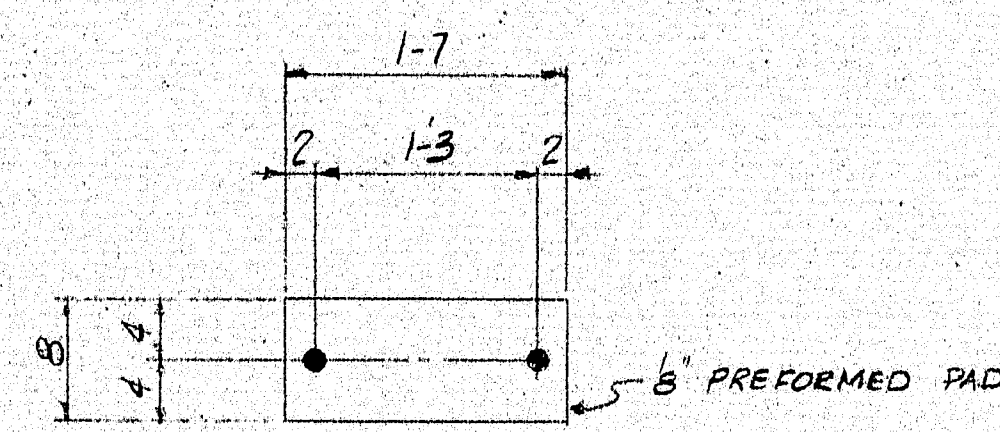
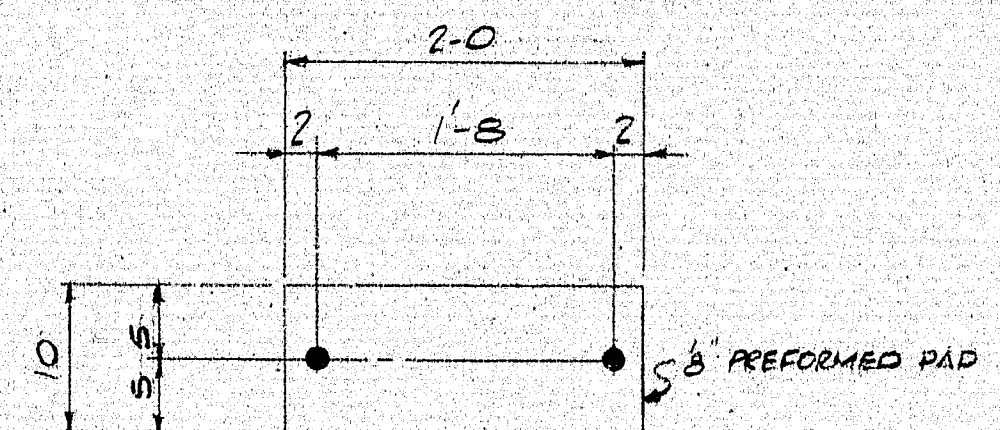
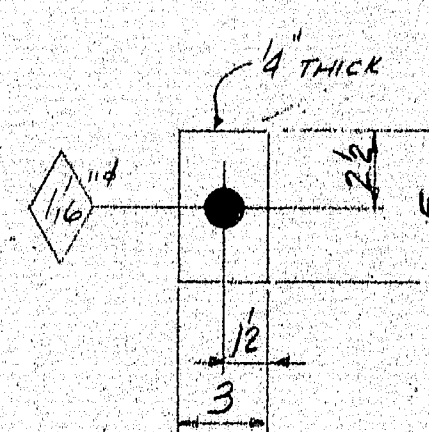
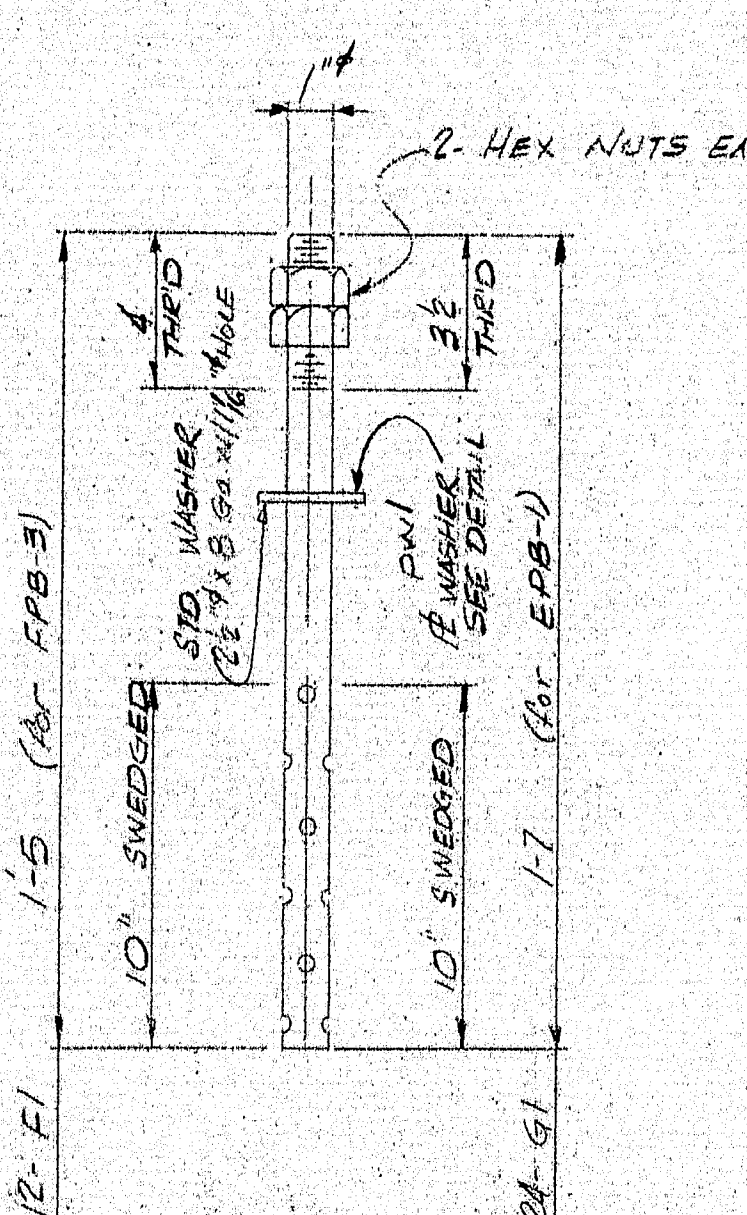
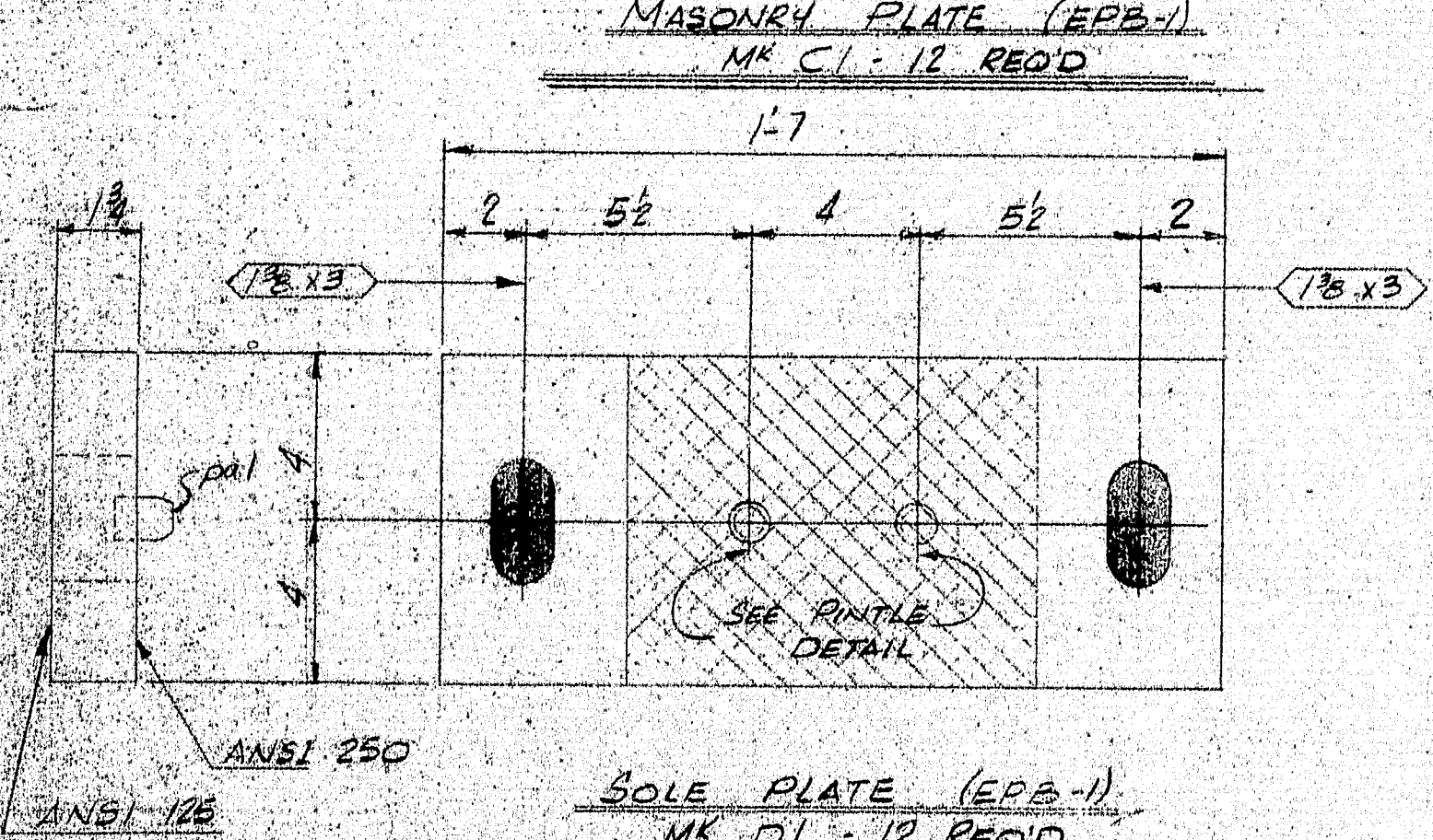
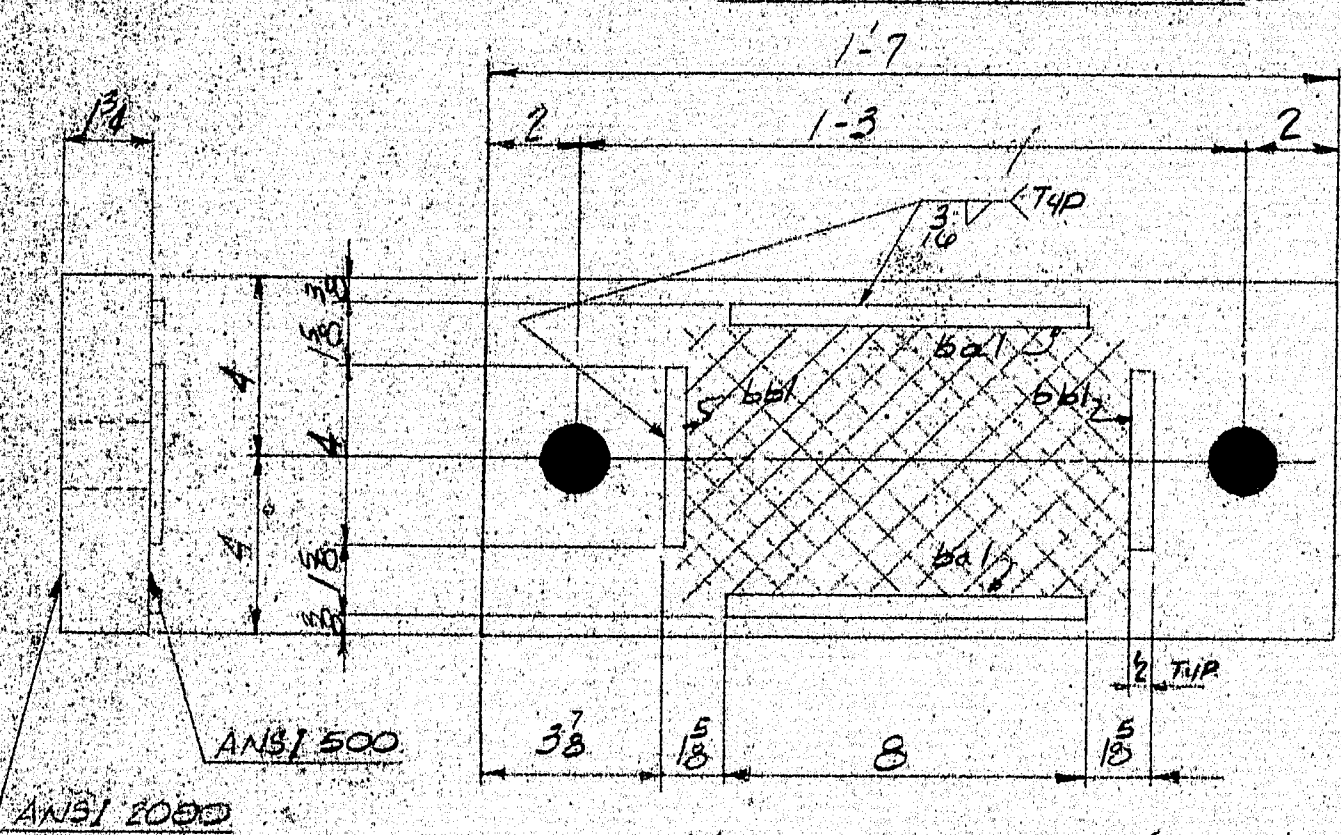
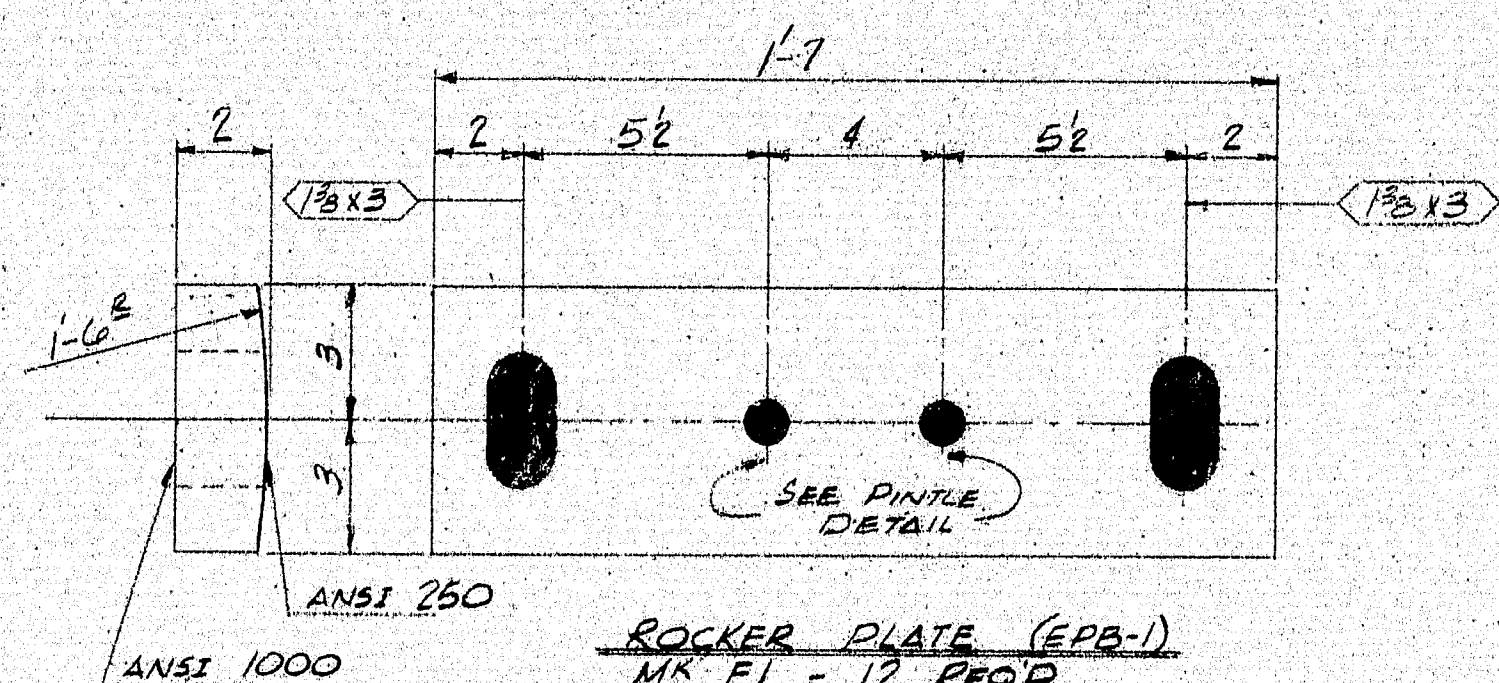
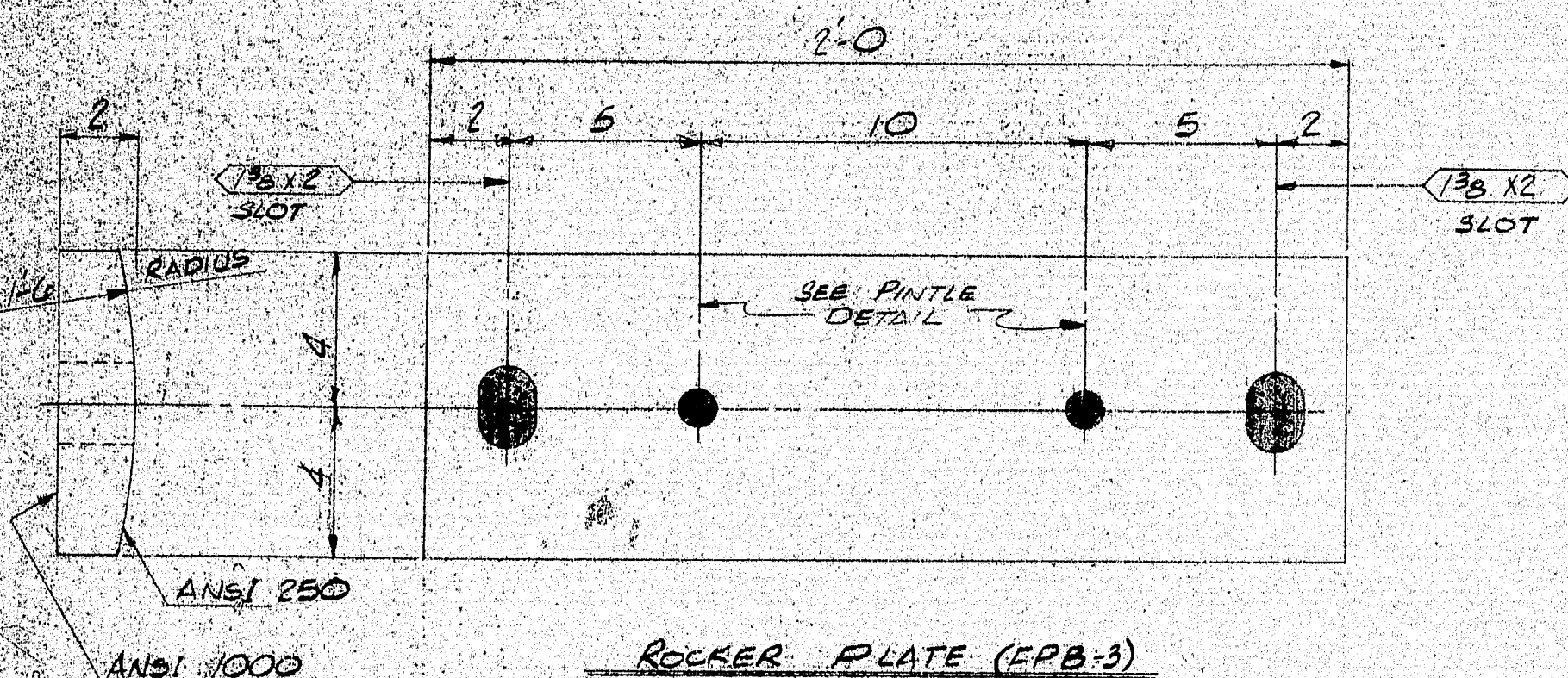


SHIP ALL BEARINGS ASSEMBLED
AND STRAPPED TOGETHER



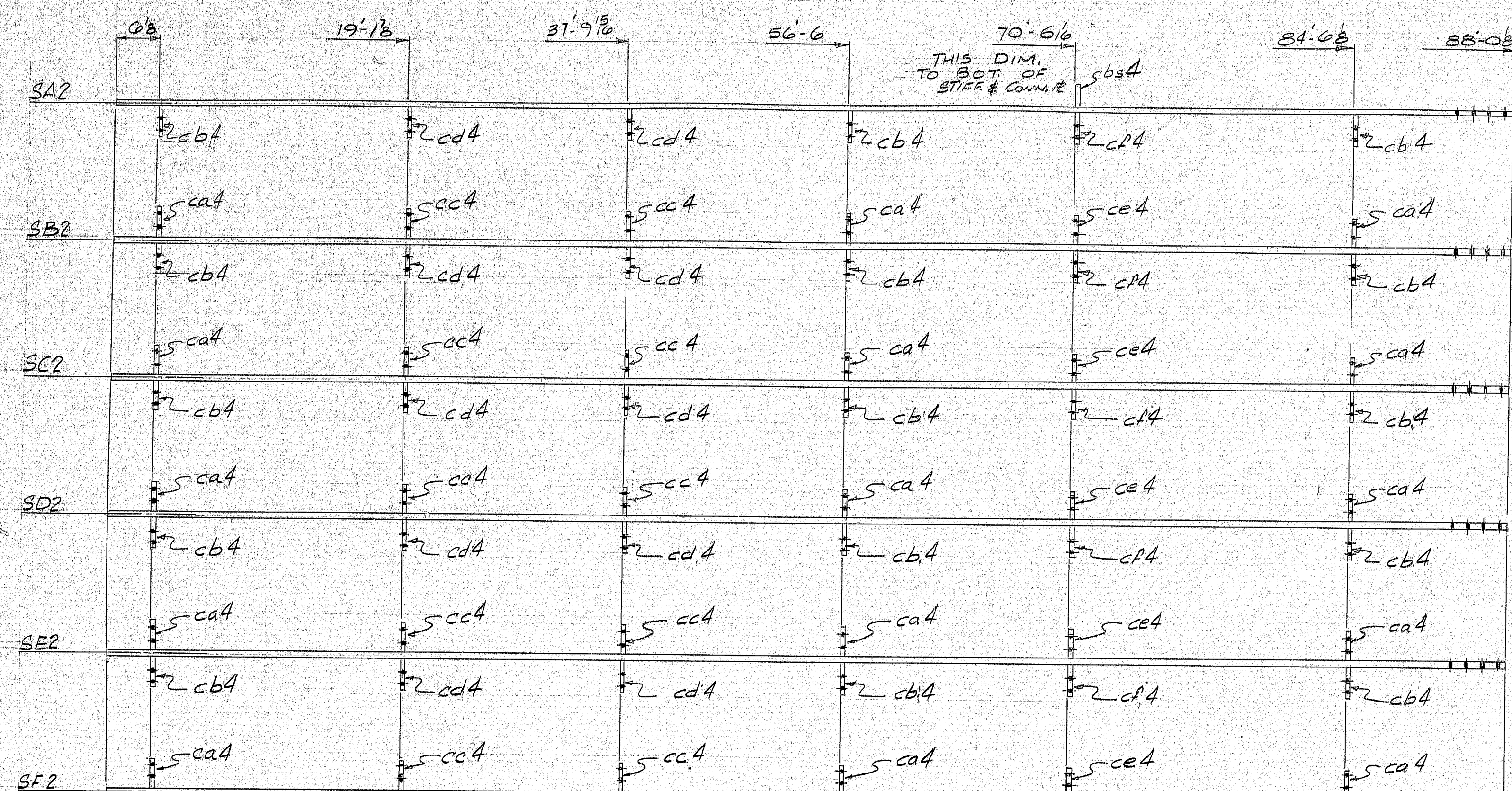
NOTE:
COAT ALL OF H.I. &
XXX CROSS HATCH AREAS
WITH HOT MIXTURE OF WHITE
LEAD AND TALLOW

MATERIAL SCHEDULE

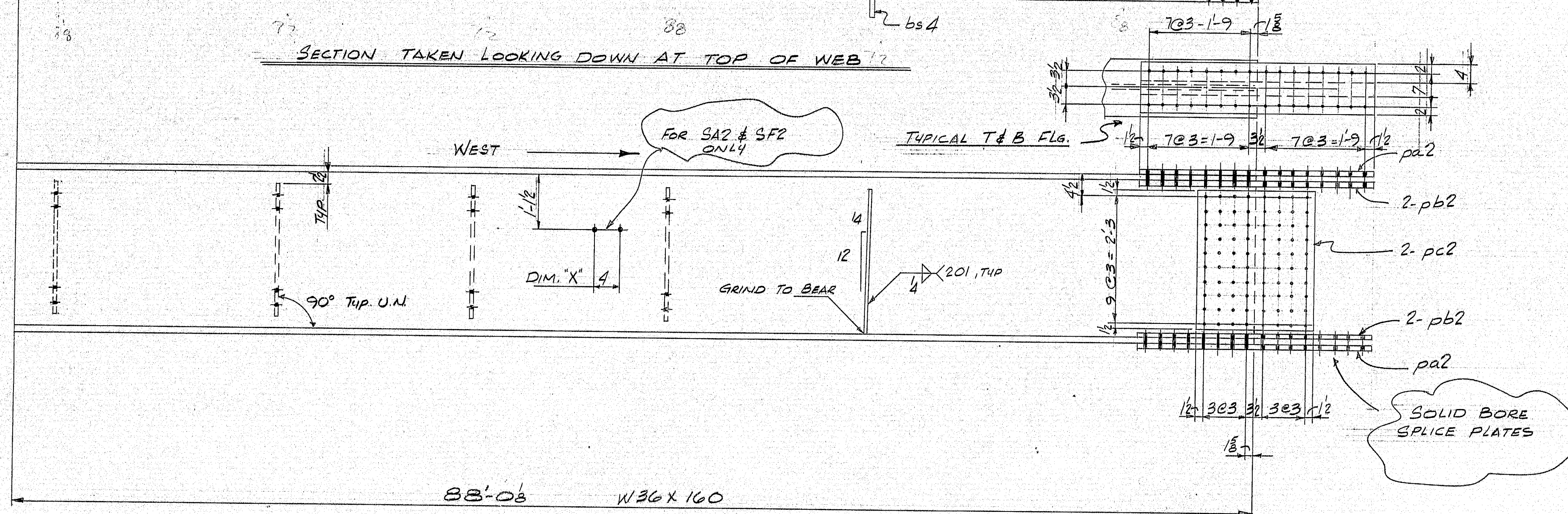
MARK	NO. PCS	SHAPE	LENGTH IN.	O. OR S.	CUT FROM	REMARKS	WEIGHT
A1	6	2"x10"	2'0"	#4B1	1 4x96	ASBB-6x3 MACHINE	816
B1	6	2"x8"	2'0"	#4B1	1 20" D	ASBB-6x3	453
C1	12	2"x8"	1'7"	#4B1	1 4x96	do	765
D1	12	2"x8"	1'7"	#4B1	1 4x96	do	765
E1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
F1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
G1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
H1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
I1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
J1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
K1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
L1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
M1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
N1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
O1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
P1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
Q1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
R1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
S1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
T1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
U1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
V1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
W1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
X1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
Y1	12	2"x6"	1'7"	#4B1	1 4x96	do	765
Z1	12	2"x6"	1'7"	#4B1	1 4x96	do	765

J1	6	PAD 1/2 x 10	2'0"	#4B1		PREFORMED RUBBER	
K1	12	PAD 1/2 x 8	1'7"	#4B1		PAD HARDNESS	
						BS-90 10,000 PSI	
						COMP STRENGTH	
						Total	4346

APPROVAL AND REVISIONS	MAINE D.O.T. PROJECT #RF-080-1(13)
1. PA 2-18-77	MAINE - CASCADE IRON WORKS
2. SEP 10 3/17/77	BAKER STREET, CLINTON, MAINE 04927
3. SEP 10 3/17/77	PHONE 207-426-2691
4. SEP 10 3/17/77	
5. SEP 10 3/17/77	
6. SEP 10 3/17/77	
7. SEP 10 3/17/77	
8. SEP 10 3/17/77	
9. SEP 10 3/17/77	
10. SEP 10 3/17/77	
11. SEP 10 3/17/77	
12. SEP 10 3/17/77	



SECTION TAKEN LOOKING DOWN AT TOP OF WEB



MAK SA2, SB2, SC2, SD2, SE2, SF2 — ONE EACH REQ'D
(FABRICATE WITH NATURAL CAMBER UP)

SAZ # SF2
DIM 'X'
2'-3
7'-3
12'-3
17'-3
22'-3
27'-3
32'-3
37'-3
42'-3
47'-3
52'-3
57'-3
62'-3
67'-3
72'-3
77'-3
82'-3

MATERIAL SCHEDULE

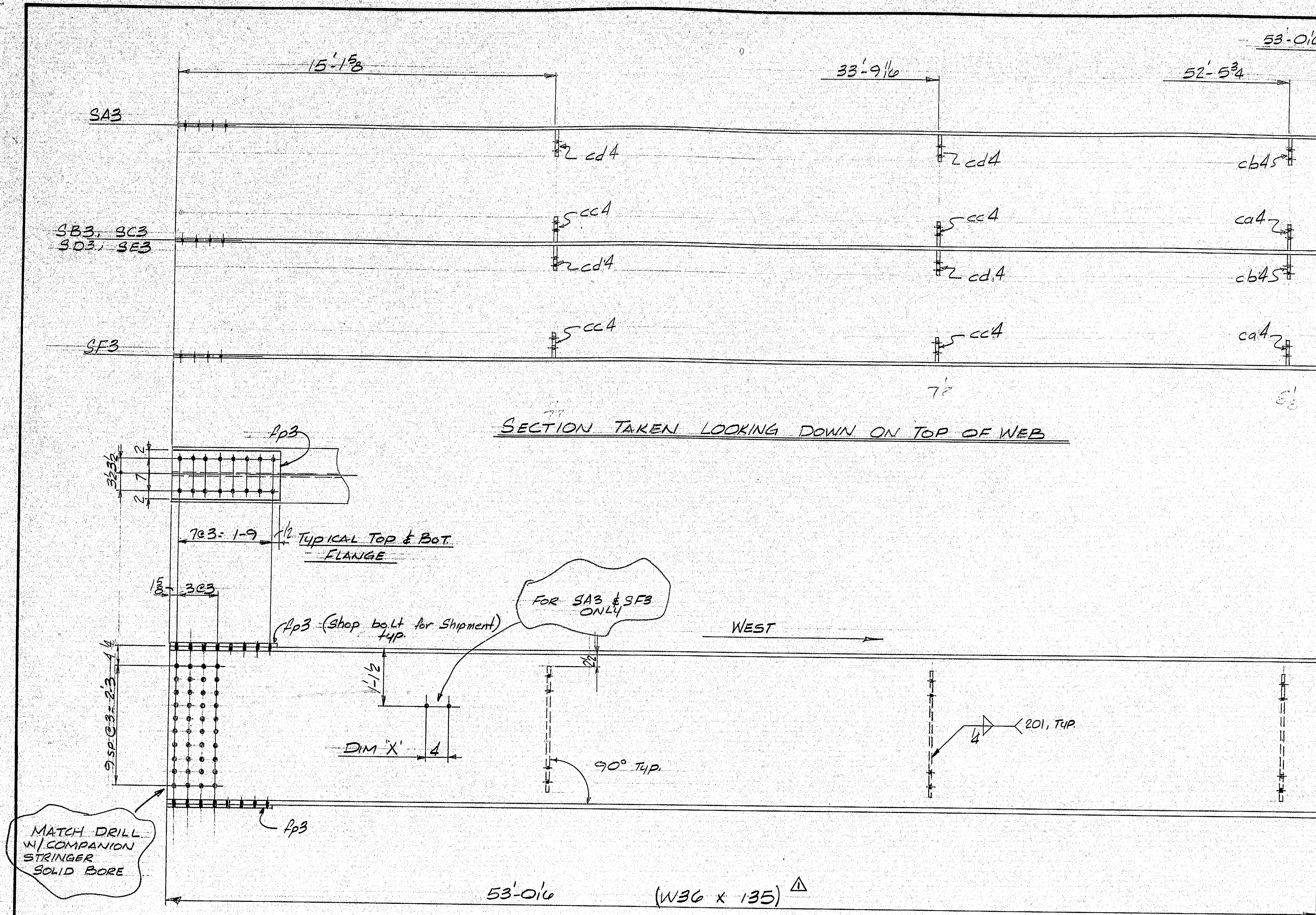
MARK	NO.	PCB	SHAPE	LENGTH	O. OR S.	CUT FROM	REMARKS	WEIGHT
				FT. IN.		NO. FT. IN.		
SA2	1		W36X160	88'-0 1/2	9151	1 58 2	A325-T5 GR B	14082
	3	ca4	7/8"x3/4"	2 5	9481	1 76X258		76
	2	cd4	1/2"x3/4"	2 5				46
	1	cb4	1/2"x3/4"	2 7 1/2				25
	1	bs4	1/2"x3/4"	2 7 1/2				20
	2	pa2	1/2"x3/4"	4 0 2	00		CVN	227
	4	pb2	1/2"x3/4"	4 0 2	00		CVN	192
	2	pc2	1/2"x3/4"	2 0	9481	1 76X120	CVN	254
SB2	1		W36X160	88'-0 1/2	9151	1 58 2	CVN	14082
	3	ca4	7/8"x3/4"	2 5	9481			76
	3	cb4	1/2"x3/4"	2 5	9481			76
	2	cd4	1/2"x3/4"	2 5	9481			46
	2	cd4	1/2"x3/4"	2 5	9481			46
	1	ce4	7/8"x3/4"	2 7 1/2	9481			25
	1	cb4	1/2"x3/4"	2 7 1/2	9481			25
	2	pa2	1/2"x3/4"	4 0 2			CVN	227
	4	pb2	1/2"x3/4"	4 0 2			CVN	192
	2	pc2	1/2"x3/4"	2 0			CVN	254
SC2	1		W36X160	88'-0 1/2	9151	1 58 2		14082
	3	ca4	7/8"x3/4"	2 5	9481			76
	3	cb4	1/2"x3/4"	2 5	9481			76
	2	cd4	1/2"x3/4"	2 5	9481			46
	2	cd4	1/2"x3/4"	2 5	9481			46
	1	ce4	7/8"x3/4"	2 7 1/2	9481			25
	1	cb4	1/2"x3/4"	2 7 1/2	9481			25
	2	pa2	1/2"x3/4"	4 0 2			CVN	227
	4	pb2	1/2"x3/4"	4 0 2			CVN	192
	2	pc2	1/2"x3/4"	2 0			CVN	254
SD2	1		W36X160	88'-0 1/2	9151	1 58 2	CVN	14082
	3	ca4	7/8"x3/4"	2 5	9481			76
	3	cb4	1/2"x3/4"	2 5	9481			76
	2	cd4	1/2"x3/4"	2 5	9481			46
	2	cd4	1/2"x3/4"	2 5	9481			46
	1	ce4	7/8"x3/4"	2 7 1/2	9481			25
	1	cb4	1/2"x3/4"	2 7 1/2	9481			25
	2	pa2	1/2"x3/4"	4 0 2			CVN	227
	4	pb2	1/2"x3/4"	4 0 2			CVN	192
	2	pc2	1/2"x3/4"	2 0			CVN	254
SE2	1		W36X160	88'-0 1/2	9151	1 58 2	CVN	14082
	3	ca4	7/8"x3/4"	2 5	9481			76
	3	cb4	1/2"x3/4"	2 5	9481			76
	2	cd4	1/2"x3/4"	2 5	9481			46
	2	cd4	1/2"x3/4"	2 5	9481			46
	1	ce4	7/8"x3/4"	2 7 1/2	9481			25
	1	cb4	1/2"x3/4"	2 7 1/2	9481			25
	2	pa2	1/2"x3/4"	4 0 2			CVN	227
	4	pb2	1/2"x3/4"	4 0 2			CVN	192
	2	pc2	1/2"x3/4"	2 0			CVN	254
SF2	1		W36X160	88'-0 1/2	9151	1 58 2	CVN	14082
	3	ca4	7/8"x3/4"	2 5	9481			76
	2	cd4	1/2"x3/4"	2 5	9481			46
	1	ce4	7/8"x3/4"	2 7 1/2	9481			25
	1	bs4	1/2"x3/4"	2 7 1/2				20
	2	pa2	1/2"x3/4"	4 0 2			CVN	227
	4	pb2	1/2"x3/4"	4 0 2			CVN	192
	2	pc2	1/2"x3/4"	2 0			CVN	254

FIELD BOLTS

652	3/4"	H.S. BOLT	0 24	9599	A325 TYPE 3	4185
488	do	do	0 34		do	440
392	do	do	0 4	00	do	404
1532	3/4"	WASHERS		9599		
1028	3/4"	WASHERS		9599		
1028	3/4"	WASHERS		9599		

APPROVAL AND REVISIONS	MAINE—CASCADE IRON WORKS	91309
1 FA 2-18-77 R	BAKER STREET, CLINTON, MAINE 04927	
23584 FA 3/17/77 R	PHONE 207-426-2691	
3	DESCRIPTION	STRINGER DETAILS
4	PROJECT	SIX MILE FALLS BRIDGE
5	LOCATION	BANGOR, MAINE
6	ARCHITECT	STATE OF MAINE D.O.T.
7	CONTRACTOR	CAELAHAN BROS. INC.
8	PAY	NONE
9	DRAWN BY	RKC
10	CHECKED BY	RE
11	DATE	2-10-77
12	HOLES	15 1/4
	PROJ. NO.	76-259-1
	DRWG. NO.	2

MAIN D.O.T. PROJECT #RF 162-30



△ MK S13, SB3, SC3, SD3, SE3, SF3 — ONE EACH REQ'D
(FABRICATE WITH NATURAL CAMBER UP)

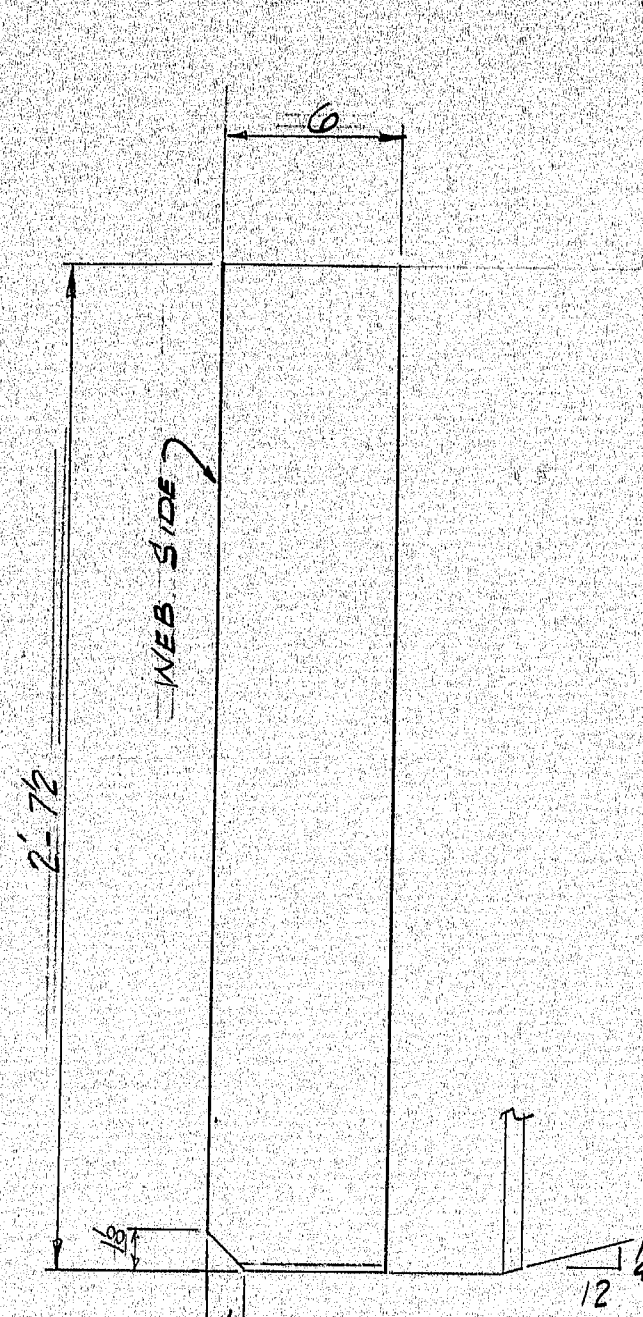
S13
SF3
DIM X
5'-3
10'-3
15'-3
20'-3
25'-3
30'-3
35'-3
40'-3
45'-3
50'-3

MATERIAL SCHEDULE

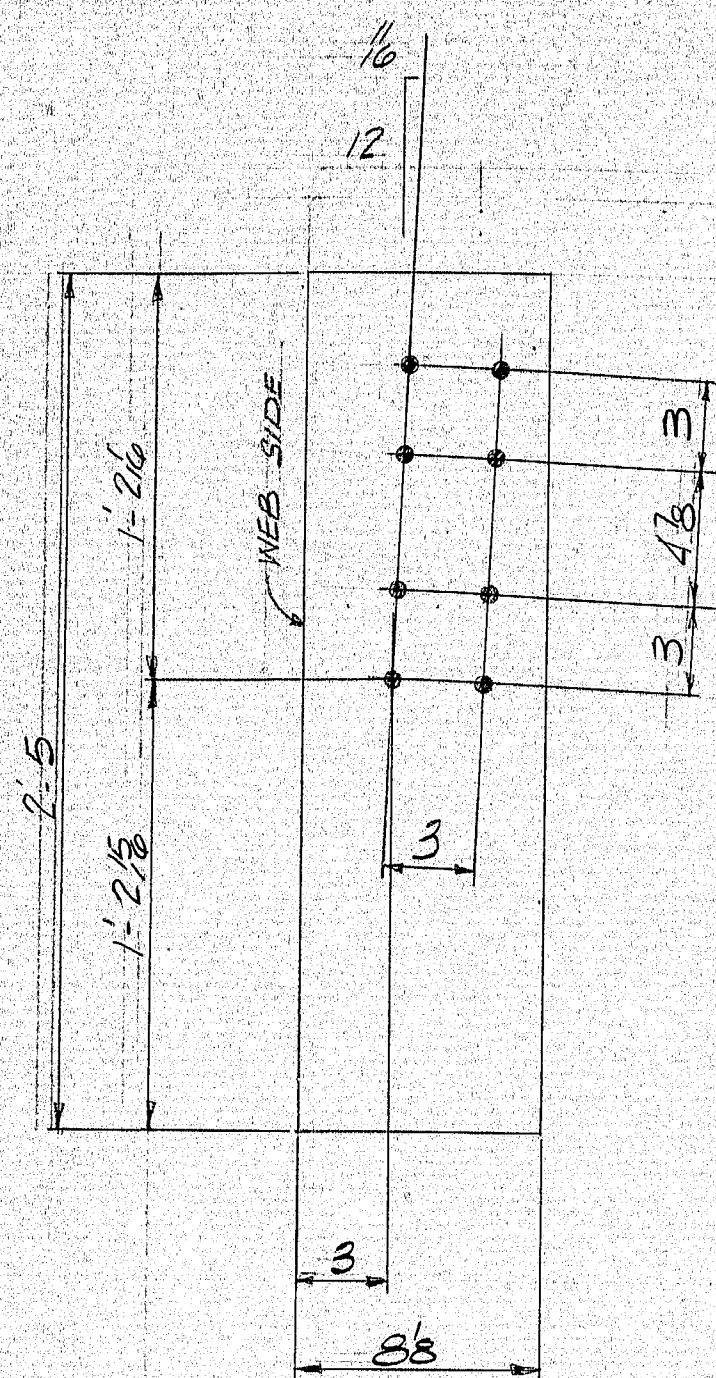
MARK	NO. OF	SHAPE	LENGTH	Q. OR S.	CUT FROM	REMARKS	WEIGHT
S13	1	W36 X 135	53' 0 1/16	9151	1 S3 1 1/2	ASS-75 GR. B. CVN	7156
	2	cd4	2 5	9481			46
	1	cb4	2 5	do			25
	2	cp3	2 0	CRDP		From Pedestals	37
SB3	1	W36 X 135	53' 0 1/16	9151	1 S3 1 1/2		7156
	1	cd4	2 5	9481			25
	1	cb4	2 5	do			25
	2	cc4	2 5	do			46
	2	cd4	2 5	do			46
	2	cp3	2 0	CRDP		From Pedestals	37
SC3	1	W36 X 135	53' 0 1/16	9151	1 S3 1 1/2	CVN	7156
	1	cd4	2 5	9481			25
	1	cb4	2 5	do			25
	2	cc4	2 5	do			46
	2	cd4	2 5	do			46
	2	cp3	2 0	CRDP		From Pedestals	37
SD3	1	W36 X 135	53' 0 1/16	9151	1 S3 1 1/2	CVN	7156
	1	cd4	2 5	9481			25
	1	cb4	2 5	do			25
	2	cc4	2 5	do			46
	2	cd4	2 5	do			46
	2	cp3	2 0	CRDP		From Pedestals	37
SE3	1	W36 X 135	53' 0 1/16	9151	1 S3 1 1/2	CVN	7156
	1	cd4	2 5	9481			25
	1	cb4	2 5	do			25
	2	cc4	2 5	do			46
	2	cd4	2 5	do			46
	2	cp3	2 0	CRDP		From Pedestals	37
SF3	1	W36 X 135	53' 0 1/16	9151	1 S3 1 1/2	CVN	7156
	1	cd4	2 5	9481			25
	2	cc4	2 5	do			25
	2	cd4	2 5	do			46
	2	cp3	2 0	CRDP		From Pedestals	37
						do	37
						Total	43368

APPROVAL AND REVISIONS		MAINE—CASCADE IRON WORKS BAKER STREET, CLINTON, MAINE 04927 PHONE 207-426-2691	
1	FA 2-13-77	DESCRIPTION	STRINGER DETAILS
2	RS/PA/EA 3-11-77	PROJECT	SIX MILE FALLS BRIDGE
3	3/1, SEB, SFS CHANGED	LOCATION	BANGOR, MAINE
4	BEAM SIZE	ARCHITECT	STATE OF MAINE DOT
5	SEPA FA 6-17-77	CONTRACTOR	CALLAHAN BROS. INC.
6		PAYMENT	
7		DRAWN BY	RKC
8		CHECKED BY	FA
9		DATE	2-10-77
10		HOLES	20 11/16
11		PROJ. NO.	76-259-1
12		DRWG. NO.	3

