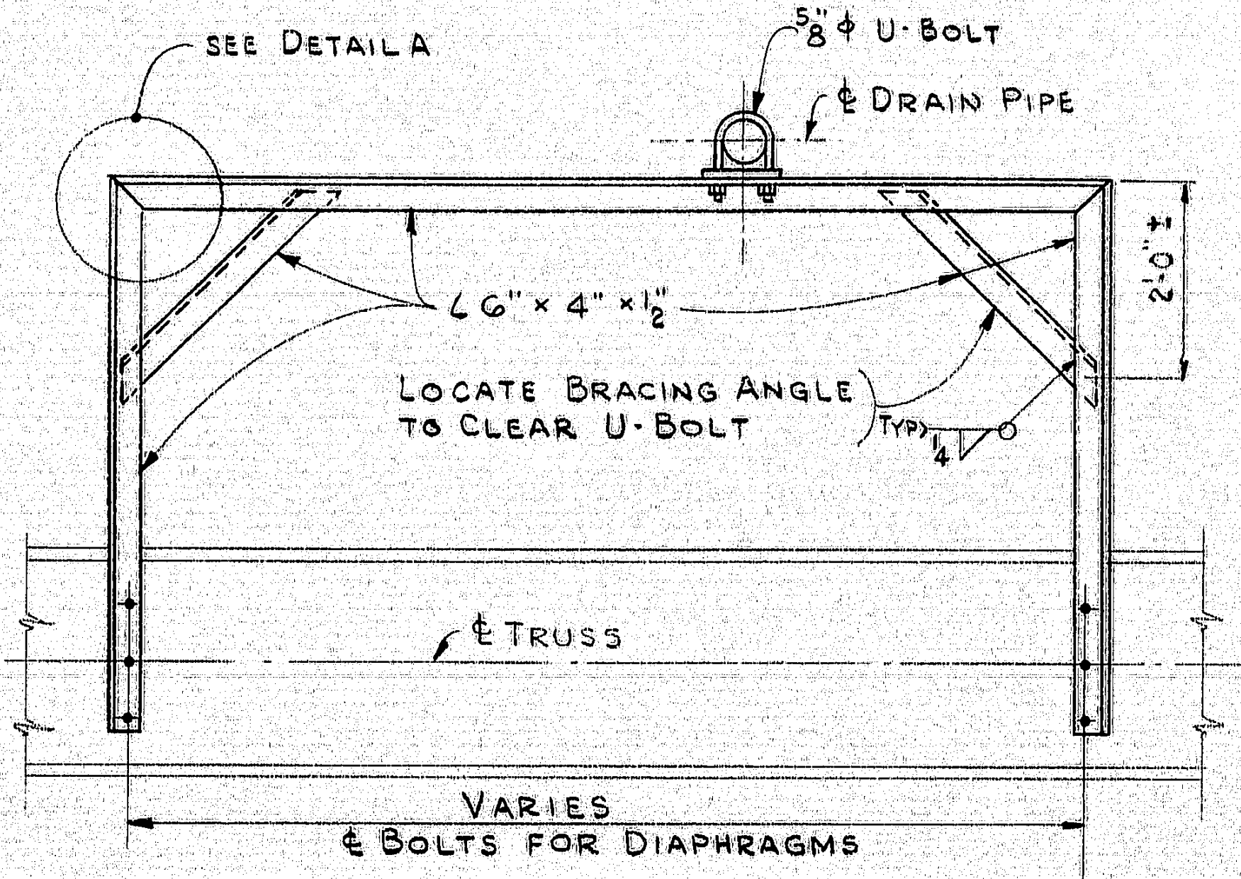
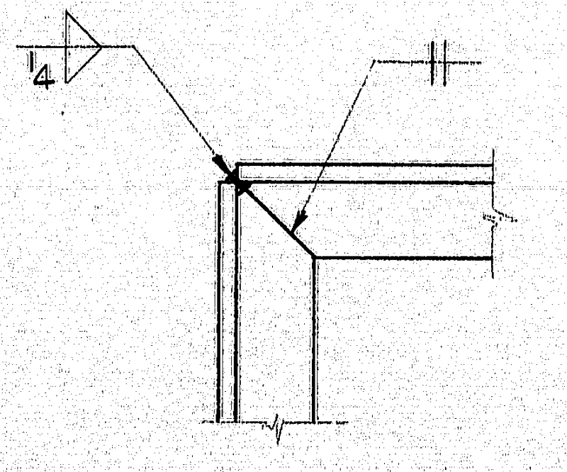
FHWA REGION	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)16	5	8

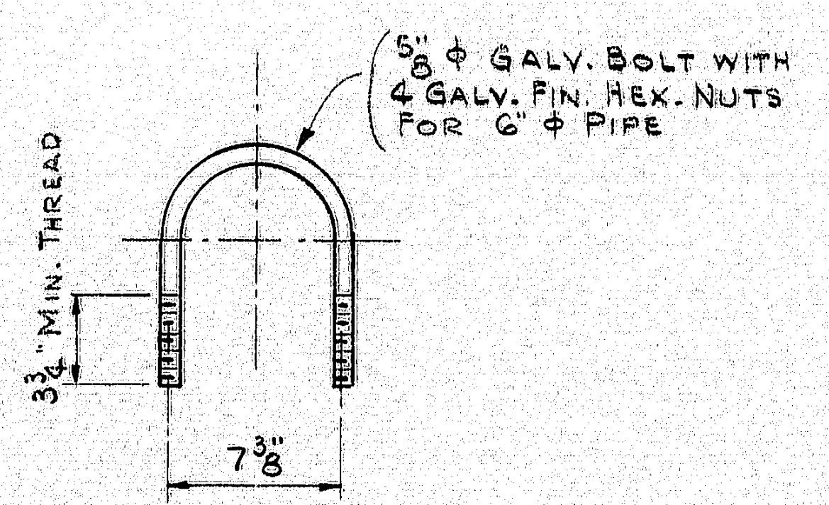


PLAN

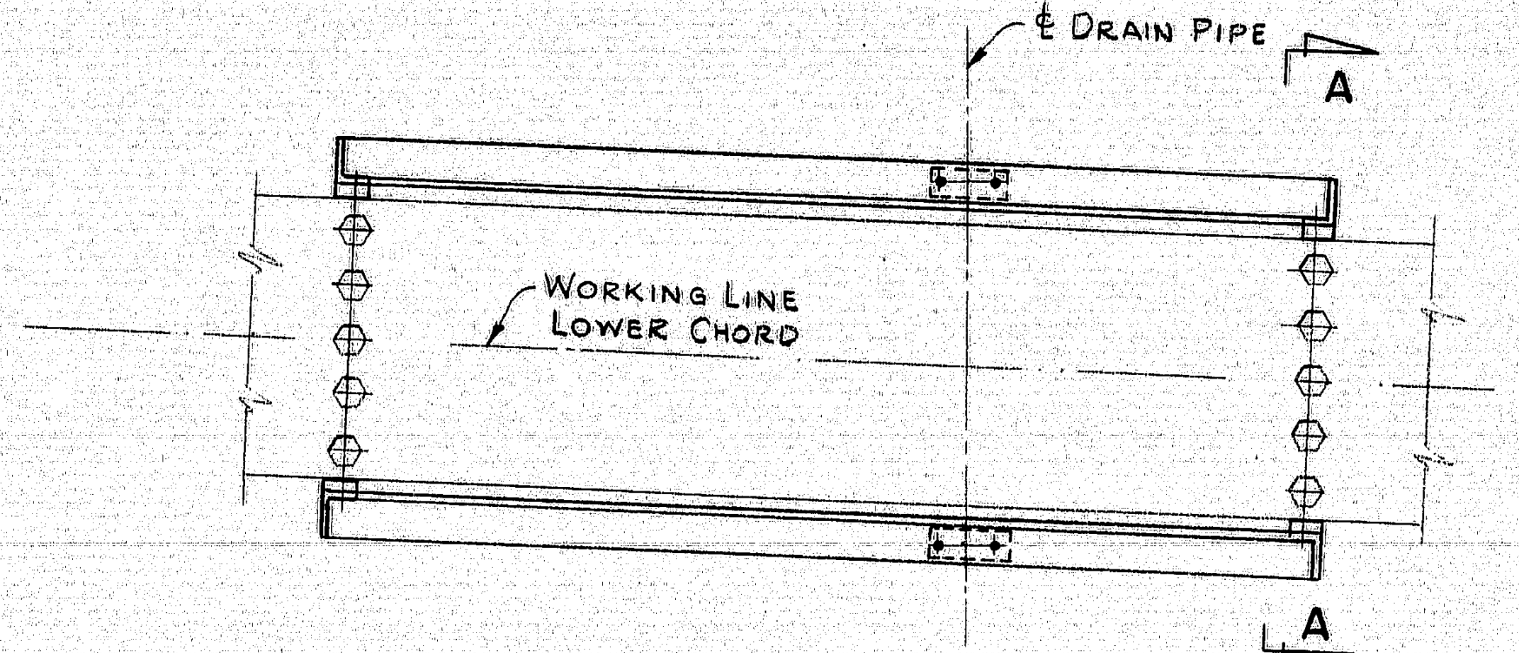
EAST TRUSS AS SHOWN
WEST TRUSS OPPOSITE HAND



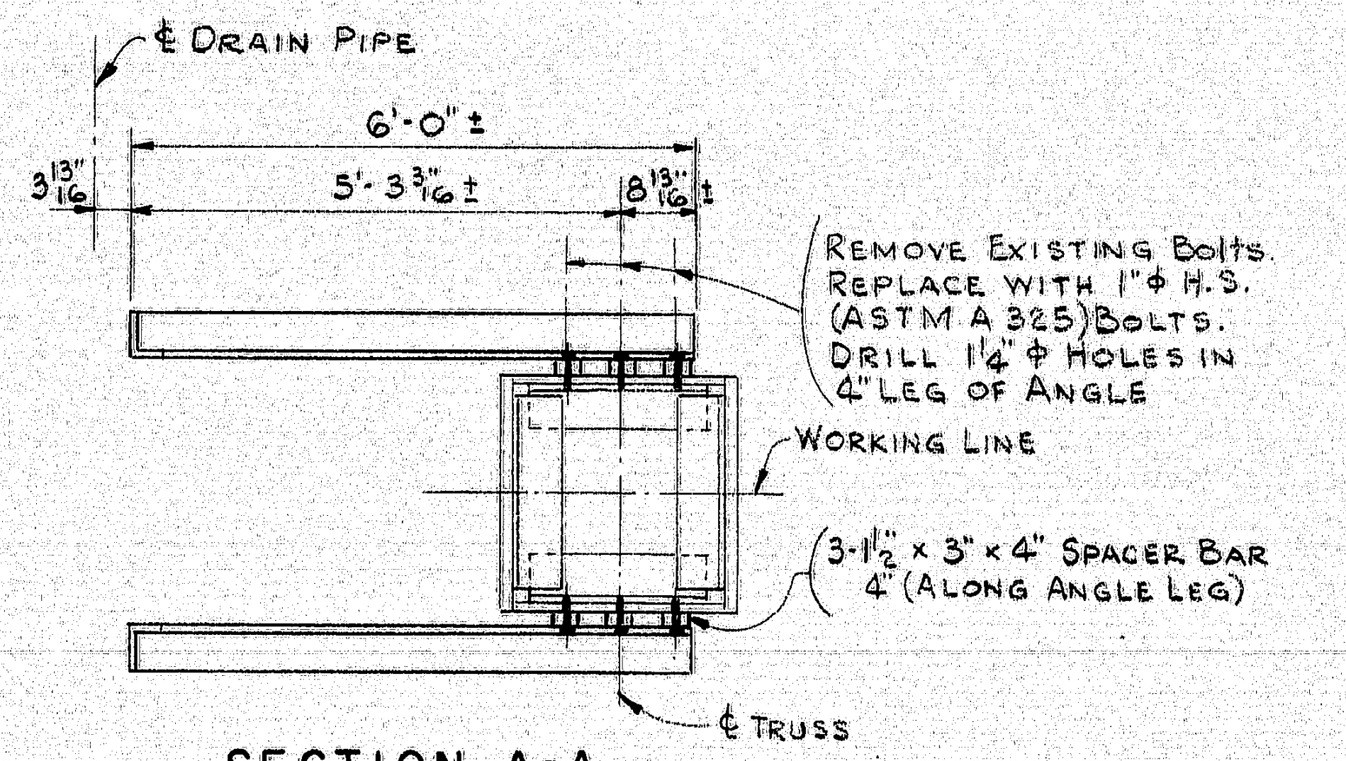
DETAIL A



U-BOLT DETAIL



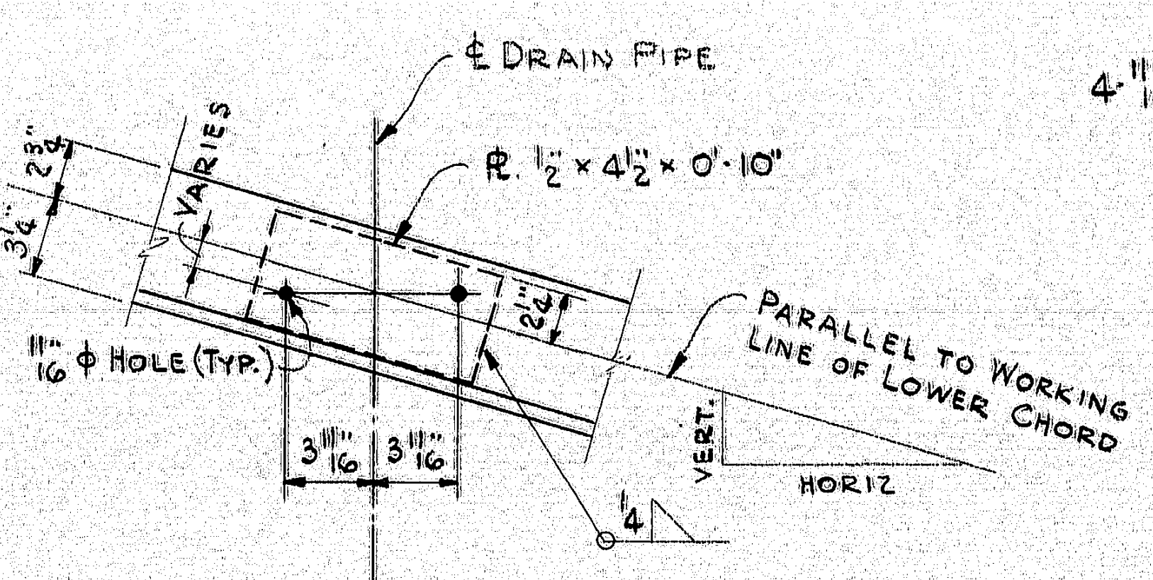
ELEVATION


℄ DRAIN PIPE
6'-0" ±
3 13/16
5'-3 3/16" ±
8 13/16" ±
REMOVE EXISTING BOLTS. REPLACE WITH 1" φ H.S. (ASTM A 325) BOLTS. DRILL 1 1/4" φ HOLES IN 4" LEG OF ANGLE
WORKING LINE
3-1 1/2" × 3" × 4" SPACER BAR 4" (ALONG ANGLE LEG)
℄ TRUSS

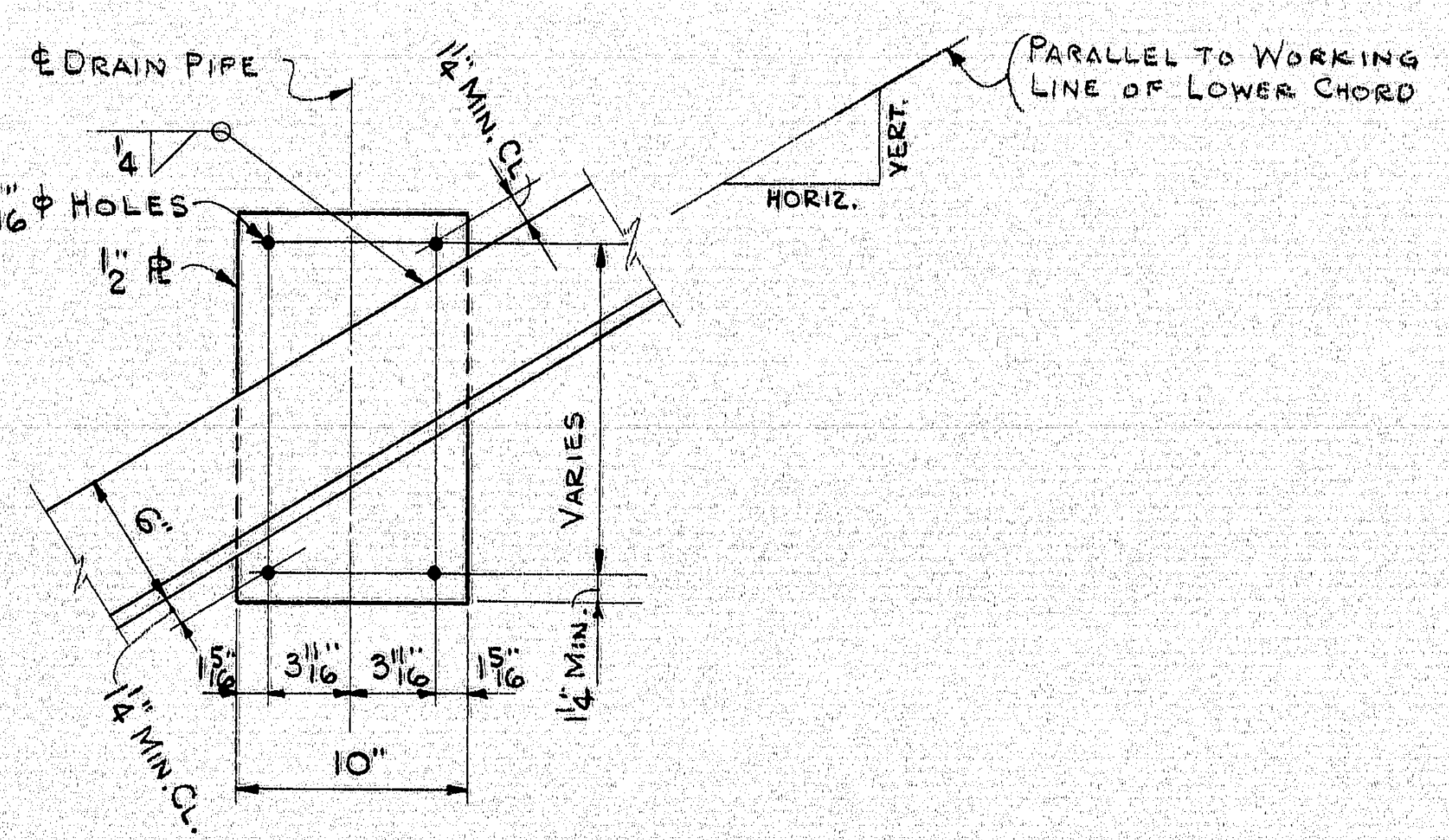
SECTION A-A

TYPICAL LOWER CHORD DRAIN SUPPORT

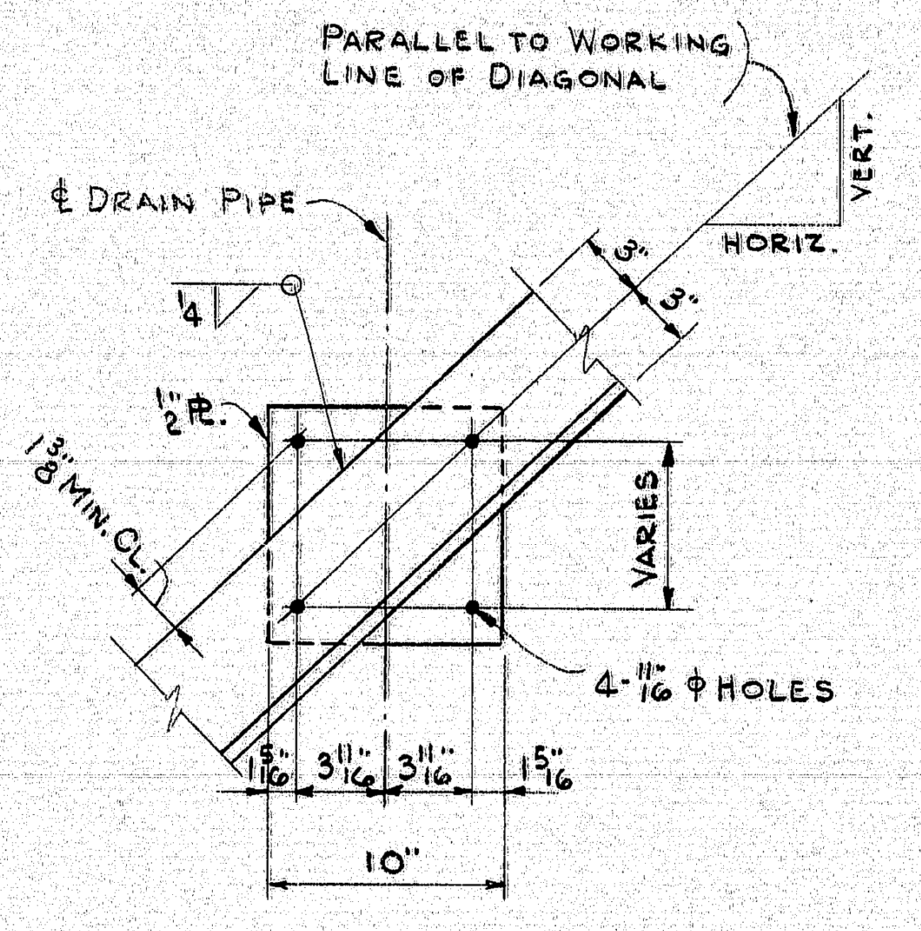
SCALE: 1/2" = 1'-0"



