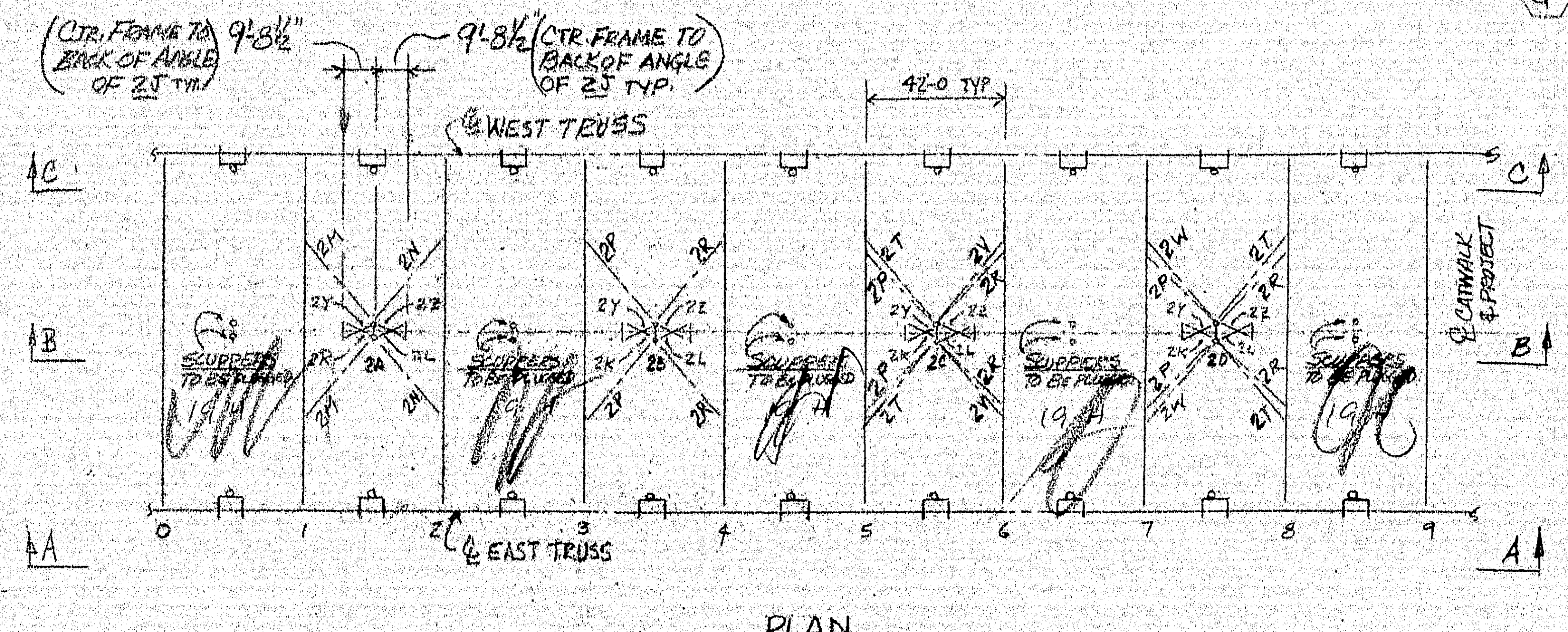
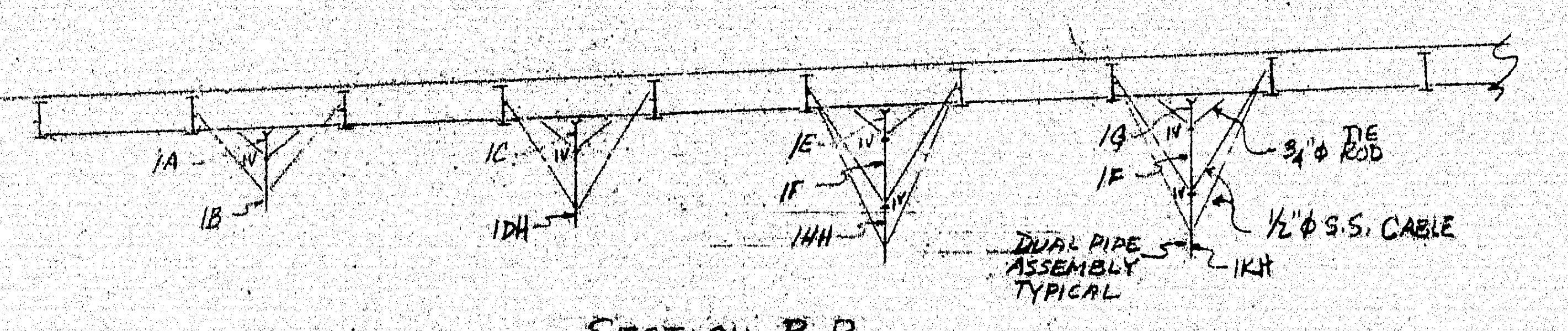


PLAN

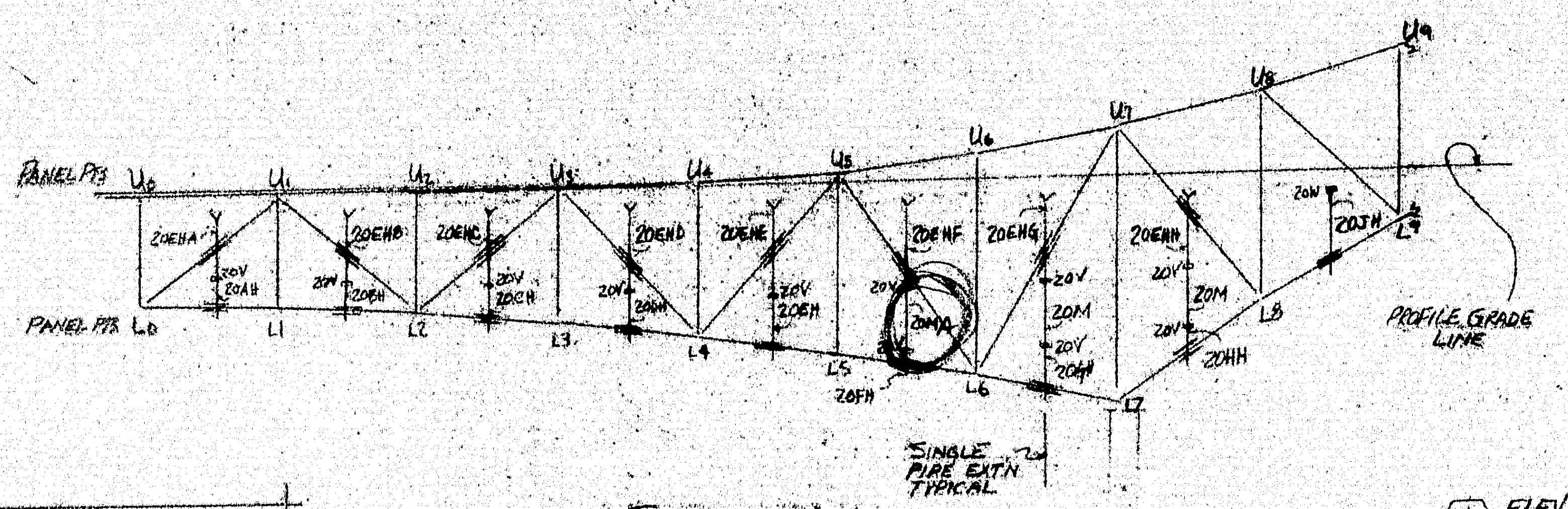
NEW HAMPSHIRE END

SEE TYP. BAY PLAN

FIELD NOTE:
ALL DOWN SPOUTS TO BE HUNG PLUMB.

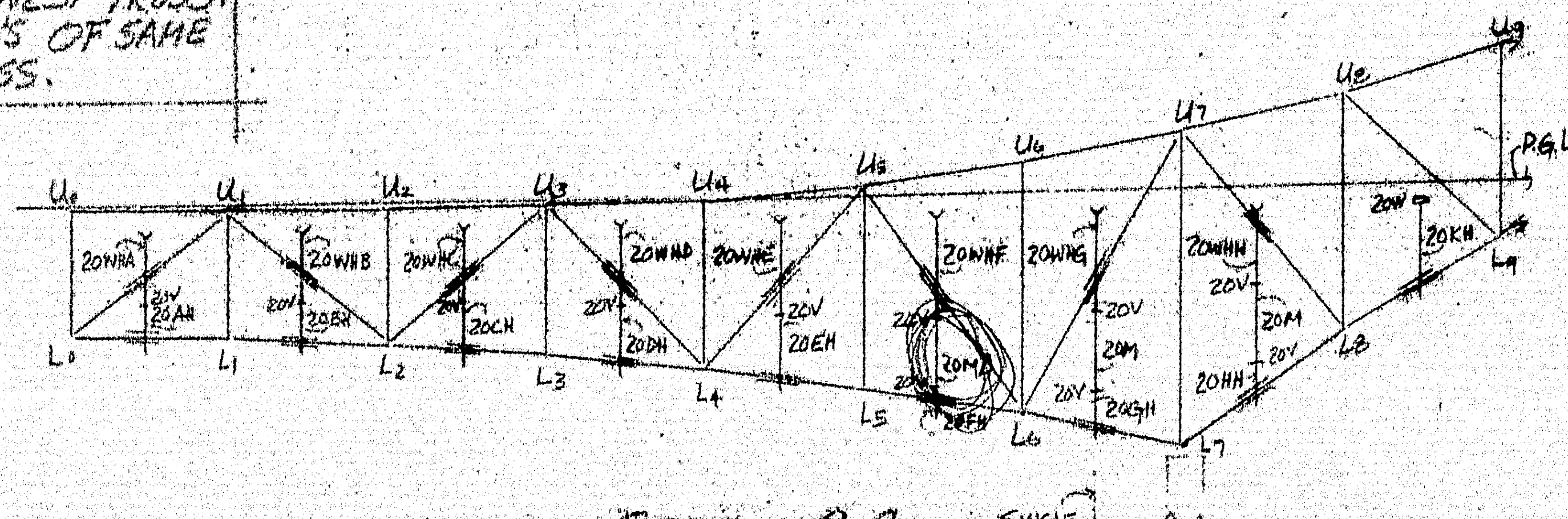


SECTION B-B

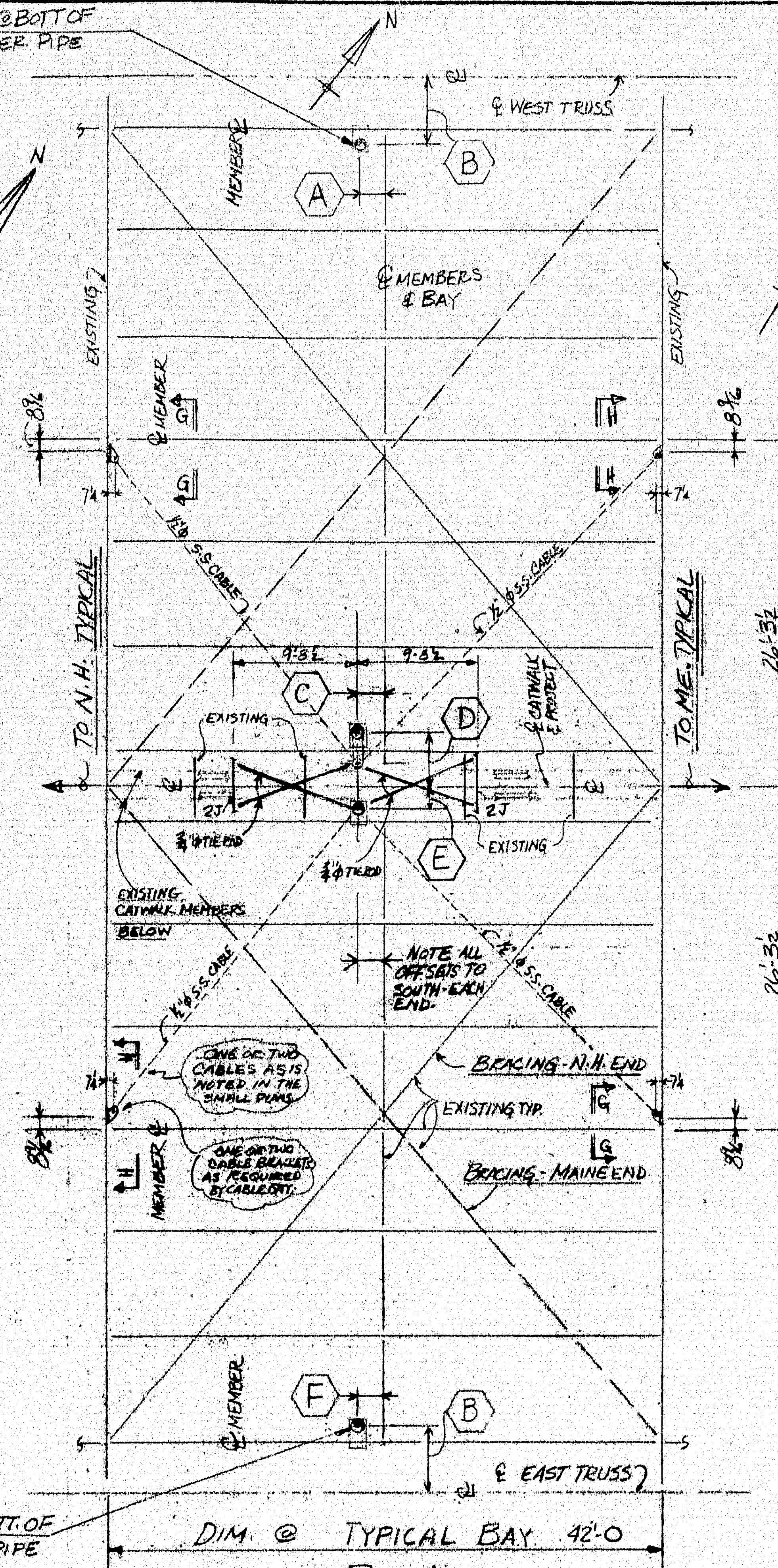


SECTION A-A
N.H. END - EAST TRUSS

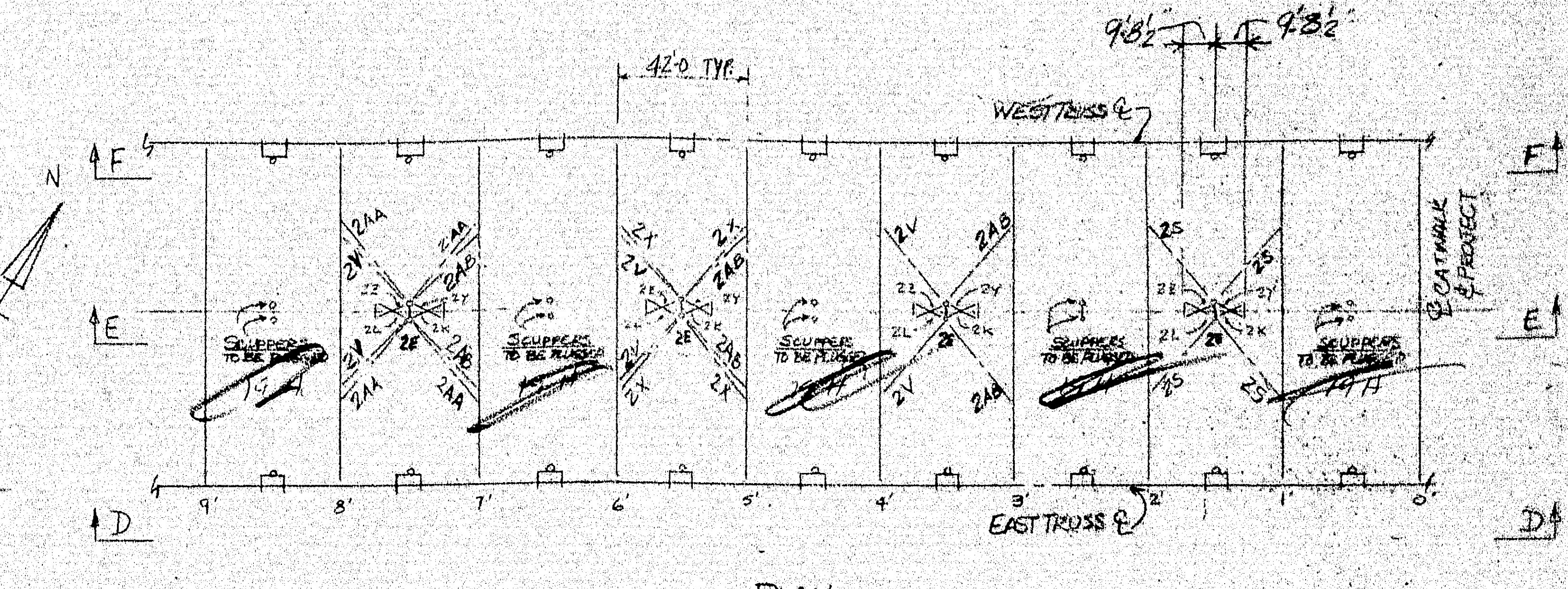
NOTE "A"
"G" IS ELEVATION AT THE BOTTOM OF EXISTING DRAINS AT WEST TRUSS. "H": ELEVATIONS OF SAME AT EAST TRUSS.



SECTION C-C
N.H. END - WEST TRUSS


G ELEV. @ BOTT. OF SCUPPER PIPE
N
℄ WEST TRUSS
℄ MEMBERS & BAY
MEMBER
EXISTING
TO N.H. TYPICAL
TO ME. TYPICAL
℄ CATWALK & PROJECT
26'-3½
¾"φ TIE ROD
EXISTING CATWALK MEMBERS BELOW
½"φ S.S. CABLE
NOTE ALL OFFSETS TO SOUTH-EACH END
ONE OR TWO CABLES AS IS NOTED IN THE SMALL PLANS
ONE OR TWO CABLE BRACKETS AS REQUIRED BY CABLE QTY.
BRACING - N.H. END
EXISTING TYP.
BRACING - MAINE END
℄ EAST TRUSS
H ELEV. @ BOTT. OF SCUPPER PIPE
DIM. @ TYPICAL BAY 42'-0
A
B
C
D
E
F

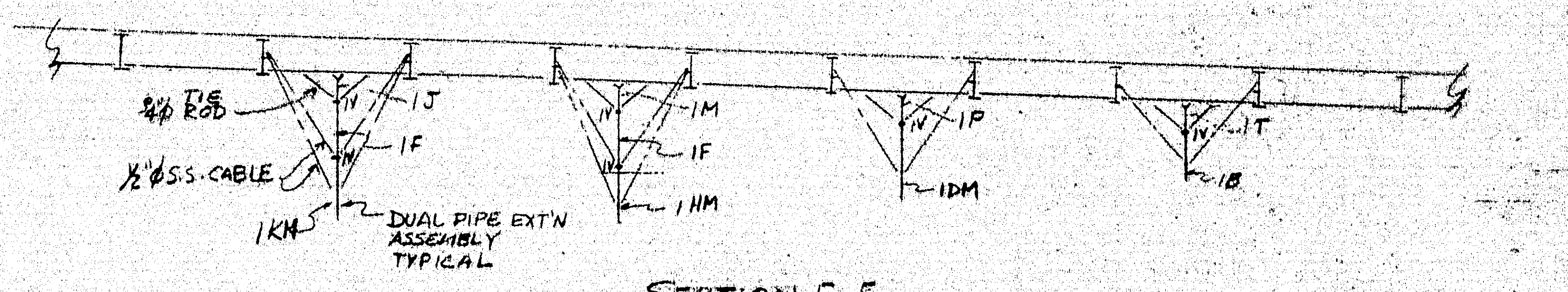
PLAN
ONE ENLARGED BAY



PLAN

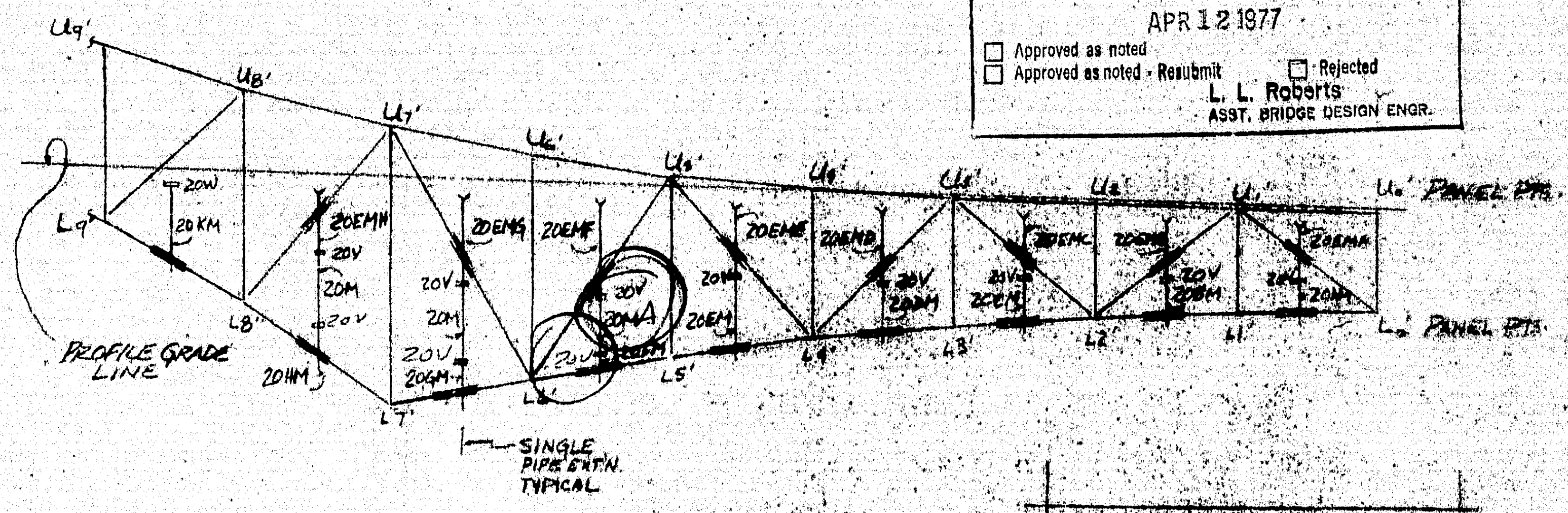
MAINE END

SEE TYP. BAY PLAN



SECTION E-E

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☒ Returned for Corrections
APR 12 1977
☐ Approved as noted
☐ Approved as noted - Resubmit ☐ Rejected
L. L. Roberts
ASST. BRIDGE DESIGN ENGR.



SECTION D-D
ME. END - EAST TRUSS

NOTE "B"
G IS ELEVATION AT BOTTOM OF EXISTING DRAINS AT WEST TRUSS "H" ELEVS. OF SAME AT EAST TRUSS

SCUPPER LOCATIONS - N.H. END:

	BAY	0/1	1/2	2/3	3/4	4/5	5/6	6/7	7/8	8/9
DIMS. AT BOTT. EXIST. DRAIN PIPE	A	0-5¼	0'-10 5/16	0'-9¾	0'-9⅞	0'-10 1/16	0'-10	0'-10 5/16	0'-10 9/16	0'-8½
	B	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7
	C*	X	0'-8 13/16	X	0'-9	X	0'-10⅜	X	0'-9 13/16	X
	D	X	4'-1 3/16	X	4'-1 3/16	X	4'-2 3/16	X	4'-0 9/16	X
	E*	X	1'-10 5/16	X	1'-10 15/16	X	1'-9 1/16	X	1'-8 13/16	X
	F	0'-4 15/16	0'-8¼	0'-10 5/16	0'-9¼	0'-10 15/16	0'-11⅜	0'-11⅜	0'-11⅜	0'-11⅜
	G	135.07	136.06	137.0	137.88	138.69	139.43	140.11	140.71	141.25
	H	135.07	136.07	137.0	137.88	138.69	139.43	140.11	140.71	141.25

NOTE "A"

SCUPPER LOCATIONS - MAINE END:

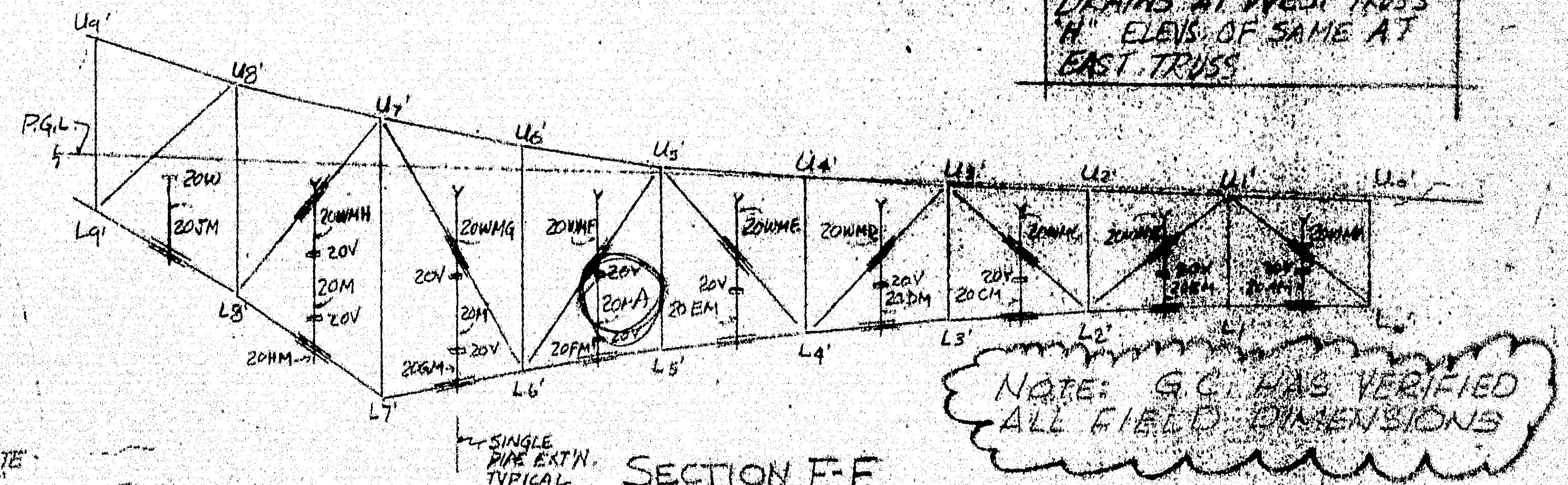
	BAY	0'/1'	1'/2'	2'/3'	3'/4'	4'/5'	5'/6'	6'/7'	7'/8'	8'/9'
DIMS. AT BOTT. EXIST. DRAIN PIPE	A	0'-8 1/16	0'-11 1/16	0'-11½	1'-1 9/16	0'-11⅝	0'-9⅝	0'-11 1/16	1'-0⅛	0'-9½
	B	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7
	C*	X	0'-11 1/16	X	0'-9 5/16	X	0'-10 13/16	X	0'-11 13/16	X
	D	X	4'-0 1/16	X	3'-11 7/16	X	4'-0 7/16	X	3'-11 1/16	X
	E*	X	1'-10 5/16	X	1'-10 3/16	X	1'-9 13/16	X	1'-9 1/16	X
	F	0'-11 11/16	0'-11¼	0'-11¾	1'-0½	0'-10 7/16	0'-10 13/16	1'-0⅛	1'-0 1/16	1'-1 9/16
	G	135.09	136.10	137.04	137.92	138.72	139.46	140.13	140.74	141.27
	H	135.10	136.10	137.04	137.92	138.72	139.46	140.14	140.74	141.27

NOTE "B"

NOMINALLY 5'-7". USE SHIMS FOR DIMS. 5'-6" TO 5'-7½ WHICH HAVE BEEN FIELD DETERMINED.

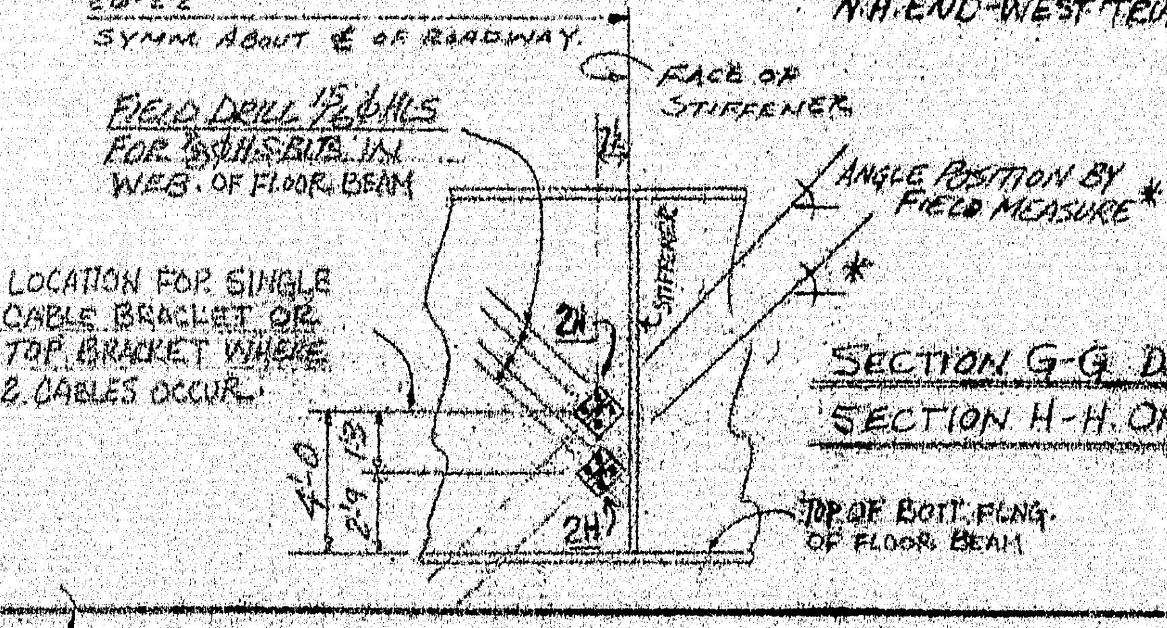
NOTE: * NOMINALLY 1'-0
✱ NOMINALLY - 1'-9½
FOR TIE ROD & CABLE CALCULATIONS.

