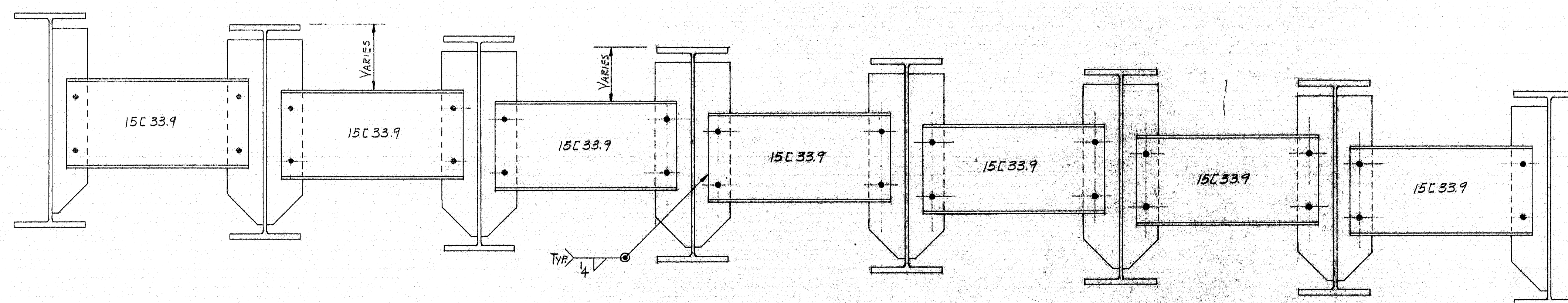
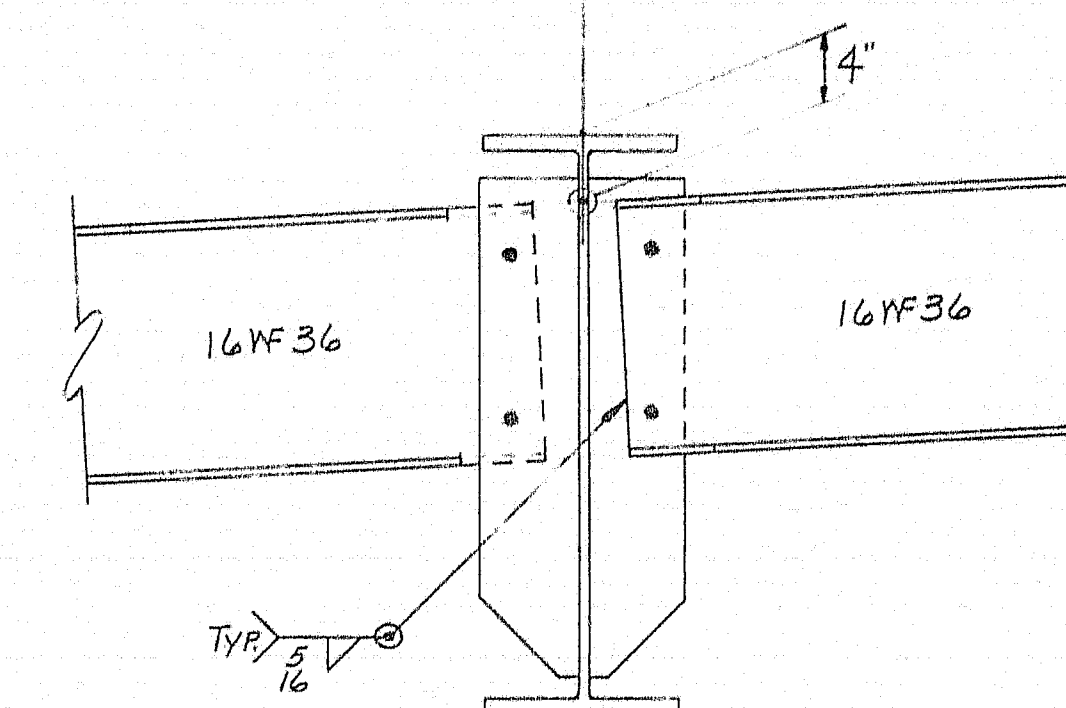


FRAMING PLAN



TYP. DIAPHRAGM CONNECTION

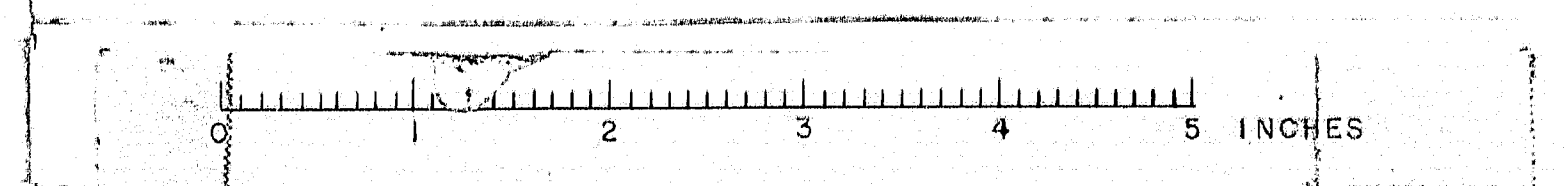


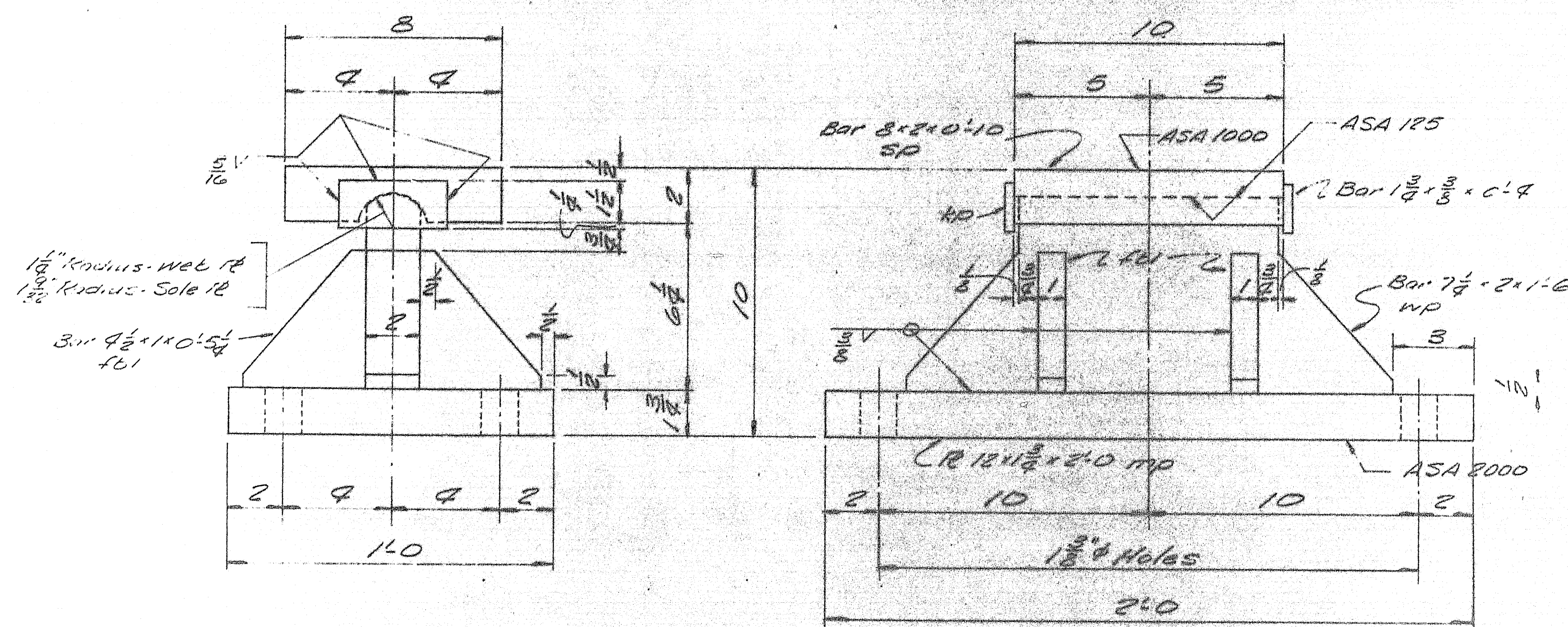
TYP. DIAPHRAGM CONNECTION

APP. AS NOTED 8-25-67

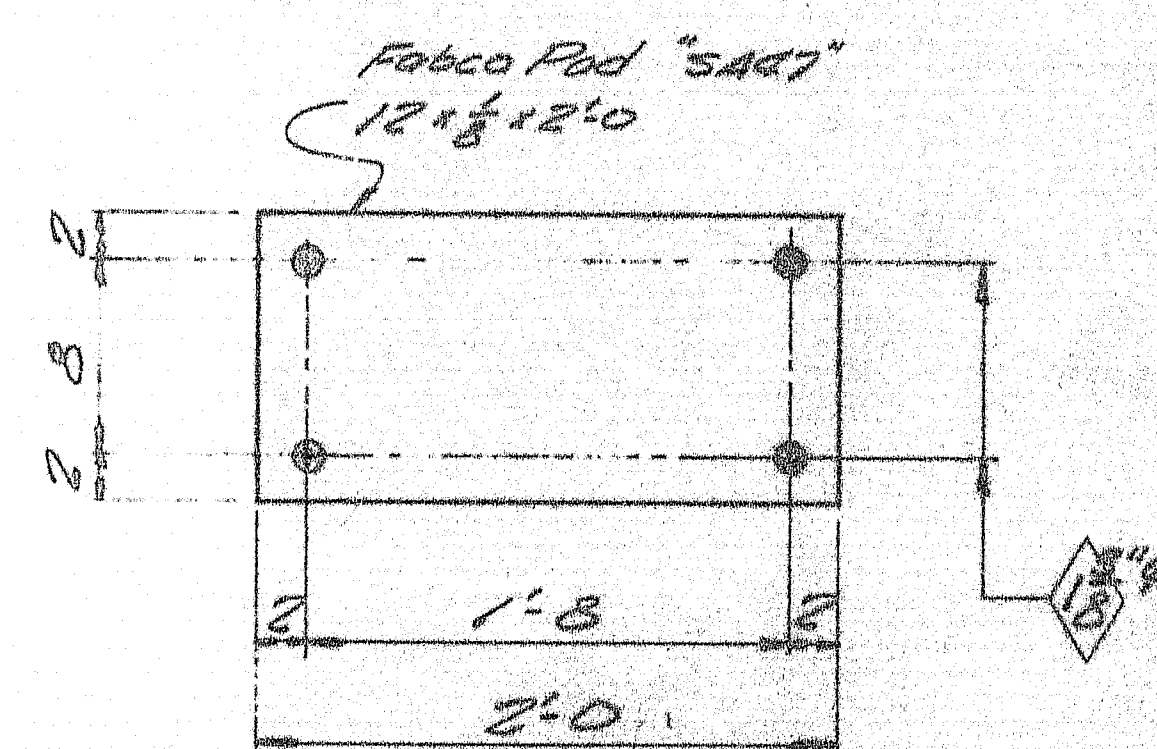
PRINT ISSUE			FRAMING PLAN	
1	S.H.C.	12-22-69	Bancroft & Martin Inc.	
3	S.H.C.	8-28-67	Brewers Maine	
3	CUST.	8-28-67	CARIBOU BY-PASS	
2	SHOP	8-28-67	CARIBOU, MAINE	
3	F.A.	8-9-67	CUSTOMER CIANCHETTE BROS.	
DRAWN	8-2-67 C.J.M.		DESIGNER M.S.H.C.	
REVISION			ORDER VERBAL	
REVISION			DWG. B67-224-E1	

103-121

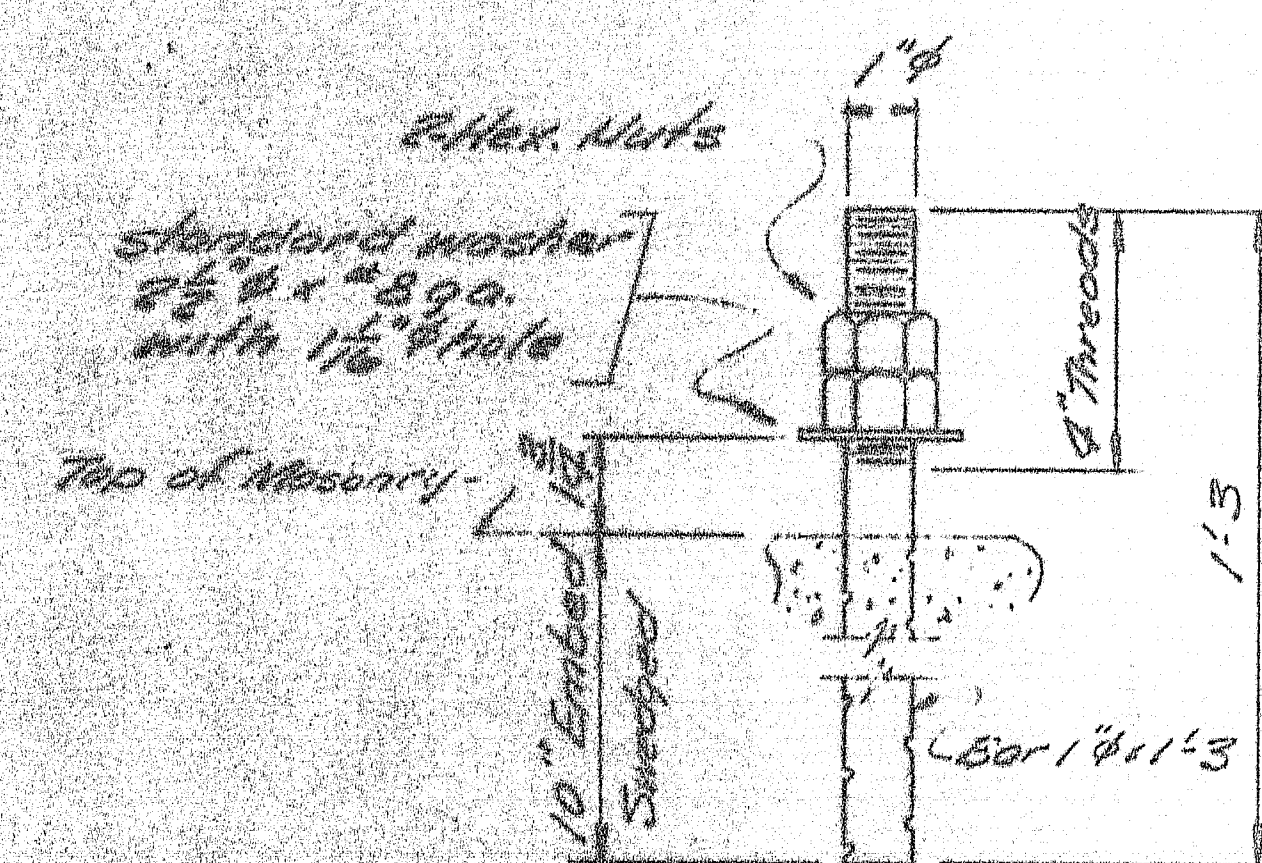




FIXED PEDESTAL FPC-4
8-REQ'D.



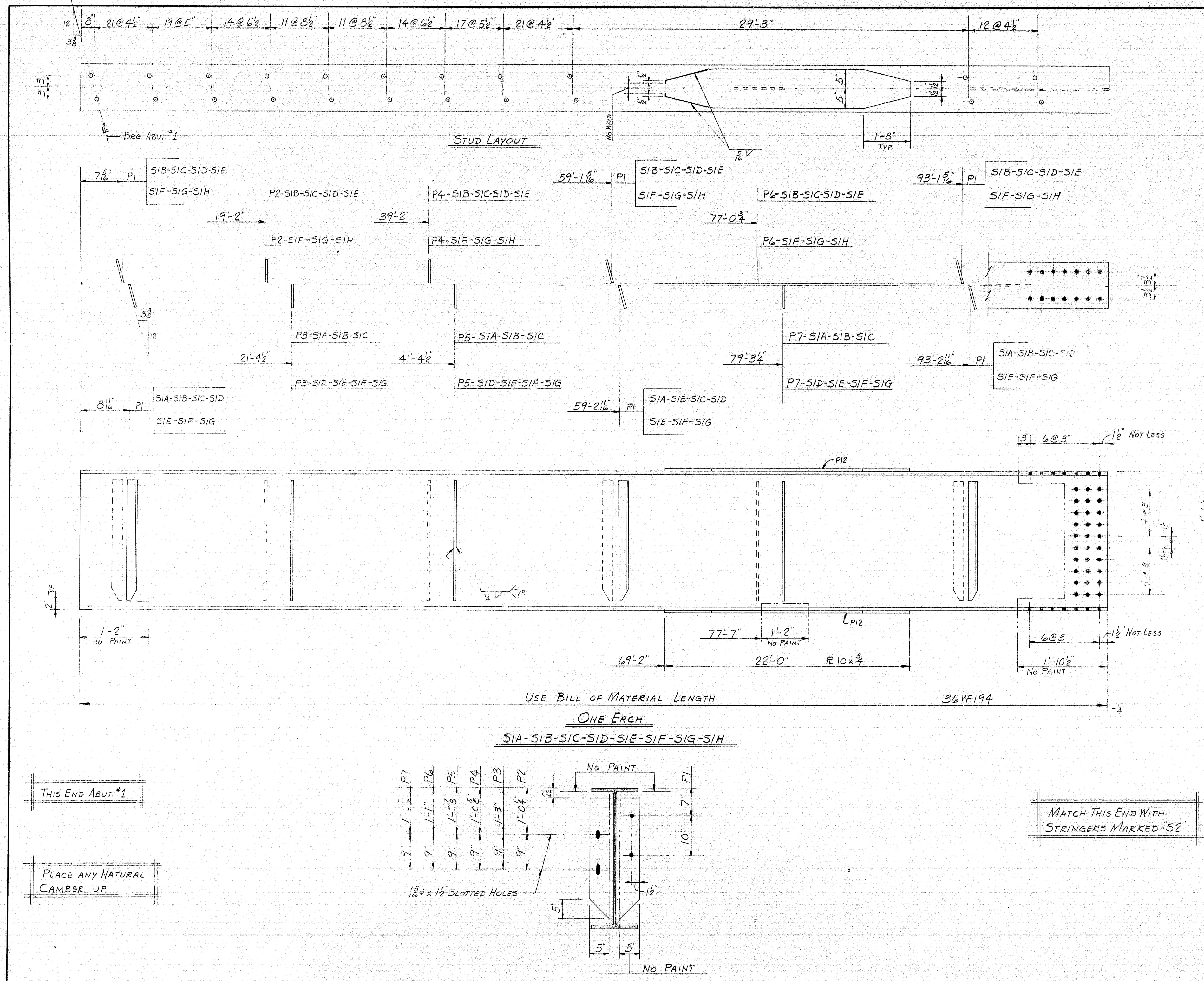
FABCO 'SAR7' PAD
FPI- 8-REQ'D.

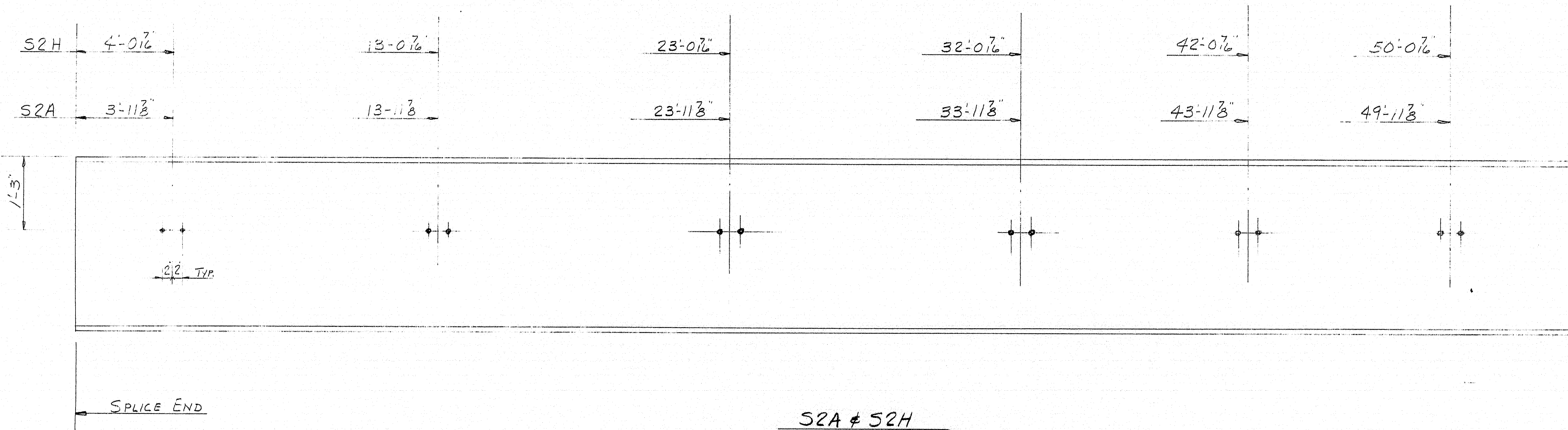
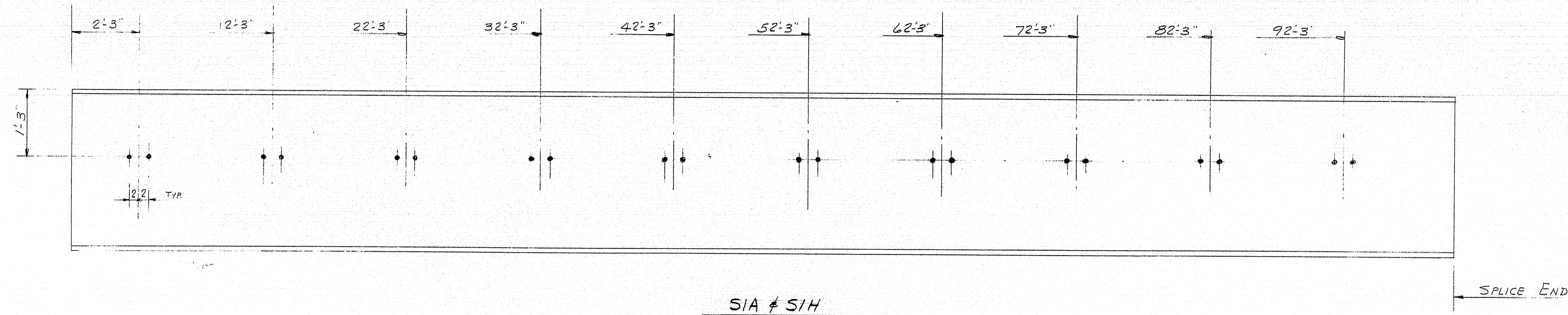


ANCHOR BOLT ABI
32-REQ'D.

PAINT NOTE:
No paint on top of sole plates 'sp'
and 1" down from top on sides, coat
with boiled linseed oil.
No paint on surface with ASA 125 finish,
coat with mixture of white lead and tallow.
No paint on Anchor Bolts - Oil Ends.

