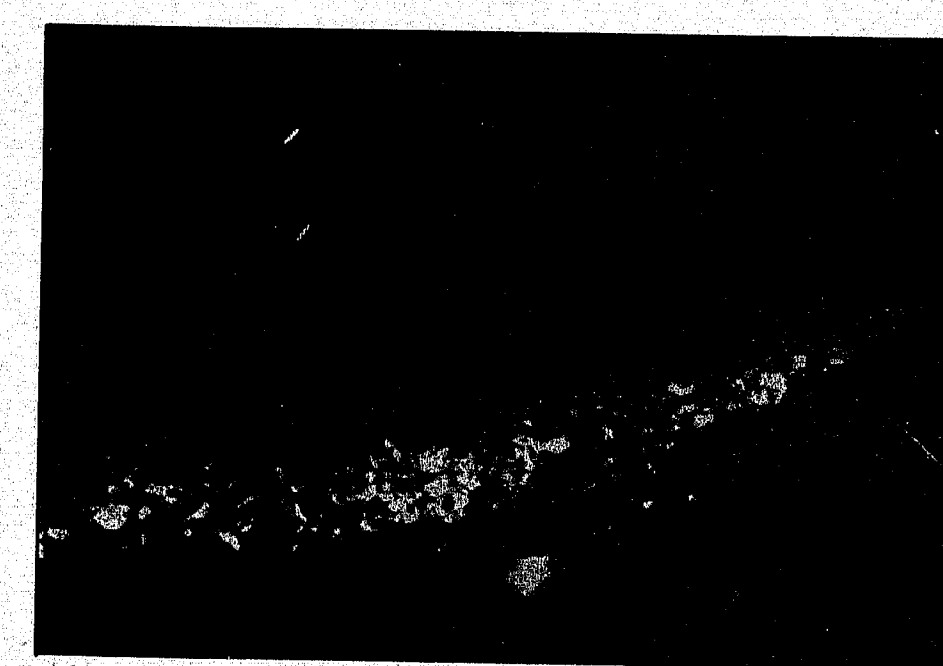
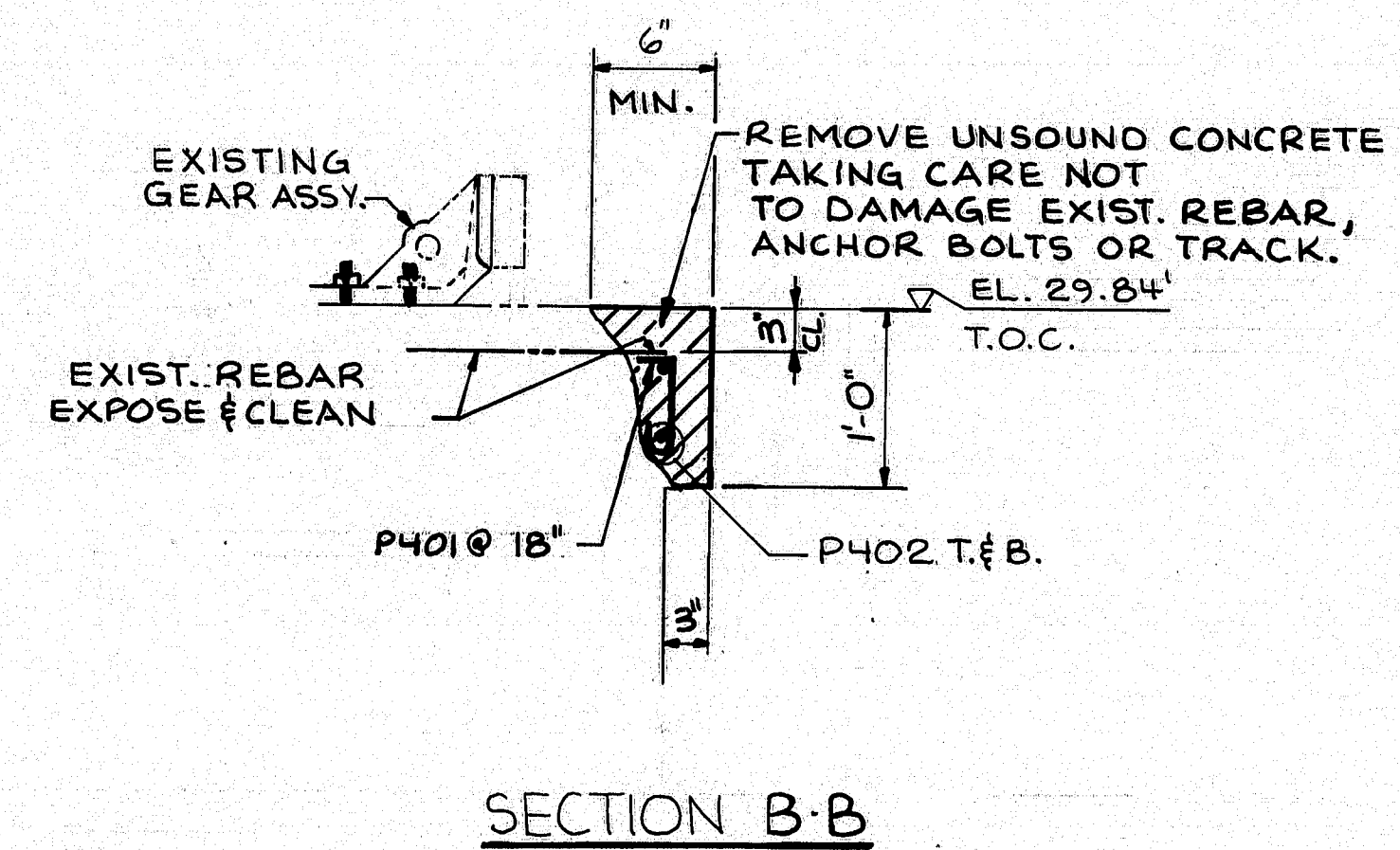
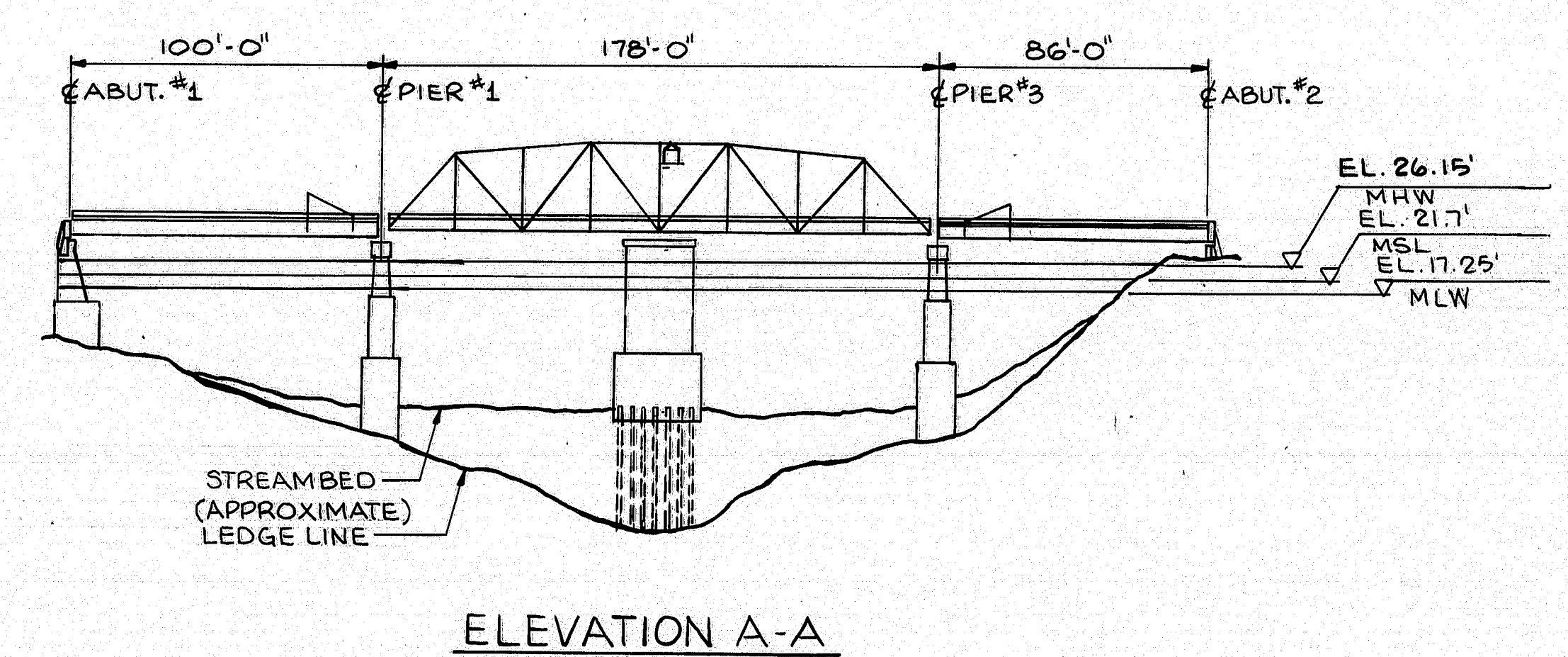
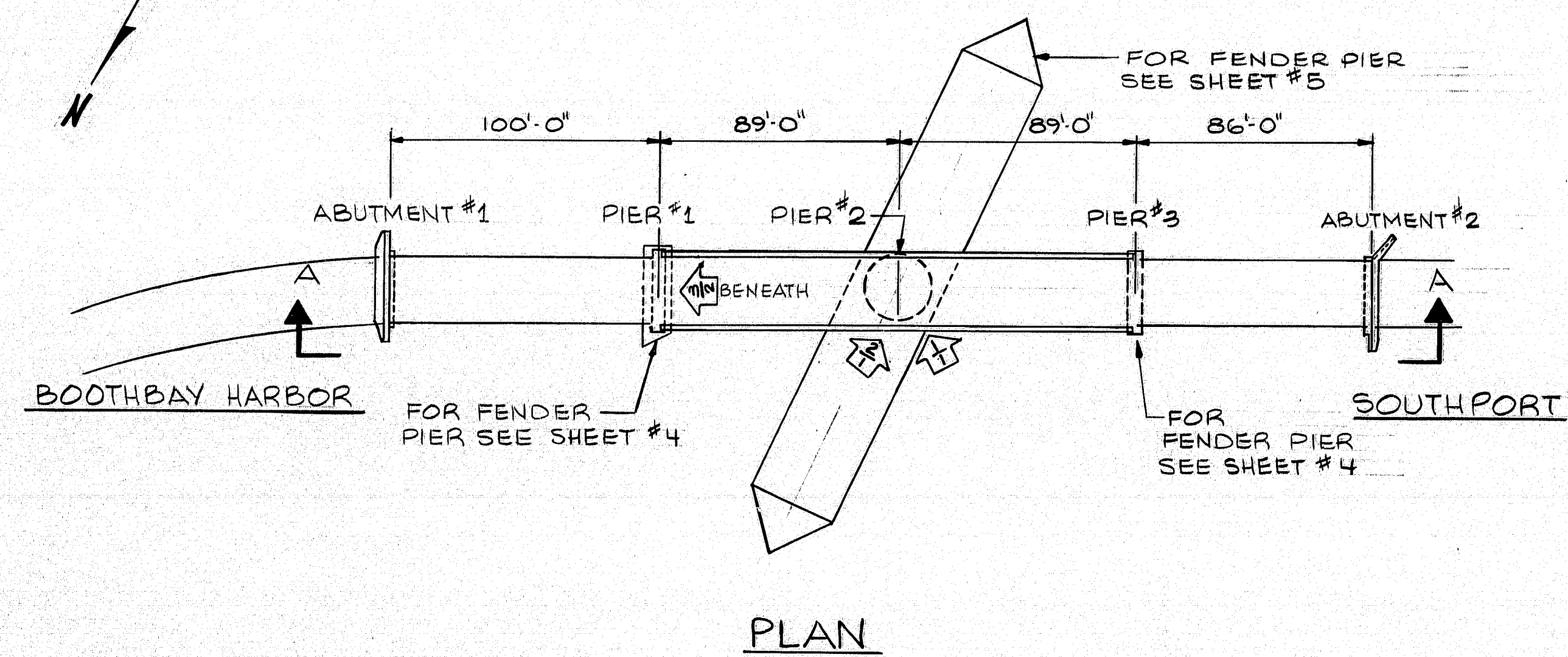
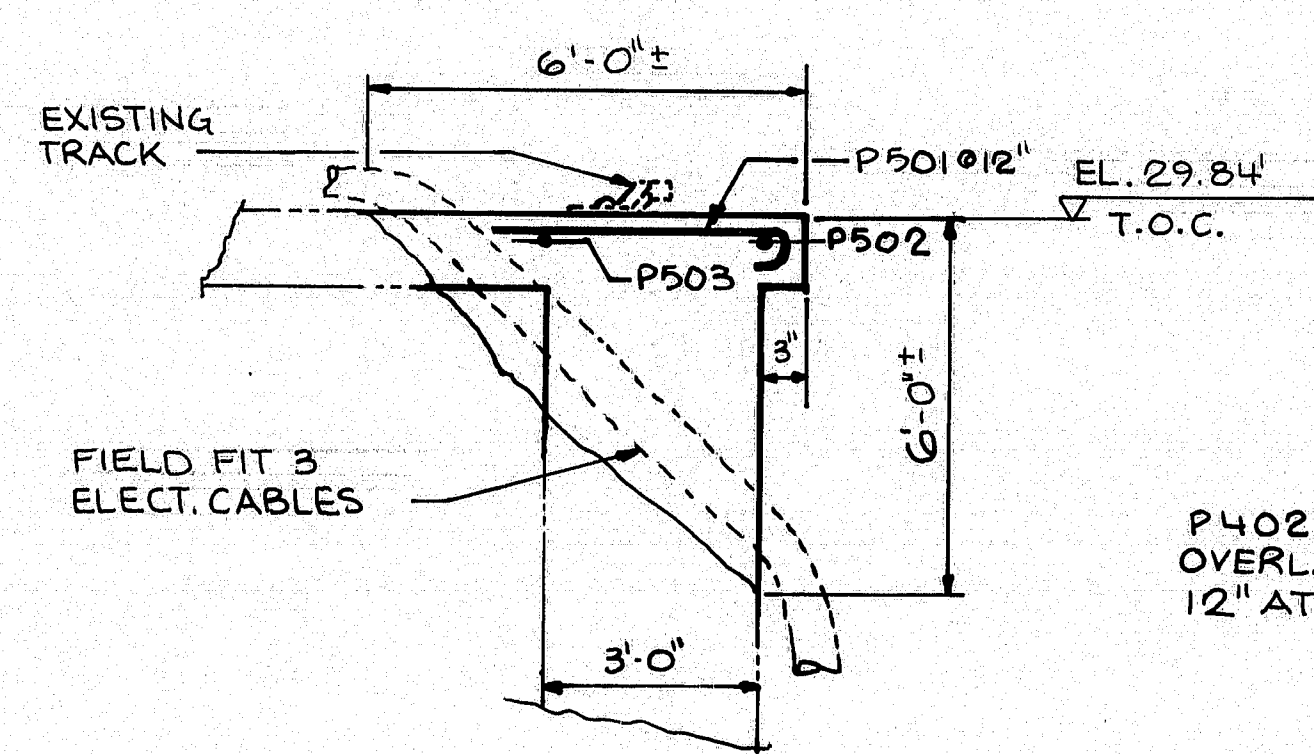
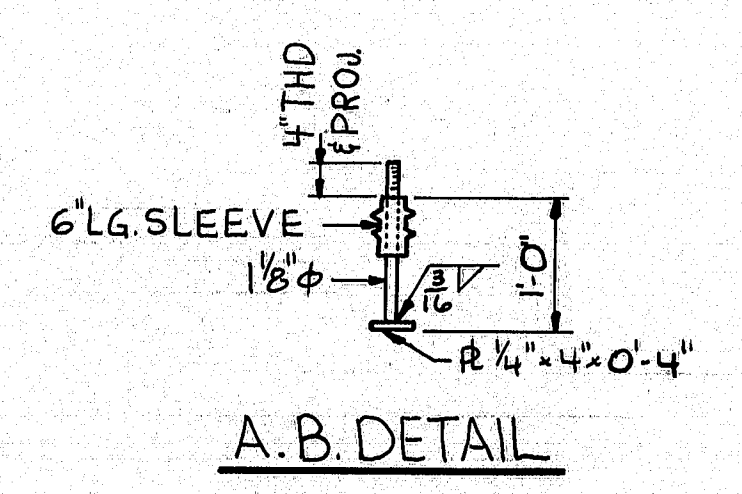


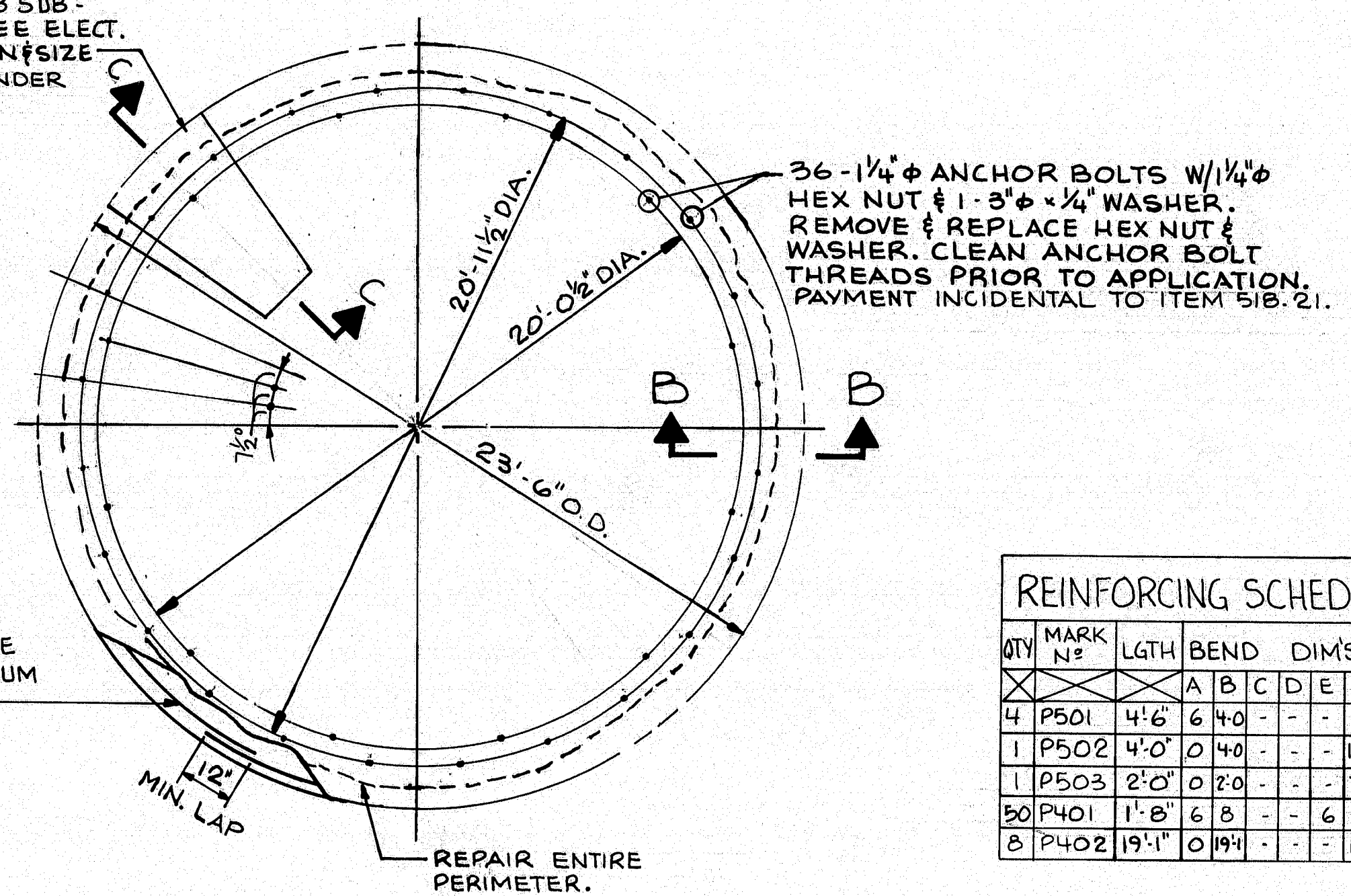
F.R.W.L. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH:0005(WB)	3	32



REMOVE UNSOUND CONCRETE AROUND PERIMETER TO A MIN. OF WHAT IS SHOWN IN SECT. B. PATCH IN ACCORDANCE WITH SPECIAL PROVISION SECTION 518. PAYMENT ITEM N° 518.21 TO BE BY VERTICAL 60. FT. & INCLUDES CONCRETE REMOVAL.



BREAK OUT TOP OF EXIST. PIER TO INSTALL 3 SUB-MARINE CABLES SEE ELEC. DWG. FOR LOCATION & SIZE. PAYMENT TO BE UNDER ITEM N° 518.21



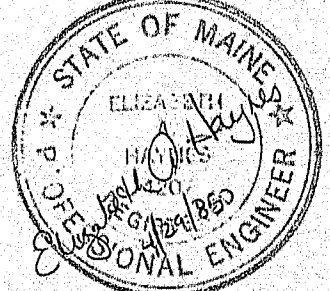
QTY	MARK N°	LGTH	BEND	DIMS.	SHAPE
4	P501	4'-6"	6	4-0	-
1	P502	4'-0"	0	4-0	-
1	P503	2'-0"	0	2-0	-
50	P401	1'-8"	6	8	-
8	P402	19'-1"	0	19'-1"	-

GENERAL NOTES:
1) PHOTO IDENTIFICATION & DRAWING N°.

2) DRAWINGS OF EXISTING STRUCTURE AND MACHINERY ARE AVAILABLE AT MDOT OFFICE FOR CONTRACTOR REVIEW. THE INFORMATION FROM THE EXISTING DRAWINGS SHOULD BE VERIFIED IN THE FIELD FOR CORRECTNESS.
3) CONTRACTOR SHOULD VERIFY ALL DIMENSIONS IN THE FIELD.

INDEX OF SHEETS	
CIVIL	
CONCRETE REPAIRS	1,2
STRUCTURAL STEEL	3
FENDER SYSTEM	4,5
TENDERS QUARTERS	6
CONTROL ROOM	7
ELECTRICAL	
LIGHTING PLAN	8
POWER PLAN	9
MISC. DETAILS	10
DEMOLITION	11
CONTROL HOUSE	12
LIGHT. & POWER JUNC. BOXES	13,14
SCHEMATICS	15,16
CONTROL CONSOLE	17
MISC. DETAILS	18
MECHANICAL	
DRIVES & SUPPORT MODIF.	19
RACK, PINION, & BALANCE WHEEL	20
CENTER BEARING ALTERATIONS	21
WEDGE DRIVE & CENT. DEVICE	22
WEDGE DRIVES	23,24

104-356



NEILL and GUNTER
Consulting and Design Engineers
P. O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SOUTHPORT OVER BRIDGE
TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
PLAN & ELEVATION
PIER 2 CONCRETE REPAIR

SHEET 1 OF 24 AUGUSTA, MAINE JANUARY, 1986
NGI JOB NO. 20931

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	EAH	12/2/85
CHECKED	GLH	7/27/86
REVISIONS		
FIELD CHANGES		

BRUNING 44132 49710-1

F.R.W.L. P.R. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	84-0005 (49)	4	32

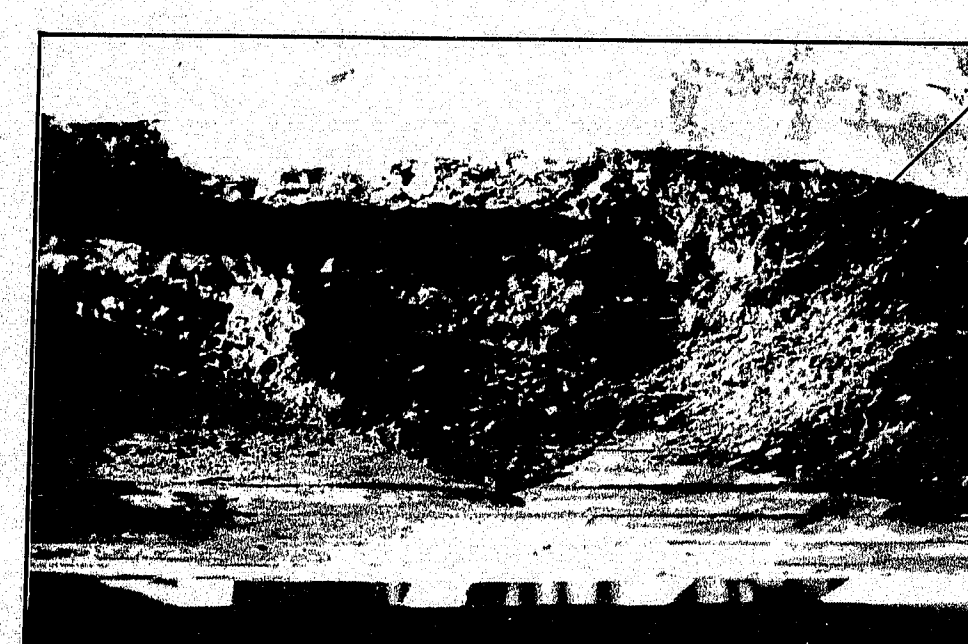
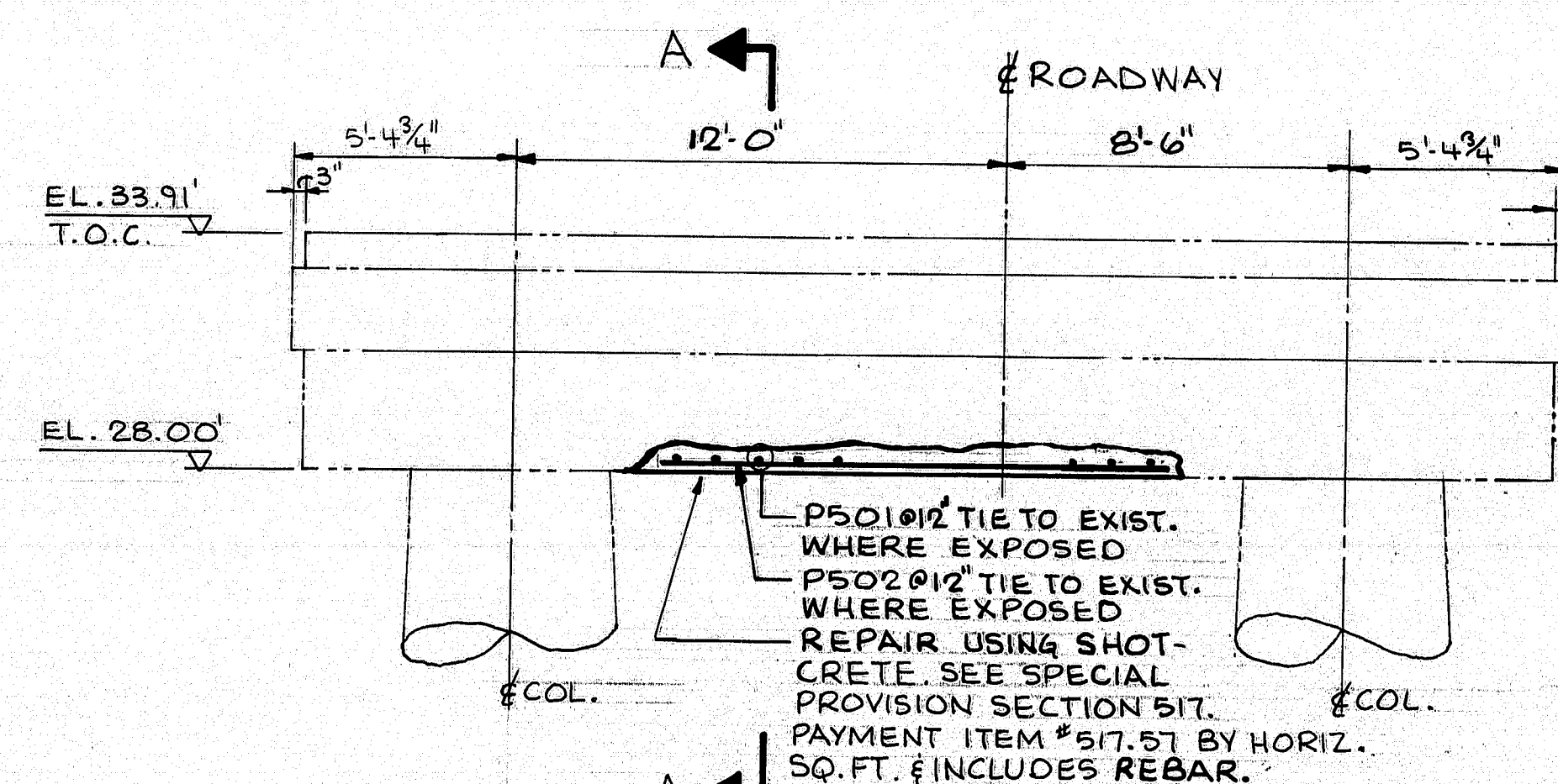
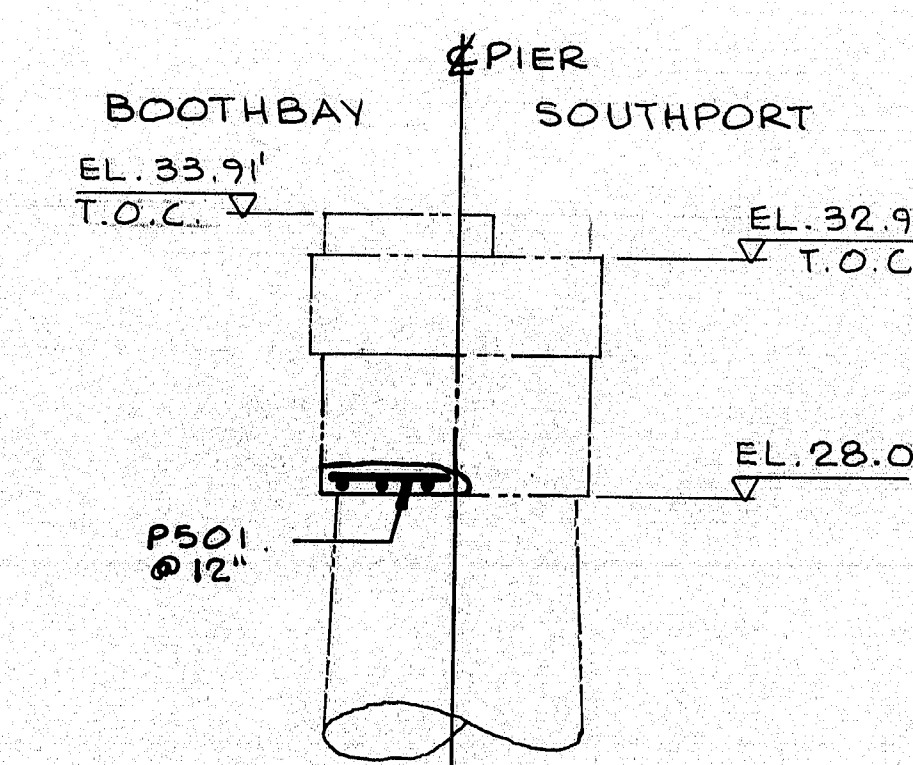


PHOTO 3
PIER 1

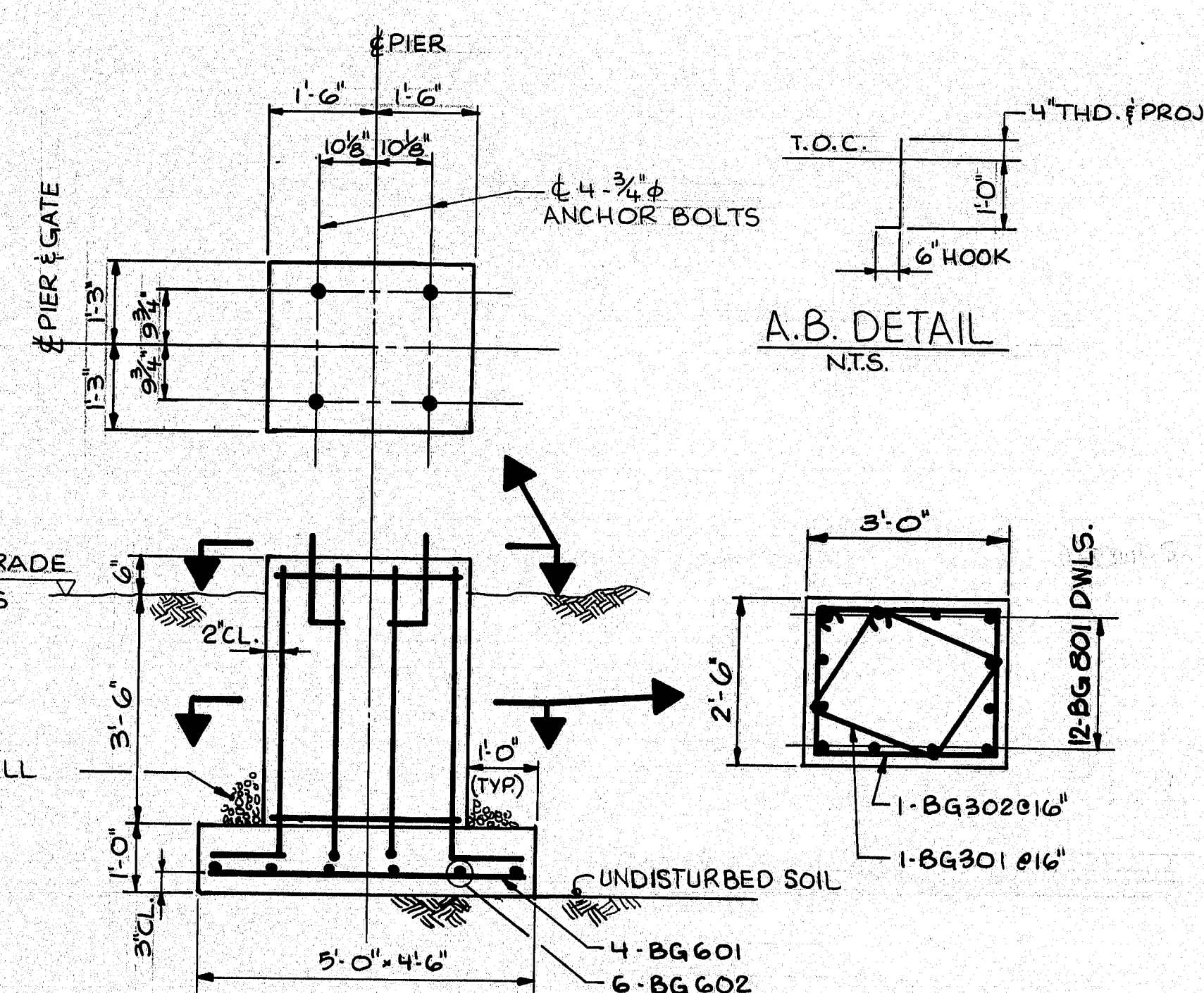
REMOVE UNSOUND CONCRETE
& CLEAN EXISTING REBAR
SEE DETAIL @ RIGHT.



CONCRETE REPAIR DETAIL
FOR PIER 1

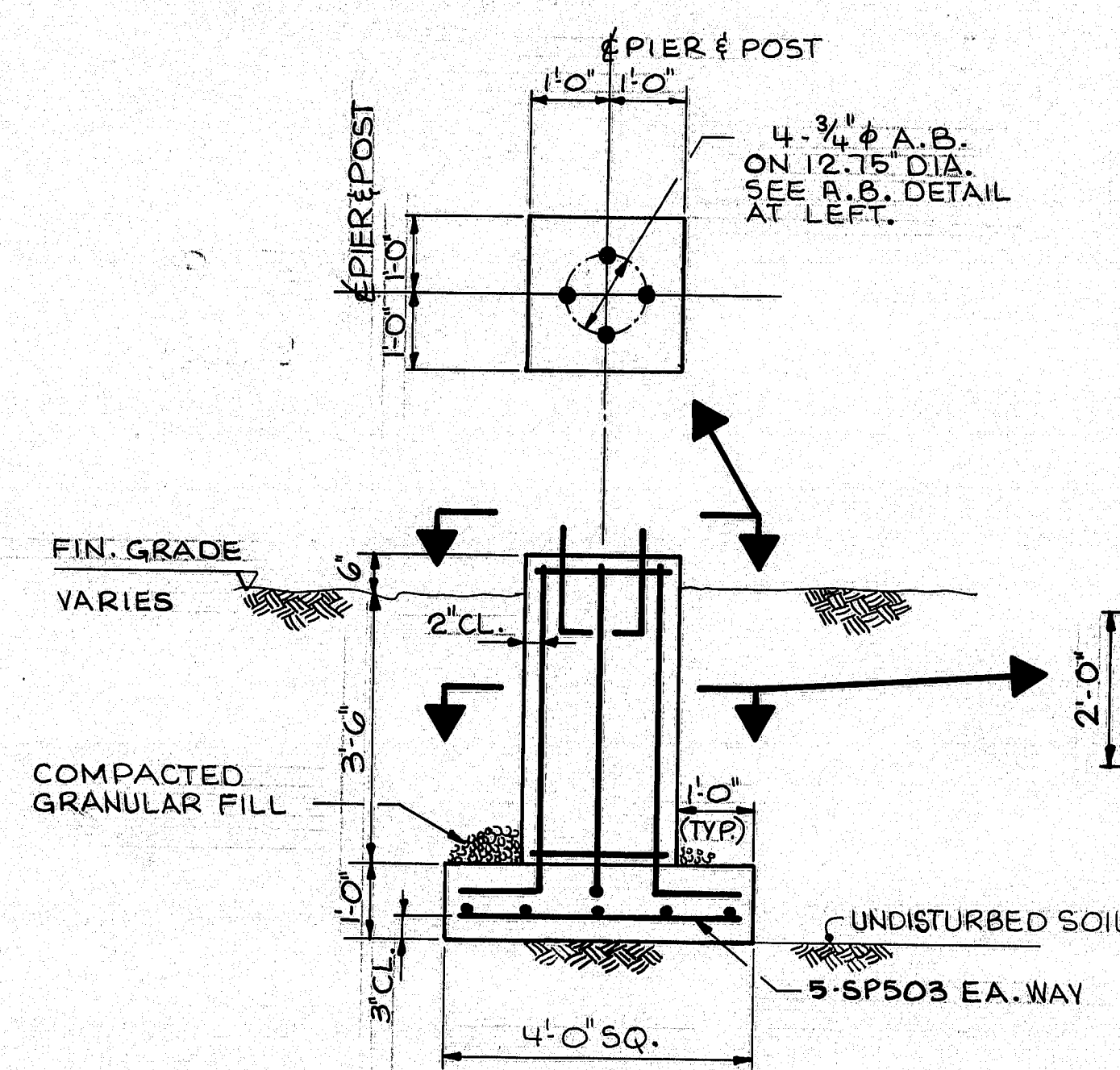


SECTION A-A



TRAFFIC GATE FOUNDATION
2 REQ'D.

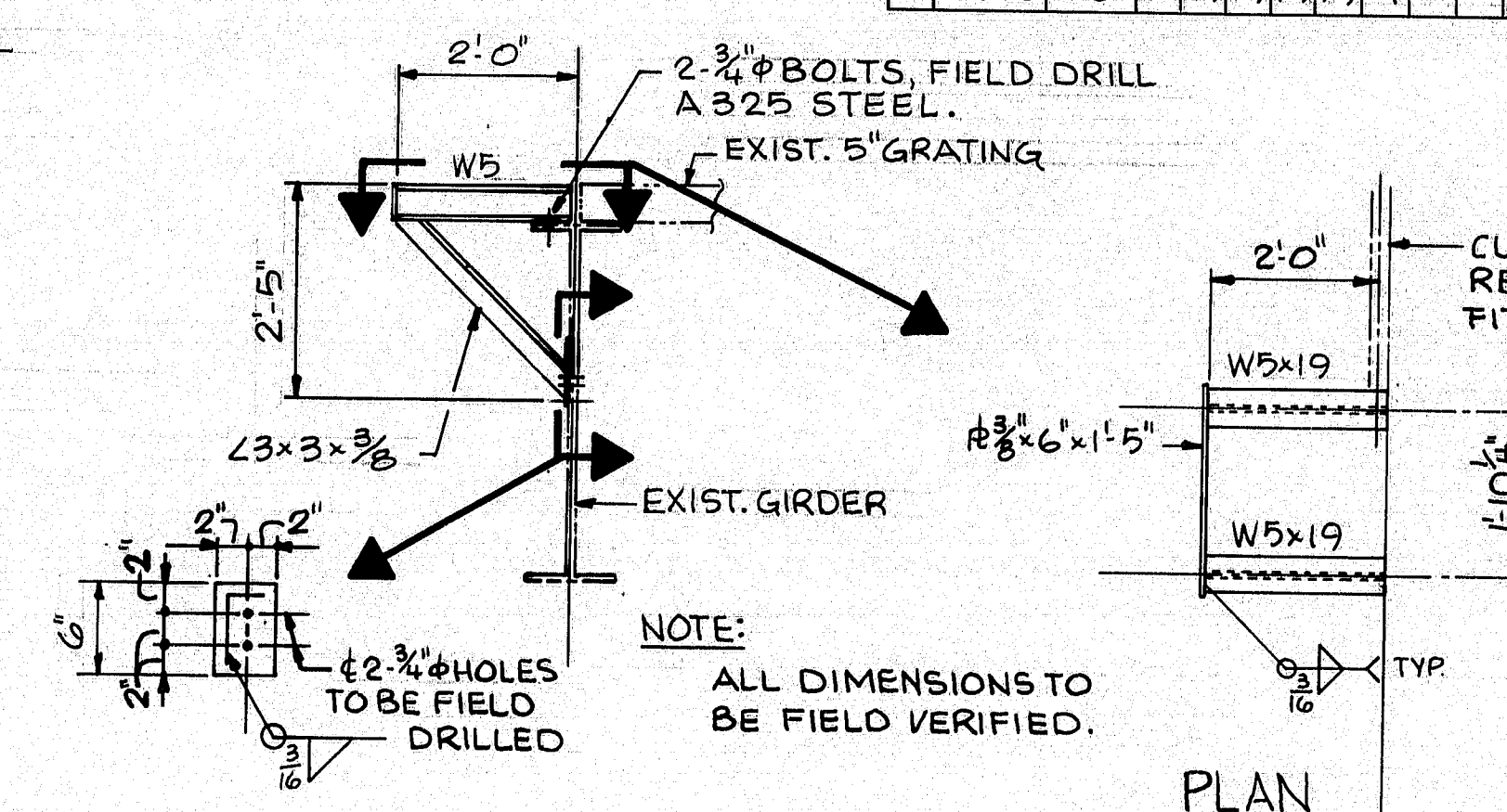
NOTE:
FOR LOCATION SEE ELECTRICAL
POWER PLAN SHEET #9.
Pay Item 626.37



SIGNAL POLE FOUNDATION
2 REQ'D.

NOTE:
FOR LOCATION SEE
MISC. ELECTRICAL DETAILS SHEET #10
Pay Item 626.34

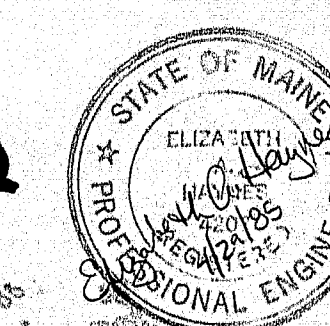
QTY	MARK	LGTH	BEND	DIMS.	SHAPE
20	P501	2'-9"	-	-	-
3	P502	10'-0"	-	-	-
8	BG601	4'-0"	-	-	-
12	BG602	4'-0"	-	-	-
24	BG801	5'-6"	10	W4	L
8	BG301	8'-0"	4	11 1/4" 11 1/4"	4 23 29 23 4
8	BG802	10'-0"	4	23 23 29 23	4
20	SP503	3'-0"	-	-	-
16	SP603	5'-6"	10	W4	L
8	SP303	7'-0"	4	11 1/4" 11 1/4"	4 23 29 23 4



TRAFFIC BARRIER SUPPORTS
2 REQ'D.