L0 L1 TO L6 L7

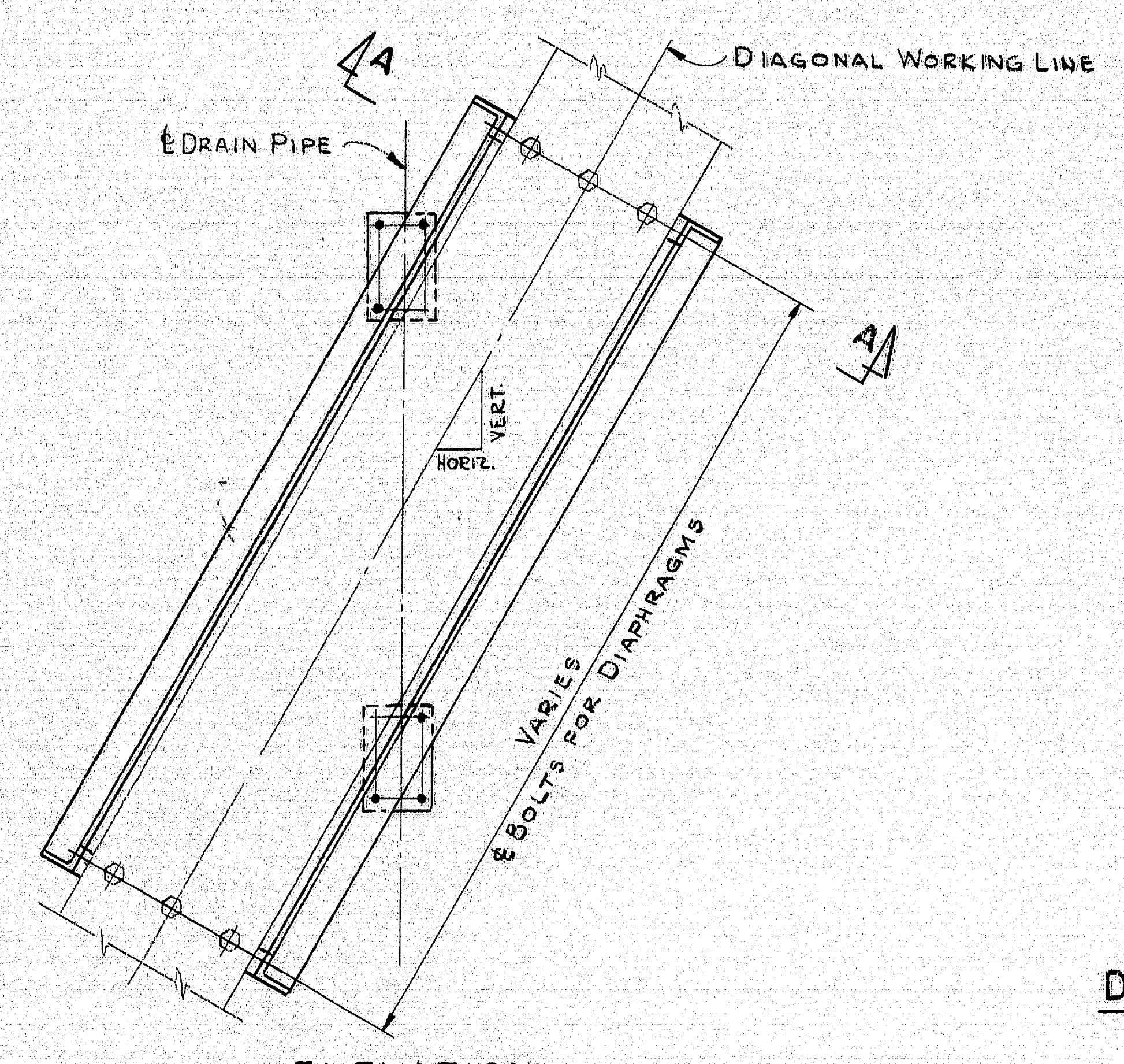


L7 L8 & L8 L9



L0 U1 TO L6 U7

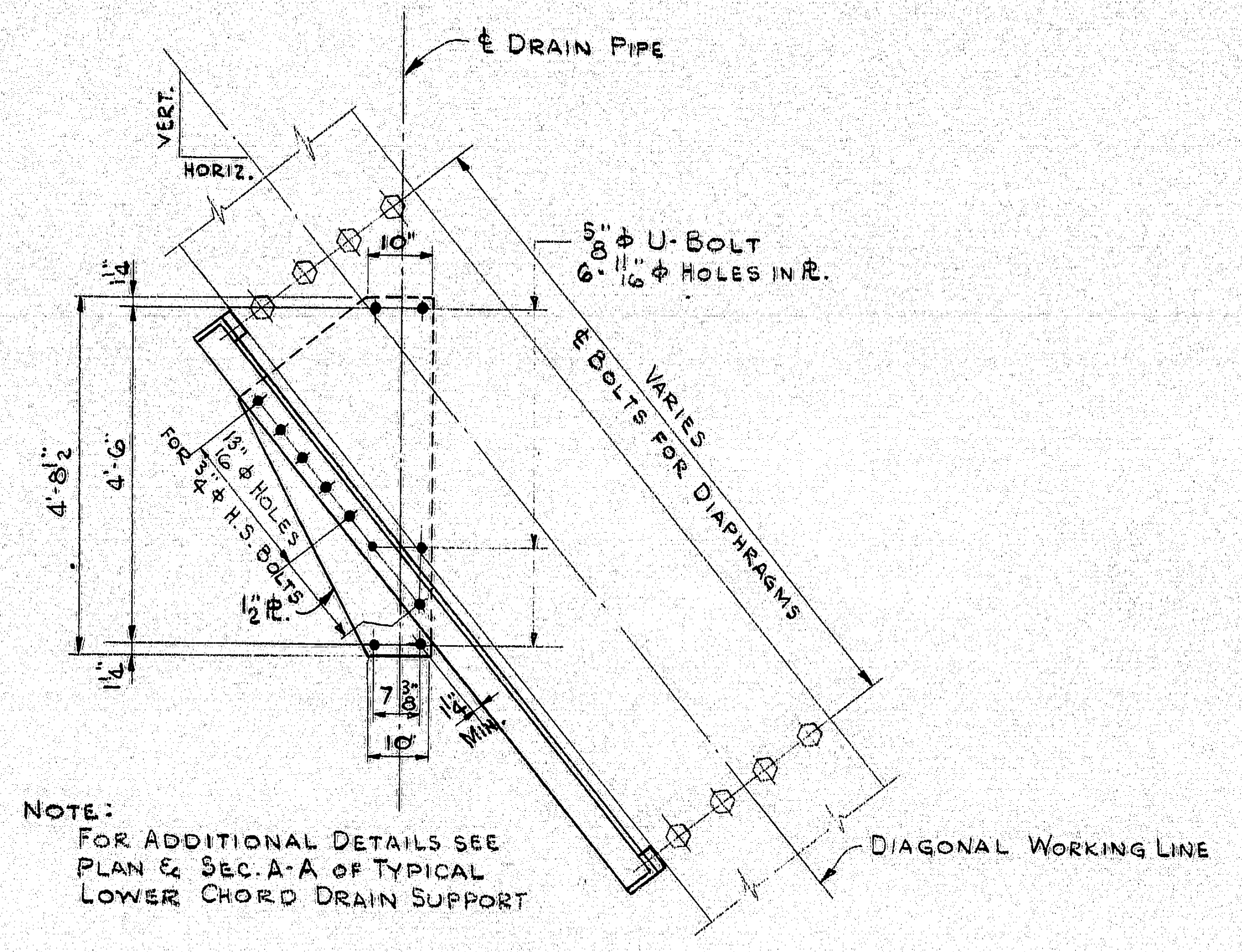
TYPICAL U-BOLT CONNECTIONS



ELEVATION

TYPICAL DIAGONAL DRAIN SUPPORT

PLAN & SEC. A-A SIMILAR TO SAME VIEWS OF TYPICAL LOWER CHORD DRAIN SUPPORT



NOTE:
FOR ADDITIONAL DETAILS SEE PLAN & SEC. A-A OF TYPICAL LOWER CHORD DRAIN SUPPORT

DIAGONAL DRAIN SUPPORT AT U7 L8

DESIGN — Mc Elroy
TRACE —
CHECK —

BRIDGE NO.
IN CHARGE OF — Michael C Cusano

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

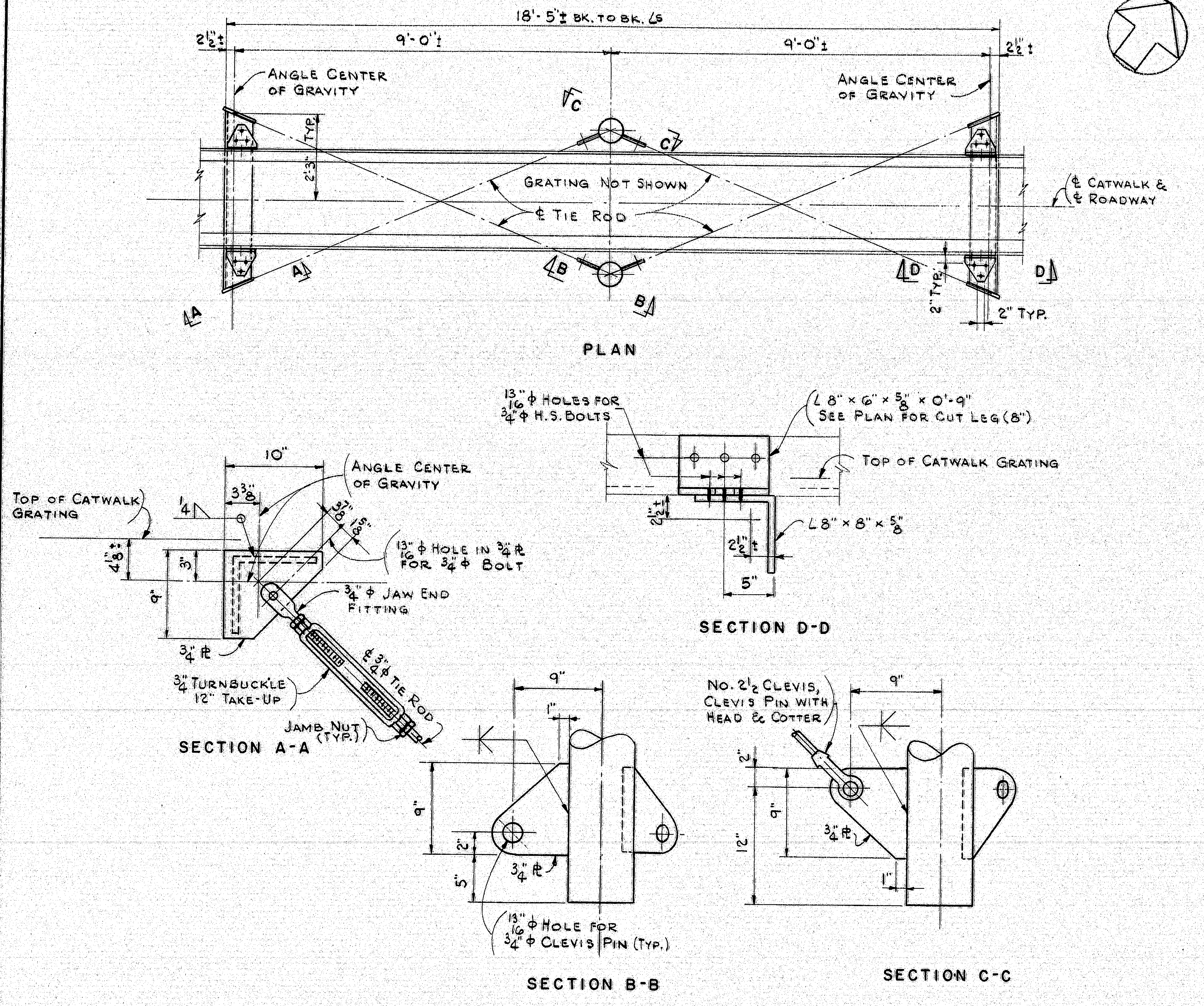
DRAIN EXTENSIONS
DETAILS AT TRUSS

SHEET 5 OF 8

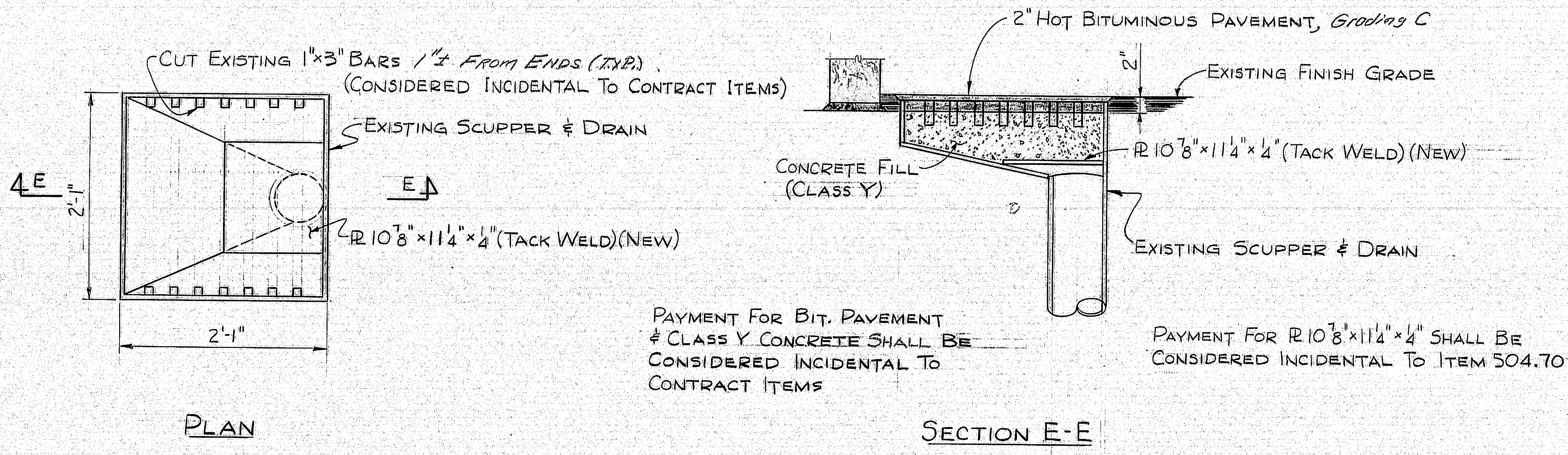
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N. Y.

171-183

FHWA REGION	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)16	6	8



TIE ROD SUPPORT DETAILS


CUT EXISTING 1"×3" BARS 1"± FROM ENDS (TYP.) (CONSIDERED INCIDENTAL TO CONTRACT ITEMS)
EXISTING SCUPPER & DRAIN
E
E
2'-1"
2'-1"
℞ 10$\frac{7}{8}$" × 11$\frac{1}{4}$" × $\frac{1}{4}$" (TACK WELD) (NEW)
2" HOT BITUMINOUS PAVEMENT, Grading C
2"
EXISTING FINISH GRADE
℞ 10$\frac{7}{8}$" × 11$\frac{1}{4}$" × $\frac{1}{4}$" (TACK WELD) (NEW)
CONCRETE FILL (CLASS Y)
EXISTING SCUPPER & DRAIN

PAYMENT FOR BIT. PAVEMENT & CLASS Y CONCRETE SHALL BE CONSIDERED INCIDENTAL TO CONTRACT ITEMS

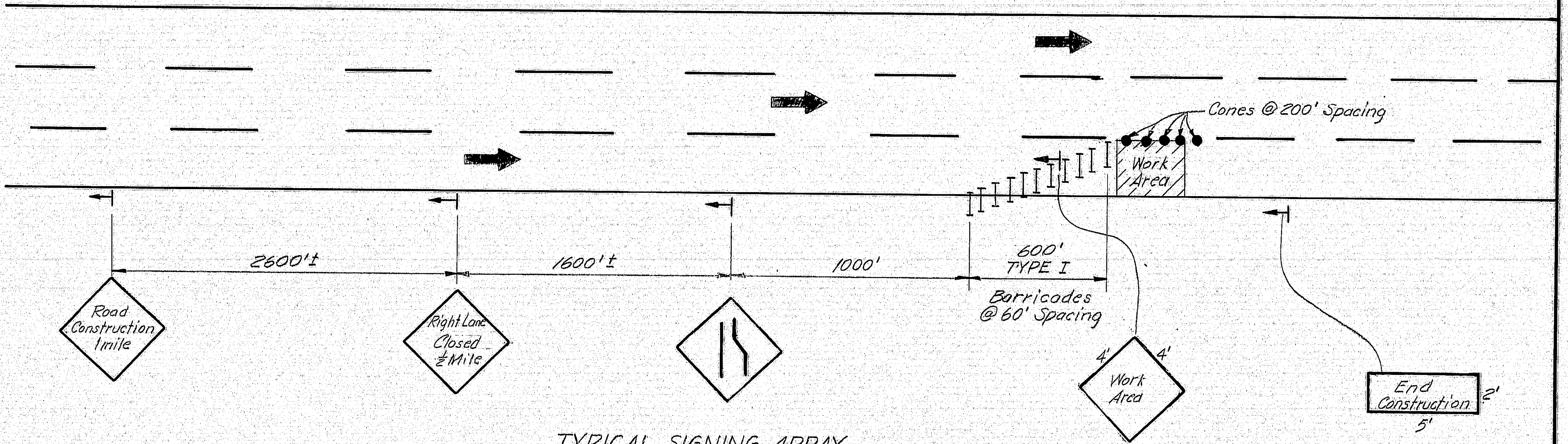
PAYMENT FOR ℞ 10$\frac{7}{8}$" × 11$\frac{1}{4}$" × $\frac{1}{4}$" SHALL BE CONSIDERED INCIDENTAL TO ITEM 504.70

PLAN

SECTION E-E

DRAIN PLUG DETAILS

(20 Required)



TYPICAL SIGNING ARRAY

DESIGN – Alec Elroy
TRACE –
CHECK –

BRIDGE NO. IN CHARGE OF – Michael C. Cusano

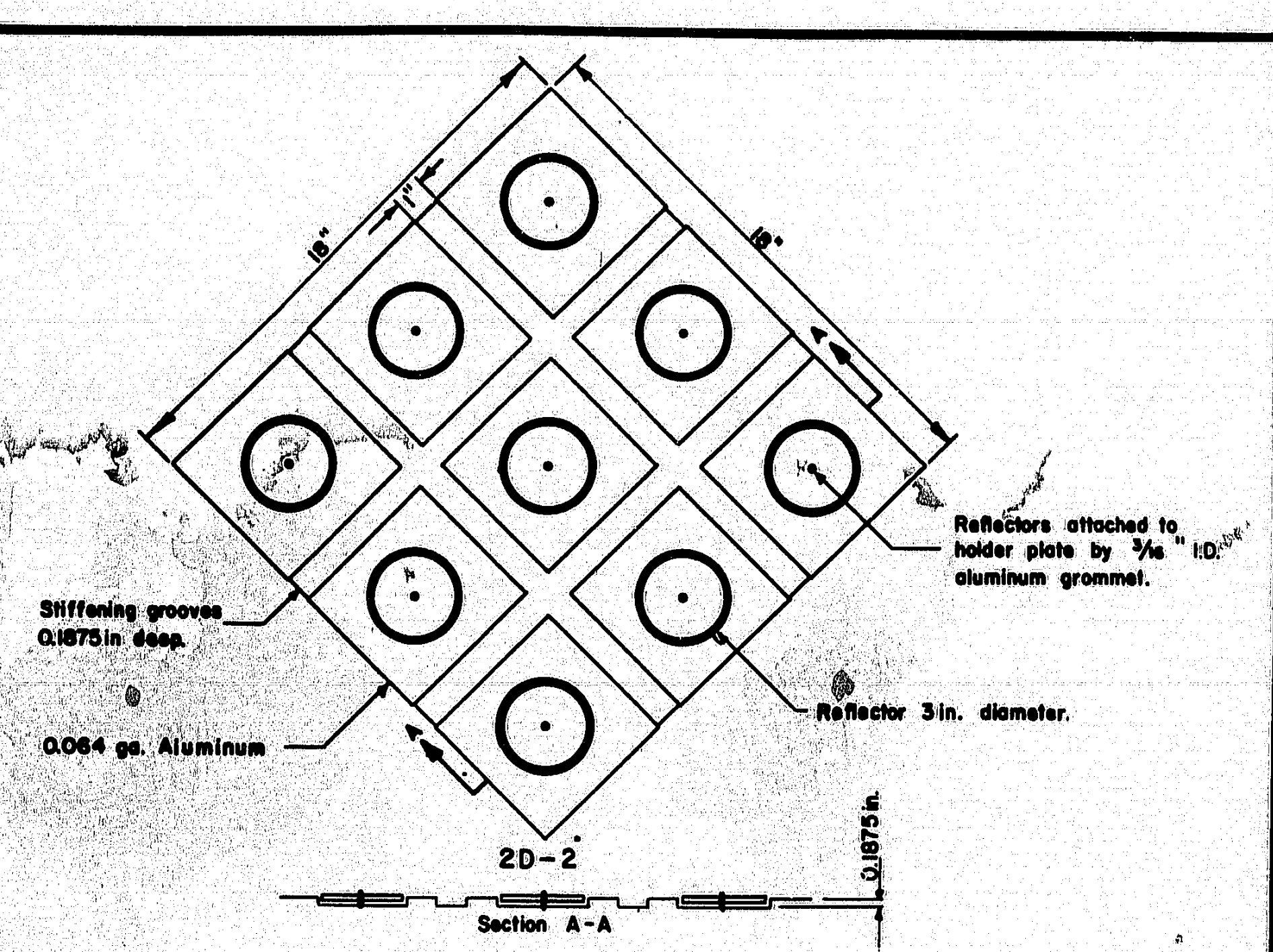
NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
AND
STATE OF MAINE - DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 BRIDGE
OVER
PISCATAQUA RIVER
BETWEEN
PORTSMOUTH, NEW HAMPSHIRE AND KITTERY, MAINE

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

DRAIN EXTENSIONS
DETAILS AT CATWALK

SHEET 6 OF 8

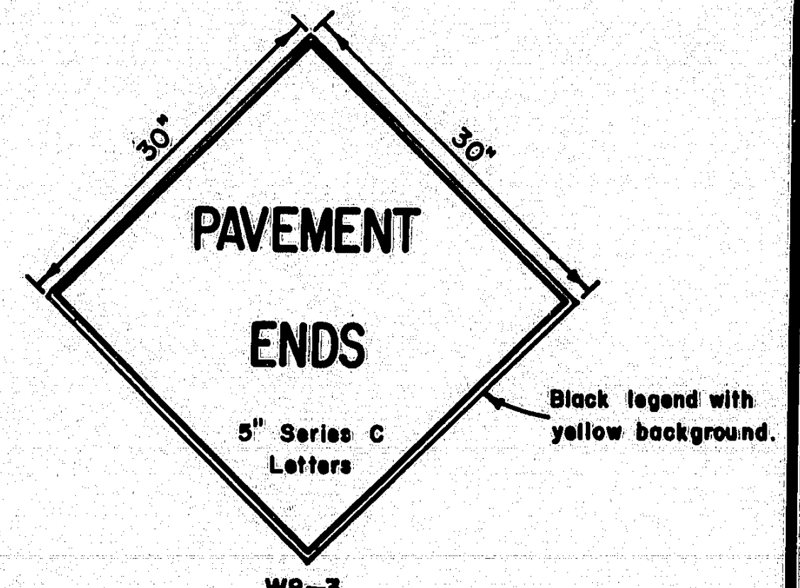
171-184


18"
18"
1"
Reflectors attached to holder plate by 3/16" I.D. aluminum grommet.
Stiffening grooves 0.1875in. deep.
Reflector 3in. diameter.
0.064 ga. Aluminum
2D-2
0.1875in.
Section A-A

HAZARD MARKER

NOTE

SIGNING IN AN AREA WHERE BLASTING IS NECESSARY SHALL BE PLACED AS OUTLINED IN THE "MANUAL", AND THE PRECAUTIONS OF SUBSECTION 107.12 OF THE STANDARD SPECIFICATIONS SHALL BE OBSERVED.



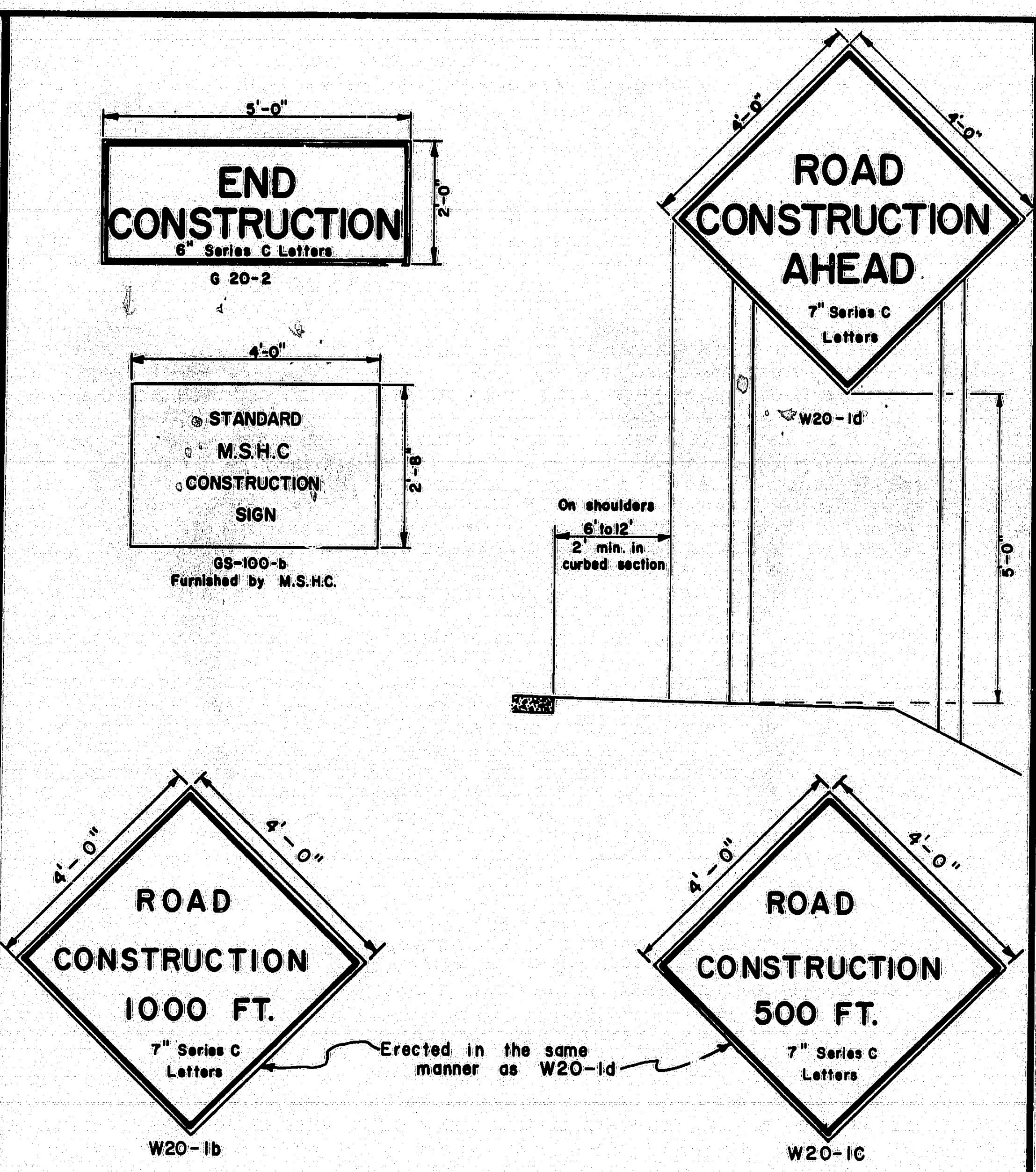
W8-3

GENERAL NOTE

Construction Signs

1. Sign Borders: All signs shall have borders conforming to the sizes and spacing as shown below:
   - a. 30"x30" Sign - ¾" Border, ½" Space from sign edge.
   - b. 2' x 5' Sign - ⅝" Border, ⅜" Space from sign edge.
   - c. 3' x 4' Sign - ¾" Border, ½" Space from sign edge.
   - d. 4' x 4' Sign - 1¼" Border, ¾" Space from sign edge.

A



CONSTRUCTION SIGNS

B

GENERAL NOTES - BARRICADES

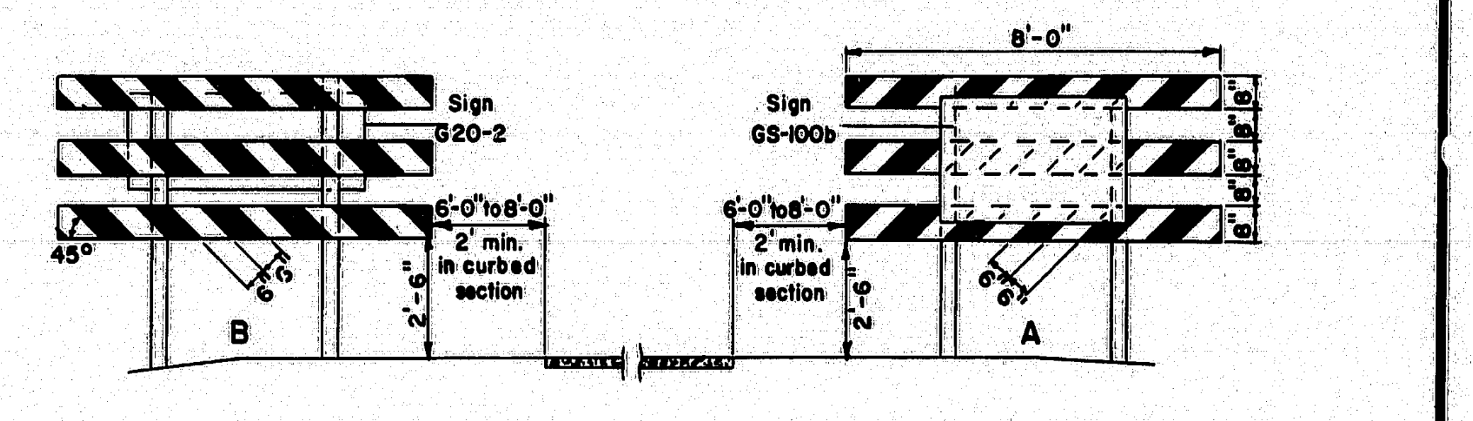
1. Unless otherwise designated, sign designation letters shall refer to the "Manual of Uniform Traffic Control Devices for Streets and Highways," published by the U.S. Department of Transportation, Federal Highway Administration, 1971.
2. White stripes shall be of silver reflective sheeting bonded to 0.019 minimum gauge aluminum, 16 minimum gauge galvanized steel, or 1/4" plywood. Individual white sheets may be attached to a black background or orange reflectorized background to form the black or orange and white stripes. At the Contractor's option the reflective sheeting and backing may extend the full width of the barricade with an opague film or paint applied to form the stripes.
3. All signs shall be of reflective sheeting on 5/8" thick plywood. The plywood shall conform to subsection 712.25, Maine State Highway Commission, Standard Specifications, June 1968.
4. Pressure sensitive reflective sheeting will be an acceptable alternate to the reflective sheeting required by Maine State Highway Commission, Standard Specifications.

NOTES - PORTABLE BARRICADES

1. Lumber sizes for portable barricades shall be 2" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. The detour sign shall be an oversized M4-10 sign with a demountable "DETOUR" message which shall be made of screened reflective sheeting on 1/4" plywood, masonite, sheet steel or sheet aluminum.
3. Hazard markers shall be attached to the barricade with a bolt assembly of steel cadmium plated 5/16" bolt, lock washer and vandal resistant nuts.
4. When two W1-6 signs are required, R11-2, R11-3, or R11-4 signs shall be omitted.
5. Flashing lights housings shall be mounted to permit rotating in a vertical axis to allow for adjustment to face oncoming traffic.
6. Location of electric service and meter to be determined after the power source has been located.

NOTES-WING BARRICADES

1. Lumber sizes for wing barricades shall be 1" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. Wing barricades will not be required unless specifically called for in the special provisions.
3. Location of signs and barricades will be determined by the Engineer.

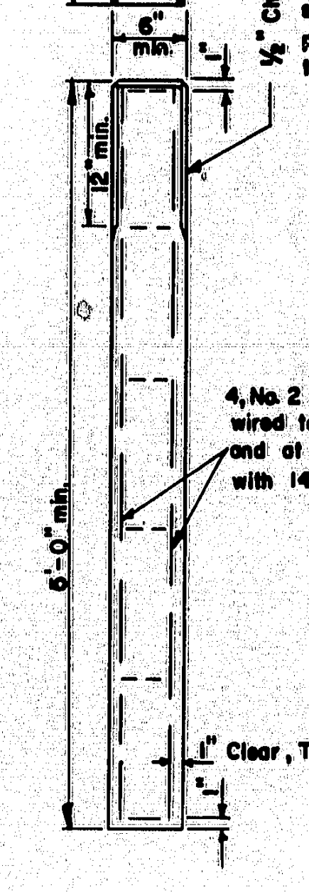


WING BARRICADES

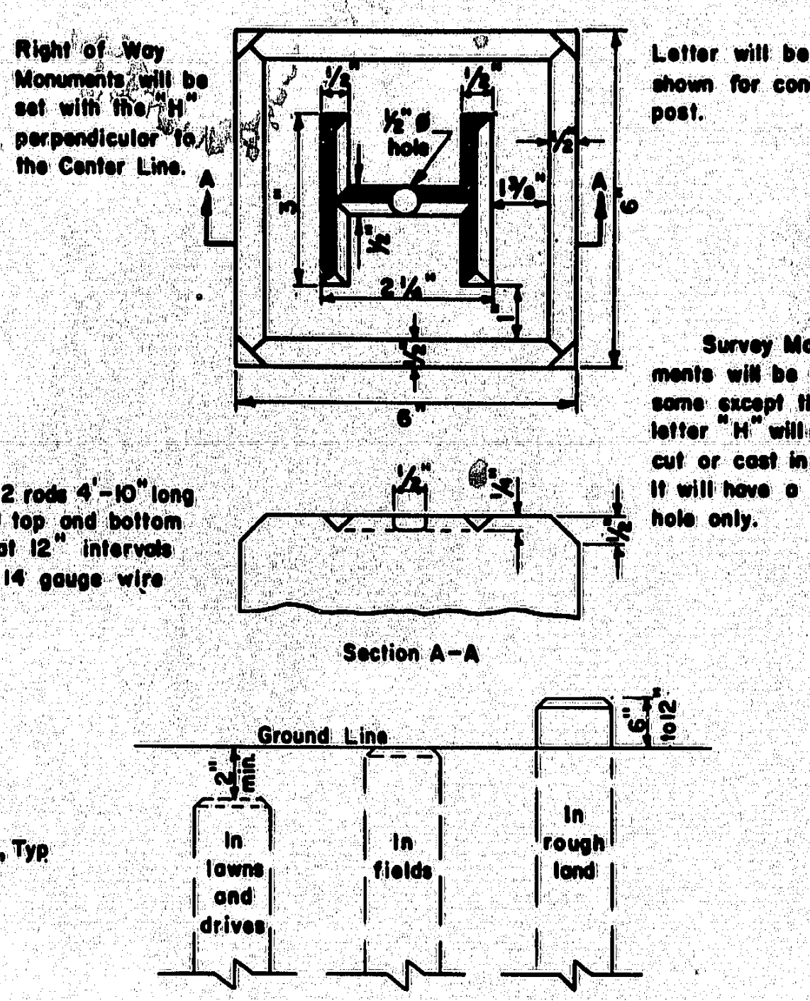
C

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)	7	8

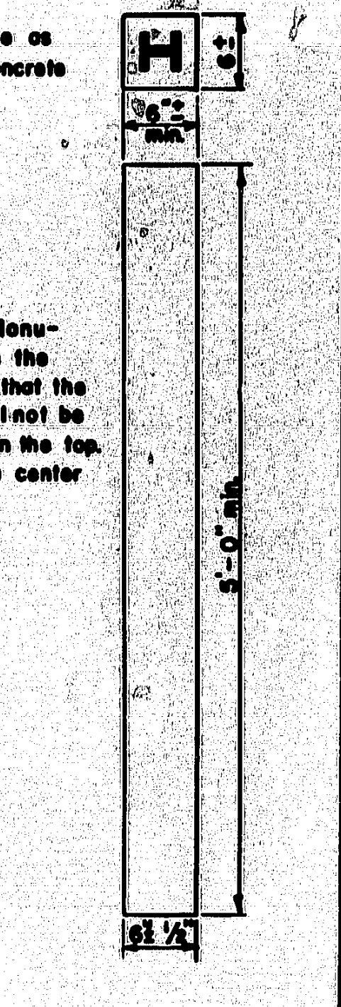
RIGHT OF WAY & SURVEY MONUMENTS



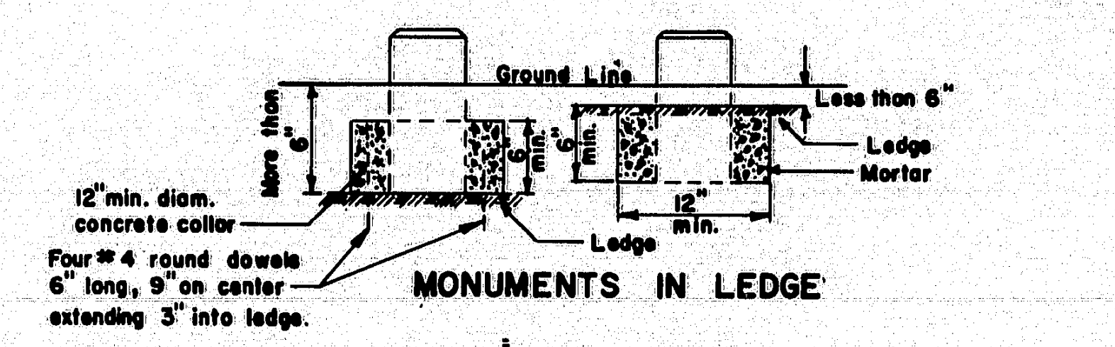
CONCRETE MONUMENT


½" Chamfer
Right of Way Monuments will be set with the "H" perpendicular to the Center Line.
½" ø hole
1⅜"
2¼"
3"
6"
6"
A
A
4, No. 2 rods 4'-10" long wired top and bottom and at 12" intervals with 14 gauge wire
Section A-A
Ground Line
2" min.
In lawns and drives
In fields
In rough land
6" to 12"
Letter will be as shown for concrete post.
Survey Monuments will be the same except that the letter "H" will not be cut or cast in the top. It will have a center hole only.