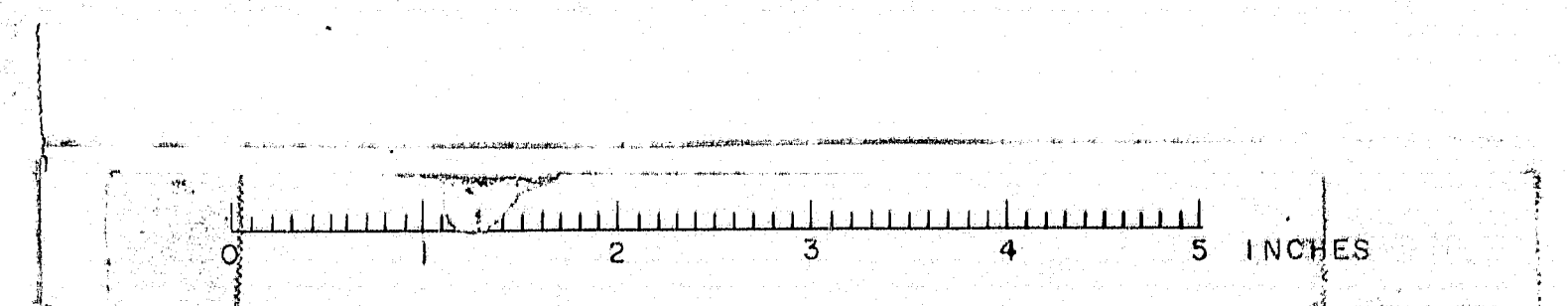
SHIP		BILL OF MATERIAL				DWG. NO. B-7-224-52
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
ITEM						
PROJECT NO. U-080-2(12)						
Sole plates 'sp' to be field welded to stringers.						
Bearing material to be ASTM A36, Anchor bolts to be A7, A36, or A307. All welds to be made with E70 Electrodes.						
SHOP CONNECTIONS: welded						
FIELD CONNECTIONS:						
HOLES: As noted						
PAINT: Red lead per Marine S.H.C. Spec., and as noted.						
APR 7-26-67						
BEARING PEDESTAL DETAIL						
Bancroft & Martin Inc.						
South Portland 1, Maine						
CARIBOU BY-PASS						
CARIBOU, MAINE						
CUSTOMER: CLANETTE Bros.						
DESIGNER: M.S.H.C. BRIDGE DIV.						
APR 7-26-67						
DRAWN: 7-24-67 C.J.M.						
REVISION						
REVISION						
REVISION						
REVISION						
ORDER NO. DWG. NO. B-7-224-52						

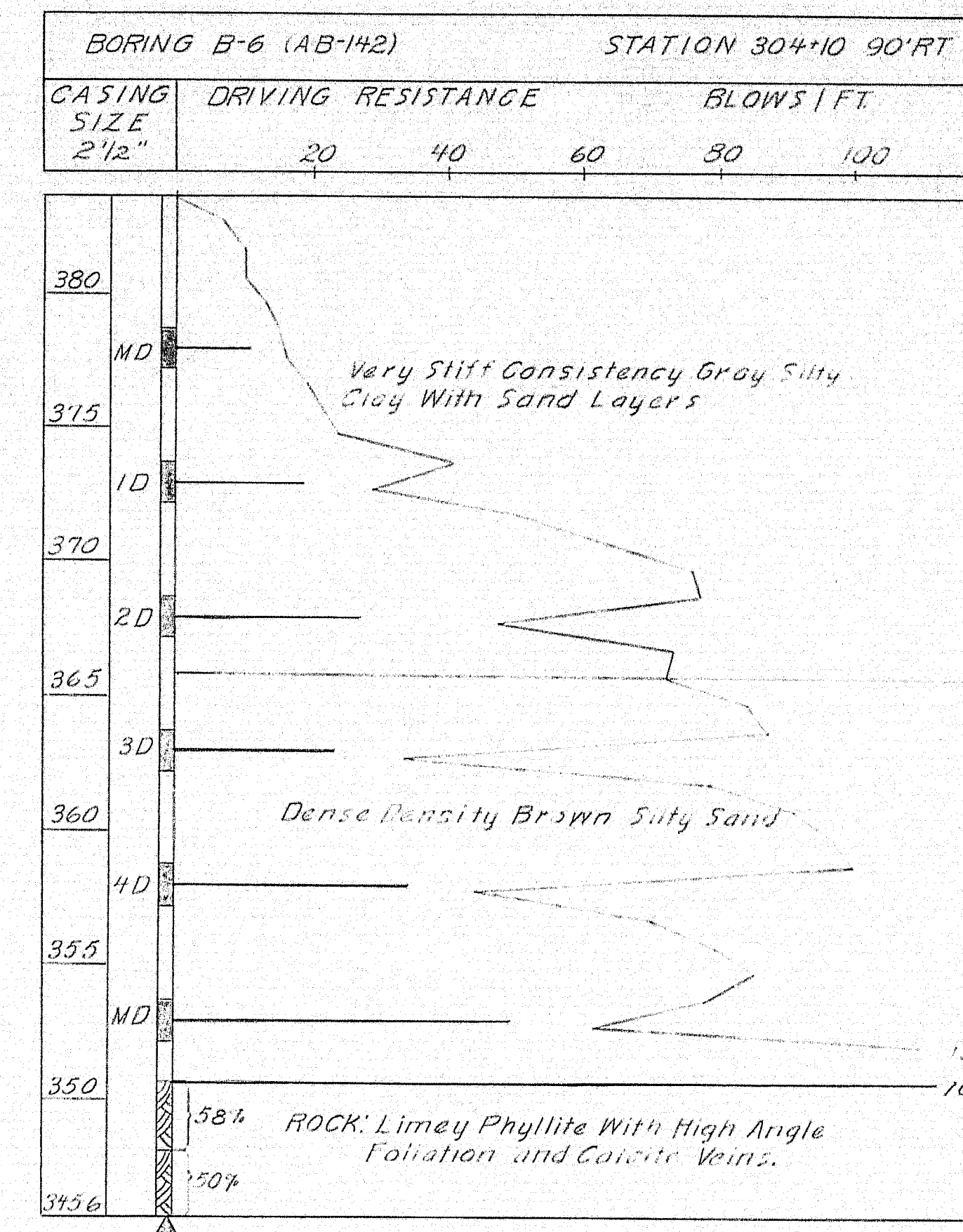
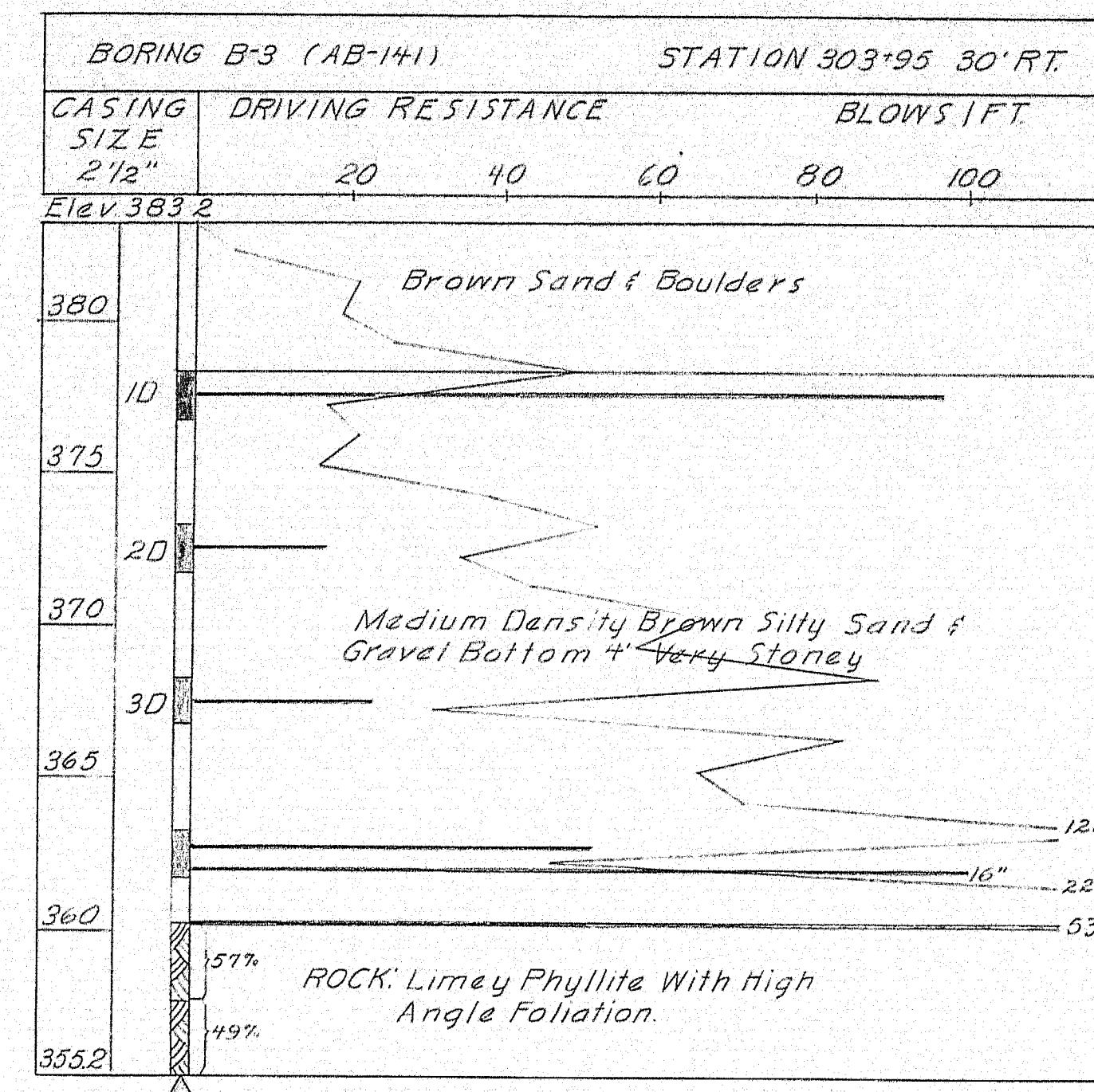
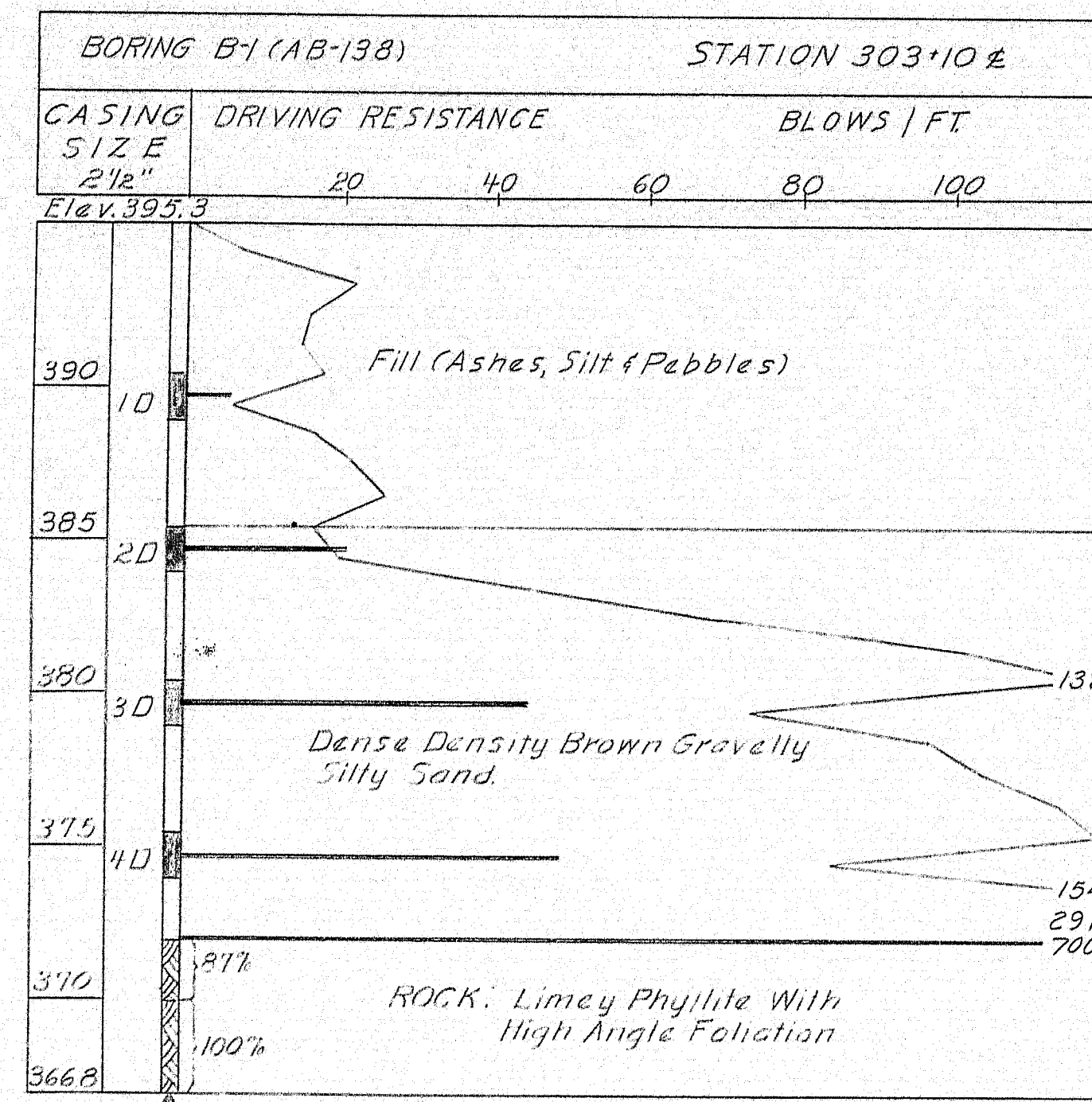




BRACKET HOLES		
PRINT ISSUE		
1	S.H.C.	12-22-69
2	SHOP	9-11-67
DRAWN	9-11-67 C.J.M.	
REVISION		
REVISION		
ORDER		DWG. B67-224-X1

183 127





BORING NOTES

2 Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow.

1D Location of sample or sample attempt. Number and type of dry sample.

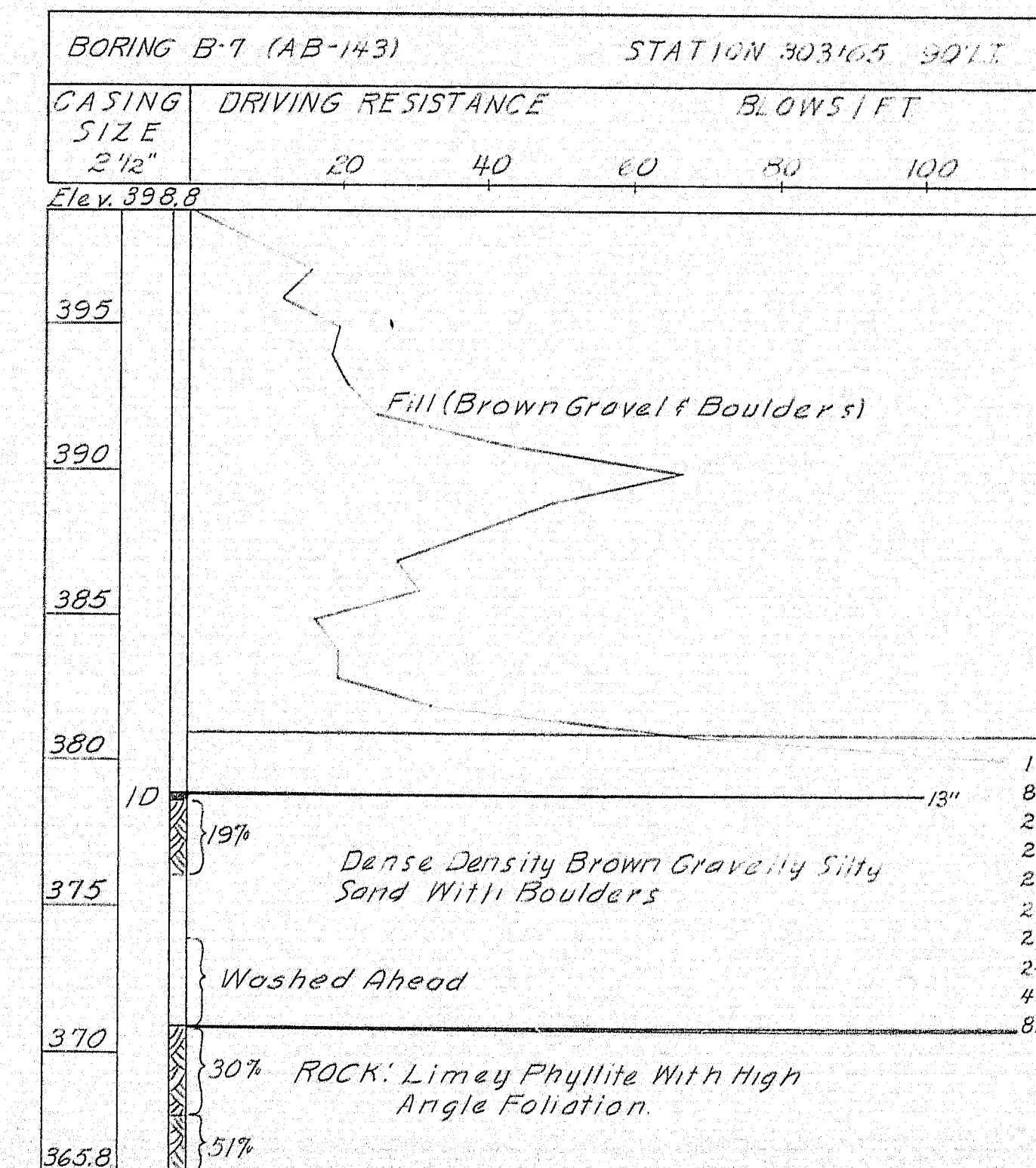
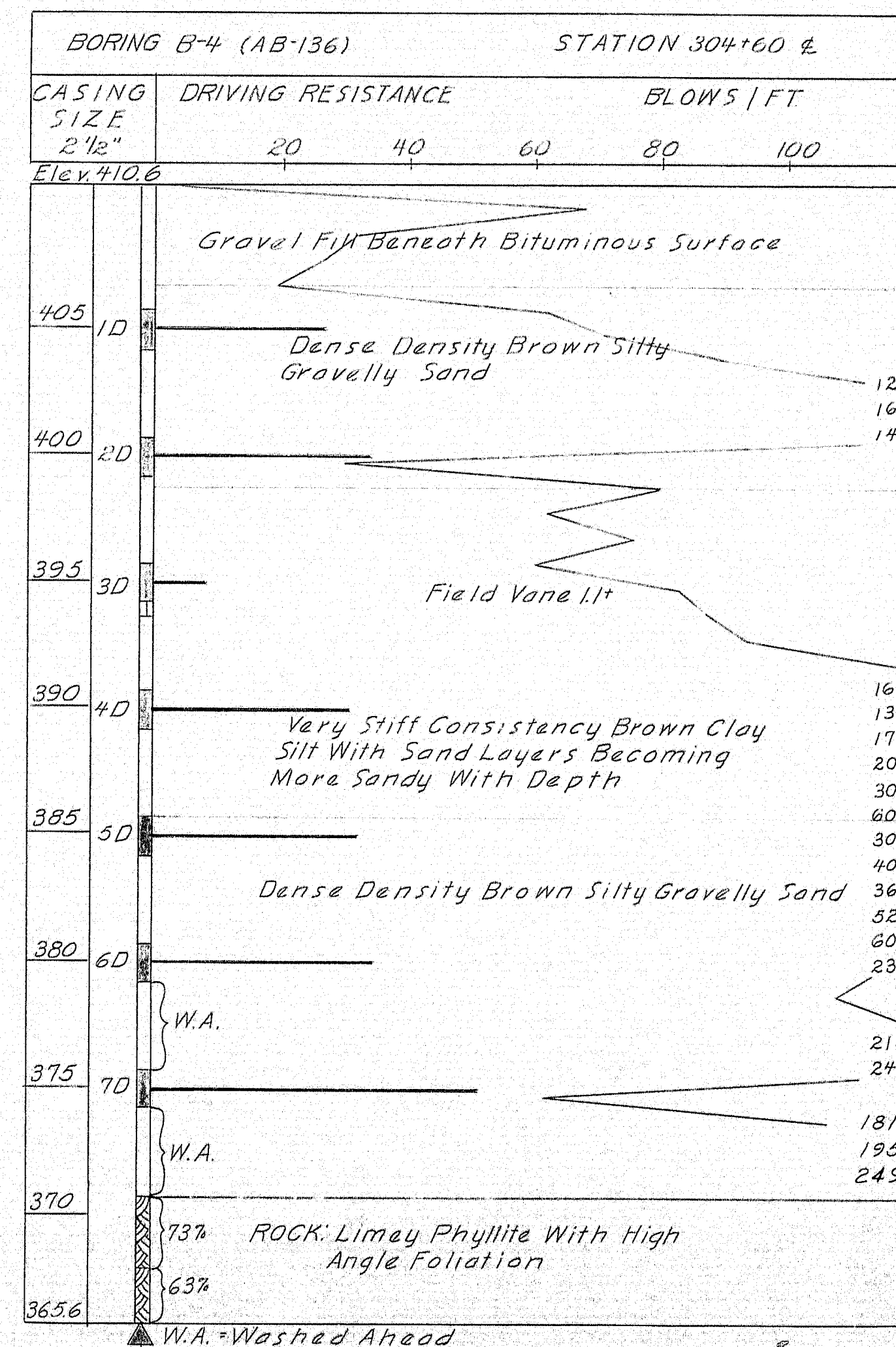
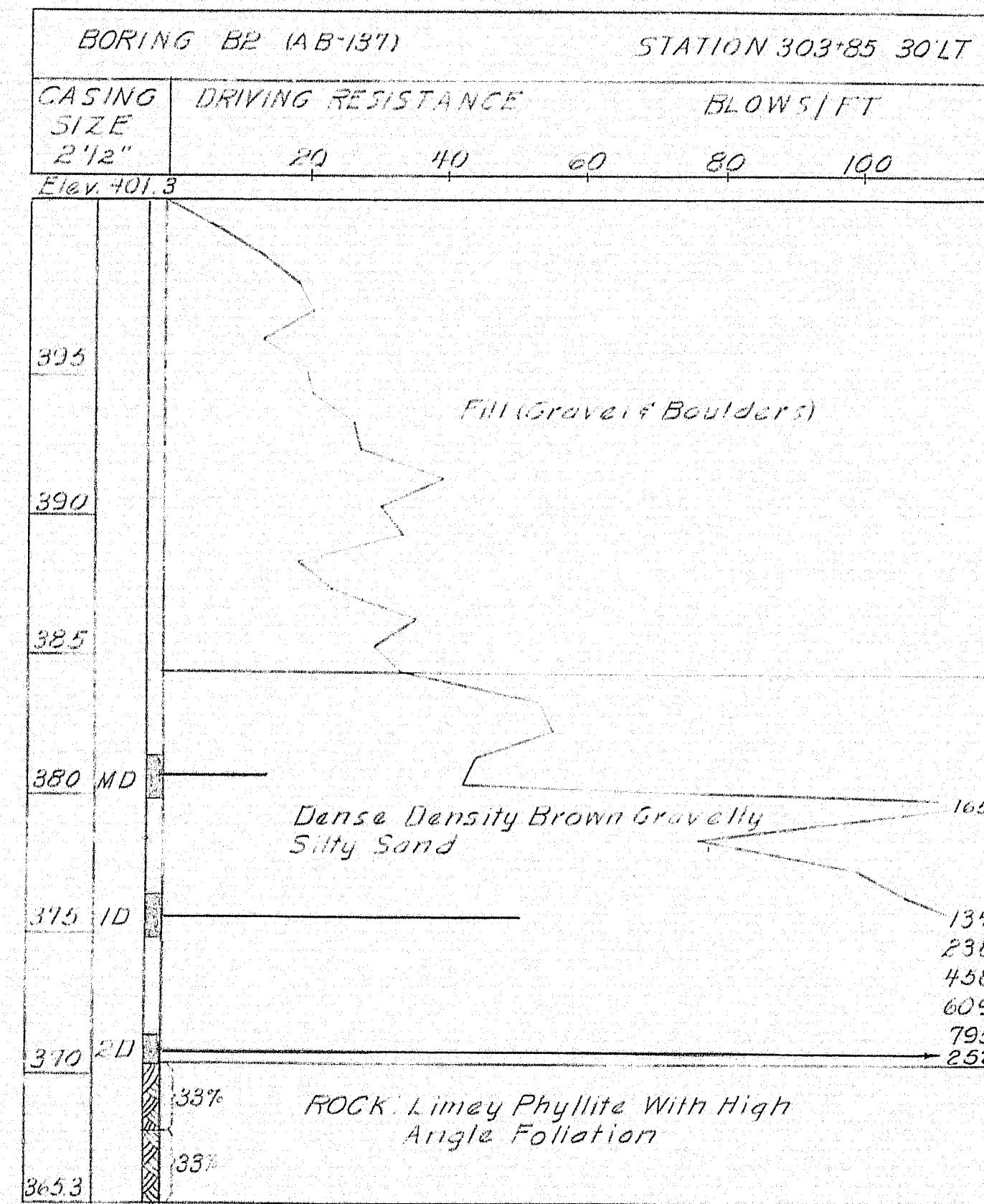
1D 5' H Sampler #1290's

MD Unsuccessful sample attempt and type of sampler.

Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow.

Bottom of boring (may not be bottom of soil strata).

71% Locations cored by diamond bit and per cent recovery of rock.