NOTE:
FOR LOCATION SEE
ELECTRICAL DWG. SHT. 9 & 10

104-354



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PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SOUTHPORT BRIDGE
OVER
TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
CONCRETE REPAIR
MISC. DETAILS

SHEET 2 OF 24 AUGUSTA, MAINE JANUARY 1985
NGI JOB NO 20931

STAY R REPLACEMENT SCHEDULE									
NORTH SIDE BOTTOM CHORD TOP R's									
R.N.	R SIZE	OK	REPL	REMARKS	R.N.	R SIZE	OK	REPL	REMARKS
1	19x15 1/2 x 5/16		X		29		X		
2	9x15 1/2 x 5/16		X		30		X		
3	13x15 1/2 x 5/16		X		31	9x15 1/2 x 5/16		X	
4	9x15 1/2 x 5/16		X		32		X		
5		X			33		X		
6		X			34	9x15 1/2 x 5/16		X	
7		X			35	13x15 1/2 x 5/16		X	
8	13x15 1/2 x 5/16		X		36	13x15 1/2 x 5/16		X	
9	13x15 1/2 x 5/16		X		37	9x15 1/2 x 5/16		X	
10	9x15 1/2 x 5/16		X		38		X		
11		X			39		X		
12		X			40		X		
13		X			41		X		
14		X			42		X		
15		X			43		X		
16		X			44		X		
17	9x15 1/2 x 5/16		X		45		X		
18	9x15 1/2 x 5/16		X		46		X		
19		X			47		X		
20		X			48	13x15 1/2 x 5/16		X	
21		X			49		X		
22		X			50		X		
23		X			51		X		
24	9x15 1/2 x 5/16		X		52		X		
25		X			53		X		
26		X			54		X		
27		X			55		X		
28		X			56		X		

STAY R REPLACEMENT SCHEDULE									
SOUTH SIDE BOTTOM CHORD TOP R's									
R.N.	R SIZE	OK	REPL	REMARKS	R.N.	R SIZE	OK	REPL	REMARKS
1	19x15 1/2 x 5/16		X		29		X		
2	9x15 1/2 x 5/16		X		30	9x15 1/2 x 5/16		X	
3	9x15 1/2 x 5/16		X		31	13 1/2 x 15 1/2 x 5/16		X	
4		X			32	13 1/2 x 15 1/2 x 5/16		X	
5		X			33	9x15 1/2 x 5/16		X	
6	13 1/2 x 15 1/2 x 5/16		X		34	9x15 1/2 x 5/16		X	
7	13 1/2 x 15 1/2 x 5/16		X		35	9x15 1/2 x 5/16		X	
8		X			36		X		
9	9x15 1/2 x 5/16		X		37		X		
10	9x15 1/2 x 5/16		X		38	19x15 1/2 x 5/16		X	
11	9x15 1/2 x 5/16		X		39	19x15 1/2 x 5/16		X	
12	19x15 1/2 x 5/16		X		40	9x15 1/2 x 5/16		X	
13	19x15 1/2 x 5/16		X		41		X		
14		X			42	9x15 1/2 x 5/16		X	
15	9x15 1/2 x 5/16		X		43	9x15 1/2 x 5/16		X	
16	9x15 1/2 x 5/16		X		44	13 1/2 x 15 1/2 x 5/16		X	
17	9x15 1/2 x 5/16		X		45	13 1/2 x 15 1/2 x 5/16		X	
18	9x15 1/2 x 5/16		X		46		X		
19	13 1/2 x 15 1/2 x 5/16		X		47		X		
20	13 1/2 x 15 1/2 x 5/16		X		48	9x15 1/2 x 5/16		X	
21	9x15 1/2 x 5/16		X		49		X		
22		X			50		X		
23		X							
24		X							
25		X							
26		X							
27		X							
28		X							

STAY R REPLACEMENT SCHEDULE									
BOTTOM CHORD BOTTOM R's									
NORTH SIDE					SOUTH SIDE				
R.N.	R SIZE	OK	REPL	REMARKS	R.N.	R SIZE	OK	REPL	REMARKS
1	19x15 1/2 x 5/16		X		1	13x15 1/2 x 5/16		X	
2	13x15 1/2 x 5/16		X		2	13x15 1/2 x 5/16		X	
3	13x15 1/2 x 5/16		X		3	13x15 1/2 x 5/16		X	
4	13x15 1/2 x 5/16		X		4	13x15 1/2 x 5/16		X	
5		X			5		X		
6		X			6		X		
7		X			7		X		
8	13x15 1/2 x 5/16		X		8		X		
9		X			9		X		
10	19x15 1/2 x 5/16		X		10		X		
11	19x15 1/2 x 5/16		X		11		X		
12	13x15 1/2 x 5/16		X		12		X		
13		X			13	13x15 1/2 x 5/16		X	
14	19x15 1/2 x 5/16		X		14		X		
15	19x15 1/2 x 5/16		X		15		X		
16		X			16		X		
17	13x15 1/2 x 5/16		X		17	13x15 1/2 x 5/16		X	
18		X			18	13x15 1/2 x 5/16		X	
19	13x15 1/2 x 5/16		X		19		X		
20	19x15 1/2 x 5/16		X		20		X		
21		X							
22		X							

P.R.W.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(4)	5	40

- NOTES:
- 1) PLATE ARE NUMBERED FROM BOOTHBAY END OF BRIDGE.
 - 2) ALL NEW STEEL TO BE ASTM. A36 GRADE STEEL.
 - 3) CLEANING AND PAINTING OF EXISTING STEEL IS COVERED IN SECTION 506 OF THE SPECIFICATIONS.
 - 4) R SIZE VS. N° OF RIVETS
- | R SIZE NEW | R SIZE EXIST. W/ N° OF RIVETS |
|------------|-------------------------------|
| 9x15 1/2 | SAME 6 RIVETS |
| 13x15 1/2 | SAME 8 RIVETS |
| 19x15 1/2 | SAME 12 RIVETS |
- 5) PAINTING OF NEW STRUCT. STEEL TO BE INCIDENTAL TO ITEM #506.42, FIELD PAINTING OF EXISTING STRUCT. STEEL.
 - 6) REMOVAL OF EXISTING PLATES & RIVETS TO BE INCIDENTAL TO PAY ITEM 504.71.

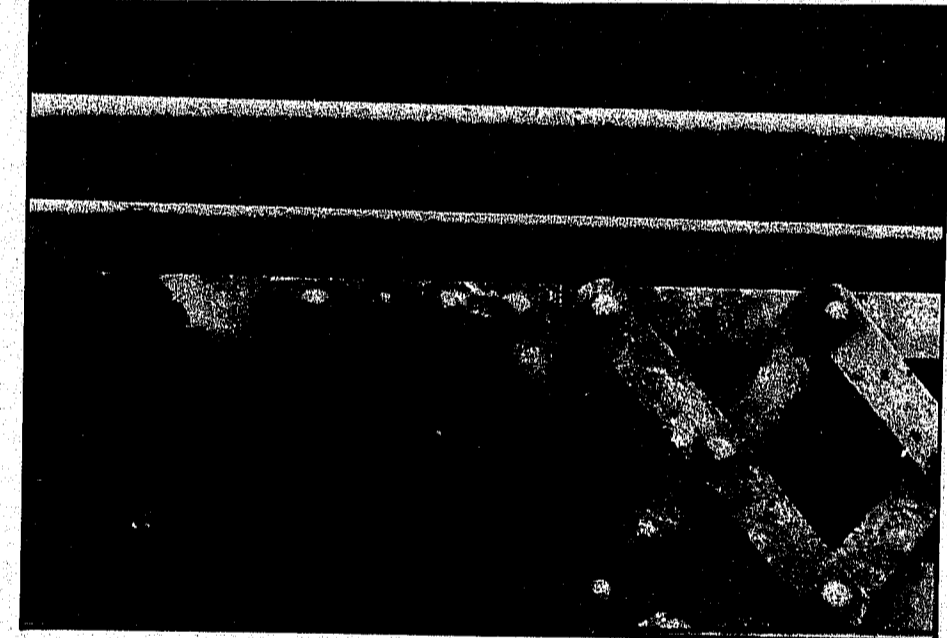


PHOTO OF CORRODED BOTTOM CHORD TOP R's

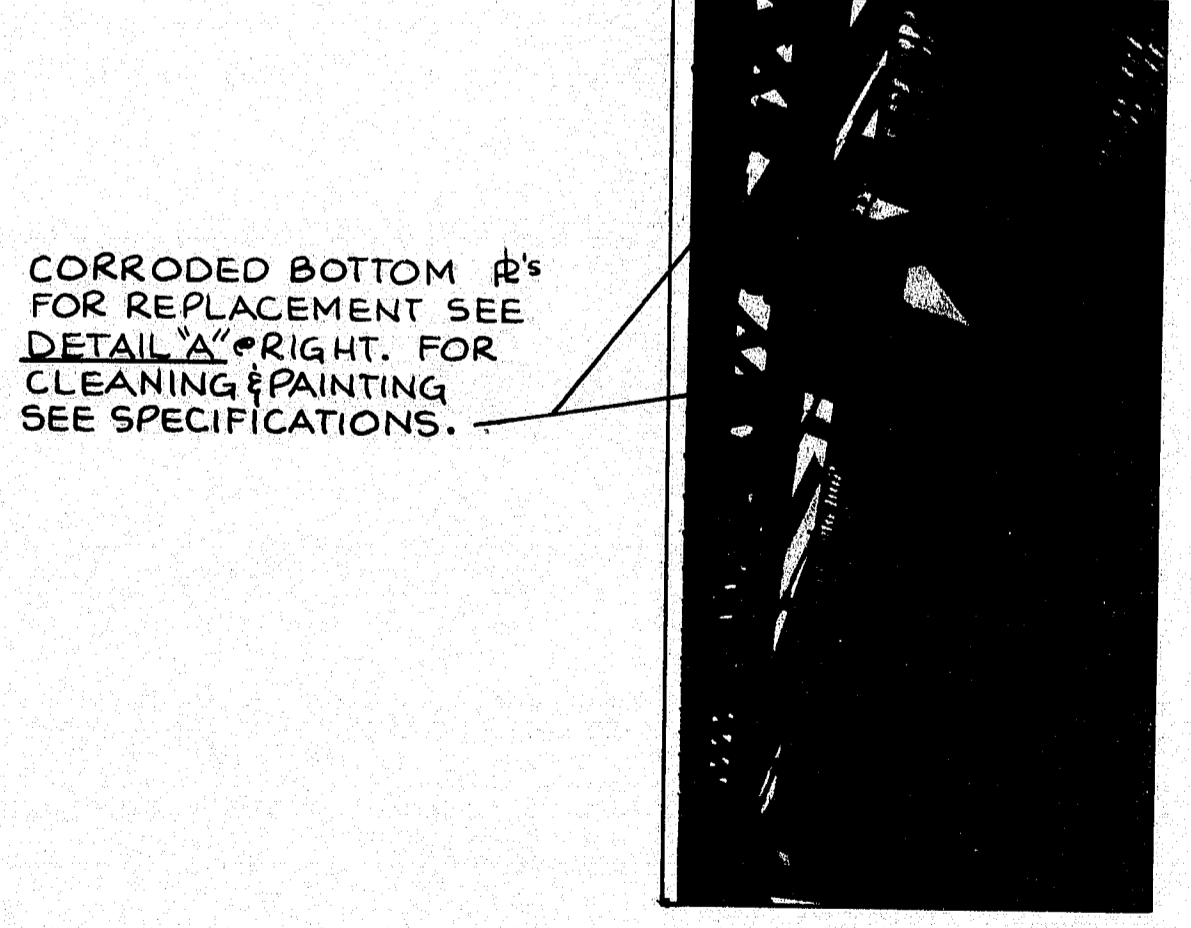


PHOTO OF CORRODED BOTTOM CHORD BOTTOM R's



PHOTO OF TRUSS GUSSET R's

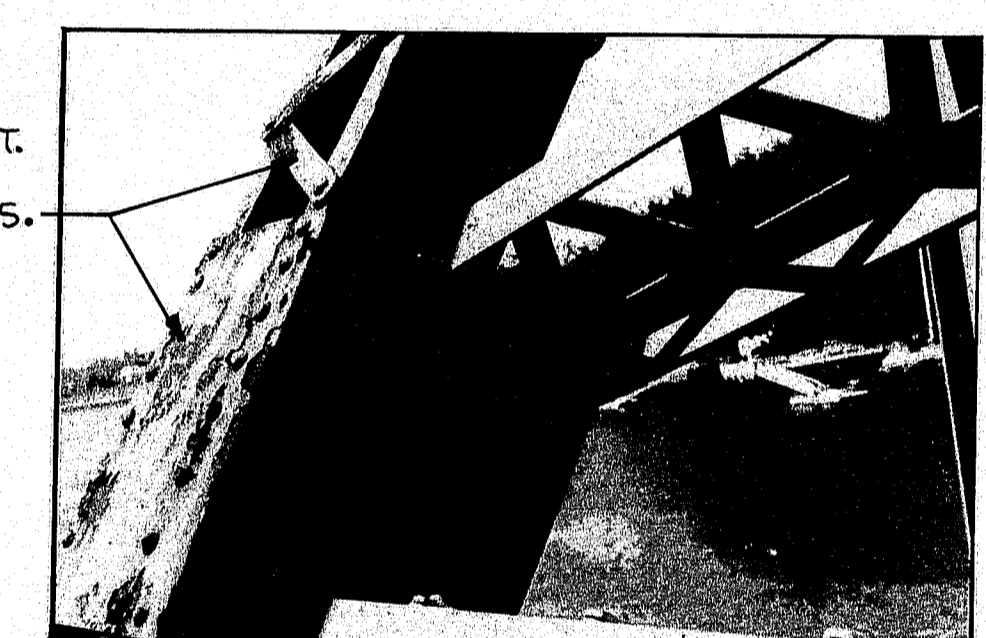
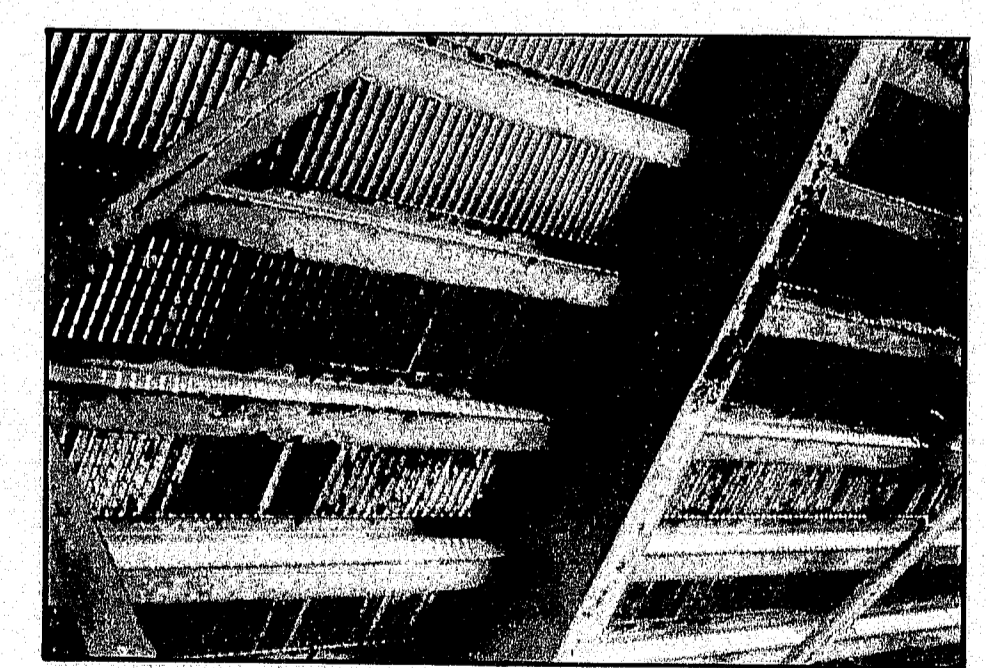
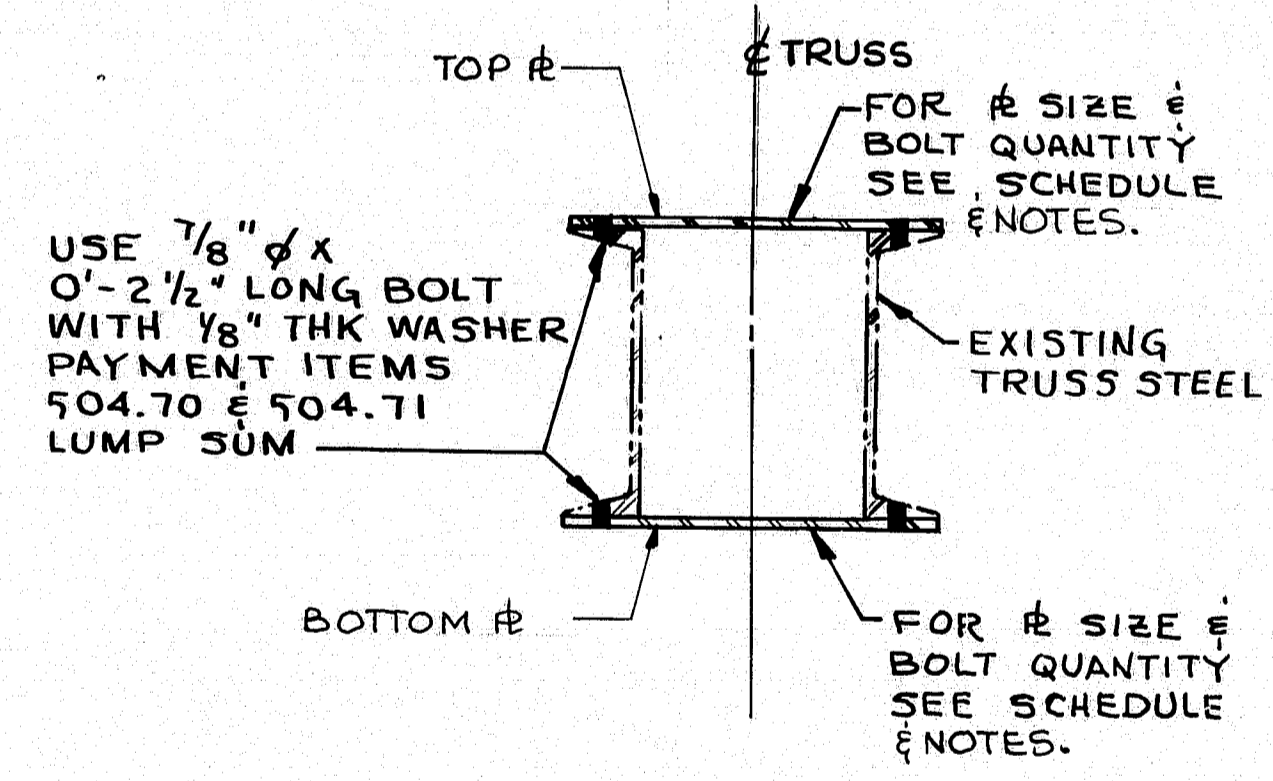


PHOTO OF TRUSS GUSSET R



TYPICAL PHOTO OF DECK SUPPORT STEEL



DETAIL "A"
STAY R REPLACEMENT
SCALE: 1/4" = 1'-0"

104-358

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NEILL and GUNTER
Consulting and Design Engineers
P. O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

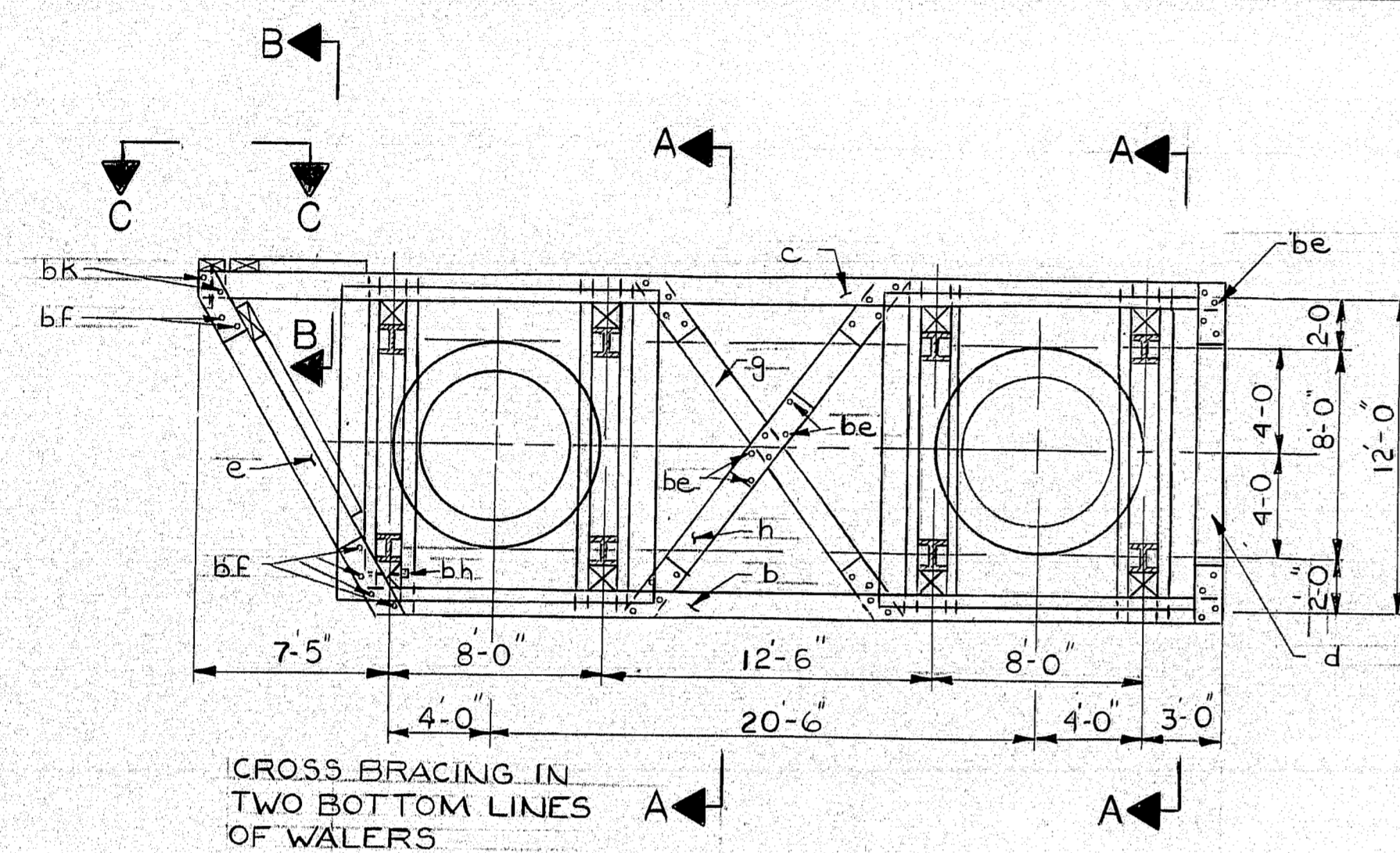
SOUTHPORT BRIDGE
OVER
TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY

STRUCTURAL
STEEL REPAIRS

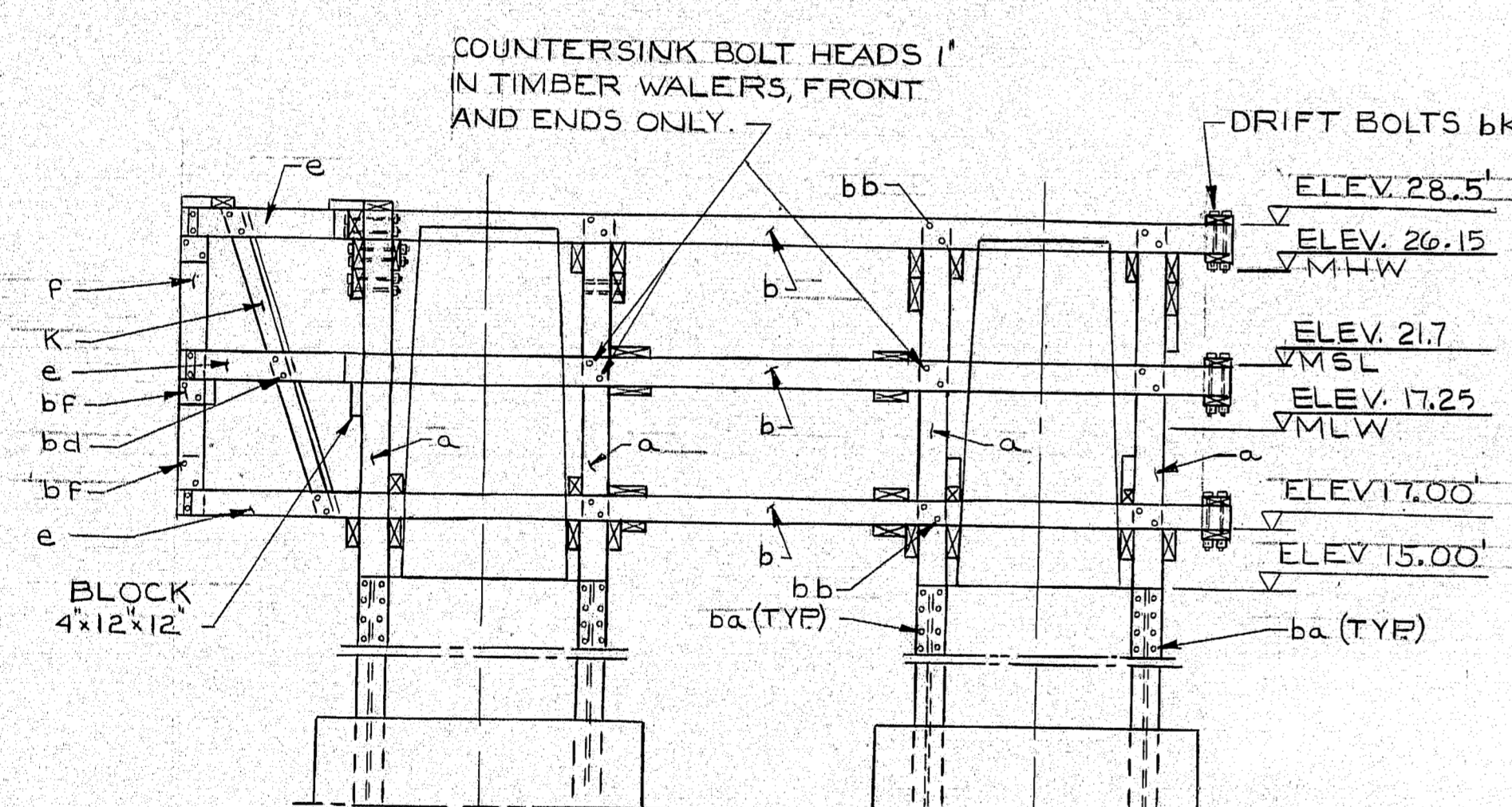
SHEET 3 OF 24 AUGUSTA, MAINE JANUARY, 1985
NGI JOB NO. 20931

PROJECT DESIGN ENGINEER	DATE
BAH	1-25-85
DESIGN - CHECKED	BY
BAH	BCH
REVISIONS	REVISIONS
1	2
CHANGES	
PLANS	

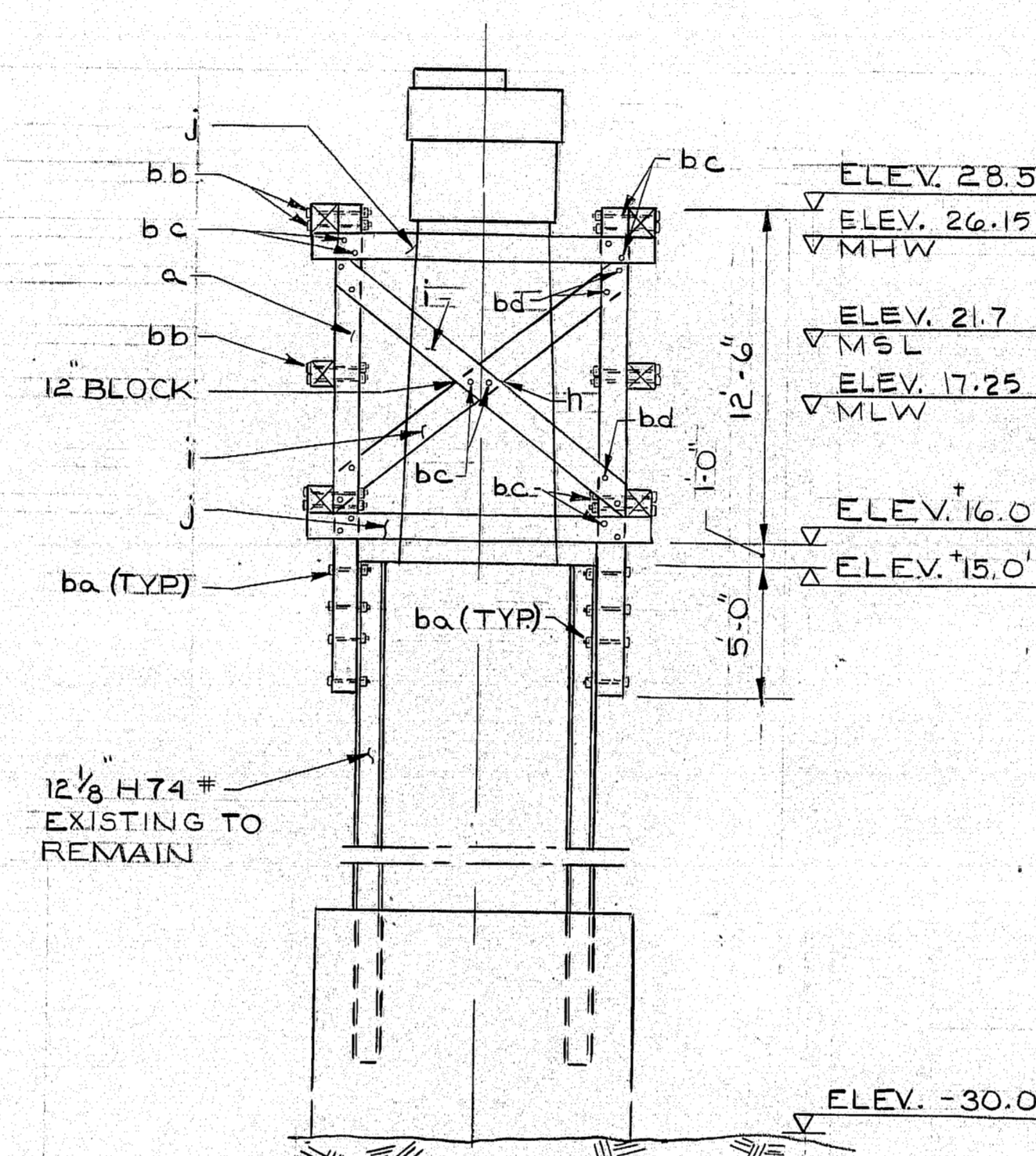
F.R.M.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(4)	6	32



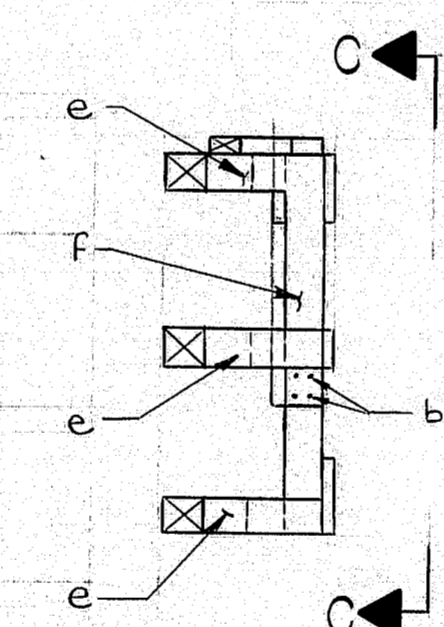
PLAN



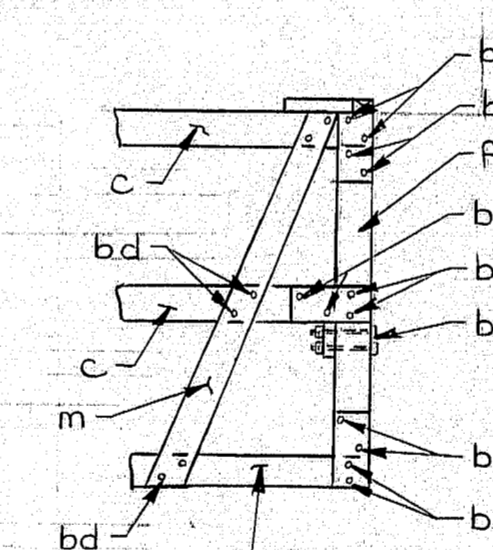
FRONT ELEVATION



SECTION A-A



SECTION B-B



VIEW C-C

MATERIAL - FENDERS - PIERS 1 & 3									
TIMBER					HARDWARE				
MARK	SIZE	NO.	PCS	LENGTH	MARK	SIZE	NO.	LG.	REMARKS
a	12x12	16		18'-6"	ba	1"	128	1'-3"	MACH BOLTS-2 CUT WASH.
b	"	6		32'-7"	bb	"	40	2'-1"	"
c	"	6		38'-11"	bc	"	128	1'-8"	"
d	"	6		11'-0"	bd	"	98	1'-8"	"
e	"	6		13'-9"	be	"	140	1'-10"	"
f	"	2		10'-6"	bf	"	32	1'-8"	"
g	8x12	4		15'-0"	bg	"	12	2'-5"	"
h	"	8		7'-0"	bh	"	12	2'-0"	"
i	6x12	16		14'-9"	bk	"	28	2'-0"	DRIFT BOLTS
j	"	32		13'-0"					
k	"	2		16'-0"					
m	"	2		12'-9"					
130 LIN. FT. 4x8" END CONNECTIONS									
100 LIN. FT. 4x12"									
10 LIN. FT. 12x12" FOR BLOCKS "n"									

NOTE: PAYMENT FOR FENDER SYSTEM @ PIERS 1 & 3 TO BE BOARD FOOT INCLUDING GALV. HARDWARE PAYMENT PER ITEM # 528.50 & 528.51

MATERIAL - FENDERS - PIERS 2									
MARK	SIZE	NO.	PCS	LENGTH	MARK	SIZE	QUANTITY	REMARKS	
aa	12x12	8		42'-0"	4x16		310 LIN. FT.	SPICE WALTERS	
bb	"	12		37'-0"	4x12		160 "		
cc	"	4		24'-6"	4x8		220 "	END CONNECTIONS	
dd	"	4		23'-6"	4x12		720 "		
ee	"	4		30'-6"					
ff	"	6		23'-0"					
gg	"	6		24'-0"					
hh	"	10		34'-0"					
kk	"	16		14'-6"					
mm	"	4		11'-6"					
nn	"	3		19'-6"					
oo	"	1		21'-0"					
pp	"	1		10'-6"					
ss	"	16		17'-6"					
tt	"	4		14'-6"					
uu	"	8		8'-0"	da	1"	264	2'-2 1/2"	MACH BOLTS-2 CUT WASH.
vv	"	4		14'-6"	db	"	190	2'-1"	"
xx	8x12	1		30' CUT INTO BLOCKS	dc	"	800	1'-11"	"
yy	"	8		38'-6"	dd	"	8	2'-11"	"
zz	"	16		19'-0"	de	"	46	1'-9"	"
ca	"	16		9'-6"	df	"	6	2'-7"	"
cb	4x8	40		20'-6"	dq	"	250	1'-6"	"
cf	3x8	260		260 LIN. FT. FOR PLATFORM	dh	"	38	2'-0"	DRIFT BOLTS
cd	6x12	8		25'-0"	dk	"	3	1'-8"	"
ce	6x12	1		30' CUT INTO BLOCKS					

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NEILL and GUNTER
Consulting and Design Engineers
P. O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SOUTHPORT BRIDGE
OVER

TOWNSEND GUT
BETWEEN THE TOWNS OF

SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY

FENDER SYSTEM
AROUND PIERS 1 & 3

SHEET 4 OF 24 AUGUSTA, MAINE JANUARY 1985

NGI JOB NO 20931

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	DWA	1-23-85
CHECKED		2-27-85
REVISIONS		
FIELD CHANGES		

BRUNING 44-132-4570-1

Diagram illustrating the plan view of the Boothbay Harbor Bridge, showing its layout and components:

- Boothbay Harbor** is located to the left of the bridge.
- Southport** is located to the right of the bridge.
- The bridge structure consists of:
 - Abutment 1** (left end).
 - Pier 1** (first pier).
 - Pier 2** (central pier, featuring a circular opening).
 - Pier 3** (second pier).
 - Abutment 2** (right end).
- The bridge is oriented at an angle of $25^{\circ}00'$ relative to the horizontal axis.
- The bridge deck is labeled **RDWAY** (Roadway) and the supporting structure is labeled **TRUSS**.
- A north arrow is shown in the upper left corner, pointing towards the top-left.

[illegible][illegible]

SECTION C-C

SECTION E-E

[illegible]

PART PLAN


END ELEVATION

- 1) ALL EXISTING TIMBERS AND BOLTS (EXCEPT PILES) TO BE REMOVED BEFORE STARTING NEW WORK
PAYMENT TO BE LUMP SUM. ITEM 525.53
- 2) EXISTING STEEL BEARING POSTS TO REMAIN.
- 3) FOR PRESSURE TREATING INFORMATION SEE SPECIFICATIONS
- 4) FOR MATERIAL LIST SEE SHT. NO. 4
- 5) LOCATION OF SPLICES IS RECOMMENDED ONLY. OTHER SPLICES MAY BE UTILIZED AS APPROVED BY ENGINEER
- 6) PAYMENT OF NEW FENDER SYSTEM TO BE BY BOARD FOOT (INCLUDES GALVANIZED HARDWARE PAYMENT PER ITEMS 528.50 & 528.51)

A hand-drawn cross-section diagram of a pile wall. The diagram shows a series of vertical piles connected by horizontal walers. Key features include:

- Elevations:** ELEV. 29.75' at the top left, ELEV. 28.50' at the top right, and a series of elevations on the right side: EL. 26.15 (MLW), EL. 21.7 (MSL), EL. 17.25, and EL. 17.00.
- Structural Details:** Labels for 'TYPICAL SPLICE 4"x6" TOP AND BOTTOM dc', '4"x12" BACKSIDE', 'SPLICE', and 'COUNTERSINK BOLT HEADS 1" ON OUTSIDE OF WALERS'.
- Dimensions:** Vertical dimensions of 5'-0" and 5'-0" are indicated between the EL. 17.00 and EL. 21.7 lines.
- Other Labels:** 'aa', 'bb', 'cc', 'dd', 'db', and 'ee' are used as section line markers.

PART SIDE ELEVATION



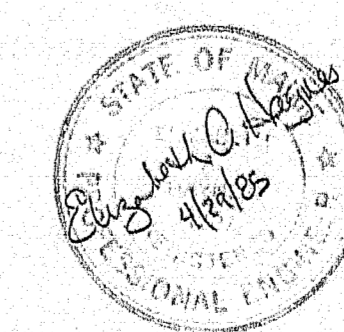
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Consulting and Design Engineers
P. O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

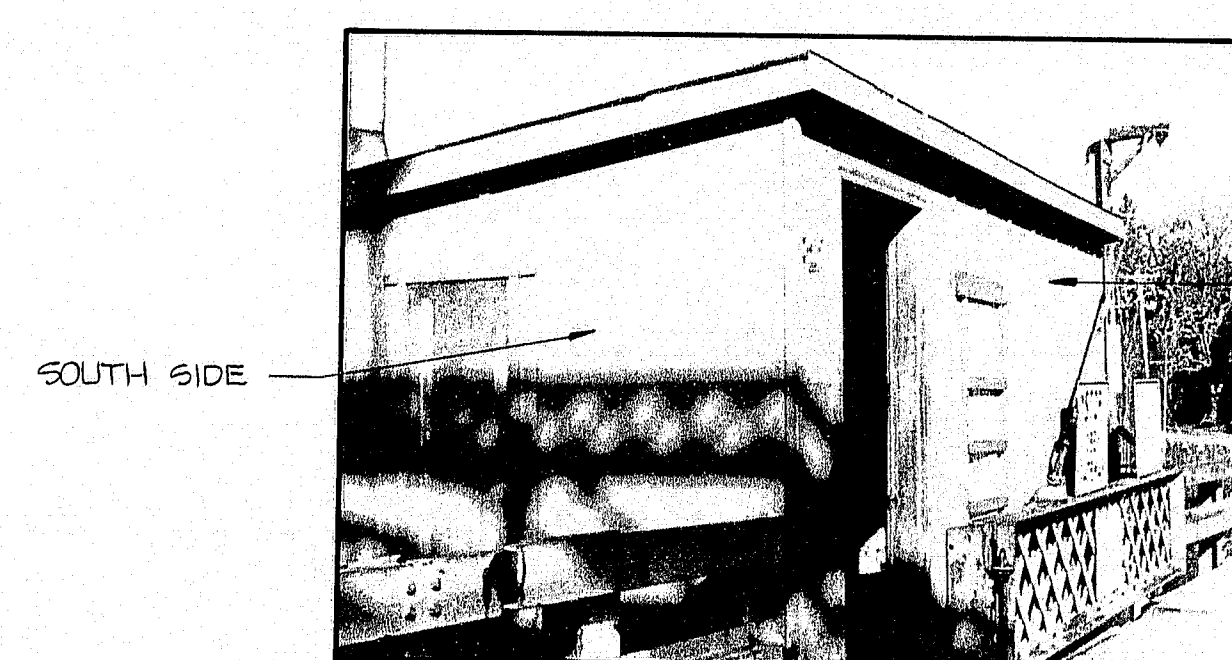
SOUTHPORT BRIDGE
OVER
TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY

FENDER SYSTEM
.. AROUND PIER 2

SHEET 5 OF 24 AUGUSTA, MAINE JANUARY 1985
NGI JOB 20931 203-1 2

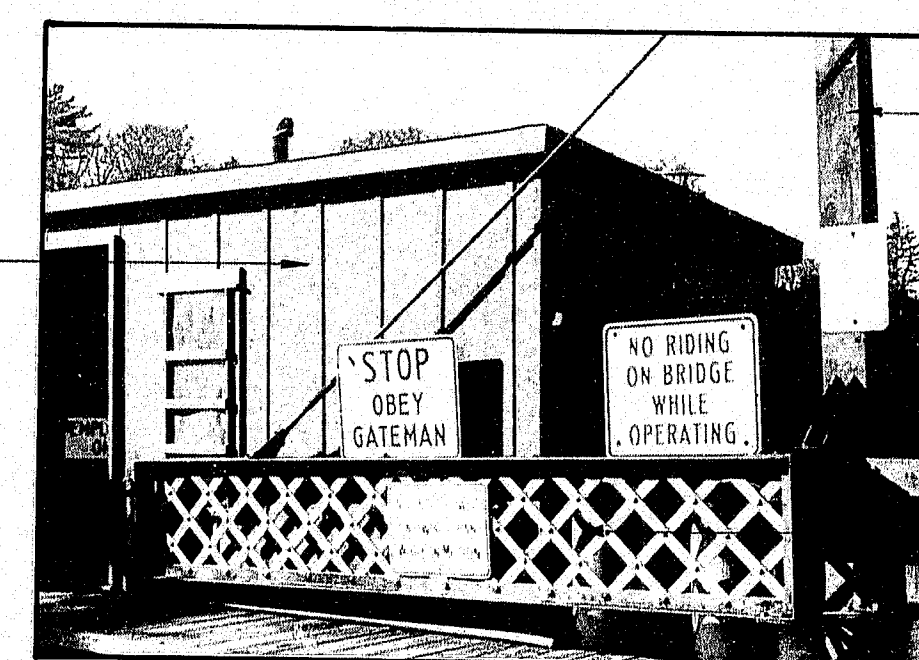


F.H.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005 (49)	8	32



SOUTH & EAST SIDES

EAST SIDE



EAST & NORTH SIDES

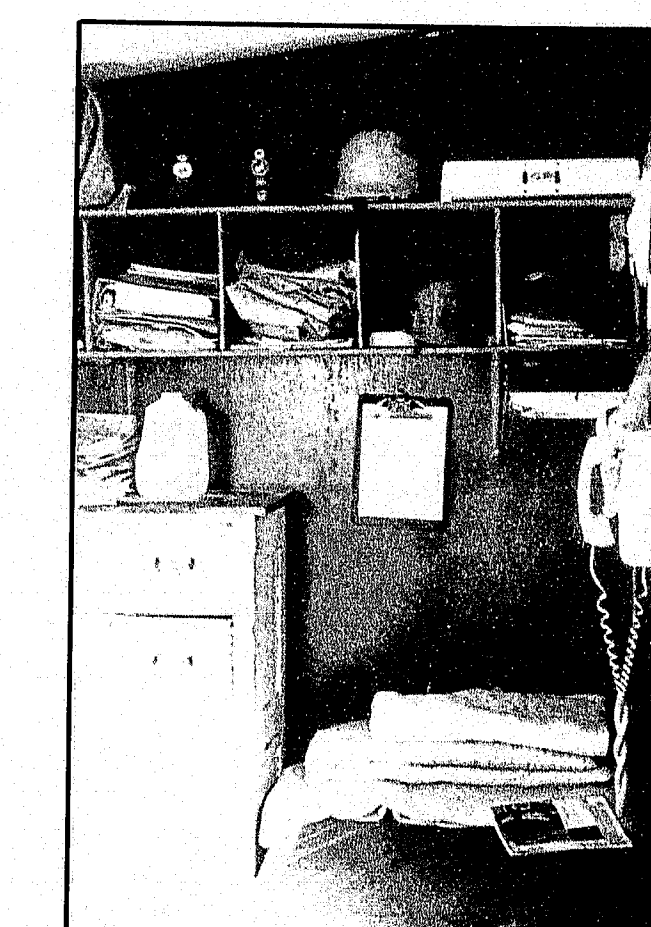
STEEL POLE - SEE
WEST & EAST ELEV'S.

BUILD GAS TANK SHED
OVER PROPANE TANKS

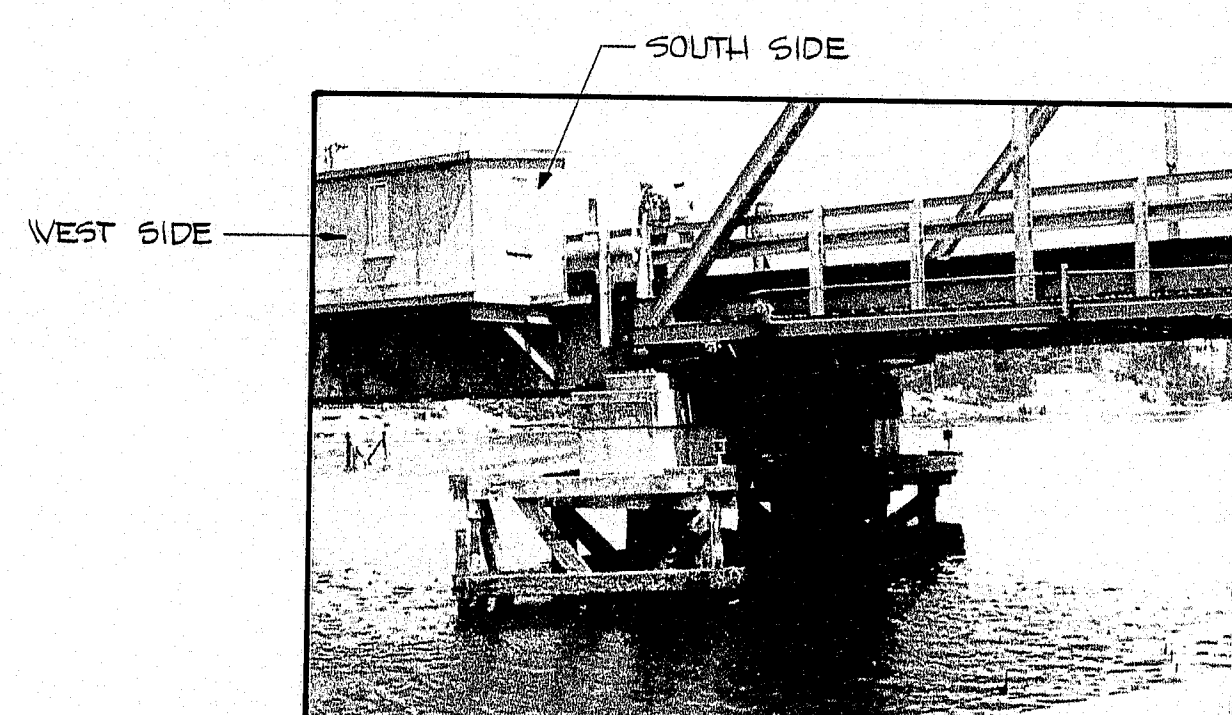


WEST WALL

EXIST. DOOR TO TOILET -
REBUILD PARTITION &
INSTALL NEW DOOR.

