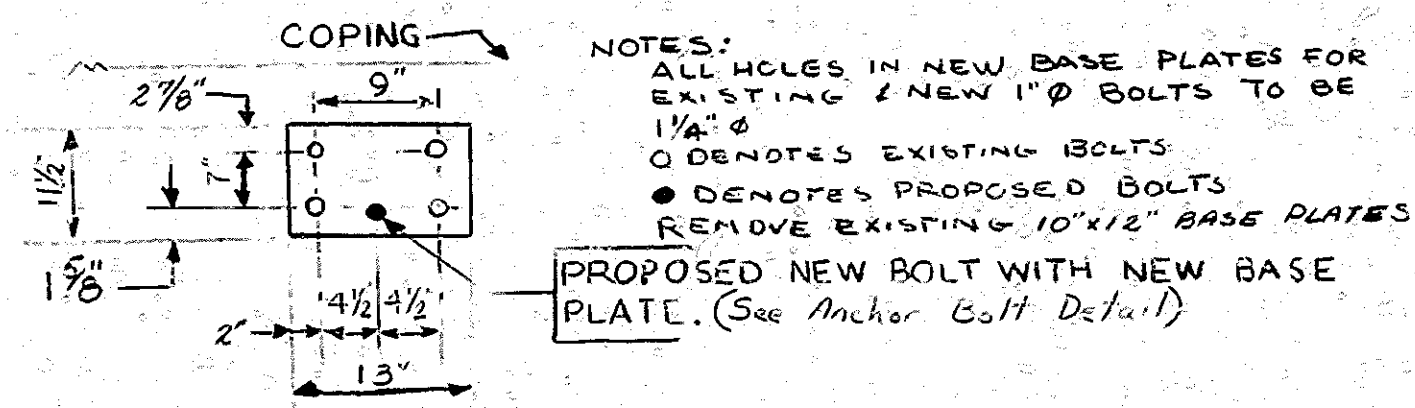
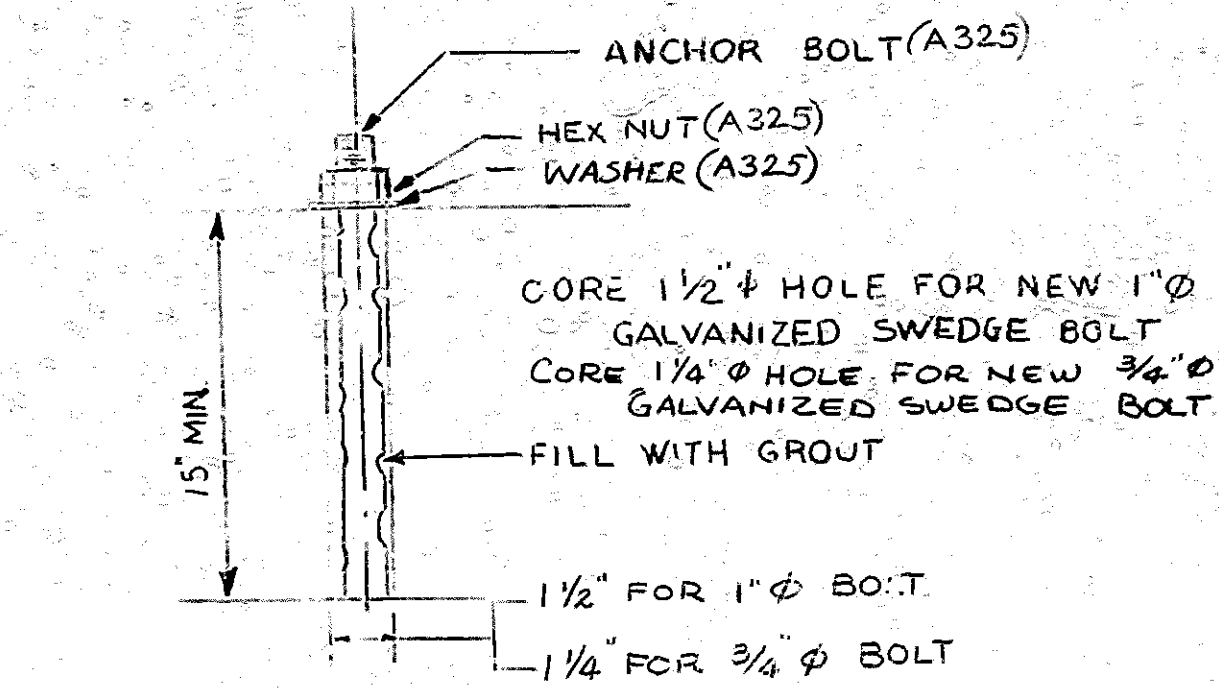
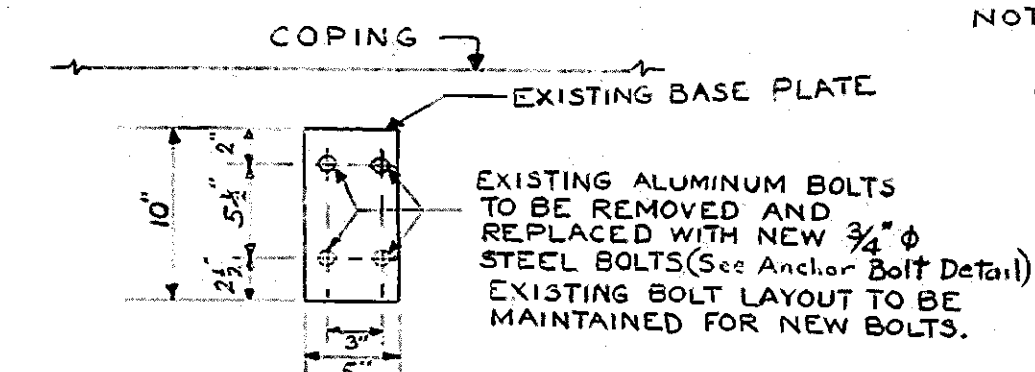




PROPOSED BASE PLATE
NOT TO SCALE



ANCHOR BOLT DETAIL
NOT TO SCALE



TYPICAL EXISTING BOLT LAYOUT
NOT TO SCALE

DIST. RD.	STATE	FEDERAL AID	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	1-195-3(44)		124	340

VARIOUS BRIDGE NUMBERS

	Existing Railing	Proposed Railing
*S-16-9	TYPE H (Remove & Stack)	AL-3 Modified
*S-16-10	"	"
*S-16-11	"	"
*S-16-12, S-35-16	AL (2 RAIL)	AL-1
*S-35-17	TYPE H	AL-3
*S-35-18	AL (2 RAIL)	AL-1
*S-35-14	"	"
*S-35-13	"	"
*S-35-12	"	"
*S-35-11	"	"
*R-4-19	"	"
*R-4-18	"	"
*R-4-17	"	"
*S-8-12	48" CH. LINK FENCE	"
*S-8-11	AL (2 RAIL)	"

- RAILING BASE PLATE BOLT LAYOUT REMAINS UNCHANGED
- * SEE PROPOSED BASE PLATE, THIS SHEET
- ▲ SEE TYPICAL EXISTING BOLT LAYOUT, THIS SHEET

GENERAL NOTES

DIMENSIONS:

ALL DIMENSIONS AND DETAILS SHOWN FOR THE EXISTING STRUCTURES SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR.

PROTECTIVE SCREEN:

SEE DEPARTMENT STANDARD PLANS DATED JANUARY 1975 FOR DETAILS OF STANDARD PROTECTIVE SCREEN.

SEE SHEETS 126 AND 127 FOR DETAILS OF PROTECTIVE SCREEN (AL-1 MODIFIED RAILING)

WELDING:

WELDING SHALL BE PERFORMED BY METAL INERT GAS ("MIG") PROCESS. ALL WELDING SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURES OF ALUMINUM ALLOYS, ALUMINUM CONSTRUCTION MANUAL, SECTION A, PUBLISHED BY "THE ALUMINUM ASSOCIATION" NEW YORK, N.Y.

BASE PLATE LAYOUT:

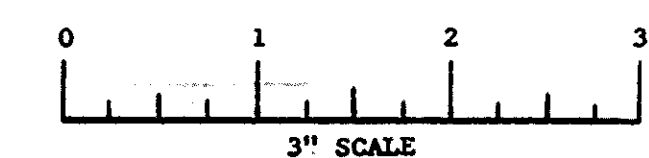
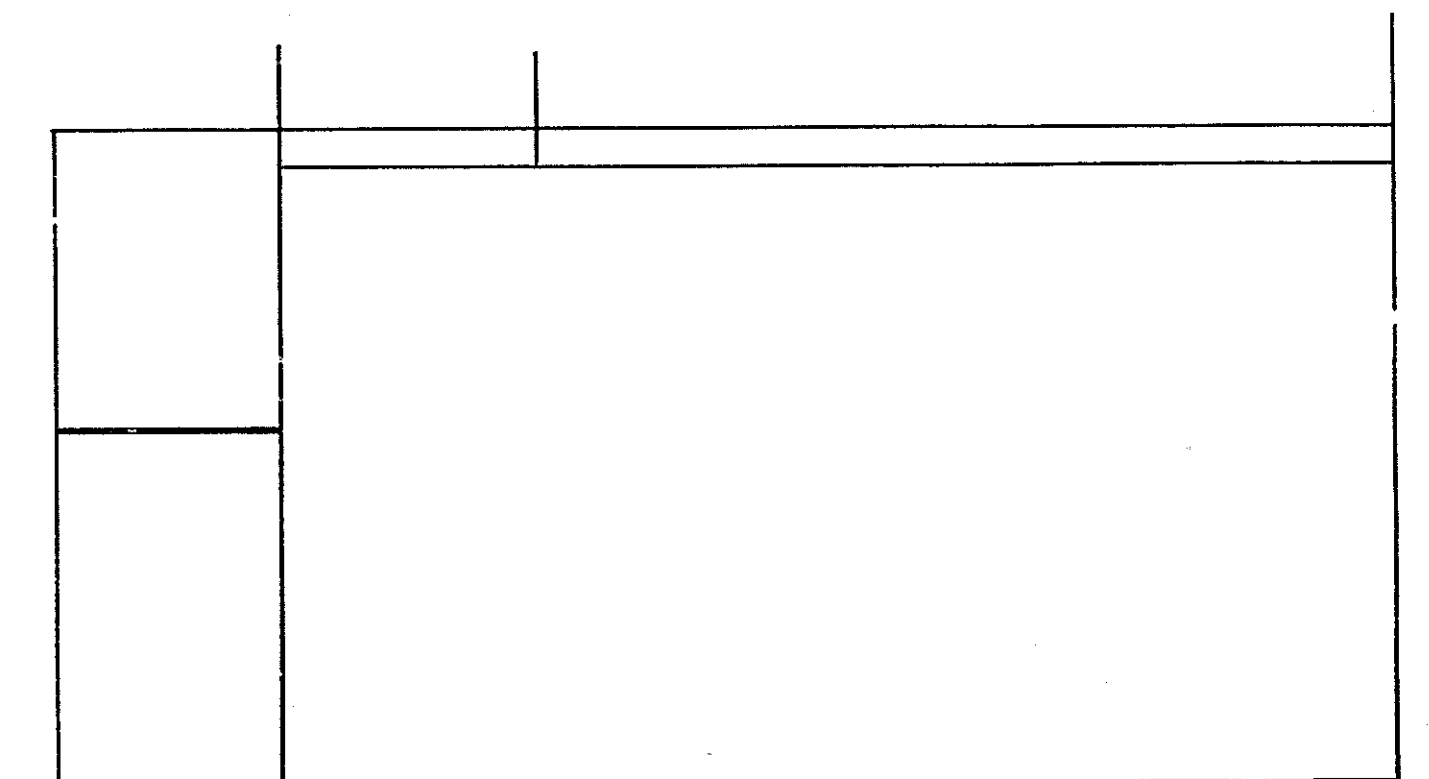
THE CONTRACTOR IS CAUTIONED THAT SOME VARIATION EXISTS BETWEEN ACTUAL FIELD DIMENSIONS AND THOSE DIMENSIONS SHOWN ON THE PLANS, CONCERNING BOLT LAYOUT FOR RAILING BASE PLATES. A FIELD CHECK SHOULD BE MADE FOR VERIFICATION. IT IS INTENDED WHERE EXISTING BOLTS ARE TO BE USED WITH NEW BASE PLATES, THAT A MINIMUM OF 1/2" CLEARANCE SHALL EXIST BETWEEN BOLT HOLES AND EDGES OF PLATES. ANY BASE PLATE ALIGNED SUCH THAT ITS ANCHOR BOLTS ARE NOT SECURELY IMBEDDED IN CONCRETE OR GROUT SHALL BE PROPERLY REALIGNED TO CORRECT THIS DEFICIENCY. ALSO, THE FULL THREADED SURFACE OF THE NUTS SHALL ENGAGE COMPLETELY WITH THE EXISTING AND/OR NEW BASE PLATE BOLTS, OTHERWISE THE BOLTS SHALL BE REPLACED. WASHERS ARE REQUIRED ON ALL BASE PLATE BOLTS. IF EXISTING WASHERS ARE MISSING THEY SHALL BE REPLACED.

PLANS:

PLANS OF ORIGINAL CONSTRUCTION ARE ON FILE AT THE OFFICE OF THE BRIDGE ENGINEER, ROOM 610, DEPT OF PUBLIC WORKS, 100 NASHUA ST, BOSTON, MASS.

