: As Per Specs & Special  
Provision

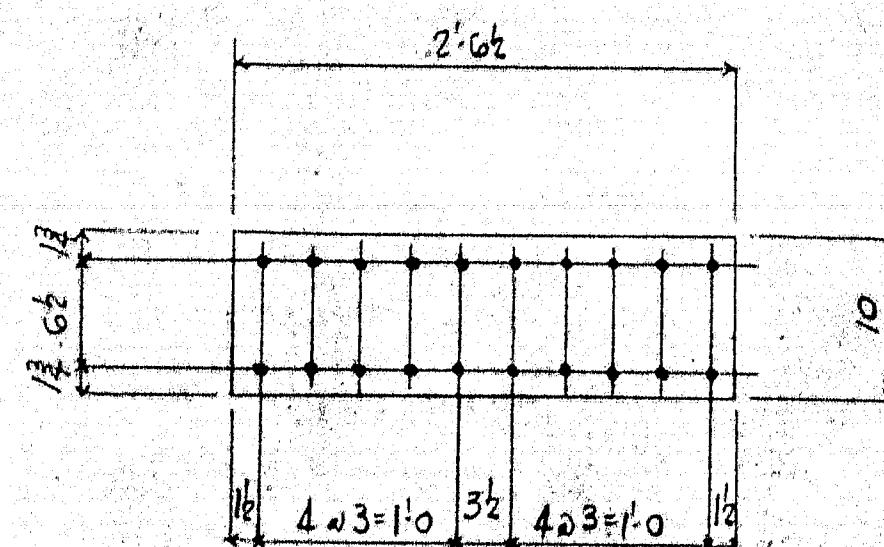
PROJECT NO.	DETAILS OF STRINGERS		DRAWN BY	DATE
11	INTERSTATE 95 OVER LINE ROAD SMYRNA & LUDLOW (STATE HIGHWAY COMMISSION)		LWS Checked by Rag	April 23 1942
12	BY: CIANCHETTE BROS.		SHEET	3
13	AUGUSTA IRON WORKS AUGUSTA, MAINE		ORDER	1942



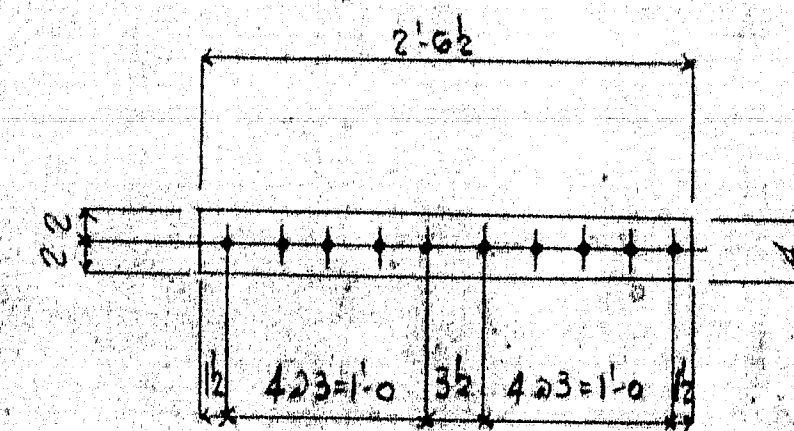




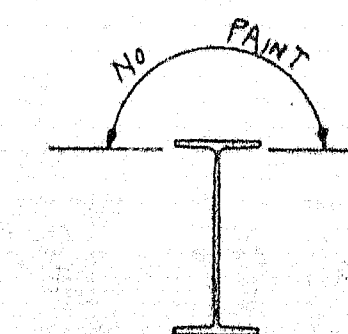
14- WEB SPLICE REIN - MARK A4.  
(NO PAINT)



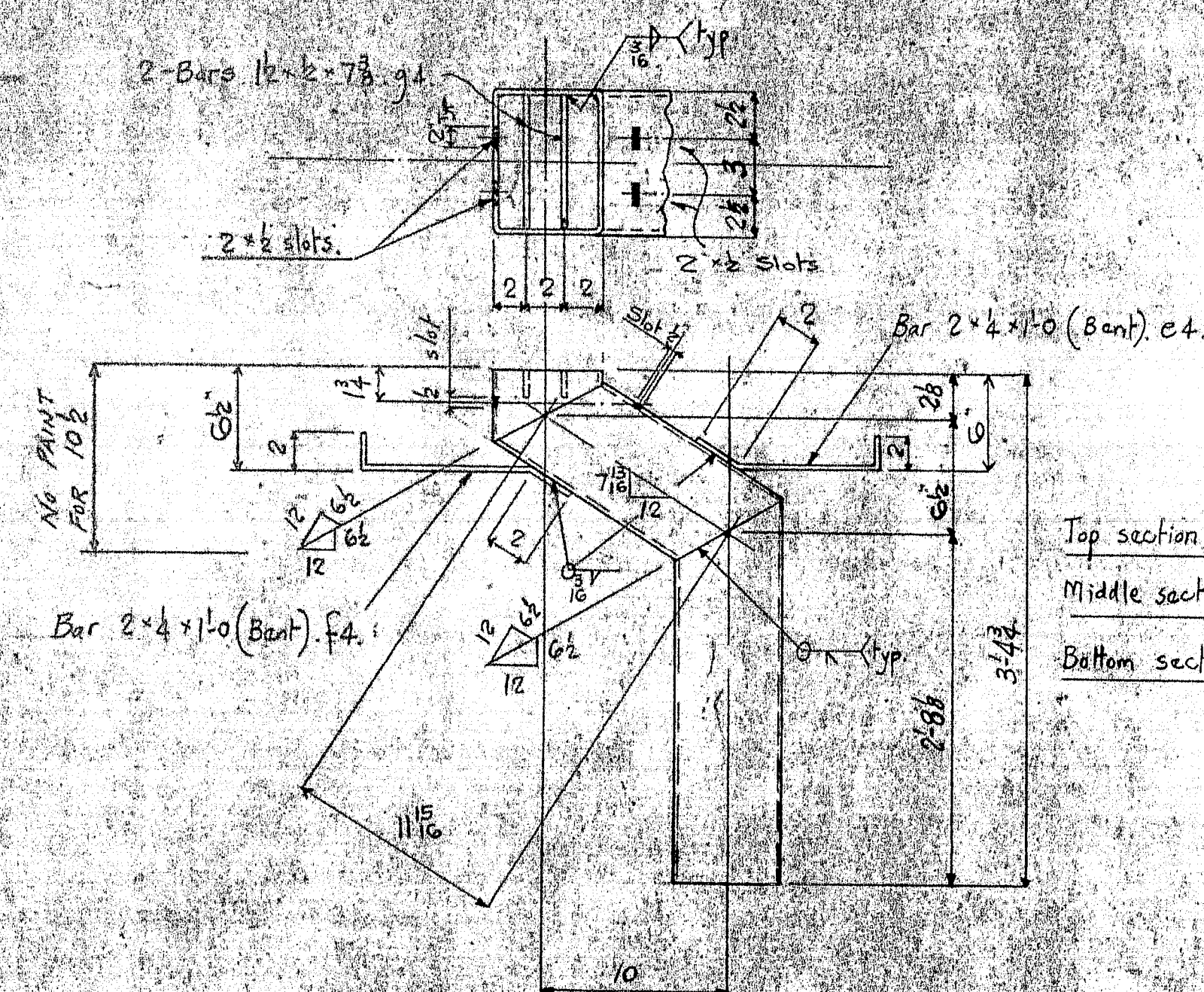
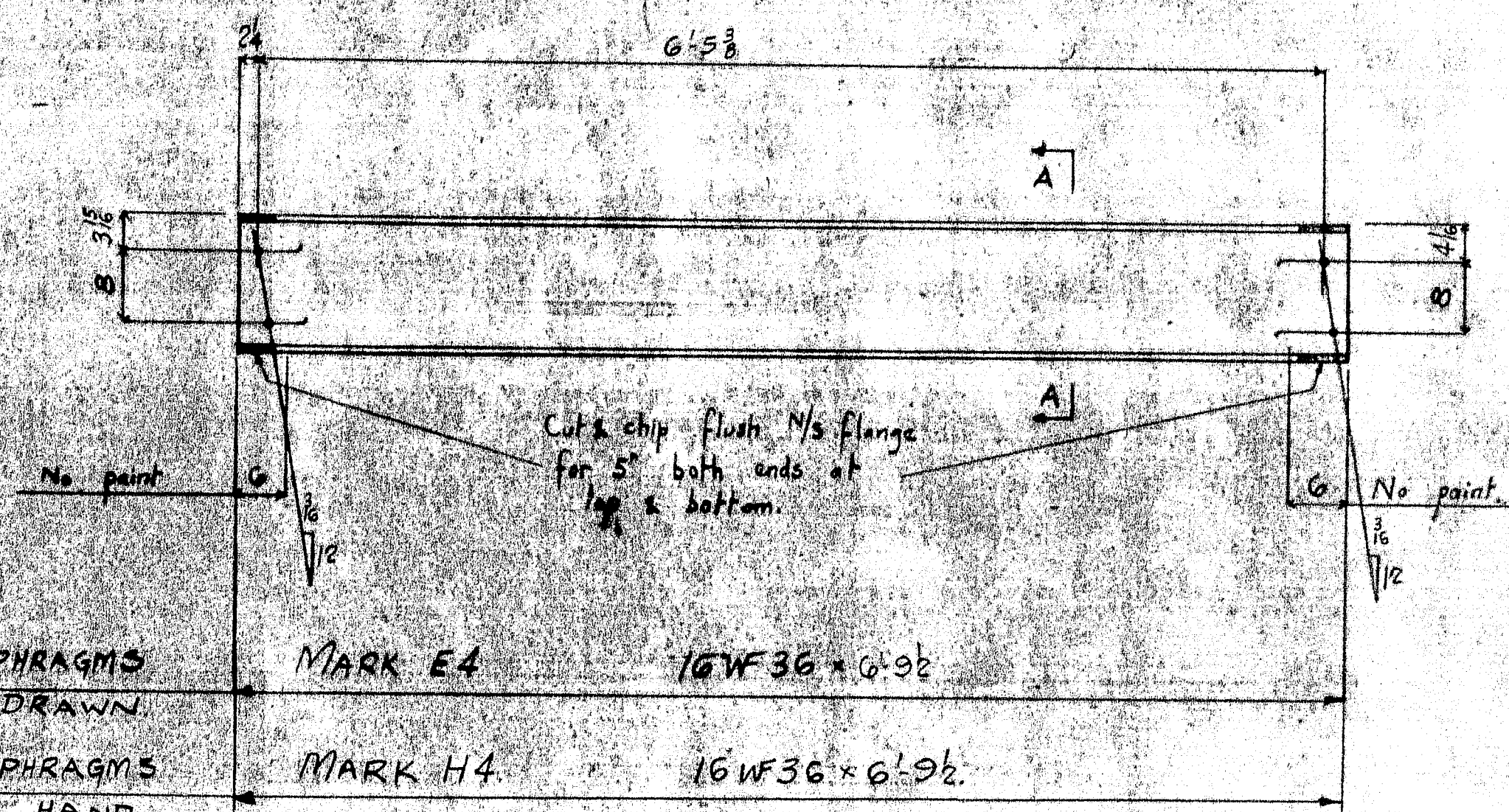
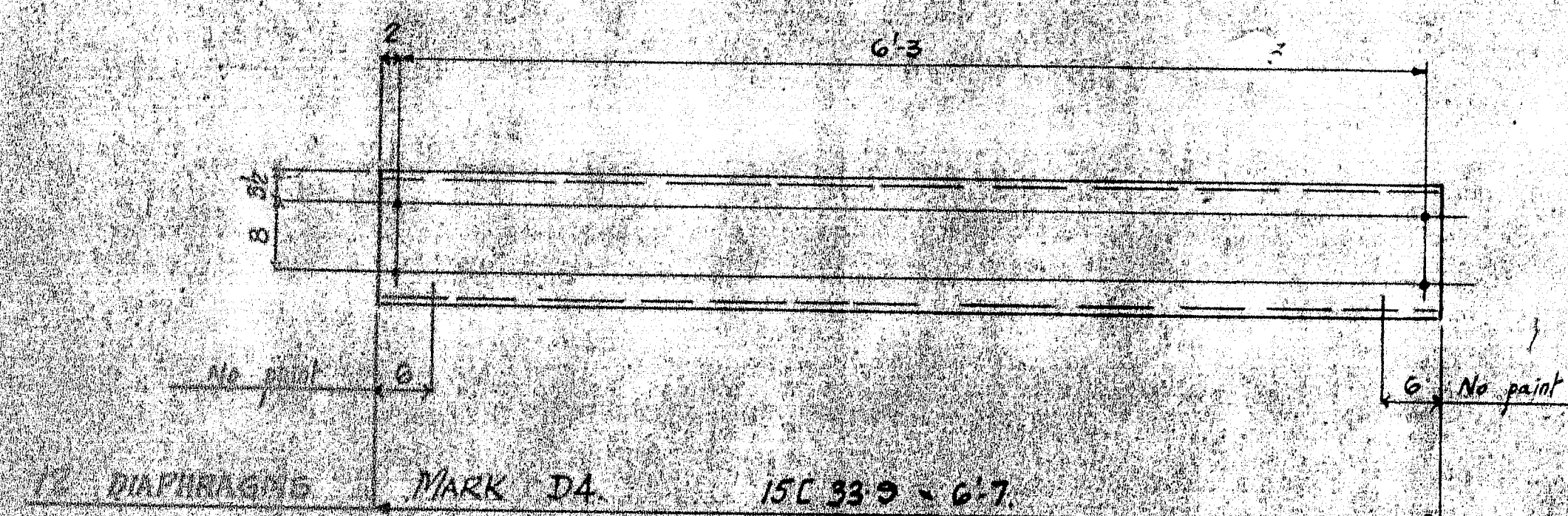
14- FLANGE SPLICE REIN - MARK B4.  
(NO PAINT)



28- FLANGE SPLICE REIN - MARK C4.  
(NO PAINT)



SECTION A-A.



8 DRAINS REQD - MARK F4

Top section 8x6x1/8 H.S.T. x 3 3/4, a4.  
Middle section 8x6x1/8 H.S.T. x 1-3/8, b4.  
Bottom section 8x6x1/8 H.S.T. x 2'-9 3/4, d4.

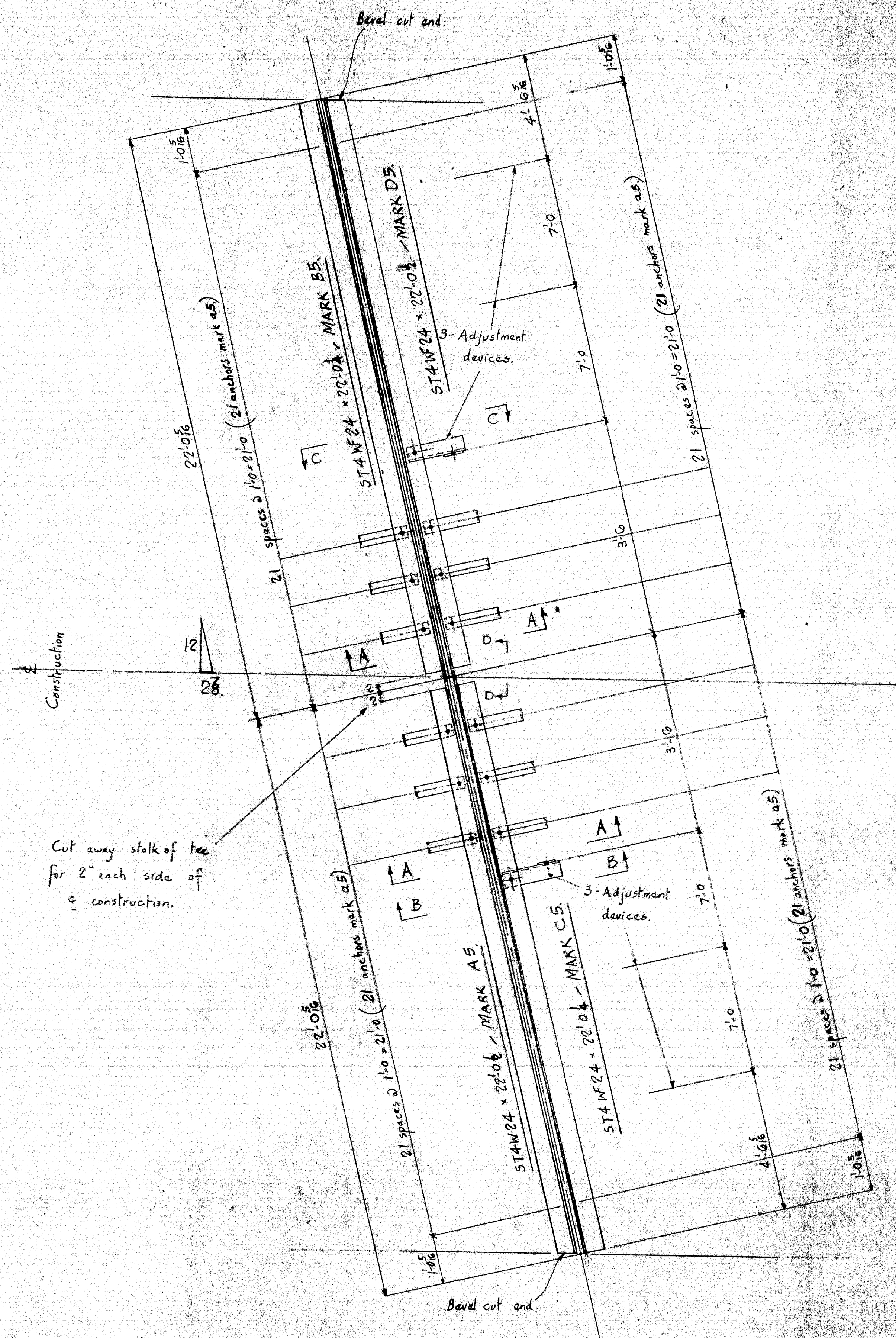
STG.WF13.5 x 7 1/2

8 SPACERS REQD - MARK G4

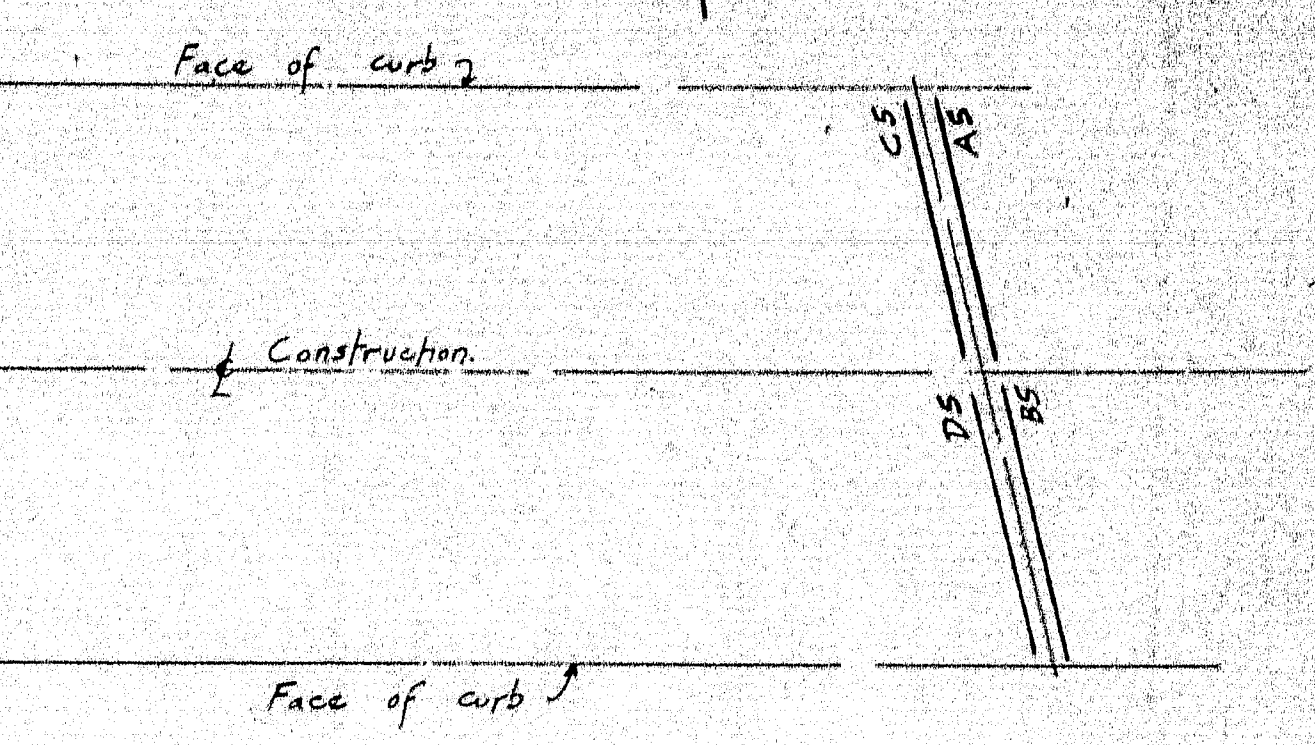
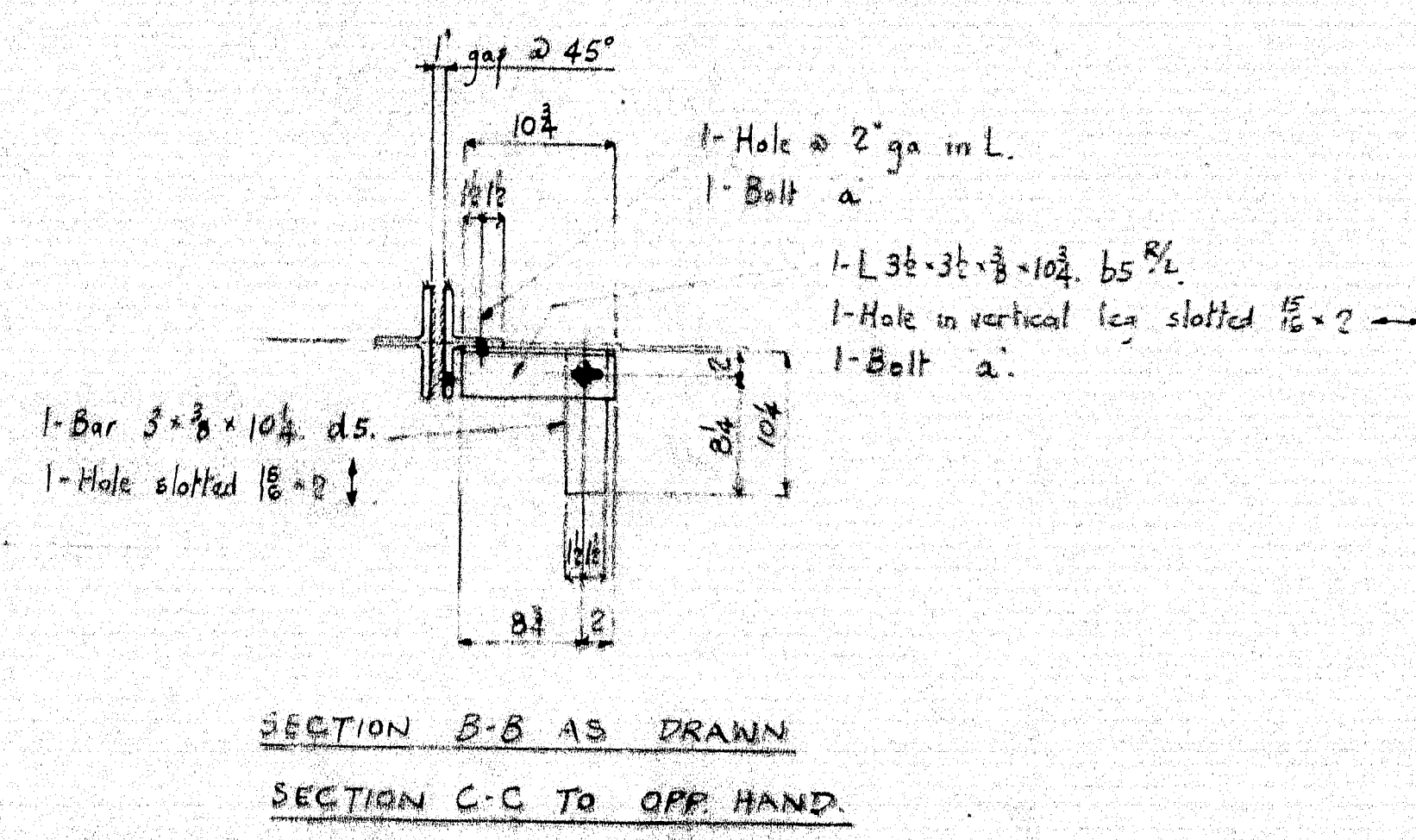
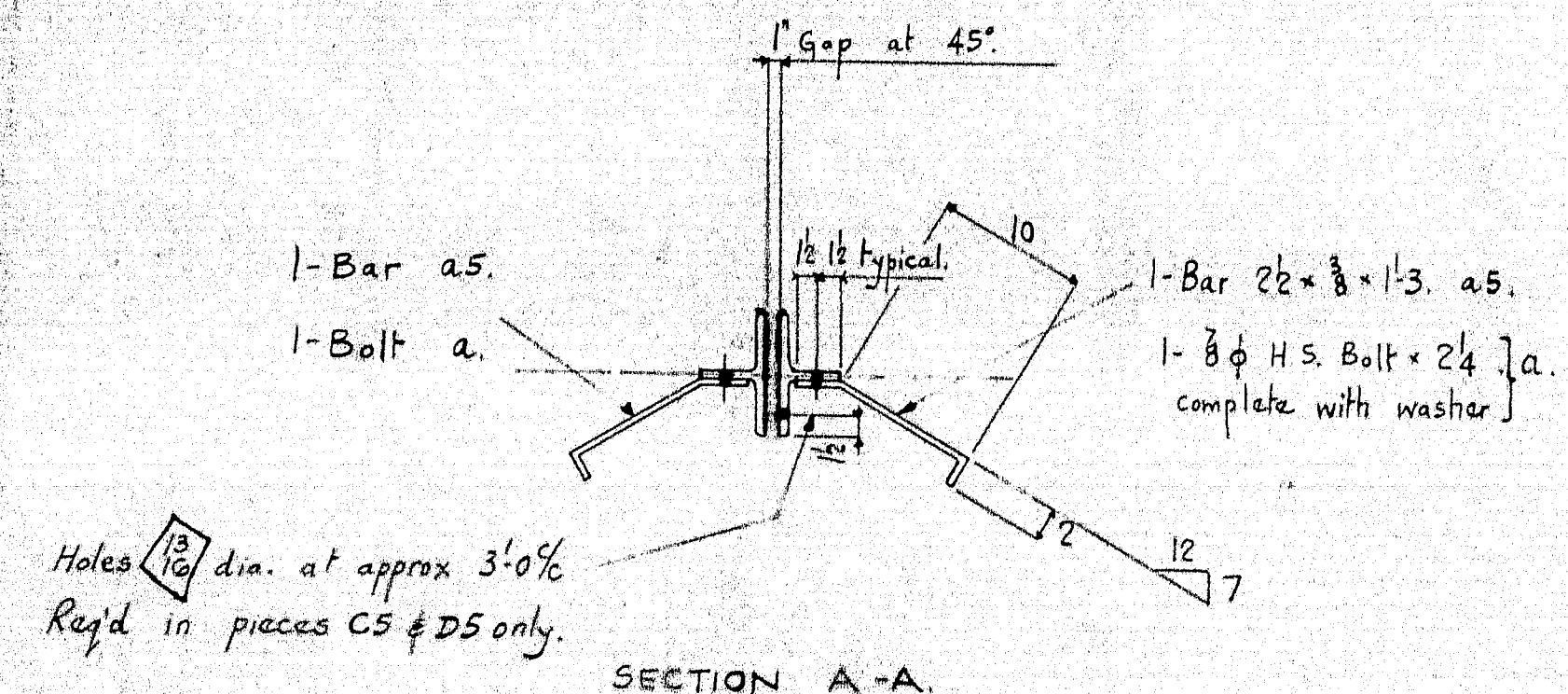
Holes 1 1/8 dia.  
Paint - One shop coat of M-50  
paint unless noted otherwise. (See Sheet E1)  
For splice match marking see sheet X.  
Welding - As Per Specs & Special Provision.

REVISIONS	DESCRIPTION	DATE
A	INTERSTATE 95 OVER LINE ROAD	11-1-65
B	SMYRNA & LUDLOW	May 9 65
C	(STATE HIGHWAY COMMISSION)	
D	CUSTOMER: CIANCHETTE BROS.	
E	AUGUSTA IRON WORKS	ORDER 1942
F	AUGUSTA, MAINE	
G		
H		
I		

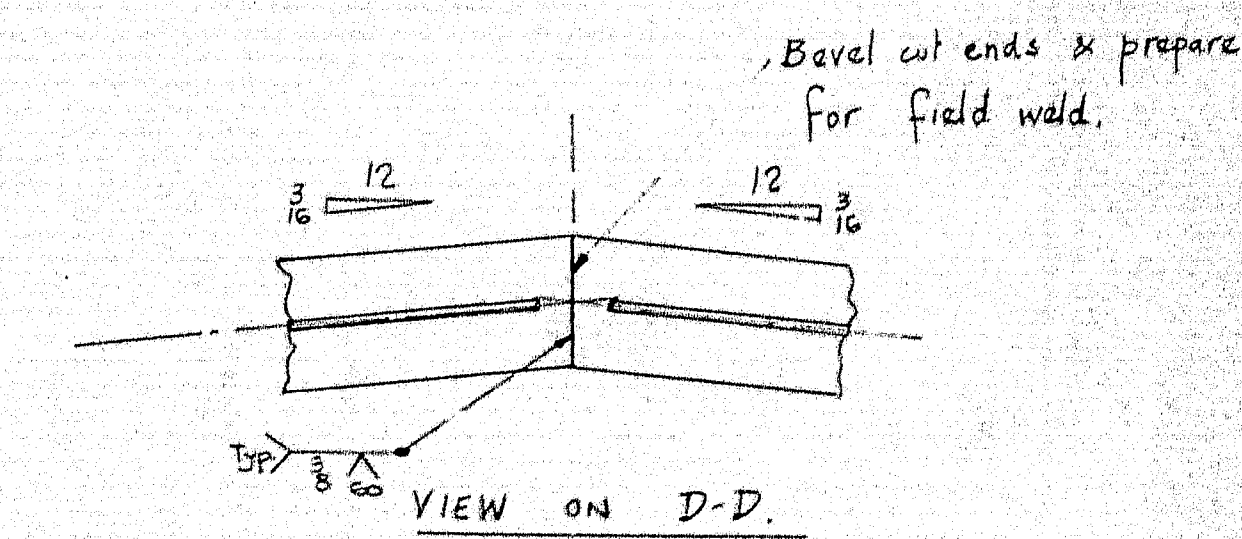




TWO COMPLETE SETS OF ARMORED JOINTS REQD - MARK AS SHOWN.

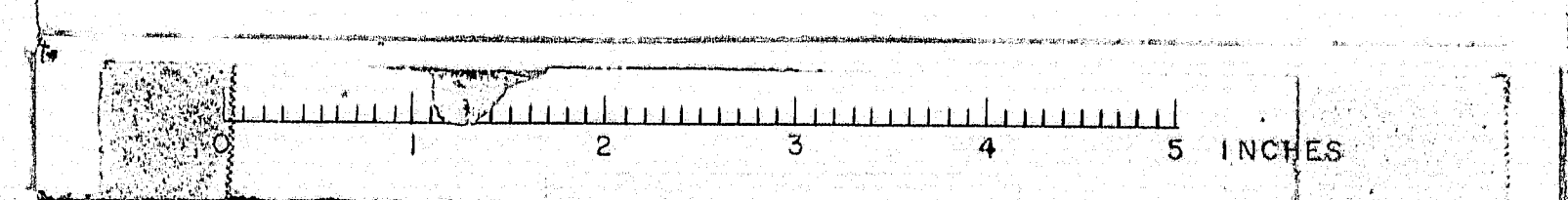


ERECTOR NOTE  
ALL MEMBERS ARE TO BE SELECTED SO THAT MARKED END IS IN THE SAME LOCATION AS SHOWN ON THIS DRAWING.