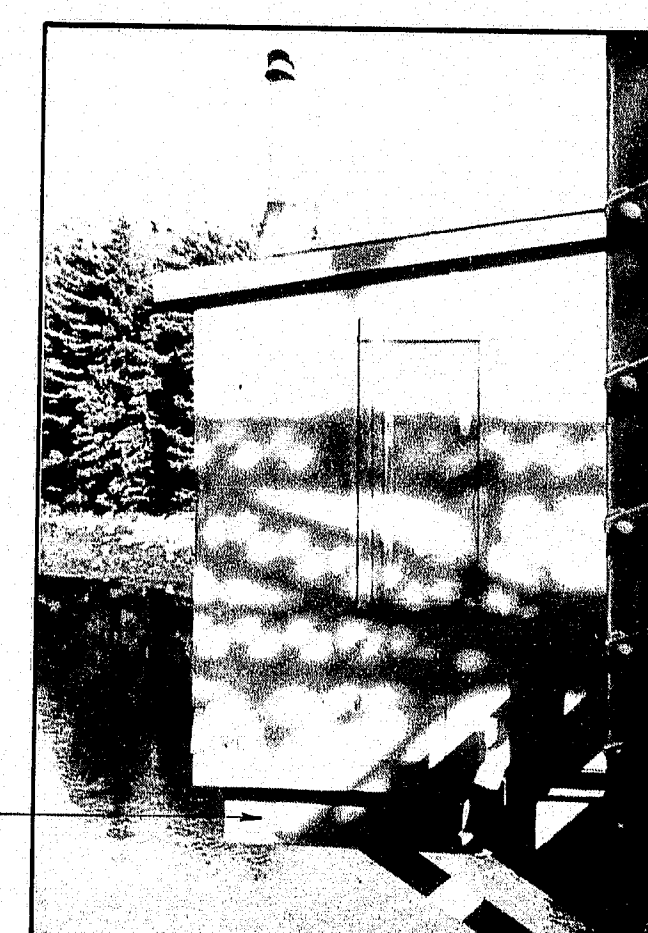


NORTH WALL

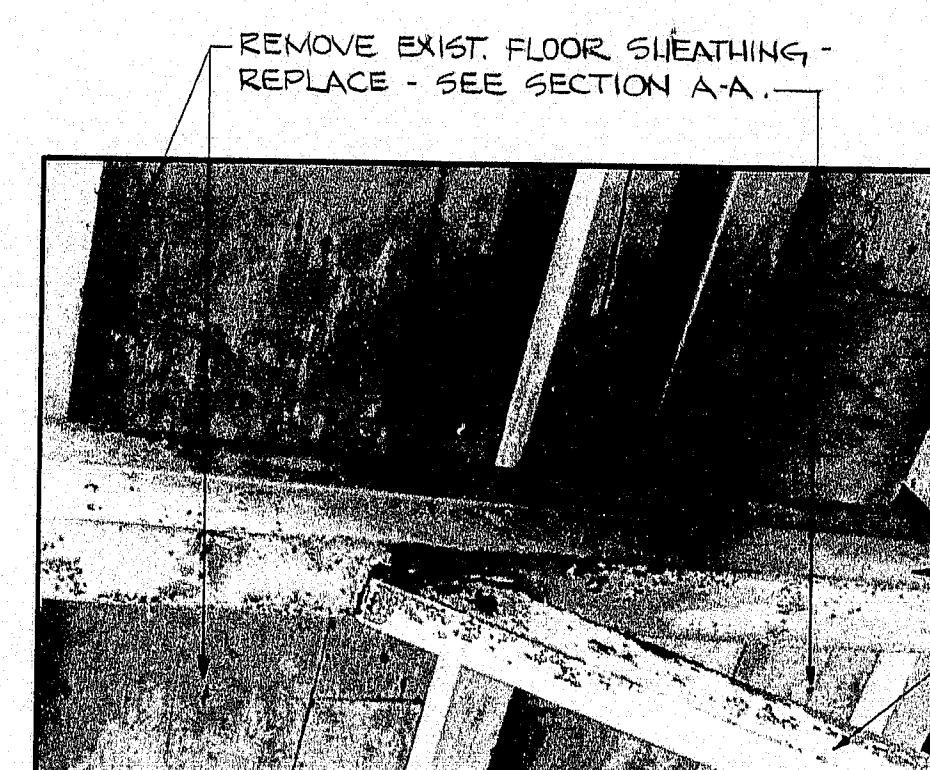


WEST & SOUTH SIDES

SUPPORT UNDER NORTH
SIDE SIMILAR



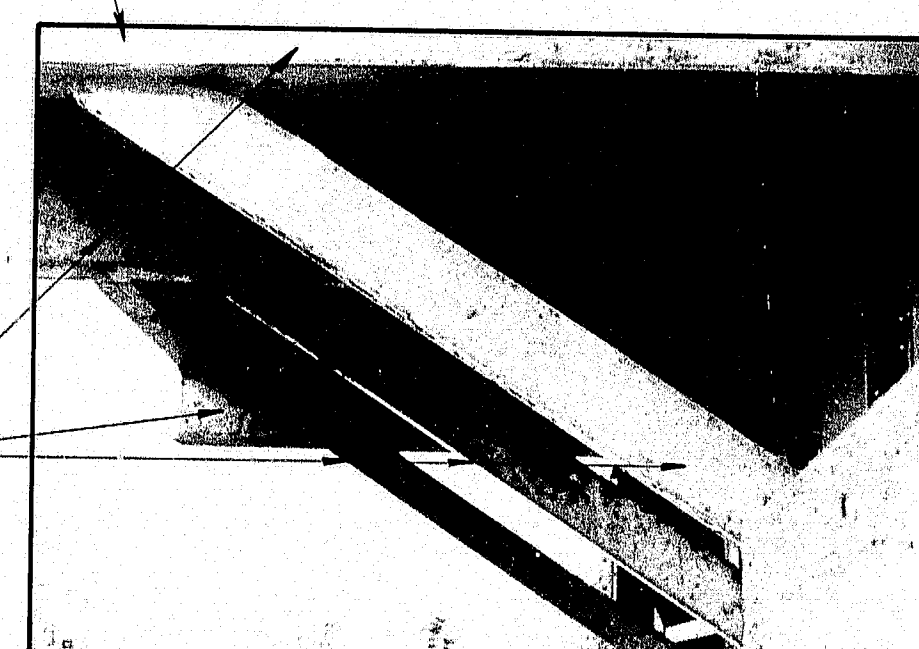
SOUTH SIDE



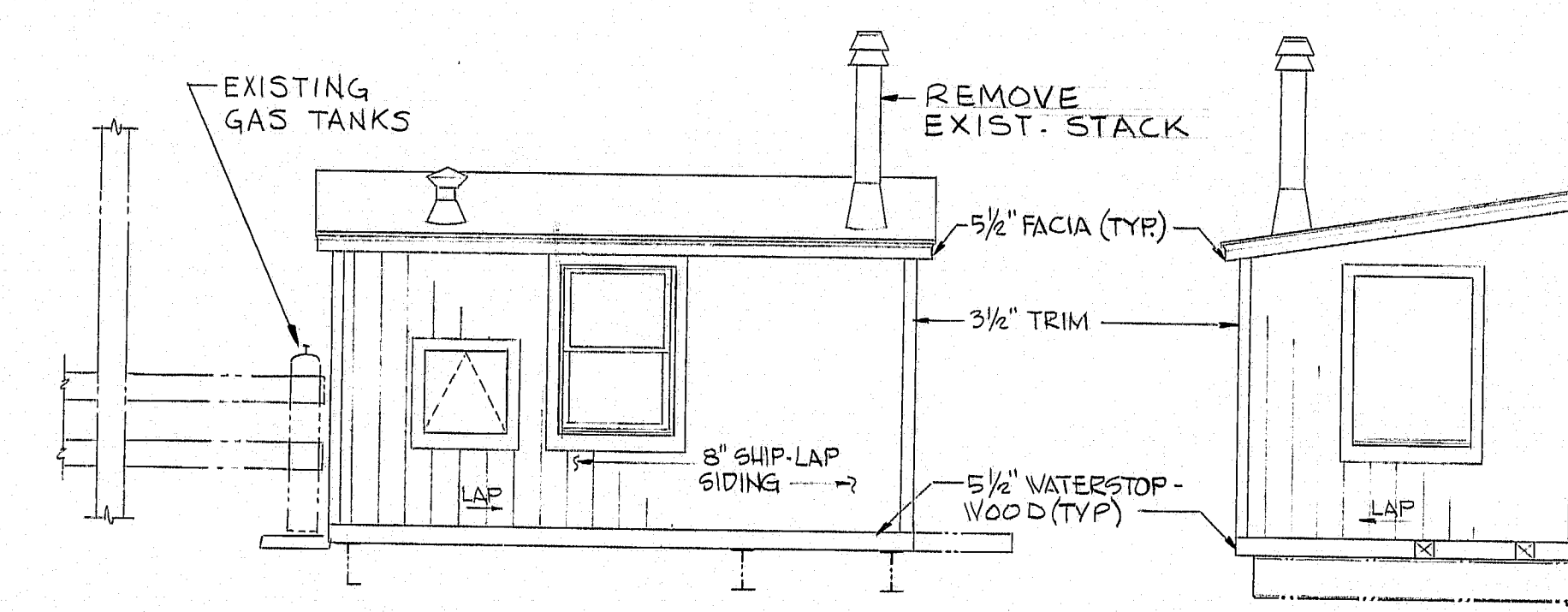
UNDERSIDE OF FLOOR

REMOVE EXIST. FLOOR SHEATHING -
REPLACE - SEE SECTION A-A.

CLEAN & PAINT - SEE
STEEL PAINTING SPECS.

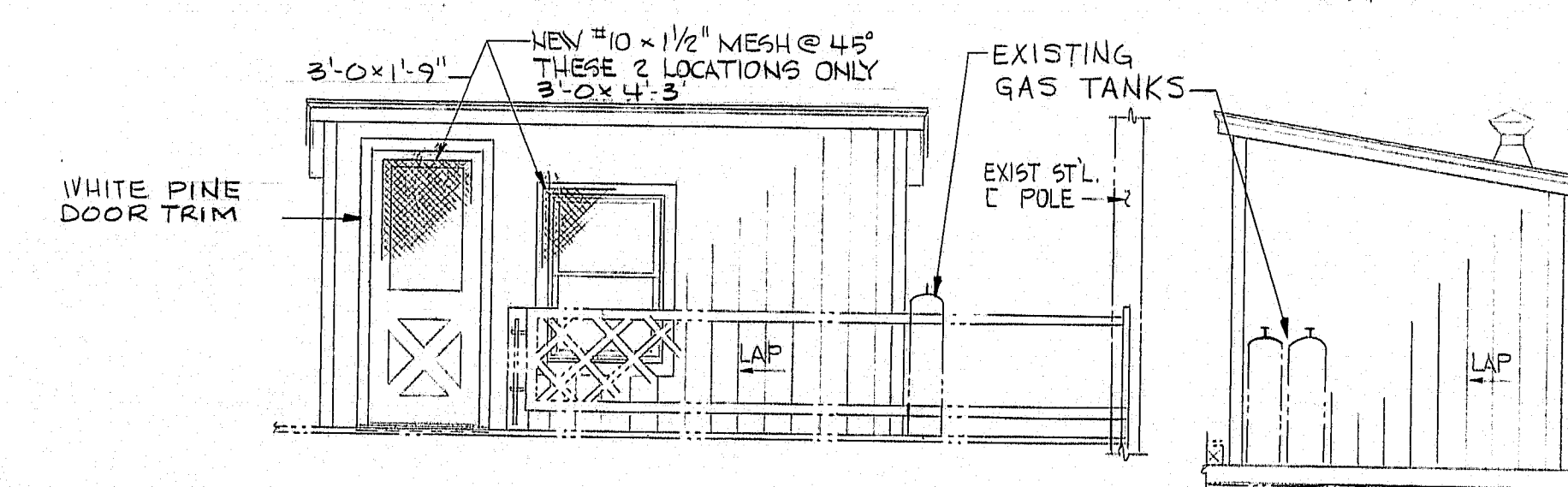


SUB-FRAMING (STEEL)



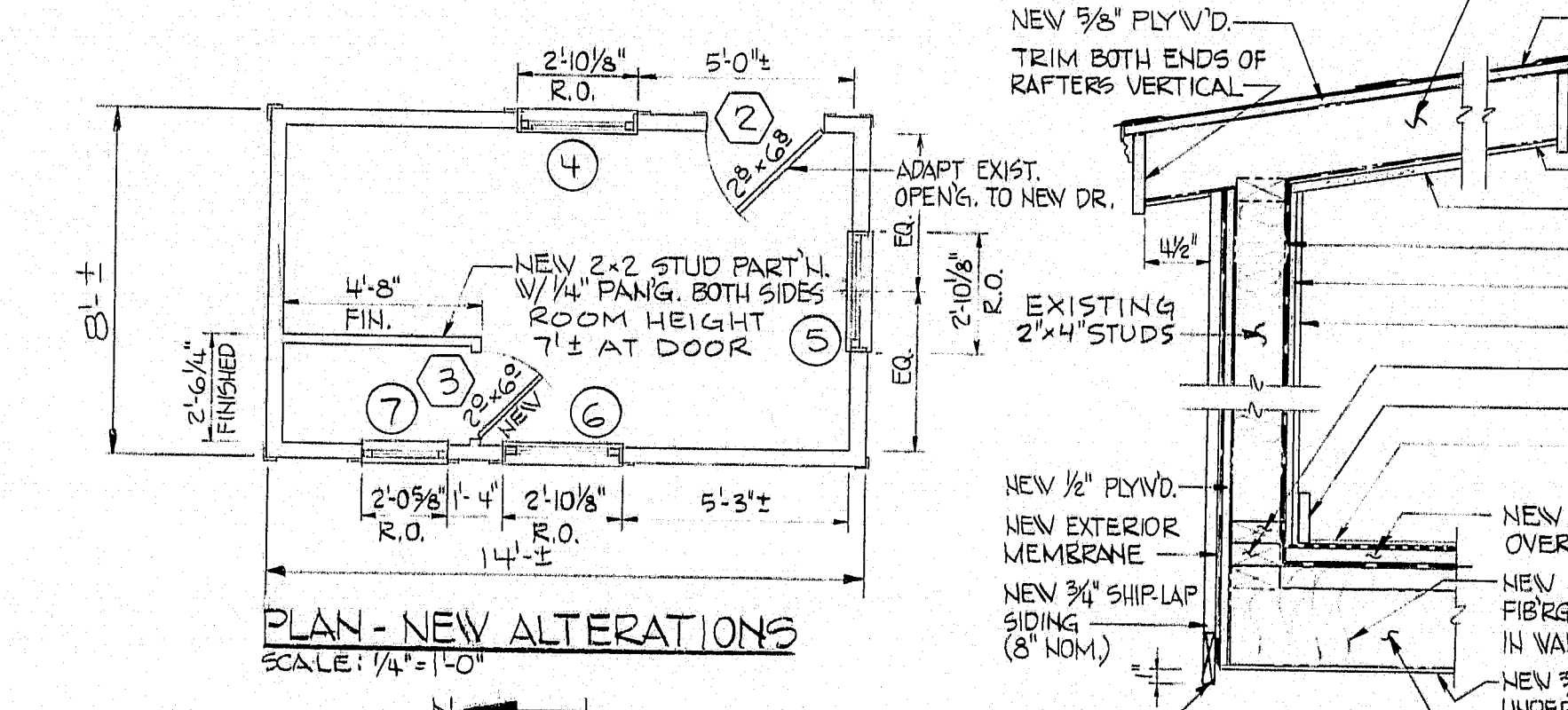
WEST ELEVATION
SCALE: 1/4" = 1'-0"

SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

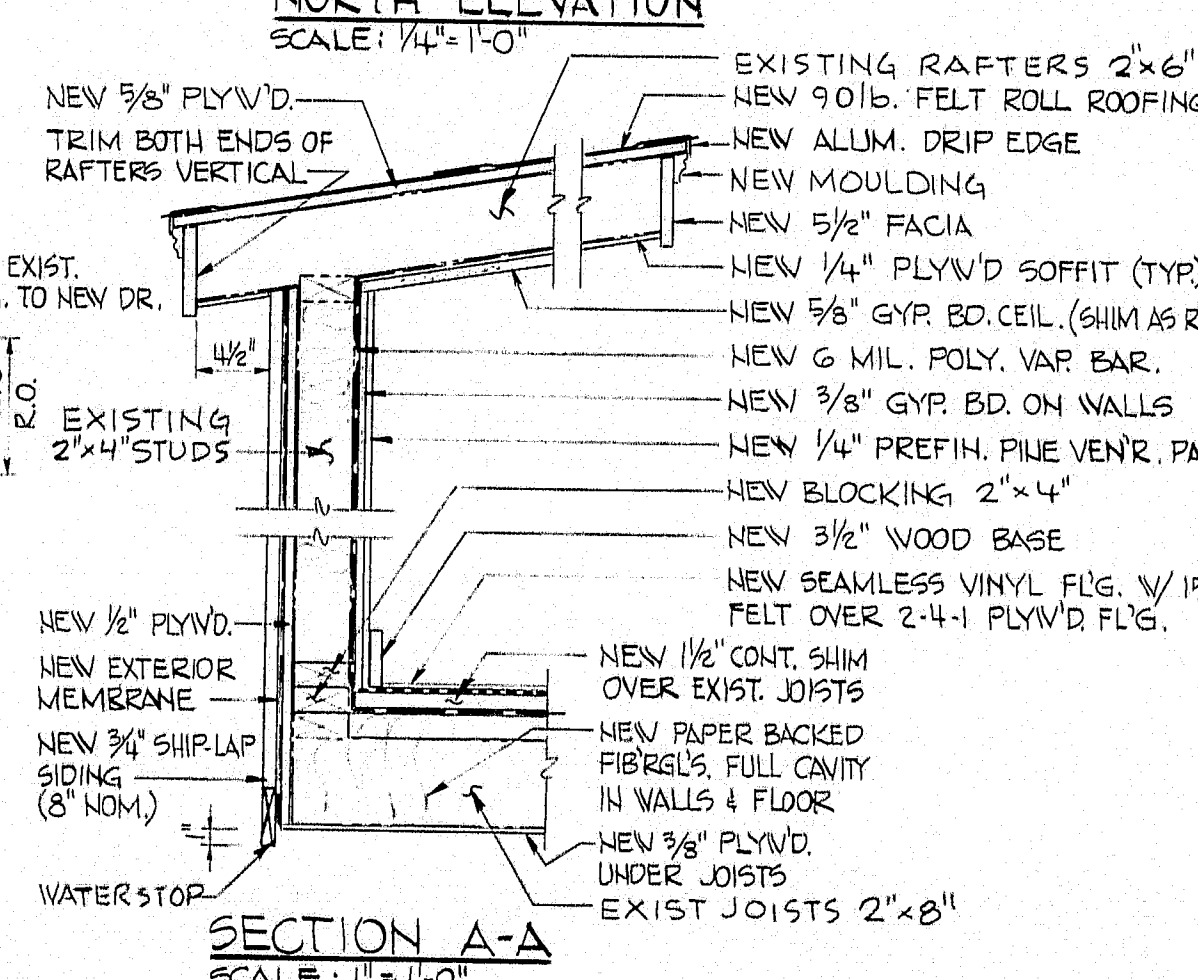


EAST ELEVATION
SCALE: 1/4" = 1'-0"

NORTH ELEVATION
SCALE: 1/4" = 1'-0"



PLAN - NEW ALTERATIONS
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1" = 1'-0"

NOTES

1-PAYMENT FOR REVISIONS TO THE TENDER'S QUARTERS
AS WELL AS THE CONTROL ROOM (SHEET 7)
TO BE LUMP SUM. SEE SPECIAL PROVISIONS
SECTIONS 820 & 821 RESPECTIVELY. PAYMENT
ITEMS 820.30 & 821.30

2-EXTERIOR OF LIVING QUARTERS TO HAVE
2 COAT SEMI-TRANSPARENT OIL BASE
STAIN. COLOR BY STATE.

3-CEILING IN LIVING QUARTERS TO HAVE
1-COAT LATEX PRIMER
2-COATS LATEX FINISH

104-361

Original Hayes



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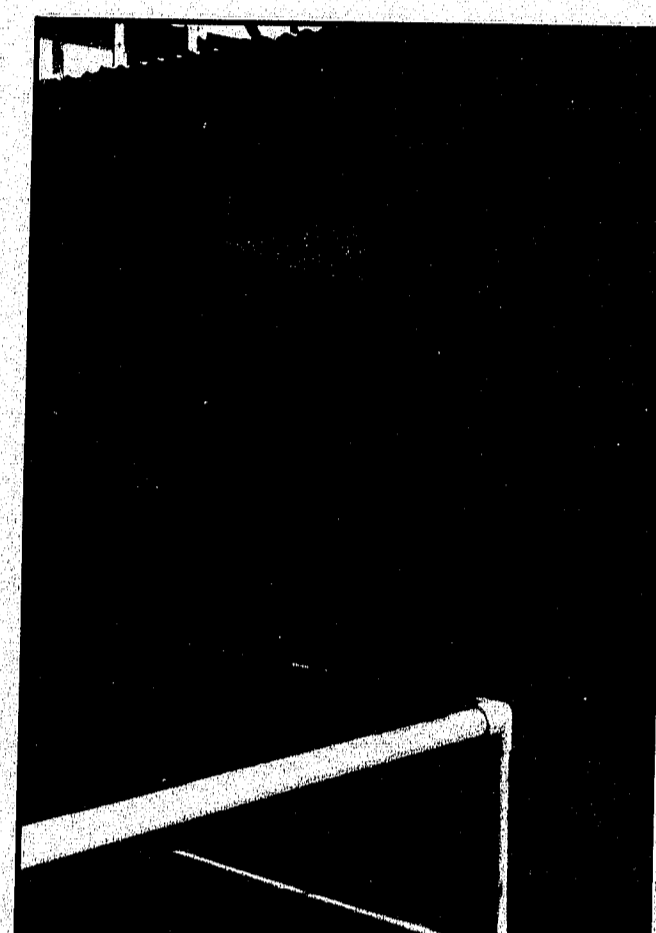
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SOUTHPORT BRIDGE
OVER
TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
TENDER'S QUARTERS
RENOVATIONS

SHEET 6 OF 24 AUGUSTA, MAINE JANUARY 1985
NGI JOB NO. 20931

PROJECT DESIGN ENGINEER	DATE
BY WMB	12-22-85
DESIGN - DETAILED	SAH
CHECKED	CLD
REVISIONS	
FIELD CHANGES	

BRUNING 44-132-4570-1

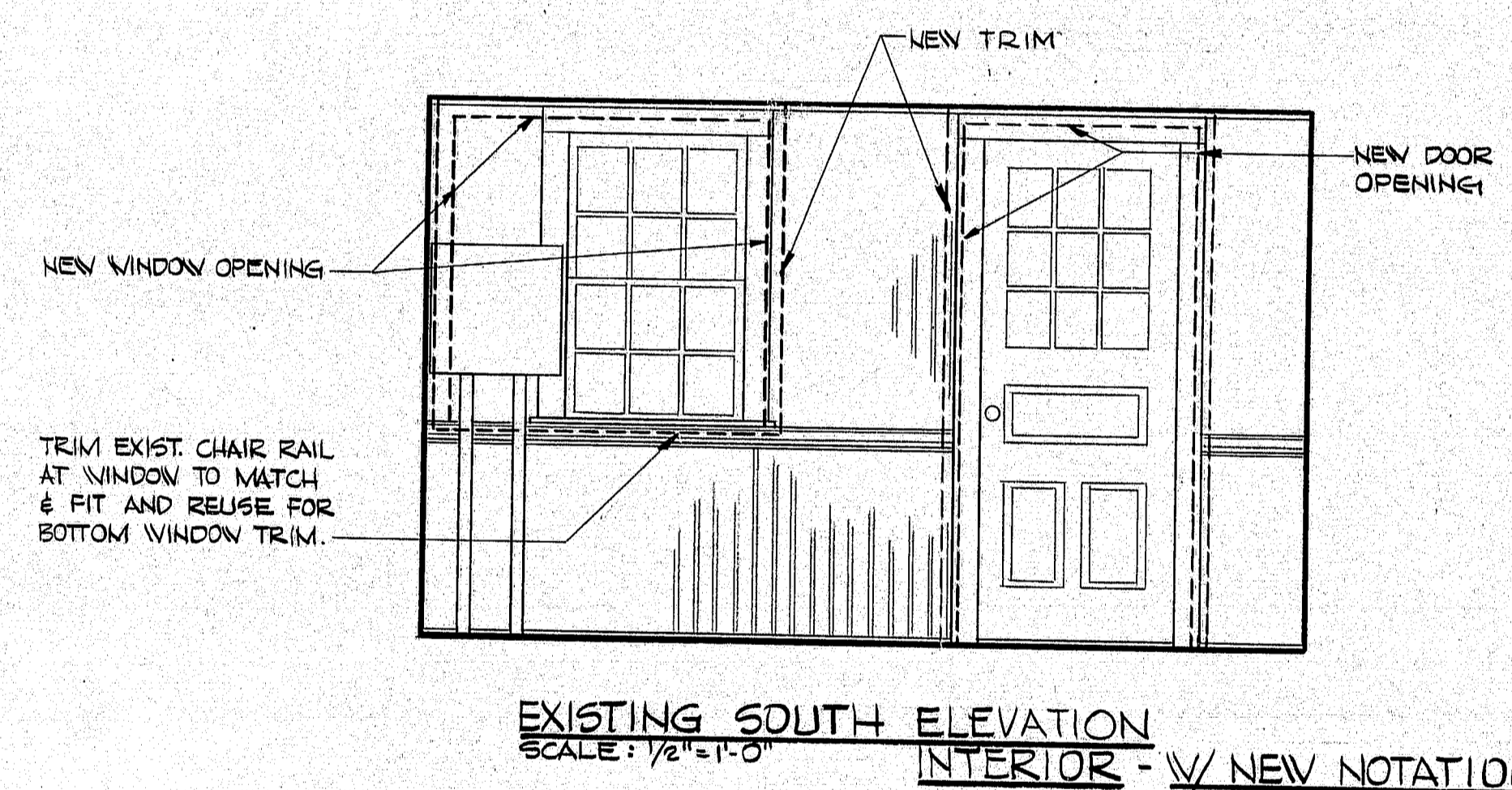
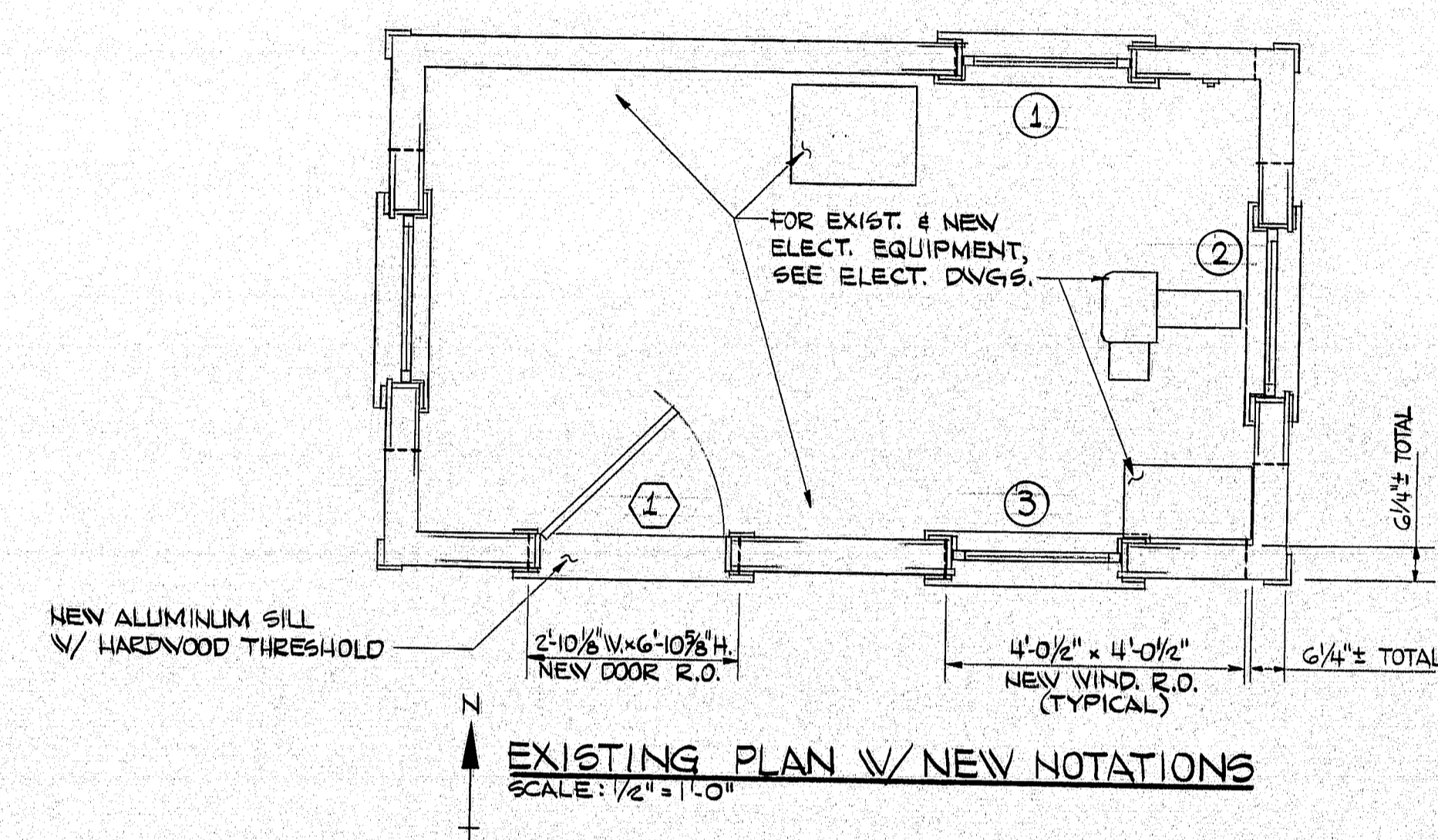
F.R.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(49)	9	32



WEST SIDE



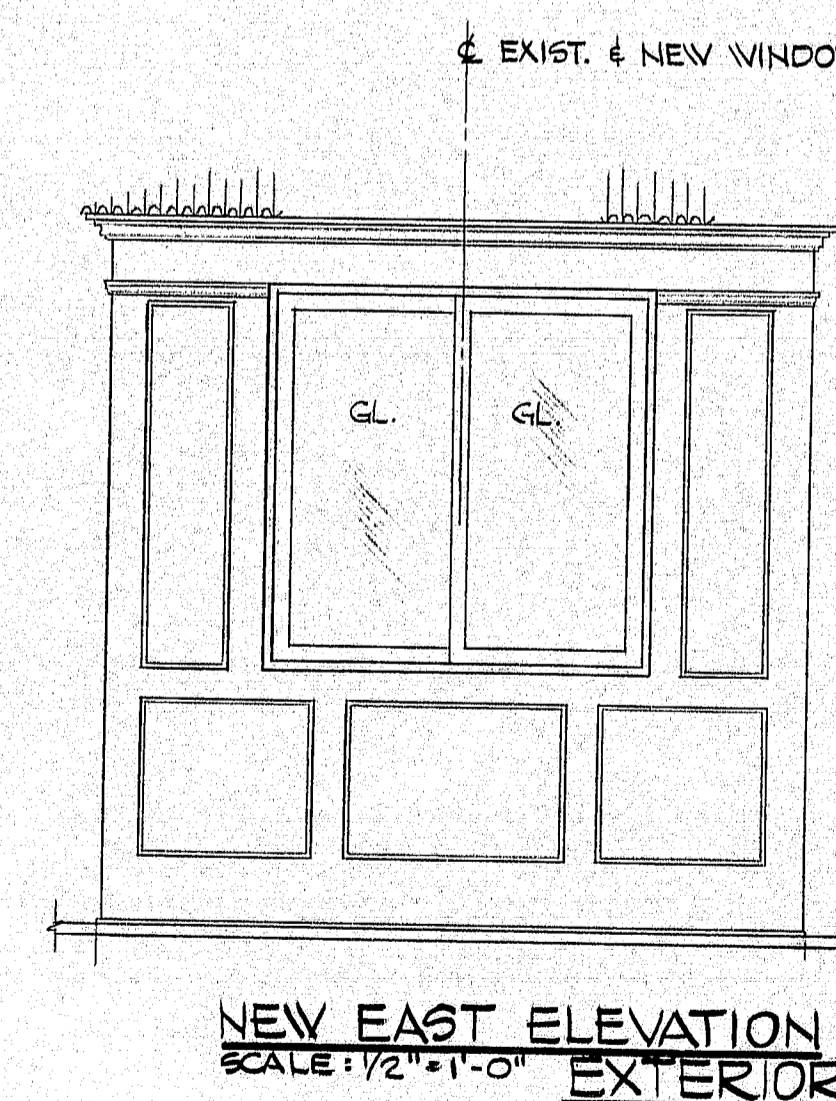
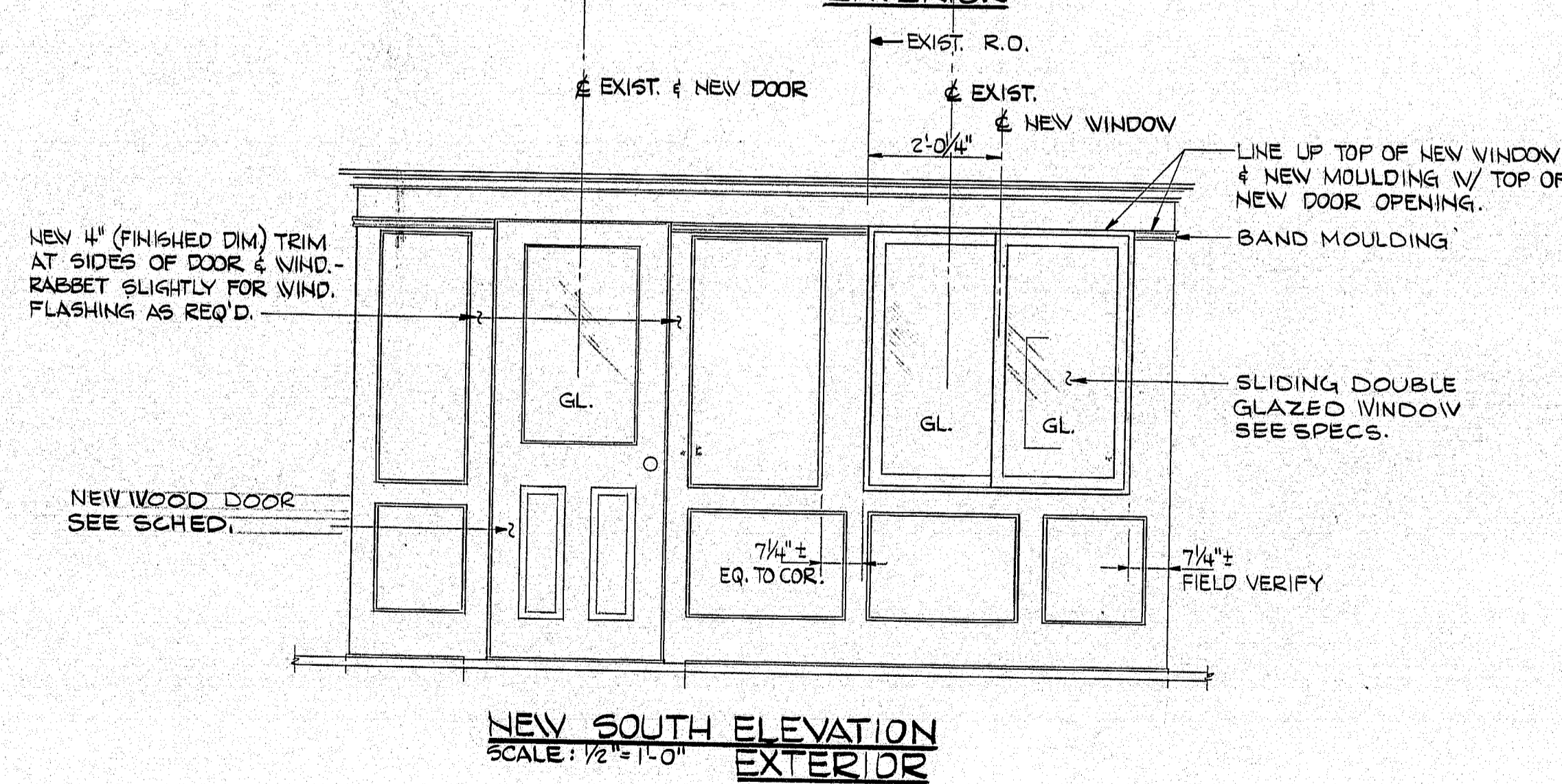
SOUTH SIDE



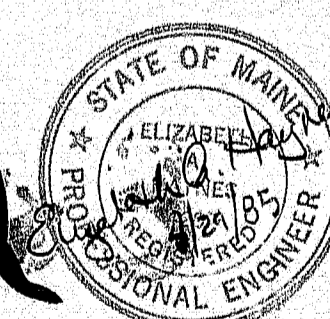
DOOR SCHEDULE				
DOOR NO.	LOCATION	FRAME	DOOR	GLASS
1	BRIDGE PLTH L.H. CONTROL RM.	PREHUNG WOOD	2'-8 1/2" x 5'-1 3/4" WOOD	2'-10 1/8" x 6'-10 3/8" GL
2	SIDEWALK L.H. LIVING AREA	PREHUNG WOOD	2'-8 1/2" x 5'-1 3/4" WOOD	2'-10 1/8" x 6'-10 3/8" GL
3	LIVING AREA L.H.R. BATH	PREHUNG WOOD	2'-5 1/2" x 6'-0 1/8" WOOD	---

DOOR SCHEDULE CONT.				
DOOR NO.	HARDWARE	THRESHOLD	WALL CONST.	
1	1 BEX. HEAVY DUTY	1" THICK OAK	WOOD	
2	1 BEX. HEAVY DUTY	1" THICK OAK	WOOD	
3	1 BEX. HEAVY DUTY	1" THICK OAK	WOOD	

WINDOW SCHEDULE					
WINDOW NO.	LOCATION	FRAME & R.O.	UNIT DIMENSION	HARDWARE	WALL CONST.
1	CONTROL RM.	VINYL CLAD 4'-0 1/2" SQ	4'-0" x 4'-0"	INCLUDED	WOOD
2	CONTROL RM.	VINYL CLAD 4'-0 1/2" SQ	4'-0" x 4'-0"		
3	LIVING QUARTERS	VINYL CLAD 2'-0 1/2" x 4'-1 1/4"	2'-9 3/8" x 4'-1 1/4"		
4	LIVING QUARTERS	VINYL CLAD 2'-0 1/2" x 4'-1 1/4"	2'-9 3/8" x 4'-1 1/4"		
5	LIVING QUARTERS	VINYL CLAD 2'-0 1/2" x 4'-1 1/4"	2'-9 3/8" x 4'-1 1/4"		
6	LIVING QUARTERS	VINYL CLAD 2'-0 1/2" x 4'-1 1/4"	2'-9 3/8" x 4'-1 1/4"		
7	LIVING QUARTERS	VINYL CLAD 2'-0 1/2" x 4'-1 1/4"	2'-9 3/8" x 4'-1 1/4"	INCLUDED	WOOD



104-362



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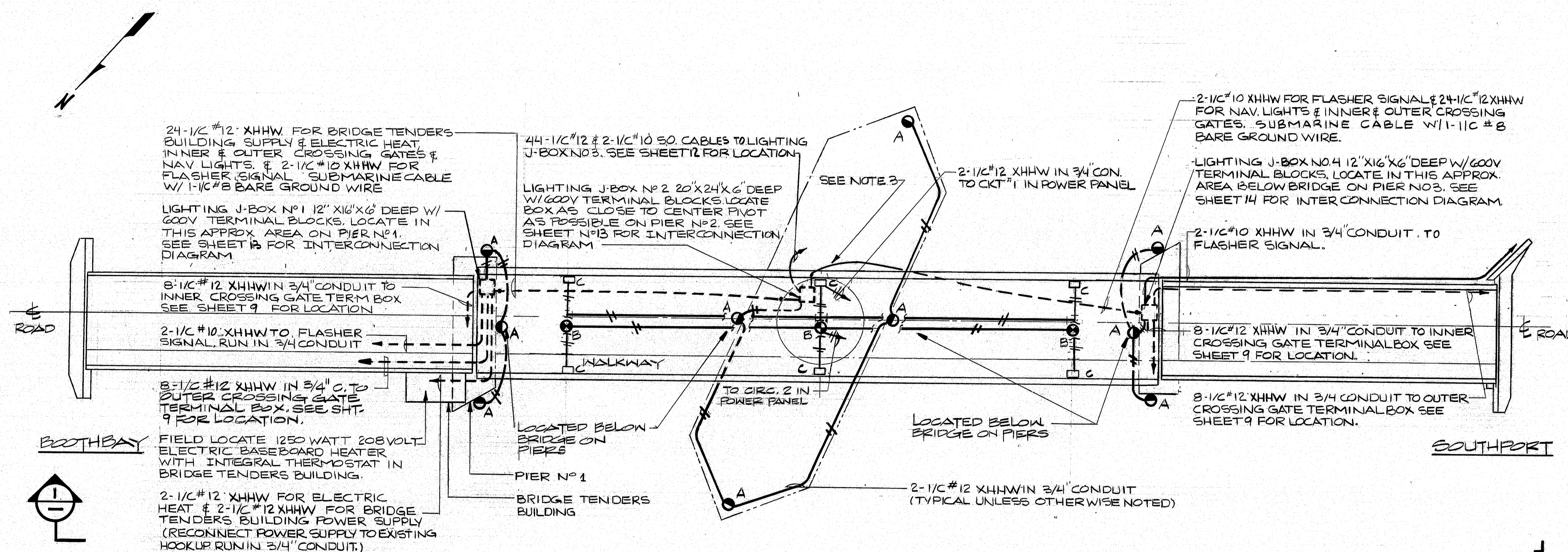
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SOUTHPORT BRIDGE
OVER
TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
CONTROL ROOM
WINDOW & DOOR REPLACEMENT

SHEET 7 OF 24 AUGUSTA, MAINE JANUARY 1985
NGI JOB NO. 20931

PROJECT DESIGN ENGINEER
BY DATE
EAA 1/10/85
CHECKED
CUT 7/27/85
PLANS
DESIGN-DETAILED
REVISIONS
FIELD CHANGES

DRAWING 44132-27/1-1

F.H.W.A. PRO. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	SH-0005 (49)	10	32

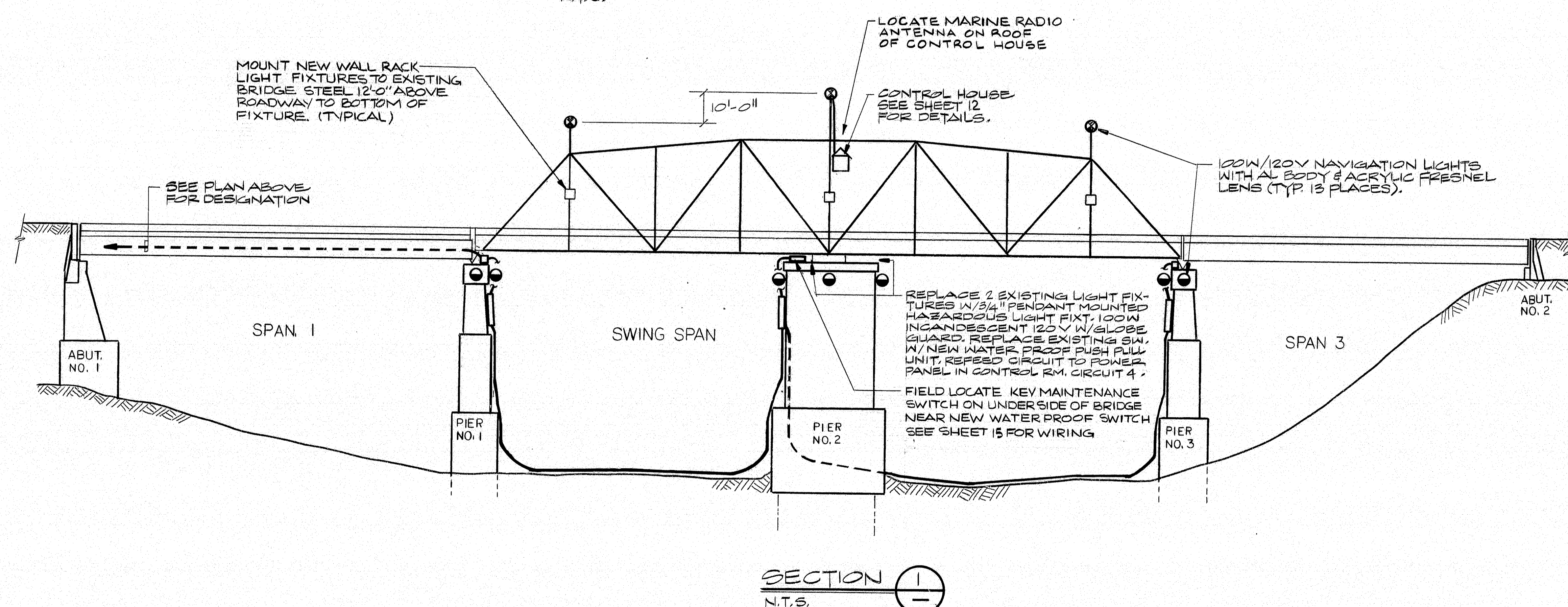


NOTE:
Existing navigation lighting and wiring may be utilized, in so far as is practical, to provide the temporary navigation lighting.

- NOTES**
1. ALL CONDUIT TO BE PVC-SCH-80 HEAVY WALL UNLESS OTHERWISE NOTED.
 2. ALL JUNCTION BOXES TO BE NEMA 4X.
 3. SUBMARINE CABLES SHALL BE INSTALLED IN SCH-80 PVC CONDUIT BENEATH BRIDGE RACK ASSEMBLY. CONDUIT SHALL BE EMBEDDED INTO CONCRETE PIER & OFFSET UP TO APPROPRIATE JUNCTION BOX.

- LEGEND**
- RED 180° SECTORED, POSITIONED AS REQUIRED ON PIERS.
 - ALTERNATE RED & GREEN, 60° SECTORS AT 90° RED ONE OF TWO SECTORS, GREEN TWO SECTORS.
 - 70 W HIGH PRESSURE SODIUM WALL PACK FIXTURE W/ WIRE GUARD & PHOTOCELL 208V ROADWAY LIGHTING

BRIDGE & NAVIGATIONAL LIGHTING PLAN N.T.S.



SECTION 1 N.T.S.