REFER SH. 4 & 6 OF 8 OF N.H.D. of P.W. & H. AND S. of M.D.O.T. DRAIN EXT. DETAILS FOR CONNS.



NOTE: G.C. HAS VERIFIED ALL FIELD DIMENSIONS

SECTION F-F
MAINE END - WEST TRUSS


26'-2½"±
SYMM. ABOUT ℄ OF ROADWAY.
FACE OF STIFFENER
FIELD DRILL 15/16 φ HLS FOR ⅞φ H.S.B. IN WEB. OF FLOOR BEAM
ANGLE POSITION BY FIELD MEASURE *
STIFFENER
2H
LOCATION FOR SINGLE CABLE BRACKET OR TOP BRACKET WHERE 2 CABLES OCCUR.
4'-0
1'-3
2'-9
TOP OF BOTT. FLNG. OF FLOOR BEAM

SECTION G-G DRAWN
SECTION H-H OPP. HD.

APPROVAL AND REVISIONS
1 F.A. 3-1-77
2 SUBM. #1 3/25/77
3
4
5
6
7
8
9
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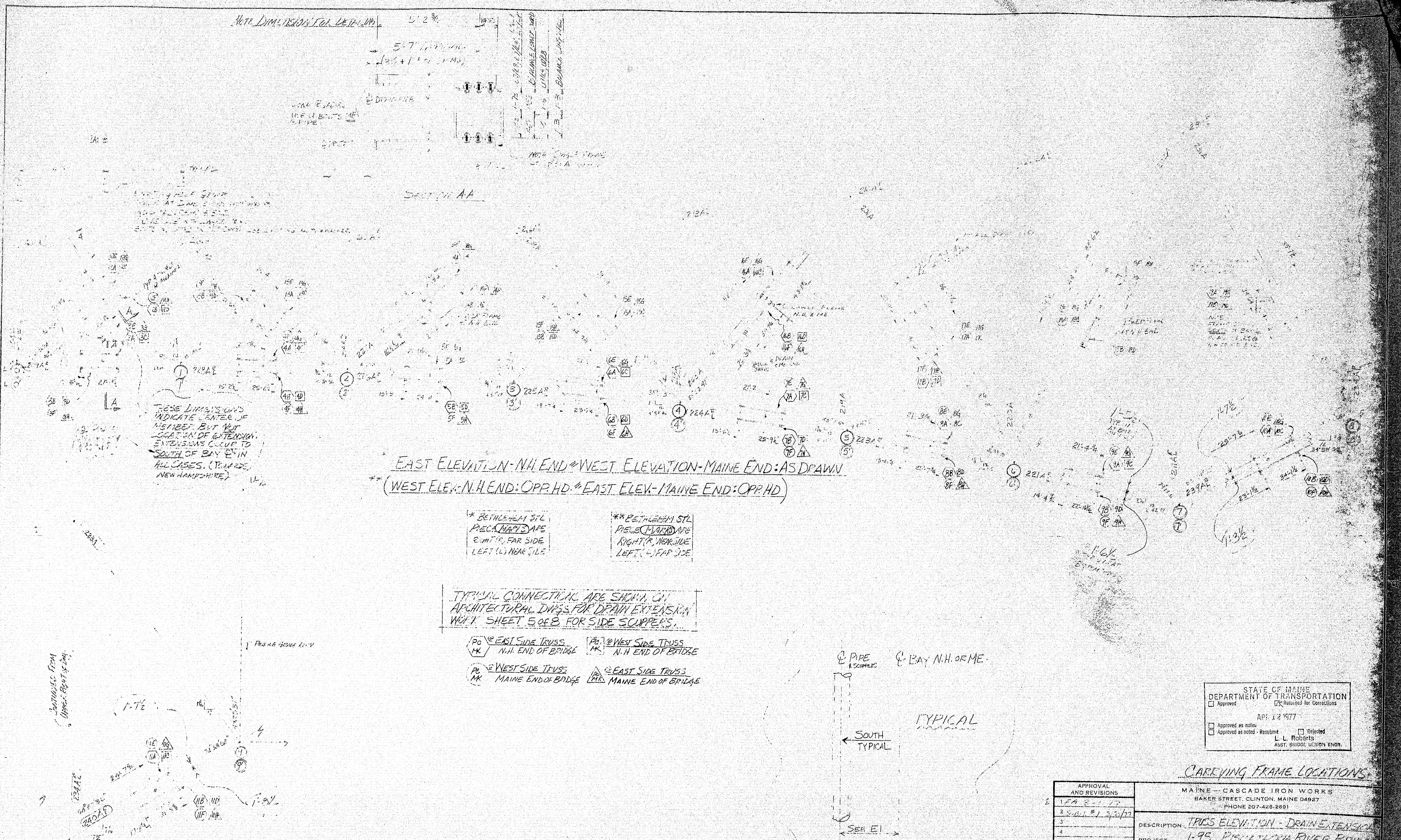
11
12

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

DESCRIPTION: DRAIN EXTENSION LAYOUT
PROJECT: I-95 PISCATAQUA RIVER BRIDGE
LOCATION: PORTSMOUTH, N.H. & KITTERY, ME.
ARCHITECT: N.H. D. of P.W. & H. / S. of M. D.O.T. / HARDESTY & HANOVER
CONTRACTOR: CHERNAK - BREDBENNER CONSTR. INC.
PAINT:
DRAWN BY: MARIO
CHECKED BY: MARIO
DATE: 2-1-77
HOLES:
PROJ. NO. 77-262
DRWG. NO. E1

163-35

[redacted]



THESE DIMENSIONS INDICATE CENTER OF MEMBER BUT NOT LOCATION OF EXTENSION. EXTENSIONS OCCUR TO SOUTH OF BAY ℄ IN ALL CASES. (TOWARDS NEW HAMPSHIRE)

EAST ELEVATION-N.H. END * WEST ELEVATION-MAINE END: AS DRAWN

** (WEST ELEV.-N.H. END: OPP. HD. ** EAST ELEV.-MAINE END: OPP. HD)

* BETHLEHEM STL PIECE MARKS ARE RIGHT (R) FAR SIDE LEFT (L) NEAR SIDE

** BETHLEHEM STL PIECE MARKS ARE RIGHT (R) NEAR SIDE LEFT (L) FAR SIDE

TYPICAL CONNECTIONS ARE SHOWN ON ARCHITECTURAL DWGS FOR DRAIN EXTENSION WORK SHEET 5 of 8 FOR SIDE SCUPPERS.

PC MK @ EAST SIDE TRUSS N.H. END OF BRIDGE

PC MK @ WEST SIDE TRUSS N.H END OF BRIDGE

PC MK @ WEST SIDE TRUSS MAINE END OF BRIDGE

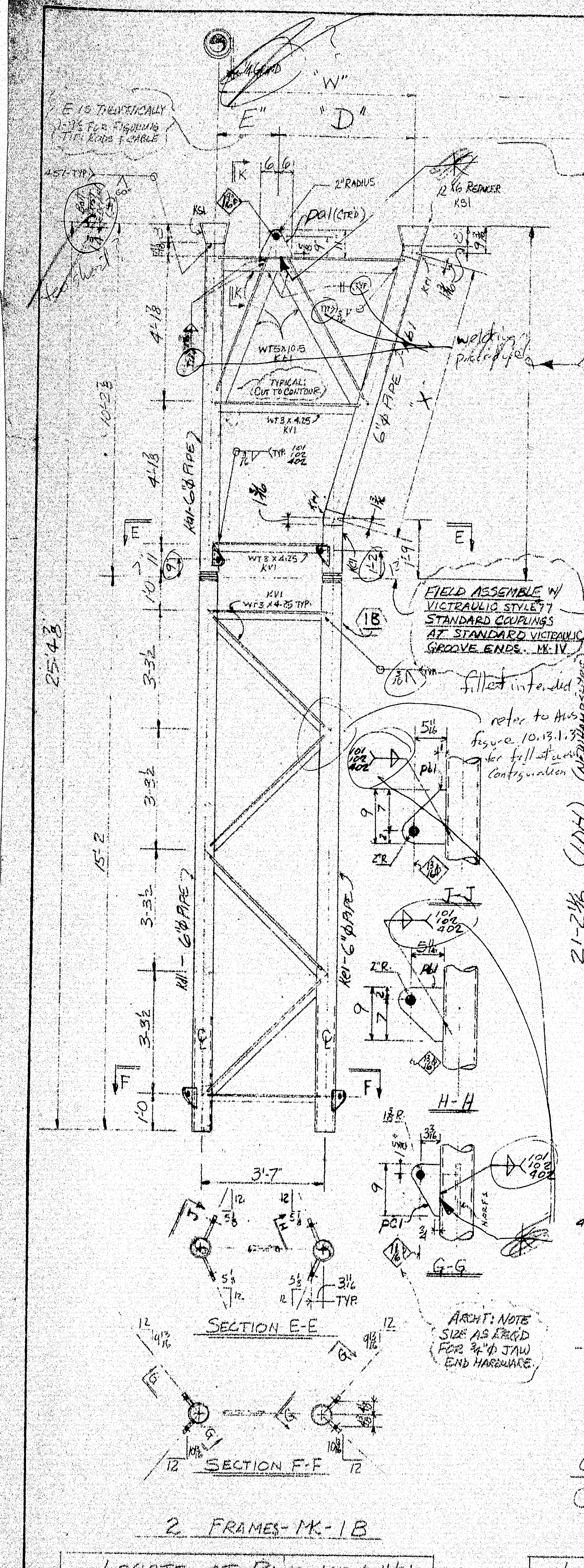
PC MK @ EAST SIDE TRUSS MAINE END OF BRIDGE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☒ Returned for Corrections
APR 12 1977
☐ Approved as noted
☐ Approved as noted - Resubmit ☐ Rejected
L. L. Roberts
ASST. BRIDGE DESIGN ENGR.

CARRYING FRAME LOCATIONS

APPROVAL AND REVISIONS	MAINE – CASCADE IRON WORKS BAKER STREET, CLINTON, MAINE 04927 PHONE 207-426-2691		
1 FA 3-1-77	DESCRIPTION TRUSS ELEVATION - DRAIN EXTENSIO		
2 S.O.J. #1 3/3/77	PROJECT I-95 PISCATAQUA RIVER BRIDG		
3	LOCATION PORTSMOUTH N.H. & KITTERY, ME		
4	ARCHITECT N.H.D. of P.W. & H / S of M. DOT / HARDESTY HANOVER		
5	CONTRACTOR CHERNAK-BREDBENNER CONSTR. C		
6	PAINT	DRAWN BY MARCO M · CHECKED BY	DATE 2-10-7
7	HOLES	PROJ. NO. 77-262	DRWG. NO. E2
8			
9			
10			
11			
12			

163-36


E IS THEORETICALLY 12¾" FOR FIGURING TIE RODS & CABLE
"W"
"E"
"D"
2" RADIUS
12 × 6 REDUCER KS1
pa1 (2 reqd)
KS1
WT5×10.5 Kt1
TYPICAL CUT TO CONTOUR
WT3×4.25 Kv1
6"Ø PIPE
welding prohibited
"X"
4'-1⅛
4'-1⅛
25'-4⅞
15'-2
3'-3½
1'-0
3'-7
FIELD ASSEMBLE W/ VICTRAULIC STYLE 77 STANDARD COUPLINGS AT STANDARD VICTRAULIC GROOVE ENDS - MK. IV
1B
fillet intended
refer to AWS figure 10.13.1 for fillet weld configuration
(NEW HAMPSHIRE)
(MAINE)
J-J
H-H
G-G
pb1
pc1
Kb1 - 6"Ø PIPE
SECTION E-E
SECTION F-F
ARCHT: NOTE SIZE AS REQ'D FOR ¾"Ø JAW END HARDWARE

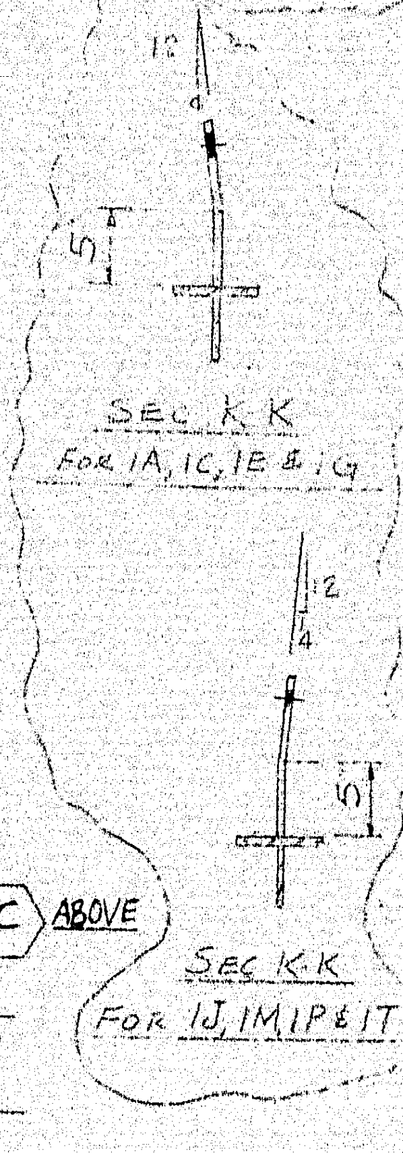
2 FRAMES - MK - 1B

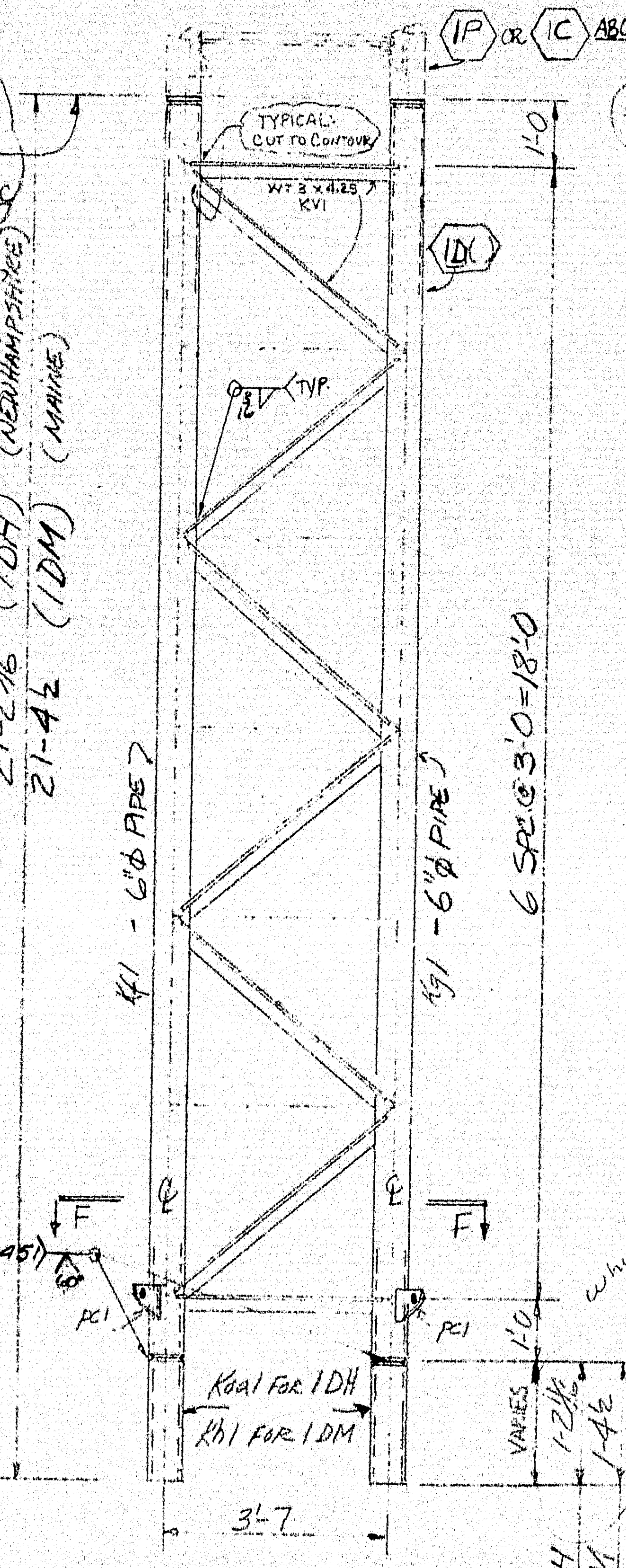
LOCATE AT BAYS 1/2 & 1'/2'

MK	1A	1C	1E	1G	1J	1M	1P	1T
"W"	5'-11½	6'-0¾	5'-11⅞	5'-9⅜	5'-8¾	5'-10⅝	5'-9⅞	5'-10⅝
"D"	4'-1 3/16	4'-1 13/16	4'-1⅝	3'-11⅛	3'-10½	4'-0¼	3'-11⅜	4'-0 1/16
"E"	1'-10 5/16	1'-10 5/16	1'-10¼	1'-10¼	1'-10¼	1'-10¼	1'-10¼	1'-10 5/16
"X"	8'-1	8'-1⅛	8'-1 1/16	8'-0⅝	8'-0 7/16	8'-0⅝	8'-0 7/16	8'-0⅝

ONE - FRAME - MK - 1A
ONE - FRAME - MK - 1C
ONE - FRAME - MK - 1E
ONE - FRAME - MK - 1G
ONE - FRAME - MK - 1J
ONE - FRAME - MK - 1M
ONE - FRAME - MK - 1P
ONE - FRAME - MK - 1T

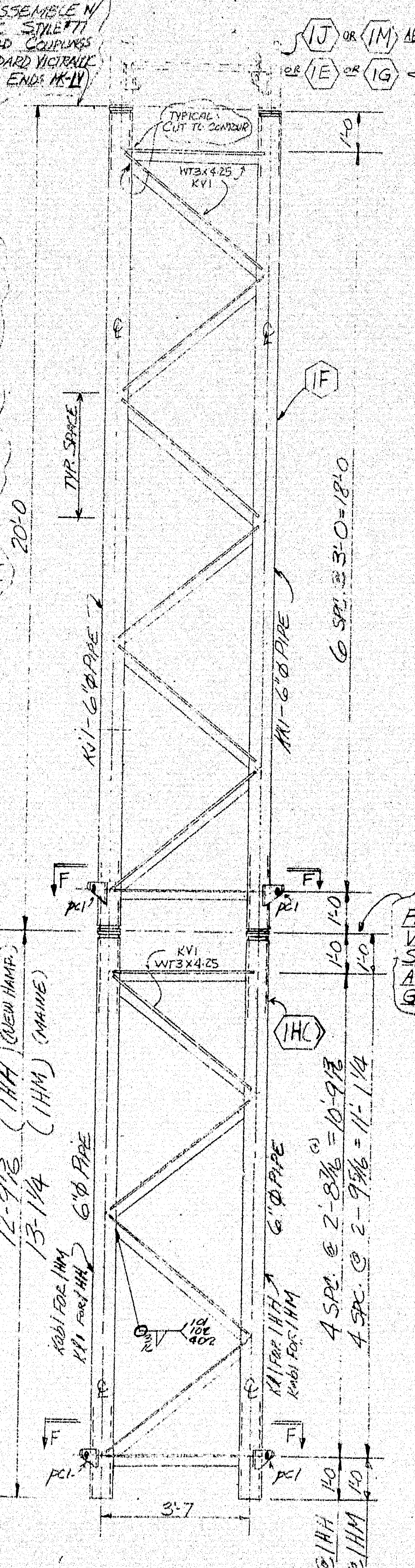
FIELD ASSEMBLE W/ VICTRAULIC STYLE 77 STANDARD VICTRAULIC COUPLINGS AT STANDARD VICTRAULIC GROOVED ENDS MK-IV





ONE - FRAME - MK - 1DH AS NOTED
ONE - FRAME - MK - 1DM AS NOTED

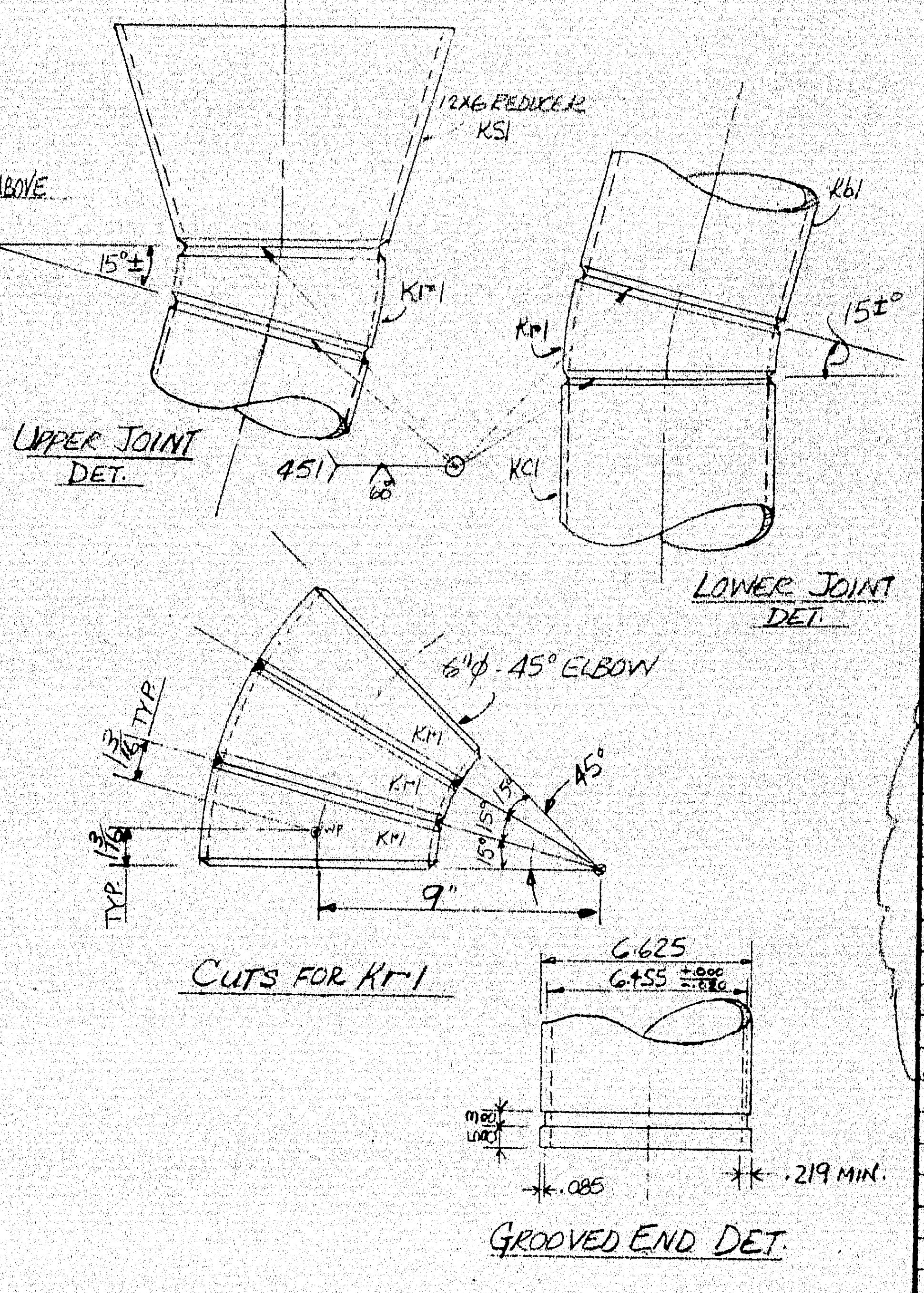
LOCATE AT BAYS 3/4 & 3'/4'

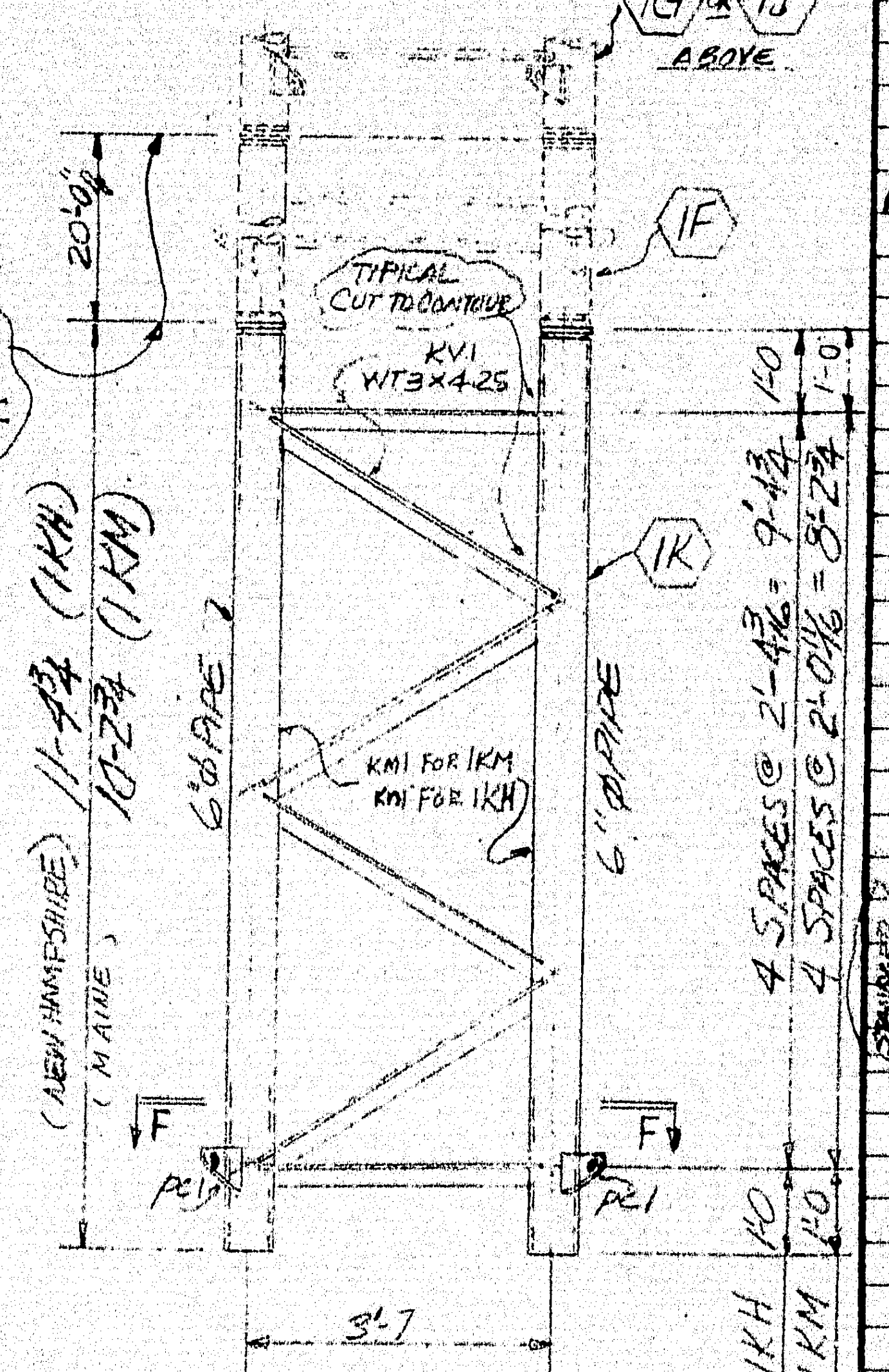


4 FRAMES - MK - 1F
ONE - FRAME - MK - 1HH AS NOTED
ONE - FRAME - MK - 1HM AS NOTED

LOCATE AT BAYS 5/6 & 5'/6'

FIELD ASSEMBLE W/ VICTRAULIC STYLE 77 STANDARD COUPLINGS AT STANDARD VICTRAULIC GROOVE ENDS - MK. IV





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved
☒ Returned for Corrections
AUG 2 1977
☐ Approved as noted
☐ Approved as noted - Resubmit
☐ Rejected
L. L. Roberts
ASST. BRIDGE DESIGN ENGR.

ONE - FRAME - MK - 1KH AS NOTED
ONE - FRAME - MK - 1KM AS NOTED
~~2 - Frame - MK - 1F~~

LOCATE AT BAYS 7/8 & 7'/8'

MATERIAL SCHEDULE A53 MATL U.N.