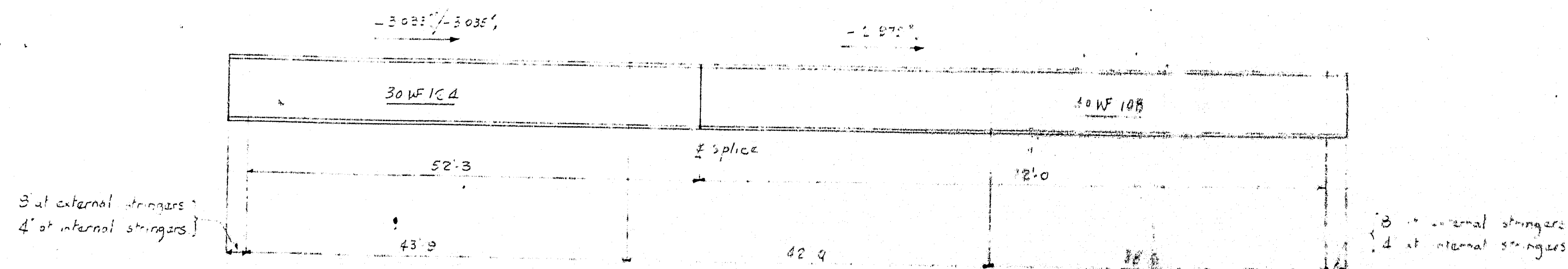
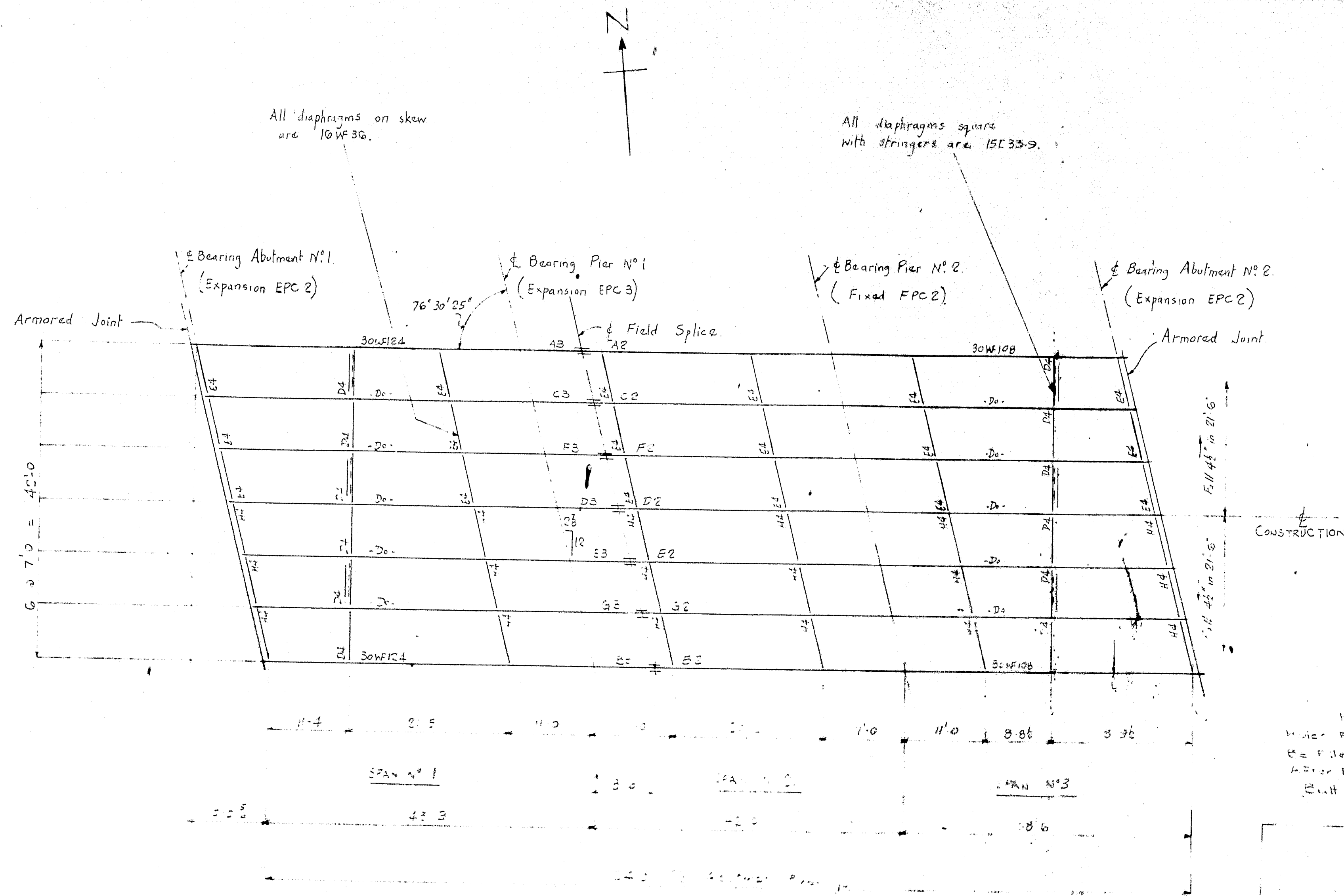


NOTES:  
Holes 1/2\"/>

REVISIONS	DESCRIPTION	DETAILS OF ARMORED JOINTS	DRAWN BY	DATE
A	JOB: INTERSTATE 95 OVER LINE ROAD		W.S.	MAY 7/65
B	SMYRNA & LUDLOW			
C	(STATE HIGHWAY COMMISSION)			
D	CUSTOMER: CIANCHETTE BROS.			
E	AUGUSTA IRON WORKS			
F	AUGUSTA, MAINE			
G				
H				
I				







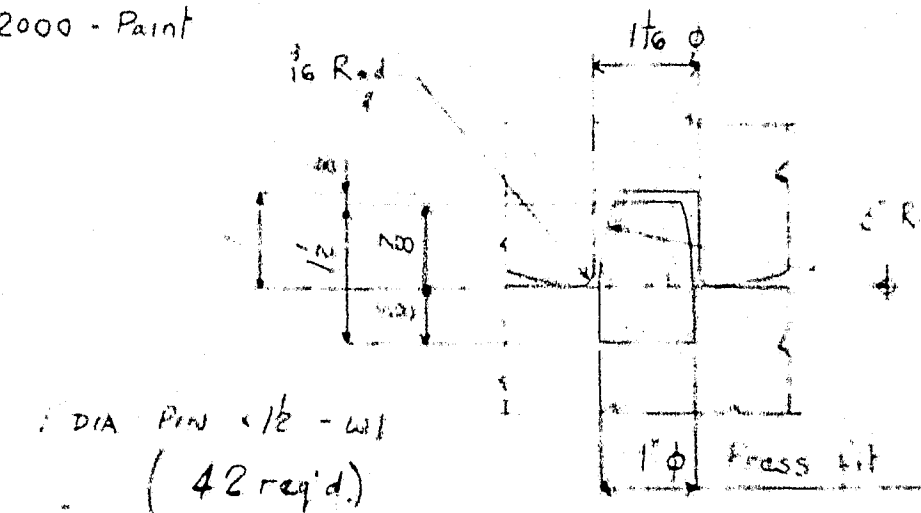
TYPICAL STRINGER ELEVATION.  
NO CAMBER  
ALL DIMENSIONS HORIZONTAL.

- NOTES
1. All steel to be ASTM A228
  2. Stringers to be 30 WF 104 & 108
  3. Piers & Abutments to be 15 L 35.9
  4. All steel to be shop coated with zinc
  5. All steel to be shop coated with zinc
  6. All steel to be shop coated with zinc
  7. All steel to be shop coated with zinc
  8. All steel to be shop coated with zinc
  9. All steel to be shop coated with zinc
  10. All steel to be shop coated with zinc

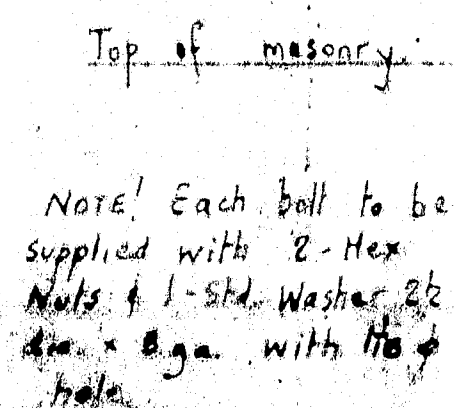
DATE	BY	ARRANGEMENT OF STEELWORK	DRAWN BY	DATE
		JOB: INTERSTATE 95 OVER LINE ROAD.	ELS	11/12/65
		SMYRNA & LUDLOW.	CHECKED BY	DATE
		(STATE HIGHWAY COMMISSION)	ELS	11/12/65
		ENGINEER: CIANCHETTE BROS.	SHEET	E1
		AUGUSTA IRON WORKS	ORDER	1942
		AUGUSTA, MAINE		

113.51

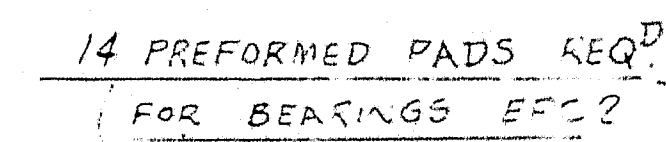




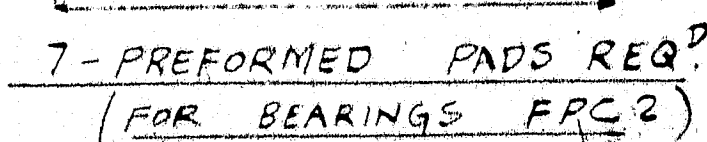
FROM BETHEL



NO PAINT.  
THREADS OILED



7- PREFORMED PADS REQ<sup>d</sup>  
(FOR BEARINGS EPC3)



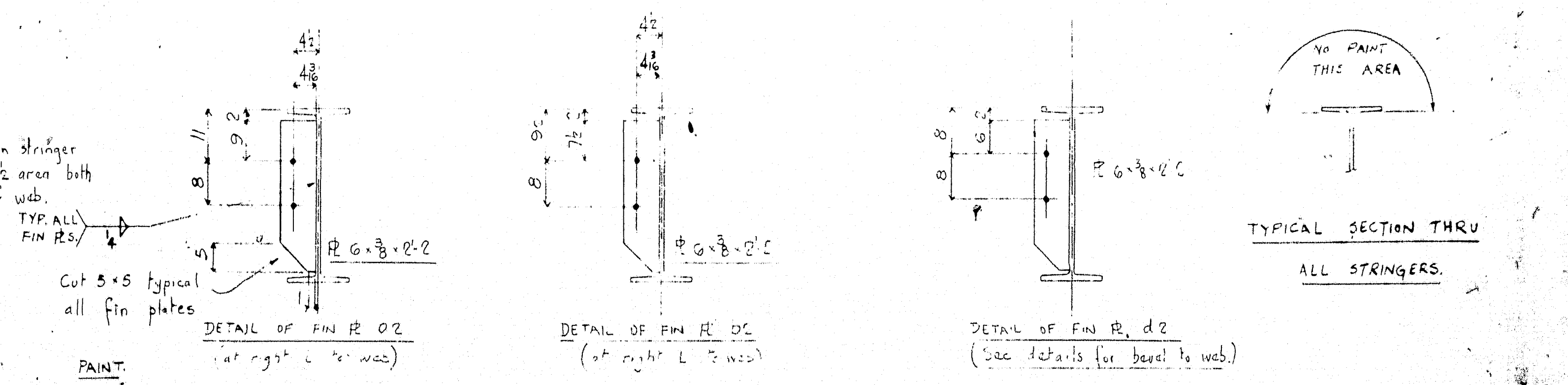
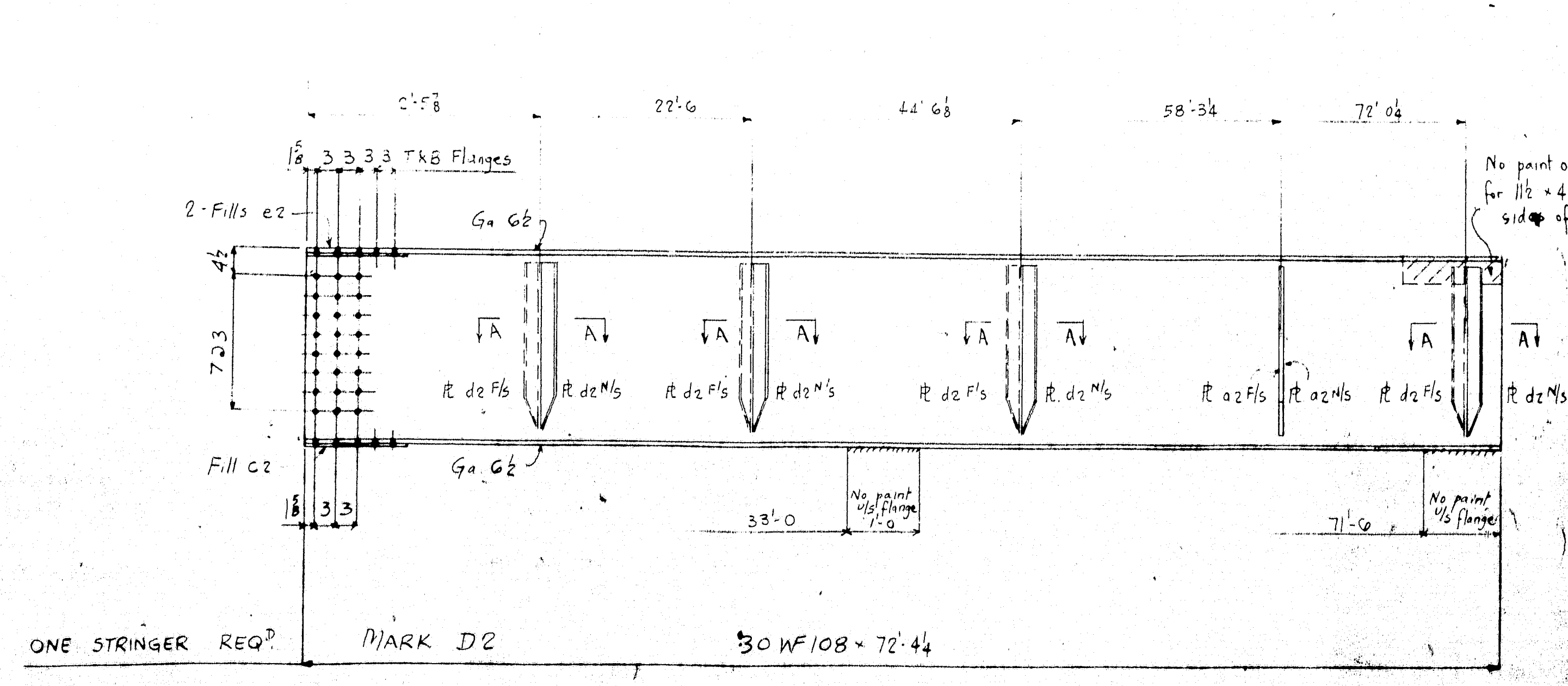
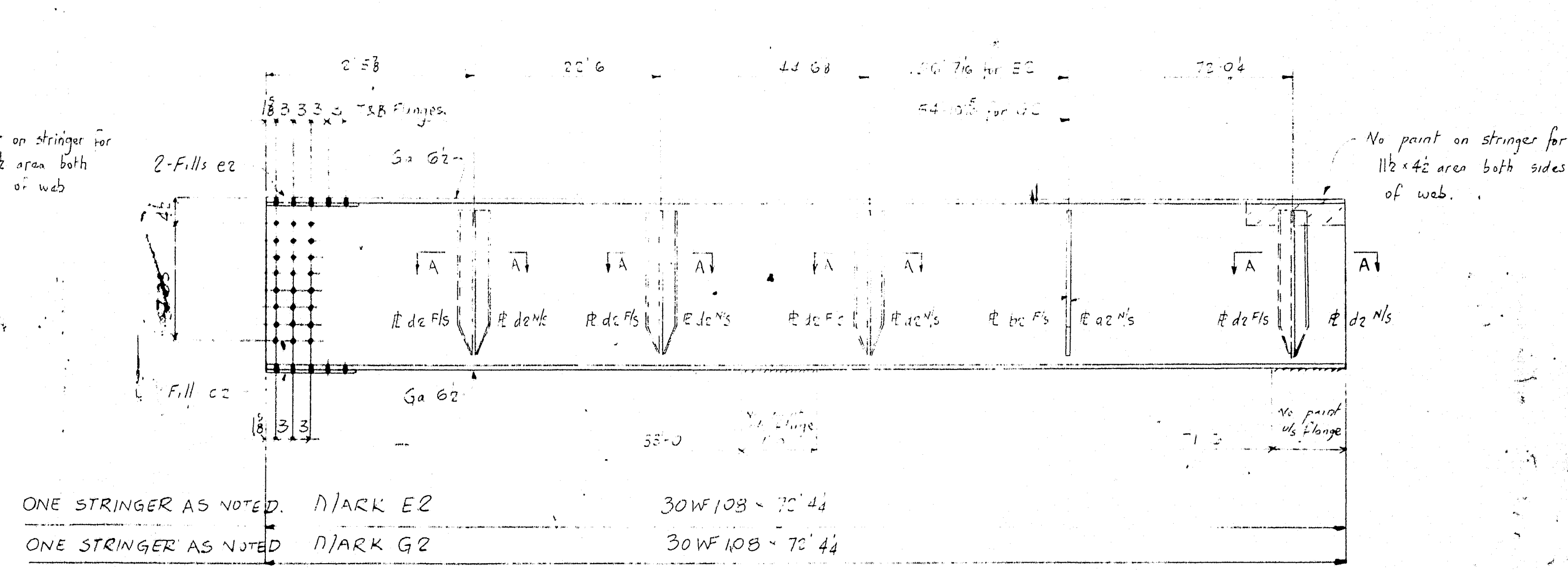
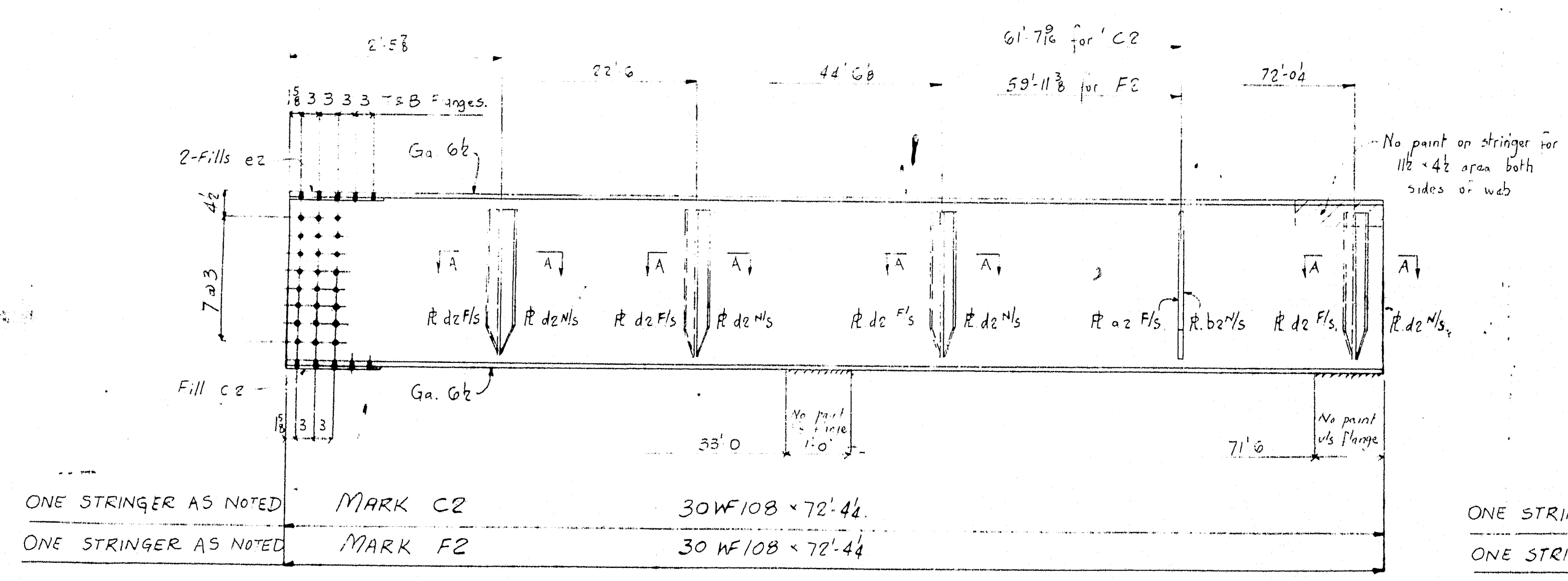
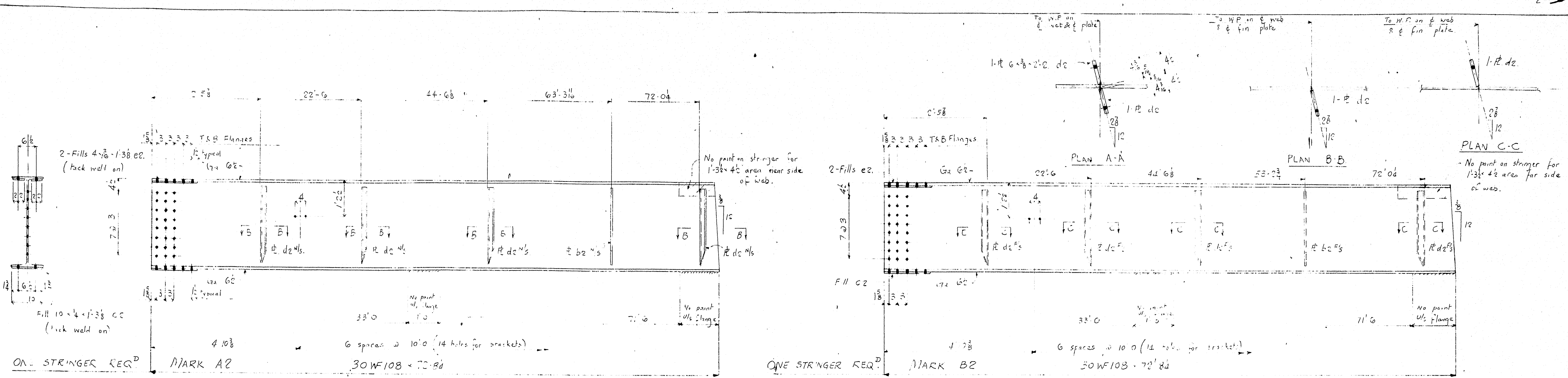
SHOP NOTE!  
Preformed pads are  
of rubber composition.

PAINT See Sheet E1

PAINT M-50 as per  
specs. On unfinished surfaces  
of bearings & as noted.  
Finished surfaces ASA 125  
& ASA 1000 AS NOTED.  
Welding: A. Per Specs &  
• Special Provision

REVISIONS	DESCRIPTION	BRIDGE BEARINGS, MAIN BOLTS & ADDS.
DATE	BY	DATE
	INTER STATE 95 OVER LINE ROAD.	2-5 11/27/76
	SMYRNA: & LUDLOW.	
	(STATE HIGHWAY COMMISSION)	
	CUSTOMER: CIANCHETTE Bros.	
	AUGUSTA IRON WORKS	
	AUGUSTA, MAINE	
		ORDER 1948





PAINT. (at right to wall)

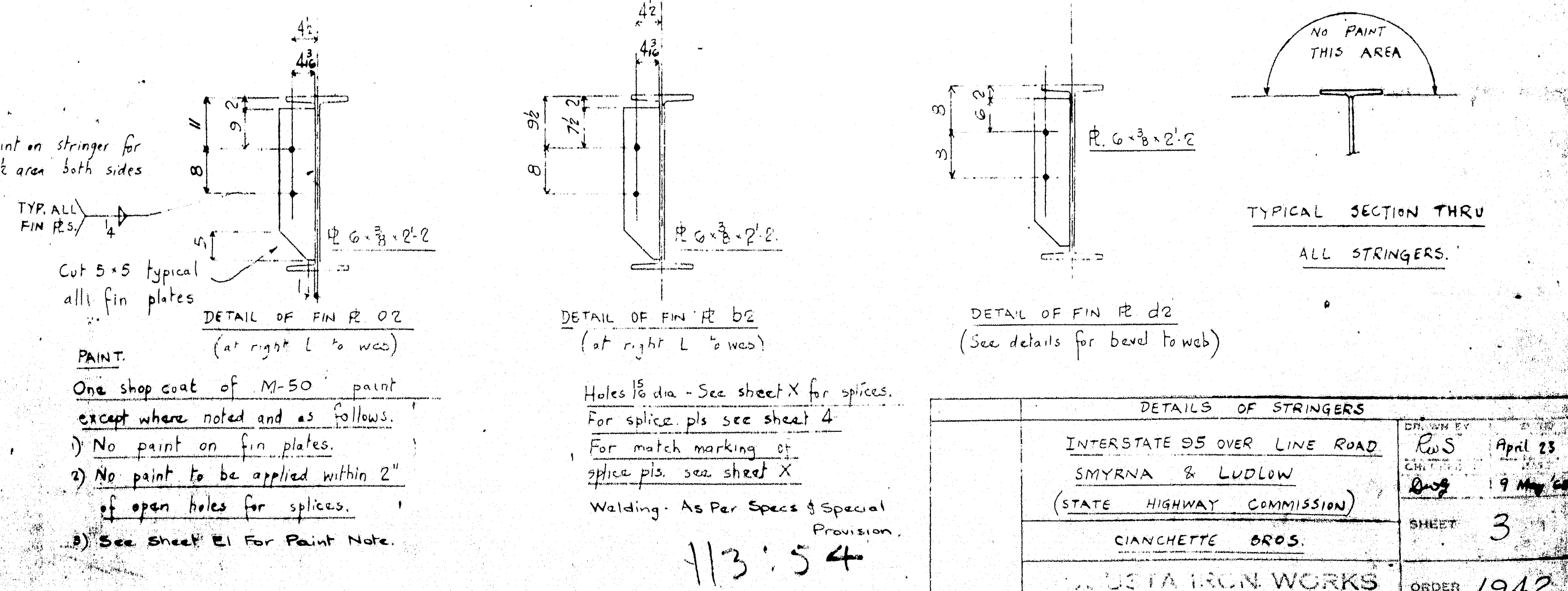
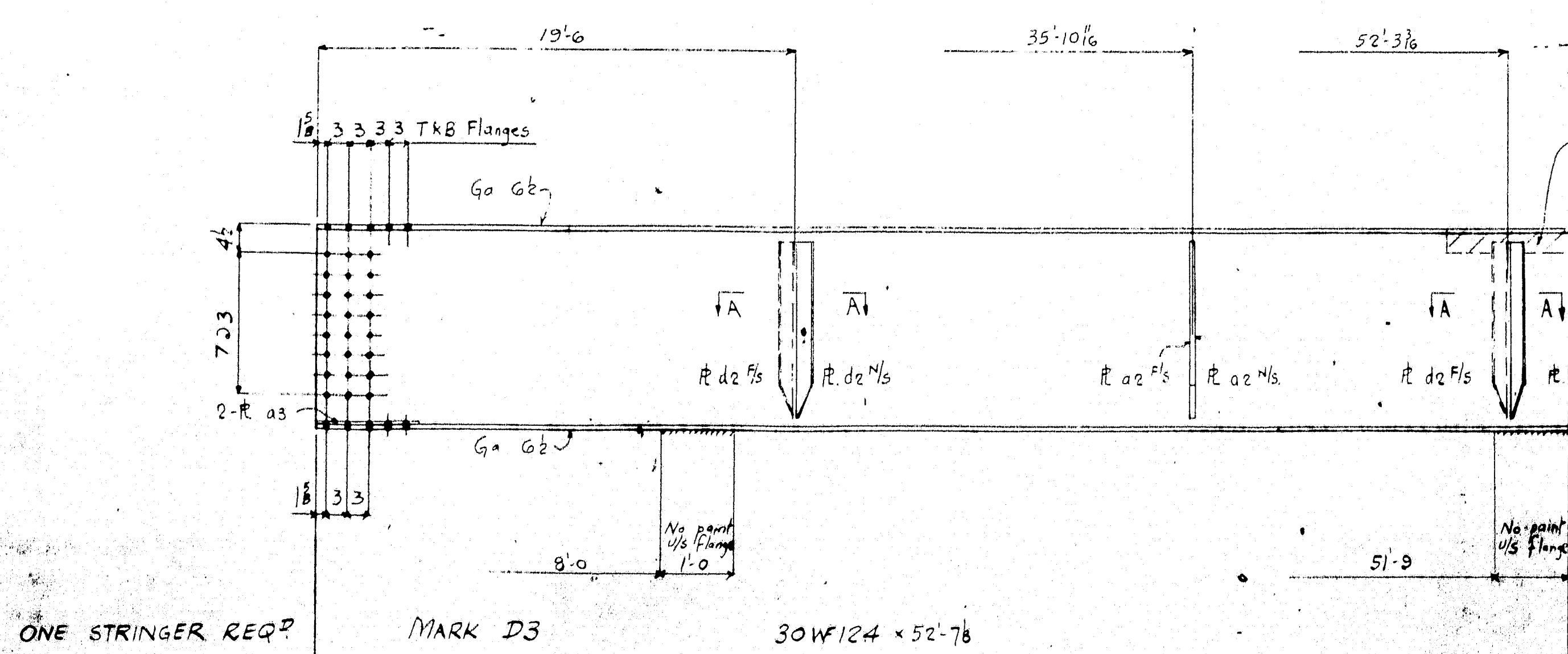
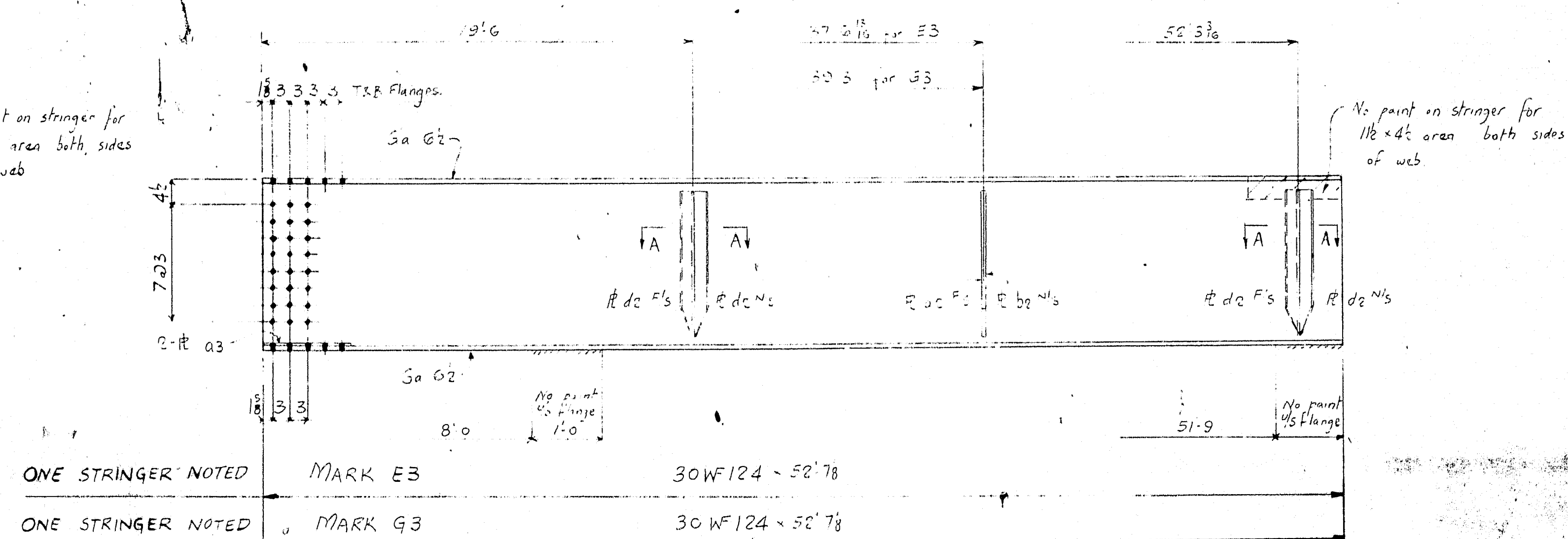
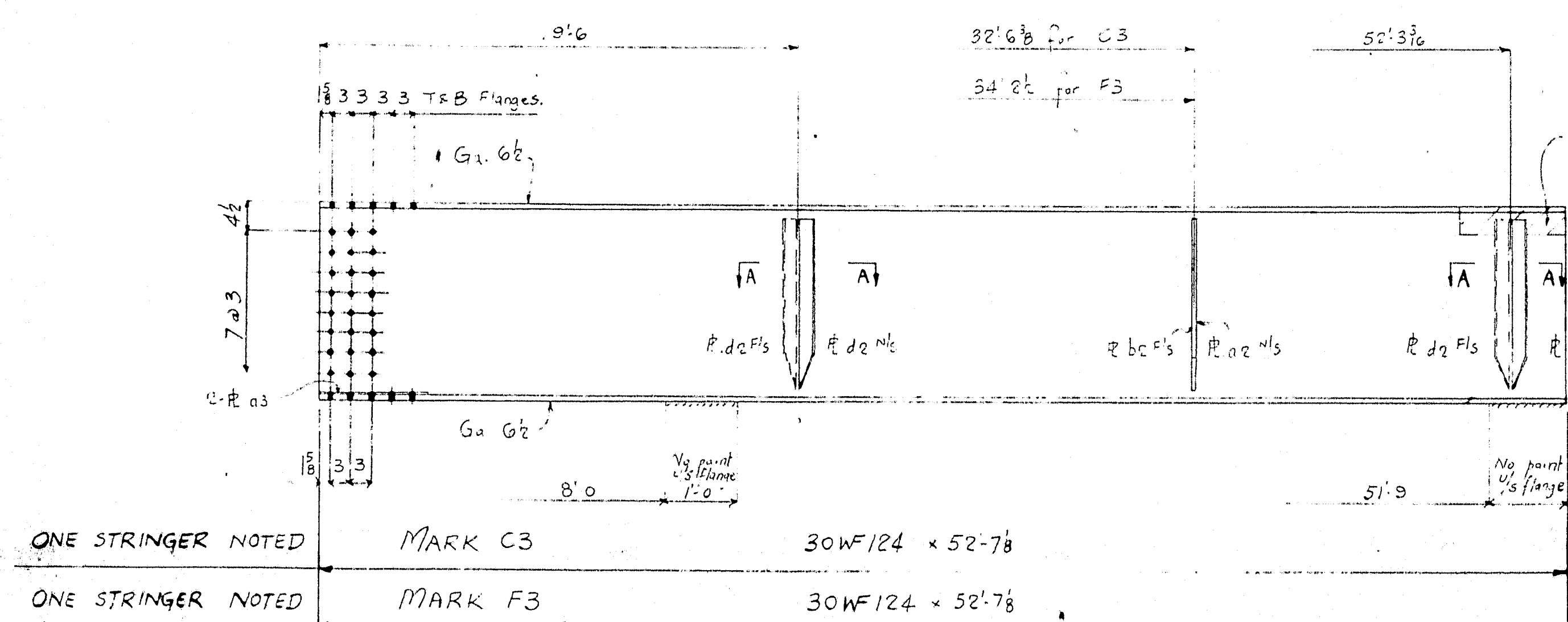
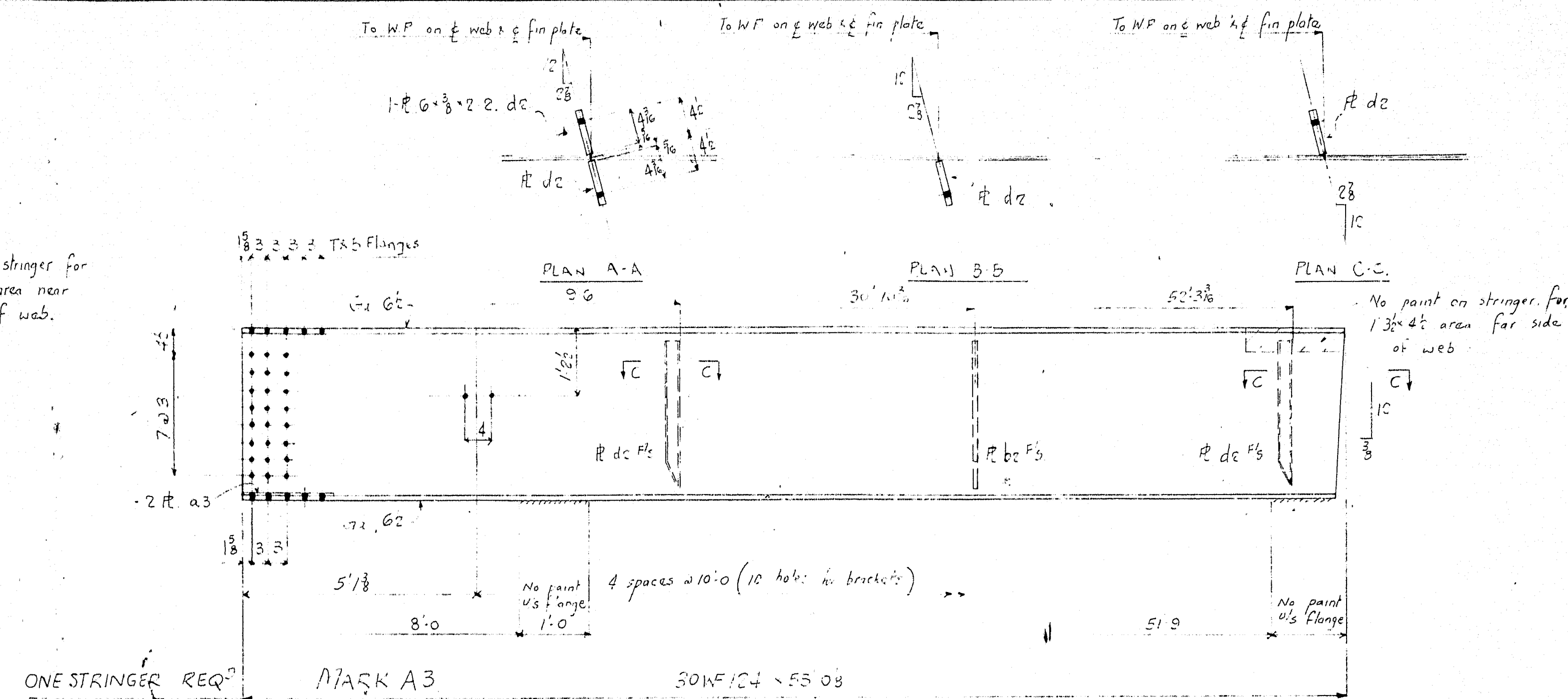
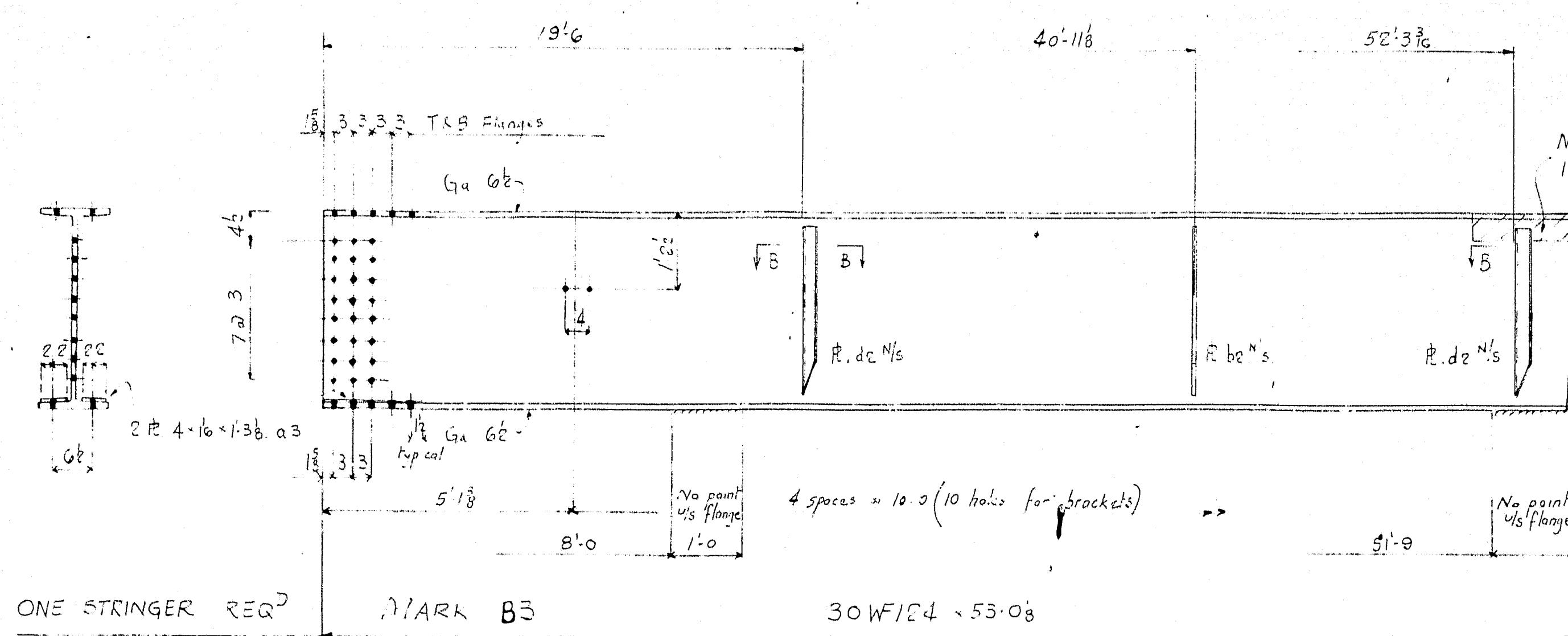
One shop coat of M-50 paint except where noted and as follows.