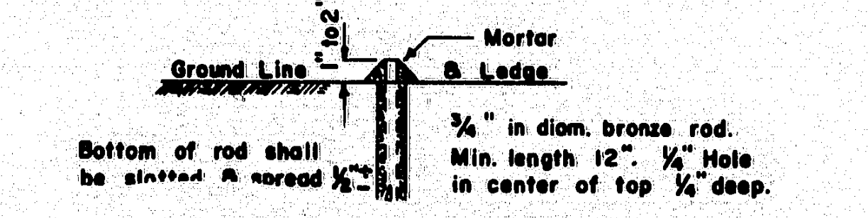
MONUMENTS IN EARTH



GRANITE MONUMENT

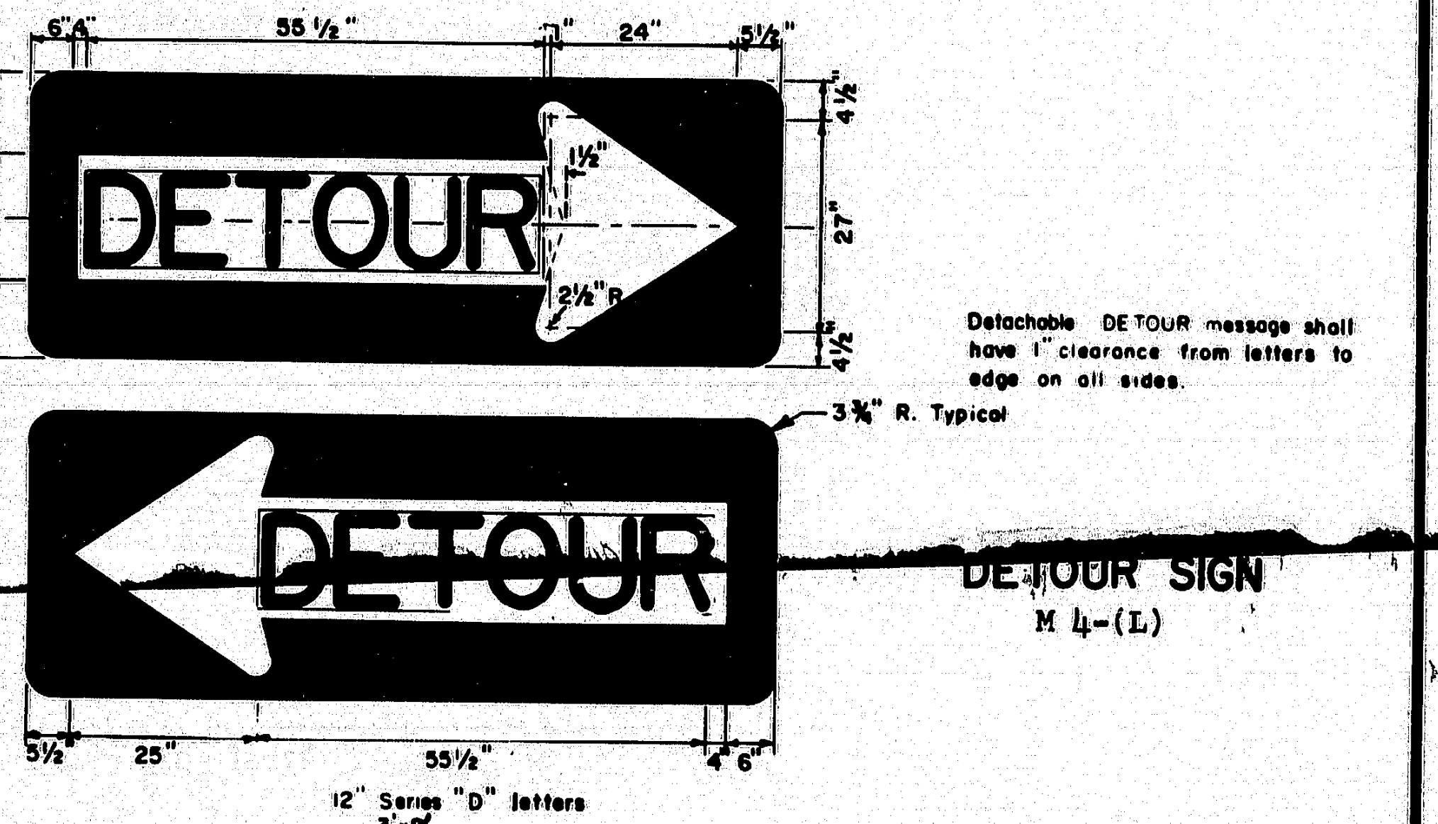

Ground Line
More than 6"
6" min.
6" min.
Less than 6"
Ledge
Mortar
12" min.
12" min. diam. concrete collar
Four #4 round dowels 6" long, 9" on center extending 3" into ledge.
Ledge

MONUMENTS IN LEDGE

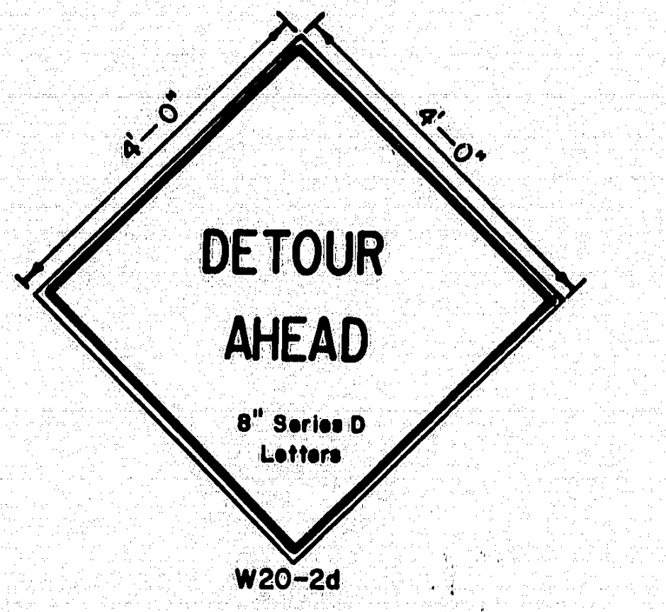

Ground Line
1" to 2"
Mortar & Ledge
Bottom of rod shall be slotted & spread ½"
¾" in diam. bronze rod. Min. length 12". ¼" Hole in center of top ¼" deep.

BRONZE PIN MARKERS

D



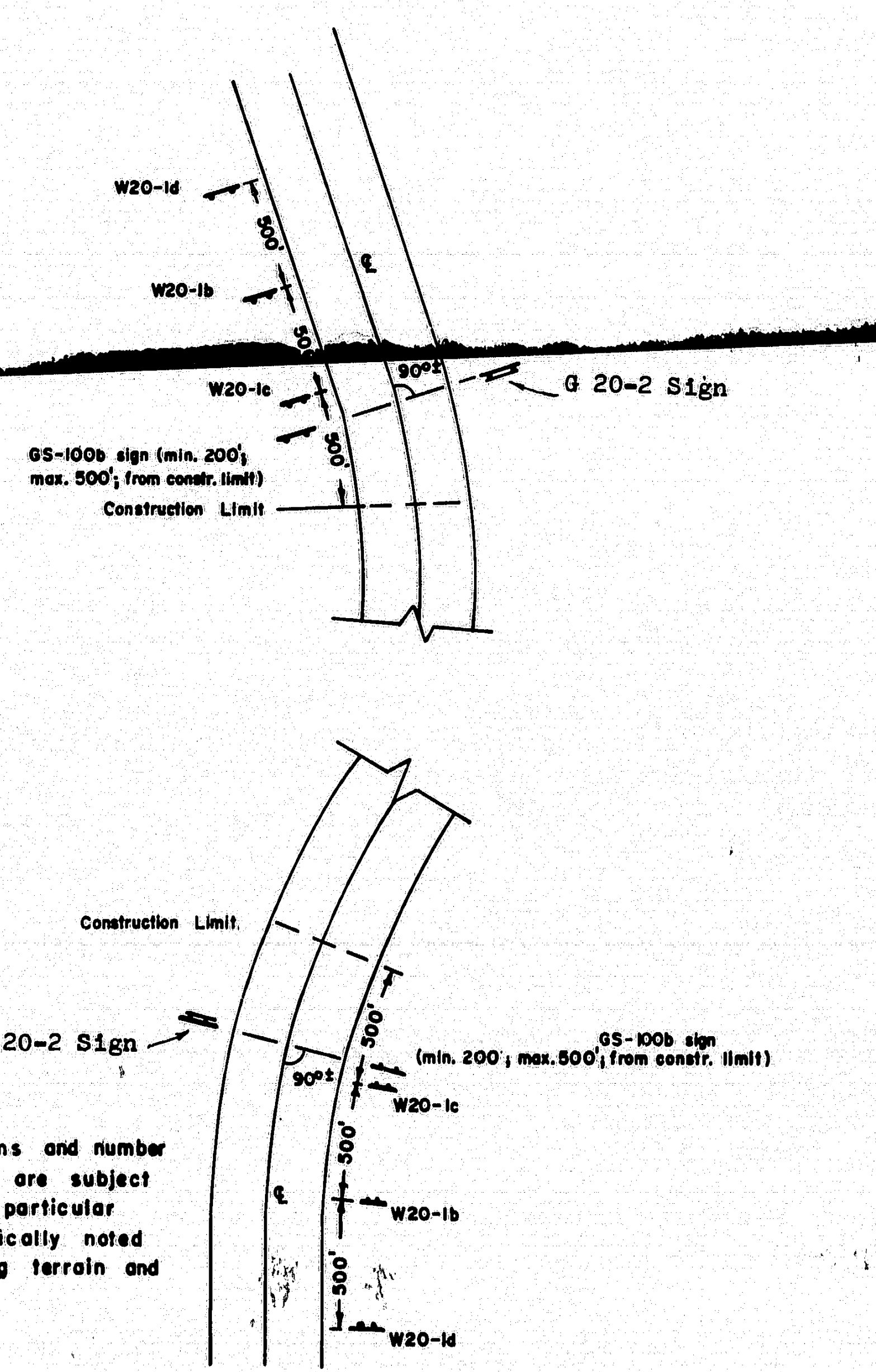
DETOUR SIGN
M 4-(L)



W20-2d

E

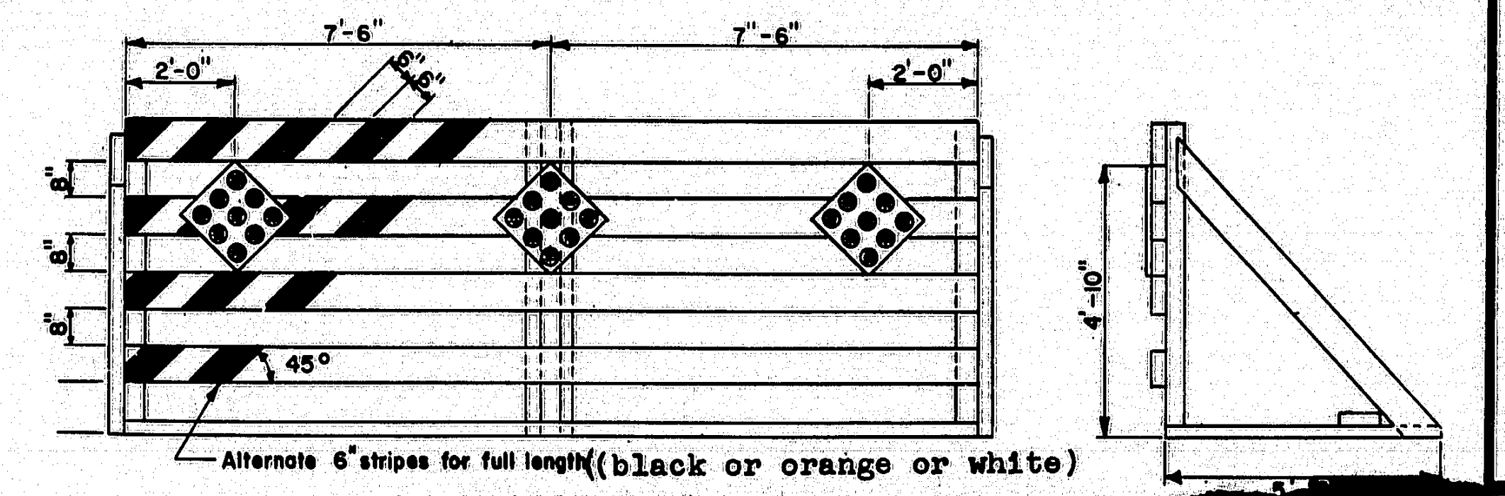
STANDARD SIGN LOCATIONS



NOTE:

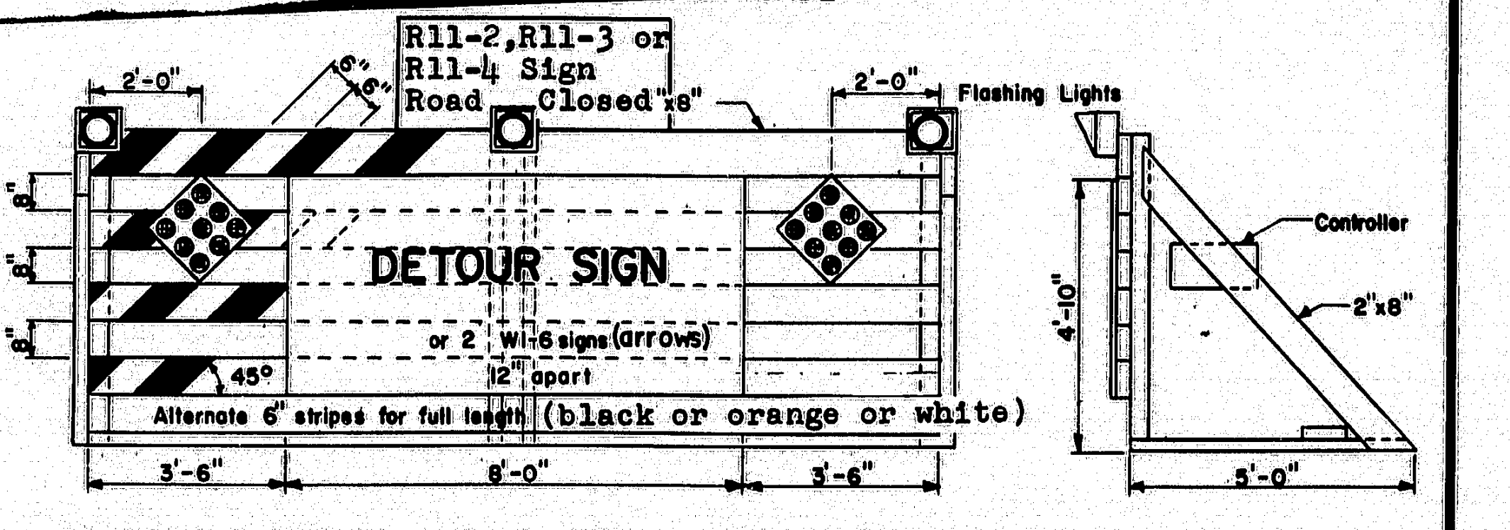
Standard locations and number of signs required are subject to variation on particular projects if specifically noted due to surrounding terrain and land use.

F

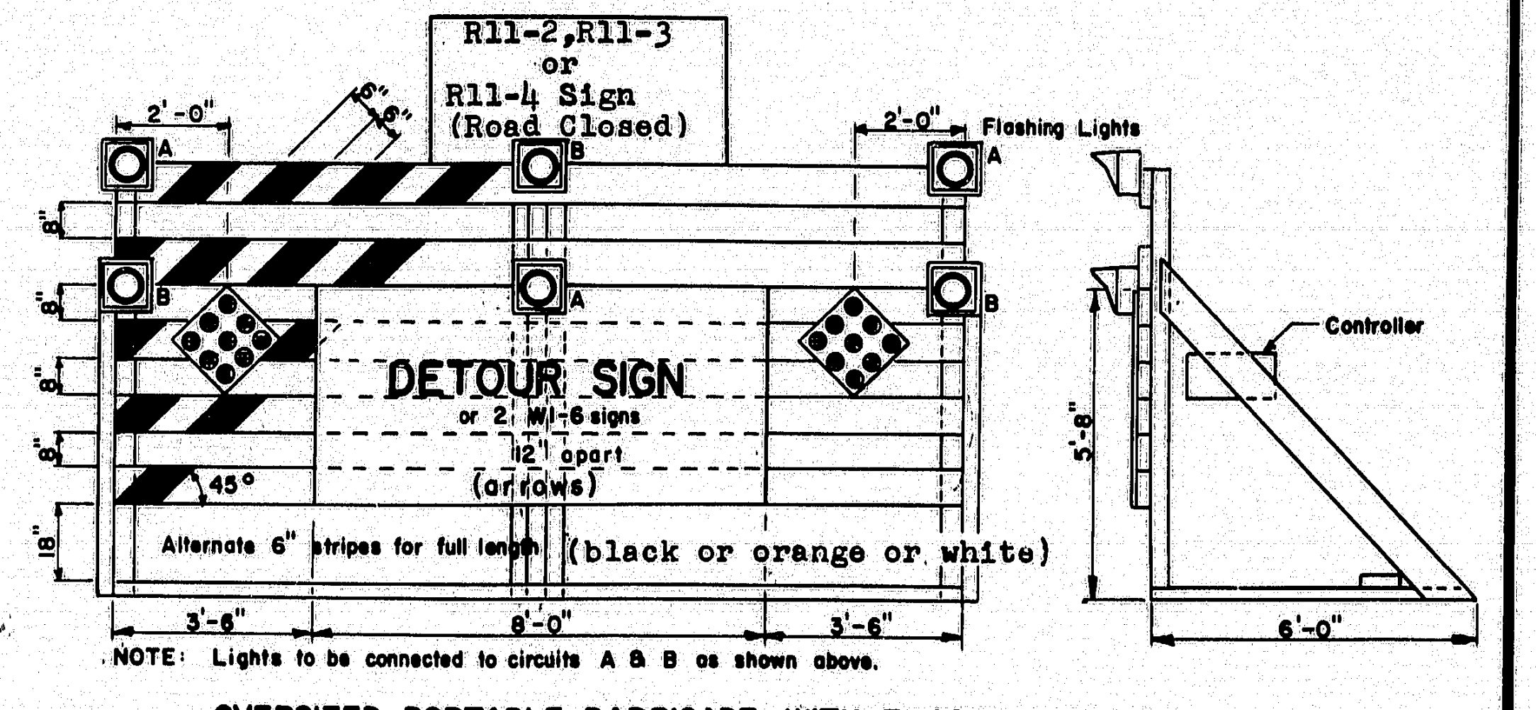


Alternate 6" stripes for full length (black or orange or white)

PORTABLE BARRICADE



PORTABLE BARRICADE WITH FLASHING LIGHTS (NORMAL SIZE)

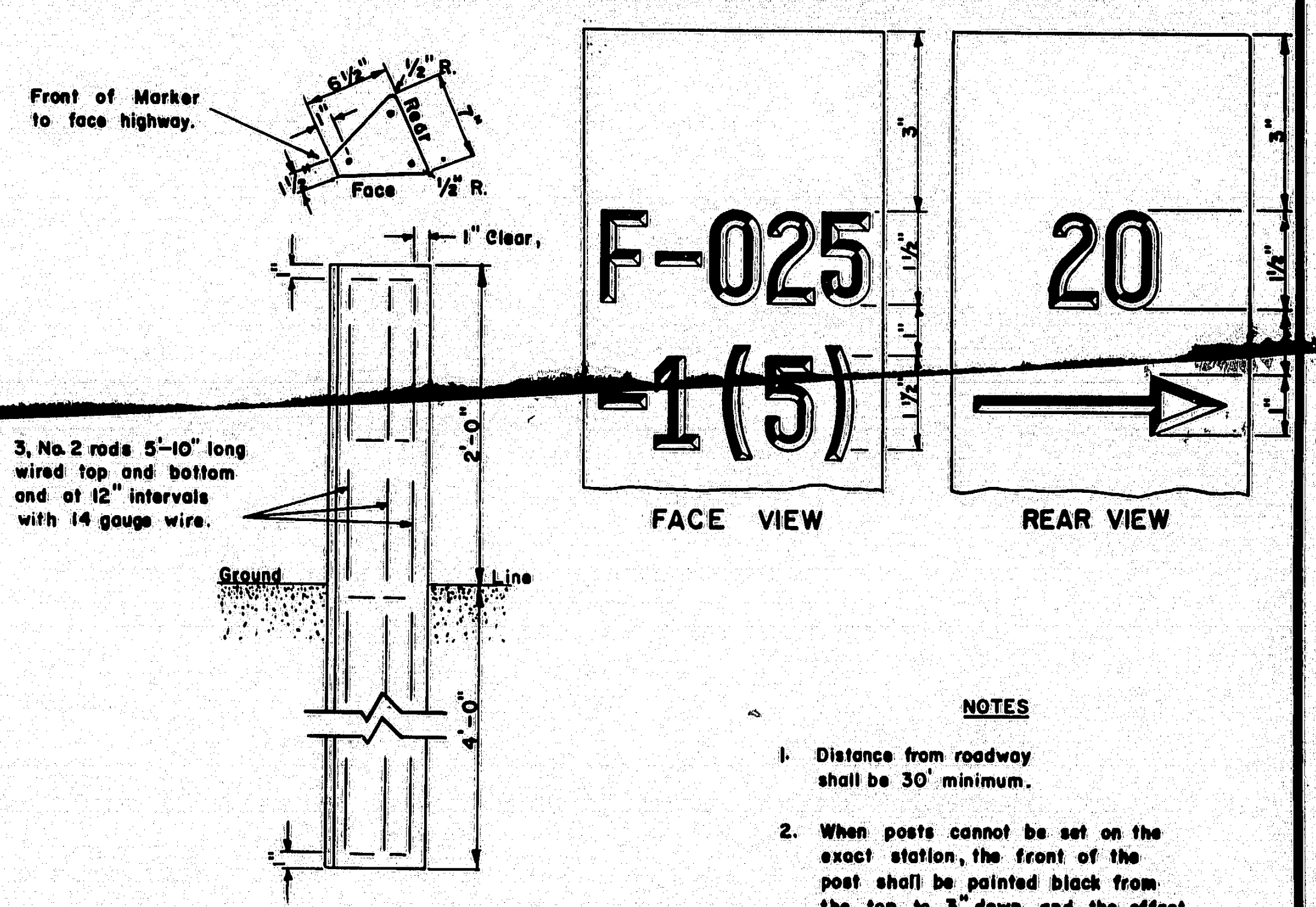


NOTE: Lights to be connected to circuits A & B as shown above.

OVERSIZED PORTABLE BARRICADE WITH FLASHING LIGHTS

BARRICADES

G


Front of Marker to face highway.
6½"
½" R.
Rear
7"
1"
1½"
Face
½" R.
1" Clear,
3, No. 2 rods 5'-10" long wired top and bottom and at 12" intervals with 14 gauge wire.
2'-0"
Ground Line
4'-0"
F-025
-1(5)
20
3"
1½"
1"
1½"
1"
FACE VIEW
REAR VIEW

NOTES

1. Distance from roadway shall be 30' minimum.
2. When posts cannot be set on the exact station, the front of the post shall be painted black from the top to 3" down, and the offset distance marked on rear with an arrow pointing in direction of beginning or end of project.
3. All markings to be ¼" deep and 3/16" wide.

PROJECT MARKERS

H

REVISION	
PLATE B	12-21-70
PLATES A, C, E, F & G	12-15-71
PLATE C	10-12-72

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

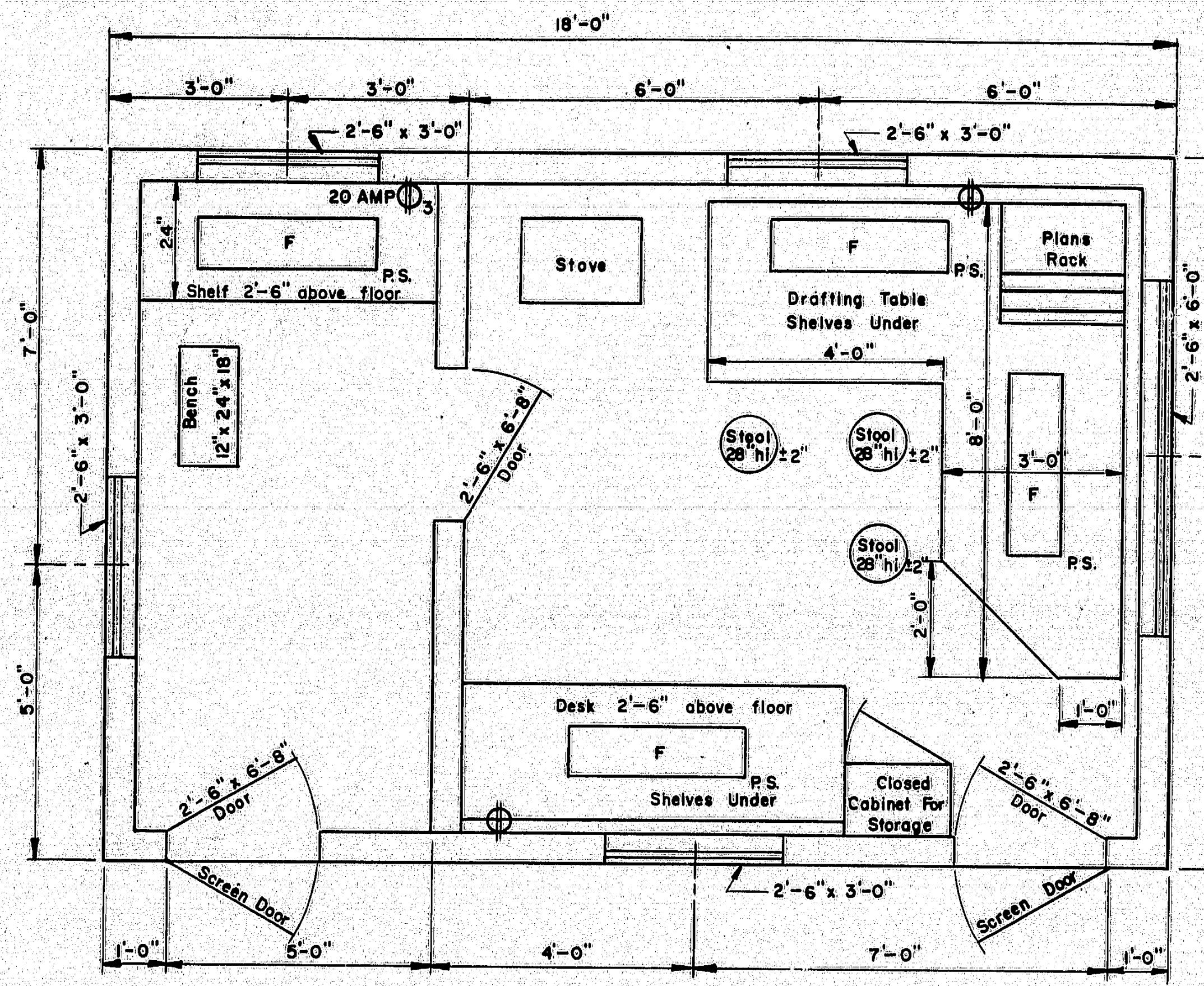
BARRICADES WARNING SIGNS MONUMENTS PROJECT MARKERS

AUG. 1969

11

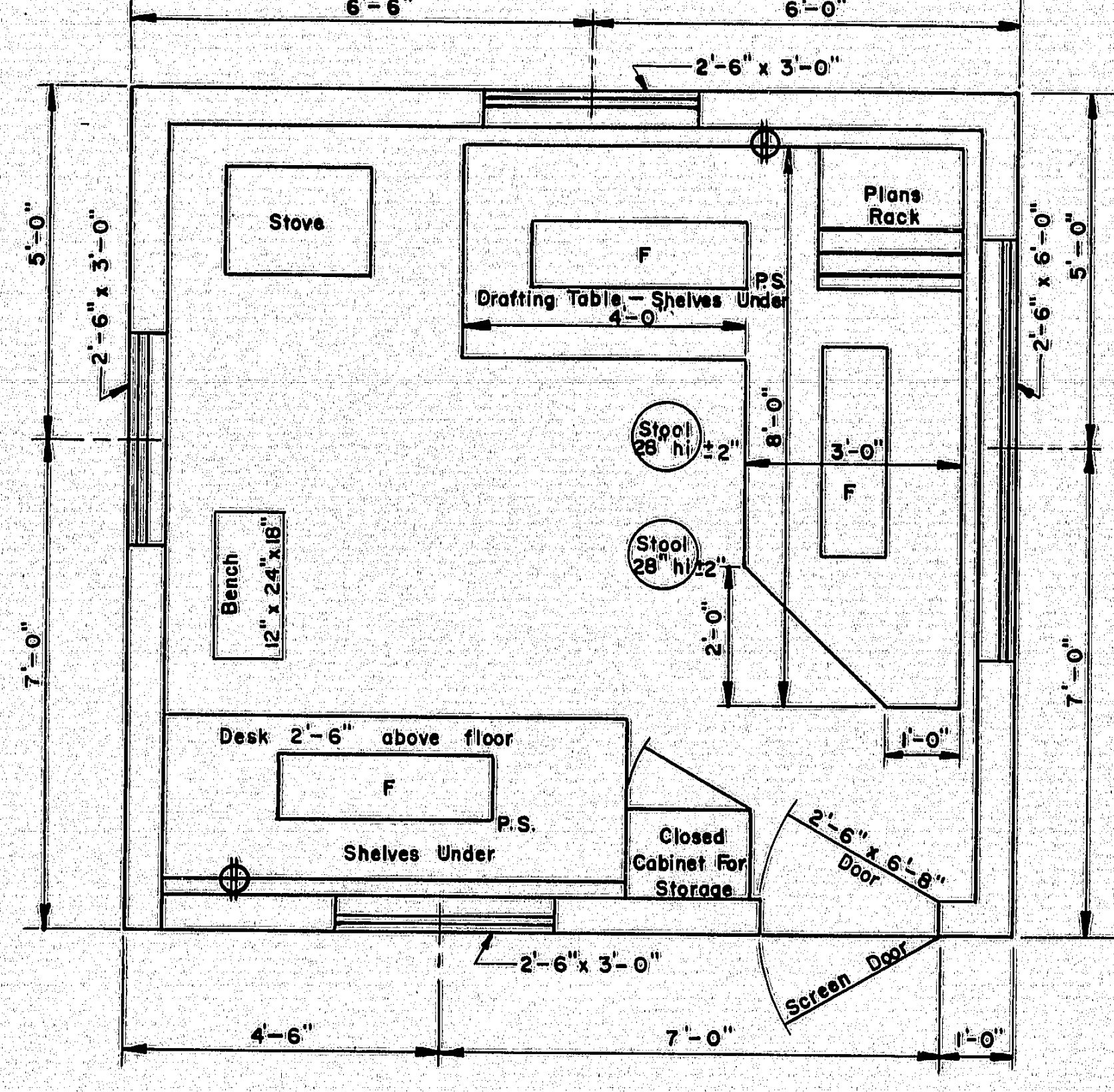
171-185

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(32)16	8	8



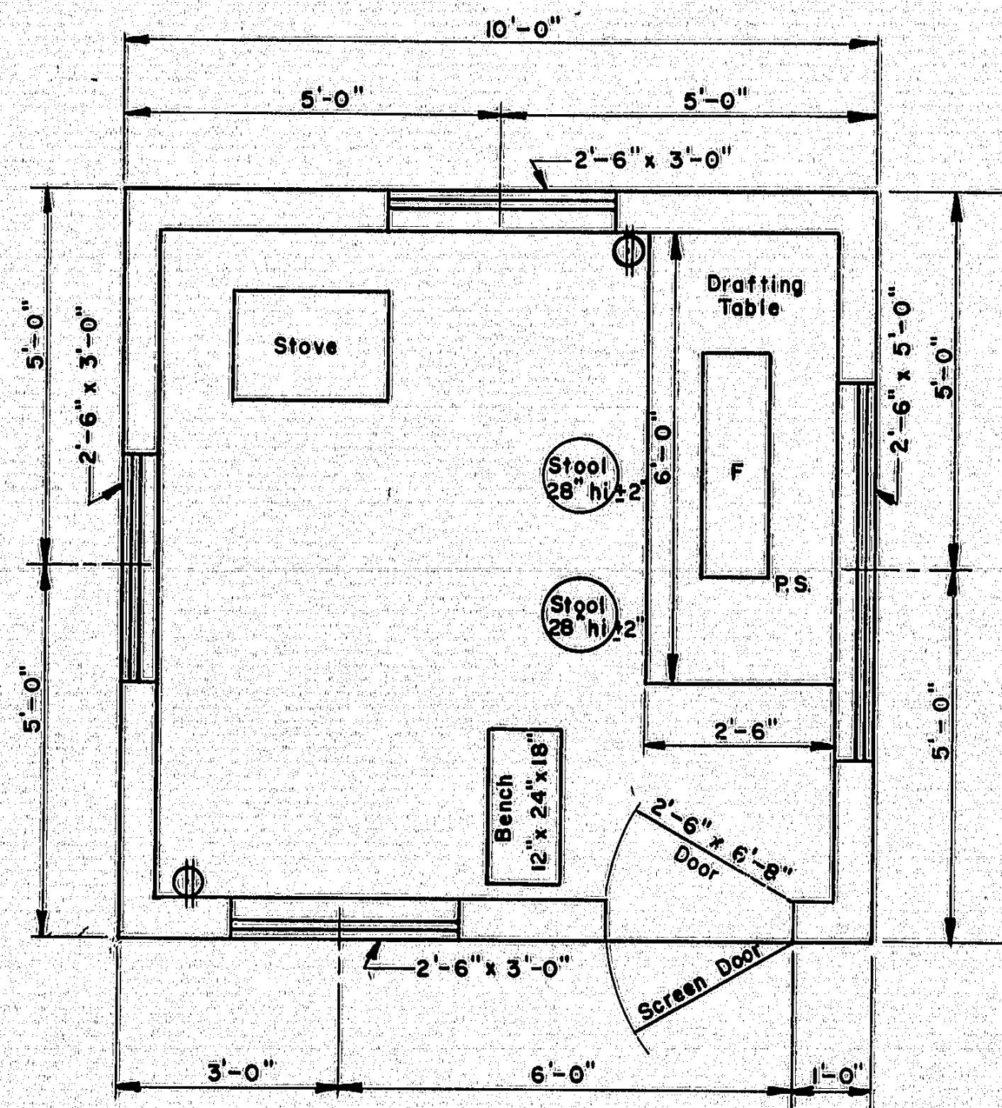
FLOOR PLAN
TYPE "A"