104-363

NG
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PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

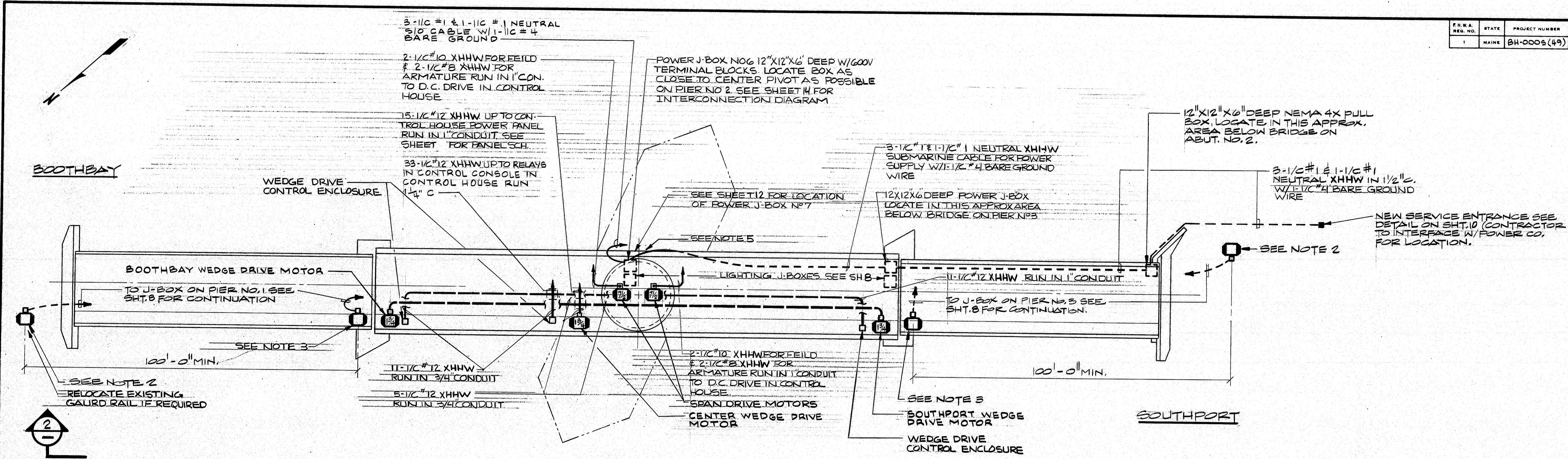
SOUTHPORT BRIDGE
OVER TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
LIGHTING PLAN &
CONDUIT RUNS

SHEET 8 OF 24 AUGUSTA, MAINE

NGI JOB NO. 20931 NGI DWG NO C-501

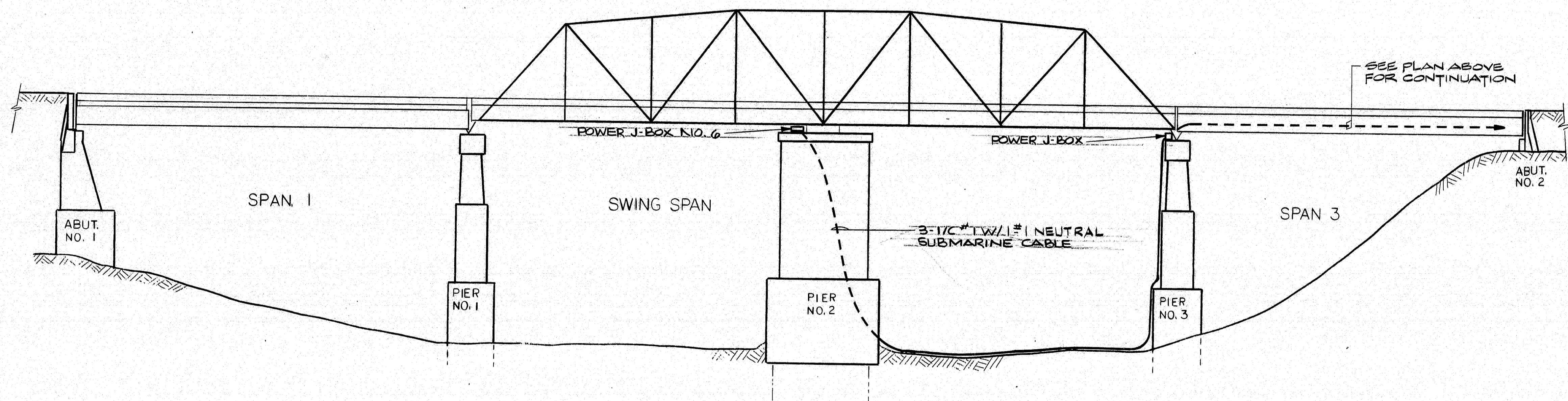
803-1 3000

F.R.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005 (49)	11	32



POWER PLAN
N.T.S.

- NOTES:**
1. ALL CONDUIT TO BE PVC-SCH. 80 HEAVY WALL, UNLESS OTHERWISE NOTED.
 2. 14' AUTOMATIC CROSSING GATES W/ ALARMS SEE SHT. 10 FOR DETAILS. (OUTER GATE)
 3. 28' AUTOMATIC CROSSING GATES W/ LIGHTS & ALARMS SEE SHT. 10 FOR DETAILS. (INNER GATE)
 4. ALL JUNCTION & PULL BOXES TO BE NEMA 4X
 5. SUBMARINE CABLE SHALL BE INSTALLED IN SCH. 80 PVC CONDUIT BENEATH BRIDGE RACK ASSEMBLY. CONDUIT SHALL BE EMBEDDED INTO CONCRETE PIER & OFFSET UP TO APPROPRIATE JUNCTION BOX.



SECTION 2
N.T.S.

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	BY
CHECKED	DATE
REVISIONS	BY
FIELD CHANGES	DATE

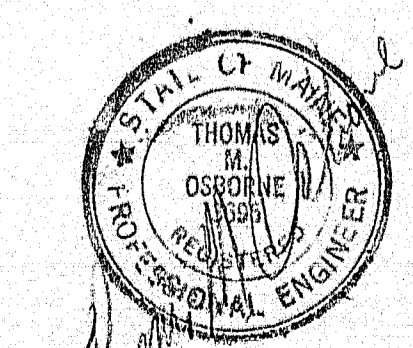
104-364



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

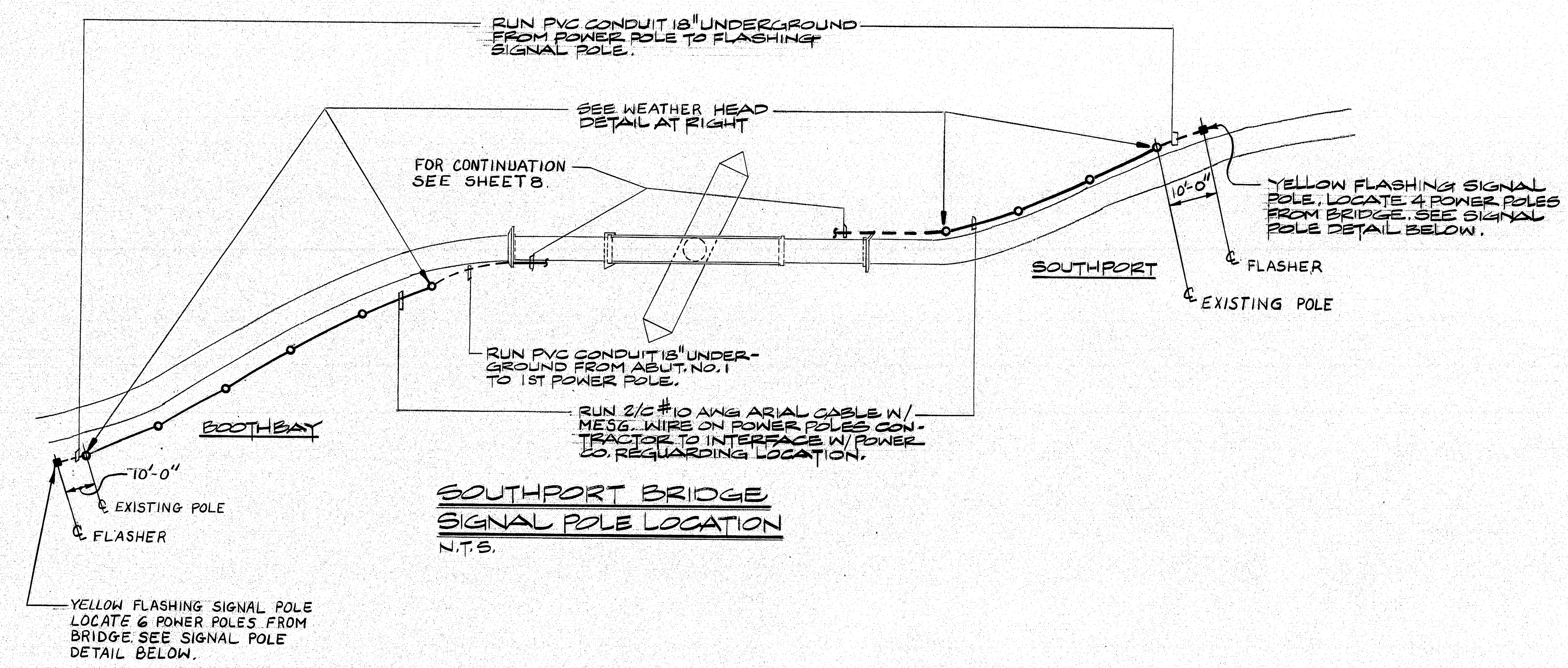
SOUTHPORT BRIDGE
OVER TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
POWER PLAN



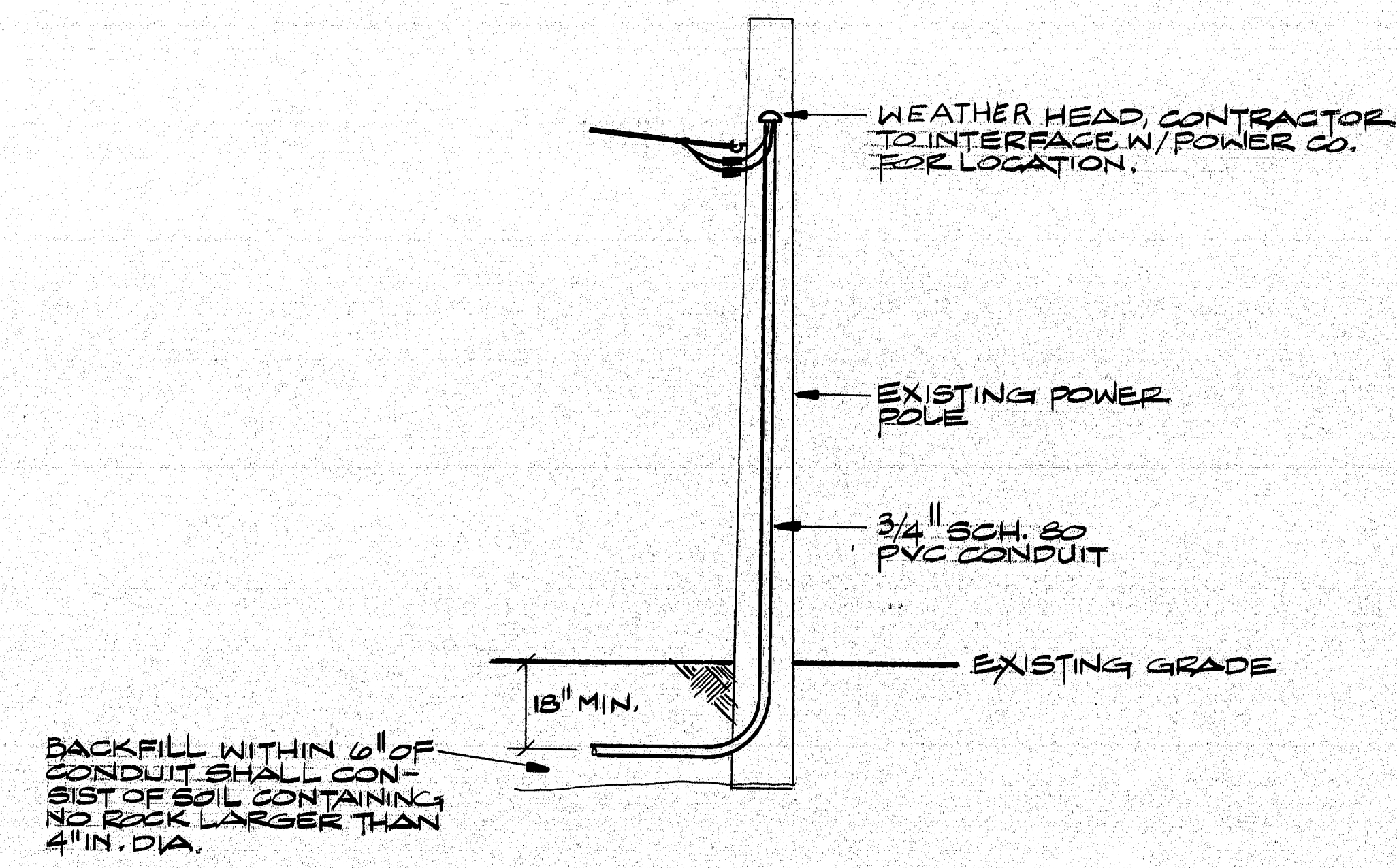
SHEET 9 OF 24 AUGUSTA, MAINE

NGI JOB NO. 20931 NGI DWG NO. C-502

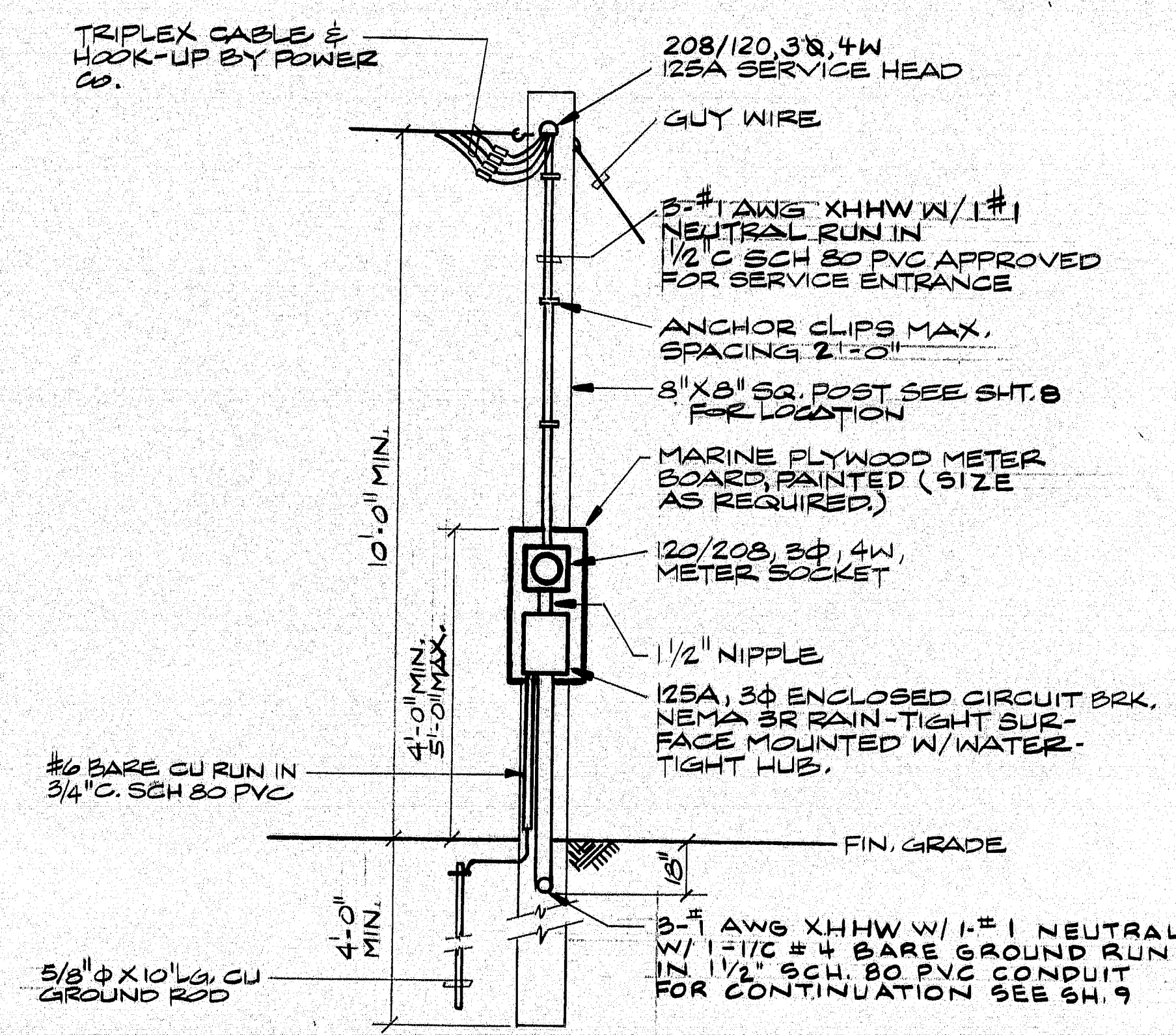
F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005(49)	12	32



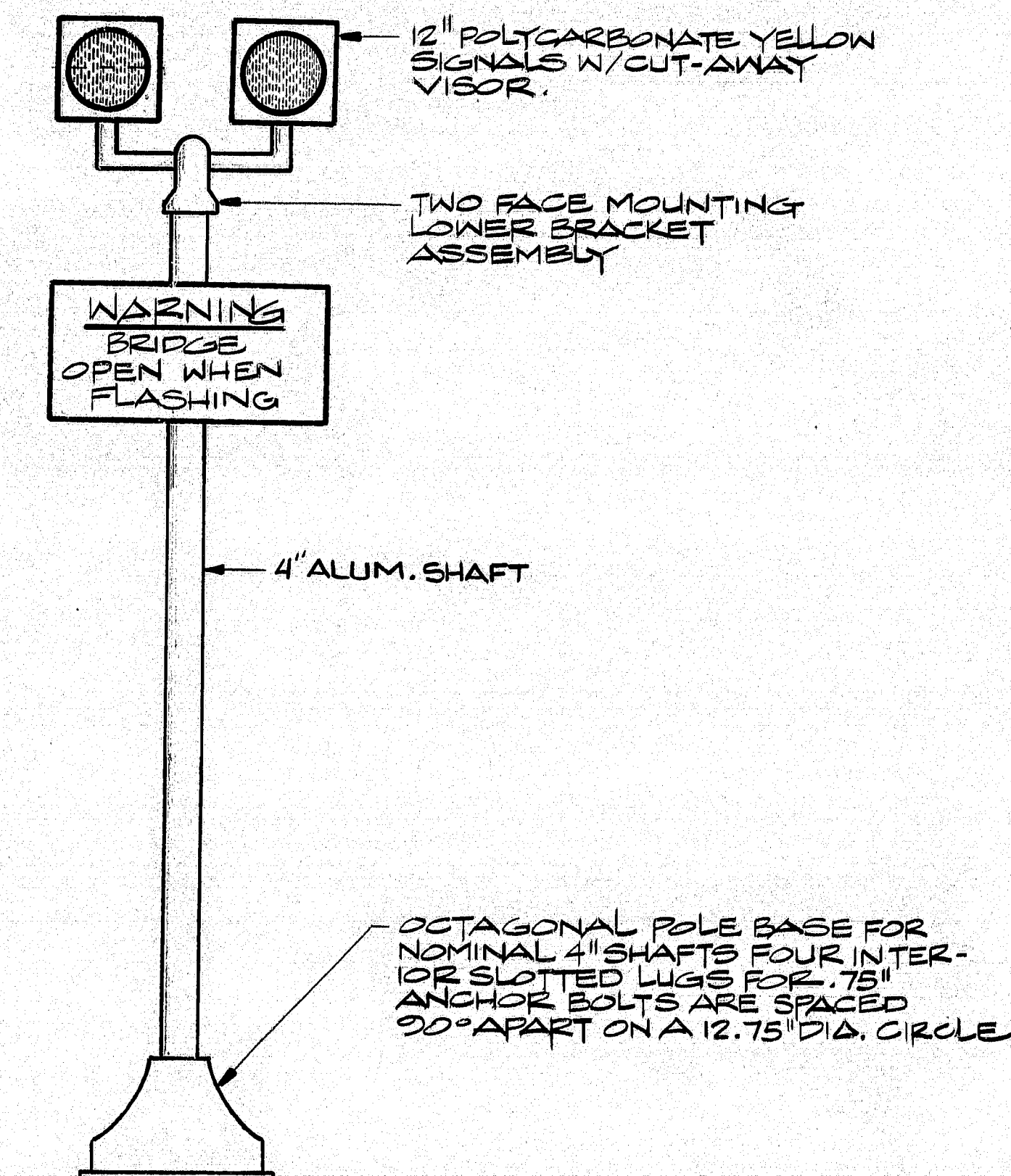
**SOUTHPORT BRIDGE
SIGNAL POLE LOCATION**
N.T.S.



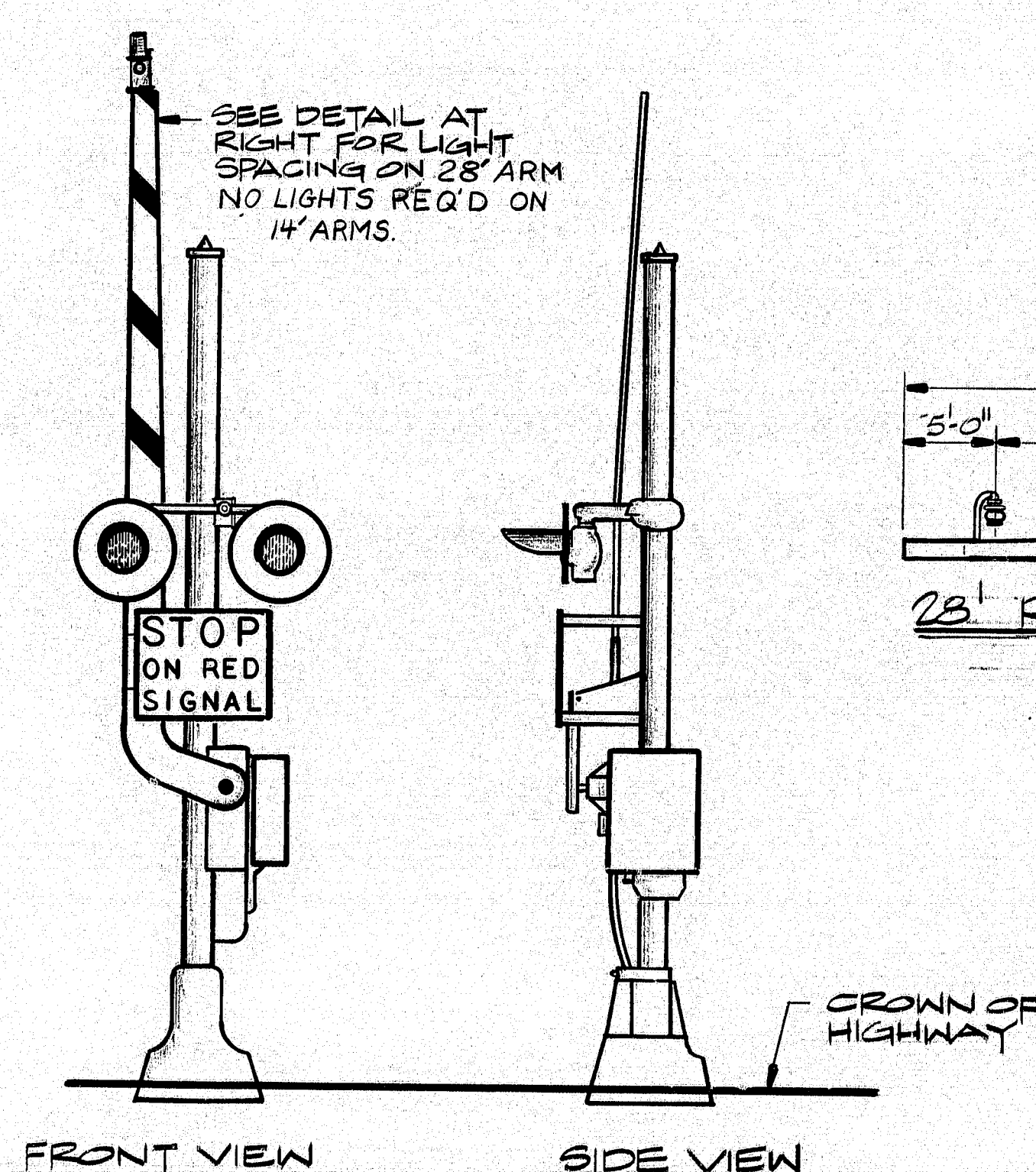
WEATHER HEAD DETAIL
N.T.S.



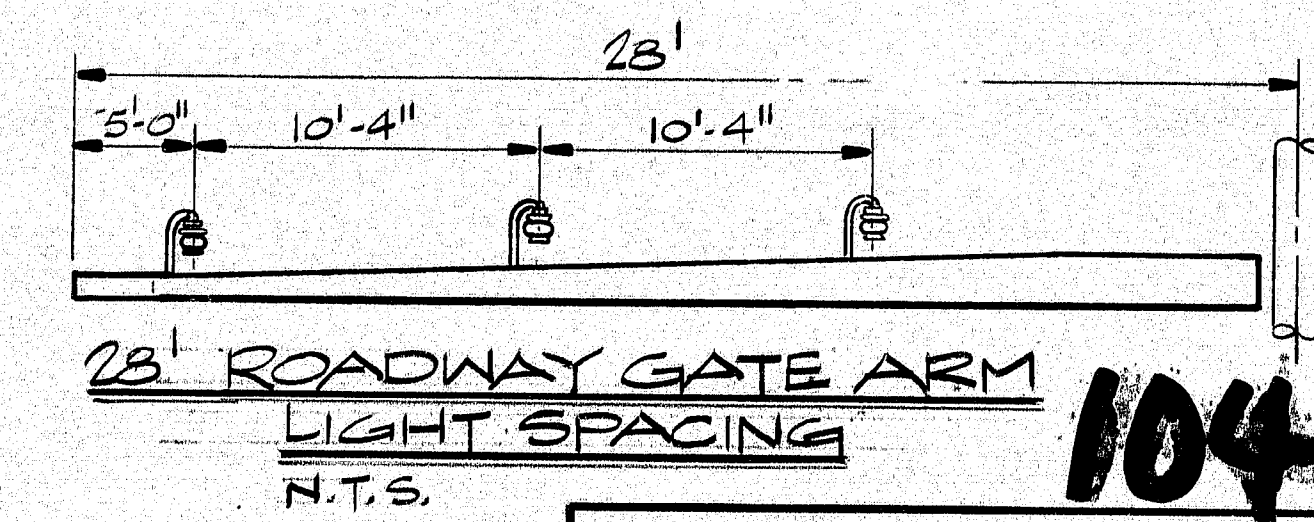
SERVICE ENTRANCE DETAIL
N.T.S.



SIGNAL POLE DETAIL
N.T.S.




HIGHWAY CROSSING SIGNAL
N.T.S.



**28' ROADWAY GATE ARM
LIGHT SPACING**
N.T.S.

104-365



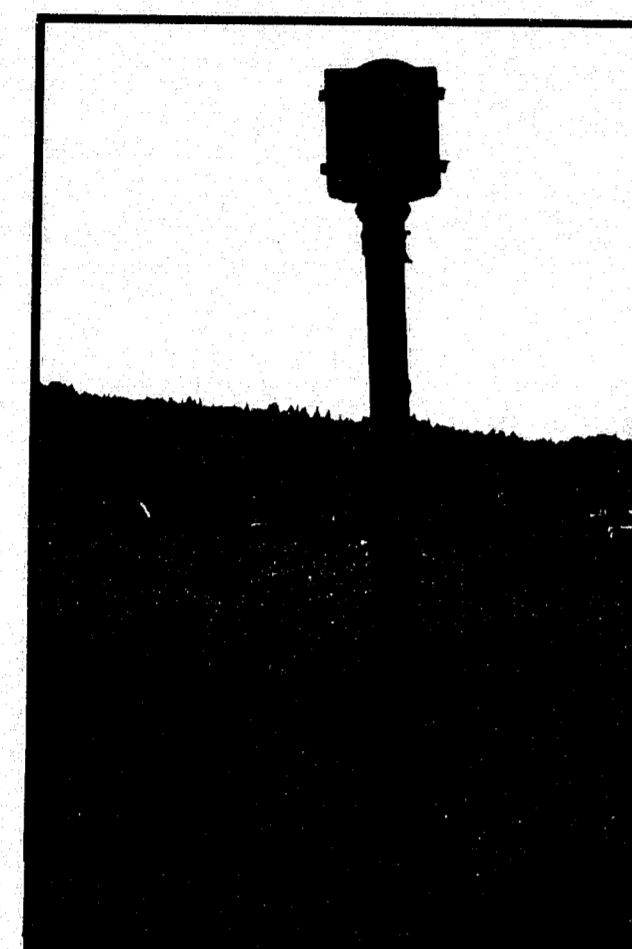
NEILL and GUNTER
Consulting and Design Engineers
P.O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

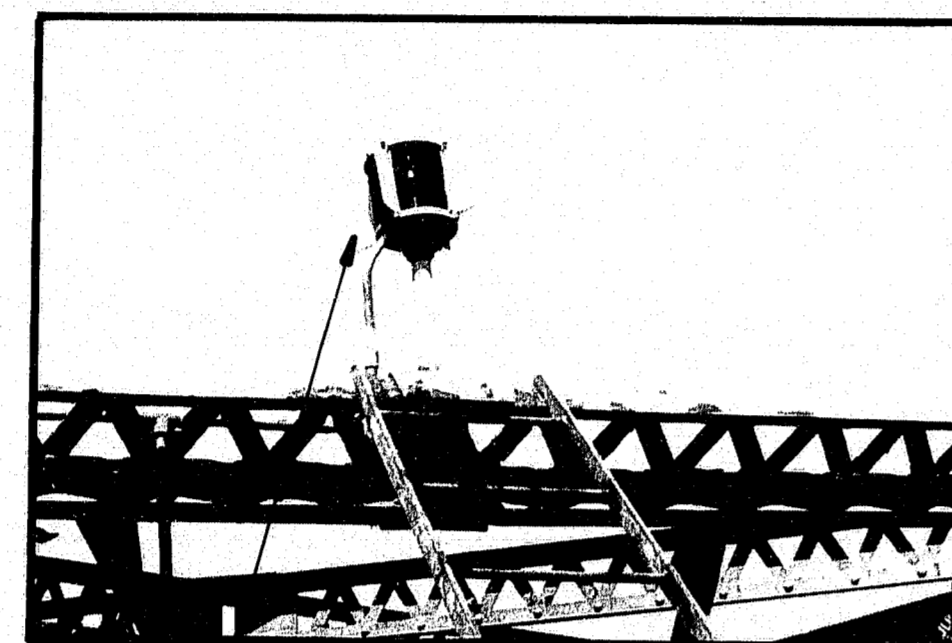
SOUTHPORT BRIDGE
OVER TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
MISC. ELECTRICAL
DETAILS

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	11-24-85
CHECKED	11-24-85
REVISIONS	
FIELD CHANGES	
PLANS	

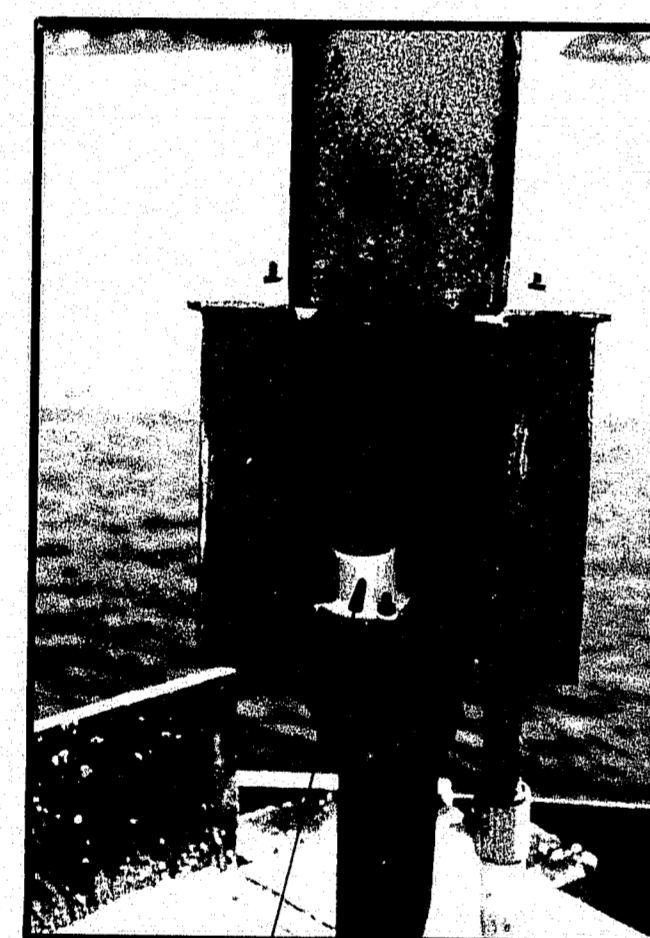
F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
	MAINE	BH-0005 (49)	13	32



REMOVE TRAFFIC LIGHT
ON BOTH ENDS OF
BRIDGE



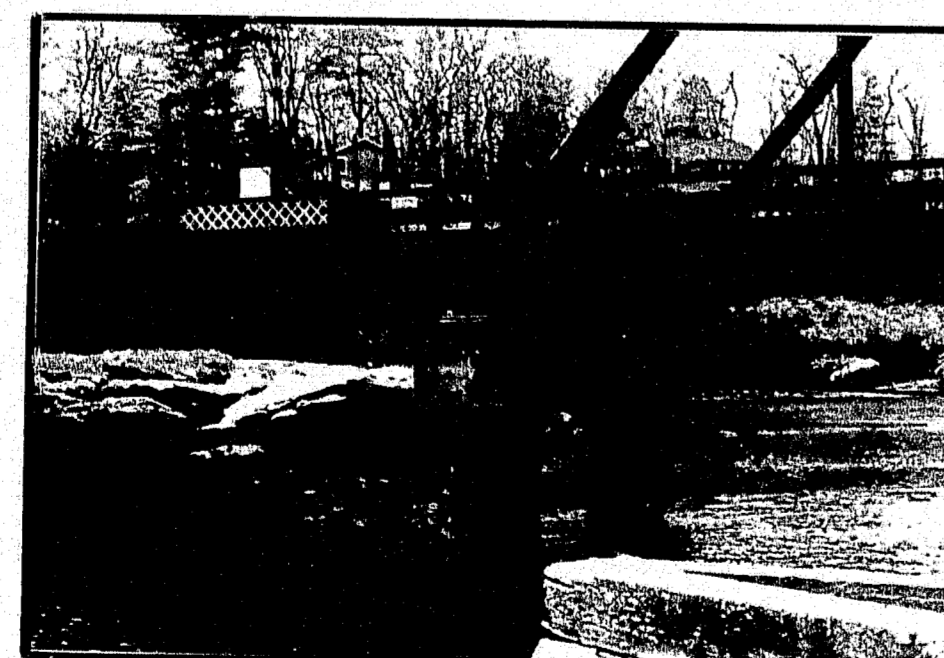
REMOVE NAVIGATION
LIGHTING ON TOP OF
BRIDGE.



REMOVE NAVIGATION
LIGHTING ON PIERS.



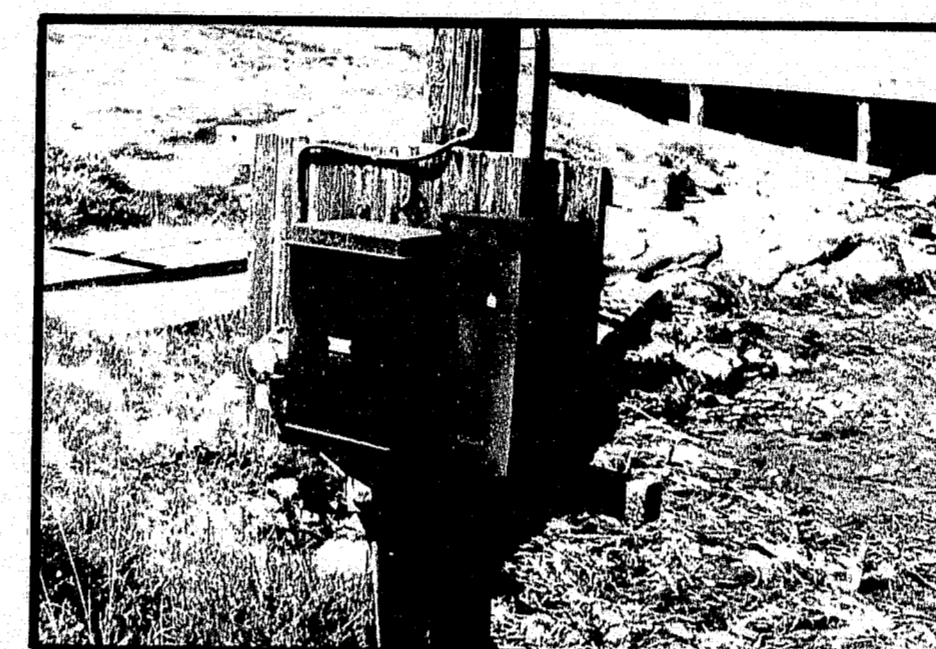
REMOVE WALKWAY
LIGHTING



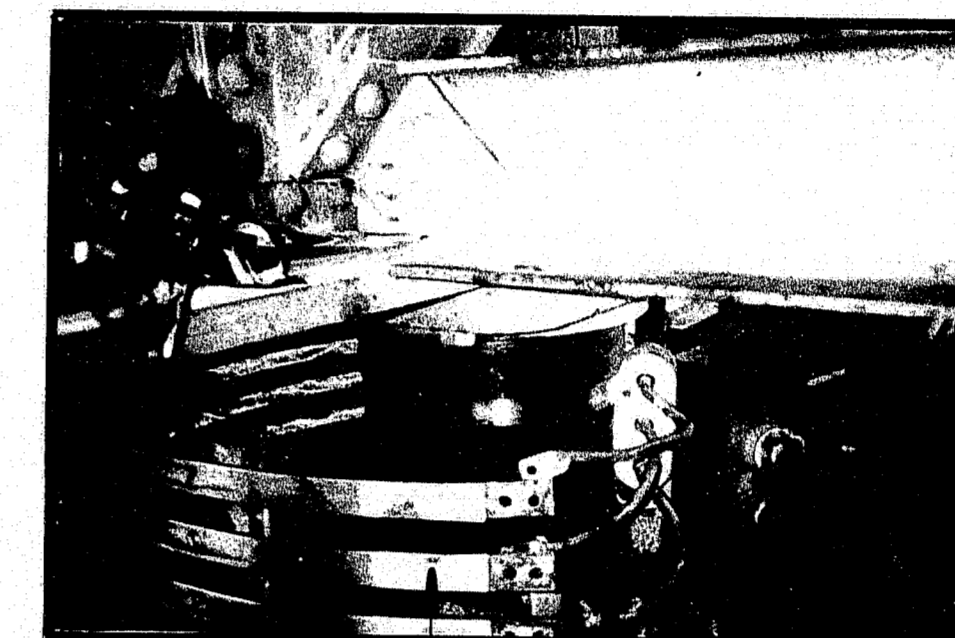
REMOVE NAVIGATION
LIGHTING ON PIERS

NOTE
REMOVE CONDUIT & WIRING
BACK TO IT'S SOURCE
OF POWER
(TYPICAL OF EACH PHOTO.)

LIGHTING DEMOLITION

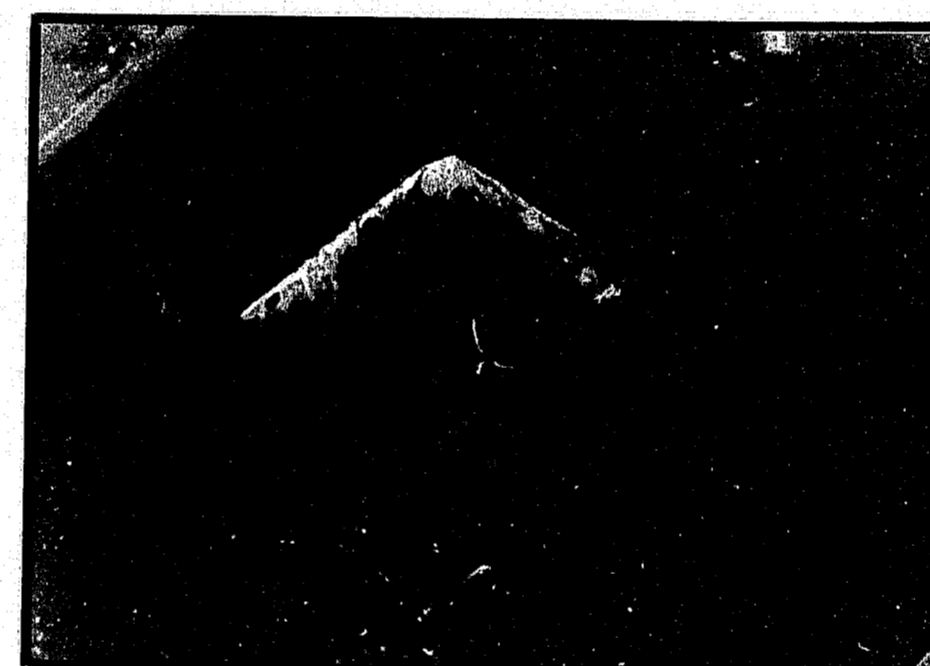


REMOVE METER, CIRCUIT
BREAKERS, DISCONNECT
SWITCH & POLE.



REMOVE COLLECTOR
RING ON PIER NO. 2

CMP SERVICE DEMOLITION



REMOVE JUNCTION BOX
NEAR COLLECTOR RING
ON PIER NO. 2



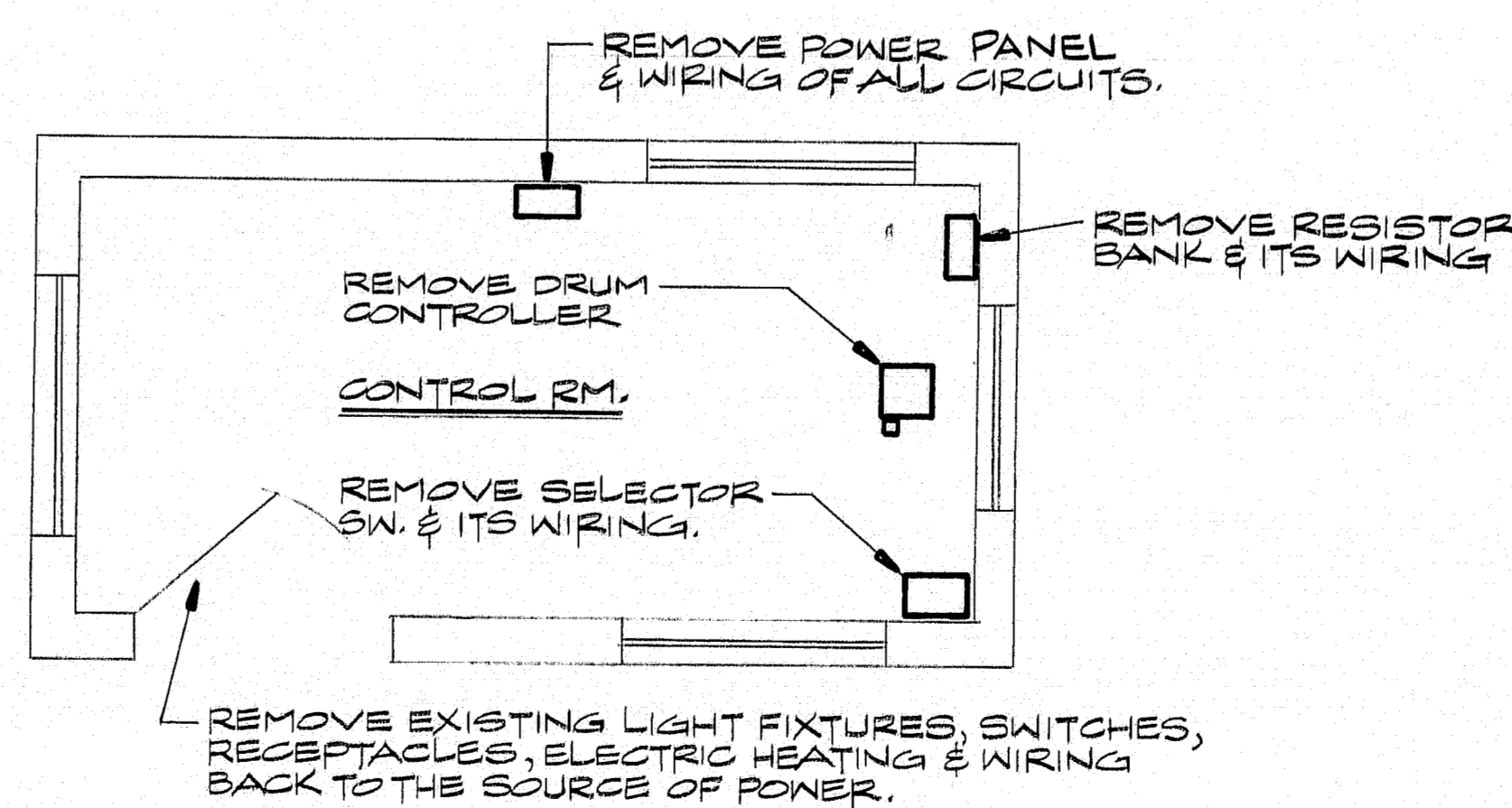
REMOVE CONDUIT
TYP

MISC. WIRING DEMOLITION

REMOVE
TRAFFIC SYSTEM



NOTE:
1. REMOVE CONDUIT & WIRING BACK
TO ITS SOURCE OF POWER (TYP
OF EACH PHOTO.)



CONTROL HOUSE DEMOLITION PLAN N.T.S.