- 1) No paint on fin plates.
- 2) No paint to be applied within 2" of open holes for splices.
- 3) See Sheet EI For Paint Note.

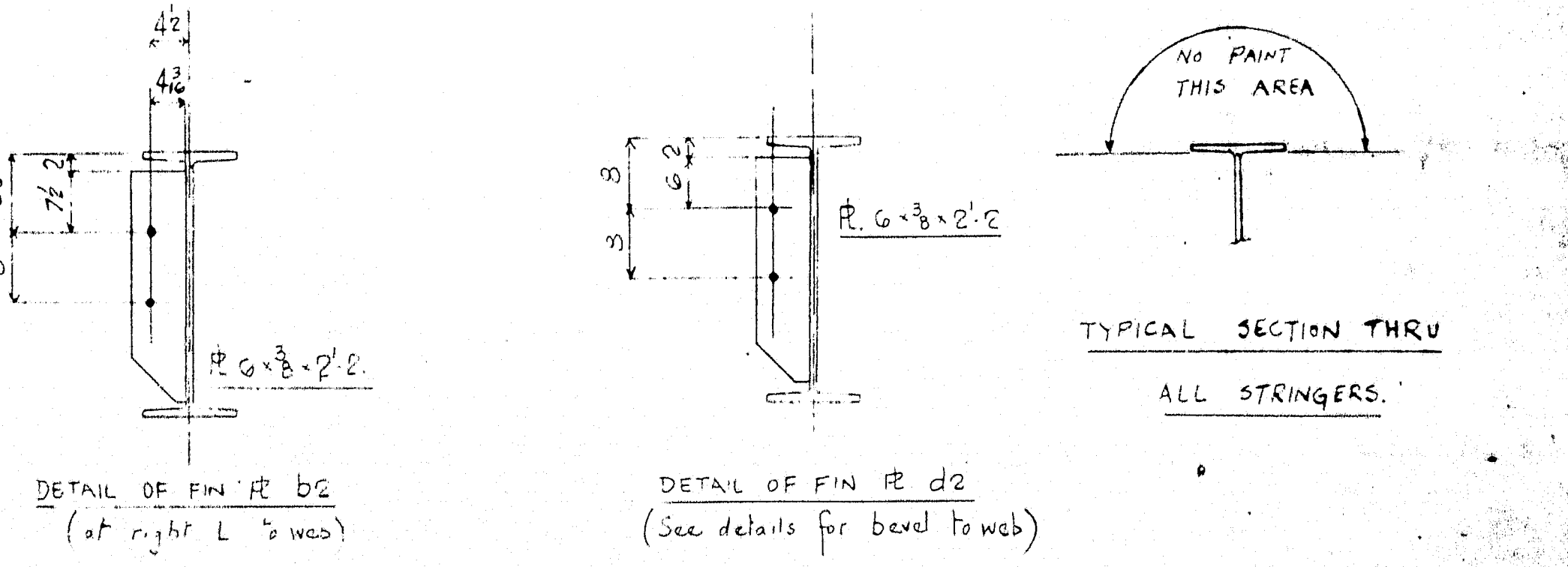
Holes <sup>15</sup> dia - See sheet X for sizes  
For splice pls see sheet 4  
For match marking or  
splice pls see sheet X  
 Welding - As Per Specs & Special Provision.

REVISIONS	DESCRIPTION: DETAILS OF STRINGERS	DRAWN BY	
	JOB: INTERSTATE 95 OVER LINE ROAD	CHECKED	April 20, 1968
	SMYRNA & LUDLOW (STATE HIGHWAY COMMISSION)	Qty	May 9, 68
	CIANCHETTE BRGS.	SHEET	2
	ALUSTA IRON WORKS AUGUSTA, MAINE	ORDER	1942



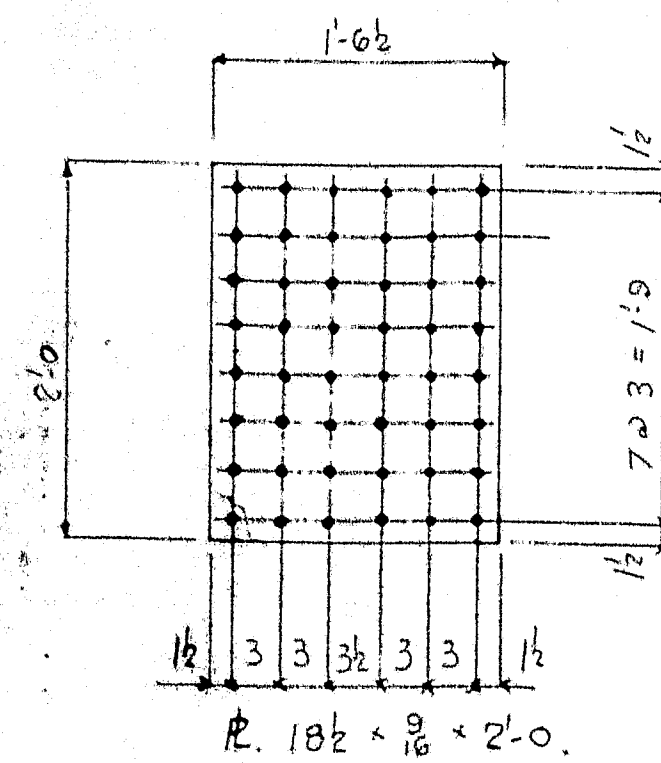


PAINT:  
One shop coat of M-50 paint except where noted and as follows:  
1) No paint on fin plates.  
2) No paint to be applied within 2" of open holes for splices.  
3) See Sheet E1 For Paint Note.

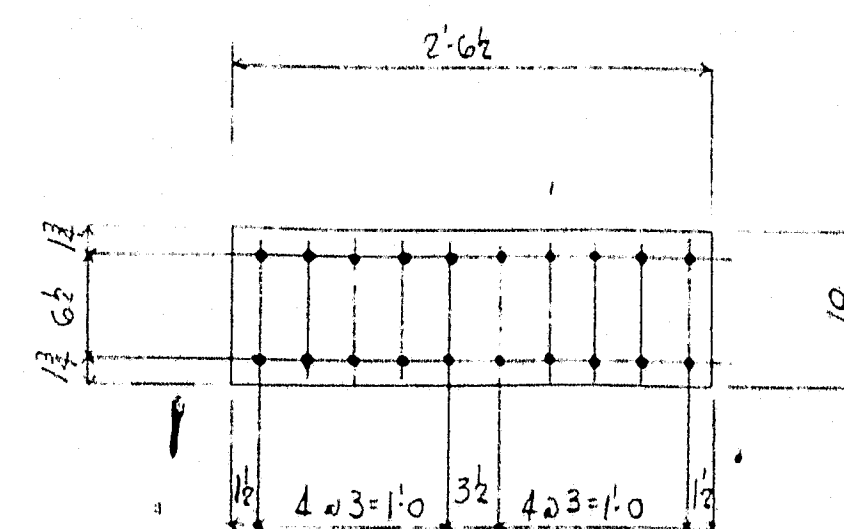


DETAILS OF STRINGERS	
INTERSTATE 95 OVER LINE ROAD	Rev'd April 23
SMYRNA & LUDLOW	2-29 19 May 44
(STATE HIGHWAY COMMISSION)	
CLANCHETTE BROS.	SHEET 3
CLANCHETTE BROS.	ORDER 1942

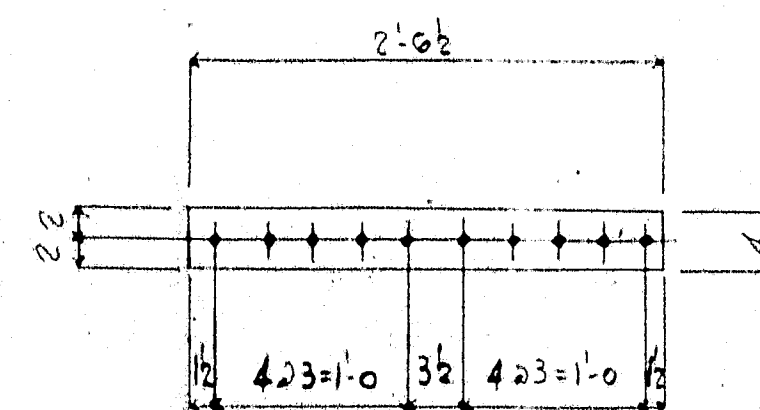




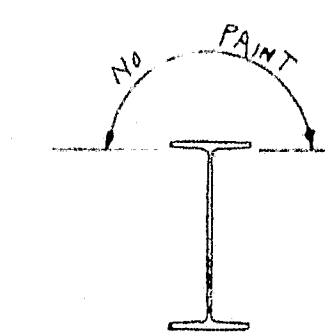
14 - WEB SPLICE RS - MARK A4.  
(NO PAINT)



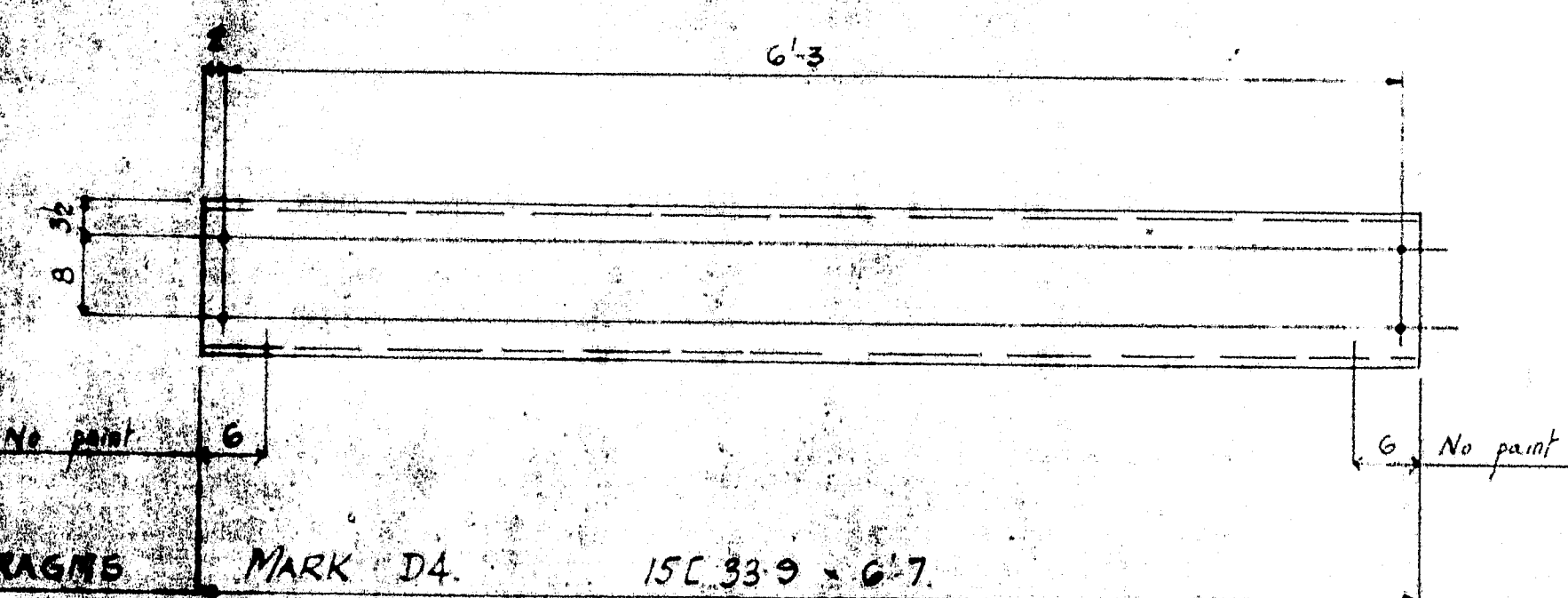
14 - FLANGE SPLICE RS - MARK B4.  
(NO PAINT)



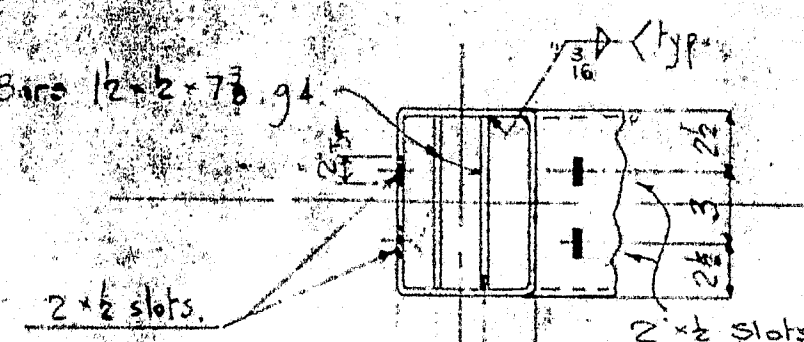
14 - FLANGE SPLICE RS - MARK C4.  
(NO PAINT)



SECTION A-A



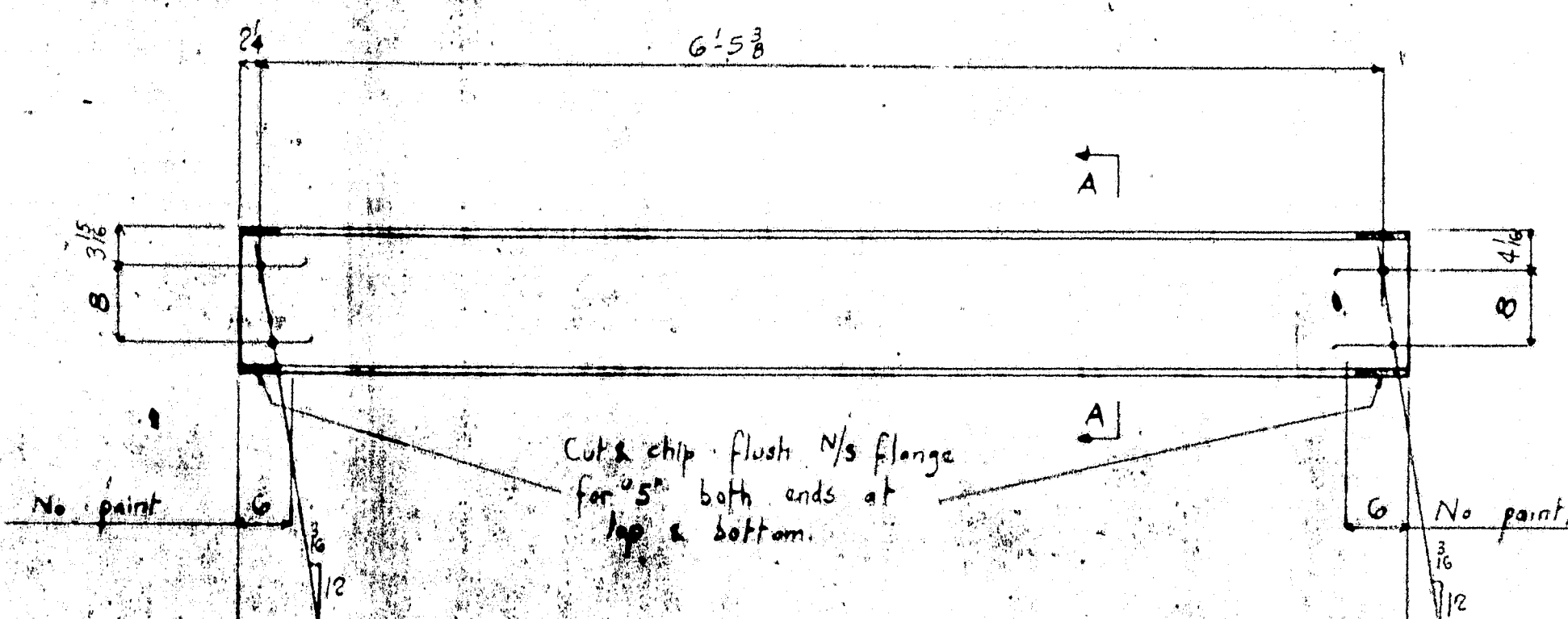
15C 33-9 x 6'-7\"/>



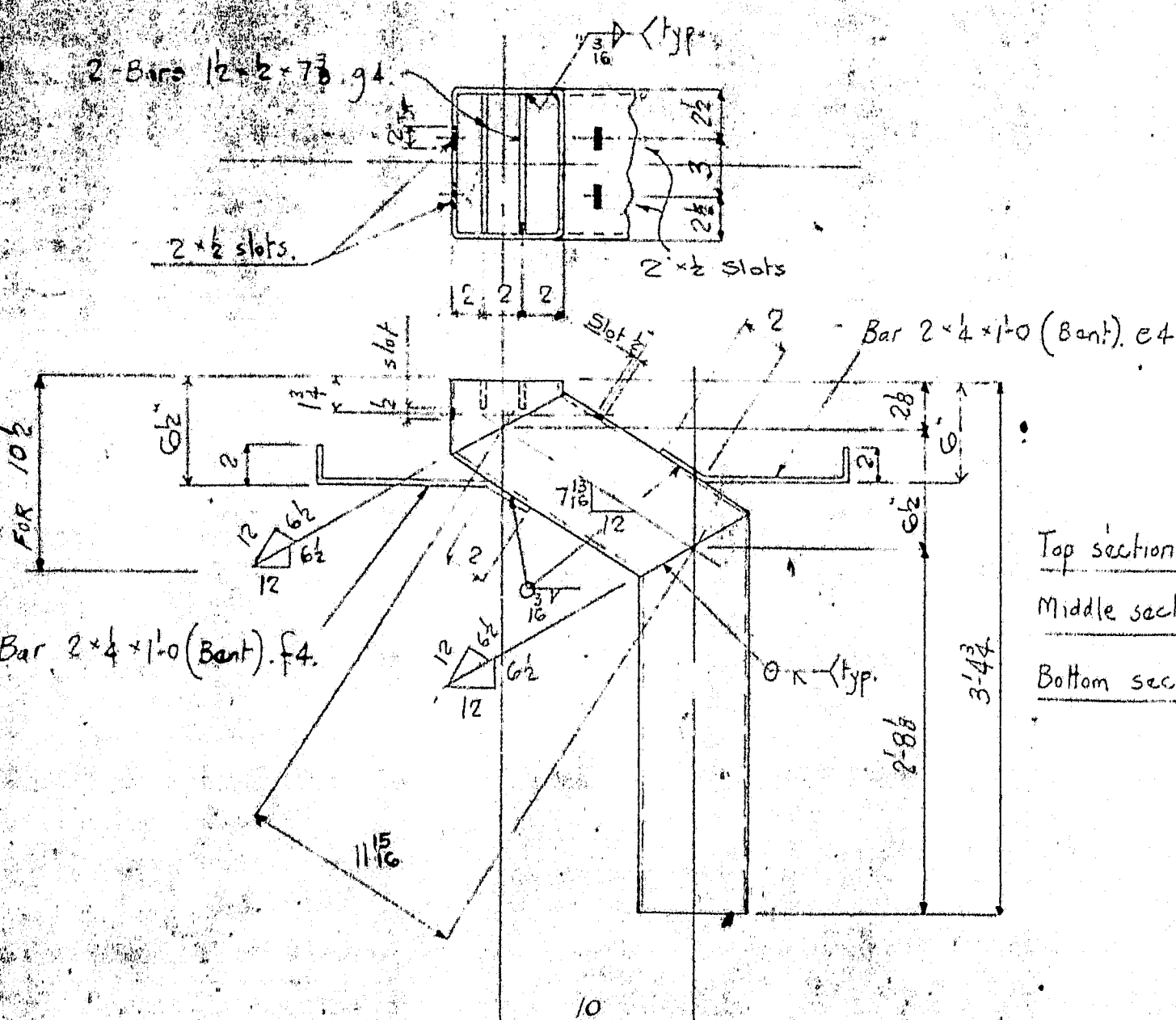
18 DIAPHRAGMS MARK E4 16WF36 x 6'-9 1/2\"/>

18 DIAPHRAGMS MARK H4 16WF36 x 6'-9 1/2\"/>

TO OPP. HAND.



Cut & chip flush w/ flange  
for 5\"/>



8 DRAINS REQ'D - MARK F4

Top section 8 x 6 x 1/8 H.S.T. x 3 3/4\"/>

Middle section 8 x 6 x 1/8 H.S.T. x 1'-3 3/8\"/>

Bottom section 8 x 6 x 1/8 H.S.T. x 2'-9 3/4\"/>

STGWF 13-5 x 7 1/2

8 - SPACERS REQ'D - MARK G4

Holes 1/2\"/>

Paint - One shop coat of M-50  
paint unless noted otherwise. (See Sheet E1)

For splice match marking see sheet X.

Welding - As Per Specs & Special Provision.

REVISIONS	DESCRIPTION	DATE
A	INTERSTATE 95 OVER LINE ROAD	7/23/70
B	SMYRNA & LUDLOW	8/2/70
C	(STATE HIGHWAY COMMISSION)	8/2/70
D	CLANCHETTE BROS.	8/2/70
E	AUGUSTA IRON WORKS	8/2/70
F	AUGUSTA, MAINE	8/2/70
G		
H		
I		
J		
K		
L		
M		
N		
O		
P		
Q		
R		
S		
T		
U		
V		
W		
X		
Y		
Z		

113.55

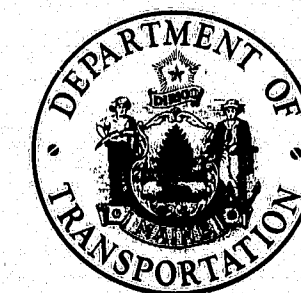
1942







# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



## BUREAU OF HIGHWAYS

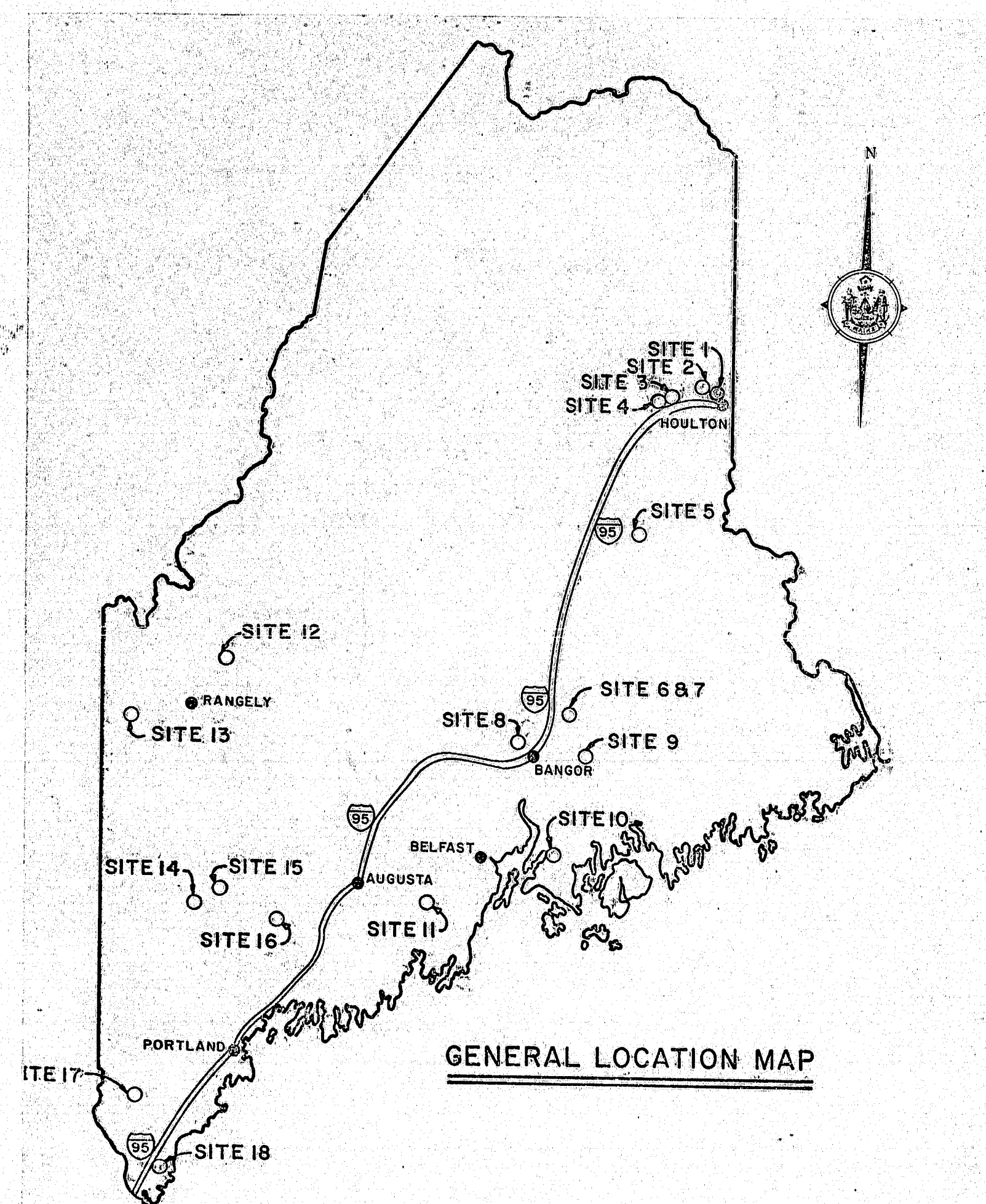
### BRIDGE END POST REVISIONS

### STATE WIDE

PROJECT NO'S - I-000S{1}

ROS-000S{3}

OS-SOS-000S{2}



Plans of the existing bridges are available for the Contractor's Reference at the Bridge Design Office in Augusta.