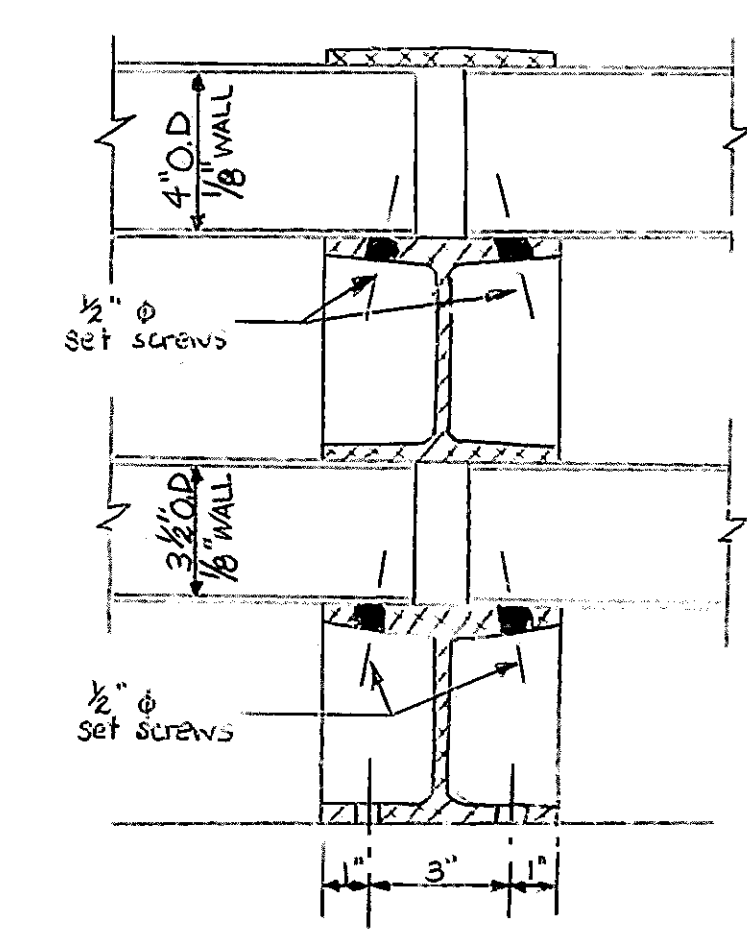
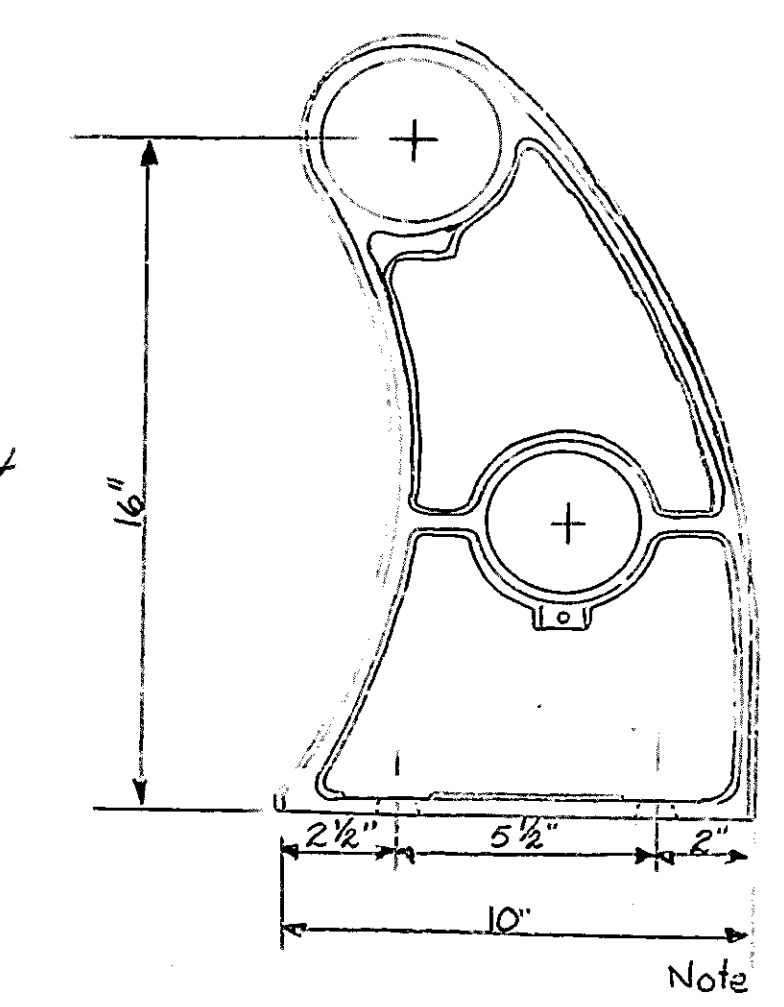
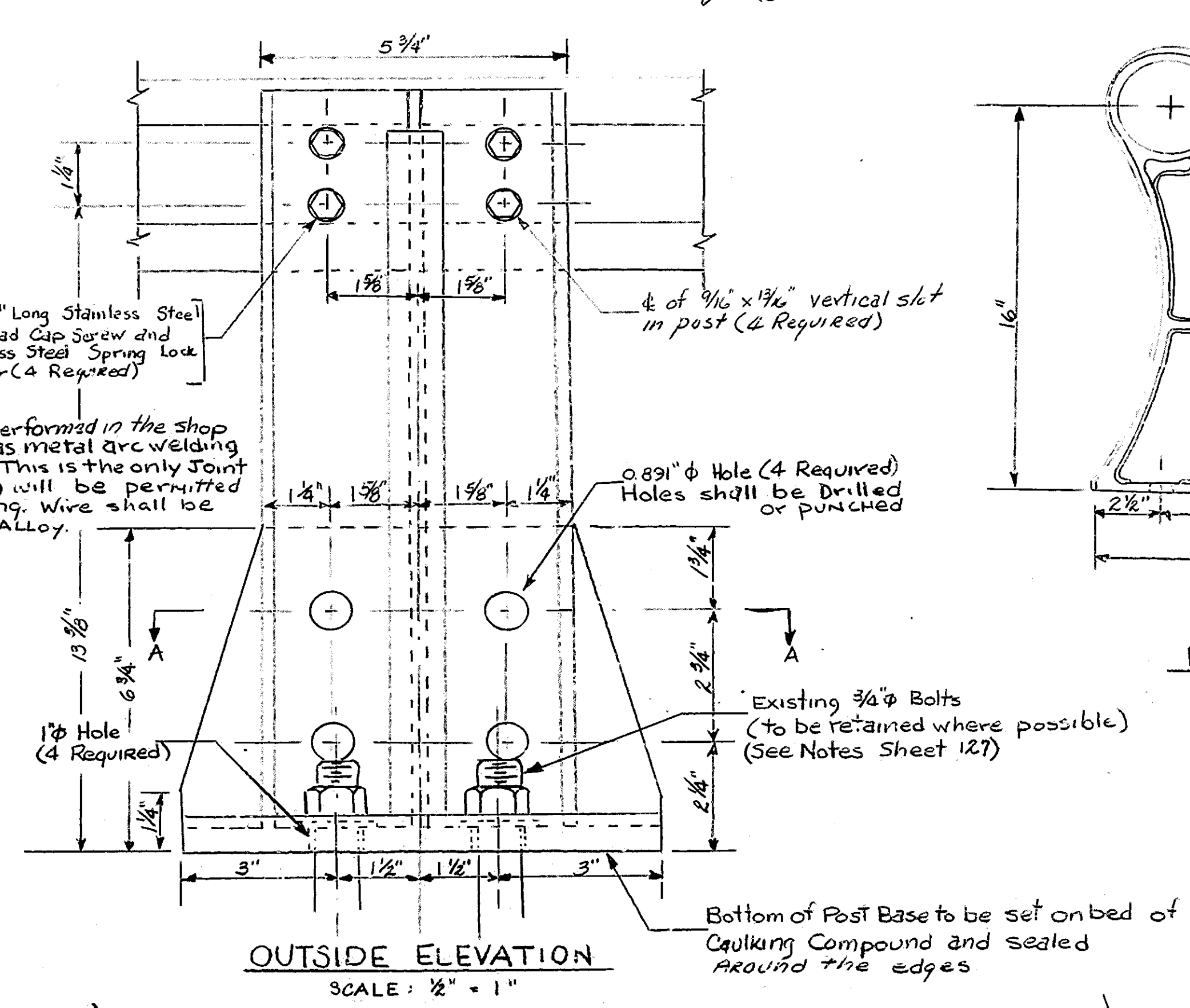
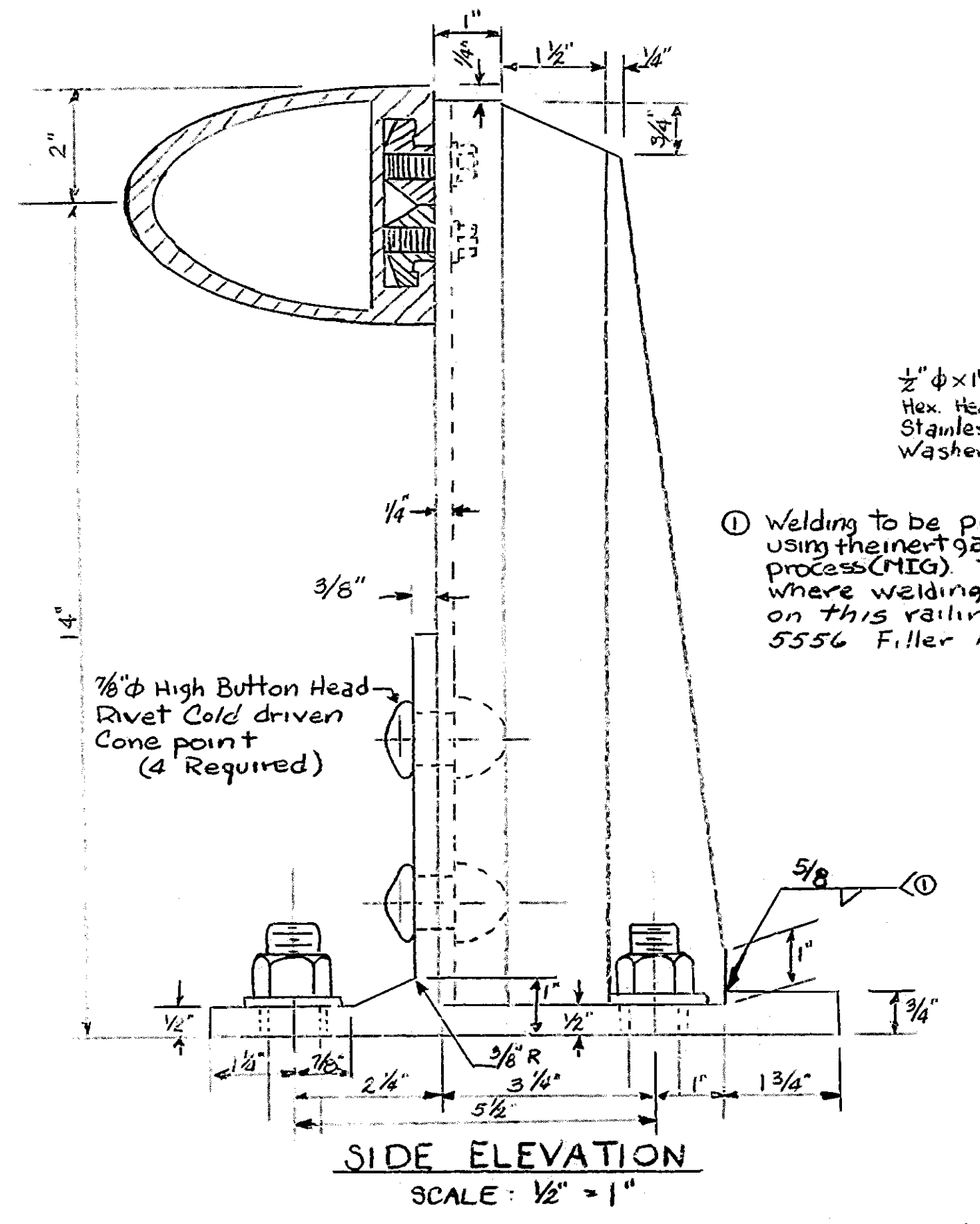
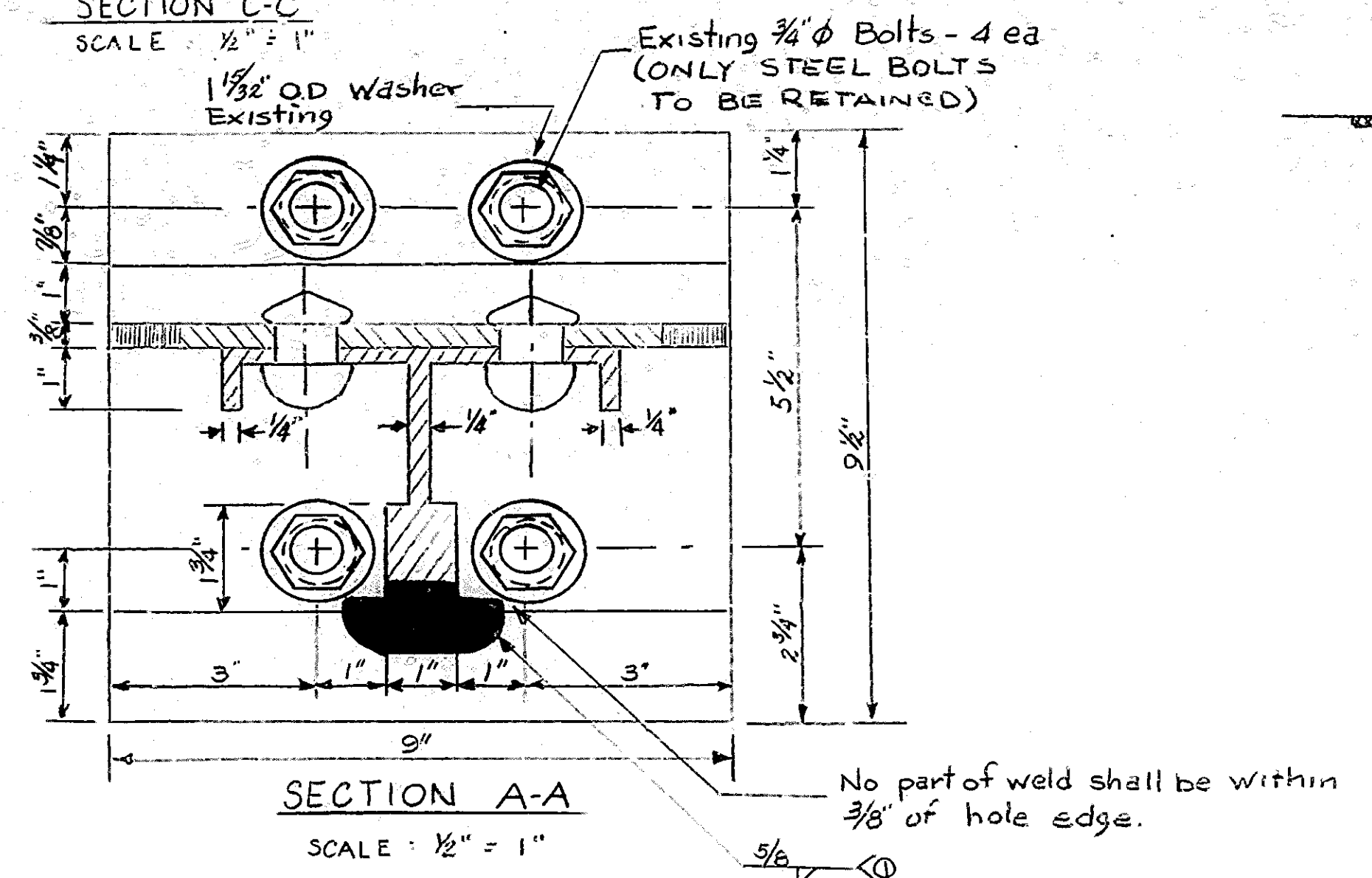
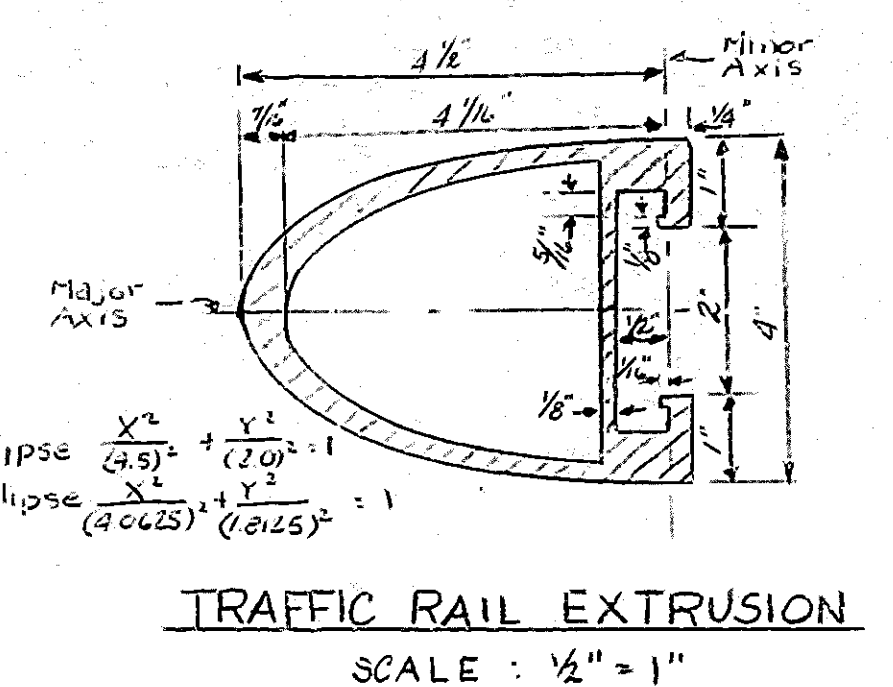
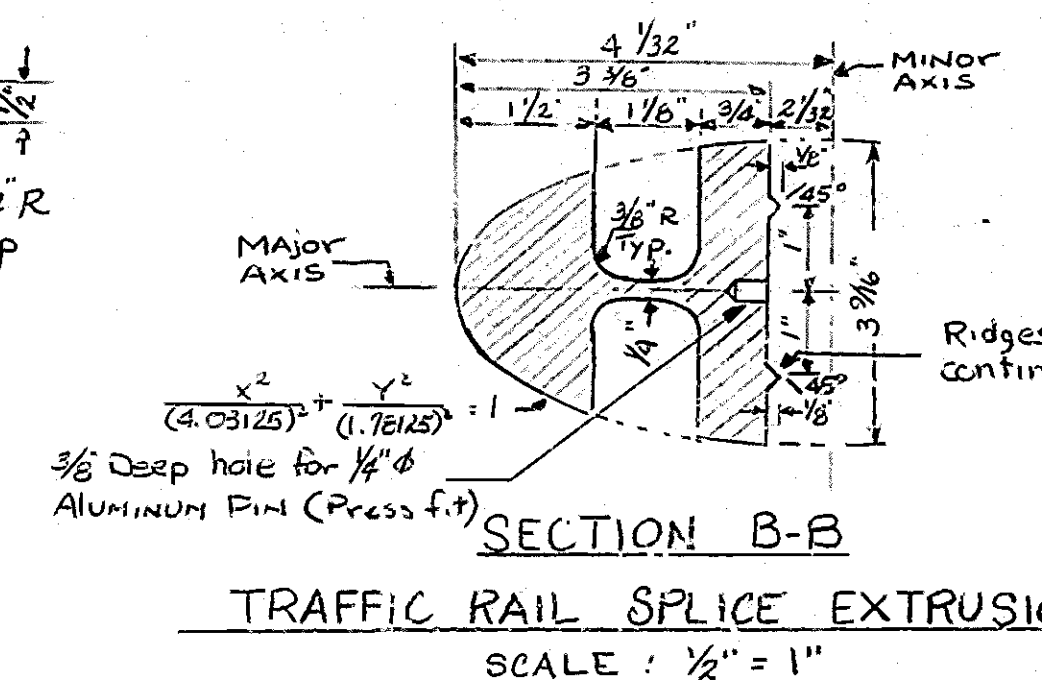
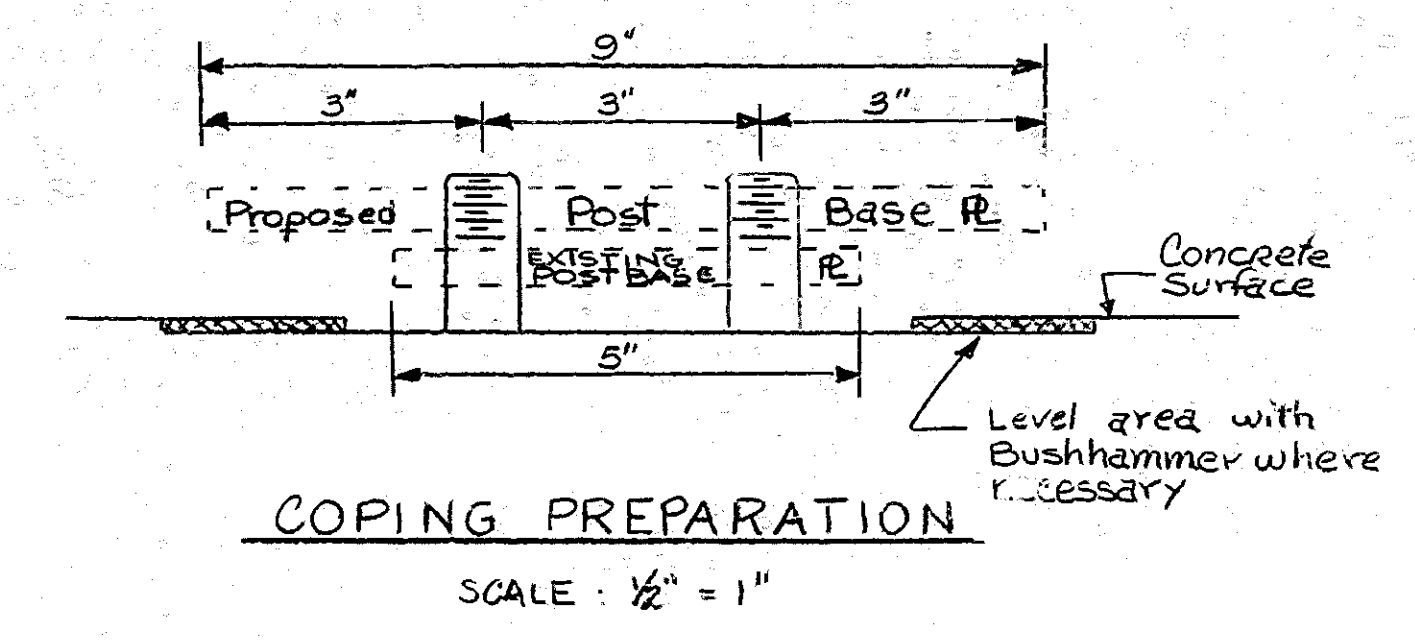
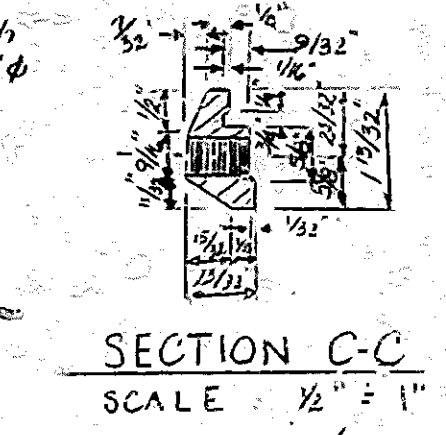
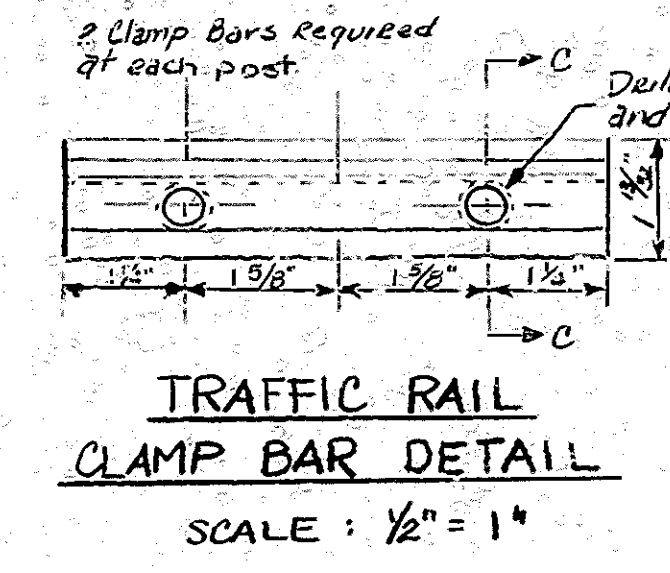
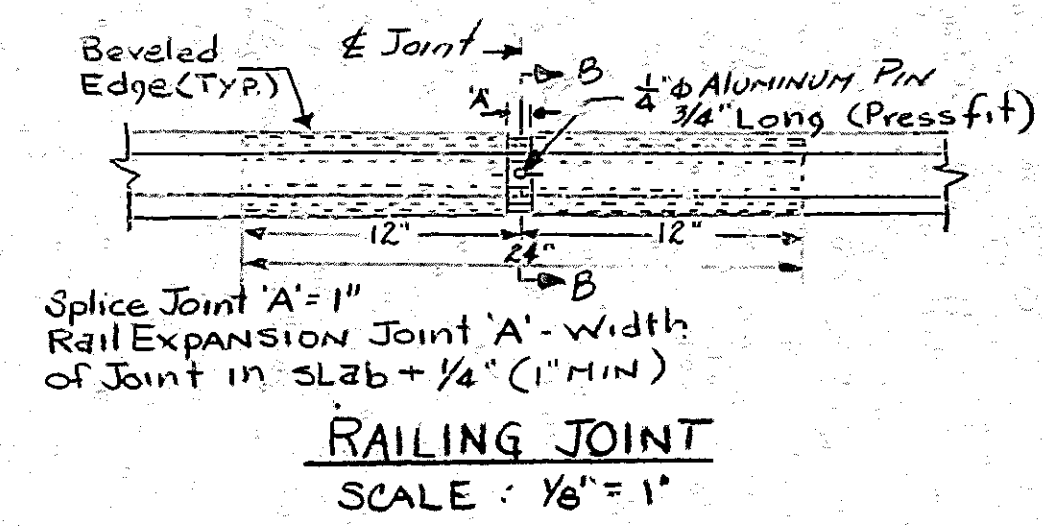
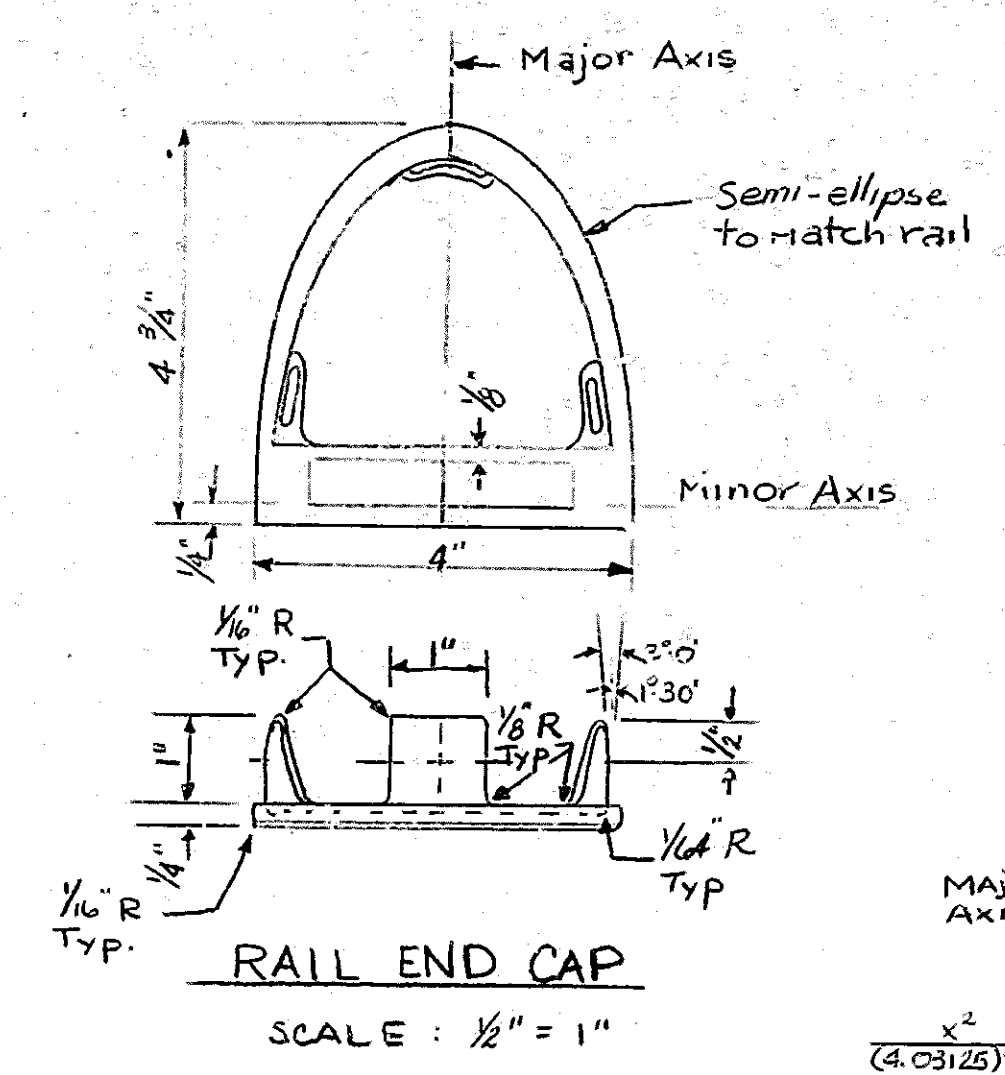
SCALES:

SCALES NOTED ON PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALE BY 2 FOR 1/4" SIZE PRINTS (11" X 18").



PUB. NO.	STATE	FEDERAL AID	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	1-195	3-6-70	125	340

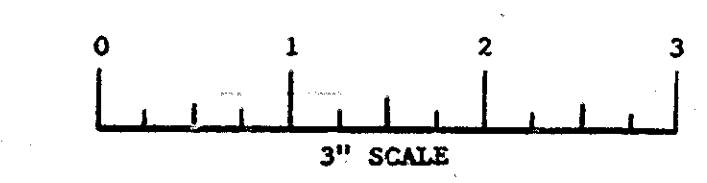
SEEKONK - SOMERSET
INTERSTATE 195



EXISTING BRIDGE RAILING
SCALE: 1/4" = 1"

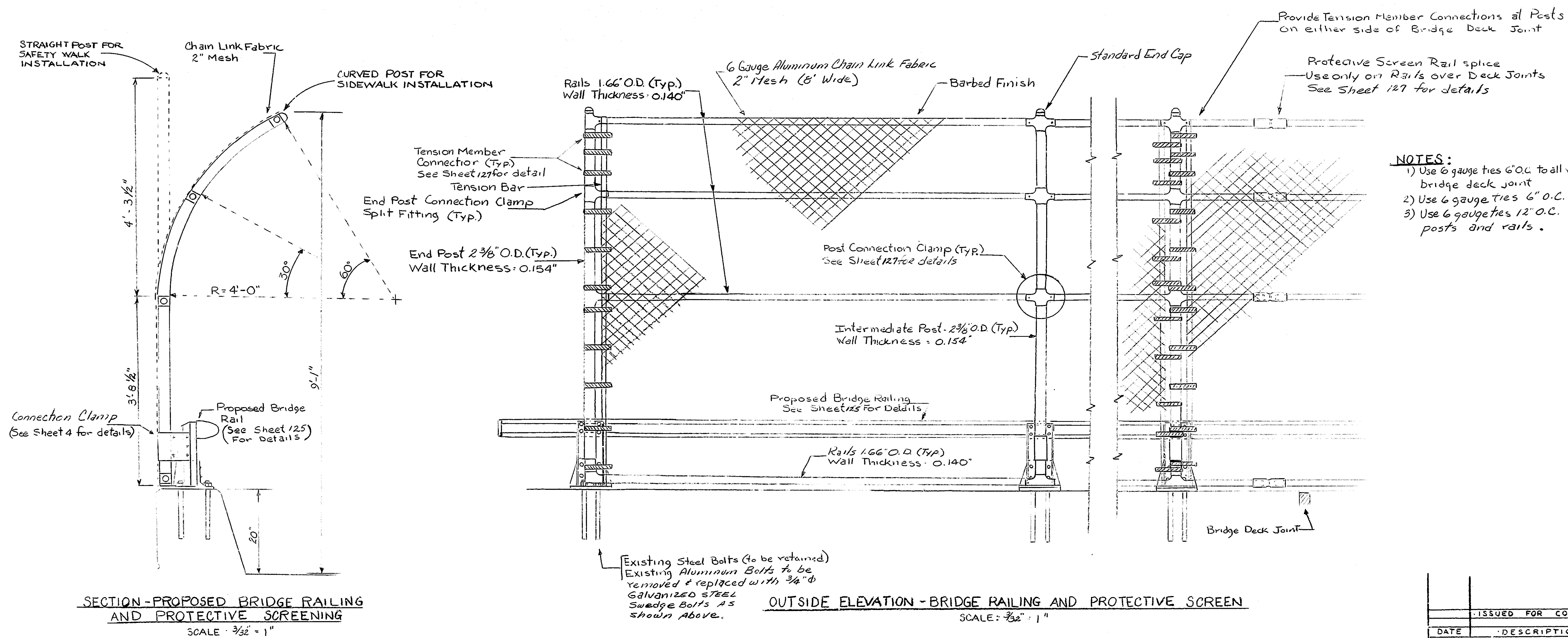
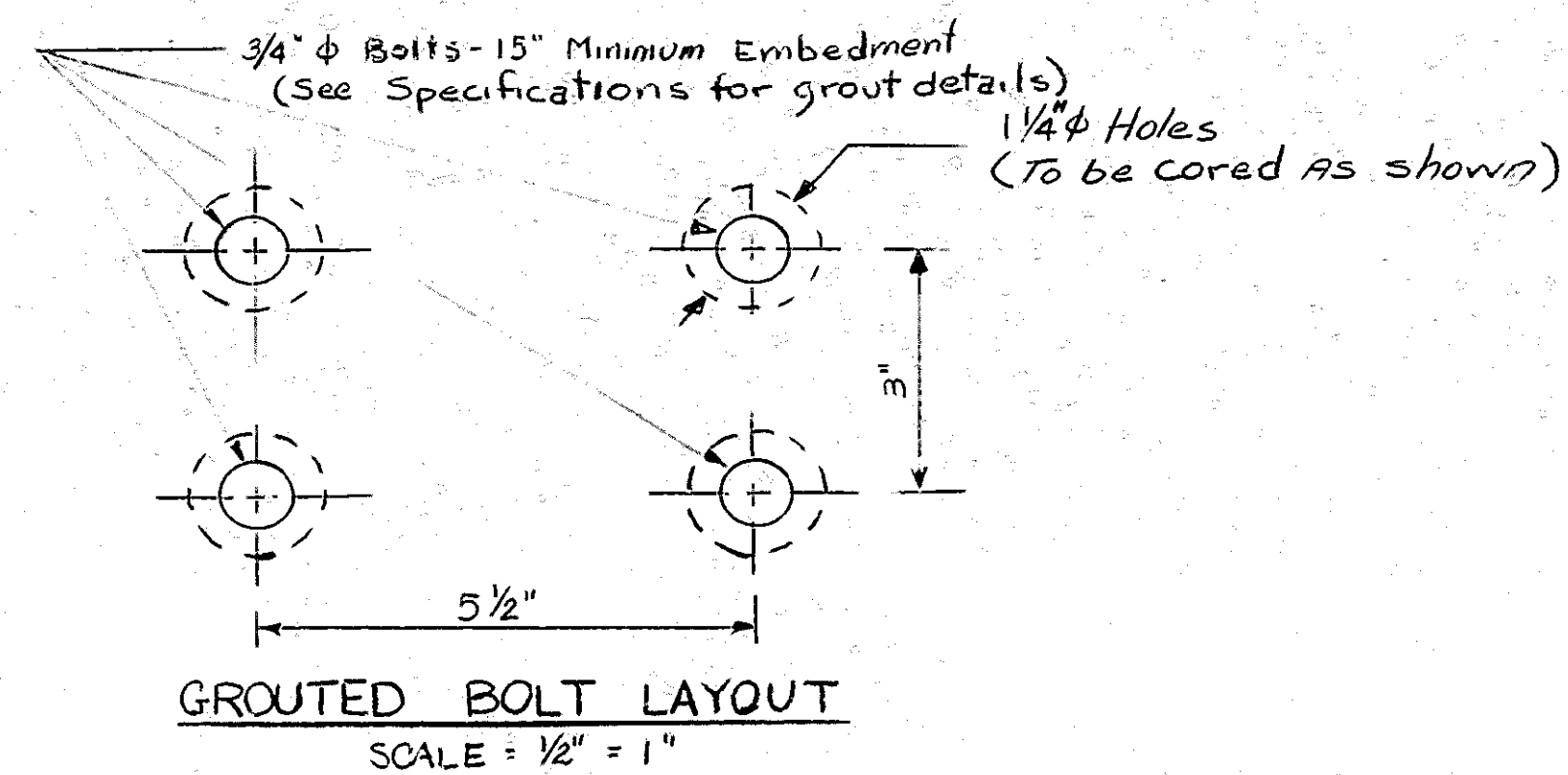
ISSUED FOR CONSTRUCTION	
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

SHEET OF SHEETS BRIDGE NO. VARIOUS



PUB. NO.	DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS	155-36290	19	126	340	

SEEKONK - SOMERSET
INTERSTATE - 195



NOTES:

- 1) Use 6 gauge ties 6" O.C. to all rails spanning bridge deck joint
- 2) Use 6 gauge ties 6" O.C. to bottom rail
- 3) Use 6 gauge ties 12" O.C. to all other posts and rails.

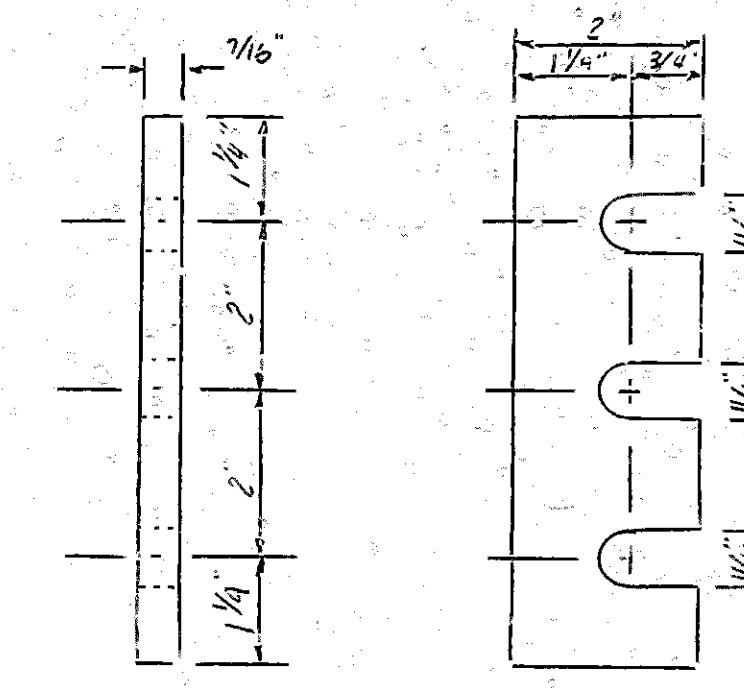
ISSUED FOR CONSTRUCTION	
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

SHEET OF SHEETS VARIOUS NUMBERS

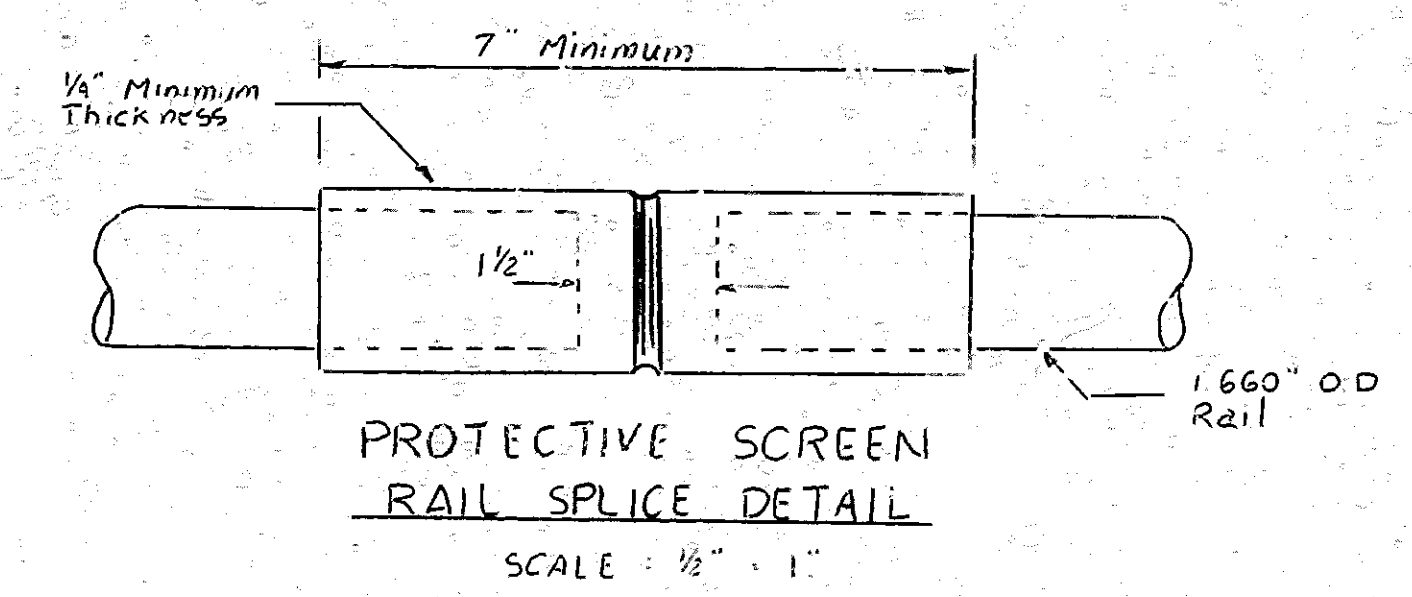


PUB. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS	118-3(669)0	19	127	340