Mark	No. Pcs.		Shape	Length Ft	Length In	O or S	Cut From No	Cut From Ft	Cut From In	Remarks	Weight
1A	1		FRAME							GALV. AFTER FAB.	
1B	2										
1C	1										
1DH 1DM	1 1										
1E	1										
1F	4										
1G	1										
1HH 1HM	1 1										
1J	1										
1KH 1KM	1 1										
1M	1										
1P	1										
1T	1										
	8	Ka1	6"Ø PIPE	9	6⅞					STD. SCH. 40 - GROOVE 1E - F1E	
	8	Kc1	do	1	7 13/16					STD. SCH. 40 - GROOVE. 1E - F1E	
	2	Kd1	do	15	2					STD. SCH. 40 - GROOVE. 1E	
	2	Ke1	do	15	2					STD. SCH. 40 - GROOVE. 1E	
	2	Kf1	do	20	0					STD. SCH. 40 - GROOVE. 1E ~~F1E~~	
	2	Kg1	do	20	0					STD. SCH. 40 - GROOVE. 1E - F1E	
	2	Kh1	do	1	4½					STD. SCH. 40. F1E.	
	4	Kj1	do	20	0					STD. SCH. 40. GROOVE. 2E.	
	2	Kk1	do	20	0					STD. SCH. 40 GROOVE 2E	
	2	Kl1	do	12	9 13/16					STD. SCH. 40 GROOVE. 1E.	
	2	Km1	do	10	2¾					STD. SCH. 40 GROOVE. 1E	
	2	Kn1	do	11	4¾					STD. SCH. 40 GROOVE. 1E	
	6	Kr1	6"Ø PIPE - 45° ELBOW							STD. SCH. 40 - CUT TO 15° ± FIT ~~F1E~~	
	16	KS1	12×6 RED.	0	7	doesn't agree with 8" dim given in Elev.				STD. SCH. 40 REDUCER ~~F1E~~	
	L.F.	Kt1	WT5×10.5	120	0					A36	
	L.F.	Kv1	WT3×4.25	370	0						
	8	pa1	R 11×⅝	1	0						
	37	pb1	R 7 1/16×¾	0	9						
	48	pc1	R 4 13/16×⅝	0	9						
IV	24		6"Ø PIPE COUPLING (STD. I.P.S.)							VICTRAULIC STYLE #77 GALV. A47 MALL. IRON & A183 TRACK BOLTS ~~and gasket~~ Grade H	
	1	Kb1-1A	6"Ø PIPE	7	10⅝					STD. SCH. 40 F2E	
	1	Kb1-1C	do	7	11						
	1	Kb1-1E	do	7	10 11/16						
	1	Kb1-1G	do	7	10						
	1	Kb1-1J	do	7	9 13/16						
	1	Kb1-1M	do	7	10¼						
	1	Kb1-1P	do	7	10 11/16						
	1	Kb1-1T	do	7	10⅛						
	2	Kaa1	do	1	2 1/16					STD. SCH. 40 ~~BEVEL~~ F 1E.	
	2	Kab1	do	13	1¼					STD. SCH. 40 GROOVE 1E.	

STANDARD VICTRAULIC GROOVED ENDS AS NOTED

GROOVES SHALL BE CUT BEFORE GALVANIZING

~~All galvanizing shall be in accordance with~~ ASTM A153 & A123

All galvanized material shall be coated with Zinc galv. paint

Delete 1E & F1E

APPROVAL AND REVISIONS
1 [illegible] 3-1-77
2 Submit #1 3/25/77
3
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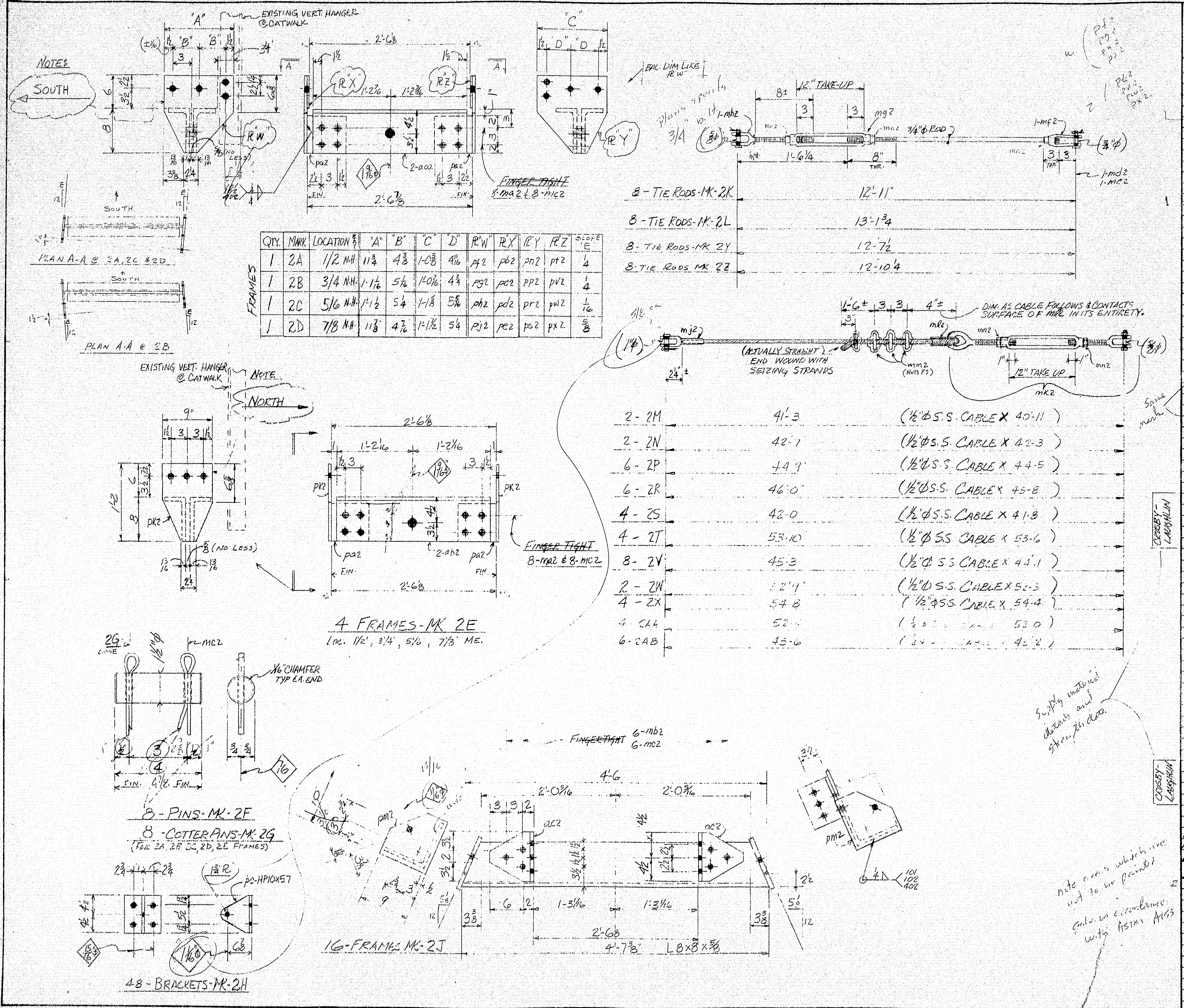
12

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

DESCRIPTION: DETAIL & ASSEMBLY of CENTER DRAINS
PROJECT: I-95 PISCATAQUA RIVER BRIDGE
LOCATION: PORTSMOUTH, N.H. & KITTERY, ME.
ARCHITECT: N.H. Dep. P.W.H. / St. of M. DOT / HARDESTY & HANOVER
CONTRACTOR: CHERNAK-BEDBENNER CONSTR. Co.
PAINT: GALVANIZE & PAINT PER 504.42 [illegible]
DRAWN BY: MAKO
CHECKED BY: MARLO
DATE: 2-7-77
HOLES: AS NOTED
PROJ. NO.: 77-262
DRWG. NO.: 1

163-37

[redacted]



8 - TIE RODS-MK-2K 12'-11"

8 - TIE RODS-MK-2L 13'-1 3/4

8 - TIE RODS-MK 2Y 12'-7 1/2

8 - TIE RODS MK 2Z 12'-10 1/4

QTY.	MARK	LOCATION	"A"	"B"	"C"	"D"	PL"W"	PL"X"	PL"Y"	PL"Z"	SLOPE "E"
1	2A	1/2 N.H.	11 3/4	4 3/8	1-0 3/8	4 1/16	pf2	pb2	pn2	pt2	1/4
1	2B	3/4 N.H.	1-1 1/16	5 1/16	1-0 7/16	4 3/4	pg2	pc2	pp2	pv2	1/4
1	2C	5/6 N.H.	1-1 1/2	5 1/4	1-1 3/8	5 5/16	ph2	pd2	pr2	pw2	1/16
1	2D	7/8 N.H.	11 7/8	4 7/16	1-1 1/2	5 1/4	pj2	pe2	ps2	px2	5/8

FRAMES

4 FRAMES-MK 2E

Loc. 1/2', 3/4, 5/6, 7/8 ME.

8-PINS-MK-2F

8-COTTER PINS-MK-2G

(FOR 2A, 2B, 2C, 2D, 2E FRAMES)

48-BRACKETS-MK-2H

16-FRAMES-MK-2J

2 - 2M	41'-3	(1/2"φ S.S. CABLE X 40'-11)
2 - 2N	42-7	(1/2"φ S.S. CABLE X 42-3)
6 - 2P	44-9	(1/2"φ S.S. CABLE X 44-5)
6 - 2R	46'-0"	(1/2"φ S.S. CABLE X 45-8)
4 - 2S	42-0	(1/2"φ S.S. CABLE X 41-8)
4 - 2T	53-10	(1/2"φ S.S. CABLE X 53-6)
8 - 2V	45-3	(1/2"φ S.S. CABLE X 44-11)
2 - 2W	52'-9"	(1/2"φ S.S. CABLE X 52-5)
4 - 2X	54-8	(1/2"φ S.S. CABLE X 54-4)
4 - 2AA	52-4	(1/2"φ S.S. CABLE X 52-0)
6 - 2AB	45-6	(1/2"φ S.S. CABLE X 45-2)

Same mark

CROSBY-LAUGHLIN

Supply material identity and strength data.

CROSBY-LAUGHLIN

Note areas which are not to be painted

Galv. in accordance with ASTM A153

MATERIAL SCHEDULE

MARK	NO. PCS.		SHAPE	LENGTH FT	LENGTH IN	O OR S	CUT FROM NO.	CUT FROM FT	CUT FROM IN	REMARKS	WEIGHT
2A	1		FRAME								
2B	1										
2C	1										
2D	1										
	8	aa2	L8x4x5/8	2	4 3/8					A36	
	8	pa2	PL7x5/8	0	7						
	2	pb2	PL6x3/8	0	9 3/8						
	2	pc2		0	9 3/4						
	2	pd2		0	10 3/8						
	2	pe2		1	0 1/2						
	2	pn2	PL14x1/2	1	0 3/8						
	2	pp2		1	0 1/2						
	2	pr2		1	1 3/8						
	2	ps2		1	3 3/4						
2E	4		FRAMES								
	8	pk2	PL9x1/2	1	2					A36	
	8	ab2	L8x4x5/8	2	4 5/8					A36	
	8	pa2	PL7x5/8	0	7					A36	
2F	8		1 1/4φ ROD	0	4					A36	
	8	mc2	3/16φ COTTER PIN	0	3					A307 GALV.	
2G	8		3/16φ COTTER PIN	0	3					A307 GALV. SHIP LOOSE	
2H	48		HP10x57	0	9					A36	
2J	16		L8x8x5/8	4	7 3/8					A36	
	32	pm2	PL9x3/4	0	10					A36	
	32	oc2	L8x6x5/8	0	9					A36	
	64	ma2	3/4"φ H.S.B.	0	3					A325 GALV.	
	96	mb2	3/4"φ H.S.B.	0	2 1/2					A325 GALV.	
	160	mc2	3/4"φ HARDWASHERS							A325 GALV.	
2K	8		3/4φ ROD	11	1 3/4					A36 THR. 2E	
2L	8		DO	11	4 1/2						
2Y	8		DO	10	10 1/4						
2Z	8		DO	11	1						
	32	md2	3/4" CLEVIS PIN	0	2 1/2					GALV. 3/4	
	32	me2	1/4" COTTER	0	1 1/2					OR STD FOR md2	
	32	mf2	#2 1/2 CLEVIS W/3/4"φ TAP FOR 3/4"φ ROD & 3/4"φ PIN							W/ GRIP	
	32	mg2	3/4"φ TURNBUCKLE-12" TAKE UP #G-2510								
	32	mh2	JAW END FOR 3/4"φ ROD - FOR 12" TAKE-UP TURNBUCKLE								
2M	2		1/2"φ CABLE	40	11					STAINLESS STL.	
2N	2			42	3						
2P	6			44	5						
2R	6			45	8						
2S	4			41	8						
2T	4			53	6						
2V	8			44	11						
2W	2			52	5						
2X	4			54	4						
2AA	4			52	0						
2AB	6			45	2						
	48	mj2	1/2" OPEN SWAGED SOCKET							STAINLESS STEEL	
	48	mk2	3/4"φ-12" TAKE-UP TURNBUCKLE							GALVANIZED #G-227	
	48	ml2	1/2φ WIRE ROPE THIMBLE #SS-414							STAINLESS STEEL	
	192	mm2	1/2φ WIRE ROPE CLIPS							#G-450 GALV.	
	192	mn2	3/4"φ JAM NUT							A307 HEX GALV.	
FIELD	124		3/4"φ H.S. BOLTS	0	2 1/4					A325 (4 EXTRA)	
FIELD	132		do	0	2 1/2					A325	
FIELD	262		do	0	3					A325	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☒ Returned for Corrections
APR 2 1977
☐ Approved as noted
☐ Approved as noted - Resubmit ☐ Rejected
L. L. Roberts
ASST. BRIDGE DESIGN ENGR.

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM #1 3/25/77
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MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2691

DESCRIPTION DRAIN EXTENSION CARRYING FRAMES TIE RODS & CABLES
PROJECT I-95 PISCATAQUA RIVER BRIDGE
LOCATION PORTSMOUTH, N.H. & KITTERY, ME.
ARCHITECT N.H.D. of P.W.&H. / S. of M.D.O.T. / HARDESTY & HANOVER
CONTRACTOR CHERNAK-BREDBENNER CONSTR. CO.
PAINT BASIC LEAD SILICO CHROMATE ORANGE - W.W. #128 DRAWN BY MARCO R.M. CHECKED BY MARCO R.M. DATE 2-8-77
HOLES 13/16 φ U.N. PROJ. NO 77-262 DRWG. NO. 2

163·38

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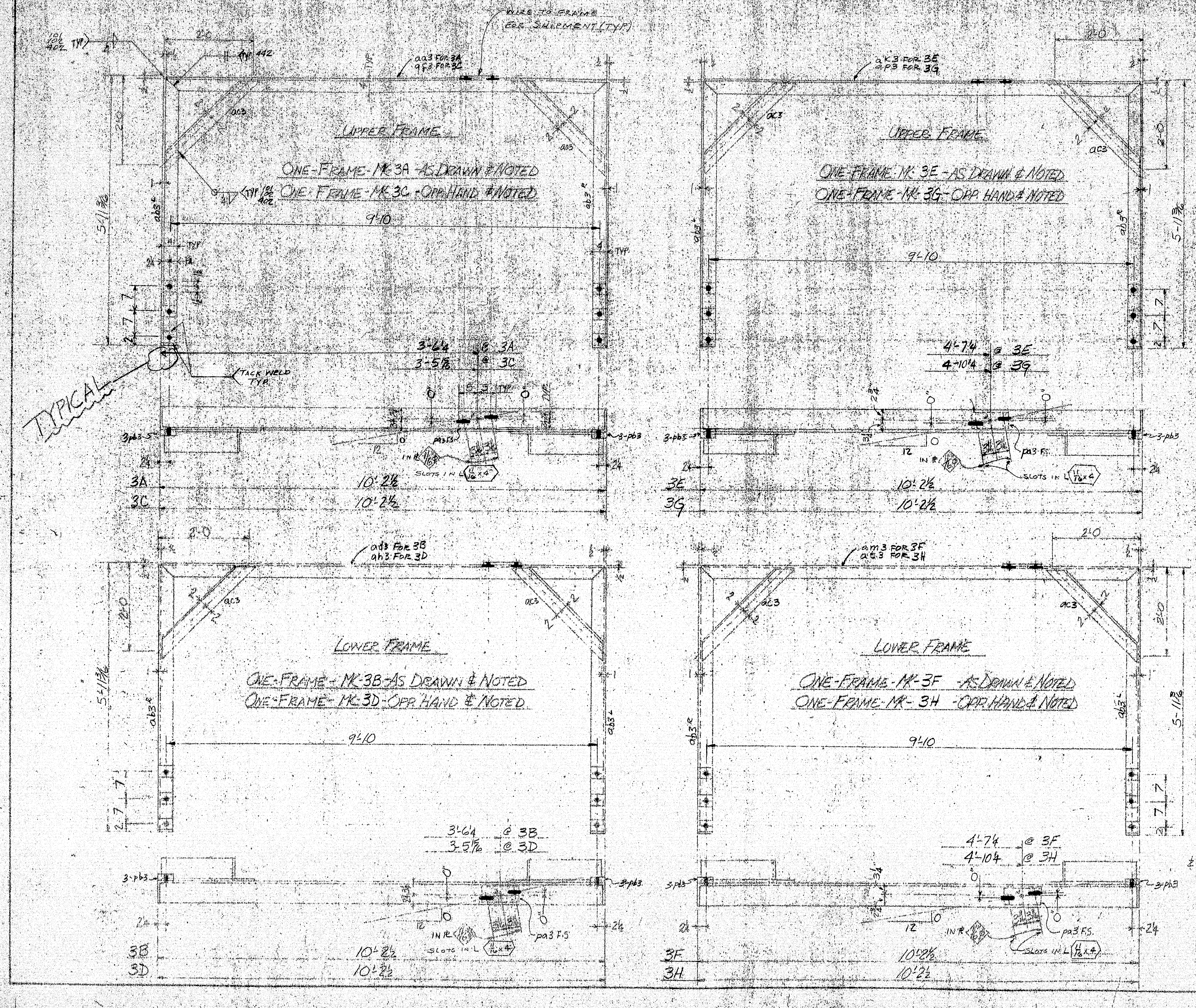

MATERIAL SCHEDULE

A36 MAT'L

MARK	NO. PCS.		SHAPE	LENGTH FT.	IN.	D. OR S.	CUT FROM NO.	FT.	IN.	REMARKS
3A	1		UPPER FRAME							PAIR W/ 3B
	1	aa3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
3B	1		LOWER FRAME							PAIR W/ 3A
	1	ad3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
3C	1		UPPER FRAME							PAIR W/ 3D
	1	af3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
3D	1		LOWER FRAME							PAIR W/ 3C
	1	ah3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
3E	1		UPPER FRAME							PAIR W/ 3F
	1	ak3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
3F	1		LOWER FRAME							PAIR W/ 3E
	1	am3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
3G	1		UPPER FRAME							PAIR W/ 3H
	1	ap3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
3H	1		LOWER FRAME							PAIR W/ 3G
	1	at3	L6x4x½	10	1½					B2E PER DET
	2	ab3R		5	10⅛					1 EA B1E do
	2	ac3	do	2	11⅛					B2E
	1	pa3	R 4½x½	0	10					
	6	pb3	BAR 3x½	0	4					
FIELD	6		1"⌀ HS BOLTS	0	5					No Nuts A325
FIELD	2		1"⌀ HS BOLTS	0	5	EXTRAS				WITH NUTS A325

STATE DEPARTMENT OF TRANSPORTATION

☐ Approved

☐ Approved as noted

☒ Returned for corrections

☐ Approved as noted - Resubmit

☐ Rejected

APR 12 1977

L. L. Roberts

ASST. BRIDGE DESIGN ENGR.

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM #1 3/25/77
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MAINE — CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-3081

DESCRIPTION [illegible]

PROJECT I-95 [illegible]

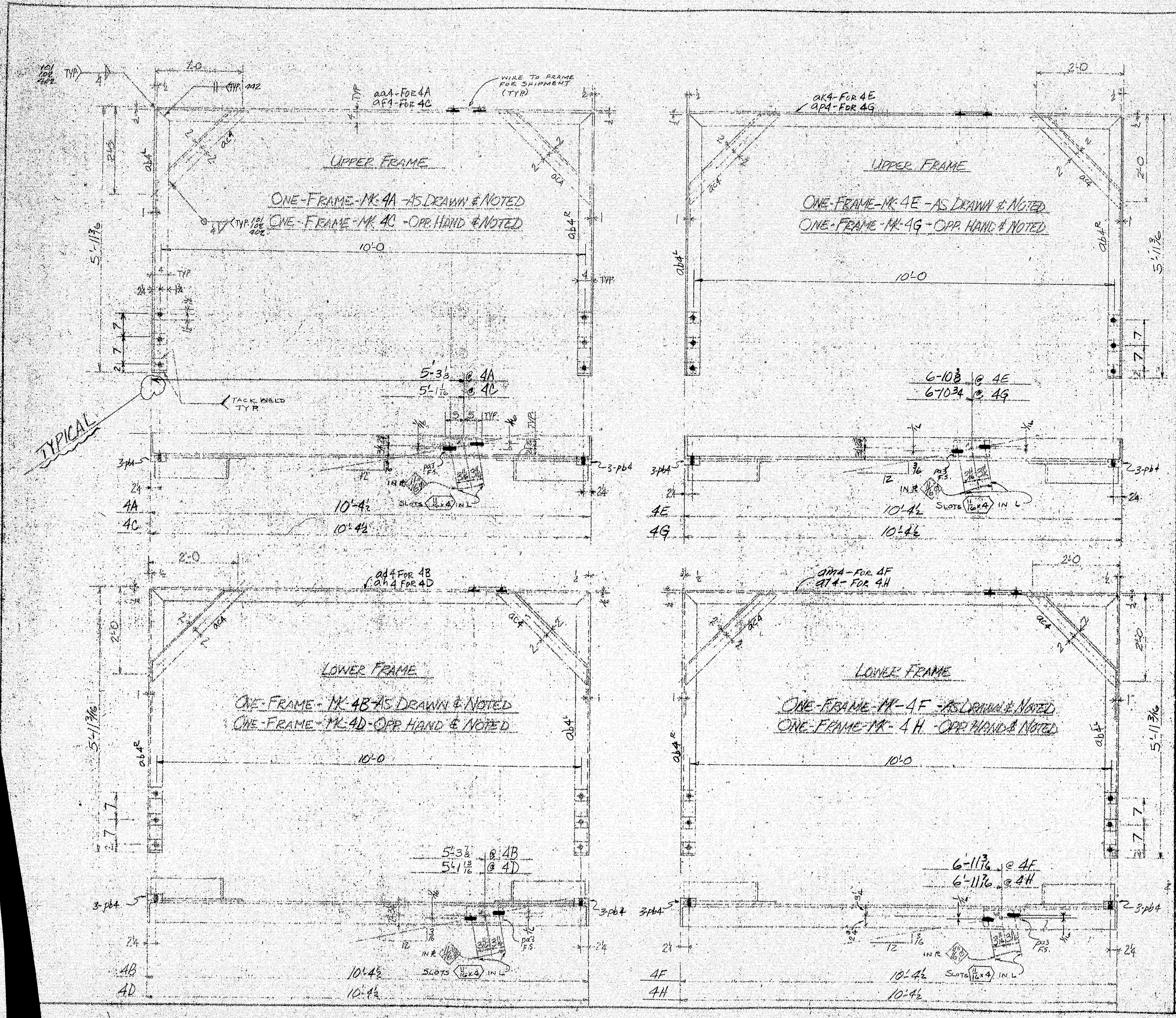
LOCATION PORTSMOUTH, N.H.

ARCHITECT [illegible]

CONTRACTOR [illegible]

163-39

[redacted]



MATERIAL SCHEDULE A36 MATL U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT.	IN.	G. OR S.	CUT FROM NO.	FT.	IN.	REMARKS	WEIGHT
4A	1		UPPER FRAME							PAIR w/4B	
	1	aa4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B2E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					W/NUTS A325	
4B	1		LOWER FRAME							PAIR w/4A	
	1	ad4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B2E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					No NUTS A325	
4C	1		UPPER FRAME							PAIR w/4D	
	1	af4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B2E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					W/NUTS A325	
4D	1		LOWER FRAME							PAIR w/4C	
	1	ah4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B2E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					No NUTS A325	
4E	1		UPPER FRAME							PAIR w/4F	
	1	ak4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B2E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					No NUTS A325	
4F	1		LOWER FRAME							PAIR w/4E	
	1	am4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B2E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					W/NUTS A325	
4G	1		UPPER FRAME							PAIR w/4H	
	1	ap4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B1E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					No NUTS A325	
4H	1		LOWER FRAME							PAIR w/4G	
	1	al4	L6x4x½	10	3½					B2E PER DET	
	2	ab4	}	5	10 1/16					1R·H 1L·H B1E do	
	2	ac4	do	2	11⅜					B1E	
	1	pa4	PL 4½x½	0	10						
	6	pb4	BAR 3x½	0	4						
FIELD	6		1"φ HS BOLTS	0	4¾					[illegible]	
FIELD	2		1"φ HS BOLTS	0	4¾	EXTRAS				W/NUTS A325	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved
☒ Returned for Corrections
☐ Approved as noted
☐ Approved as noted - Resubmit
☐ Rejected
APR 12 1977
L. L. Roberts
ASST. BRIDGE DESIGN ENGR.

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM. #1 3/25/77
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MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2601

DESCRIPTION: DRAW EXTENSION CROSS [illegible] FRAMES
PROJECT: I-95 PISCATAQUA RIVER BRIDGE
LOCATION: PORTSMOUTH, N.H. & KITTERY, ME.
ARCHITECT: [illegible] STATE OF MAINE DOT [illegible]
CONTRACTOR: CHEGNAM [illegible]
[illegible]
SCALE: 1½" = 1'-0" [illegible] 4

163-40.

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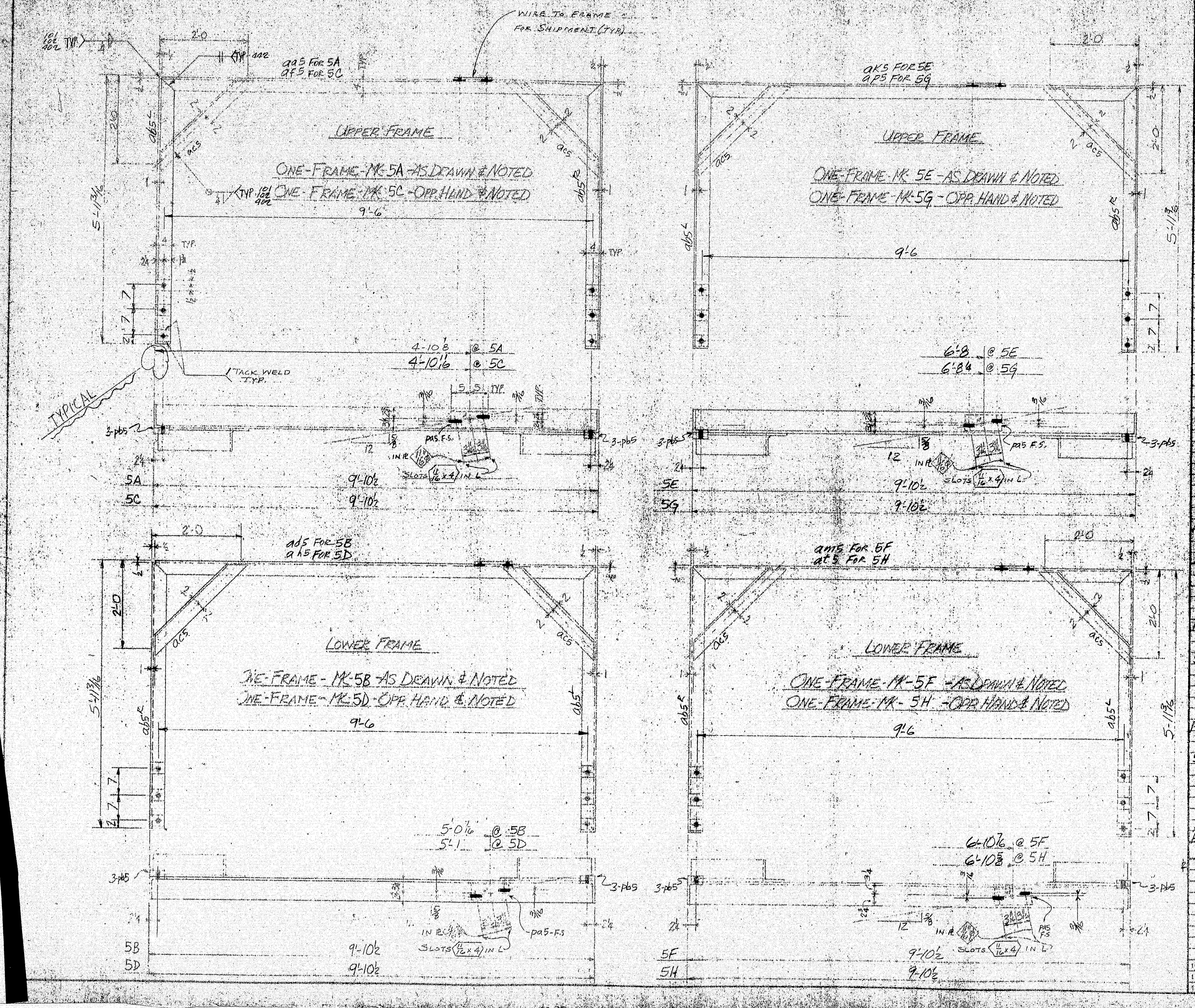

MATERIAL SCHEDULE

1⅜ HAR. U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT	LENGTH IN	O OR S	CUT FROM NO.	FT	IN	REMARKS	WEIGHT
5A	1		UPPER FRAME							PAIR W/5B	
	1	a05	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
5B	1		LOWER FRAME							PAIR W/5A	
	1	ad5	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
5C	1		UPPER FRAME							PAIR W/5D	
	1	af5	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
5D	1		LOWER FRAME							PAIR W/5C	
	1	ah5	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
5E	1		UPPER FRAME							PAIR W/5F	
	1	ak5	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
5F	1		LOWER FRAME							PAIR W/5E	
	1	am5	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
5G	1		UPPER FRAME							PAIR W/5H	
	1	ap5	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
5H	1		LOWER FRAME							PAIR W/5G	
	1	at5	L6x4x½	9	9½					B.2E PER DET.	
	2	ab5		5	10 1/16					B.1E do	
	2	ac5	do	2	11⅜					B.2E	
	1	pa5	℞4½x½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1" H.S. BOLTS	0	5¼					No NUTS A325	
FIELD	2		1" H.S. BOLTS	0	5¼	EXTRAS				W/NUTS A325	

DEPARTMENT OF TRANSPORTATION
☐ Approved
☒ Returned for corrections
☐ Approved as noted
☐ Approved as noted - Resubmit
☐ Rejected
APR 12 1977
E. L. Roberts
ASST. BRIDGE DESIGN ENGR.