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.

F.H.W.A. PROJ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-000S(1)	1	7
		ROS-000S(3)		
		OS-SOS-000S(2)		

#### ESTIMATED QUANTITIES

##### PROJECT NO. I-000S(1)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
606.1732	BRIDGE CONNECTIONS - TYPE 2	EACH	16
629.05	LABOR - STRAIGHT TIME	HOURS	10
631.10	AIR COMPRESSOR (INCL. OPERATOR)	HOURS	5
631.11	AIR TOOL (INCL. OPERATOR)	HOURS	5
652.25	MAINTENANCE OF TRAFFIC	LUMP SUM	0.22
659.10	MOBILIZATION	LUMP SUM	0.22

##### PROJECT NO. ROS-000S(3)

606.1731	BRIDGE CONNECTIONS - TYPE 1	EACH	6
606.1732	BRIDGE CONNECTIONS - TYPE 2	EACH	22
606.1733	BRIDGE CONNECTIONS - TYPE 3	EACH	4
629.05	LABOR - STRAIGHT TIME	HOURS	20
631.10	AIR COMPRESSOR (INCL. OPERATOR)	HOURS	10
631.11	AIR TOOL (INCL. OPERATOR)	HOURS	10
652.25	MAINTENANCE OF TRAFFIC	LUMP SUM	0.45
659.10	MOBILIZATION	LUMP SUM	0.45

##### PROJECT NO. OS-SOS-000S(2)

606.1732	BRIDGE CONNECTIONS - TYPE 2	EACH	16
606.1733	BRIDGE CONNECTIONS - TYPE 3	EACH	4
606.1734	BRIDGE CONNECTIONS - TYPE 4	EACH	4
609.11	VERTICAL CURB - TYPE 1	LIN. FT.	32
629.05	LABOR - STRAIGHT TIME	HOURS	10
631.10	AIR COMPRESSOR (INCL. OPERATOR)	HOURS	5
631.11	AIR TOOL (INCL. OPERATOR)	HOURS	5
652.25	MAINTENANCE OF TRAFFIC	LUMP SUM	0.33
659.10	MOBILIZATION	LUMP SUM	0.33

#### INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	LOCATION MAPS
SHEET NO. 3	BRIDGE CONNECTIONS TYPE 1, 2 & 3
SHEET NO. 4	BRIDGE CONNECTIONS TYPE 4 (COVE BRIDGE)
SHEET NO. 5	BRIDGE STANDARD BD114-73
SHEET NO. 6	2-BAR ALUMINUM BRIDGE RAIL
SHEET NO. 6	BRIDGE STANDARD BD115-73
SHEET NO. 6	3-BAR ALUMINUM BRIDGE RAIL
SHEET NO. 7	STANDARD DETAILS - AUG. 1969
	CURBS - DITCHES ETC.

APPROVED:

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

DATE

*Richard A. Luetich Sr.*  
COMMISSIONER

March 14, 1979

*Richard A. Luetich Sr.*  
BUREAU DIRECTOR AND CHIEF ENGINEER

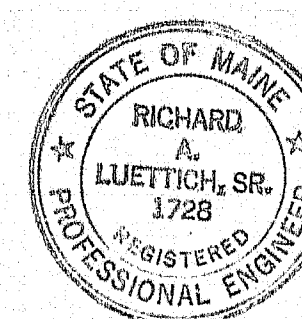
March 14, 1979

*As Built 1980*

UNITED STATES  
DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION 1

APPROVED:

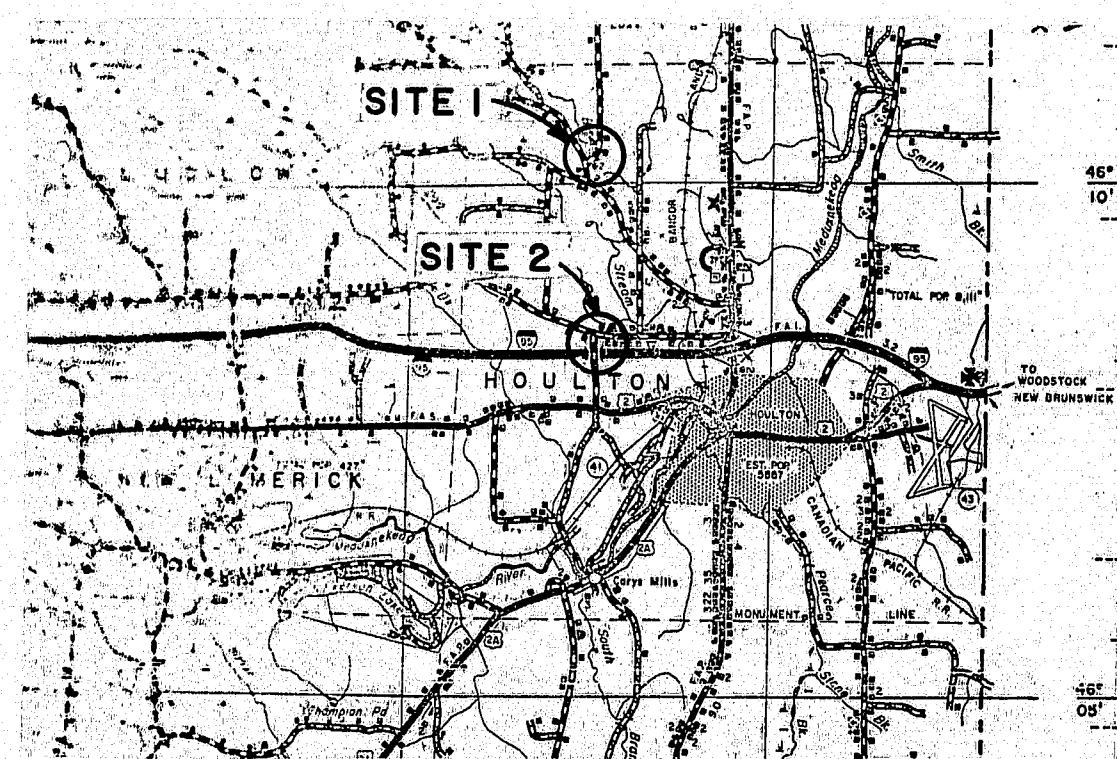
DIVISION ADMINISTRATOR DATE



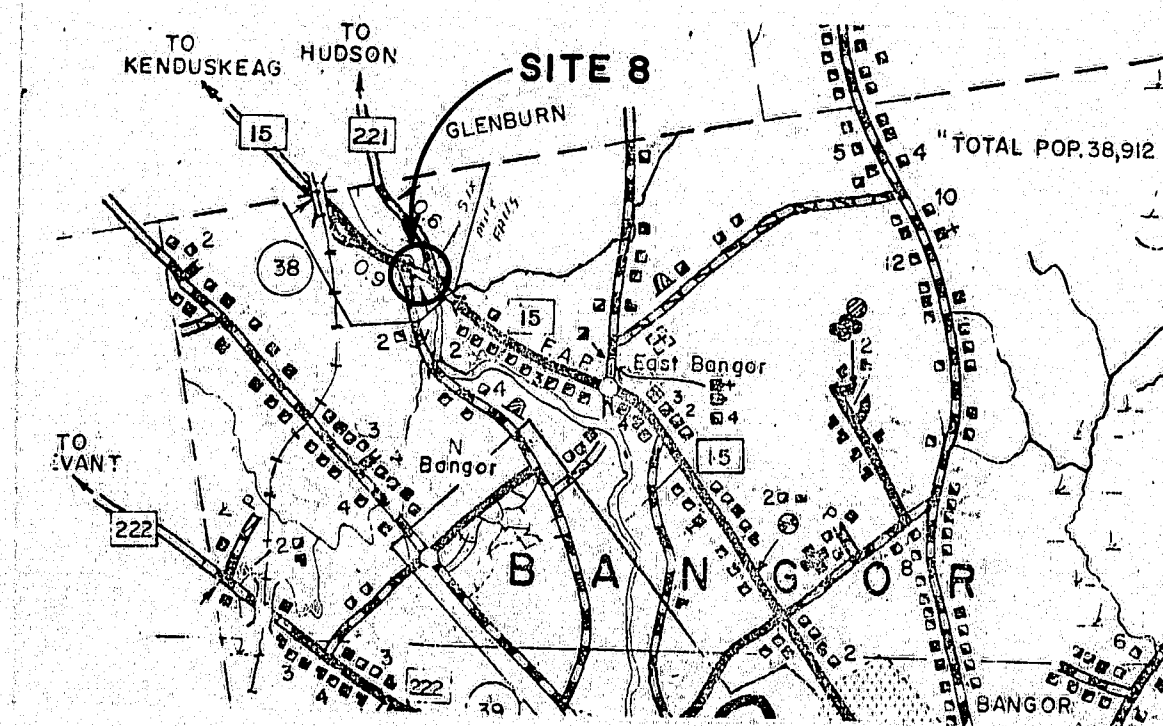
Project Completed 1980, Revised "As Built" By C. Donald Hamilton 4/8/80

165-73

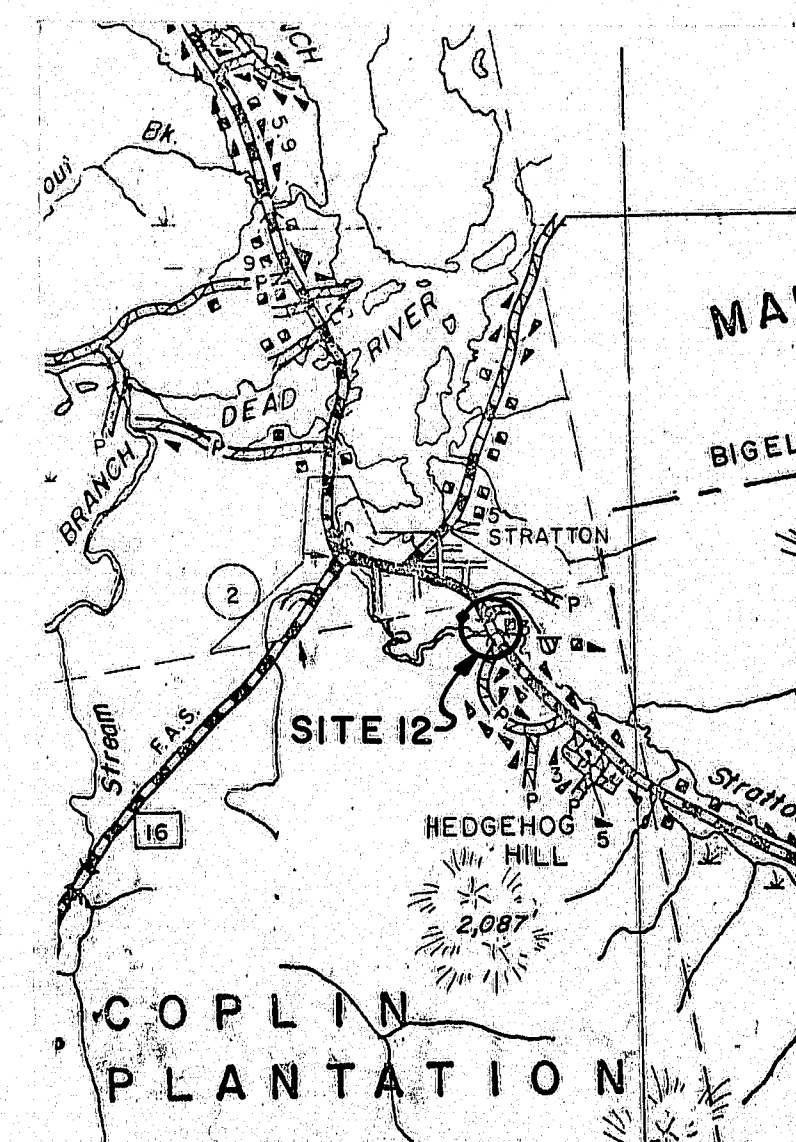




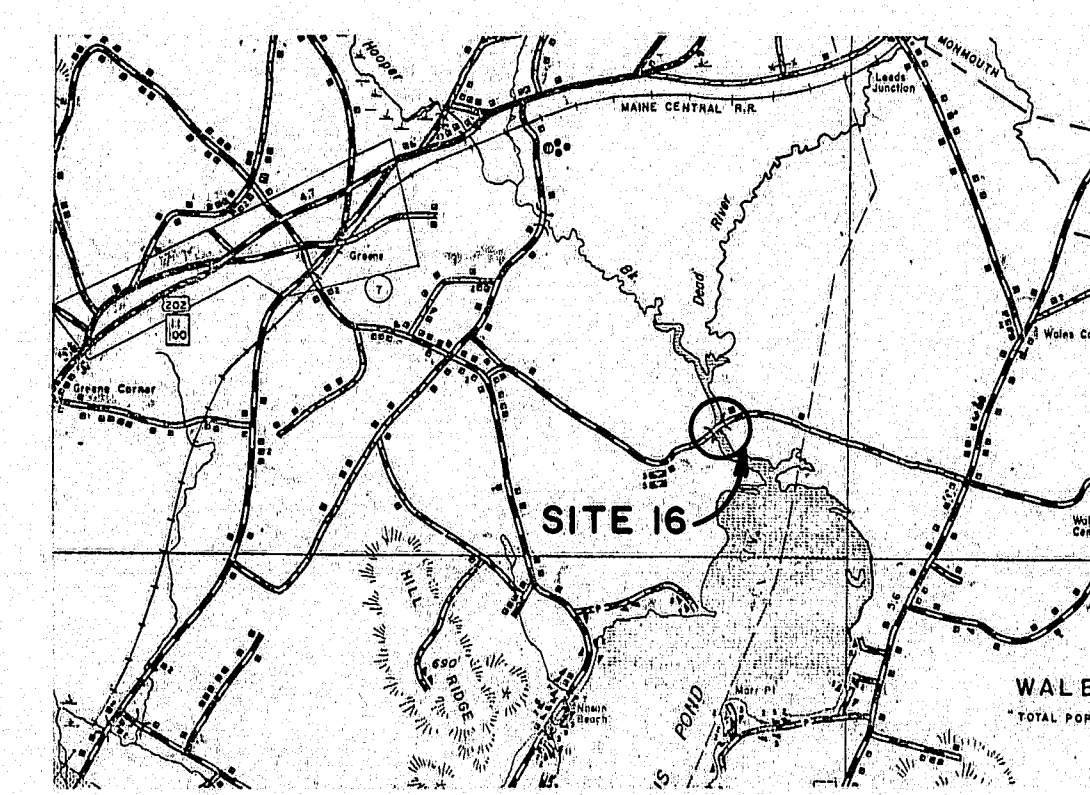
SITE 1 NILES BRIDGE - HOULTON  
SITE 2 MOORE ROAD BRIDGE over I-95 - HOULTON



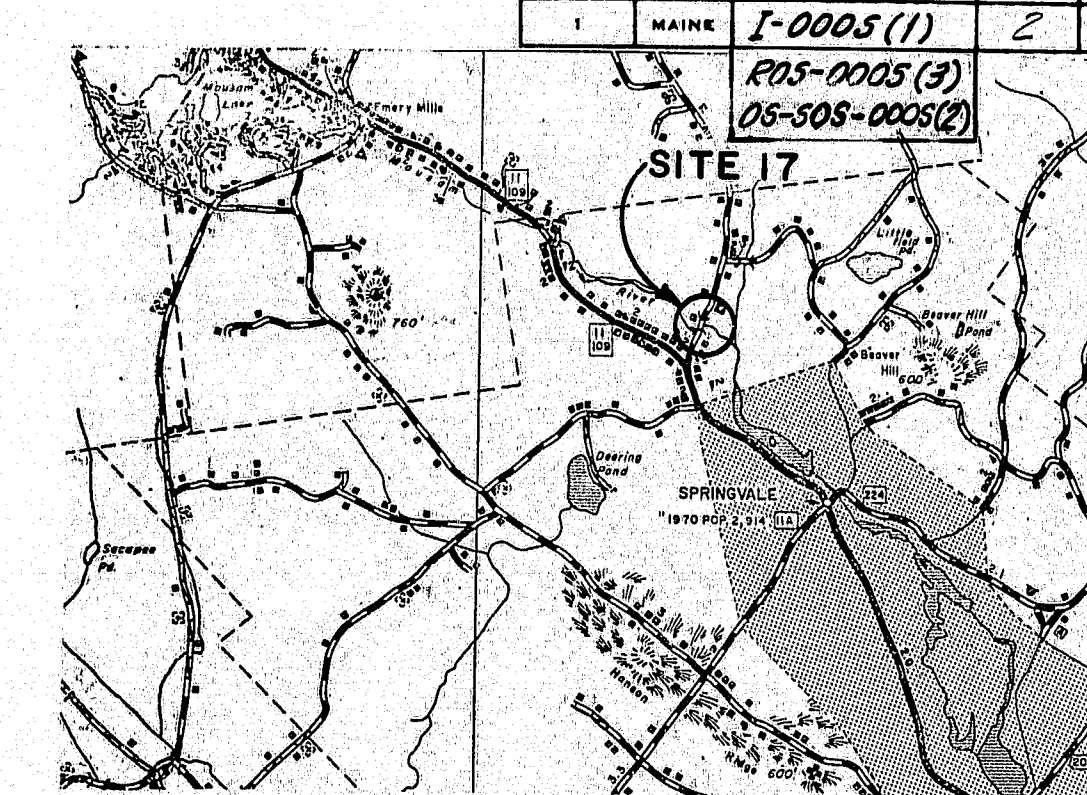
SITE 8 SIX MILE FALLS BRIDGE - BANGOR



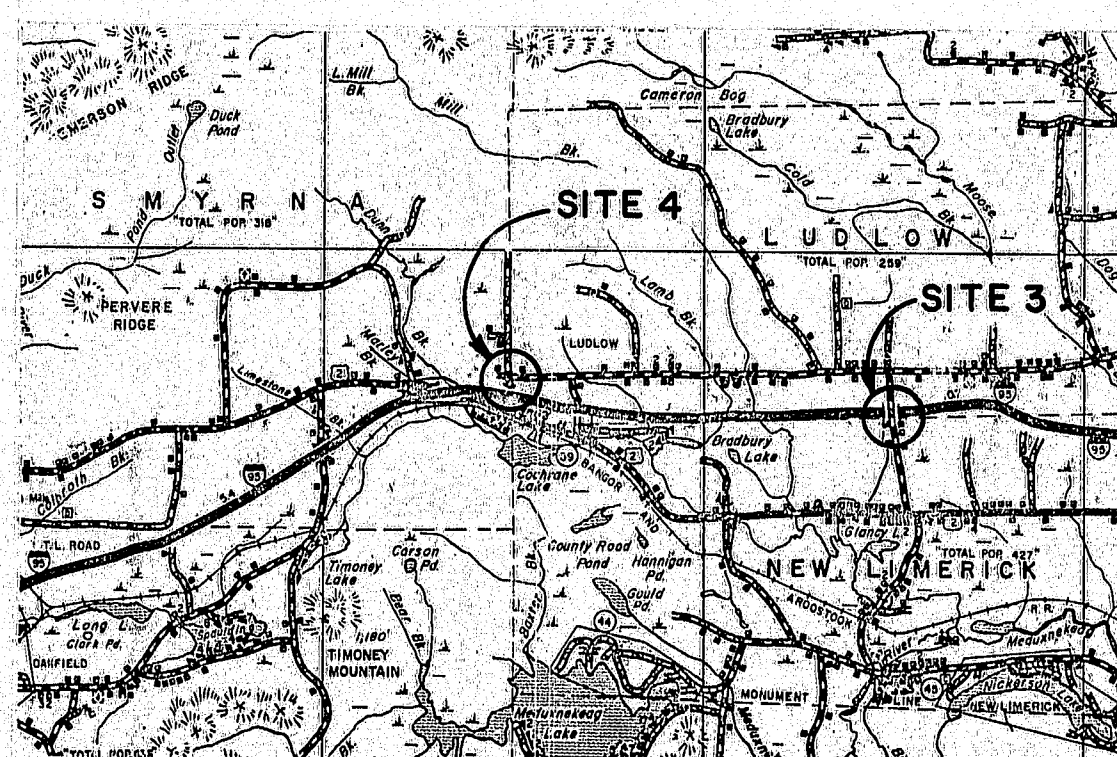
SITE 12 STRATTON BRIDGE -  
-COPLIN PLANTATION



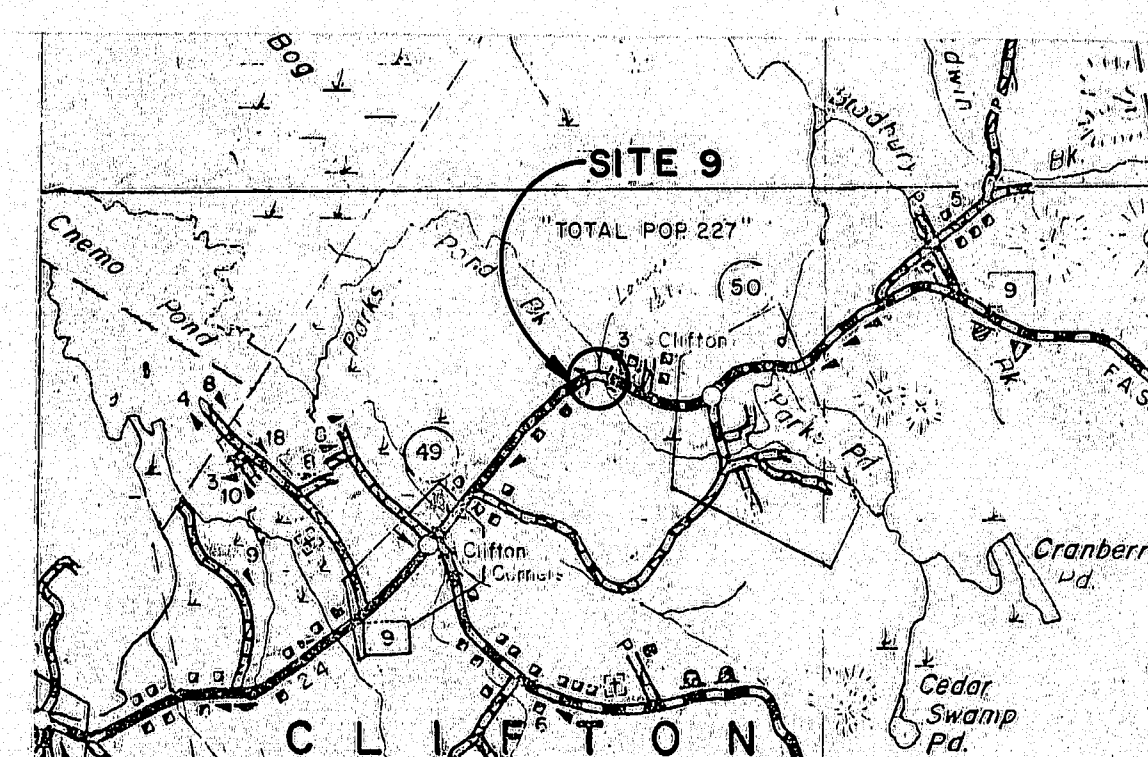
SITE 16 DEAD RIVER BRIDGE - GREENE



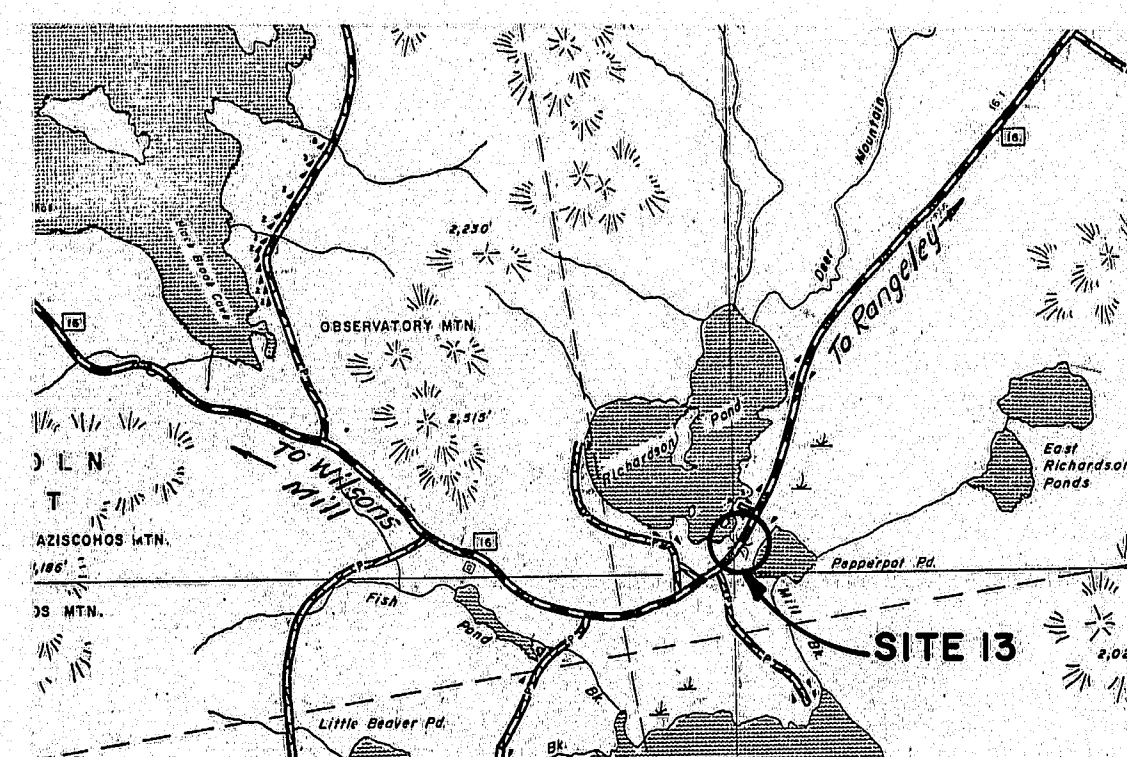
SITE 17 SAWMILL BRIDGE - SANFORD



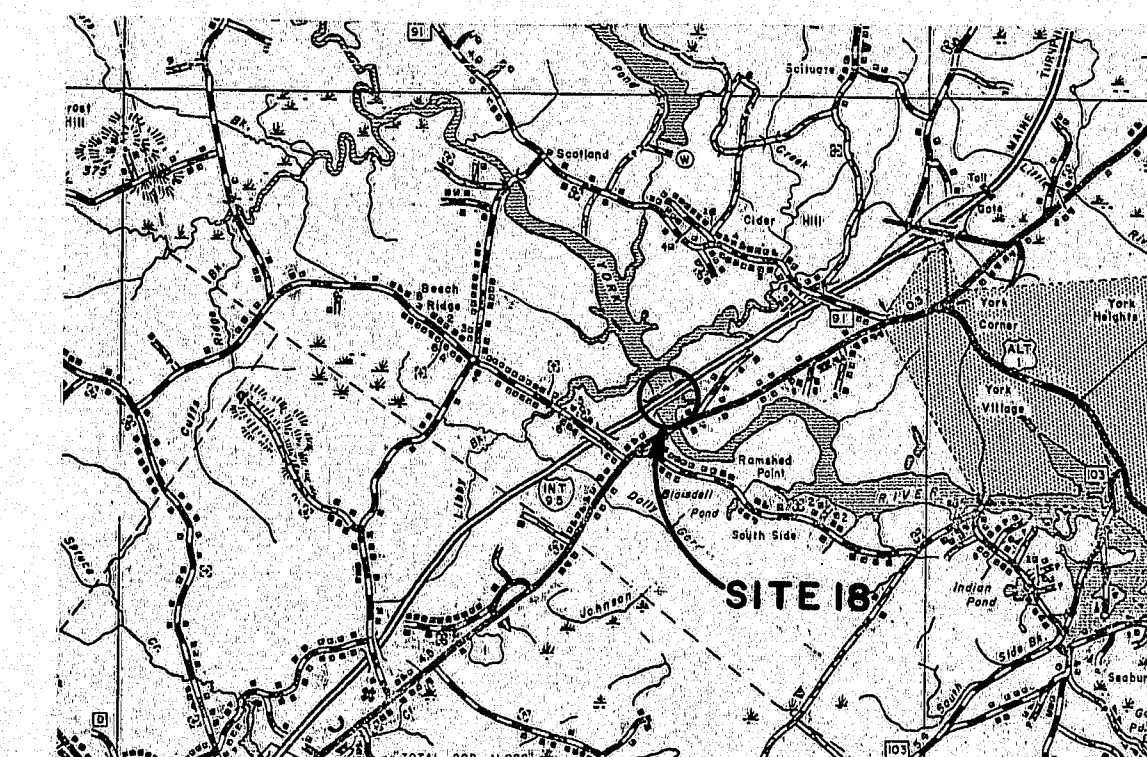
SITE 3 FRENCH ROAD BRIDGE over I-95 - LUDLOW  
SITE 4 I-95 over LINE ROAD - SMYRNA - LUDLOW



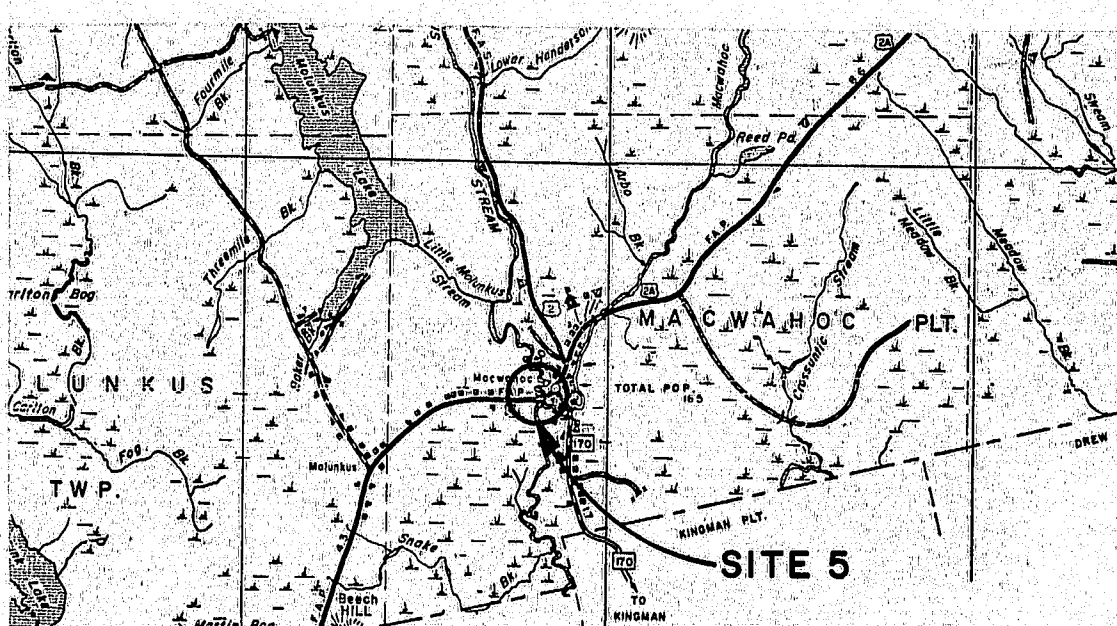
SITE 9 LOWER BRIDGE - CLIFTON



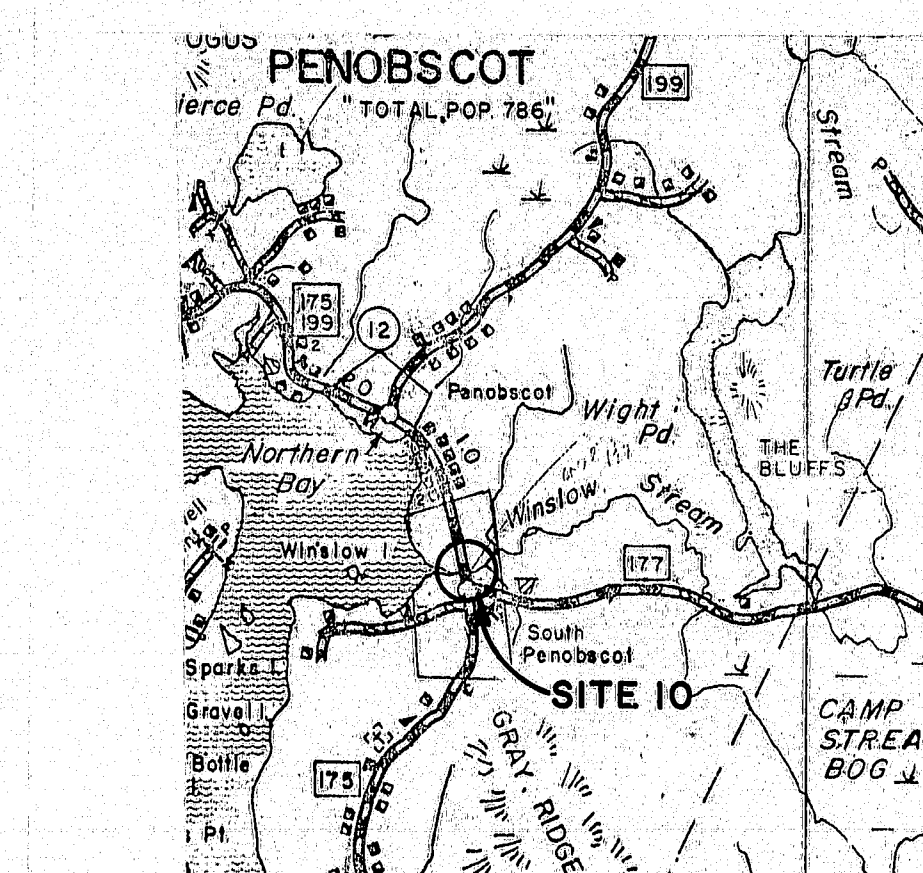
SITE 13 PEPPERPOT BRIDGE - ADAMSTOWN TWP.