NOTE:
For plan, elevation, and sections, see Sheet 2

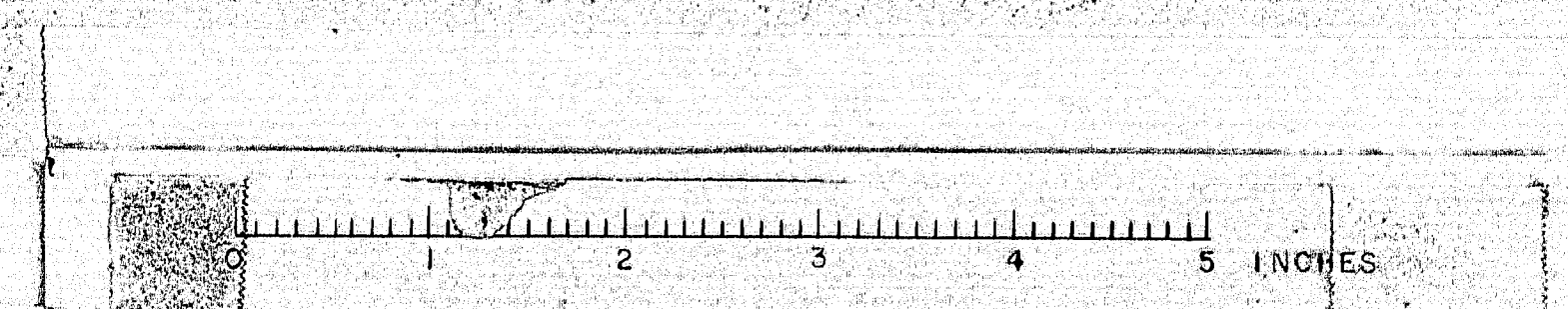
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

DESIGN -
TRACE -
CHECK - P.R.N.

DETAIL G.F.K.

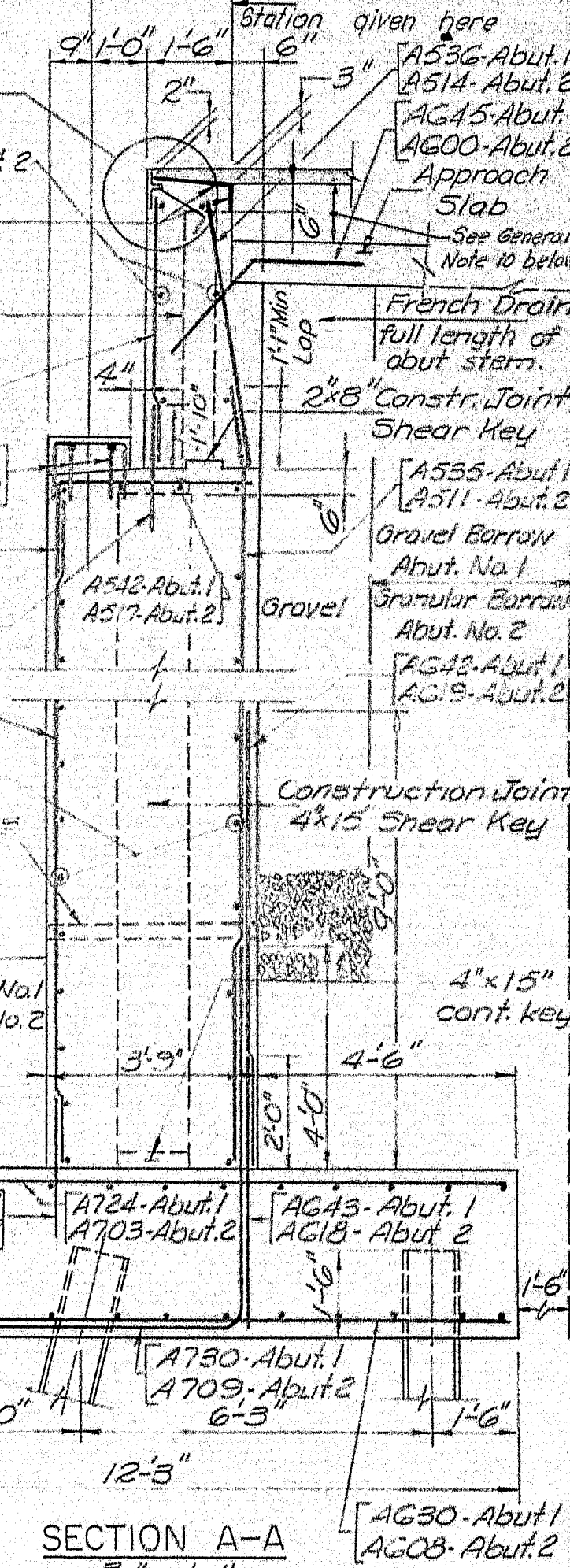
BRIDGE NO.
SURVEY -
PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
U.S. ROUTE 1
CARIBOU BY-PASS
OVER
WATER STREET & CARIBOU STREAM
IN THE TOWN OF
CARIBOU
AROOSTOOK COUNTY
FOUNDATION SURVEY
SHEET 3 OF 13 AUGUSTA, MAINE DEC. 1965
CARIBOU (12) CONT. III



S. P. R. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	U-050-2(12)	22	81

CONTRACT III
Back of Backwall Station given here

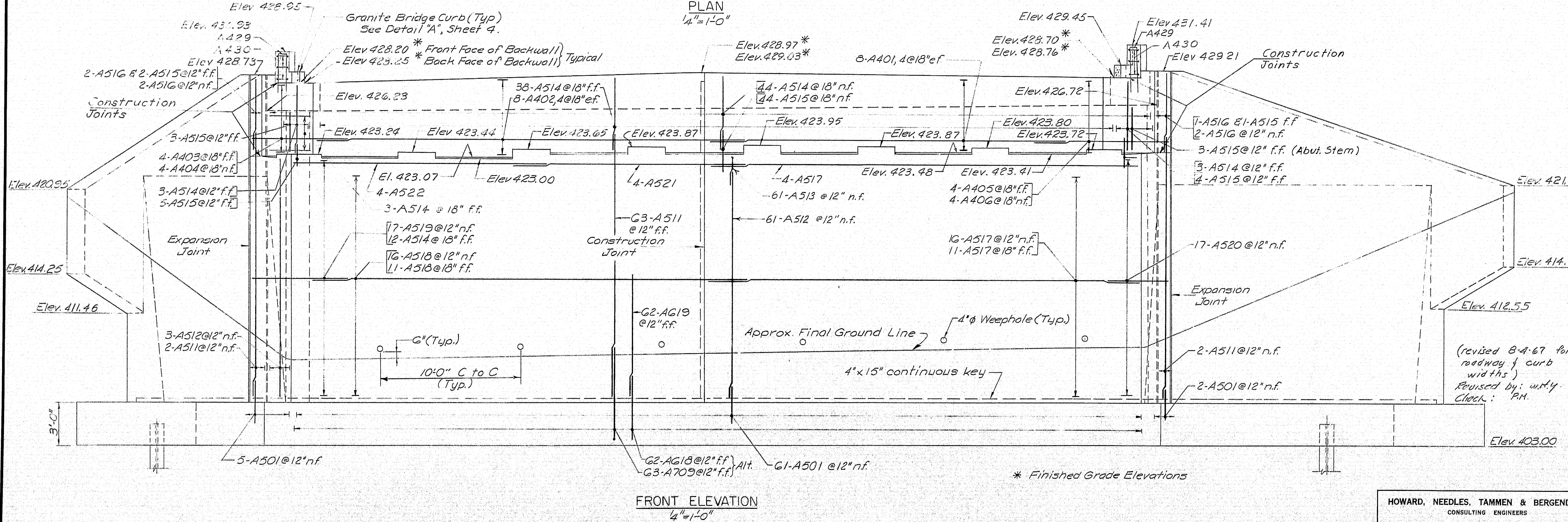
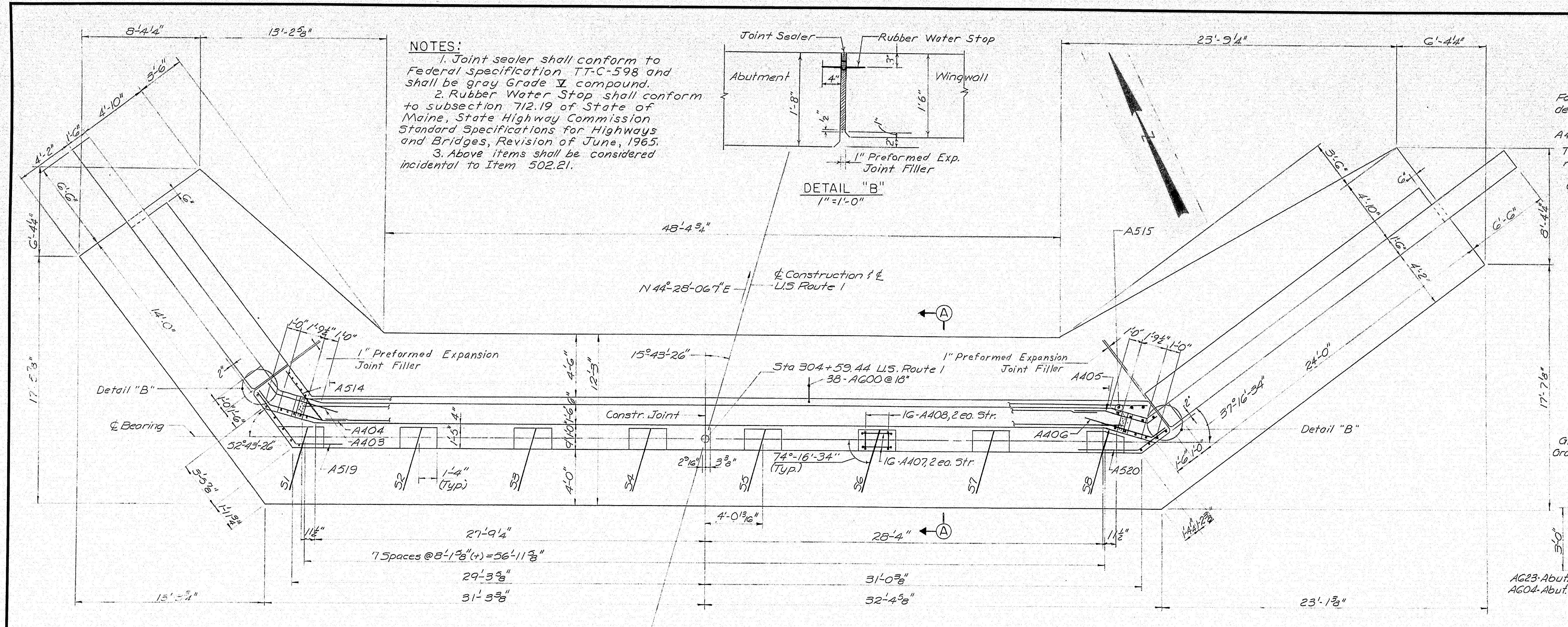
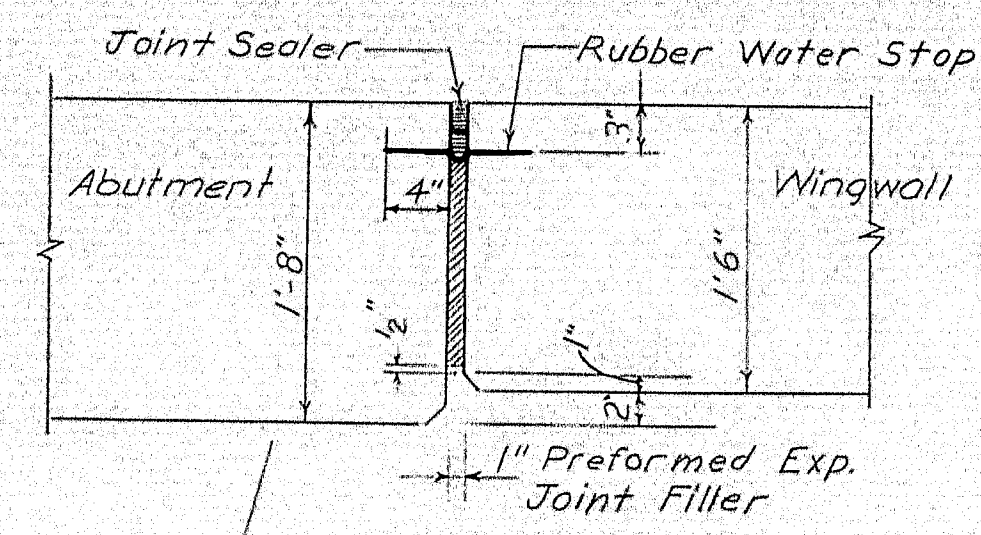


- GENERAL NOTES:**
- For approach slab details see sheet 4
 - Point bridge seat, face of backwall, and down to 1'-0" below top of final ground line on face and end of breast wall with gray epoxy resin surface sealant
 - Abutment breastwalls and wingwalls shall be finished in accordance with subsection 502.14 (d) 2. IV & V.
 - Place reinforcing to clear anchor bolts.
 - For additional wingwall details see sheet 7.
 - Reinforcing steel to have 5" minimum cover, unless otherwise noted.
 - n.f. denotes near face, f.f. denotes far face and e.p. denotes each face
 - For Footing Plan, see sheet 6
 - Cover the vertical construction joint on the backside with 2 layers of heavy roofing 10" wide. Bond the layers together and to the concrete with a suitable grade of roofing cement. Recess the vertical oops to be covered 4". Point vertical construction joints with a suitable grade of asphalt paint to break bond.
 - At material between 3" Hot Bit Pav. and Approach Slabs shall be Plant Mix Bit Base Course (Grading 8) Item 501.07

DESIGN - E.F.K. DETAIL - R.W.O.L. BRIDGE NO. SURVEY - PLOT -
CHECK - P.R.N.

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
U.S. ROUTE 1
CARIBOU BY-PASS
OVER
WATER STREET & CARIBOU STREAM
IN THE TOWN OF
CARIBOU
AROOSTOOK COUNTY
ABUTMENT NO. 2

- NOTES:**
- Joint sealer shall conform to Federal Specification TT-C-598 and shall be gray Grade I compound.
 - Rubber Water Stop shall conform to subsection 712.19 of State of Maine, State Highway Commission Standard Specifications for Highways and Bridges, Revision of June, 1965.
 - Above items shall be considered incidental to Item 502.21.

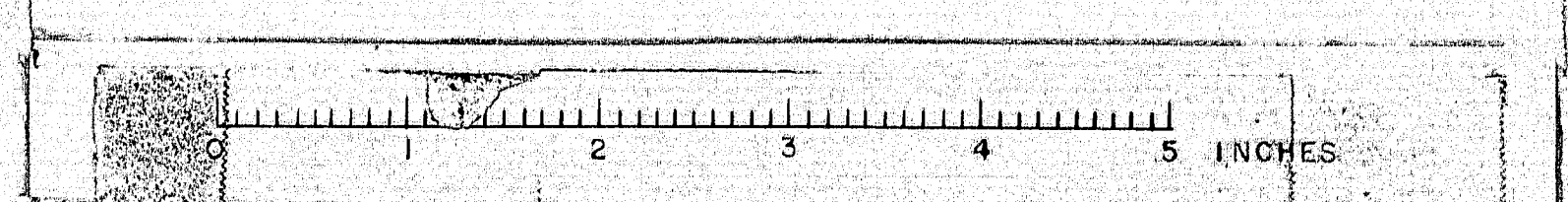


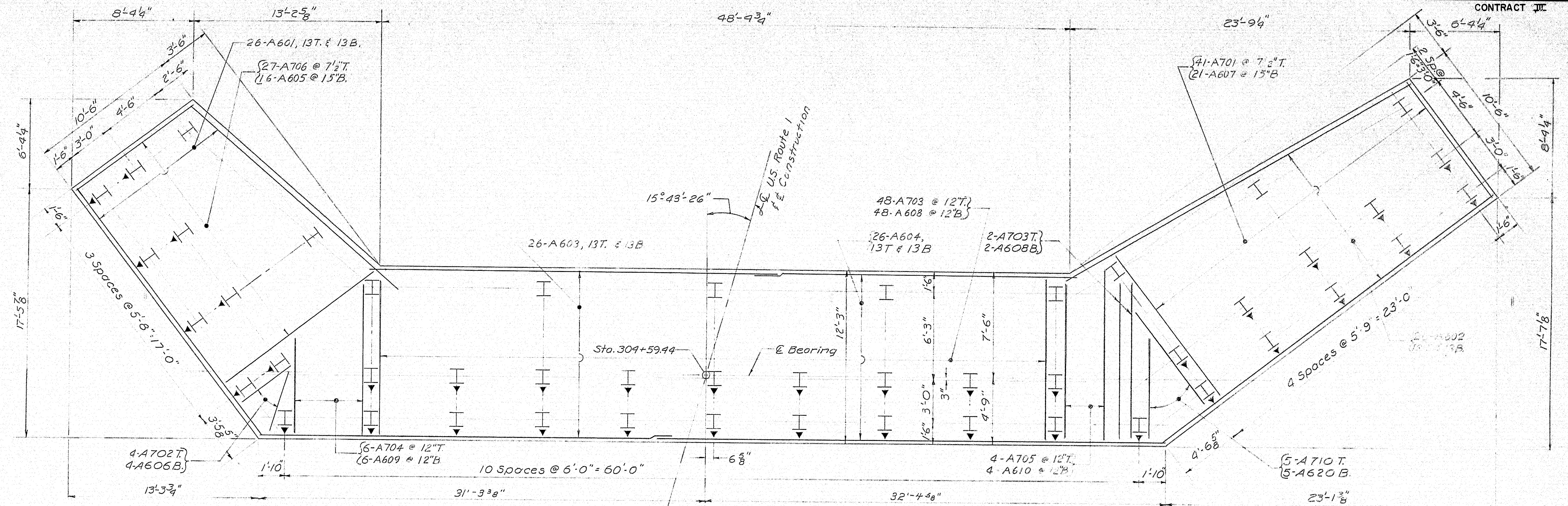
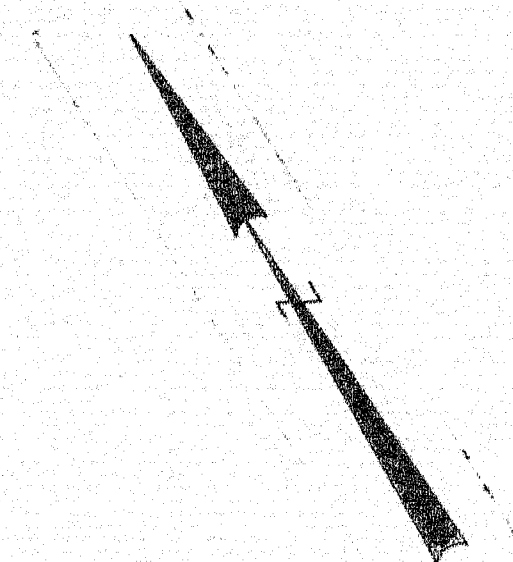
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

NEW YORK BOSTON KANSAS CITY

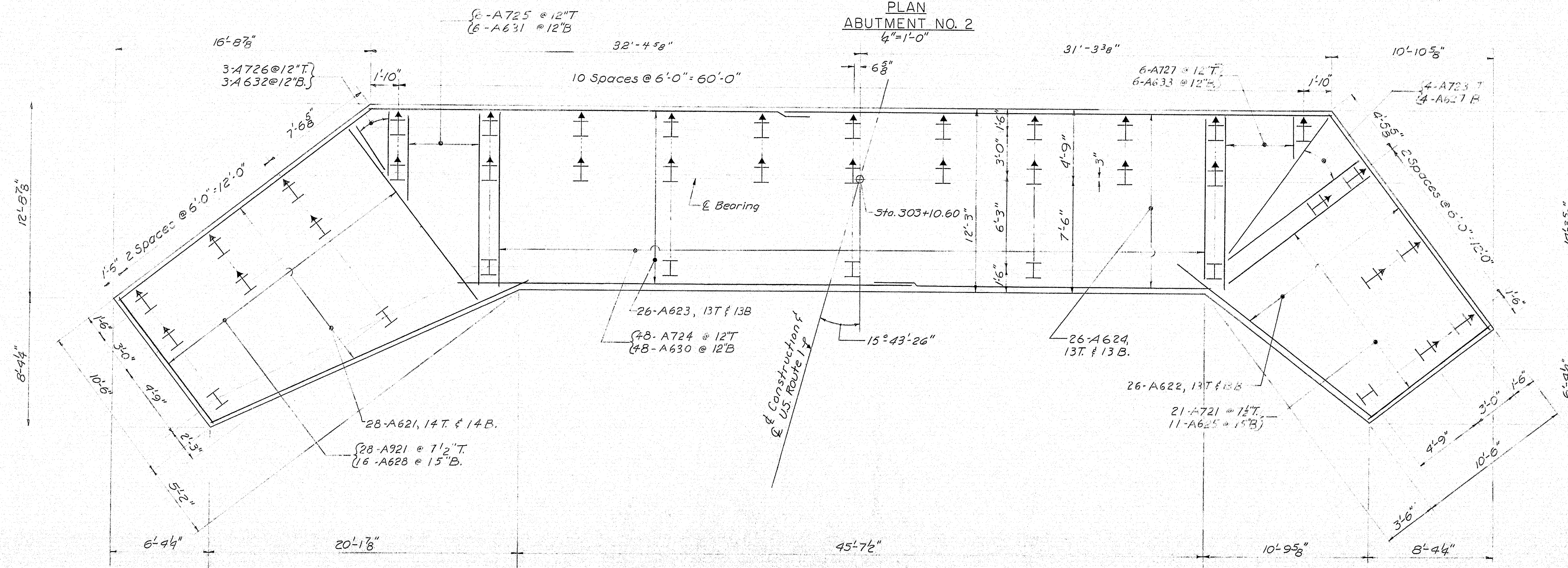
SHEET 5 OF 13 AUGUSTA, MAINE DEC. 1965

CARIBOU (12) CONT. III





PLAN
ABUTMENT NO. 2
1/4" = 1'-0"



PLAN
ABUTMENT NO. 1
1/4" = 1'-0"

- NOTES:
1. For Abutment No. 1 details, see Sheet 4.
 2. For Abutment No. 2 details, see Sheet 5.
 3. For Wing Wall details, see Sheet 7.
 4. Reinforcing steel to have 3" cover, unless otherwise shown.
 5. For Layout See Sheets 4, 5, & 7.

- PILE NOTES:
1. I Indicates Vertical Piles.
 2. I Indicates Battered Piles, battered 3:12 in direction of arrow.
 3. Piles to be driven to ledge or practical refusal to develop bearing.
 4. All piles are 10BP42 with a capacity of 55 tons.
 5. Estimated pile length:
Abutment No. 1 - 23 @ 30' & 21 @ 35'
 6. Abutment No. 2 - 25 @ 34'
 6. See Sheet 8 for p. & point detail.