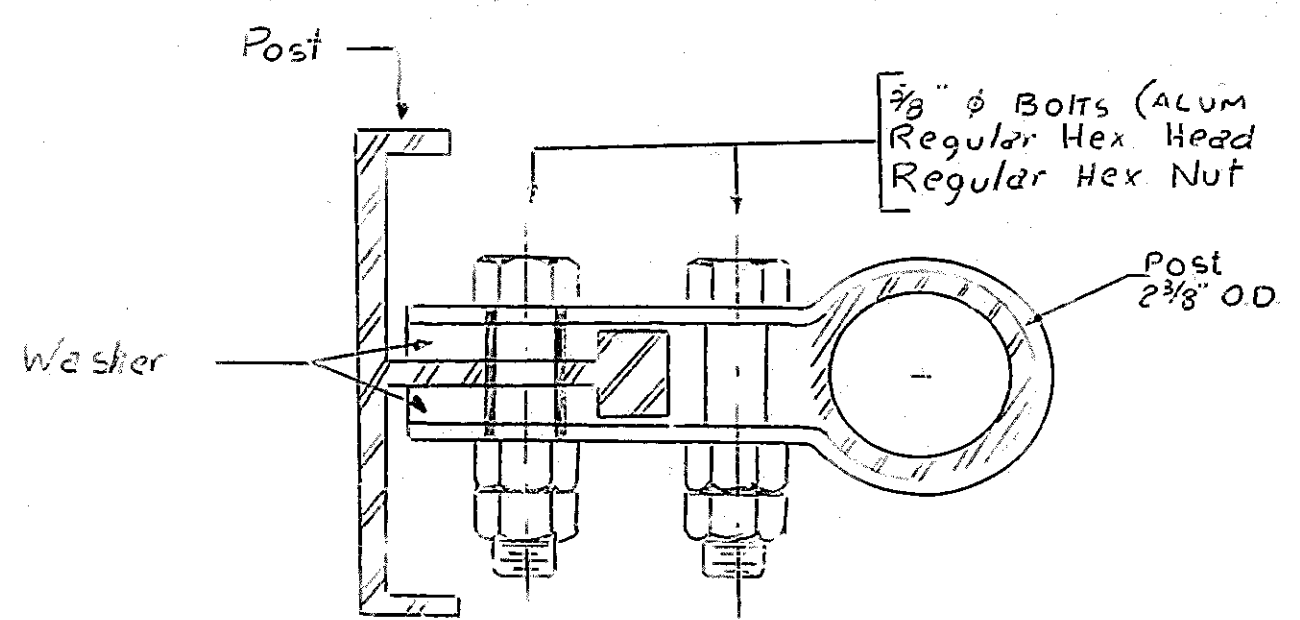
SECKOMK - SOMERSET
INTERSTATE 195



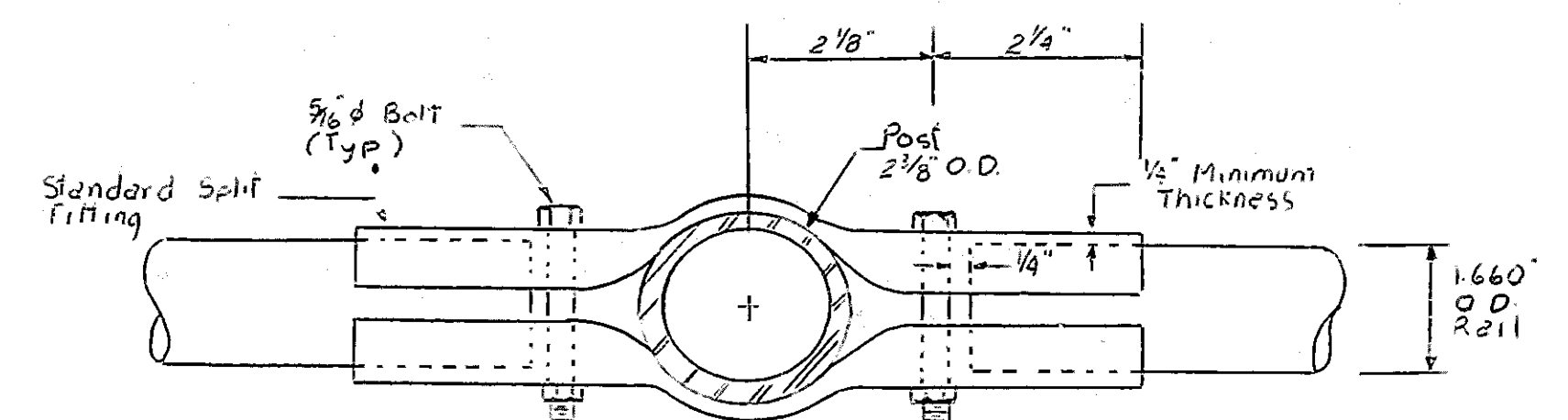
WASHER FOR CLAMP
SCALE: 1/2" = 1"



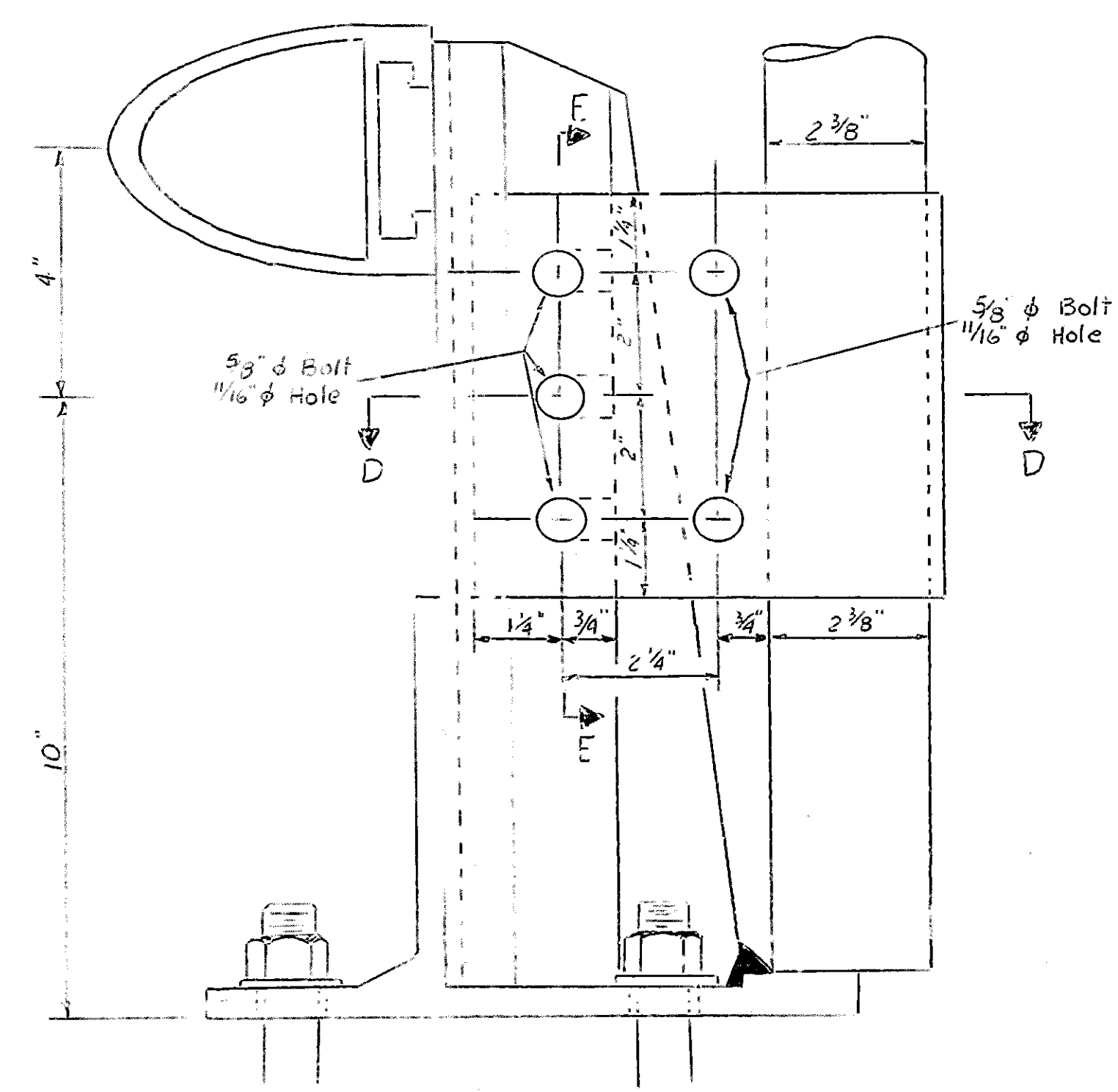
PROTECTIVE SCREEN
RAIL SPLICE DETAIL
SCALE: 1/2" = 1"



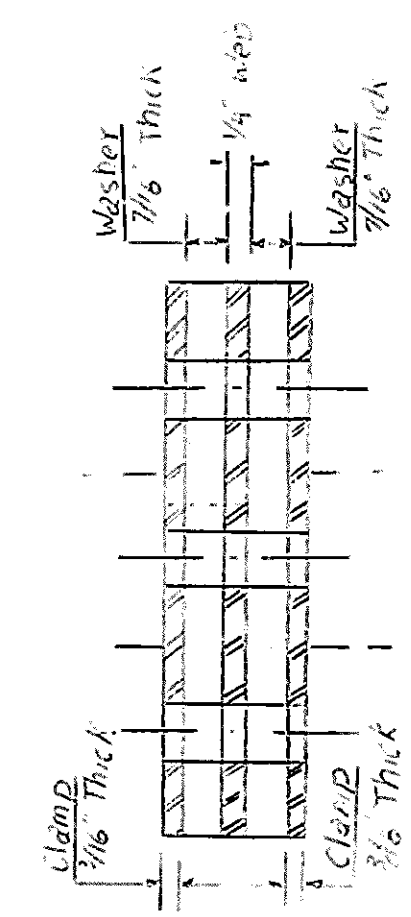
SECTION D-D
SCALE: 1/2" = 1"



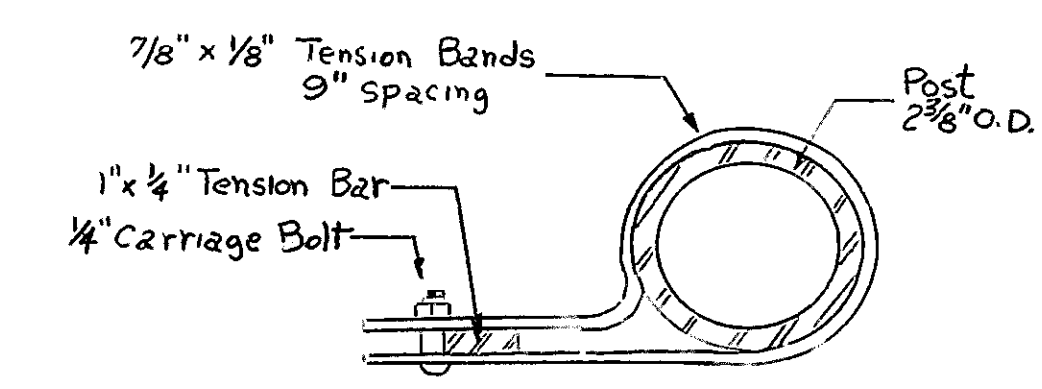
PLAN - POST CONNECTION CLAMP
SCALE: 1/2" = 1"



ELEVATION - CLAMP
SCALE: 1/2" = 1"



SECTION E-E
SCALE: 1/2" = 1"



PLAN - TENSION MEMBER CONNECTION
SCALE: 1/2" = 1"

NOTES:

NEW BOLTS:

ALL NEW BOLTS TO BE CORED AND GROUTED SHALL BE THE SAME SIZE AS THOSE OF THE EXISTING BOLT LAYOUT UNLESS OTHERWISE NOTED. THEY SHALL BE SWEDGED THROUGHOUT THE BOTTOM 15' OF THE IMBEDDED PORTION AND CONFORM TO THE ASTM DESIGNATION INDICATED BELOW SEE ANCHOR BOLT DETAIL SHEET #124.

ALUMINUM BRIDGE RAILING (1 RAIL):

All railing is to be fabricated and erected so that the rail is parallel to the parapet. Since the finished railing must meet all requirements of fit, alignment and grade to the full satisfaction of the Engineer, it is suggested that complete field measurements be made before any shop fabrication is performed. Aluminum rails, posts, post bases, clamp bars including stainless steel cap screws and lock washers, rail splices, rivets, end caps, pins, rail terminal ends, aluminum caulking compound, any necessary shims, any necessary painting of bolts and any necessary bushhammering to level the concrete under the post bases shall be paid for under the railing item. The provision of anchor bolts, nuts and washers and the coring and grouting of holes necessary to receive the anchor bolts shall be paid for under a separate item. Rails shall be continuous over a minimum of three posts. Aluminum rivets shall be cold driven. Materials used in the manufacture of this railing shall conform to the requirements and/or specifications listed below.

PIECE	ASTM DESIGNATION	COMMERCIAL ALLOY AND TEMPER
Aluminum Extrusions (Posts, Post Bases, rails, rail splices, clamp bars, pins and rail terminal ends)	B221	6061-T6
Aluminum Rivets	B316	6061-T6
Aluminum Plate Shims	B209	1100-O
Aluminum Rail End Caps	B26	43F or 356F
Steel Bolts, Nuts and Washers (Galvanized)	A325	

PROTECTIVE SCREENING:

Materials used in the manufacture of the protective screening shall conform to the requirements and/or specifications listed below.

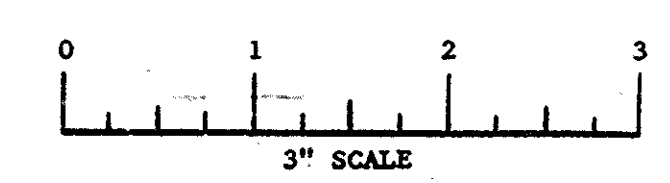
PIECE	ASTM DESIGNATION	COMMERCIAL ALLOY AND TEMPER
Aluminum Posts, Rails, Tension Bars, Rail splices and Washers	B221	6061-T6
Fabric and Ties	B211	6061-T94-6 304g
Tension Bands	B201	6063-T5
Bolts	B316	2024-T4
Nuts	B316	6061-T6
Clamps	B221	6061-T6 or 6063-T6

EXISTING BOLTS:

EXISTING BOLTS SHALL BE THOROUGHLY CLEANED AND GIVEN ONE COAT OF ZINC RICH PAINT CONFORMING TO THE REQUIREMENTS AS SPECIFIED IN SECTION M 7, SPECIFICATION M 7.09.11. Any bolts that are determined by the Resident Engineer to be damaged beyond utilization shall be removed and replaced with new bolts.

ISSUED FOR CONSTRUCTION
DATE DESCRIPTION
USE ONLY PRINTS OF LATEST DATE

SHEET OF SHEETS VARIOUS NUMBERS



1018

NOTES

METAL BRIDGE RAIL (3-RAIL) TYPE AL-3 MODIFIED

ALL RAILING IS TO BE FABRICATED AND ERECTED SO THAT THE RAIL IS PARALLEL TO THE CURBING. SINCE THE FINISHED RAILING MUST MEET ALL REQUIREMENTS OF FIT, ALIGNMENT AND GRADE TO THE FULL SATISFACTION OF THE ENGINEER, IT IS SUGGESTED THAT COMPLETE FIELD MEASUREMENTS BE MADE BEFORE ANY SHOP FABRICATION IS PERFORMED.

ALUMINUM RAILS, POSTS, POST BASES, CLAMP BARS, INCLUDING STAINLESS STEEL CAP SCREWS AND LOCK WASHERS, RAIL SPICES, RIVETS, END CAPS, PINS, RAIL TERMINAL ENDS, ALUMINUM CAULKING COMPOUND, ANY NECESSARY SHIMS, ANY NECESSARY PAINTING OF BOLTS AND ANY NECESSARY BUSH-PAMPERING TO LEVEL THE CONCRETE UNDER THE POST BASES SHALL BE PAID FOR UNDER THE RAILING ITEM.

THE PROVISION OF ANCHOR BOLTS, NUTS AND WASHERS AND THE CORING AND GROUTING OF HOLES NECESSARY TO RECEIVE THE ANCHOR BOLTS SHALL BE PAID FOR UNDER A SEPARATE ITEM.

RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE POSTS. ALUMINUM RIVETS SHALL BE COLD DRAWN.

MATERIALS USED IN THE MANUFACTURE OF THIS RAILING SHALL CONFORM TO THE REQUIREMENTS AND/OR SPECIFICATIONS LISTED BELOW:

PIECE	ASTM DESIGNATION	COMMERCIAL ALLU. / TEMPER
ALUMINUM EXTRUSIONS (POSTS, POST BASES, RAILS, RAIL SPICES, CLAMP BARS, AND RAIL TERMINAL ENDS)	B 221	6061-T6
ALUMINUM RIVETS	B 316	6061-T6
ALUMINUM PLATE SHIMS	B 209	1100-O
ALUMINUM RAIL END CAPS	B 26	435 OR 356F
STEEL BOLTS, NUTS AND WASHERS (GALV.)	A 325	

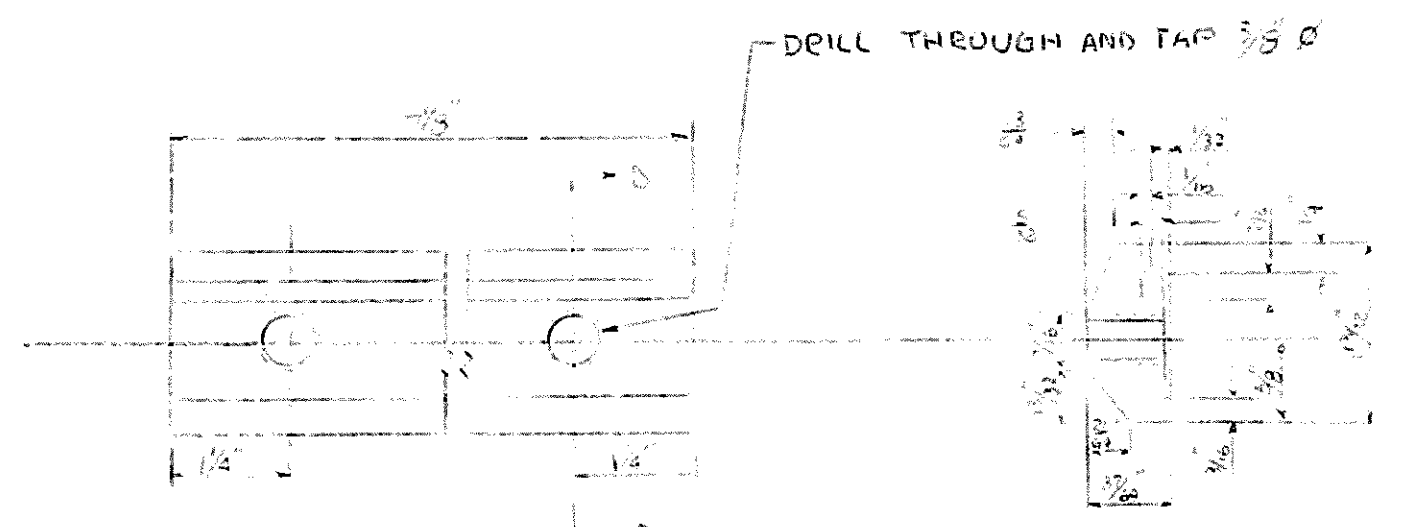
EXISTING BOLTS: EXISTING BOLTS SHALL BE THOROUGHLY CLEANED AND GIVEN ONE COAT OF ZINC RICH PAINT CONFORMING TO THE REQUIREMENTS AS SPECIFIED IN SECTION M-7, SPECIFICATION M-7.04.11.

ANY BOLTS THAT ARE DETERMINED BY THE RESIDENT ENGINEER TO BE DAMAGED BEYOND UTILIZATION SHALL BE REMOVED AND REPLACED WITH NEW BOLTS.

NEW BOLTS: ALL NEW BOLTS TO BE CORDED AND GROUTED SHALL BE THE SAME SIZE AS THOSE OF THE EXISTING BOLT LAYOUT UNLESS OTHERWISE NOTED. THEY SHALL BE SWEDGED THROUGHOUT THE BOTTOM 1/5" OF THE IMBEDDED PORTION AND CONFORM TO THE ASTM DESIGNATION INDICATED ABOVE. SEE ANCHOR BOLT DETAIL SHEET 124.