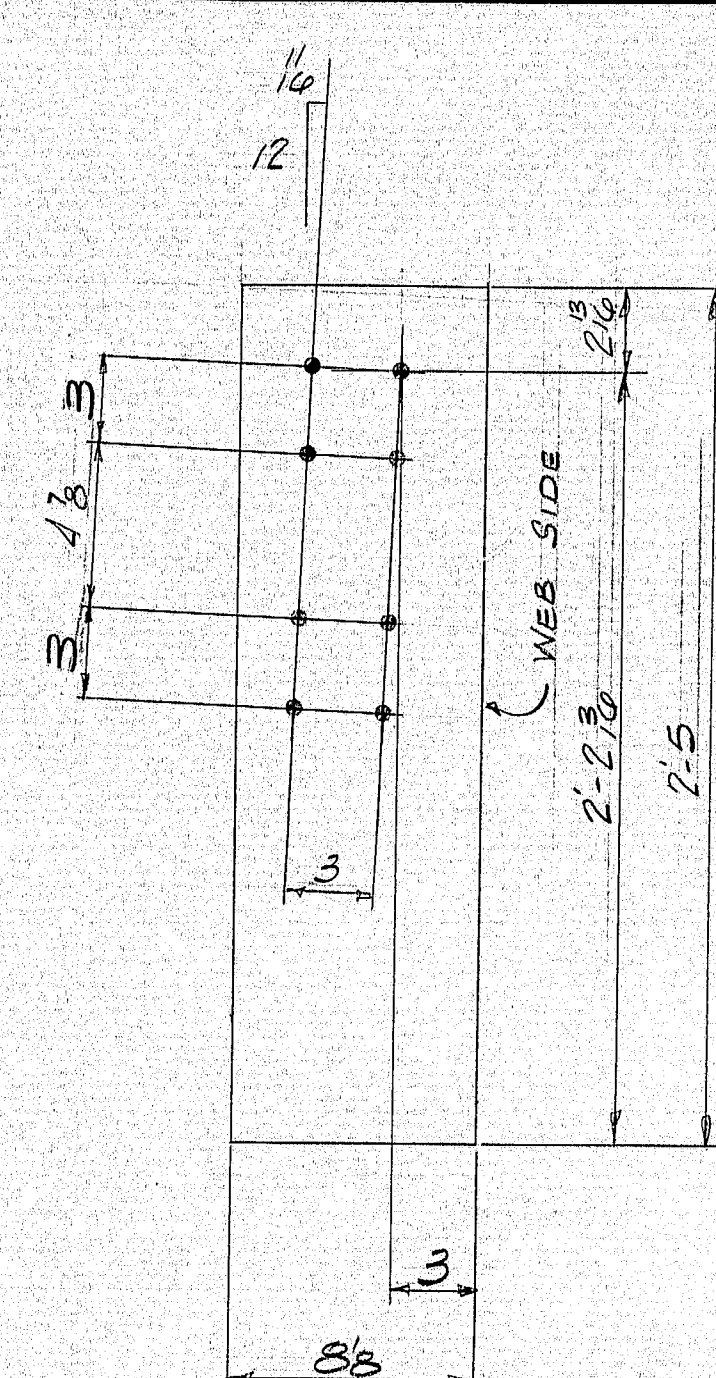
162-31



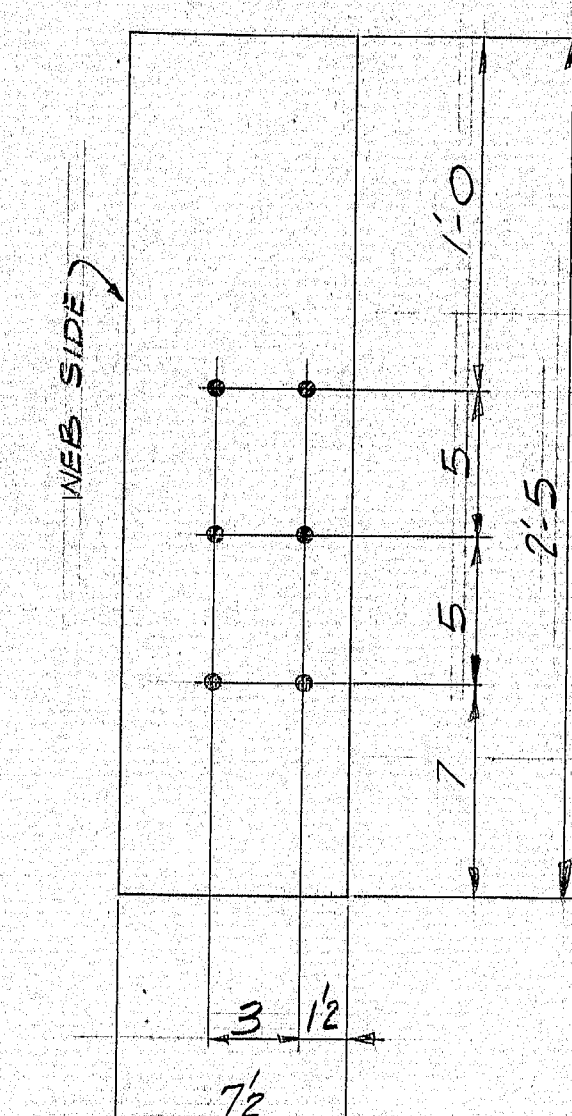
2-bs4



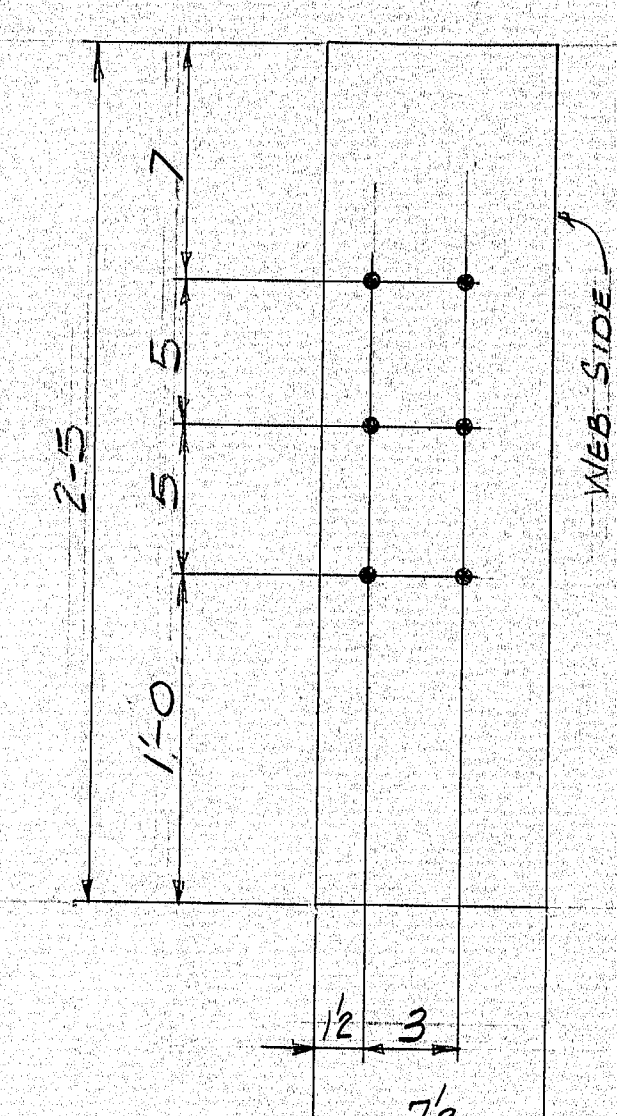
20-ca4



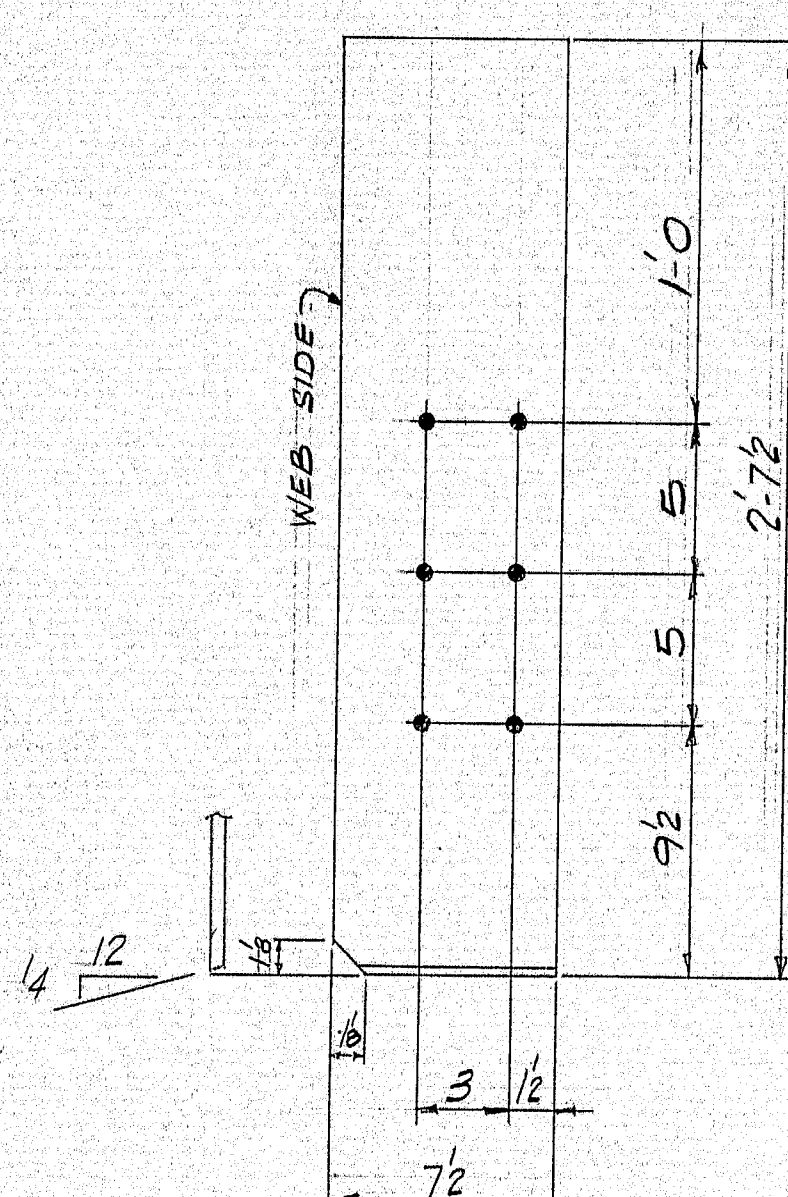
20-cb4



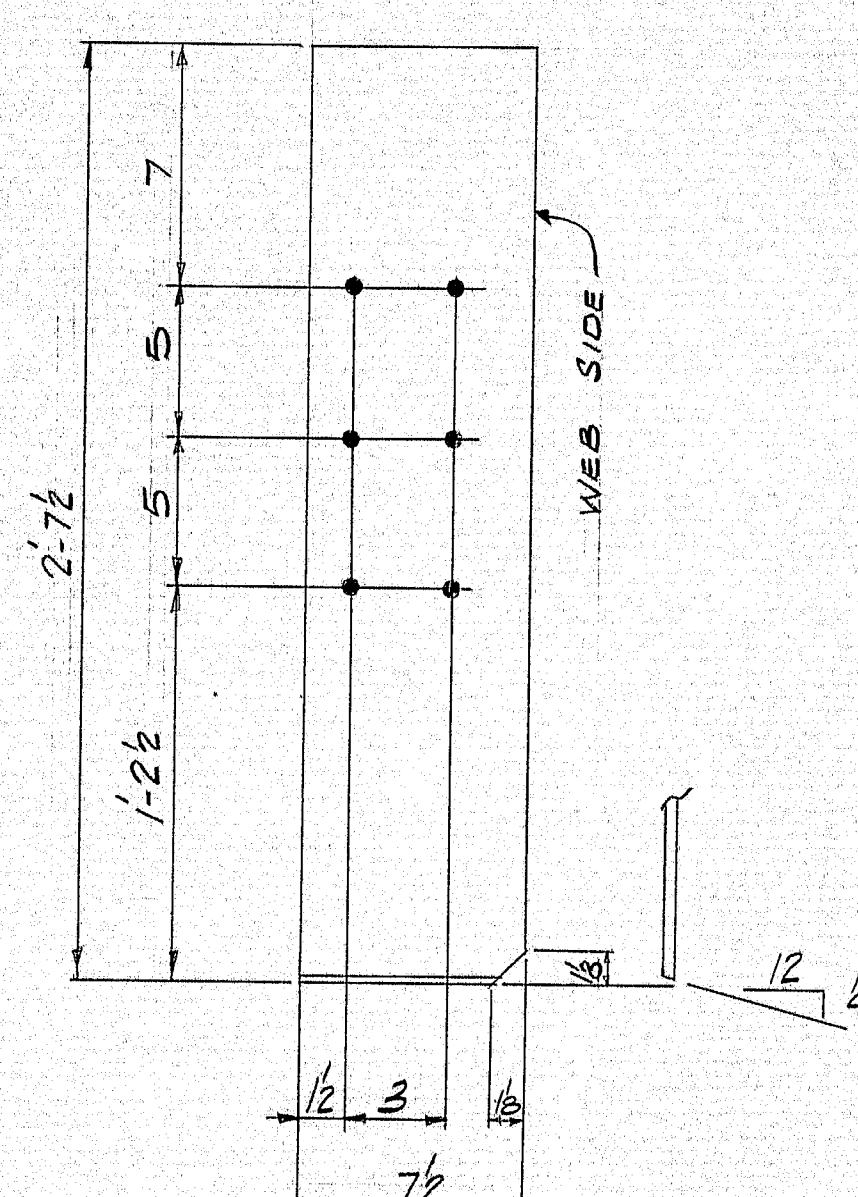
20-cc4



20-cd4



5-ce4

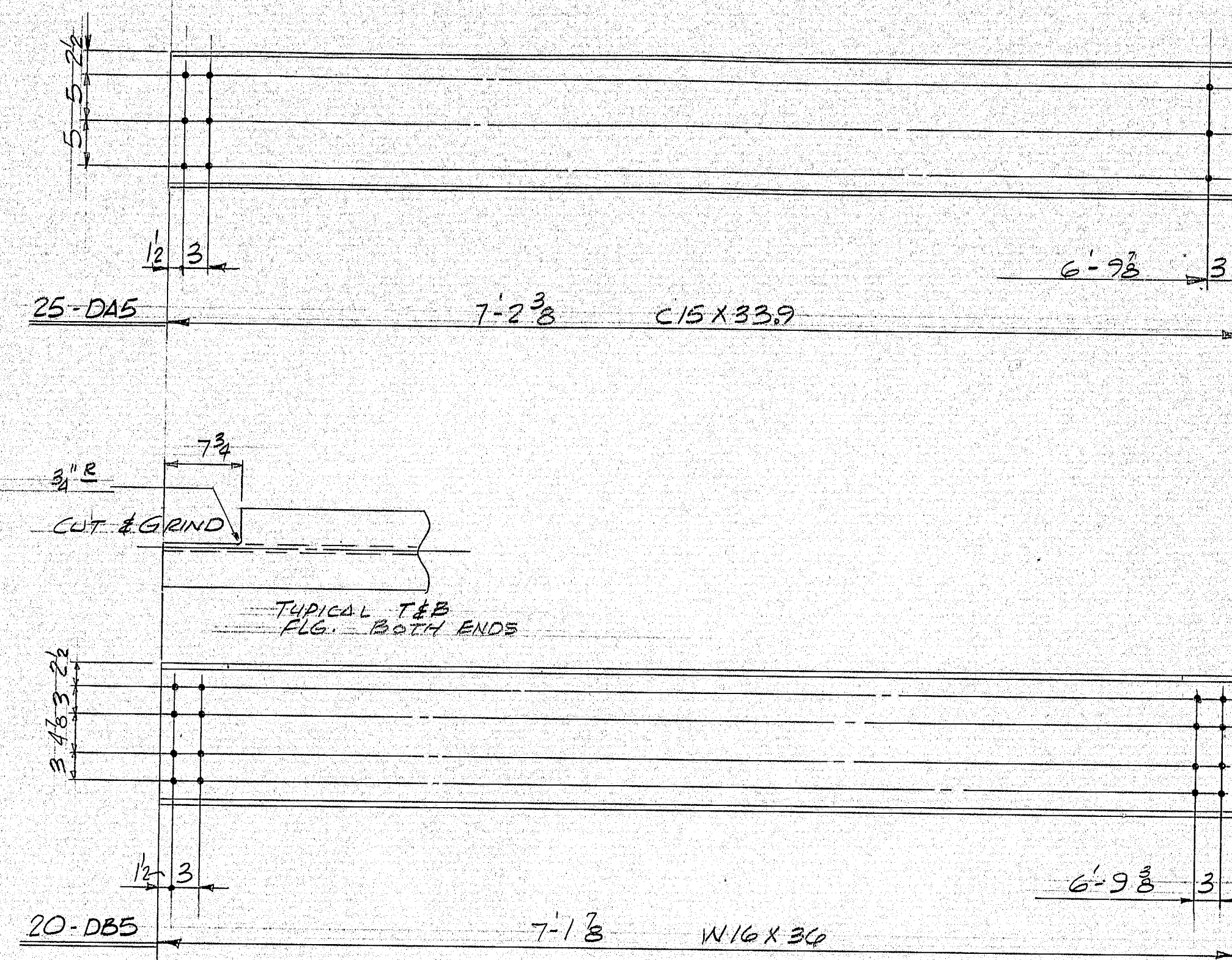


5-cf4

HOLES TO BE 15" ϕ

MAINE D.O.T. PROJECT #RF-088-1(13)			
MAINE—CASCADE IRON WORKS BAKER STREET, CLINTON, MAINE 04927 PHONE 207-426-2691			
APPROVAL AND REVISIONS	DESCRIPTION CONNECTION FE DETAILS		
1 FA 2-18-77 RKC	PROJECT SIX MILE FALLS BRIDGE		
2 SERIA EFA 3/17/77 RKC	LOCATION BANGOR, MAINE		
	ARCHITECT STATE OF MAINE D.O.T.		
	CONTRACTOR CALLAHAN BROS. INC.		
	PAIN	DRAWN BY RKC	CHECKED BY RKC
	DATE 2-11-77	PROJ. NO. 76-259-1	DRWG. NO. 4
	HOLES 15" ϕ		

162-32



HOLDS TO BE 5 1/4"

MATERIAL SCHEDULE

MARK	NO.	SHAPE	LENGTH	O. OR S.	CUT FROM	REMARKS	WEIGHT
			FT. IN.		NO. FT. IN.		
DA5	25	C15 X 33.9	7 2 3/8	915'	5 37 0	A588-75 GR. B	6100
DB5	20	W16 X 36	7 1 3/8	915'	5 37 0	do	5107
Total							11207

MAINE D.O.T. PROJECT #RF-DBB-1/13

MAINE - CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2691

DESCRIPTION: DIAPHRAGM DETAILS

PROJECT: SIX MILE FALLS BRIDGE

LOCATION: BANGOR, MAINE

ARCHITECT: STATE OF MAINE D.O.T.

CONTRACTOR: CALLAHAN BROS. INC.

PAINT: NONE

DRAWN BY: RKC

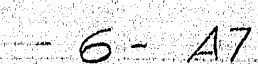
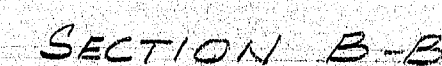
CHECKED BY: RKC

DATE: 2-11-77

PROJ. NO.: 76-259-2

DRWG. NO.: 5

162-33



3⁴ STRUT BETWEEN
DRAIN & STRINGER

[illegible]

MAINE DOT PROJECT # RF-038-1 (13)

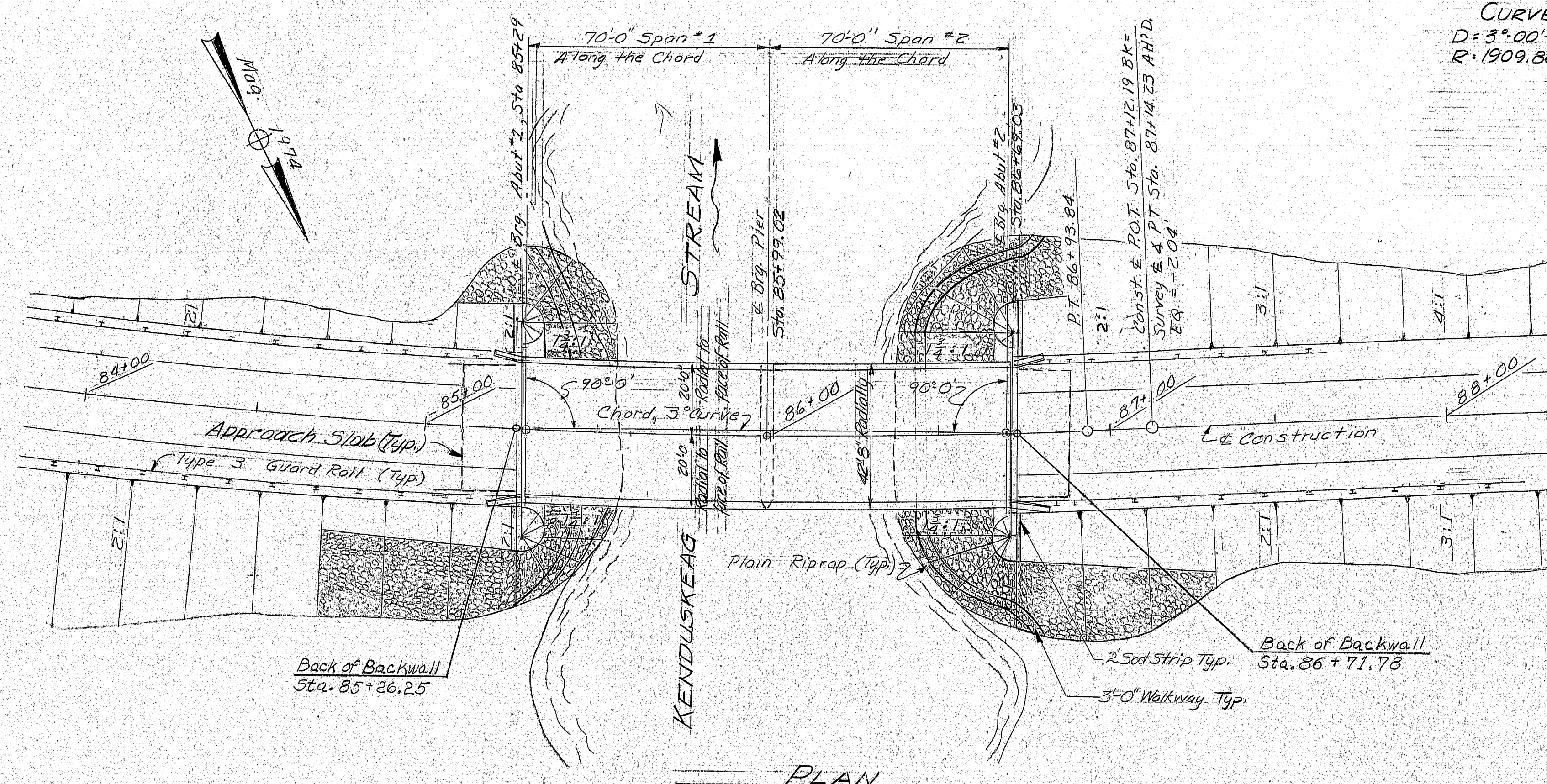
MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2691

DESCRIPTION	BRIDGE DRAINS
PROJECT	SIX MILE FALLS BRIDGE
LOCATION	BANGOR, MAINE
ARCHITECT	STATE OF MAINE D.O.T.
CONTRACTOR	CALLAHAN BROS. INC.

PAINT	NONE	DRAWN BY	RKC	CHECKED BY	HC	DATE	2-15-77
HOLES	NONE	PROJ. NO.	7-259 G	DRWG. NO.	7		

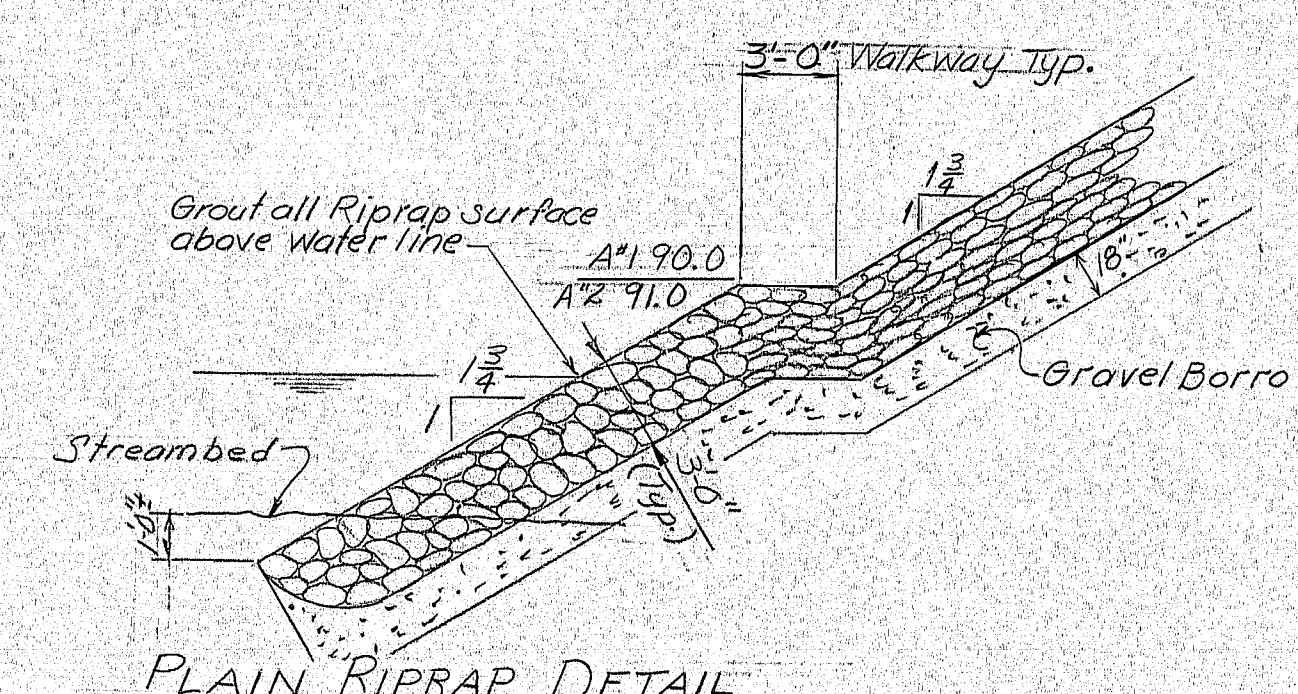
162-35

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	98-1 (13)	13	47



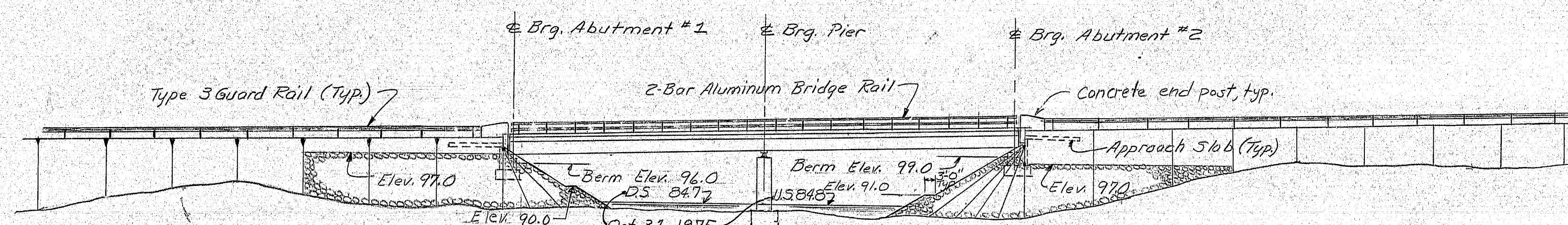
CURVE DATA
 $D = 3^{\circ}00'00''$
 $R = 1909.86'$

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.



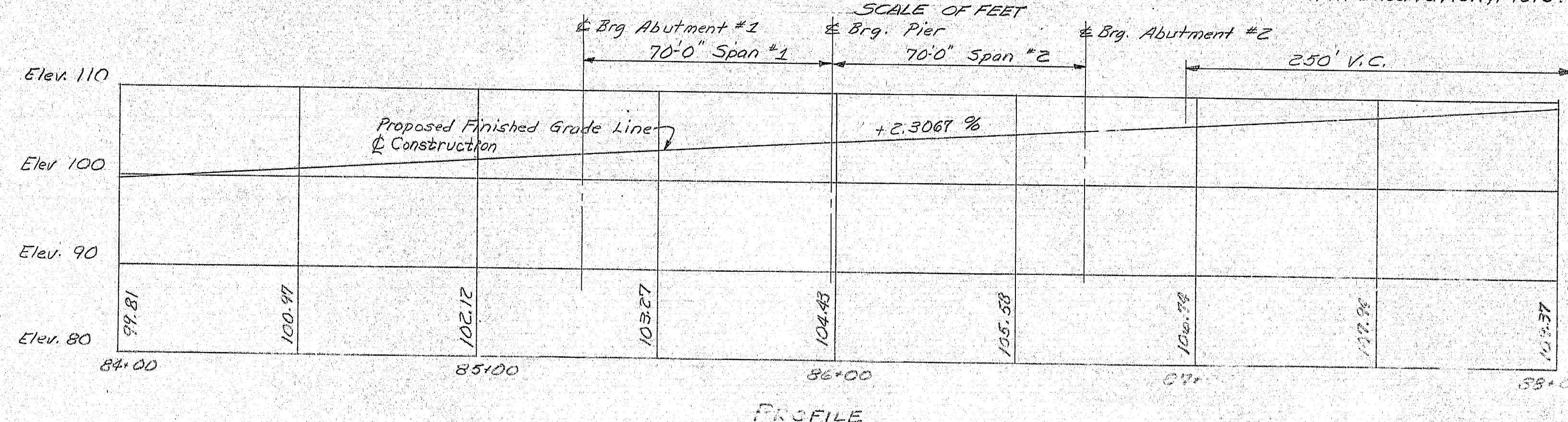
TRAFFIC DATA	
ADT	1976 4220
ADT	1996 7890
DHV	789
T (%)	8
D (%)	60

Notes:
 All utility facilities will be adjusted by the respective utility unless noted.



Payment for removal of existing abutments to below the limits of excavation for Gravel Borrow, as directed by the Engineer, will be paid for under Item 206.08 or Item 206.09 Structural Excav. Abuts.

Remove entire existing Pier. Payment for removal of material qualifying as Structural Rock will be paid for under Item 206.09 Structural Rock Excavation, Abutments & Retaining Walls; all other will be paid for under Item 206.10 Structural Earth Excavation, Piers.



HYDROLOGIC DATA

Drainage Area = 196 sq. miles.
 Design Discharge (Q 50) = 7040 cfs.
 Q 50 High Water = Elevation 96.6 ±.
 Q 50 Mean Velocity = 6.6 ± fps.
 Check Discharge (Q 100) = 7270 cfs.
 Q 100 High Water = Elevation 96.9 ±.
 Q 100 Mean Velocity = 6.9 ± fps.
 Flood of Record = 10000 cfs.
 @ Elev 98.4 ± with 8.3 ± fps.

SPECIFICATIONS

Design: AASHTO Standard Specifications for Highway Bridges 1973 and Interim Spec. 1974 & 1975

Construction: State of Maine, State Highway Commission Standard Specifications Highways & Bridges, Revisions of June 1968.

LIVE LOADING
 HS 20-44

BASIC ALLOWABLE STRESSES

CONCRETE: $f_c = 12000 \text{ psi}$ $n = 10$
 REINFORCING STEEL: $f_s = 24,000 \text{ psi}$
 STRAINING STEEL: A.S.T.M. A588 $f_s = 27,000 \text{ psi}$

MATERIALS

CONCRETE: Seal - Class "S" Wearing Surface - Class "Y"
 All other - Class "A"
 REINFORCING STEEL: A.S.T.M. A615 Grade 60
 STRUCTURAL STEEL: High Strength Steel - A.S.T.M. A572
 All other - A.S.T.M. A572

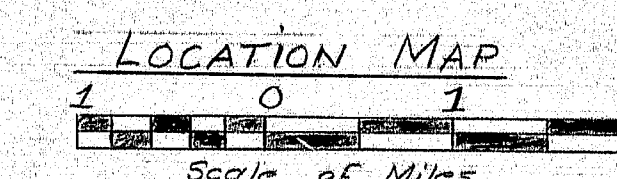
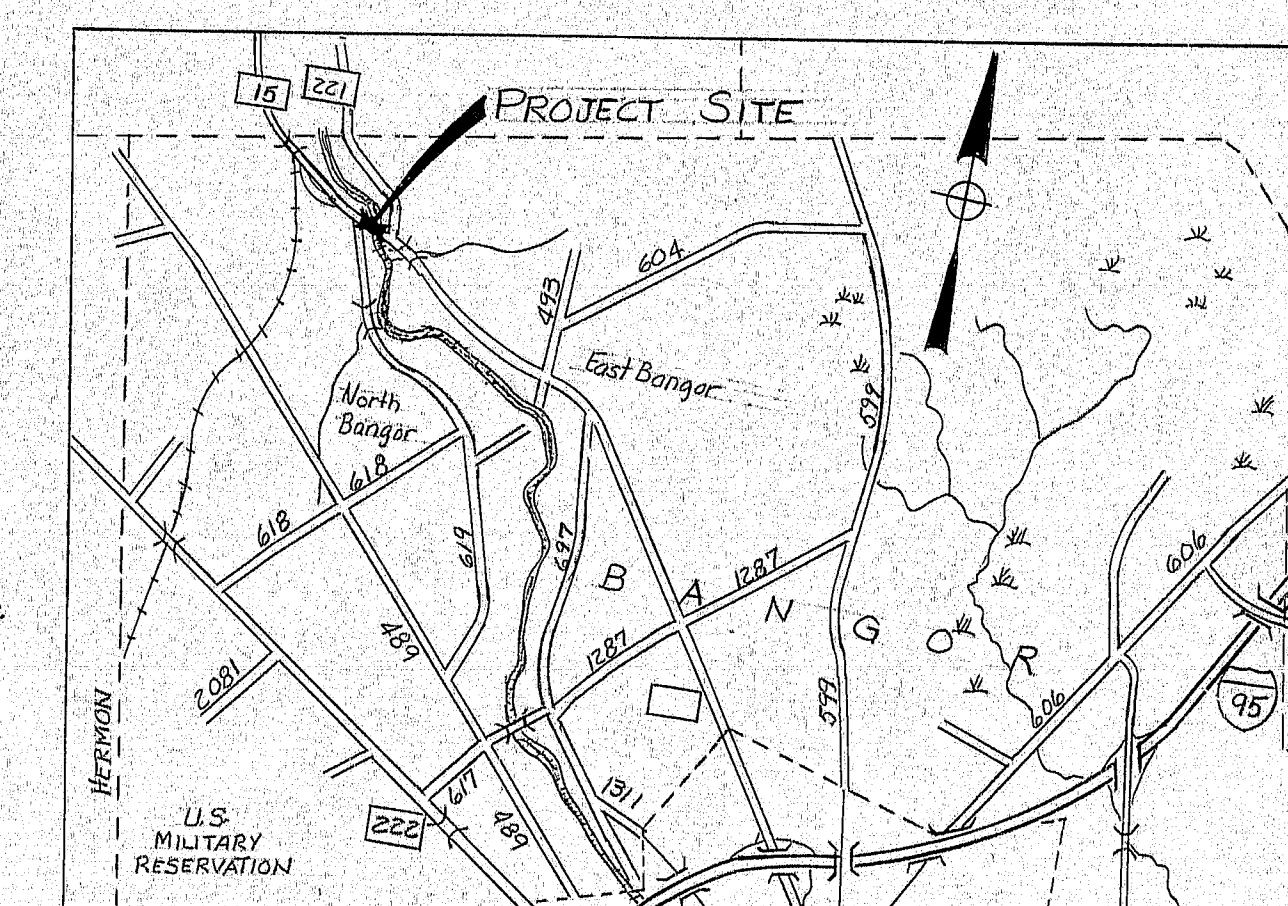
INDEX OF BRIDGE SHEETS

- GENERAL PLAN
- ESTIMATED Bridge Quantities
- FOUNDATION SURVEY
- ABUTMENT No. 1
- ABUTMENT No. 2
- APPROACH SLAB Details
- PIER
- STRUCTURAL STEEL Details
- BLOCKING LAYOUT
- SUPERSTRUCTURE
- REINFORCING STEEL SCHEDULE

STANDARD DETAILS

- (BD 101-74)
- (BD 104-73)
- (BD 113-72)
- (BD 114-73)

Sheet numbers are those shown in the title block



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

SIX MILE FALLS BRIDGE
 OVER
 KENDUSKEAG STREAM
 IN THE CITY OF
 BANGOR
 PENOBSCOT COUNTY

GENERAL PLAN

SHEET 1 OF 15 AUGUSTA, MAINE

1169-73

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	1-7-76
CHECKED	1-7-76
REVISIONS	1-7-76
FIELD CHANGES	
PLANS	

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.09	Removal of Existing Superstructure (Retained by Department)	1	L.S.
203.26	Gravel Borrow	760	C.Y.
206.08	Str. Earth Excav. - Abuts. & Ret. Walls	530	C.Y.
206.09	Str. Rock Excav. - Abuts. & Ret. Walls	260	C.Y.
206.10	Str. Earth Excav. Piers	160	C.Y.
304.10	Aggregate Subbase Course - Gravel	45	C.Y.
501.22	Steel H-beam Piles 42 Lbs./ft.	815	L.F.
502.21	Structural Concrete, Abuts. & Retaining Walls	197	C.Y.
502.23	Structural Concrete, Piers	135	C.Y.
502.24	Structural Concrete, Piers (Placed Under Water)	130	C.Y.
502.26	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges	1	L.S.
502.29	Structural Concrete, Wearing Surface on Bridges	1	L.S.
502.31	Structural Concrete, Approach Slabs	1	L.S.
503.12	Reinforcing Steel, Fab. & Delivered	59,640	Lb.
503.13	Reinforcing Steel, Placing	59,640	Lb.
504.70	Structural Steel, Fab. & Delivered	1	L.S.
504.71	Structural Steel, Erection	1	L.S.
505.08	Shear Connectors	1	L.S.
507.191	Aluminum Bridge Railing, Type "A"	284	L.F.
510.12	Special Detour, 24' Roadway, Vehicular and Pedestrian Traffic Separated	1	L.S.
511.07	Cofferdams	1	L.S.
512.07	French Drains (Stones Only)	18	C.Y.
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective Coating for Concrete Surfaces	746	S.Y.
609.13	Vertical Bridge Curb - Type 1	285	L.F.

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
610.08	Plain Riprap	1,290	C.Y.
610.12	Portland Cement for Riprap Grout	222	Bbl.
616.08	Sodding	16	S.Y.
629.05	Labor, Straight Time	20	M.Hr.
630.06	Traffic Officers	50	M.Hr.
631.10	Air Compressor (inc. operator)	10	Hour
631.11	Air Tool (Inc. Operator)	10	Hour
631.13	Bulldozer (inc. operator)	10	Hour
631.171	Truck-small (inc. operator)	10	Hour
631.22	Front End Loader (inc. operator)	10	Hour
639.08	Field Office, Type A	1	Each
659.10	Mobilization	1	L.S.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	38-1 (13)	14	27

ESTIMATED QUANTITIES FOR LUMP SUM ITEMS

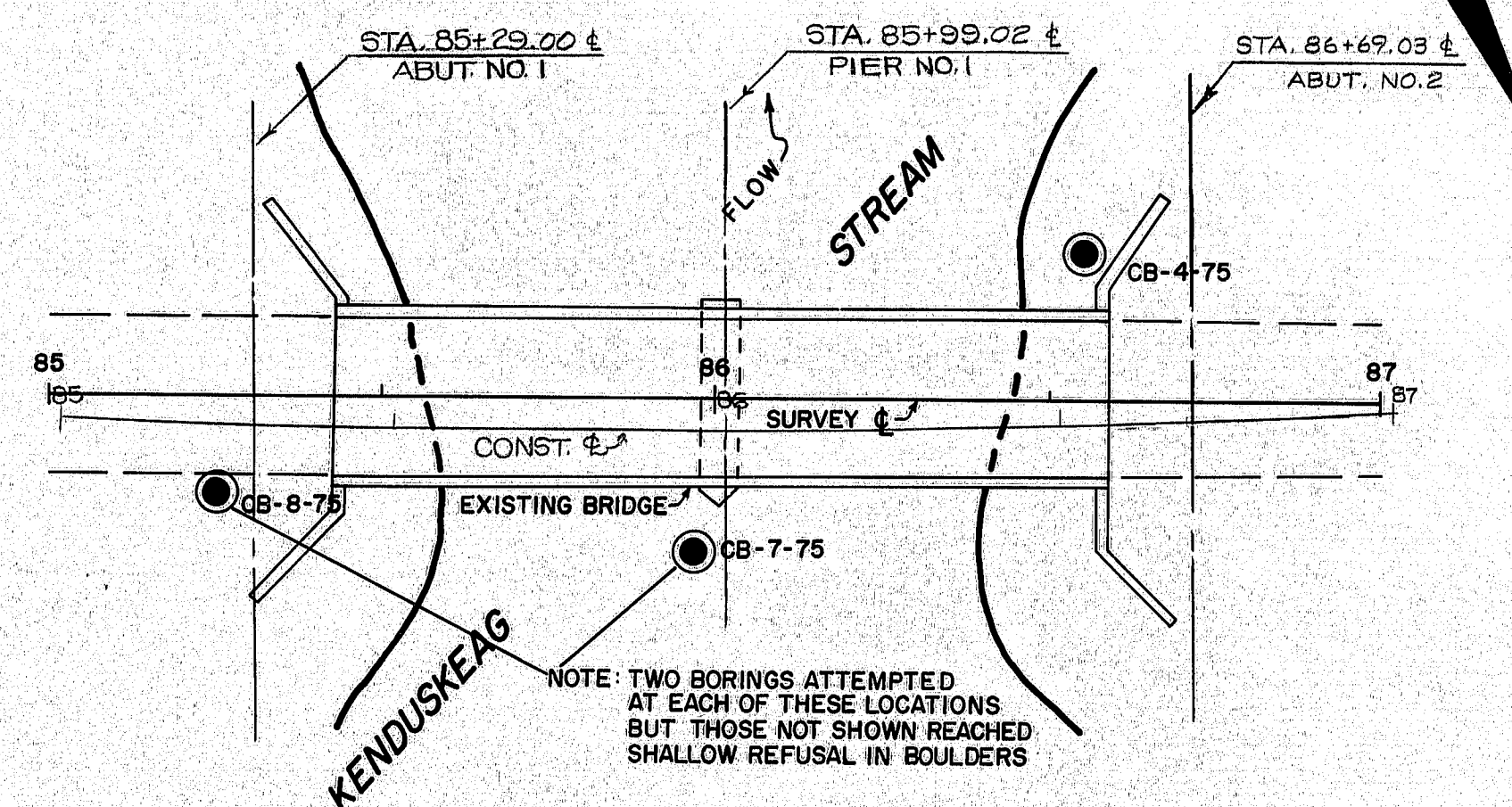
- 202.09 Removal of Existing Superstructure (Retained by Department) 116 C.Y. Concrete, 45 Tons Steel
- 502.26 Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges 185 C.Y.
- 502.29 Structural Concrete, Wearing Surface on Bridges 60 C.Y.
- 502.31 Structural Concrete, Approach Slabs 30 C.Y.
- 504.70 Structural Steel, Fab. & Delivered 154,000 Lb.
- 504.71 Structural Steel, Erection 154,000 Lb.
- 505.08 Shear Connectors 1,974 Lb.

* Note (Item 510.12 - Special Detour):
The special detour shall have a curb to curb width of 24'-0" for vehicular traffic plus a 5'-0" wide sidewalk on the downstream side of the special detour.
The bridge for the special detour shall be located downstream from the existing structure.