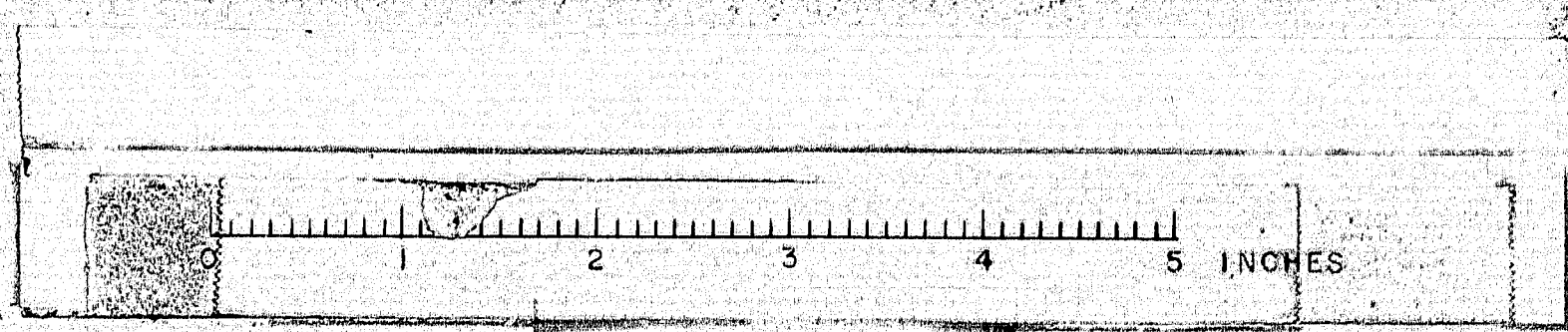
DESIGN - E.F.K.	DETAIL - R.R.S.	BRIDGE NO.
TRACE - P.R.N.	PLOT -	
STATE HIGHWAY COMMISSION BRIDGE DIVISION U.S. ROUTE 1 CARIBOU BY-PASS OVER WATER STREET & CARIBOU STREAM IN THE TOWN OF CARIBOU ARROOSTOOK COUNTY ABUTMENT FOOTINGS		

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

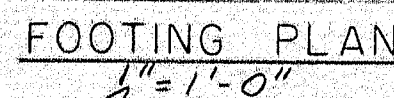
NEW YORK BOSTON KANSAS CITY

SHEET 6 OF 13 AUGUSTA, MAINE DEC. 1965

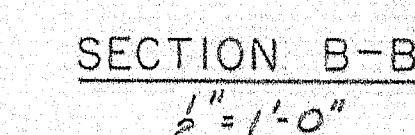
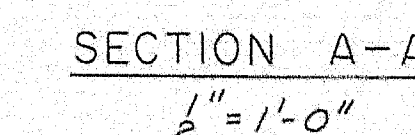
M-2660 CARIBOU (12) CONT. 11



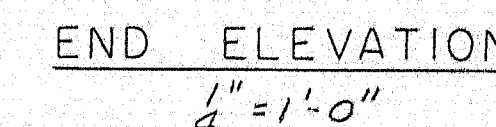
CONTRACT III





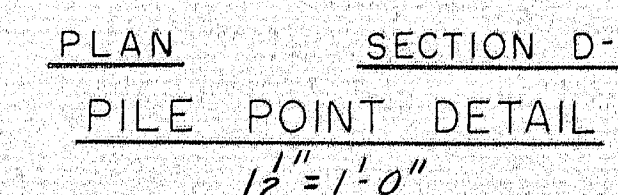
BEAM	ELEVATION
51	420.95
52	420.95
53	420.96
54	420.98
55	420.96
56	420.88
57	420.80
58	420.72



- NOTES:
1. Reinforcing steel to have 2" minimum cover unless otherwise shown.
 2. All exposed corners to have 1" chamfer.
 3. All exposed surfaces of the pier except the top of the pier cap shall be given a rubbed finish.
 4. Place reinforcing to clear anchor bolts.



- PILE NOTES:
1.  Indicates vertical piles.
 2.  Indicates battered piles 3:12 batter in direction of arrow.
 3. All piles 10BP42, 55 Ton Capacity.
 4. Estimated Pile Length ; 5 @ 20' ; 5 @ 30'
 5. Piles to be driven to ledge or practical refusal to develop end bearing.

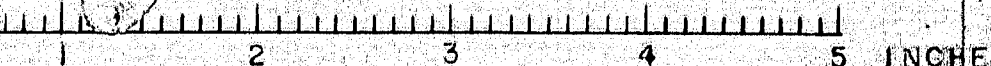


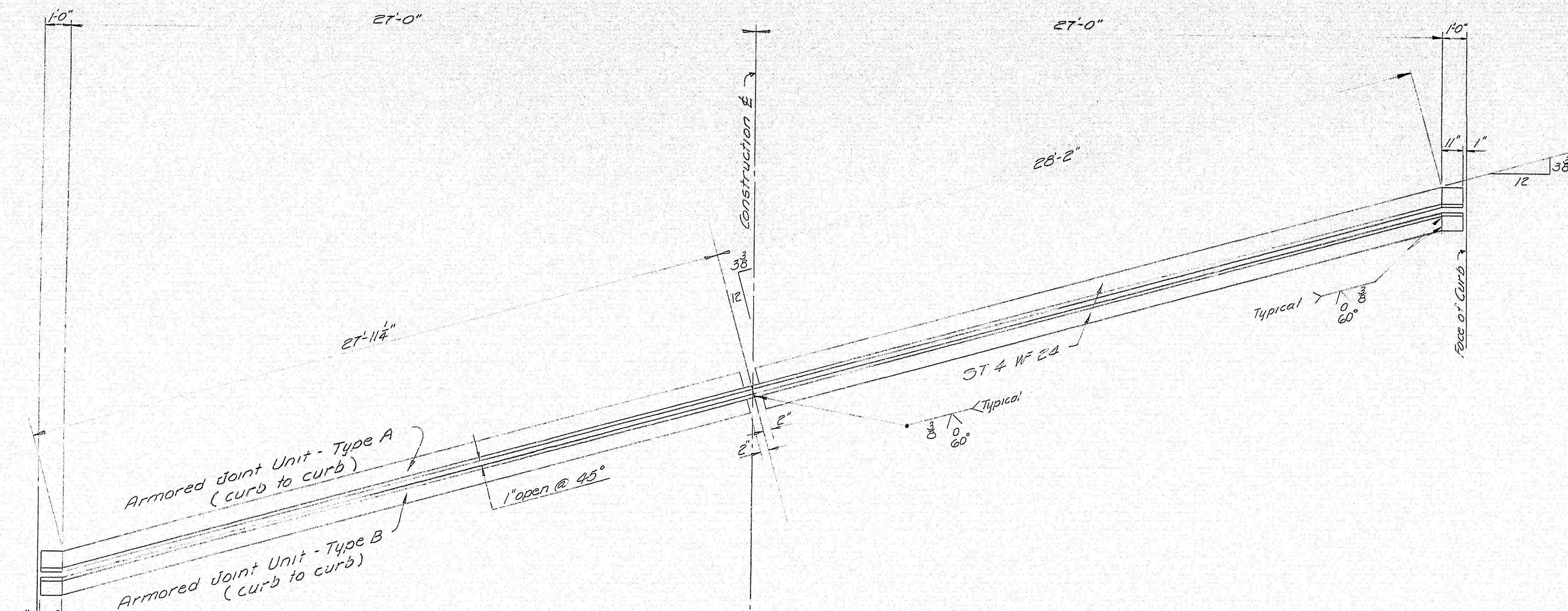
- NOTES:
Pile points shall be used
for all piles.

Measurement and payment for all pile points shall be in accordance with Subsection 501.17 (d) and Pay Item 501.2

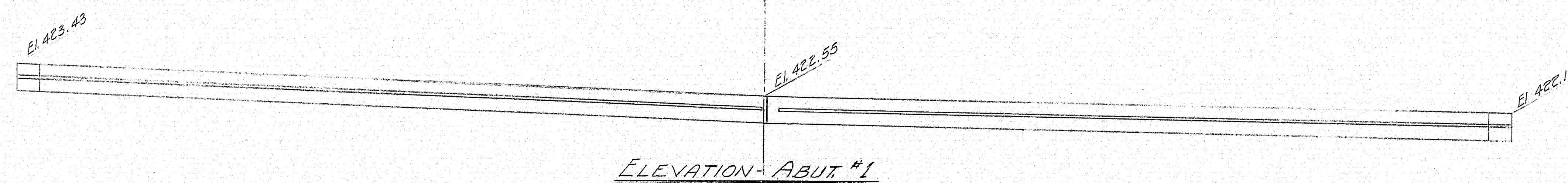
DESIGN- E.F.K. DETAIL- J.M.M.	BRIDGE NO.
TRACE- SURVEY-	SURVEY-
CHECK- R.R.S.	PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
U S ROUTE 1
CARIBOU BY-PASS
OVER
WATER STREET & CARIBOU STREAM
IN THE TOWN OF
CARIBOU
ARROOSTOOK COUNTY
PIER NO. 1
SHEET 8 OF 13 AUGUSTA, MAINE DEC. 1965
CARIBOU (12) CONT

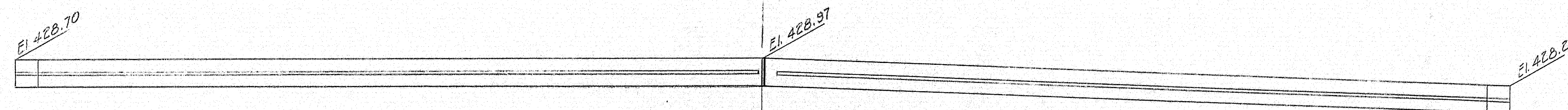




PLAN - ARMORED JOINTS
(rotate 180° for Abut. #2)



ELEVATION - ABUT. #1



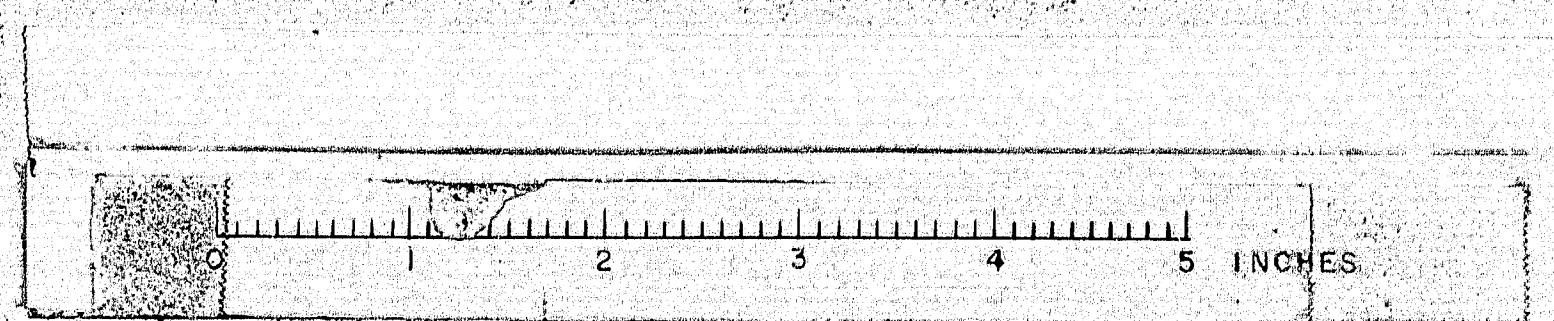
ELEVATION - ABUT. #2
(after rotation of Plan)

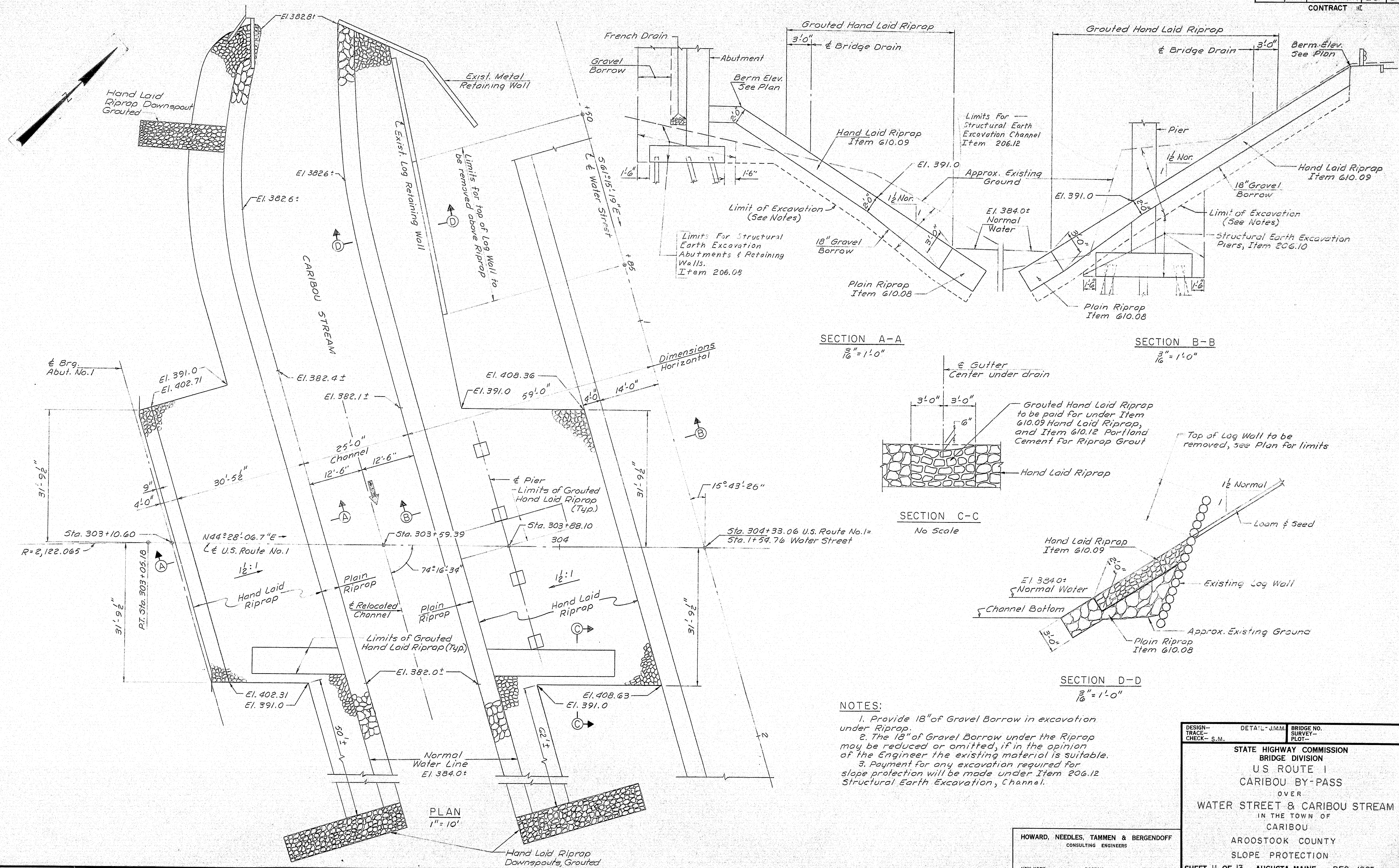
Note:
See Standard Sheet (SD 104-66)
for additional details.

DESIGN- TRACE- CHECK-	DETAIL- W.H.Y. P.M.	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION US ROUTE 1 CARIBOU BY-PASS OVER WATER STREET & CARIBOU STREAM IN THE TOWN OF CARIBOU AROOSTOOK COUNTY STRUCTURAL STEEL		

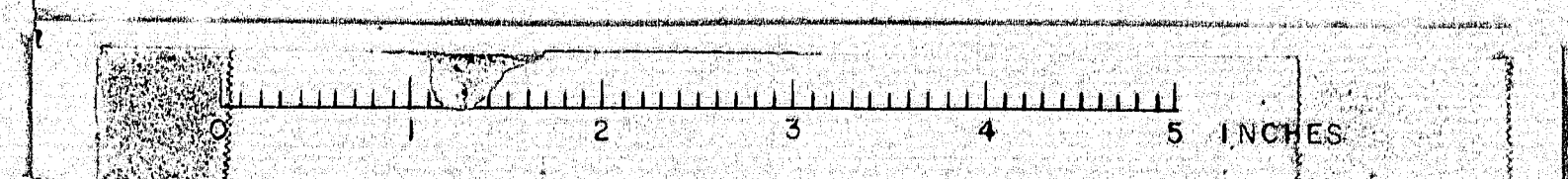
SHEET 9A OF 13 AUGUSTA, MAINE AUGUST 1967

M-2664





DESIGN— TRACE— CHECK— S.M.	DETAIL—J.M.M.	BRIDGE NO. SURVEY— PLOT—
STATE HIGHWAY COMMISSION BRIDGE DIVISION U.S. ROUTE 1 CARIBOU BY-PASS OVER WATER STREET & CARIBOU STREAM IN THE TOWN OF CARIBOU AROSTOOK COUNTY SLOPE PROTECTION		
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS NEW YORK BOSTON KANSAS CITY		SHEET 11 OF 13 AUGUSTA, MAINE DEC. 1965



MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
STRAIGHT BARS					
A723	7	4	12'-0"		Wingwall Footing
A724	7	48	11'-9"		Abutment Footing
A725	7	6	12'-6"		
			6'-0"	1'-3 5/8"	do
A726	7	3	4'-0"		do
A727	7	6	12'-0"		
			3'-0"	1'-9 5/8"	Abutment Footing
A728	7	23	5'-6"		Wingwall Footing
A729	7	23	17'-1"		Wingwall Stem
A921	9	28	10'-0"		
			14'-0"	1 3/4"	Wingwall Footing
A924	9	21	5'-6"		Wingwall Footing
A925	9	21	13'-7"		Wingwall Stem
BENT BARS					
A423	4	4	5'-1"		Abutment Stem
A424	4	4	6'-11"		do
A425	4	4	5'-11"		do
A426	4	4	5'-11"		do
A427	4	16	5'-8"		do
A428	4	16	4'-5"		Abutment Stem
A429	4	6	7'-9"		End Post
A430	4	6	4'-8"		End Post
A533	5	41	4'-9"		Abutment Stem
A534	5	20	5'-3"		do
A545	5	20	6'-6"		do
A546	5	20	4'-0"		Abutment Stem
A645	6	38	3'-6"		Approach Slab Dowels
A730	7	63	13'-7"		Abutment Stem
A923	9	21	15'-9"		Wingwall Footing
ABUTMENT 2					
STRAIGHT BARS					
A401	4	8	28'-0"		Abutment Stem
A402	4	8	29'-0"		Abutment Stem
A501	5	101	2'-6"		Wingwall Footing & Abutment
A502	5	21	16'-9"		
			23'-0"	3 3/8"	Wingwall Stem
A503	5	12	17'-3"		
			22'-6"	5 3/4"	do
A504	5	28	9'-0"		do
A505	5	5	2'-6"		
			14'-0"	2'-10 1/2"	do
A506	5	7	2'-6"		
			14'-0"	1'-11"	do
A507	5	27	14'-0"		do
A508	5	5	2'-6"		
			25'-0"	5'-7 1/2"	do
A509	5	27	24'-0"		do
A510	5	7	2'-6"		
			25'-0"	3'-9"	Wingwall Stem
A511	5	67	18'-0"		Abutment Stem
A512	5	64	16'-9"		do
A514	5	103	4'-6"		do
A515	5	62	3'-0"		do
A516	5	7	5'-6"		do
A517	5	31	30'-0"		do
A518	5	27	31'-0"		do
A521	5	4	15'-0"		do
A522	5	4	16'-3"		Abutment Stem
AG01	6	26	21'-6"		Wingwall Footing
AG02	6	26	28'-6"		do
AG03	6	26	30'-0"		Abutment Footing
AG04	6	26	23'-0"		(2 groups of 13)
			35'-6"	12'-6"	Abutment Footing
AG05	6	16	10'-0"		
			18'-0"	25."	Wingwall Footing

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	U-050-2(12)	29	81

CONTRACT III

A428, A408, A427, A407, & A429

A709 & 730

A403, A423, 6"
A406, A426, 1 1/8"

A403, A423, 10"
A406, A426, 1'-2"

A403, A423, 4'-3"
A406, A426, 8"
A403, A423, 3'-3"
A406, A426, 3'-3"

A403, A423, A406 & A426

A519, A545, 2'-0"
A520, A546, 2'-0"

A519, A545, 1'-7"
A520, A546, 1'-2 1/2"

A519, A545, 6'-6"
A520, A546, 1'-2 1/2"
A519, A545, 1'-7"
A520, A546, 1'-7"

A519, A545, A520 & A546

A519, A545, 3'-5"
A520, A546, 1'-8"

A513

A405 & A425

A533 & A534

A404 & A424

A600 & A645

NOTES:

- All dimensions are to c/c or bars.
- All reinforcing bars shall be intermediate grade steel.
- Reinforcing steel to have 2" minimum clear space otherwise shown.

Revised: 8-4-67
Check: R.M.
(revised B-4-67 for roadway & curb widths)

DESIGN— TRACE— CHECK—	DETAIL—R.P.R.	BRIDGE NO.— SURVEY— PILOT—
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**STATE HIGHWAY COMMISSION
BRIDGE DIVISION**

**US ROUTE 1
CARIBOU BY-PASS
OVER
WATER STREET & CARIBOU STREAM
IN THE TOWN OF
CARIBOU
ARROOSTOOK COUNTY**

REINFORCING STEEL

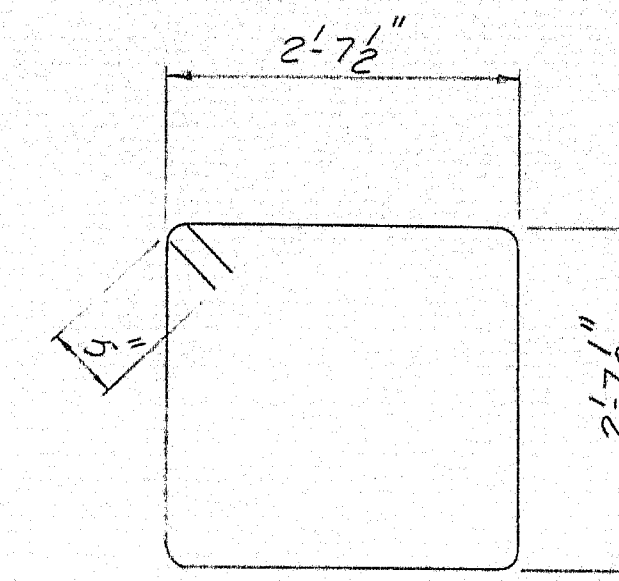
A 901 & A923

D. NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

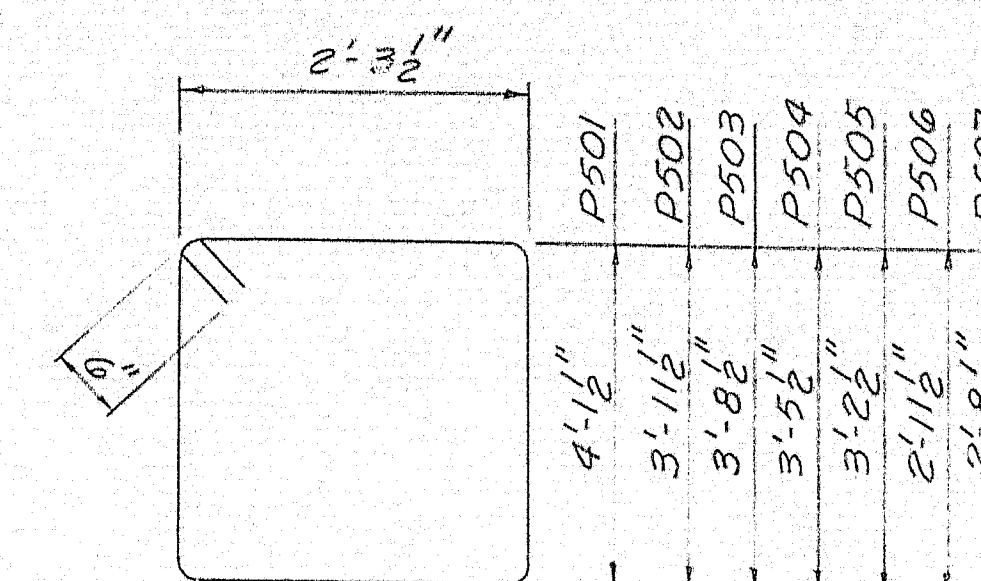
BOSTON KANSAS CITY

SHEET 12 OF 13 AUGUSTA, MAINE DEC. 1965

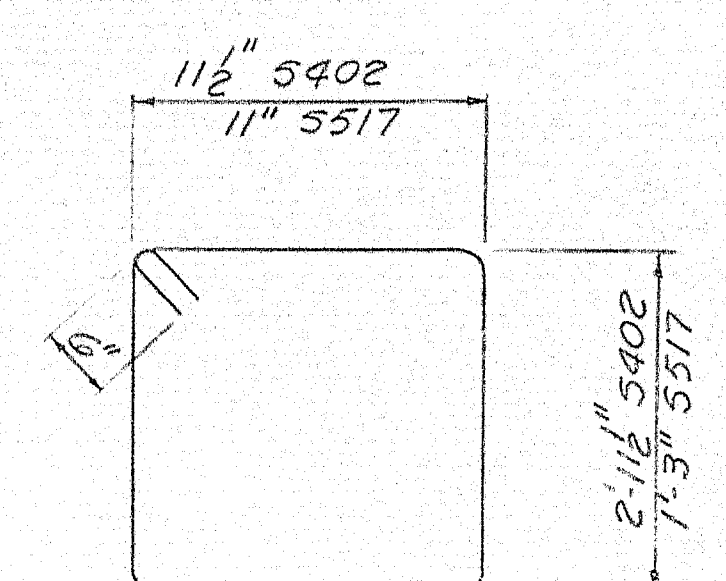
PIER					
MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
STRAIGHT BARS					
P601	6	8	30'9"		Cap
P603	6	56	12'6"		Footing
P701	7	13	35'11"		Footing
P702	7	13	20'9"		"
P703	7	36	27'9"		"
P704	7	12	8'6"		Footing
P801	8	65	12'6"		Footing
P901	9	12	31'9"		Cap
P902	9	4	13'0"		"
P903	9	4	33'4"		"
P904	9	4	18'2"		Cap
P905	9	48	35'6"		Column
P906	9	48	6'6"		Column
BENT BARS					
P401	4	128	11'4"		Column
P501	5	70	13'10"		Cap
P502	5	4	13'6"		"
P503	5	4	13'0"		"
P504	5	4	12'6"		"
P505	5	4	12'0"		"
P506	5	4	11'6"		"
P507	5	4	11'0"		Cap
P602	6	8	10'0"		Cap
SUPERSTRUCTURE					
STRAIGHT BARS					
S401	4	40	1'8"		End Post
S501	5	167	23'1"		Slab Transverse
S502	5	167	27'2"		" "
S503	5	167	39'4"		" "
S504	5	167	35'4"		Slab Transverse
S507	5	60	20'0"		Slab Longitudinal
S508	5	137	33'6"		" "
S509	5	137	30'3"		" "
S510	5	274	30'0"		" "
S511	5	137	28'0"		Slab Longitudinal
S512	5	137	19'8"		Safety Walk
S513	5	137	18'9"		" "
S514	5	137	18'8"		" "
S515	5	137	14'8"		" "
S516	5	137	17'1"		Safety Walk
BENT BARS					
S402	4	16	8'10"		End Post
S505	5	166	29'7"		Slab Transverse (Truss Bar)
S506	5	166	35'1"		Slab Transverse (Truss Bar)
S517	5	332	5'4"		Safety Walk