SPACING: WHERE ENTIRELY NEW BOLT LAYOUTS ARE TO BE INSTALLED, MAXIMUM POST SPACING SHALL BE 8'-0" IF NECESSARY.

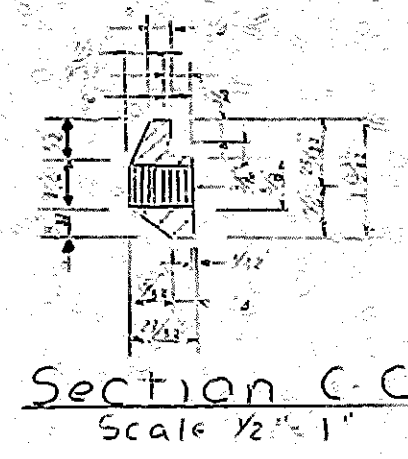
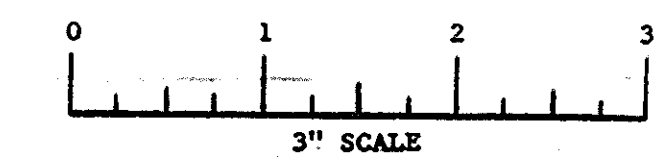
TRANSITION: THE NEW RAILS SHALL BE BENT TO MAKE A SMOOTH TRANSITION WITH THE EXISTING END POSTS IF NECESSARY.



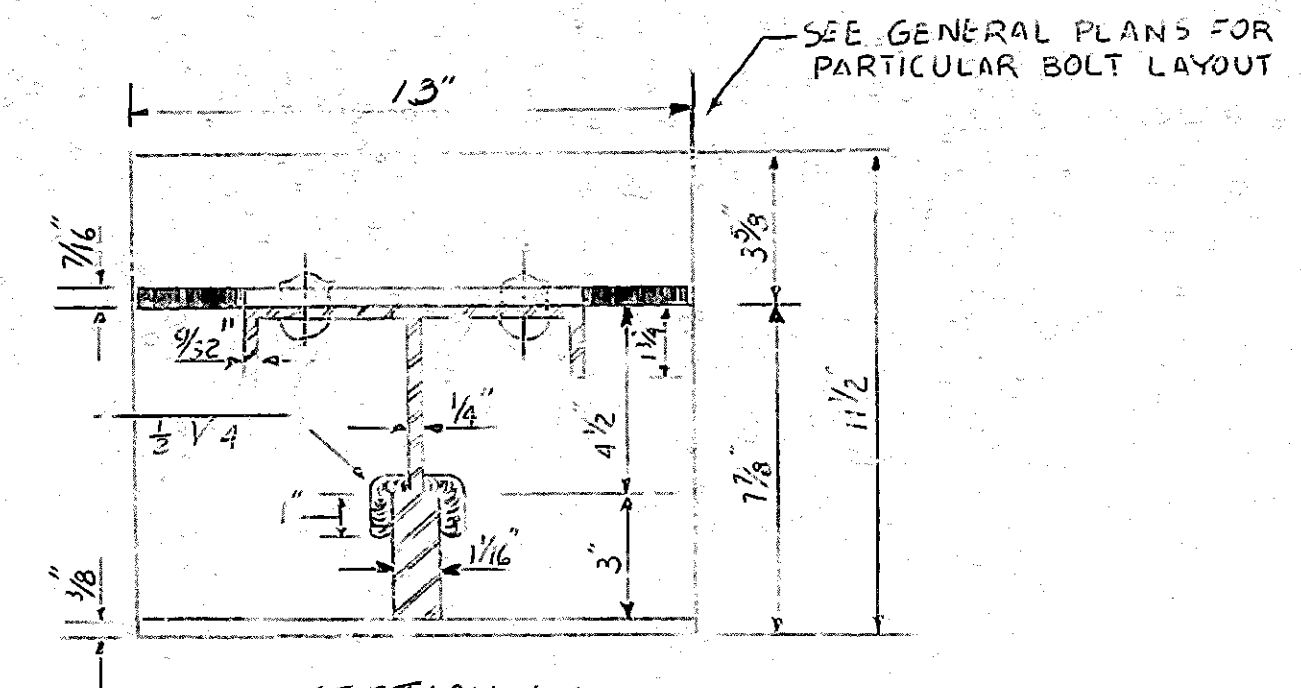
SECTION D-D NOT TO SCALE

ISSUED FOR CONSTRUCTION
DATE DESCRIPTION
USE ONLY PRINTS OF LATEST DATE

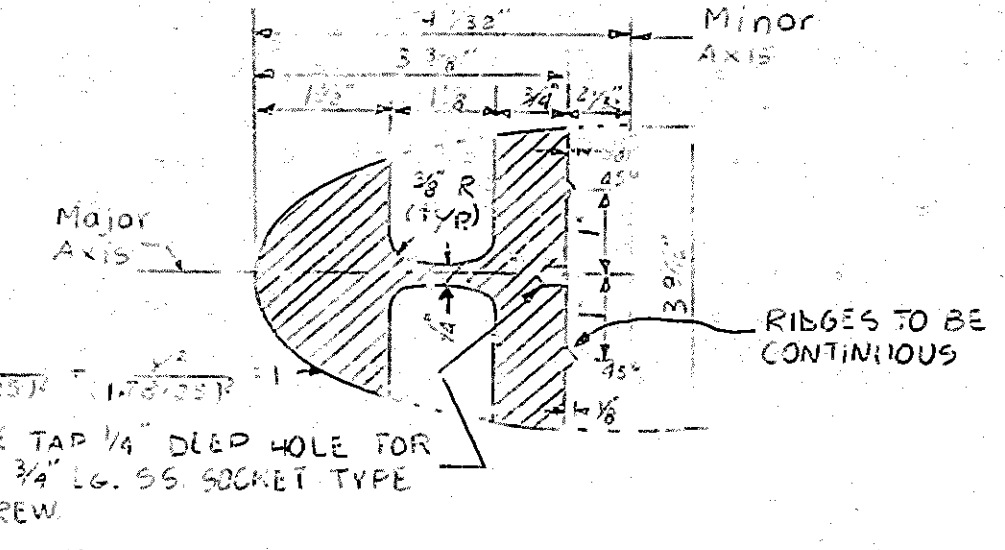
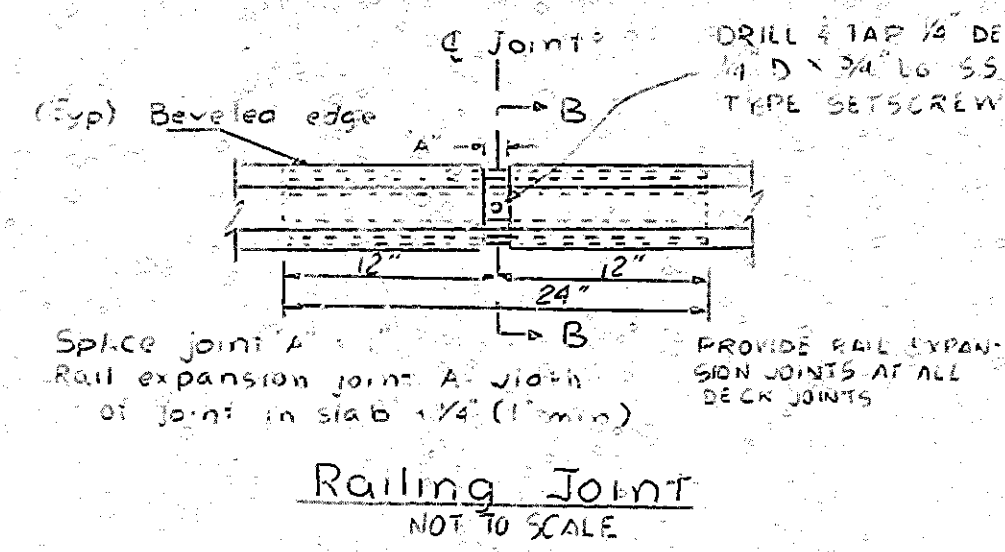
SHEET OF SHEETS VARIOUS NUMBERS



Traffic Rail Clamp Bar Detail Scale 1/2" = 1'

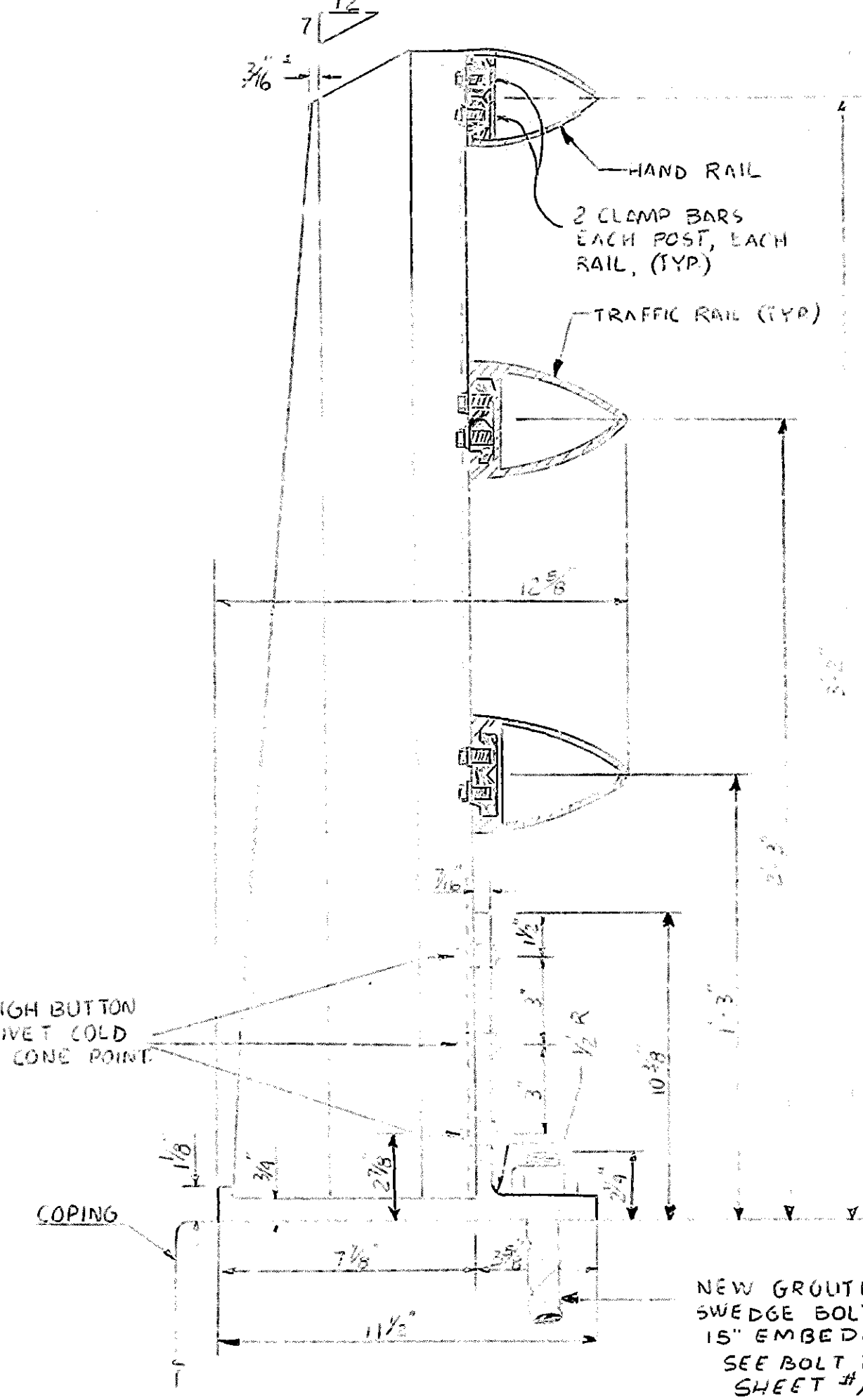


Hand Rail Splice Extrusion Scale 1/2" = 1'

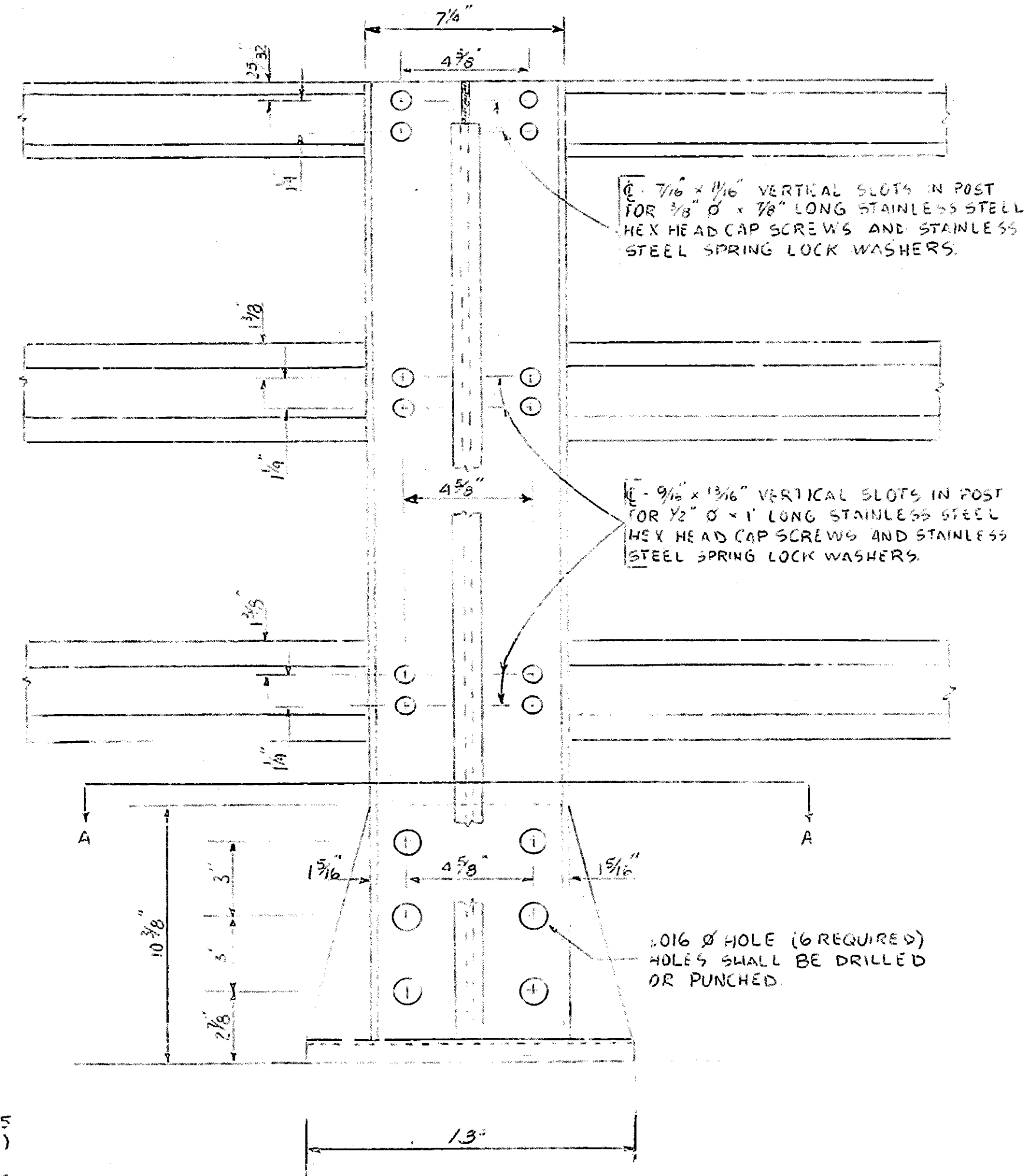


Traffic Rail Splice Extrusion Scale 1/2" = 1'

SECTION'S B-B

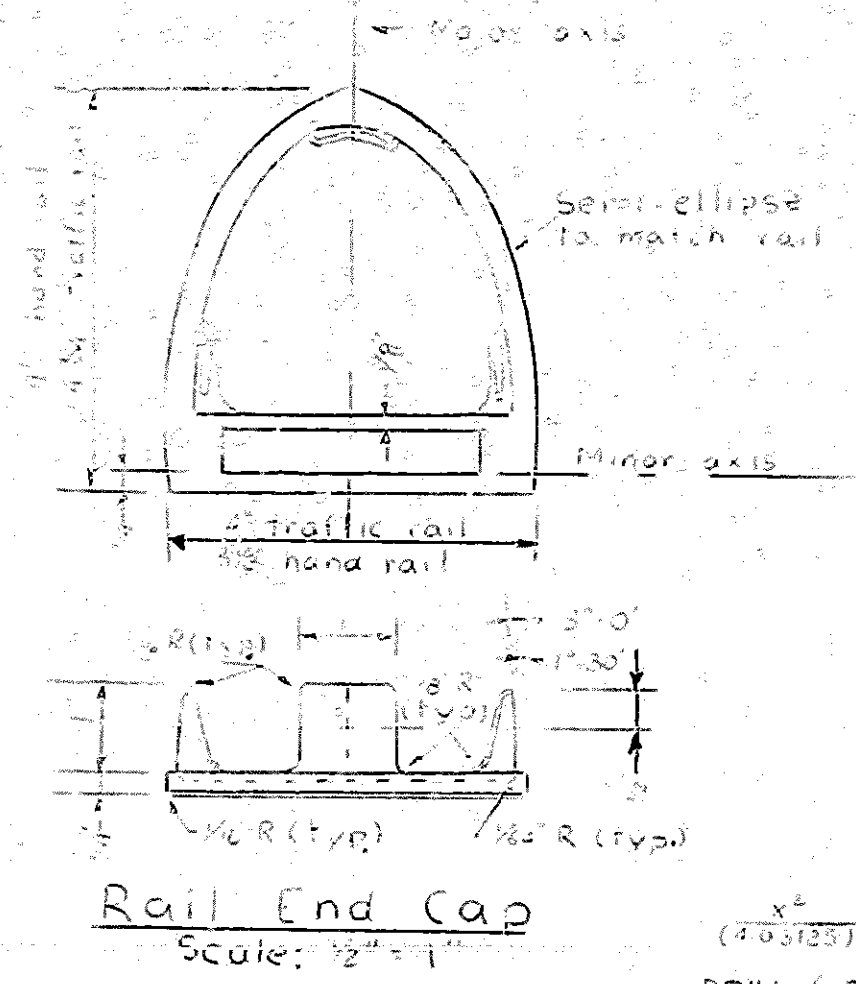


SIDE ELEVATION SCALE 1/4" = 1'