A



FLOOR PLAN
TYPE "B"

B



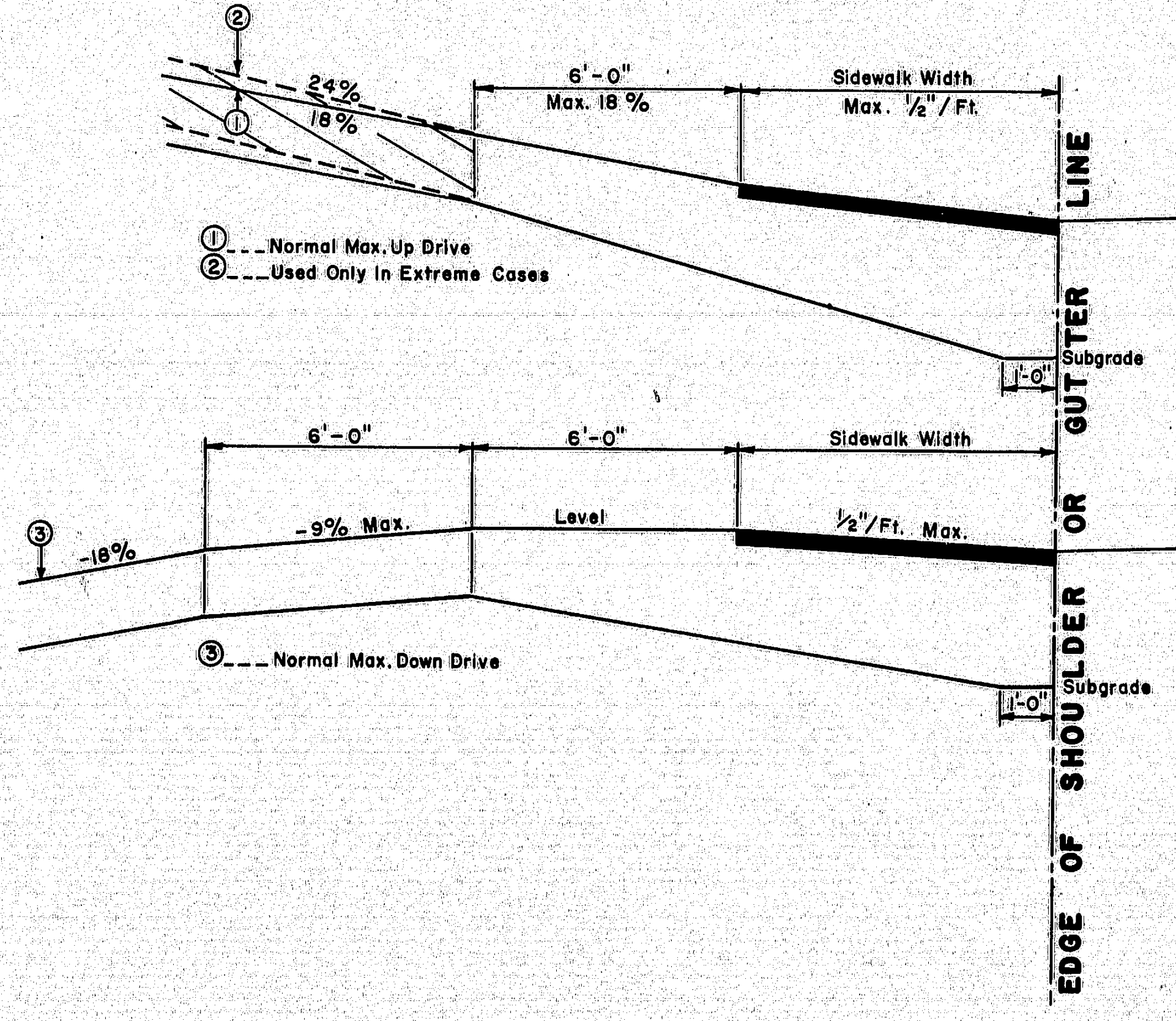
FLOOR PLAN
TYPE "C"

GENERAL NOTES

1. Drafting table shall be 3'-4" high at front edge and placed 2" from studs to allow prints to hang down behind table when in use.
2. Shelves under desk shall be constructed to received 11½" x 14" x 25" transfiles.
3. Windows shall be double hung.
4. Stovepipe shall not be in direct contact with combustible material; the pipe shall be surrounded with at least 6" of fireproof material.
5. Continuous 110 volt 60 cycle electric service shall be supplied.
6. The engineer may rearrange the items shown on the plan views during construction of the field office.
7. FURNISHINGS TO BE SUPPLIED:
   - 2 Straight back chairs for types A and B
   - 1 Bench for types A, B & C
   - 3 Stool for type A
   - 2 Stools for types B & C
8. SYMBOLS:
   - F Florescent lights (2 light, rapid start 48" strips and 40 watt bulbs.)
   - P.S. Pull switch.
   - ⦶ Duplex wall outlet — 15 amp unless otherwise noted.
   - ⦶3 Triplex Wall Outlet
9. For the Type "A" Field Office one clean 55 gal. drum shall be supplied, installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furished with water at all times.

C

DRIVES ON SIDEWALK SECTIONS

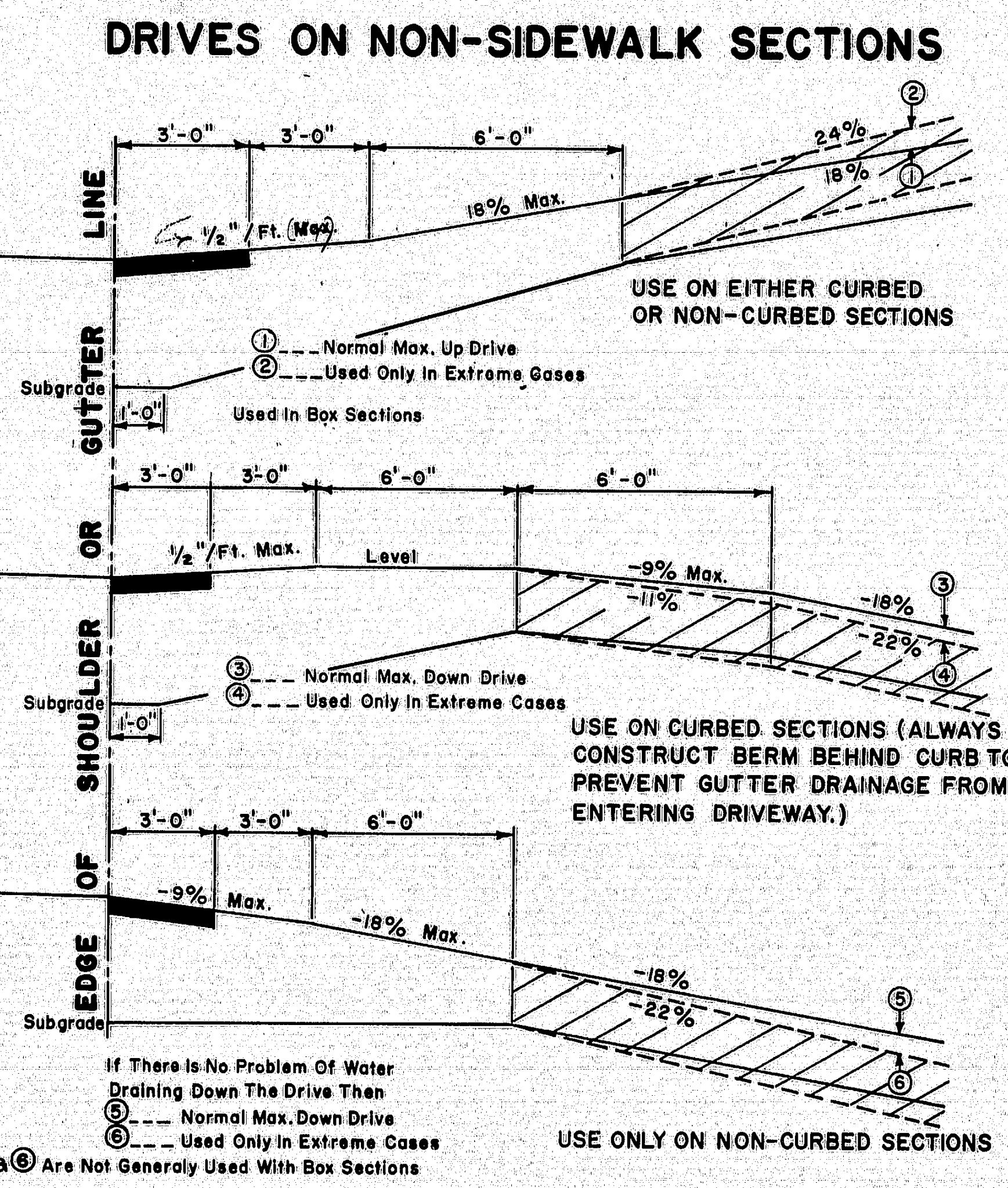


GENERAL NOTES
1. The sidewalk width shall be paved in all cases.
2. All residential or commercial drives over 10% AND OVER SHALL BE PAVED

NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

D

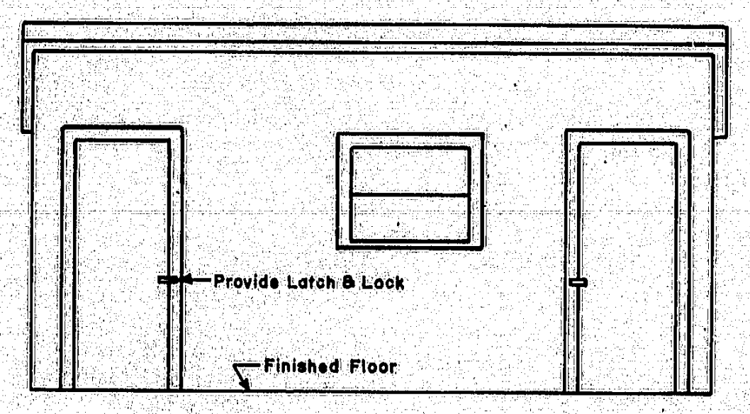
DRIVES ON NON-SIDEWALK SECTIONS


3'-0"
3'-0"
6'-0"
②
24%
18%
①
½"/Ft. (Max)
18% Max.
USE ON EITHER CURBED OR NON-CURBED SECTIONS
①___Normal Max. Up Drive
②___Used Only In Extreme Cases
Subgrade
1'-0"
Used In Box Sections
3'-0"
3'-0"
6'-0"
6'-0"
½"/Ft. Max.
Level
-9% Max.
-11%
-18%
-22%
③
④
③___Normal Max. Down Drive
④___Used Only In Extreme Cases
Subgrade
1'-0"
USE ON CURBED SECTIONS (ALWAYS CONSTRUCT BERM BEHIND CURB TO PREVENT GUTTER DRAINAGE FROM ENTERING DRIVEWAY.)
3'-0"
3'-0"
6'-0"
-9% Max.
-18% Max.
-18%
-22%
⑤
⑥
Subgrade
If There Is No Problem Of Water Draining Down The Drive Then
⑤___Normal Max. Down Drive
⑥___Used Only In Extreme Cases
⑤ & ⑥ Are Not Generaly Used With Box Sections
USE ONLY ON NON-CURBED SECTIONS
EDGE OF SHOULDER OR GUTTER LINE

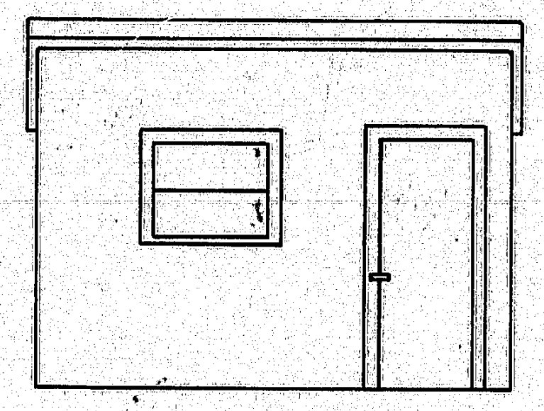
GENERAL NOTES
1. The first 3' shown as pavement shall be paved only when abuting a paved area.
2. All residential or commercial drives over 10% to be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

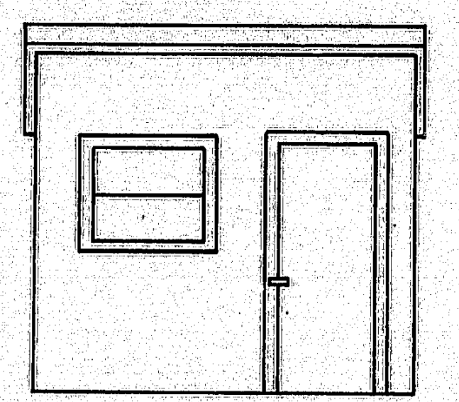
E



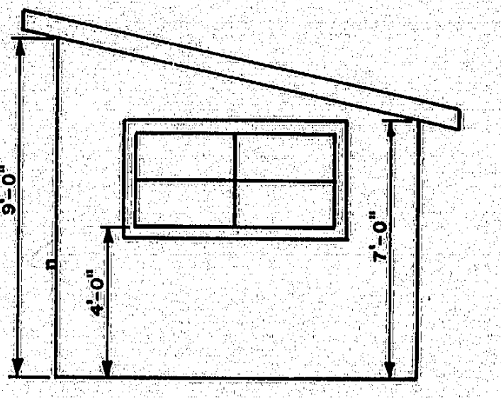
FRONT ELEVATION
TYPE "A"



FRONT ELEVATION
TYPE "B"



FRONT ELEVATION
TYPE "C"



SIDE ELEVATION
TYPES "A" "B" & "C"

F

REVISIONS	
PLATE D	3-16-73

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

STANDARD DETAILS

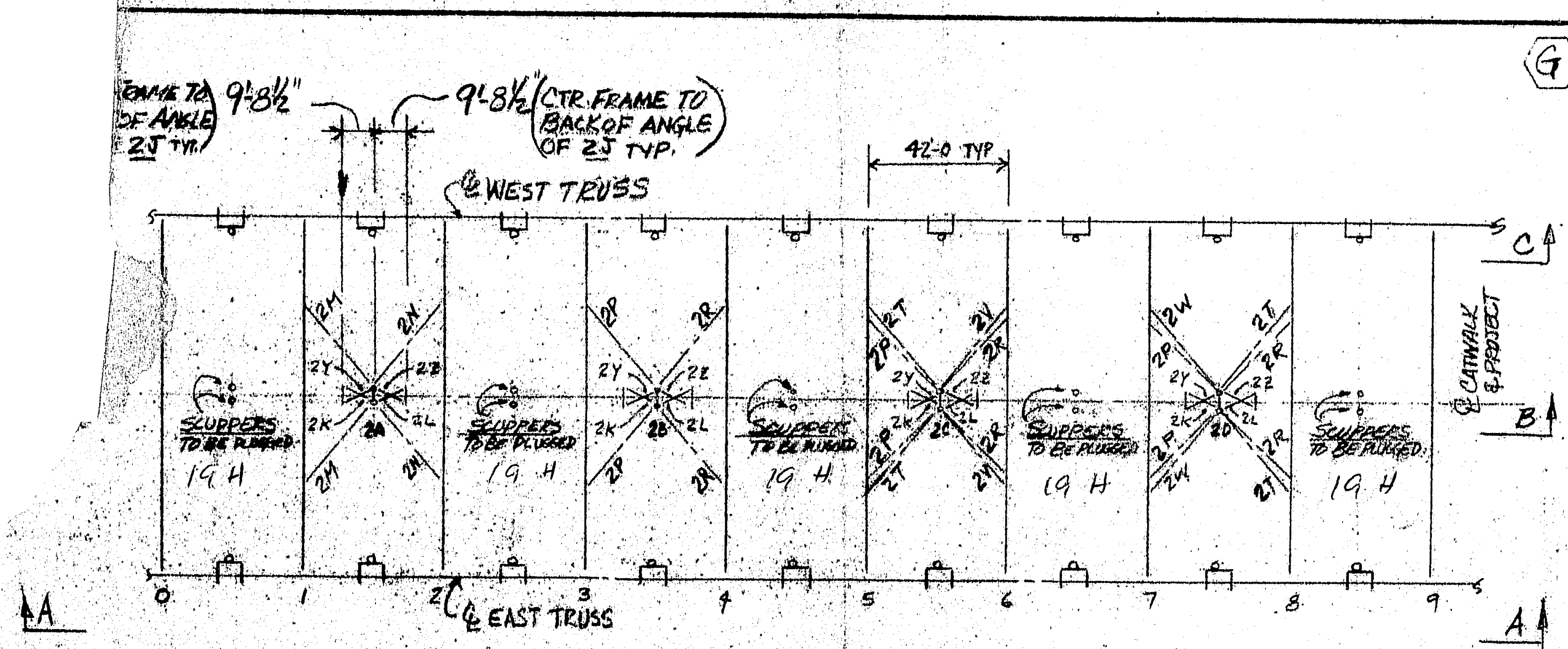
DRIVEWAY DETAILS
FIELD OFFICES
TESTING LABORATORY

AUG. 1969

12

171-186

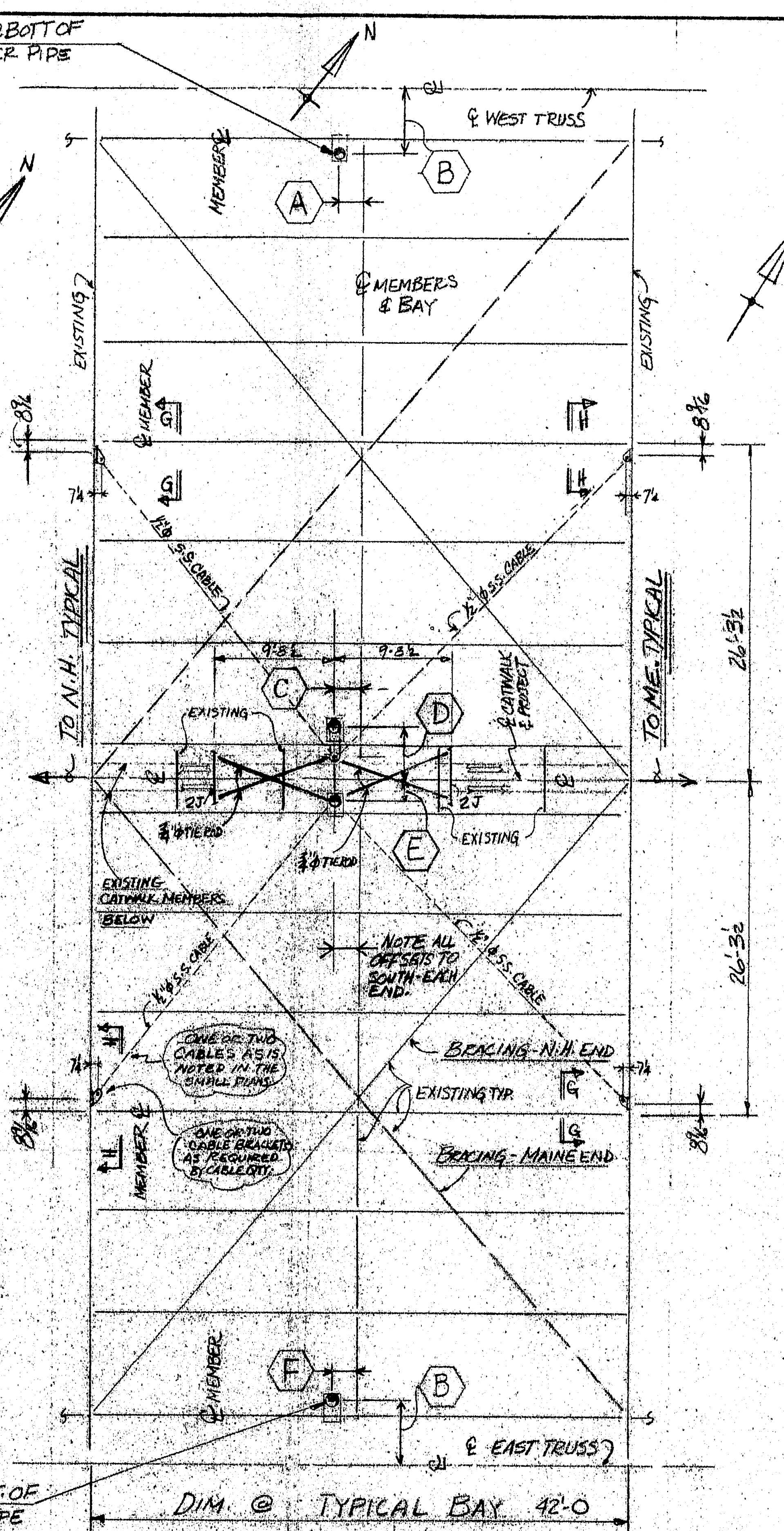
FIELD NOTE:
ALL DOWN SPOUTS TO BE HUNG PLUMB.



PLAN

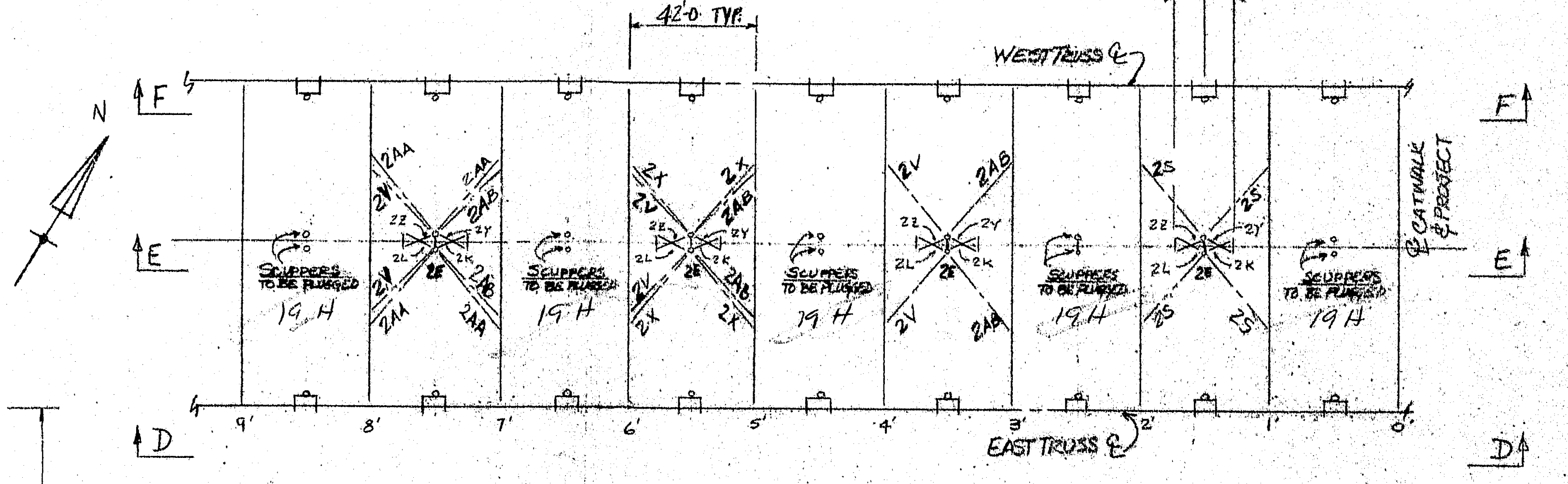
NEW HAMPSHIRE END

SEE TYP. BAY PLAN


G ELEV.@ BOTT. OF SCUPPER PIPE
N
℄ WEST TRUSS
A
B
℄ MEMBERS & BAY
EXISTING
℄ MEMBER
TO N.H. TYPICAL
TO ME. TYPICAL
26'-3½
C
D
E
9'-8½
9'-3½
EXISTING
¾"Φ TIE ROD
½"Φ S.S. CABLE
EXISTING CATWALK MEMBERS BELOW
NOTE ALL OFFSETS TO SOUTH-EXP. END
ONE OF TWO CABLES AS IS NOTED IN THE SMALL PLANS
ONE OF TWO CABLE BRACKETS AS REQUIRED BY CALCULATION
BRACING - N.H. END
EXISTING TYP.
BRACING - MAINE END
F
B
℄ EAST TRUSS
H ELEV @ BOTT. OF SCUPPER PIPE

DIM. @ TYPICAL BAY 42'-0

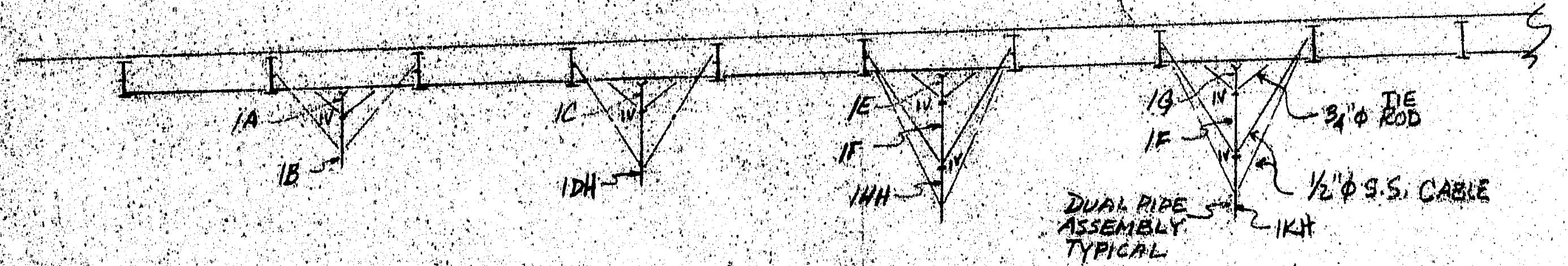
PLAN
ONE ENLARGED BAY



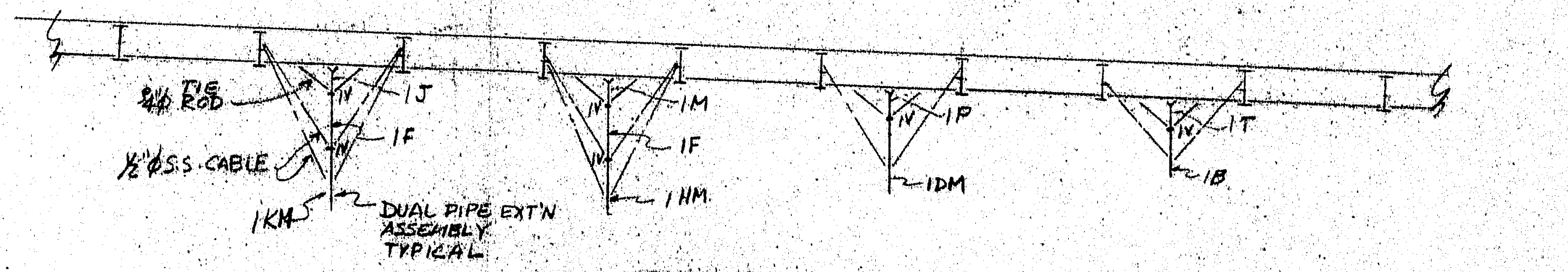
PLAN

MAINE END

SEE TYP. BAY PLAN

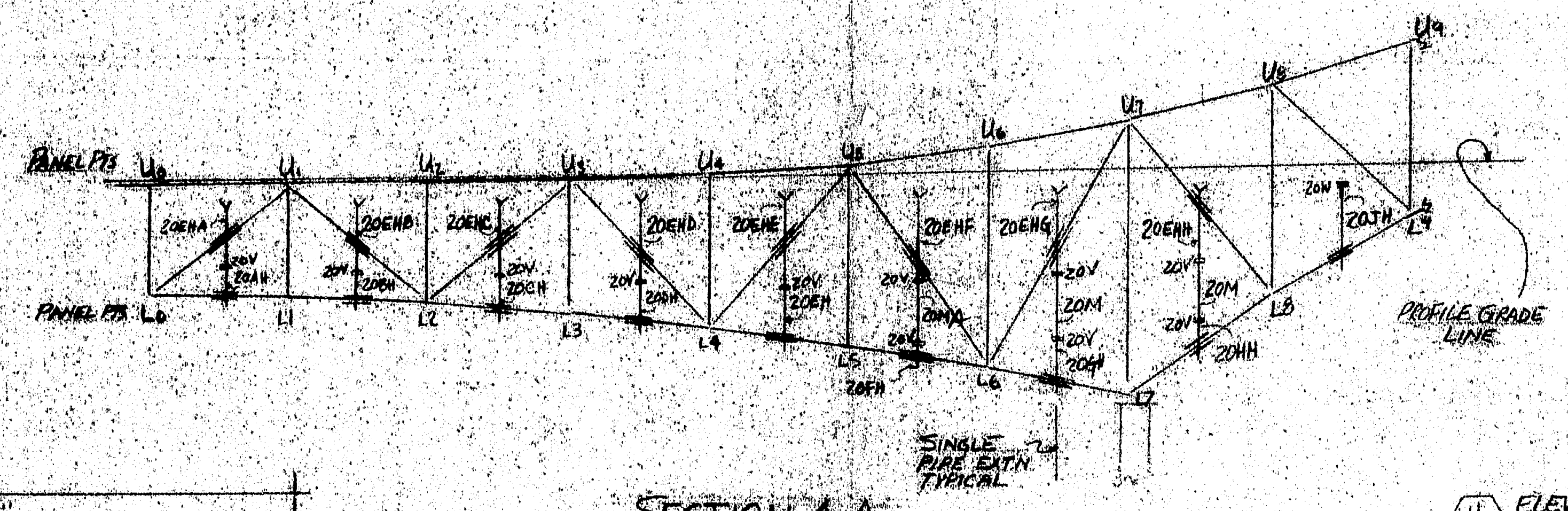


SECTION B-B

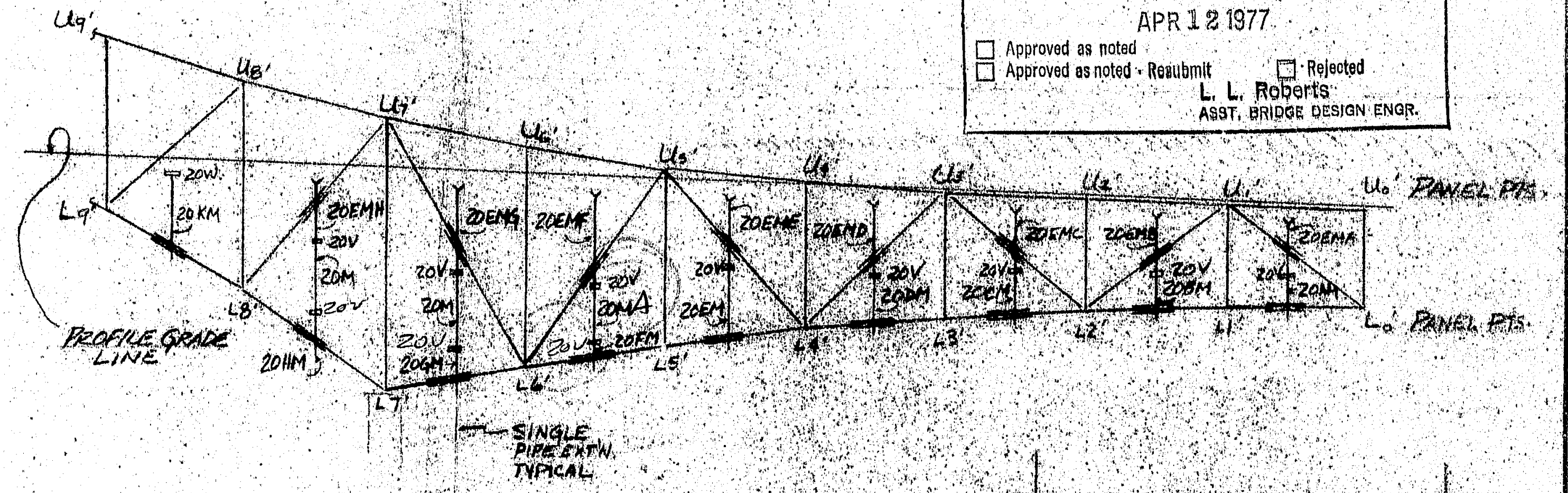


SECTION E-E

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.