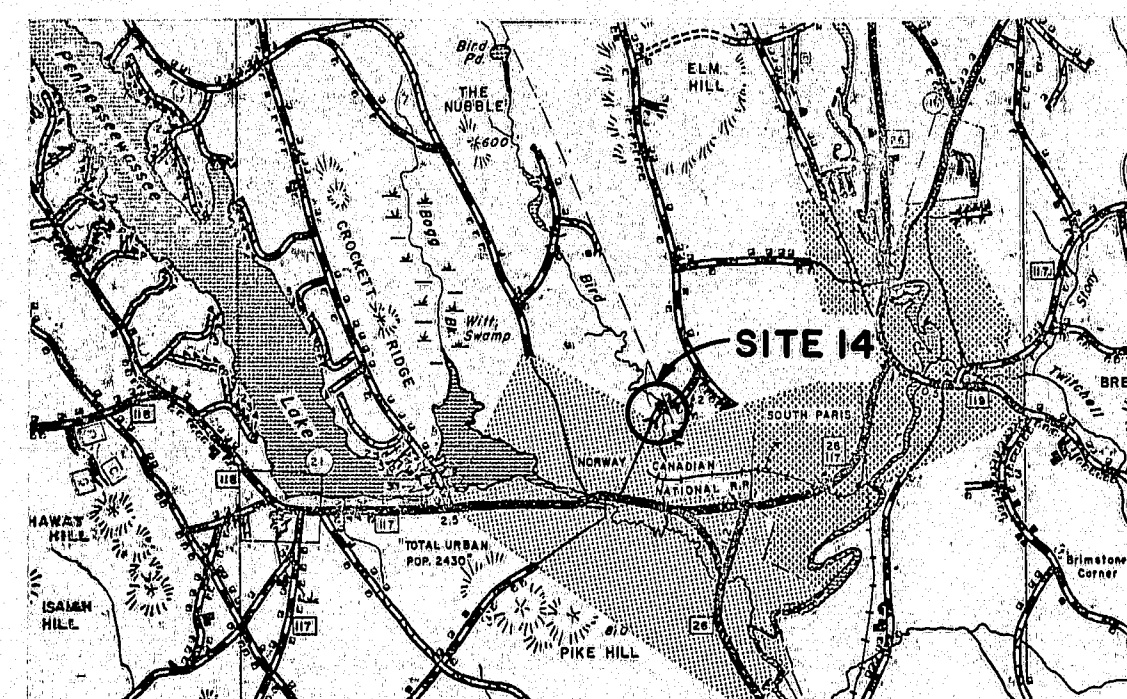
SITE 18 I-95 over YORK RIVER - YORK



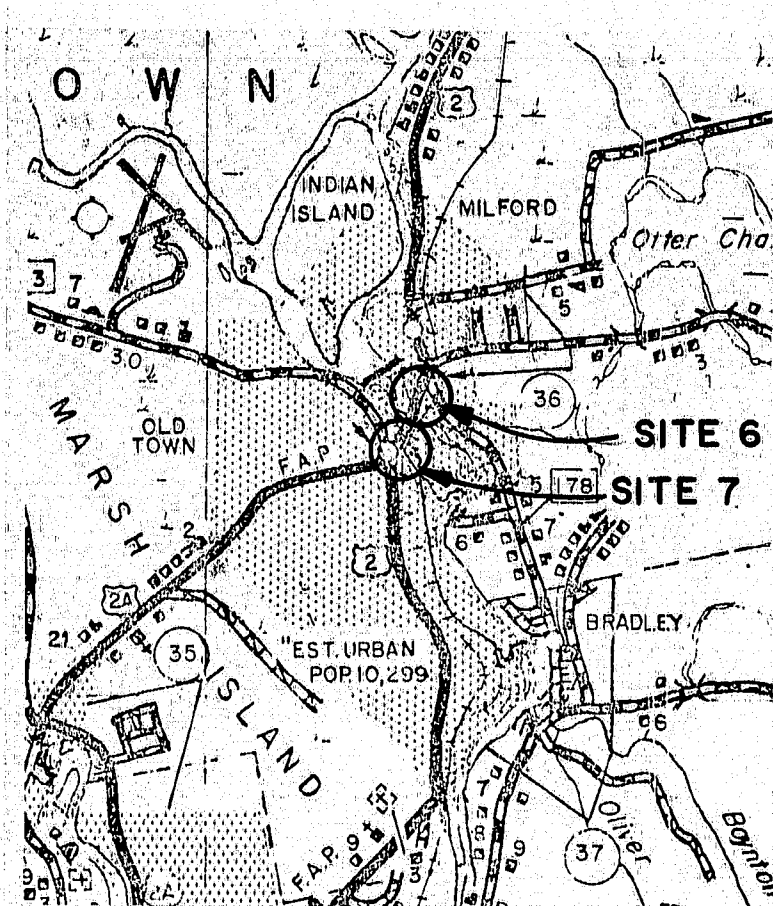
SITE 5 MOLUNKUS BRIDGE - MACWAHOC



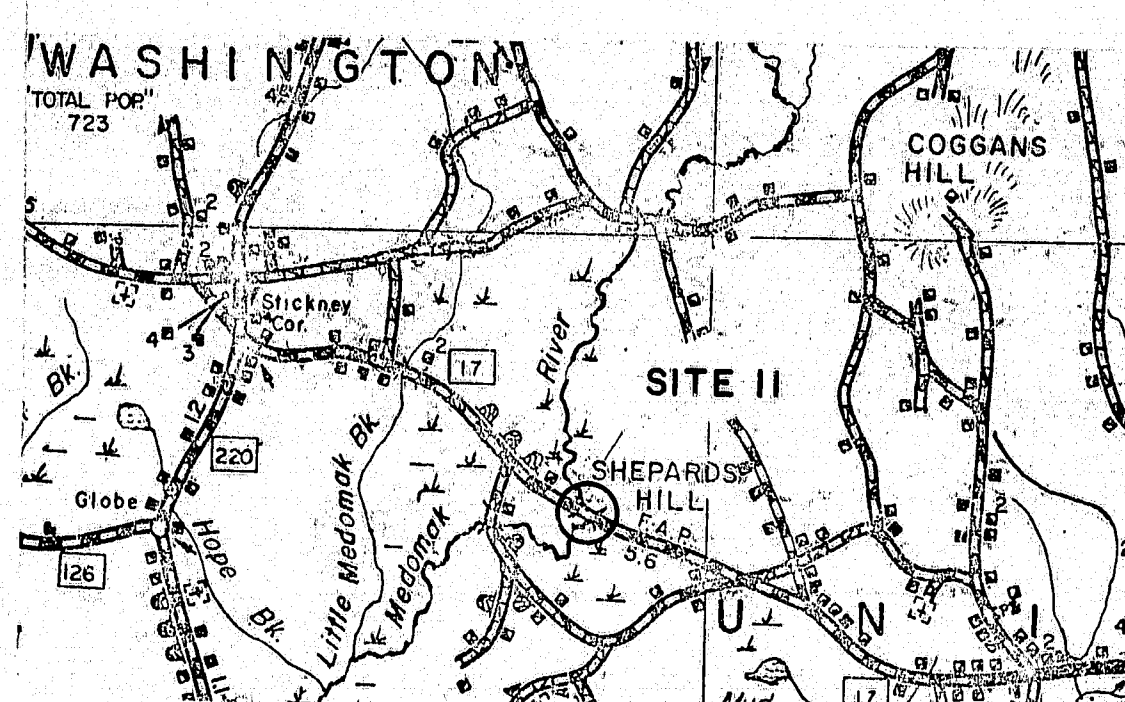
SITE 10 COVE BRIDGE - PENOBSCOT



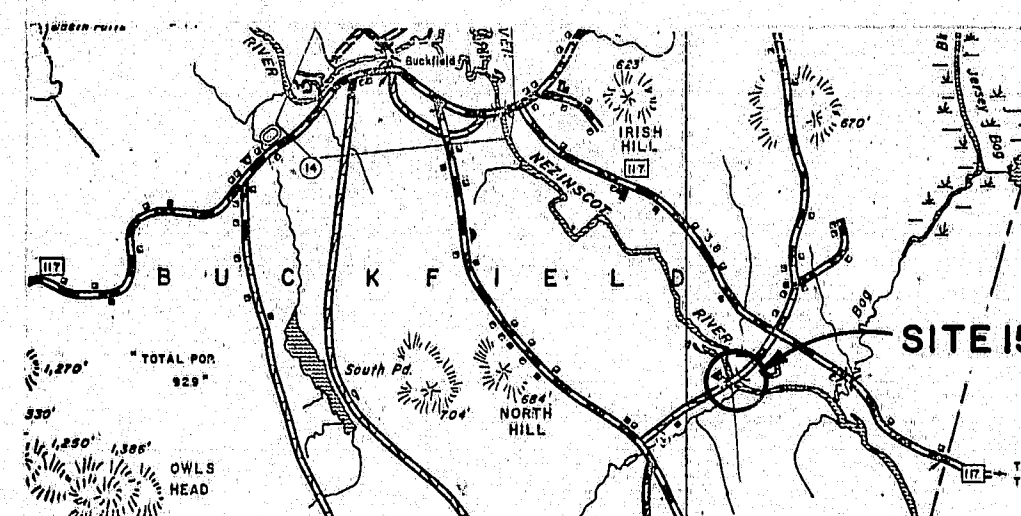
SITE 14 BIRD BROOK - NORWAY



SITE 6 MILFORD BRIDGE - OLD TOWN  
SITE 7 WEST BRANCH BRIDGE - OLD TOWN



SITE 11 MEDOMAK BRIDGE - WASHINGTON



SITE 15 ROUNDABOUT BRIDGE - BUCKFIELD

PROJECT DESIGN ENGINEER	BY	DATE
PLANS		
DESIGN		
DETAILS		
CHECKED		
REVISIONS		
FIELD CHANGES		

F.R.W.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-0005 (1)	2	7

105-0005 (2)  
26-505-0005 (2)

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BRIDGE END POST REVISIONS

STATE WIDE

LOCATION MAPS

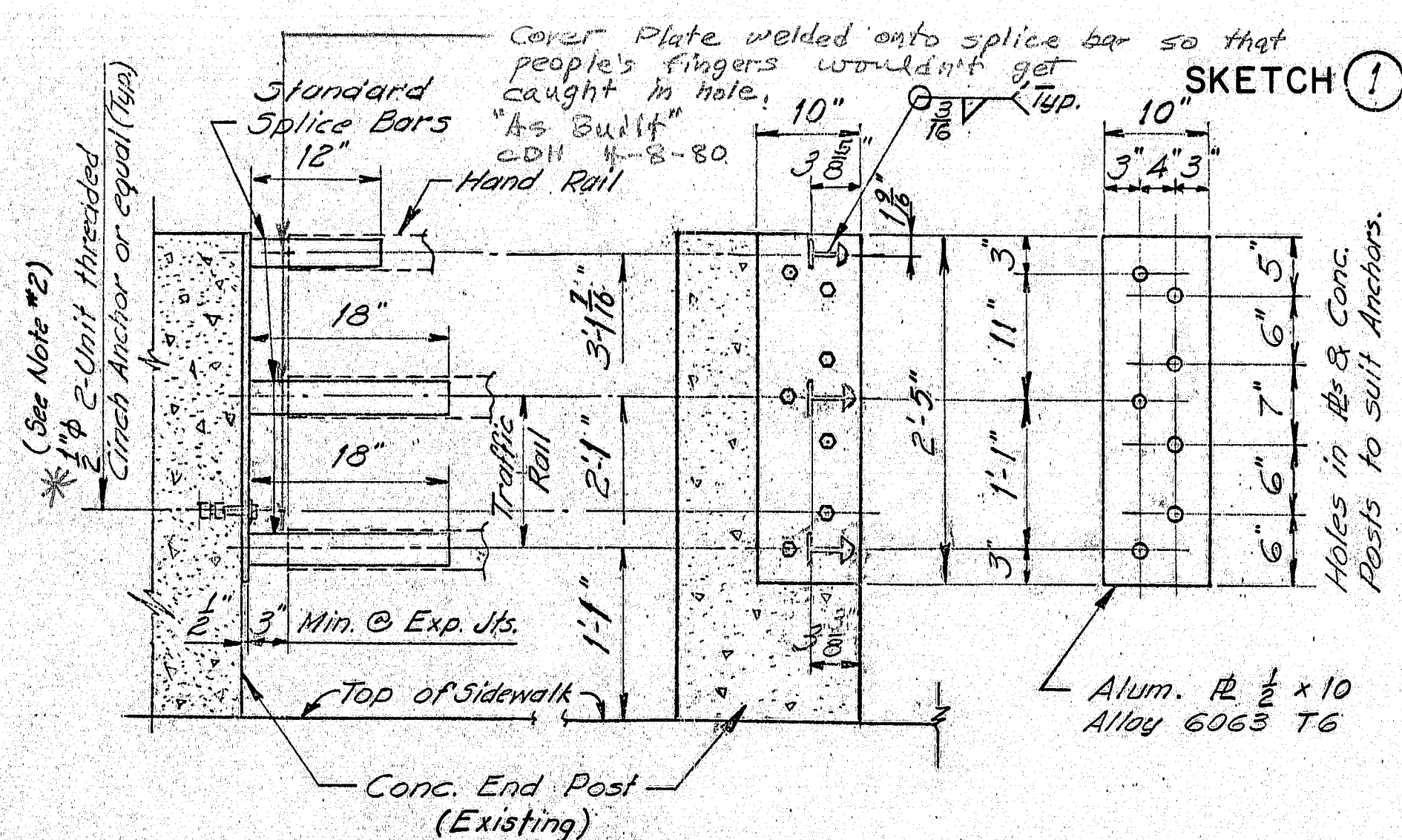
AS BUILT 1980

SHEET 2 OF 7 AUGUSTA, MAINE March 1979

165-74



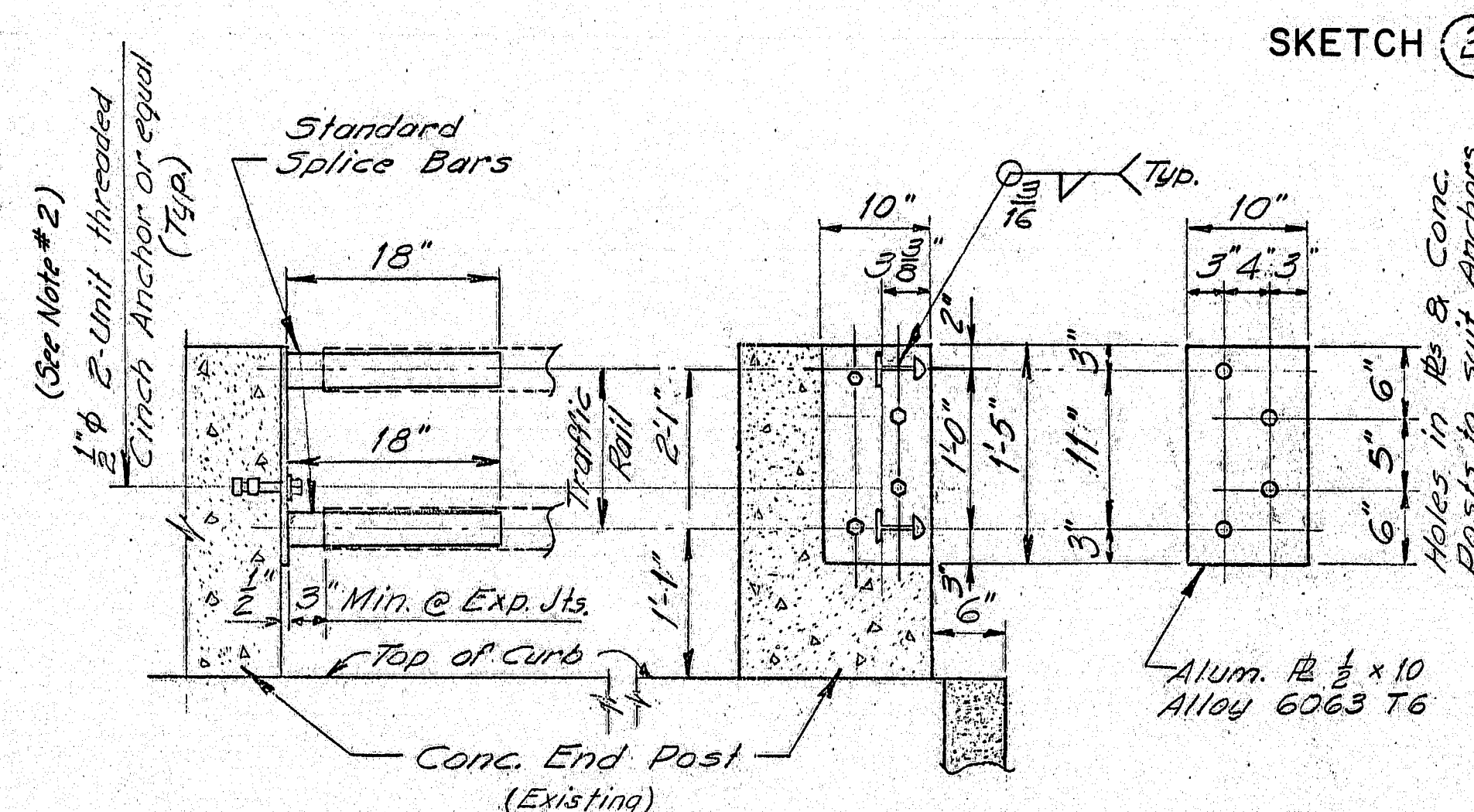
F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-0005(1)	3	7
		ROS-0005(3)		
		OS-SOS-0005(2)		



**TYPE #1 - CONNECTION**

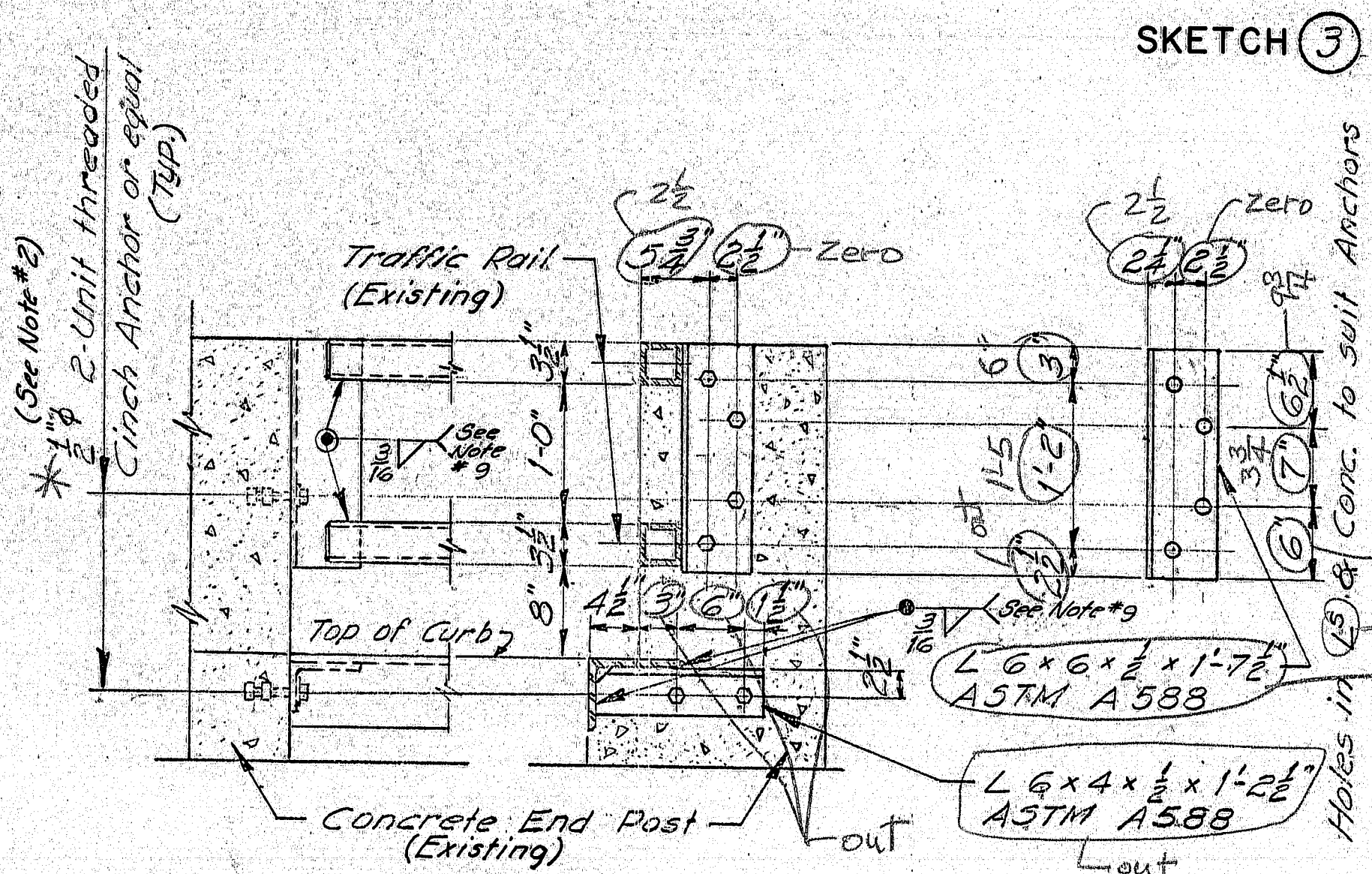
Aluminum Bridge Railing, 3-Bar (Semi-Ellipse) to Concrete End Posts at Bridge Abutments.

\* As Built: 1/2" x 1/2" x 1/2" Bolt Cut, No. S500056, 1/2" x 1/2" x 1/2" long, embedded a minimum of 2 1/4"



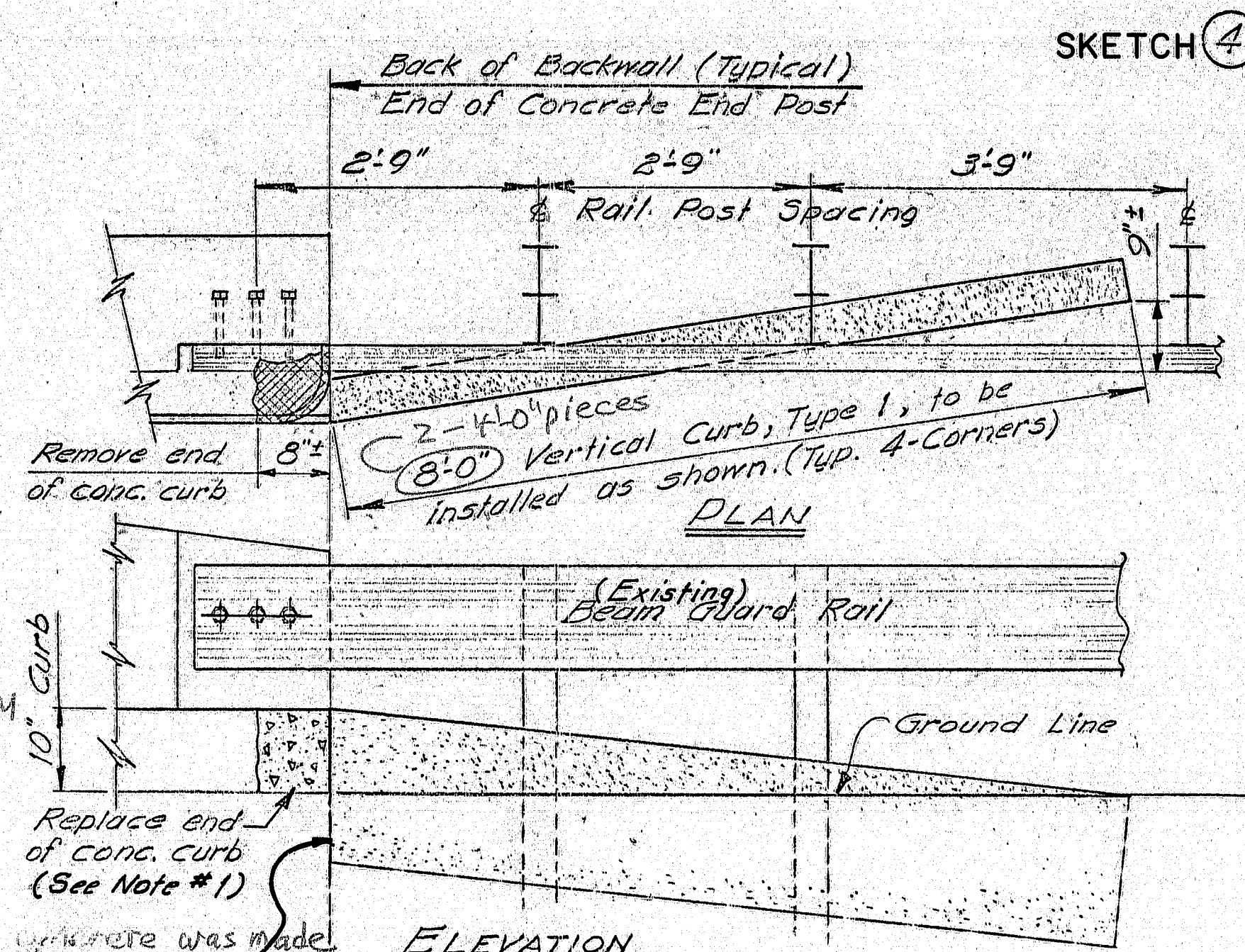
**TYPE #2 - CONNECTION**

Aluminum Bridge Railing, 2-Bar (Semi-Ellipse) to Concrete End Posts at Bridge Abutments.



**TYPE #3 - CONNECTION**

Steel Bridge Railing, 2-Bar (Tube 3 1/2" x 1/2") to Concrete End Posts at Bridge Abutments.



**ELEVATION**

(Site #15 Roundabout Bridge - Buckfield)

PROJECT NO. I-0005(1)					
LOCATION MAP	BRIDGE NAME	TOWN	TYPE 1	TYPE 2	TYPE 3
Site # 3	French Rd. over I-95	Ludlow		X	
Site # 2	Moore Rd. over I-95	Houlton		X	
Site # 4	I-95 over Line Rd.	Smyrna & Ludlow		X	
Site # 13	I-95 over York River	York		X	
PROJECT NO. ROS-0005(3)					
Site # 8	Six Mile Falls Bridge	Bangor		X	
Site # 5	Melampus Bridge	Machwahoc		X	
Site # 12	Sprafon Bridge	Captin		X	
Site # 9	Lower Bridge	Clifton		X	
Site # 11	Mademat Bridge	Washington		X	
Site # 13	Pepperpot Bridge	Adamsfown			X
Site # 6	Milford Bridge	Old Town	X	X	
Site # 7	West Branch Bridge	Old Town	X		
PROJECT NO. OS-SOS-0005(2)					
Site # 15	Roundabout Bridge	Buckfield		X	
Site # 6	Dead River Bridge	Greene			X
Site # 1	Niles Bridge	Houlton		X	
Site # 14	Big Brook Bridge	Norway		X	
Site # 17	Sawmill Bridge	Sanford		X	
Site # 10	Cove Bridge	Penobscot	See Sheet 4 of 7		X

**NOTES**

- 1) Remove existing concrete as needed and replace with new concrete as shown. Payment for removal of existing concrete and for new concrete shall be incidental to Item 606.173 Bridge Connections.
- 2) Drilling of holes for cinch anchors shall be incidental to Items 606.1731, 606.1732 or 606.1733, Bridge Connections Type 1, 2 or 3.
- 3) It shall be the Contractor's responsibility to avoid scratching or otherwise defacing the aluminum bridge rail during his operations. Upon completion of his work he shall clean the rail in the area of his operation to the satisfaction of the Engineer. No separate payment will be made for such cleaning.
- 4) For reference to details not shown see Sheet Nos. 5, 6 and 7.
- 5) Apply "Protective Coating" to the new concrete, in conformity with the requirements of Special Provisions, Section 515, Protective Coating for Concrete Surfaces. Payment to be incidental to Item 606.173 Bridge Connections.
- 6) All bolts for Cinch Anchors shall be Hot Dipped Galvanized in accordance with ASTM Specifications A153.