APPROVAL AND REVISIONS
1 FA 3-1-77
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MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2691

DESCRIPTION Drain Extension Carrying Frames
PROJECT I-95 Piscataqua River Bridge
LOCATION Portsmouth, N.H. & Kittery, Me.
ARCHITECT N.H.D.P.W.&H. / Me. D.O.T. [illegible]
CONTRACTOR Chernak - [illegible]
PAINT [illegible] DRAWN BY [illegible] CHECKED BY [illegible] DATE [illegible]
HOLES 13/16 ⌀ [illegible] PRO. NO. 77-[illegible] DWG. 5

163-41

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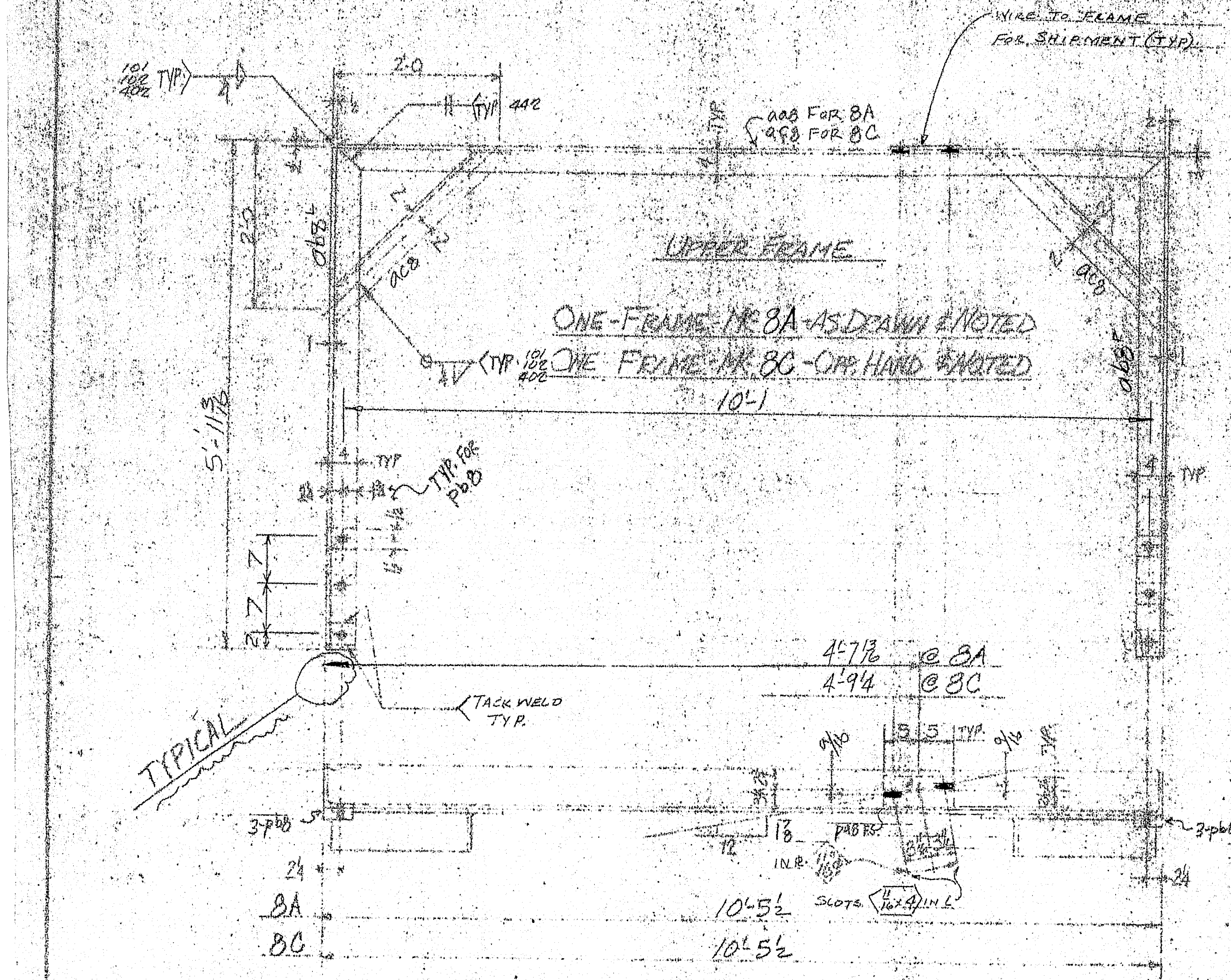

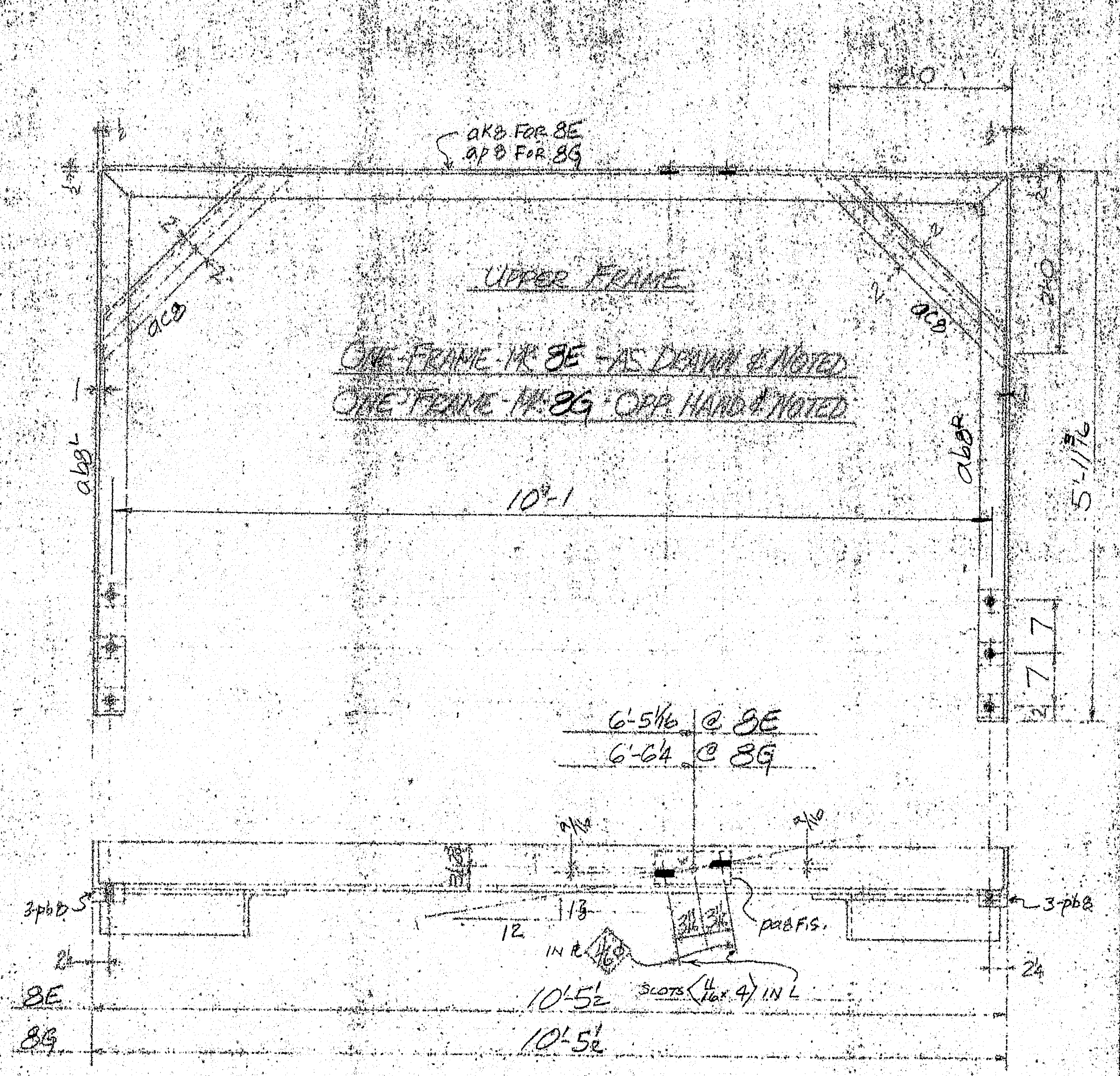

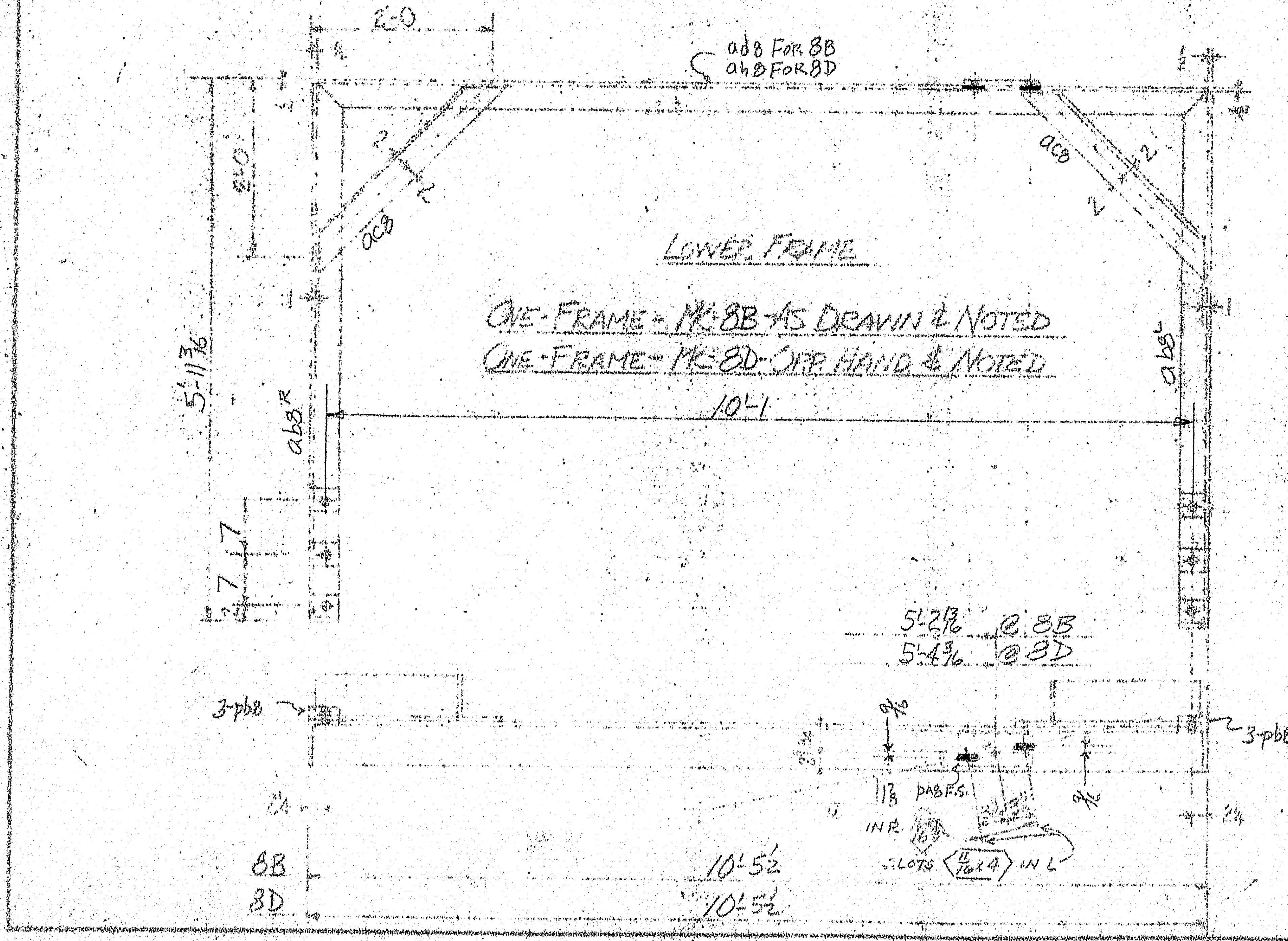

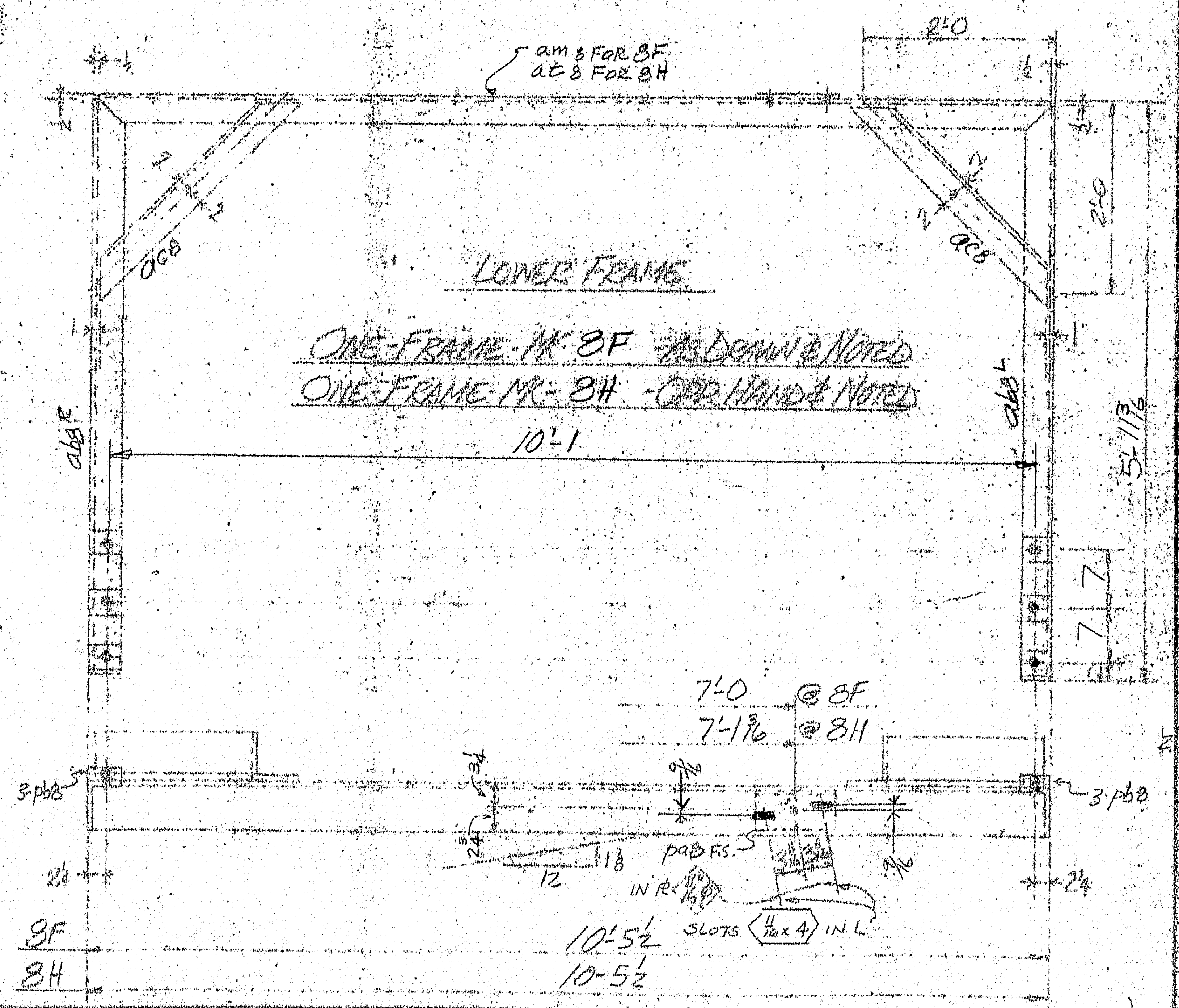

MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT	IN	REMARKS
8A	1		UPPER FRAME			PAIR W/8B
	1	a08	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	a08 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8		2	11	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
8B	1		LOWER FRAME			PAIR W/8A
	1	ab8	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	ab8 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8	do	2	11 1/8	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
8C	1		UPPER FRAME			PAIR W/8D
	1	a98	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	a18 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8	do	2	11 1/8	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
8D	1		LOWER FRAME			PAIR W/8C
	1	ad8	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	a 8 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8	do	2	11 1/8	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
8E	1		UPPER FRAME			PAIR W/8F
	1	ak8	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	ab8 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8	do	2	11 1/8	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
8F	1		LOWER FRAME			PAIR W/8E
	1	am8	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	ab8 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8	do	2	11 1/8	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
8G	1		UPPER FRAME			PAIR W/8H
	1	ap8	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	a18 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8	do	2	11 1/8	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
8H	1		LOWER FRAME			PAIR W/8G
	1	at8	L6x4x1/2	10	4 1/2	B.2E. PER DET
	2	ab8 1/2		5	10 1/16	1/2 H. B.1E. do
	2	ac8	do	2	11 1/8	B.2E.
	1	pa8	PL 4 1/2 x 1/2	0	10	
	6	pb8	BAR 3x1/2	0	4	
FIELD	6		1" ⌀ H.S. BOLTS	0	5 1/4	W/ NUTS A325
	2		1" ⌀ H.S. BOLTS	0	5 1/4	EXTRAS W/NUTS A325

DEPARTMENT OF TRANSPORTATION
☐ Approved
☒ Approved for corrections
☐ Approved as noted
☐ Rejected
APRIL 2 1977
L. L. Roberts

APPROVAL AND REVISIONS
1 FM 3-1-77
2 SUBM #1 3/25/77
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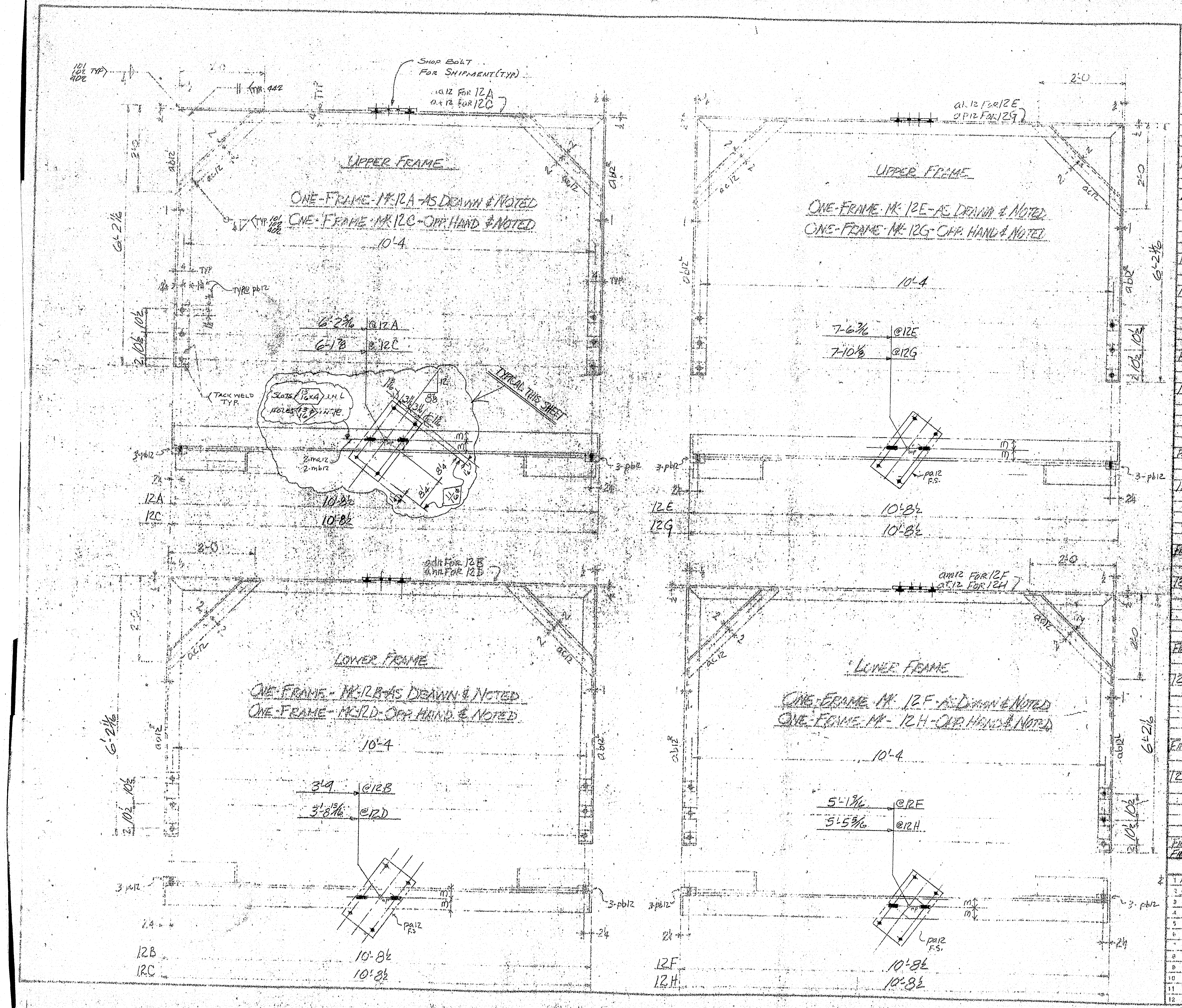
MAINE — CASCADE IRON WORKS
BAKER STREET, CLINTON MAINE 04927
PHONE 207-426-2001

DESCRIPTION: Drain Extension Carrying Frames
PROJECT: I-95 Piscataqua River Bridge
LOCATION: Portsmouth, N.H. & Kittery, Me.
ARCHITECT: [illegible]
CONTRACTOR: Cherbak [illegible]

163-42



MATERIAL SCHEDULE A36 MATL U.N.

MARK	NO. REQ.		SHAPE	LENGTH FT.	IN.	REMARKS
12A	1		UPPER FRAME			PAIR w/12E
	1	aa12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	[illegible]
12B	1		LOWER FRAME			PAIR w/12A
	1	ad12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	[illegible]
12C	1		UPPER FRAME			PAIR w/12D
	1	ae12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	[illegible]
12D	1		LOWER FRAME			PAIR w/12C
	1	af12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	[illegible]
12E	1		UPPER FRAME			PAIR w/12F
	1	ak12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL 10 x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	[illegible]
12F	1		LOWER FRAME			PAIR w/12E
	1	am12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	[illegible]
12G	1		UPPER FRAME			PAIR w/12H
	1	ap12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	NO NUTS A325
	16	ma12	¾ Ø H.S. BLTS	0	2¼	A325
	16	mb12	¾ Ø HD. WSR.			A325
12H	1		LOWER FRAME			PAIR w/12G
	1	at12	L6x4x½	10	7½	B2E PER DET
	2	ab12	"	6	2 1/16	B1E do
	2	ac12	do	2	11½	B2E
	1	pa12	PL 10 x	1	7	
	6	pb12	BAR 3x¼	0	4	
FIELD	6		¾" H.S. BOLTS	0	5	[illegible]
FIELD	2		1" H.S. BOLTS	0	5	[illegible]

EXTRAS

APPROVAL AND REVISIONS
1 FA. 3-1-77
2 SUBM. #1 3/25/77
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MAINE CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE [illegible]
PHONE 207-[illegible]

DESCRIPTION [illegible] FRAMES
PROJECT I-95 [illegible]
LOCATION PORTSMOUTH, N.H. & [illegible]
ARCHITECT [illegible]
CONTRACTOR [illegible]

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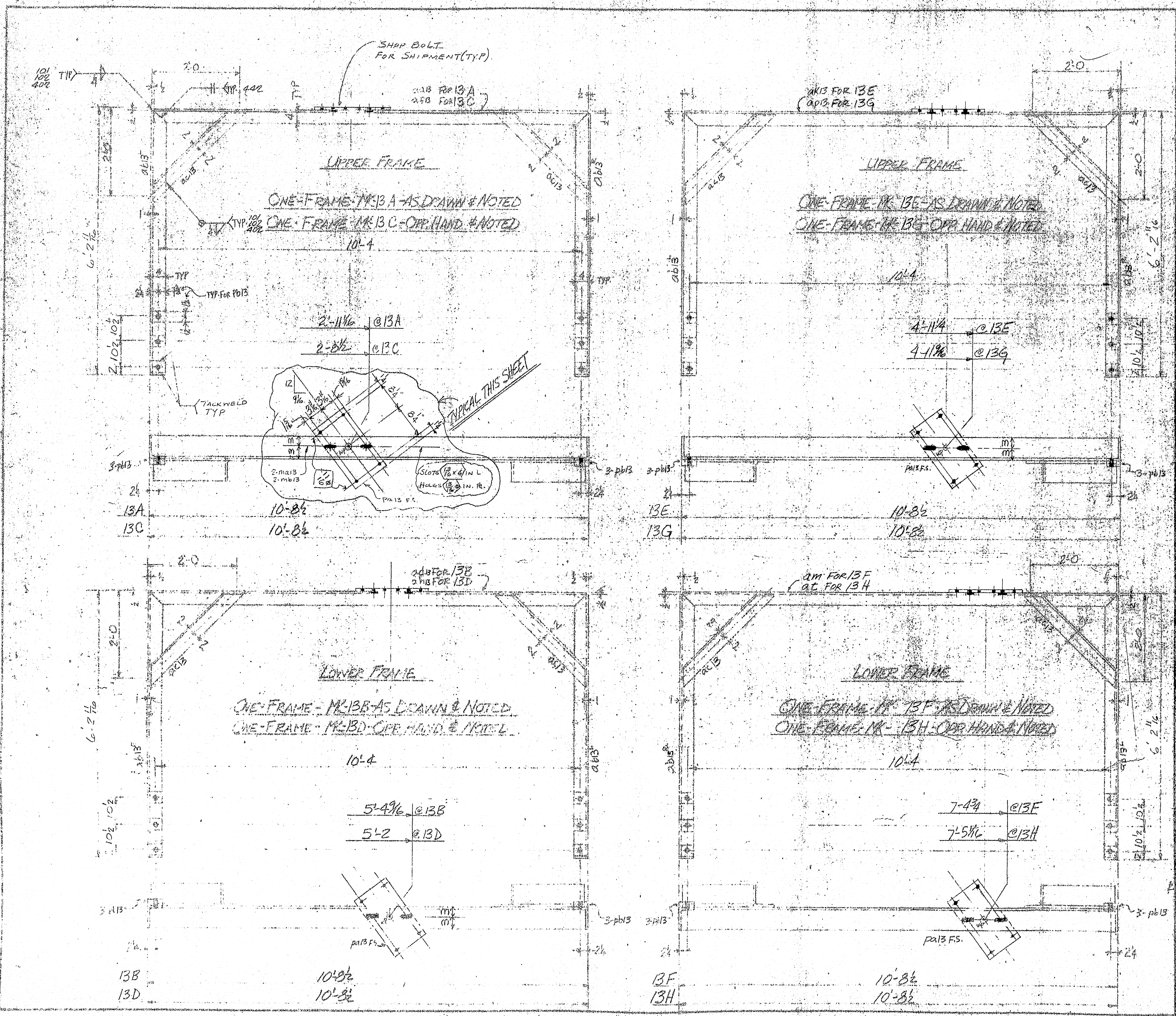

MATERIAL SCHEDULE

Mark	No. Req.		Shape	Length ft	in	Remarks
13A	1		UPPER FRAME			
	1	aa13	L6x4x½	10	7½	B2E
	2	ab13	"	6	2 3/16	B1E
	2	ac13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	
13B	1		LOWER FRAME			
	1	ad13	L6x4x½	10	7½	B2E
	2	ae13	"	6	2 3/16	B1E
	2	af13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	
13C	1		UPPER FRAME			
	1	ag13	L6x4x½	10	7½	B2E
	2	ab13	"	6	2 3/16	B1E
	2	ac13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	
13D	1		LOWER FRAME			
	1	ah13	L6x4x½	10	7½	B2E
	2	ae13	"	6	2 3/16	B1E
	2	af13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	
13E	1		UPPER FRAME			
	1	ak13	L6x4x½	10	7½	B2E
	2	ab13	"	6	2 3/16	B1E
	2	ac13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	
13F	1		LOWER FRAME			
	1	am13	L6x4x½	10	7½	B2E
	2	ae13	"	6	2 3/16	B1E
	2	af13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	
13G	1		UPPER FRAME			
	1	ap13	L6x4x½	10	7½	B2E
	2	ab13	"	6	2 3/16	B1E
	2	ac13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	No. A325
	16	ma13	¾" HS BOLTS	0	2¼	A325
	16	mb13	¾" HARD. WSH.			
13H	1		LOWER FRAME			
	1	at13	L6x4x½	10	7½	B2E
	2	ae13	"	6	2 3/16	B1E
	2	af13	"	2	11⅛	B2E
	1	pa13	PL 10x½	1	7	
	6	pb13	BAR 3x½	0	4	
FIELD	6		¾"HS BOLTS	0	5¼	
	2		1"ØHS BOLTS	0	5¼	EXTRAS

APPROVAL AND REVISIONS

1	FA 3-1-77
2	SUBM. #1 3/25/77
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MAINE – CASCADE STEEL CO.
BAKER STREET, CLINTON, MAINE
PHONE 207-426-2811

DESCRIPTION [illegible]
PROJECT I-95 [illegible]
LOCATION [illegible]
ARCHITECT [illegible]
CONTRACTOR [illegible]