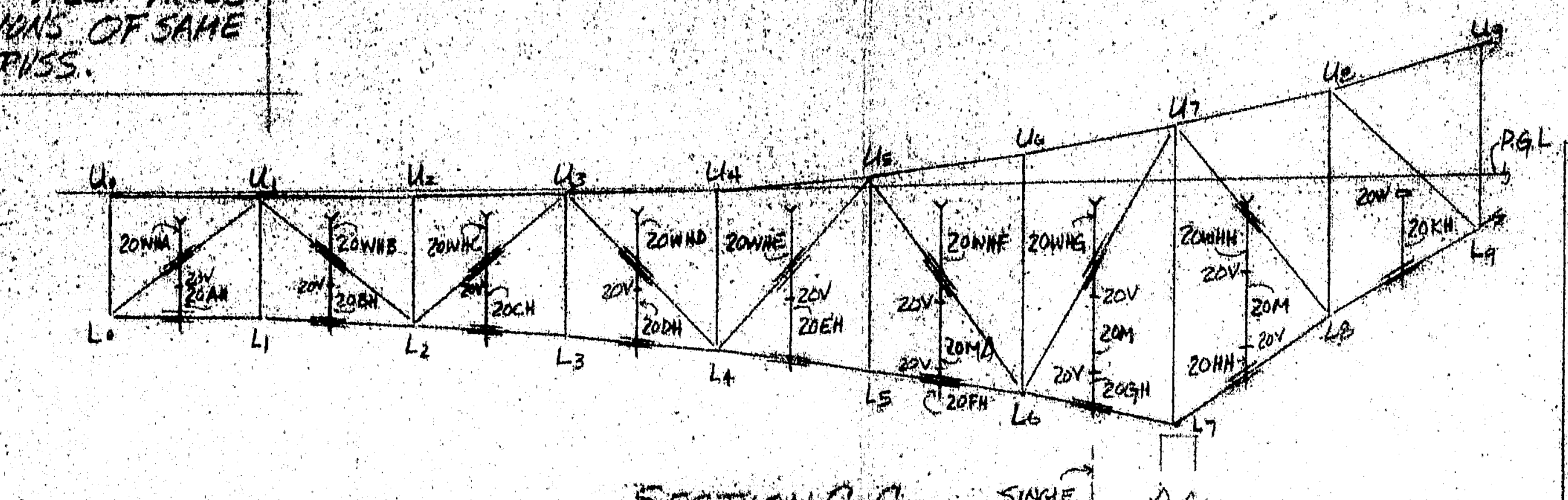
SECTION A-A
N.H. END - EAST TRUSS



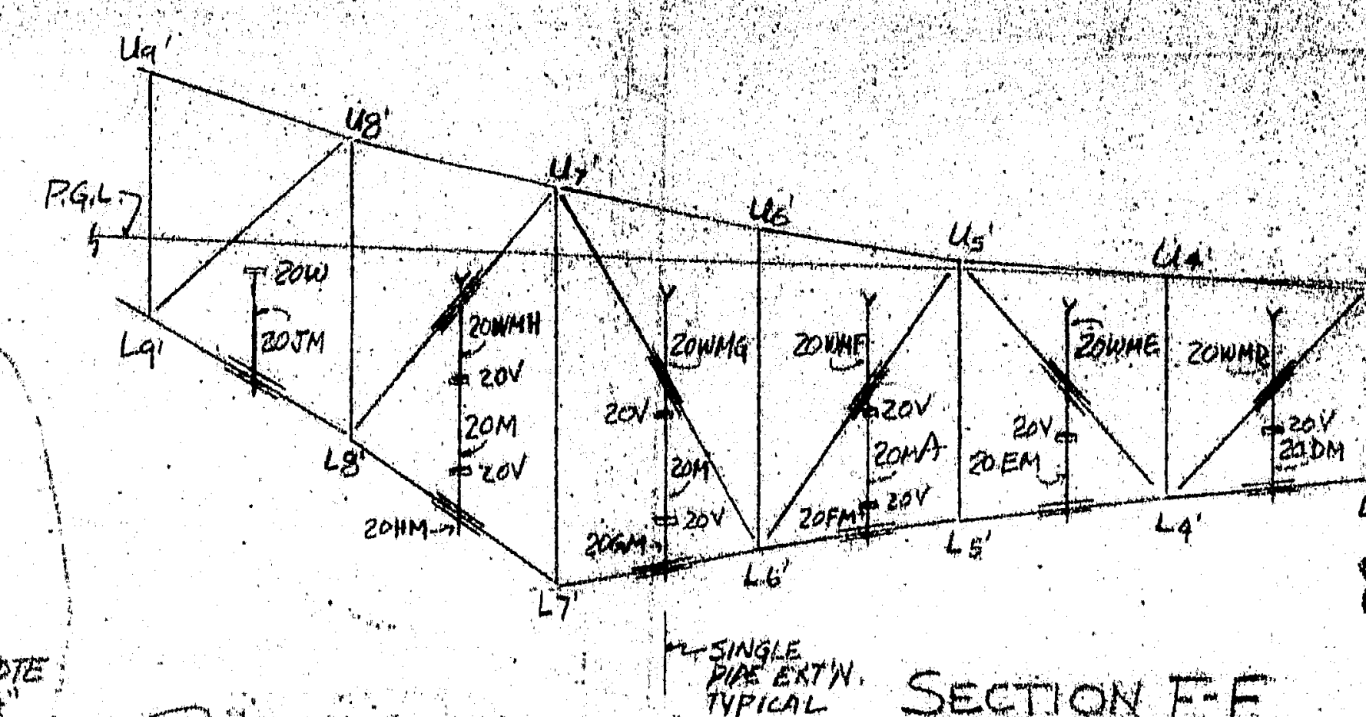
SECTION D-D
ME. END - EAST TRUSS

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

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



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



SECTION F-F
MAINE END - WEST TRUSS

NOTE: G.C. HAS VERIFIED ALL FIELD DIMENSIONS

SCUPPER LOCATIONS - N.H. END:

DIMS. AT BOTT. EXIST. DRAIN PIPE	BAY	0/1	1/2	2/3	3/4	4/5	5/6	6/7	7/8	8/9
	A	0'-5¼	0'-10 5/16	0'-9¾	0'-9⅞	0'-10 11/16	0'-10	0'-10 5/16	0'-10 5/16	0'-8½
	B	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7	5'-7
	C*		0'-8 13/16		0'-9		0'-10⅛		0'-9 1/16	
	D		4'-1 3/16		4'-1 13/16		4'-2 3/16		4'-0 9/16	
	E*		1'-10 5/16		1'-10 15/16		1'-9 1/16		1'-8 13/16	
	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"

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

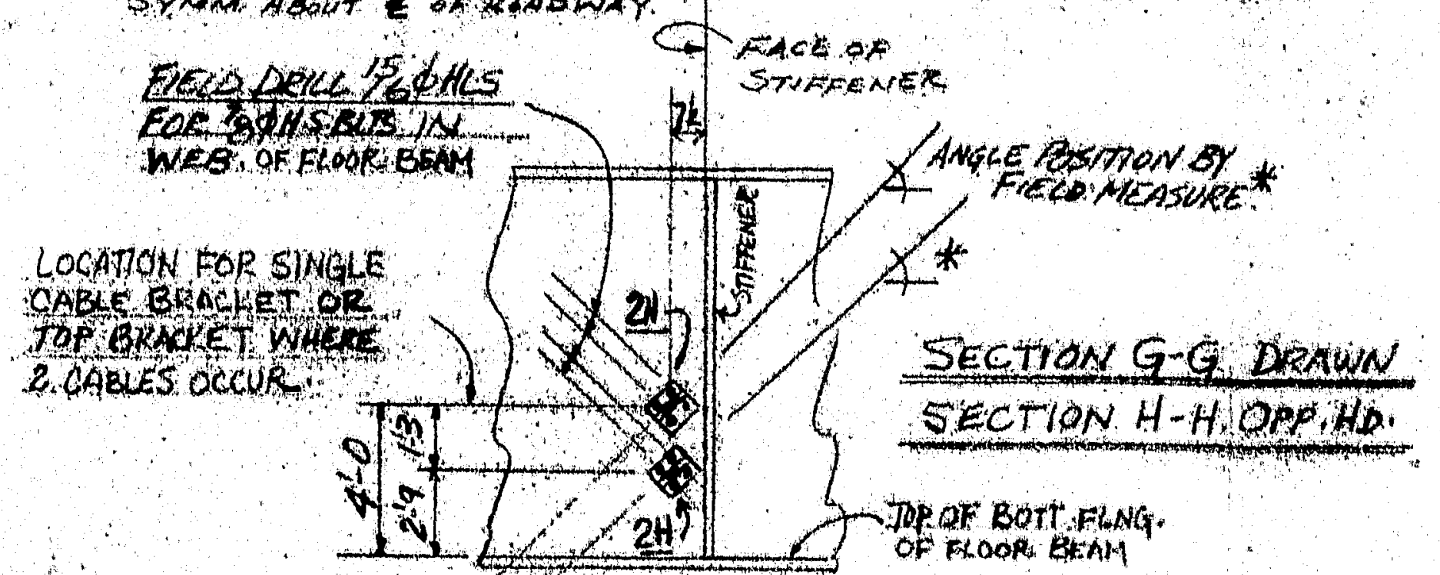
SCUPPER LOCATIONS - MAINE END:

DIMS. AT BOTT. EXIST. DRAIN PIPE	BAY	0'/1'	1'/2'	2'/3'	3'/4'	4'/5'	5'/6'	6'/7'	7'/8'	8'/9'
	A	0'-8 3/16	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*		0'-11 1/16		0'-9 5/16		0'-10 13/16		0'-11 13/16	
	D		4'-0 1/16		3'-11 3/16		4'-0 7/16		3'-11 1/16	
	E*		1'-10 5/16		1'-10 3/16		1'-9 13/16		1'-9 1/16	
	F	0'-11 11/16	0'-11¼	0'-11¾	1'-0½	0'-10 3/16	0'-10 3/16	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"

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.DOT. DRAIN EXT. DETAILS FOR CONNS.

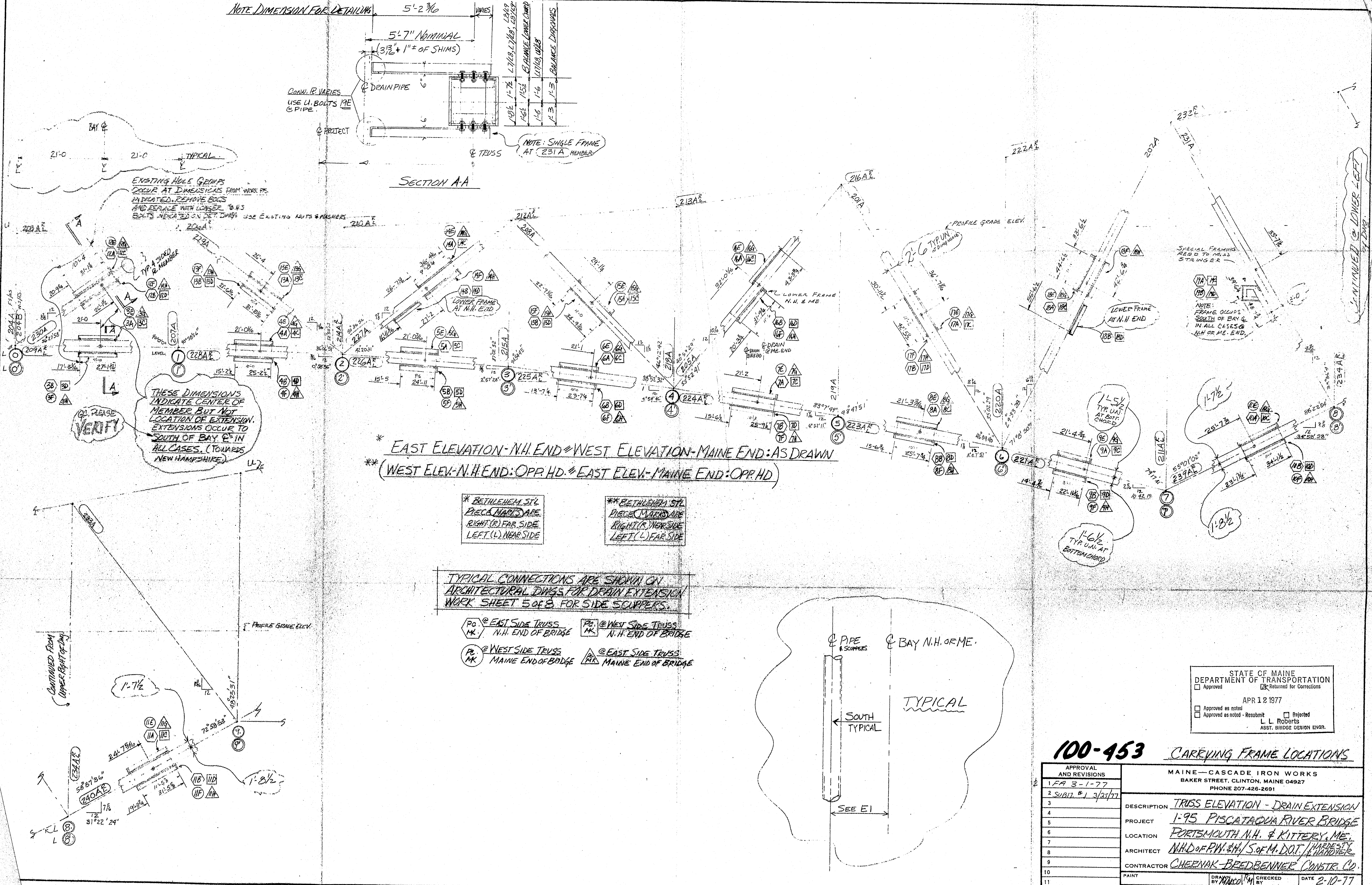

26'-2½"±
SYMM. ABOUT ℄ OF ROADWAY.
FACE OF STIFFENER
FIELD DRILL 15/16Φ HLS FOR 7/8Φ H.S. BLTS. IN WEB. OF FLOOR BEAM
7½
STIFFENER
ANGLE POSITION BY FIELD MEASURE *
*
LOCATION FOR SINGLE CABLE BRACKET OR TOP BRACKET WHERE 2 CABLES OCCUR.
2H
2H
4'-0
2'-9
1'-3
TOP OF BOTT. FLNG. OF FLOOR BEAM

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

APPROVAL AND REVISIONS
1 FA 3-1-77 RLC
2 SUBM. #1 3/25/77
3
4
5
6
7
8
9
10
11 100-452
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
HOLES
DRAWN BY MARCO KM
CHECKED BY MARCO
DATE 2-1-77
PROJ. NO. 77-262
DRWG. NO. E1


NOTE DIMENSION FOR DETAILING
5'-2 3/16
VARIES
5'-7" NOMINAL
(3 13/16" + 1" ± OF SHIMS)
L7/L8, L7'/L8', L8/L9, L8'/L9'
BALANCE LOWER CHORD
L7/L8, U7/L8
BALANCE DIAGONALS
CONN. ℞ VARIES
USE U. BOLTS 19E @ PIPE.
℄ DRAIN PIPE
℄ PROJECT
℄ TRUSS
NOTE: SINGLE FRAME AT 231A MEMBER
SECTION A-A
BAY ℄
21'-0
21'-0
TYPICAL
EXISTING HOLE GROUPS OCCUR AT DIMENSIONS FROM WORK PTS. INDICATED. REMOVE BOLTS AND REPLACE WITH LONGER 7/8 Ø S BOLTS INDICATED ON DET. DWGS. USE EXISTING NUTS & WASHERS.
TYP. 4 SIDED ℞ MEMBER
LOWER FRAME AT N.H. END
LOWER FRAME N.H. & ME.
℄ DRAIN @ ME. END
2'-6 TYP. U.N. (@ DIAGONALS)
PROFILE GRADE ELEV.
SPECIAL FRAMING REQ'D TO MISS STRINGER
NOTE: FRAME OCCURS SOUTH OF BAY ℄ IN ALL CASES @ N.H. OR ME. END.
CONTINUED @ LOWER LEFT OF DWG.
THESE DIMENSIONS INDICATE CENTER OF MEMBER BUT NOT LOCATION OF EXTENSION. EXTENSIONS OCCUR TO SOUTH OF BAY ℄'s IN ALL CASES. (TOWARDS NEW HAMPSHIRE)
Q.C. PLEASE VERIFY
1'-5 1/2 TYP. U.N. AT BOTT. CHORD
1'-6 1/2 TYP. U.N. AT BOTTOM CHORD
1'-7 1/2
1'-8 1/2
CONTINUED FROM UPPER RIGHT OF DWG.
0
1
2
3
4
5
6
7
8
9
209A
228A
226A
225A
224A
223A
221A
239A
234A
240A
204A
204B
230A
207A
214A
227A
215A
218A
205A
219A
220A
211A
229A
208A
201A
202A
231A
233A
203A
212A
213A
216A
222A
210A
206A
232A
℄ PIPE & SCUPPERS
℄ BAY N.H. OR ME.
SOUTH TYPICAL
TYPICAL
SEE E1

* 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 ST'L PIECE MARKS ARE RIGHT (R) FAR SIDE LEFT (L) NEAR SIDE

** BETHLEHEM ST'L 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.

100-453 CARRYING FRAME LOCATIONS

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

APPROVAL AND REVISIONS	
1	FA 3-1-77
2	SUBIT. #1 3/25/77
3	
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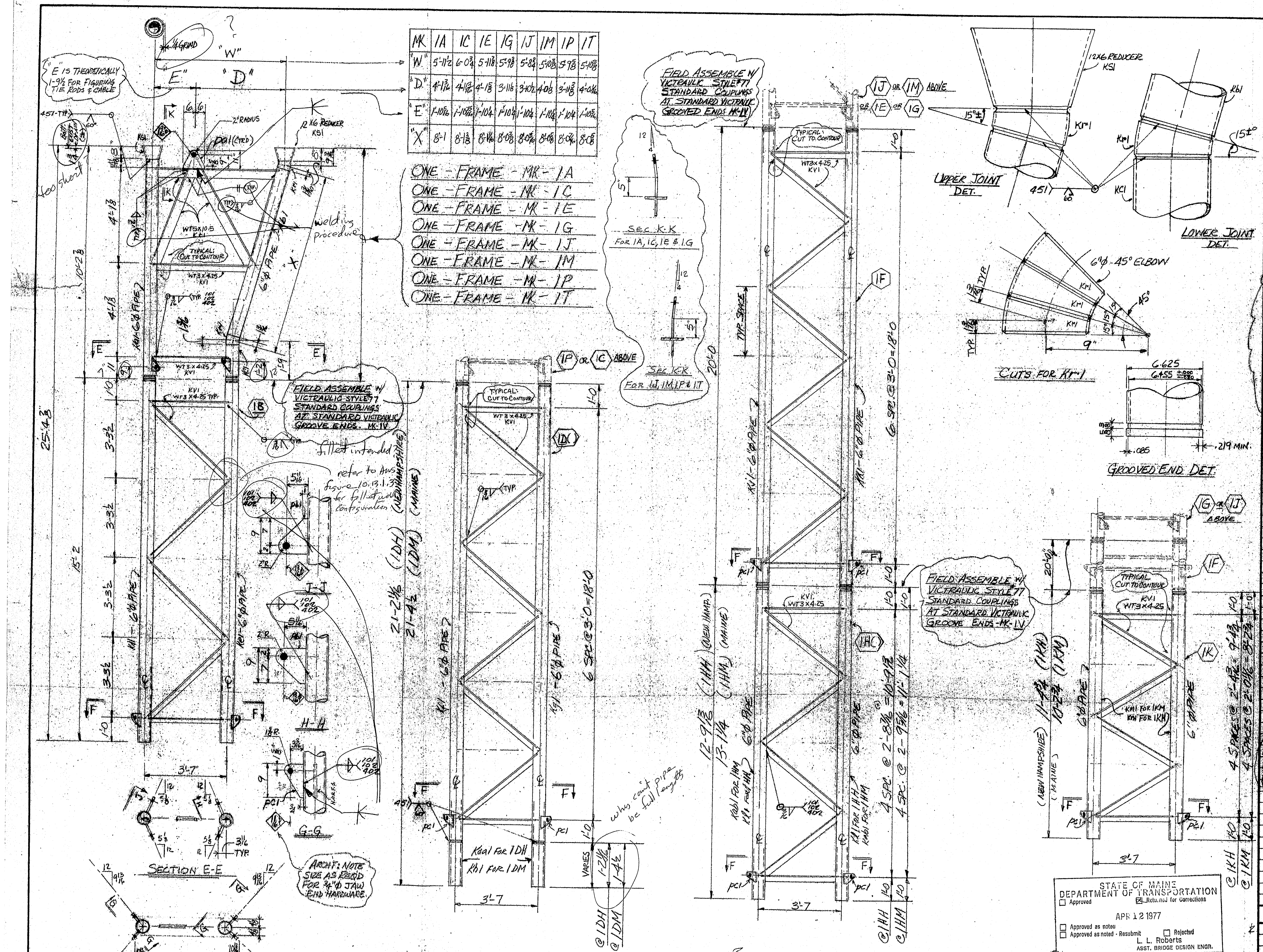
11	
12	

DESCRIPTION TRUSS ELEVATION - DRAIN EXTENSION
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	DRAWN BY MARCO R/M	CHECKED BY	DATE 2-10-77
HOLES	PROJ. NO. 77-262		DRWG. NO. E2



MK	1A	1C	1E	1G	1J	1M	1P	1T
"W"	5'-11½	6'-0¾	5'-11⅛	5'-9⅜	5'-8¾	5'-10⅜	5'-9⅝	5'-10⅜
"D"	4'-1 3/16	4'-1 3/16	4'-1⅝	3'-11⅛	3'-10½	4'-0⅛	3'-11⅜	4'-0 1/16
"E"	1'-10 5/16	1'-10 15/16	1'-10¼	1'-10¼	1'-10¼	1'-10¼	1'-10¼	1'-10 5/16
"X"	8'-1	8'-1⅜	8'-1 1/16	8'-0⅜	8'-0 5/16	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

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.

2 FRAMES-MK-1B

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

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

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

~~2~~ ④ FRAMES-MK-1F
ONE-FRAME-MK-1HH AS NOTED
ONE-FRAME-MK-1HM AS NOTED

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

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 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
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"φ PIPE	9	6⅛					STD. SCH. 40 - GROOVE 1E - F1E	
	8	Kc1	do	1	7½					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	
	4	Kk1	do	20	0					STD. SCH. 40 GROOVE 2E	
	2	Kl1	do	12	9 5/16					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"φ PIPE - 45° ELBOW							STD. SCH. 40 - CUT TO 15° ± FIT F2E	
	16	KS1	12x6 RED.	0	7					STD. SCH. 40 REDUCER F1E	
	LF	KT1	WT5x10.5	120	0					A36	
	L.F.	KV1	WT3x4.25	370	0						
	8	Pa1	PL 11 x ⅜	1	0						
	32	Pb1	PL 7½ x ¾	0	9						
	48	Pc1	PL 4½ x 1/16	0	9						
IV	24		6"φ PIPE COUPLING (STD. IPS)							VICTRAULIC STYLE #77 Galv. A47 MALL. IRON & A183 TRACK BOLTS and gasket Grade H	
	1	Kb1-1A	6"φ PIPE	7	10⅜					STD. SCH. 40 F2E	
	1	Kb1-1C	do	7	11						
	1	Kb1-1E	do	7	10 5/16						
	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 1/16						
	1	Kb1-1T	do	7	10⅜						
	2	Kaa1	do	1	2 1/16					STD. SCH. 40 ~~BEVEL~~ F1E	
	2	Kab1	do	13	1¼					STD. SCH. 40 GROOVE 1E	

STANDARD VICTRAULIC GROOVED ENDS AS NOTED

doesn't agree with 8' dim given in Elev.