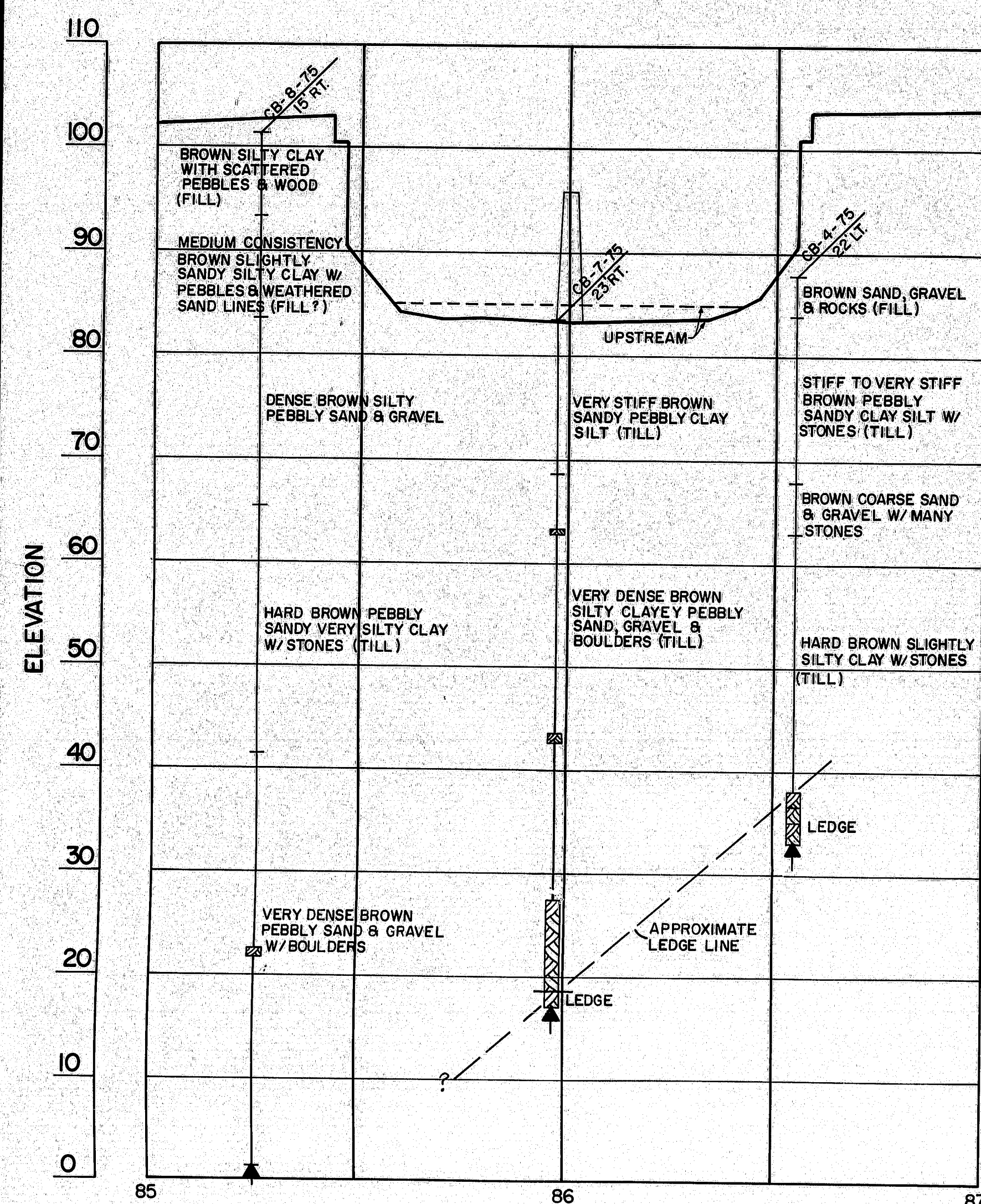
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
SIX MILE FALLS BRIDGE OVER KENDUSKEAG STREAM IN THE CITY OF BANGOR PENOBSCOT COUNTY
ESTIMATED BRIDGE QUANTITIES
SHEET 2 OF 15 AUGUSTA, MAINE Jan. 1976

169-74

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	338-1 (13)	15	47

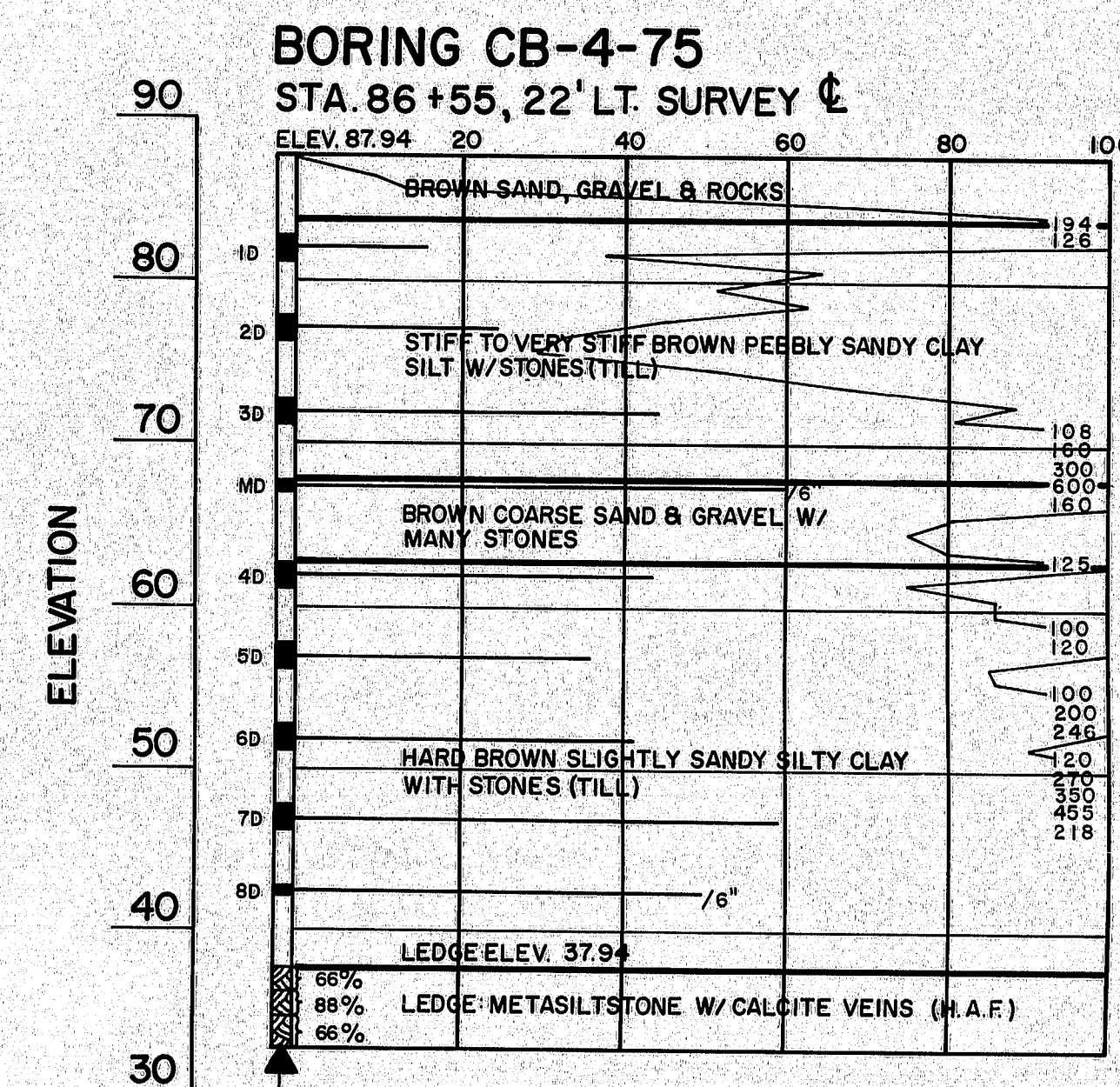
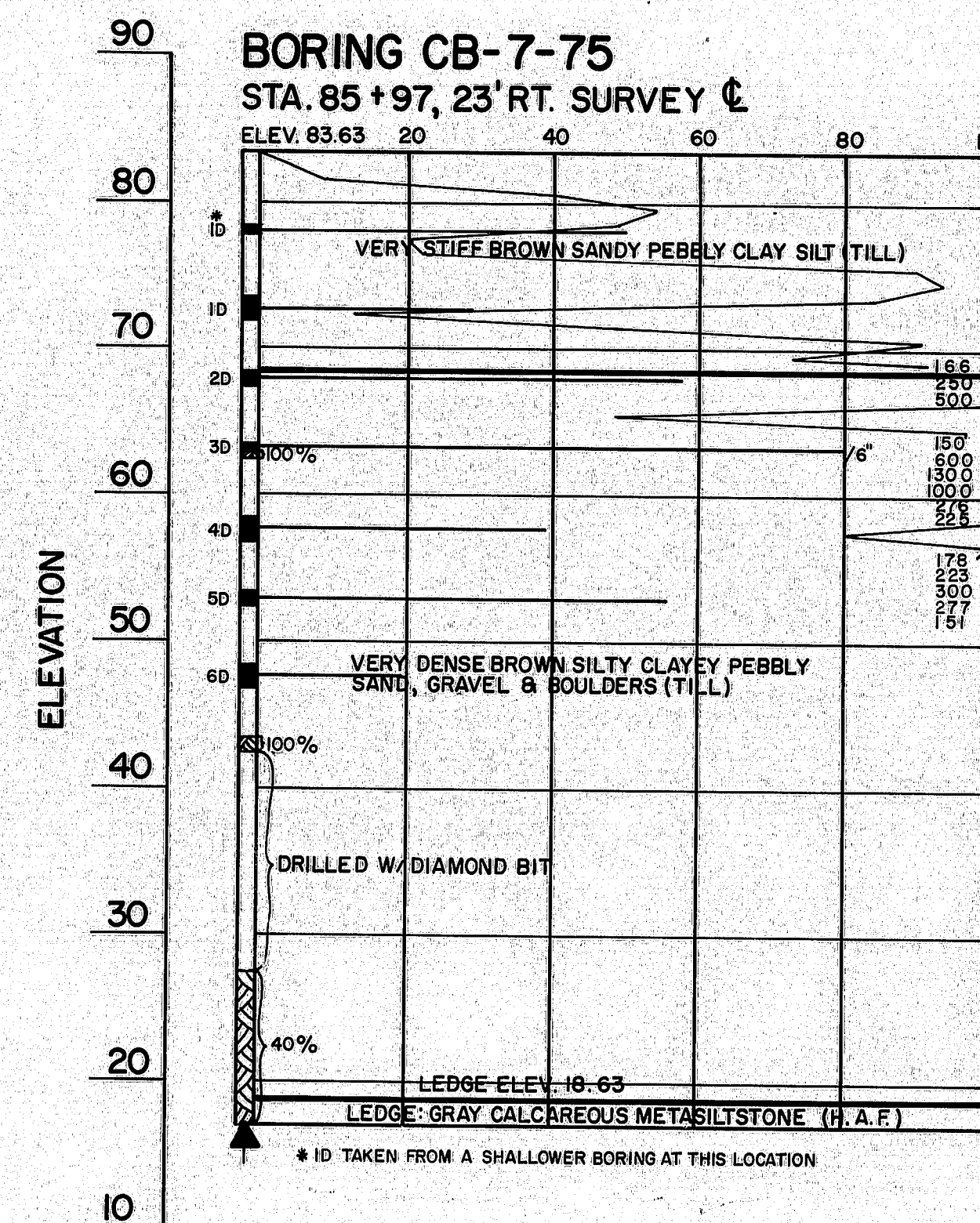
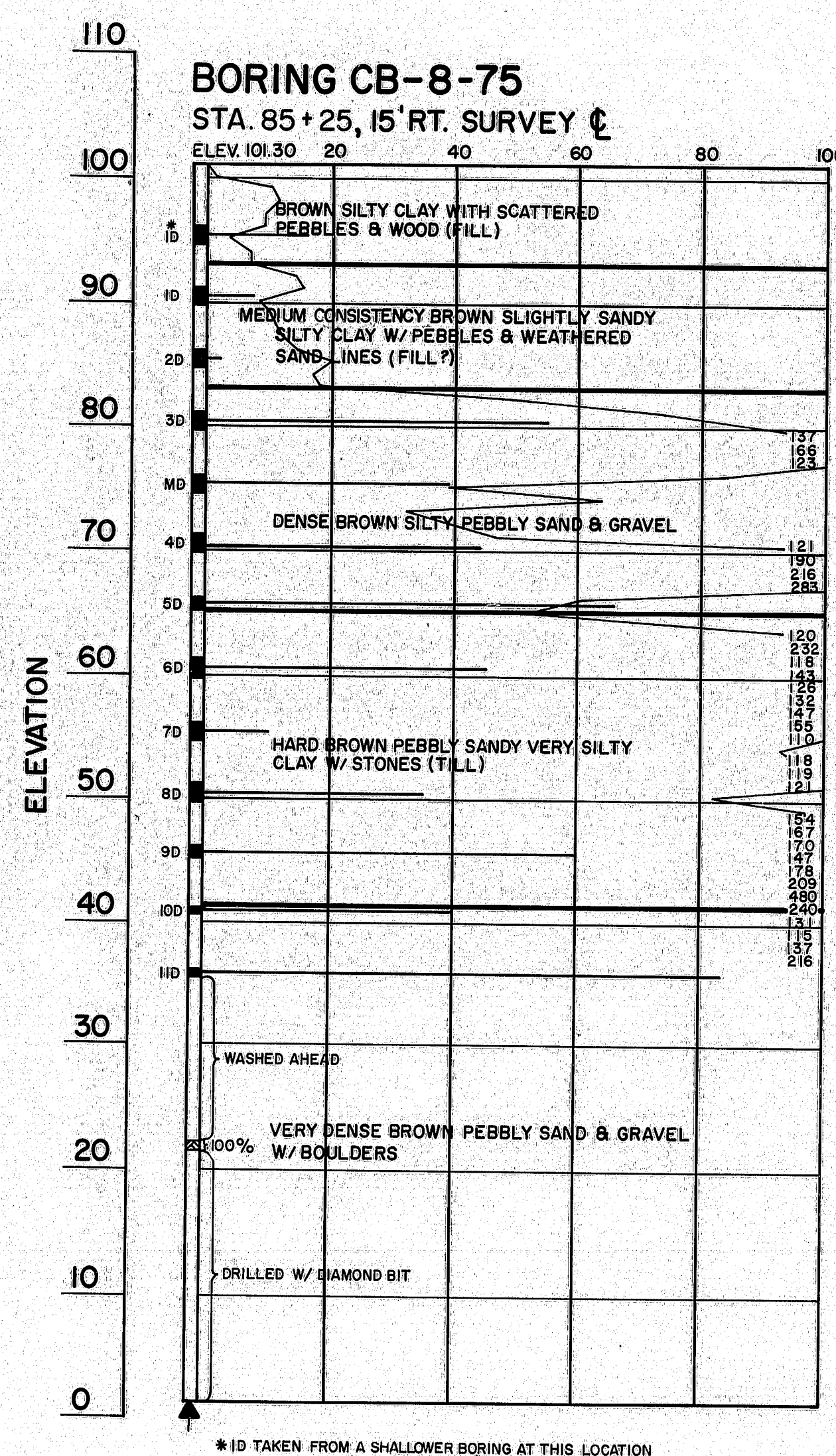


PLAN
SCALE



PROFILE OF SURVEY
SCALE

HORIZ. 25' 10' 0 25' 50'
VERT. 10' 0 10' 20'

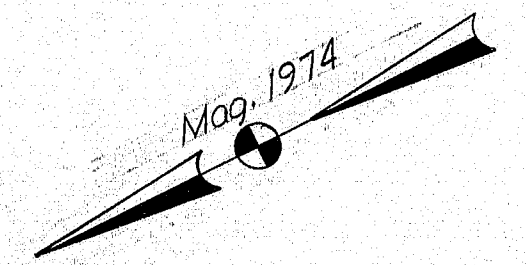


BORING NOTES

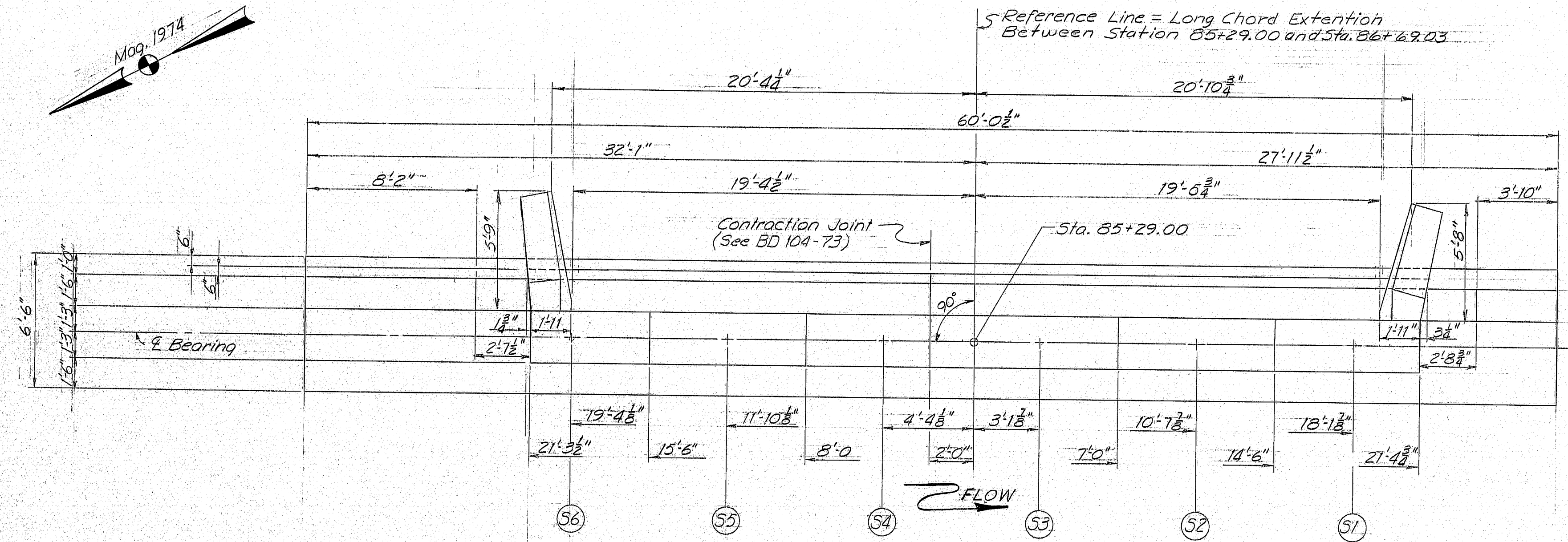
- All samples and vane are made ahead of casing
- Water elevation
- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow
- Location of sample or sample attempt
- Number and type of dry sample
- 1D S & H Sampler # 1290's
- 1MD Unsuccessful sample attempt and 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)
- Locations cored by diamond bit and per cent recovery of rock

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SIX MILE FALLS BRIDGE
OVER
KENDUSKEAG STREAM
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY
FOUNDATION SURVEY
SHEET 3 OF 15 AUGUSTA, MAINE Jan. 1976

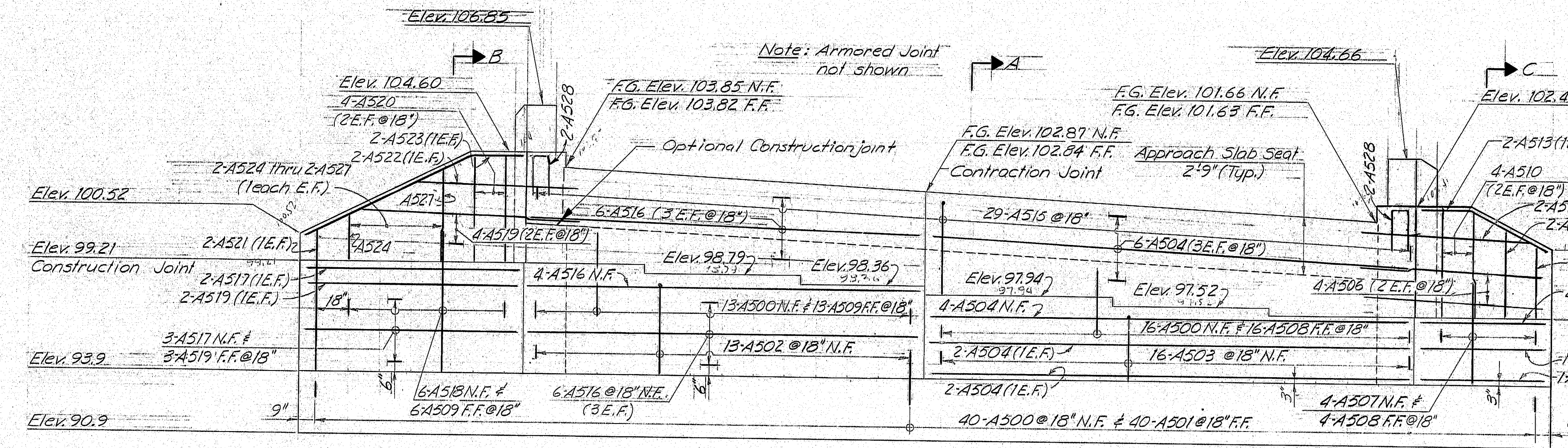
169-75



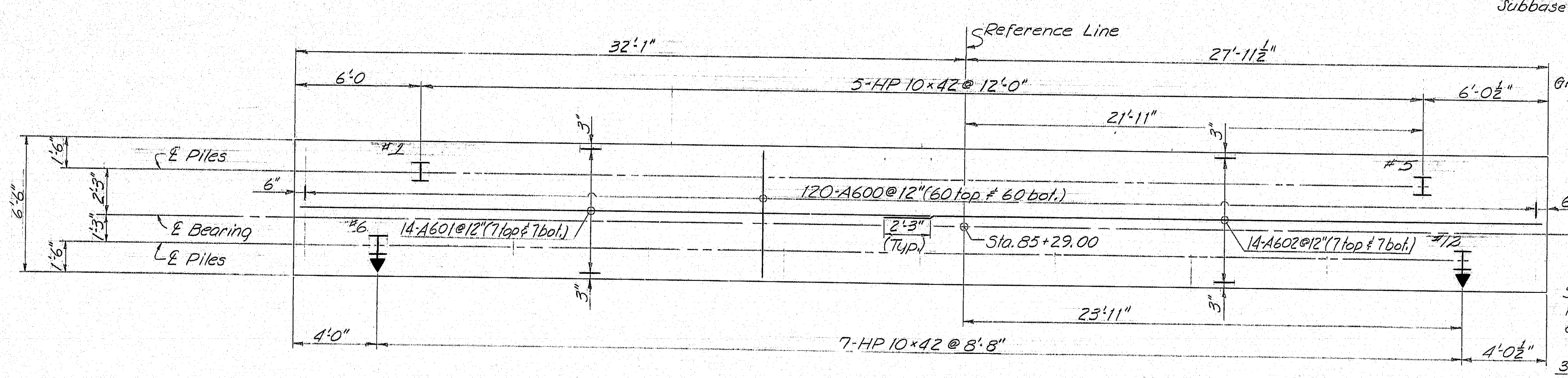
F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	38-1(13)	16	47



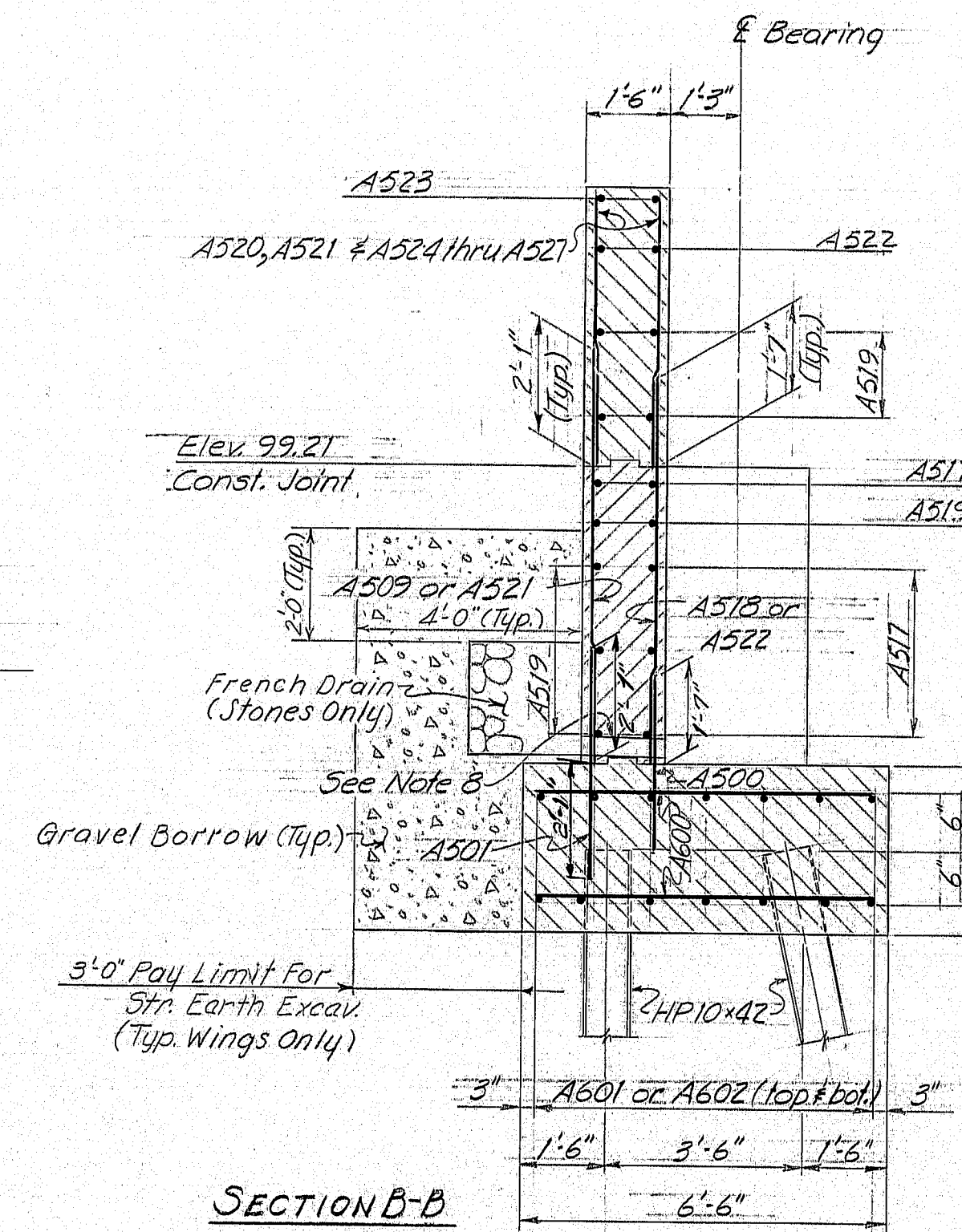
PLAN-ABUTMENT #1



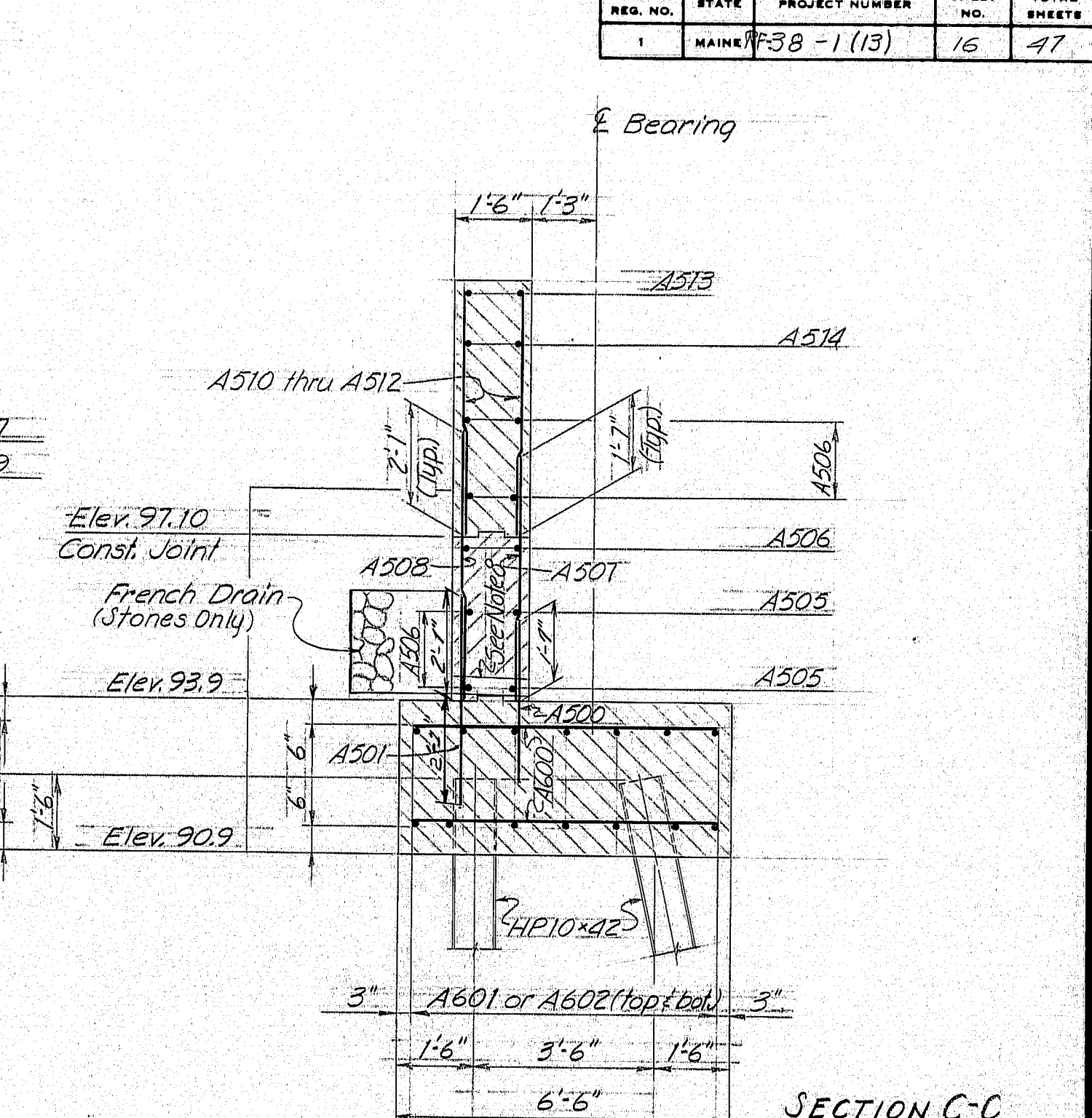
ELEVATION-ABUTMENT #1



PLAN-FOOTING ABUTMENT #1
Footing dowels shown in elevation view



SECTION B-B



SECTION C-C

ABUTMENT PROTECTION NOTE
The abutment bridge seats and breastwalls shall be protected from rust staining by leaving forms in place temporarily or by covering the concrete after removal of forms. Polyethylene sheets, or other approved material, shall be placed on and around the abutment bearing areas prior to setting the bearing pedestals, and shall extend underneath the masonry plates such that water will run off the pedestals onto the sheets. Protective covering of either forms or polyethylene sheeting shall remain in place at least until concrete placement for the structural concrete slab has been completed, and as long after that time as convenient for the contractor. In any case the contractor shall obtain approval of the Engineer prior to removing the protective covering.
Removal of stains will not be required unless, in the opinion of the Engineer, the contractor has not made satisfactory effort to prevent staining.

- ABUTMENT NOTES**
1. Chamfer all exposed edges of concrete a consistent dimension between $\frac{1}{2}$ " and $\frac{3}{4}$ " inclusive, unless otherwise indicated.
 2. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
 3. Place reinforcing steel in bridge seats to clear anchor bolts.
 4. Break bond of vertical contraction joints by a method approved by the Engineer.
 5. Polyvinylchloride waterstops as shown on Standard Details BD-104 shall be placed in all vertical contraction joints.
 6. Waterstops are not required in horizontal construction joints.
 7. Protective coating for concrete surfaces shall be applied to the following areas: Top of concrete curbs, parapets and exposed surface of end posts.
 8. Place 4" diameter drains in breastwall and wings at 20 foot maximum spacing. Exact location to be determined by the Engineer in the field.
 9. Welding of reinforcing steel will be allowed in the top 2' of the abutment backwall.
 10. All abutment concrete shall be class A.

- REFERENCES**
1. For Armored Joint see Standard Details BD-104-73, sheet #13.
 2. For End Post Details see sheet #6.
 3. For Pile Notes see sheet #5.
 4. For Reinforced Pile Tip see BD-104-73, sheet #13.

LEGEND
F.G. = Finished Grade
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

SECTION A-A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

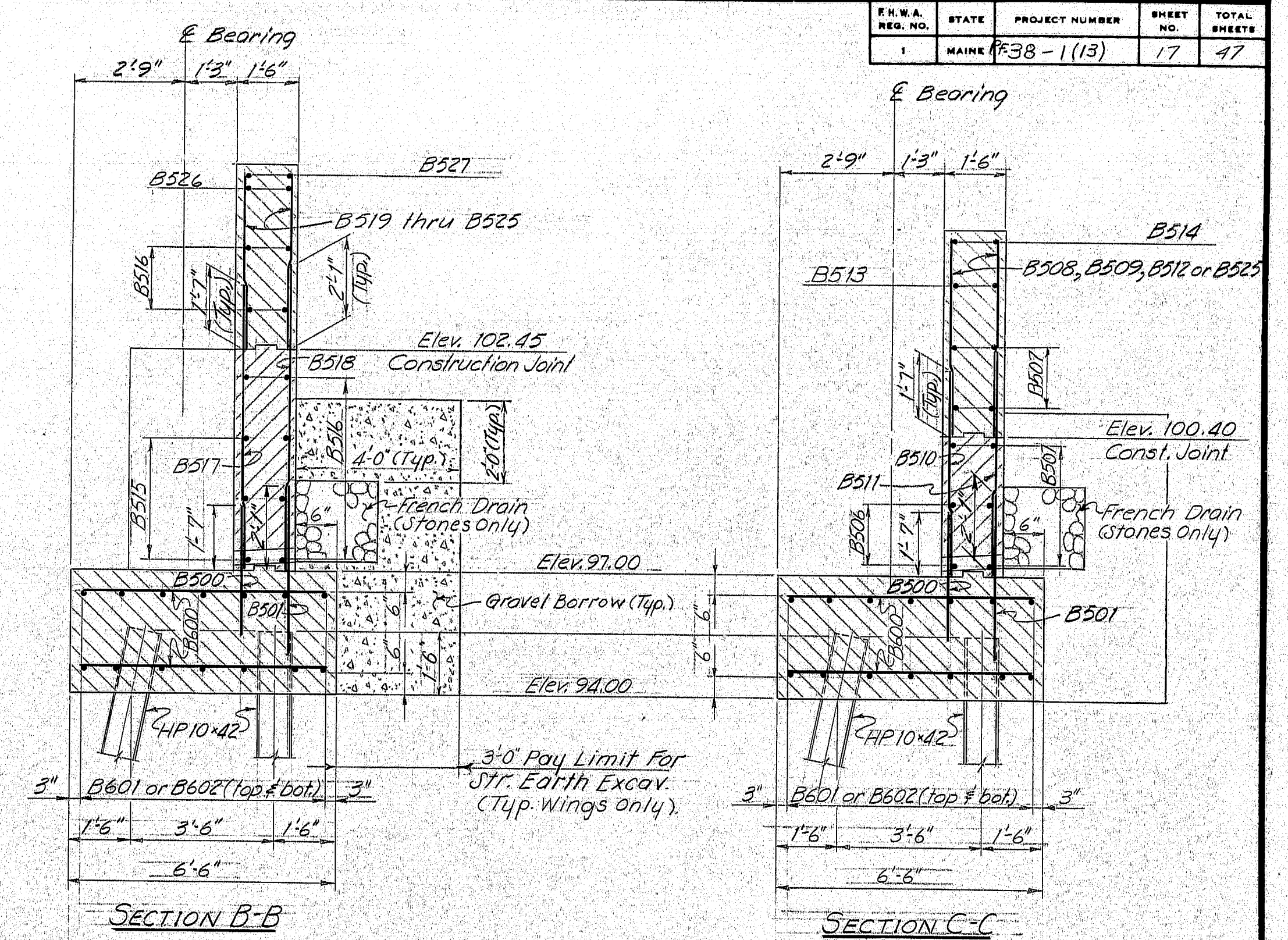
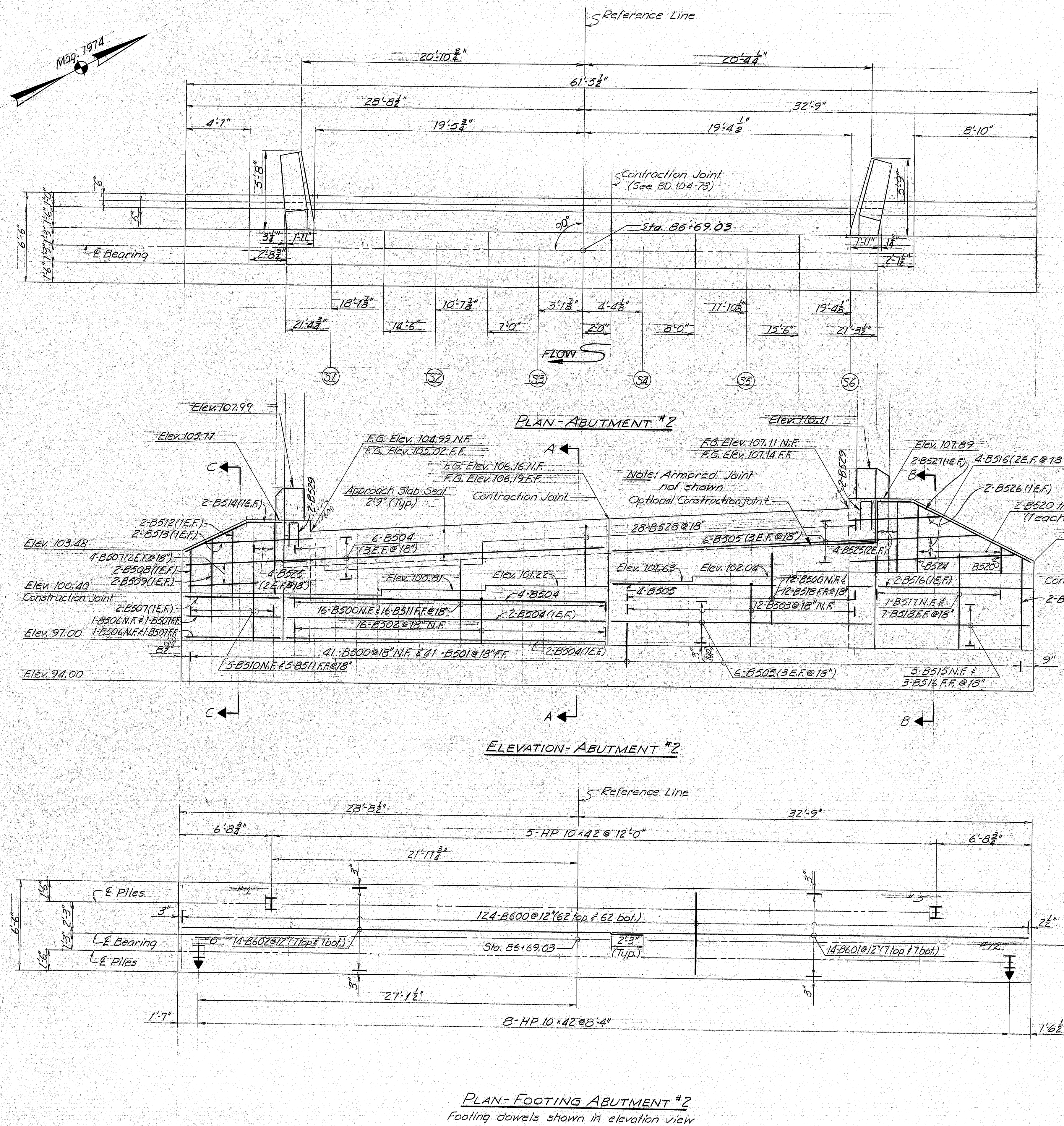
SIX MILE FALLS BRIDGE
OVER
KENDUSKEAG STREAM
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY

ABUTMENT NO. 1

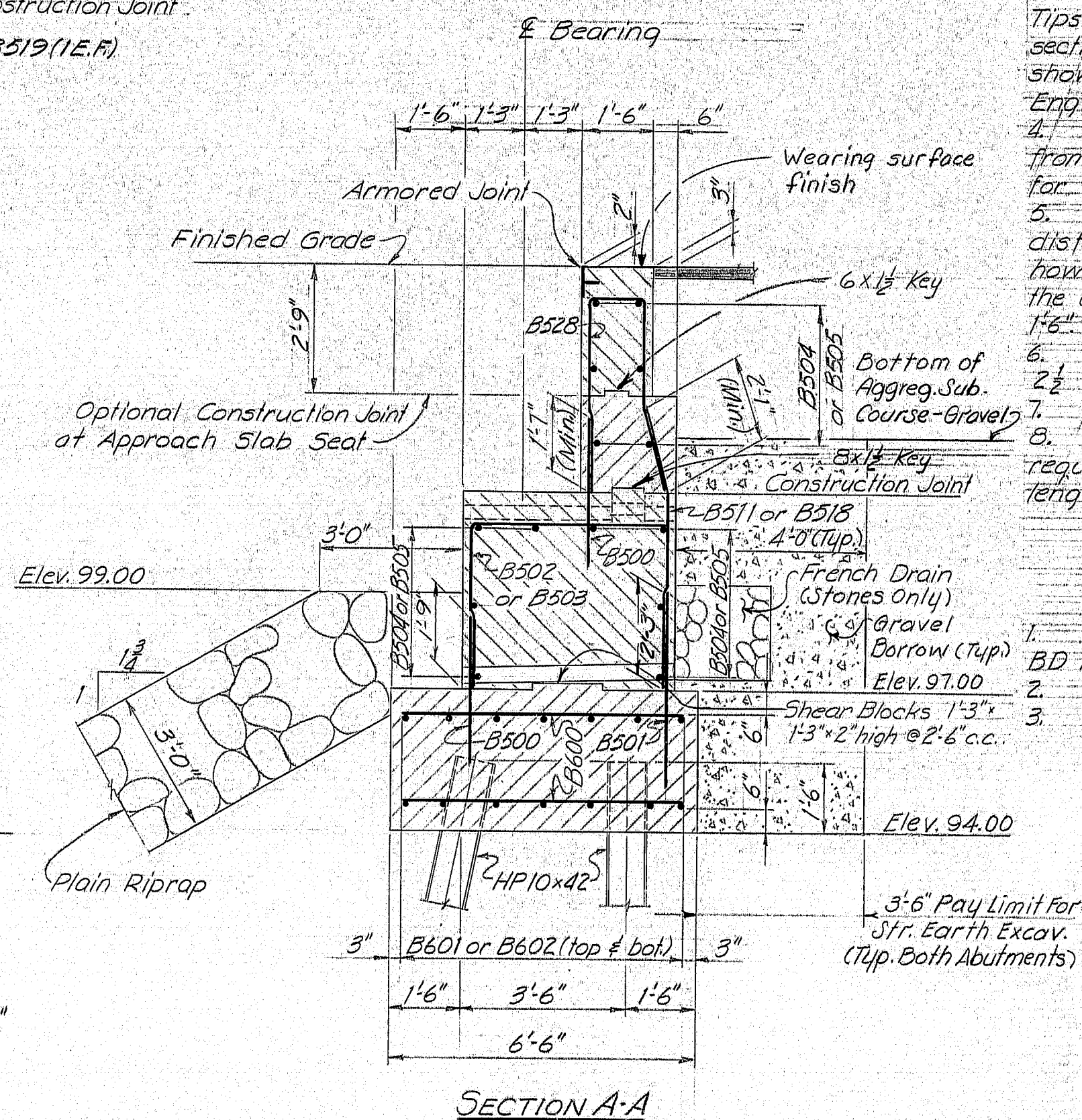
SHEET 4 OF 15 AUGUSTA, MAINE Jan. 1974

169-76

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	ALL
CHECKED	CDH
REVISIONS	1-76
FIELD CHANGES	



- PILE NOTES**
1. Piles shall be driven to adequate bearing as determined by the appropriate loading formula, but shall penetrate to at least Elev. 70.
 2. All piles shall have Pointed Reinforced Pile tips as shown on Standard Detail BD-104.
 3. Alternate types of Pointed Reinforced Pile tips may be used if they have at least the cross-sectional area of the Pointed Reinforced Pile tip shown on the plans and are approved by the Engineer.
 4. Estimated driven lengths of piles are determined from available soils information with no allowance for uncertain pile penetration.
 5. Piles which are embedded into footings a distance of 1'-6" may vary between 1'-0" and 2'-0", however, payment shall be allowed only for the actual embedment length up to a maximum of 1'-6".
 6. Piles marked thus \rightarrow shall be battered 2 1/2 inches per foot in the direction of the arrow.
 7. Maximum pile loads: 55 tons.
 8. Following are pile locations, number of piles required, size of piles and estimated driven lengths:
- REFERENCES**
1. For Armored Joint see Standard Details BD 104-73, sheet #13.
 2. For Abutment Notes see sheet #4.
 3. For Reinforced Pile Tip see BD 104-73, sheet #13.