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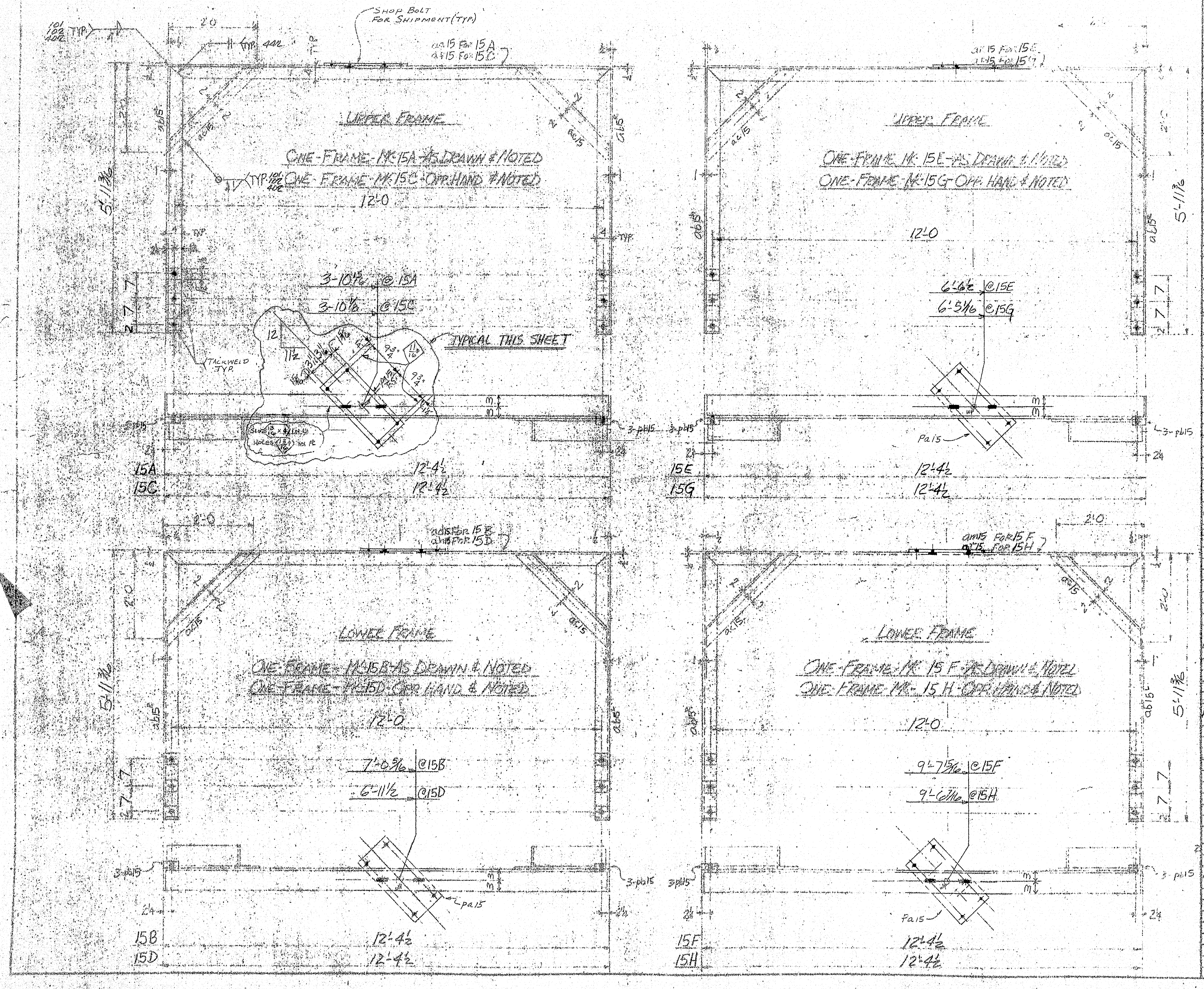

MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. REQ.		SHAPE	FT	IN	REMARKS
15A	1		UPPER FRAME			PAIR w/ 15B
	1	aa15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R	"	5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	6	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
15B	1		LOWER FRAME			PAIR w/ 15A
	1	ad15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R		5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	6	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
15C	1		UPPER FRAME			PAIR w/ 15D
	1	ae15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R	"	5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	6	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
15D	1		LOWER FRAME			PAIR w/ 15C
	1	af15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R	"	5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	6	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
15E	1		UPPER FRAME			PAIR w/ 15F
	1	ak15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R	"	5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	6	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
15F	1		LOWER FRAME			PAIR w/ 15E
	1	am15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R		5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	6	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
15G	1		UPPER FRAME			PAIR w/ 15H
	1	ap15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R		5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	6	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
	16	ma15	¾φ H.S. BOLT	0	2¼	A325
	16	mb15	¾ HARD. WSH.			A325
15H	1		LOWER FRAME			PAIR w/ 15G
	1	aq15	L6×4×½	12	3½	B2E PER DET.
	2	ab15R	"	5	10½	1R 1L B1E do
	2	ac15	do	2	1⅞	B2E
	1	pa15	PL 10×½	1	10	
	2	pb15	BAR 3×½	0	4	
FIELD	6		¾ H.S. BOLT	0	5	W/NUTS A325
FIELD	2		¾ H.S. BOLT	0	5	W/NUTS A325

EXTRAS

APPROVED
☐ Rejected

APPROVAL AND REVISIONS

1	FM 3-1-77
2	SUBM. #1 3/25/77
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MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-8951

DESCRIPTION: DIAPHRAGMS AND CROSS FRAMES
PROJECT: I-95 PISCATAQUA RIVER BRIDGE
LOCATION: PORTSMOUTH N.H. & KITTERY ME
ARCHITECT: [illegible]
CONTRACTOR: [illegible]
[illegible]

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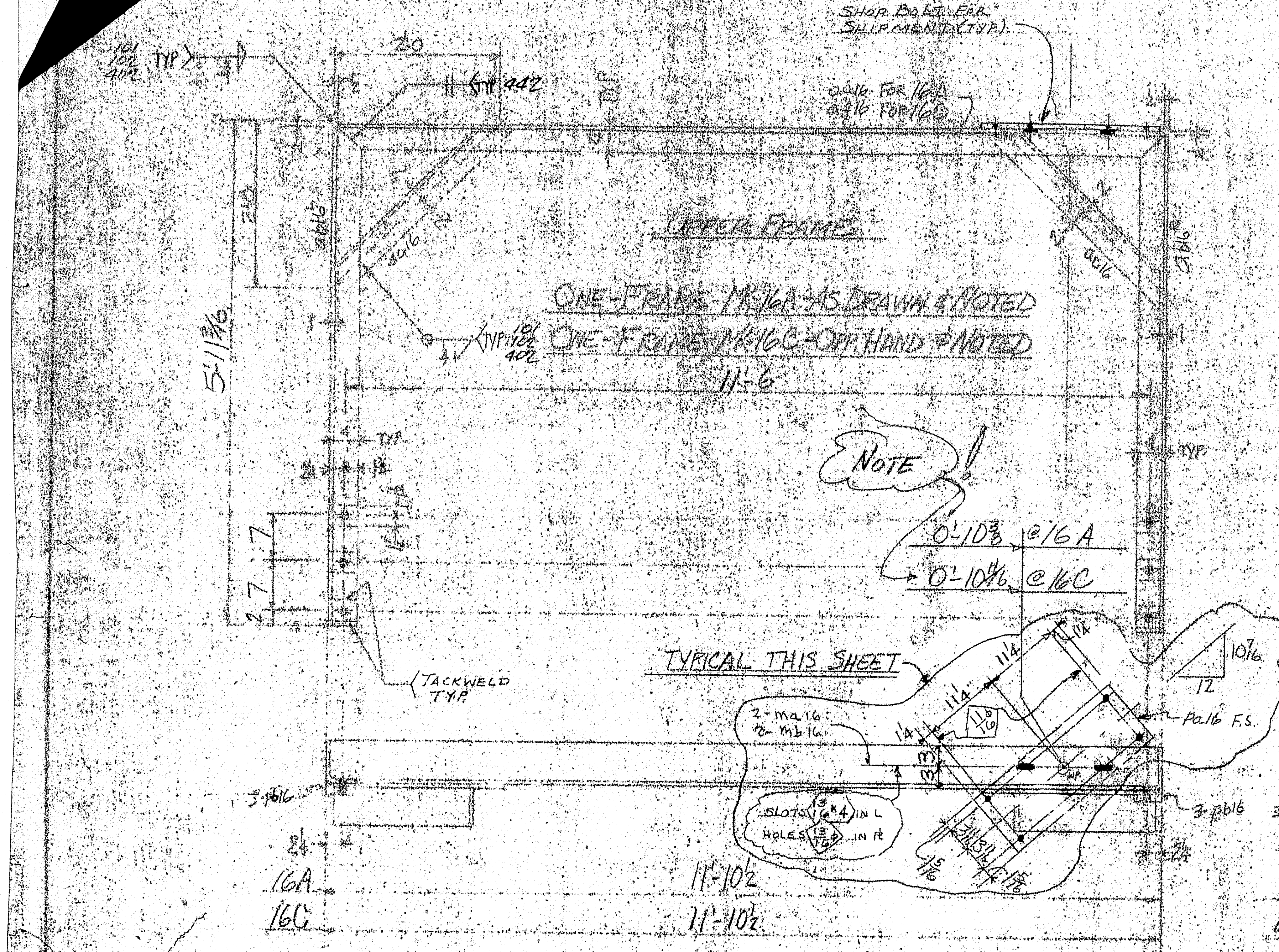

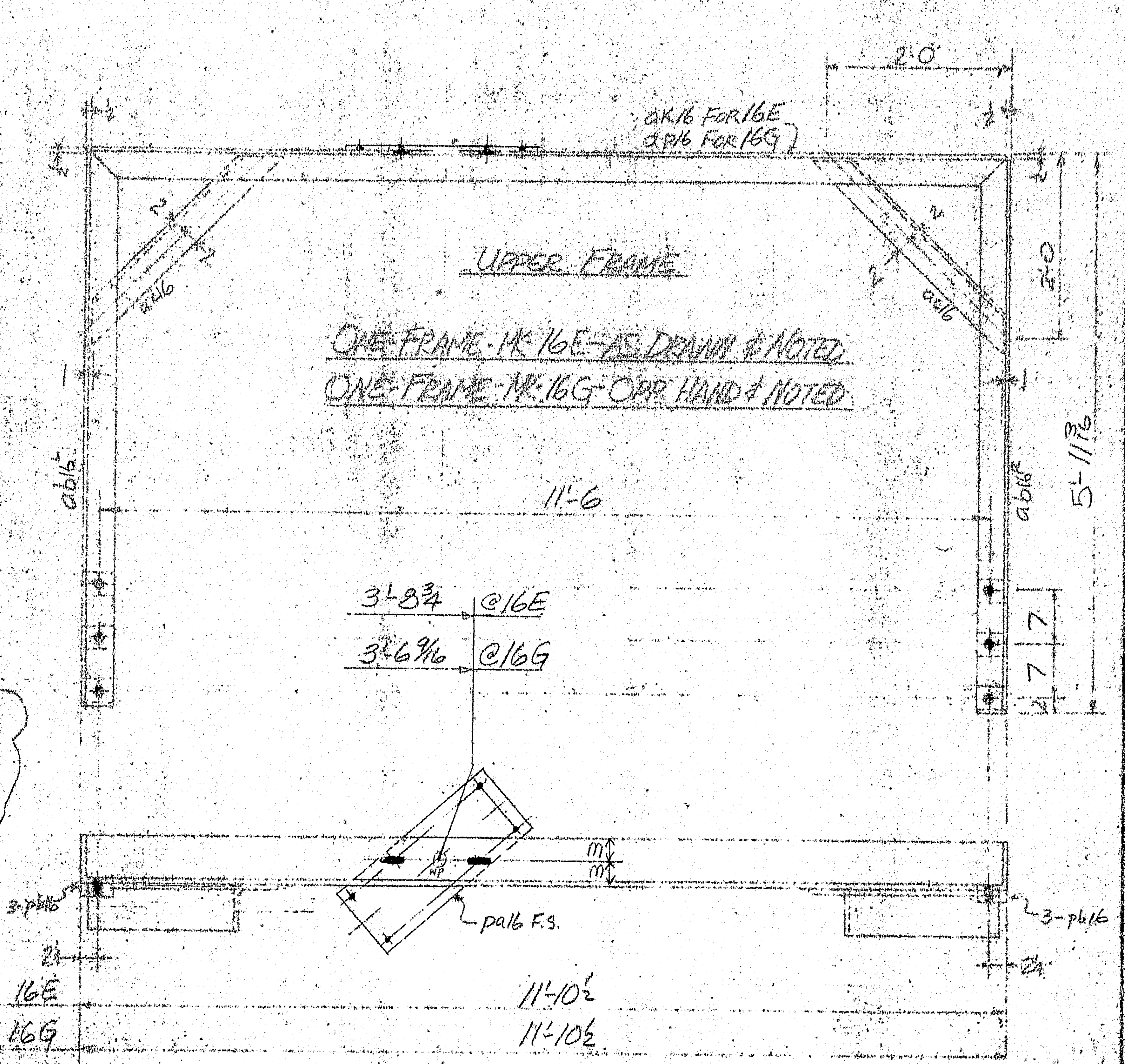

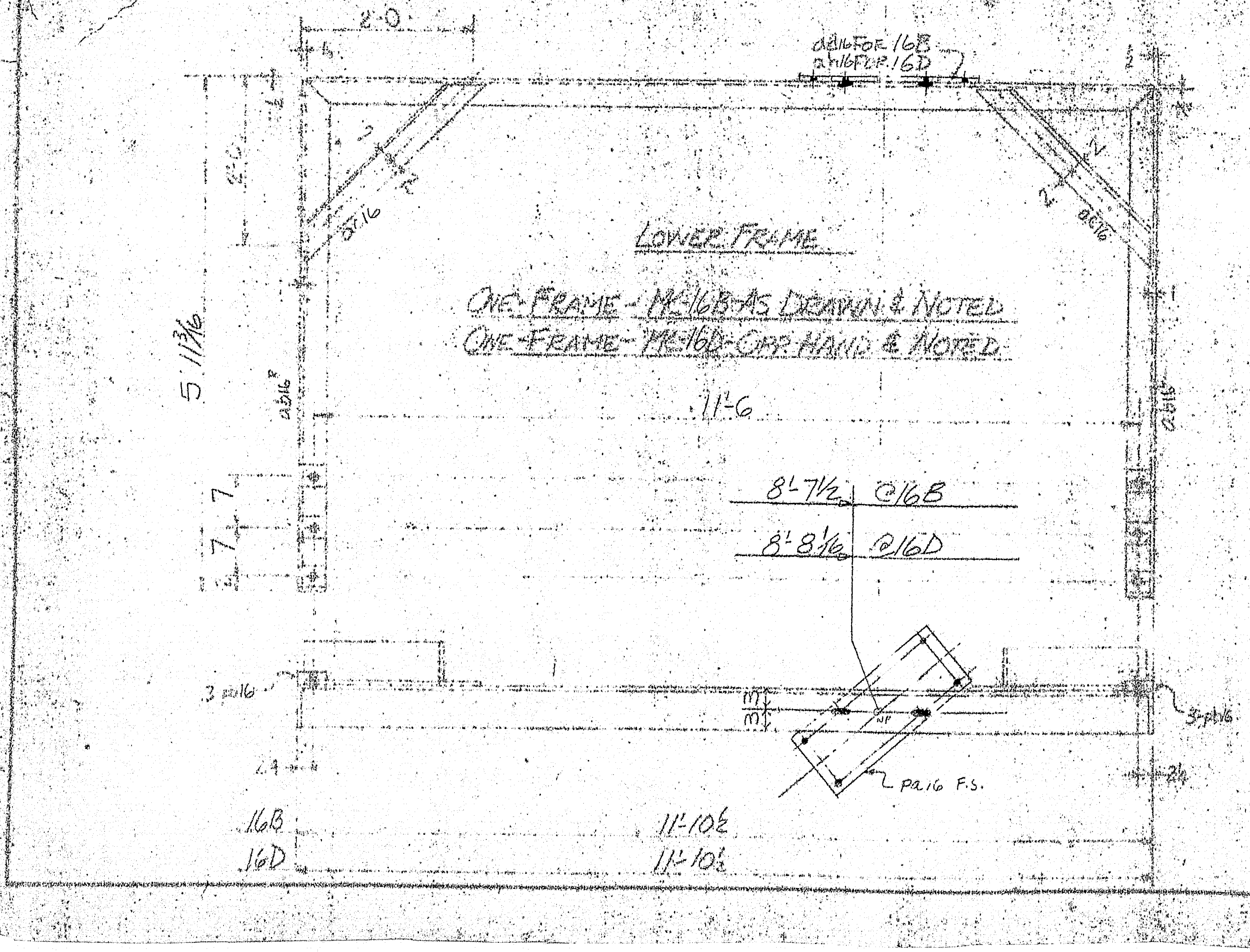

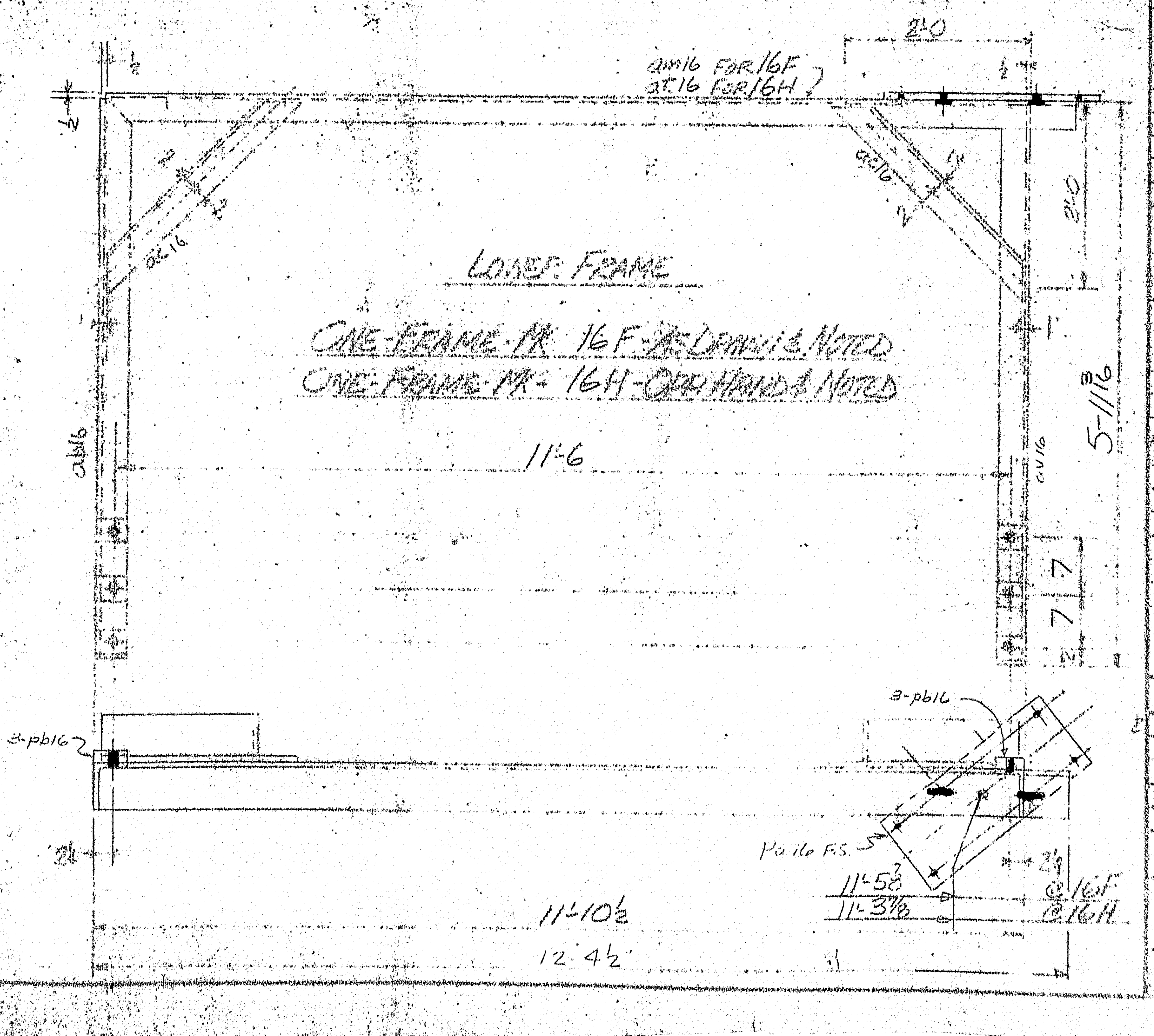

MATERIAL SCHEDULE A36 MAT'L ONLY

MARK	No. PCS		SHAPE	LENGTH FT	LENGTH IN	G or S	CUT FROM No.	FT	IN	REMARKS
16A	1		UPPER FRAME							PAIR W/ 16B
	1	aa16	L6x4x½	11	9½					B.2E. PER DET.
	2	ab16	"	5	10⅛					[illegible] B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½							
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS
16B	1		LOWER FRAME							PAIR W/ 16A
	1	aa16	L6x4x½	11	9½					B.2E. PER DET.
	2	ab16	"	5	10⅛					[illegible] B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½	2	1					
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS
16C	1		UPPER FRAME							PAIR W/ 16D
	1	ap16	L6x4x½	11	9½					B.2E. PER DET.
	2	ab16	"	5	10⅛					[illegible] B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½	2	1					
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS
16D	1		LOWER FRAME							PAIR W/ 16C
	1	at16	L6x4x½	11	9½					B.2E. PER DET.
	2	ab16	"	5	10⅛					[illegible] B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½	2	1					
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS
16E	1		UPPER FRAME							PAIR W/ 16F
	1	aq16	L6x4x½	11	9½					B.2E. PER DET.
	2	ab16	"	5	10⅛					[illegible] B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½	2	1					
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS A325
	16	ma16	¾"ø H.S. BOLT	0	2¼					A325
	16	mb16	¾"ø HRD. WSH.							A325
16F	1		LOWER FRAME							PAIR W/ 16E
	1	am16	L6x4x½	12	4					B.2E. PER DET.
	1	ab16	"	5	10⅛					B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½	2	1					
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS A325
	1	av16	L6x4x½	5	10⅛					
16G	1		UPPER FRAME							PAIR W/ 16H
	1	ap16	L6x4x½	11	9½					B.2E. PER DET.
	2	ab16	"	5	10⅛					[illegible] B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½	2	1					
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS A325
FIELD	2		DO	0	5					EXTRAS
16H	1		LOWER FRAME							PAIR W/ 16G
	1	at16	L6x4x½	12	4					B.2E. PER DET.
	1	ab16	"	5	10⅛					B.1E. do
	2	ac16	do	2	11⅛					B.2E.
	1	pa16	PL 10x½	2	1					
	6	pb16	BAR 3x½	0	4					
FIELD	6		¾"ø H.S. BOLT	0	5					NO NUTS A325 [illegible] A325
	1	av16	L6x4x½	5	10⅛					

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM #1 3/25/77
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MAINE–CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-8881

DESCRIPTION Drain Extension Carrying Frames
PROJECT I-95 Piscataqua River Bridge
LOCATION Portsmouth, N.H. & Kittery, Me.
ARCHITECT [illegible]
CONTRACTOR Cherne [illegible]
DATE 2/6/77
SHEET 16

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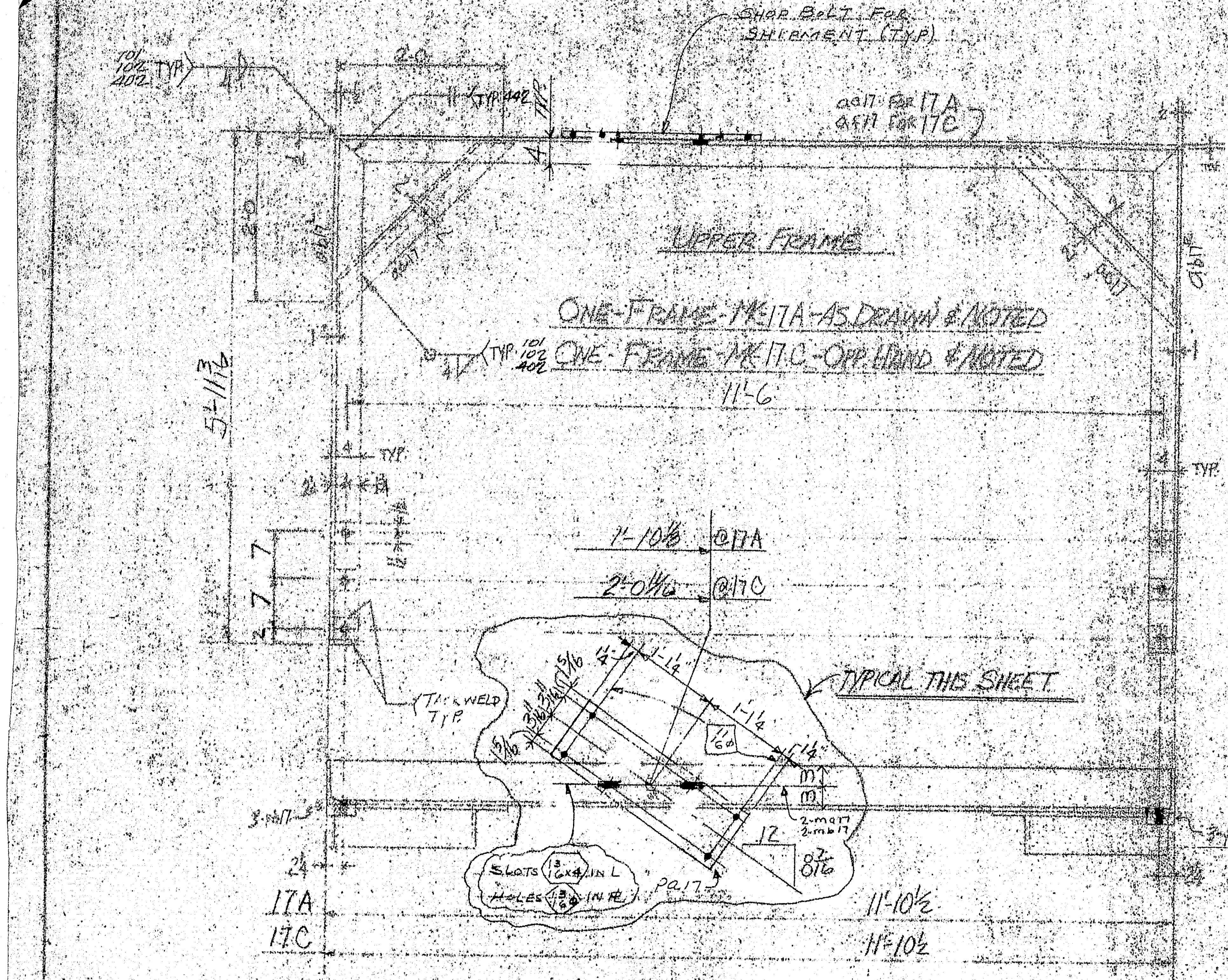