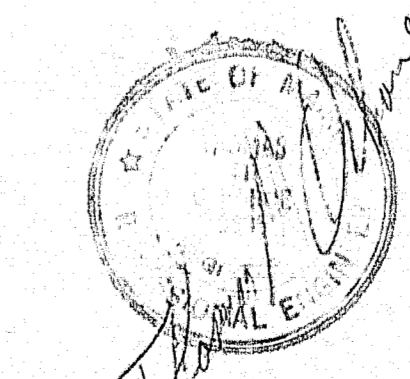
104-366



NEILL and GUNTER
Consulting and Design Engineers
P. O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SOUTHPORT BRIDGE
OVER TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
DEMOLITION



SHEET 11 OF 24 AUGUSTA, MAINE

NGI JOB NO. 20931 NGI DWG NO. C-504

PROJECT DESIGN ENGINEER	DATE
DESIGN DETAILER	1/25/82
CHECKED	1/25/82
REVISIONS	
FIELD CHANGES	
PLANS	

Reel

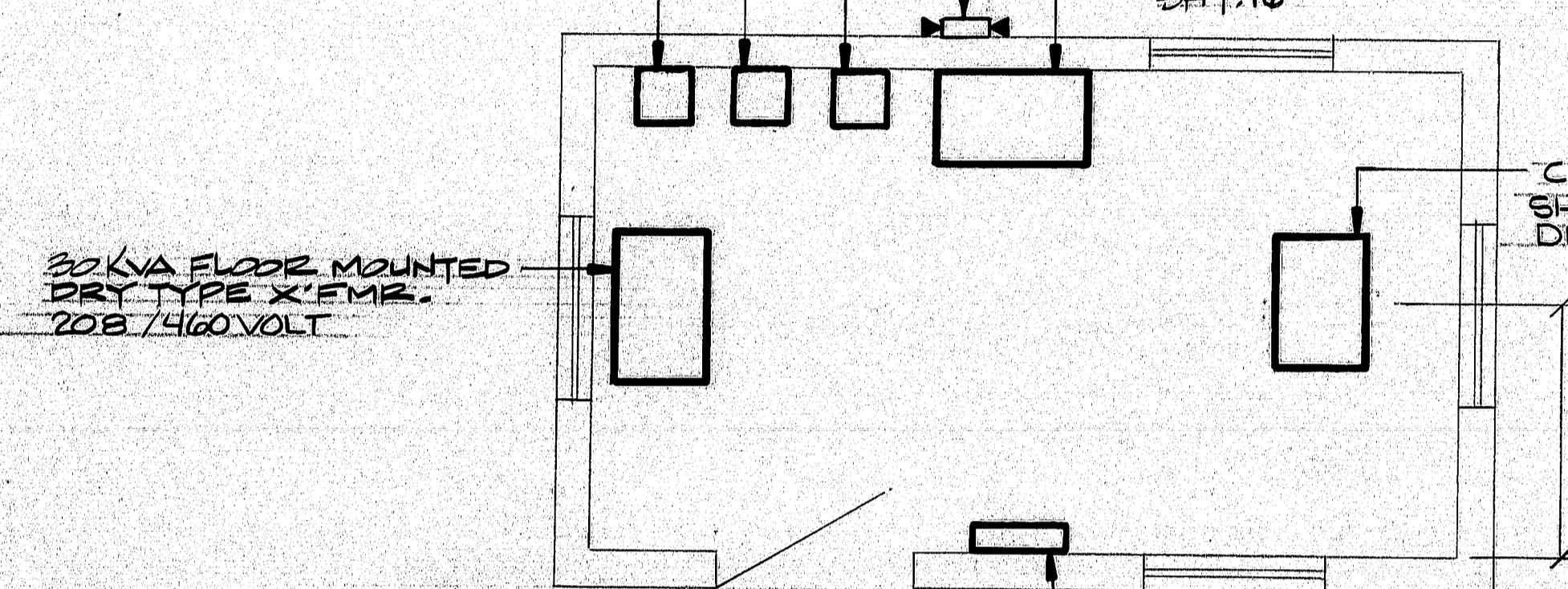
104

(367-503)

COMBINATION REVERSING STARTERS (NARROW TYPE) FOR WEDGE DRIVES

DUAL ELECTRIC AIR HORNS SEE SHEET 15 FOR WIRING SCHEMATIC

15 HP WALL MOUNTED D.C. DRIVE, MOUNT 5'-0" FROM FIN. FLR. TO TOP OF DRIVE. SEE WIRING SCHEMATIC ON SHT. 16

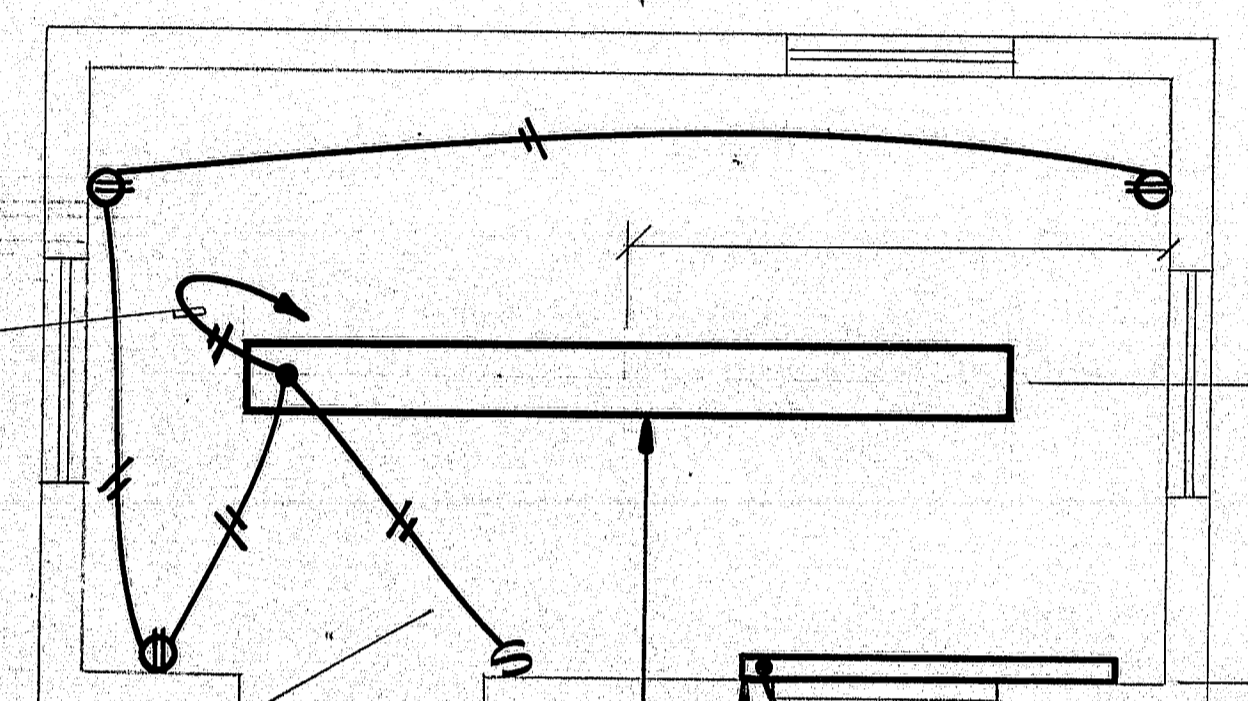


32 KVA FLOOR MOUNTED DRY TYPE XFMR. 208 / 460 VOLT

42 CIRCUIT PANEL, 3Φ, 4W, 200 A. MAIN MOUNT 5'-0" FROM FIN. FLR. TO TOP OF PANEL SEE SCHEDULE AT RIGHT.

CONTROL CONSOLE SEE SHT. 17 FOR LAYOUT, WIRING DIA. & RELAY LOCATIONS

TO CIRCUIT 5 IN POWER PANEL



15' FLUORESCENT, SURFACE MOUNTED LIGHT FIXTURE W/ PRISMATIC ACRYLIC LENS.

1000 W STANDARD DENSITY ELECTRIC HEATER, 208V W/BASE BOARD THERMOSTAT.

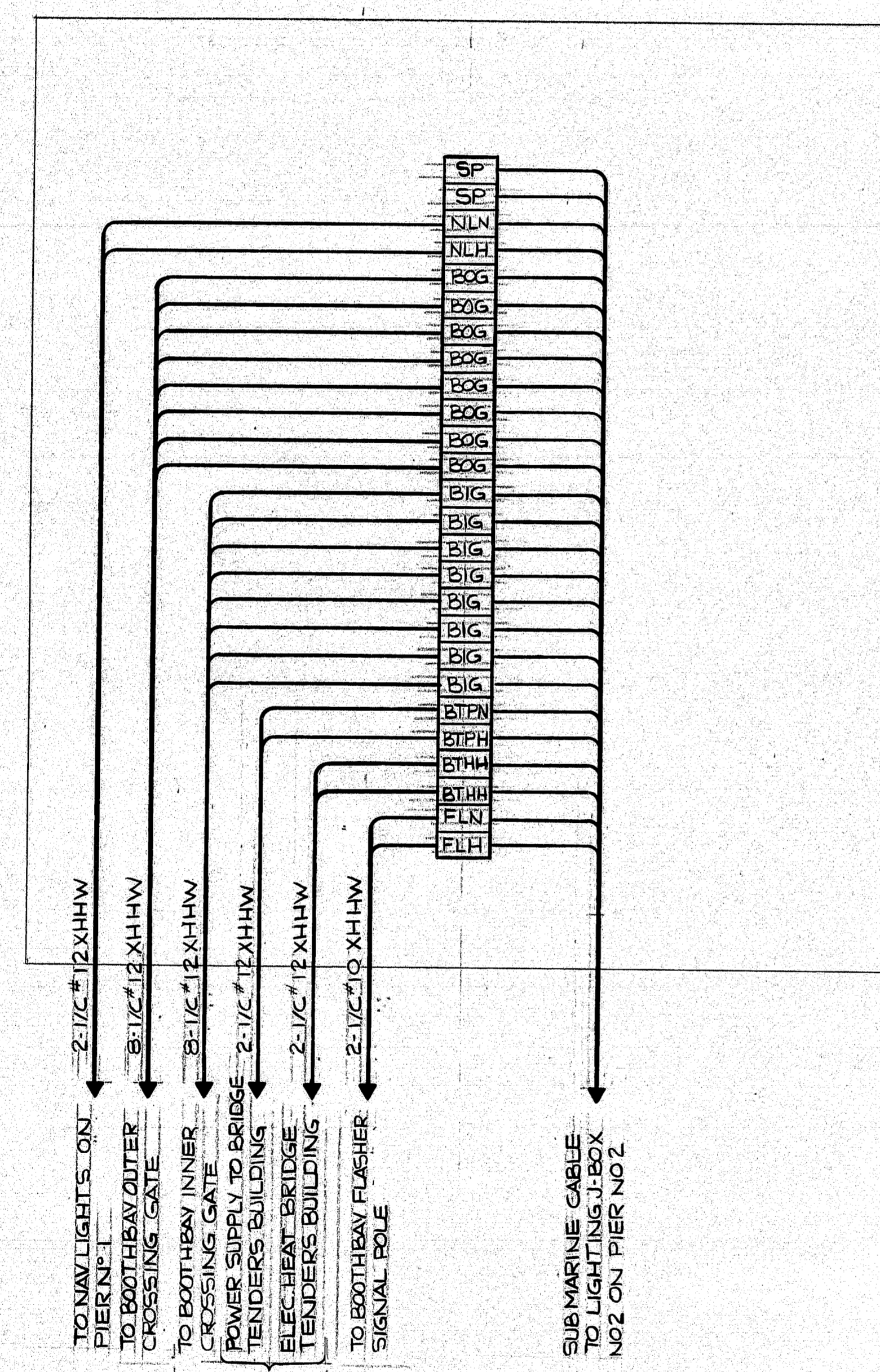
TO CIRCUIT 6 IN POWER PANEL

CONTROL HOUSE EQUIPMENT LAYOUT
N.T.S.

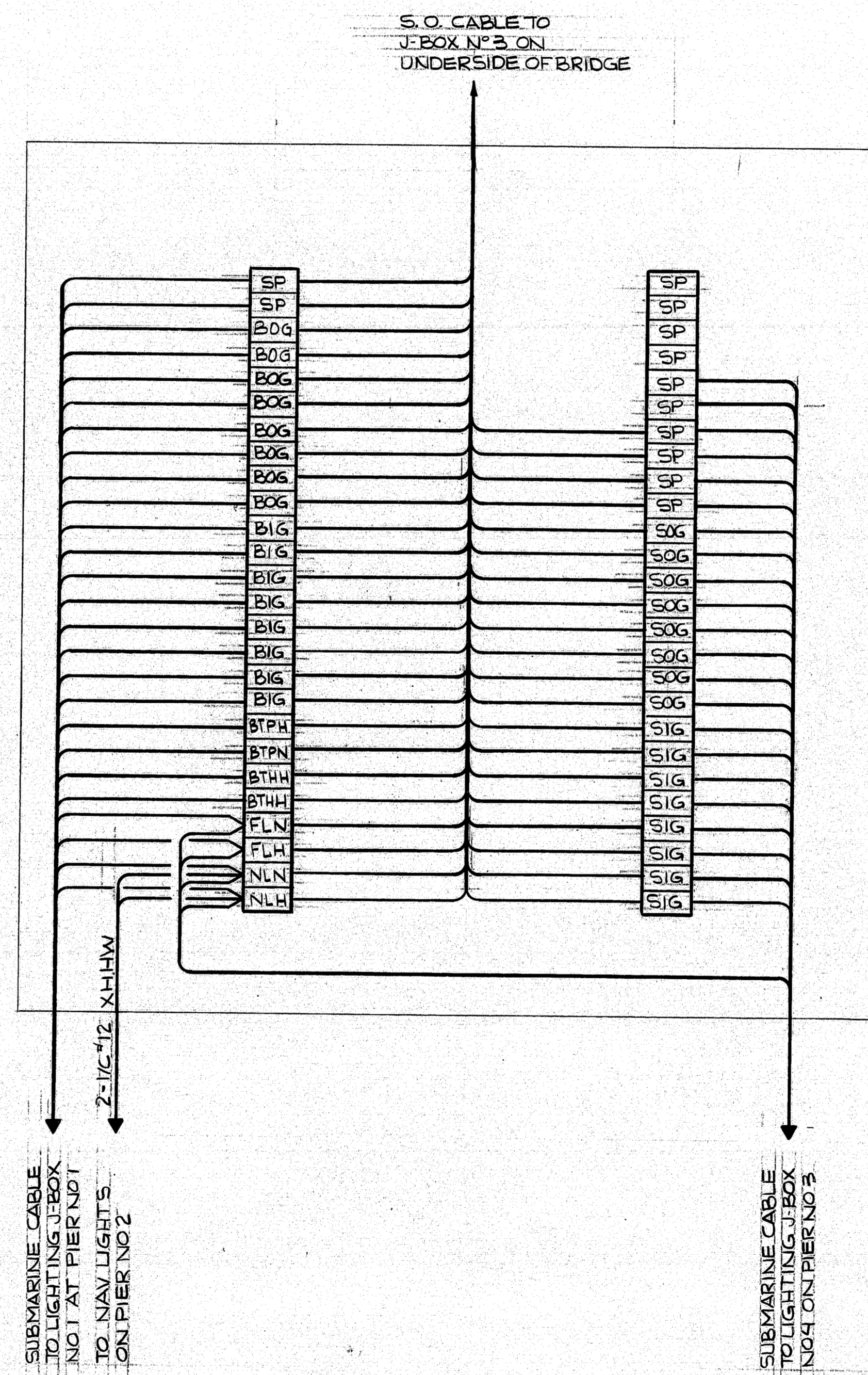
CONTROL HOUSE LIGHTING & HEATING PLAN
N.T.S.

POWER PANEL												
MAIN SUPPLY: 120/208, 3Φ, 4WIRE MAINS: 200A BUS, 42 CKT. BRANCH BREAKERS: AS NOTED												
DESCRIPTION	LOAD			N	LOAD			DESCRIPTION				
	A	B	C		A	B	C					
6 - 10W EA. 208V BRIDGE ROADWAY LIGHTING.	310			1	2	5	1200	15-100W EA. 120V NAV. LIGHTS				
CONTROL HOUSE LIGHTS & RECP		310		2	4	5	200	24-100W EA. 120V BELOW BRIDGE LITS				
CONTROL POWER			200	3	5	15		CONTROL HOUSE 1000 WATT 208V ELEC HEATER				
BRIDGE TENDERS BLDG POWER			20	7	10		500	BRIDGE TENDERS BLDG 1250 208V ELEC HEATER				
SOUTHPORT OUTER GATE			20	9	11	15	625	BOOTHBAY OUTER GATE				
SOUTHPORT INNER GATE			20	13	14	20	615	BOOTHBAY INNER GATE				
FLASHER RELAY			15	15	16	20						
				17	18							
				19	20							
				21	22							
				23	24							
				25	26							
				27	28							
				29	30							
30 KVA TRANSFORMER AND PHASE REVERSAL RELAY	1000			31	32	15	435	BOOTHBAY WEDGE DRIVE MOTOR				
	1000			33			435					
		1000		34			435					
CENTER WEDGE DRIVE MOTOR	435			37	38	15	435	SOUTHPORT WEDGE DRIVE MOTOR				
	435			39			435					
		435		41			435					
PHASE LOAD								PHASE LOAD				
TOTAL LOAD:												
TOTAL AMP.:												

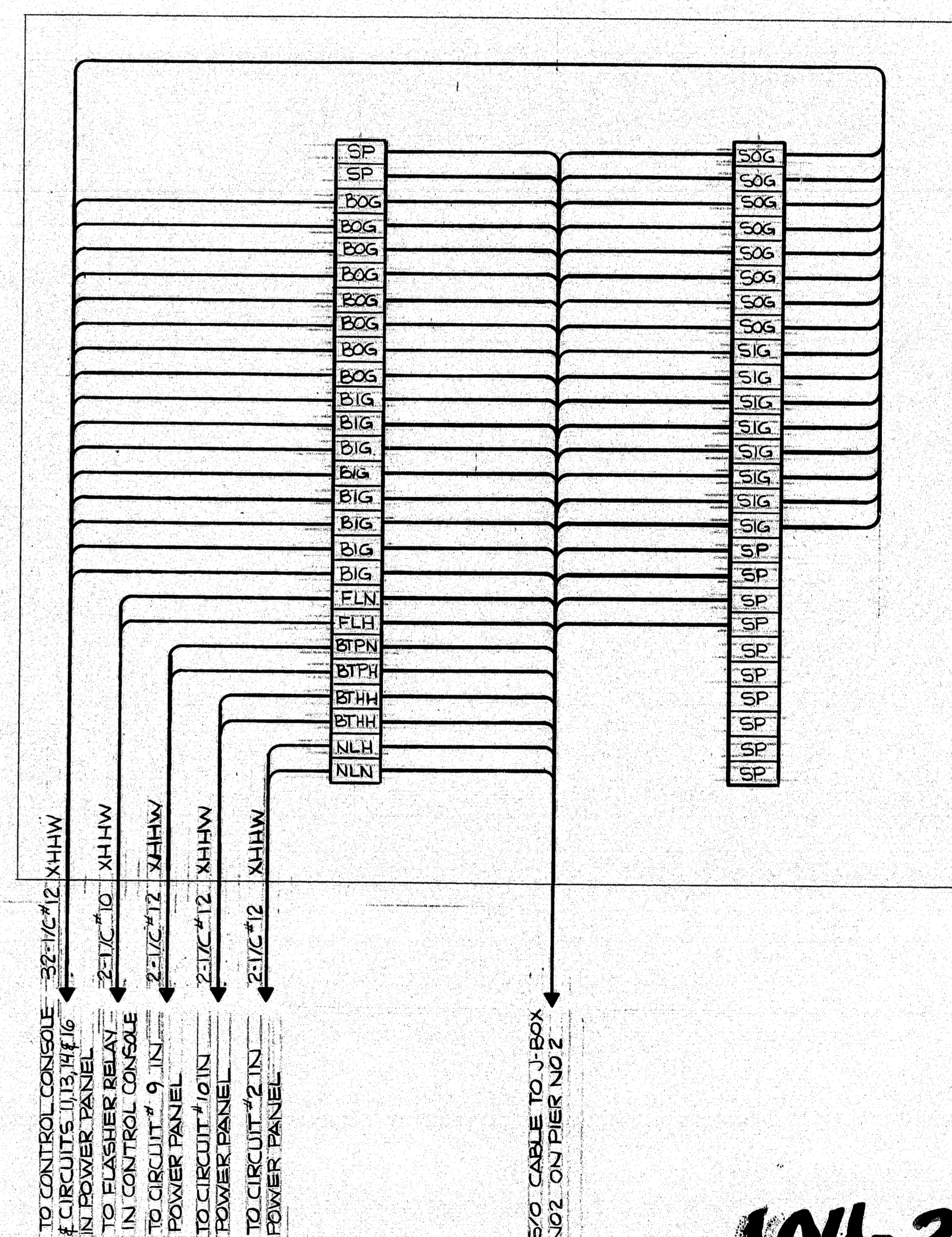
P.R.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0006(47)	15	32



LIGHTING JUNCTION BOX NO 1
@ PIER NO 1



LIGHTING JUNCTION BOX NO 2
@ PIER NO 2



LIGHTING JUNCTION BOX NO 3
@ CENTER OF BRIDGE

- NOTES
- SEE SHEET 14 FOR LEGEND & NOTES
 - ALL CONDUITS TO BE SCH 80 PVC HEAVY WALL
 - ALL CONDUITS TO BE 3/4" DIAMETER UNLESS OTHERWISE NOTED

104-368



NEILL and GUNTER
Consulting and Design Engineers
P. O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

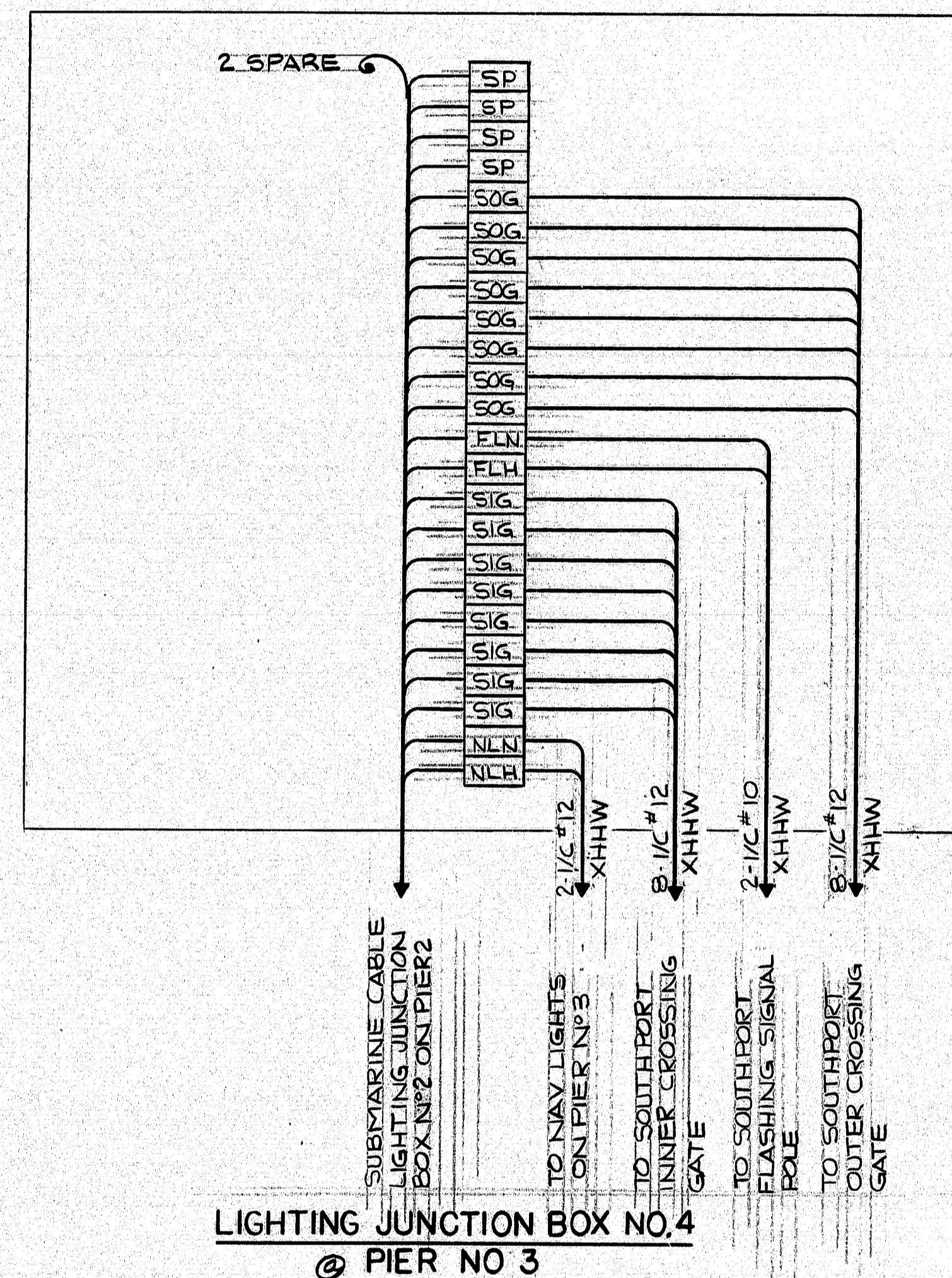
SOUTHPORT BRIDGE
OVER TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
LIGHTING & POWER JUNCTION BOXES
123 INTERCONNECTION DIAGRAMS

SHEET 13 OF 24 AUGUSTA, MAINE

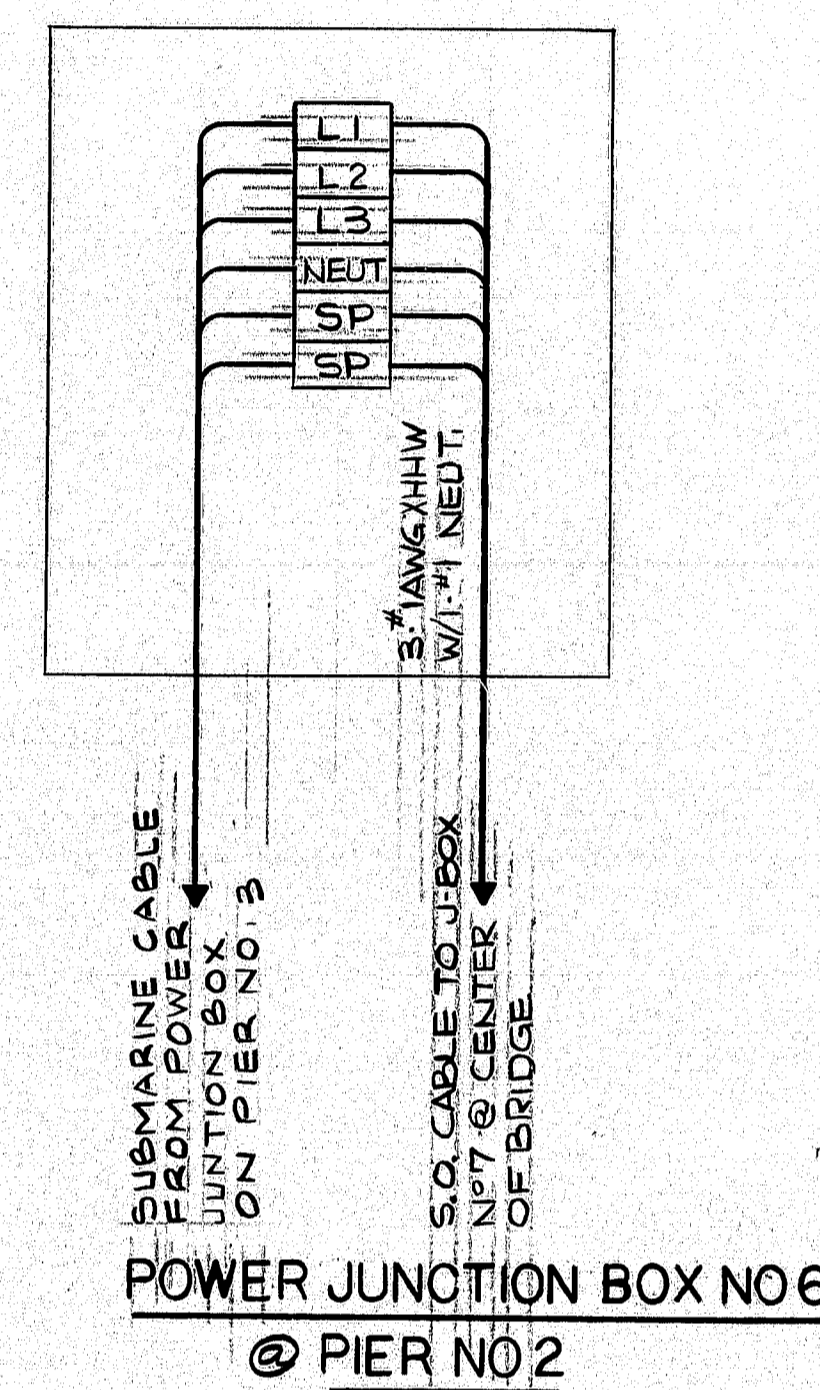
NGI JOB NO 20931 NGI DWG NO C 506

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	ETA	1/24/95
CHECKED	ETA	1/25/95
FIELD CHANGES		
PLANS		

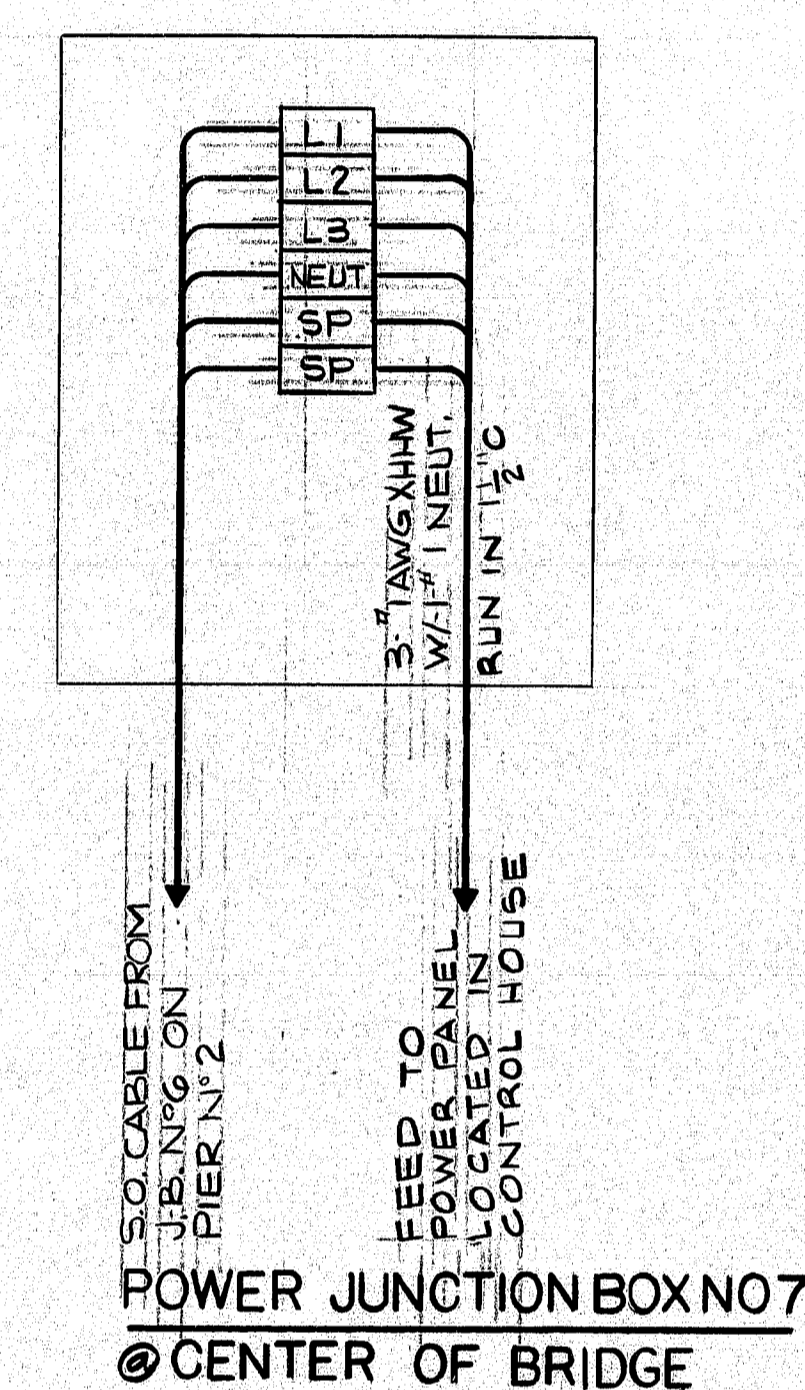
F.R.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	24-0006 (49)	16	32



LIGHTING JUNCTION BOX NO. 4
@ PIER NO. 3



POWER JUNCTION BOX NO. 6
@ PIER NO. 2



POWER JUNCTION BOX NO. 7
@ CENTER OF BRIDGE

LEGEND

BTPN	BRIDGE TENDERS BUILDING, POWER SUPPLY-NEUTRAL
BTPH	BRIDGE TENDERS BUILDING, POWER SUPPLY-HOT
BTHH	BRIDGE TENDERS BUILDING, ELEC. HEAT-HOT
SOG	SOUTH PORT OUTER CROSSING GATE
SIG	SOUTH PORT INNER CROSSING GATE
BOG	BOOTHBAY OUTER CROSSING GATE
BIG	BOOTHBAY INNER CROSSING GATE
NLN	NAVIGATION LIGHTS-NEUTRAL
NLH	NAVIGATION LIGHTS-HOT
FLN	FLASHING SIGNAL POLE-NEUTRAL
FLH	FLASHING SIGNAL POLE-HOT
SP	SPARE

NOTES

1. ALL TERMINAL BLOCKS TO BE 600V WITH MOUNTING STRIP & END ANCHORS. SEE EACH DIAGRAM FOR QUANTITIES.
2. ALL CONDUIT TO BE SCH. 80 PVC HEAVY WALL.
3. ALL CONDUITS TO BE 3/4" DIAMETER UNLESS OTHERWISE NOTED.

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	11/24/95
CHECKED	11/25/95
FIELD CHANGES	
PLANS	

104-369



NEILL and GUNTER
Consulting and Design Engineers
P. O. Box 1959
PORTLAND, ME 04104

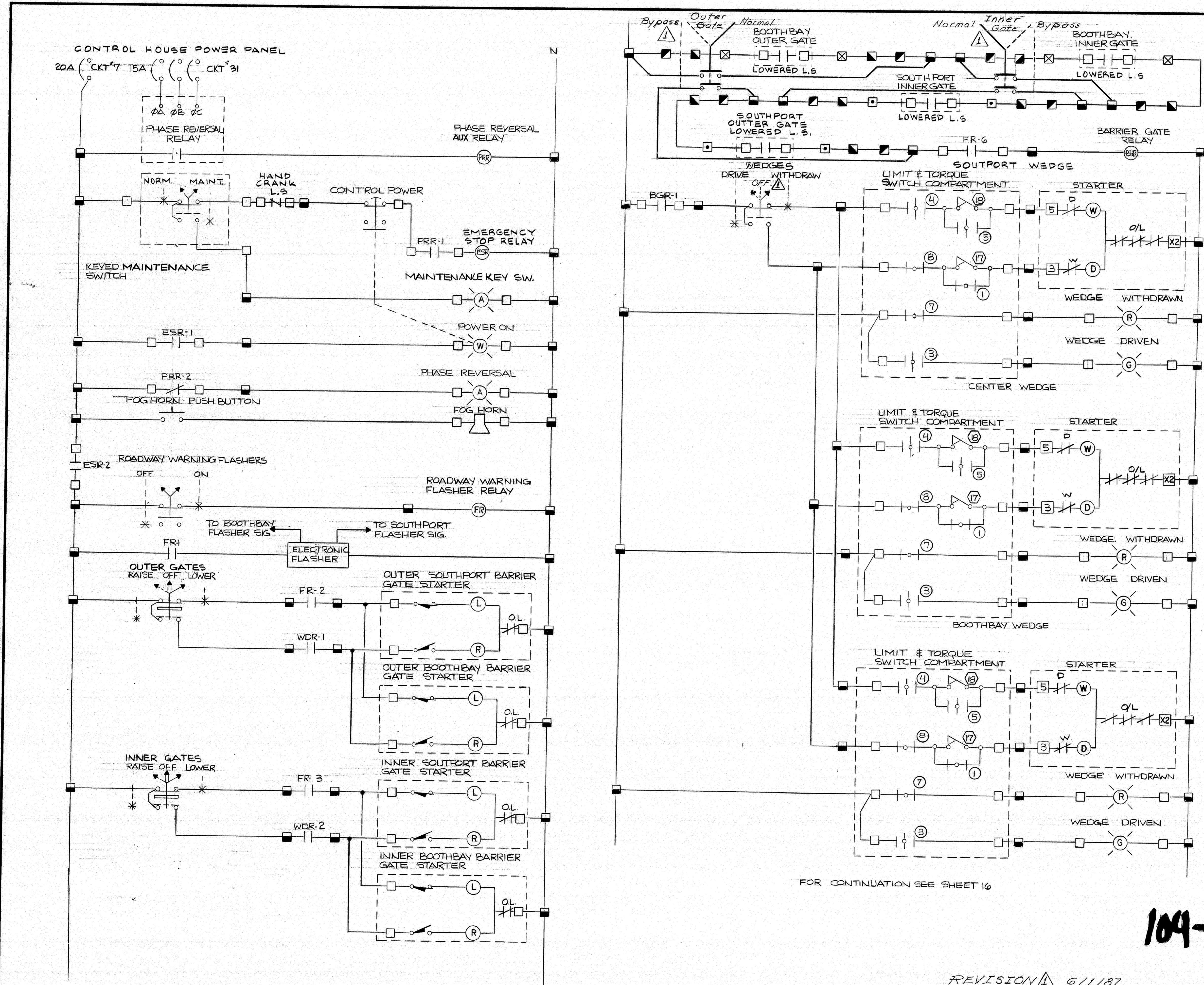
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SOUTHPORT BRIDGE
OVER TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT, BOOTHBAY HARBOR
LINCOLN COUNTY
LIGHTING & POWER JUNCTION BOXES
4, 6, 7 INTERCONNECTION DIAGRAMS

SHEET 14 OF 24 AUGUSTA, MAINE

NGI JOB NO 20931 NGI DWG NO C-507

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
17	32	



NOTE
SEE SHEET 16 FOR
LEGEND

SHOWN IN FULL OPEN POSITION

CON.	POSITION	FUNCTION
1	FULL OPEN	BYPASS CIRCUIT
2	FULL OPEN	WITHDRAWN LIMIT
3	FULL OPEN	INDICATING LIGHTS
4	FULL OPEN	OPEN LIMIT
5	FULL OPEN	BYPASS CIRCUIT
6	FULL OPEN	DRIVEN LIMIT
7	FULL OPEN	INDICATING LIGHTS
8	FULL OPEN	CLOSE LIMIT

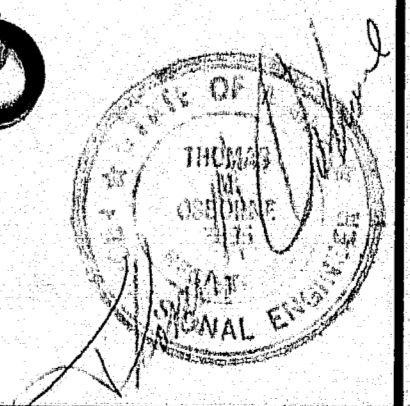
- NOTES
- 1 - CLOSED CONTACT
 - 2 - OPEN CONTACT
 - (17) CLOSING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE.
 - (18) OPENING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE.

TYPICAL WEDGE LIMIT SWITCH
TIMING DIAGRAM

FOR CONTINUATION SEE SHEET 16

REVISION 6/1/87

104-370



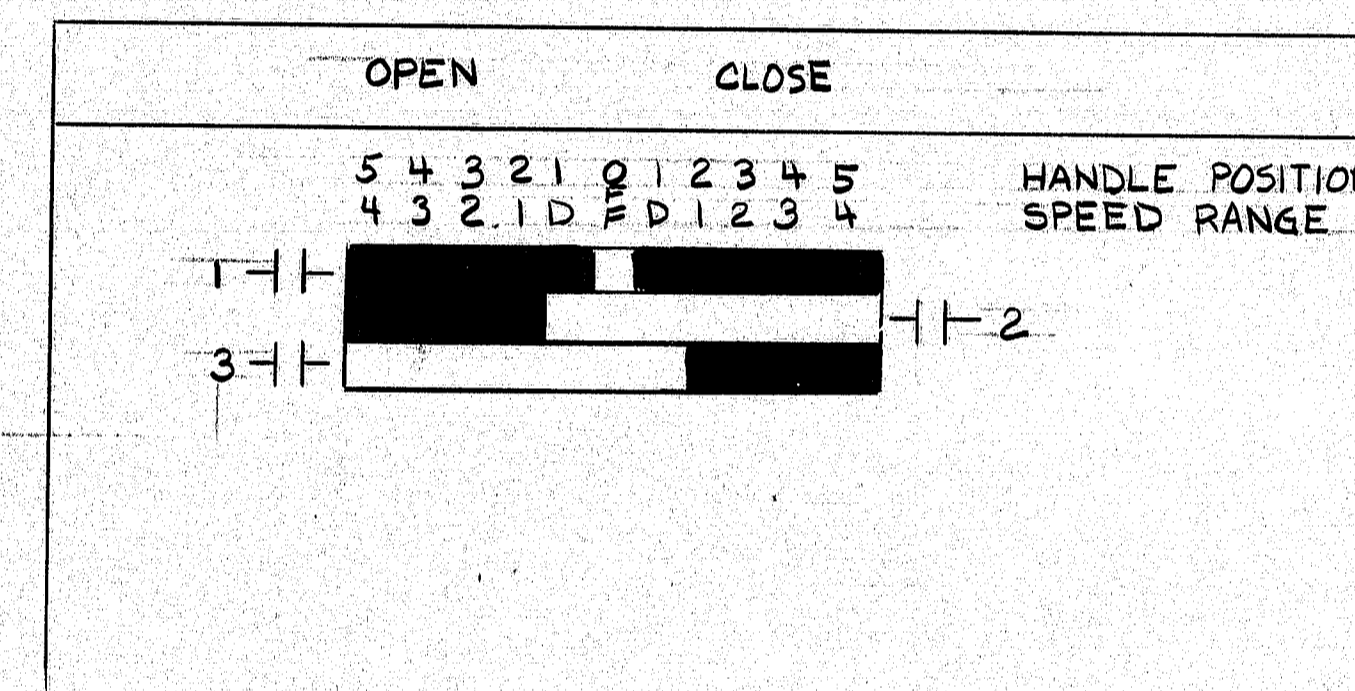
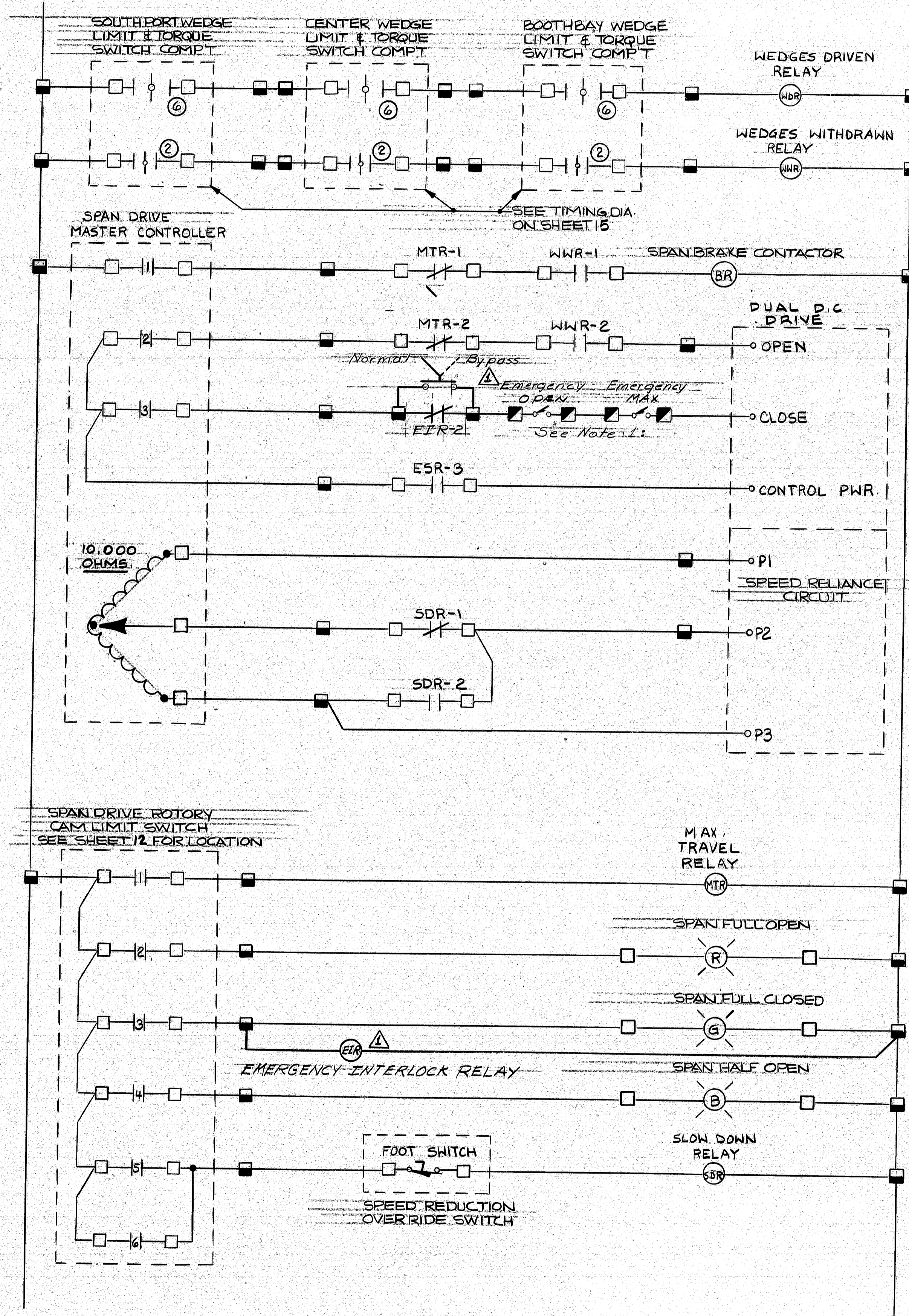
NEIL and GUNTER
Consulting and Design Engineers
P.O. Box 1959
Lincoln, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

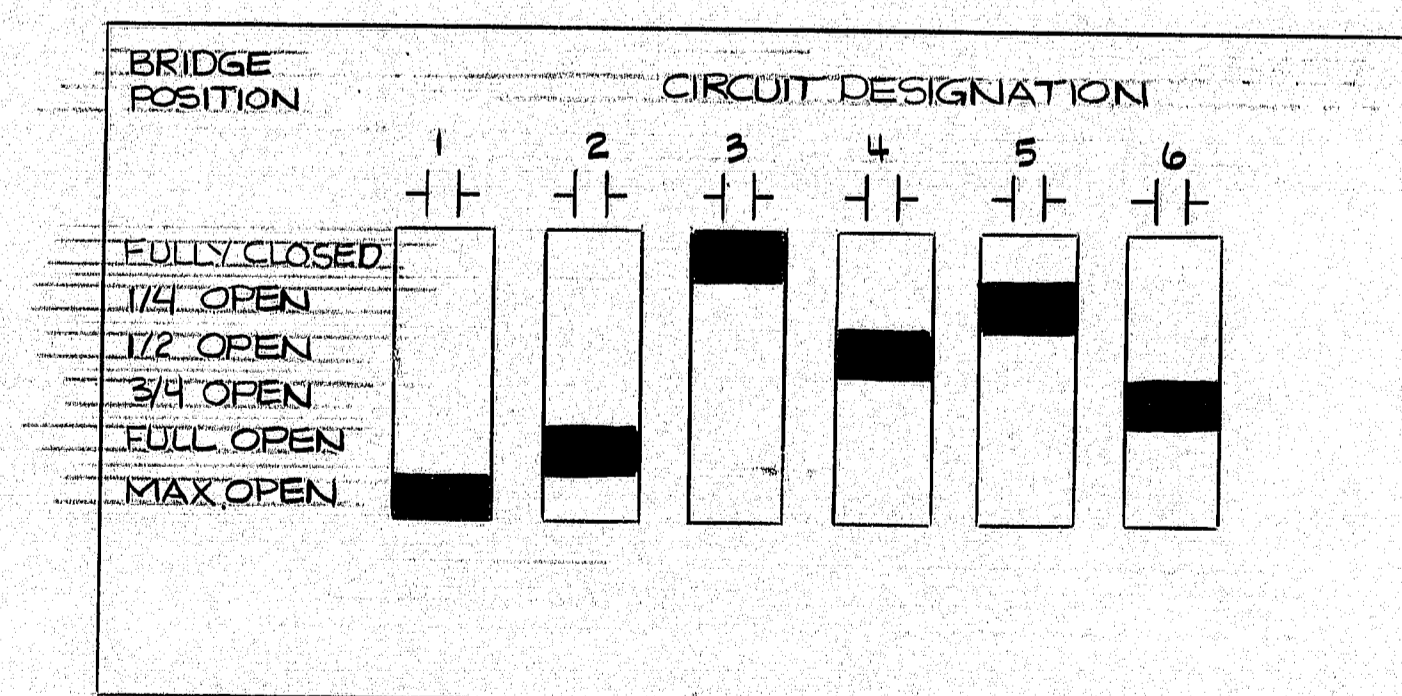
SOUTHPORT BRIDGE
OVER TOWNSEND CUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
WIRING SCHEMATIC

SHEET 15 OF 24 AUGUSTA, MAINE

F.R.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0009 (49)	18	32



SPAN DRIVE MASTER CONTROLLER
TIMING DIAGRAM



SPAN DRIVE CAM SWITCH
TIMING DIAGRAM

LEGEND

- ☐ CONSOLE TERMINATION
- ☐ DEVICE TERMINATION
- ☒ JB-1 TERMINATION
- ☒ JB-2 TERMINATION
- ☒ JB-3 TERMINATION
- ☐ JB-4 TERMINATION

NOTES:

1. Emergency Limits Switches to be installed on bridge above pier 2. Mech trips for each limit switch to be mounted on pier 2.
- Emergency Open Switch to be located so as to open when bridge is 1/2 open and Max limit switch at 1/2 Max limit to be mounted so if switch fails bridge will mechanically break the switch to force it open.