LEGEND

F.G. = Finished Grade
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

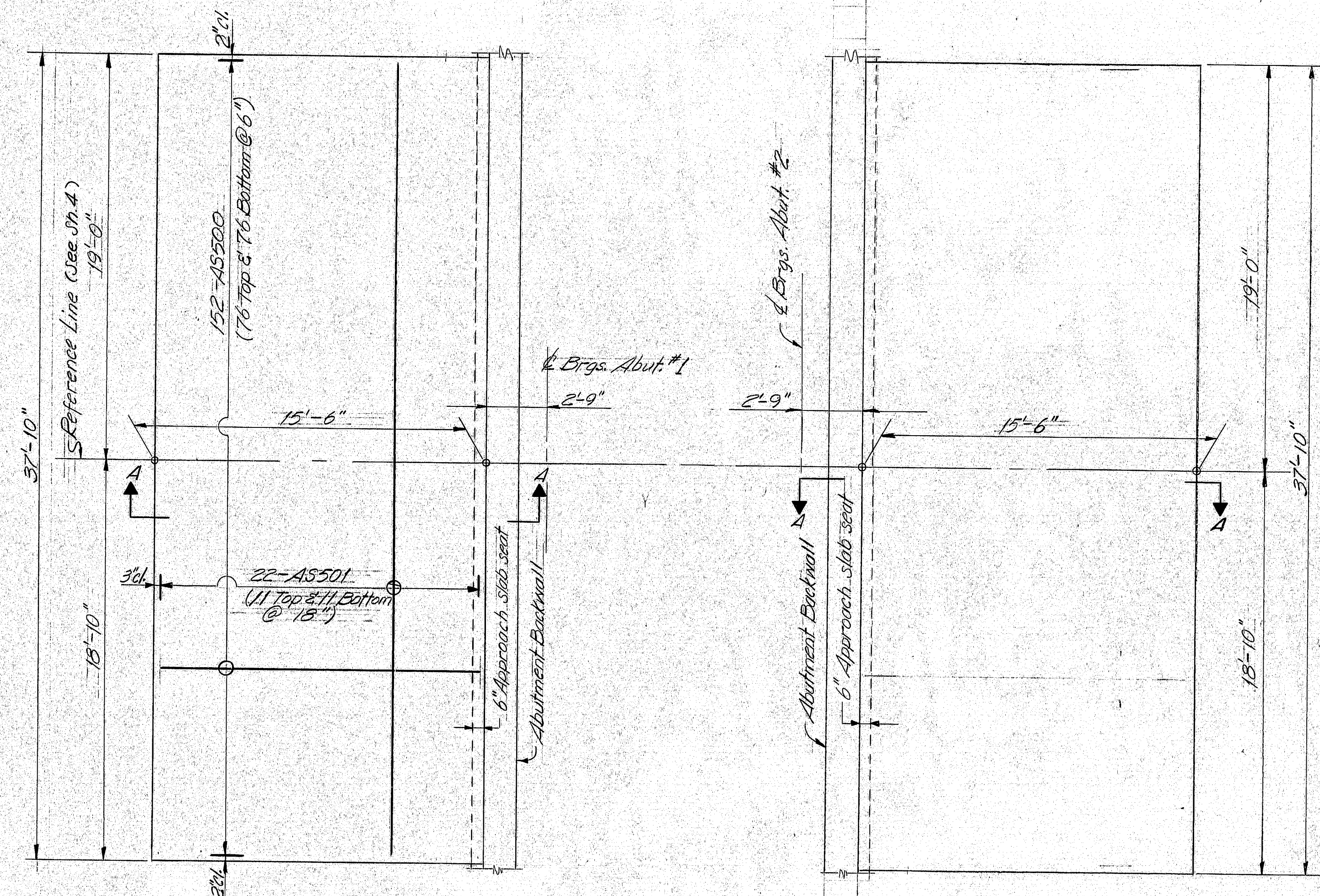
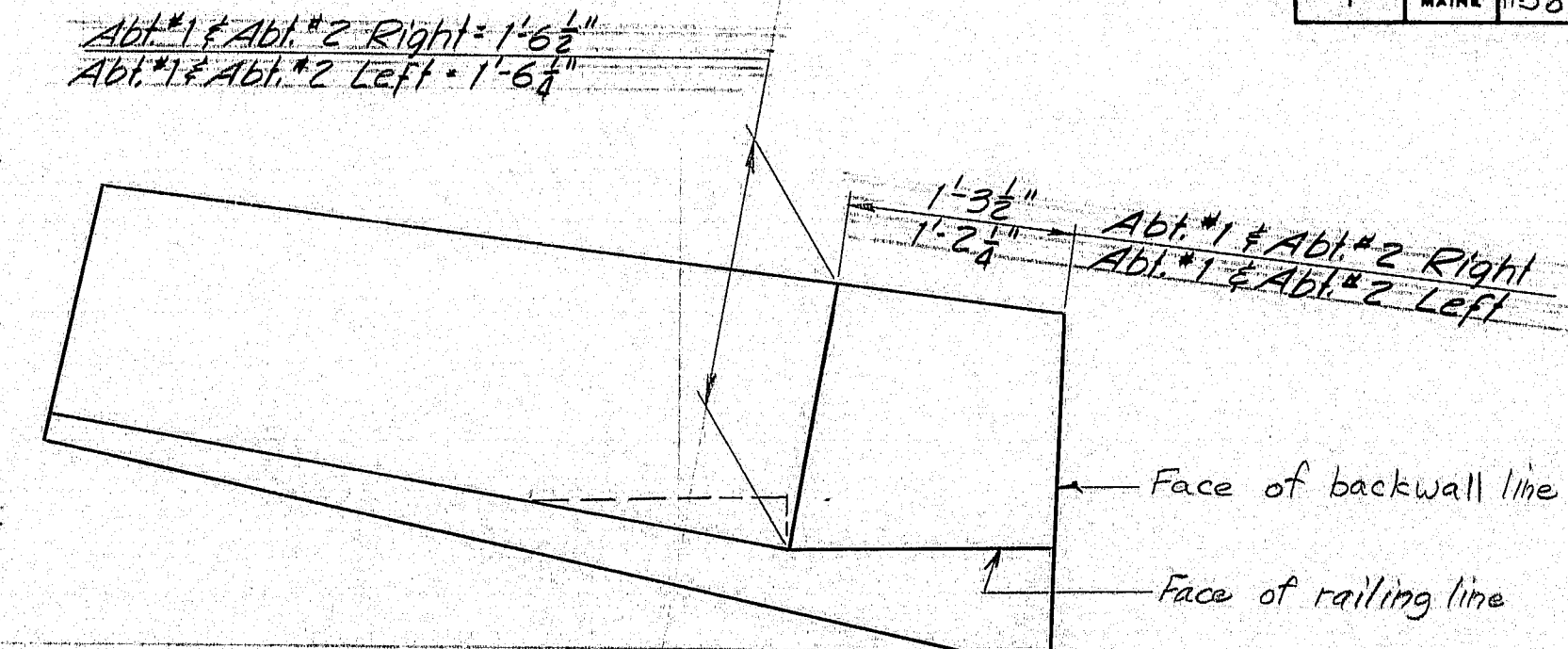
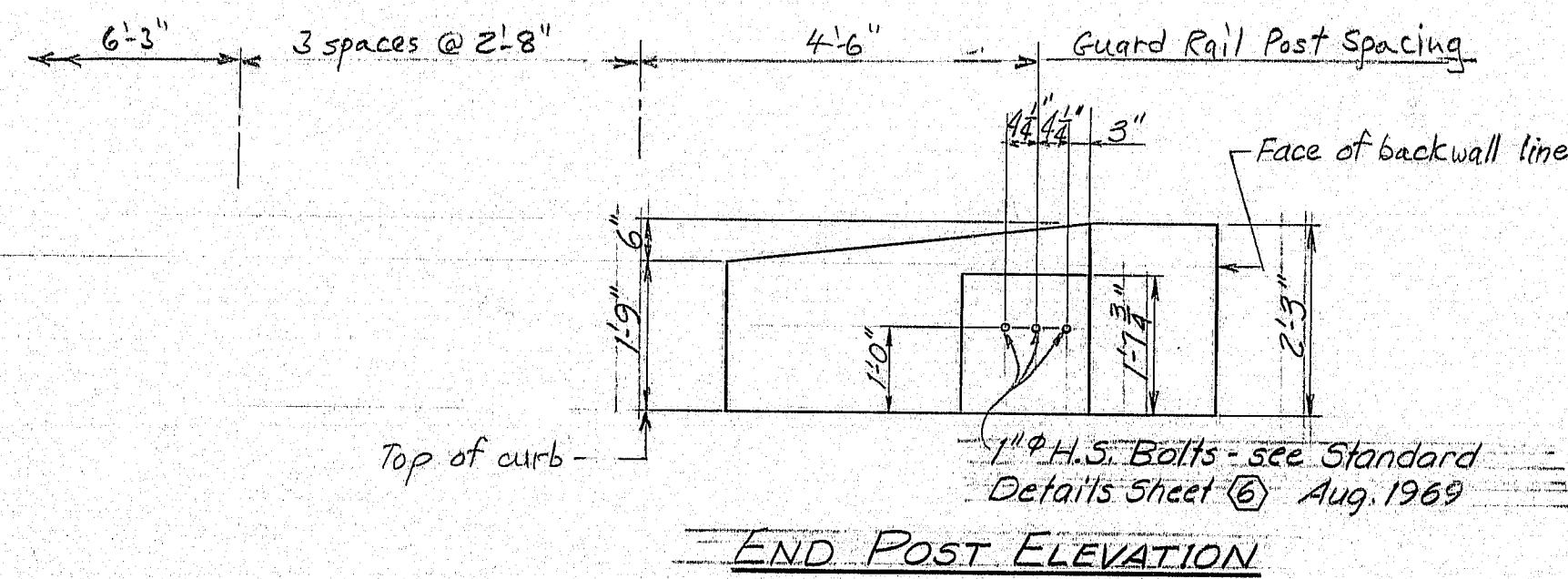
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**SIX MILE FALLS BRIDGE
OVER
KENDUSKEAG STREAM
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY**

ABUTMENT NO. 2

SHEET 5 OF 15 AUGUSTA, MAINE Jan. 1976

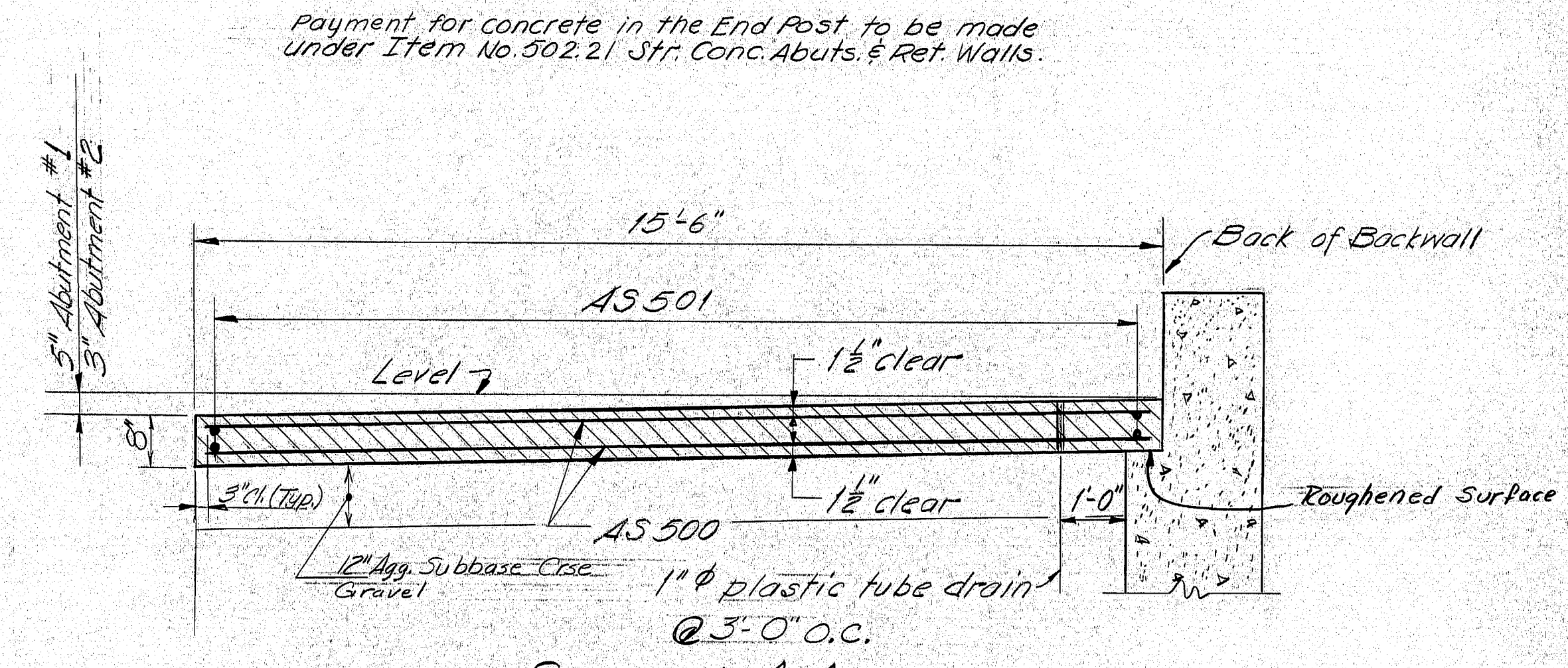
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1638-1(13)	18	47



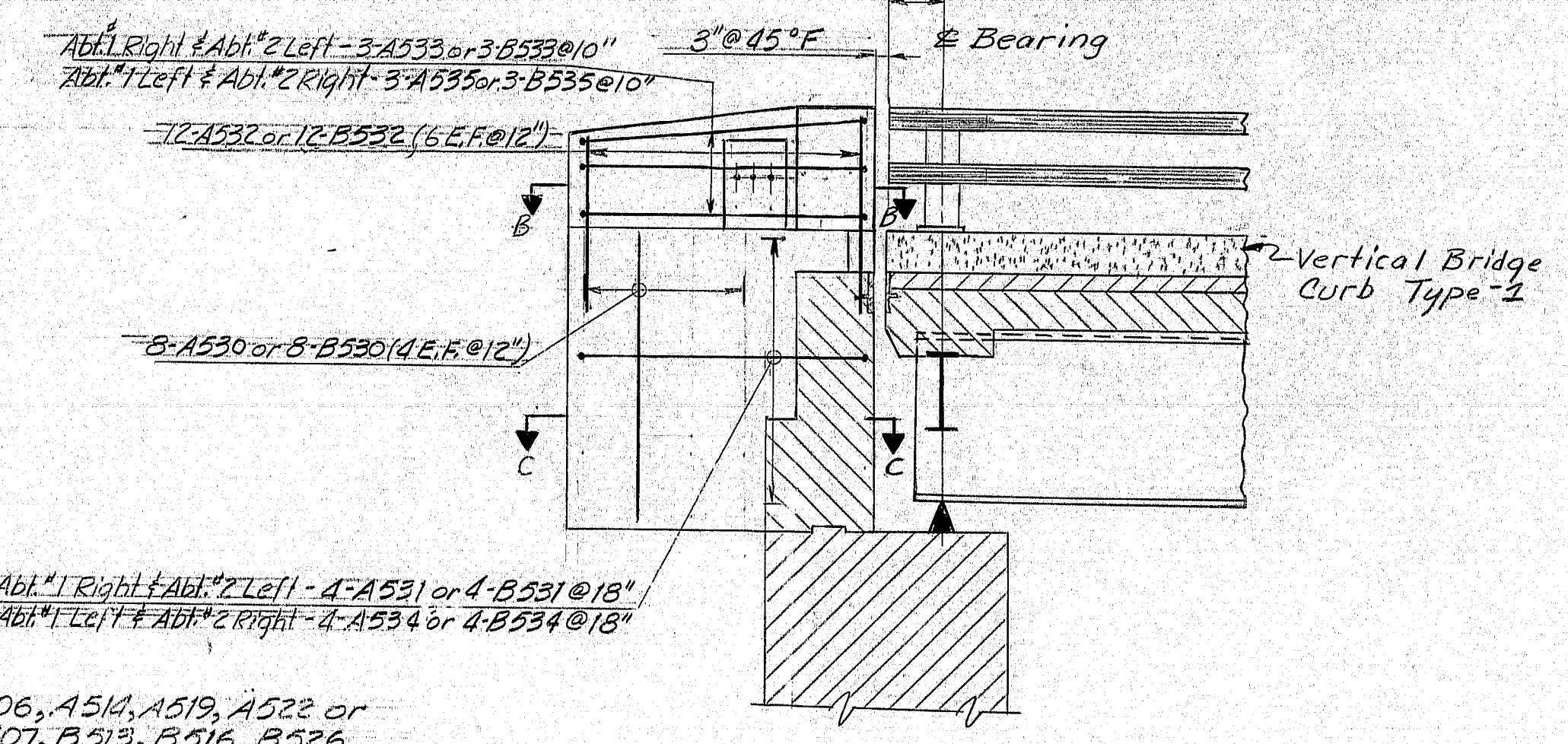
NOTE:
Reinforcing for Approach slab of Abutment #2
is the same as detailed for Abutment #1.

APPROACH SLAB - ABUTMENT #1

APPROACH SLAB - ABUTMENT #2



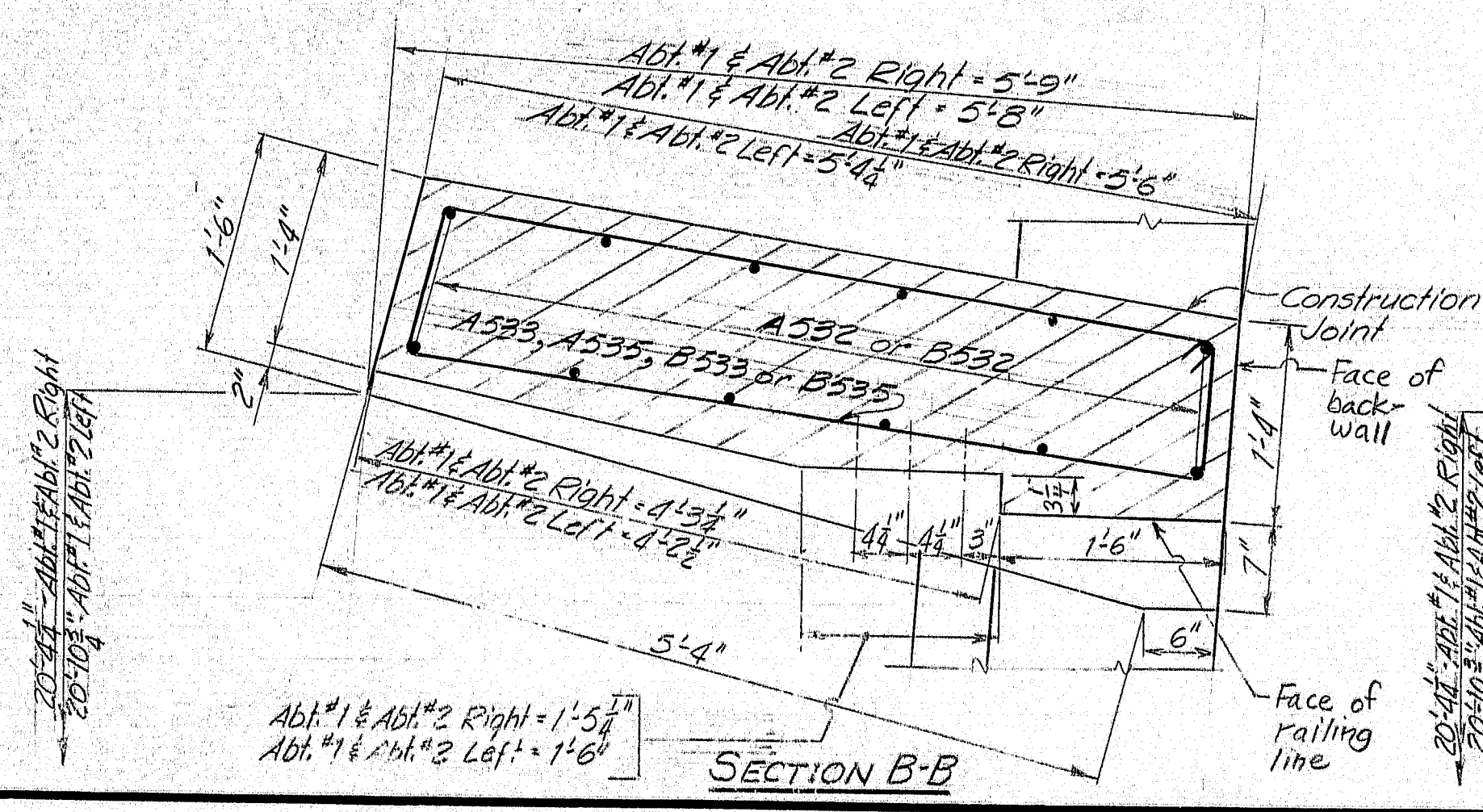
SECTION A-A



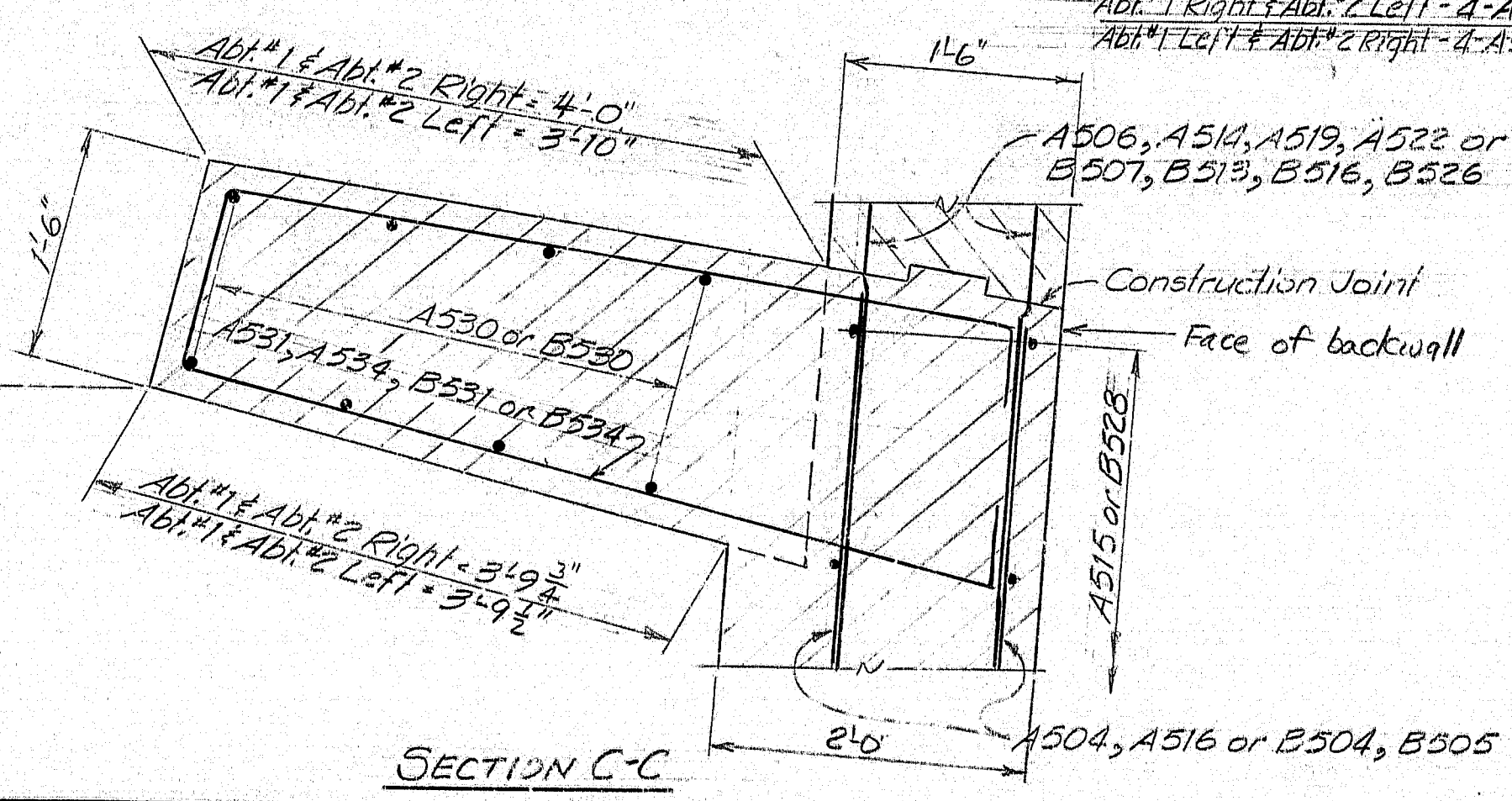
ALUMINUM RAILING PAY LIMITS
& END POST DETAILS

(Also see above for End Post Plan & Elevation)

Some end posts are opposite hand to what
is shown here. See Abutment sheets for
orientation.



SECTION B-B



SECTION C-C

PROJECT DESIGN ENGINEER/Checked	DATE
ALL	10/72
DESIGN - DETAILED	BY
CPH	1-78
REVISIONS	
FIELD CHANGES	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

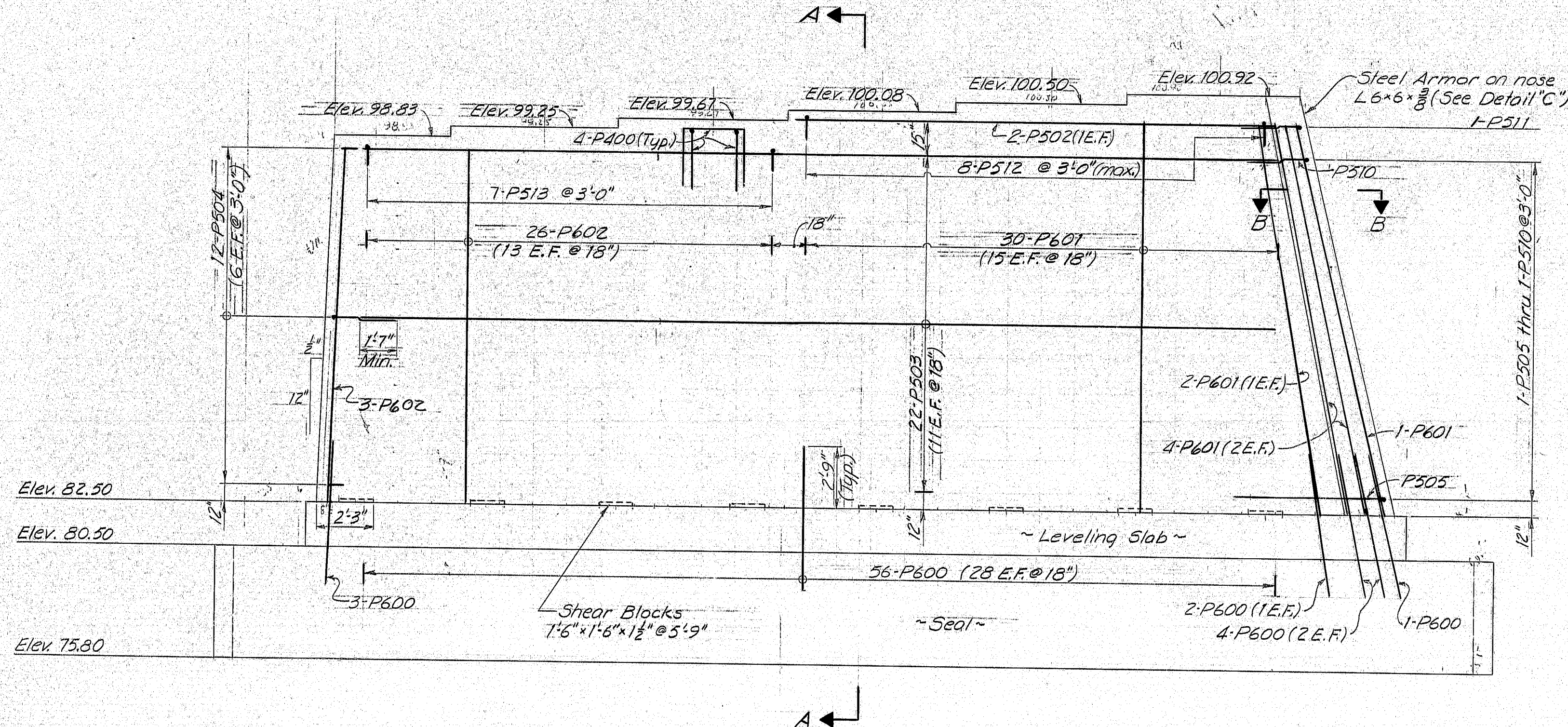
**SIX MILE FALLS BRIDGE
OVER
KENDUSKEAG STREAM
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY**

APPROACH SLAB DETAILS

SHEET 6 OF 15 AUGUSTA, MAINE Jan. 1977

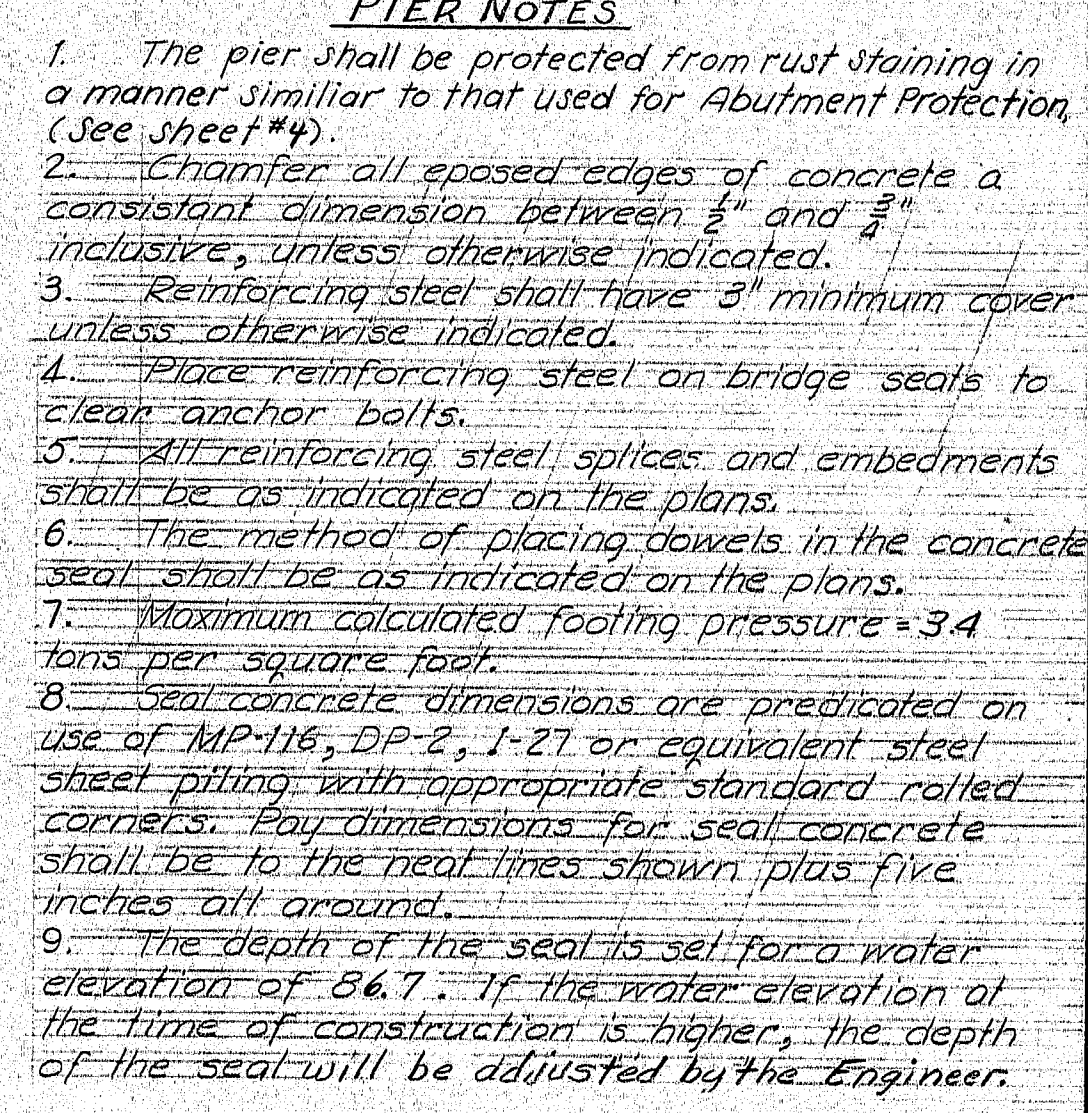
169-78

PLANS	PROJECT DESIGN ENGINEER <i>A. L. L...</i>	BY	DATE
	DESIGN - DETAILED	<i>W.J.L.</i>	<i>R.C.B.</i>
	CHECKED	<i>C.D.H.</i>	<i>1-18-76</i>
	REVISIONS		
	FIELD CHANGES		



Note: Dowels to be grouted using an approved non-shrink grout or in a manner approved by the Engineer.

Note: Seal concrete shall be class "S"
all other pier concrete shall be
class "A"

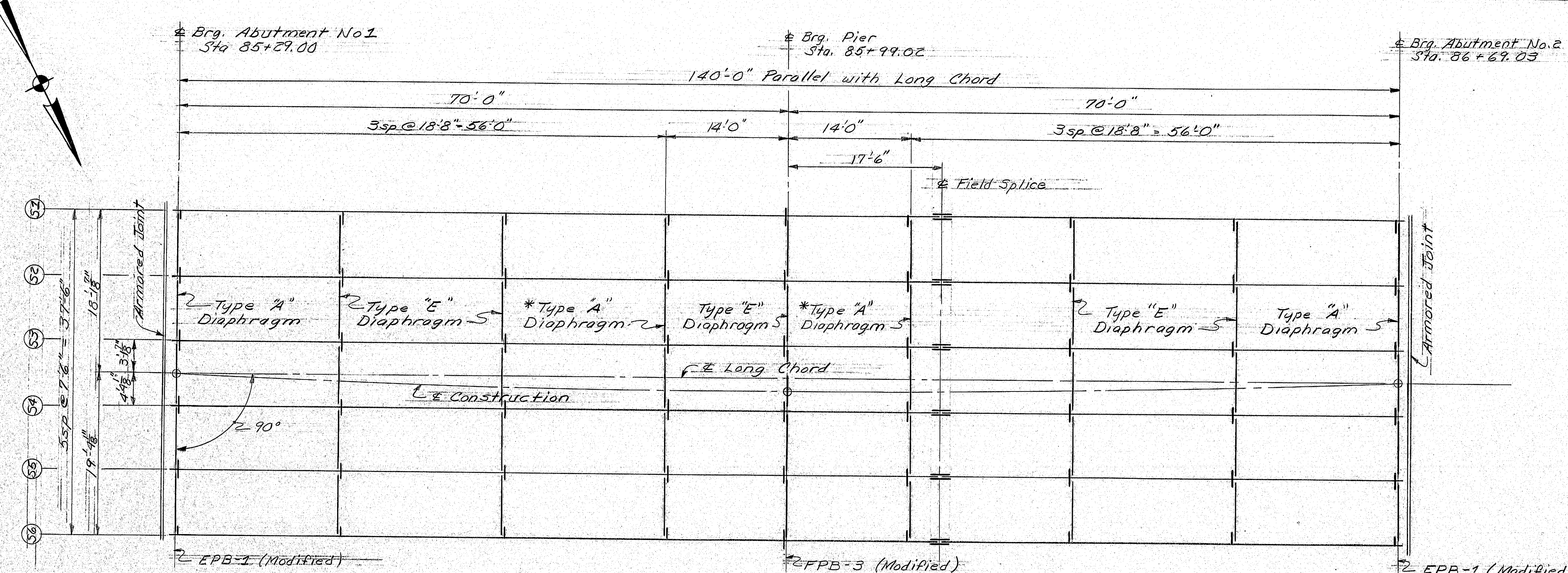


Critical AASHTO Loading - Group IV
Buoyancy - Water level assumed at Elev. 97.0
Stream Flow - Velocity of 6' per second skewed 10°
to longitudinal centerline of pier.
Wind - 40 psf.
Ice - 6" thick, producing 400 psi. Ice pressure
skewed at 10° to longitudinal centerline of pier,
with water level at Elev. 97.0.

SHEET 7 OF 15 AUGUSTA, MAINE Jan. 1976

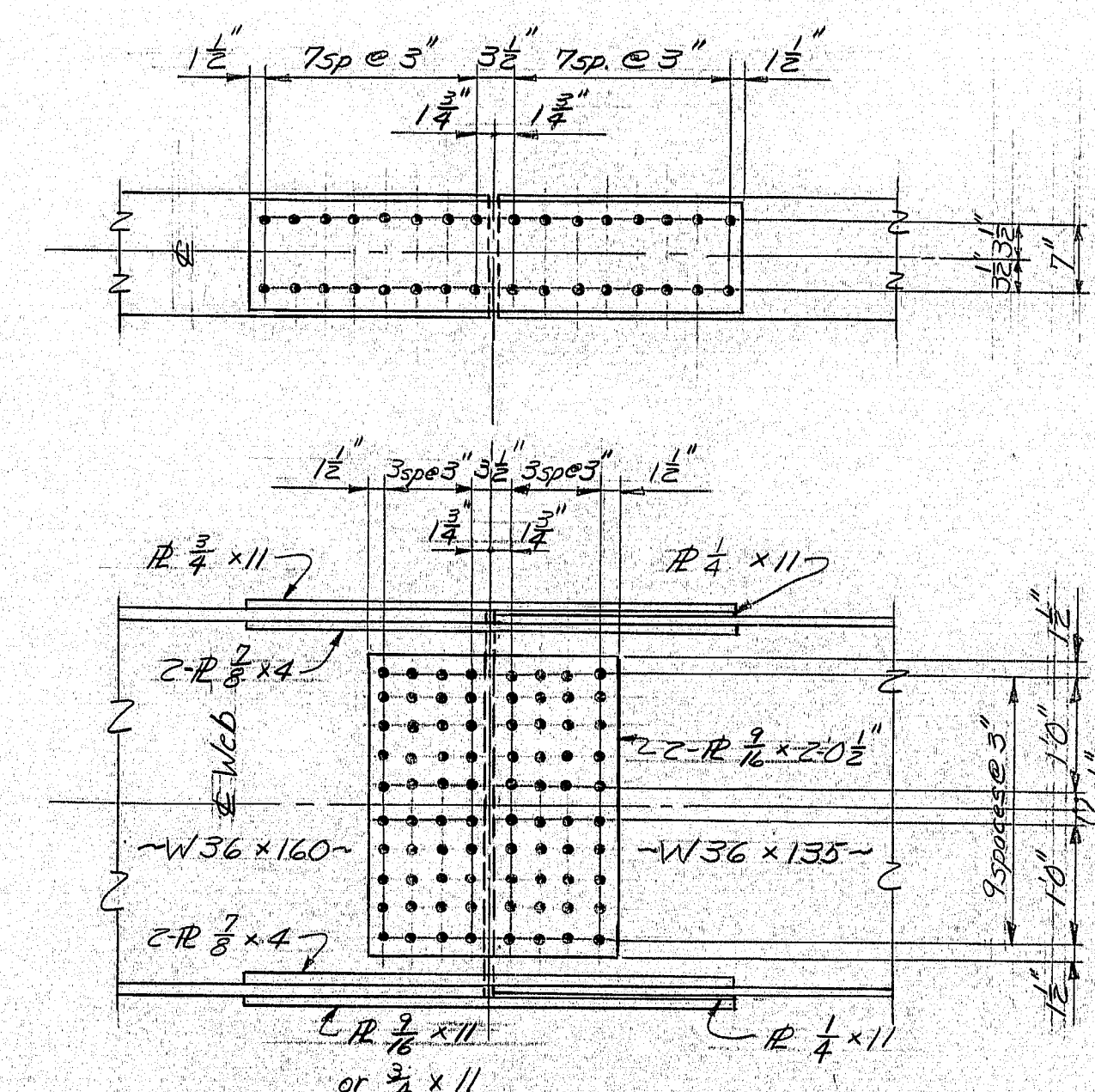
169-79

F.R.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	838-1(13)	20	47



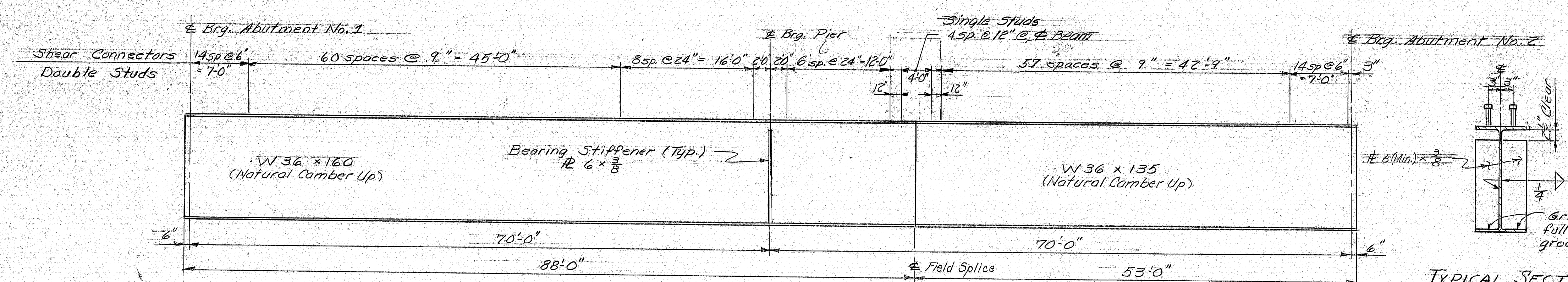
* These two rows of diaphragms may be type 'E' if panel placement of the roadway slab is not used and continuous placement of the slabs is used.

FRAMING PLAN

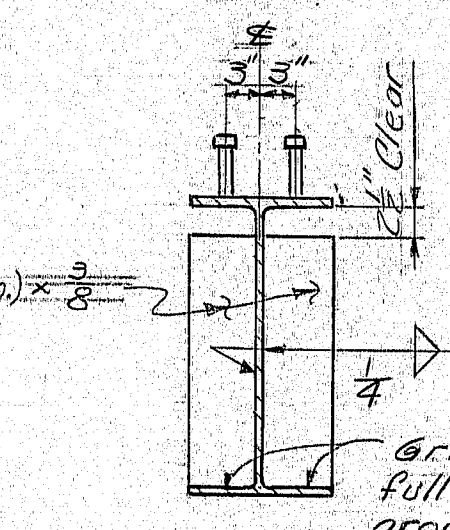


BOLTED FIELD SPICE
All bolts shall be 5/8" High Strength A578 designation A325, Type 3. Holes shall be 1/8" Ø.

- STRUCTURAL STEEL NOTES**
1. Bearing stiffeners shall be plumb after erection and dead loading of the structure.
 2. Cross frame or diaphragm connection plates may be either plumb or normal to the top flange.
 3. All steel shall meet A.S.T.M. Designation A588, mill test for filler plate material will not be required.
 4. Bolts shall meet ASTM designation A325, Type 3.
 5. Structural steel shall not be painted and shall be prepared as specified in the supplemental specifications.

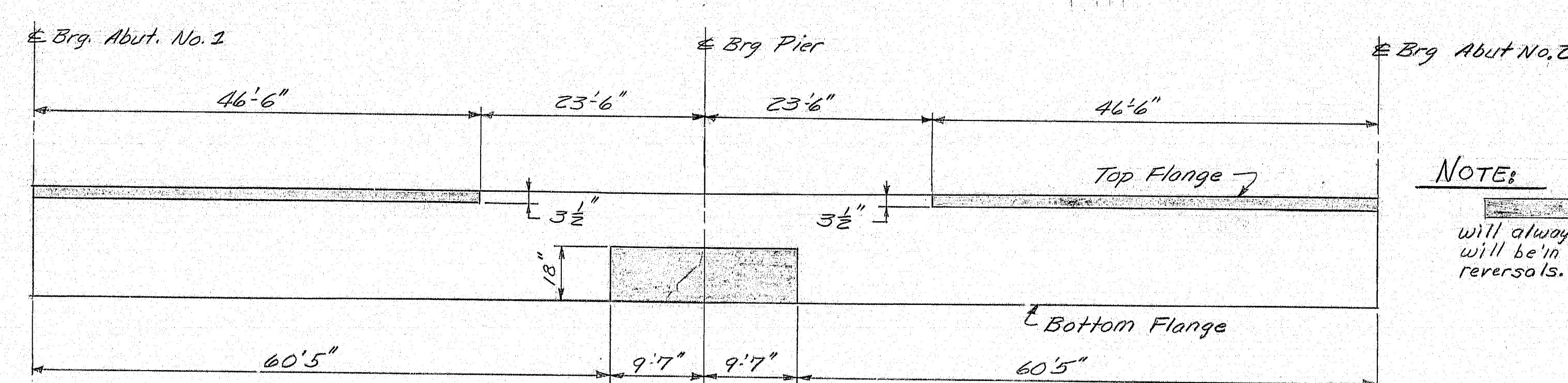


BEAM ELEVATION 1 THRU 6
329 Shear Connectors per beam (1,974 Total)



TYPICAL SECTION

- REFERENCES**
- Bearing Pedestals - BD 101-74 sheet #12 and sheet #9 for modifications.
 - Shear Connectors - Armored Joint BD 104-73 sheet #13 & sheet #9.
 - Diaphragms - BD 113-72 sheet #14.



STRESS TYPE DIAGRAM (BEAM ELEVATION)

NOTE:
Areas of the beam which will always be in compression. All other areas will be in tension, or areas which have stress reversals.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**SIX MILE FALLS BRIDGE
OVER
KENDUSKEAG STREAM
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY**

STRUCTURAL STEEL DETAILS

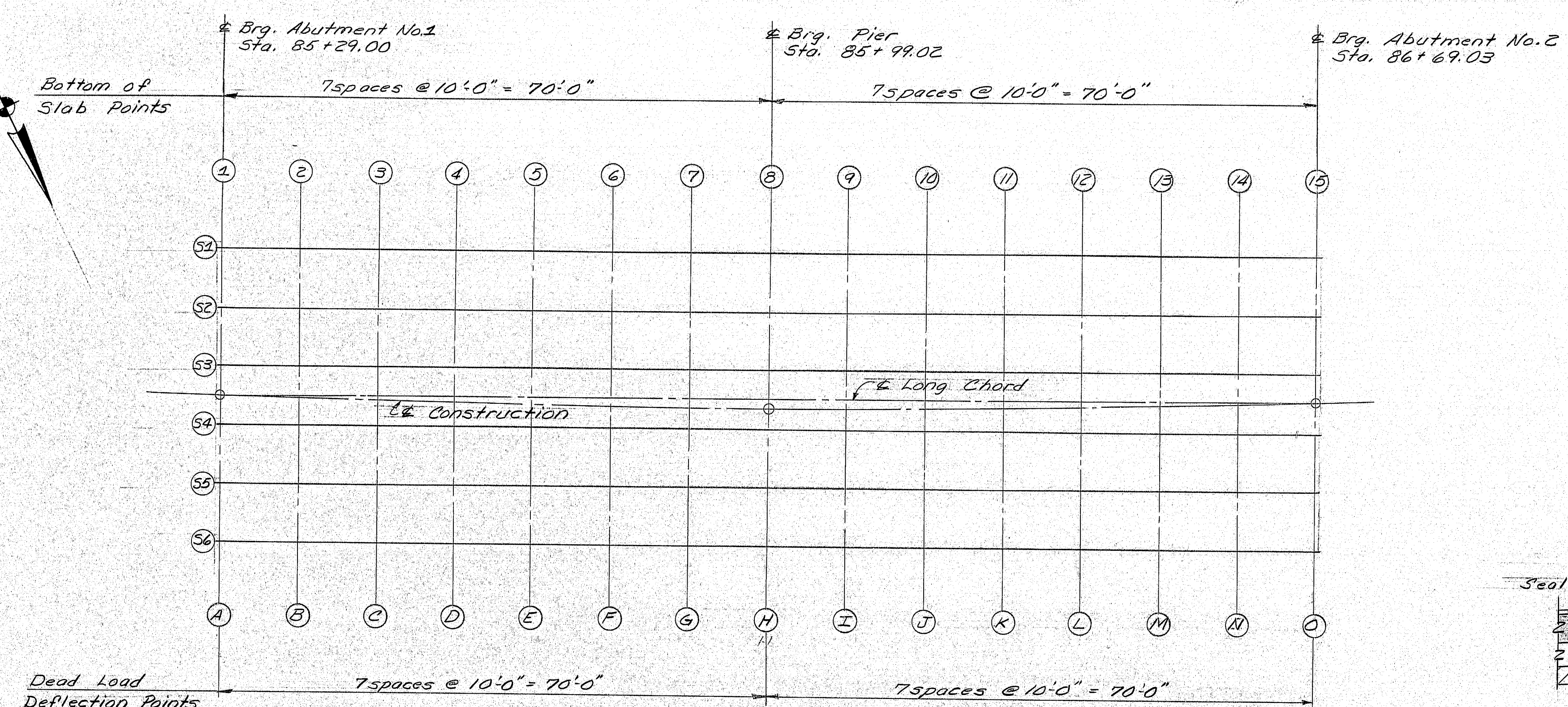
SHEET 8 OF 15 AUGUSTA, MAINE Jan. 1976

BANGOR 169-80

PROJECT DESIGN ENGINEER	DATE
W. J. W.	7-22
DESIGN - CHECKED	DATE
W. J. W.	7-22
DESIGN - APPROVED	DATE
W. J. W.	7-22
FIELD CHANGES	DATE

JANUARY 1988

F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	FB8-1 (13)	21	47

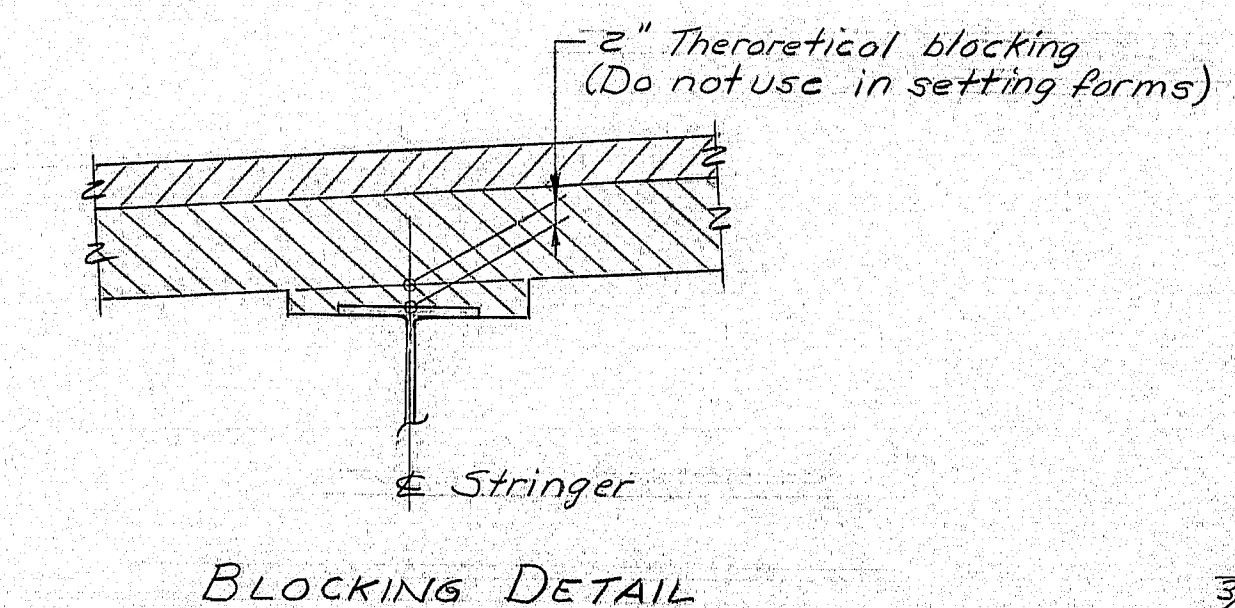


BLOCKING & DEFLECTION POINT LAYOUT

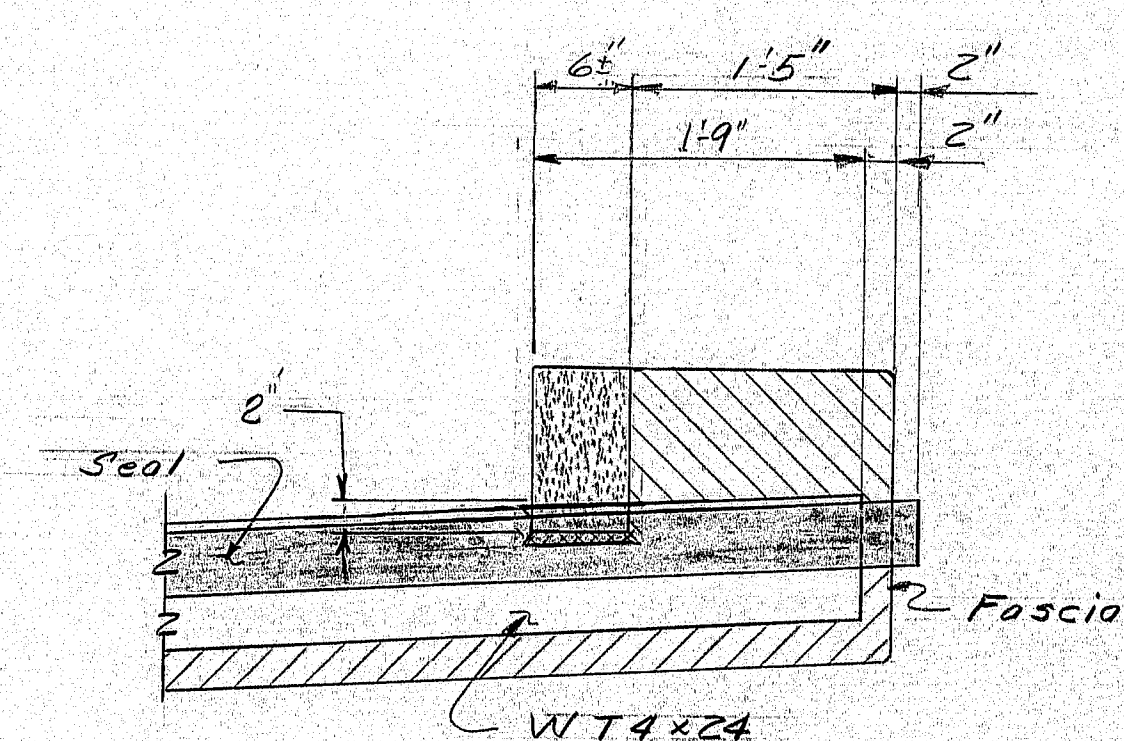
Bottom of slab elevations are adjusted to compensate for concrete (fluid & superimposed) dead load deflections and vertical profile; use in conformance with sub-section 502.10 (a).