**NOTES (Continued)**

- 7) All plates and angles, both aluminum and steel, that are in contact with concrete shall be painted with two coats of an approved cool for epoxy on contact surfaces. Payment shall be incidental to Contract Items.
- 8) It shall be the Contractor's responsibility to determine any necessary steel to be incorporated in the endpost attachments.
- 9) Weld of fixed end only. Do not weld of Expansion end of bridge.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

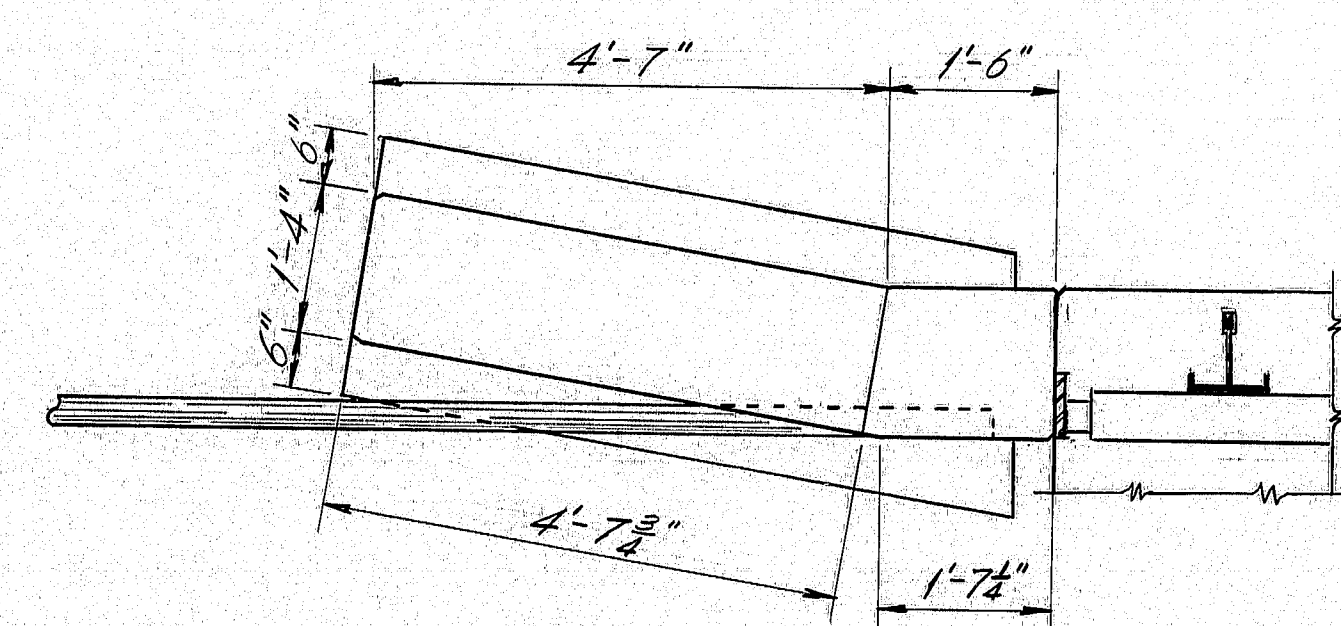
BRIDGE END POST REVISIONS  
STATE WIDE  
BRIDGE CONNECTIONS - TYPE 1, 2 AND 3

Project Completed 1980, Revised 'As Built' by CDH  
SHEET 3 OF 7 AUGUSTA, MAINE March 1981

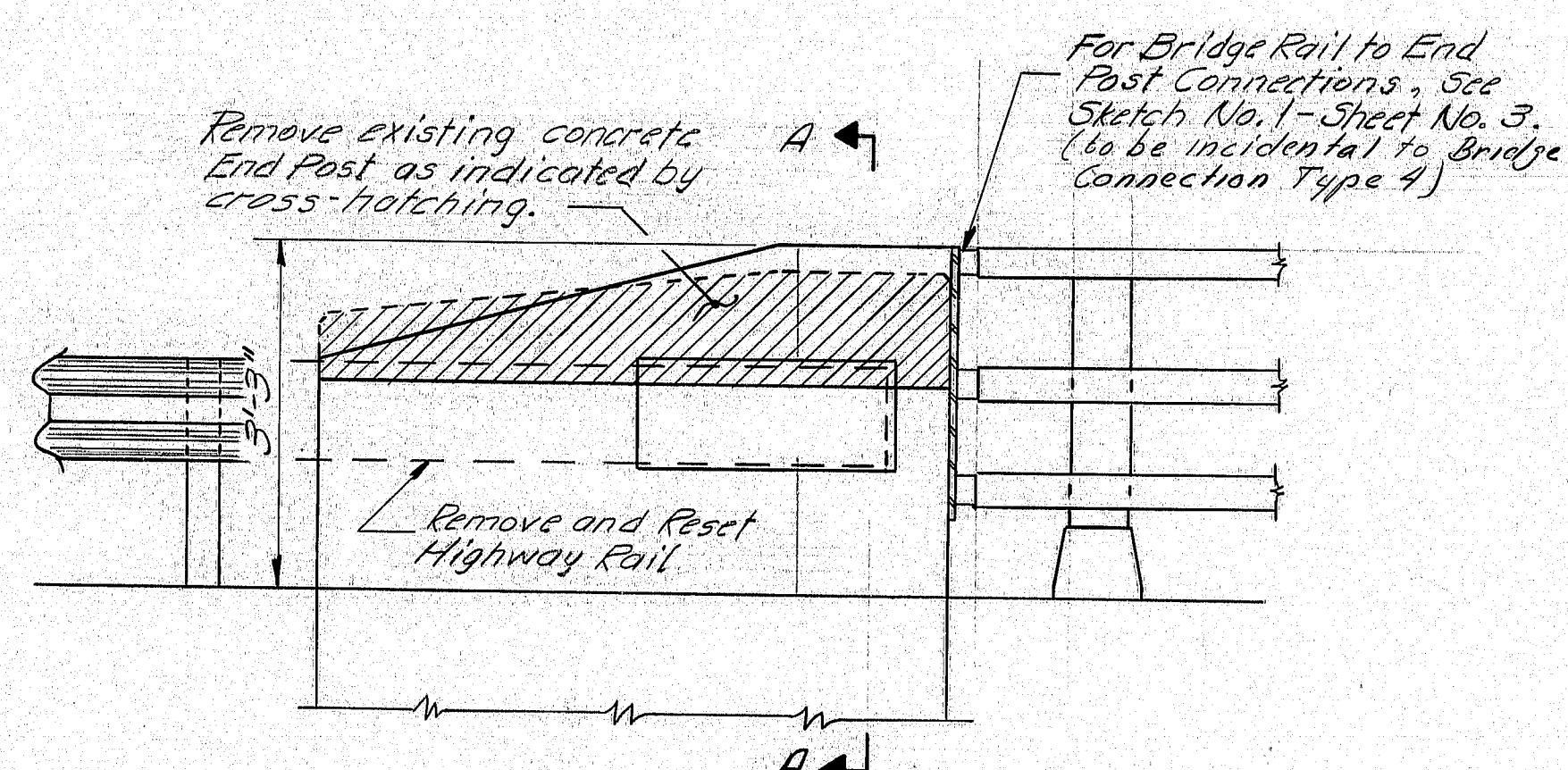
165-75



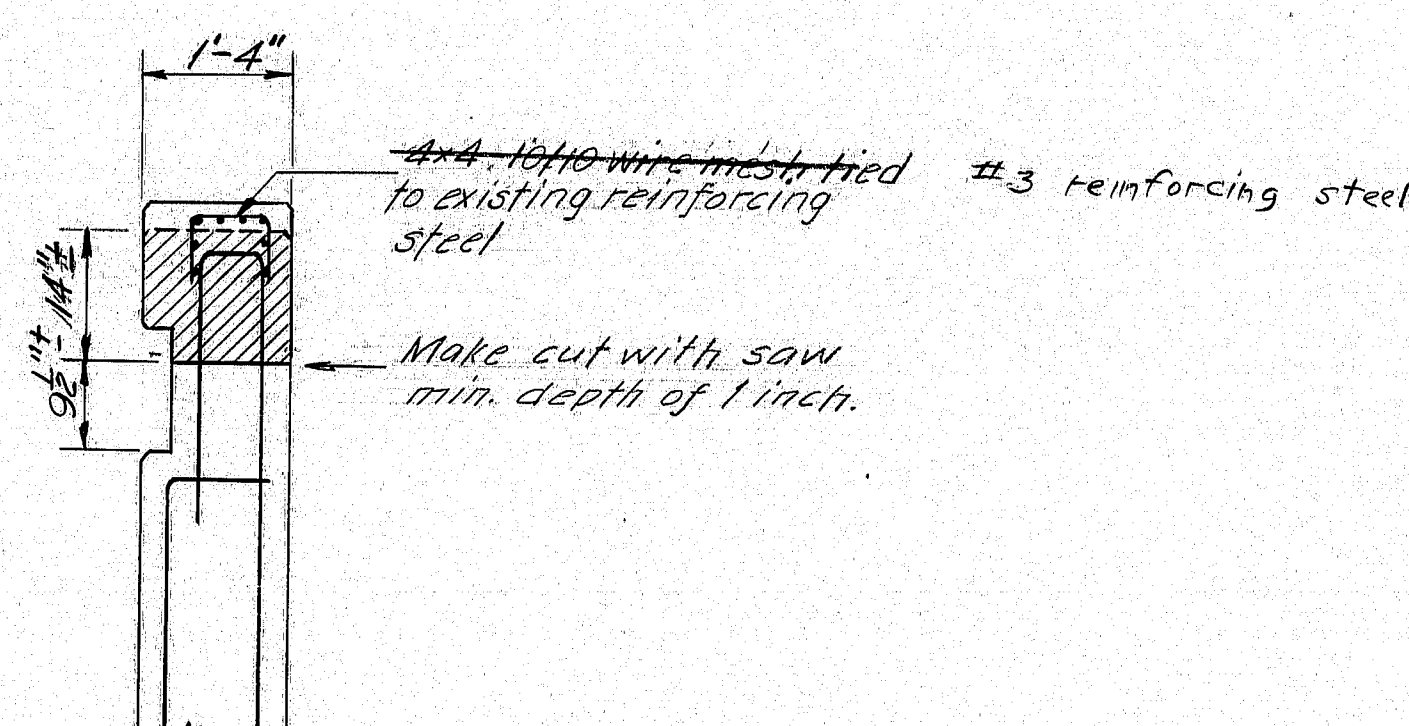
P.R.W. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE		4	7



PLAN



ELEVATION

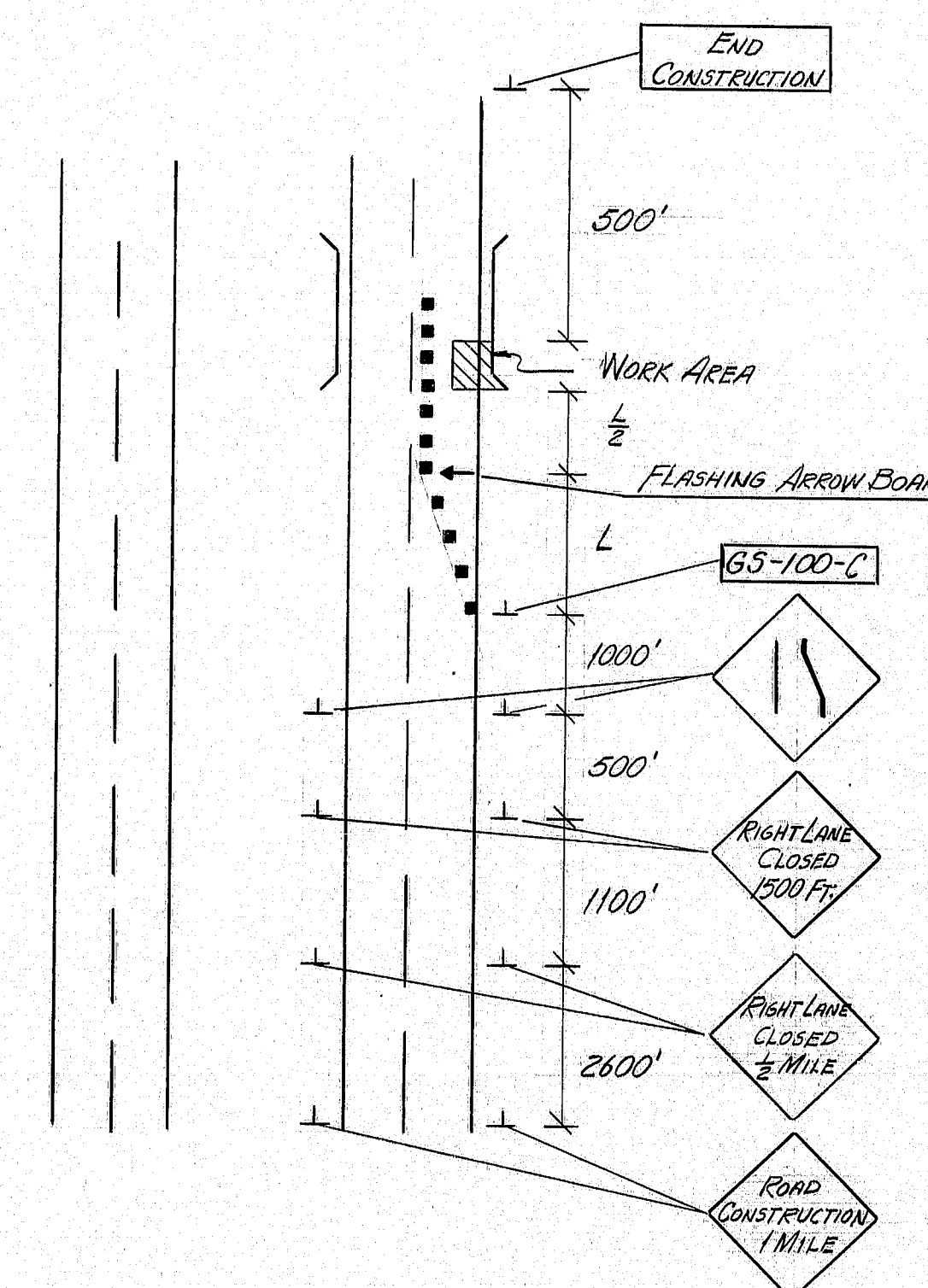


SECTION A-A

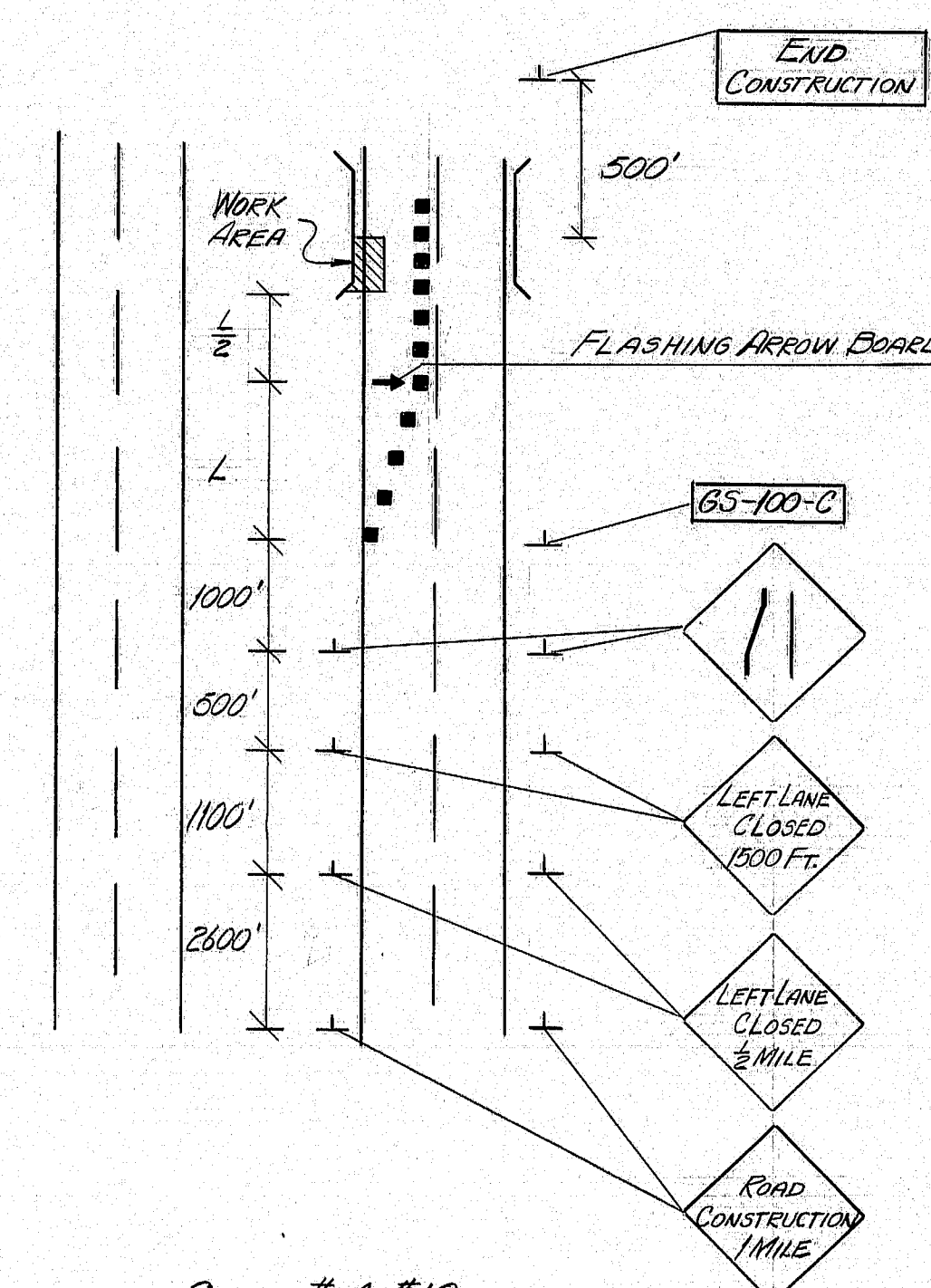
NOTES:

- 1) Chamfer all exposed edges of new concrete a consistent dimension between  $\frac{1}{2}$ " and  $\frac{3}{4}$ ".
- 2) Reinforcement shall be welded wire mesh conforming to ASTM-A185 and the requirements of Section.
- 3) See also Notes 1, 2, 3, 4, 5, 6, 7 and 8 Sheet 3 of 7

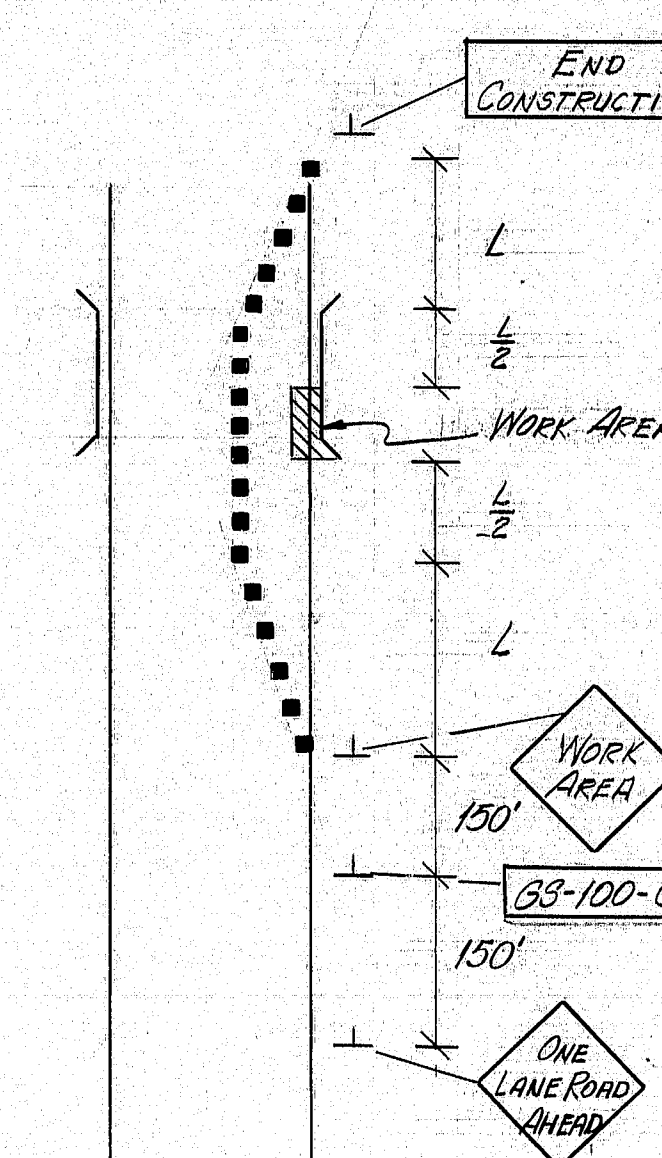
#3 reinforcing steel



SITES #4, #8



SITES #5, #6, #7, #9, #10, #11, #12



SITES #1, #2, #3, #13, #14, #15, #16, #17

"AS BUILT" Revised by C.D. Hamilton  
4-8-80

Legend:

- Cones
- Flagger

NOTES:

- 1) The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit.
- 2) Lane closures during daylight hours only.
- 3) Taper Formula:  
 $L = SXW$  for speed of 45 or more  
 $L = \frac{WS^2}{60}$  for speed of 40 or less  
 Where:  
 $L$  = Minimum length of taper.  
 $S$  = Numerical value of posted speed limit prior to work or 85 percentile speed.  
 $W$  = Width of offset.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BRIDGE END POST REVISIONS

STATE WIDE

BRIDGE CONNECTIONS - TYPE 4

TRAFFIC CONTROL SIGNING

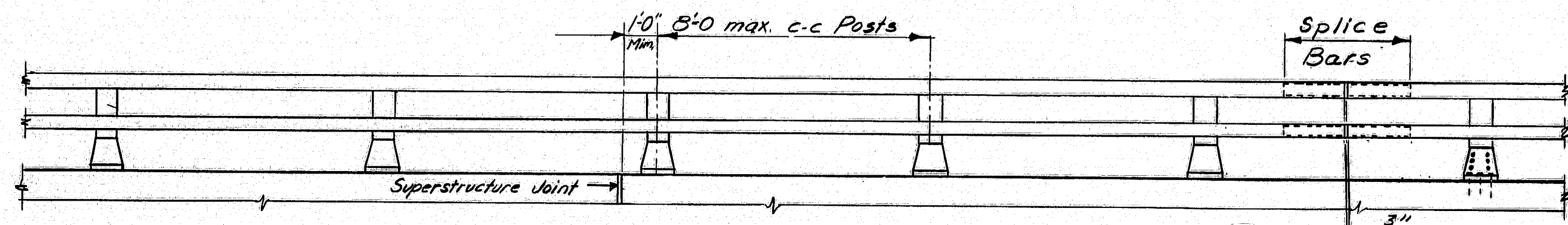
SHEET 4 OF 7 AUGUSTA, MAINE March 1979

165-76



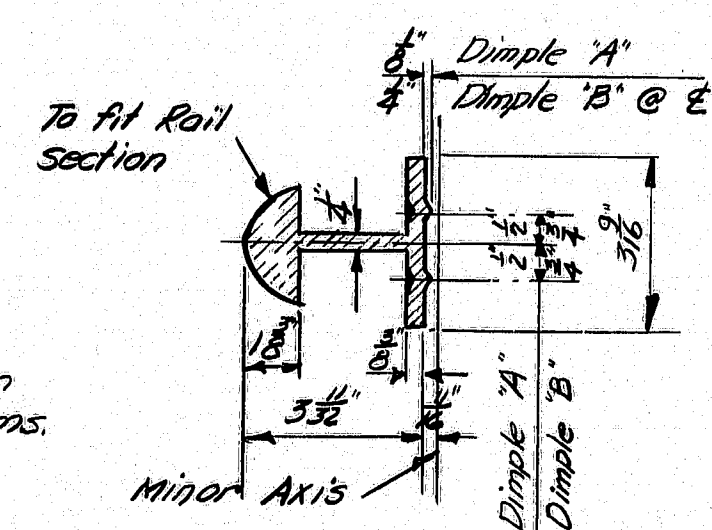
F.R.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE		5	7

DESIGN SPECIFICATIONS  
AASHTO Standard Specifications for  
Highway Bridges 1969 and  
Interim Specifications.

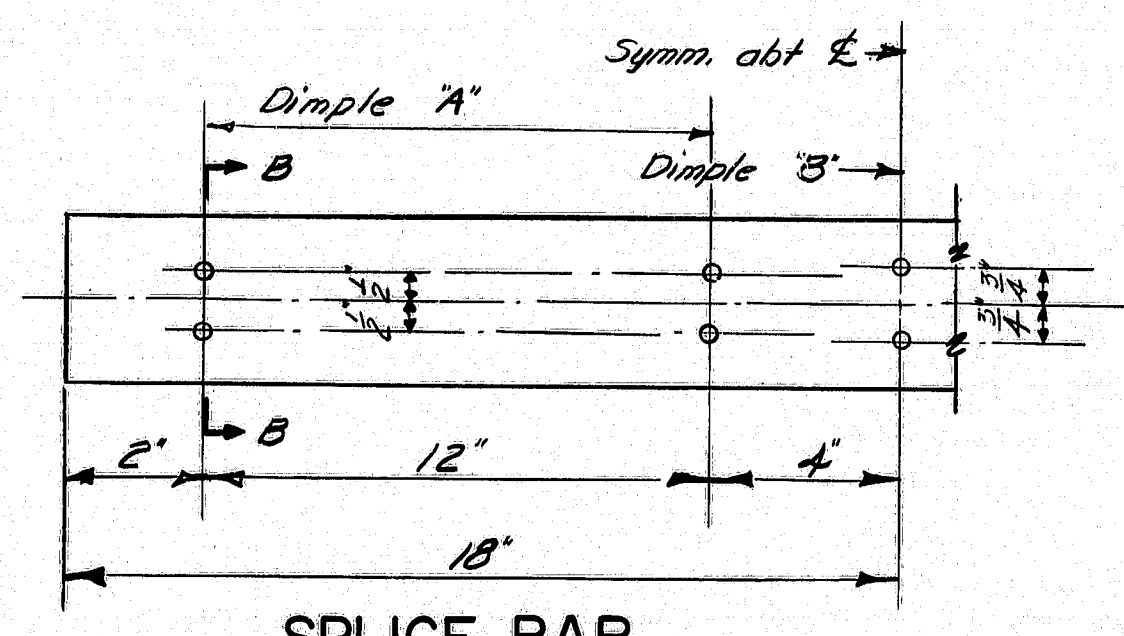


RAILING - ELEVATION

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.

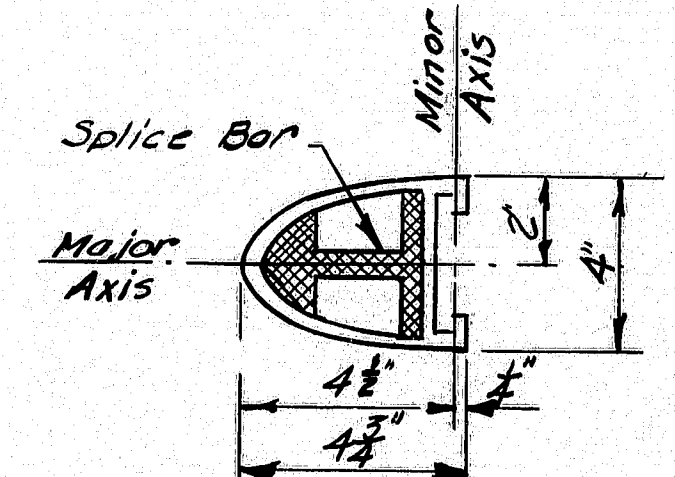


SECTION B-B



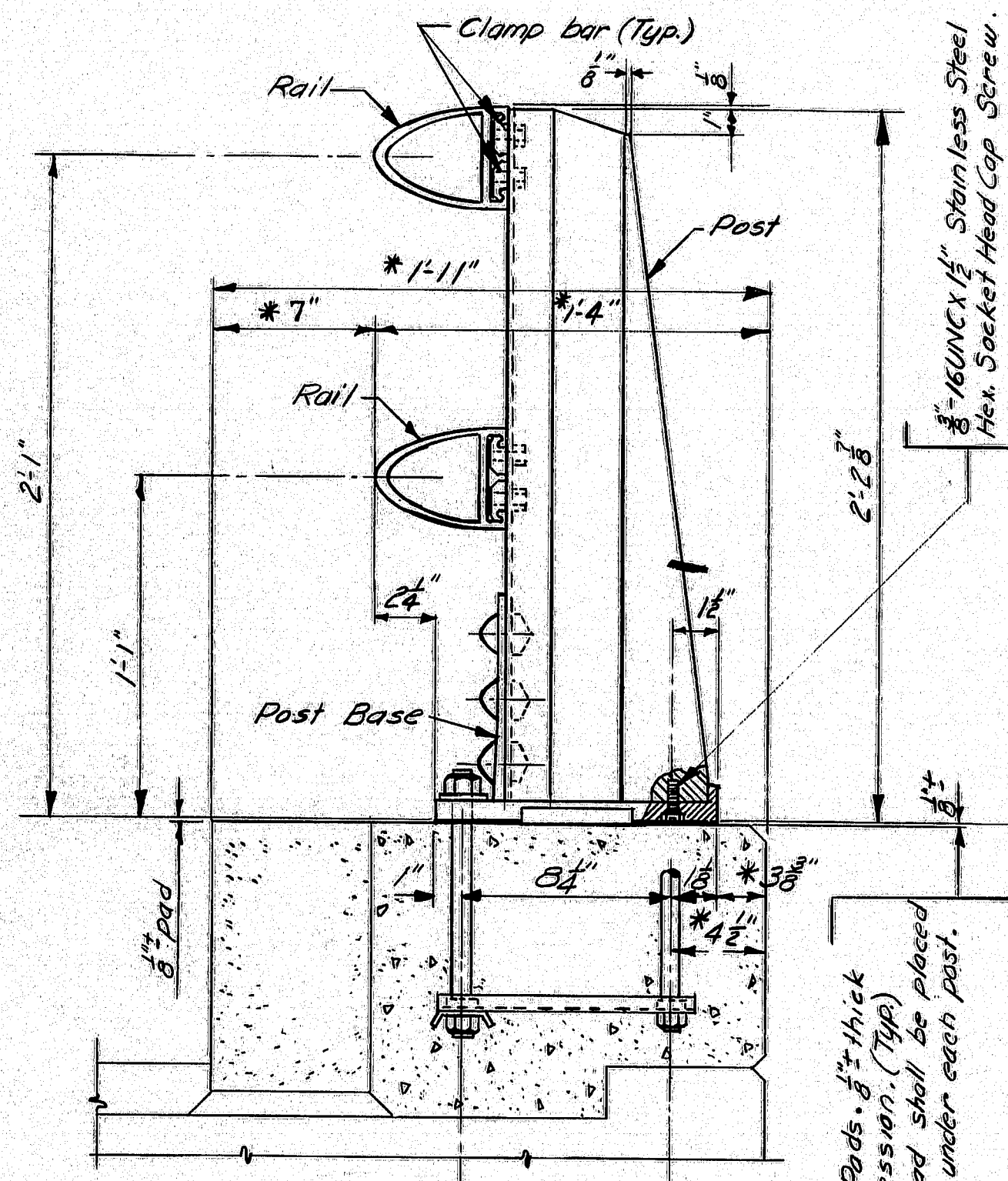
SPLICE BAR

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



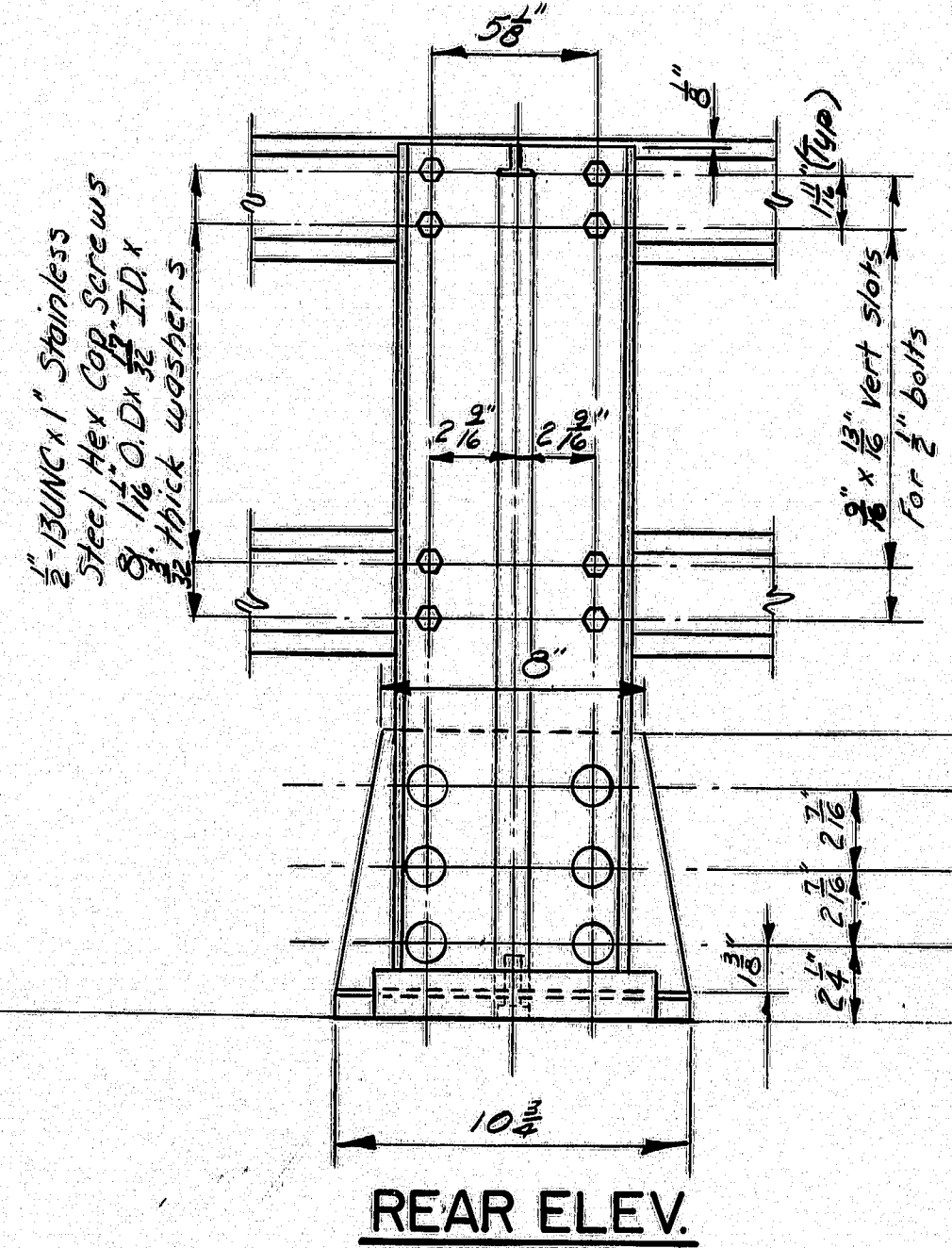
RAIL SECTION

See "Rail Detail"

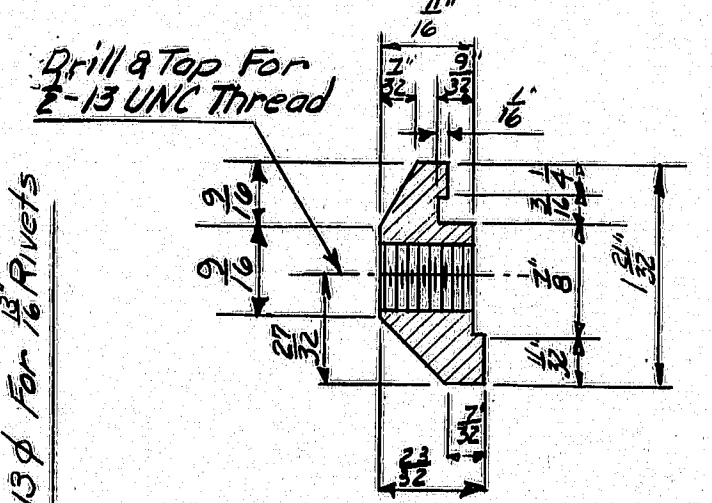


BRIDGE RAILING (Assembly)

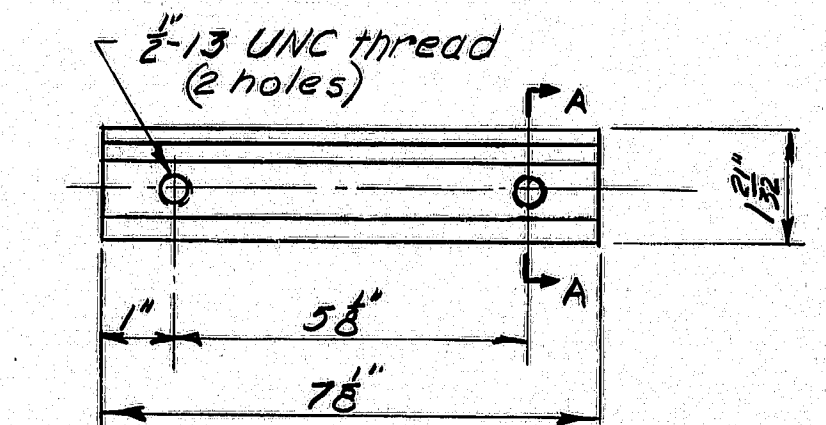
\* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



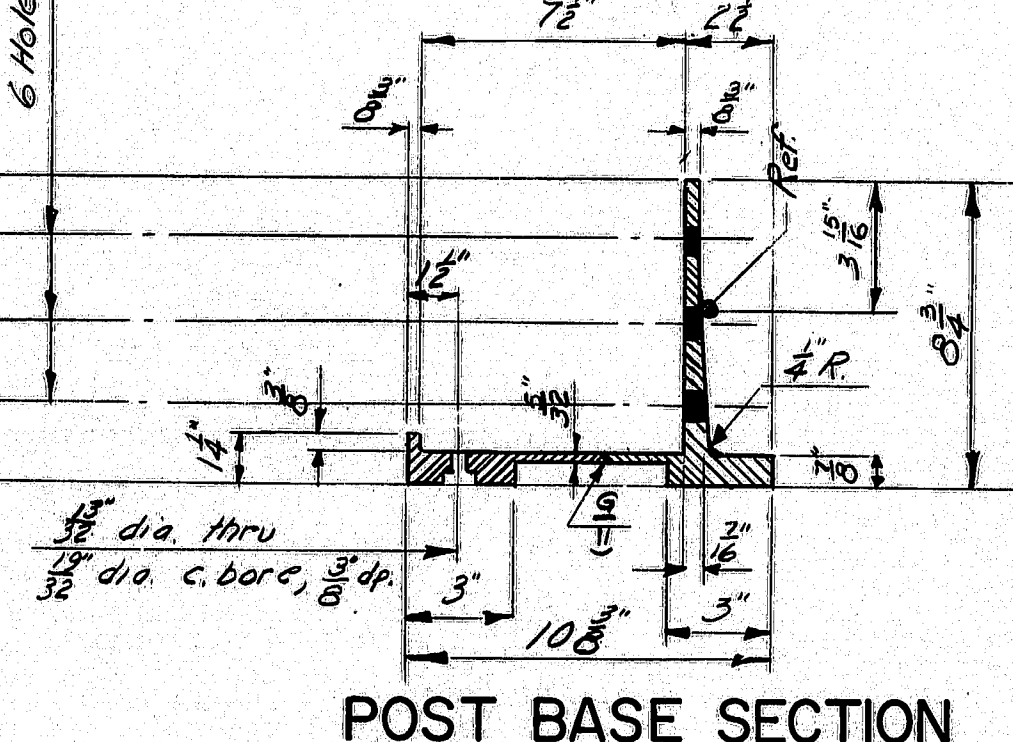
REAR ELEV.