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	FTF	4-24-82
CHECKED	FTF	4-25-82
REVISIONS		
FIELD CHANGES		

104-371

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

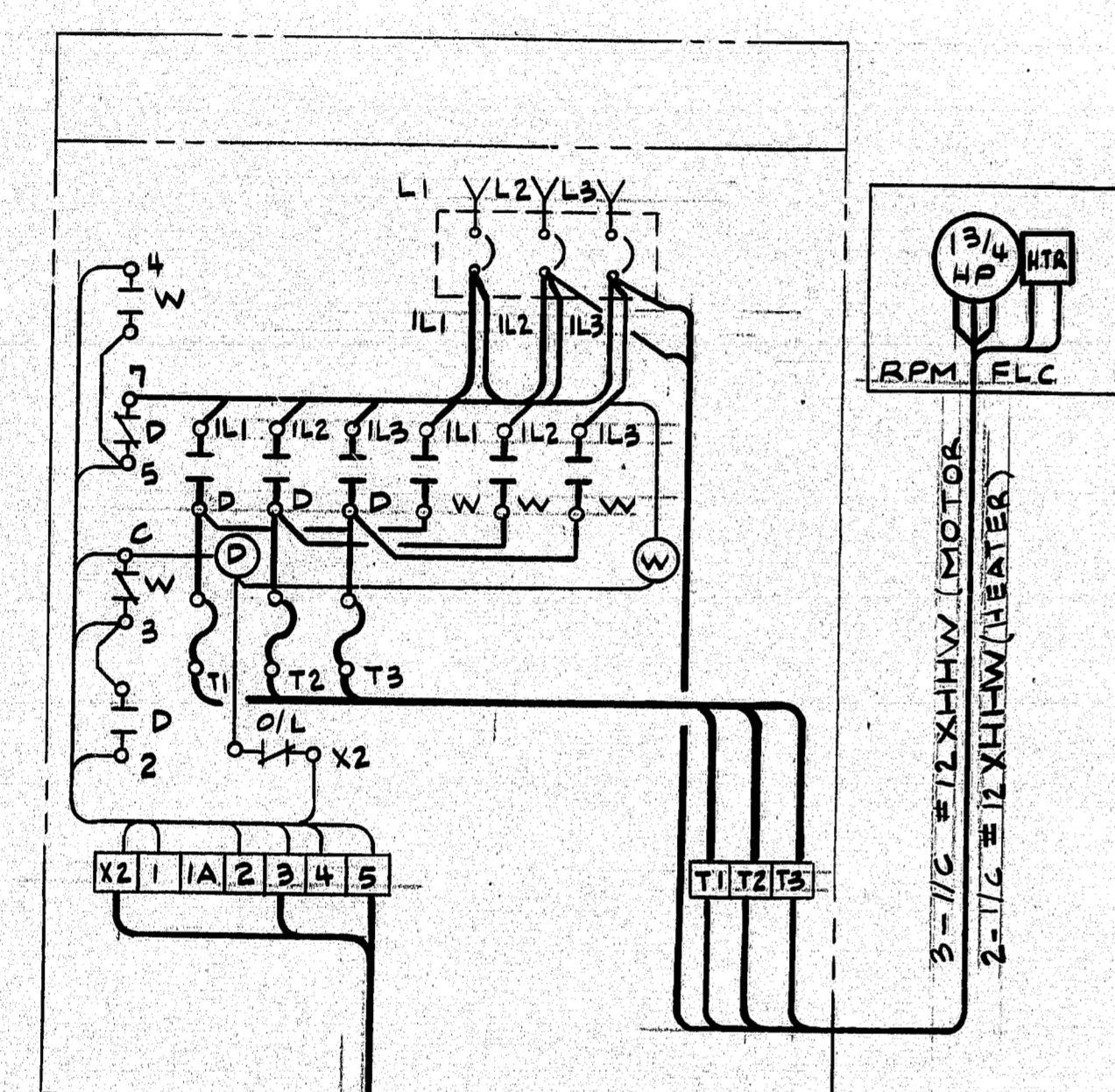
SOUTHPORT BRIDGE
OVER TOWNSEND GUT
BETWEEN THE TOWNS OF
SOUTHPORT BOOTHBAY HARBOR
LINCOLN COUNTY
WIRING SCHEMATIC
CONT.

SHEET 16 OF 24 AUGUSTA, MAINE

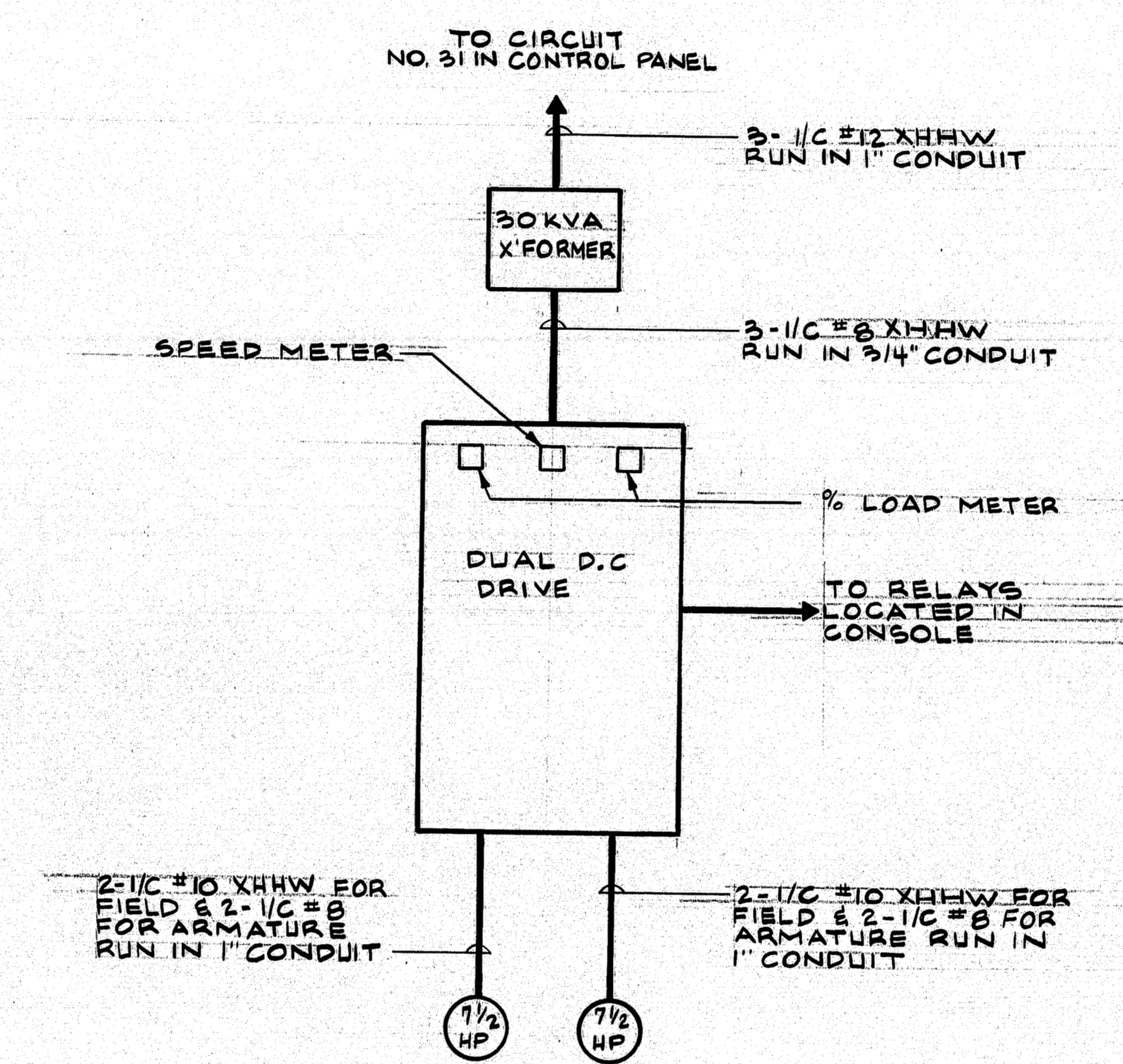
NGI JOB NO. 20931 NGI DWG. NO. C-509

REVISION 1 6/1/87

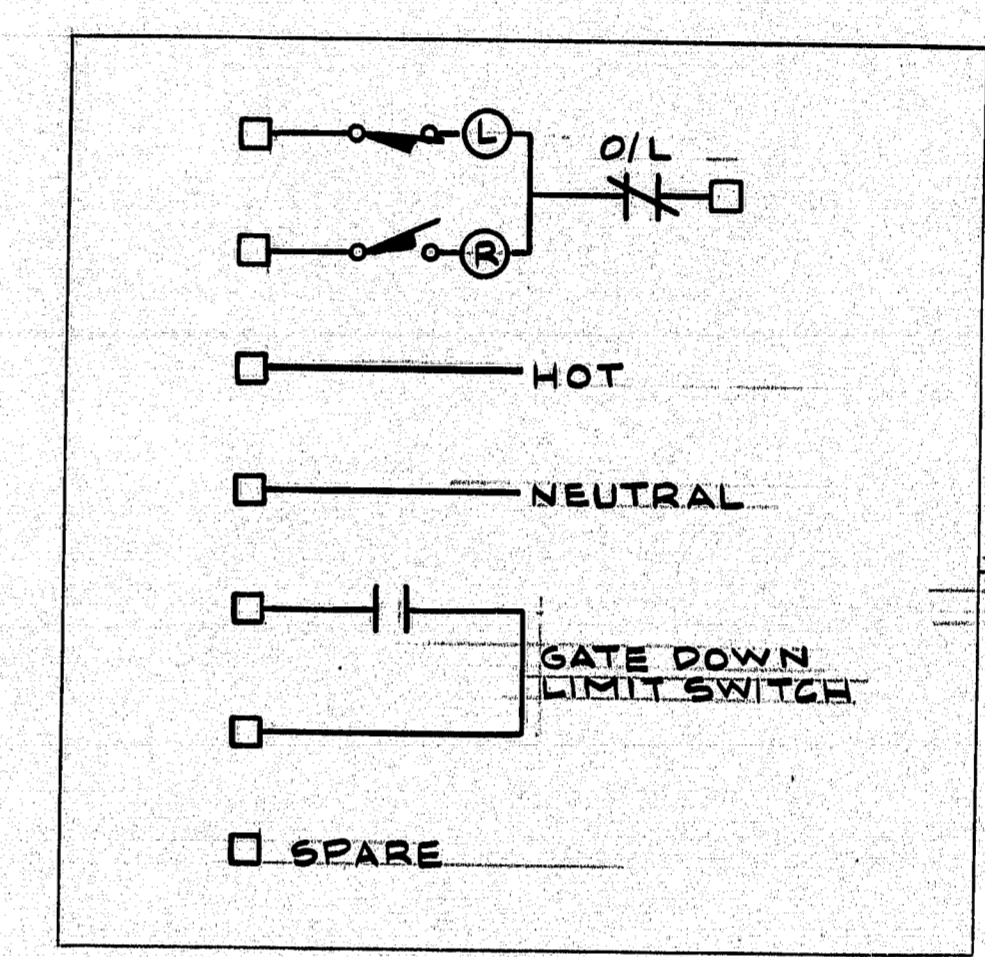
FR. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005 (49)	20	32



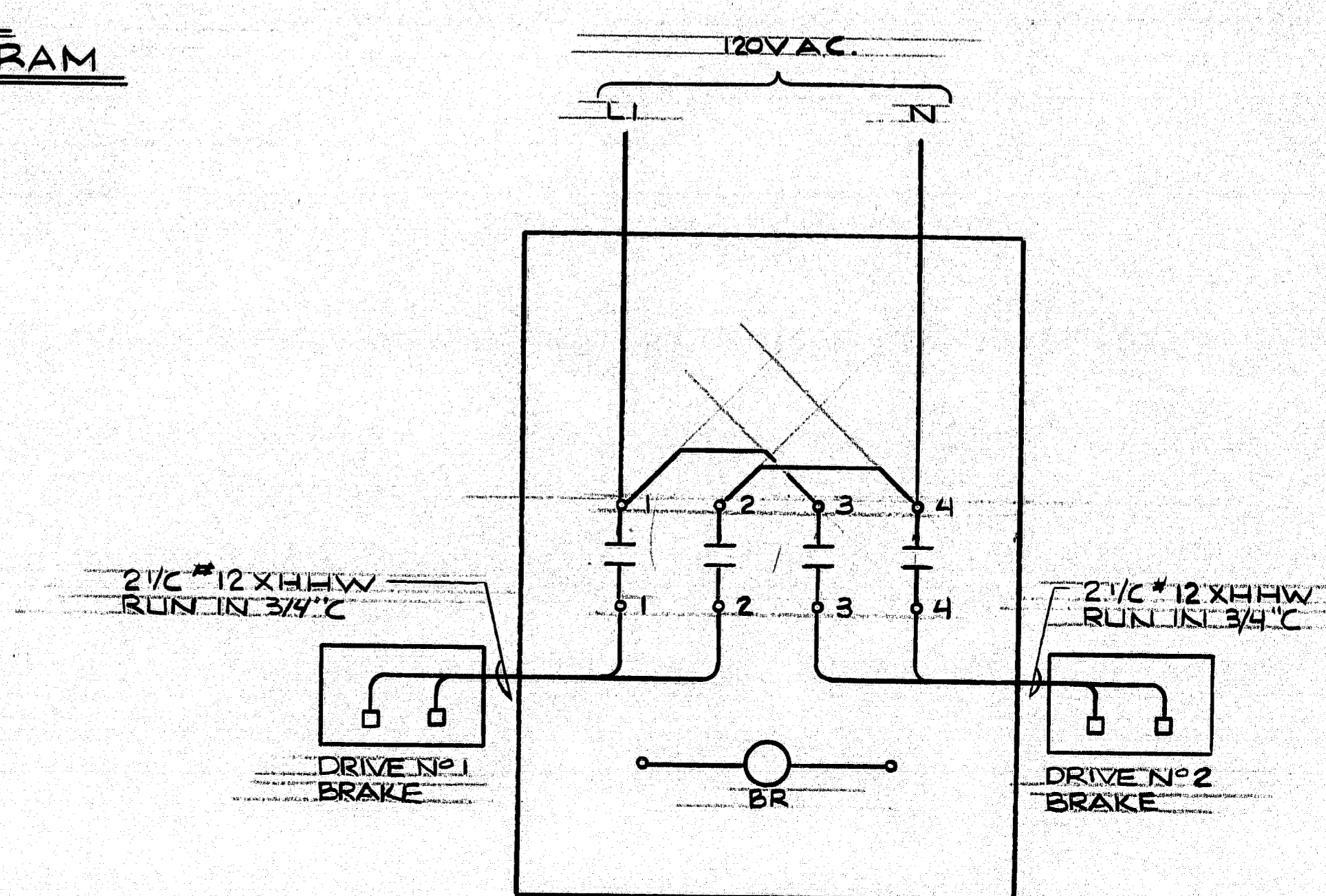
TYPICAL WEDGE DRIVE MOTOR WIRING DIAGRAM
N.T.S.



D.C. DRIVE ONE - LINE DIAGRAM
N.T.S.



TYPICAL CROSSING GATE INTERCONNECTION DIAGRAM
N.T.S.



BRAKE CONTACTOR WIRING DIAGRAM
N.T.S.

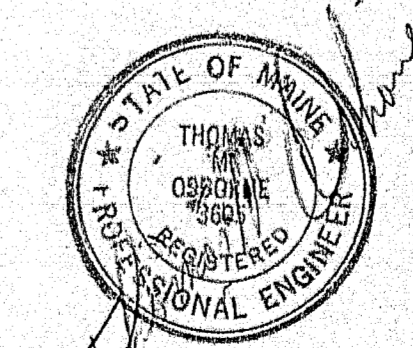
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	4-24-55
CHECKED	4-25-55
REVISIONS	
FIELD CHANGES	

104-373

NEILL and GUNTER
Consulting and Design Engineers
P.O. Box 1959
PORTLAND, ME 04104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

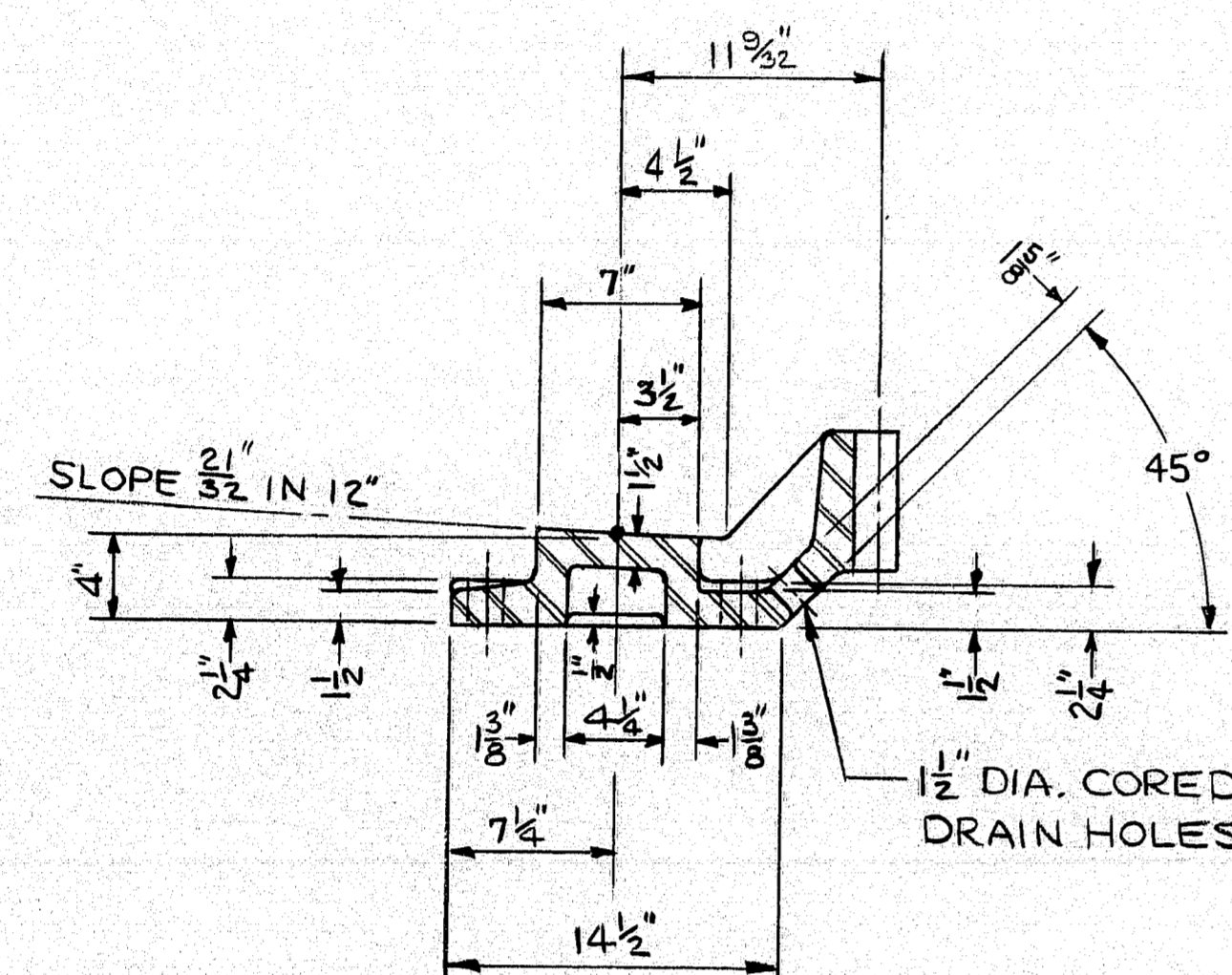
SOUTHPORT BRIDGE
OVER TOWNSEND CUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
MISC ELECTRICAL DETAILS



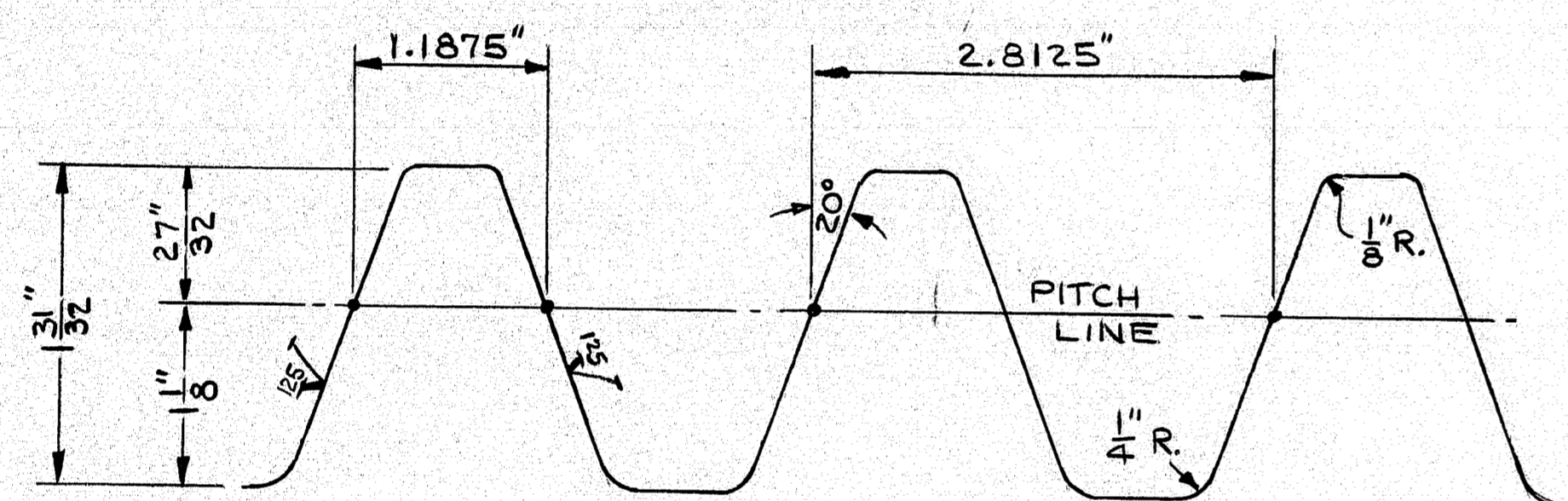
SHEET 18 OF 24 AUGUSTA, MAINE

NGI JOB NO. 20931 NGI DWG NO. C-511

F.R.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0006(49)	22	32



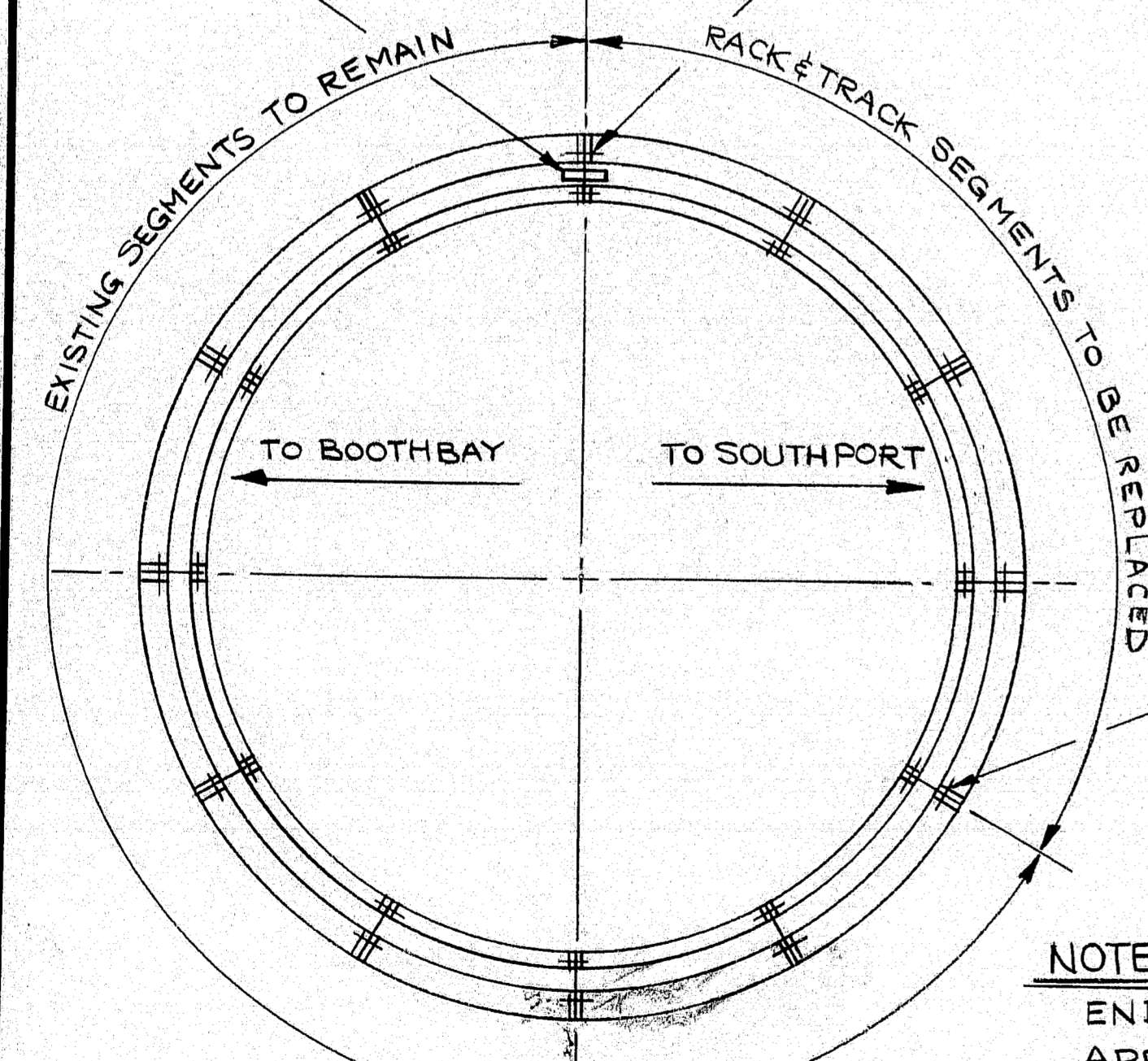
SECTION "A-A"



FULL SIZE DETAIL
RACK TEETH

BALANCE WHEEL B.W.
IN THIS LOCATION TO BE
RESHIMMED TO PROVIDE
.010" TO .020" CLEARANCE
UNDER WHEEL WHEN BRIDGE
IS CLOSED AND WEDGES
ARE DRIVEN.

SEE NOTE "A"



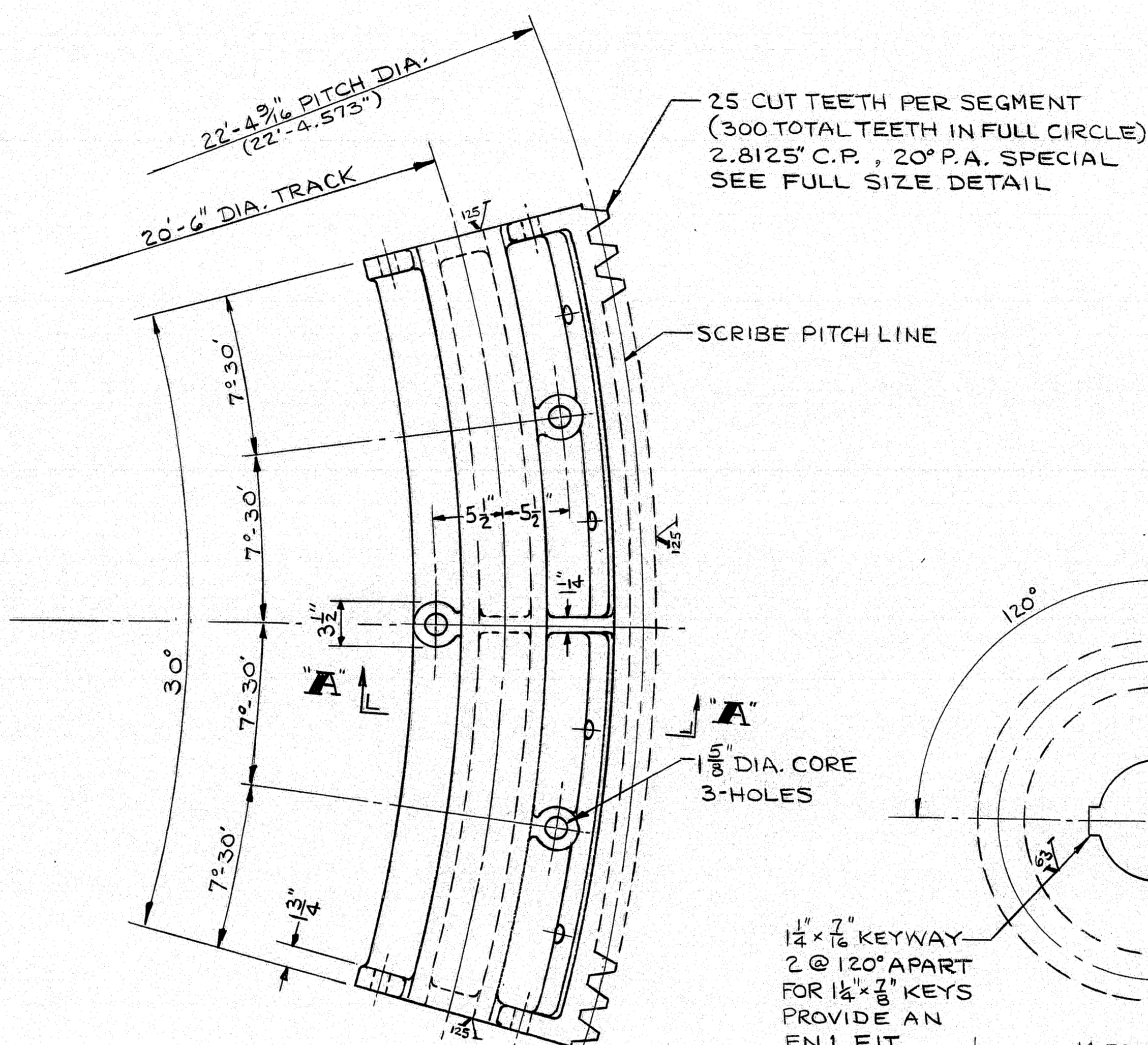
KEY PLAN LOCATION
RACK & TRACK SEGMENT

NOTE "A"
END HOLES FOR THESE SEGMENTS
ARE TO BE LEFT SOLID AND DRILLED
AND REAMED IN FIELD FROM EXISTING
SEGMENTS. PROVIDE AN LCG FIT FOR
NEW TURNED BOLTS.

REAM TO PROVIDE LCG FIT
FOR NEW 1 3/8" DIA. TURNED
BOLTS. - SEE NOTE "A" AT
KEY PLAN LOCATION.

RACK & TRACK SEGMENT
4-REQUIRED C.S.
ASTM A27 GR 65-35

NOTE:
PROVIDE NEW TURNED BOLTS TO
ASSEMBLE RACK SECTIONS.



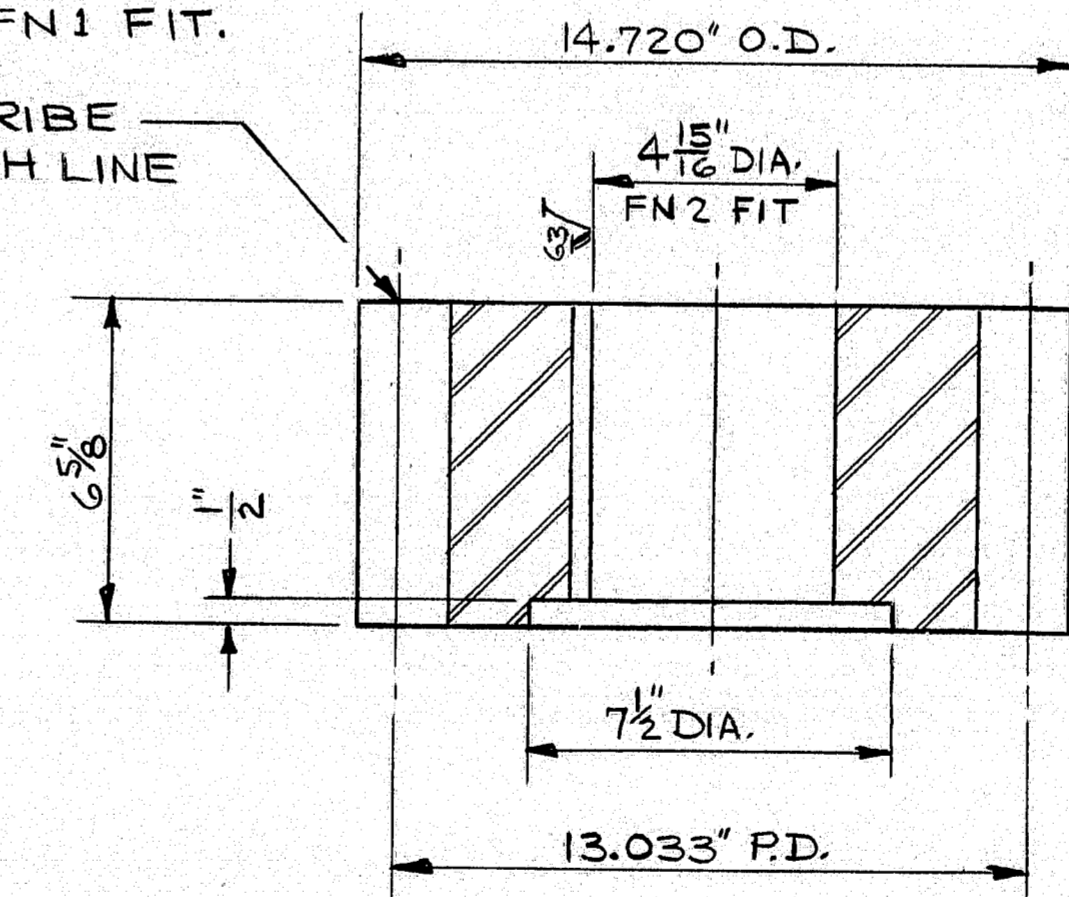
25 CUT TEETH PER SEGMENT
(300 TOTAL TEETH IN FULL CIRCLE)
2.8125" C.P., 20° P.A. SPECIAL
SEE FULL SIZE DETAIL

SCRIBE PITCH LINE

1/8" DIA. CORE
3-HOLES

1 1/2 x 7/8 KEYWAY
2 @ 120° APART
FOR 1 1/2 x 7/8 KEYS
PROVIDE AN
FN1 FIT.

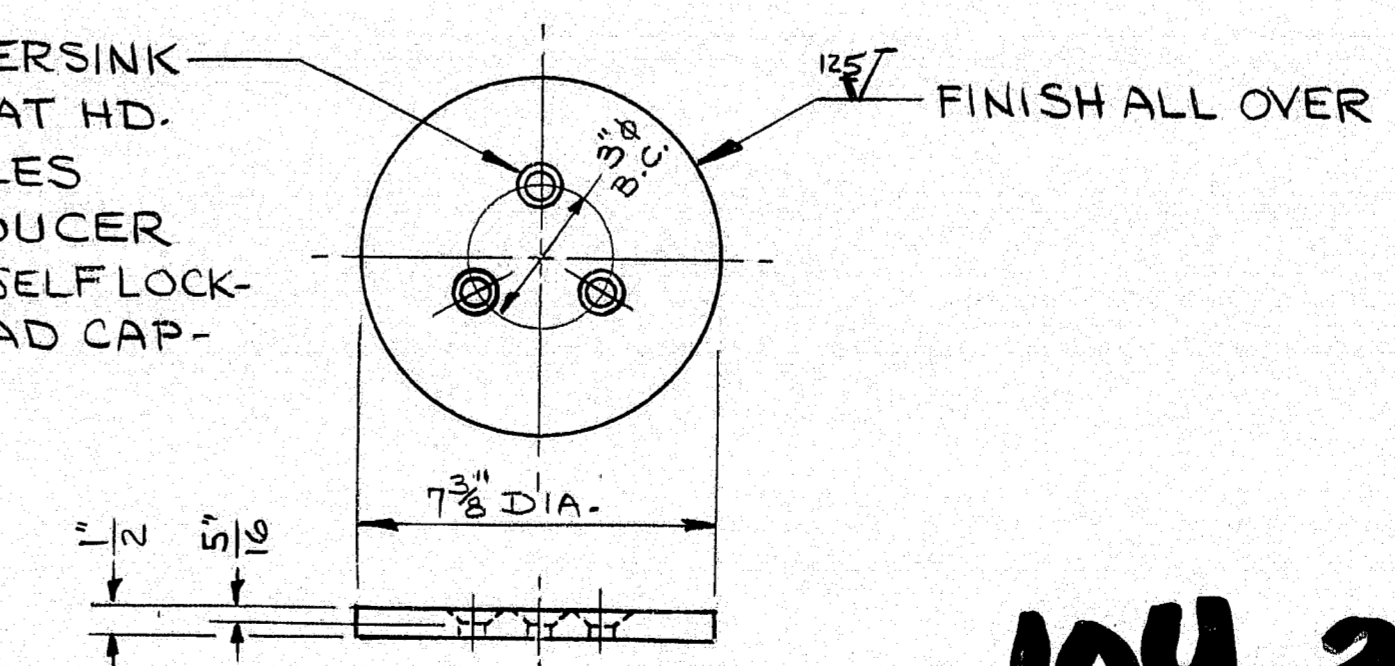
SCRIBE
PITCH LINE



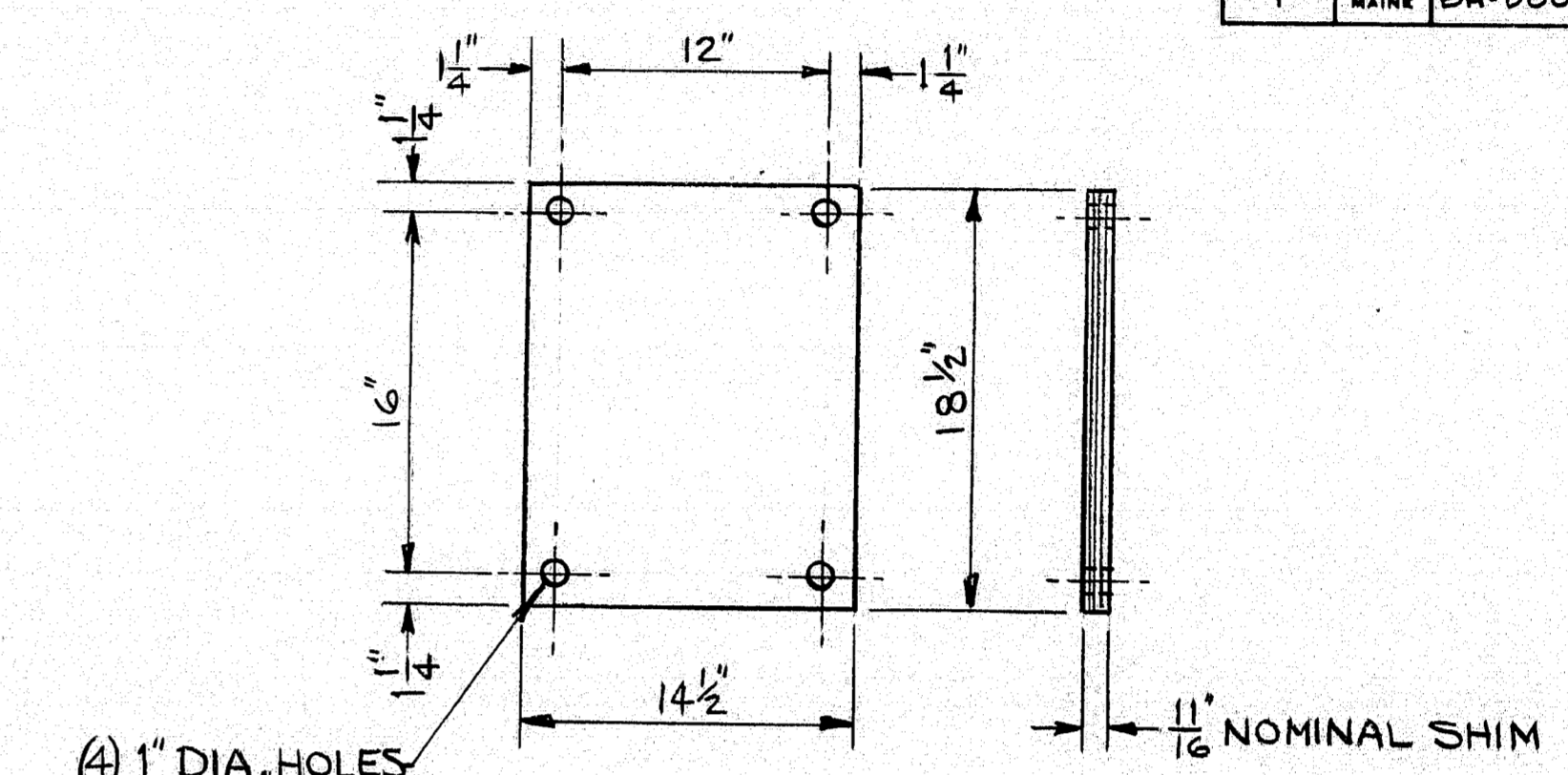
RACK PINION
2-REQUIRED F.S.
ASTM A668 CLASS C

FINISH ALL OVER
UNLESS NOTED
OTHER WISE

DRILL & COUNTERSINK
FOR 1/2" DIA. FLAT HD.
SCREW - 3 HOLES
TAP INTO REDUCER
SHAFT. USE SELF LOCK-
ING FLAT HEAD CAP-
SCREWS.