BOTTOM OF SLAB ELEVATIONS															
Span	Abut. 1	+10'	+20'	+30'	+40'	+50'	+60'	Pier	+80'	+90'	+100'	+110'	+120'	+130'	Abut. 2
Points	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
S-1	100.76	101.02	101.26	101.49	101.70	101.89	102.11	102.32	102.57	102.83	103.10	103.35	103.59	103.81	104.02
S-2	101.18	101.43	101.68	101.91	102.12	102.31	102.51	102.73	102.98	103.25	103.51	103.76	104.00	104.22	104.43
S-3	101.60	101.85	102.09	102.33	102.54	102.73	102.93	103.15	103.40	103.66	103.93	104.18	104.41	104.63	104.84
S-4	102.02	102.27	102.51	102.75	102.96	103.16	103.35	103.57	103.81	104.08	104.34	104.59	104.82	105.04	105.26
S-5	102.45	102.69	102.93	103.17	103.38	103.58	103.78	103.98	104.23	104.49	104.75	105.00	105.24	105.45	105.66
S-6	102.87	103.13	103.35	103.59	103.80	104.00	104.18	104.40	104.65	104.91	105.17	105.42	105.65	105.86	106.07

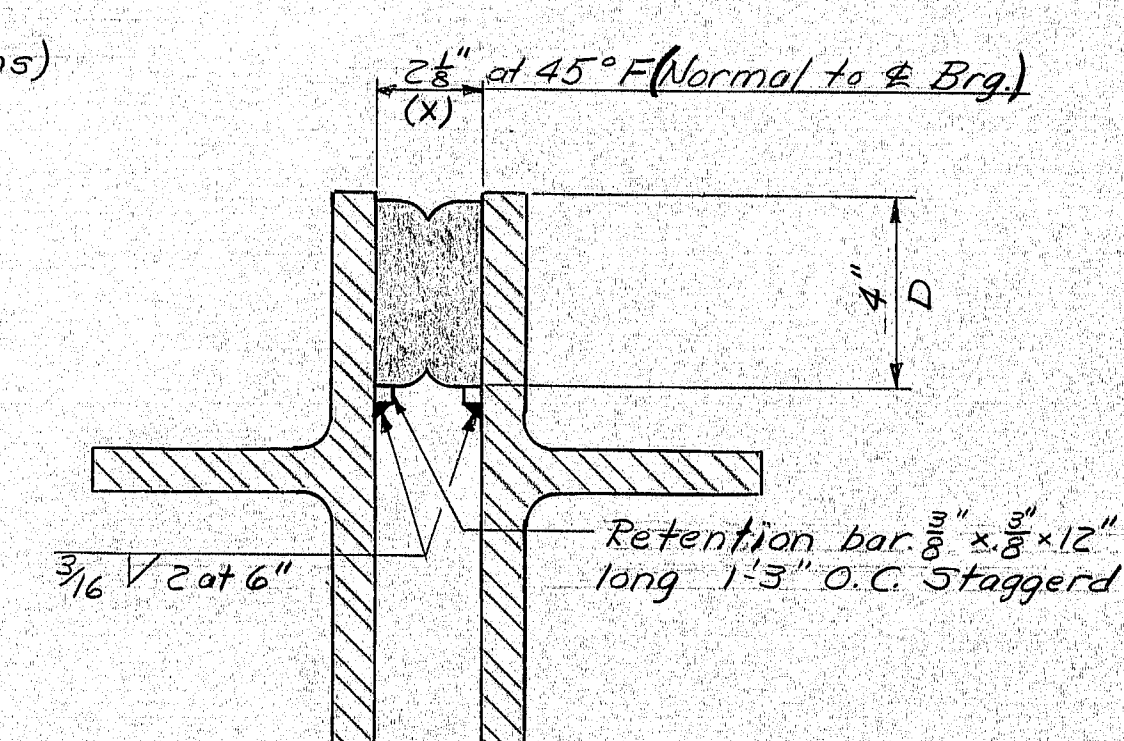
DEAD LOAD DEFLECTION POINTS (IN FEET)															
Span	Abut. 1	+10'	+20'	+30'	+40'	+50'	+60'	Pier	+80'	+90'	+100'	+110'	+120'	+130'	Abut. 2
Points	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Superimp.	0.000	0.007	0.013	0.015	0.013	0.009	0.003	0.000	0.003	0.009	0.014	0.015	0.013	0.008	0.000
Steel	0.000	0.006	0.011	0.012	0.011	0.007	0.002	0.000	0.002	0.006	0.010	0.012	0.010	0.006	0.000
Fluid	0.000	0.026	0.046	0.052	0.045	0.027	0.007	0.000	0.013	0.036	0.056	0.064	0.056	0.033	0.000



BLOCKING DETAIL



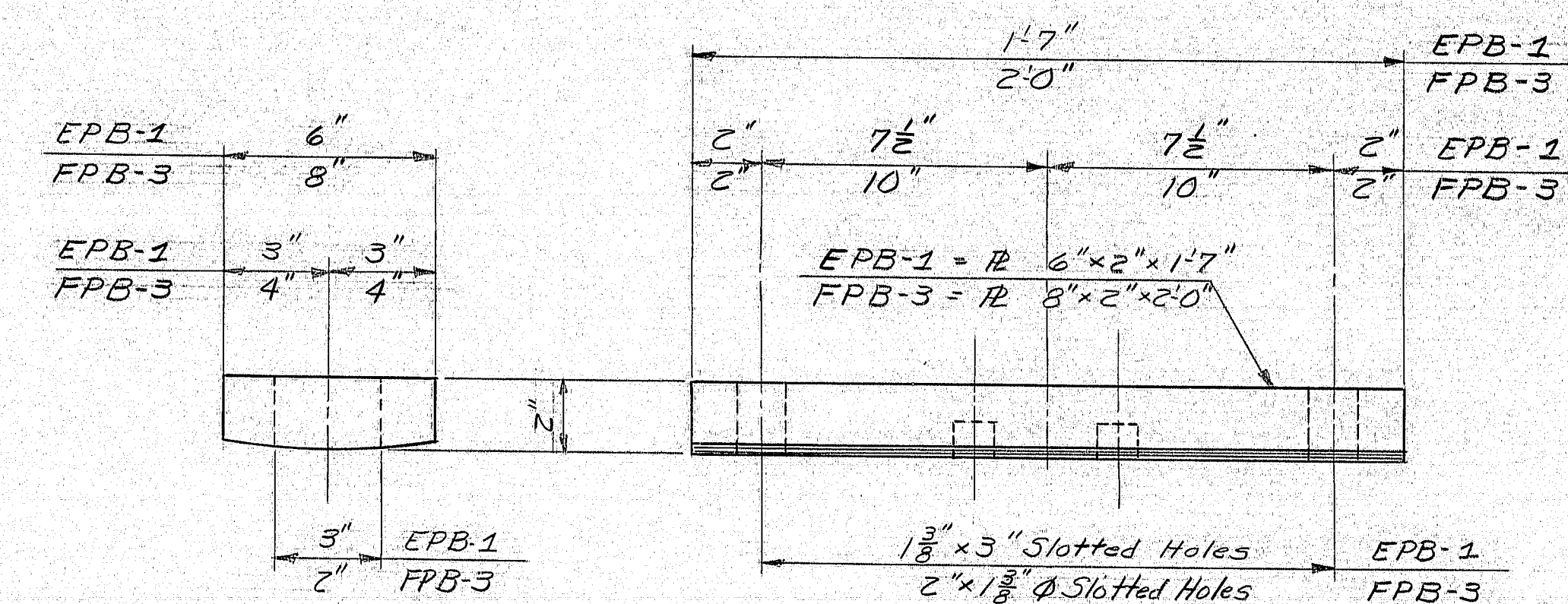
CURB DETAIL



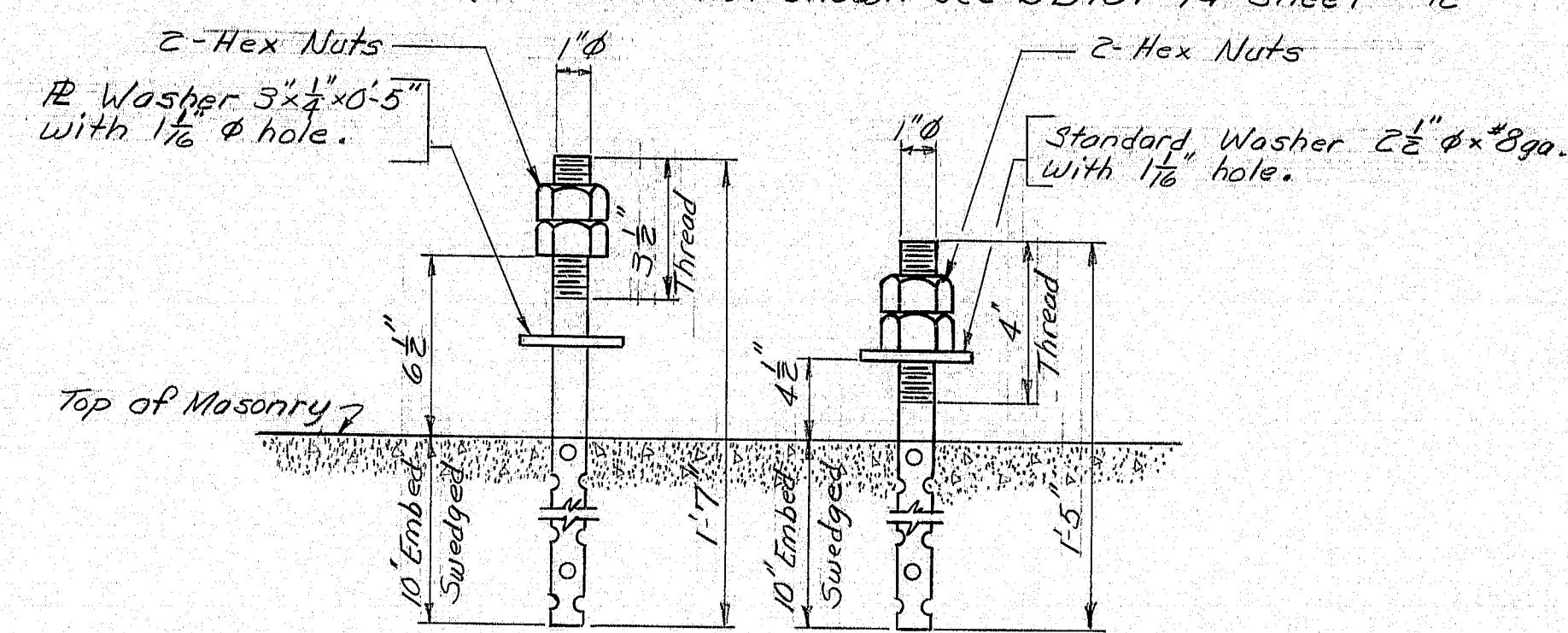
SEAL AT ABUTMENTS (Expansion)

NOTES

- The seal furnished shall have a Movement Rating of 1/2 inch.
- The joint dimensions "X" and "D" shown are for design only and are subjected to change due to difference in seals as supplied by various manufacturers. Do not use for setting of joint opening during construction. Set joint opening according to the joint opening shown on the approved "Armored Joint" Shop detail drawings.
- The seal characteristics shall be submitted to the engineer for approval, prior to the fabrication of the armored joint.
- No movement due to dead loads (slab, curbs, and wearing surface), shall be taken into account when setting the armored joint.
- The max. joint opening shall be 3 inches at 50°F measured parallel to & of construction.



ROCKER PLATE FOR EPB-1 (MOD.) & FPB-3 (MOD.)
(For details not shown see BD101-74 sheet #12)



EPB-1 Mod. (24 Reg'd) FPB-3 Mod. (12 Reg'd)

ANCHOR BOLT DETAILS

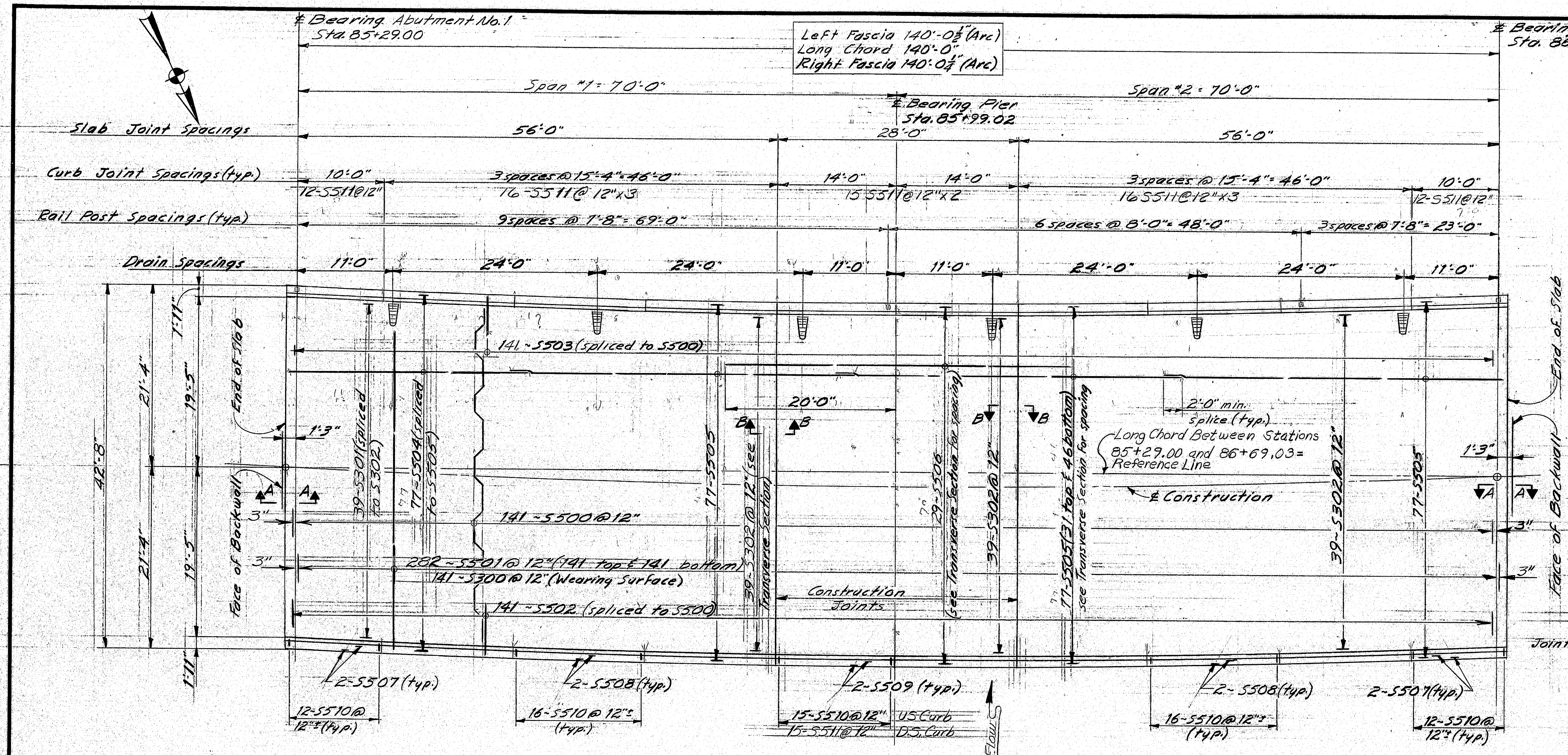
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SIX MILE FALLS BRIDGE
OVER
KENDUSKEAG STREAM
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY
BLOCKING LAYOUT

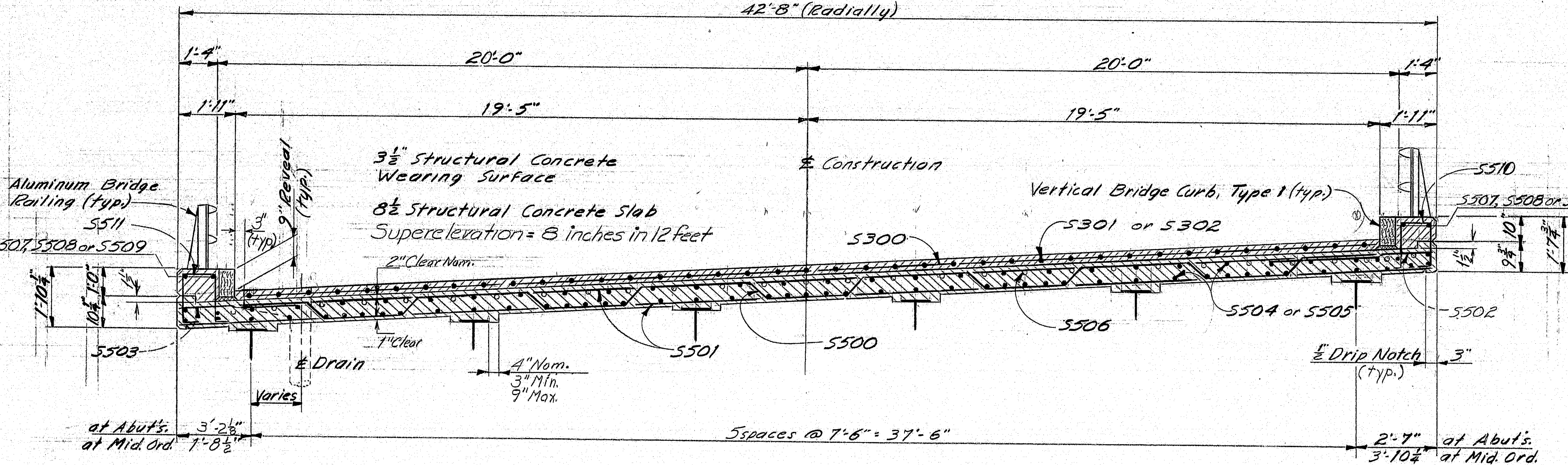
SHEET 9 OF 16 AUGUSTA, MAINE Jan. 1976
BANGOR 169-81

PROJECT DESIGN ENGINEER	DATE
BY	7-76
DESIGN - DETAILED	ALL
CHECKED	CDH
REVISIONS	
FIELD CHANGES	

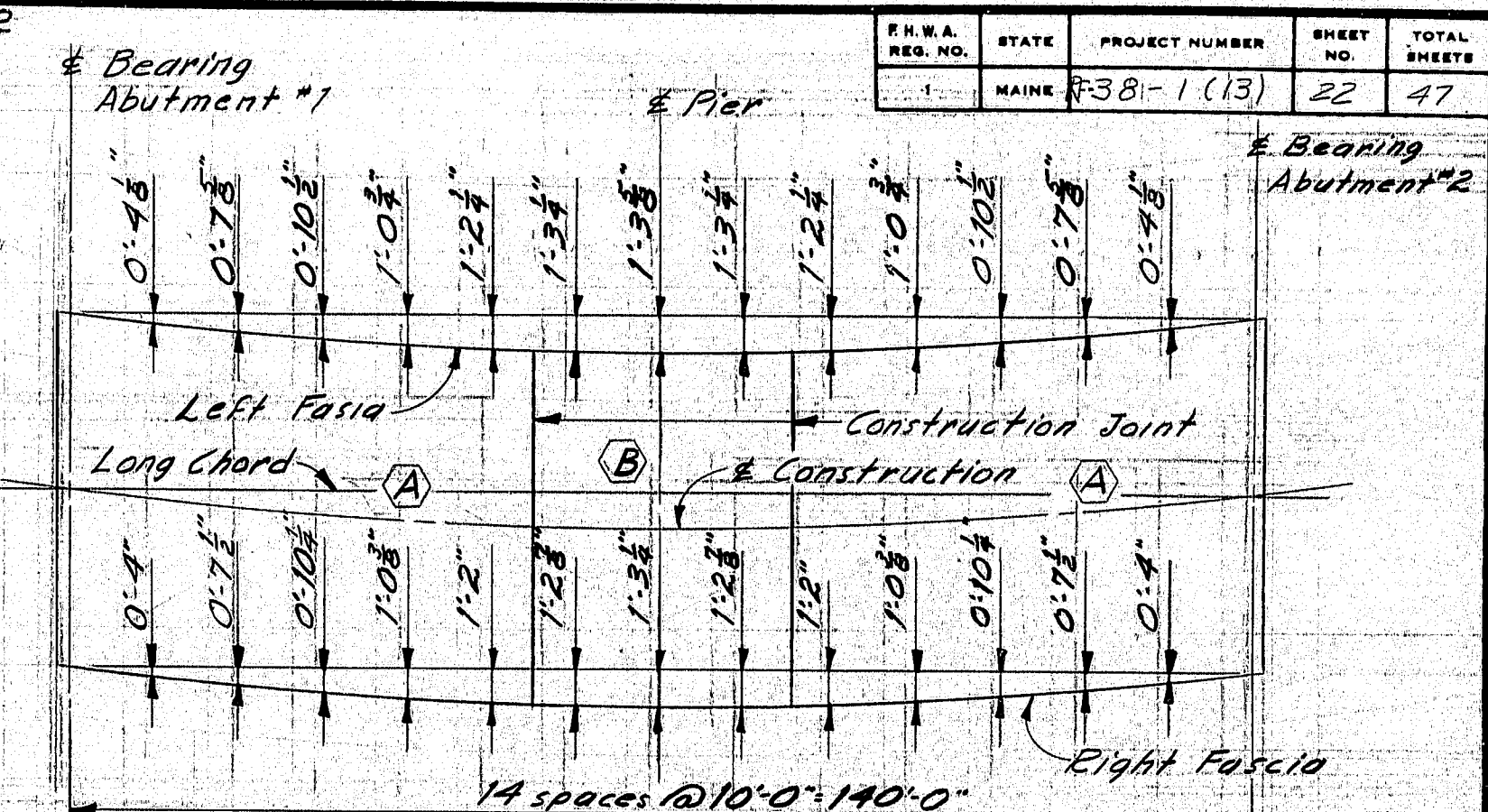
PROJECT DESIGN ENGINEER & License	DATE
DESIGN DETAIL	ALL E.T.A.
CHECKED	CDH
REVISIONS	FIELD CHANGES
PLANS	



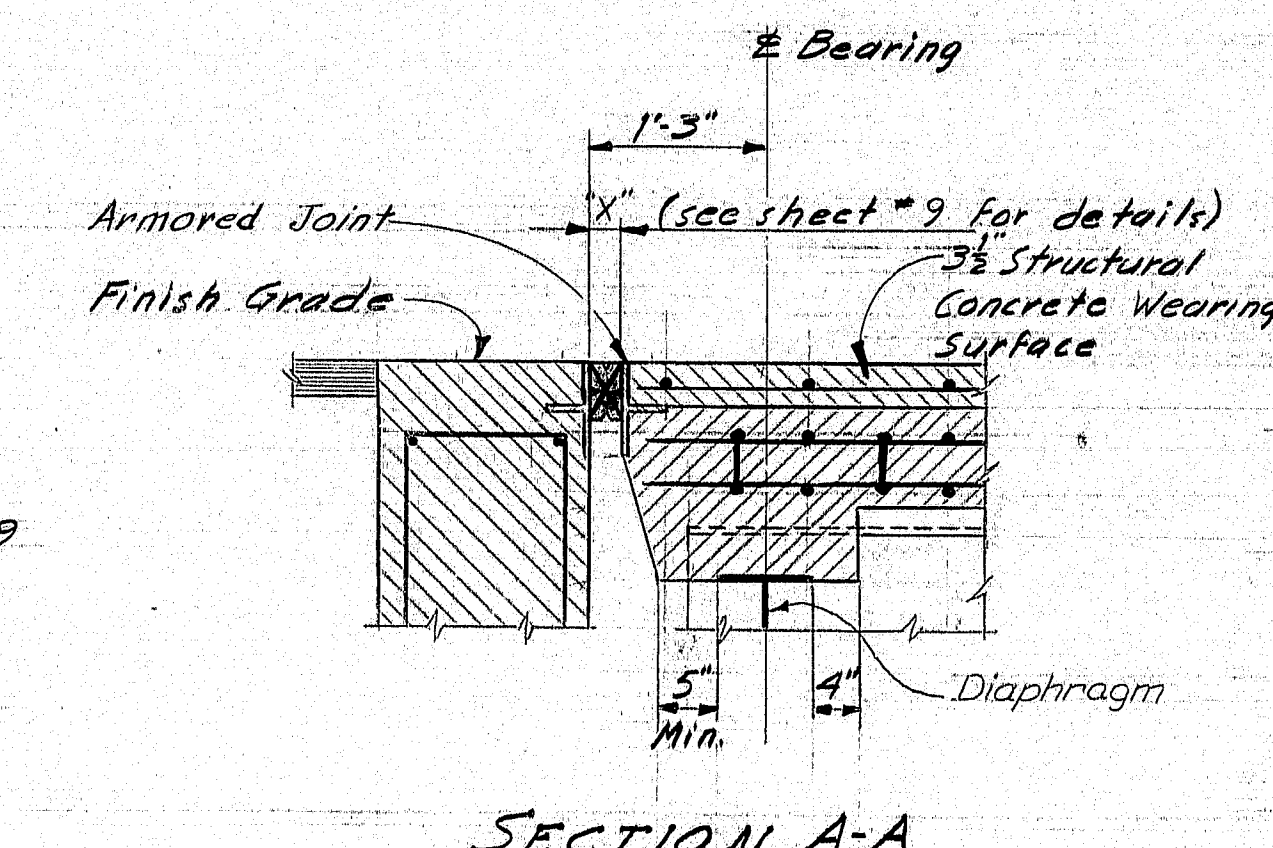
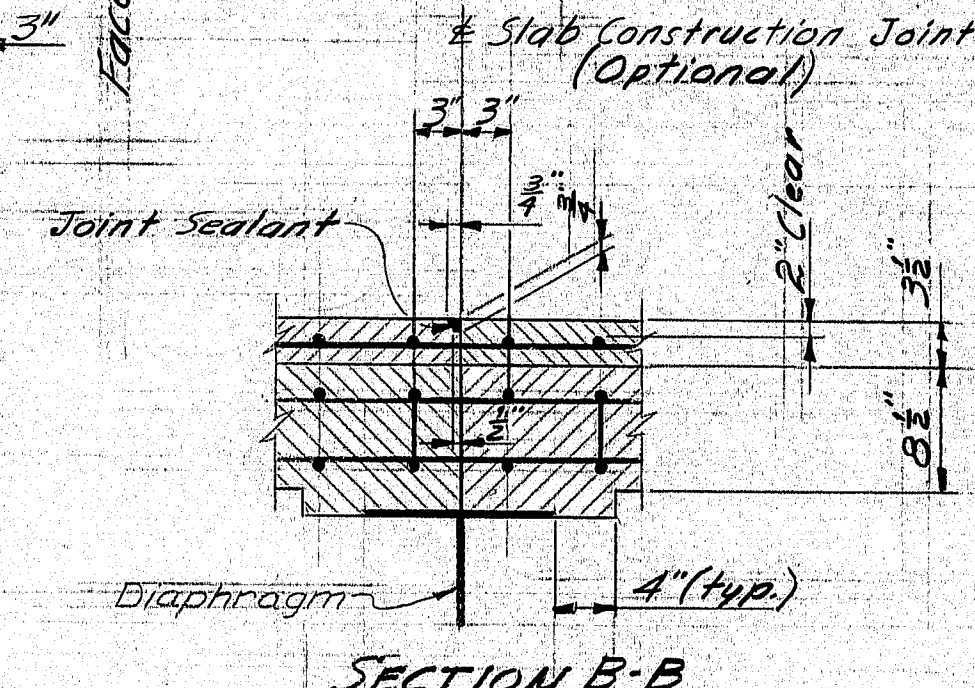
PLAN
NOTE: All dimensions are along Long Chord.



TRANSVERSE SECTION



PLAN-PANEL PLACEMENT & FASCIA OFFSETS
NOTE: Superstructure slab may be placed either continuously or by panels as follows:
CONTINUOUS PLACEMENT-The contractor's procedure of placement shall be approved by the Engineer. The concrete shall be kept plastic until placement of slab has been completed. The transverse slab joints and haunches shown shall be omitted. Approved set retarder admixtures shall be used when authorized by the Engineer. **PANEL PLACEMENT**-Panels A shall be placed before panel B. A minimum of 3 days shall elapse between placement of panels.



- NOTES**
- Chamfer all exposed edges of concrete & inch unless otherwise indicated.
 - Form a 1 inch V-groove on the outside faces of each construction joint in the curbs, at each construction joint in the slab and at the joint between the curb and slab.
 - Break bond in construction joints in the concrete curbs by a method approved by the Engineer. Do not break the bond in the construction joints in the superstructure slab.
 - Provide joints in the Vertical Bridge Curb, Type 1, at each construction joint in the concrete curb.
 - Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
 - Protective Coating for Concrete Surfaces shall be applied to the following areas: Concrete wearing surface, top of concrete curbs, Right and Left fascias to 6 inch drip notch.
 - Mortar for bedding and for joints in the granite curb shall contain an approved non-shrink additive.
 - The superstructure slab may be placed either continuously or by panels.
 - All superstructure concrete shall be class "A".

REFERENCES

For Armor Joint Details see Standard Detail Sheet BD 104-73 sheet #13 & sheet 9

For Aluminum Bridge Railing see Standard Detail Sheets BD 114-73 sheet #15.

For Drain & Curb Details see Standard Detail Sheet BD 104-73, sheet 13.

For Aluminum Railing Pay Limits Detail see sheet #6

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

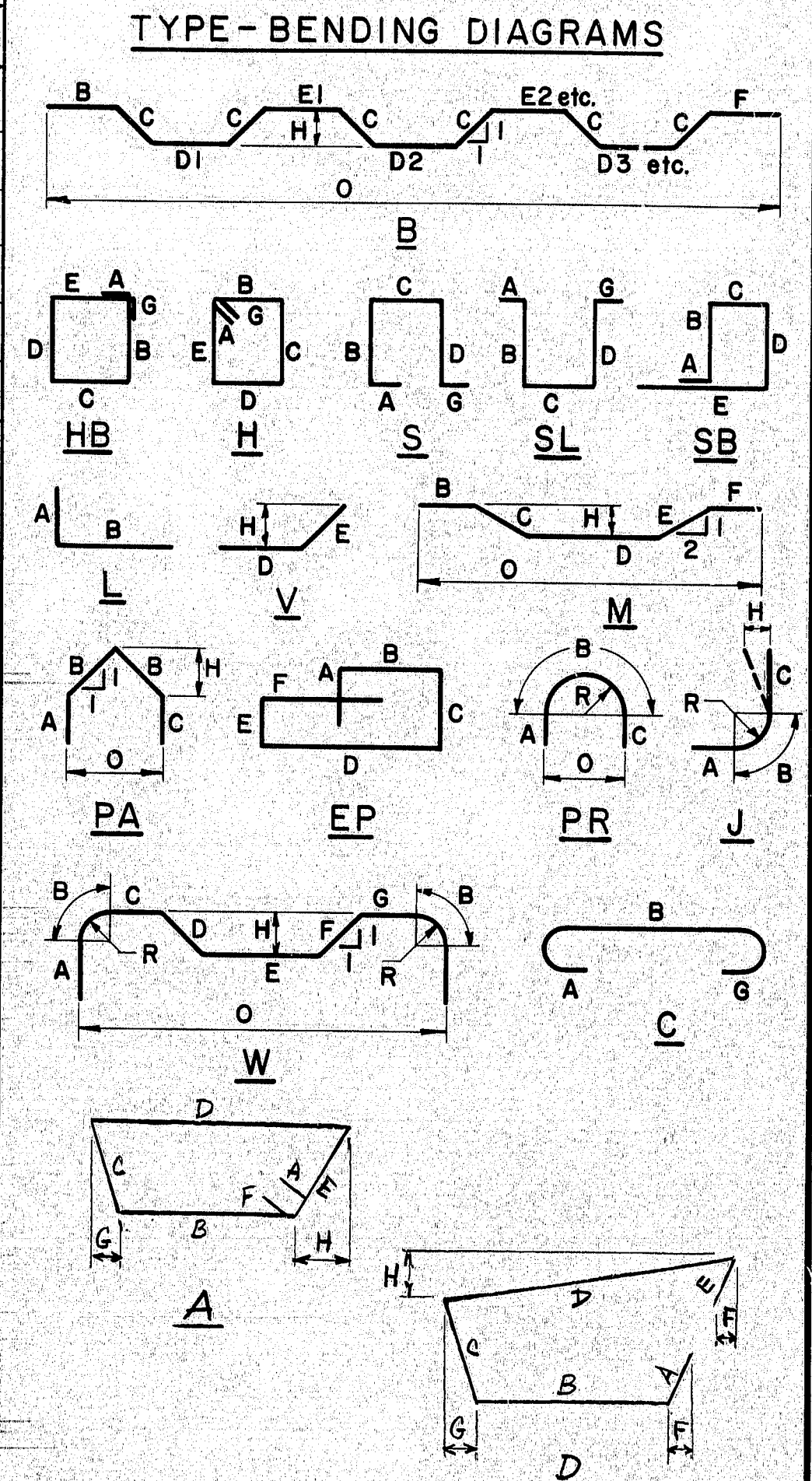
SIX MILE FALLS BRIDGE
OVER
KENDUSKEAG STREAM
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY
SUPERSTRUCTURE

SHEET 10 OF 15 AUGUSTA, MAINE Jan. 1976

169-82

REINFORCING STEEL SCHEDULE

STRAIGHT BARS												BENT BARS																
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION		
ABUTMENT #1				ABUTMENT #2				SUPERSTRUCTURE				ABUTMENT #1																
A500	69	3'-2"	Fig. & Breastwall	B500	69	3'-2"	Fig. & Backwall	S300	141	38'-6"	Wearing Surface					ABUTMENT #1												
A501	40	4'-2"	Footing	B501	41	4'-2"	Footing	S301	39	28'-0"	Wearing Surface	A502	13	8'-5"	L	4'-2"	4'-3"										Breastwall	
A504	14	23'-0"	Breastwall & Backwall	B504	14	23'-0"	Breastwall & Backwall	S302	117	40'-0"	Wearing Surface	A503	16	7'-2"	L	4'-2"	3'-0"										Breastwall	
A505	2	8'-2"	D.S. Wing	B505	16	18'-11"	Breastwall & Backwall					A513	2	6'-3"	V				2'-4"	3'-11"			1'-11"			D.S. Wing		
A506	8	8'-9"	Breastwall & Backwall	B506	2	9'-3"	D.S. Wing	S501	282	42'-4"	Slab	A515	29	9'-2"	S		4'-0"	1'-2"	4'-0"							Backwall		
A507	4	5'-0"	D.S. Wing	B507	8	9'-6"	D.S. Wing	S502	141	5'-6"	Slab	A523	2	11'-3"	V				2'-4"	8'-11"			4'-7"			U.S. Wing		
A508	20	5'-3"	D.S. Wing & Breastwall	B508	2	3'-2"	D.S. Wing	S503	141	4'-0"	Slab	A528	4	5'-6"	S		2'-3"	1'-0"	2'-3"							Curbs		
A509	19	7'-5"	U.S. Wing & Breastwall	B509	2	3'-10"	D.S. Wing	S504	77	28'-0"	Slab	A531	4	12'-10"	D	6	5'-2"	1'-2"	5'-5 1/2"	6	1/2	1/4	5			End Post Support		
A510	4	5'-2"	D.S. Wing	B510	5	5'-4"	D.S. Wing	S505	231	40'-0"	Slab	A533	3	13'-3"	A	5 1/2	5'-2"	11	5'-4"	11	5 1/2	1	1			End Post		
A511	2	3'-8"	D.S. Wing	B511	21	6'-4"	D.S. Wing & Breastwall	S506	29	40'-0"	Slab	A534	4	12'-8"	D	6	5'-0 1/4"	1'-2"	5'-5"	6	1	1/4	4 3/4			End Post Support		
A512	2	4'-3"	D.S. Wing	B512	2	4'-7"	D.S. Wing	S507	8	10'-9"	Curb	A535	3	13'-1"	A	5 1/2	5'-0 1/4"	11	5'-3 1/4"	11	5 1/2	1	2			End Post		
				B513	2	8'-0"	D.S. Wing	S508	24	15'-0"	Curb	ABUTMENT #2																
A514	2	8'-2"	D.S. Wing					S509	8	13'-8"	Curb	B502	16	7'-4"	L	4'-2"	3'-2"									Breastwall		
A516	16	18'-11"	Breastwall & Backwall	B515	3	12'-9"	U.S. Wing					B503	12	8'-7"	L	4'-2"	4'-5"									Breastwall		
A517	5	12'-3"	U.S. Wing	B516	9	13'-5"	U.S. Wing & Breastwall					B514	2	7'-4"	V				2'-4"	5'-0"			2'-3"			D.S. Wing		
A518	6	6'-11"	U.S. Wing	B517	7	7'-5"	U.S. Wing					B517	2	11'-10"	V				2'-4"	9'-6"			4'-5"			U.S. Wing		
A519	9	13'-1"	U.S. Wing	B518	19	7'-11"	U.S. Wing & Breastwall					B528	28	9'-10"	S		4'-4"	1'-2"	4'-4"							Backwall		
A520	4	5'-2"	U.S. Wing	B519	2	6'-8"	U.S. Wing					B529	4	5'-6"	S		2'-3"	1'-0"	2'-3"							Curbs		
A521	2	6'-9"	U.S. Wing	B520	2	7'-4"	U.S. Wing					B531	4	12'-10"	D	6	5'-2"	1'-2"	5'-5 1/2"	6	1/2	1/4	5			End Post Support		
A522	2	7'-10"	U.S. Wing	B521	2	8'-2"	U.S. Wing					B533	3	13'-3"	A	5 1/2	5'-2"	11	5'-4"	11	5 1/2	1	1			End Post		
				B522	2	8'-11"	U.S. Wing					B534	4	12'-8"	D	6	5'-0 1/4"	1'-2"	5'-5"	6	1	1/4	4 3/4			End Post Support		
A524	2	2'-3"	U.S. Wing	B523	2	9'-8"	U.S. Wing					B535	3	13'-1"	A	5 1/2	5'-0 1/4"	11	5'-3 1/4"	11	5 1/2	1	2			End Post		
A525	2	3'-0"	U.S. Wing	B524	2	10'-5"	U.S. Wing					PIER																
A526	2	3'-9"	U.S. Wing	B525	8	5'-0"	U.S. & D.S. Wing					P400	24	7'-0"	S		2'-3"	2'-6"	2'-3"							Bridge Seats		
A527	2	4'-6"	U.S. Wing	B526	2	6'-9"	U.S. Wing					P504	12	5'-0"	L	2'-2"	2'-10"									Shaft		
												P505	1	14'-7"	PA	4'-8"	2'-7 1/2"	4'-8"					1'-10 1/2"	3'-9"		Shaft		
A530	16	5'-10"	End Post Support	B530	16	5'-10"	End Post Support									x2												
A532	24	4'-3"	End Post	B532	24	4'-3"	End Post					P506	1	13'-11"	PA	4'-6"	2'-5 1/2"	4'-6"					1'-9"	3'-6"		Shaft		
																x2												
A600	120	6'-0"	Footing	B600	124	6'-0"	Footing					P507	1	12'-10"	PA	4'-1"	2'-4"	4'-1"					1'-7 3/4"	3'-3 1/2"		Shaft		
A601	14	30'-0"	Footing	B601	14	30'-0"	Footing									x2												
A602	14	31'-9"	Footing	B602	14	33'-2"	Footing					P508	1	11'-8"	PA	3'-8"	2'-2"	3'-8"					1'-6 1/2"	3'-1"		Shaft		
																x2												
												P509	1	10'-6"	PA	3'-3"	2'-0"	3'-3"					1'-5"	2'-10"		Shaft		
																x2												
												P510	1	9'-4"	PA	2'-10"	1'-10"	2'-10"					1'-3 1/2"	2'-7"		Shaft		
																x2												
												P511	1	8'-3"	PA	2'-4 1/2"	1'-9"	2'-4 1/2"					1'-3"	2'-6"		Shaft		
P502	2	21'-0"	Shaft	A5500	304	15'-0"	A. Slab									x2												
P503	22	41'-0"	Shaft	A5501	44	37'-6"	A. Slab					P512	8	4'-0"	S		8 1/2	2'-7"	8 1/2							Bridge Seats		
P601	37	17'-5"	Shaft									P513	7	4'-0"	S		8"	2'-8"	8"							Bridge Seats		
P602	29	16'-2"	Shaft									SUPERSTRUCTURE																
												S500	141	39'-10"	B		2'-0"	7 1/4"	3'-0 1/2"	3'-6 1/2"	2'-0"		5 1/2"	37'-11 1/2"		Slab		
																	x10	x5	x4									
												S510	150	4'-11"	S	6"	1'-4 3/4"	1'-0"	1'-5 1/2"				6"			U.S. Curb		
												S511	150	5'-1"	S	6"	1'-6 3/4"	1'-0"	1'-6"				6"			D.S. Curb		
												MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION		