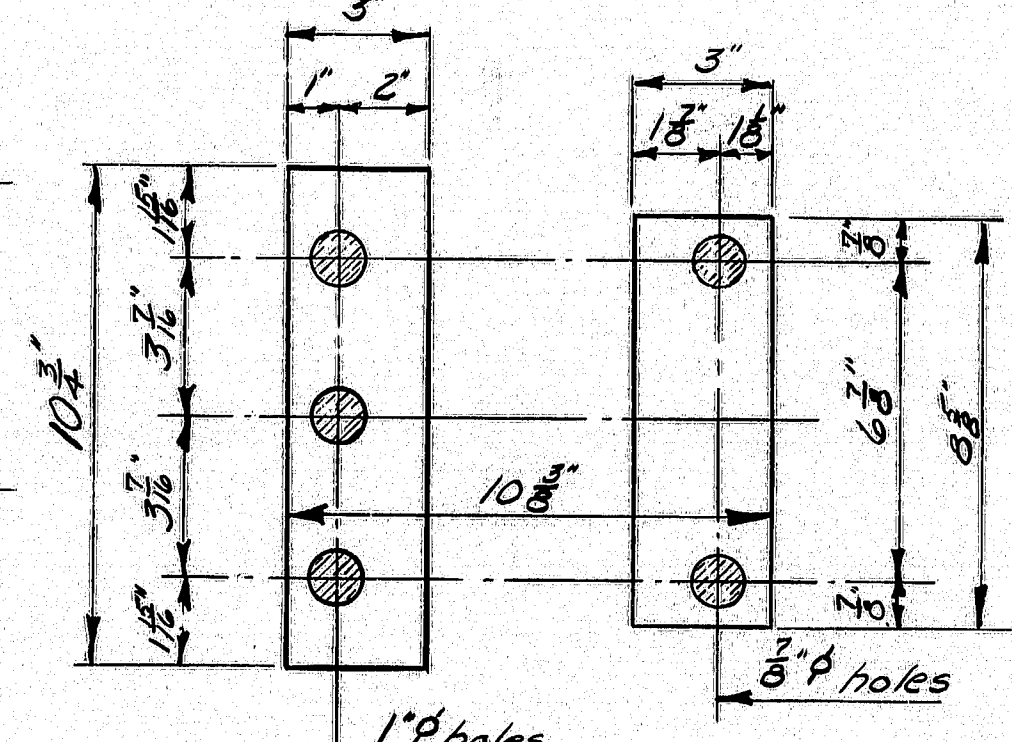
SECTION A-A



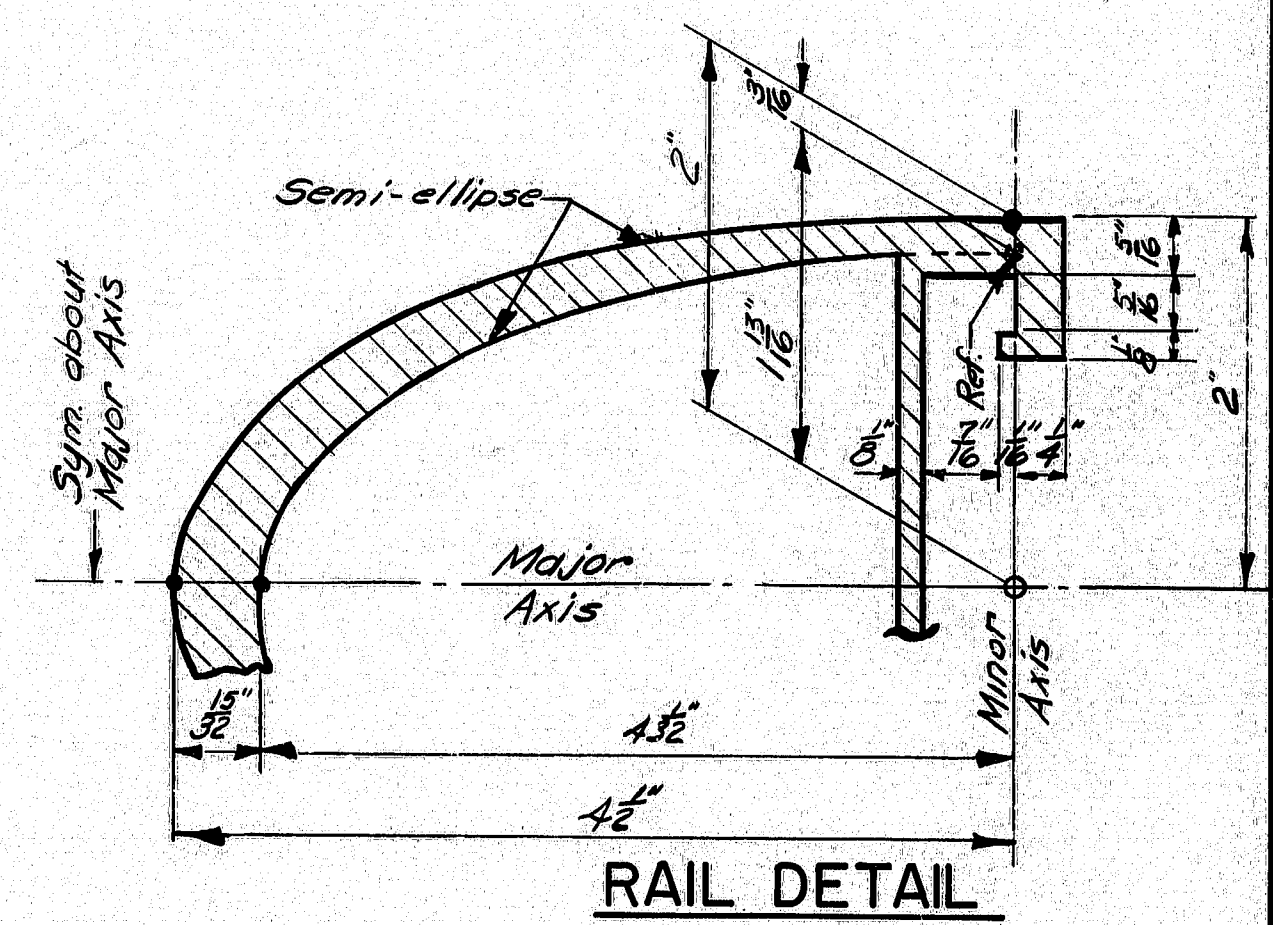
CLAMP BAR



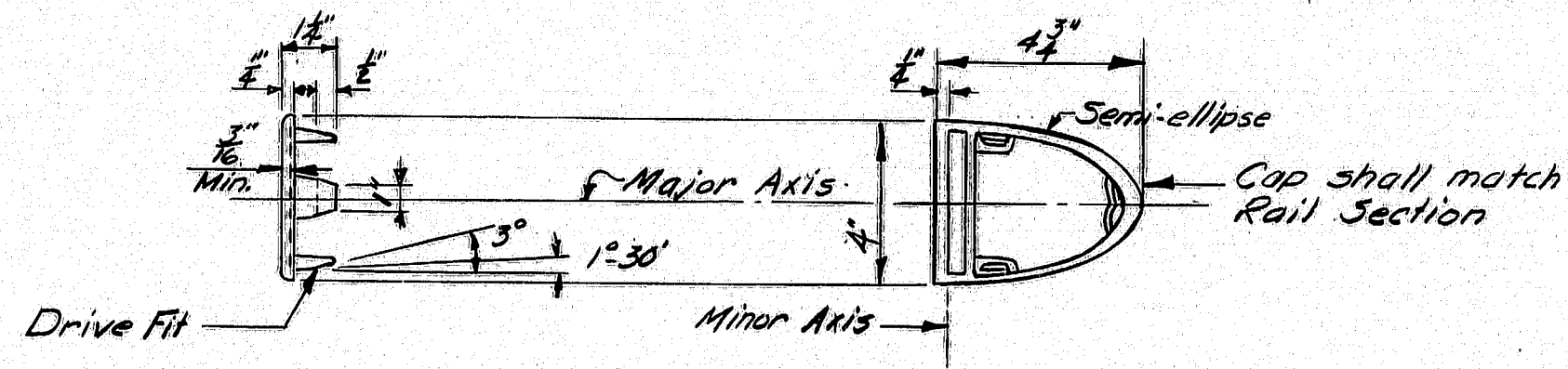
POST BASE SECTION



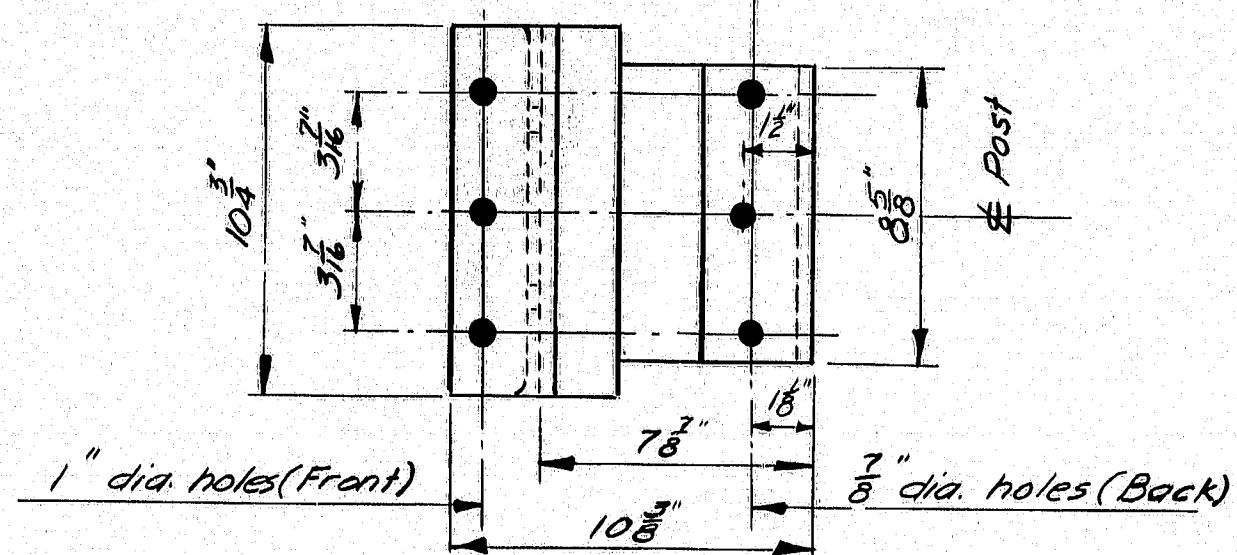
PREFORMED PADS



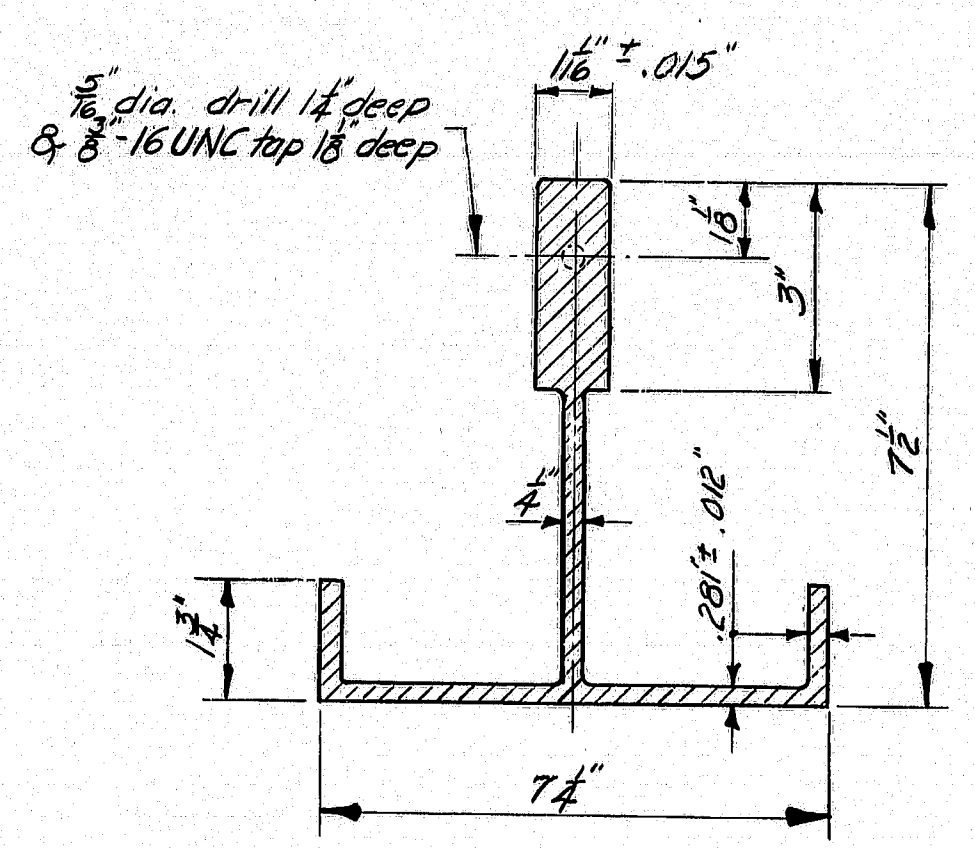
RAIL DETAIL



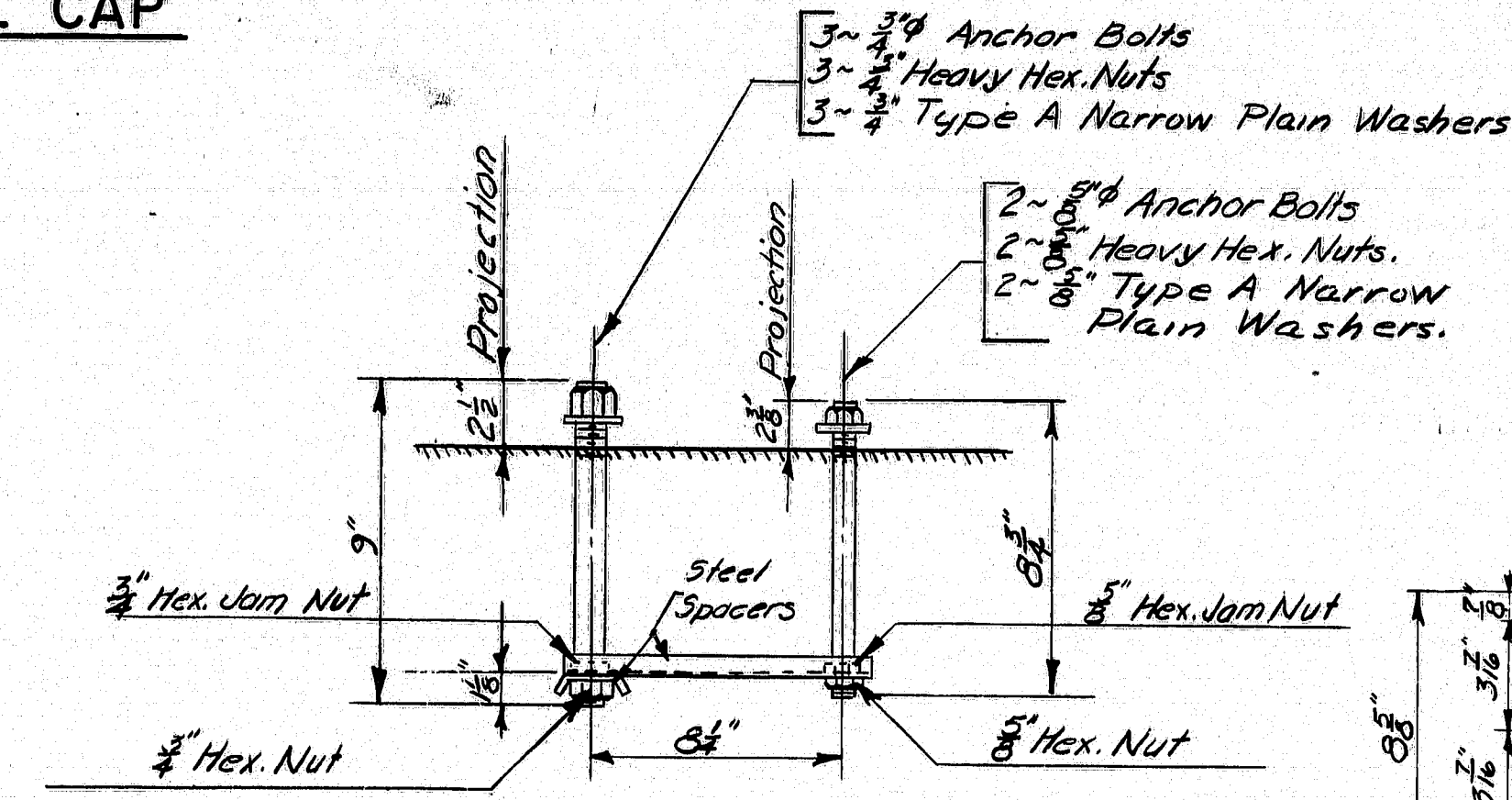
RAIL CAP



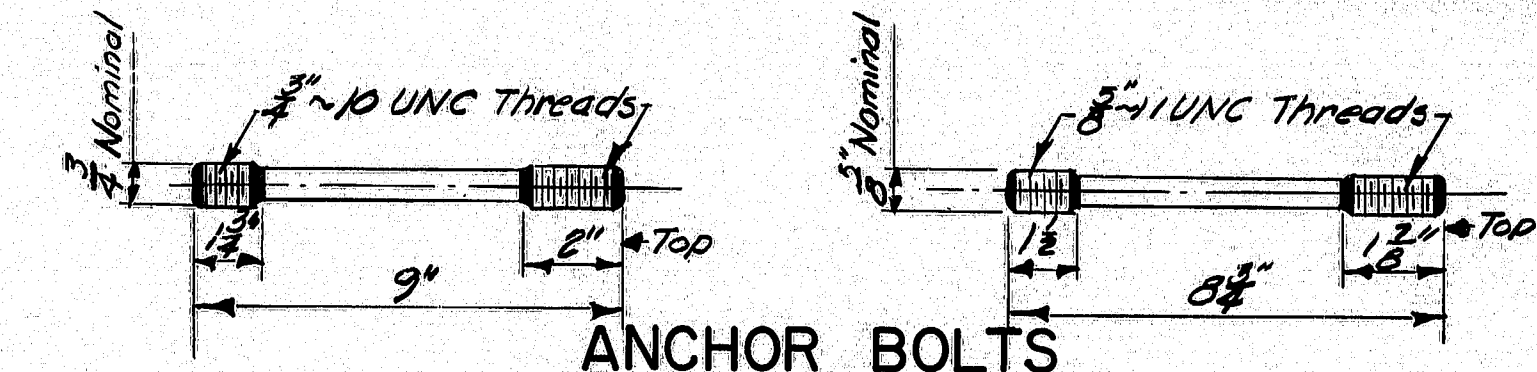
POST BASE (Bottom View)



POST SECTION

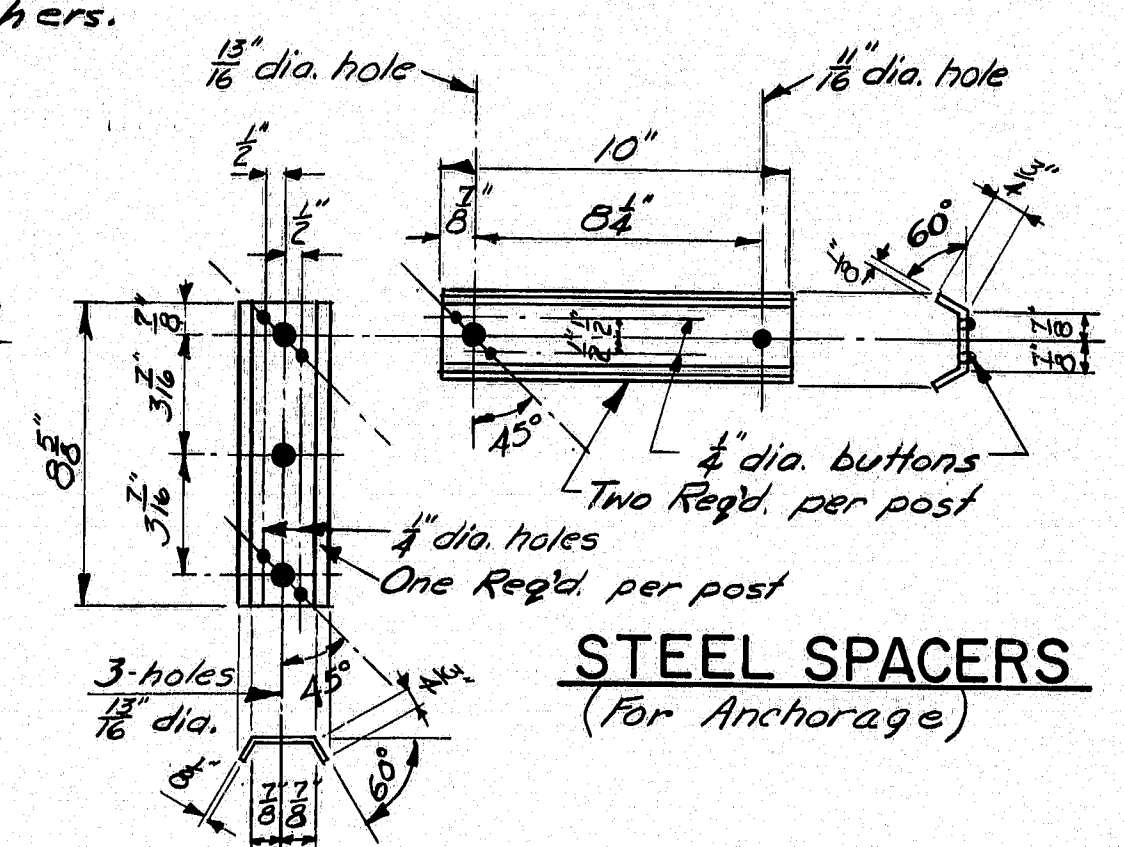


RAIL POST ANCHORAGE (Assembly)



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)

AS BUILT

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
**STANDARD DETAILS**  
(BD 114-73)  
**ALUMINUM BRIDGE RAILING**  
2 - BAR (SEMI-ELLIPSE)  
TYPE "A"