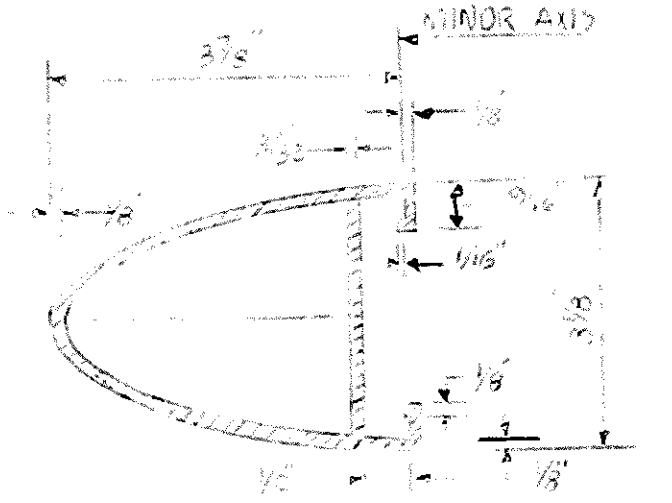


OUTSIDE ELEVATION SCALE 1/4" = 1'

METAL BRIDGE RAIL (3-RAIL) TYPE AL-3 MODIFIED



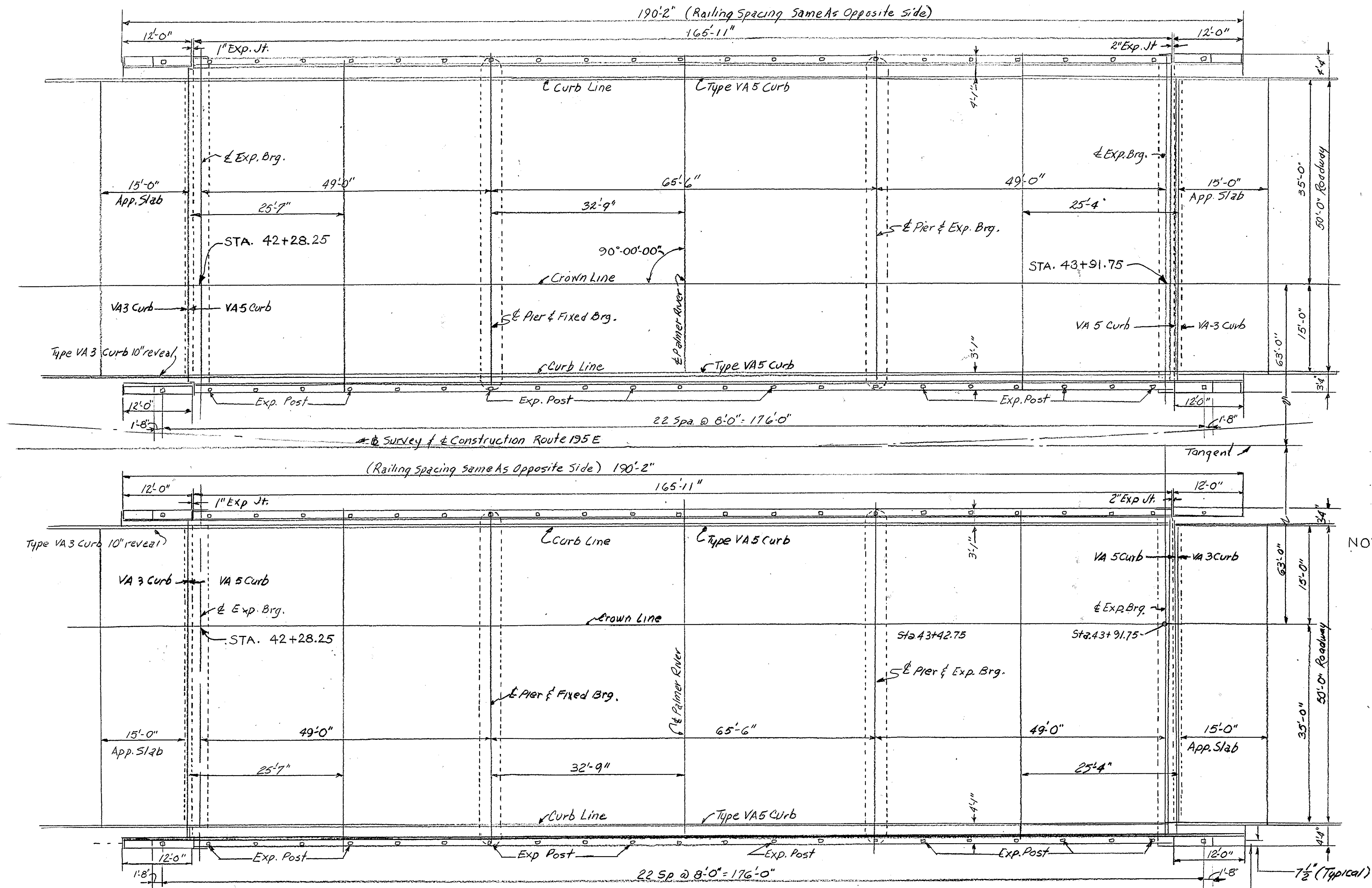
Traffic Rail Extrusion Scale 1/2" = 1'



HAND RAIL EXTRUSION SCALE 1/2" = 1'

PUB. RD.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	I-195-3(669)0	19	143	340

REHOBOTH
INTERSTATE 195



DECK PLAN
Scale 1"=10'

NOTE:
EXISTING ALUMINUM RAILING (2 RAIL) TO BE REPLACED
WITH AL-1 RAILING MODIFIED.

ESTIMATED QUANTITIES
(NOT GUARANTEED)

CORING AND GROUTING ANCHOR BOLTS	368 EA
METAL BRIDGE RAIL (I-RAIL) TYPE AL-1 MODIFIED	716 LF
METAL BRIDGE RAIL, REMOVED & STACKED	716 LF

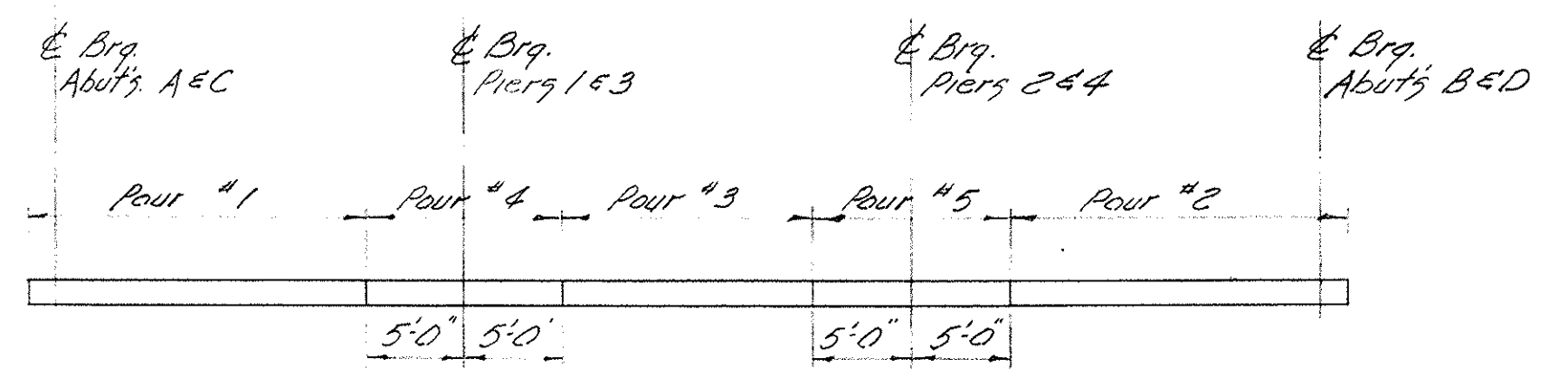
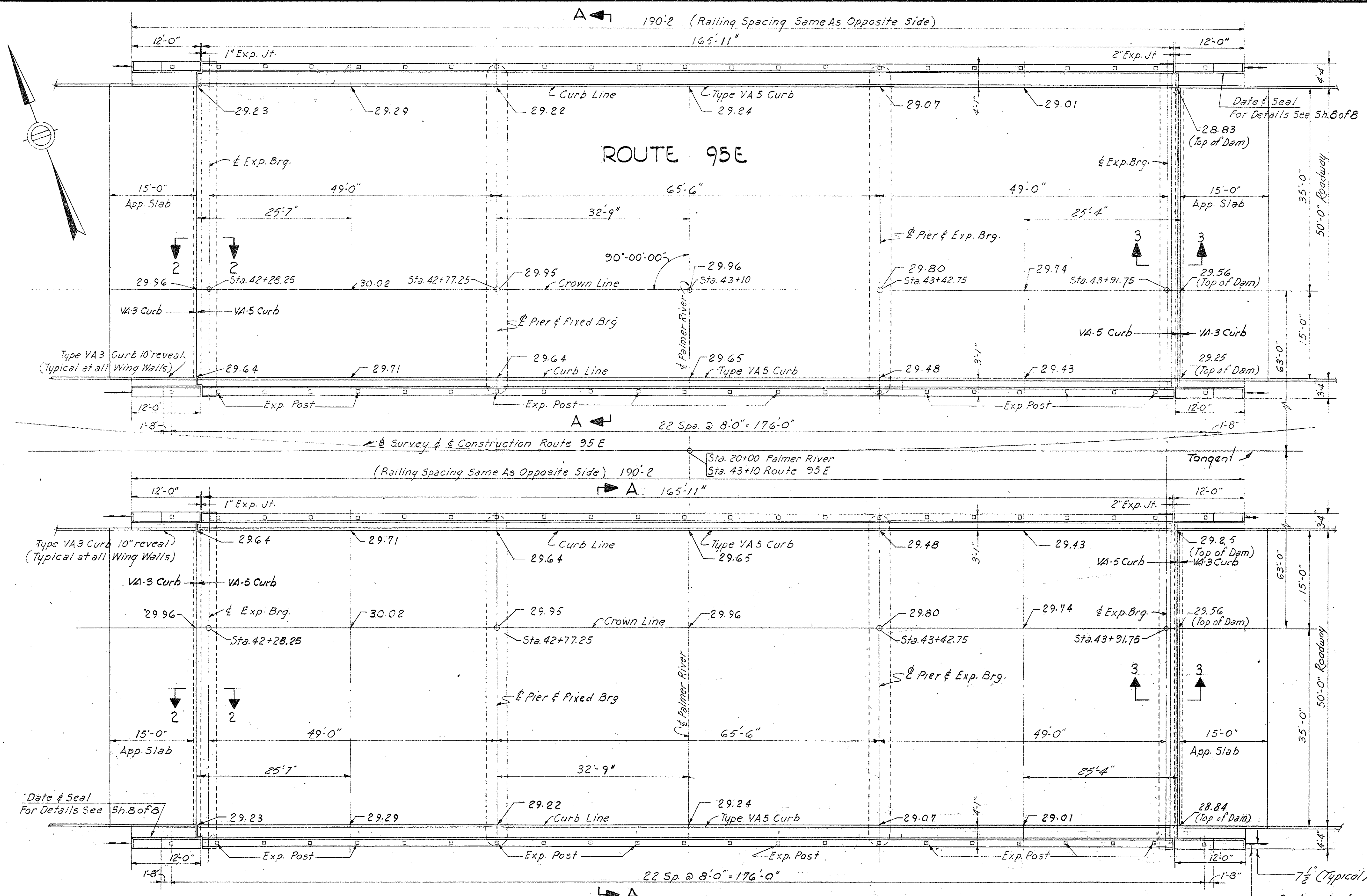
REHOBOTH
I-195 OVER PALMER RIVER

DATE	DESCRIPTION
	USE ONLY PRINTS OF LATEST DATE

SHEET OF SHEETS BRIDGE No. R-4-18

0702
2648

PUB. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	1-956-3 (S)B	1958	15	42



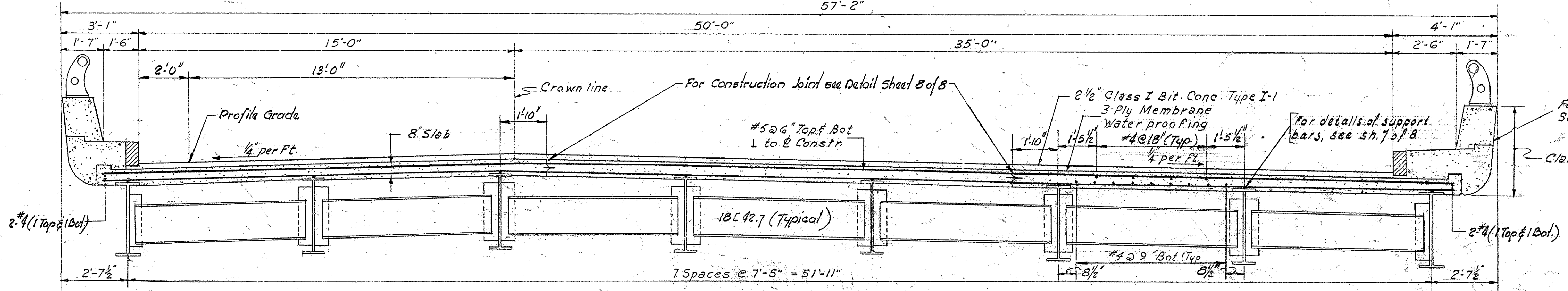
POURING SEQUENCE FOR
DECK CONCRETE
Scale - None

DECK PLAN
Scale 1"=10'

Elevations Shown On Plan Indicate
Top Of Bit. Concrete Surface Except As Noted.

Bridge Anchor Assemblies
Required On All Wingwalls
For Details see Sh. 8 of B

REFERENCES
For Sections 2-2 & 3-3 see Sheet 8 of 8

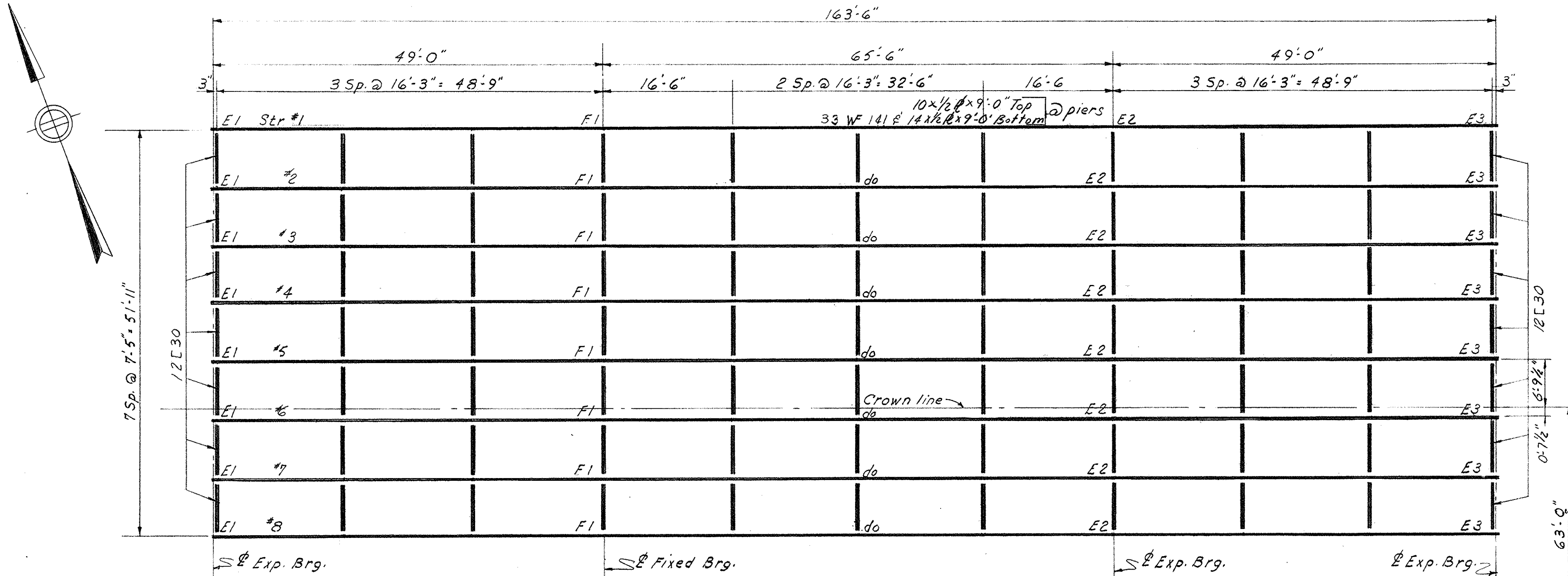


SECTION A-A
Scale 3/8"=1'-0"

For Rein. & dimensions
See Sh. 8 of B

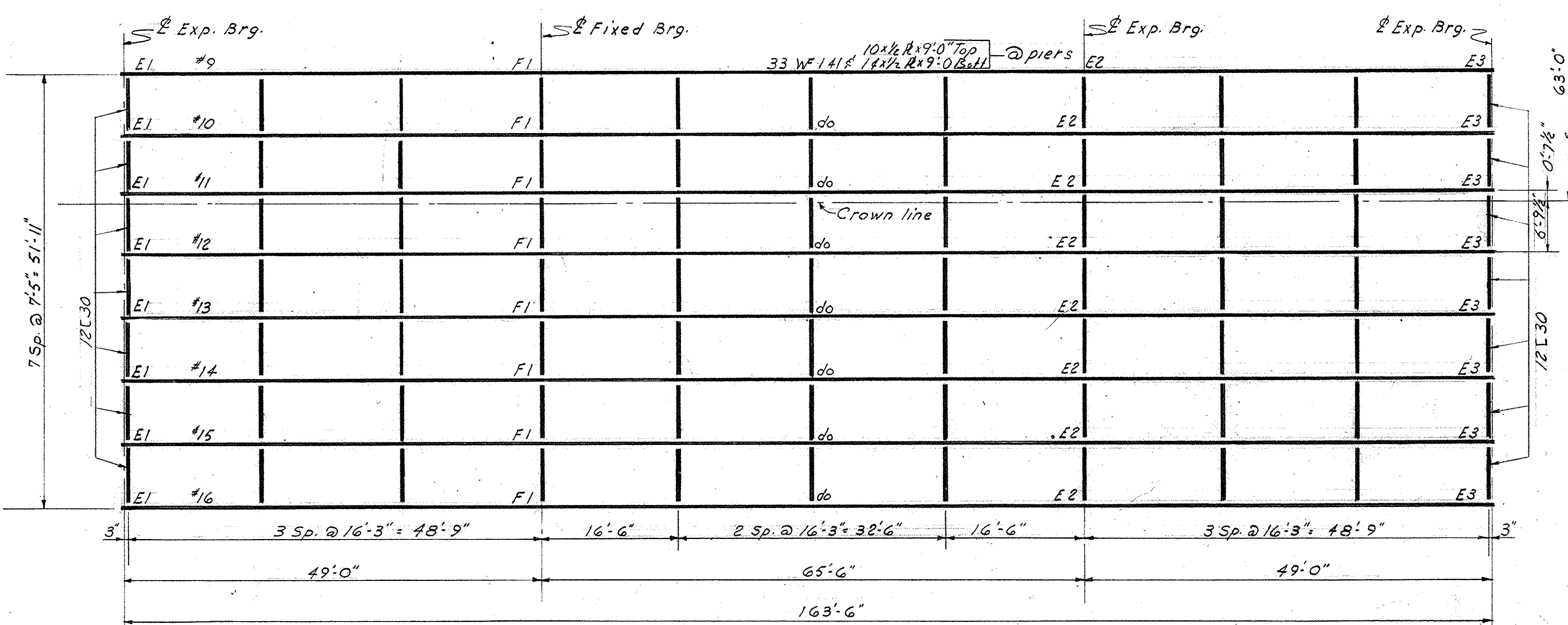
NOV. 8, 1958	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
SEE ONLY PRINTS OF LATEST DATE	