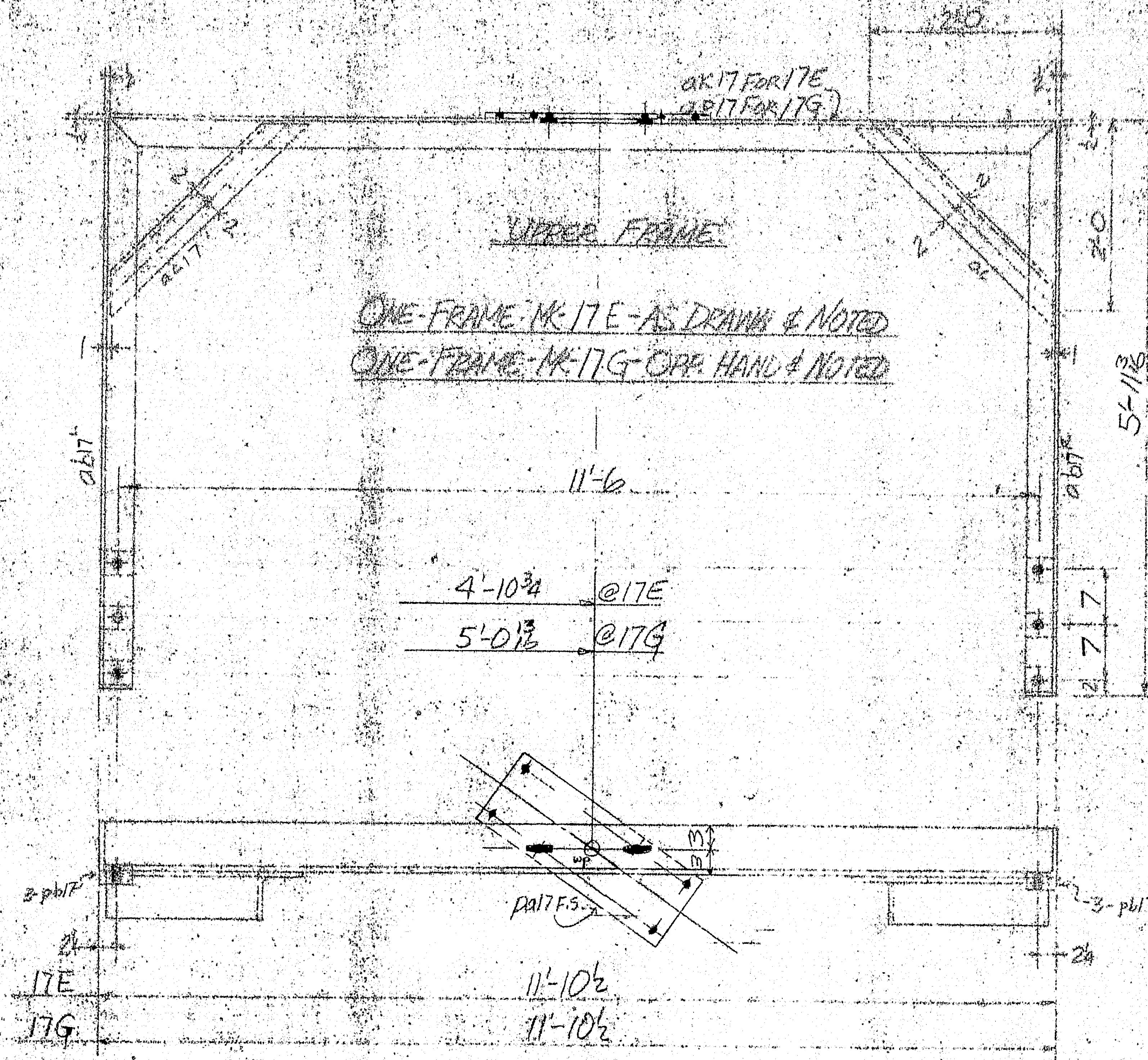

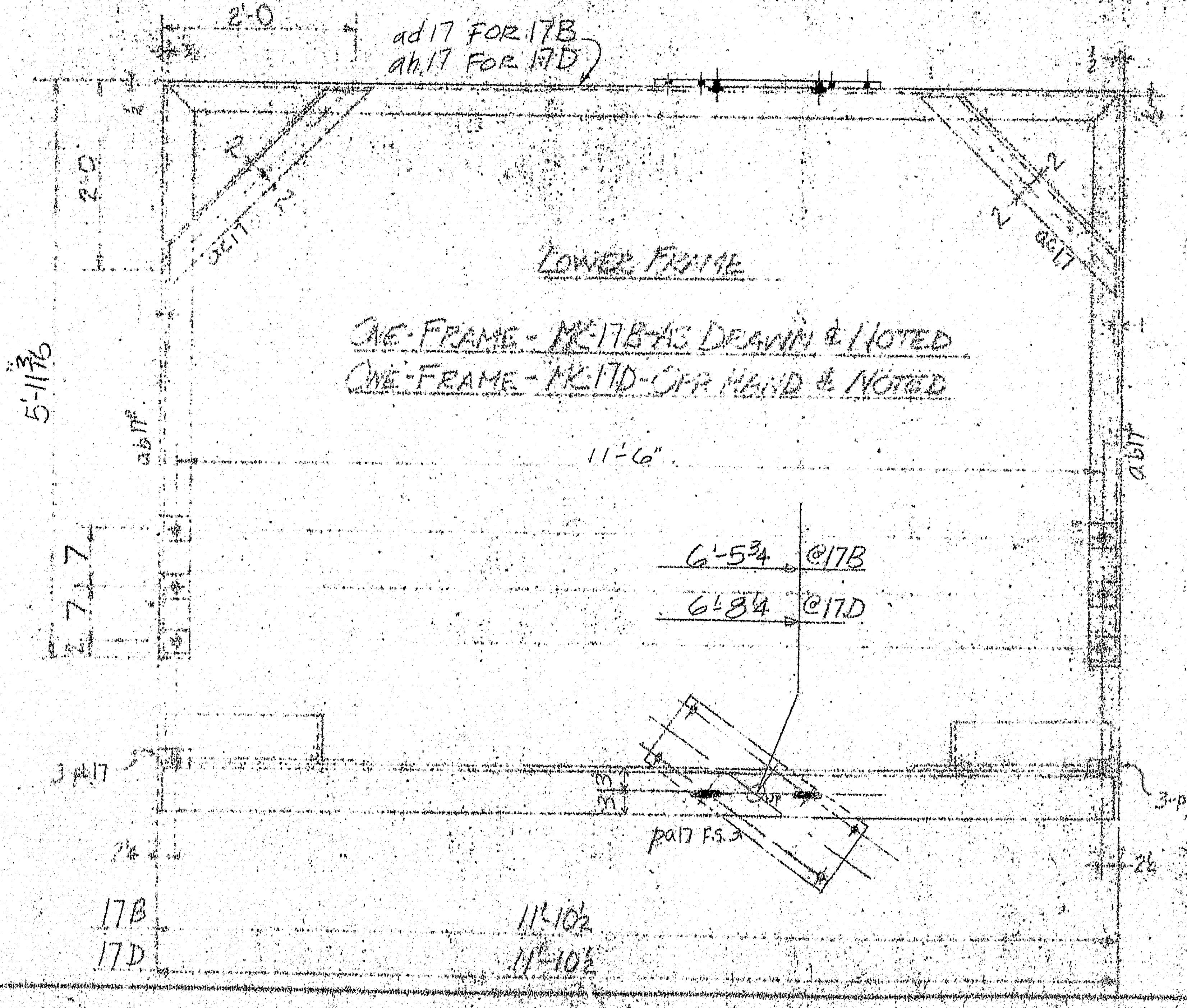

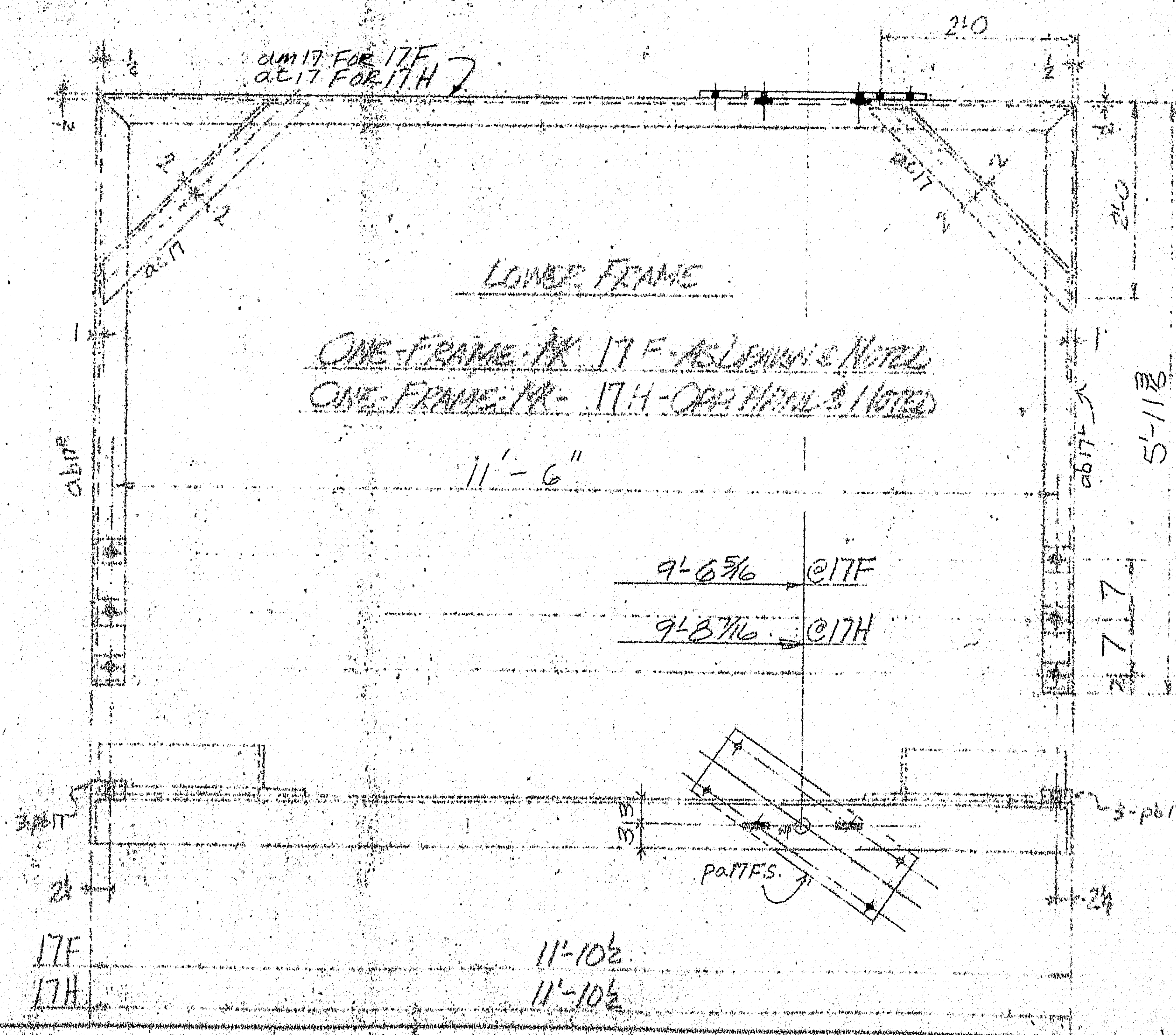

MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. REQ.		[illegible]	LENGTH		REMARKS
17A	1		UPPER FRAME			PAIR W/17B
	1	aa17	L6x4x½	11	9½	B.2E. PER DET
	2	ab17	"	5	10 1/16	1@ B.1E.
	2	ac17	do	2	11⅜	B.2E.
	1	pa17	PL 10x½	2		
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
17B	1		LOWER FRAME			PAIR W/17A
	1	ad17	L6x4x½	11	9½	B.2E. PER DET
	2	ab17	"	5	10 1/16	1@ B.1E. do
	2	ac17	do	2	11⅜	B.2E.
	1	pa17	PL 10x½	2		
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
17C	1		UPPER FRAME			PAIR W/17D
	1	ae17	L6x4x½	11	9½	B.2E. PER DET
	2	ab17	"	5	10 1/16	1@ B.1E. do
	2	ac17	do	2	11⅜	
	1	pa17	PL 10x½	2		
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
17D	1		LOWER FRAME			PAIR W/17C
	1	ah17	L6x4x½	11	9½	B.2E. PER DET
	2	ab17	"	5	10 1/16	1@ B.1E. do
	2	ac17	do	2	11⅜	B.2E.
	1	pa17	PL 10x½	2		
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
17E	1		UPPER FRAME			PAIR W/17F
	1	ak17	L6x4x½	11	9½	B.2E. PER DET
	2	ab17	"	5	10 1/16	1@ B.1E. do
	2	ac17	do	2	11⅜	B.2E.
	1	pa17	PL 10x½	2		
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
17F	1		LOWER FRAME			PAIR W/17E
	1	am17	L6x4x½	11	9½	B.2E. PER DET
	2	ab17	"	5	10 1/16	1@ B.1E. do
	2	ac17	do	2	11⅜	B.2E.
	1	pa17	PL 10x½	2		
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
17G	1		UPPER FRAME			PAIR WITH 17H
	1	ap17	L6x4x½	11	9½	B.2E. PER DET.
	2	ab17	"	5	10 1/16	1@ B.1E.
	2	ac17	do	2	11⅜	B.2E.
	1	pa17	PL 10x½			
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
	16	ma17	¾"⌀ H.S. BOLTS	0	2¼	A325
	16	mb17	¾"⌀ HRD. WSH.			A325
17H	1		LOWER FRAME			PAIR WITH 17G
	1	at17	L6x4x½	11	9½	B.2E. PER DET
	2	ab17	"	5	10 1/16	1@ B.1E. do
	2	ac17	do	2	11⅜	B.2E.
	1	pa17	PL 10x½	2		
	6	pb17	BAR 3x½	0	4	
FIELD	6		¾"⌀ H.S. BOLTS	0	5¼	No. Nuts A325
	2		1"⌀ H.S. BOLTS	0	5¼	EXTRAS [illegible] A325

APPROVAL AND REVISIONS

1 FM 3-1-77
2 Subm. #1 3/25/77
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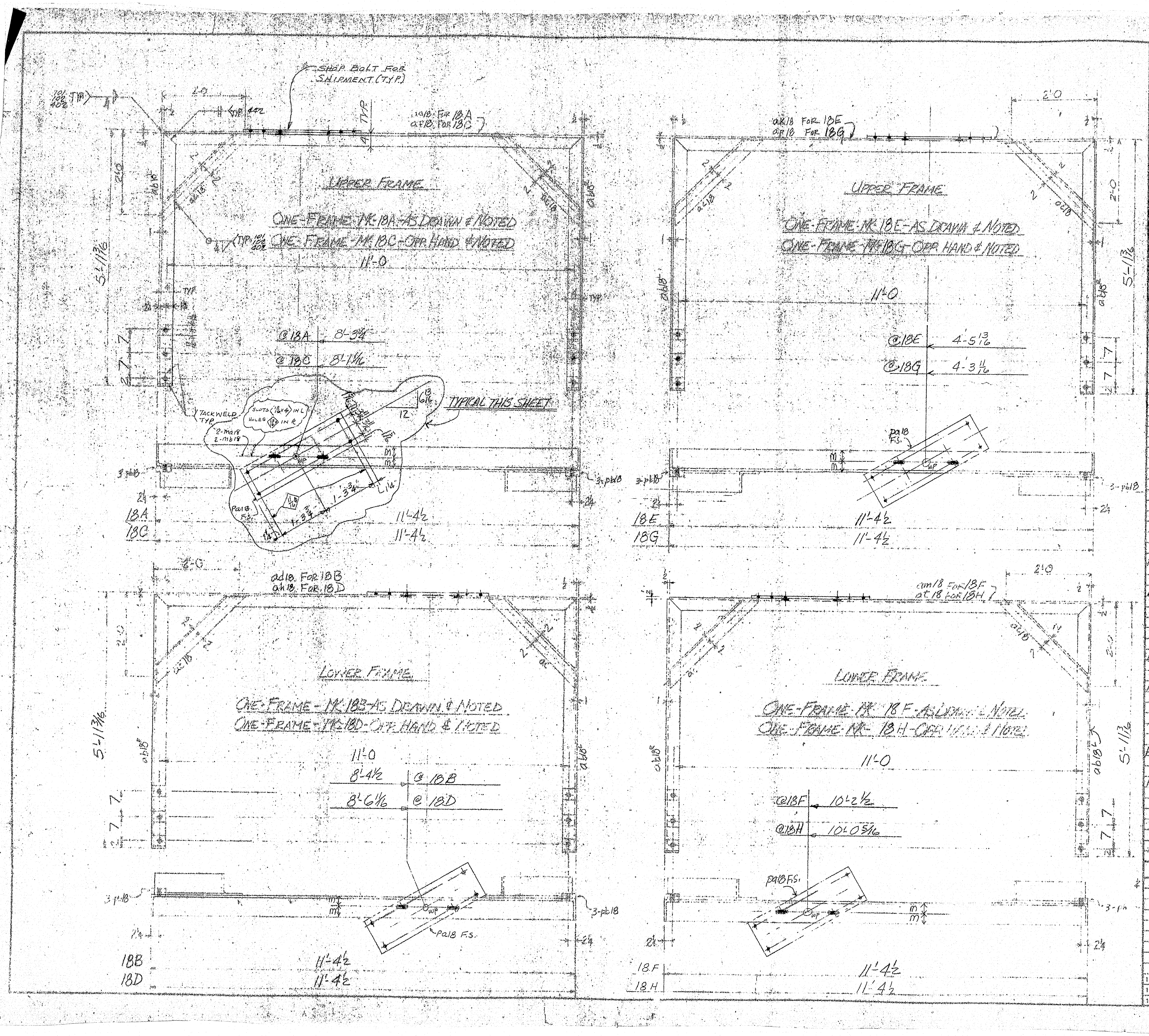
MAINE—CASCADE IRON WORKS
BAKER STREET CLINTON, MAINE 04927
PHONE 207-426-8831

DESCRIPTION Deck Extension Bracing Framing
PROJECT I-95 Piscataqua River Bridge
LOCATION Portsmouth, N.H. & Kittery, Me.
ARCHITECT N.H. Dept. Pub. Works/[illegible]
CONTRACTOR [illegible]
[illegible] 2-16-77
HOLES [illegible] 17

163-47

[redacted]



MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT.	LENGTH IN.	D OR S	CUT FROM NO.	FT.	IN.	REMARKS	WEIGHT
18A	1		UPPER FRAME							PAIR W/ 18B	
	1	aa18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible]	
18B	1		LOWER FRAME							PAIR W/ 18A	
	1	ad18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible]	
18C	1		UPPER FRAME							PAIR W/ 18D	
	1	af18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible]	
18D	1		LOWER FRAME							PAIR W/ 18C	
	1	ah18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible]	
18E	1		UPPER FRAME							PAIR W/ 18F	
	1	ak18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible]	
18F	1		LOWER FRAME							PAIR W/ 18E	
	1	am18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible]	
18G	1		UPPER FRAME							PAIR W/ 18H	
	1	ap18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible] A325	
	16	ma18	¾"⌀ H.S. BOLTS	0	2¼					A325	
	16	mb18	¾"⌀ WASH.							A325	
18H	1		LOWER FRAME							PAIR W/ 18G	
	1	at18	L6x4x½	11	3½					B.2E. PER DET.	
	2	ab18	"	5	10 1/16					1½ B.1E. do	
	2	ac18	do	2	11⅛					B.2E.	
	1	pa18	PL 10x½	2	10						
	6	pb18	BAR 3x½	0	4						
FIELD	6		¾"⌀ H.S. BOLT	0	5					[illegible]	
	2		¾"⌀ H.S. BOLTS	0	5	EXTRAS				[illegible]	

APPROVAL AND REVISIONS
1 FM 5-1-77
2 SUBM. #1 3/25/77
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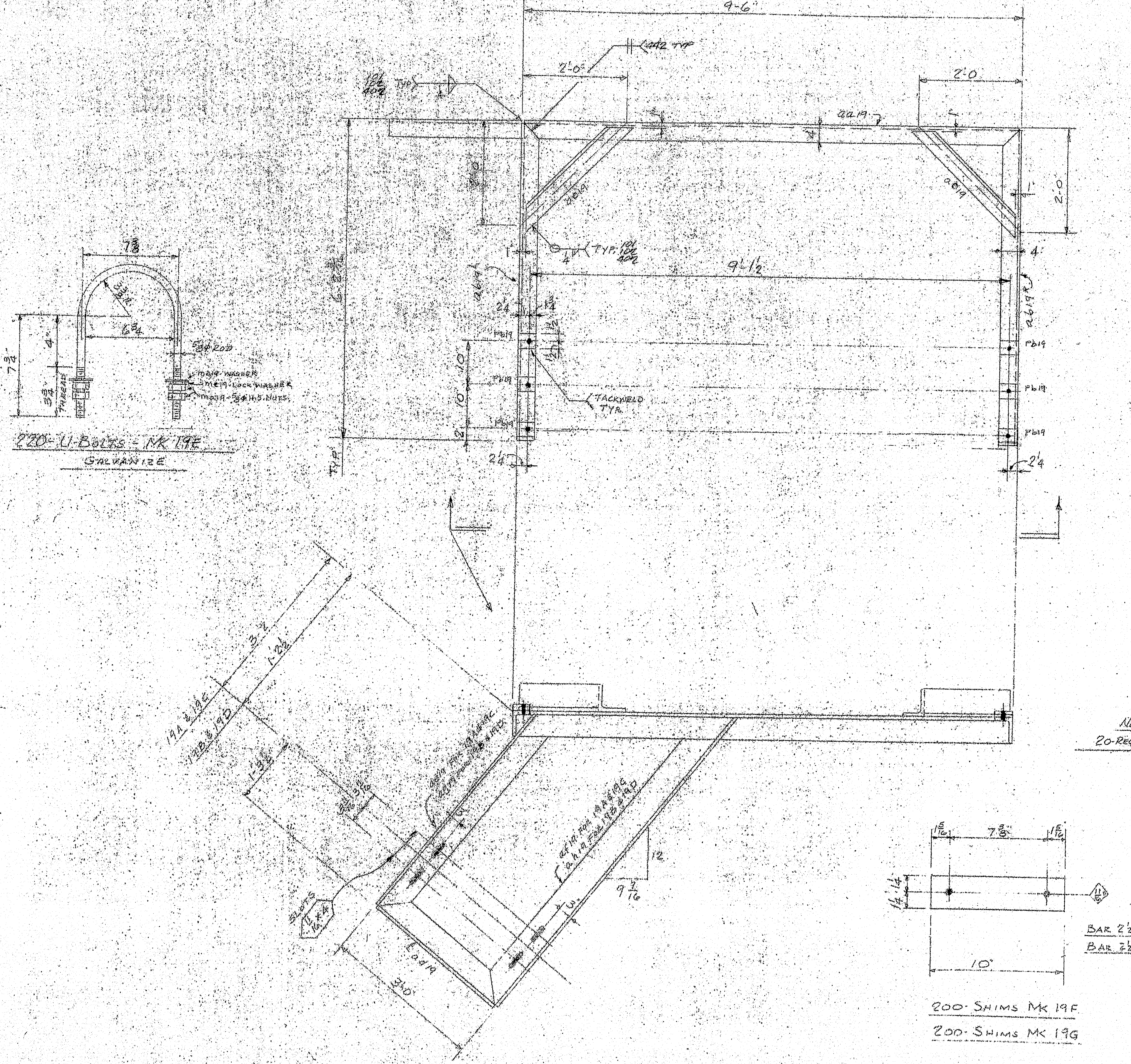
MAINE — CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-8891

DESCRIPTION DRAIN EXTENSION CARRYING FRAMES
PROJECT I-95 PISCATAQUA RIVER BRIDGE
LOCATION PORTSMOUTH, N.H. & KITTERY, ME.
ARCHITECT N.H. DEPT. [illegible]
CONTRACTOR [illegible]
PAINT [illegible] DRAWN BY W.W. CHECKED BY [illegible] DATE [illegible]
HOLES 13/16 DIA. JOB NO. 77-262 DRAWING NO. 18

163-48

[redacted]

ONE-FRAME MK 19A (AS DRAWN)
ONE- do MK 19B (do)
ONE- do MK 19C (OPP. HD.)
ONE- do MK 19D (do)



220-U-BOLTS-MK 19E

GALVANIZE

NO FAB ITEM:
20-REQD. MK 19H - PL 10⅞x¼x0-11¼

BAR 2½x½ FOR 19F
BAR 2½x¼ FOR 19G

200-SHIMS MK 19F
200-SHIMS MK 19G

MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS	WEIGHT
19A	1		FRAME								
	1	aa19	L6x4x½	9	5					B2E Per Det	
	2	ac19		2	11⅜					B2E	
	2	ab19R		6	1⅛					B1E 1RH do	
	1	ad19		2	11					B2E Per Det	
	1	ae19		4	9					Shop Fit	
	1	af19		7	2					do	
	6	pb19	BAR 3x1½	0	4						
FIELD	6		1"φ H.S. Bolts	0	5½					No Nuts A325	
19B	1		FRAME								
	1	aa19	L6x4x½	9	5					B2E Per Det	
	2	ac19		2	11⅜					B2E	
	2	ab19R		6	1⅛					B1E 1RH do	
	1	ad19		2	11					B2E do	
	1	ag19		2	9½					Shop Fit	
	1	ah19		5	2½					do	
	6	pb19	BAR 3x1½	0	4						
FIELD	6		1"φ H.S. Bolts	0	5½					No Nuts A325	
19C	1		FRAME								
	1	aa19	L6x4x½	9	5					B2E Per Det	
	2	ac19		2	11⅜					B2E	
	2	ab19R		6	1⅛					B1E 1RH do	
	1	ad19		2	11					B2E do	
	1	ae19		4	9					Shop Fit	
	1	af19		7	2					do	
	6	pb19	BAR 3x1½	0	4						
FIELD	6		1"φ H.S. Bolts	0	5½					No Nuts A325	
19D	1		FRAME								
	1	aa19	L6x4x½	9	5					B2E Per Det	
	2	ac19		2	11⅜					B2E	
	2	ab19R		6	1⅛					B1E 1RH do	
	1	ad19		2	11					B2E do	
	1	ag19		2	9½					Shop Fit	
	1	ah19		5	2½					do	
	6	pb19	BAR 3x1½	0	4						
FIELD	6		1"φ H.S. Bolts	0	5½					No Nuts A325	
19E	220		⅝φ Rod	2	3					Bend - Thd 2E Galv	A325
	880	ma19	⅝φ Hex Nuts								
	440	mb19	⅝φ Flat Washers								
	440	me19	⅝φ Lock Washers								
19F	200		Bar 2½x½	0	10						
19G	200		Bar 2½x¼	0	10						
19H	20		PL 10⅞x¼	0	11¼					No Fab. No Paint.	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☐ Approved as Corrected
APR 12 1977
☐ Approved Subject to Revision ☐ Rejected
L. L. R[illegible]
ASST. CHIEF ENGR.

APPROVAL AND REVISIONS
1 FA 3-[illegible]-77
2 Subm. #1 3/25/77
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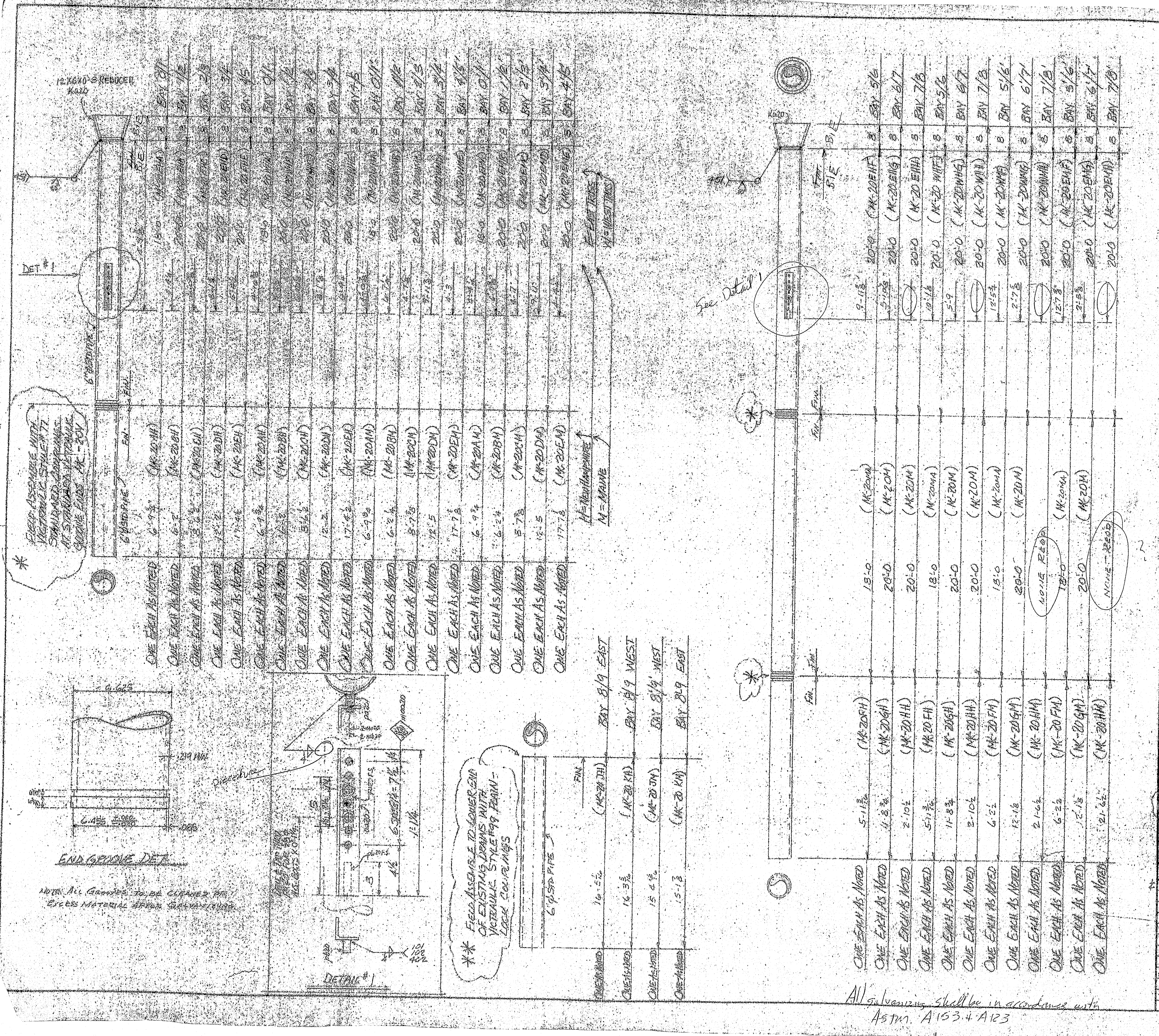
MAINE---CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2691

DESCRIPTION Drain Extension Carrying Frames @ Trusses
PROJECT I-95 Piscataqua River Bridge
LOCATION Portsmouth N.H. + Kittery, Me.
ARCHITECT N.H.D. of P.W.&H./S. of Me. D.O.T. / Hardesty & Hanover
CONTRACTOR CHERNAK-BREDBENNER CONST. INC.
PAINT Basic Lead Silico Chromate Orange WW #128
DRAWN BY
CHECKED BY
DATE 3/24/77
HOLES 1¼" φ U.N.
PROJ. NO. 77-262
DRWG. NO. 19