SHEET OF AUGUSTA, MAINE FEBRUARY 1973

165-77

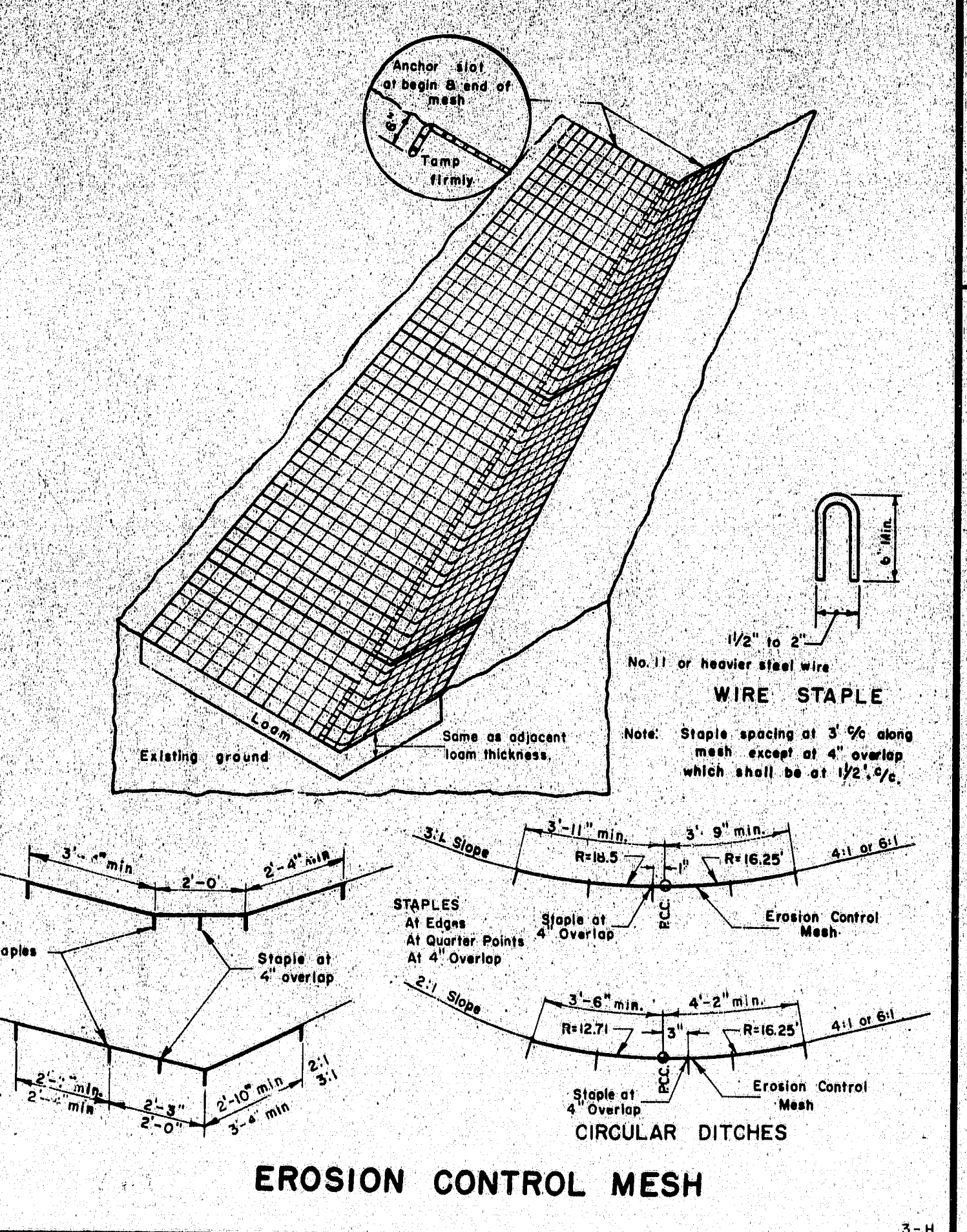
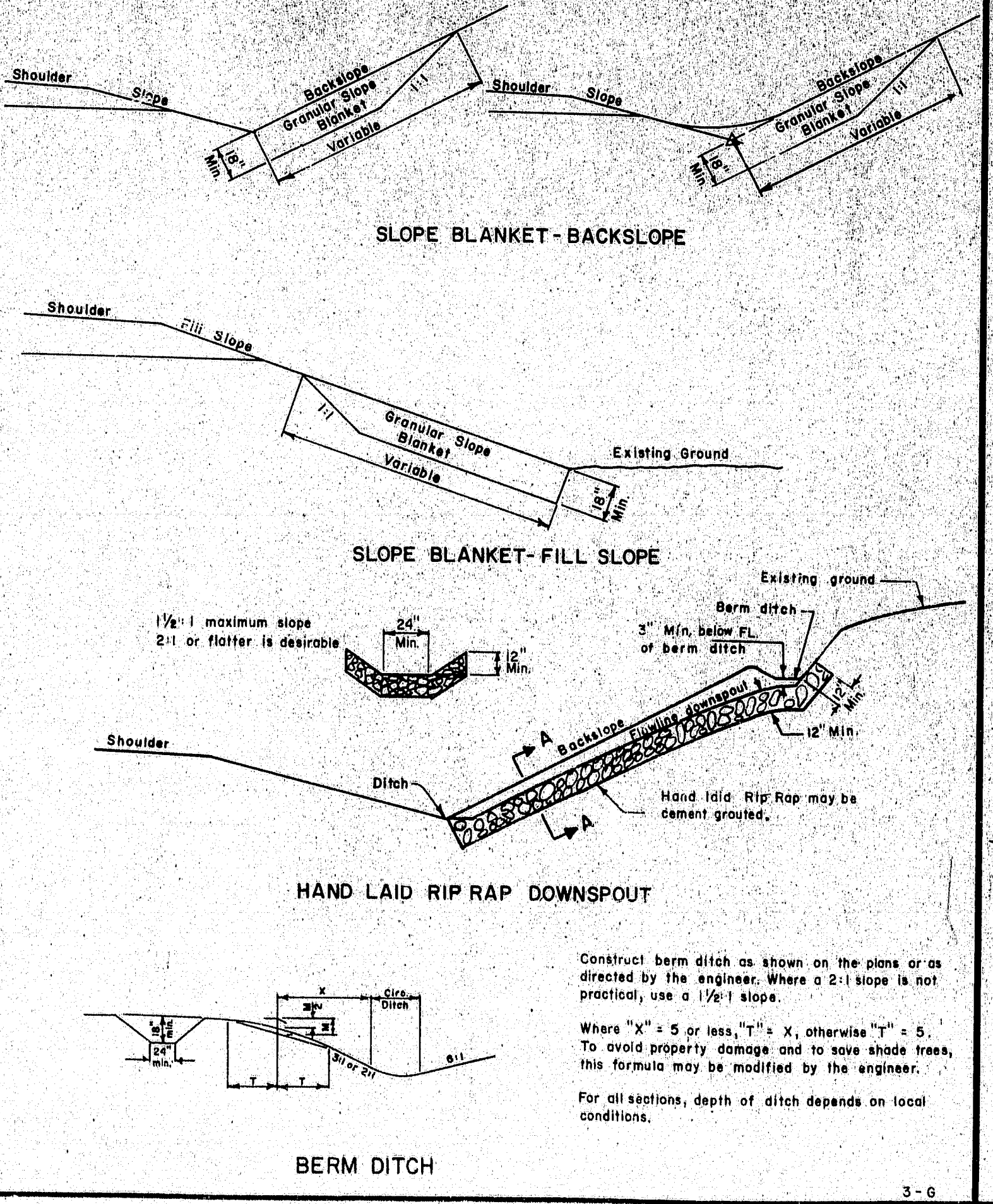
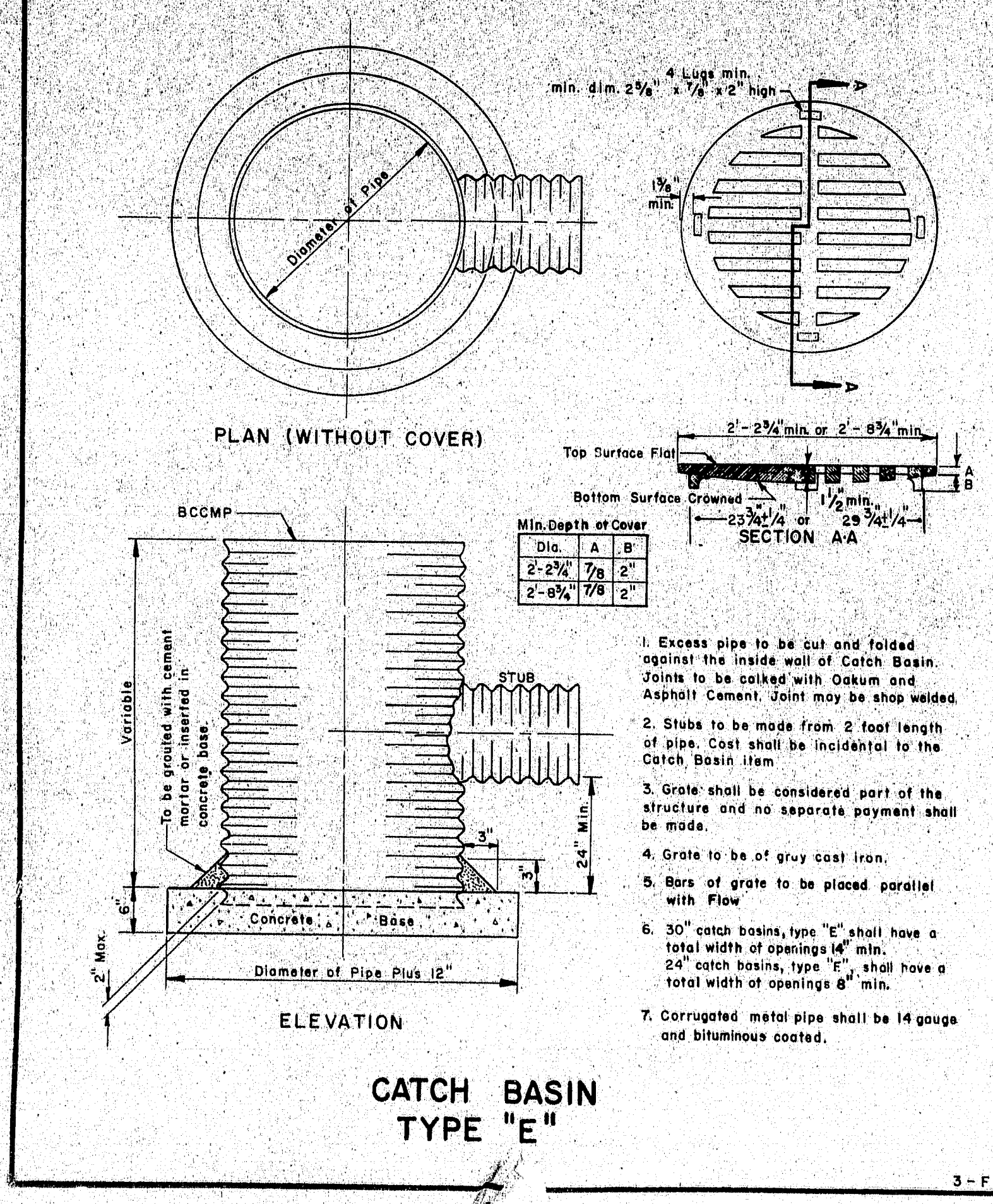
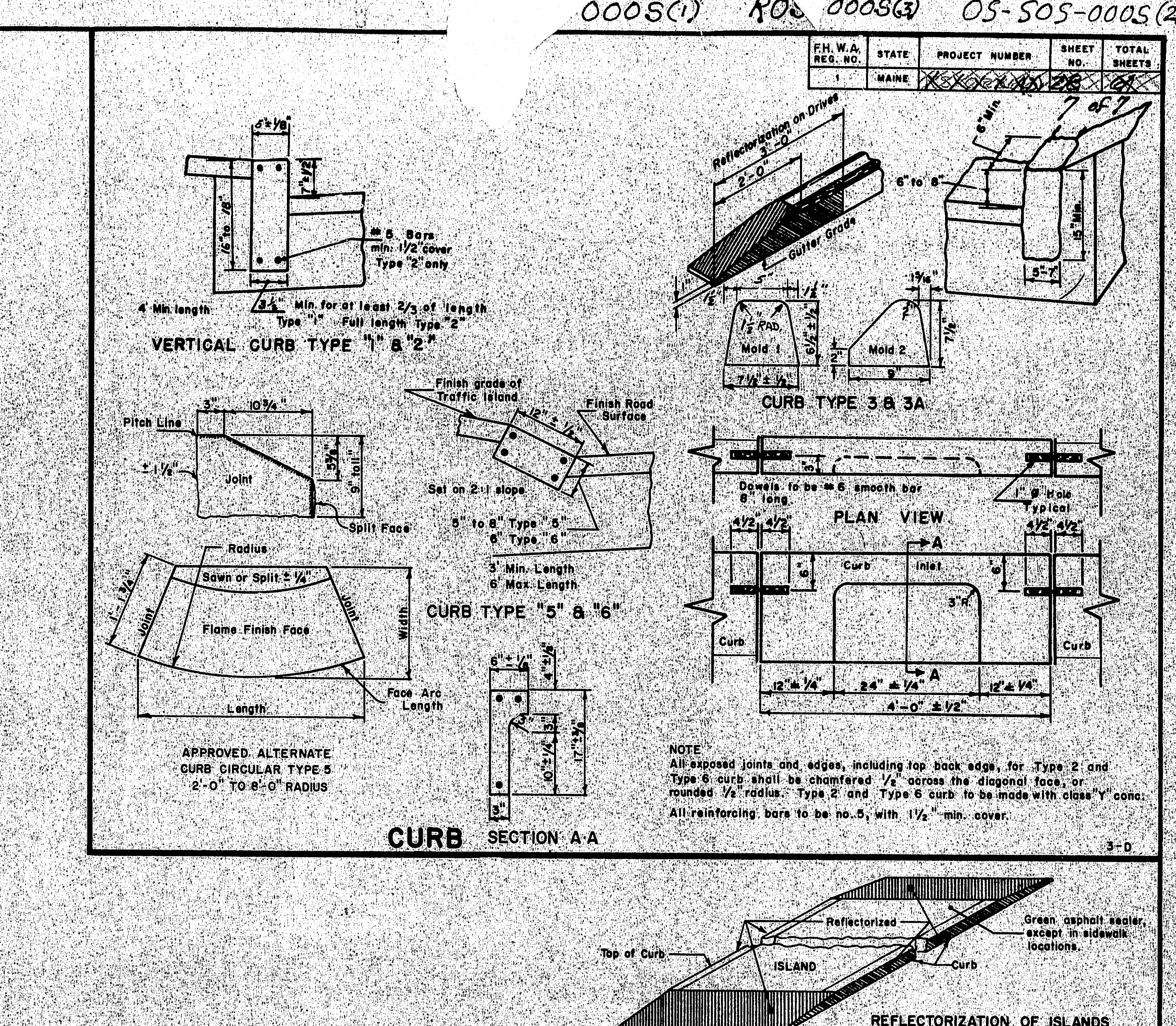
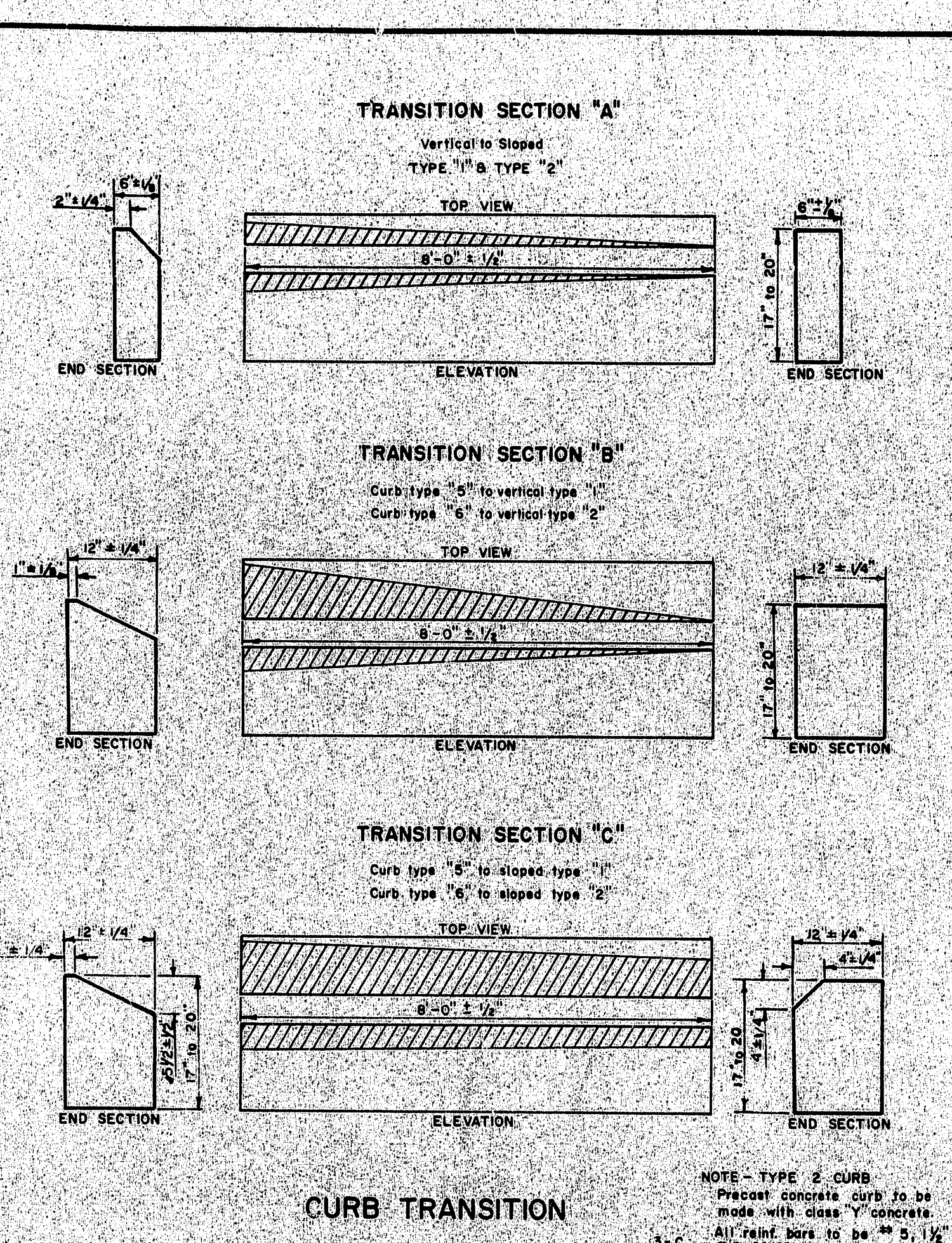
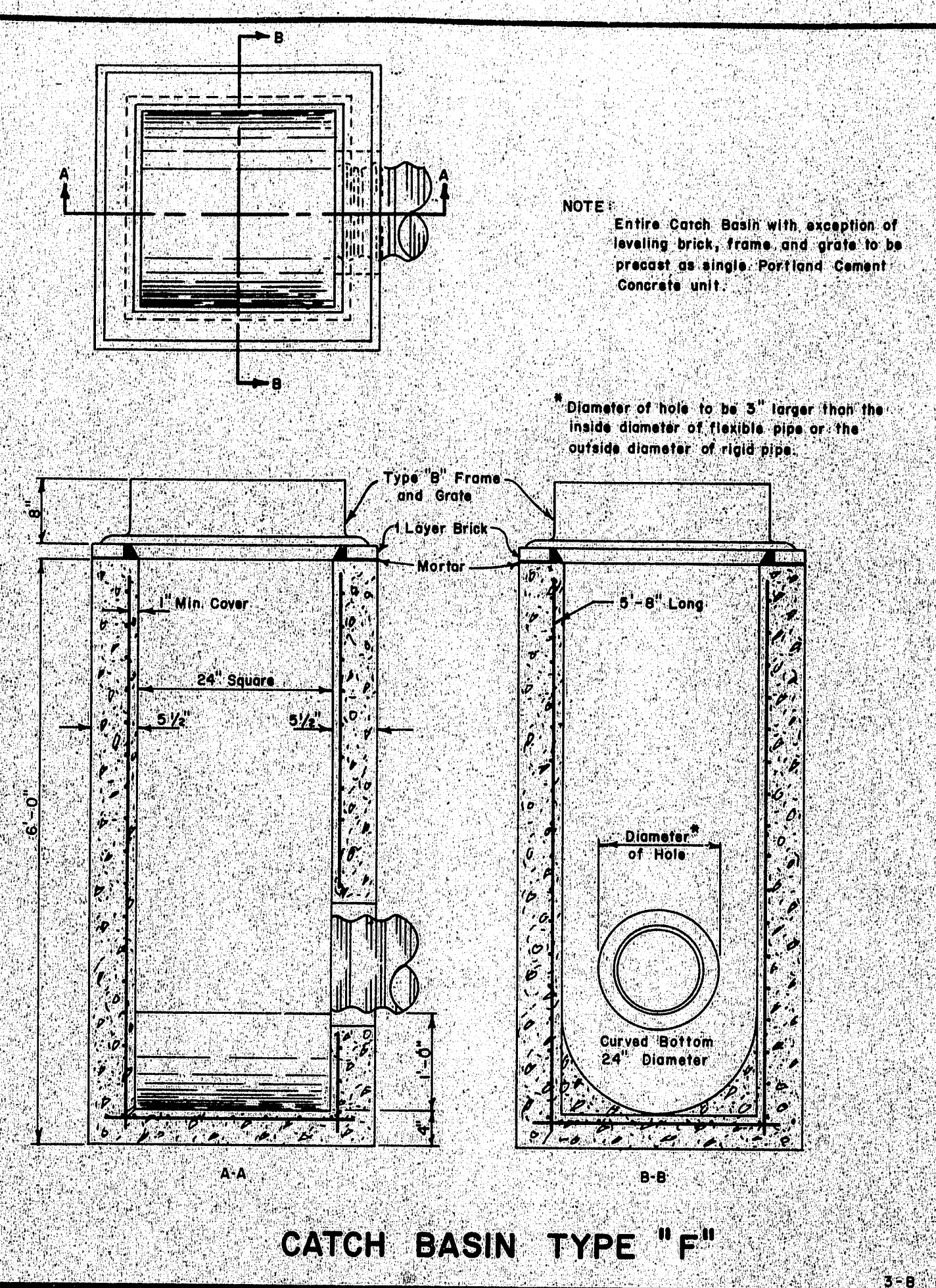
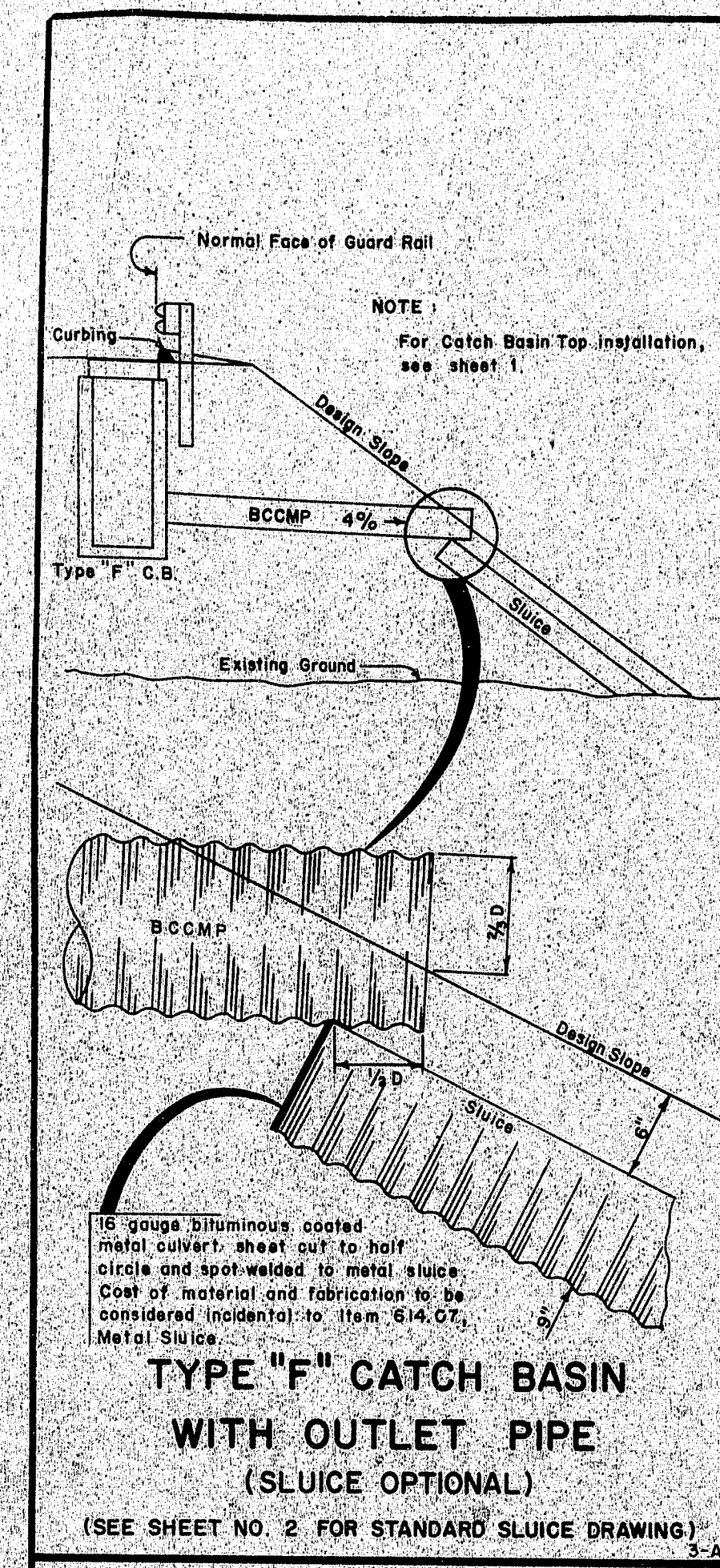
PLANS	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
BY	DATE			







CH. W. A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE		1	1



CURB TYPES (1 & 2), (5 & 6) ON CURVES				
RADIUS OF CURVE	LENGTH	PAID FOR AS	STONE IS CUT OR CAST	
0' to 60' incl.	4' Min.	Circular	3/4" to 1" Curve	
Over 60' to 160'	4' to 6'	Straight	Straight Pieces	
0' to 6' incl.	2' Min.	Circular	To Fit Curve	
Over 6' to 30' incl.	12' Min. Chord	Circular	Straight Pieces, Radial Ends	
Over 30' and Under 160'	2' to 3'	Straight	Straight Pieces	
160' and Over	3' to 6'	Straight	Straight Pieces	

TERMINAL CURB SECTION	
Top of Curb	2'-0" Nominal
6" Exposed Face	Gutter Grade
Limit of Payment	Limit of Payment
Curb Type 1 or 2	Terminal Section

TERMINAL SECTION TYPE "1" & "2"	
11'-0" ±	Top of curb Type 5 or 6
Edge of Pavement	

TERMINAL SECTION TYPE "5" & "6" (Use when shown on plate only)	
11'-0" ±	Top of curb Type 5 or 6
Edge of Pavement	

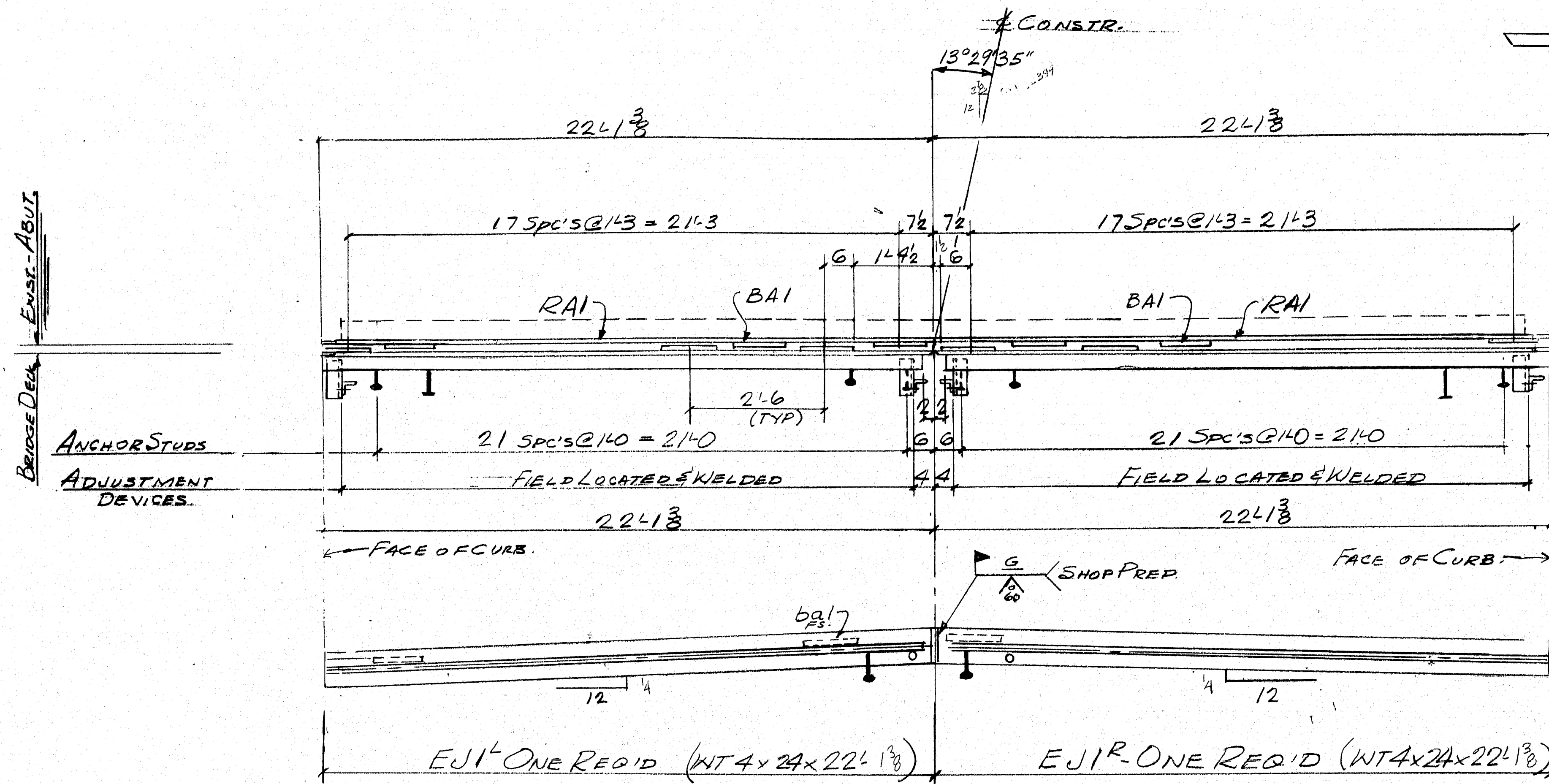
  

REVISIONS	
Plate 3-F	12-23-69
Plate 3-F	5-27-70
Plate 3-J	7-15-70
PLATE 3H	3-4-71
PLATE 3H	8-28-73
PLATE 3H	6-26-75
PLATE D	8-8-75
PLATE D-I	11-24-75
PLATE 3-D	7-31-76

STATE OF MAINE DEPARTMENT OF TRANSPORTATION AUGUSTA, MAINE	
<b>STANDARD DETAILS</b>	
CURB, DITCHES AND SLOPES, AND CATCH BASINS TYPE "E"	
AS BUILT	



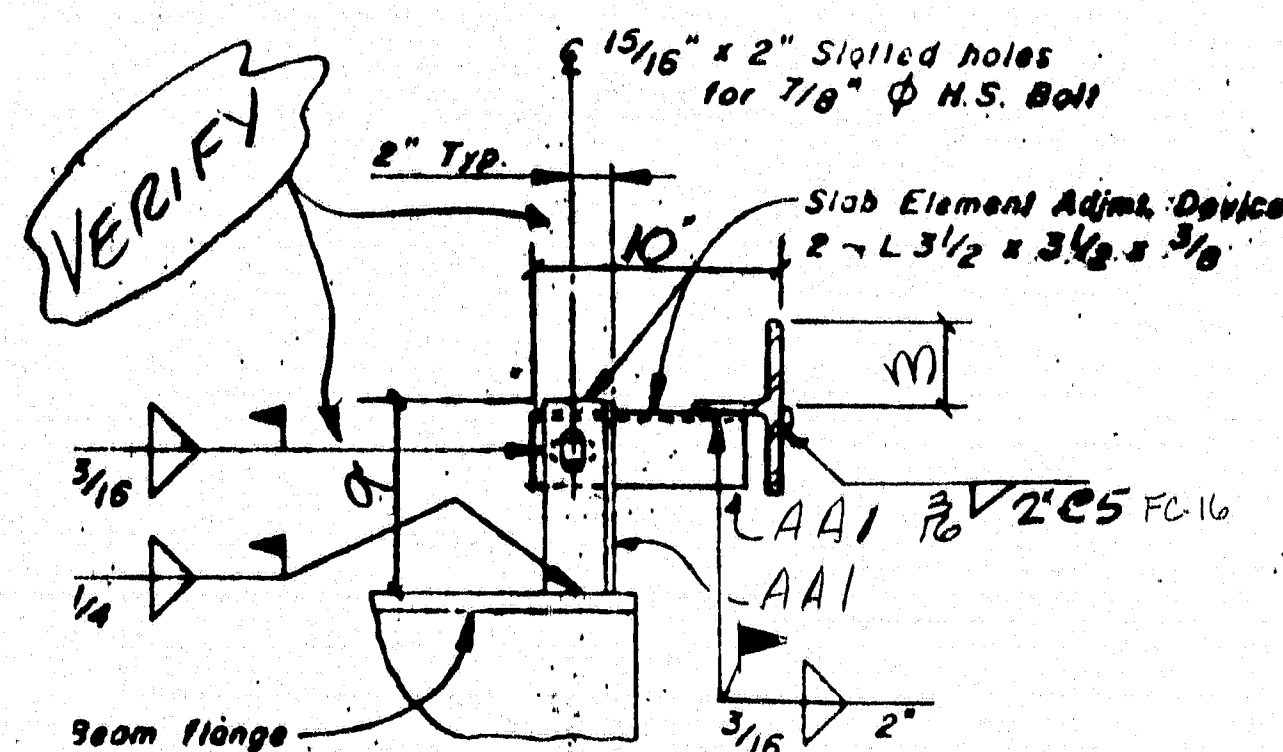


BILL OF MATERIAL				
QTY	MARK	SHAPE	LENGTH	REMARKS
1	EJI	WT 4x24	22'-1 3/8"	
1	EJI	DO	22'-1 3/8"	
18	BAI	BAR 1x3	1'-0"	
44	BSI	1/2" STUDS	1'-0"	
16	AAI	1/2" x 3/4" x 3/4"	9'	
8	FIELD	3 BOLTS	24'	W/NE 2 WASH
2	RAI	3/4" ROD	22'-1 3/8"	
18	BAI	BAR 1x3	1'-0"	
1	FIELD	COMP SEAL	50'-0"	DS BROWN #H-2502 W/ADHESIVE

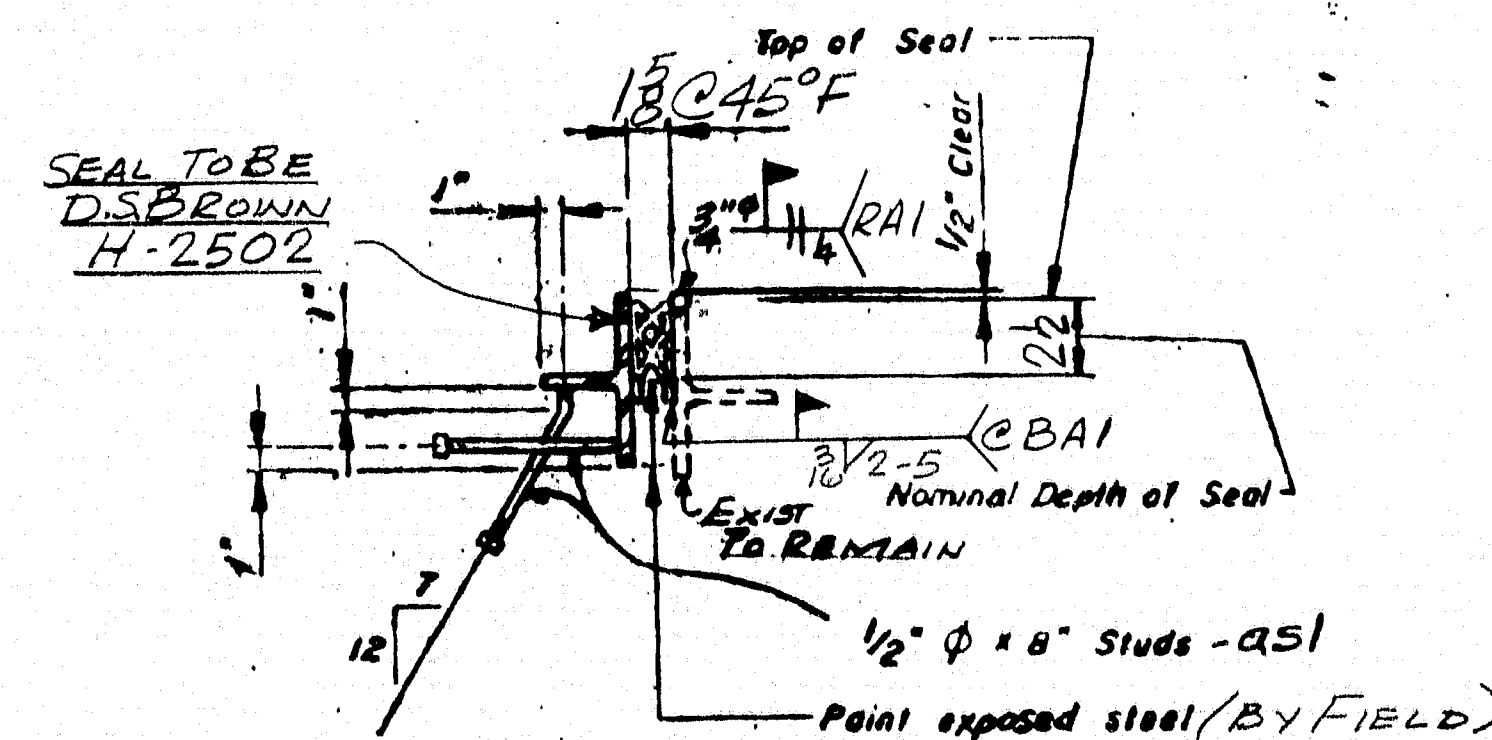
PIN No. 4158.00  
 PROJ No. IR-IM-95-9(130)  
 BRIDGE No. 6091  
 PAY ITEM No. 520-241

MATERIAL: ASTM A36 & AS NOTED  
 BOLTS: ASTM A325  
 HOLES: AS NOTED  
 ELECTRODES: SEE WELDING PROC.  
 SURFACE PREP: SSPC-SP6  
 PRIMER: NONE

105-300



ADJUSTMENT DEVICES



TYPICAL SECTION

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 CONSTRUCTION DIVISION  
☒ NO EXCEPTIONS TAKEN ☐ EXCEPTIONS NOTED  
 JUL 13 1992  
☐ RETURNED FOR CORRECTIONS ☐ REJECTED  
 DOCUMENT REVIEWED IN ACCORDANCE WITH SECTION 305  
 IF STANDARD SPECIFICATIONS  
 (Signature) TITLE

1 6/23 PER MAINE D.O.T.  
 REV. NO. DATE DESCRIPTION  
 HOLES AS NOTED  
 PAINT SEE NOTE ABOVE

DRAWING COVERS: ARMORED JOINT MOD. - TYPE I  
 ABUTMENT No. 1  
 DATE SUB. PROJECT I-95 SOUTHBOUND  
 OVER LINE RD.  
 LOCATION SMYRNA & LUDLOW, ME  
 ARCHITECT  
 ENGINEER STATE OF MAINE D.O.T.  
 CUSTOMER C.P.M. CONSTRUCTORS  
 MERRIMACK SHEET METAL  
 119 HALL ST.  
 CONCORD N.H.  
 03301  
 Tel. (603) 224-7766  
 Fax (603) 224-7925  
 DRAWN BY: JRF  
 CKD. BY  
 JOB NO. 5760  
 DWG. NO. 1