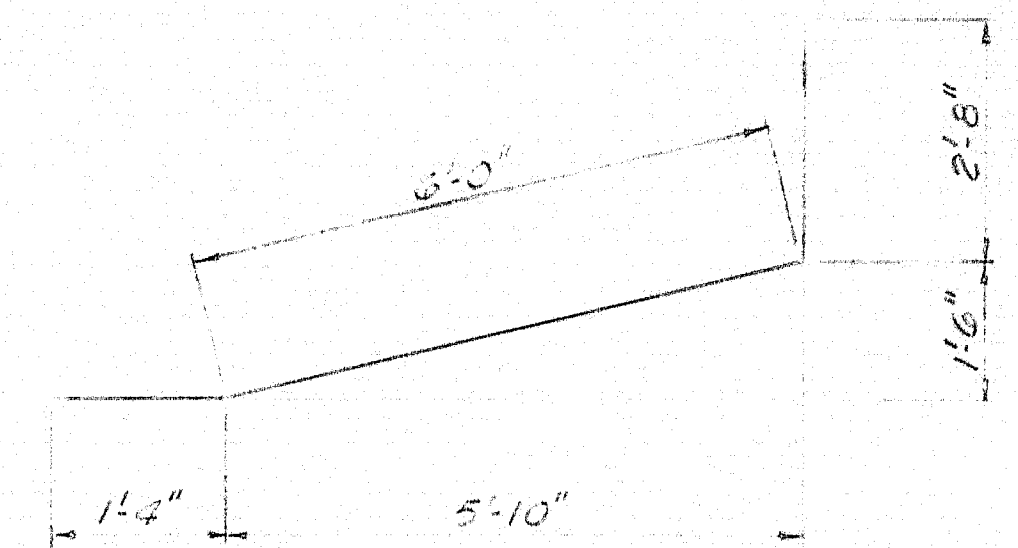
P401



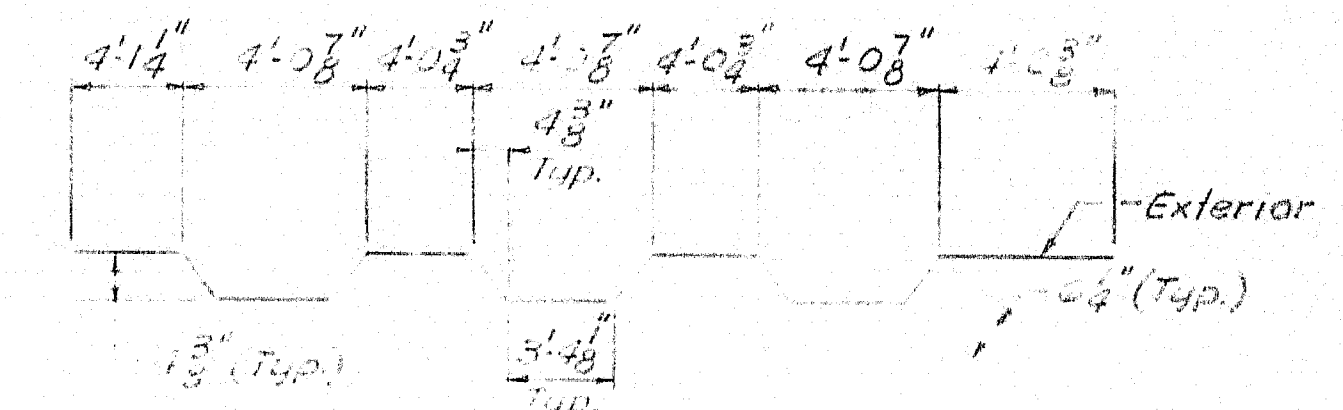
P501 — P507



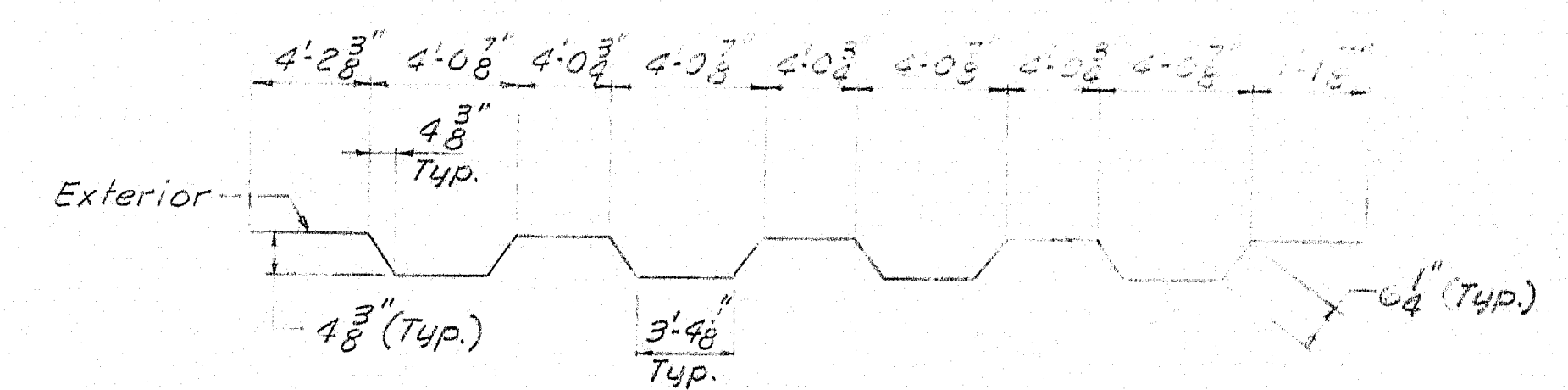
S402 & S517



P602



S505



S506

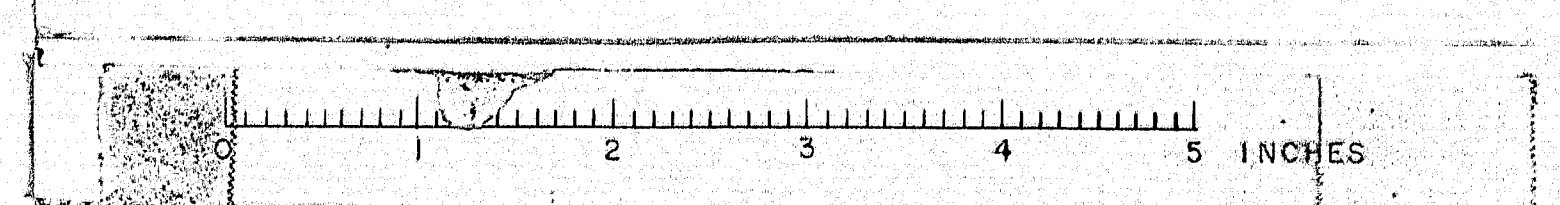
NOTE:
For Reinforcing Steel notes
see Sheet 12 of 13.

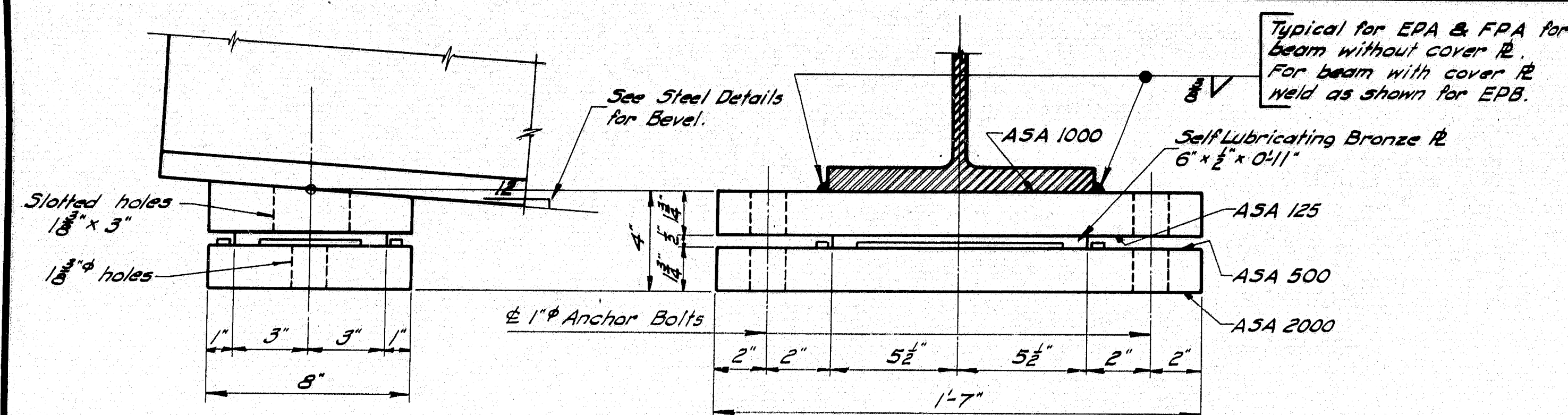
Revised: W.H.Y.
Check: P.H.
(revised 8-4-67 for roadway & curb widths)

DESIGN- TRACE- CHECK-	DETAIL - W.H.Y. SURVEY - PLOT -	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION U.S. ROUTE 1 CARIBOU BY-PASS OVER WATER STREET & CARIBOU STREAM IN THE TOWN OF CARIBOU AROOSTOOK COUNTY REINFORCING STEEL SHEET 13 OF 13 AUGUSTA, MAINE DEC. 1965		

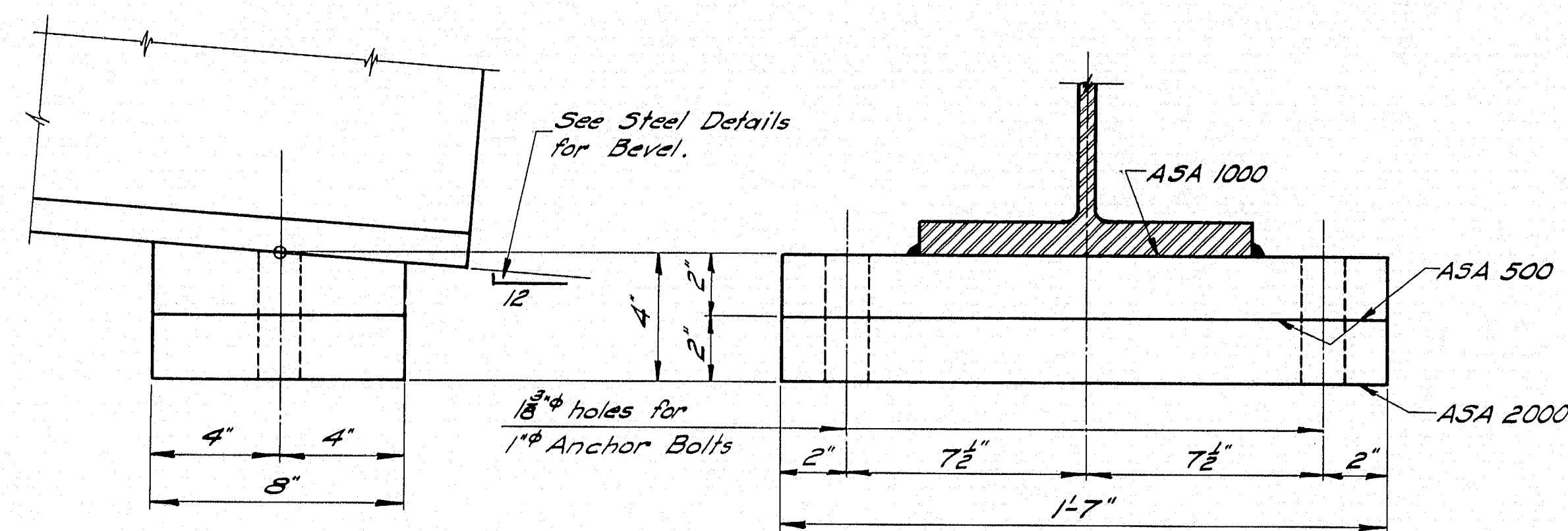
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