GROOVES SHALL BE CUT BEFORE GALVANIZING

All galvanizing shall be in accordance with ASTM A153 & A123

All galvanized material shall be coated with Color Galv. paint

Define 1E & F1E

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM. #1 3/25/77
3
4
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9
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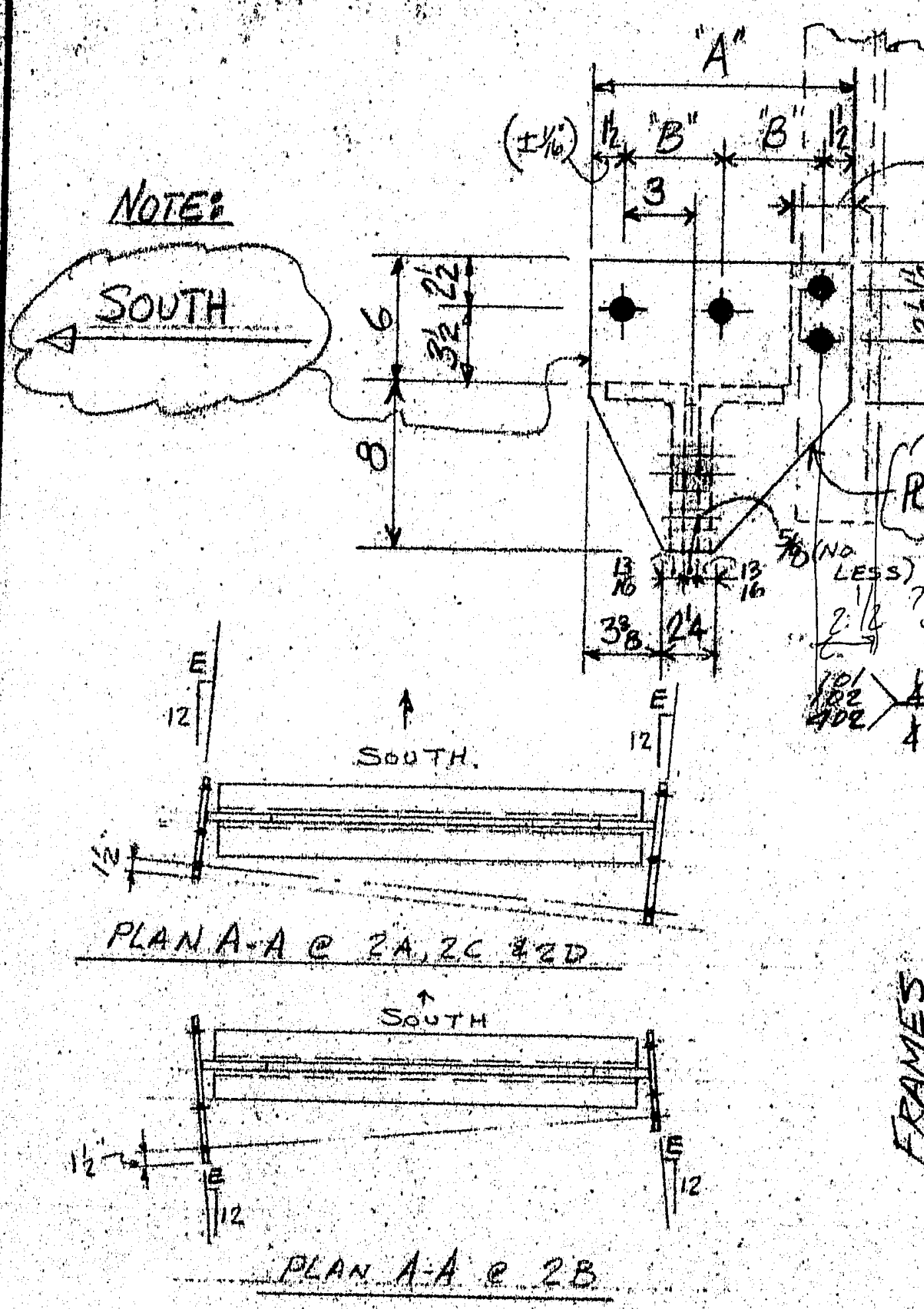
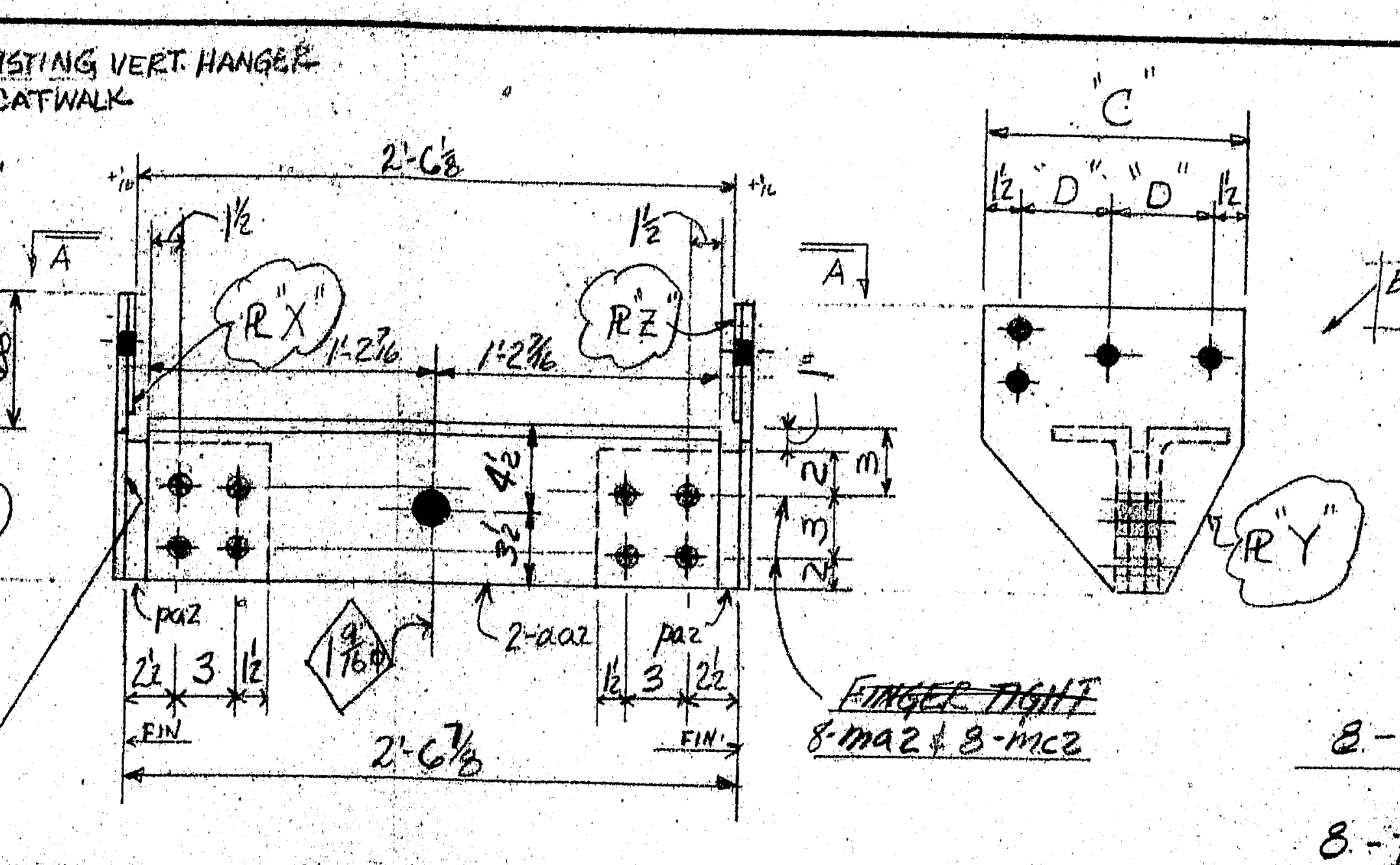
11
12

100-454

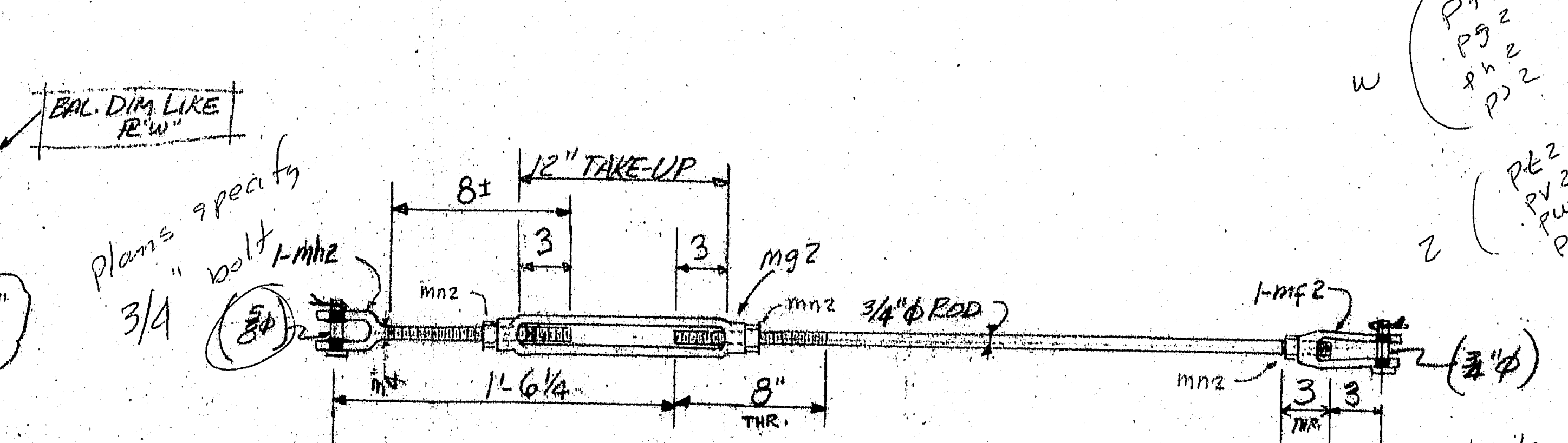
MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2691

DESCRIPTION: DRAW EXTENSIONS: DETAIL & ASSEMBLY & CENTER DRAINS
PROJECT: I-95 PISCATAQUA RIVER BRIDGE
LOCATION: PORTSMOUTH N.H. & KITTERY, ME.
ARCHITECT: N.H.D. of P.W.&H. / St. of M. DOT. / HARDESTY & HANOVER
CONTRACTOR: CHERNAK-BOEDBENNER CONSTR. CO.
PAINT: GALVANIZE & PAINT
DRAWN BY: MARO / E.M.
CHECKED BY: MARCO / E.M.
DATE: 2-7-77
HOLES: AS NOTED
PROJ. NO.: 77-262
DRWG. NO.: 1





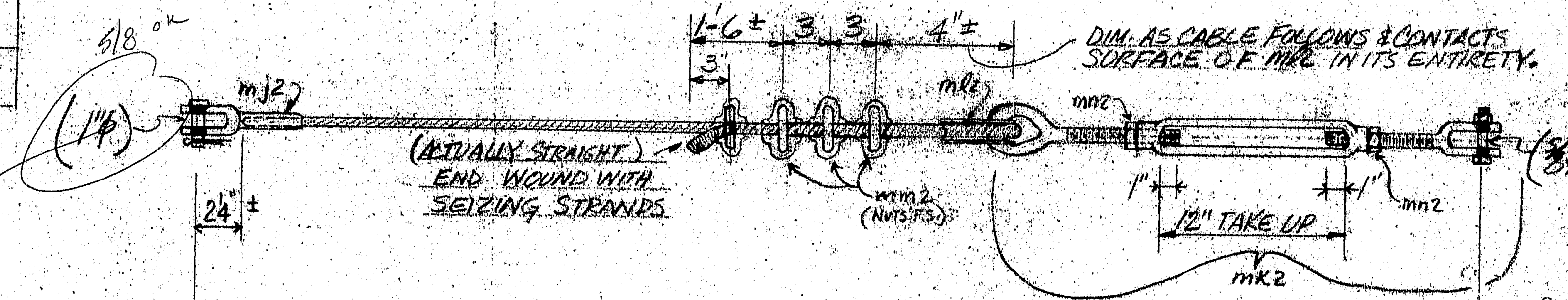
	QTY.	MARK	LOCATION 8/4	"A"	"B"	"C"	"D"	R"W"	R"X"	R"Y"	R"Z"	SLOPE 'E'
FRAMES	1	2A	1/2 N.H.	11 3/4	4 3/8	1-0 3/8	4 1/16	pf2	pb2	pn2	pt2	1/4
	1	2B	3/4 N.H.	1'-1 1/16	5 1/16	1'-0 7/16	4 3/4	pg2	pc2	pp2	pv2	1/4
	1	2C	5/6 N.H.	1'-1 1/2	5 1/4	1-1 5/8	5 5/16	ph2	pd2	pr2	pw2	1/16
	1	2D	7/8 N.H.	11 7/8	4 7/16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



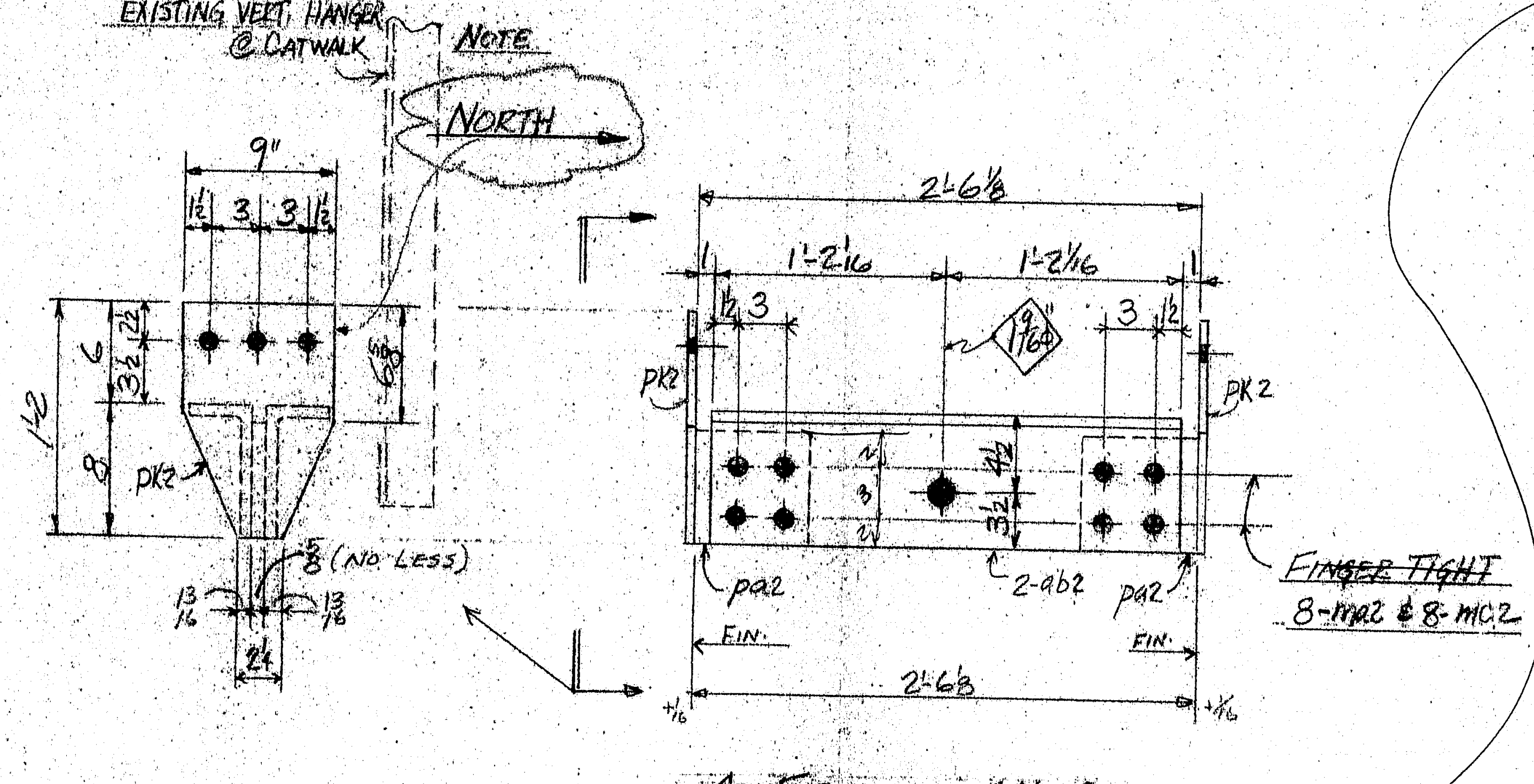
8 - TIE RODS - MK - 2K	12'-11"
8 - TIE RODS - MK - 2L	13'-1 3/4
8 - TIE RODS - MK 2Y	12-7 1/2
8 - TIE RODS MK 2Z	12-10 1/4

w (pf2 pg2 ph2 pj2)

z (pt2 pv2 pw2 px2)

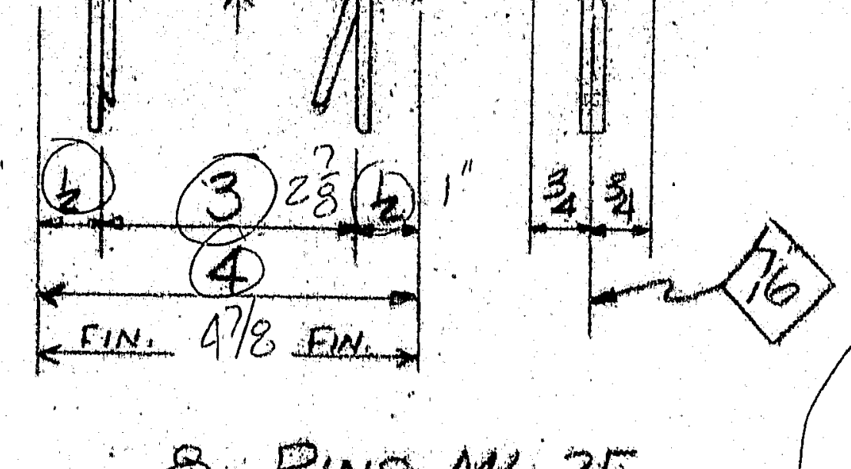

5/8 ok
(1"φ)
mj2
(ACTUALLY STRAIGHT) END WOUND WITH SEIZING STRANDS
2 1/4"±
1'-6±
3'
3
3
4"±
DIM. AS CABLE FOLLOWS & CONTACTS SURFACE OF ml2 IN ITS ENTIRETY.
ml2
mm2 (NUTS F.S.)
mn2
1"
1"
12" TAKE UP
mk2
mn2
(3/4"φ)

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	(1/2φ S.S. CABLE X 52-0)
6 - 2AB	45'-6"	(1/2φ S.S. CABLE X 45'-2)



4 FRAMES - MK 2E

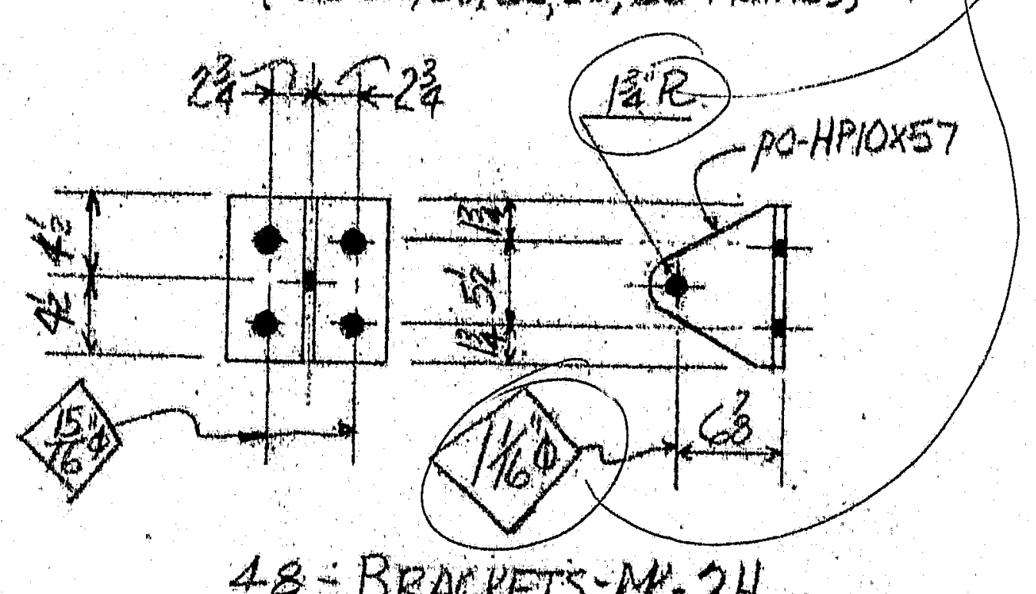
Loc. 1/2', 3/4', 5/6', 7/8" ME.



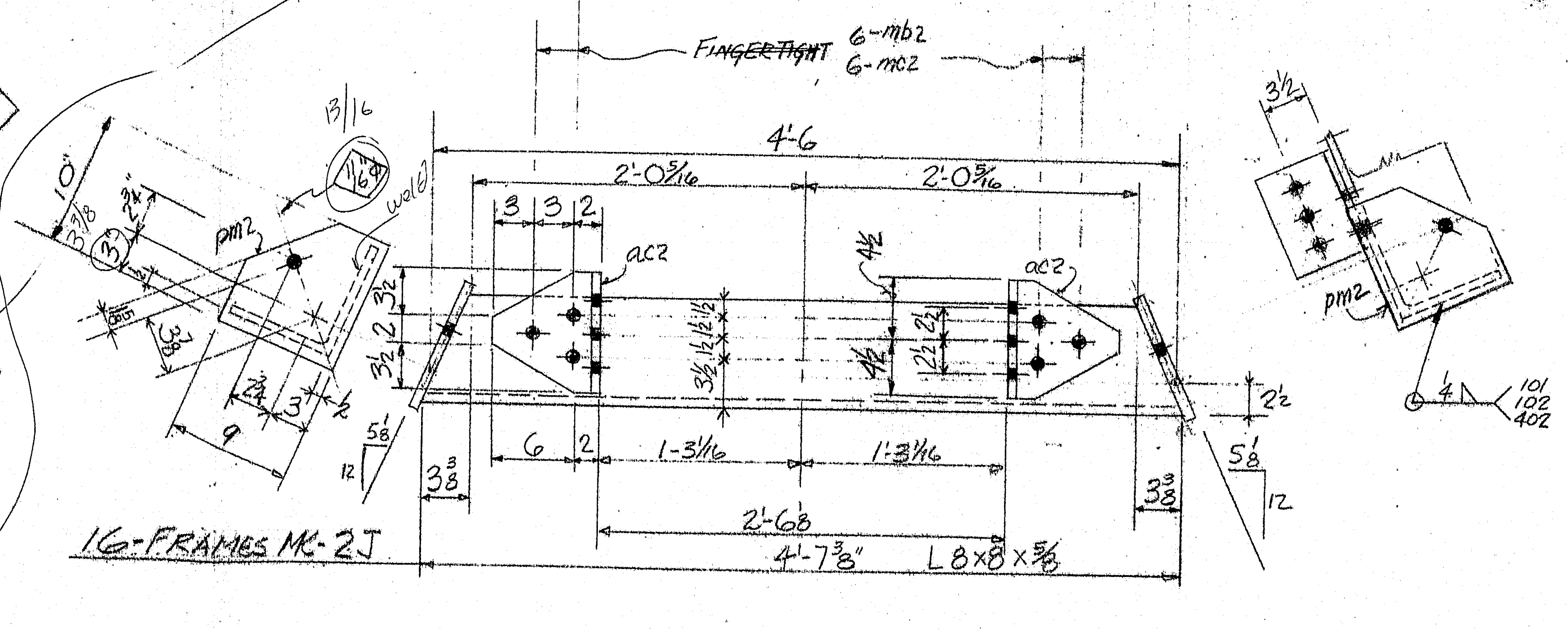
8 - PINS - MK - 2F

8 - COTTER PINS - MK - 2G

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



48 - BRACKETS - MK - 2H



16 - FRAMES MK - 2J

Supply material details and strength data

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	PL 7x3/8	0	7						
	2	pb2	PL 6x3/8	0	9 5/8						
	2	pc2		0	9 1/4						
	2	pd2		0	10 3/8						
	2	pe2		1	0 1/2						
	2	pn2	PL 14x1/2	1	0 3/8						
	2	pp2		1	0 1/2						
	2	pr2		1	1 5/8						
	2	ps2		1	3 1/4						
2E	4		FRAMES								
	8	pk2	PL 9x1/2	1	2					A36	
	8	ab2	L8x4x5/8	2	4 5/8					A36	
	8	pa2	PL 7x3/8	0	7					A36	
2F	8		1 1/4φ ROD	0	4					A36	
	8	mc2	[illegible]	0	3					A307 GALV.	
2G	8		[illegible]	0	3					A307 GALV. SHIP LOOSE	
2H	48		HP 10x57	0	9					A36	
2J	16		L8x8x5/8	4	7 3/8					A36	
	32	pm2	PL 9x3/4	0	10					A36	
	32	ac2	L8x6x3/8	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"φ CLEVIS PIN	0	2 1/2					GALV.	
	32	me2	1/4"φ 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								
	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	1/2"φ 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 (do)	
FIELD	262		do	0	3					A325 (6 EXTRA)	

Same marks

3/4" W/1" GRIP

CROSBY-LAUGHLIN

CROSBY-LAUGHLIN

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.

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM #1 3/25/77
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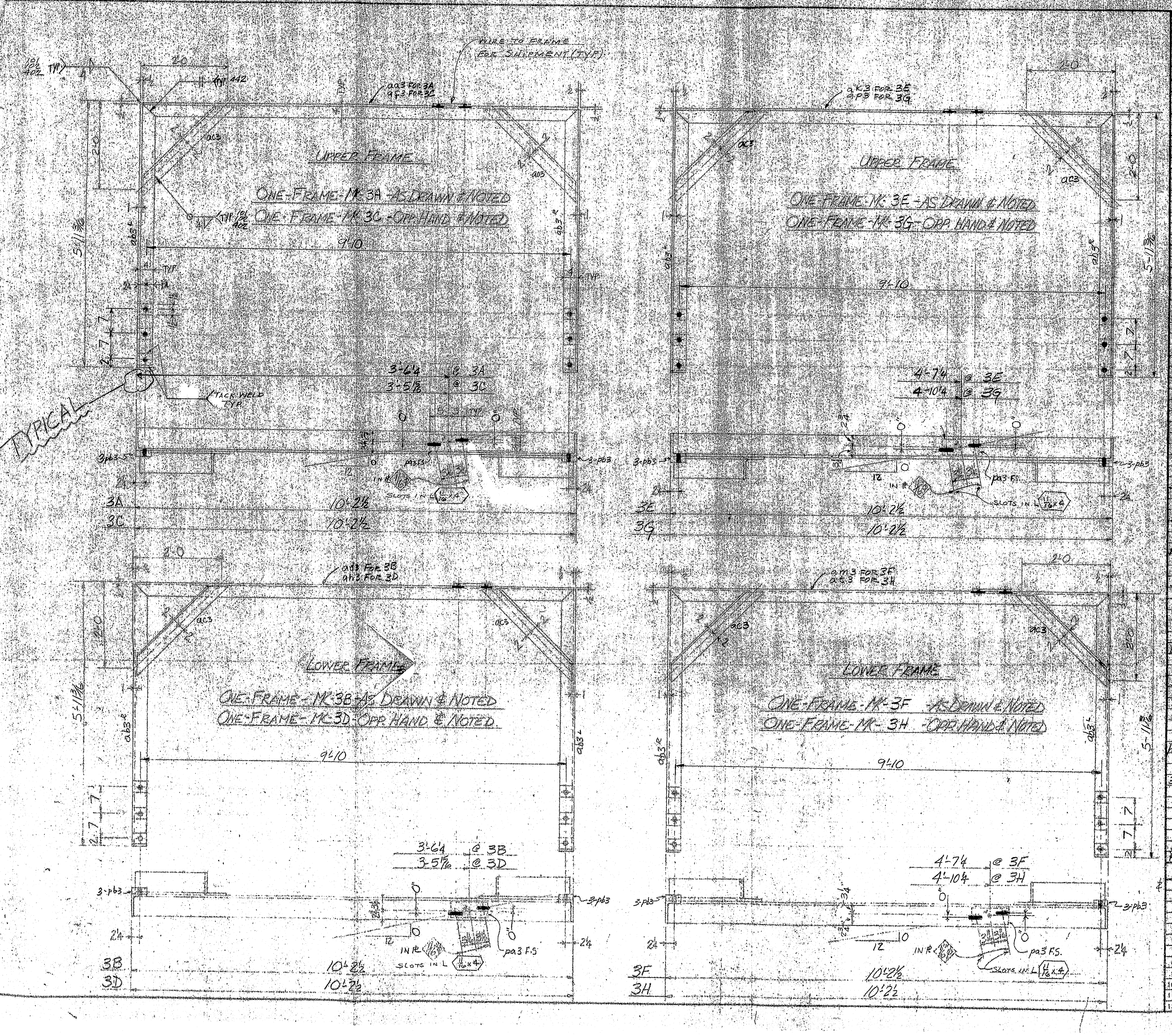
100-455

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 SILICOCHROMATE ORANGE - W.H. #128
DRAWN BY MARCO RM
CHECKED BY MARCO RM
DATE 2-8-77
HOLES 13/16"φ U.N.
PROJ. NO. 77-262
DRWG. NO. 2



MATERIAL SCHEDULE A36 MATL U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT.	IN.	REMARKS
3A	1		UPPER FRAME			PAIR w/ 3B
	1	aa3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
3B	1		LOWER FRAME			PAIR w/ 3A
	1	ad3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
3C	1		UPPER FRAME			PAIR w/ 3D
	1	af3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
3D	1		LOWER FRAME			PAIR w/ 3C
	1	ah3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
3E	1		UPPER FRAME			PAIR w/ 3F
	1	ak3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
3F	1		LOWER FRAME			PAIR w/ 3E
	1	am3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
3G	1		UPPER FRAME			PAIR w/ 3H
	1	ap3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
3H	1		LOWER FRAME			PAIR w/ 3G
	1	at3	L6x4x½	10	1½	B2E PER DET
	2	ab3R	do	5	10⅛	1"H B1E do
	2	ac3	do	2	11⅜	B2E
	1	pa3	PL 4½x½	0	10	
	6	pb3	BAR 3x½	0	4	
FIELD	6		1"⌀ H.S. BOLTS	0	5	No Nuts A325
FIELD	2		1"⌀ H.S. BOLTS	0	5	EXTRAS With Nuts A325

DEPARTMENT OF TRANSPORTATION
☐ Approved
☒ Returned for corrections
☐ Approved as noted
☐ Approved as noted, Resubmit
☐ Rejected
APR 2 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-[illegible]

DESCRIPTION DRAIN EXTENSION CHANNEL FRAMES
PROJECT I-95 PISCATAQUA RIVER [illegible]
LOCATION PORTSMOUTH, N.H. & KITTERY [illegible]
ARCHITECT N.H. DEPT. P.W. & H. [illegible]
CONTRACTOR [illegible]
SCALES [illegible]

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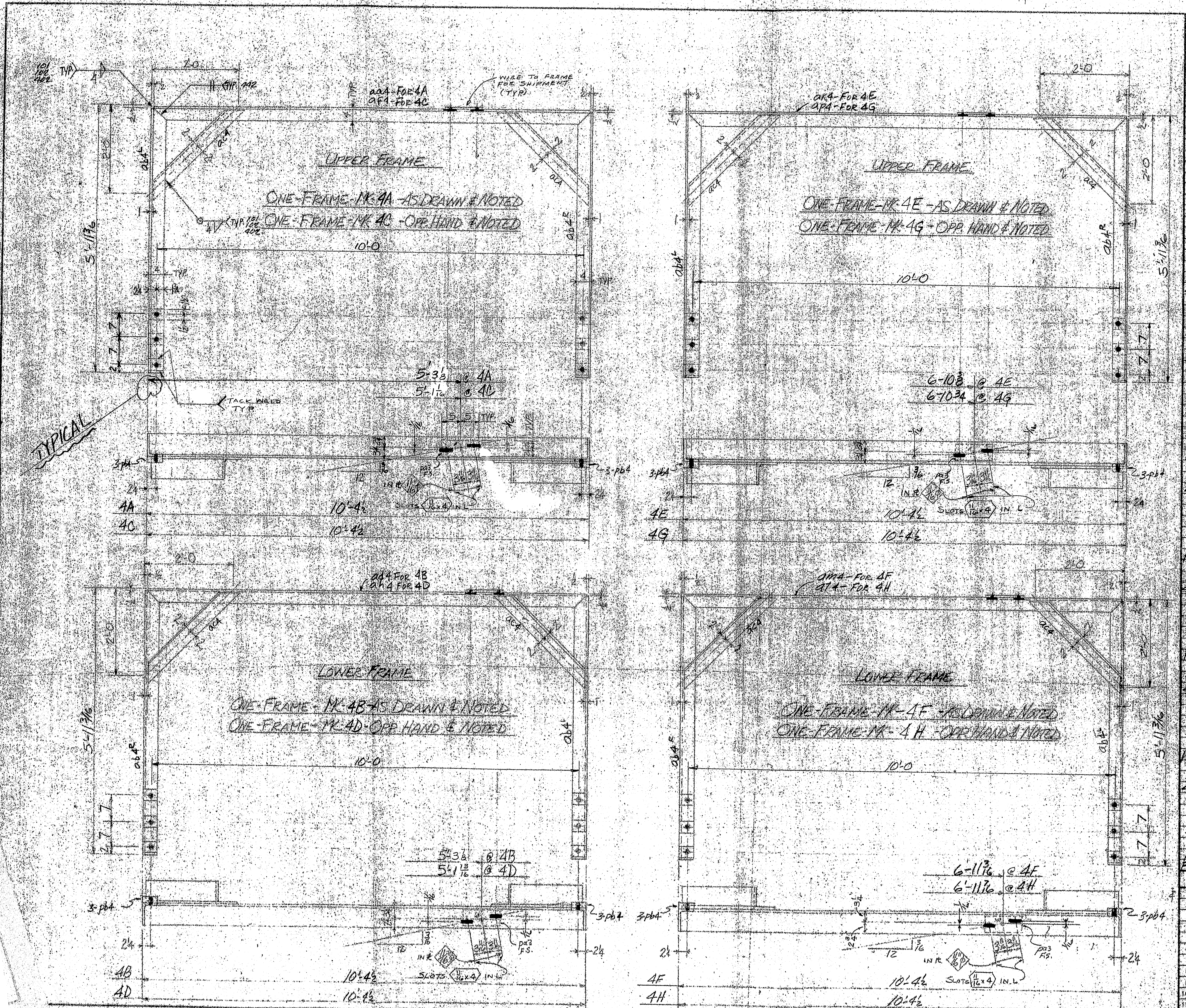
100-456



MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT.	LENGTH IN.	G. OR S.	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS	WEIGHT
4A	1		UPPER FRAME							PAIR w/4B	
	1	aa4	L6x4x½	10	3½					B2E PER DET	
	2	ab4R/L	"	5	10 1/16					1R 1L 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	
4B	1		LOWER FRAME							PAIR w/4A	
	1	ad4	L6x4x½	10	3½					B2E PER DET	
	2	ab4R/L	"	5	10 1/16					1R 1L 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	ab4R/L	"	5	10 1/16					1R 1L 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	
4D	1		LOWER FRAME							PAIR w/4C	
	1	ah4	L6x4x½	10	3½					B2E PER DET	
	2	ab4R/L	"	5	10 1/16					1R 1L 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	ab4R/L	"	5	10 1/16					1R 1L 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/4F	
	1	am4	L6x4x½	10	3½					B2E PER DET	
	2	ab4R/L	"	5	10 1/16					1R 1L 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	
4G	1		UPPER FRAME							PAIR w/4H	
	1	ap4	L6x4x½	10	3½					B2E PER DET	
	2	ab4R/L	"	5	10 1/16					1R 1L 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	at4	L6x4x½	10	3½					B2E PER DET	
	2	ab4R/L	"	5	10 1/16					1R 1L 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	
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 - 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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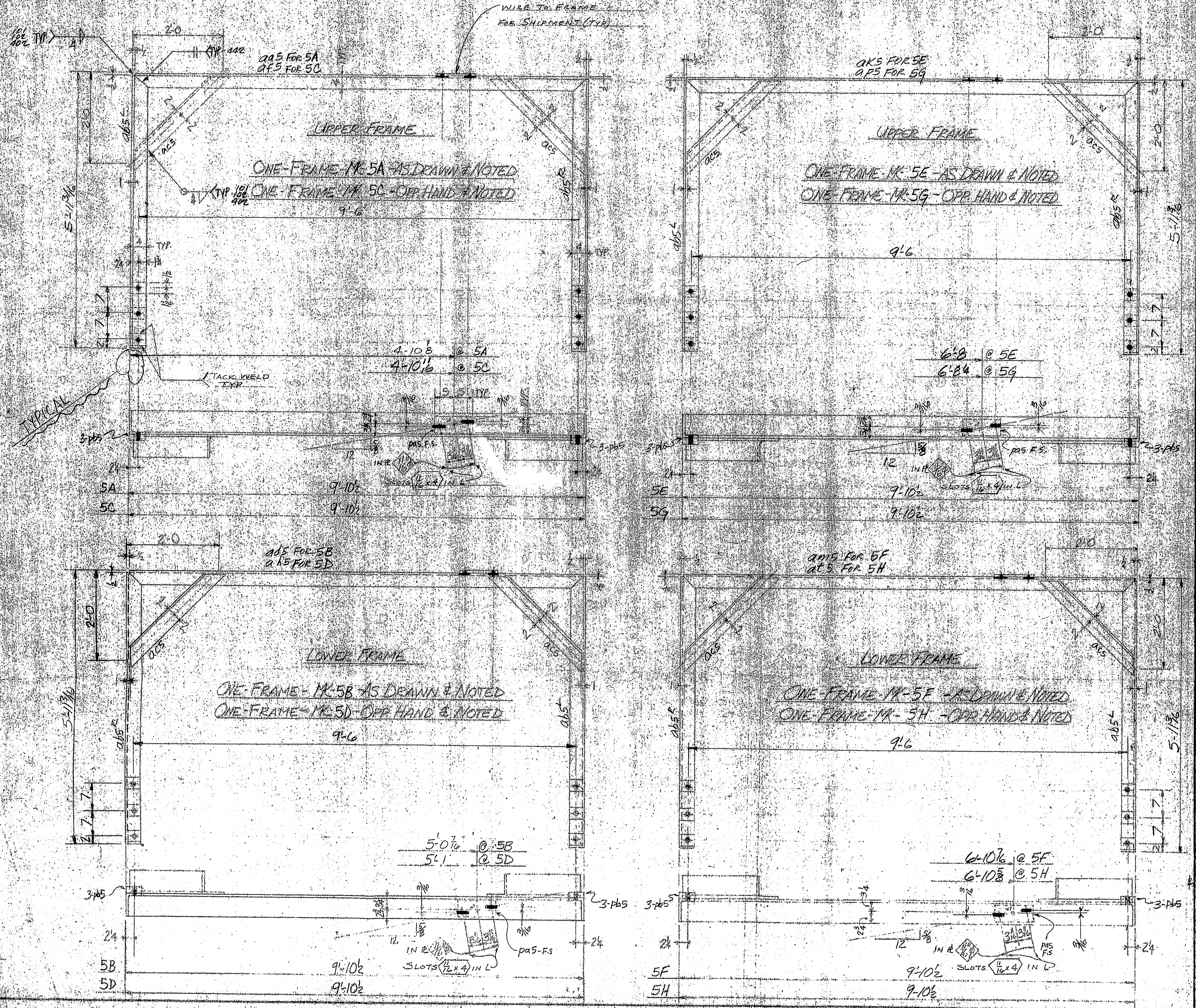
MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2601

DESCRIPTION DRAIN EXTENSION CARRYING FRAMES
PROJECT I-95 PISCATAQUA RIVER BRIDGE
LOCATION PORTSMOUTH, N.H. & KITTERY, ME.
ARCHITECT N.H. DEPT. P.W.&H. / St. of M. DOT
CONTRACTOR CHERNIAK [illegible]
DATE 2/17/77
HOLES 1/16 φ [illegible]
FILE NO. 77-228
SHEET NO. 4



MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	No. Pcs		SHAPE	LENGTH FT	LENGTH IN	O or E	CUT FROM No.	CUT FROM FT	CUT FROM IN	REMARKS	WEIGHT
5A	1		UPPER FRAME							PAIR W/5B	
	1	aa5	L6x4x½	9	9½					B.2E PER DET	
	2	ab5	"	5	10 1/16					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø 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					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø 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					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø 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					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø 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					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø 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					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø 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					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø 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					1RH 1LH B.1E do	
	2	ac5	do	2	11⅛					B.2E	
	1	pa5	PL 4½ x ½	0	10						
	6	pb5	BAR 3x½	0	4						
FIELD	6		1"Ø H.S. BOLTS	0	5¼					NO NUTS A325	
FIELD	2		1"Ø 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
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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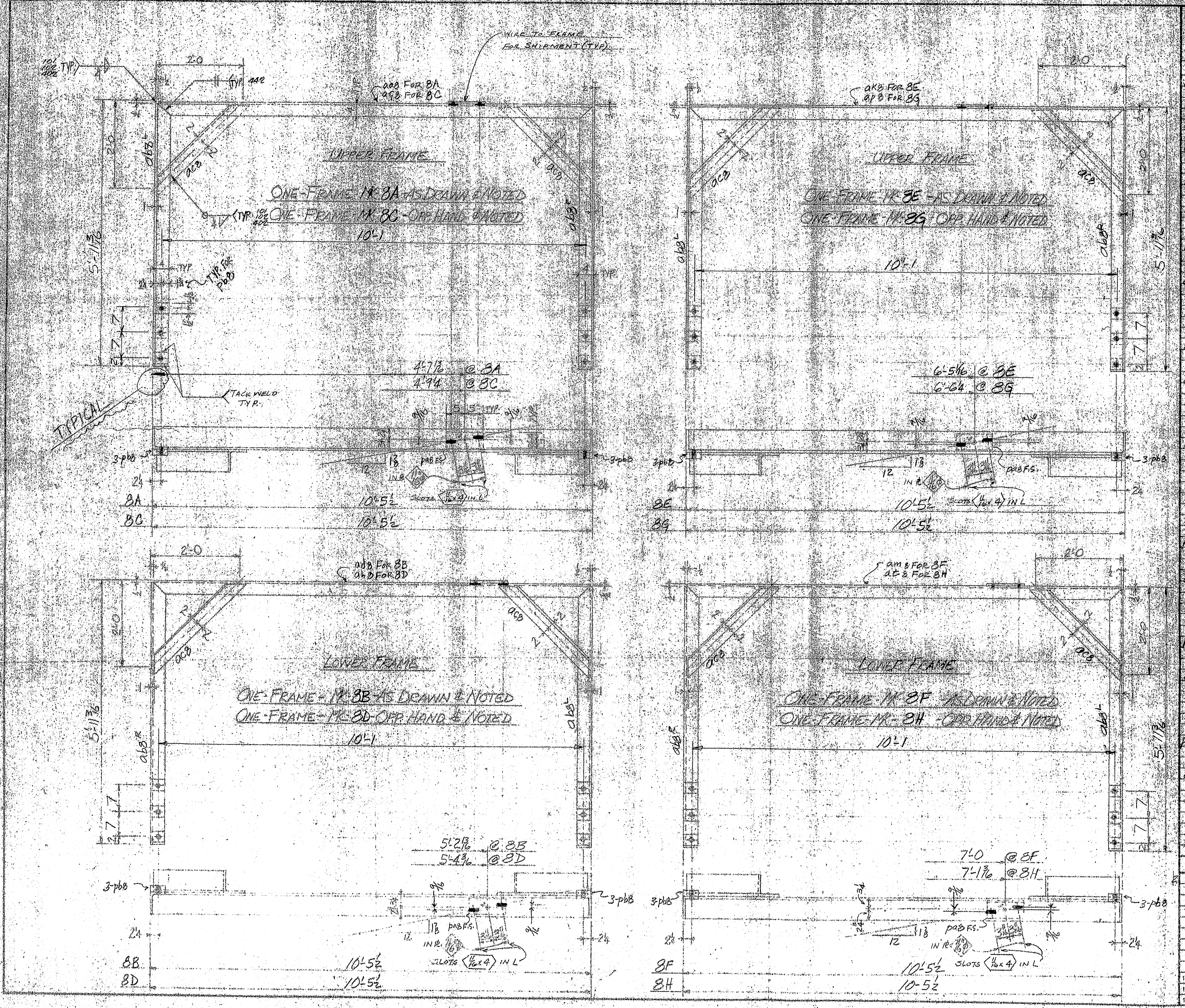
100-458

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. DIV. of R.W. & H. / St of M. DOT
CONTRACTOR CHERNAK - BREDEWEG CONST.

PAINT	DRAWN BY	CHECKED BY	DATE
ASPHALT [illegible]	MM		4/11/77
HOLES 13/16 DIA	PROJ. NO 77-262		DRWG. No. 5



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
8A	1		UPPER FRAME							PAIR W/8B	
	1	a08	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
8B	1		LOWER FRAME							PAIR W/8A	
	1	a08	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
8C	1		UPPER FRAME							PAIR W/8D	
	1	a08	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
8D	1		LOWER FRAME							PAIR W/8C	
	1	a08	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
8E	1		UPPER FRAME							PAIR W/8F	
	1	a08	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
8F	1		LOWER FRAME							PAIR W/8E	
	1	am8	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
8G	1		UPPER FRAME							PAIR W/8H	
	1	a08	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
8H	1		LOWER FRAME							PAIR W/8G	
	1	a08	L6x4x½	10	4½					B2E PER DET	
	2	ab8		5	10 1/16					1RH 1LH BIE do	
	2	ac8	do	2	11⅛					B2E	
	1	pa8	PL 4½x½	0	10						
	6	pb8	BAR 3x½	0	4						
FIELD	6		¾"HS BOLTS	0	5¼					W/NUTS A325	
	2		¾"HS BOLTS	0	5¼	EXTRAS				W/NUTS A325	

SHOP DRAWINGS
☐ Approved
☐ Approved as noted ☐ Resubmit ☐ Rejected
APRIL 21 1977
L. Roberts
ASST. BRIDGE DESIGN ENGR.

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM #1 3/25/77
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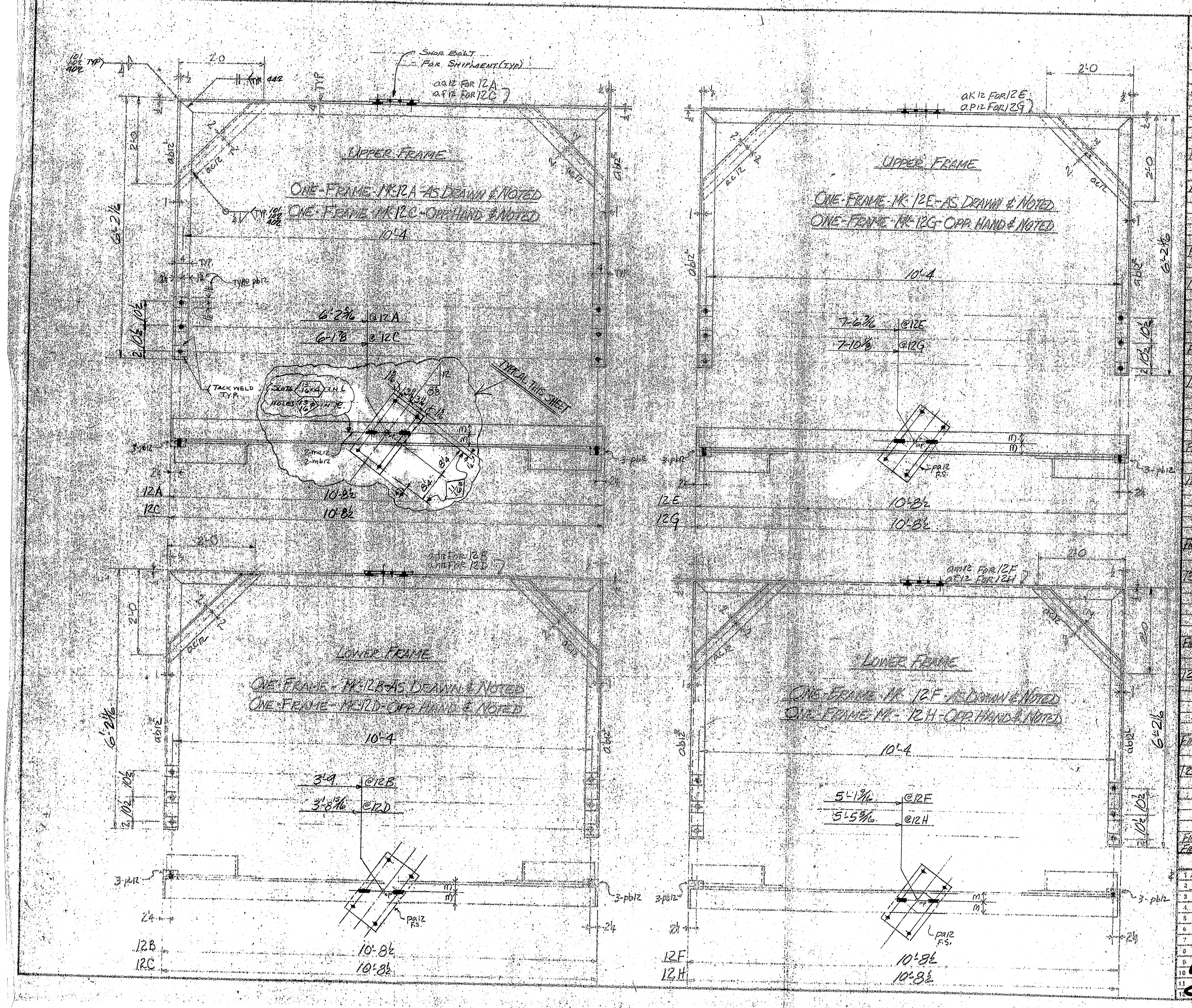
459

MAINE—CASCADE IRON-WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2891

DESCRIPTION DRAIN EXTENSION CARRYING FRAMES
PROJECT I-95 PISCATAQUA RIVER BRIDGE
LOCATION PORTSMOUTH, N.H. & KITTERY, ME
ARCHITECT N.H.D. of P.W.H. / STATE of ME DOT
CONTRACTOR CHERNAK-KELLER

PAINT [illegible] DRAWN [illegible] CHECKED [illegible] DATE [illegible]
HOLES 13/16 DIA. PROJ. NO. 7722



MATERIAL SCHEDULE A36 MAT'L UN

MARK	No. Pcs		SHAPE	LENGTH FT.	LENGTH IN.	G. or S.	CUT FROM No.	CUT FROM FT.	CUT FROM IN.	REMARKS	WEIGHT
12A	1		UPPER FRAME							PAIR w/ 12B	
	1	aa12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12	do	6	2¾					1¼ B1E do	
	2	ac12	do	2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR [illegible]	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
12B	1		LOWER FRAME							PAIR w/ 12A	
	1	ad12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12		6	2¾					1¼ B1E do	
	2	ac12	do	2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR [illegible]	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
12C	1		UPPER FRAME							PAIR w/ 12D	
	1	ap12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12		6	2¾					1¼ B1E do	
	2	ac12	do	2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR 3x¼	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
12D	1		LOWER FRAME							PAIR w/ 12C	
	1	ar12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12		6	2¾					1¼ B1E do	
	2	ac12	do	2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR [illegible]	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
12E	1		UPPER FRAME							PAIR w/ 12F	
	1	ak12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12		6	2¾					1¼ B1E do	
	2	ac12	do	2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR 3x¼	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
12F	1		LOWER FRAME							PAIR w/ 12E	
	1	am12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12		6	2¾					1¼ B1E do	
	2	ac12		2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR 3x¼	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
12G	1		UPPER FRAME							PAIR w/ 12H	
	1	ap12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12		6	2¾					1¼ B1E do	
	2	ac12	do	2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR 3x¼	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
	16	ma12	¾⌀ H.S. BOLTS	0	2¼					A325	
	16	mb12	¾⌀ HARD. WSH.							A325	
12H	1		LOWER FRAME							PAIR w/ 12G	
	1	ar12	L6x4x[illegible]	10	7½					B2E PER DET	
	2	ab12		6	2¾					1¼ B1E do	
	2	ac12	do	2	1½					B2E	
	1	pa12	℞ 10x[illegible]	1	7						
	6	pb12	BAR 3x¼	0	4						
FIELD	6		¾⌀ H.S. BOLT	0	5					No Nuts A325	
FIELD	2		¾⌀ H.S. BOLT	0	5	EXTRAS					

☐ Approved
☒ Approved as noted
☐ Rejected
APR 1 1977

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM. #1 3/25/77
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100-460

MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE [illegible]
PHONE 207-426-[illegible]

DESCRIPTION [illegible]
PROJECT [illegible]
LOCATION [illegible]
ARCHITECT [illegible]
CONTRACTOR [illegible]
HOLES [illegible]

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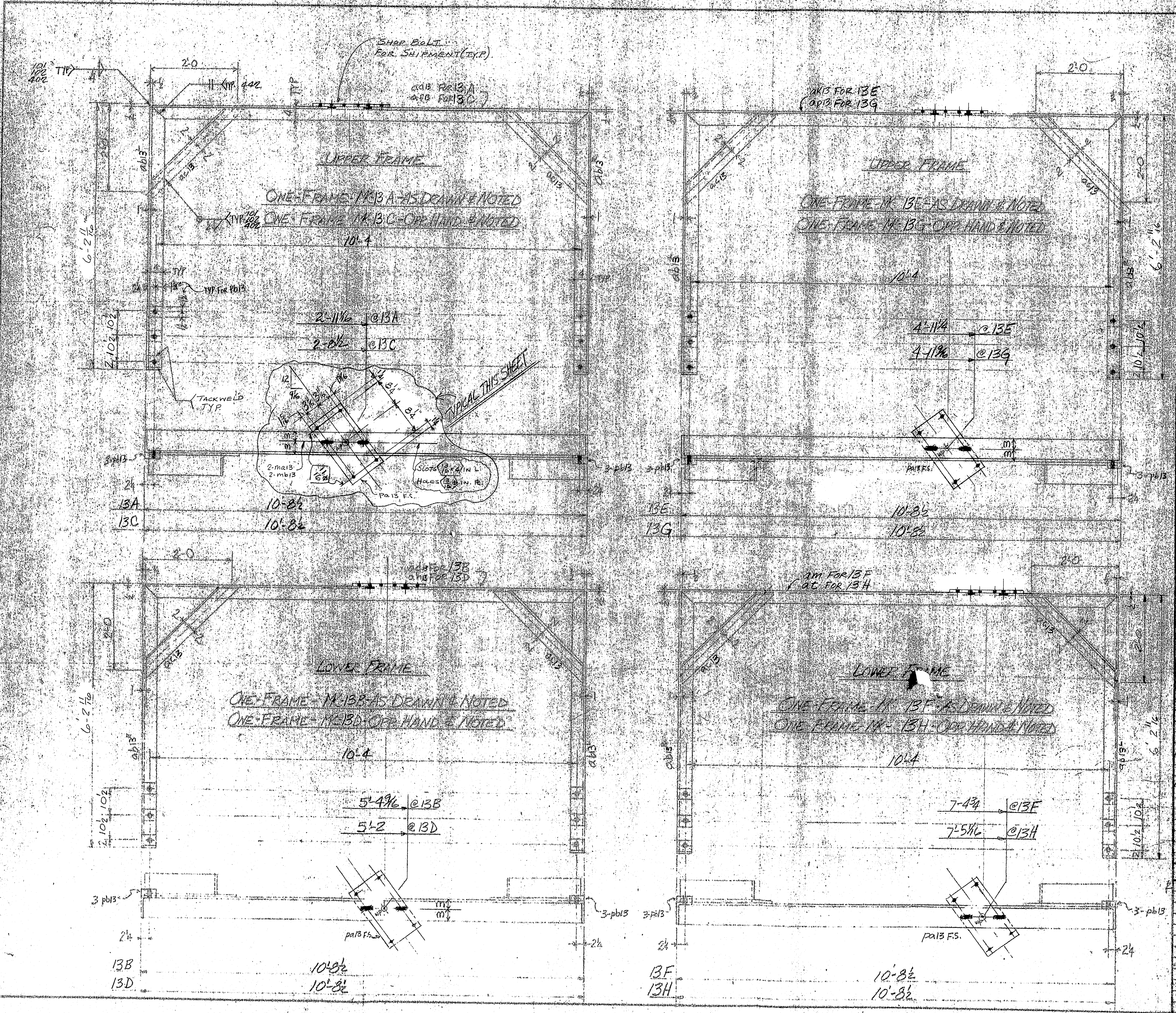

MATERIAL SCHEDULE A36 MATL UN

MARK	NO. PCS.		SHAPE	LENGTH	REMARKS
13A	1		UPPER FRAME		PAIR w/ 13E
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	NO NUTS [illegible]
13B	1		LOWER FRAME		PAIR w/ 13F
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	NO NUTS [illegible]
13C	1		UPPER FRAME		PAIR w/ 13G
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	NO NUTS [illegible]
13D	1		LOWER FRAME		PAIR w/ 13H
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	NO NUTS [illegible]
13E	1		UPPER FRAME		PAIR w/ 13A
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	NO NUTS ASS
13F	1		LOWER FRAME		PAIR w/ 13B
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	[illegible]
13G	1		UPPER FRAME		PAIR w/ 13C
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	NO NUTS ASS
	16	ma13	3/4 HS BOLTS	0 2 1/4	
	16	mb13	3/4 HDN WSH		
13H	1		LOWER FRAME		PAIR w/ 13D
	1	aa13	L6x4x1/2	10 7 1/2	B2E PER DET.
	2	ab13		6 2 3/16	1 1/4 B1E do
	2	ac13	do	2 11 3/8	B2E
	1	pa13	PL 10x1/2	1 7	
	6	pb13	BAR 3x1/2	0 4	
FIELD	6		1" HS BOLT	0 5 1/4	
	2		1" HS BOLT	0 5 1/4	EXTRAS

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM. #1 3/25/77
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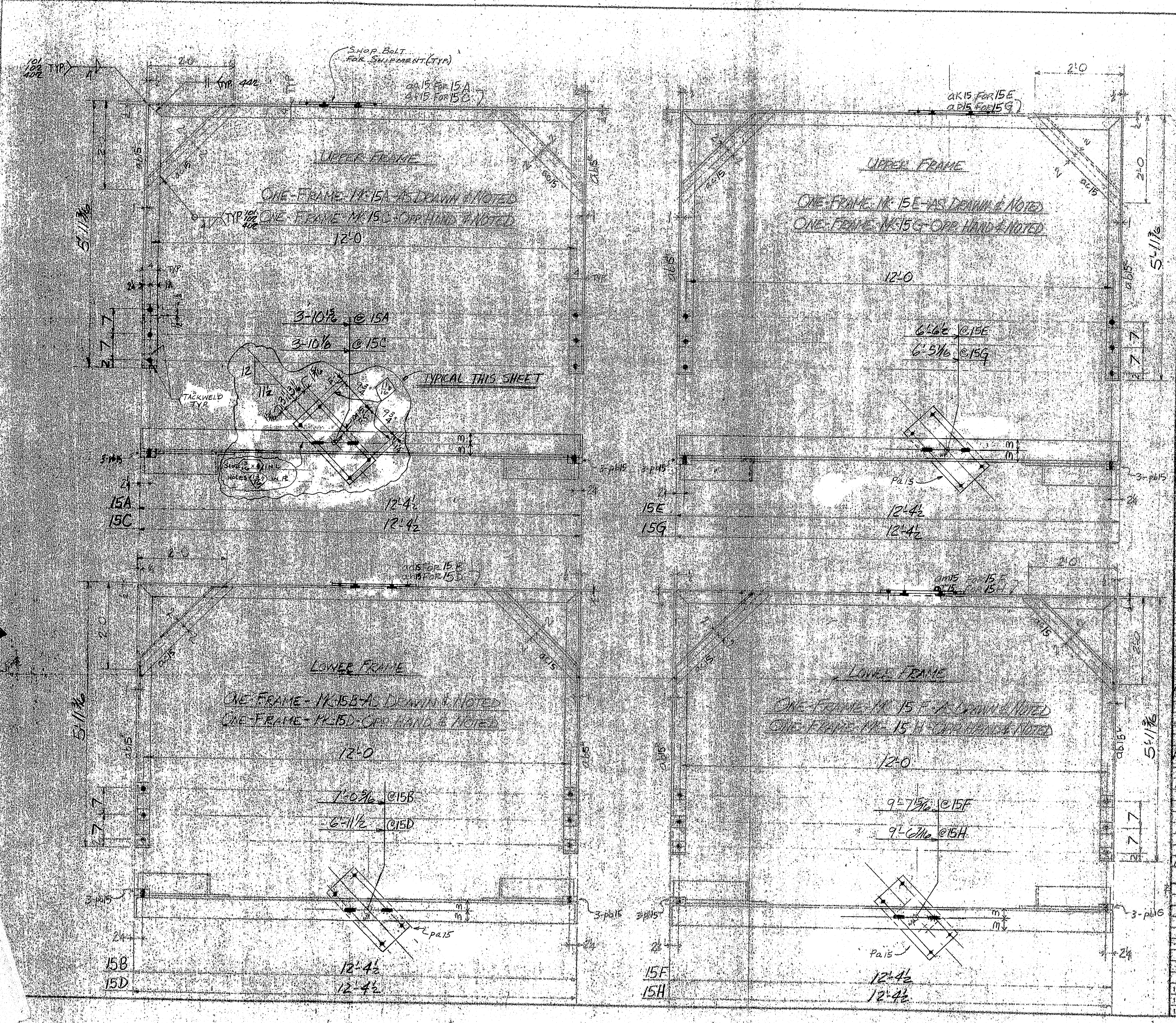
100-461

MAINE-CASCALE IRON
BAKER STREET, CLINTON, MAINE
PHONE 207-426-[illegible]

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

SHEET NO. 13



UPPER FRAME
ONE FRAME - MK 15A - AS DRAWN & NOTED
ONE FRAME - MK 15C - OPP. HAND & NOTED
SHOP BOLT FOR SHIPMENT (TYP)
aa15 FOR 15A
ab15 FOR 15C
3-10½ @ 15A
3-10⅛ @ 15C
TYPICAL THIS SHEET
TACKWELD TYP.
12'-0
12'-4½
15A
15C
5'-11⅞
UPPER FRAME
ONE FRAME - MK 15E - AS DRAWN & NOTED
ONE FRAME - MK 15G - OPP. HAND & NOTED
ak15 FOR 15E
al15 FOR 15G
6'-6½ @ 15E
6'-5⅛ @ 15G
12'-0
12'-4½
15E
15G
LOWER FRAME
ONE FRAME - MK 15B - AS DRAWN & NOTED
ONE FRAME - MK 15D - OPP. HAND & NOTED
7'-0⅞ @ 15B
6'-11½ @ 15D
12'-0
12'-4½
15B
15D
LOWER FRAME
ONE FRAME - MK 15F - AS DRAWN & NOTED
ONE FRAME - MK 15H - OPP. HAND & NOTED
9'-7 15/16 @ 15F
9'-6⅞ @ 15H
12'-0
12'-4½
15F
15H
3-pb15
pa15
2'-0

MATERIAL SCHEDULE A36 MAT'L UN

MARK	NO. REQ.		SHAPE	LENGTH FT.	LENGTH IN.	O OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS	WEIGHT
15A	1		UPPER FRAME							PAIR w/ 15B	
	1	aa15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
15B	1		LOWER FRAME							PAIR w/ 15A	
	1	ad15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
15C	1		UPPER FRAME							PAIR w/ 15D	
	1	af15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
15D	1		LOWER FRAME							PAIR w/ 15C	
	1	ah15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
15E	1		UPPER FRAME							PAIR w/ 15F	
	1	ak15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
15F	1		LOWER FRAME							PAIR w/ 15E	
	1	am15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
15G	1		UPPER FRAME							PAIR w/ 15H	
	1	ap15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
	16	ma15	¾ Ø H.S. Bolt	0	2¼					A325	
	16	mb15	¾ HRD. WSH.							A325	
15H	1		LOWER FRAME							PAIR w/ 15G	
	1	ar15	L6x4x½	12	3½					B2E PER DET.	
	2	ab15	"	5	10 1/16					¼ BIE do	
	2	ac15	do	2	11½					B2E	
	1	pa15	PL 10x½	1	10						
	6	pb15	BAR 3x¼	0	4						
FIELD	6		[illegible]	0	5					No Nuts A325	
FIELD	2		¾ H.S. BOLT	0	5	EXTRAS				w/ Nuts A325	

☐ Approved as noted
☐ Approved as noted Resubmit
☐ Rejected
APR 12 1977
L. Roper
ASST. BRIDGE DESIGN ENGR.