163-49



All galvanizing shall be in accordance with ASTM. A153 & A123

G = GROOVE FOR STD VICTAULIC #77 COUPLING
B = BEVEL 30° FOR WELDING

MATERIAL SCHEDULE 163 MAIL UN

MARK	No. PCS.	SHAPE	LENGTH FT.	LENGTH IN.	O or S	CUT FROM No.	CUT FROM FT.	CUT FROM IN.	REMARKS	WEIGHT
20AH	2	6"ϕSTD PIPE	6	9⅝					SCH. 40 G/E	
20BH	2		6	2						
20CH	2		8	6½						
20DH	2		12	2						
20EH	2		17	4½						
20AM	2		6	9½						
20BM	2		6	2¼						
20CM	2		8	7⅜						
20DM	2		12	5						
20EM	2		17	7½						
20EHA	1	6"ϕSTD PIPE	18	0					SCH 40 G/E + B/E	
20EHB	1		20	0						
20EHC	1		20	0						
20EHD	1		20	0						
20EHE	1		20	0						
20EHF	1		20	0						
20EHG	1		20	0						
20EHH	1		20	0						
20WHA	1		18	0						
20WHB	1		20	0						
20WHC	1		20	0						
20WHD	1		20	0						
20WHE	1		20	0						
20WHF	1		20	0						
20WHG	1		20	0						
20WHH	1		20	0						
20WMA	1		18	0						
20WMB	1		20	0						
20WMC	1		20	0						
20WMD	1		20	0						
20WME	1		20	0						
20WMF	1		20	0						
20WMG	1		20	0						
20WMH	1		20	0						
20EMA	1		18	0						
20EMB	1		20	0						
20EMC	1		20	0						
20EMD	1		20	0						
20EME	1		20	0						
20EMF	1		20	0						
20EMG	1		20	0						
20EMH	1		20	0						
20M	⑥	6"ϕSTD PIPE	20	0					SCH 40 G/E	
20MA	4	DO	18	0						
20FH	2	6"ϕSTD PIPE	5	11⅝					SCH 40 G/E	
20GH	2		11	8¾						
20HH	2		2	10½						
20JH	1		16	5⅞					F/E	
20KH	1		16	3⅝						
20FM	2		6	2½					G/E	
20GM	2		13	1⅞						
20HM	2		21	6½						
20JM	1		15	4⅜					F/E	
20KM	1		13	1⅞						
32 K920		12" to 6"ϕ Reducer	0	8					SCH 40 B/E	A53
32 DA20		BAR 1x1¼	0	5						A36
32 DB20		BAR ¾x¾	0	3						A36
32 AA20		L2x2x¼	1	1¼						A36
64 MA20		⅝"ϕ BOLTS	0	1¼						A325
64 MB20		⅝"ϕ HARD WASHERS								A325

20V 42 VICTAULIC STYLE 77 6"IPS PIPE COUPLINGS GALV.
20W 4 VICTAULIC STYLE 99 6"dia. FLANGE ADAPTER COUPLINGS GALV.
ABOVE MATL OF A47 MALLEABLE IRON & A536 DUCTILE [illegible]

Gaskets Grade H

ALL MATL GALVANIZED AFTER FABRICATION

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM #1, 3/25/77
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MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-[illegible]

DESCRIPTION DRAIN PIPE EXTENSIONS
PROJECT I-95 PISCATAQUA RIVER BRIDGE
LOCATION PORTSMOUTH, N.H. & KITTERY, MAINE
ARCHITECT N.H. D.P.W.&H. [illegible]
CONTRACTOR CHERNAK-BEDE-[illegible] CONST. CO.
PAINT GALVANIZE & PAINT AS PER 504.4? & 504.49 SPECS.
DRAWN BY [illegible] CHECKED [illegible] DATE 2-18-77
HOLES 11/16"ϕ PROJ. NO. 77-2[illegible] DRAWING NO. 20

163-50

[redacted]

FHWA REGION	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)16	1	8

NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
STATE OF MAINE DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAYS

PISCATAQUA RIVER BRIDGE
INTERSTATE ROUTE 95
PROJECT NO. I-95-1 (32) 16

PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM
TO
KITTERY, MAINE
COUNTY OF YORK

LENGTH OF PROJECT 0.255 MILES

RIVER BRIDGE DRAIN EXTENSIONS

SHEET	TITLE
1	COVER SHEET
2	GENERAL PLAN & ELEVATION
3	LAYOUT
4	DETAILS
5	DETAILS AT TRUSS
6	DETAILS AT CATWALK
7	AUG. 1969 ⟨11⟩ BARRICADES, WARNING SIGNS
8	AUG. 1969 ⟨12⟩ FIELD OFFICES

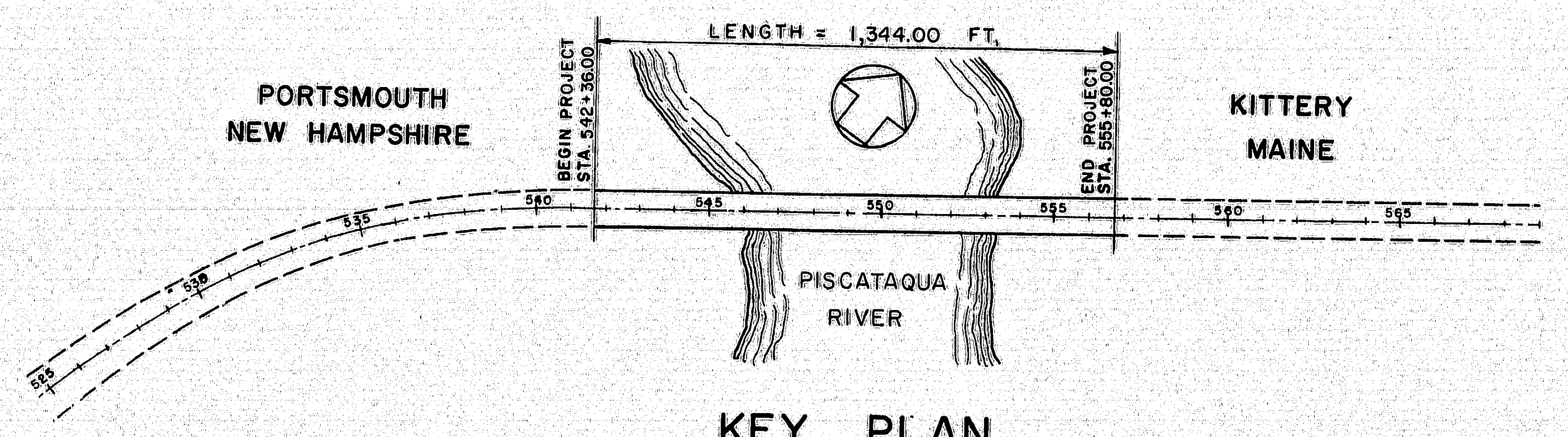
SPECIFICATIONS

1. MAINE STATE HIGHWAY COMMISSION. REVISION OF JUNE, 1968
2. SPECIAL PROVISIONS.
3. SUPPLEMENTAL SPECIFICATIONS.

TRAFFIC

AADT 1990	38,580
DHV	6,560
T	1 %
D	70 %
V	70 MPH

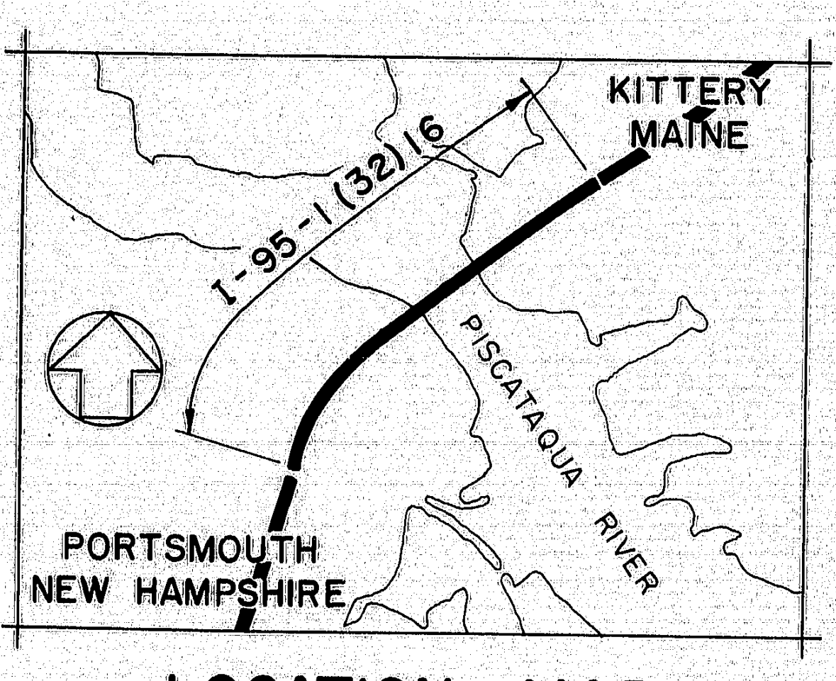
FF 24



KEY PLAN

SCALE: 1"=400'

NOTE:
ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (REVISION OF JUNE 1968) AND SUPPLEMENTS THERE TO, EXCEPT AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.



LOCATION MAP

SCALE: 1"=2000'

APPROVED
NEW HAMPSHIRE DEPARTMENT OF
PUBLIC WORKS AND HIGHWAYS

John A. Clements
COMMISSIONER

11-23-76
DEPUTY COMMISSIONER & CHIEF ENGINEER

DATE

APPROVED
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Roger L. Mallar
COMMISSIONER

Richard A. Luettich
CHIEF ENGINEER AND BUREAU DIRECTOR

Nov. 23, 1976
DATE

PREPARED BY

HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, NEW YORK

Richard W. Christie 4/25/74

Revised by Me. D.O.T. 11/19/76
DATE

RICHARD A. LUETTICH, SR. 1728

As builts 1977 H.E.B.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

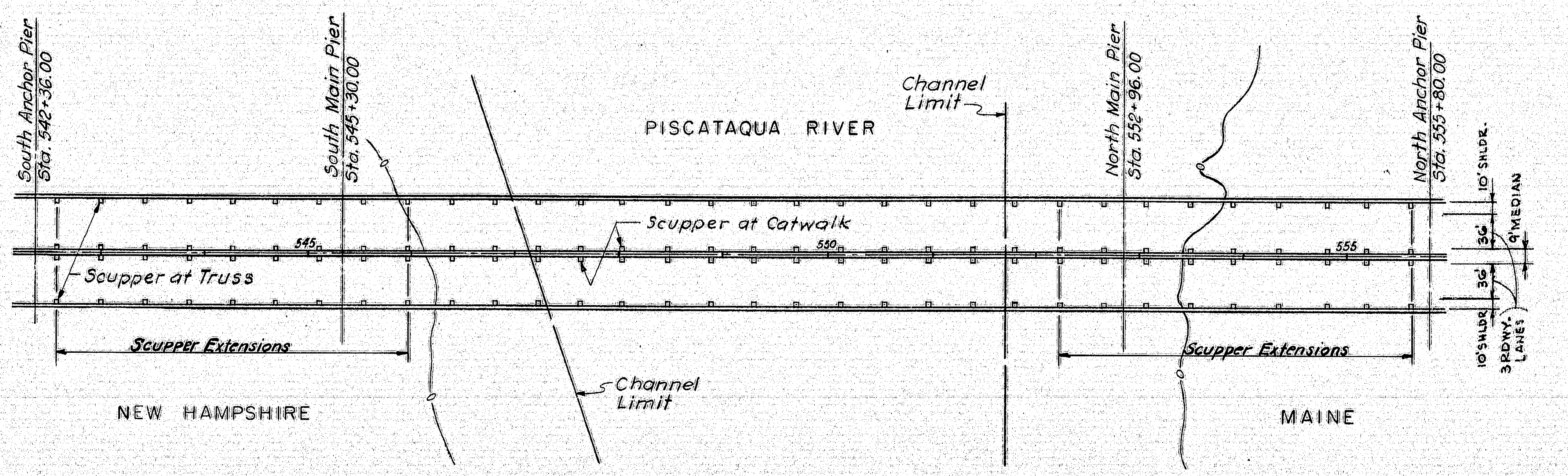
REGION 1

APPROVED

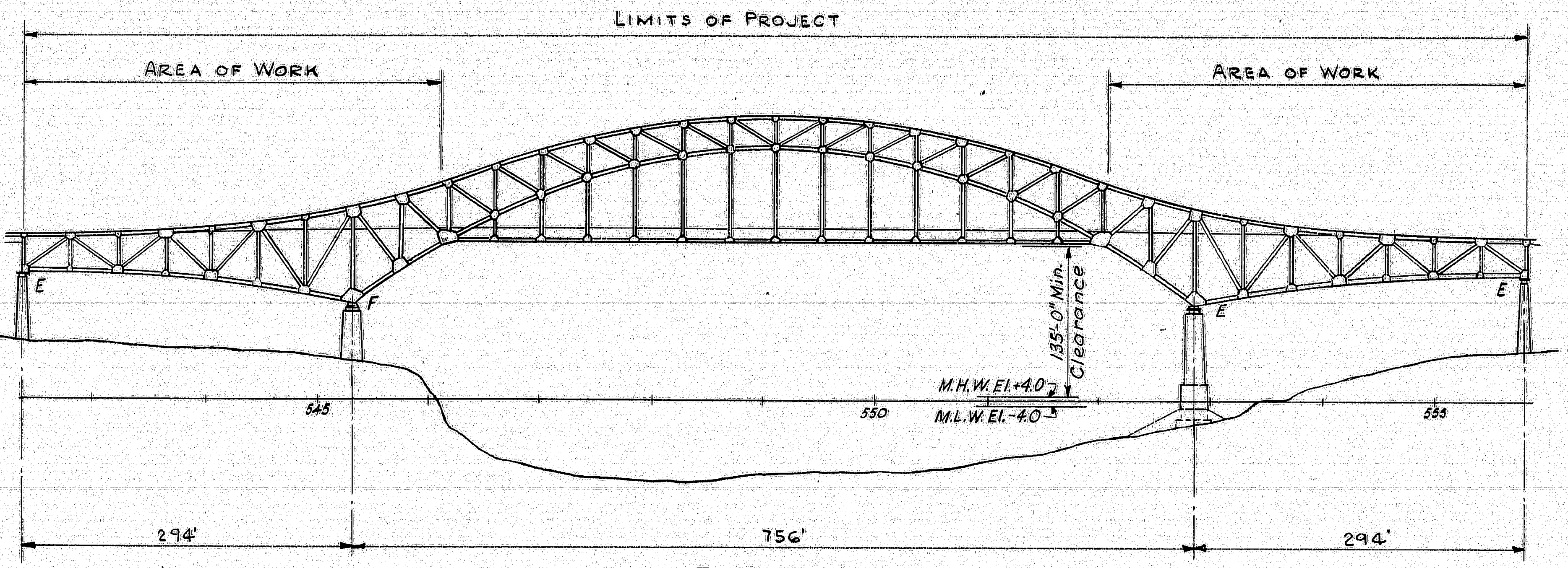
DIVISION ENGINEER
DATE

171-179

FHWA REGION	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)16	2	8



PLAN



ELEVATION

SCHEDULE OF PAY ITEM		
ITEM	DESCRIPTION	UNIT
504.70	Structural Steel, Fab. & Delivered.	L.S.
504.71	Structural Steel, Erection.	L.S.
506.14	Field Painting, Structural Steel	L.S.
639.082	Maintaining Field Office	L.S.
652.25	Maintenance of Traffic	L.S.
639.10	Field Office, Type "C"	Each (1 req'd)

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
STRUCTURAL STEEL	LBS	76,000
STAINLESS STEEL CABLE	L.F.	1,850
TIE RODS W/FITTINGS	EA.	32
6" ϕ PIPE	L.F.	1,950
3" ϕ PIPE	L.F.	110
1½" ϕ PIPE	L.F.	525
COUPLINGS W/GROOVED PIPE	EA.	66
COUPLINGS W.O/GROOVED PIPE	EA.	4
REDUCERS	EA.	48
45° ELBOWS (CUT)	EA.	8
CABLE FITTINGS	LBS.	700

GENERAL NOTES

SPECIFICATIONS

THE FOLLOWING SPECIFICATIONS GOVERN THE DESIGN AND CONSTRUCTION OF THIS PROJECT:

DESIGN
AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS,
ELEVENTH EDITION, 1973

AMERICAN WELDING SOCIETY
SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES
AWS D2.0-69 AND SUPPLEMENTS

CONSTRUCTION
STATE OF MAINE, STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS - HIGHWAYS AND BRIDGES
REVISION OF JUNE 1968
SUPPLEMENTAL SPECIFICATIONS
SPECIAL PROVISIONS FOR THE PROJECT

FIELD MEASUREMENT

THE CONTRACTOR SHALL VERIFY BY FIELD MEASUREMENT ALL DIMENSIONS DEPENDENT ON EXISTING CONDITIONS PRIOR TO SUBMISSION OF SHOP DRAWINGS.

HOLES IN EXISTING MATERIAL

ALL HOLES IN EXISTING MATERIAL SHALL BE DRILLED

MATERIALS

STRUCTURAL STEEL	ASTM A36
HIGH STRENGTH BOLTS	ASTM A325
PIPE	ASTM A53 (Type E or S, Grade B) Black
STAINLESS STEEL CABLE	ASTM A492, TYPE 304 (PREFORMED 6×19)
TIE RODS	ASTM A307
TURNBUCKLES & TURNBUCKLE FITTINGS	DROP FORGED, WELDLESS STEEL, GALVANIZED (MIN. BREAKING STRENGTH 23,400 LBS.)
THIMBLES FOR CABLE	STAINLESS STEEL
GALVANIZING	ASTM A123 AND ASTM A153 GALVANIZING TO BE DONE AFTER WELDING ASSEMBLY
CABLE CLIPS	DROP FORGED STEEL

As built 1977 H.E.B.

DESIGN — Elroy
TRACE —
CHECK —

BRIDGE NO.
IN CHARGE OF — Michael C Curran

NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
AND
STATE OF MAINE - DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 BRIDGE
OVER
PISCATAQUA RIVER
BETWEEN
PORTSMOUTH, NEW HAMPSHIRE AND KITTERY, MAINE

DRAIN EXTENSIONS
GENERAL PLAN & ELEVATION

SHEET 2 OF 8

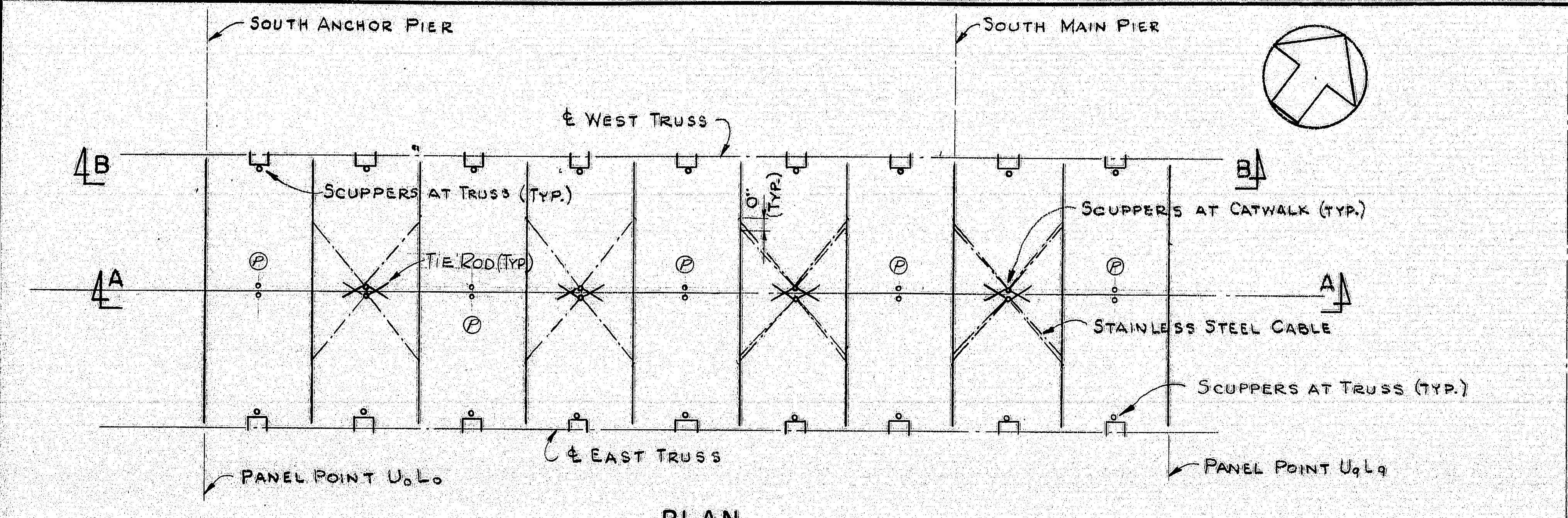
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.

171-180

1428

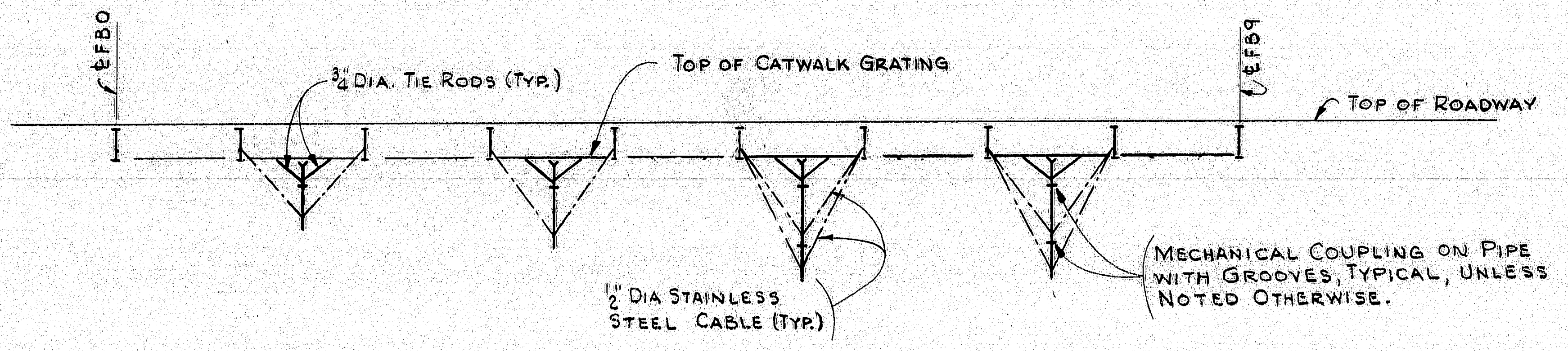
[redacted]

FHWA REGION	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)16	3	8

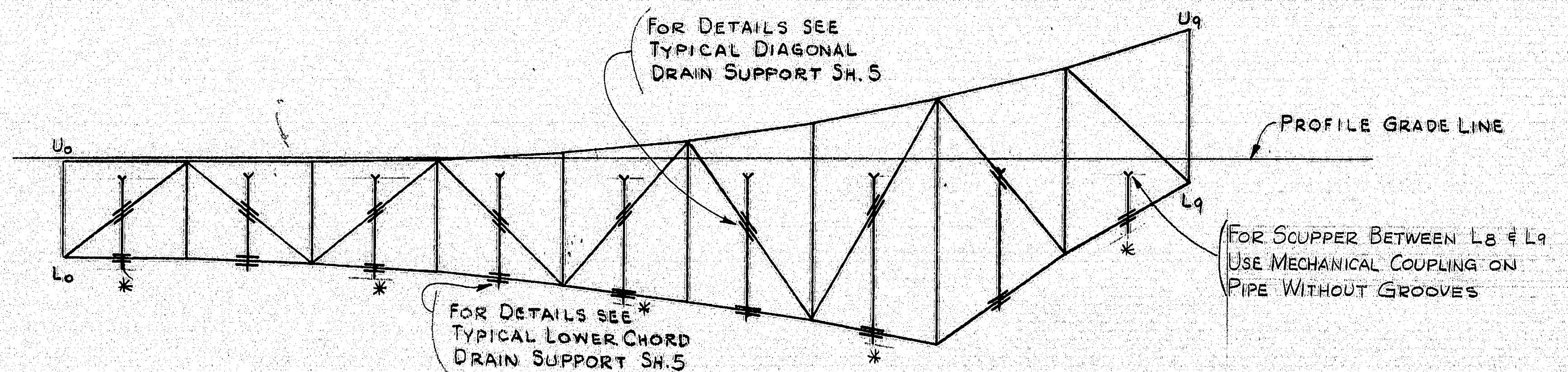


PLAN

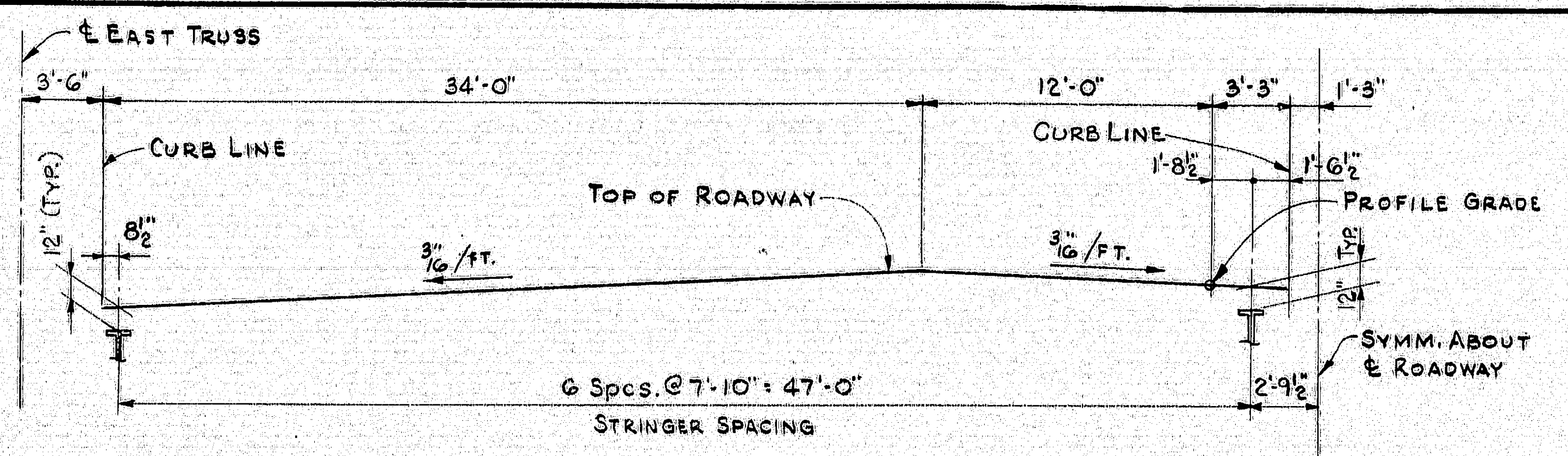
Ⓟ - Denotes locations of drains to be plugged (See sheet #6)


℄ FB0
℄ FB9
¾" Dia. Tie Rods (Typ.)
Top of Catwalk Grating
Top of Roadway
½" Dia Stainless Steel Cable (Typ.)
Mechanical Coupling on Pipe with Grooves, Typical, Unless Noted Otherwise.

SECTION A-A

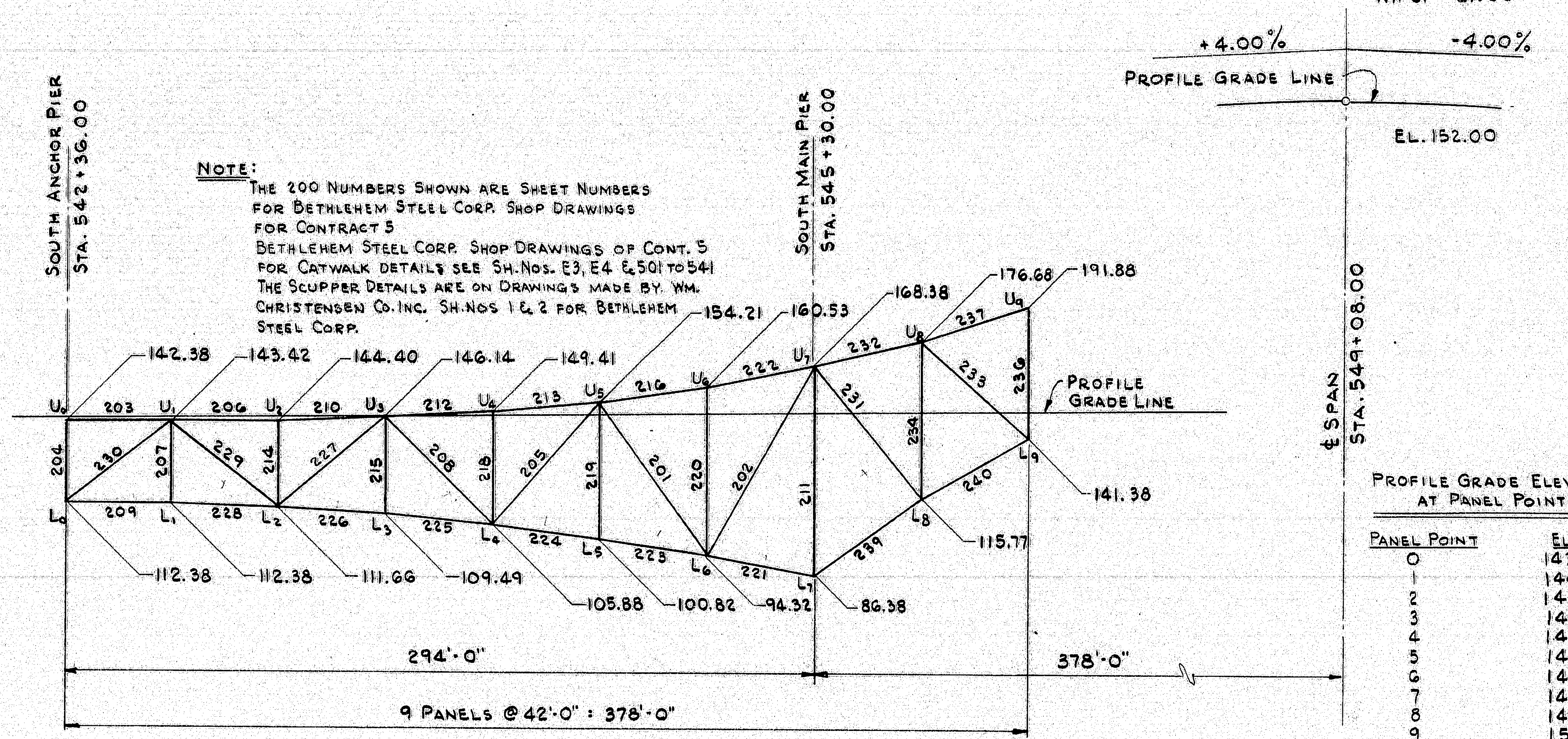

U₉
U₀
L₀
L₉
For Details see Typical Diagonal Drain Support Sh. 5
Profile Grade Line
For Scupper Between L₈ & L₉ Use Mechanical Coupling on Pipe Without Grooves
For Details see Typical Lower Chord Drain Support Sh. 5
*

SECTION B-B



VERTICAL CURVE DATA

P.V.I. Sta. 549+08.00
P.V.I. Elev. = 173.00
Length of V.C. = 2,100'
M.O. = 21.00'



Note:
The 200 numbers shown are sheet numbers for Bethlehem Steel Corp. shop drawings for Contract 5
Bethlehem Steel Corp. shop drawings of Cont. 5 for catwalk details see Sh. Nos. E3, E4 & 501 to 541
The scupper details are on drawings made by Wm. Christensen Co. Inc. Sh. Nos 1 & 2 for Bethlehem Steel Corp.