M-2668 CARIBOU (12) CONT. III

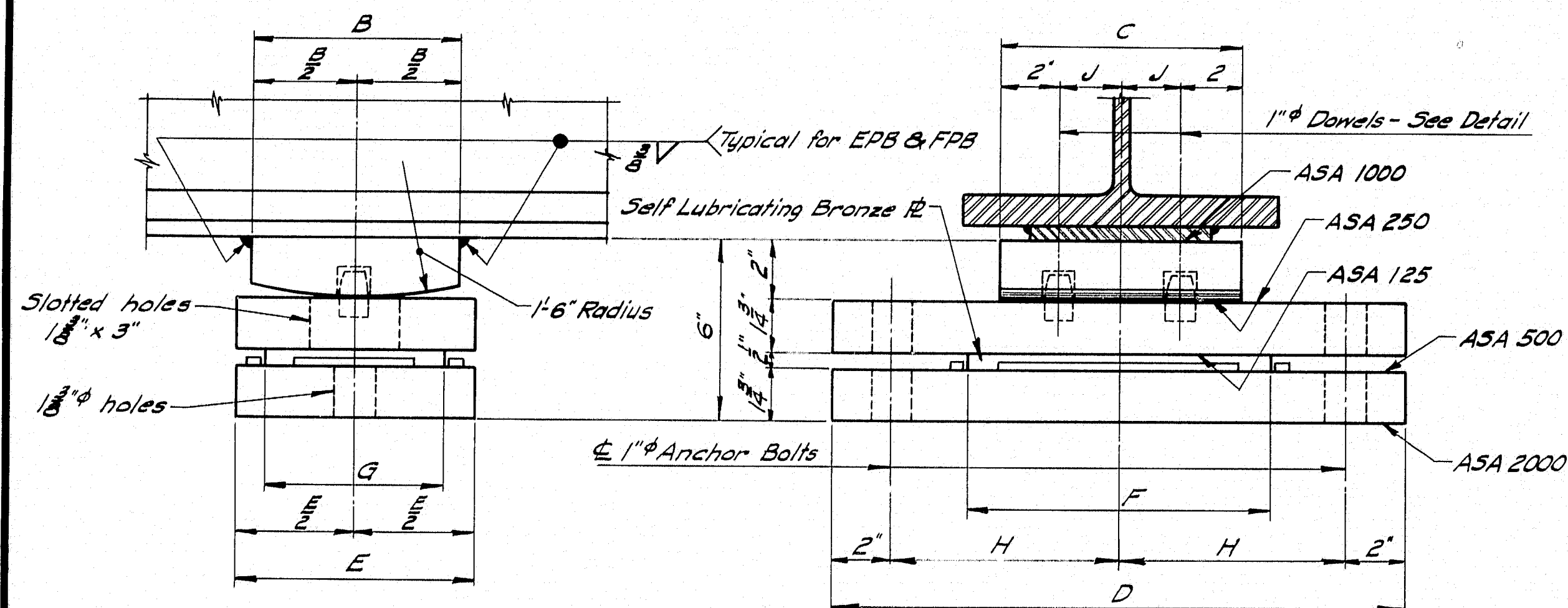




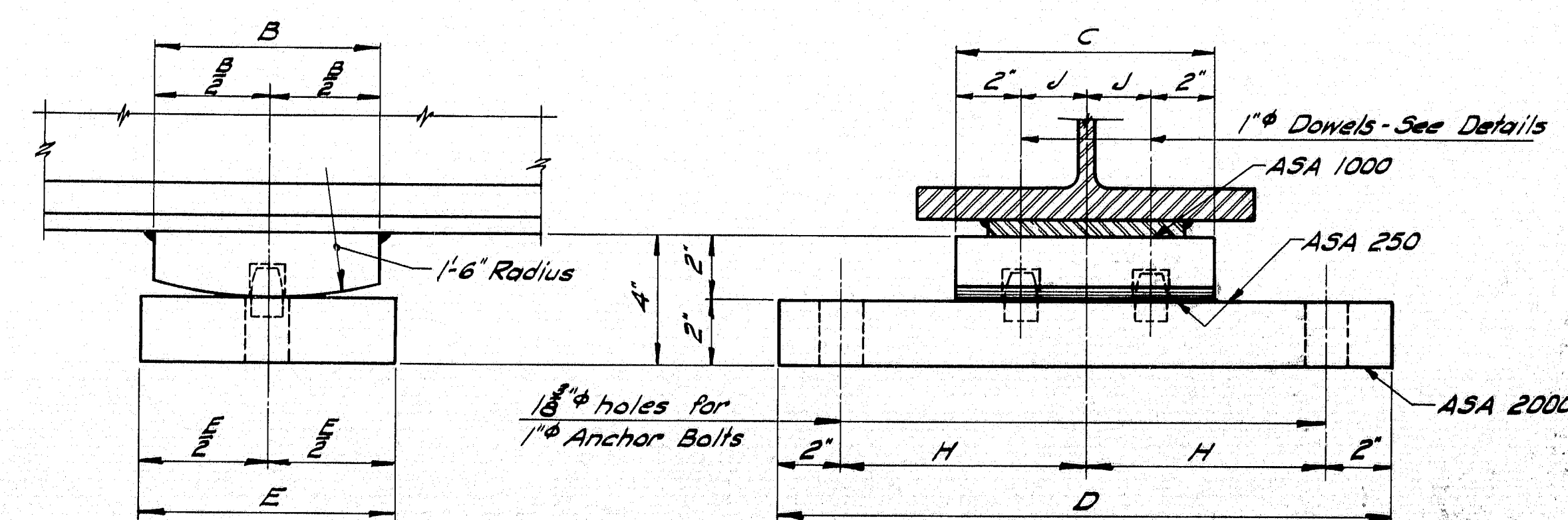
EXPANSION PEDESTAL - EPA



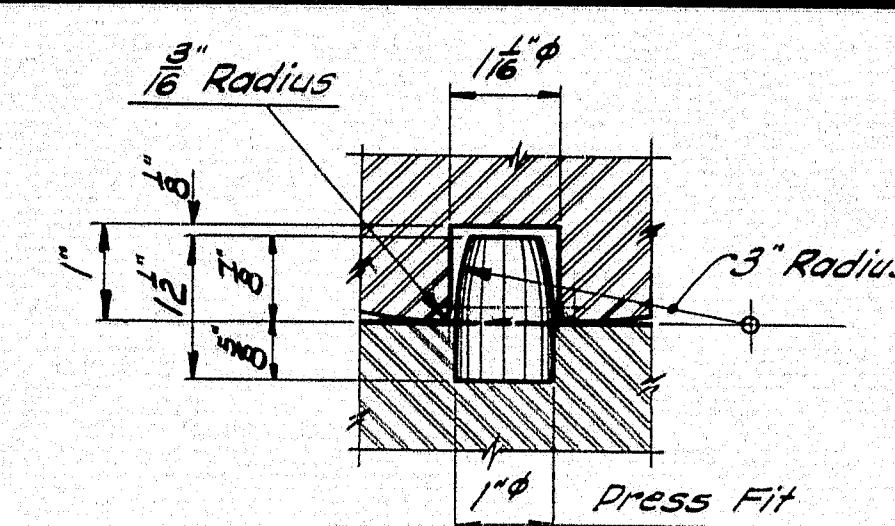
FIXED PEDESTAL - FPA



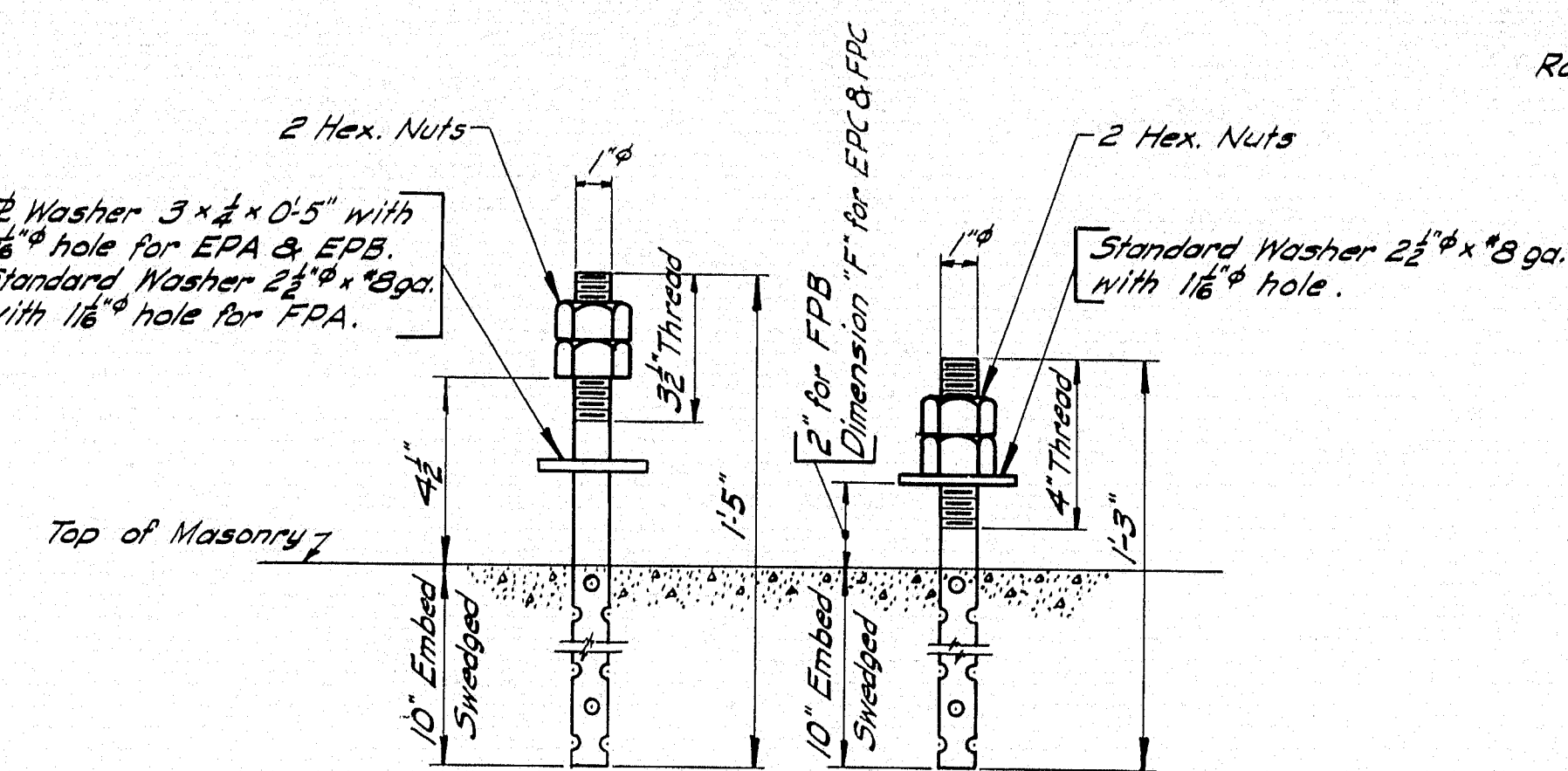
EXPANSION PEDESTAL - EPB



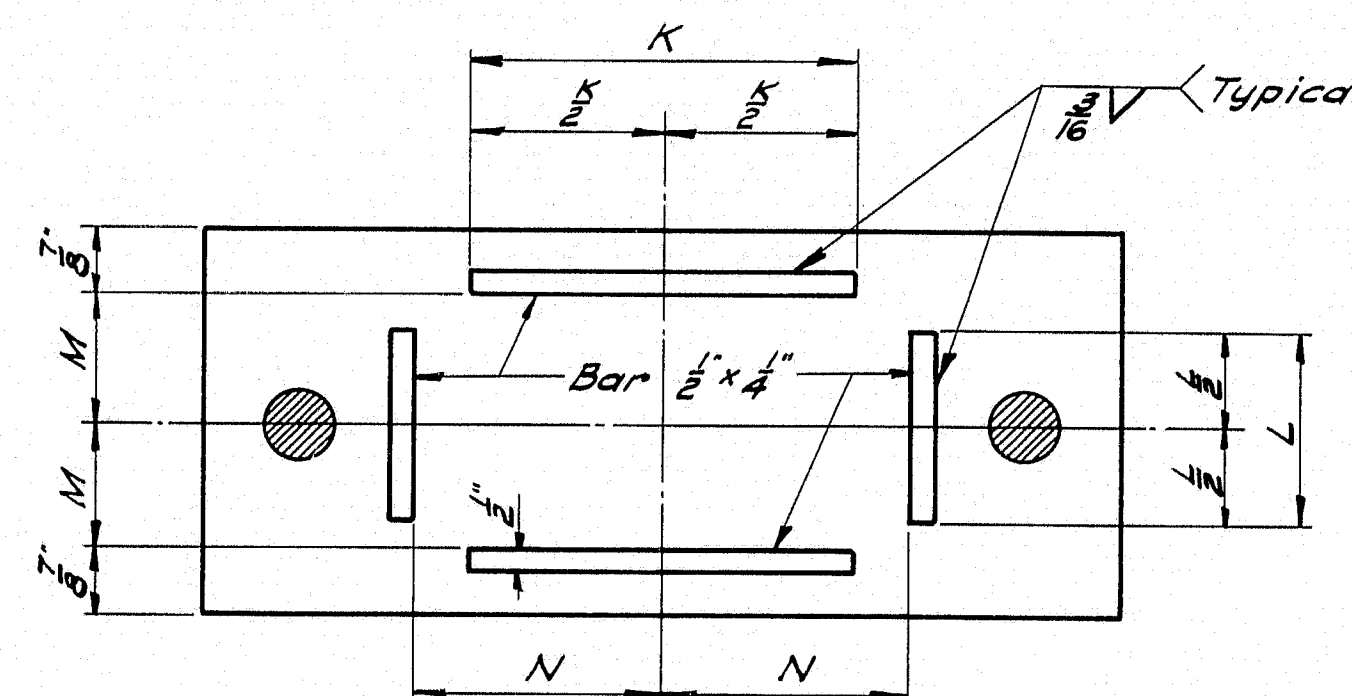
FIXED PEDESTAL - FPB



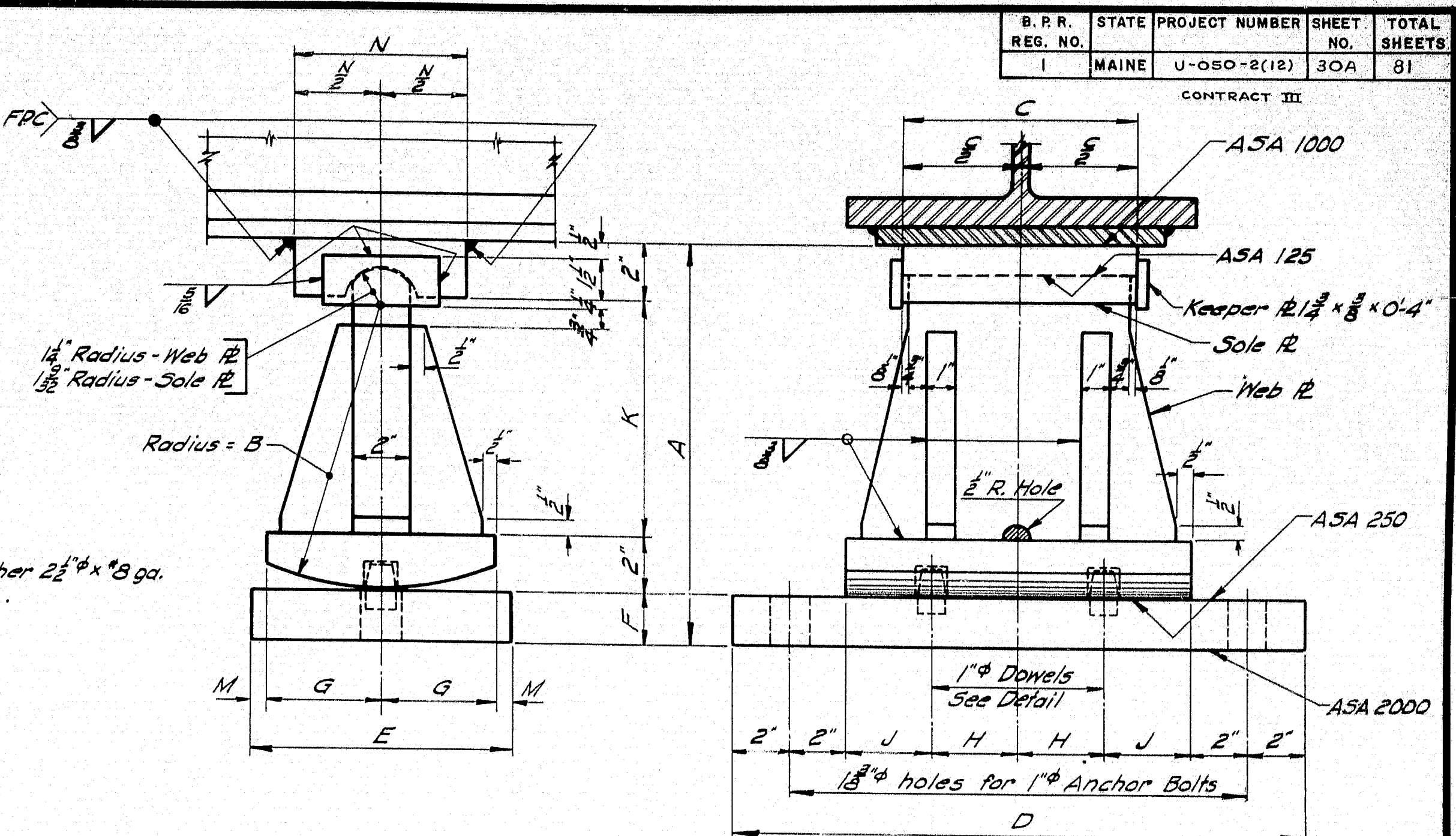
DOWEL DETAIL



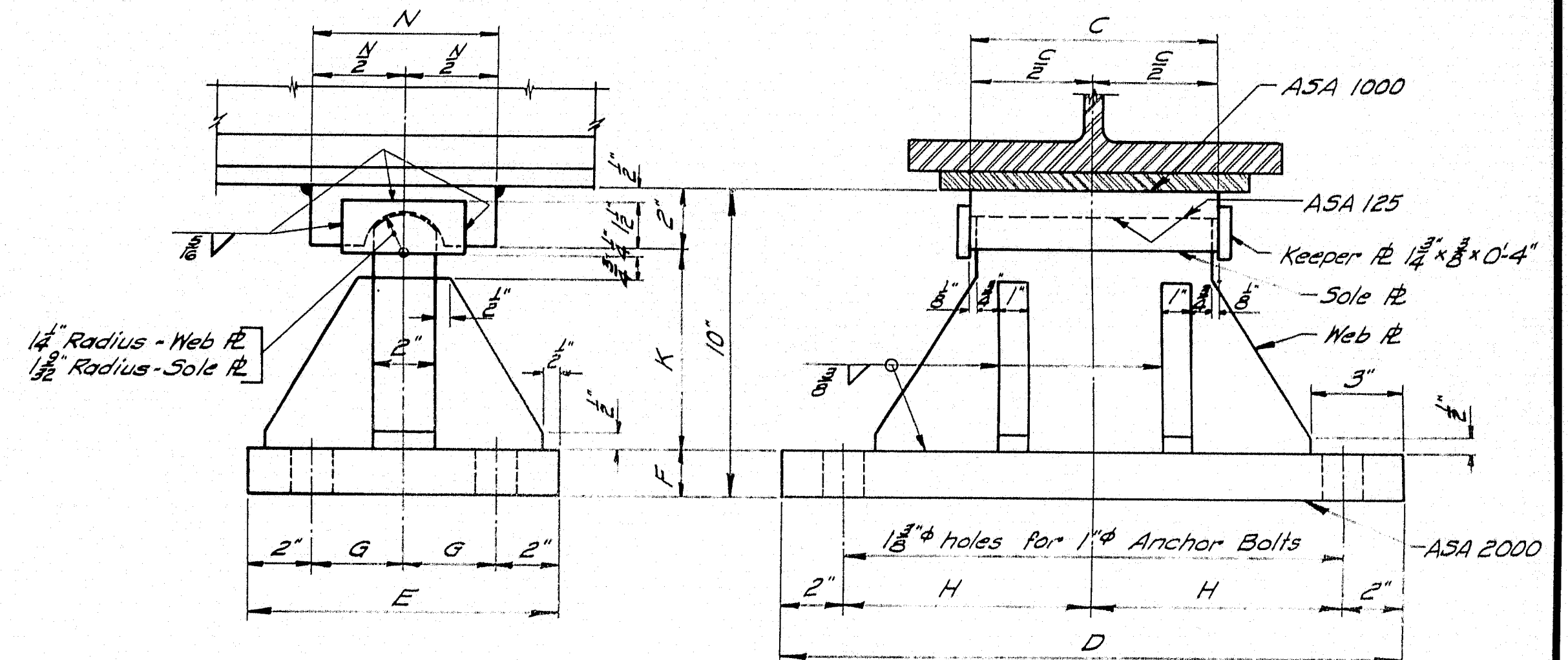
ANCHOR BOLT DETAIL



MASONRY PLATE



EXPANSION PEDESTAL - EPC



FIXED PEDESTAL - FPC

PEDESTALS - ALLOWABLE LOADS & DIMENSIONS													
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M
EPA	132K	-	-	-	-	-	-	-	-	8"	4"	3 1/2"	5 1/2"
FPA	130K	-	-	-	-	-	-	-	-	-	-	-	-
EPB-1	120K	-	6"	8"	14 1/2"	8"	10"	6"	7 1/2"	2"	8"	4"	3 1/2"
EPB-2	165K	-	7"	10"	14 1/2"	9"	10"	7"	8"	3"	10"	5"	3 1/2"
EPB-3	224K	-	8"	14 1/2"	24"	10"	14 1/2"	7"	10"	4 1/2"	14 1/2"	5"	3 1/2"
FPB-1	120K	-	6"	8"	14 1/2"	8"	-	-	7 1/2"	2"	-	-	-
FPB-2	165K	-	7"	10"	14 1/2"	9"	-	-	8"	3"	-	-	-
FPB-3	224K	-	8"	14 1/2"	24"	10"	-	-	10"	5"	-	-	-
EPC-1	70K	9 1/2"	6"	8"	14 1/2"	8"	12"	3 1/2"	3"	3"	4 1/2"	1 1/2"	6"
EPC-2	100K	11 1/4"	8"	8"	14 1/2"	8"	12"	3 1/2"	3"	3"	6 1/2"	1 1/2"	6"
EPC-3	130K	12 1/2"	10"	8"	14 1/2"	9"	12"	4"	3"	3"	8 1/2"	1 1/2"	7"
EPC-4	160K	14 1/2"	10"	8"	14 1/2"	9"	12"	4"	3"	3"	8 1/2"	1 1/2"	7"
EPC-5	190K	16 1/2"	10"	9"	24"	10"	24"	4 1/2"	5"	3"	8 1/2"	1 1/2"	8"
EPC-6	220K	18 1/2"	10"	10"	24"	10"	24"	5"	5"	3"	10 1/2"	1 1/2"	8"
EPC-7	250K	20 1/2"	10"	10"	24"	10"	24"	5"	5"	4"	10 1/2"	1 1/2"	8"
FPC-1	100K	-	8"	14 1/2"	9"	12"	2 1/2"	8"	-	6 1/2"	-	-	6"
FPC-2	160K	-	8"	14 1/2"	10"	12"	3"	8"	-	6 1/2"	-	-	7"
FPC-3	190K	-	9"	24"	10"	12"	3"	10"	-	6 1/2"	-	-	8"
FPC-4	220K	-	10"	24"	10"	12"	4"	10"	-	6 1/2"	-	-	8"
FPC-5	250K	-	10"	24"	10"	2"	4"	10"	-	6"	-	-	8"

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

MAINE STATE HIGHWAY COMMISSION
 AUGUSTA, MAINE

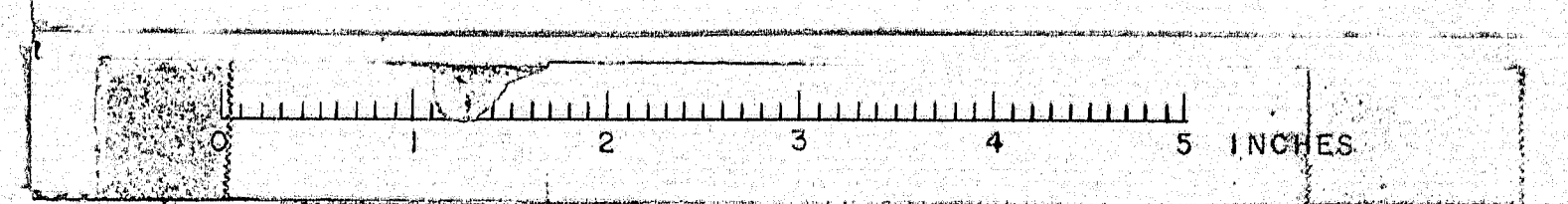
STANDARD DETAILS

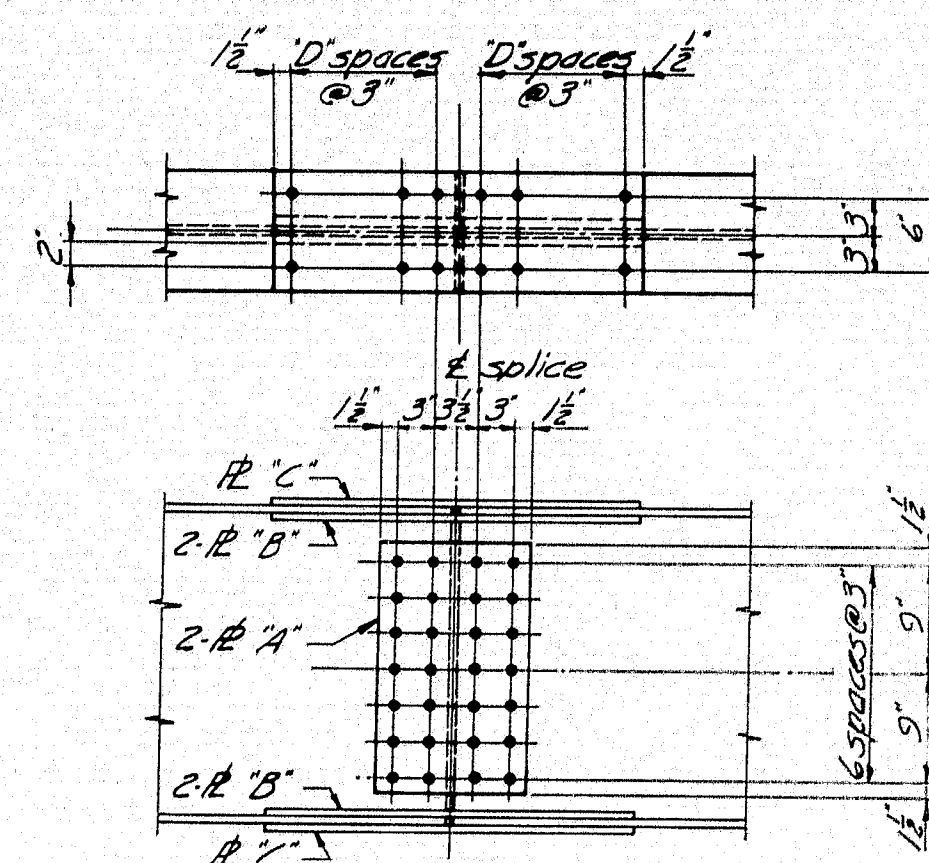
(BD 101-64)