LOCK PLATE
2-REQUIRED STEEL
ASTM A36



BALANCE WHEEL BEARING BW1 SHIM
1 SET REQUIRED STAINLESS STEEL TYPE 304

NOTE:
ALL PARTS ARE NEW UNLESS
NOTED OTHERWISE.
REFERENCE - ORIGINAL EARLE GEAR
SHOP DRWG. 4240 E30 & 4241 E30

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SOUTHPORT BRIDGE
OVER
TOWNSEND CUT
BETWEEN THE TOWNS OF
SOUTHPORT & BOOTHBAY HARBOR
LINCOLN COUNTY
RACK, PINION & BALANCE WHEEL
SHIM DETAILS

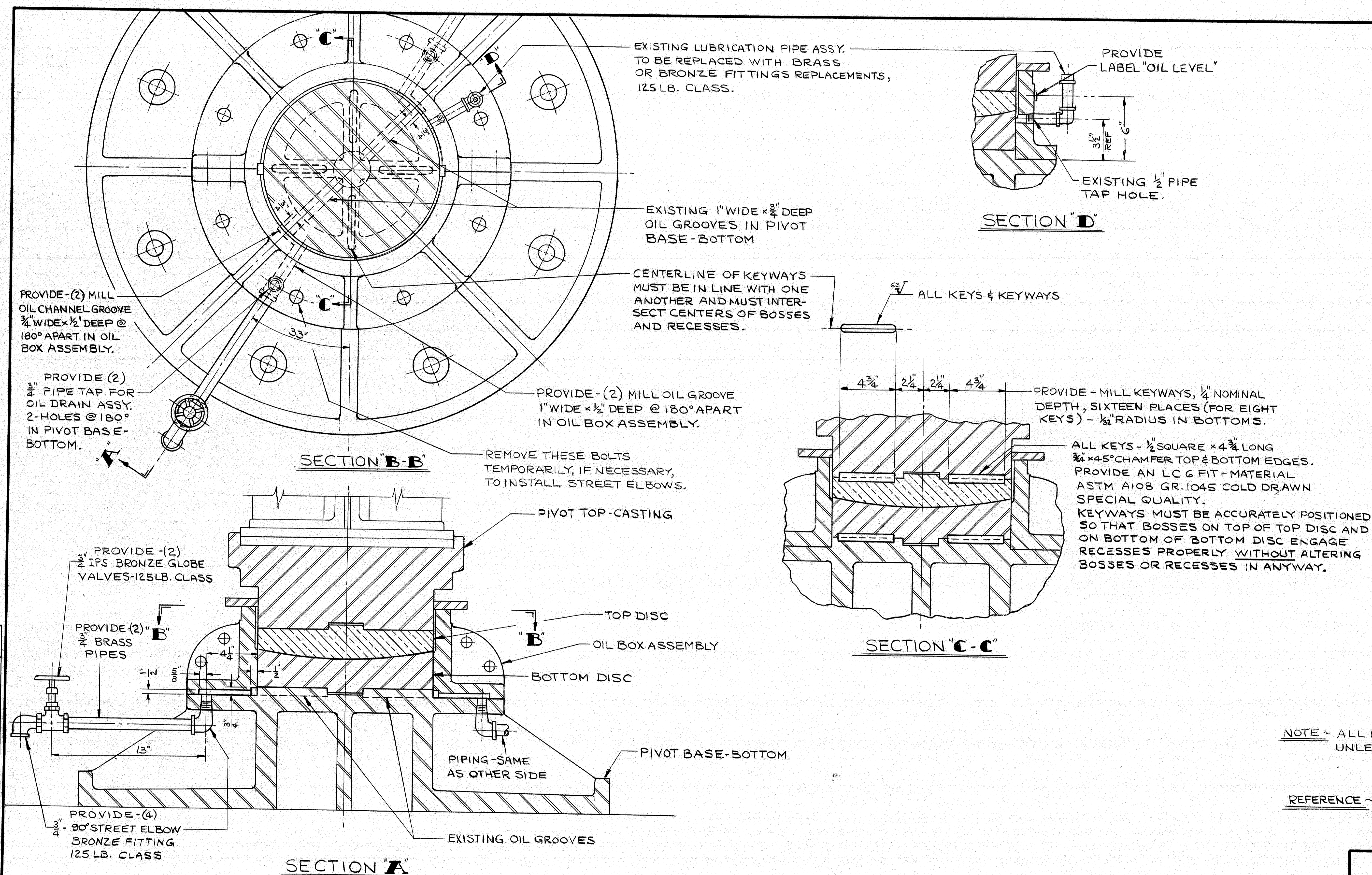
SHEET 20 OF 24 AUGUSTA, MAINE
NGI JOB NO 20931

104-375

PROJECT DESIGN ENGINEER	DATE
PLANS	FEB. 25, 1955
DESIGN DETAIL	2.13.51
CHECKED	2.13.51
REVISIONS	2.13.51
FIELD CHANGES	2.13.51

BRUNING 44 132 4570-1

F.W.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	24-0005(49)	23	32



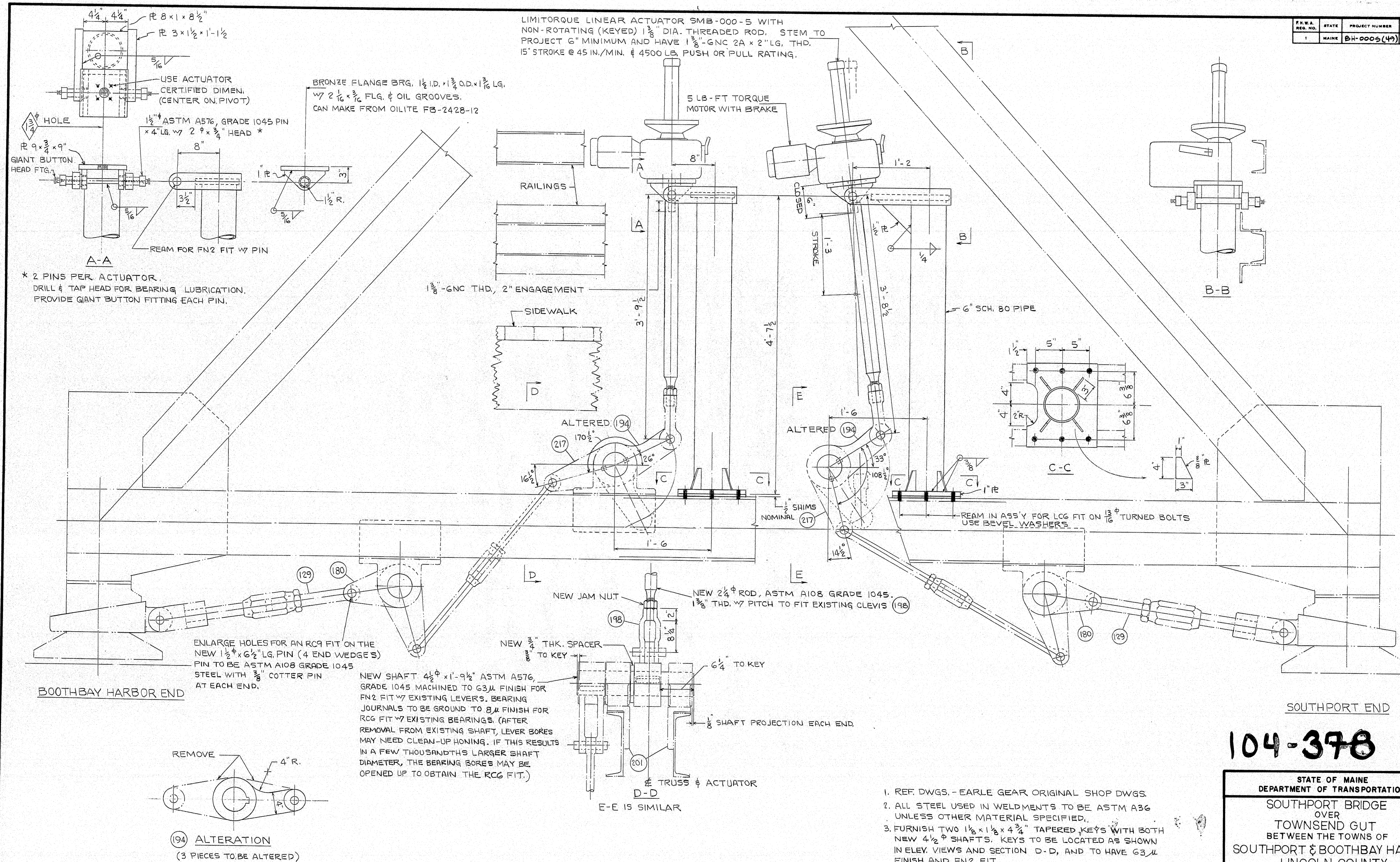
NOTE ~ ALL PARTS ARE EXISTING UNLESS NOTED OTHERWISE.

REFERENCE ~ ORIGINAL EARLE GEAR SHOP DRWG. 4-240E 30 & 4241E 30

104-376

STATE OF MAINE DEPARTMENT OF TRANSPORTATION SOUTHPORT BRIDGE OVER TOWNSEND GUT BETWEEN THE TOWNS OF SOUTHPORT & BOOTHBAY HARBOR LINCOLN COUNTY CENTER BEARING ALTERATIONS REQUIRED SHEET 21 OF 24 AUGUSTA, MAINE NGI JOB NO 20931
--

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0005 (49)	25	32



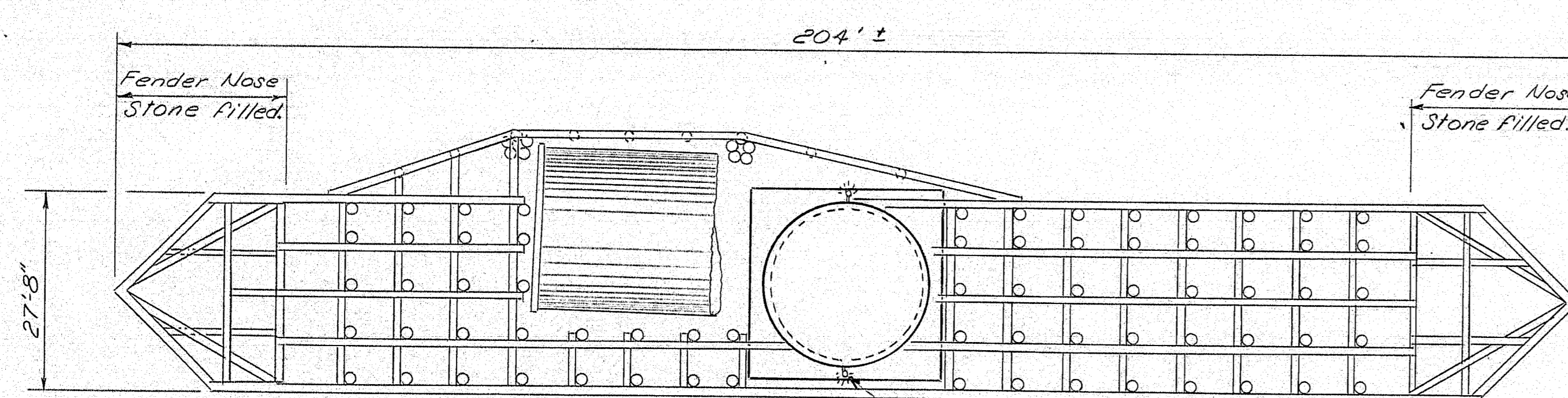
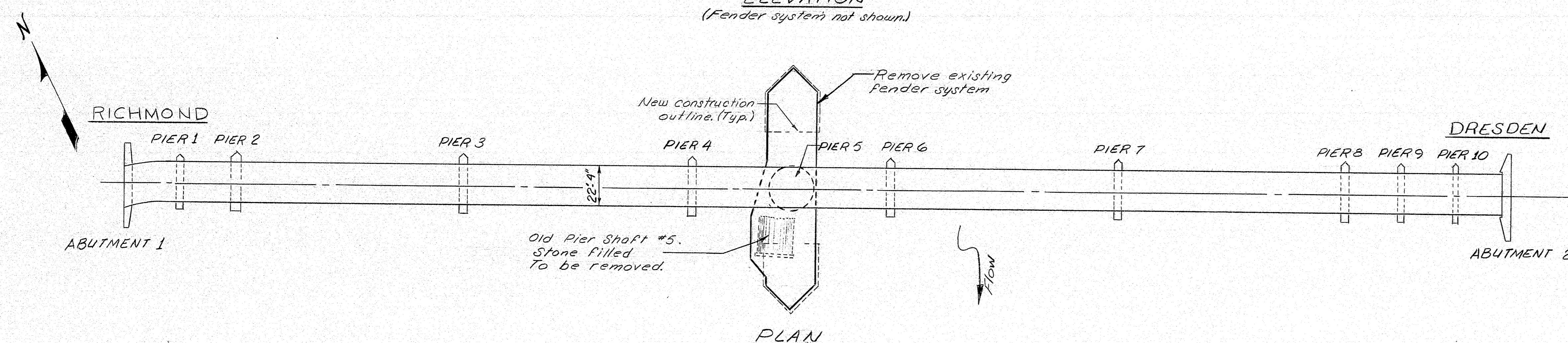
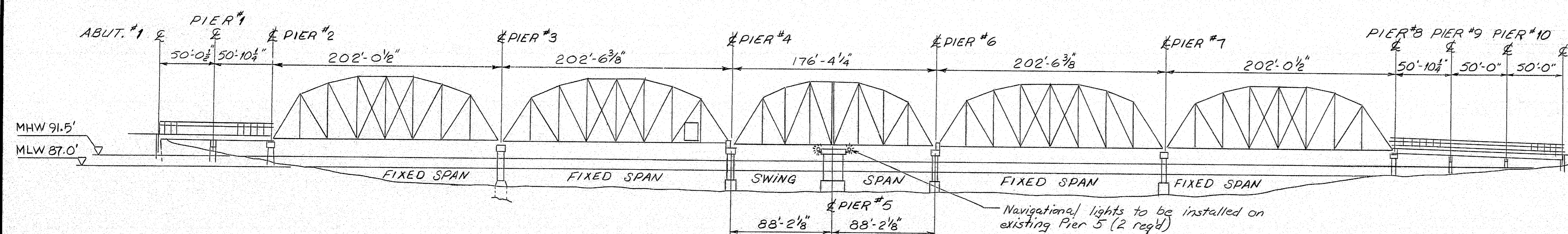
F.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	84-0169(4)	27	32

DESIGN SPECIFICATIONS

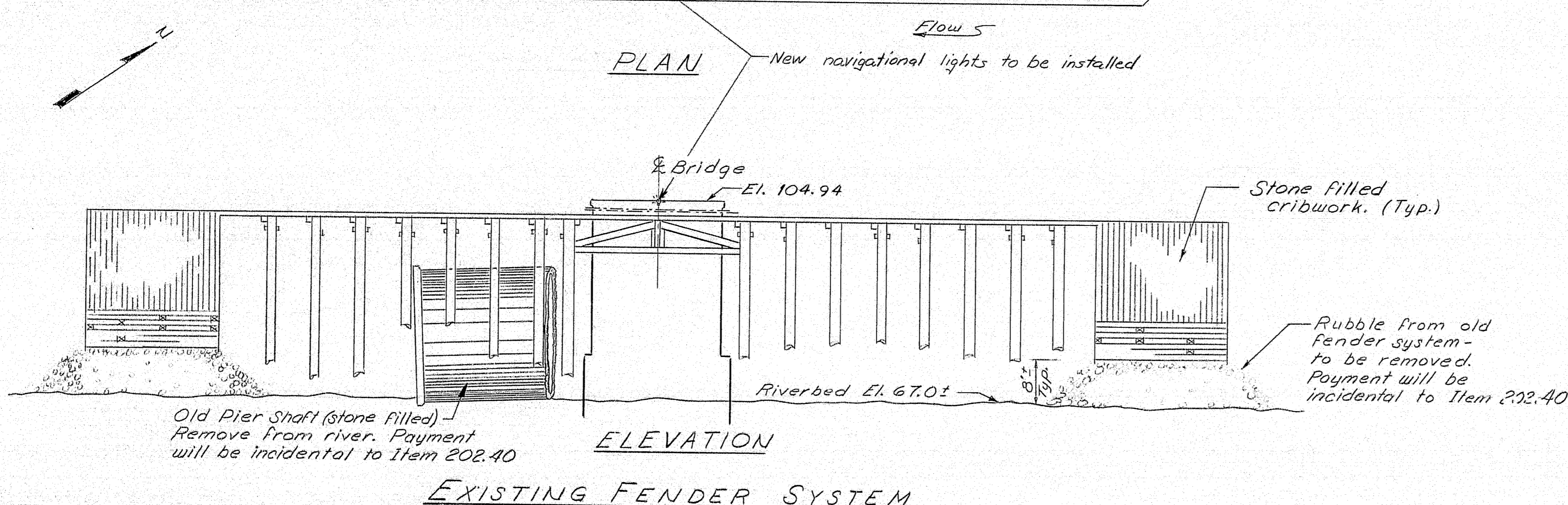
MATERIAL			STRESS
Concrete:	Pipe Pile	Class Y	$f'_c = 3,000 \text{ psi}$
	Cap	Class A	$f'_c = 3,000 \text{ psi}$
Reinforcing Steel:		ASTM A615 Grade 60	$F_y = 60,000 \text{ psi}$
Structural Steel:	Pipe Pile	ASTM A252 Grade 2	$F_y = 35,000 \text{ psi}$
	H.S. Bolts	ASTM A325 Type 1 Galv.	$F_y = 25,000 \text{ psi}$
	All Other	ASTM A36	$F_y = 36,000 \text{ psi}$

NAVIGATIONAL LIGHTING NOTES

- 1) All junction boxes for the navigational lighting shall be peraloy heavy-duty 8"x8"x4" watertight junction boxes flanged for surface mounting onto existing Pier 5 or new Pier Dolphins.
- 2) The submarine cable shall be 9C #10 THWN stranded copper wire, 2000 V rated.
- 3) The Contractor shall be responsible for the determination of the length of wiring required, the furnishing and installing of all wiring and materials, and the proper connection to the existing power source for the navigational lights.
- 4) The navigational lights required are 4-180° red pier lights.
- 5) The Contractor may utilize the existing navigation lights to satisfy the temporary navigation lighting requirements. He shall assume responsibility for their operation and maintenance until their removal is so directed by the Engineer.



NOTE: Payment for the removal of the existing fender system will be made under Item 202.40 Removing Existing Fender System.



Plans as built for Fender System.
Rufus 9/19/92

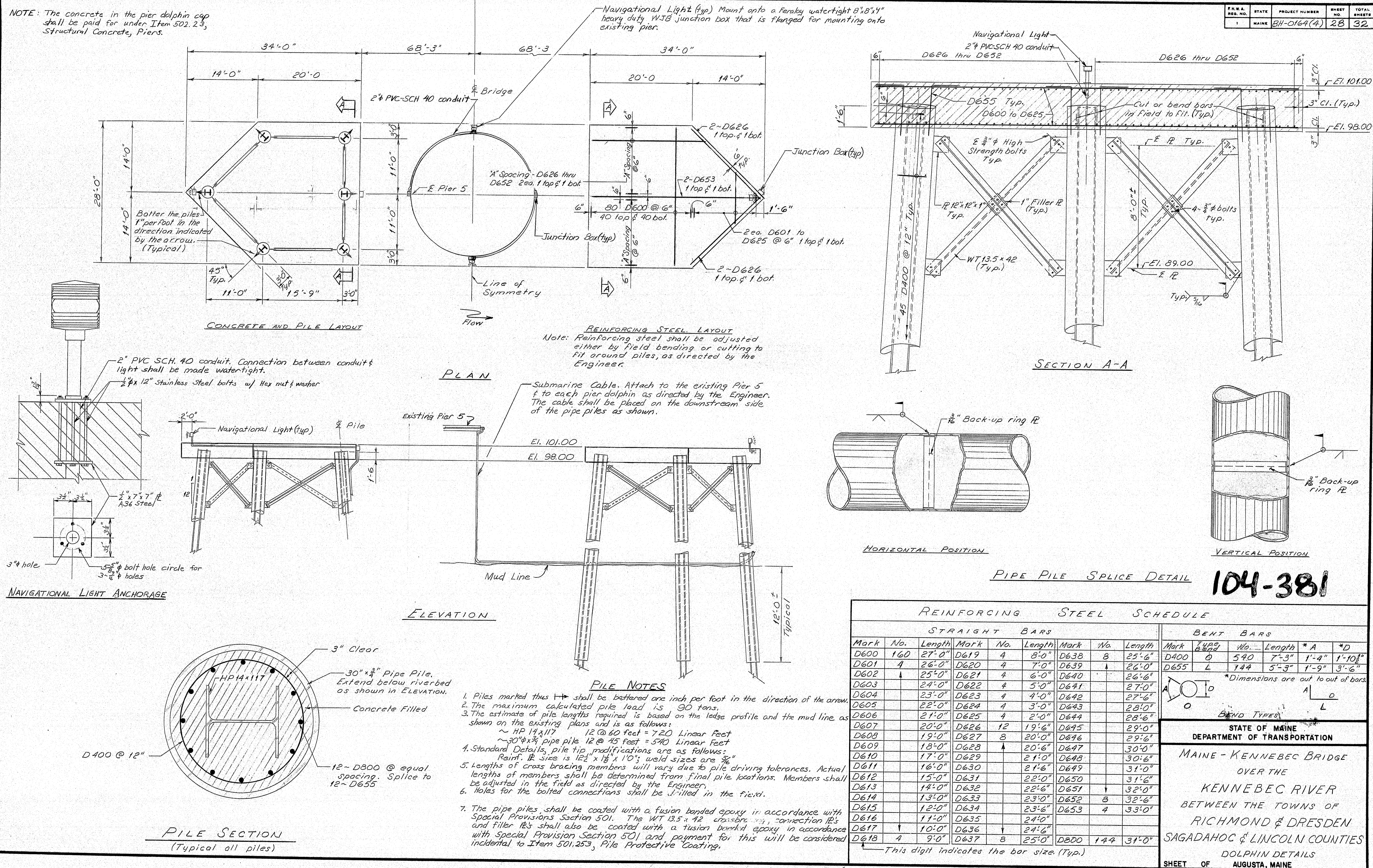
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
MAINE - KENNEBEC BRIDGE OVER THE KENNEBEC RIVER BETWEEN THE TOWNS OF RICHMOND & DRESDEN SAGadahoc & LINCOLN COUNTIES EXISTING FENDER SYSTEM	
SHEET	OF AUGUSTA, MAINE

104-380

PROJECT DESIGN ENGINEER	DATE
BY	1-96
DESIGN - DETAILED	1-96
CHECKED	1-96
REVISIONS	1-96
FIELD CHANGES	1-96

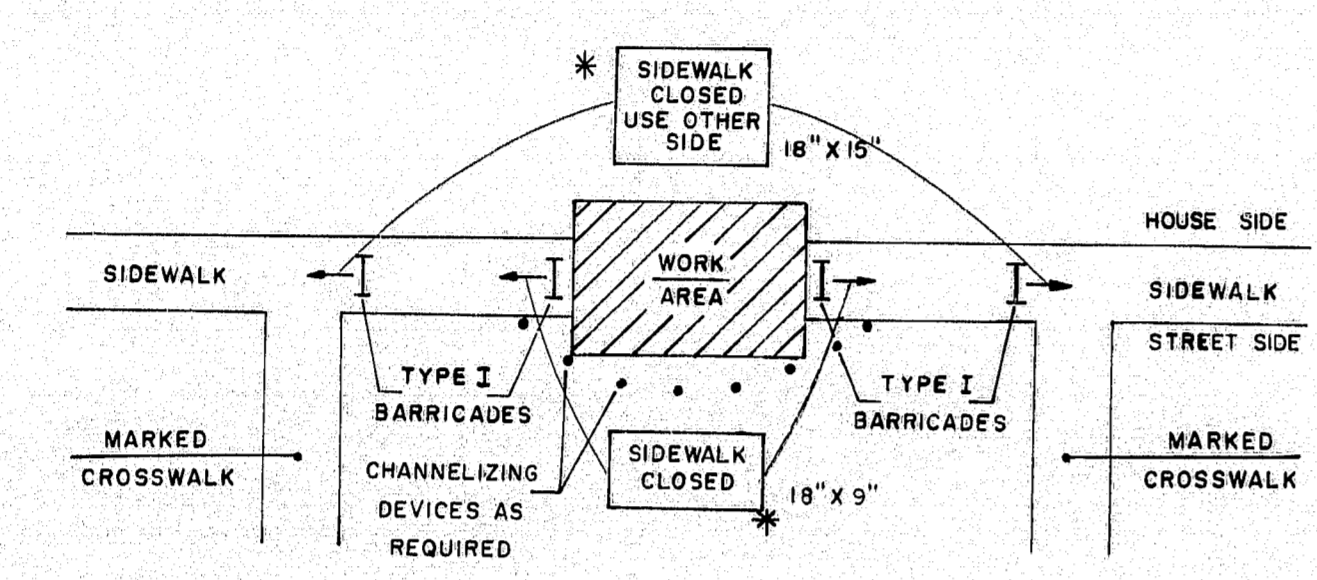
BRUJING 44-132-45710-1

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0164(4)	28	32

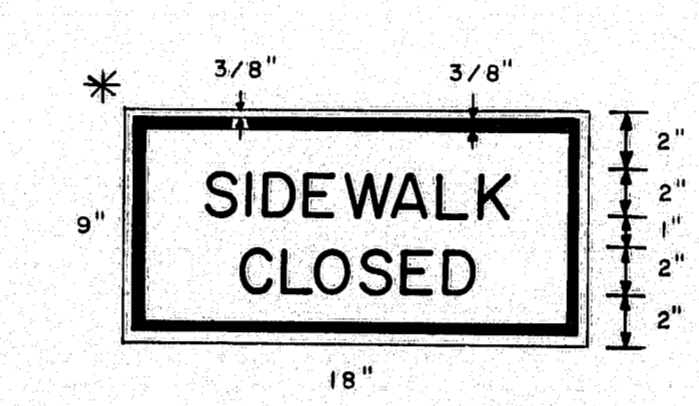
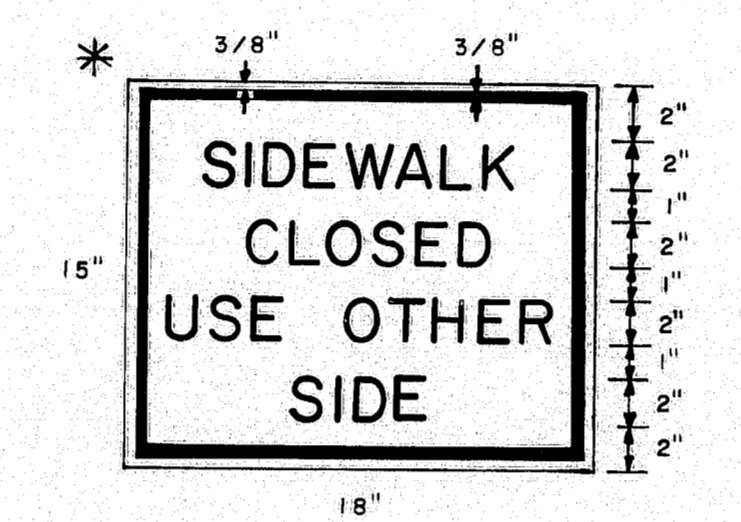


F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	24-003 (3)	30	32

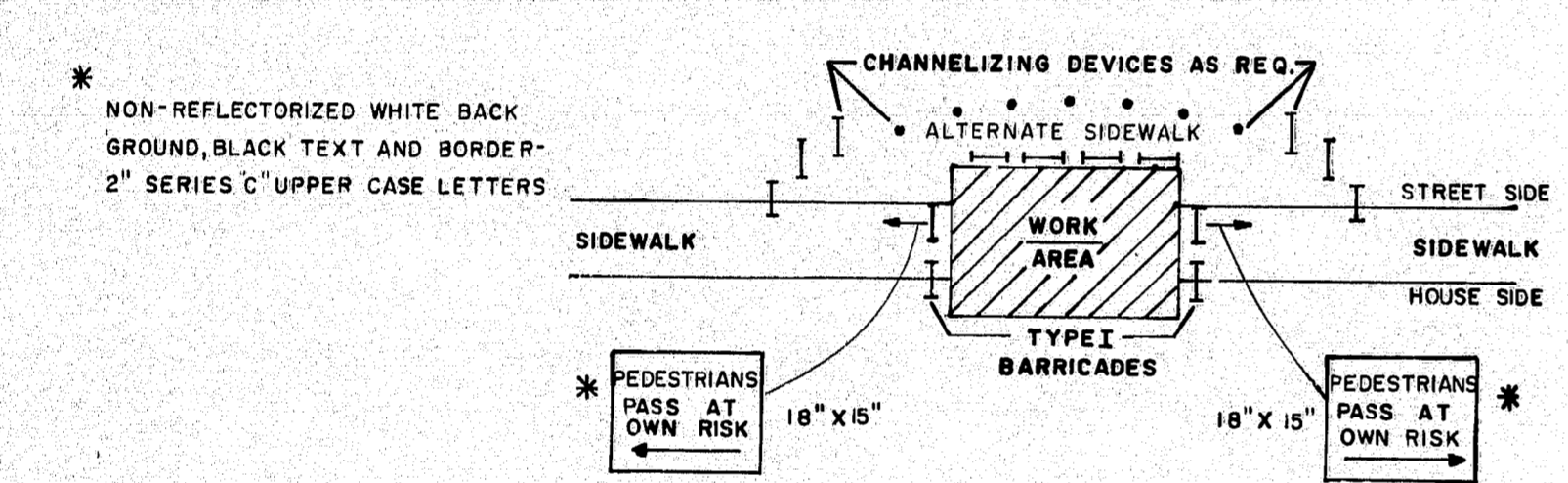
* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT
AND BORDER 2" SERIES C UPPER CASE LETTERS



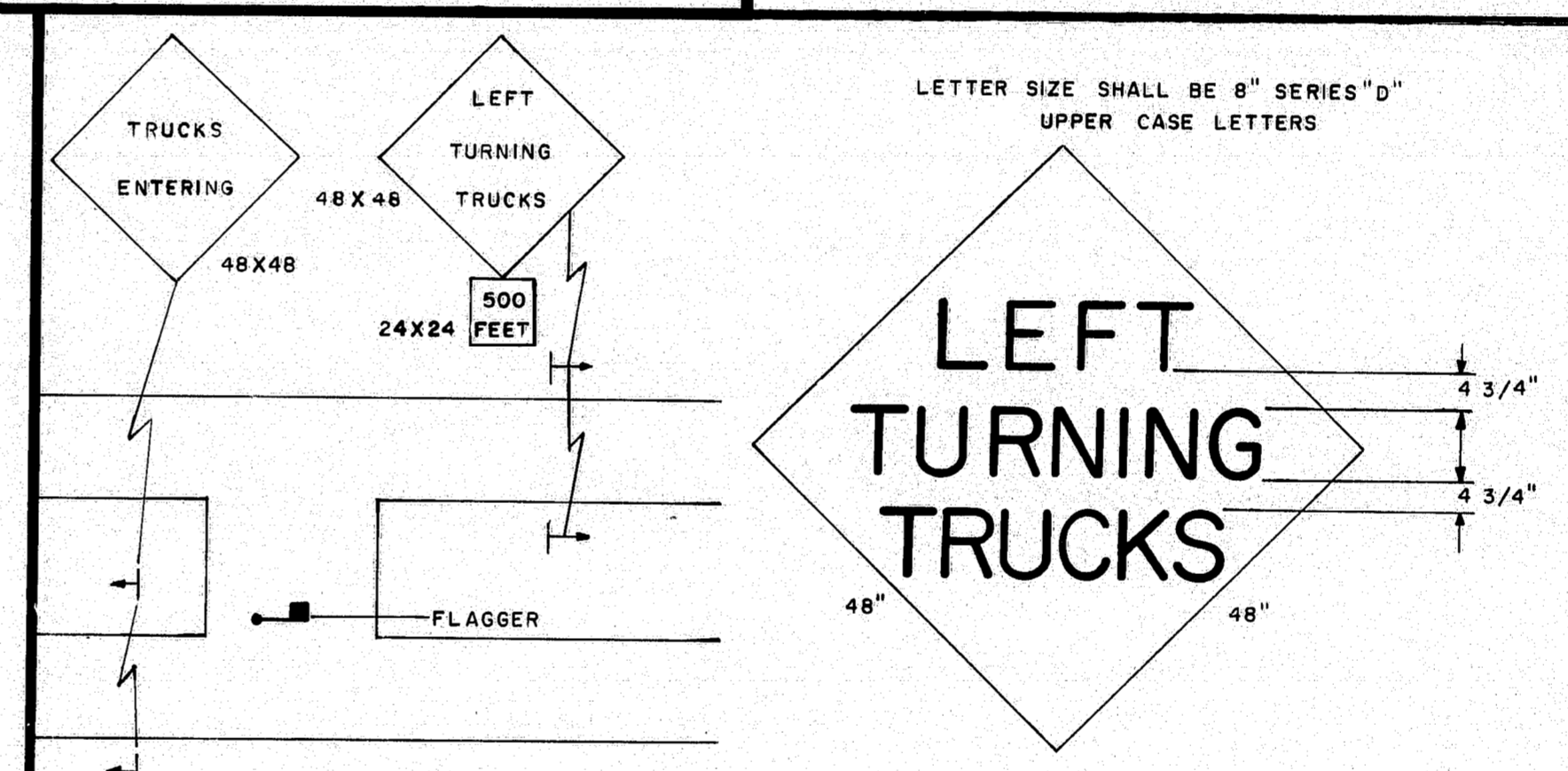
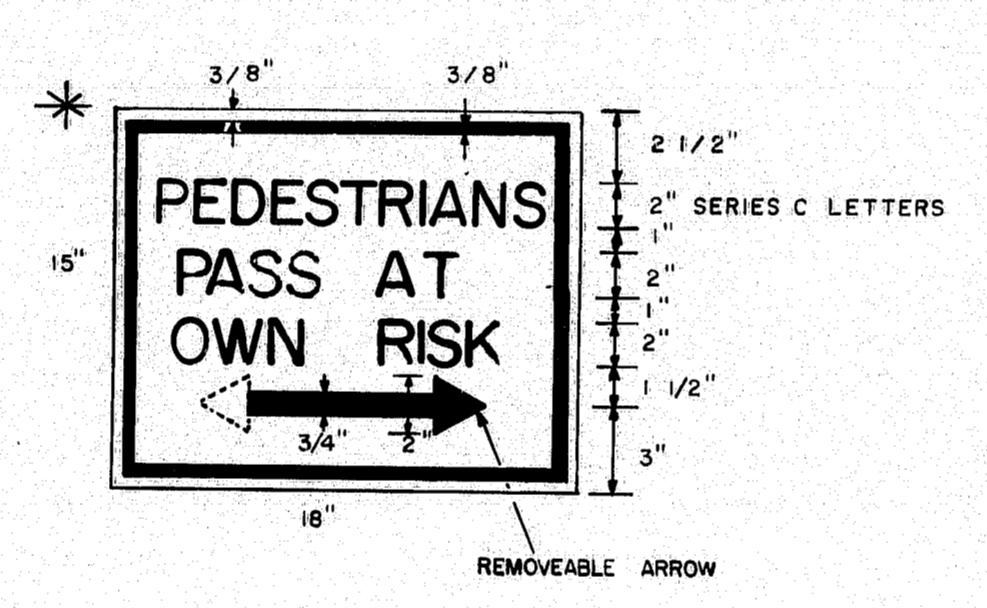
**SIDEWALK CLOSURE
WITHOUT ALTERNATE SIDEWALK**



A



**SIDEWALK CLOSURE
WITH ALTERNATE SIDEWALK**



MEDIAN CROSSOVER

GENERAL NOTES

- Distances shown for sign placement are nominal, exact locations shall be determined by the Engineer.
- Grades on temporary roadways through the construction zone used by the public shall not exceed 10 percent.
- Advisory speed consistent with prevailing conditions shall be as determined by the Engineer.
- Use shaded signs when specified in the Special Provisions.
- The length of tapers shall be determined from the following formulae:

If S is equal to or less than 40 MPH

$$L = (W \times S \times S) / 60$$

If S is equal to or greater than 45 MPH

$$L = WS$$

Where:

L = taper length in feet
S = operating speed in MPH
W = width of roadway to be closed in feet

Taper lengths shall be rounded to the nearest five feet.

It may be required to extend lane closure tapers to provide a smooth transition where geometric alignment reduces sight distance.

- The maximum longitudinal spacing of channelizing devices shall conform to the following:

- 50 feet through work areas
- A distance in tapers equal to the numerical value of the operating speed, i.e., 45 MPH = 45 feet
- In all areas not covered above maximum spacing shall be as follows:

Radius of curve	Spacing
50' to 300'	25'
300' to 700'	50'
700' to 1000'	75'
over 1000'	5 times the operating speed

The maximum transverse spacing in tapers shall be determined from the following formula:

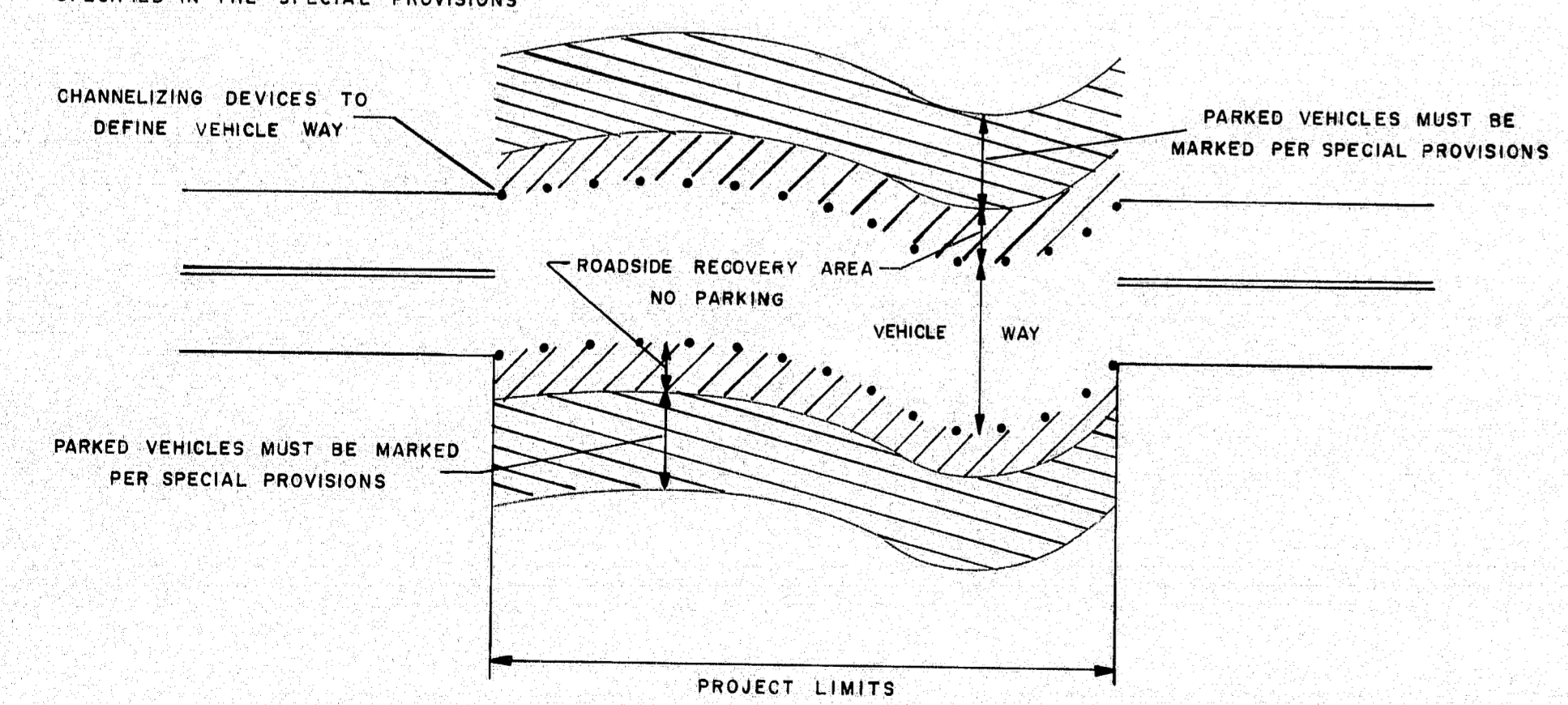
$$D = (W \times S) / L$$

Where:

D = transverse spacing in feet
W = width of roadway to be closed in feet
L = taper length in feet
S = operating speed in MPH

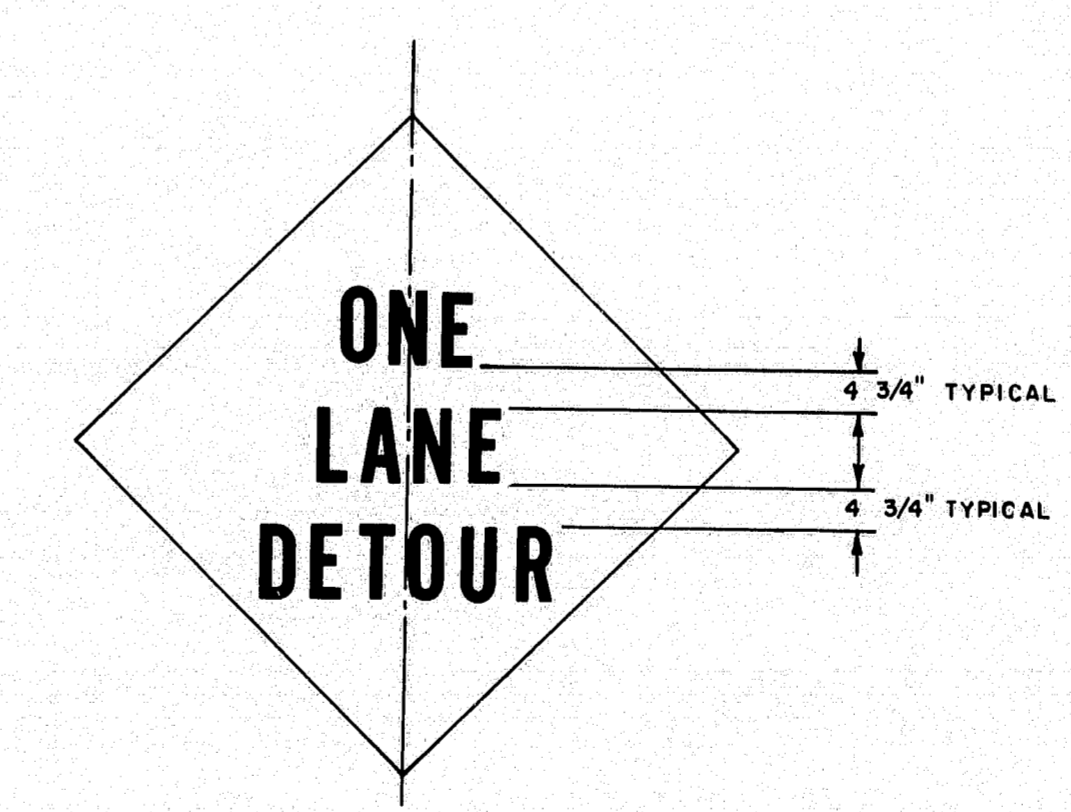
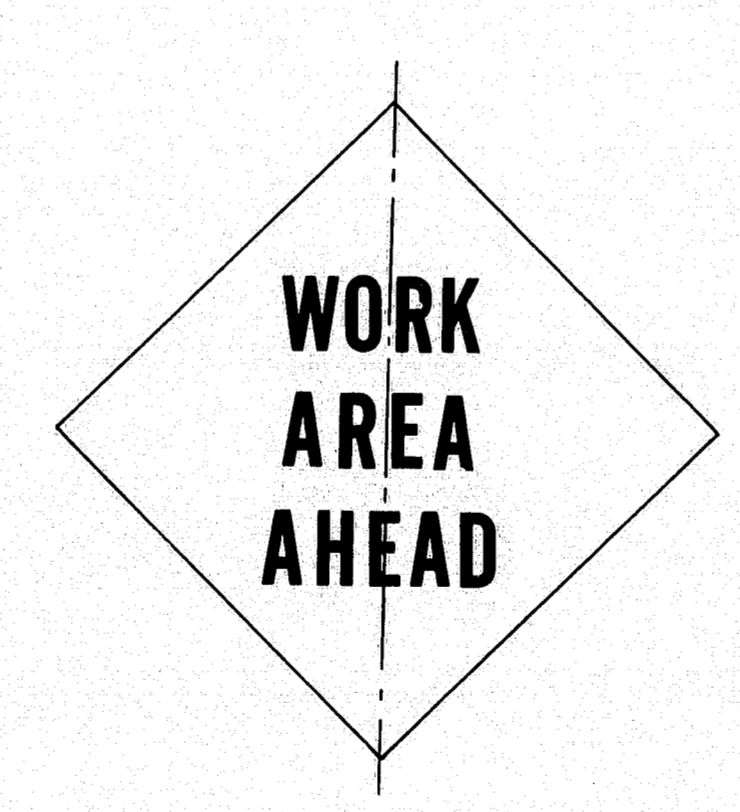
- BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS BOOKLET.

ALL DIMENSIONS AND OTHER REQUIREMENTS AS SPECIFIED IN THE SPECIAL PROVISIONS



ROADSIDE RECOVERY AREA

CONSTRUCTION WARNING SIGN DETAIL



- Letter size shall be 8" Series 'D'.
- Border dimensions and legend design shall conform to "Standard Highway Signs".