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

GENERAL NOTES

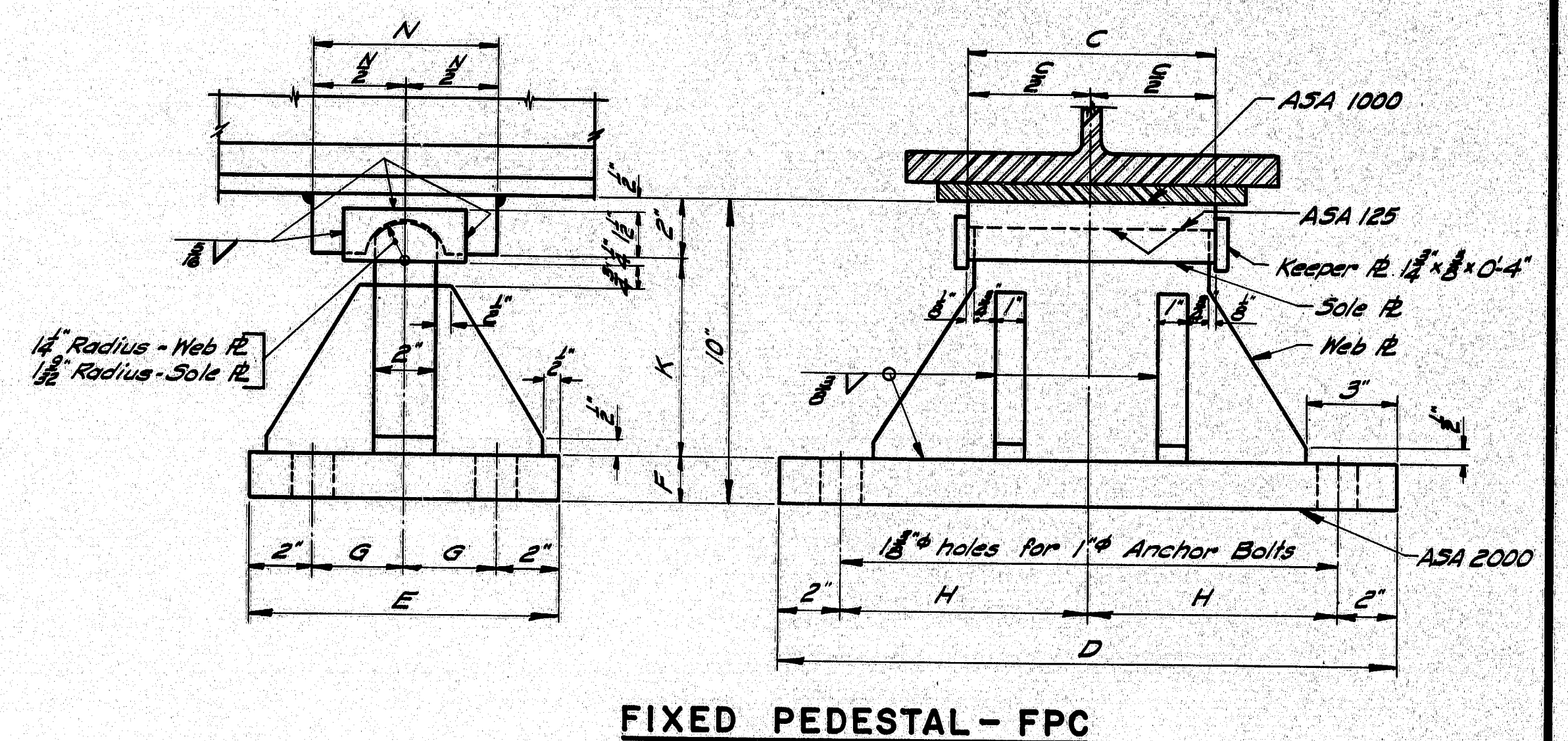
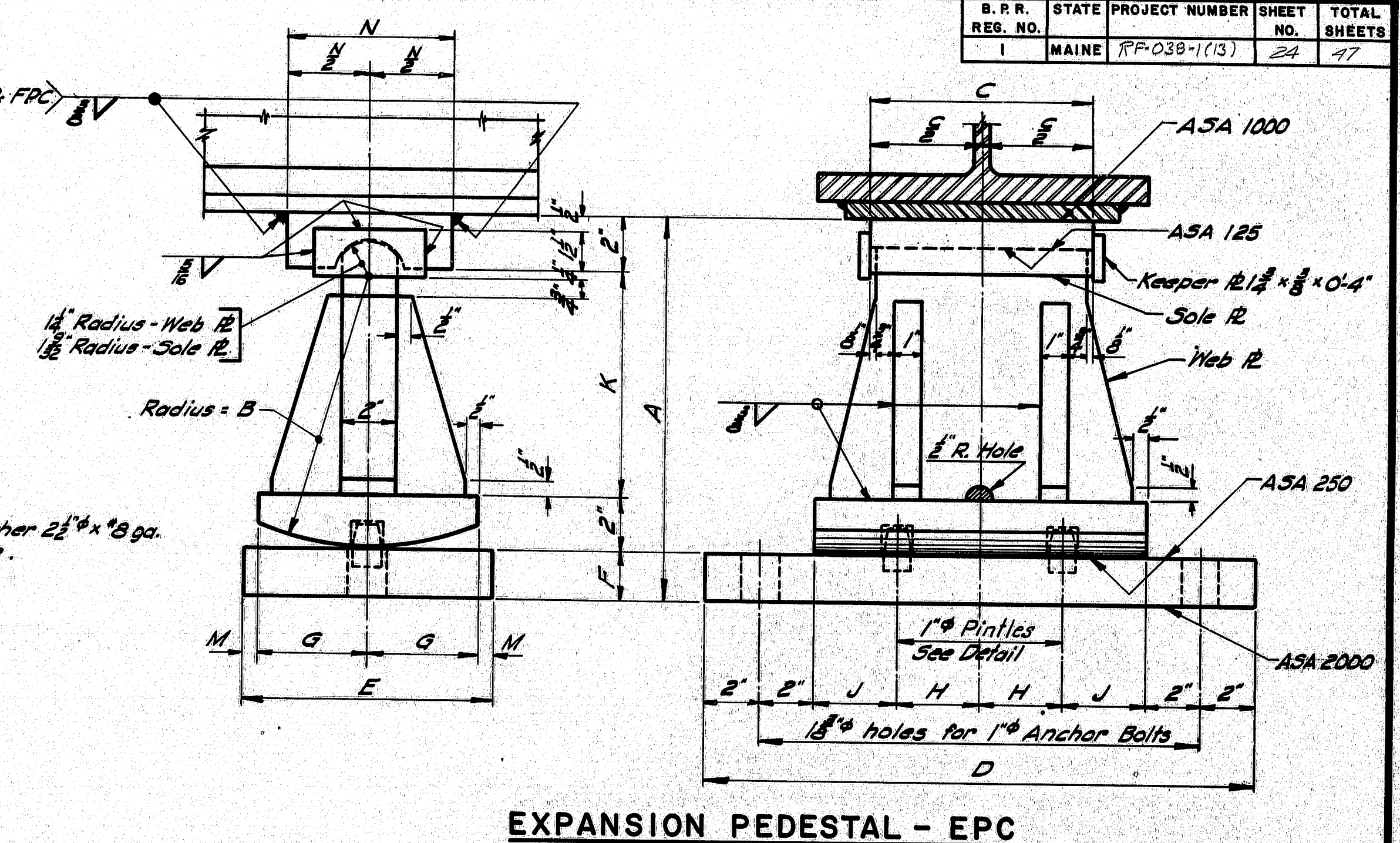
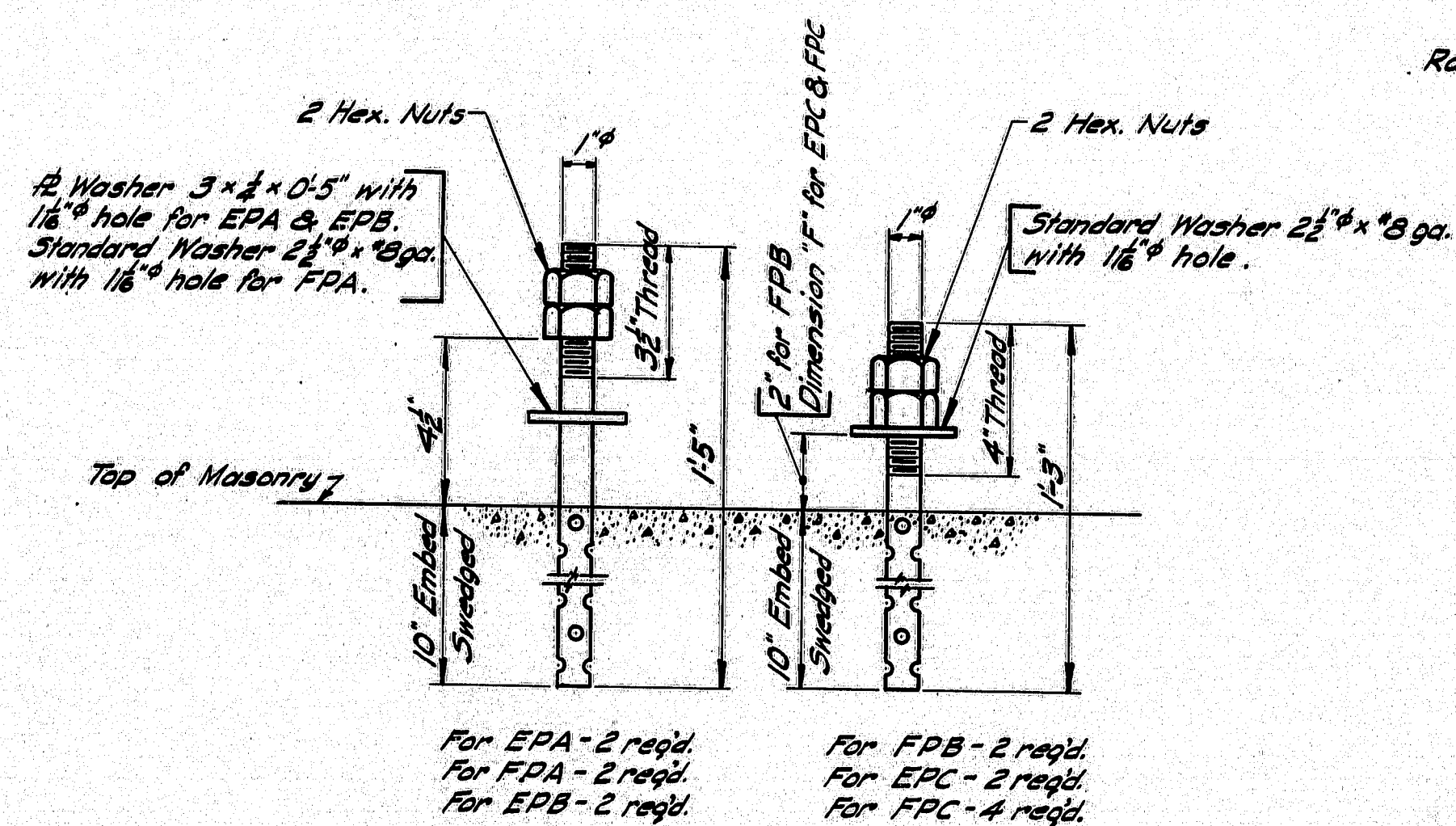
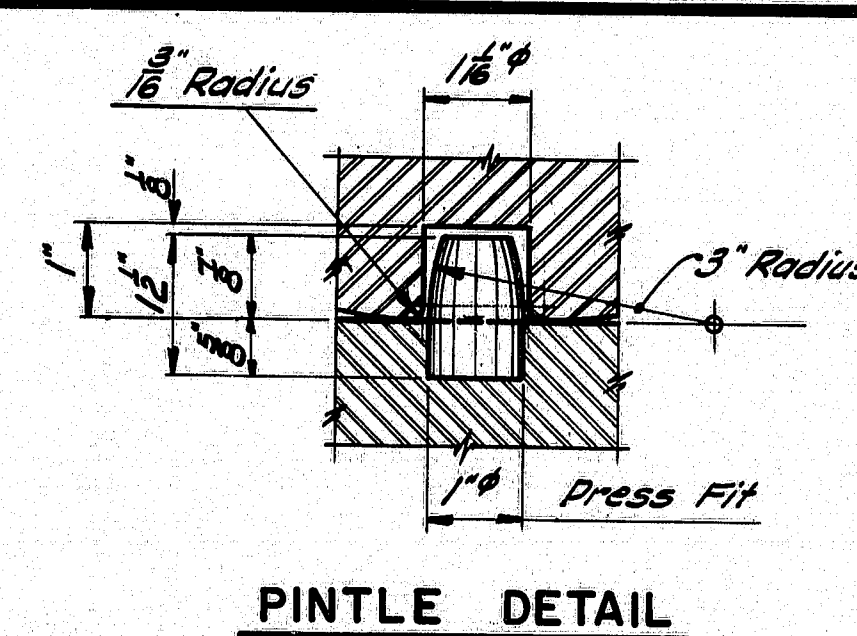
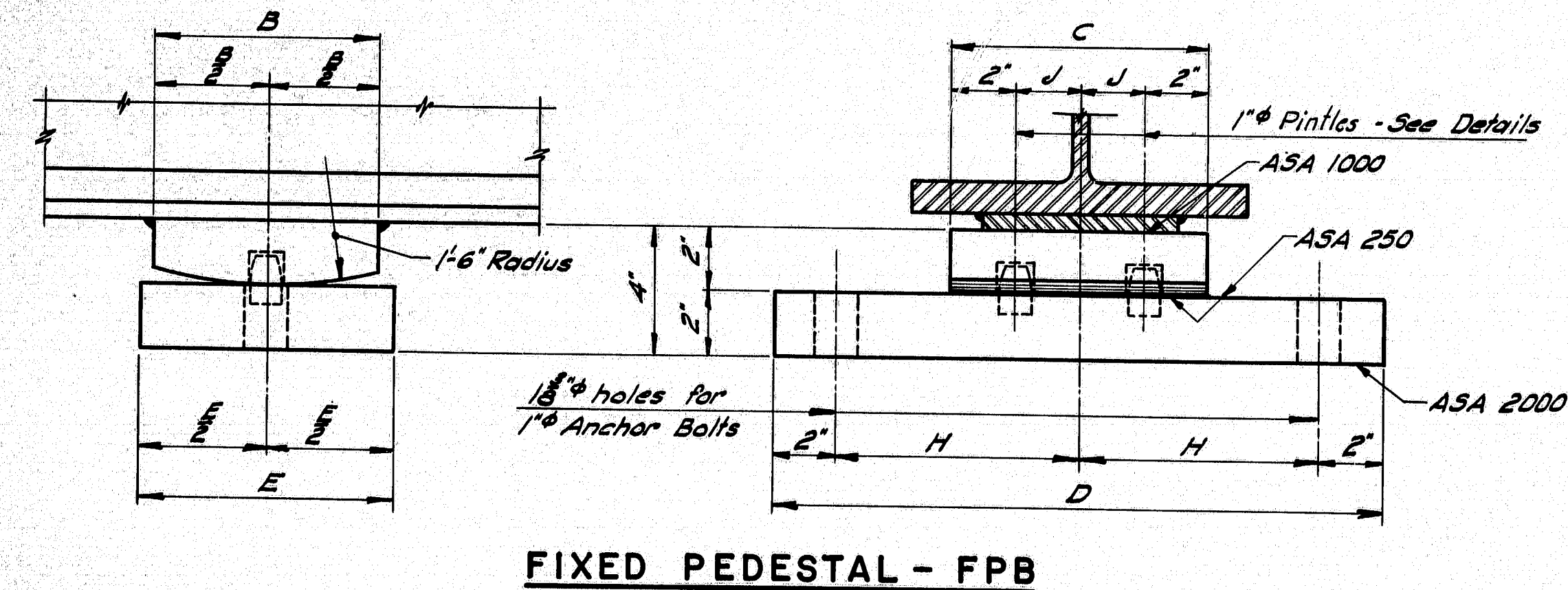
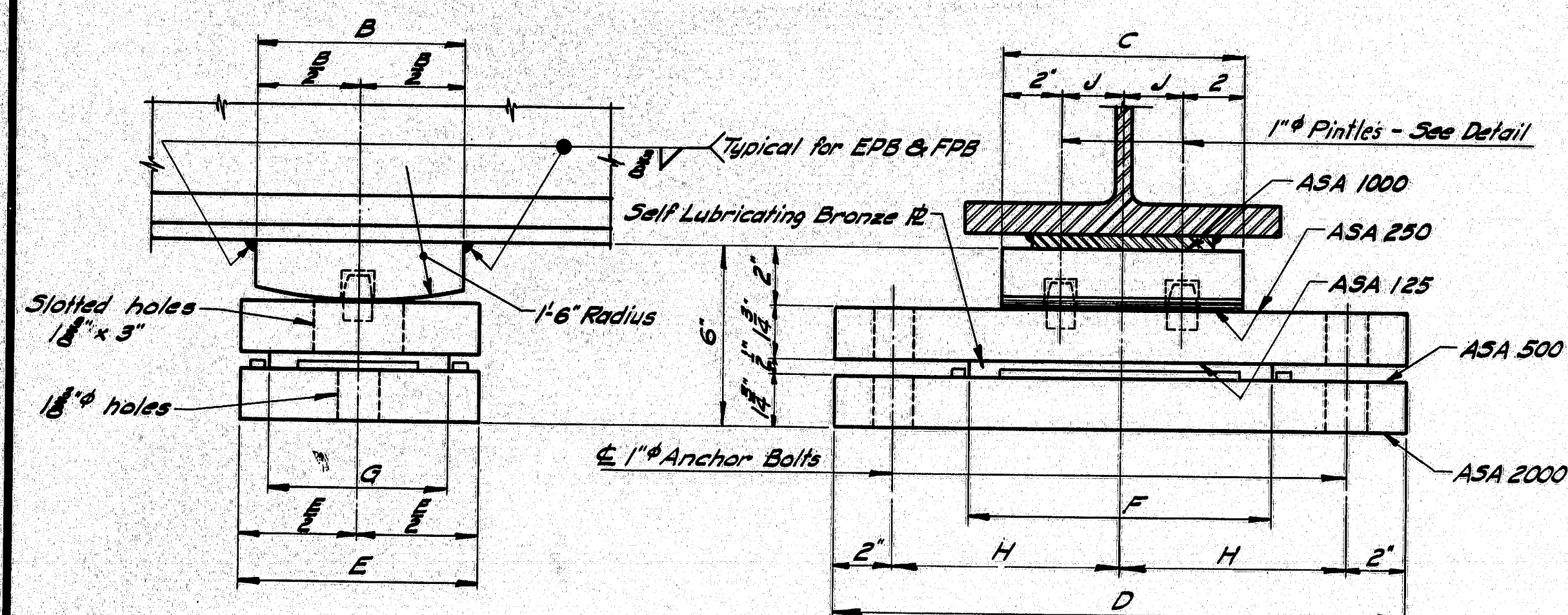
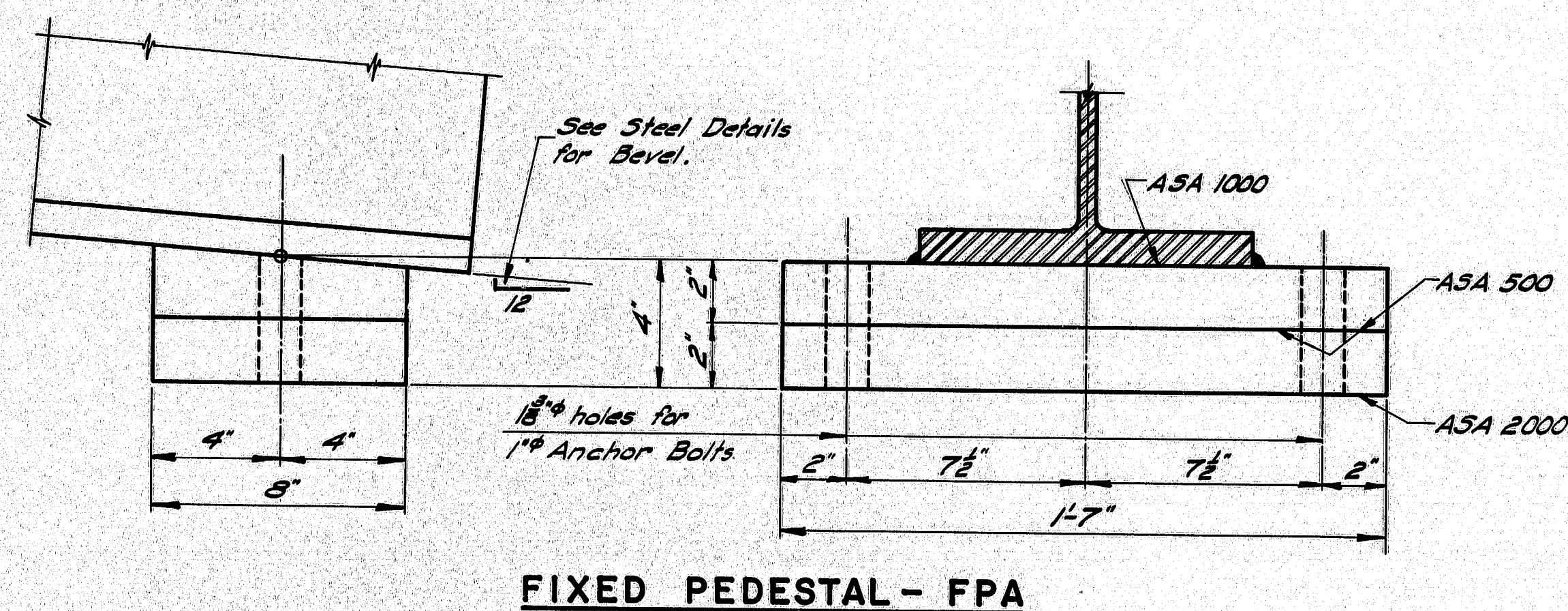
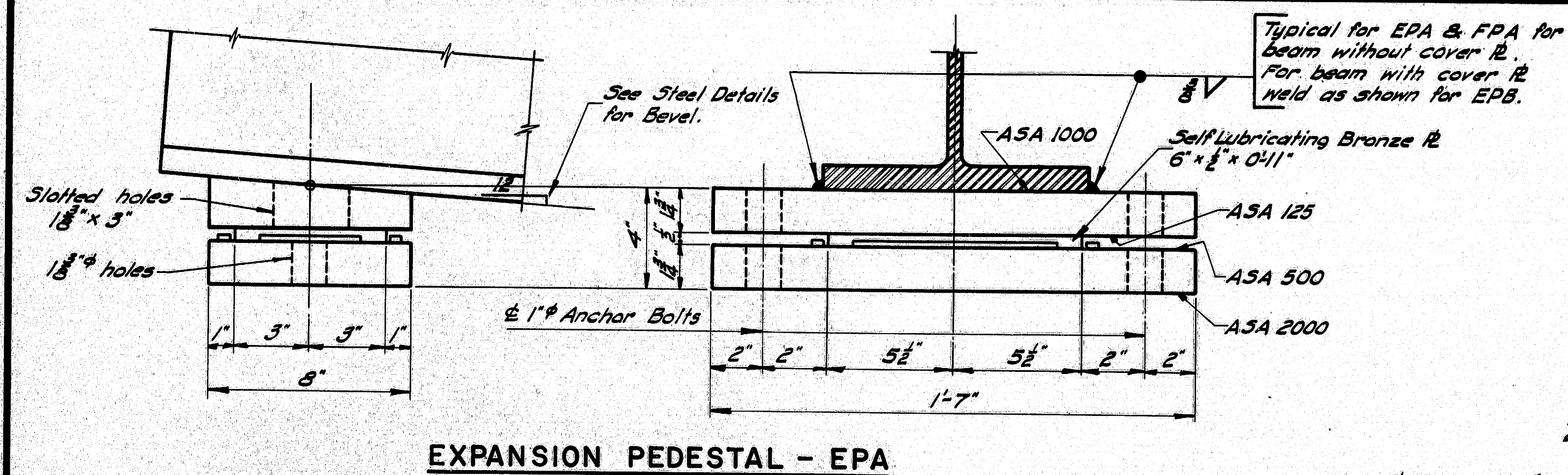
- First digit(s) following the letter of the Mark indicates size of reinf. bar.
 1 Mark (A 502) bar size - #5
 Mark (P 1001) bar size - #10
 Mark (S 603) bar size - #6
- Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

SIX MILE FALLS BRIDGE
 OVER
KENDUSKEAG STREAM
 IN THE CITY OF
BANGOR
PENOBSCOT COUNTY

REINFORCING STEEL SCHEDULE
 SHEET 11 OF 15 AUGUSTA, MAINE Jan. 1976

169-83



PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
<i>Pedestal</i>	<i>Load</i>	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 ^K	—	—	—	—	—	—	—	—	—	8"	4"	36"	53"
FPA	150 ^K	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 ^K	—	6"	8"	11 7/8"	8"	10"	6"	7 1/2"	2"	8"	4"	36"	53"
EPB-2	165 ^K	—	7"	10"	14 3/8"	9"	14 1/2"	7"	8"	3"	10"	5"	3 3/8"	68"
EPB-3	224 ^K	—	8"	11 1/4"	20"	10"	14 1/4"	8"	10"	4 1/2"	11 1/2"	5"	4 1/8"	84"
FPB-1	120 ^K	—	6"	8"	11 7/8"	8"	—	—	7 1/2"	2"	—	—	—	—
FPB-2	165 ^K	—	7"	10"	14 3/8"	9"	—	—	8"	3"	—	—	—	—
FPB-3	224 ^K	—	8"	11 1/4"	20"	10"	—	—	10"	5"	—	—	—	—
EPC-1	70 ^K	9 1/8"	6"	8"	14 3/8"	8"	12"	3 1/2"	3"	3"	4 1/2"	—	1 1/2"	6"
EPC-2	100 ^K	11 1/8"	8"	6"	14 3/8"	8"	12"	3 1/2"	3"	3"	6 1/2"	—	2 1/2"	6"
EPC-3	130 ^K	11 1/2"	10"	8"	14 3/8"	9"	12 1/2"	4"	3"	3"	8 1/2"	—	3 1/2"	7"
EPC-4	160 ^K	11 1/2"	10"	8"	14 3/8"	9"	12 1/2"	4"	4"	3"	8 1/2"	—	3 1/2"	7"
EPC-5	190 ^K	11 1/2"	10"	9"	21 1/2"	10"	2"	4 1/2"	5"	3"	8 1/2"	—	3 1/2"	8"
EPC-6	220 ^K	14 1/8"	14 1/8"	10"	21 1/2"	10 1/2"	2 1/2"	5"	5"	3"	10 1/2"	—	1"	8"
EPC-7	250 ^K	14 1/8"	14 1/8"	10"	21 1/2"	10 1/2"	2 1/2"	5"	5"	4"	10 1/2"	—	1 1/2"	8"
FPC-1	100 ^K	—	—	8"	14 3/8"	9"	14 1/2"	2 1/2"	3"	—	6 1/2"	—	—	6"
FPC-2	160 ^K	—	—	8"	14 3/8"	10"	12 1/2"	3"	3"	—	6 1/2"	—	—	7"
FPC-3	190 ^K	—	—	9"	21 1/2"	10"	12 1/2"	3"	10"	—	6 1/2"	—	—	8"
FPC-4	220 ^K	—	—	10"	21 1/2"	10 1/2"	12 1/2"	4"	10"	—	6 1/2"	—	—	8"
FPC-5	250 ^K	—	—	10"	21 1/2"	10 1/2"	12 1/2"	4"	10"	—	6 1/2"	—	—	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 dimensions shown on the plans. If dressed seats 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 3 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, 1973*

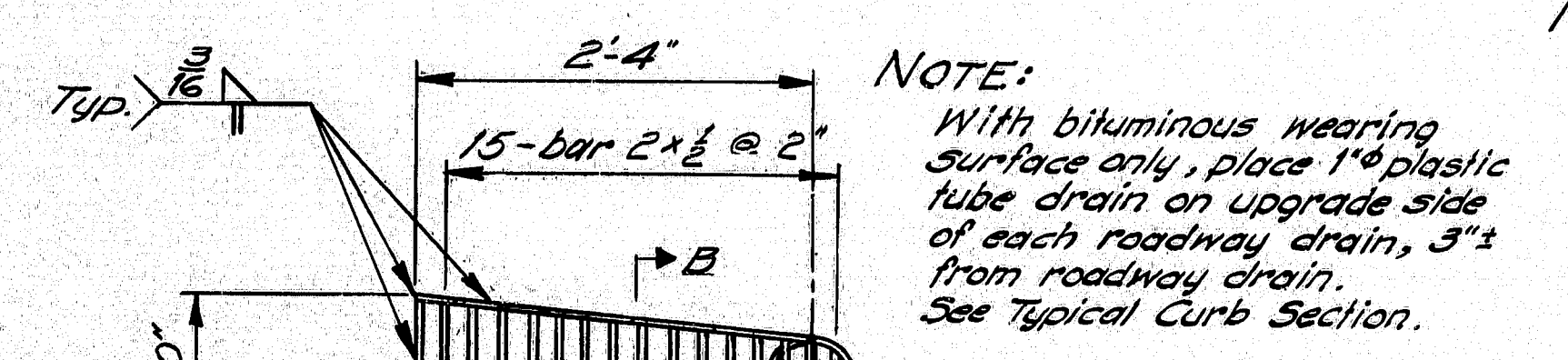
A.S.T.M. STEEL CLASSIFICATION
Anchor Bolts - A36
All other - A36.

A	Charpy V-Notch tests are not required	2-57
	REVISIONS	DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

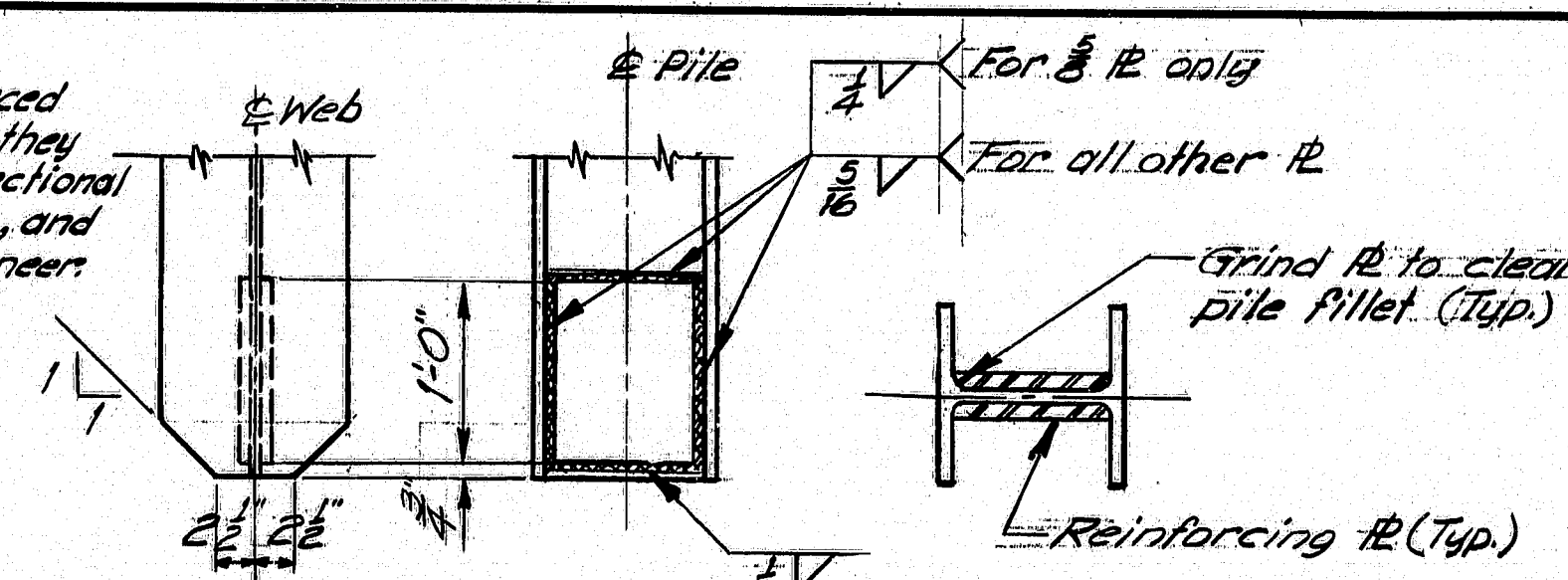
STANDARD DETAILS
(BD 101 -74)

BEARING PEDESTALS



NOTE:
With bituminous wearing surface only, place 1\"/>

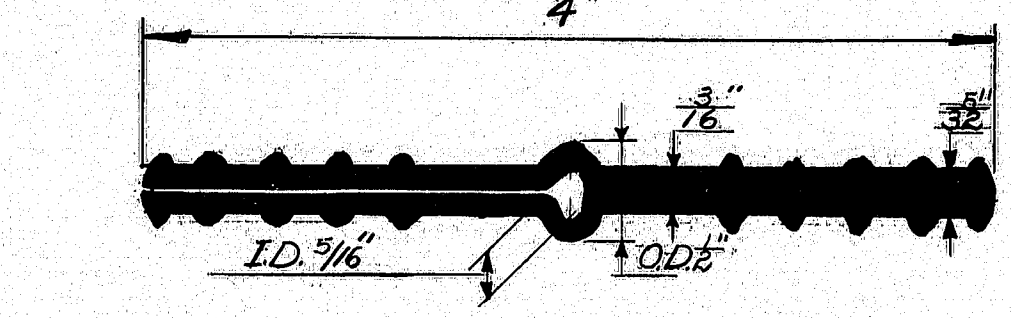
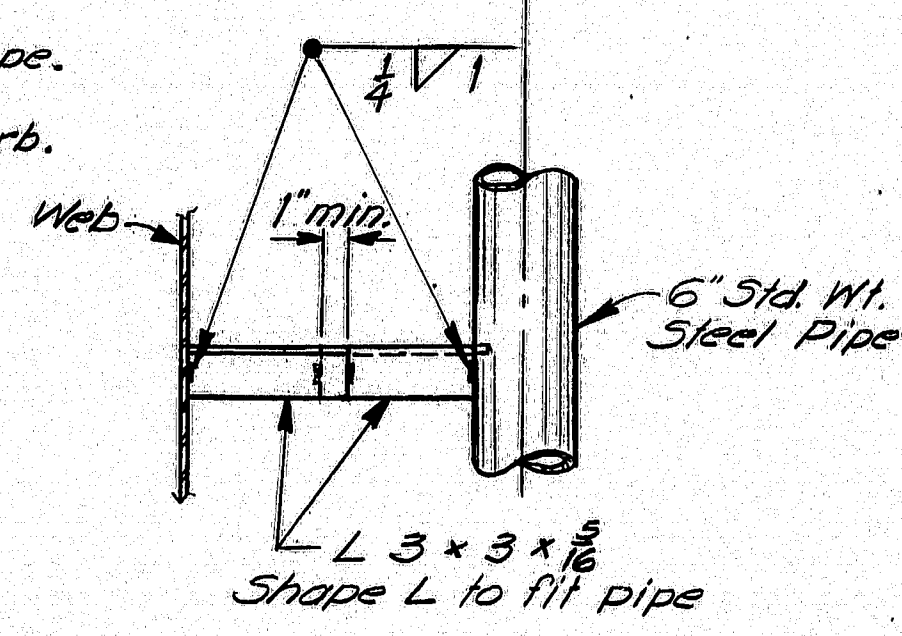
NOTE:
Alternate pointed reinforced pile tips may be used if they have at least the cross-sectional area of the pile tip shown, and are approved by the Engineer.



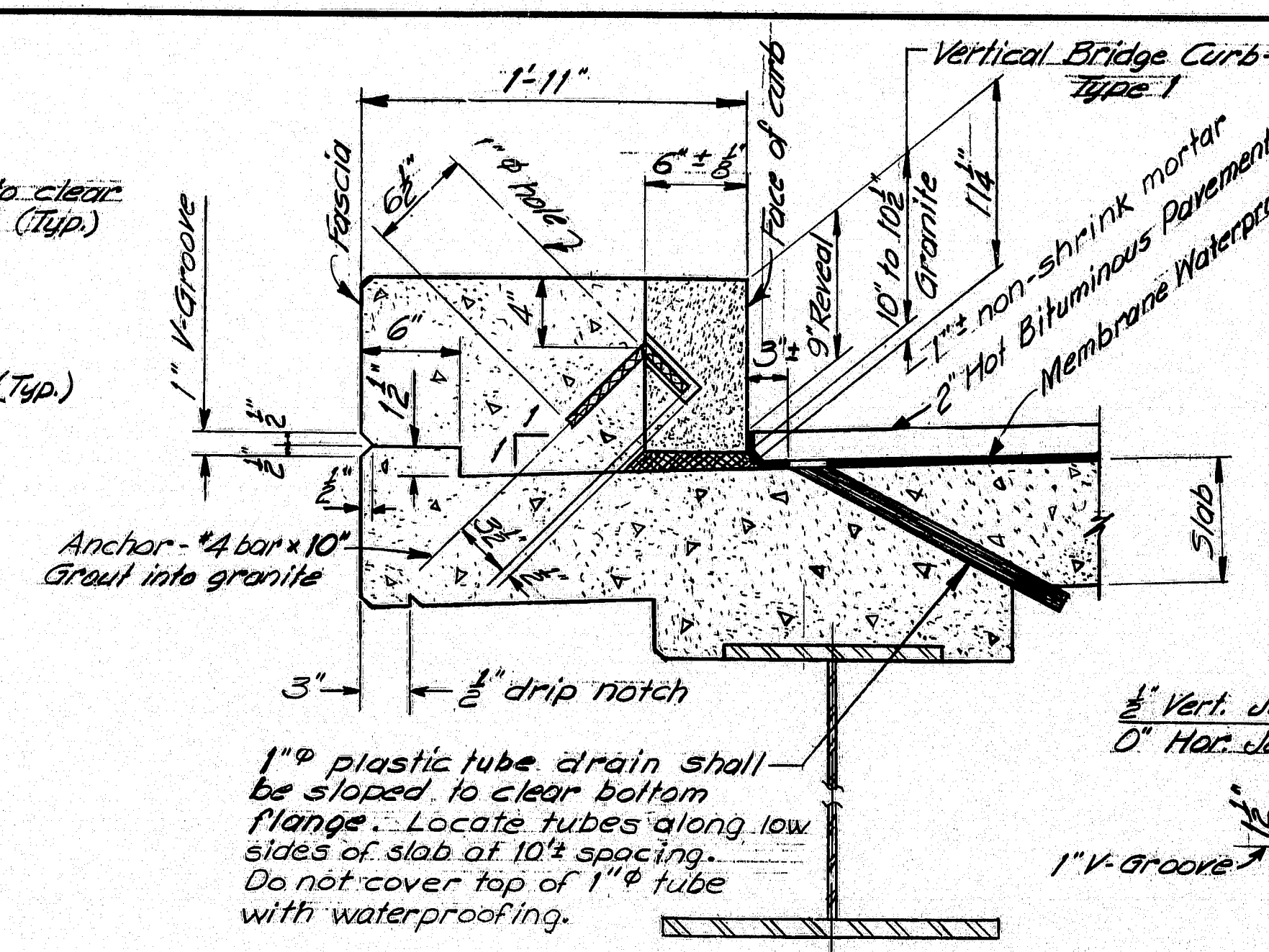
POINTED REINFORCED PILE TIP
Note: Plates may be shop or field welded

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

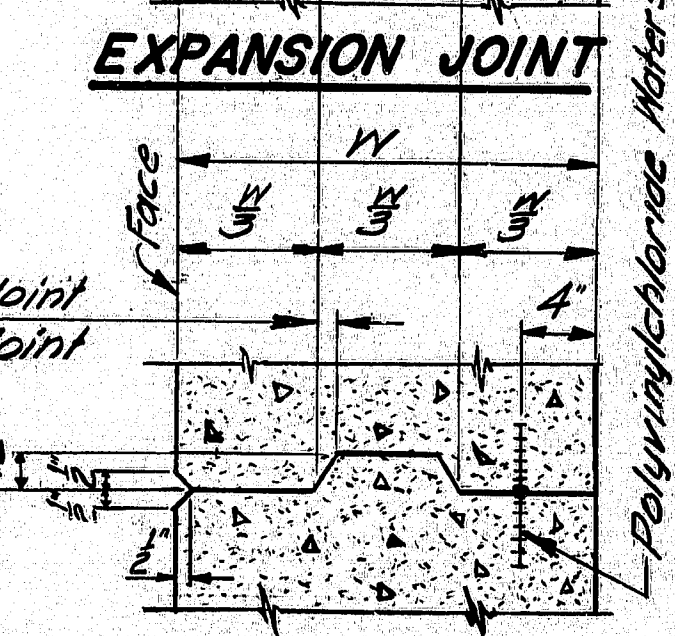
SECTION A-A



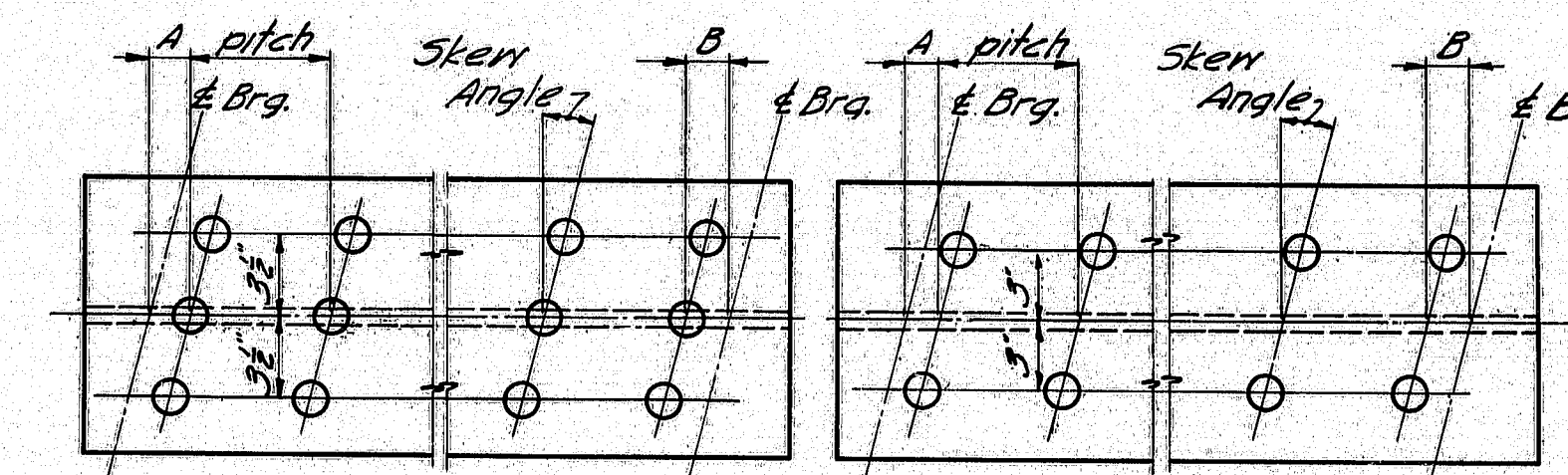
POLYVINYLCHLORIDE WATERSTOP



CURB SECTION
(Hot Bituminous Pavement only)

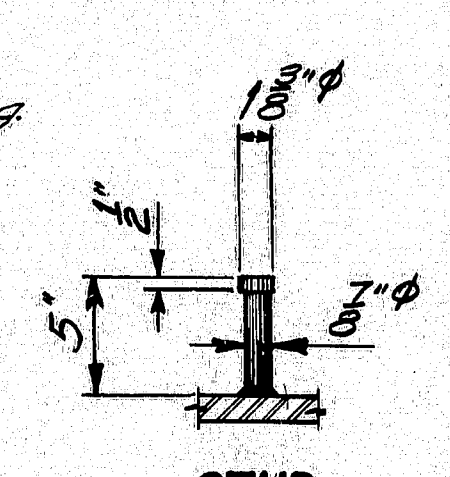


CONSTRUCTION & CONTRACTION JOINTS



TRIPLE STUDS

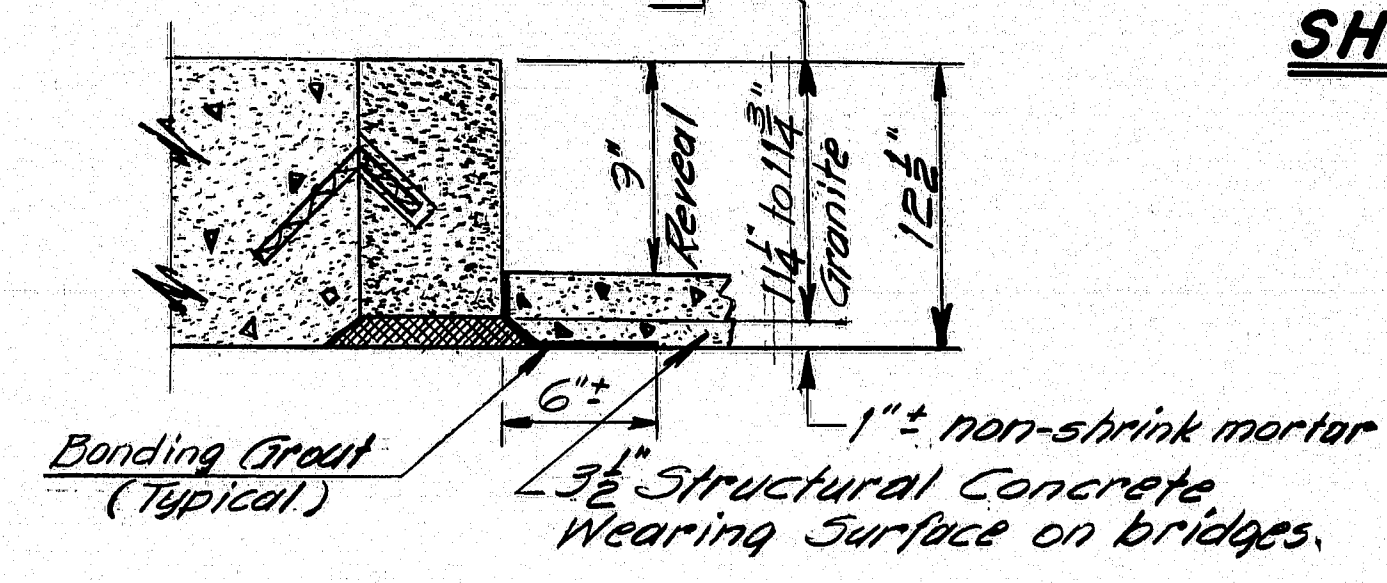
DOUBLE STUDS



STUD DETAIL

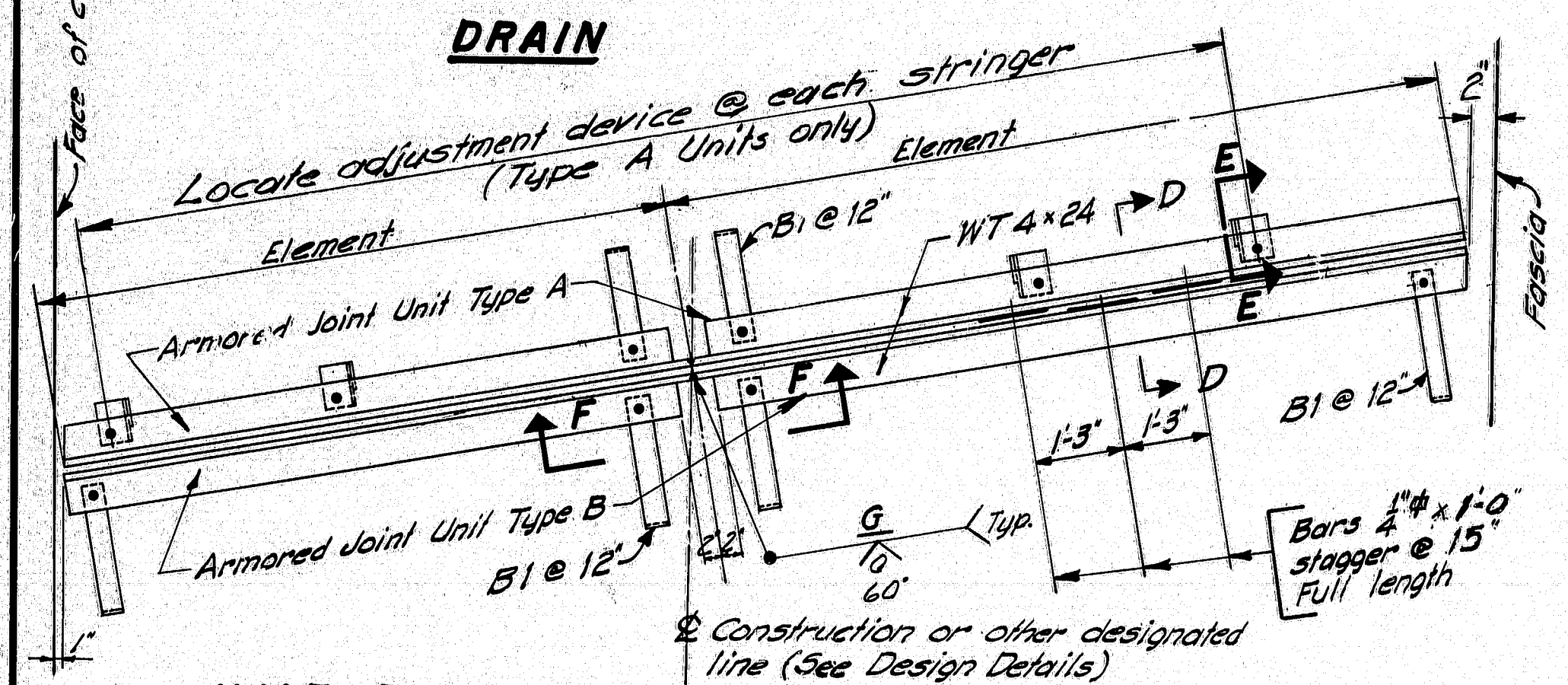
NOTE
1. Studs shall be granular or solid flux filled and automatically welded to top flange in the shop or field.
2. See the design details for Dimensions 'A' & 'B', stud pitch and skew angle for studs.