BEARING PEDESTALS

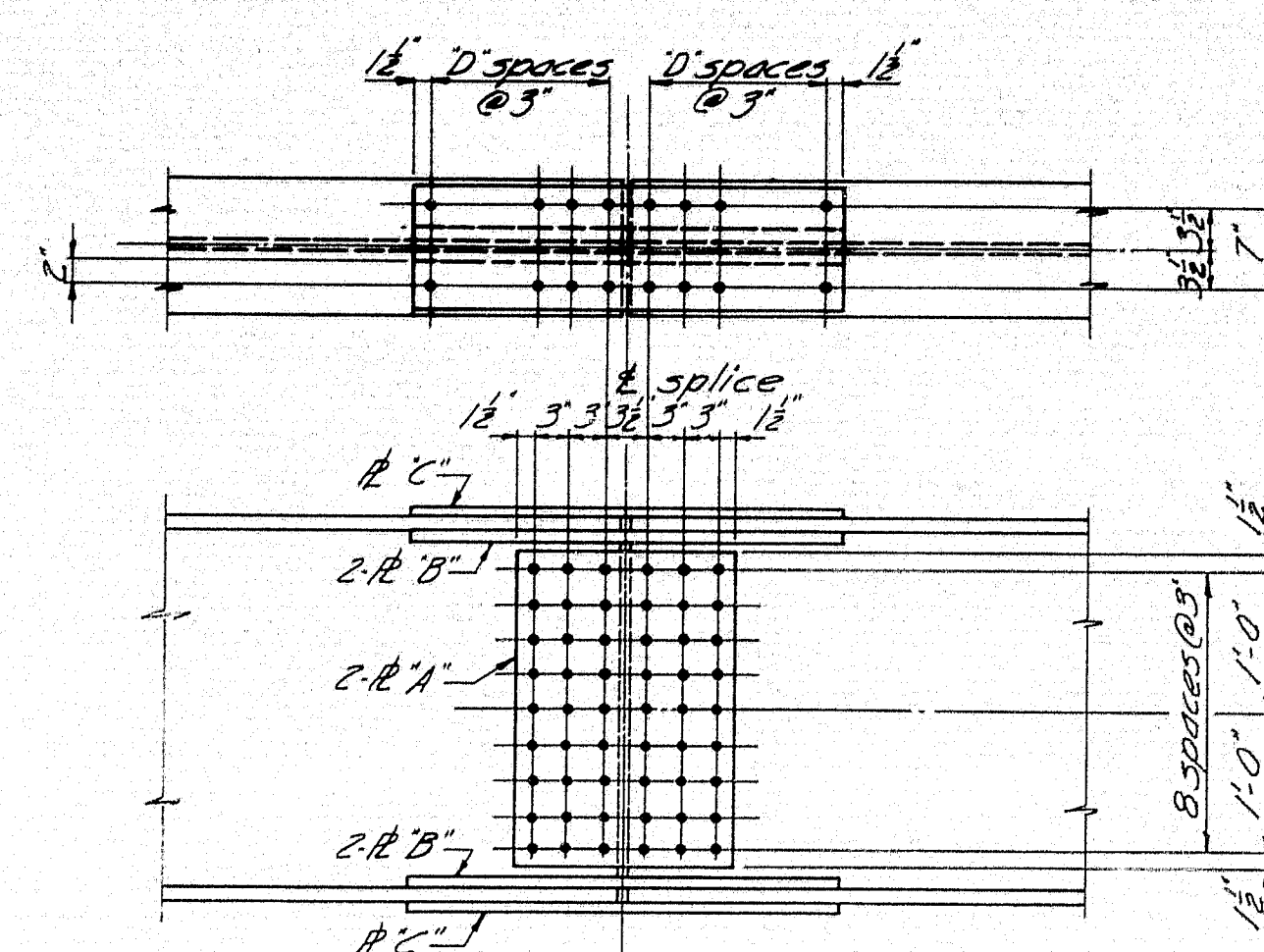
JANUARY 1964

M-2668A

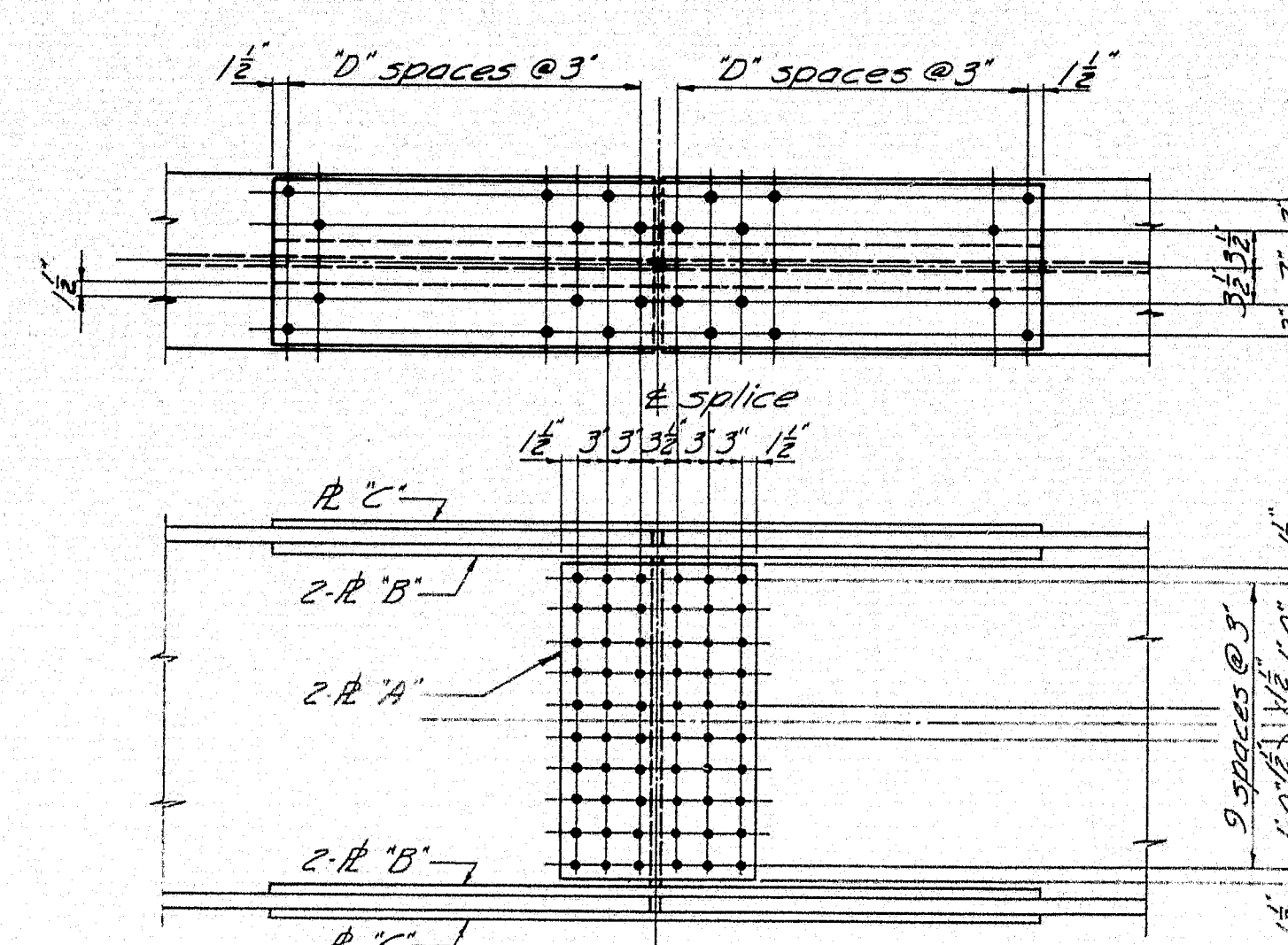




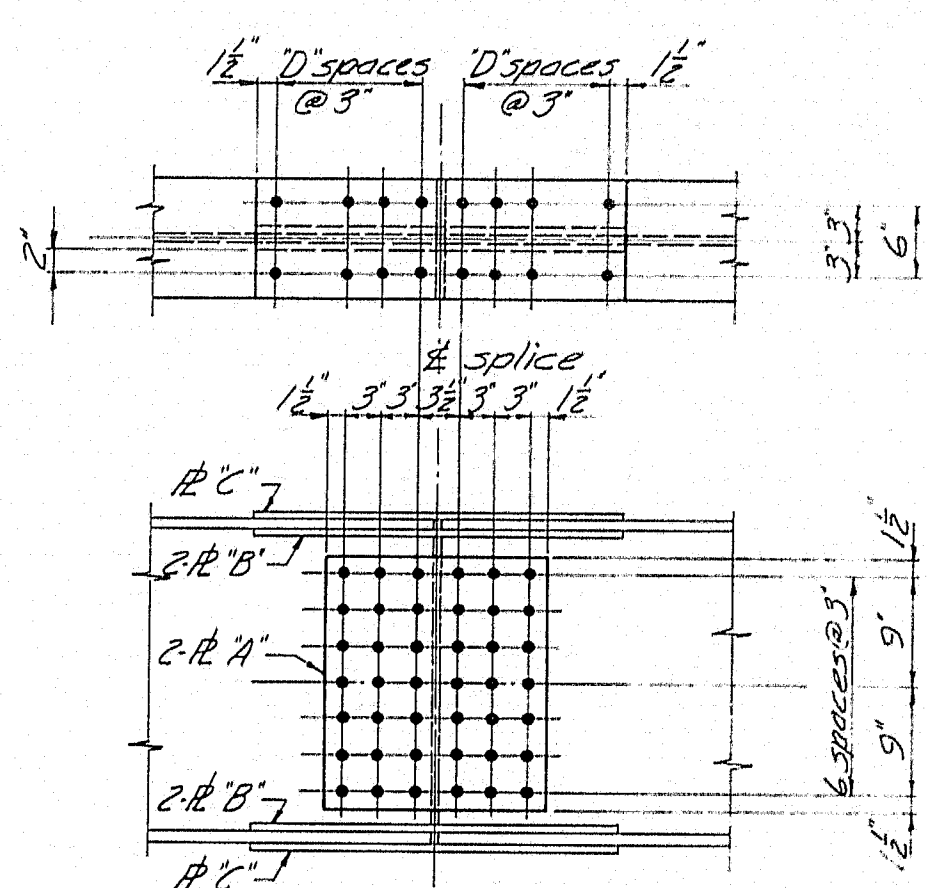
27 WF 84



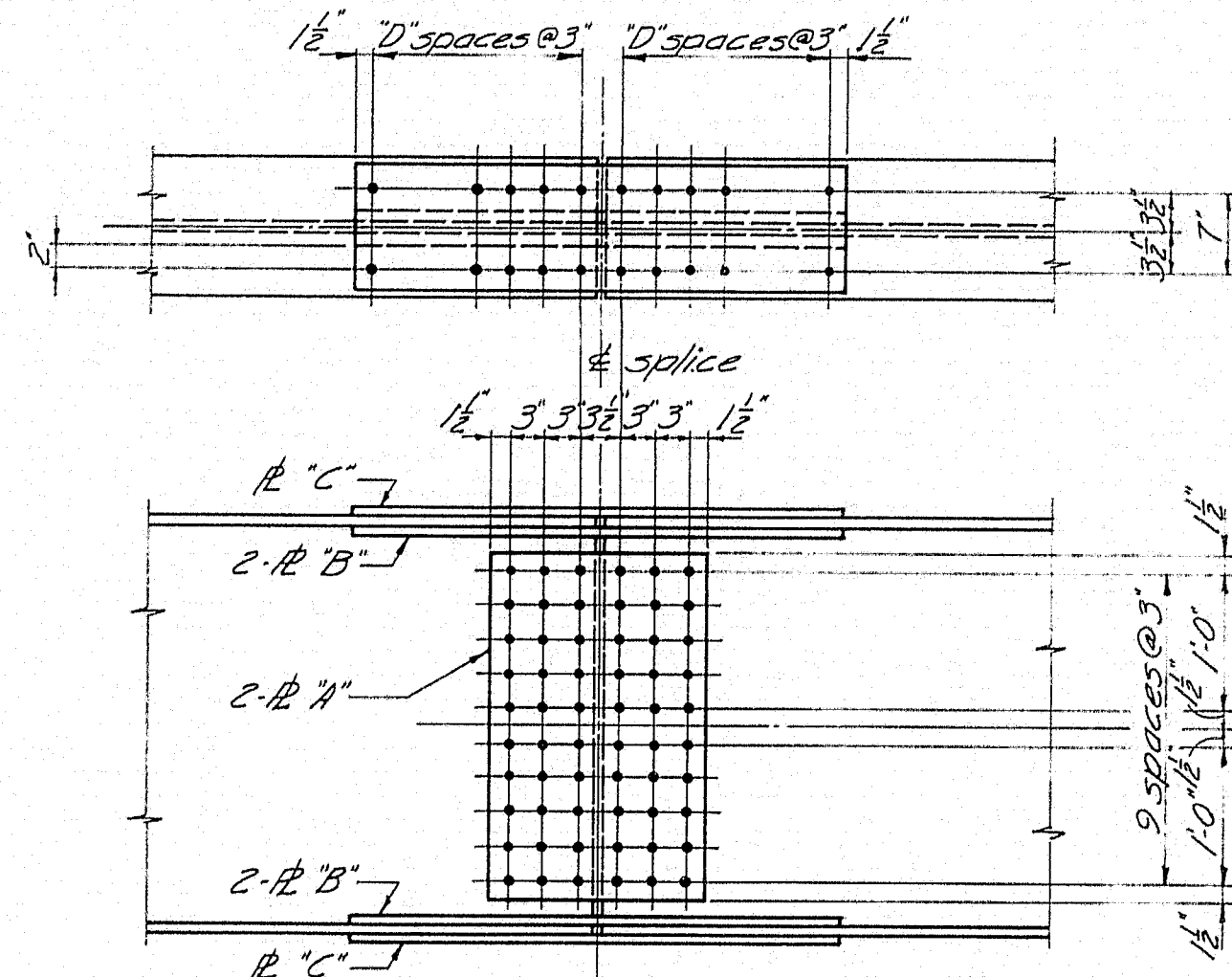
33 WF 118, 130, 141, 152



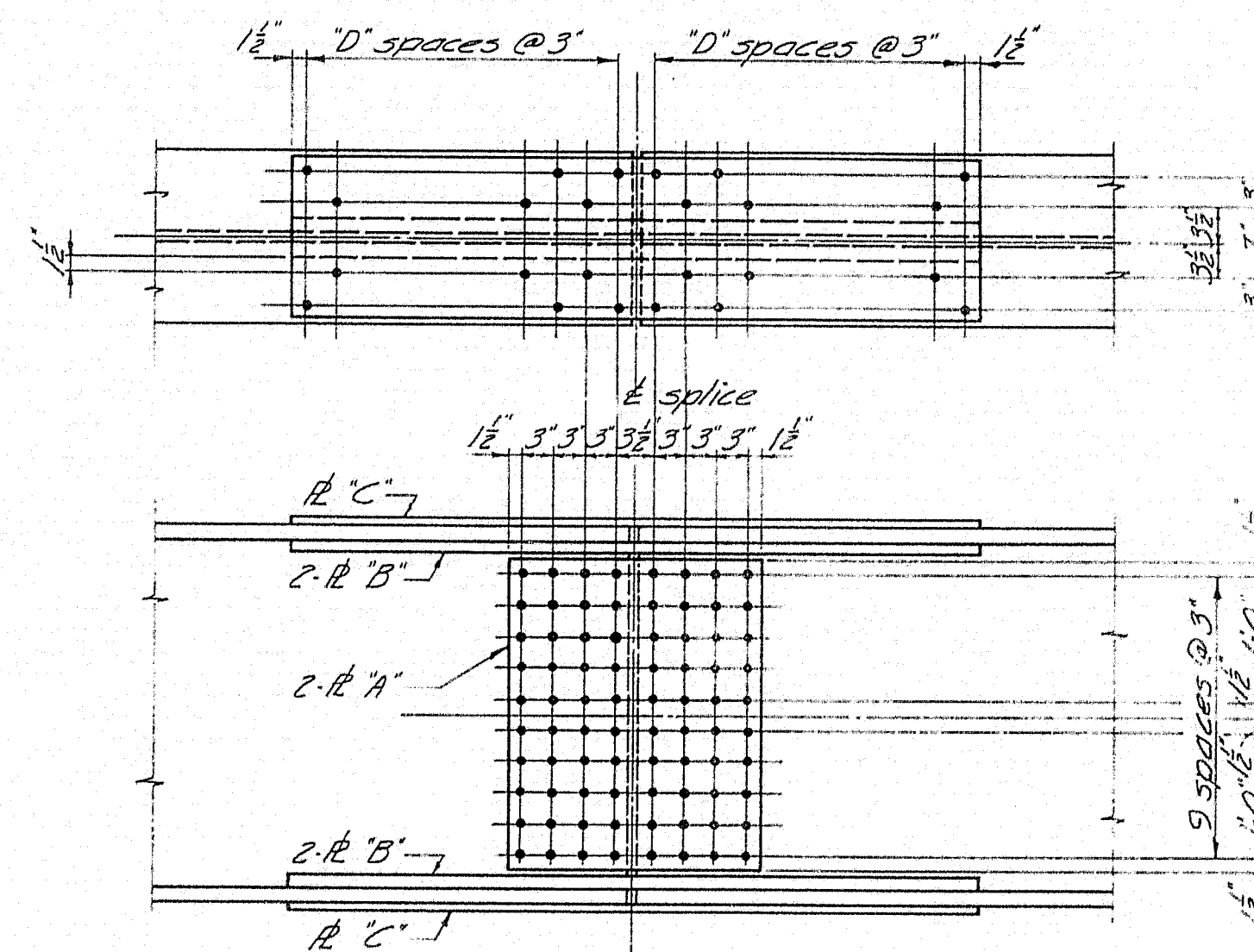
36 WF 245, 280



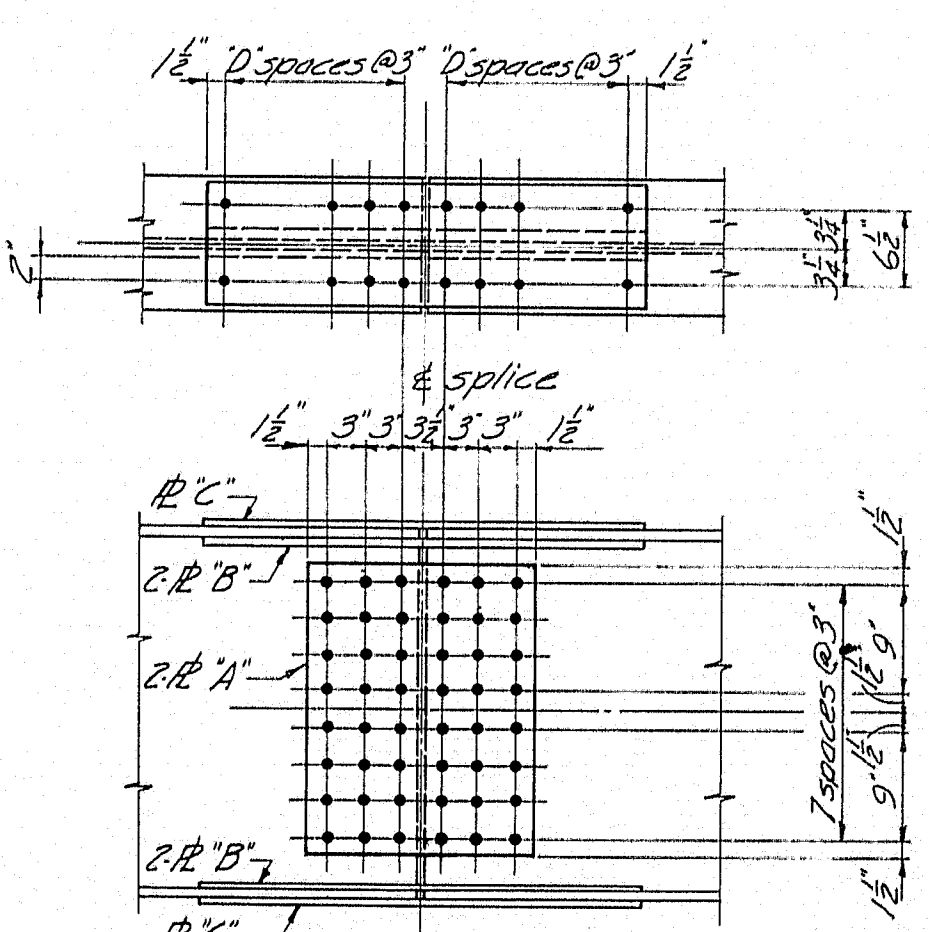
27 WF 94, 102, 114



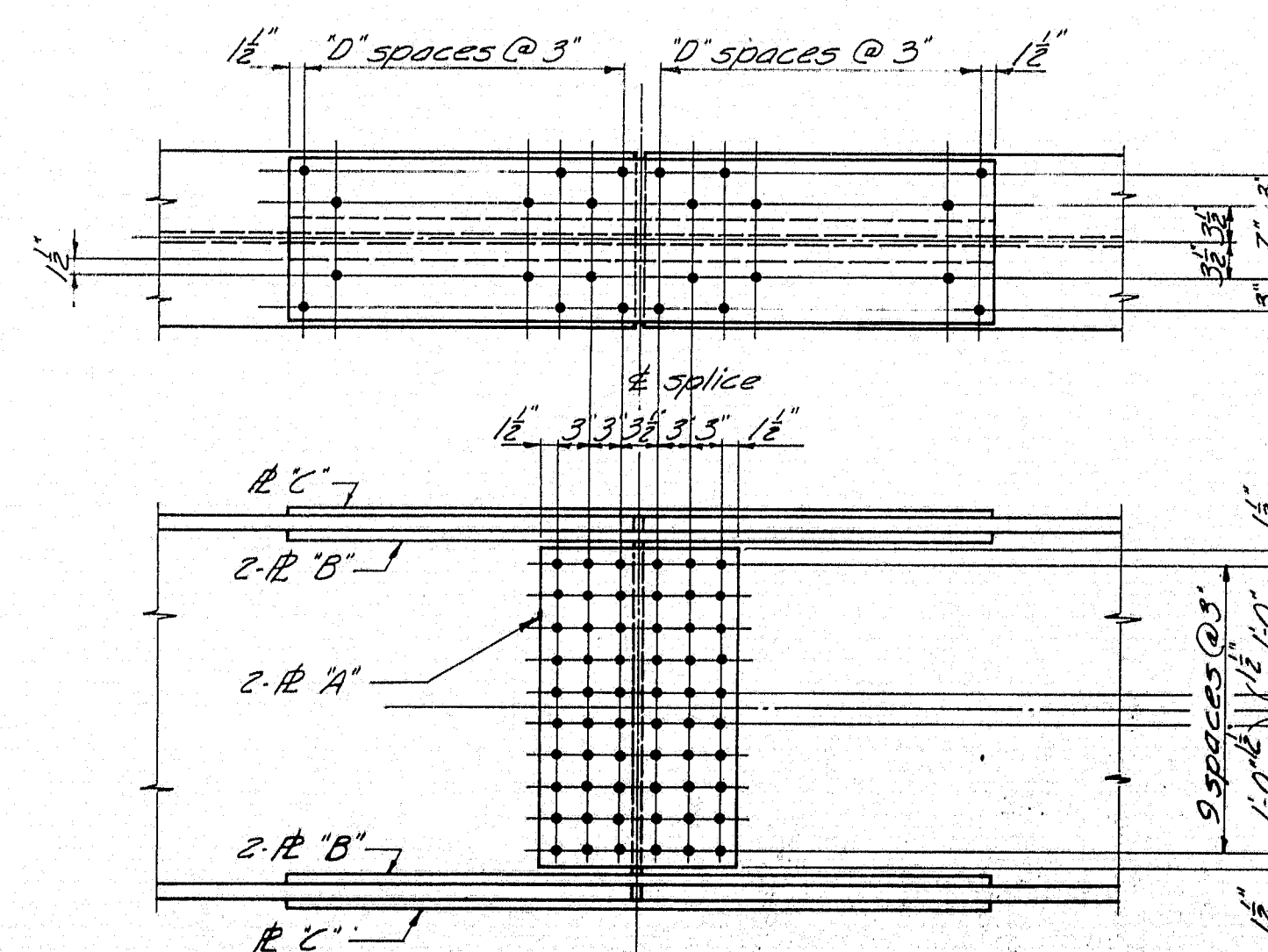
36 WF 135, 150, 160, 170, 182, 194



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 ^K	111 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	3
27 WF 94	3520 ^K	119 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	3
27 WF 102	3862 ^K	126 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	4
27 WF 114	4341 ^K	140 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	4
30 WF 99	3921 ^K	139 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	3
30 WF 108	4360 ^K	147 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	4
30 WF 116	4780 ^K	152 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	4
30 WF 124	5170 ^K	159 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	4
30 WF 132	5539 ^K	168 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	10 x 1/2	5
33 WF 118	5287 ^K	164 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	4
33 WF 130	5978 ^K	173 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	5
33 WF 141	6604 ^K	181 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	5
33 WF 152	7193 ^K	191 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	6
36 WF 135	6473 ^K	191 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	4
36 WF 150	7436 ^K	202 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	5
36 WF 160	8005 ^K	212 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	6
36 WF 170	8574 ^K	221 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	6
36 WF 182	9204 ^K	237 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	7
36 WF 194	9838 ^K	253 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	11 x 1/2	8
36 WF 230	12574 ^K	247 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	16 x 1/2	10
36 WF 245	13441 ^K	260 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	16 x 1/2	11
36 WF 260	14330 ^K	276 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	16 x 1/2	12
36 WF 280	15551 ^K	291 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	16 x 1/2	13
36 WF 300	16676 ^K	312 ^K	12 ¹ / ₂ x 1/2	4 x 1/2	16 x 1/2	14

GENERAL NOTES

1. Splice connections to be made with 5/8" & high tensile strength bolts. Holes to be 1/8" &.
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 plate dimensions.
4. See design details for slopes of beams in order to correctly fabricate bevels 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)

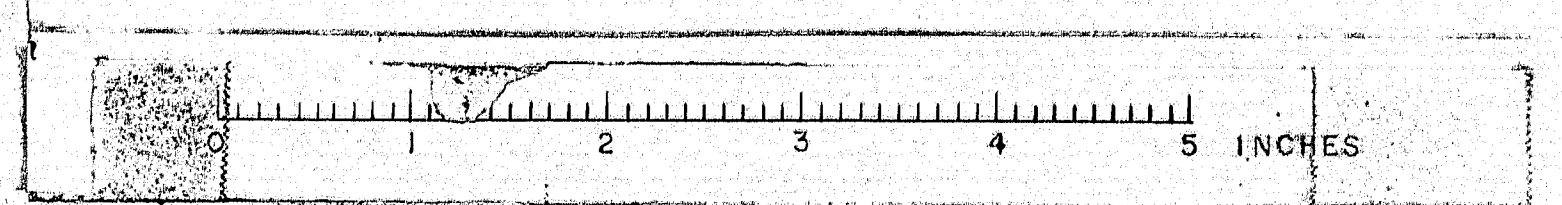
BEAM SPLICES

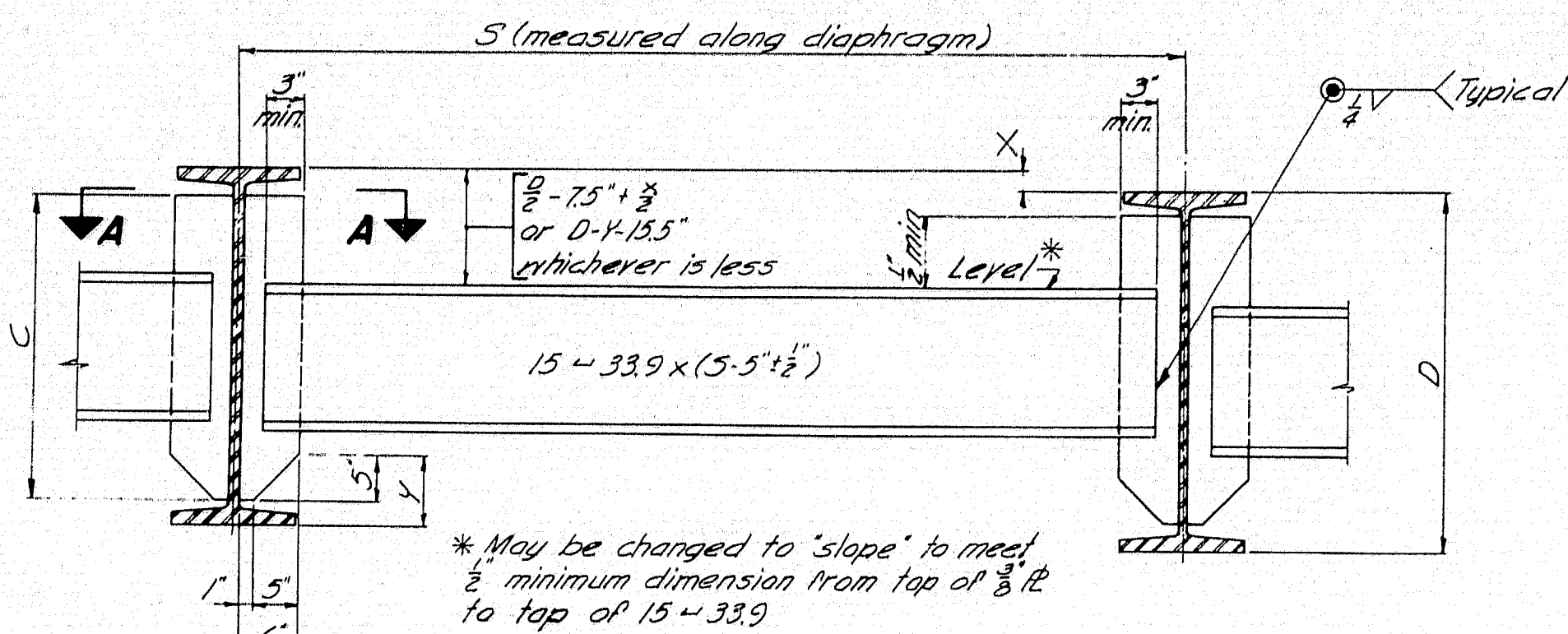
Δ Revised Feb. 1966

JANUARY 1964

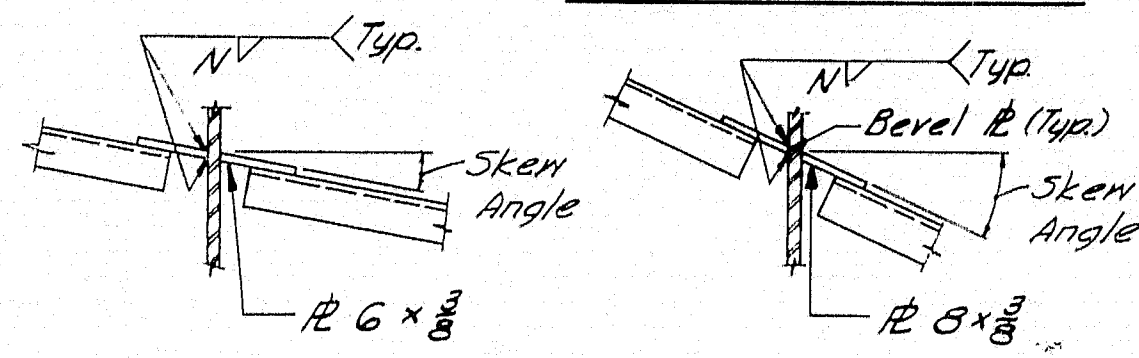
M-2608B

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TYPE A DIAPHRAGM

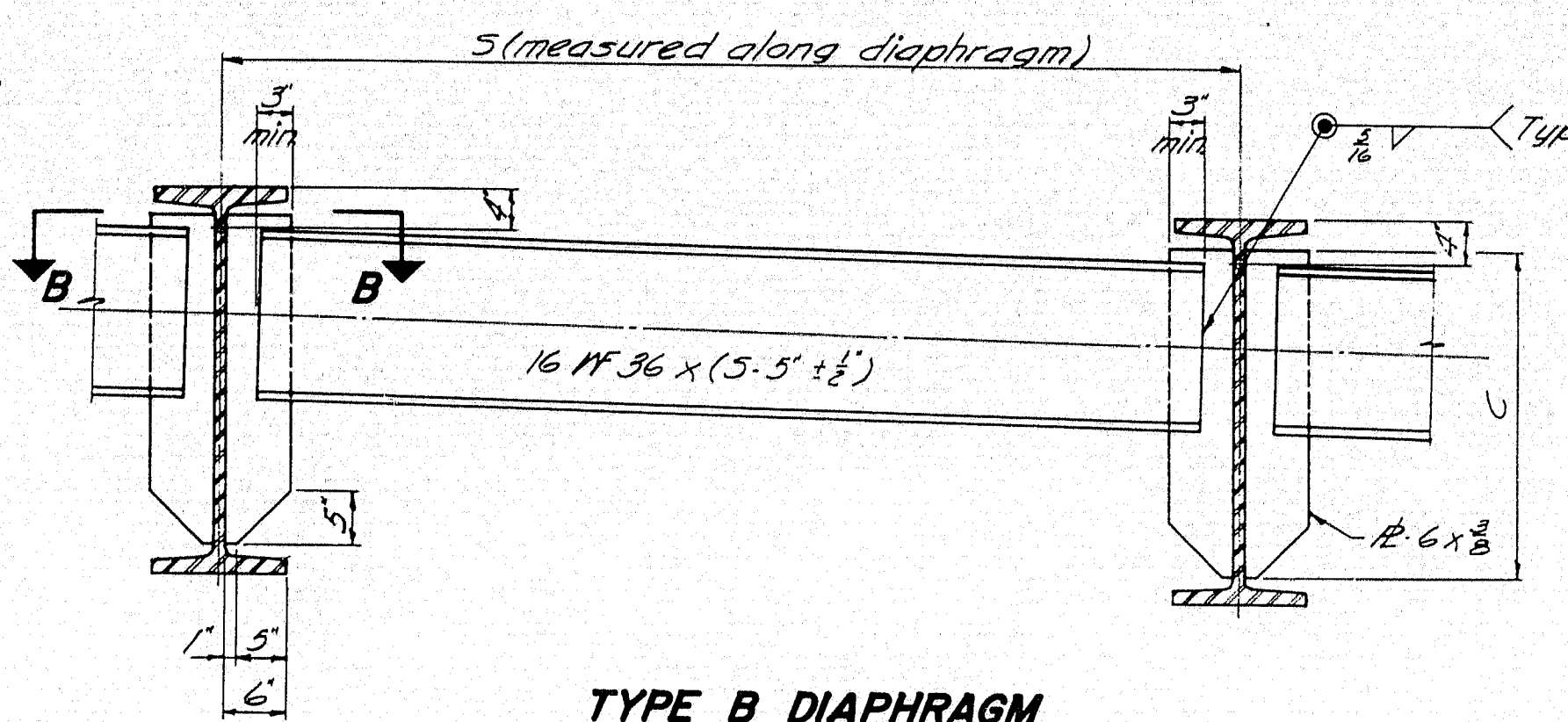


SECTION A-A
Skew Angle 0° to 10° 00'