D

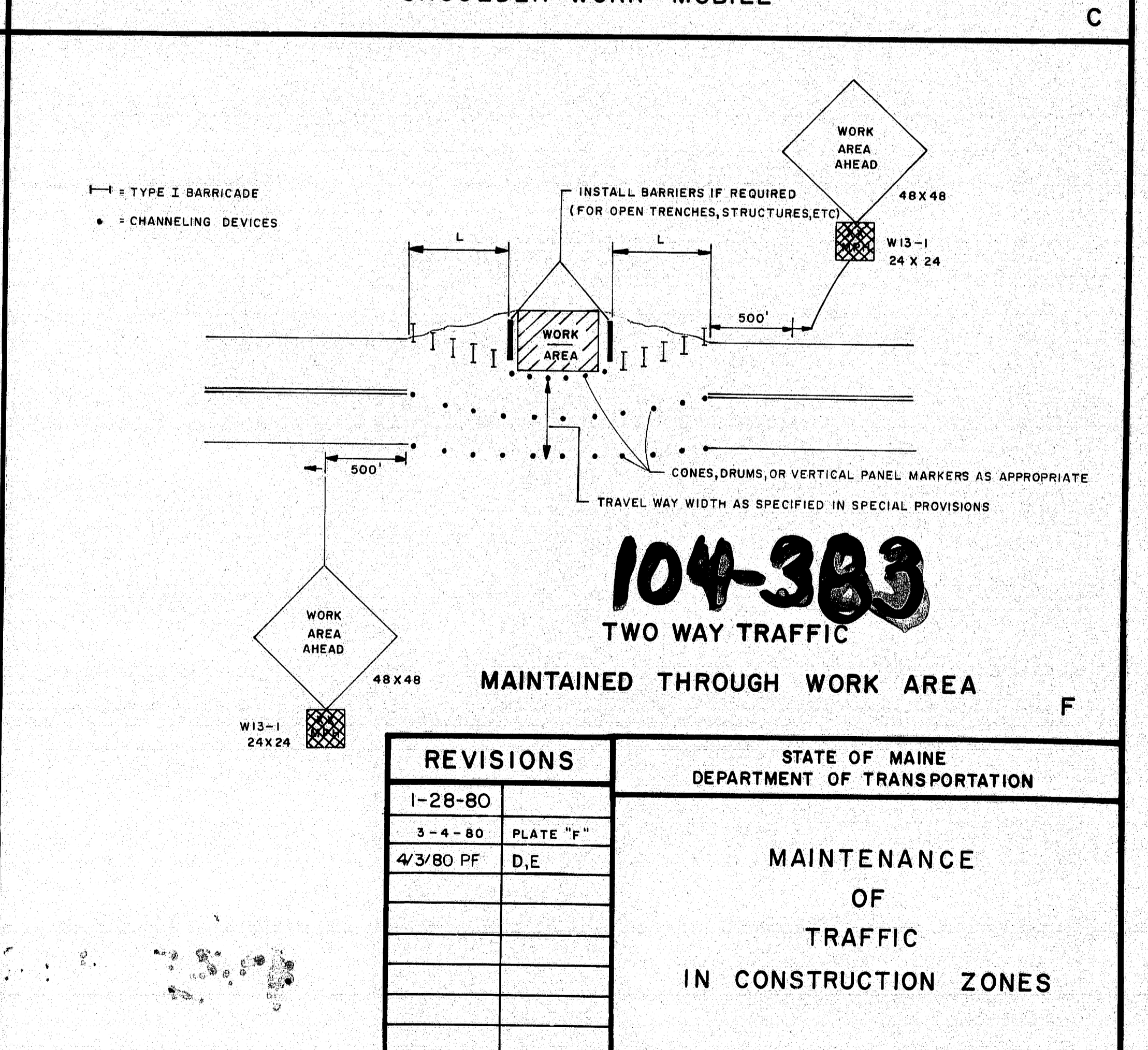
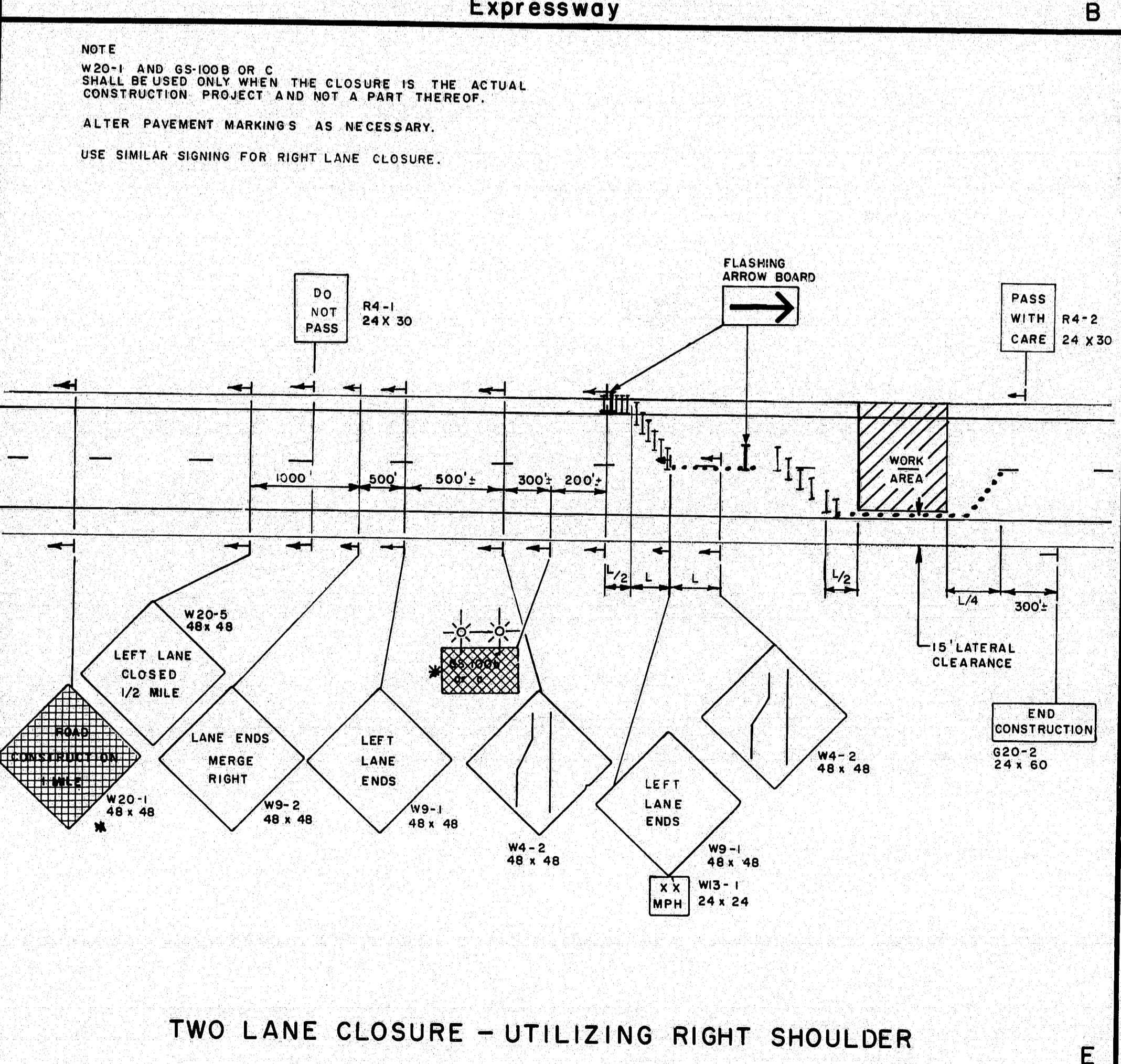
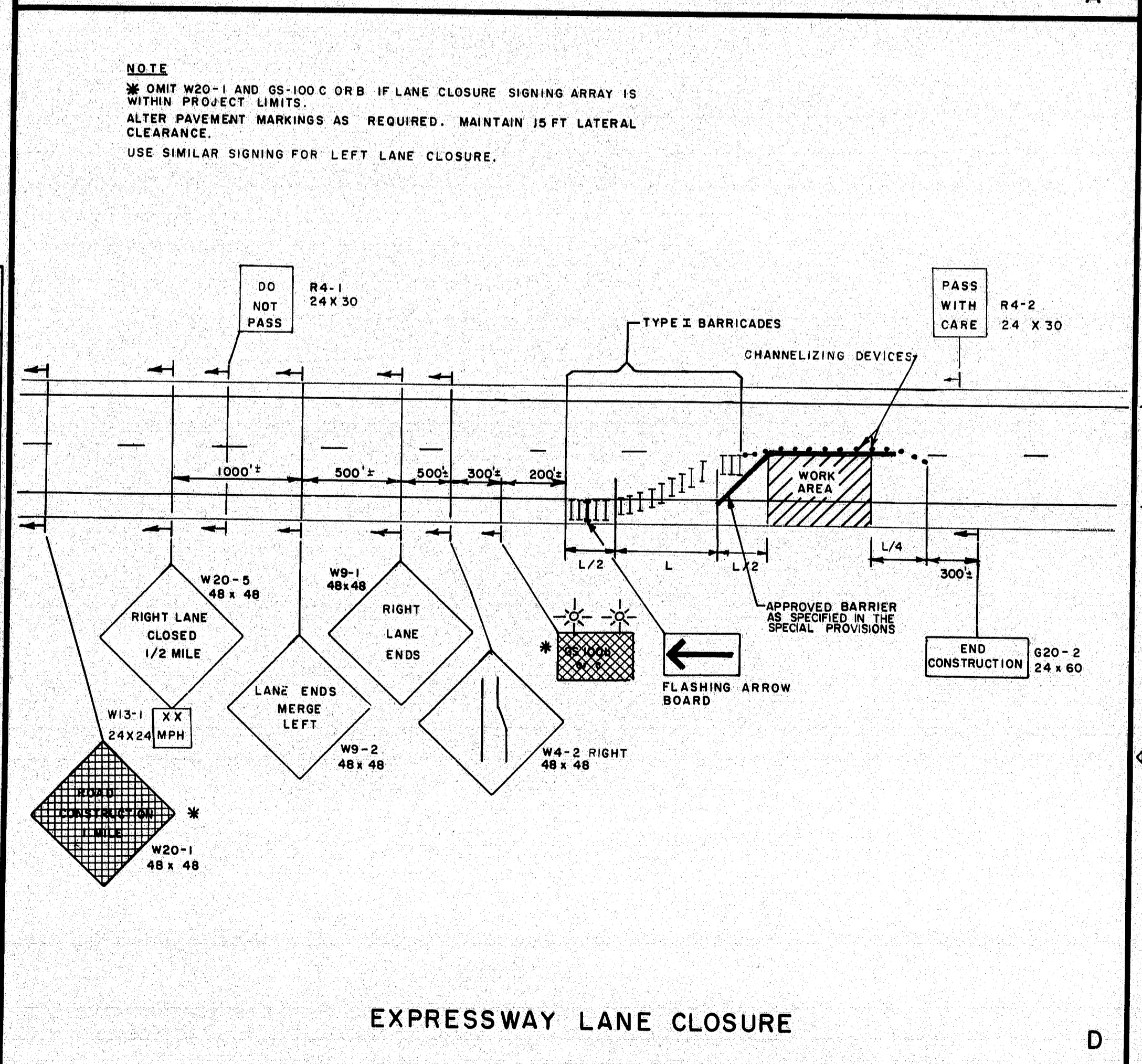
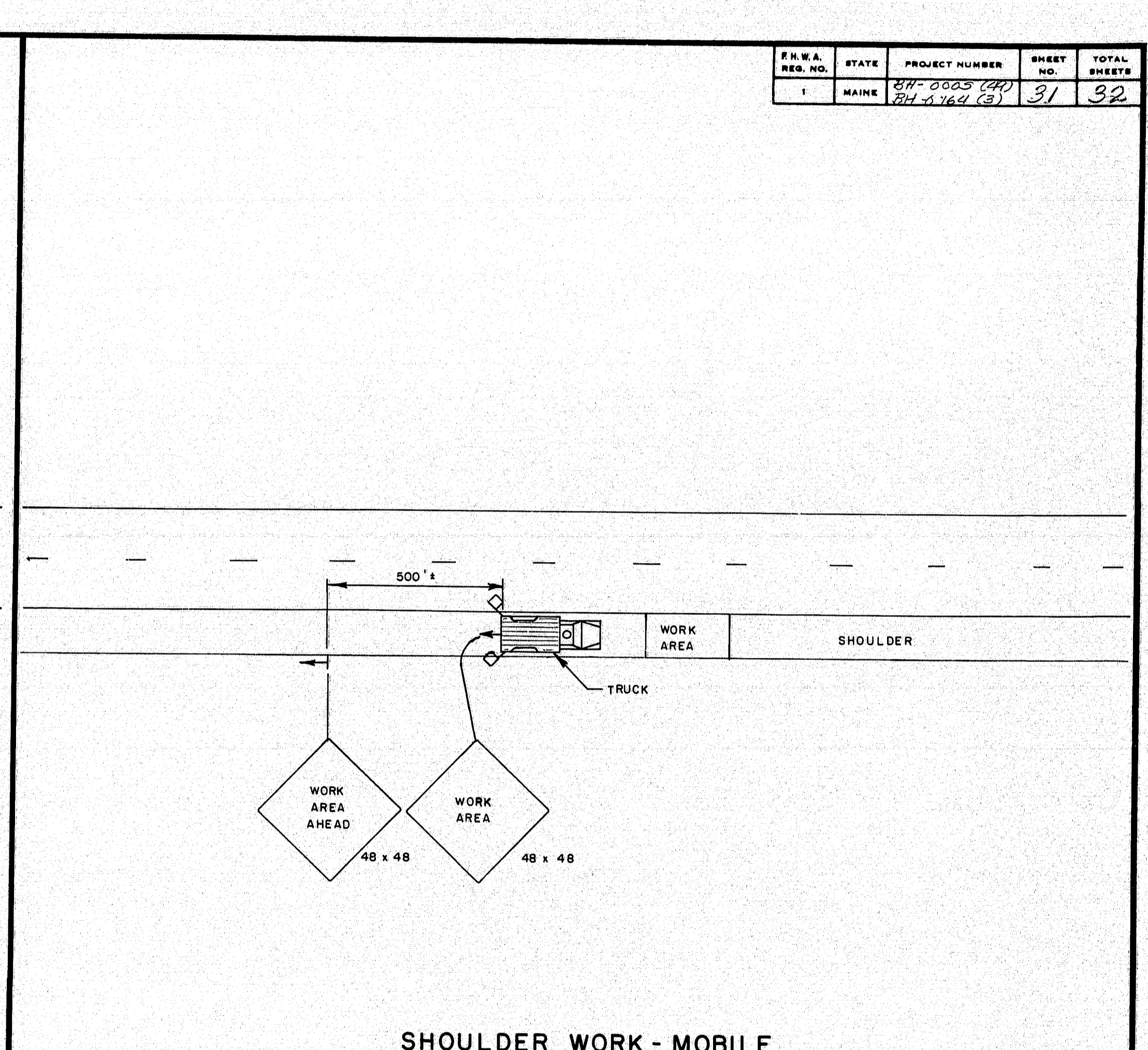
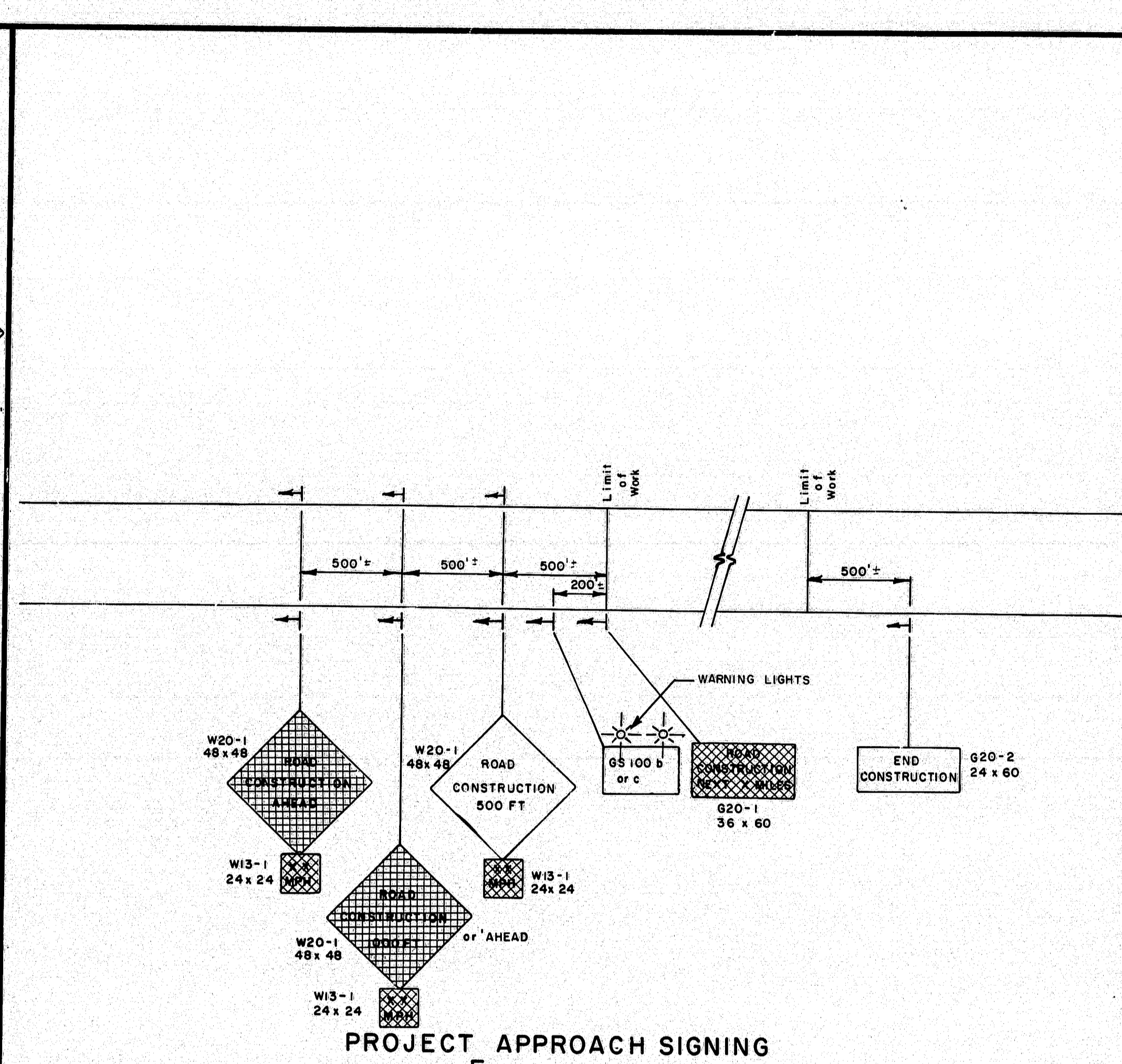
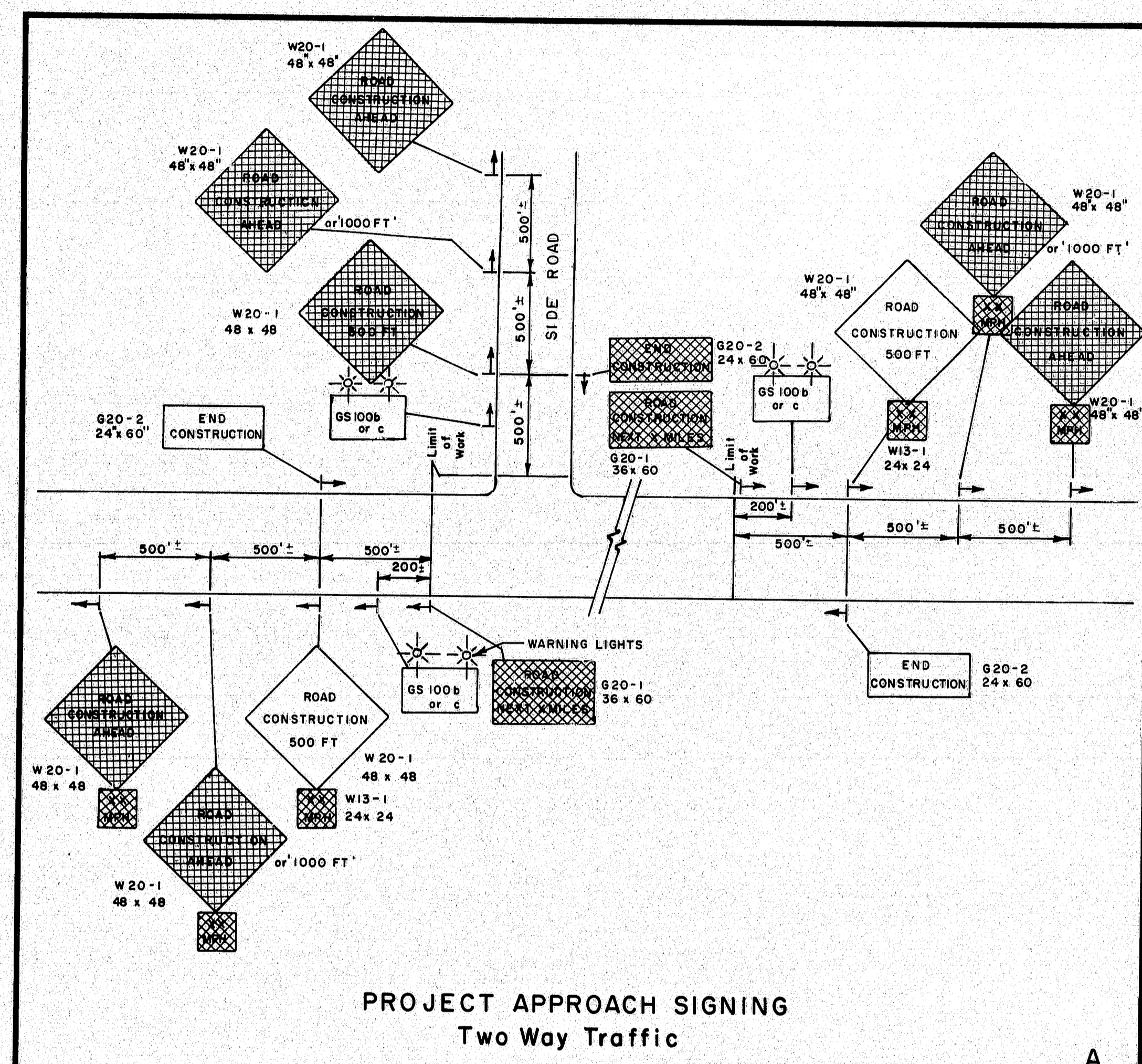
PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
REVISIONS	
FIELD CHANGES	

104-382

REVISIONS	
3-4-80	GENERAL NOTES
4/3/80 PF	A,B,C,G,N

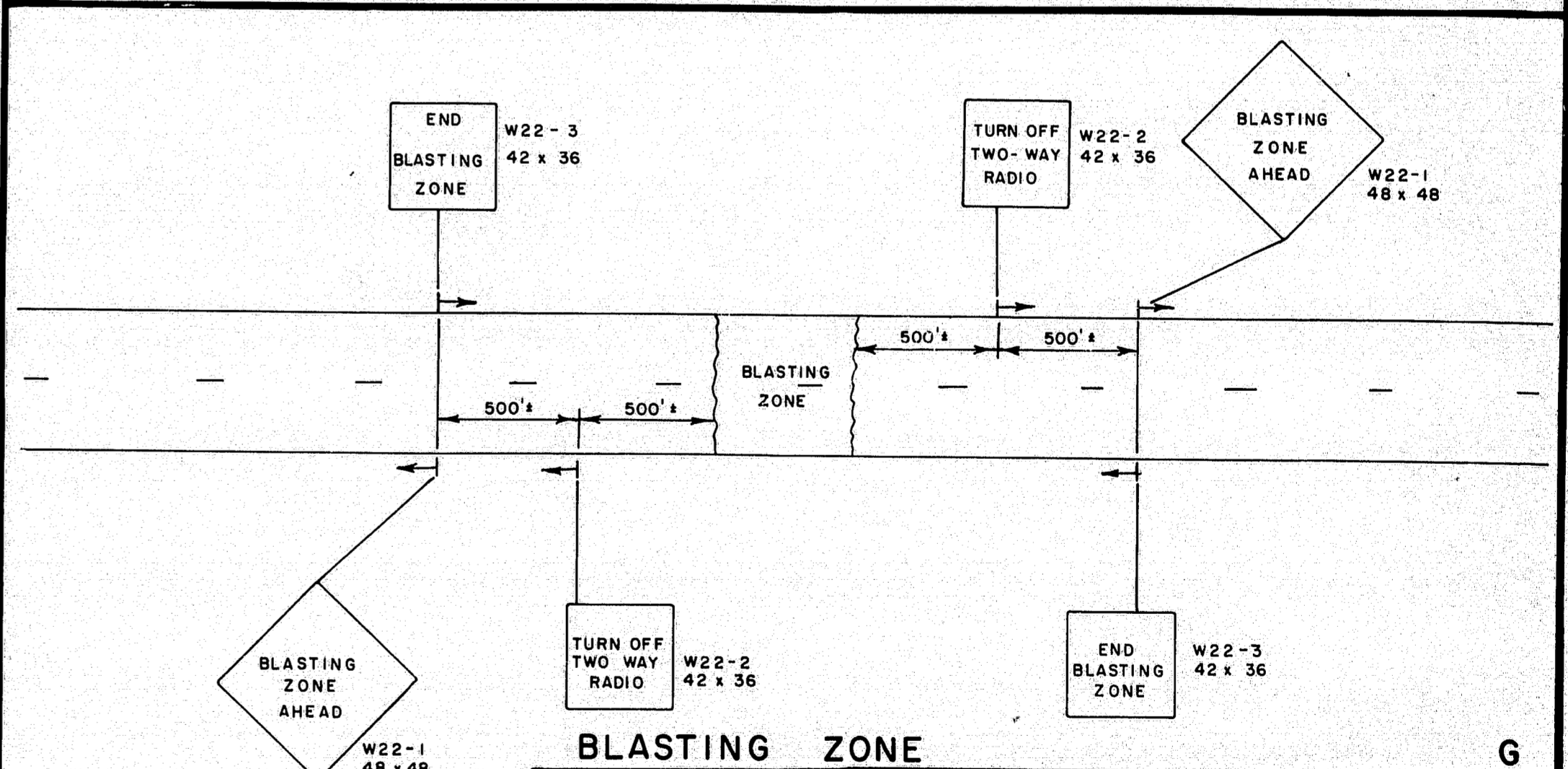
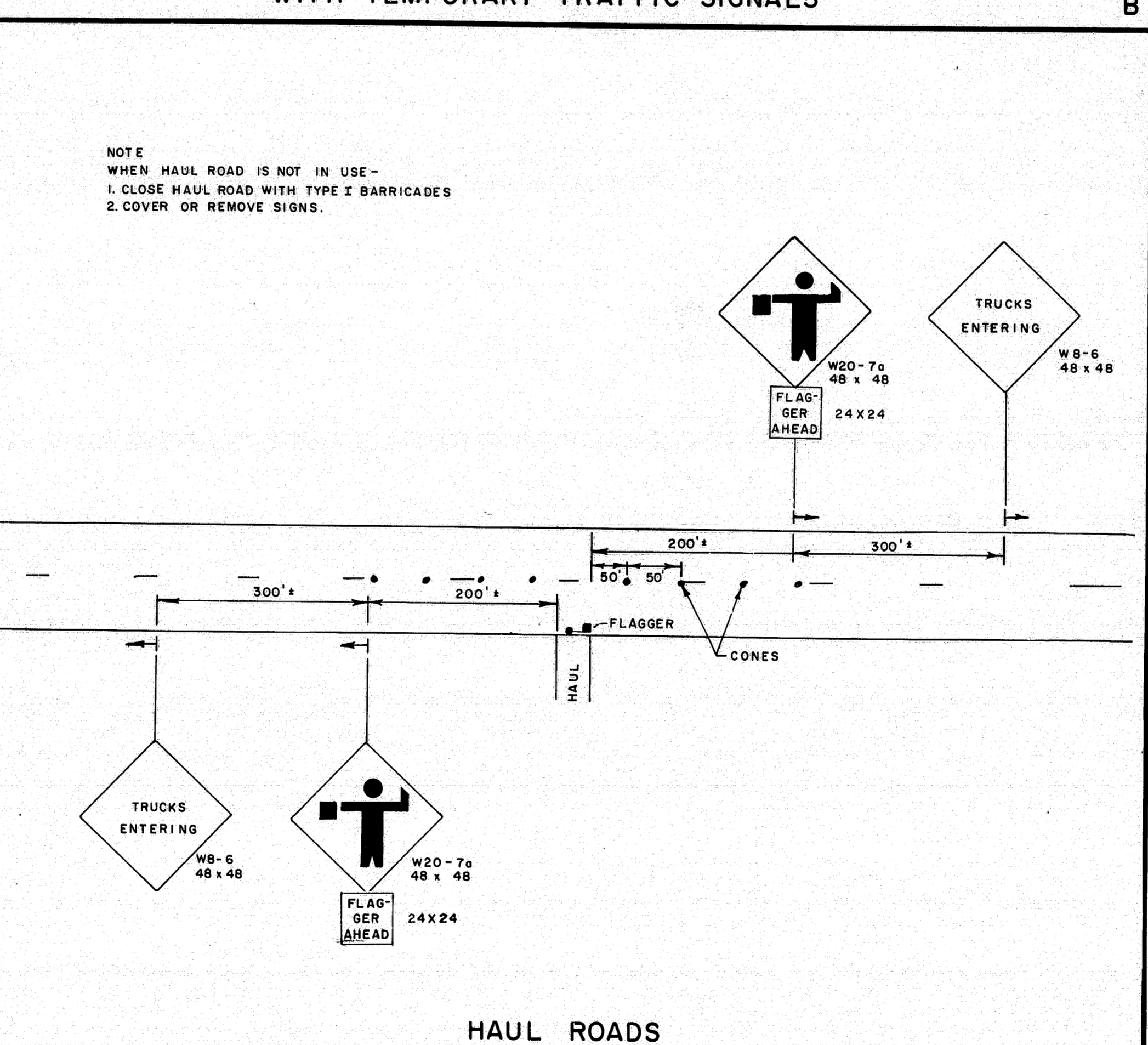
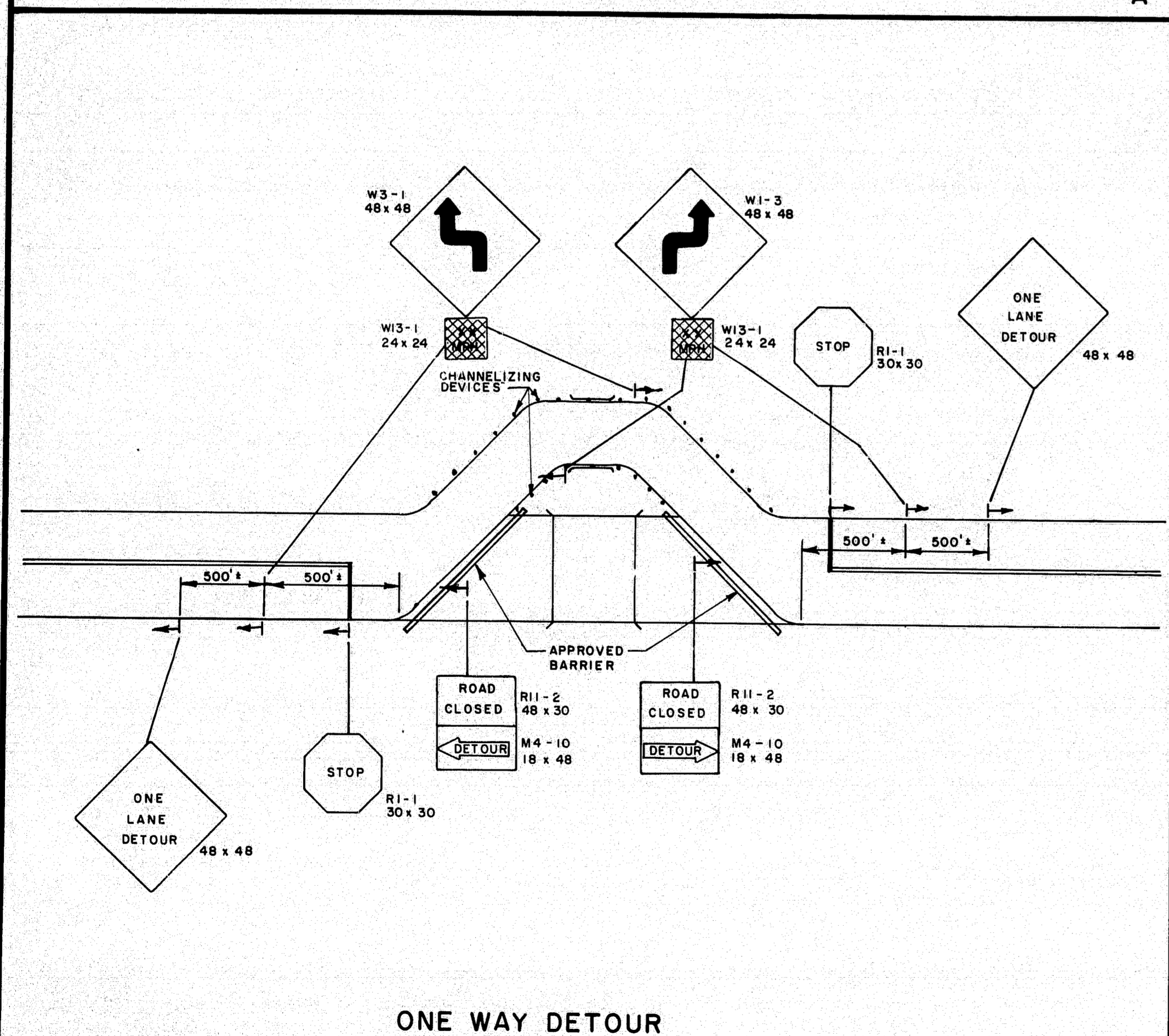
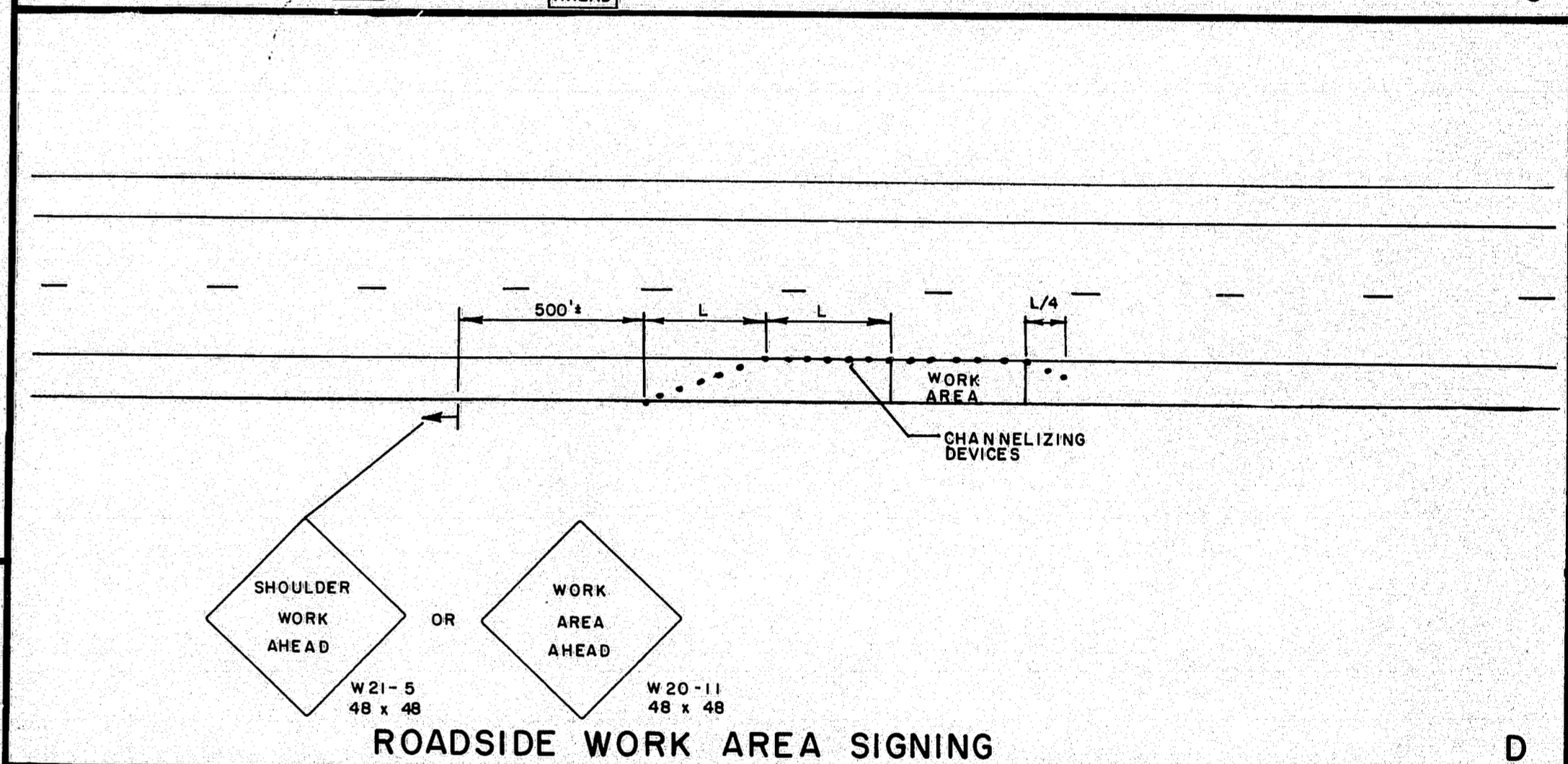
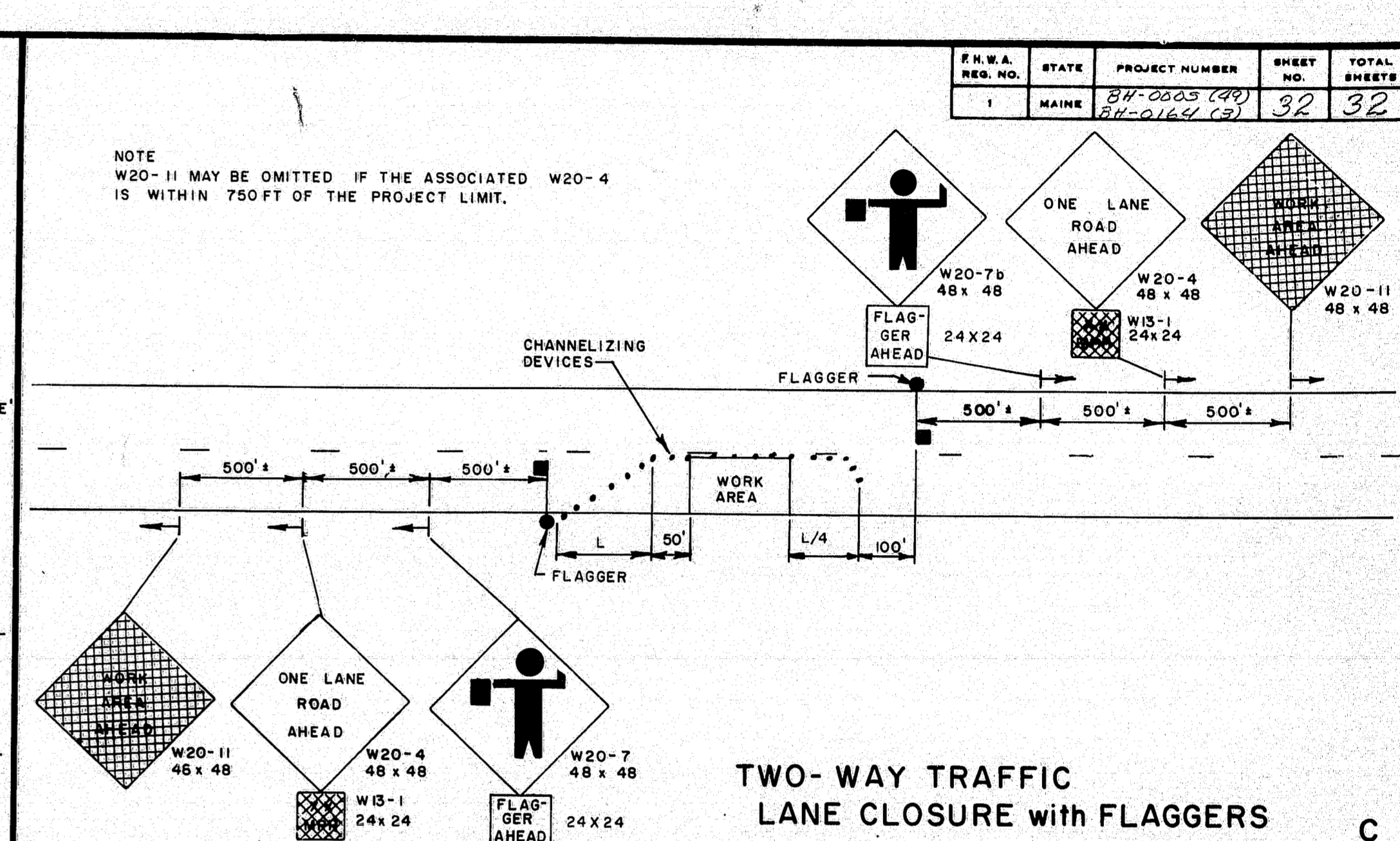
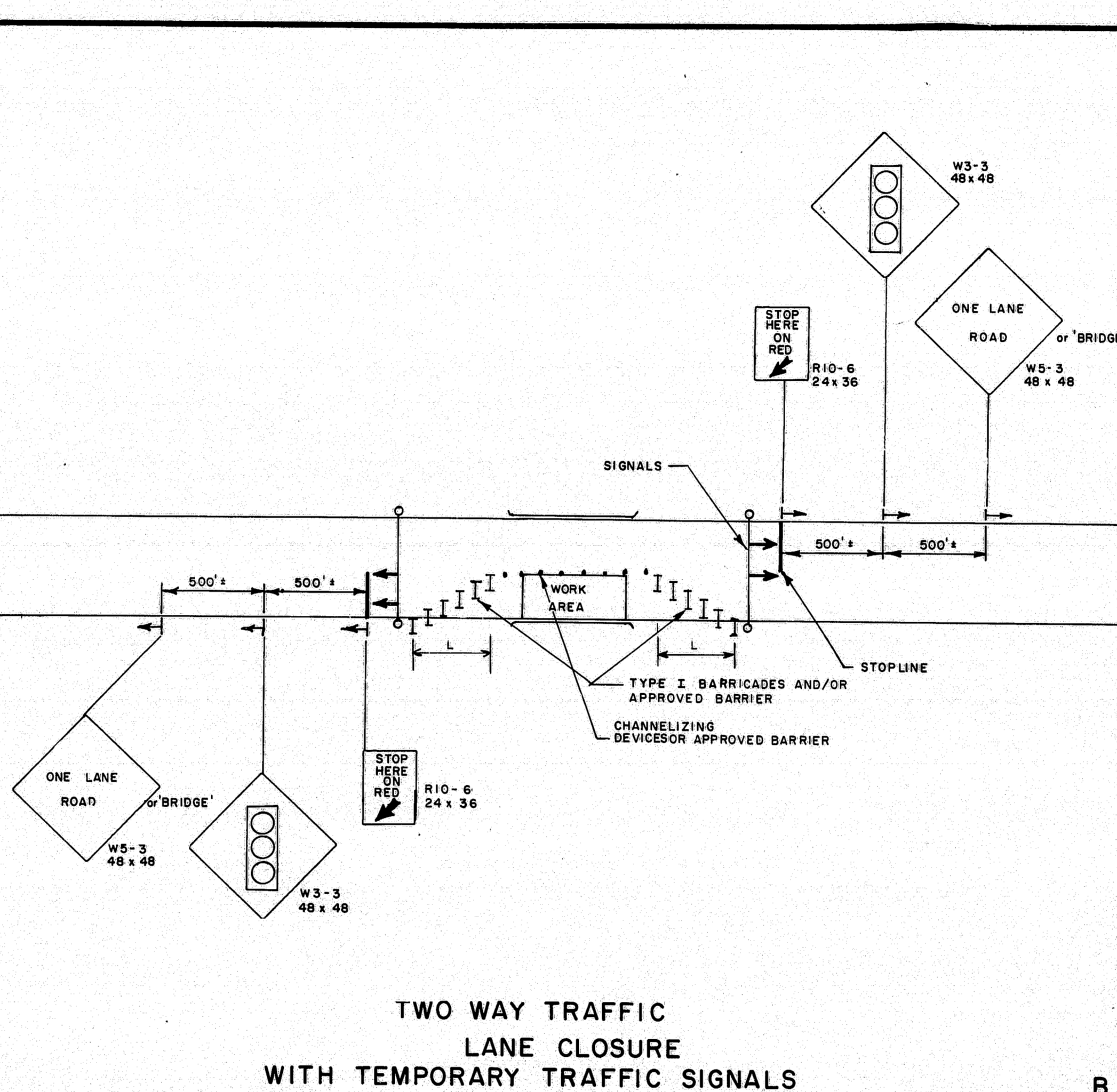
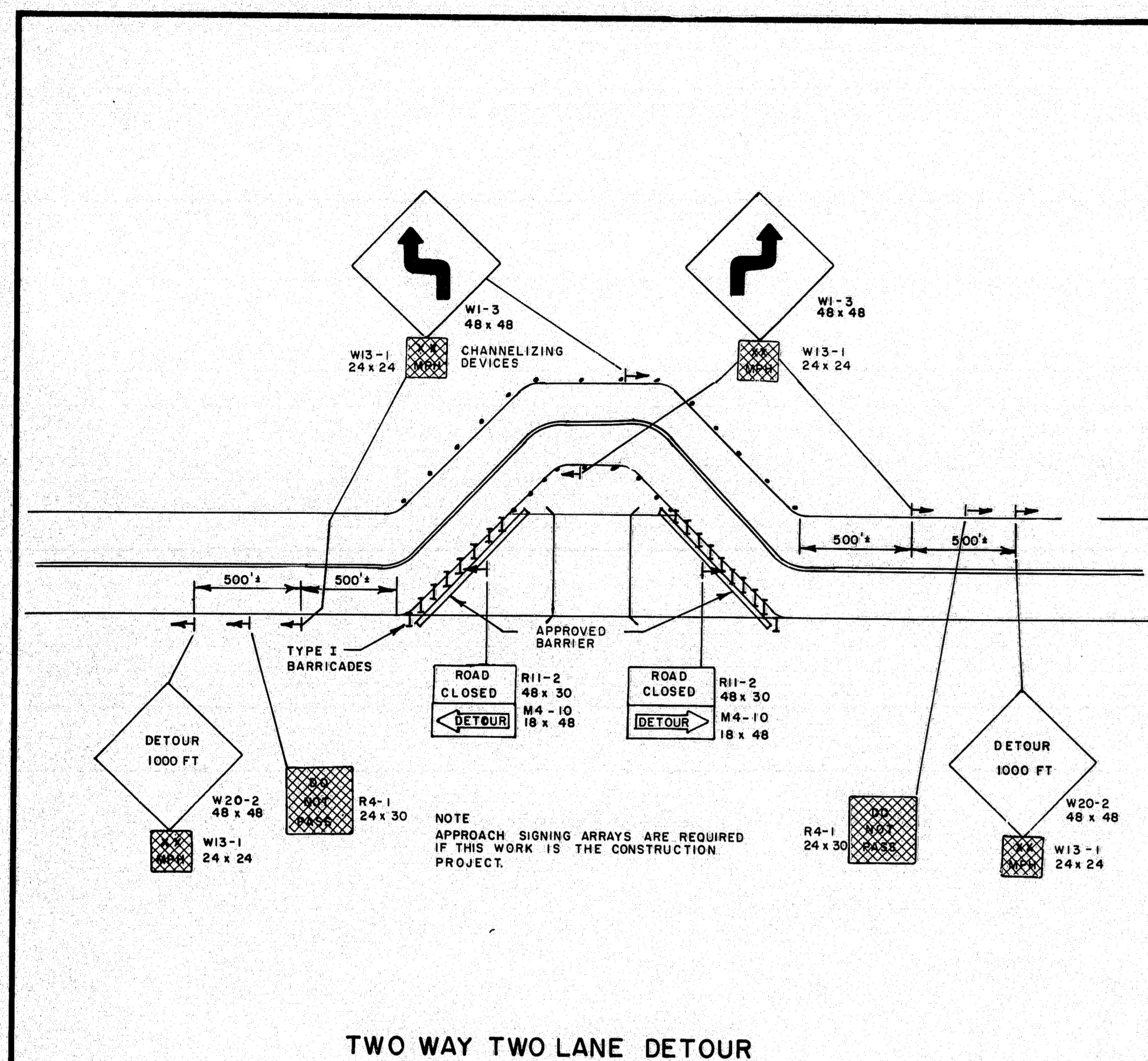
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES
SHEET 1 OF 3 AUGUSTA, MAINE

PRWA	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
REG. NO.	MAINE	104-383	31	32



PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD COMMENTS	

REVISIONS		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
1-28-80		MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES	
3-4-80	PLATE "F"		
4/3/80	PF D,E		
		SHEET 2 OF 3 AUGUSTA, MAINE JULY, 1979	



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