SHEAR CONNECTORS



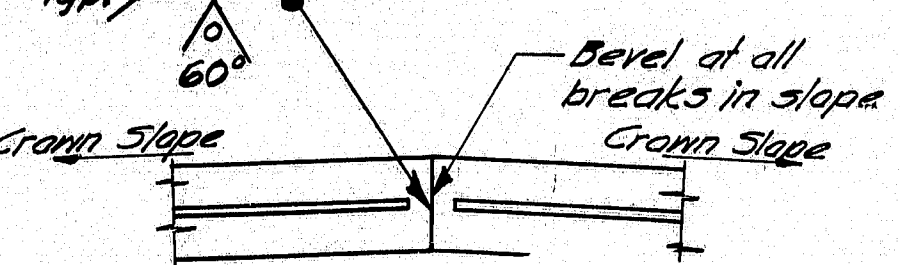
CURB SECTION
(Structural Concrete Wearing Surface)

NOTE
Use only those items called for on design details. In case of conflict between these Standard Details and design details, the requirements of the design details shall be followed.
Drains to be incidental, see sub-section 502.20



HALF PLAN
Curb to curb

HALF PLAN
Fascia to fascia



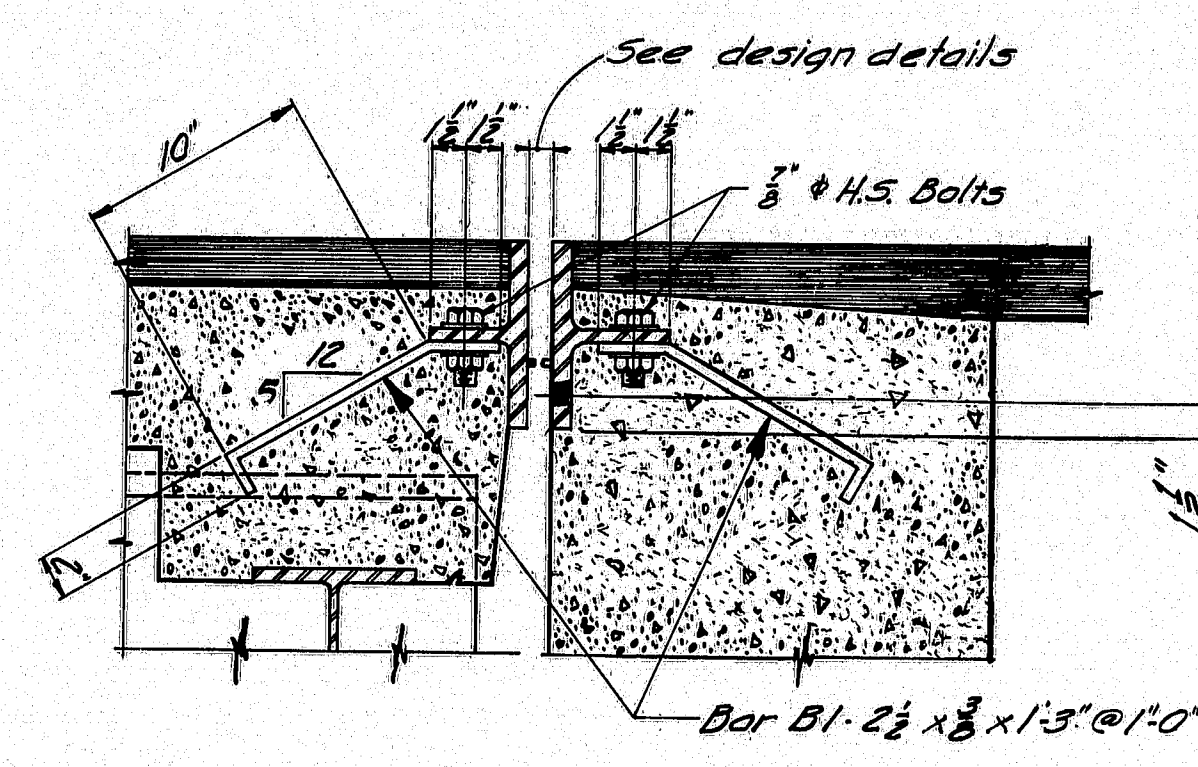
SECTION F-F

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. When more elements than two (2) are required by the design details, the elements of both units shall be field welded together in the same manner as shown in Section F-F.
3. Armored Joints to be paid for as Structural Steel.

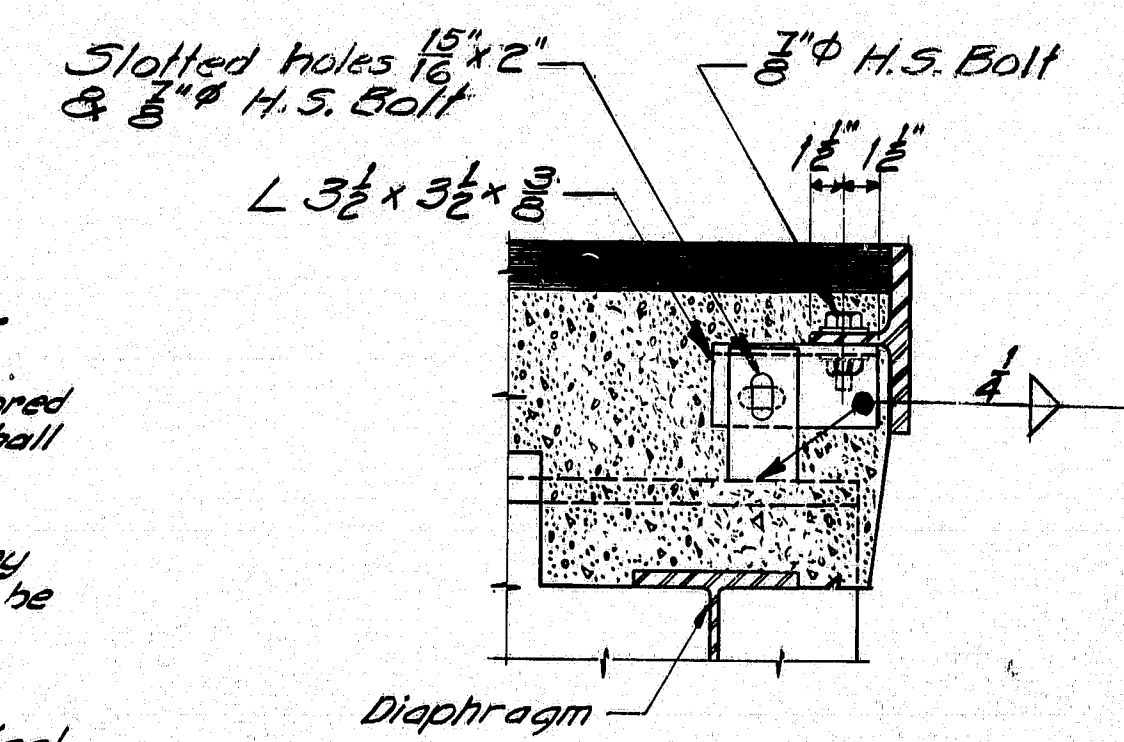
ARMORED JOINT

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



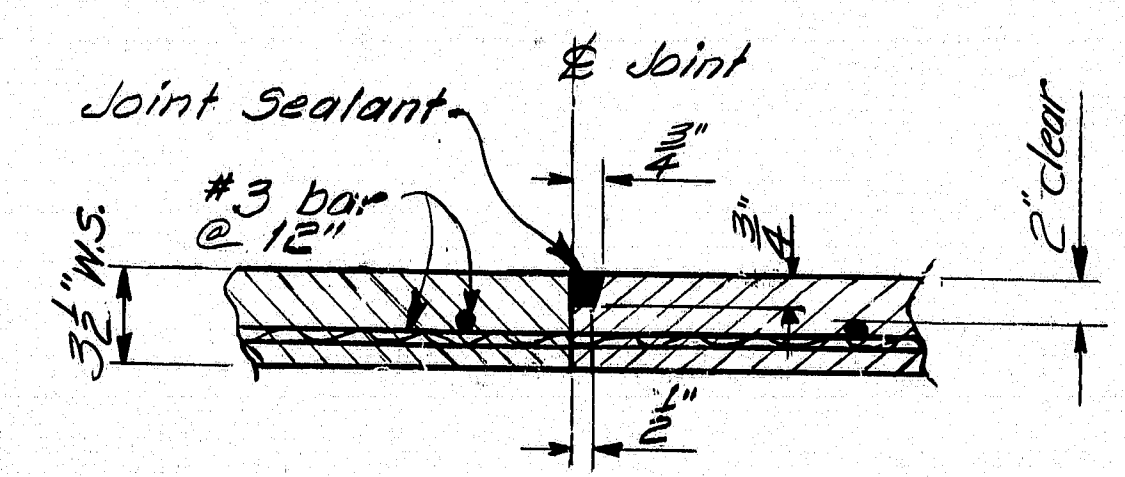
ARMORED JOINT UNIT TYPE A

SECTION D-D



SECTION E-E

Showing Adjustment Device Armored Joint Unit Type A only After Unit is in final position weld 1/2\"/>



CONSTRUCTION JOINT
(Typical for concrete wear surf.)

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	FF-038-1(13)	26	47

FABRICATION NOTES

- For location and type of diaphragm or crossframe see design details.
- Holes for $\frac{3}{8}$ " diameter bolts shall be $\frac{15}{16}$ " dia. and edge distances shall be $\frac{1}{2}$ " minimum unless otherwise shown.
- Connection plates and gusset plates shall have a minimum thickness of $\frac{3}{8}$ " and shall have sufficient width to provide erection clearances. When bearing stiffeners or intermediate stiffeners are used as connection plates, the plate size will be given on the design details.
- Connection plates shall be fastened to beam and girder webs as follows:
0° to 30° skew... fillet weld both sides.
Over 30° skew... full penetration groove weld (see Detail B) except as indicated in Note 5
Over 45° skew... weld prequalification will be required.

The skew angle is the angle between the connection plate and a line normal to the beam.

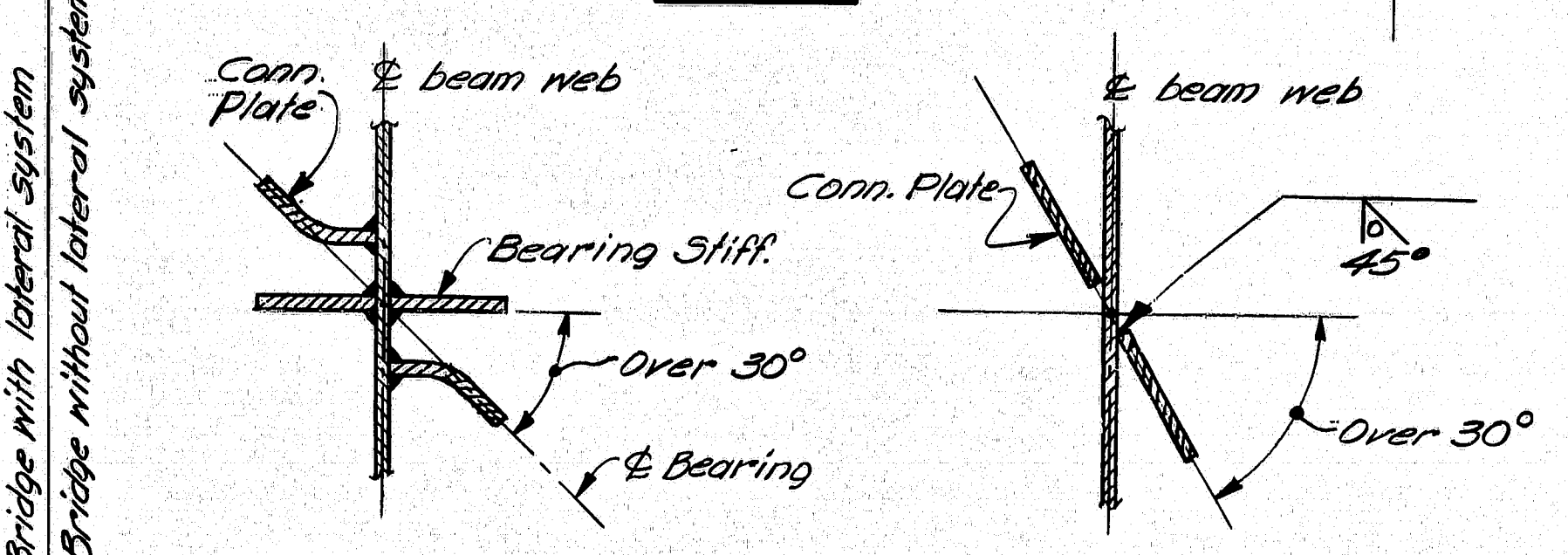
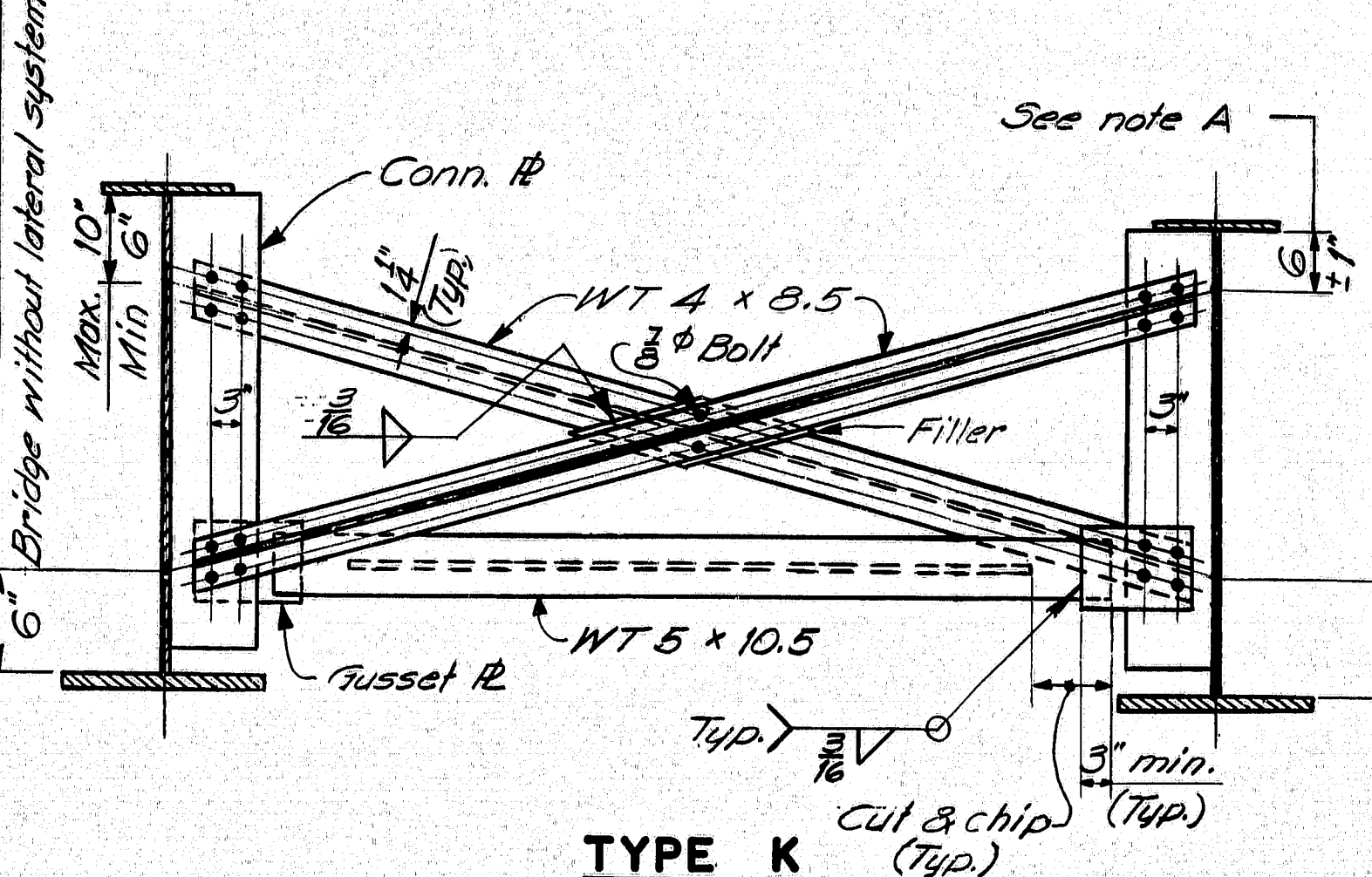
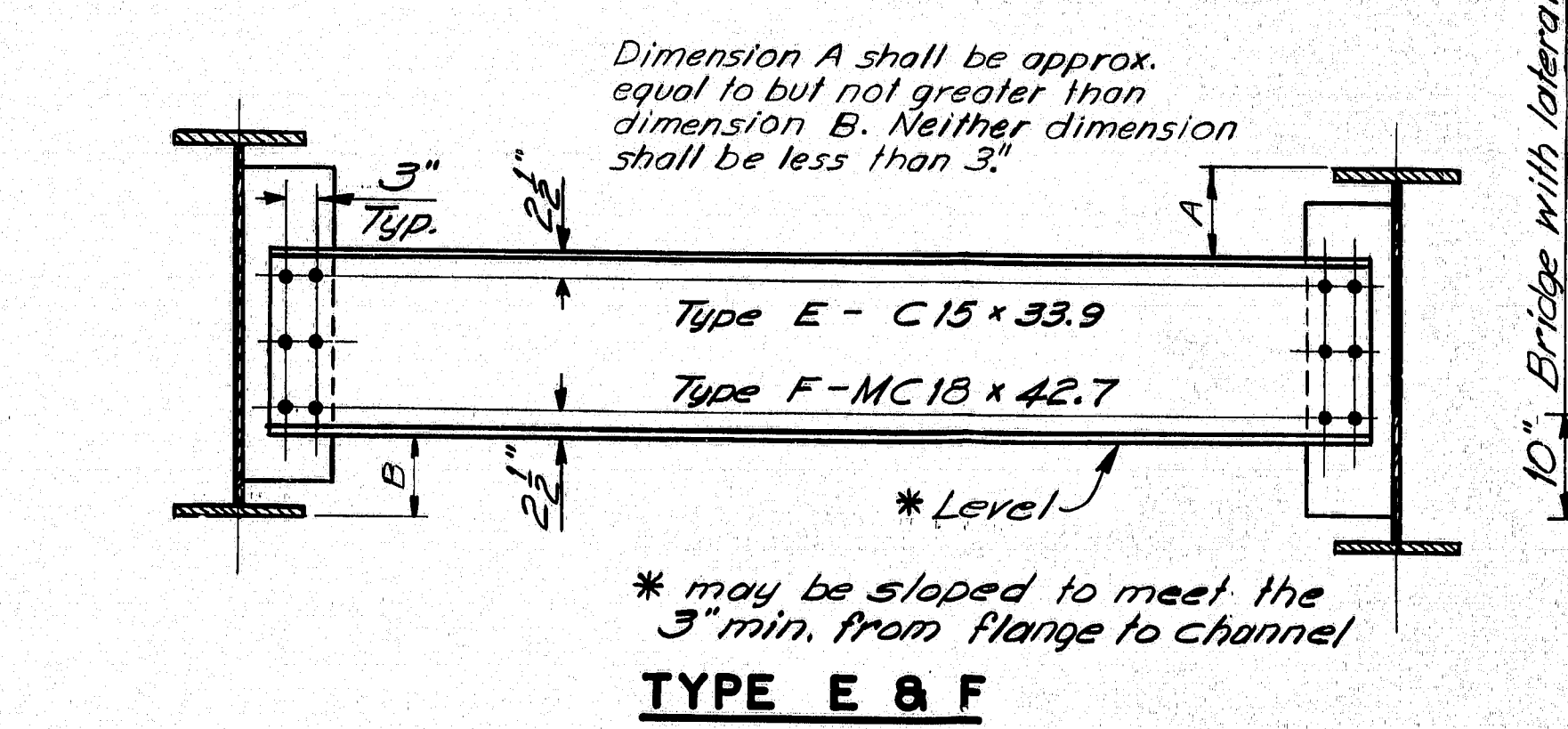
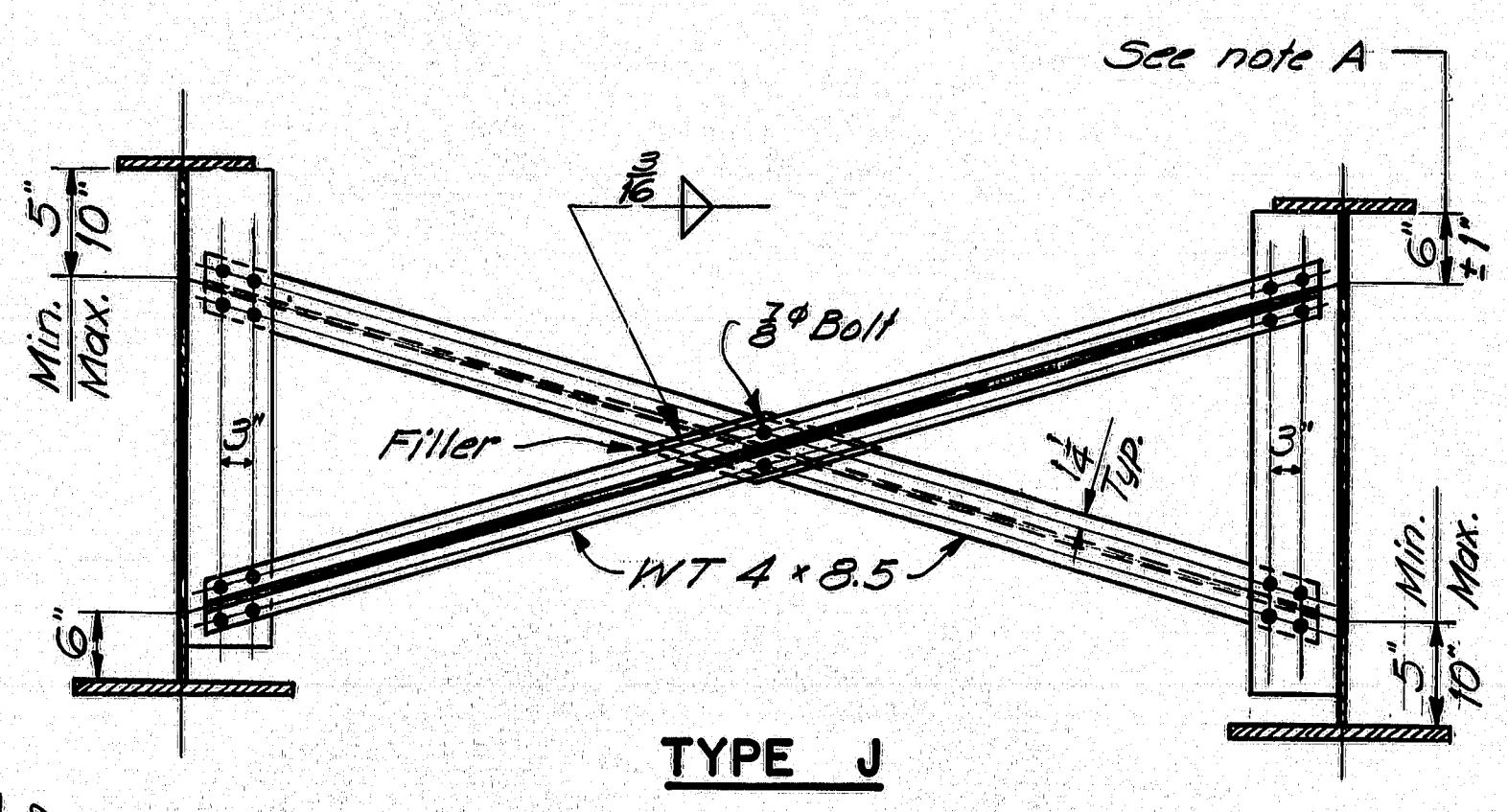
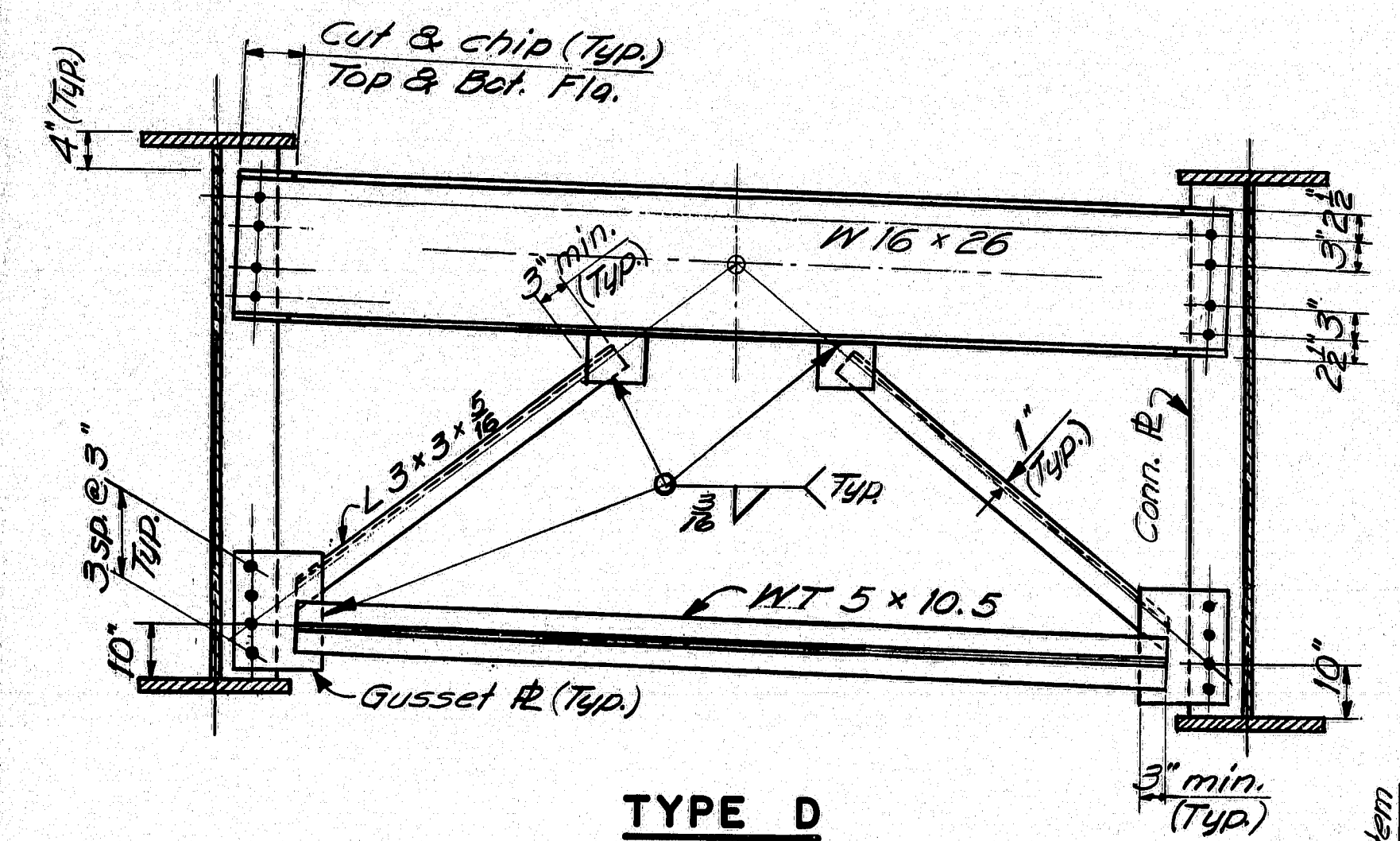
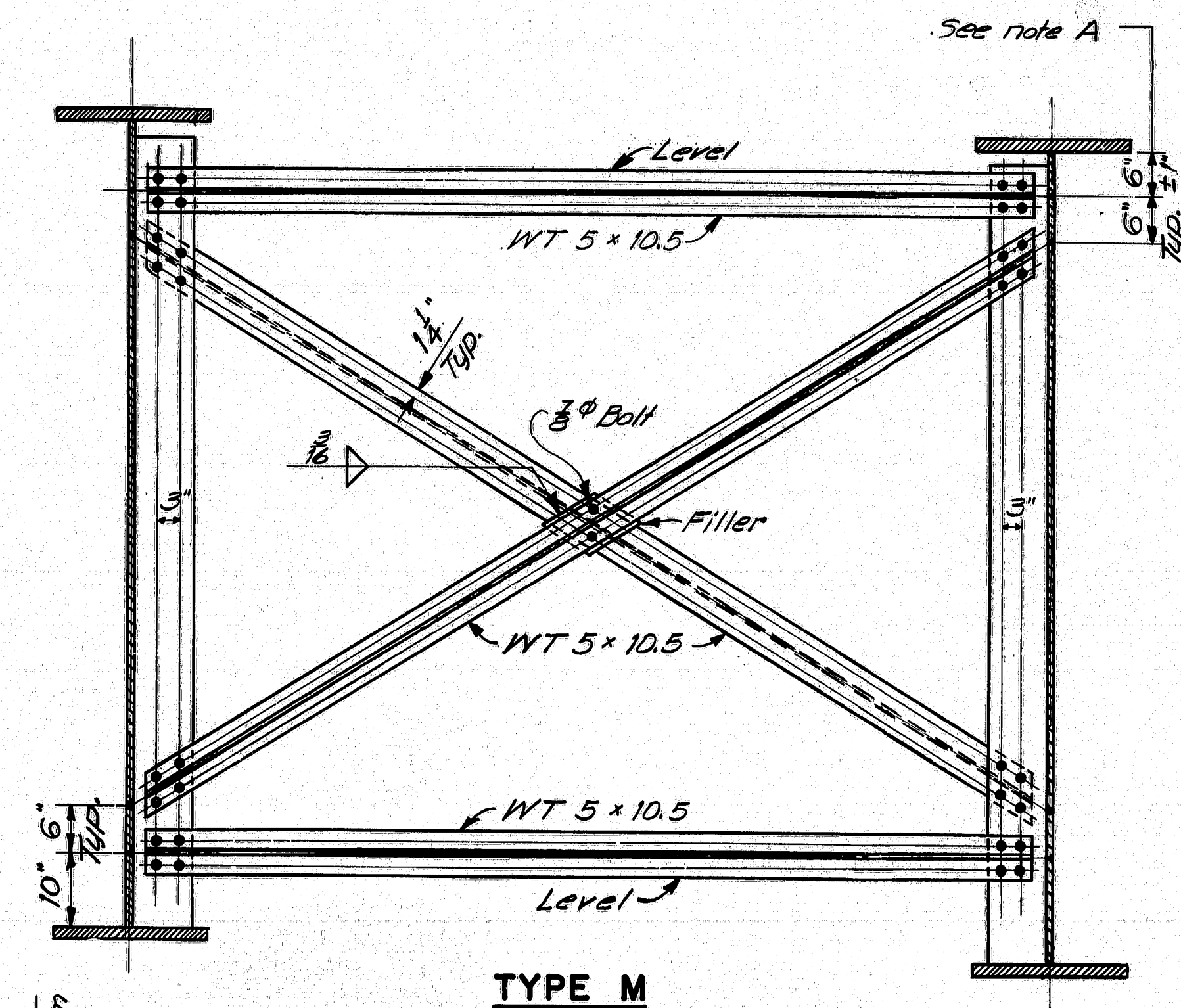
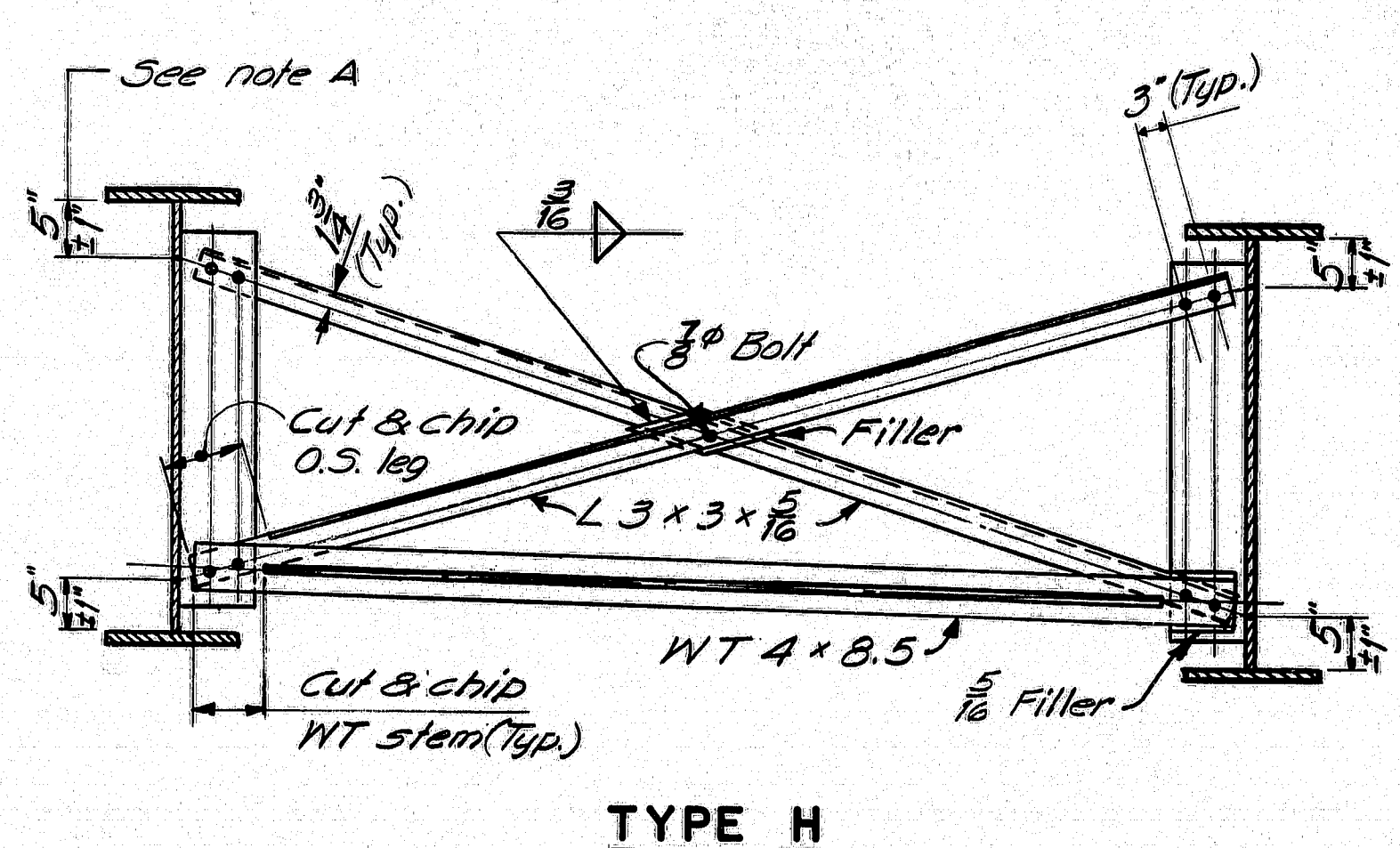
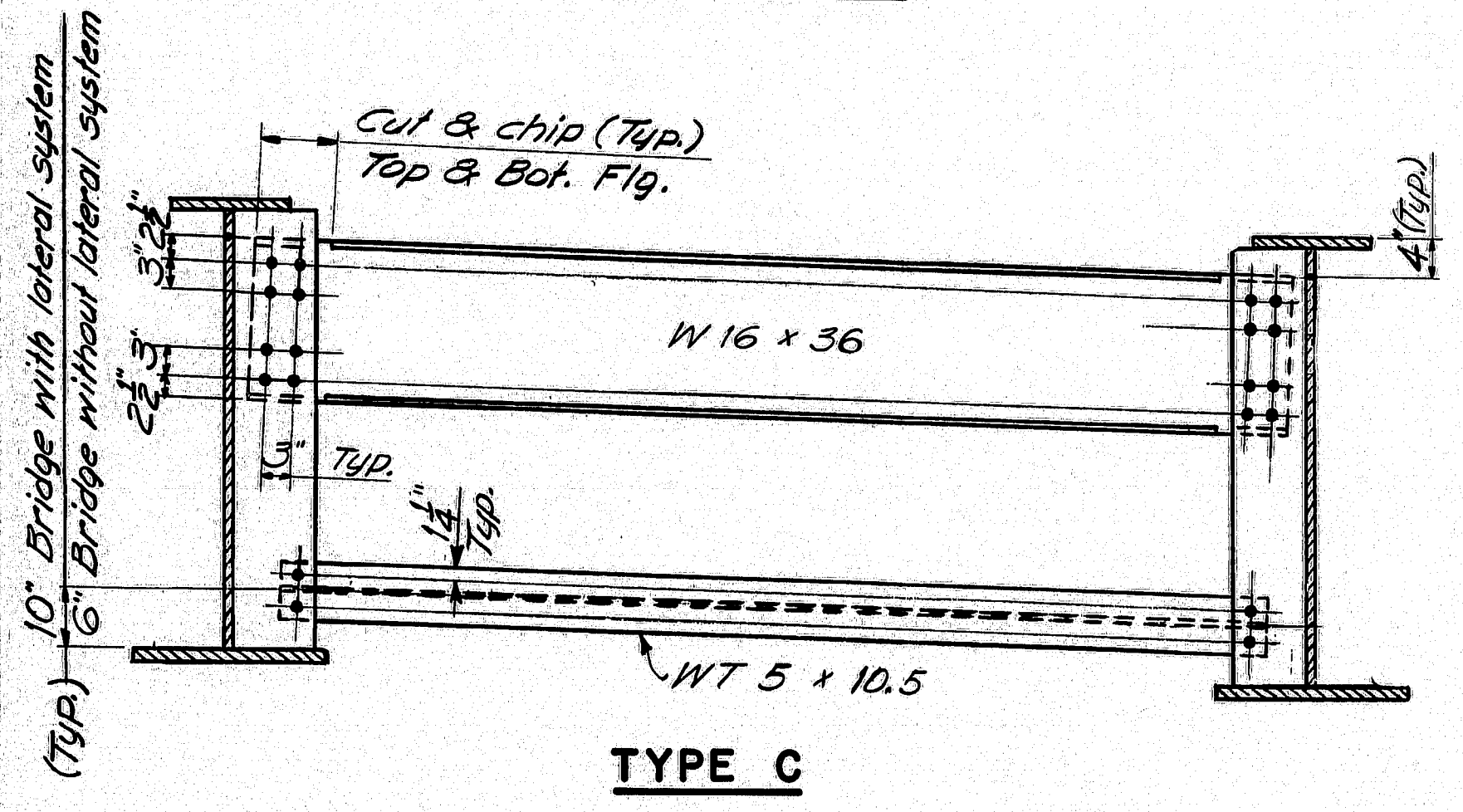
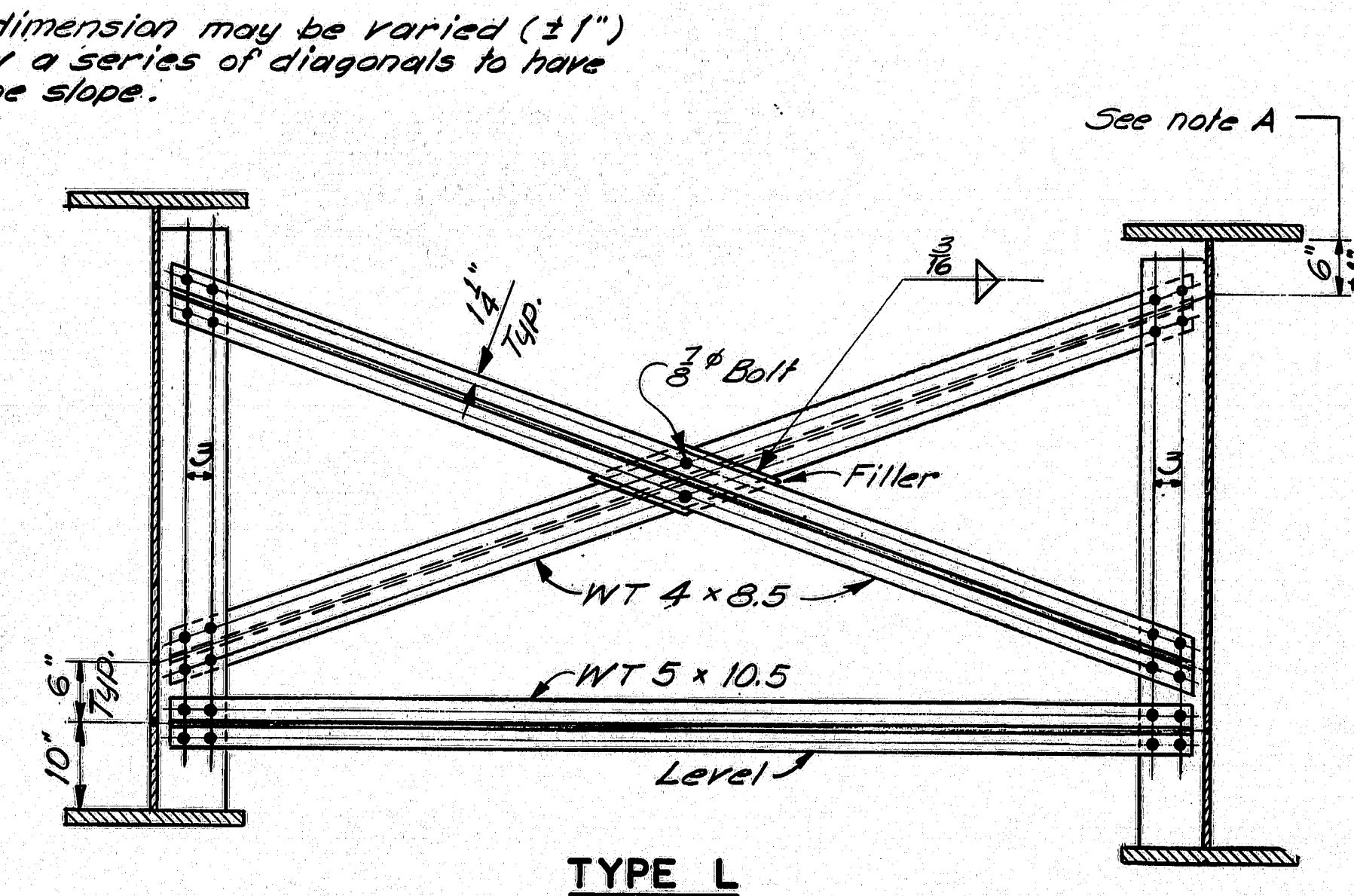
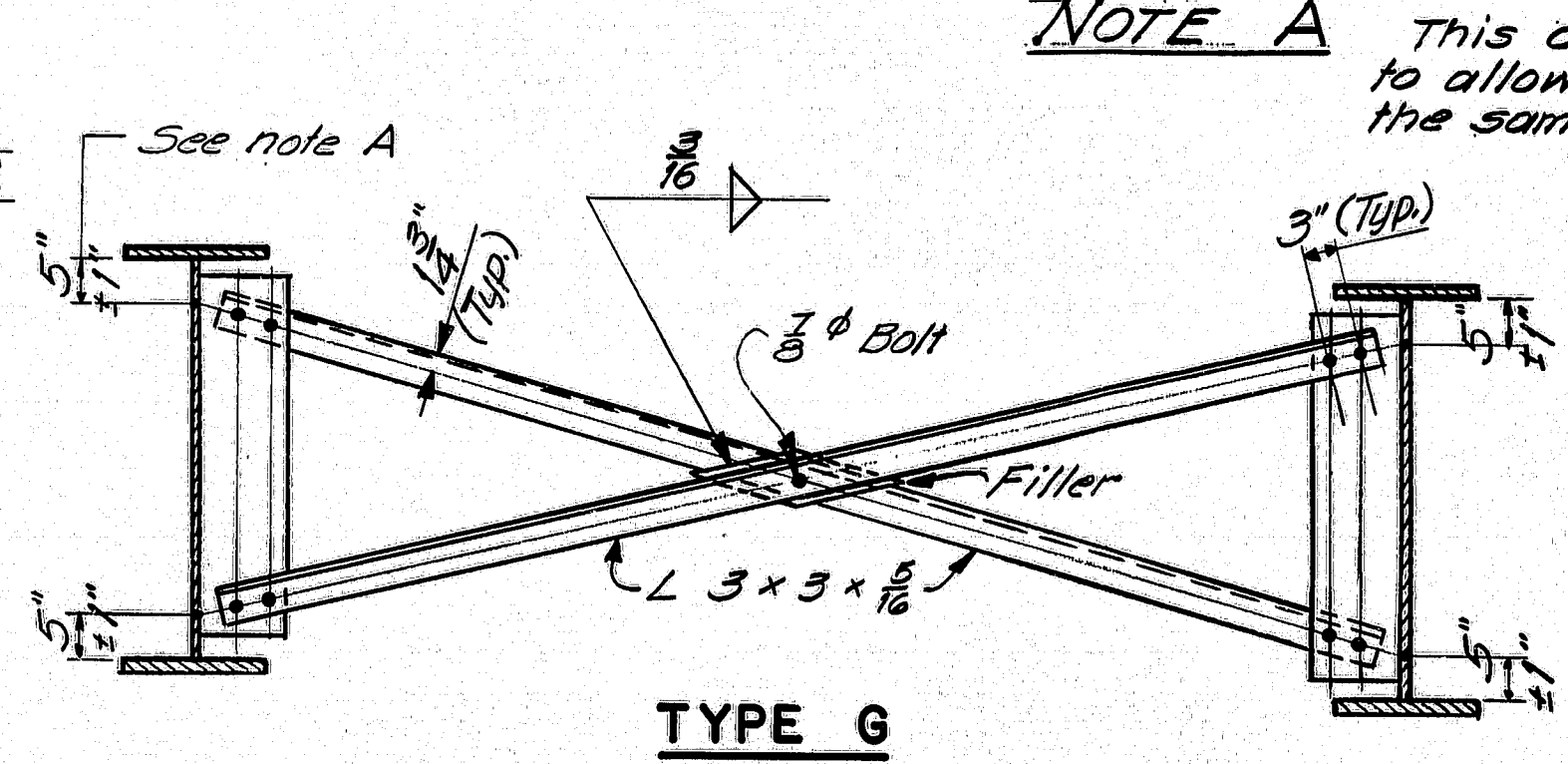
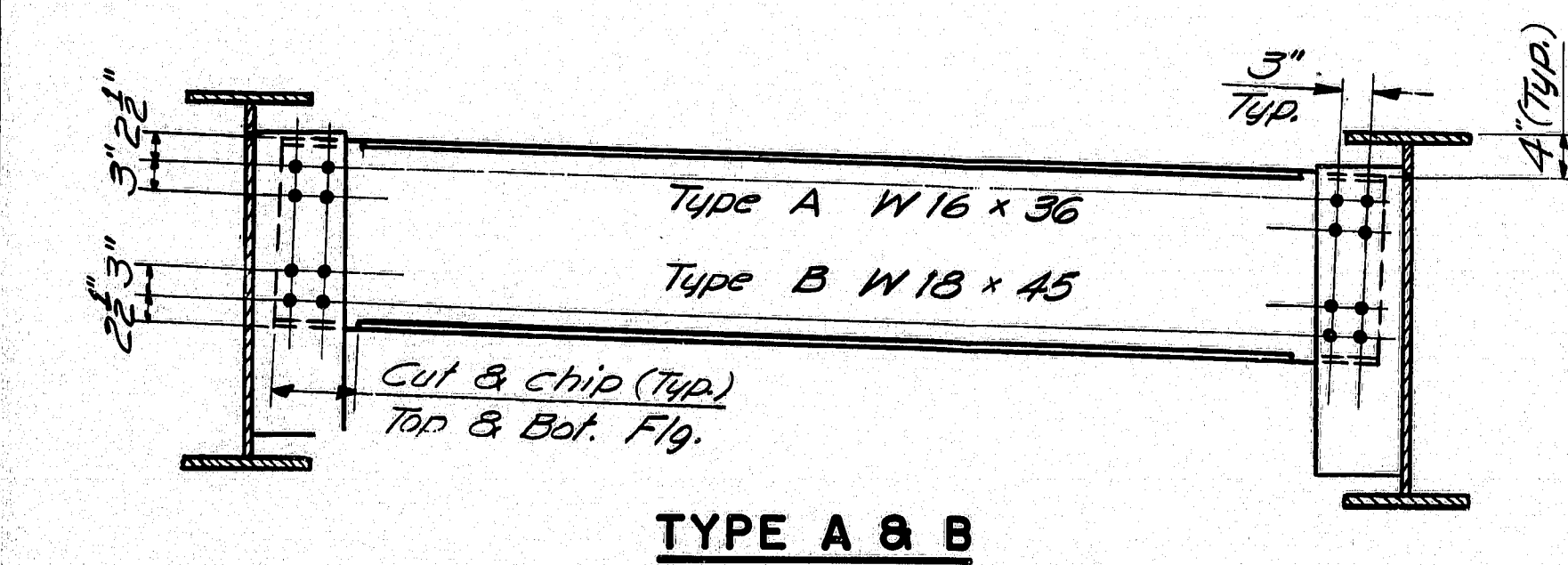
- Bearing stiffeners shall be used as connection plates when the skew is not over 30°. When the skew is over 30° a bent connection plate shall be attached to the web adjacent to the bearing stiffener as shown in Detail A.
- All fillet weld sizes shall be the minimum for the thickness of metal being joined according to AWS Specifications for Welded Highway & Railway Bridges.
- Connection plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression or when used as a bearing stiffener or intermediate stiffener.
- Connection plates shall extend to the bottom flange when used as a bearing stiffener, at points where lateral bracing is attached & on welded beams and girders in areas where the bottom flange is always in compression.
- When a conn. plate is extended to a flange it shall be a paint tight fit except as otherwise indicated on design details.
- Conn. plates shall be $2\frac{1}{2}$ " clear from flanges, except as indicated by Notes 7 & 8.
- Use only those items called for on the design details. In case of conflict between these standard details and the design details, the design details shall be followed.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS (BD 113 - 72) DIAPHRAGMS & CROSSFRAMES