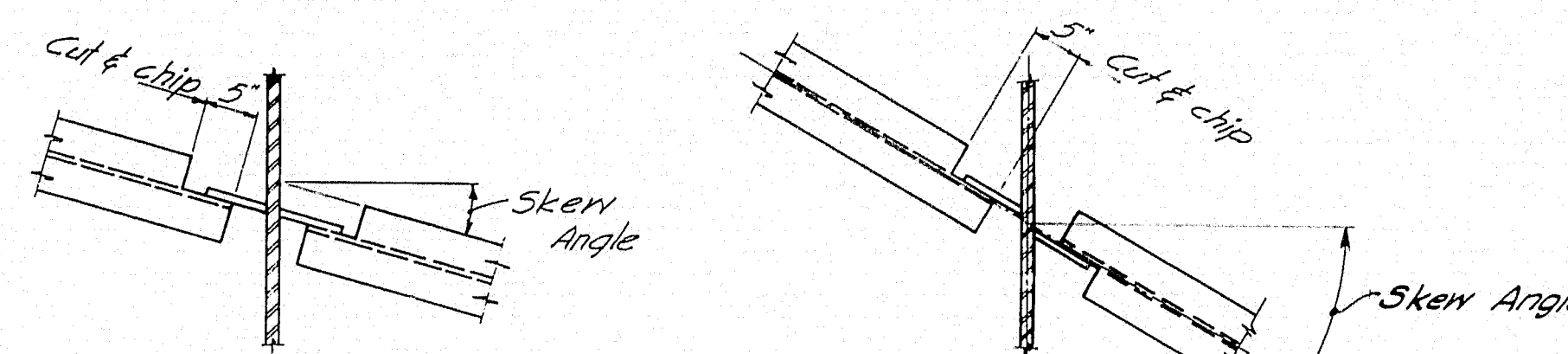
SECTION A-A
Skew Angle over 10° 00' to 20° 00'

BEAM	C	N
27 1/2" 84 to 114 incl.	1'-11"	1/2"
30 1/2" 99 to 132 incl.	2'-2"	1/2"
33 1/2" 118 to 152 incl.	2'-5"	1/2"
36 1/2" 135 to 194 incl.	2'-7"	1/2"
36 1/2" 230 to 300 incl.	2'-6"	1/2"

FILLET WELD SIZE "N" &
DIMENSION "C" FOR DIAPHRAGM PLATES



TYPE B DIAPHRAGM
Welding 6x8 plates to web same as for Type A Diaphragm.

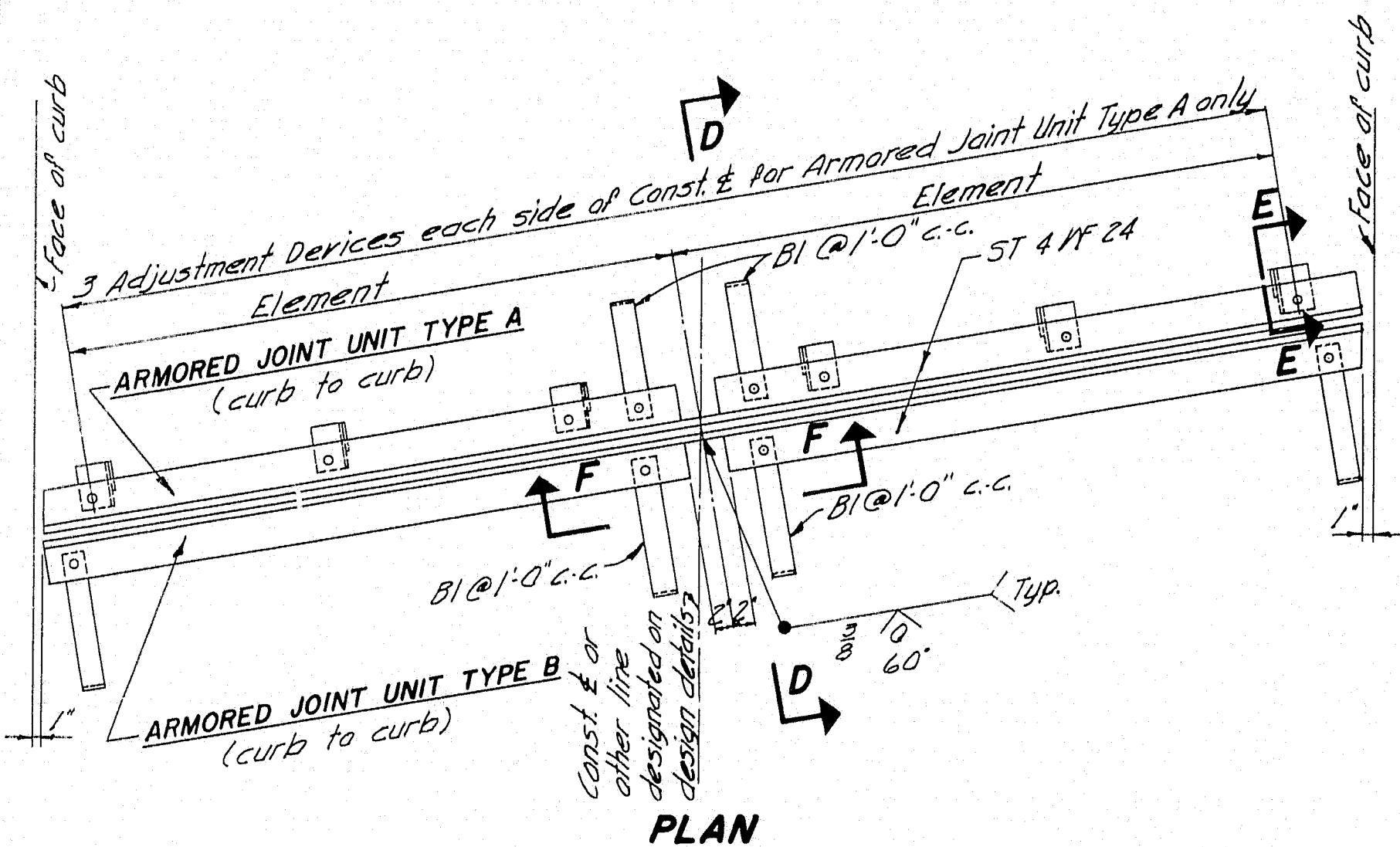


SECTION B-B
Skew Angle 0° to 10° 00'

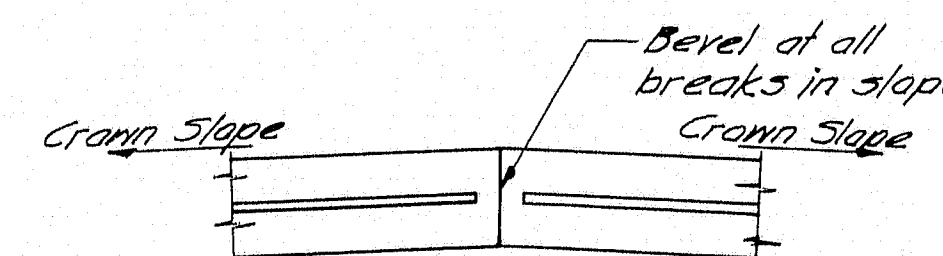
SECTION B-B
Skew Angle over 10° 00'

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

DIAPHRAGMS



PLAN



SECTION F-F

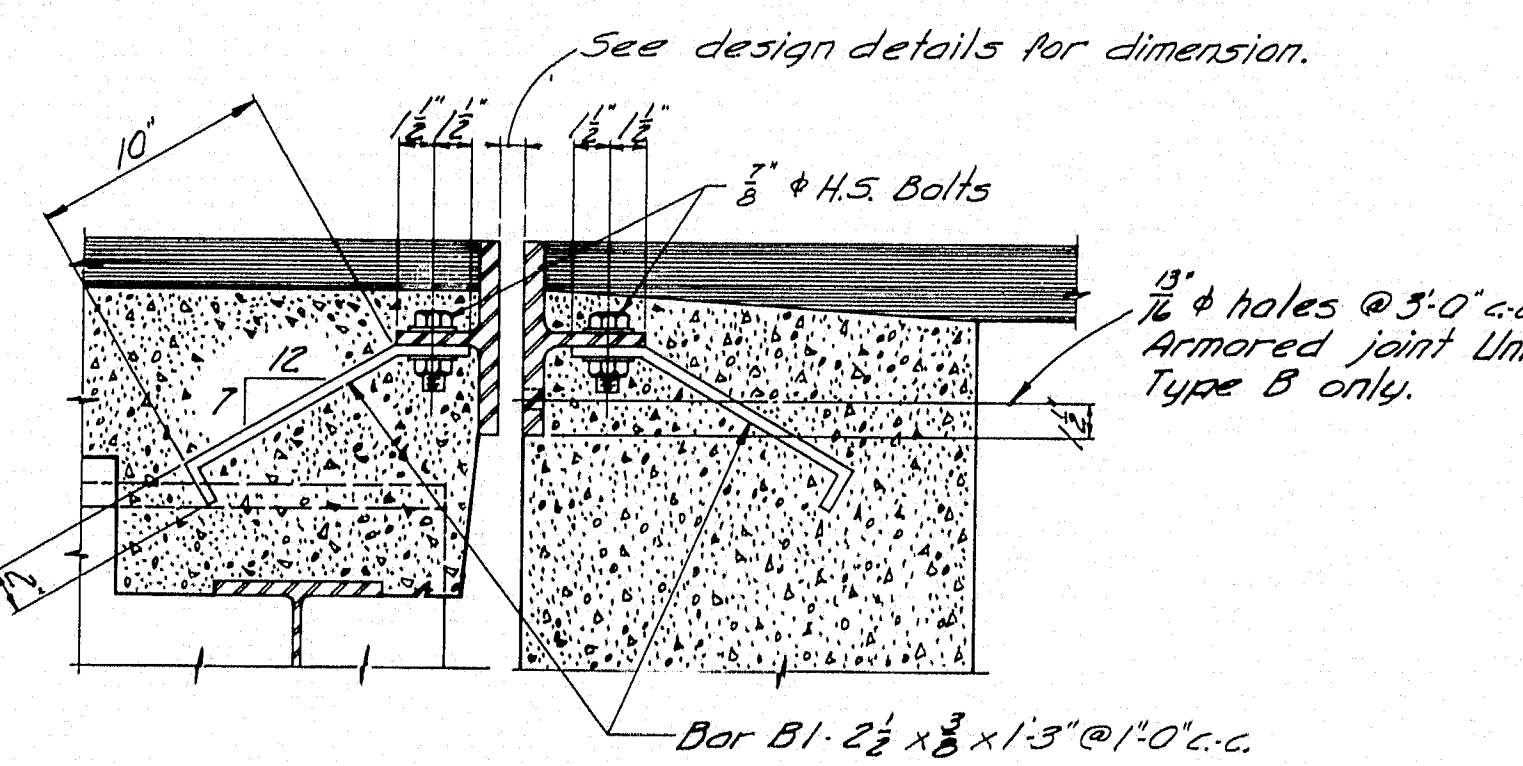
Note: See design details for Const. & to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. 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'.
3. Armored Joints to be paid for as Structural Steel.

ARMORED JOINT

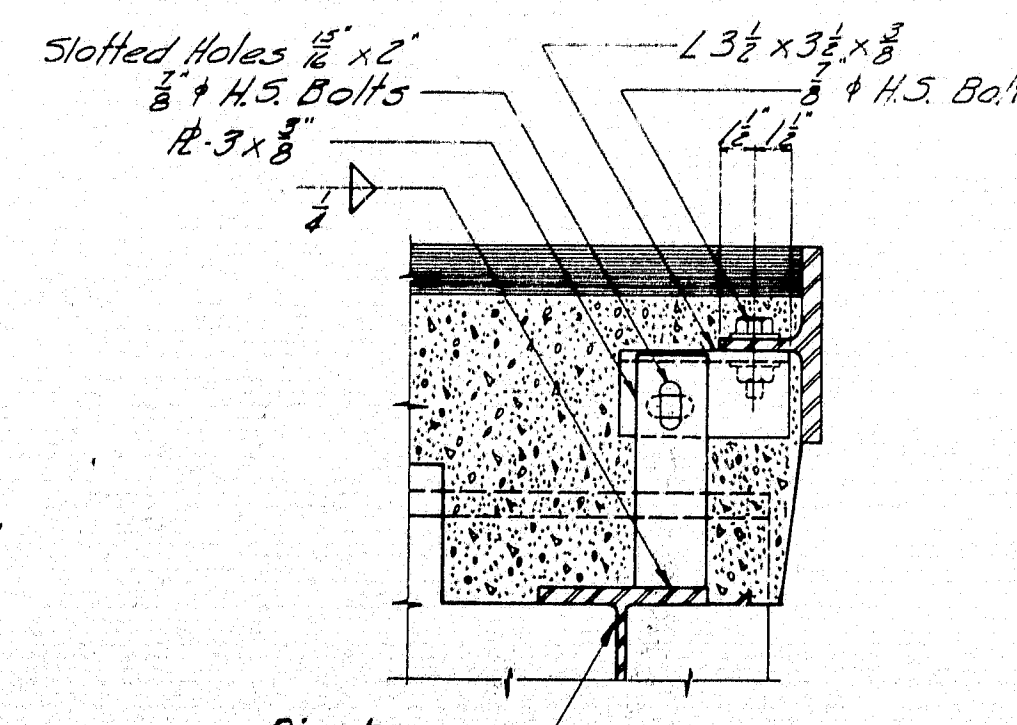
An armored joint consists of two armored joint units. See note 1.



ARMORED JOINT UNIT TYPE A

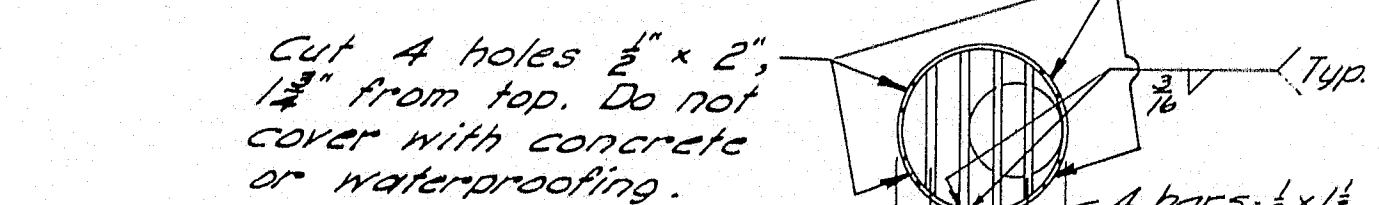
ARMORED JOINT UNIT TYPE B

SECTION D-D



SECTION E-E

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



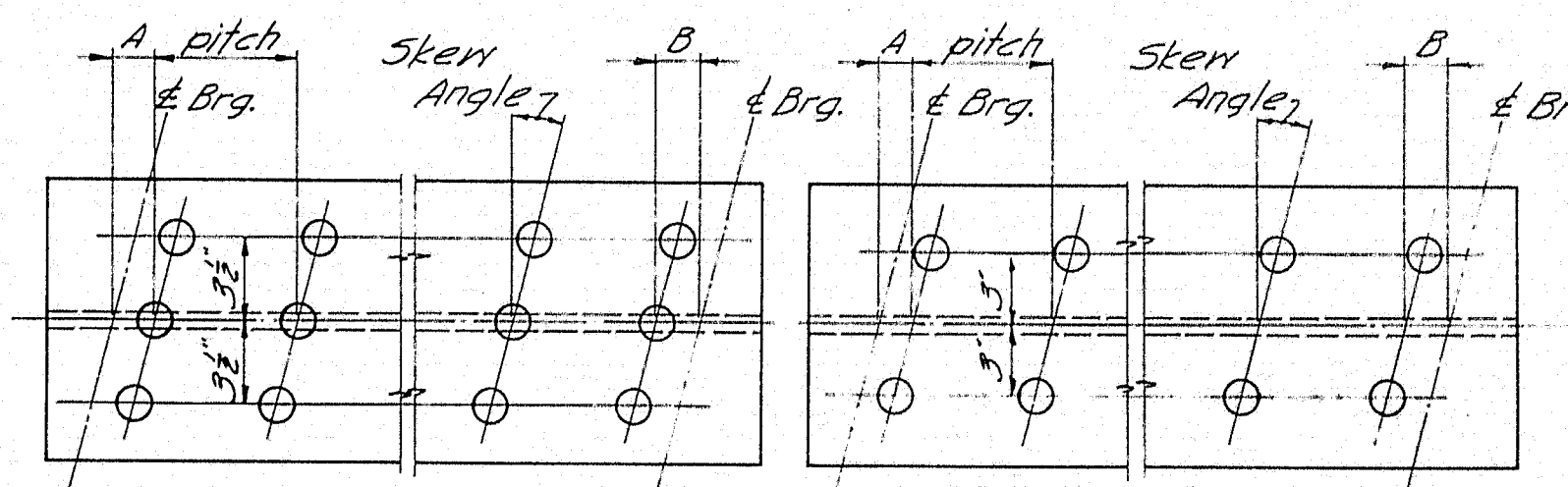
SECTION C-C

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.

SHEAR CONNECTOR NOTE

The connectors may be either steel studs or spirally formed bars. At the request of the contractor a plan for using spirally formed bars will be provided.



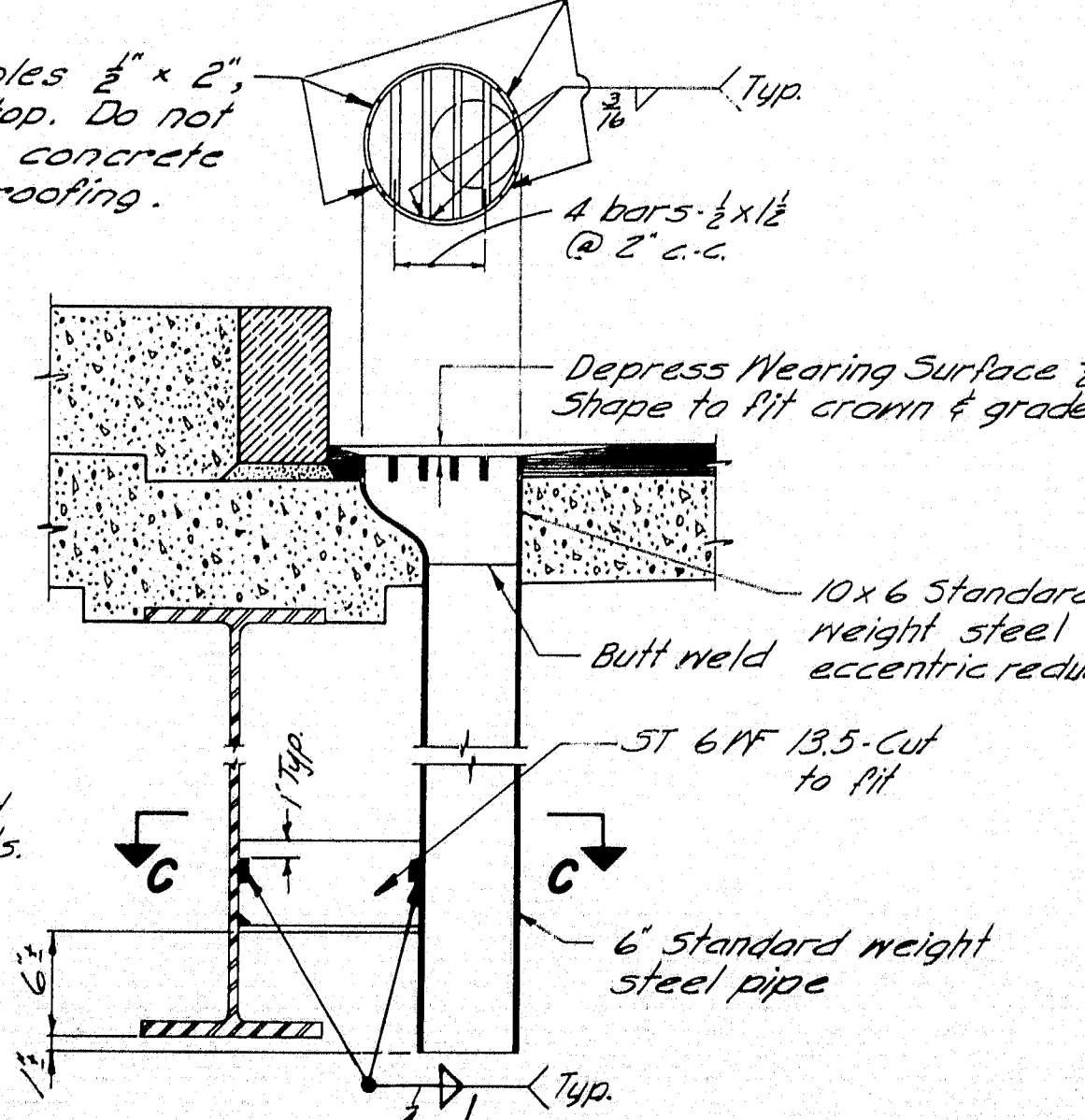
TRIPLE STUDS

DOUBLE STUDS

NOTE

1. Studs shall be granular or solid flux filled and automatically end welded to top flange in the shop or field.
2. See the design details for Dimensions "A" & "B", stud pitch and skew angle for studs.

SHEAR CONNECTORS



DRAIN

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 104-66)
**DIAPHRAGMS, ARMORED JOINT,
SHEAR CONNECTORS, DRAIN**

SEPTEMBER 1966

M-266PC