PUB. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	5-3 (5) 3	1958	18	42



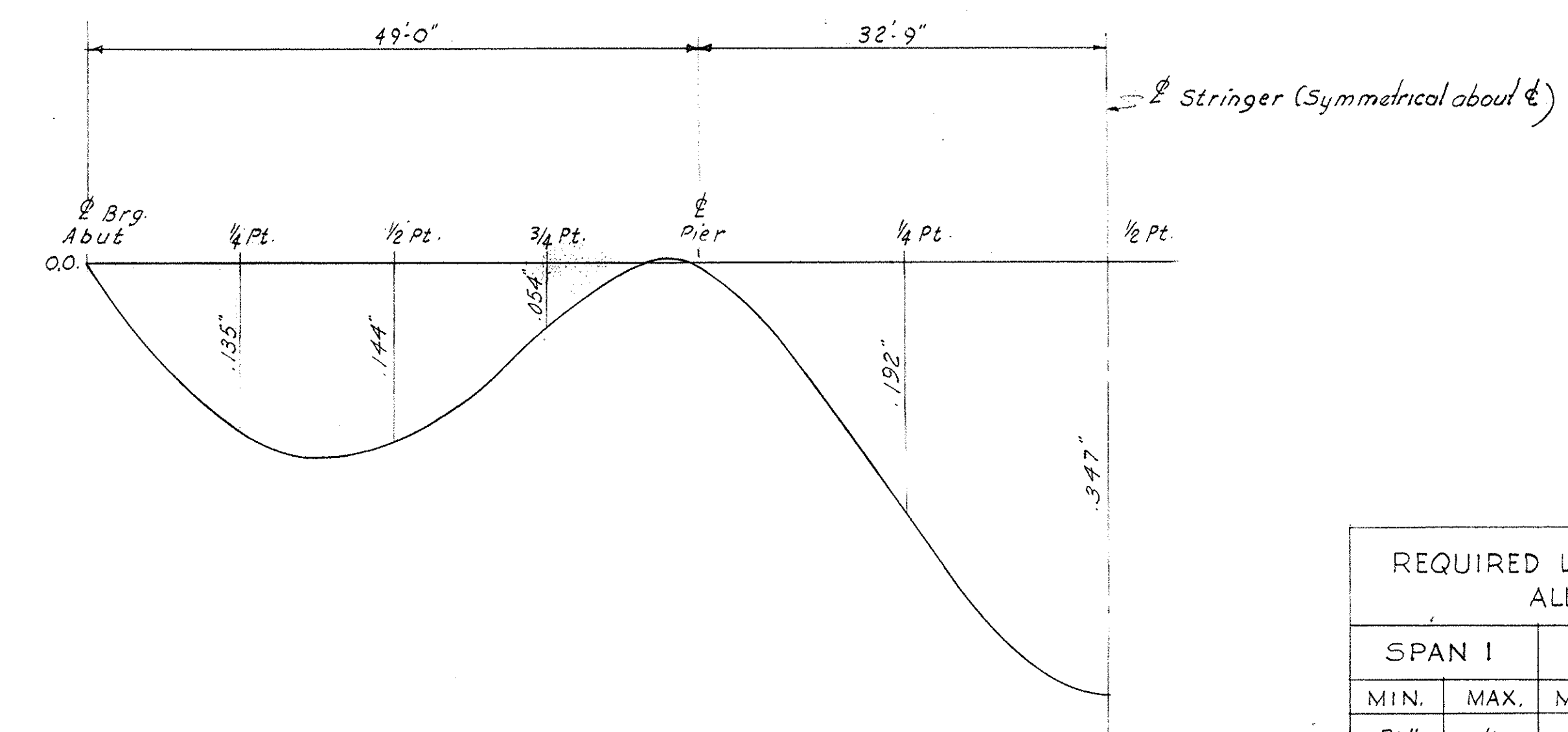
tangent to Survey & Construction Route 95 E

Sta. 20+00 Palmer River
Sta. 43+10 Route 95 E



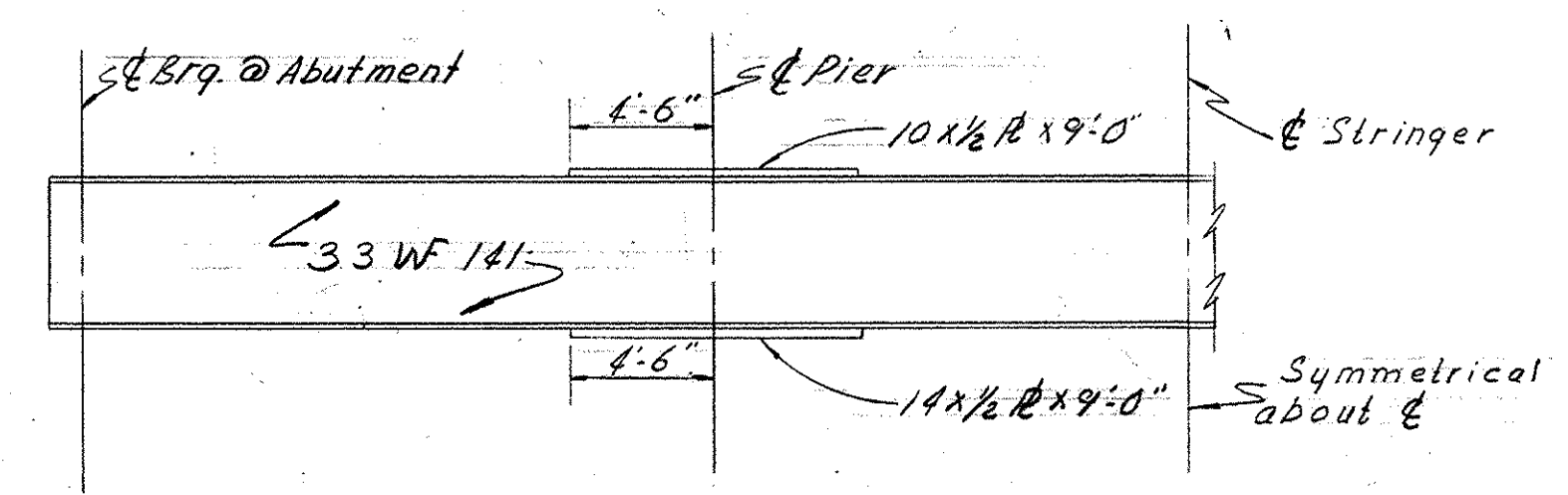
Note:
All diaphragms 18" x 42.7
except as shown.

STEEL FRAMING PLAN
SCALE: 1" = 10'-0"

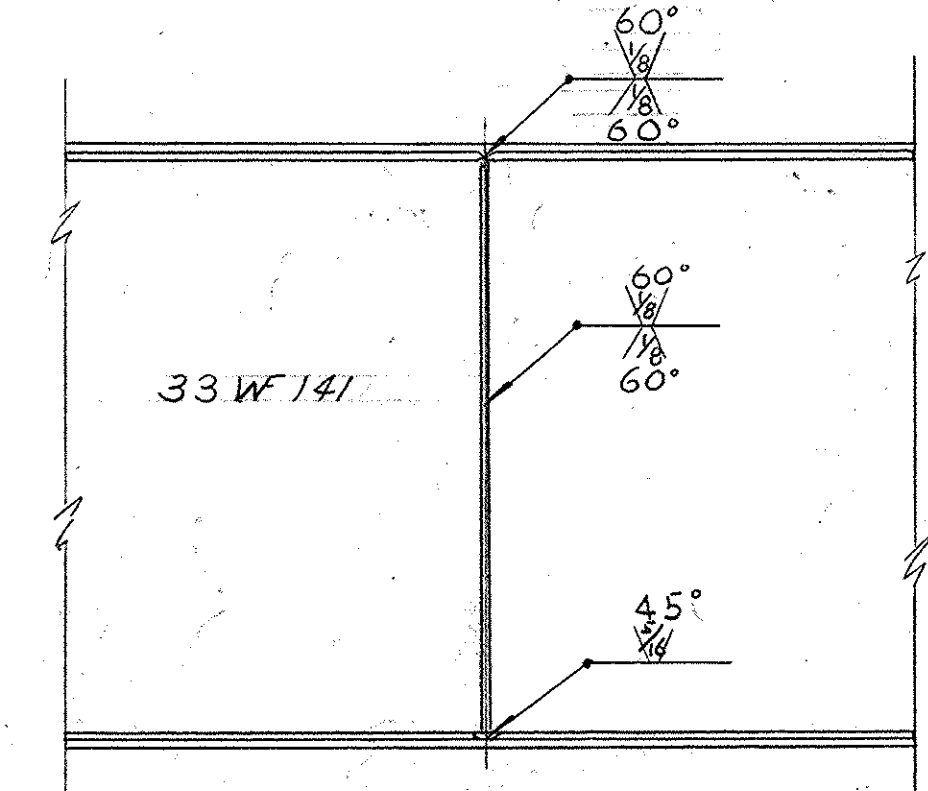


REQUIRED LIMITS OF CAMBER ALL STRINGERS					
SPAN 1		SPAN 2		SPAN 3	
MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
7/8"	1 1/8"	1 1/2"	2"	1"	1 1/4"

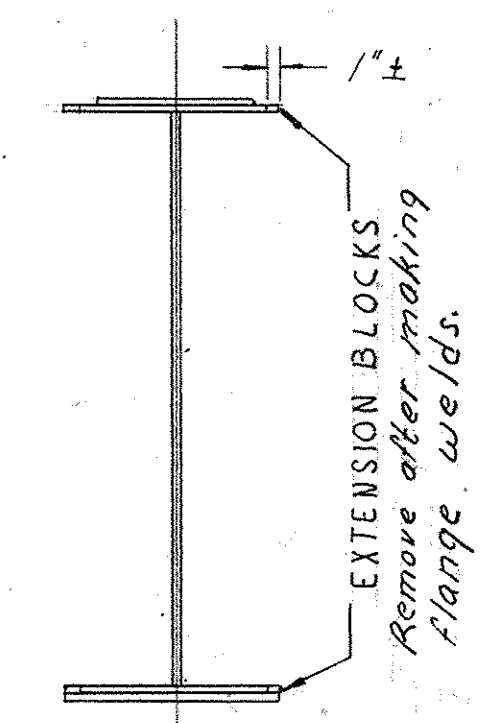
DEAD LOAD DEFLECTIONS (inches)
SYMMETRICAL ABOUT C OF STRINGER
Scale: Horiz. 1" = 10'
VERT. Full
Deflection of Bridge Slab Only (for Convenience
of Resident Engineer)



TYPICAL STRINGER DETAIL
NOT TO SCALE

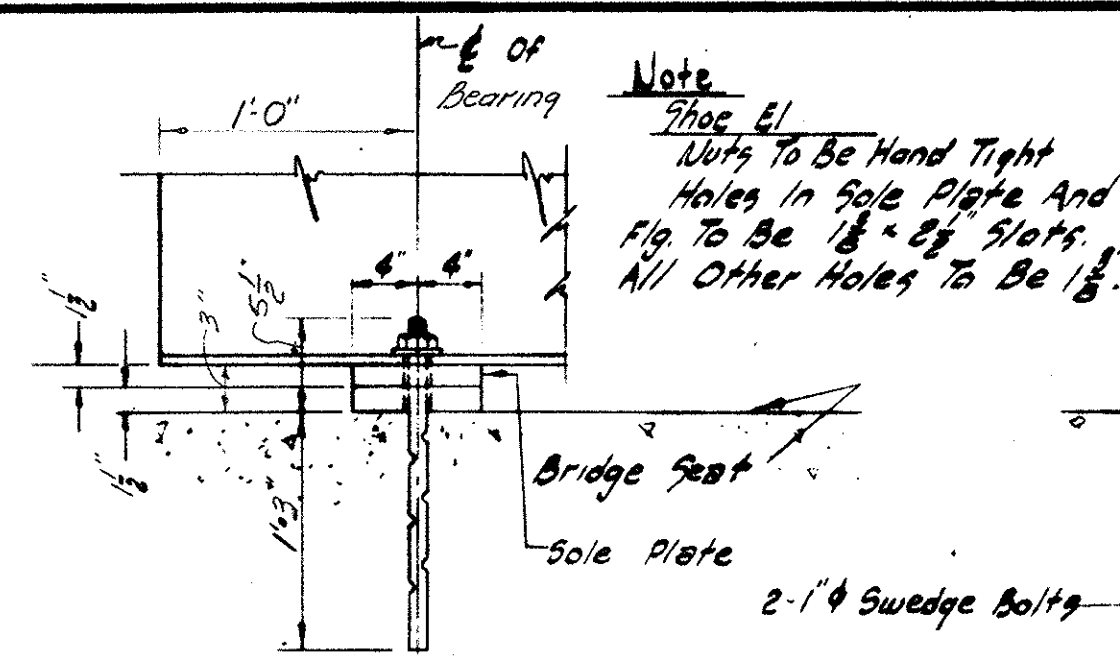


WELDED SPLICE DETAIL
SCALE: 1" = 1'-0"
Stringer Splices To Be Made Over Piers.

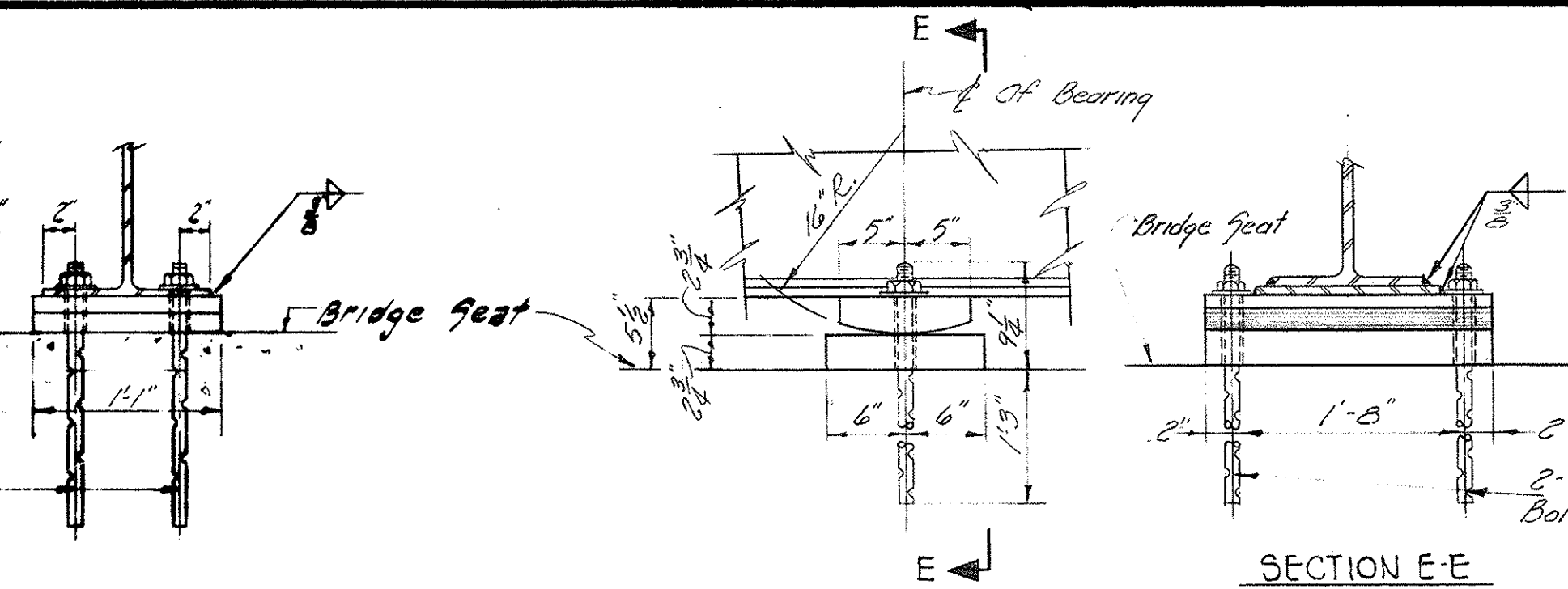


NOV 8 1958	ISSUED FOR CONSTRUCTION.
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE.	