SHEET OF AUGUSTA, MAINE SEPT. 1972

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



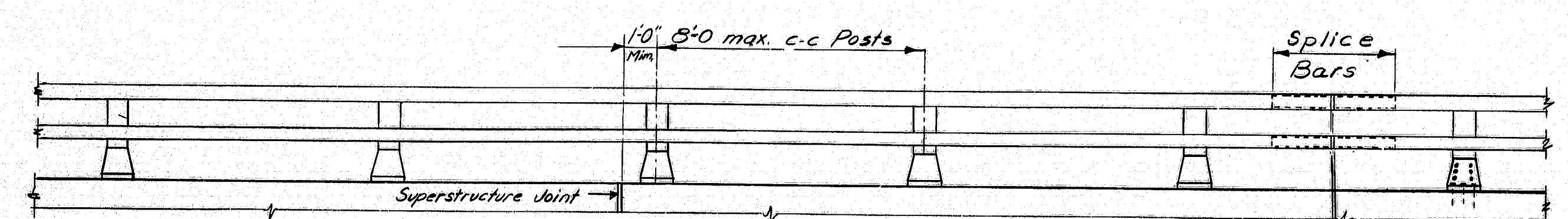
Diaphragms, Crossframes and All Plates (Filler, gusset, and connection) ASTM A36
High Strength Bolts $\frac{3}{8}$ " diameter — — — ASTM A325

PLANS	DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
BY	DATE			

169-86

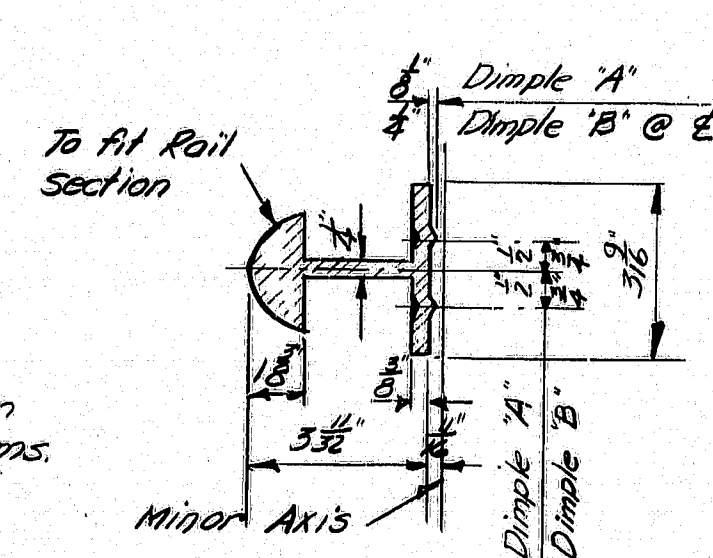
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	FF-038-1(13)	27	47

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

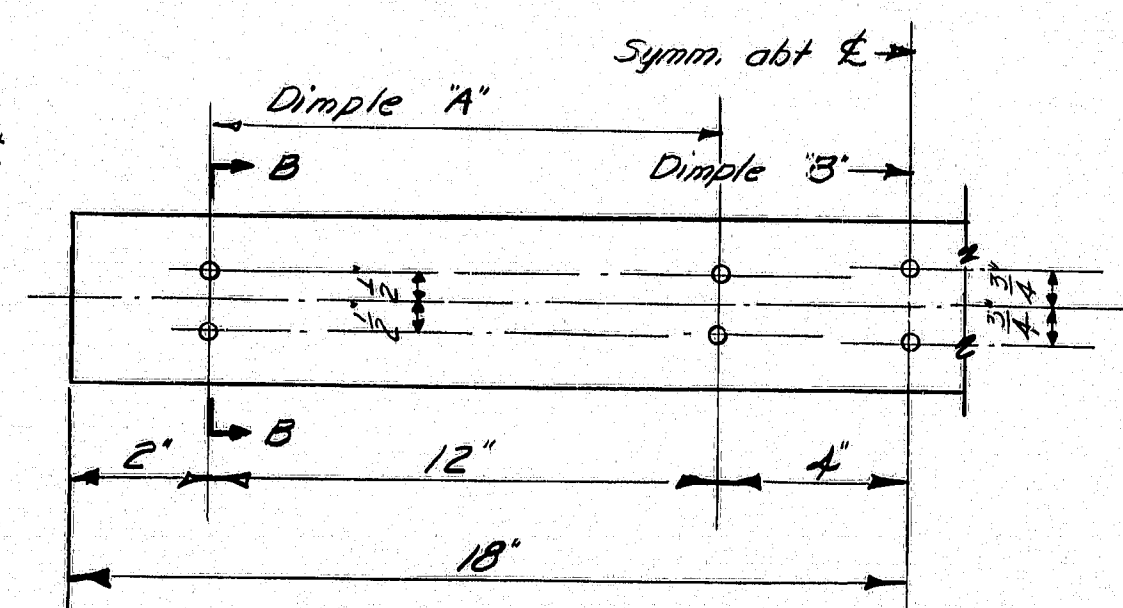


RAILING - ELEVATION

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.

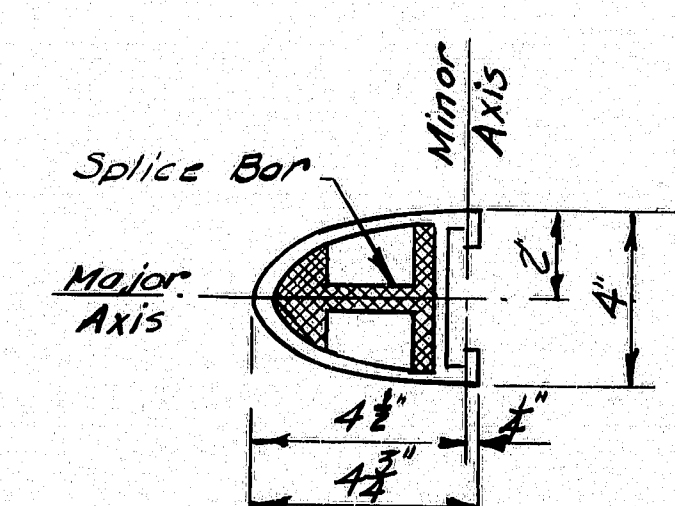


SECTION B-B



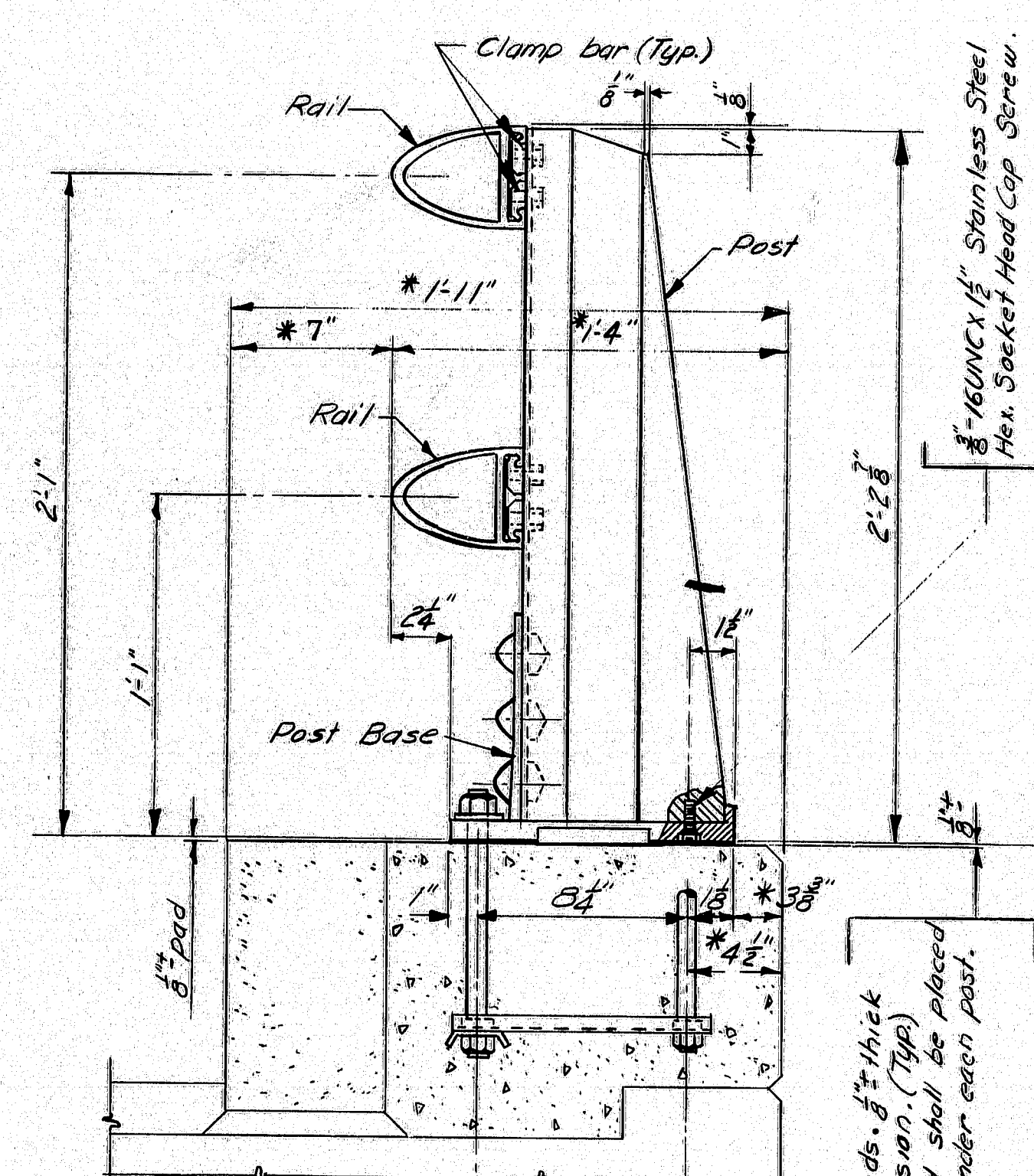
SPLICE BAR

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"

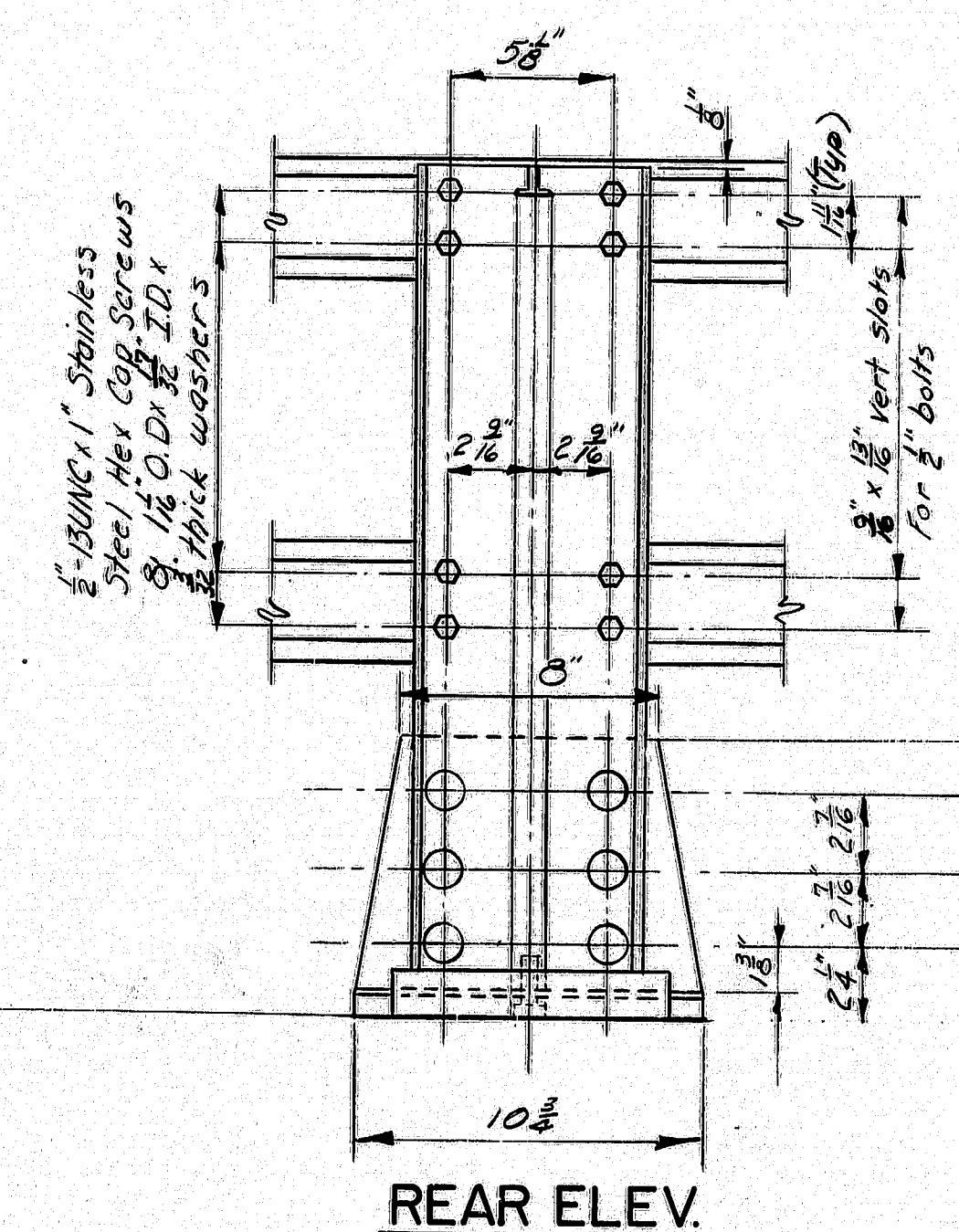


BRIDGE RAILING (Assembly)

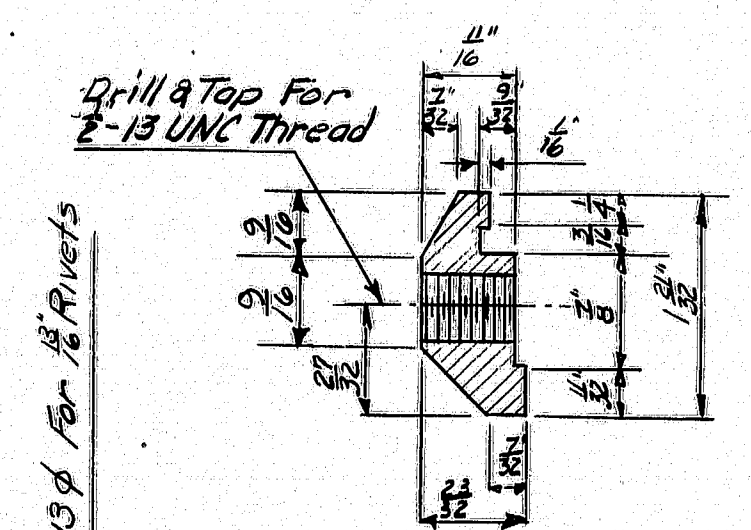
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.

Anchor Bolts
Anchor Bolts

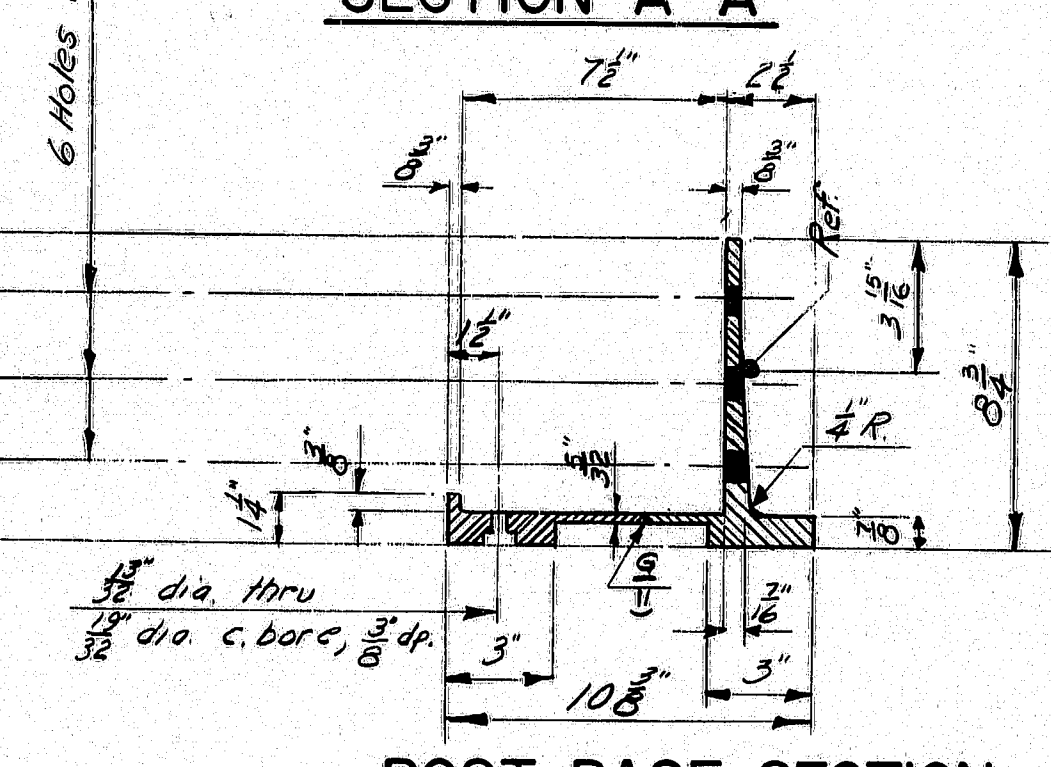
Preformed Pads, 1/2" thick after compression. (Typ.) At least one pad shall be placed at front & back under each post.



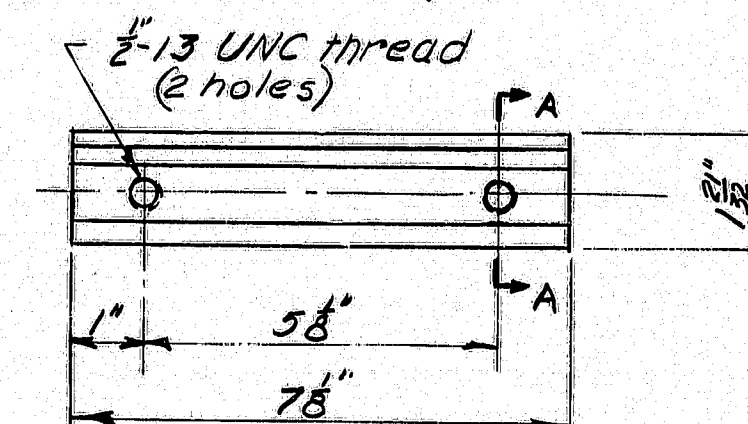
REAR ELEV.



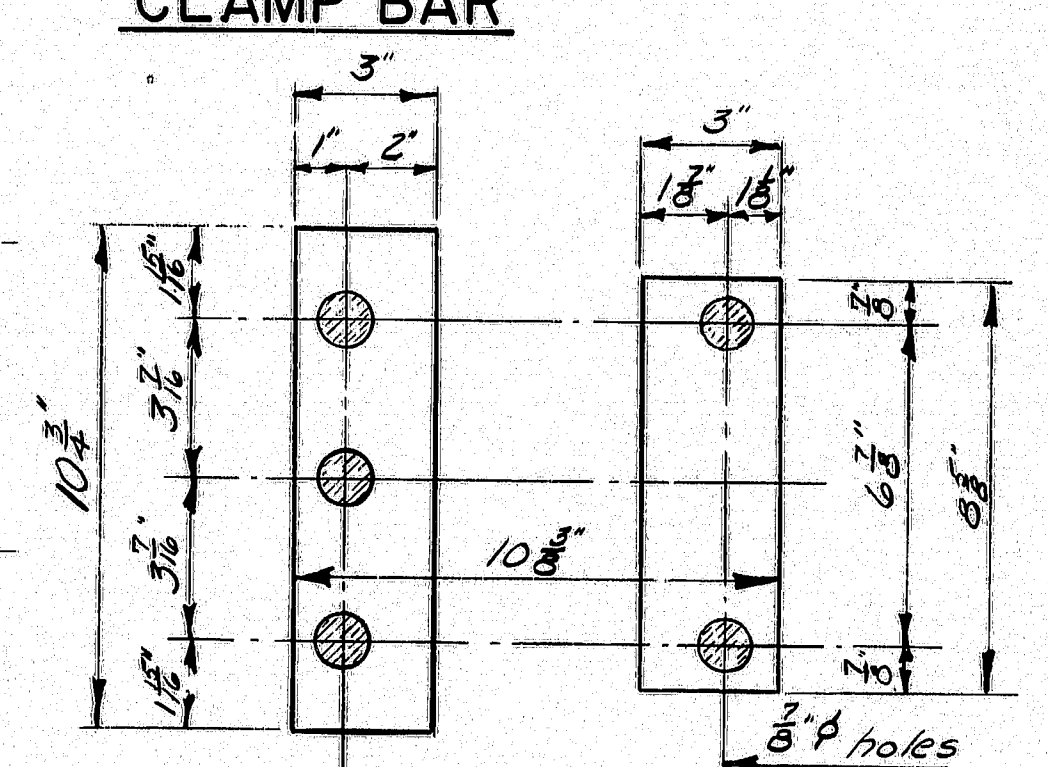
SECTION A-A



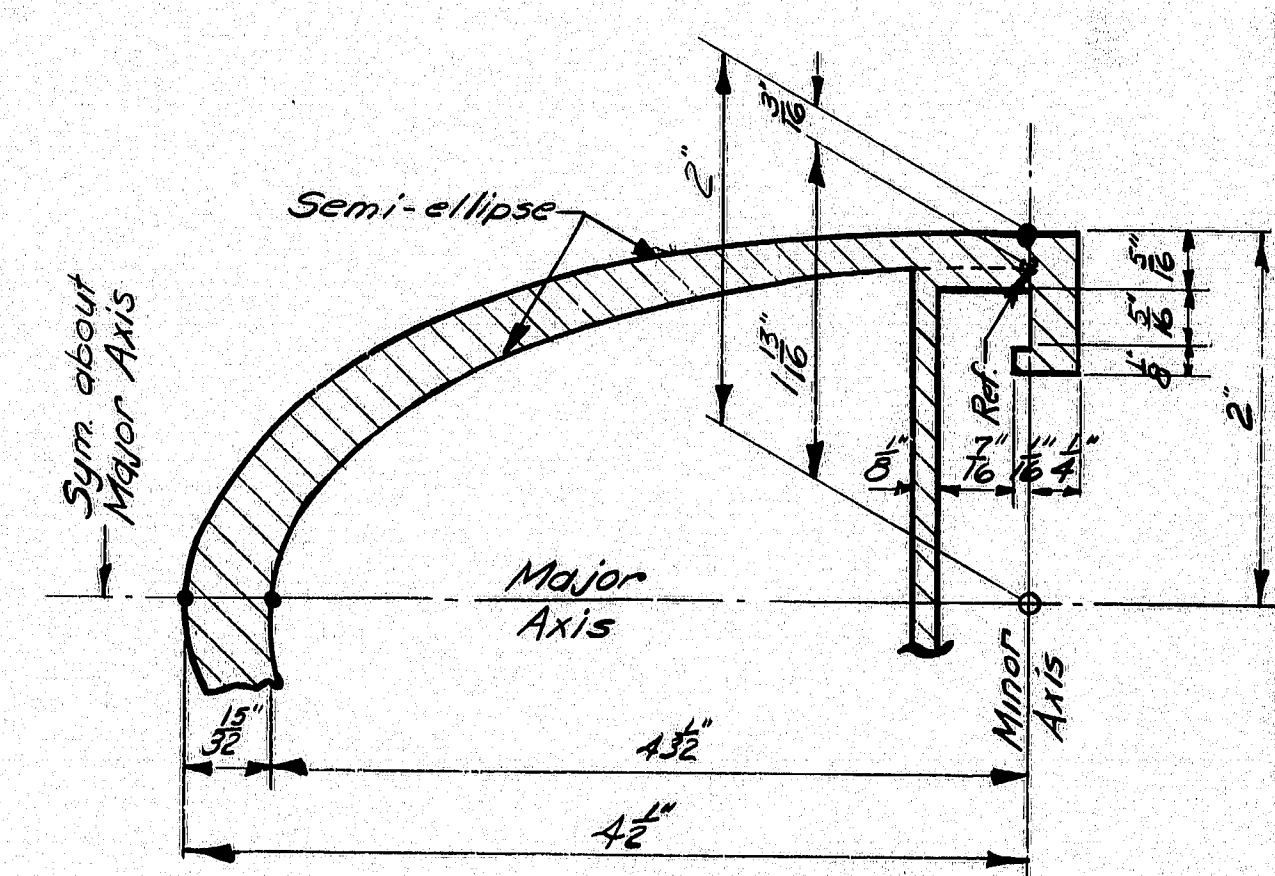
POST BASE SECTION



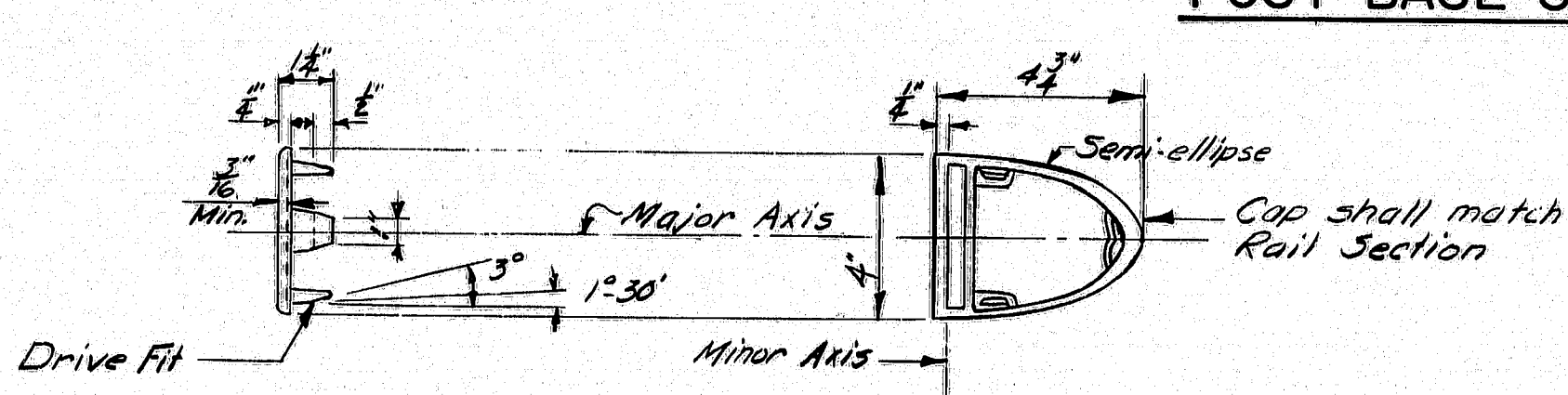
CLAMP BAR



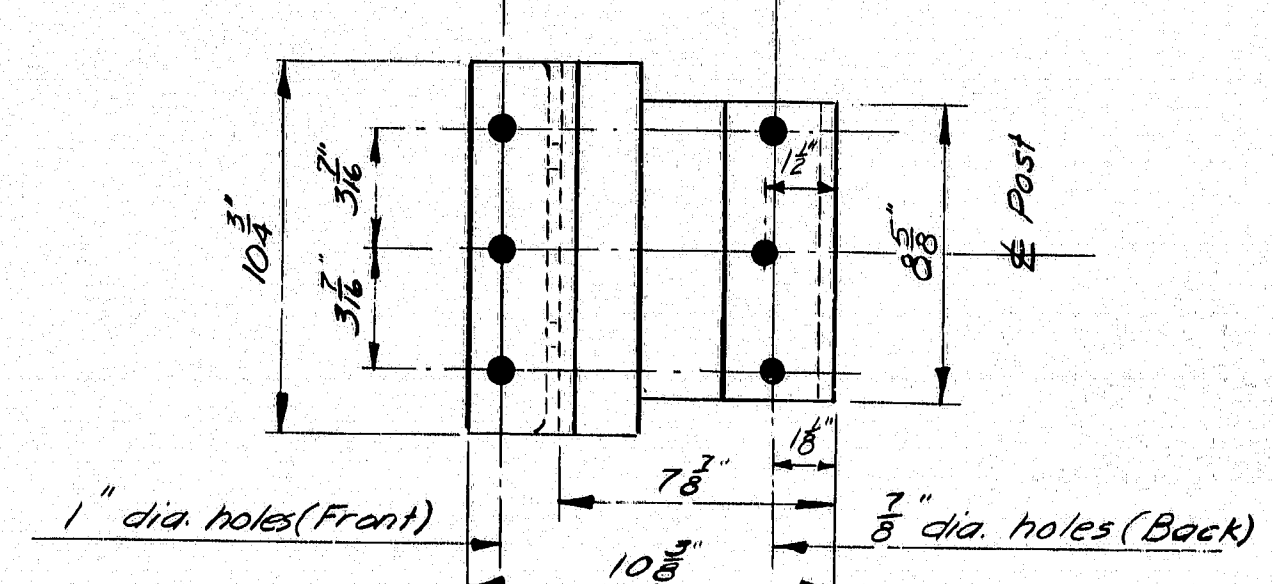
PREFORMED PADS



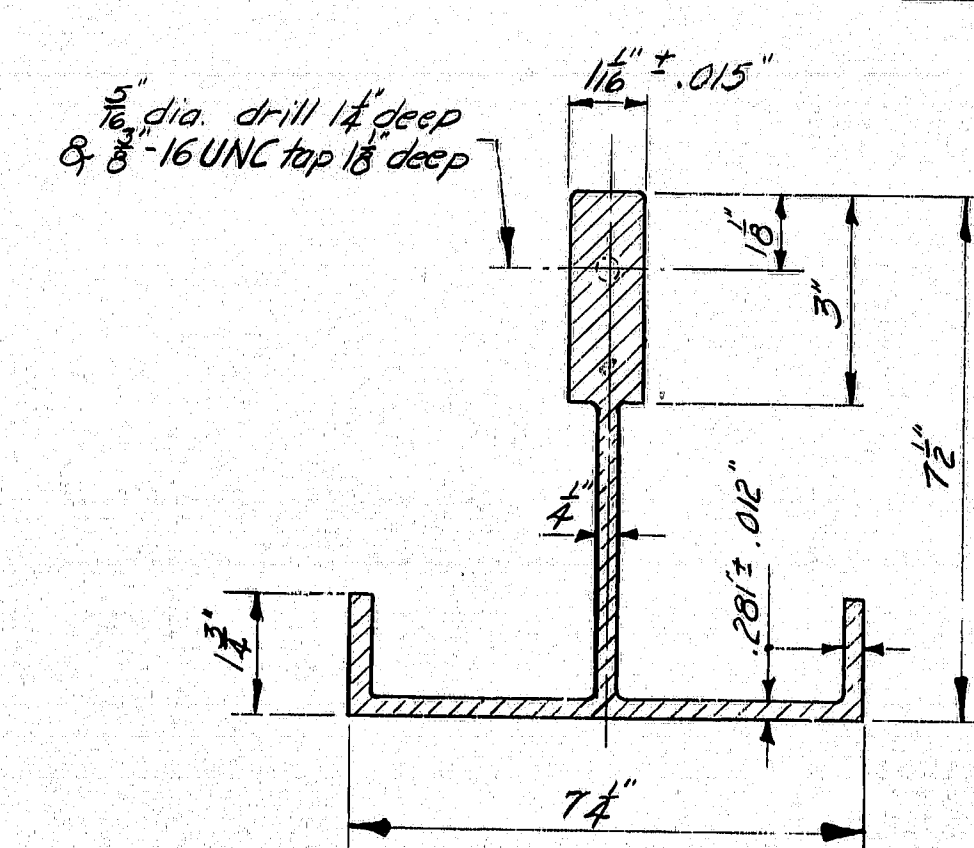
RAIL DETAIL



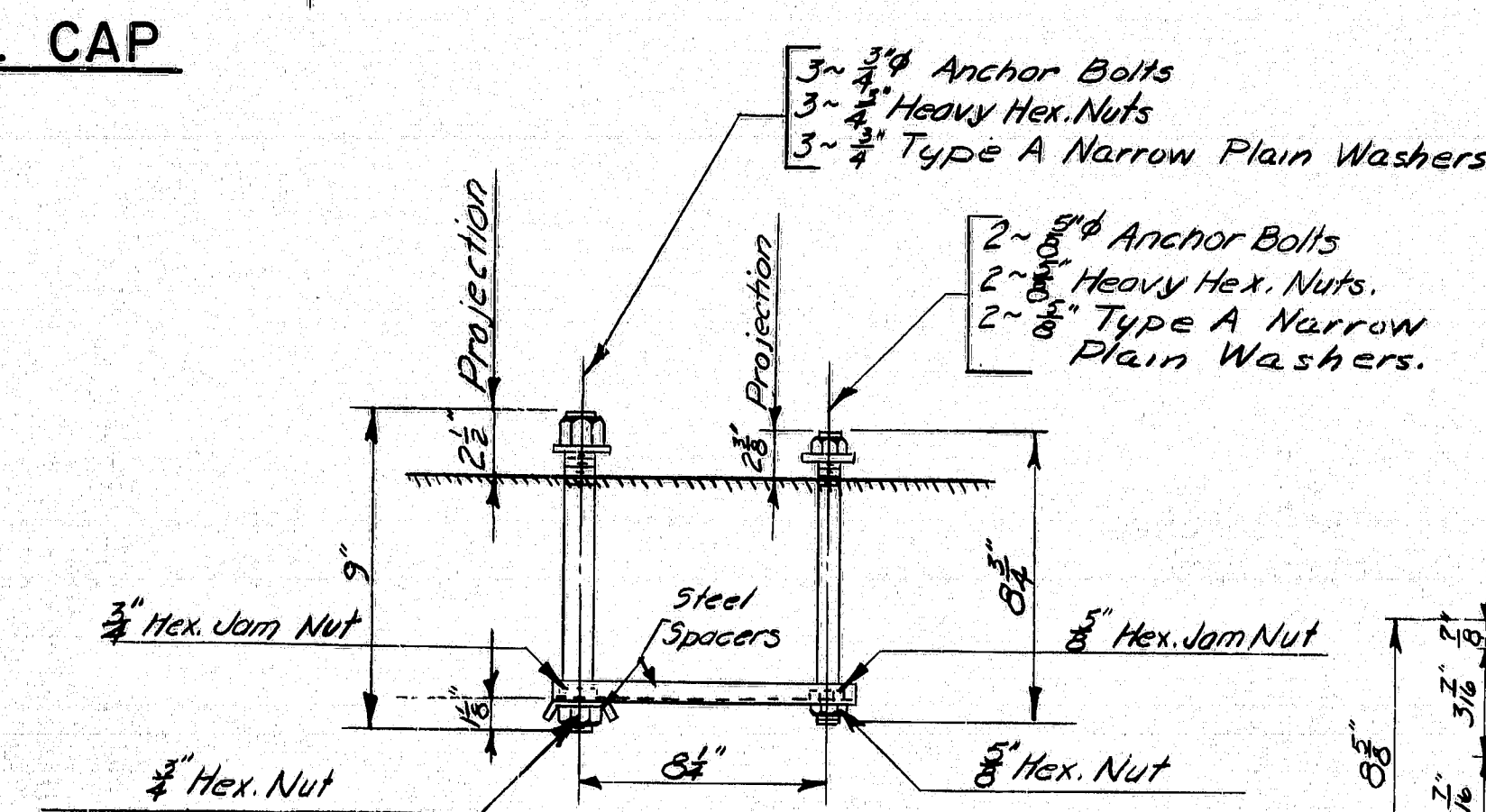
RAIL CAP



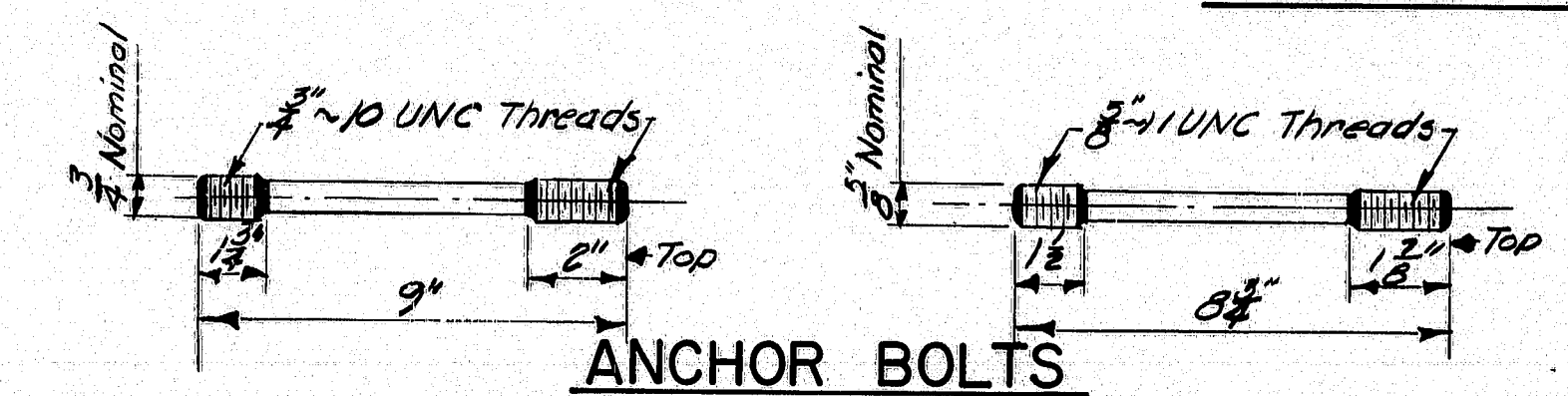
POST BASE (Bottom View)



POST SECTION

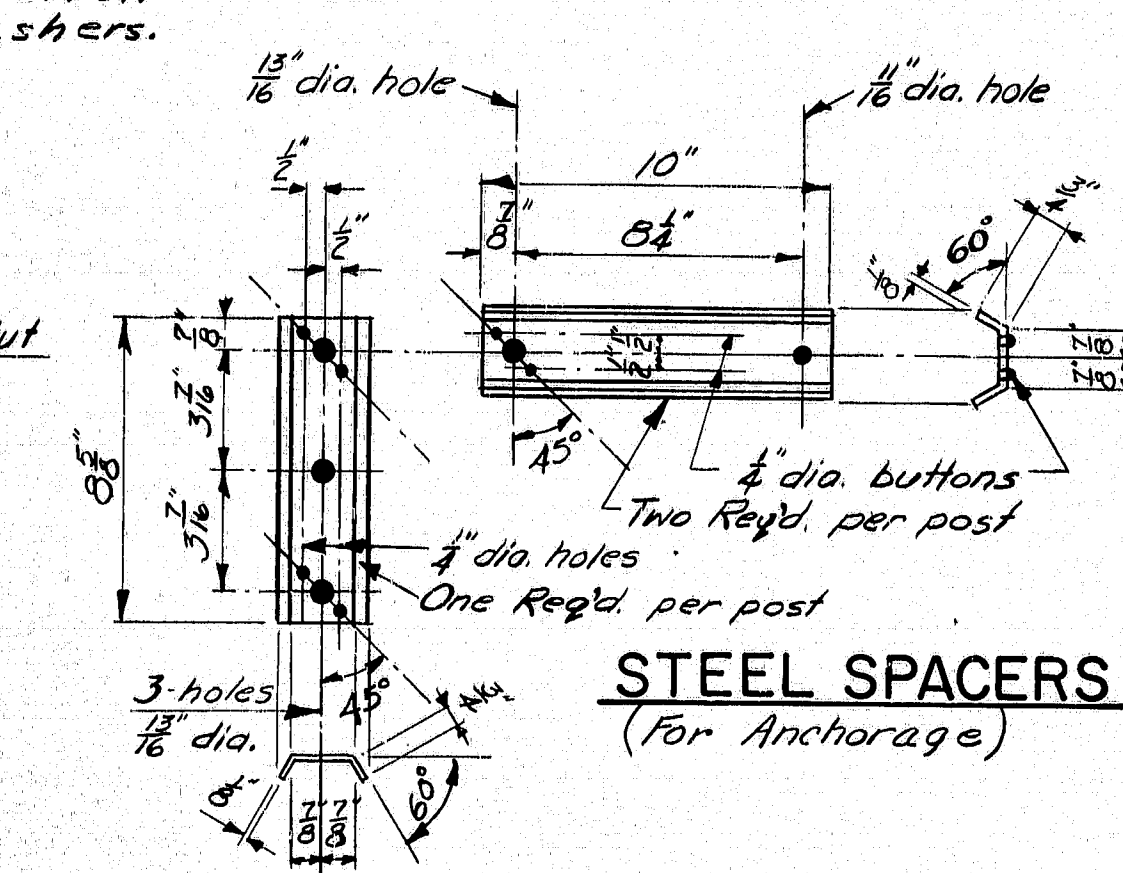


RAIL POST ANCHORAGE (Assembly)



ANCHOR BOLTS

If cut threads are used body diameter shall be not less than nominal diameter.
If rolled threads are used, body diameter shall be not less than root diameter of the threads.



STEEL SPACERS (For Anchorage)

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

SHEET OF AUGUSTA, MAINE FEBRUARY 1973

169-87

PLANS	BY	DATE
DESIGN - DETAILED	K. Leach	Nov. 1972
CHECKED		
REVISIONS		
FIELD CHANGES		