PROFILE GRADE ELEVATION AT PANEL POINTS

Panel Point	Elev.
0	143.40
1	144.44
2	145.41
3	146.32
4	147.16
5	147.93
6	148.64
7	149.28
8	149.85
9	150.35

ORIGINAL DESIGN DATA

*12-21-76 - Section Revised to Indicate Extension of All Exterior Drains

HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.

DESIGN — Lee E. Ilroy
TRACE —
CHECK —
BRIDGE NO.
IN CHARGE OF — Michael C. Curran

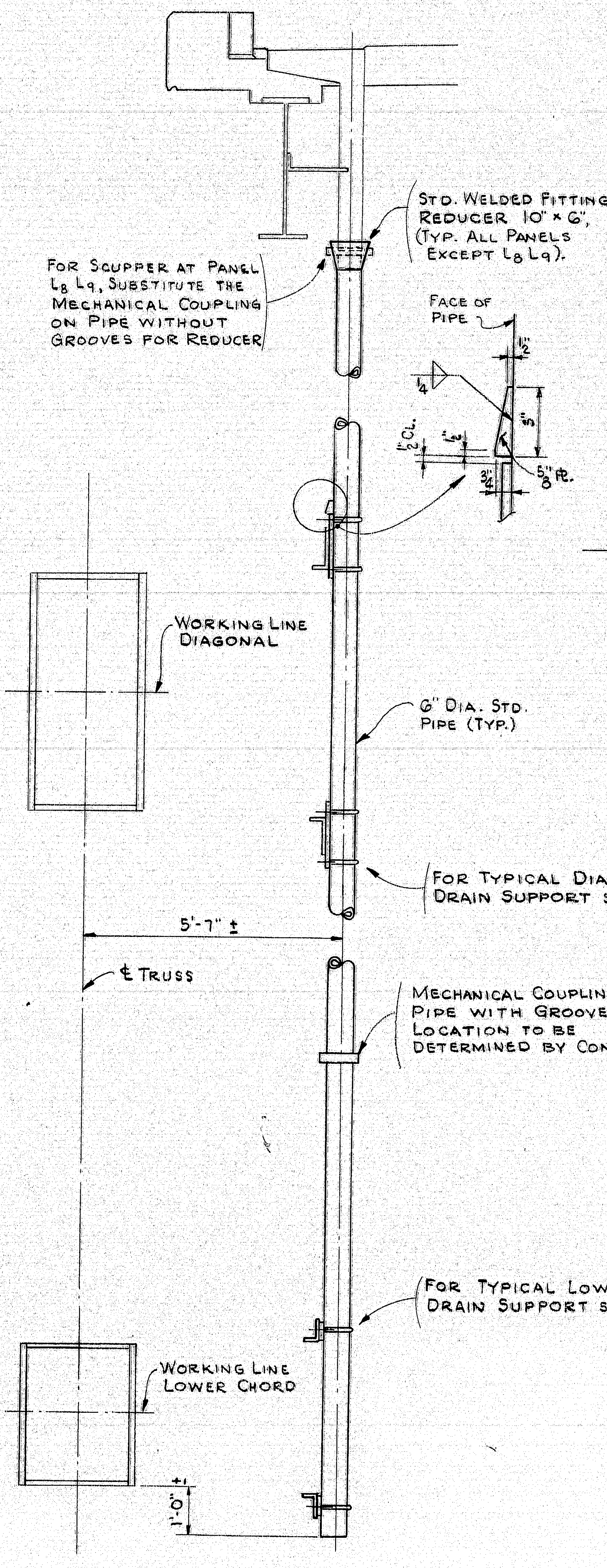
NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
AND
STATE OF MAINE - DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 BRIDGE
OVER
PISCATAQUA RIVER
BETWEEN
PORTSMOUTH, NEW HAMPSHIRE AND KITTERY, MAINE

DRAIN EXTENSION
LAYOUT

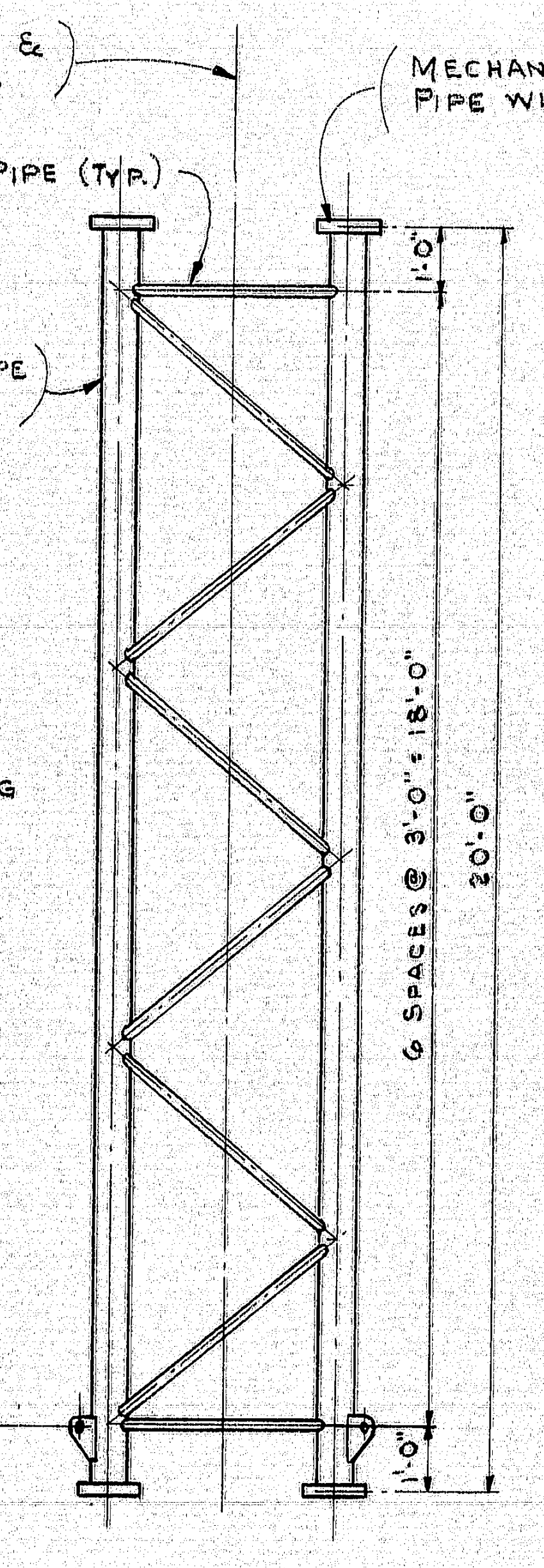
SHEET 3 OF 8

171-181

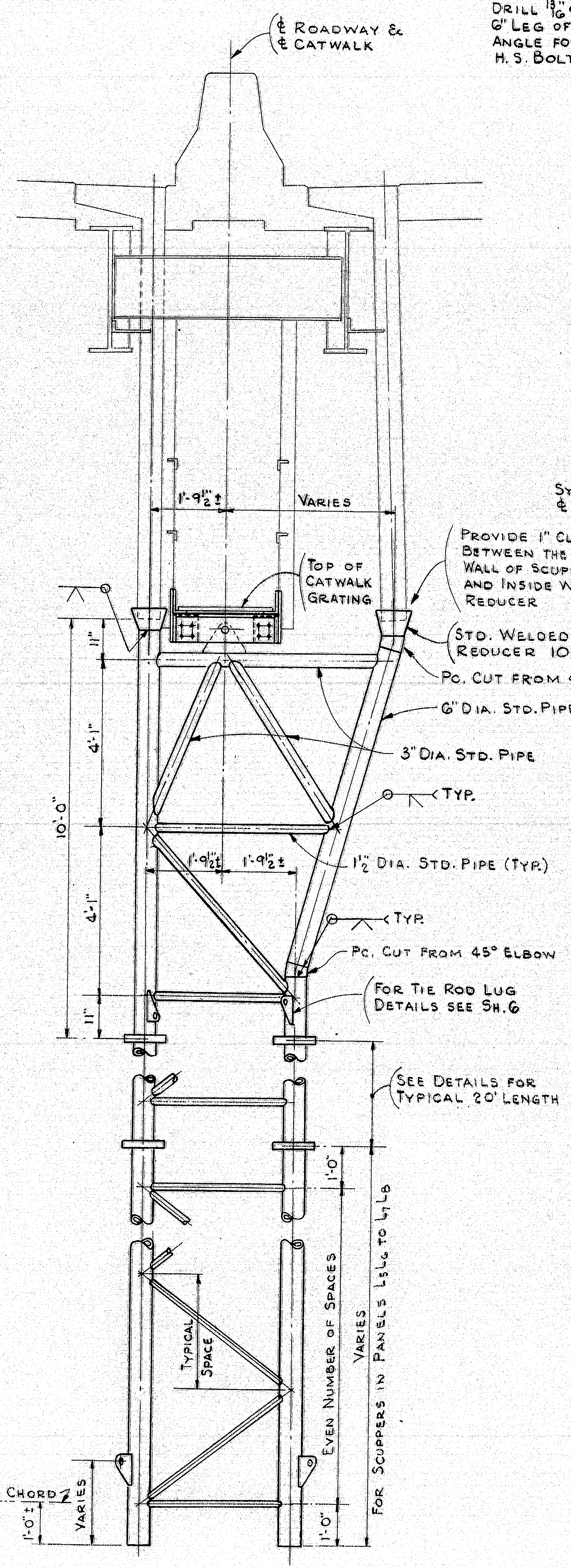
FHWA REGION	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)16	4	8


Std. Welded Fitting Reducer 10" × 6", (Typ. All Panels Except L8 L9).
For Scupper at Panel L8 L9, Substitute the Mechanical Coupling on Pipe without Grooves for Reducer
Face of Pipe
3/8" ℄
Working Line Diagonal
6" Dia. Std. Pipe (Typ.)
For Typical Diagonal Drain Support see Sh.5
5'-7" ±
℄ Truss
Mechanical Coupling on Pipe with Grooves. Location to be Determined by Contractor.
For Typical Lower Chord Drain Support see Sh.5
Working Line Lower Chord
1'-0"

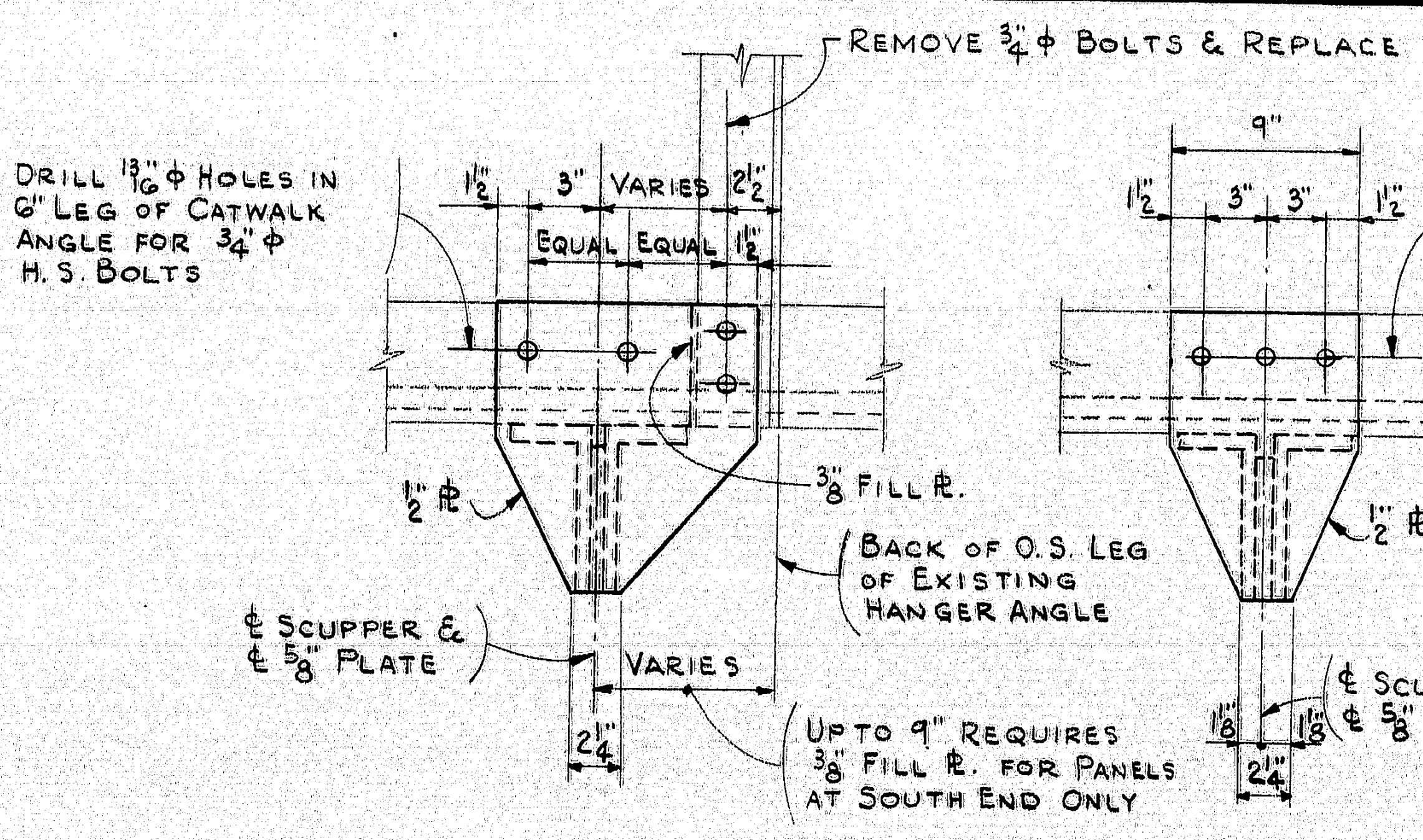
TYPICAL SECTION
SCUPPER AT TRUSS
(LOOKING SOUTH)


℄ Roadway & ℄ Catwalk
Mechanical Coupling on Pipe with Grooves
1½" Dia. Std. Pipe (Typ.)
6" Dia Std. Pipe (Typ.)
1'-0"
6 Spaces @ 3'-0" = 18'-0"
20'-0"
1'-0"

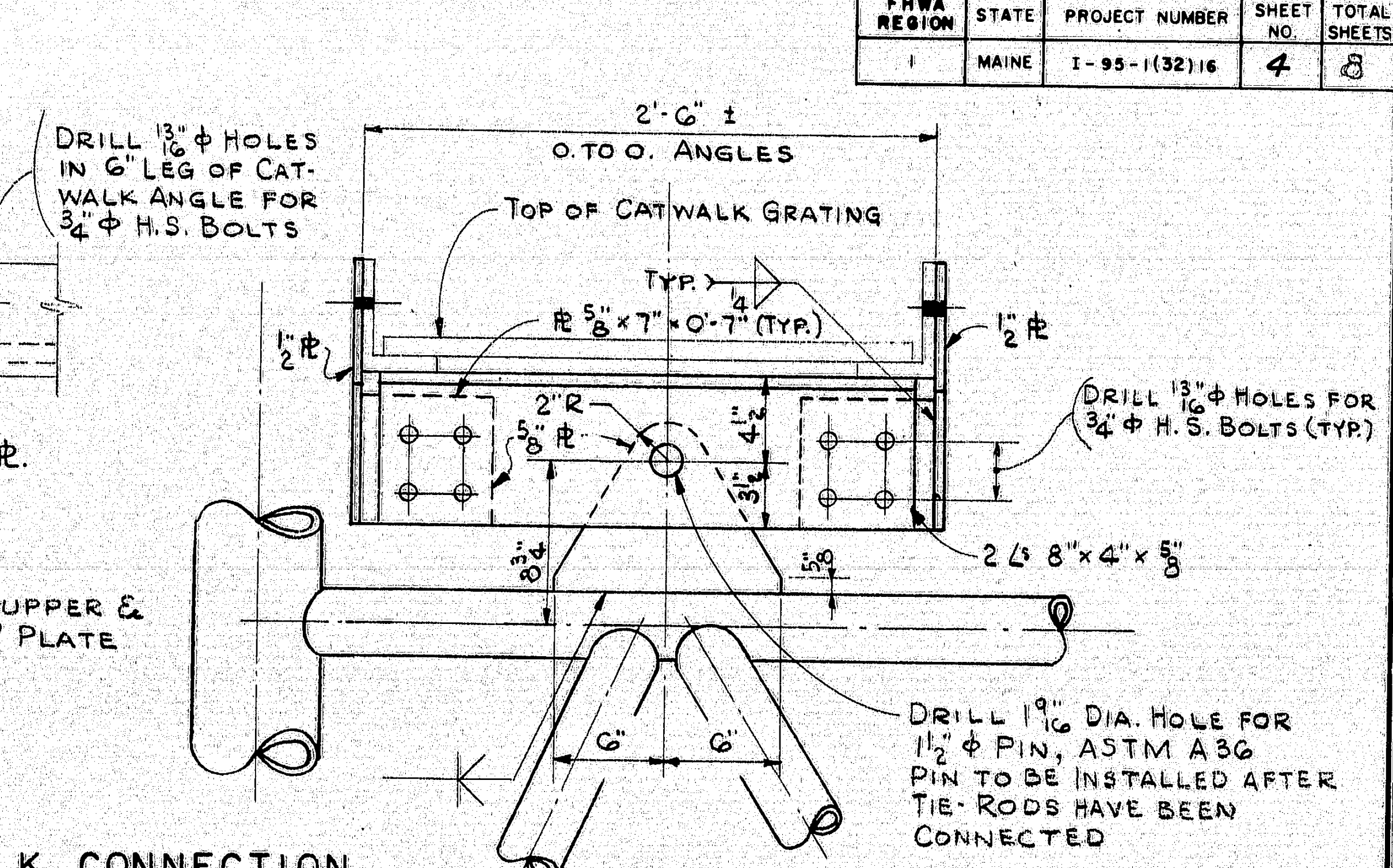
TYPICAL DETAILS
FOR 20' SECTION



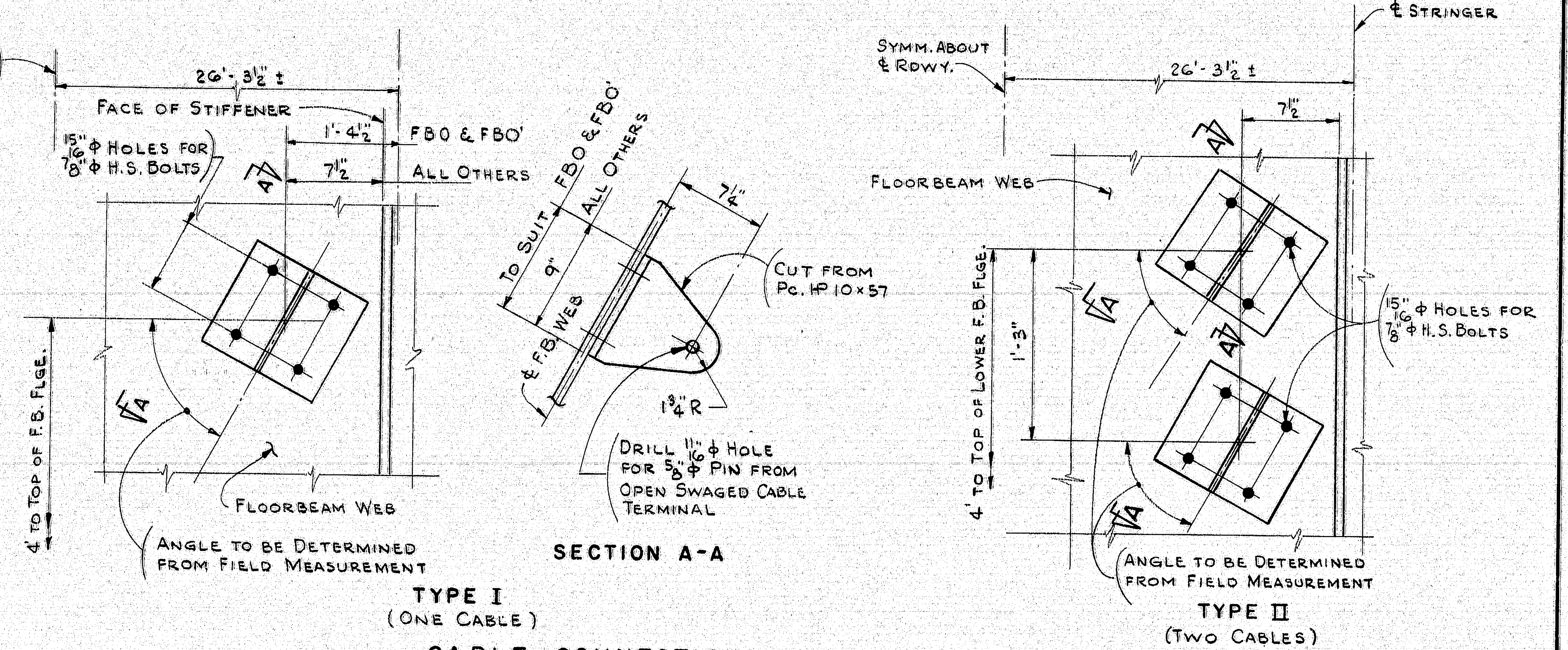
TYPICAL SECTION
SCUPPERS AT CATWALK
(LOOKING SOUTH)


Remove 3/4" Bolts & Replace
Drill 13/16" ϕ Holes in 6" Leg of Catwalk Angle for 3/4" ϕ H.S. Bolts
1½"
3"
Varies
2½"
Equal
Equal
1½"
3/8" Fill ℄.
Back of O.S. Leg of Existing Hanger Angle
℄ Scupper & ℄ 5/8" Plate
Varies
2¼"
Up to 9" Requires 3/8" Fill ℄. for Panels at South End Only
9"
1½"
3"
3"
1½"
1½" ℄.
Drill 13/16" ϕ Holes in 6" Leg of Catwalk Angle for 3/4" ϕ H.S. Bolts
℄ Scupper & ℄ 5/8" Plate
2¼"

DETAILS FOR END PLATES


2'-6" ±
O. to O. Angles
Top of Catwalk Grating
Typ.
℄ 5/8" × 7" × 0'-7" (Typ.)
1½" ℄
1½" ℄
2" R
Drill 13/16" ϕ Holes for 3/4" ϕ H.S. Bolts (Typ.)
2 ∠s 8" × 4" × 5/8"
Drill 1 9/16" Dia. Hole for 1½" ϕ Pin, ASTM A36 Pin to be Installed after Tie-Rods have been Connected
6"
6"

CATWALK CONNECTION


Symm. About ℄ Roadway
26'-3½" ±
Face of Stiffener
1'-4½"
FB0 & FB0'
7½"
All Others
15/16" ϕ Holes for 7/8" ϕ H.S. Bolts
A
A
4' to Top of F.B. Flge.
Floorbeam Web
Angle to be Determined from Field Measurement
To Suit FB0 & FB0'
All Others
9"
℄ F.B. Web
7½"
Cut from Pc. HP 10 × 57
1¾" R
Drill 11/16" ϕ Hole for 5/8" ϕ Pin from Open Swaged Cable Terminal
Symm. About ℄ Rdwy.
26'-3½" ±
℄ Stringer
7½"
Floorbeam Web
1'-3"
4' to Top of Lower F.B. Flge.
15/16" ϕ Holes for 7/8" ϕ H.S. Bolts
Angle to be Determined from Field Measurement

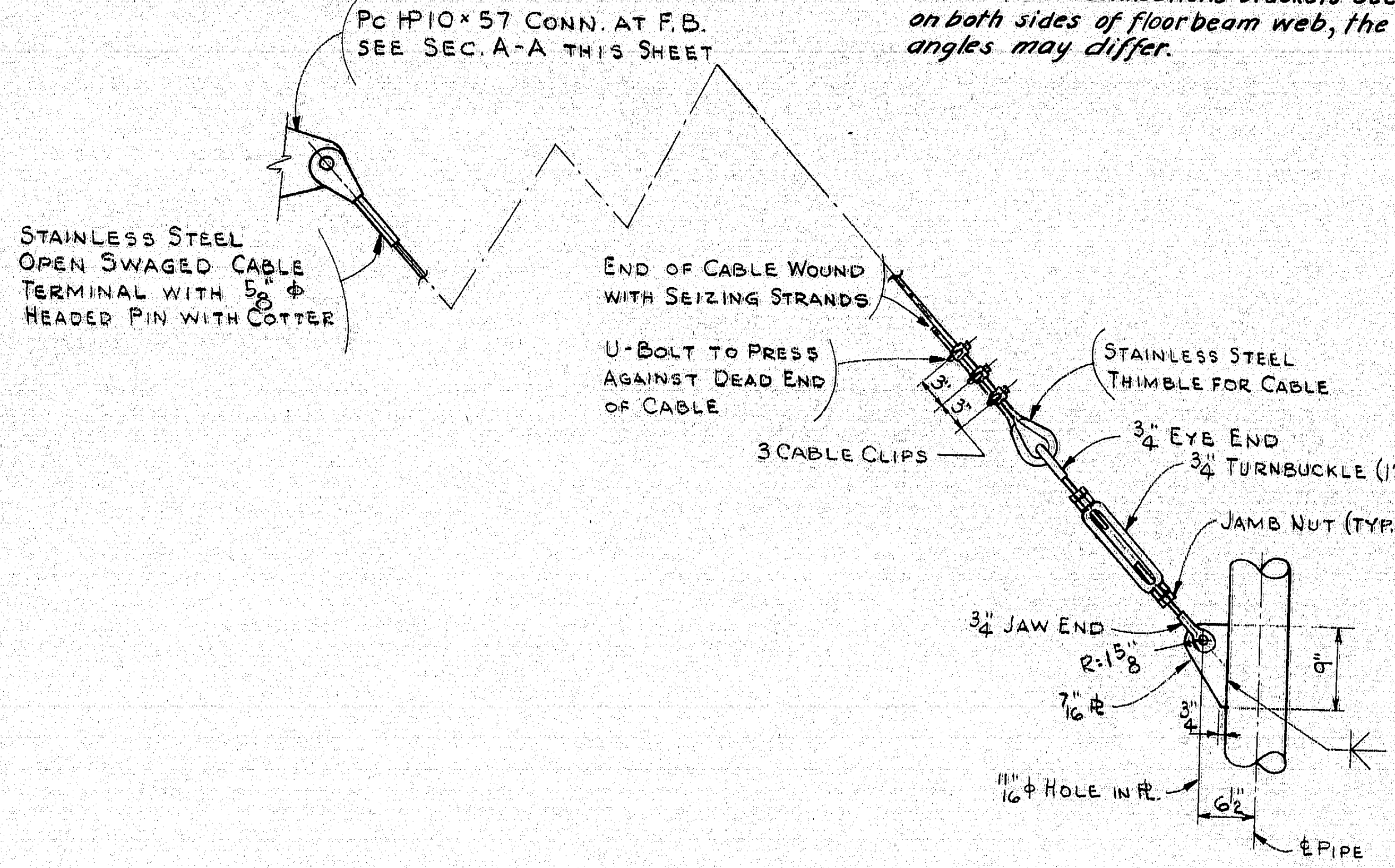
TYPE I
(ONE CABLE)

SECTION A-A

TYPE II
(TWO CABLES)

CABLE CONNECTIONS AT FLOORBEAMS

Note: Where cable connections brackets occur on both sides of floorbeam web, the slope angles may differ.


Pc HP 10 × 57 Conn. at F.B. see Sec. A-A this Sheet
Stainless Steel Open Swaged Cable Terminal with 5/8" ϕ Headed Pin with Cotter
End of Cable Wound with Seizing Strands
U-Bolt to Press Against Dead End of Cable
3 Cable Clips
Stainless Steel Thimble for Cable
3/4" Eye End
3/4" Turnbuckle (12" Take-Up)
Jamb Nut (Typ.)
3/4" Jaw End
R = 1 3/8"
7/16" ℄
9"
11/16" ϕ Hole in ℄.
6½"
℄ Pipe

CABLE TERMINAL CONNECTIONS

HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.

DESIGN — Fred Elroy
TRACE —
CHECK — D.R. Hilleman

BRIDGE NO.
IN CHARGE OF — Michael C Cuomo

NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
AND
STATE OF MAINE - DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 BRIDGE
OVER
PISCATAQUA RIVER
BETWEEN
PORTSMOUTH, NEW HAMPSHIRE AND KITTERY, MAINE

DRAIN EXTENSIONS
DETAILS

SHEET 4 OF 8

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HARDESTY & HANOVER (601)