APPROVAL AND REVISIONS
1 IFA 3-1-77
2 SUBM. #1 3/25/77
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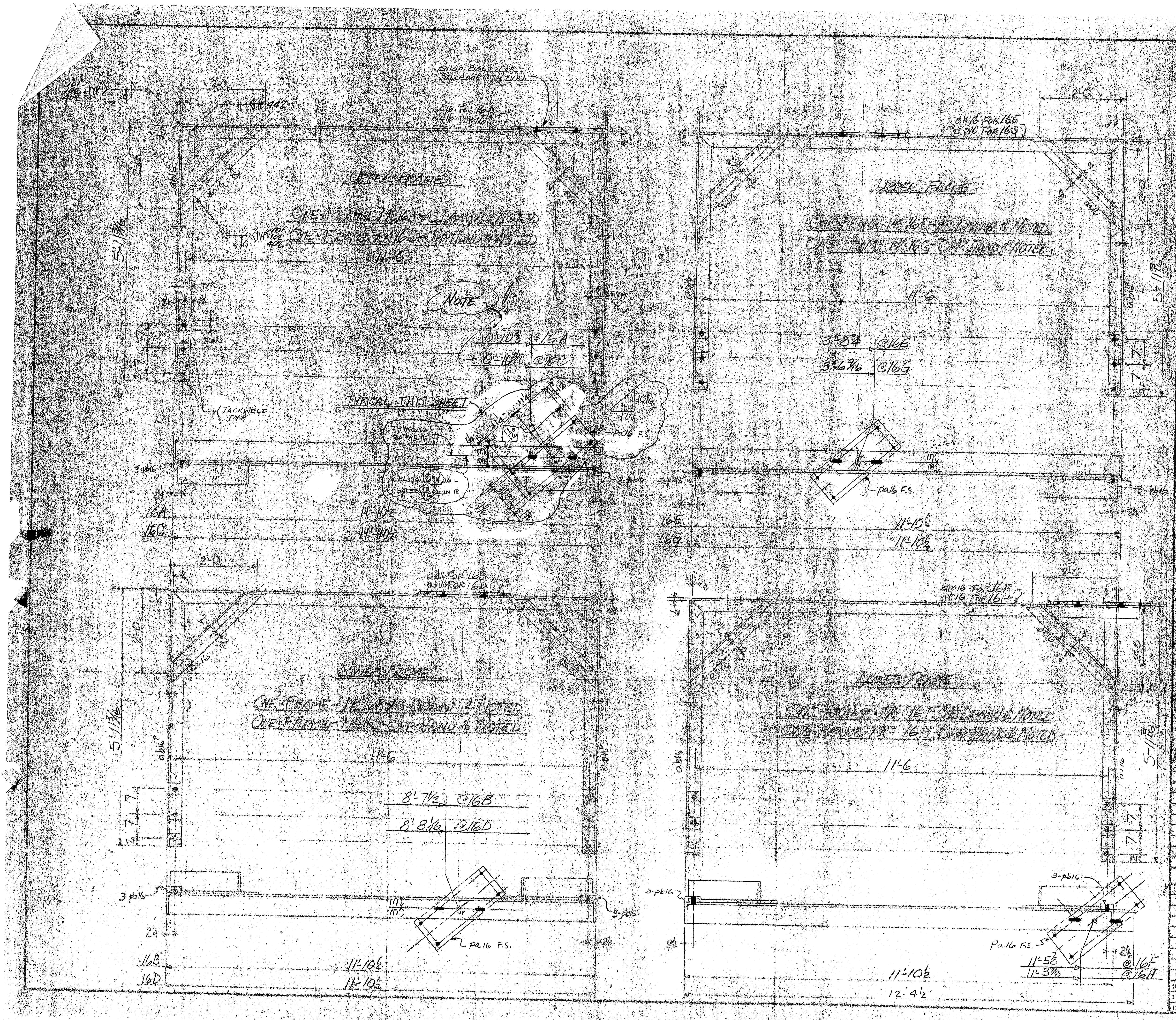
100-462

MAINE — CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2001

DESCRIPTION: Drain Extension Carrying Frame
PROJECT: I-95 Piscataqua River Bridge
LOCATION: Portsmouth, N.H. & Kittery, Me.
ARCHITECT: [illegible]
CONTRACTOR: [illegible]
PAINT: [illegible]
HOLES: 13/16 UN
PROJ. NO.: 77-222
DATE: 2/16/77
DRWG. NO.: 15



MATERIAL SCHEDULE A36 MAT'L UN

MARK	NO. PCS.		SHAPE	LENGTH FT.	IN.	REMARKS
16A	1		UPPER FRAME			PAIR W/16C
	1	aa16	L6x4x½	11	9½	B.2E. PER DET.
	2	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	[illegible]	[illegible]	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
16B	1		LOWER FRAME			PAIR W/16D
	1	aa16	L6x4x½	11	9½	B.2E. PER DET.
	2	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	2	1	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
16C	1		UPPER FRAME			PAIR W/16A
	1	aa16	L6x4x½	11	9½	B.2E. PER DET.
	2	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	2	1	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
16D	1		LOWER FRAME			PAIR W/16B
	1	aa16	L6x4x½	11	9½	B.2E. PER DET.
	2	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	2	1	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
16E	1		UPPER FRAME			PAIR W/16G
	1	aa16	L6x4x½	11	9½	B.2E. PER DET.
	2	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	2	1	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
	16	ma16	¾ HS BOLT	0	2¼	A325
	16	mb16	¾ HARD. WSH.			A325
16F	1		LOWER FRAME			PAIR W/16H
	1	am16	L6x4x½	12	4	B.2E. PER DET.
	1	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	2	1	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
	1	av16	L6x4x½	5	10 11/16	
16G	1		UPPER FRAME			PAIR W/16E
	1	aa16	L6x4x½	11	9½	B.2E. PER DET.
	2	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	2	1	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
FIELD	2		DO	0	5	EXTRAS
16H	1		LOWER FRAME			PAIR W/16F
	1	at16	L6x4x½	12	4	B.2E. PER DET.
	1	ab16	do	5	10 1/16	B.1E. do
	2	ac16	do	2	1⅛	B.2E.
	1	pa16	PL 10x½	2	1	
	6	pb16	BAR 3x½	0	4	
FIELD	6		¾ HS BOLT	0	5	NO NUTS A325
	1	av16	L6x4x½	5	10 11/16	

APPROVAL ACTION
☐ Approved
☐ Returned for Corrections
APR 2 1977
☐ Rejected

APPROVAL AND REVISIONS
1. FA 3-1-77
2 SUBM. #1 3/25/77
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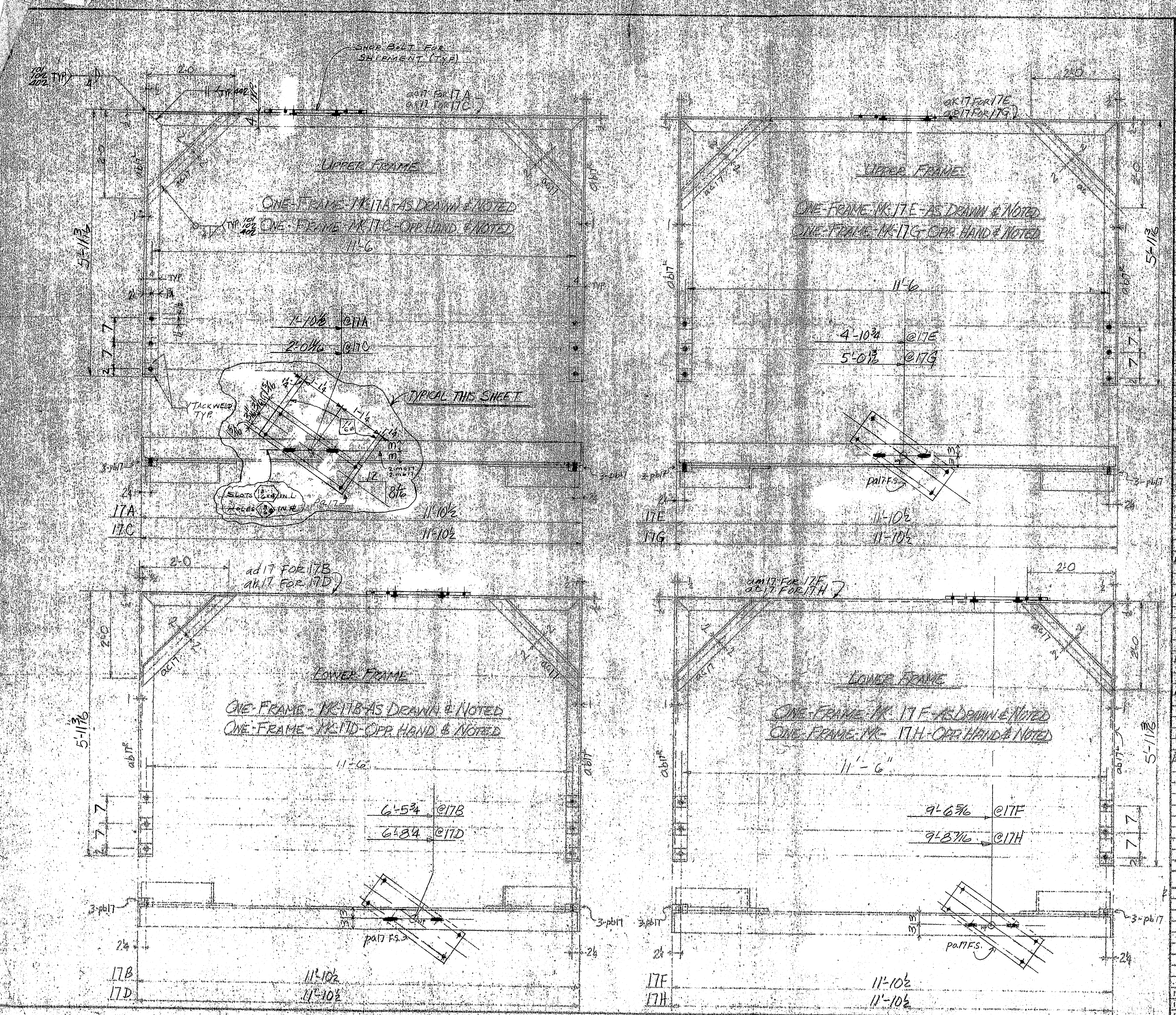
100-463

MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2601

DESCRIPTION [illegible]
PROJECT I-95 PISCATAQUA RIVER BRIDGE
LOCATION PORTSMOUTH, N.H. & KITTERY, ME.
ARCHITECT [illegible]
CONTRACTOR [illegible]
PAINT [illegible]
HOLES [illegible]
PROJ. NO. [illegible]
DATE [illegible]
16



MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT	LENGTH IN	REMARKS
17A	1		UPPER FRAME			PAIR W/17E
	1	aa17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E
	2	ac17	do	2	11⅜	B2E
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	No NUTS [illegible]
17B	1		LOWER FRAME			PAIR W/17F
	1	ad17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E do
	2	ac17	do	2	11⅜	B2E
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	No NUTS [illegible]
17C	1		UPPER FRAME			PAIR W/17G
	1	ac17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E do
	2	ac17	do	2	11⅜	
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	No NUTS [illegible]
17D	1		LOWER FRAME			PAIR W/17C
	1	ab17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E do
	2	ac17	do	2	11⅜	B2E
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	No NUTS [illegible]
17E	1		UPPER FRAME			PAIR W/17A
	1	ac17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E do
	2	ac17	do	2	11⅜	B2E
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	No NUTS [illegible]
17F	1		LOWER FRAME			PAIR W/17B
	1	am17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E do
	2	ac17	do	2	11⅜	B2E
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	No NUTS [illegible]
17G	1		UPPER FRAME			PAIR W/17H
	1	ap17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E
	2	ac17	do	2	11⅜	B2E
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	No NUTS A325
	16	ma17	¾"φHS BOLTS	0	2¼	A325
	16	mb17	¾"φHRD. WSH.			A325
17H	1		LOWER FRAME			PAIR W/17G
	1	ac17	L6x4x½	11	9½	B2E PER DET
	2	ab17	"	5	10⅛	1 B1E do
	2	ac17	do	2	11⅜	B2E
	1	pa17	PL 10x½	2	5	
	6	pb17	BAR 3x½	0	4	
FIELD	6		1"φHS BOLTS	0	5¼	[illegible]
	2		1"φHS BOLTS	0	5¼	EXTRAS

L. L. Roberts
Rejected
1977

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM. #1 3/25/77
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100-464

MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-[illegible]

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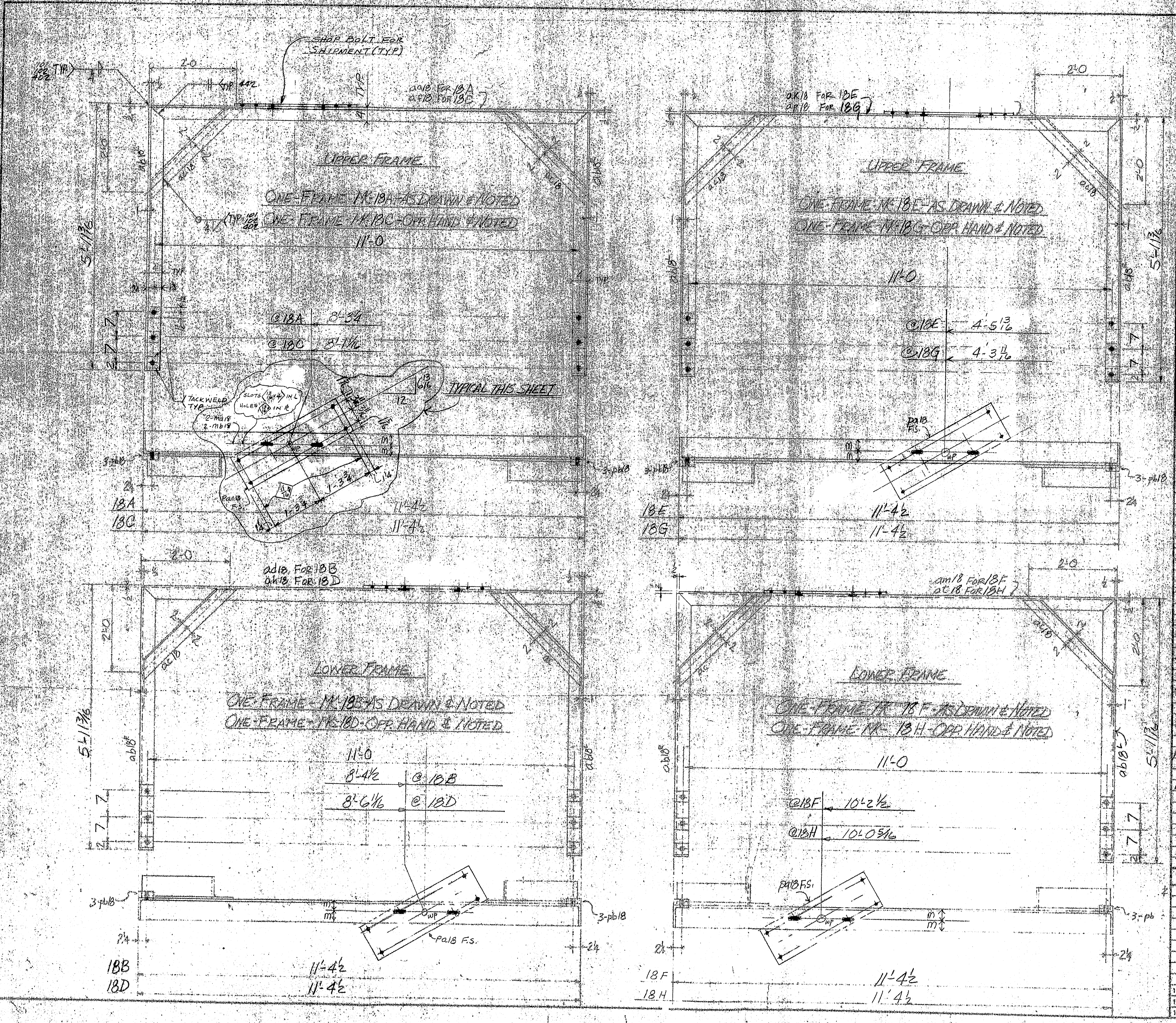

MATERIAL SCHEDULE A36 MAT'L U.N.

MARK	NO. PCS.		SHAPE	LENGTH FT.	LENGTH IN.	O. OR S.	CUT FROM NO.	CUT FROM FT. IN.	REMARKS	WEIGHT
18A	1		UPPER FRAME						PAIR w/ 18C	
	1	aa18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5				No Nuts A325	
18B	1		LOWER FRAME						PAIR w/ 18A	
	1	ad18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5				No Nuts A325	
18C	1		UPPER FRAME						PAIR w/ 18D	
	1	af18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5				No Nuts A325	
18D	1		LOWER FRAME						PAIR w/ 18C	
	1	ah18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5				No Nuts A325	
18E	1		UPPER FRAME						PAIR w/ 18F	
	1	ak18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5				No Nuts A325	
18F	1		LOWER FRAME						PAIR w/ 18E	
	1	am18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5				No Nuts A325	
18G	1		UPPER FRAME						PAIR w/ 18H	
	1	ap18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5				No Nuts A325	
	16	ma18	¾ H.S. BOLTS	0	2¼				A325	
	16	mb18	¾ HARD. WSH.						A325	
18H	1		LOWER FRAME						PAIR w/ 18G	
	1	at18	L6x4x½	11	3½				B.2E PER DET	
	2	ab18	"	5	10⅝				1¼ B.1E do	
	2	ac18	do	2	11⅜				B.2E	
	1	pa18	PL 10x½	2	10					
	6	pb18	BAR 3x½	0	4					
FIELD	6		¾ H.S. BOLTS	0	5					
	2		¾ H.S. BOLTS	0	5	EXTRAS				

APPROVAL AND REVISIONS
1 FA 3-1-77
2 SUBM. #1 3/25/77
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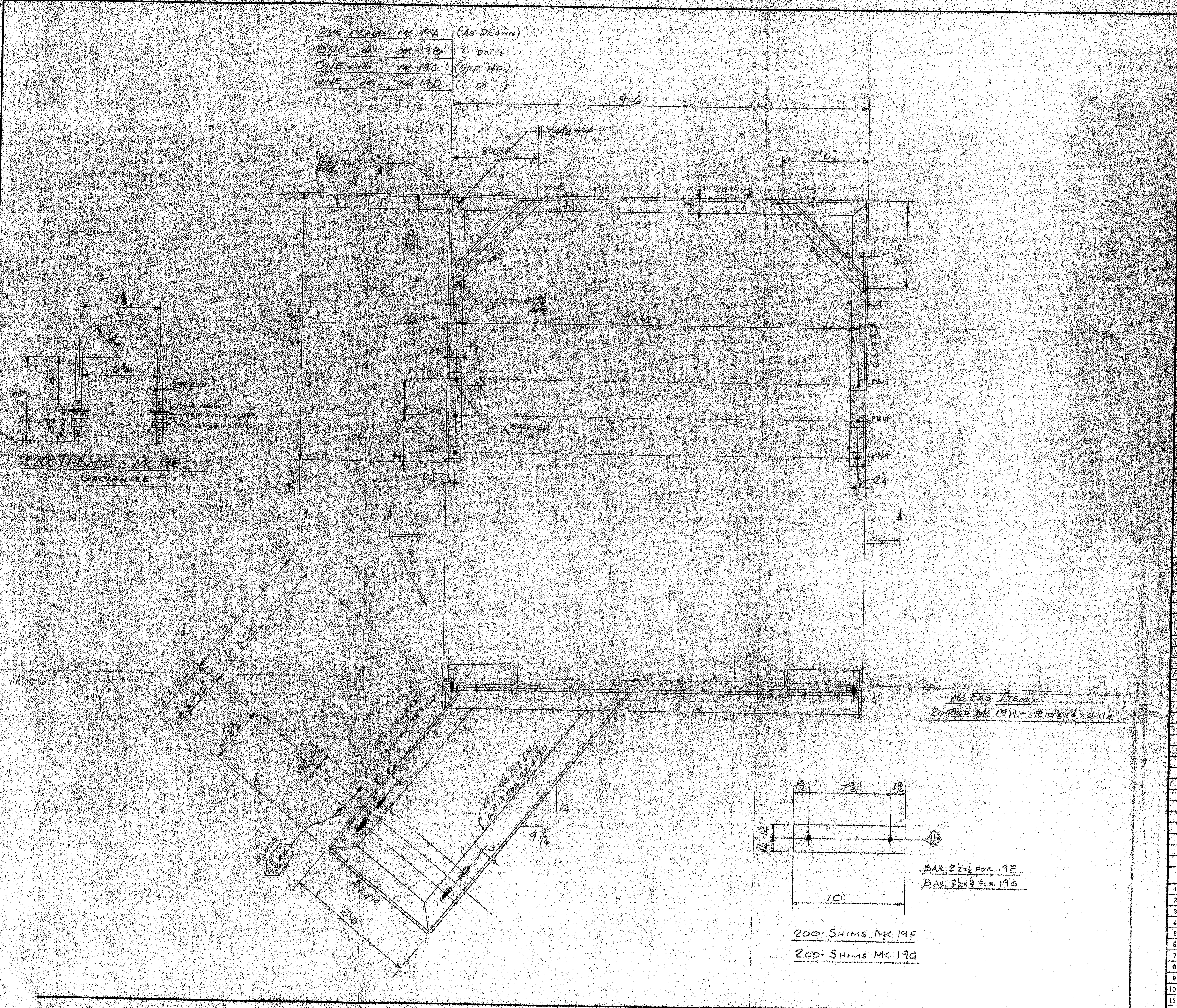
100-465

MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2881

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



220-U-BOLTS-MK 19E
GALVANIZE

No Fab Item:
20-Reqd MK 19H - R10⅞x4x0-11¼

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	11½					B2E	
	2	ab19R		6	1½					B1E 1'8¼ do	
	1	ad19		2	11					B2E Per Det	
	1	ae19		4	9					Shop Fit	
	1	af19		7	2					do	
	6	pb19	Bar 3x½	0	4						
Field	6		1ϕ H.S. Bolts	0	5½					No Nuts A325	
19B	1		FRAME								
	1	aa19	L6x4x½	9	5					B2E Per Det	
	2	ac19		2	11½					B2E	
	2	ab19R		6	1½					B1E 1'8¼ do	
	1	ad19		2	11					B2E do	
	1	ag19		2	9½					Shop Fit	
	1	ah19		5	2½					do	
	6	pb19	Bar 3x½	0	4						
Field	6		1ϕ H.S. Bolts	0	5½					No Nuts A325	
19C	1		FRAME								
	1	aa19	L6x4x½	9	5					B2E Per Det	
	2	ac19		2	11½					B2E	
	2	ab19R		6	1½					B1E 1'8¼ do	
	1	ad19		2	11					B2E do	
	1	ae19		4	7					Shop Fit	
	1	af19		7	2					do	
	6	pb19	Bar 3x½	0	4						
Field	6		1ϕ H.S. Bolts	0	5½					No Nuts A325	
19D	1		FRAME								
	1	aa19	L6x4x½	9	5					B2E Per Det	
	2	ac19		2	11½					B2E	
	2	ab19R		6	1½					B1E 1'8¼ do	
	1	ad19		2	11					B2E do	
	1	ag19		2	9½					Shop Fit	
	1	ah19		5	2½					do	
	6	pb19	Bar 3x½	0	4						
Field	6		1ϕ 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	mc19	⅝ϕ Lock Washers								
19F	200		Bar 2½x½	0	10						
19G	200		Bar 2½x¼	0	10						
19H	20		R10⅞x4	0	11¼					No Fab. - No Paint	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
☐ Approved ☒ Returned for Correction
APR 12 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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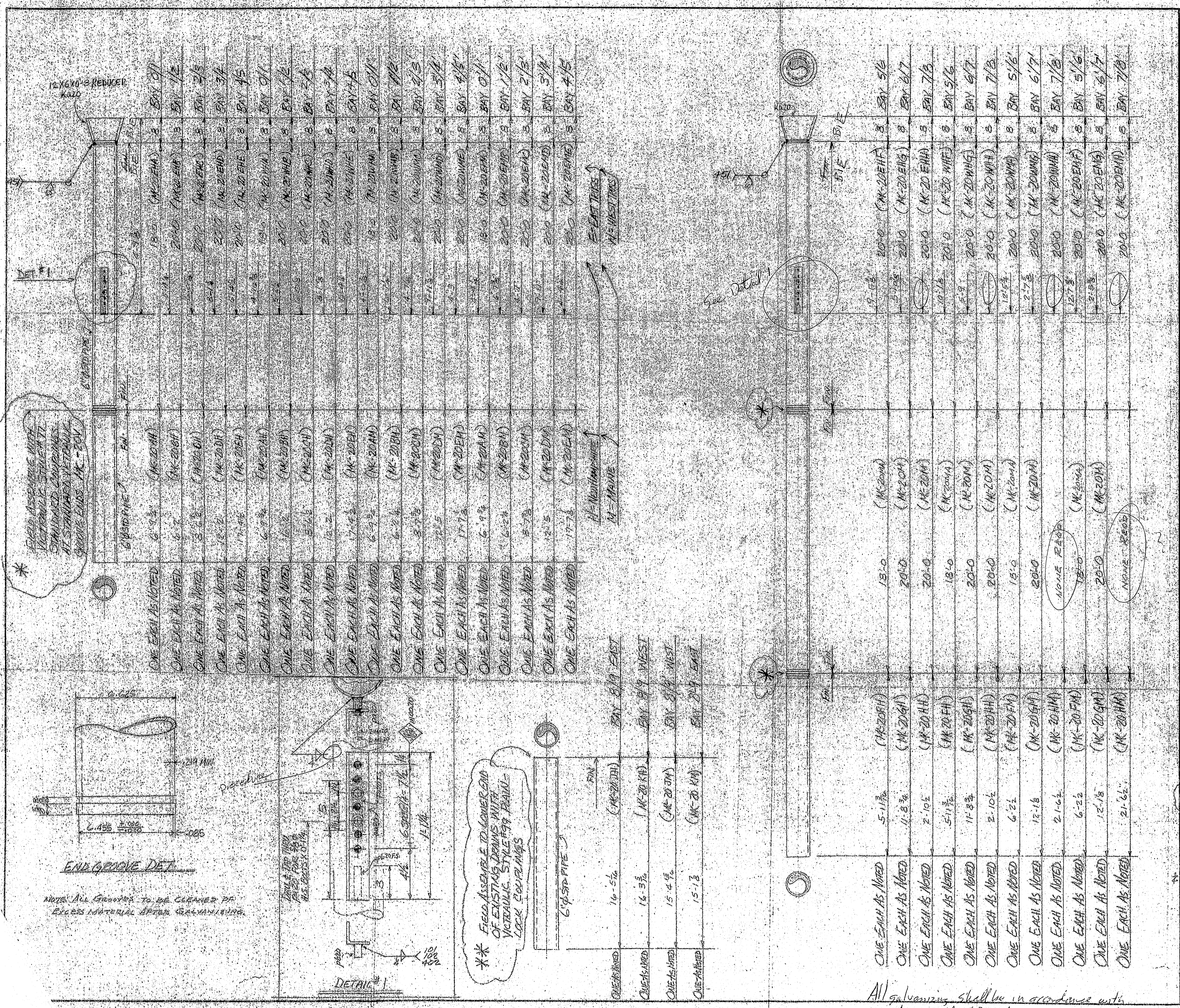
MAINE—CASCADE IRON WORKS
BAKER STREET, CLINTON, MAINE 04927
PHONE 207-426-2691

DESCRIPTION Drain Extension Carrying Frames @ 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



{ G = GROOVE FOR STD. VICTRAULIC #77 COUPLING
{ B = BEVEL 30° FOR WELDING

MATERIAL SCHEDULE A53 MAT'L UN

MARK	NO. PCS.		SHAPE	LENGTH FT.	LENGTH IN.	G OR S	CUT FROM NO.	CUT FROM FT.	CUT FROM IN.	REMARKS	WEIGHT
20AH	2		6"ϕSTD PIPE	6	9¾					SCH 40 G/E	
20BH	2			6	2						
20CH	2			8	6½						
20DH	2			12	2						
20EH	2			17	4½						
20AM	2			6	9¾						
20BM	2			6	2¼						
20CM	2			8	7⅜						
20DM	2			12	5						
20EM	2			17	7⅛						
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	11⅞					SCH 40 G/E	
20GH	2			11	8¾						
20HH	2			2	10½						
20JH	1			16	5⅛					F/E	
20KH	1			16	3⅝						
20FM	2			6	2½					G/E	
20GM	2			12	1⅜						
20HM	2			21	6½						
20JM	1			15	4⅞					F/E	
20KM	1			15	1⅜						
	32	Ka20	12"TO 6"ϕREDUCER	0	8					SCH 40 B/E	A53
	32	Da20	BAR 1X1/4	0	8						A36
	32	Db20	BAR 1/4X4	0	3						A36
	32	Aa20	L2X2X1/4	1	1¼						A36
	64	Ma20	5/8ϕH.S.BOLTS	0	1¼						A325
	64	Mb20	5/8 HARD WASHERS								A325
20V	42		VICTRAULIC STYLE 77 6"ϕIPS PIPE COUPLINGS - GALV.								
20W	4		VICTRAULIC STYLE 99 6"ϕIPS PLAINLOCK PIPE COUPLINGS GALV.								

ABOVE MAT'L OF A47 MALLEABLE IRON & A183 TRACK TYPE BOLTS

Gaskets Grade H

ALL MAT'L 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 207-426-2691

DESCRIPTION DRAIN PIPE EXTENSIONS
PROJECT I-95 PISCATAQUA RIVER BRIDGE
LOCATION PORTSMOUTH, N.H. & KITTERY, MAINE
ARCHITECT N.H.D. of P.W.&H. / S. of H. DOT / HARDESTY & HANOVER
CONTRACTOR CHERNAK-BREDBENNER CONSTR. CO.

PAINT GALVANIZE & PAINT AS PER 504.482 & 504.49 SPECS.	DRAWN BY MAG	CHECKED BY	DATE 2-18-77
HOLES 11/16"ϕ	PROJ. NO. 77-267		DRWG. NO. 20

All galvanizing shall be in accordance with ASTM A153 & A123