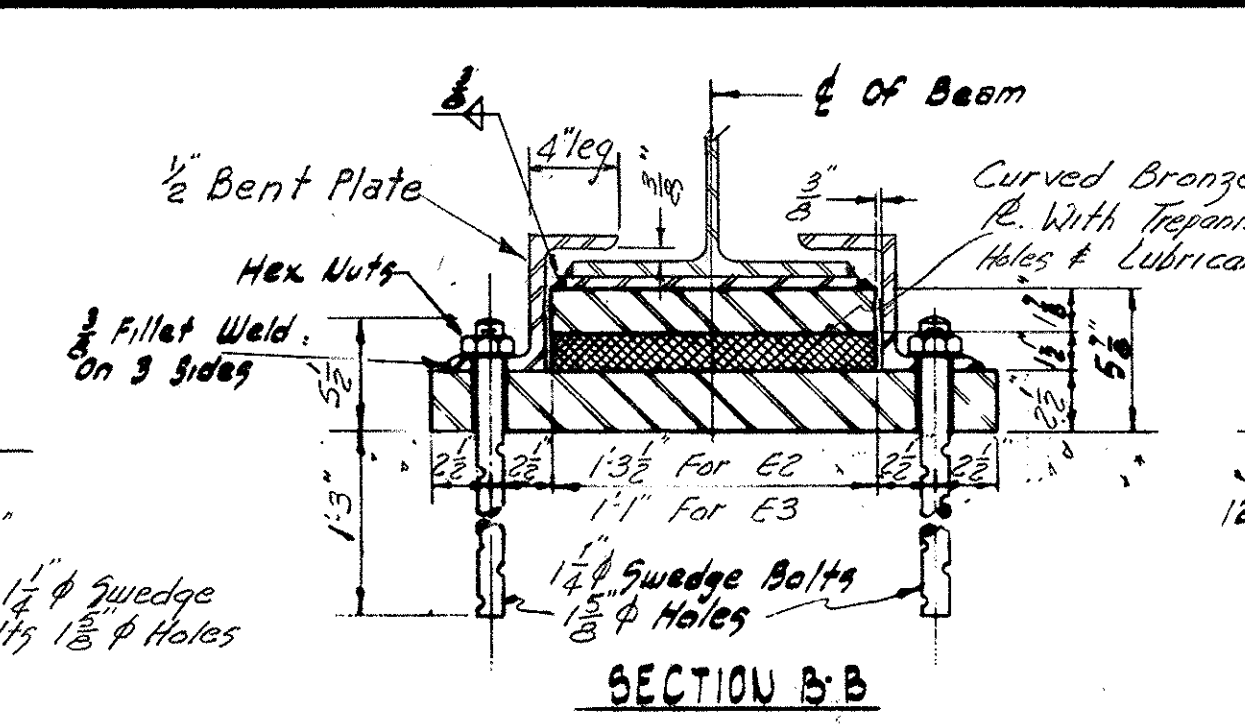
PWA ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	1-95E-3 (5)-3	1958	19	42



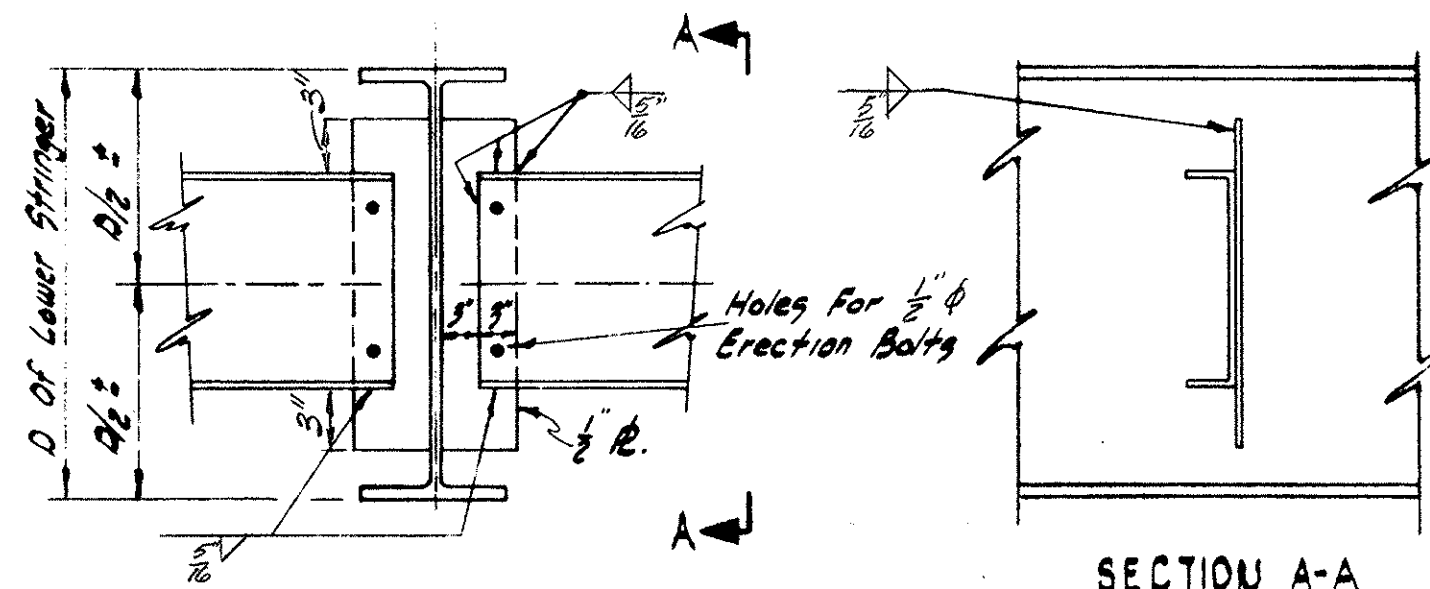
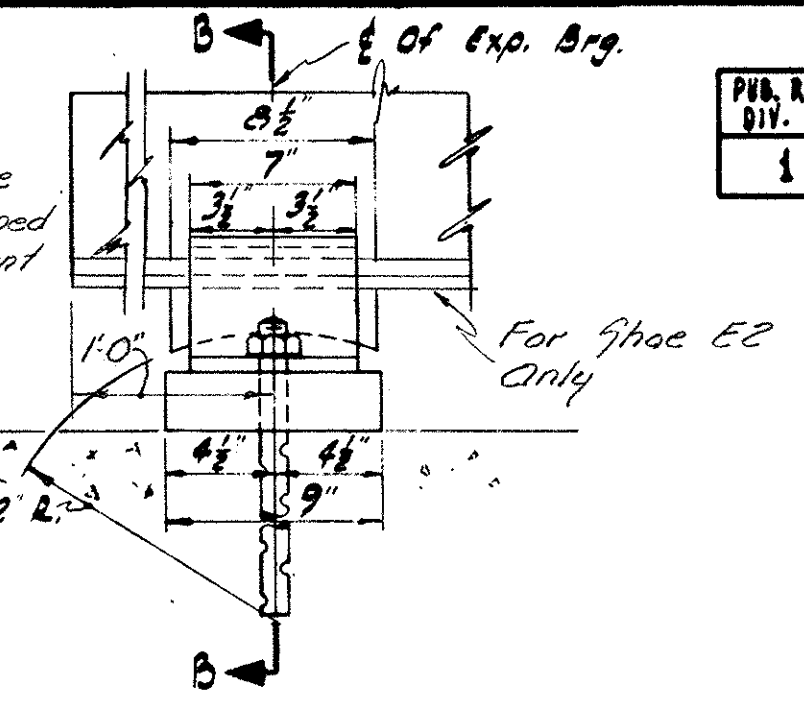
EXPANSION SHOE E1
Scale 1"=1'-0"



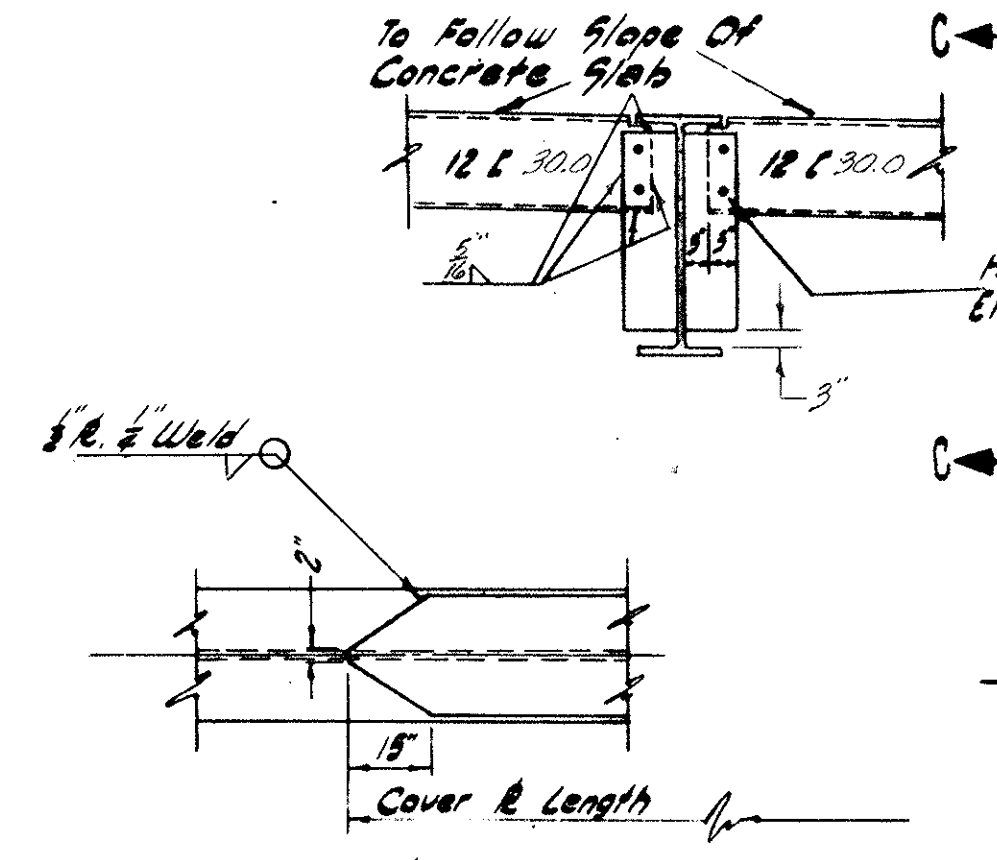
FIXED SHOE F1
Scale 1"=1'-0"



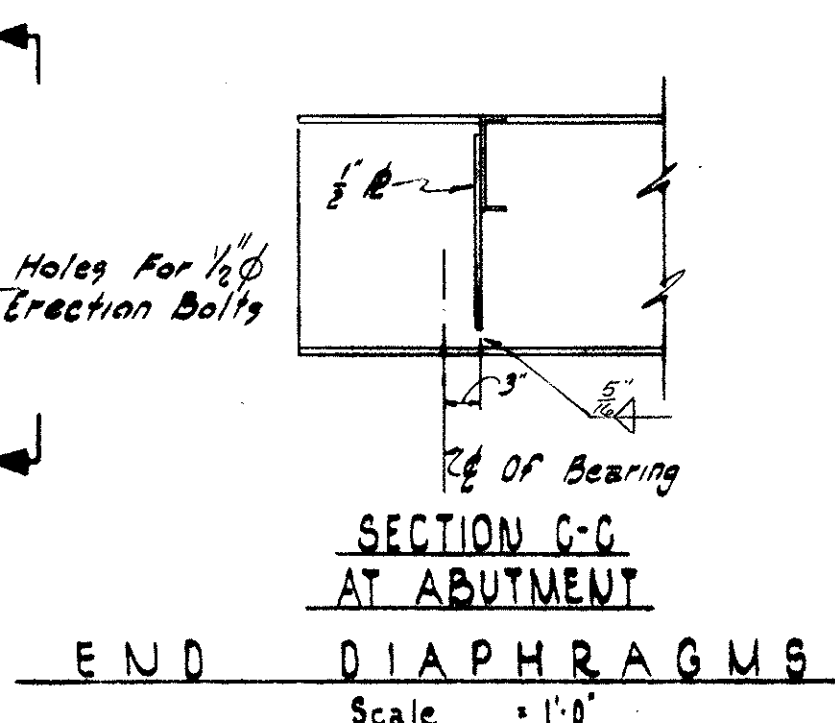
EXPANSION SHOE E2 & E3
Scale 1/2"=1'-0"



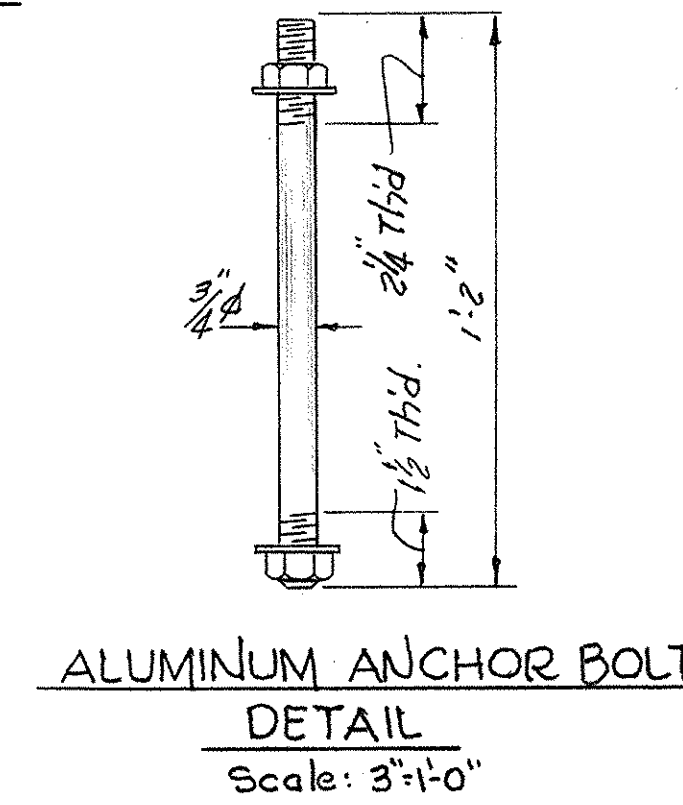
TYPICAL INTER DIAPHRAGMS



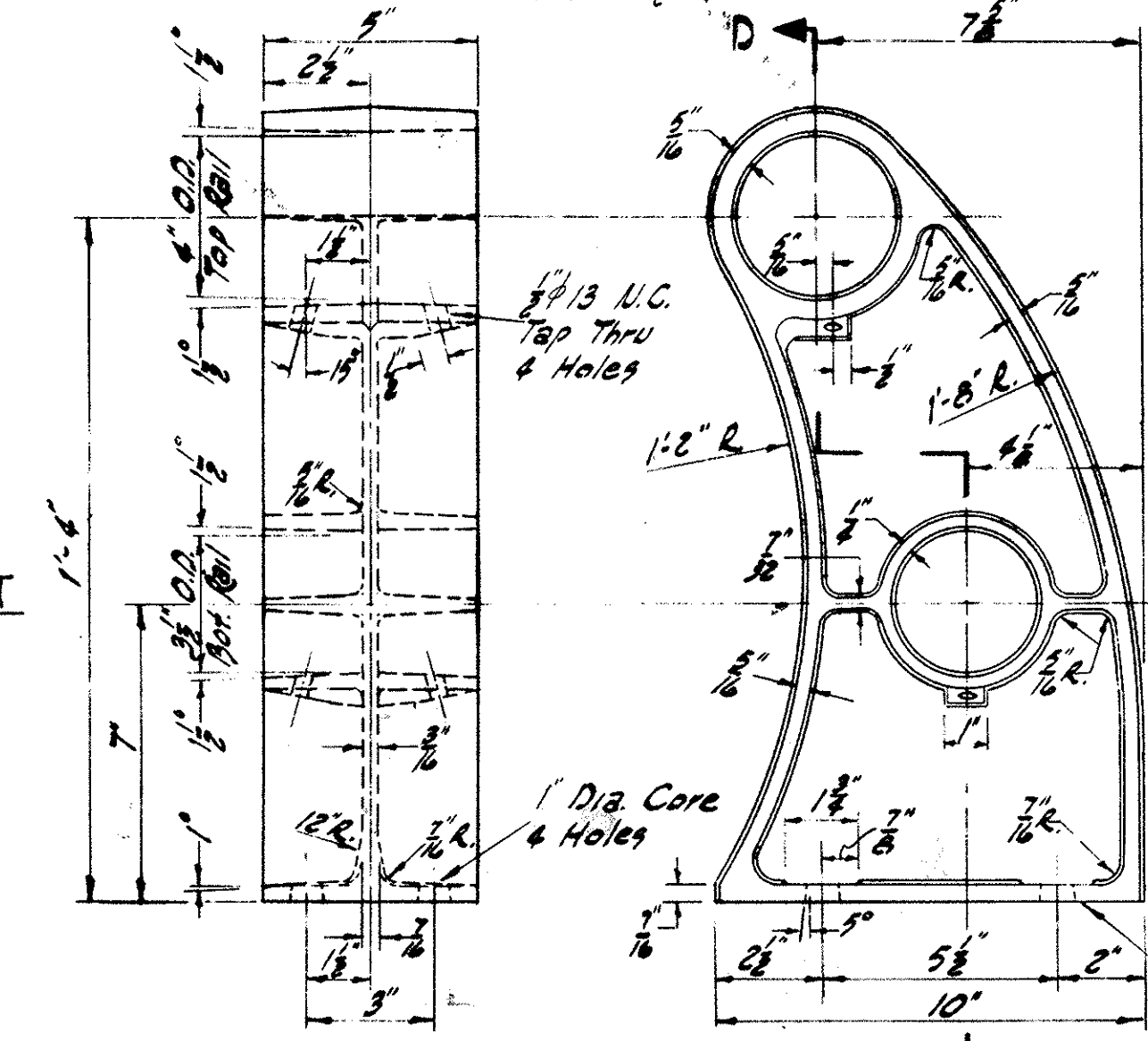
COVER R. DETAIL
Scale 1/2"=1'-0"



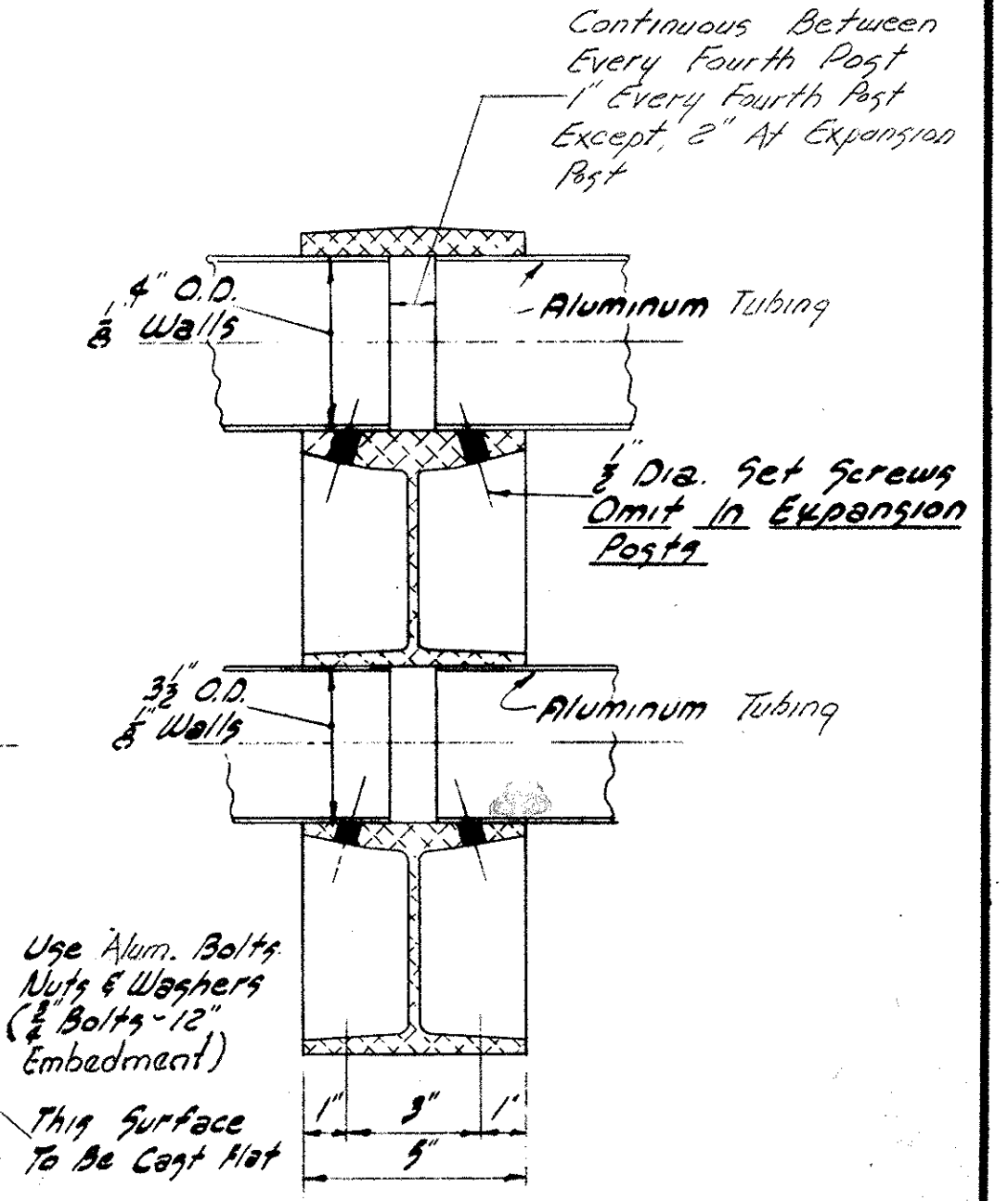
SECTION C-C
AT ABUTMENT
Scale 1"=1'-0"



ALUMINUM ANCHOR BOLT
DETAIL
Scale: 3/4"=1'-0"

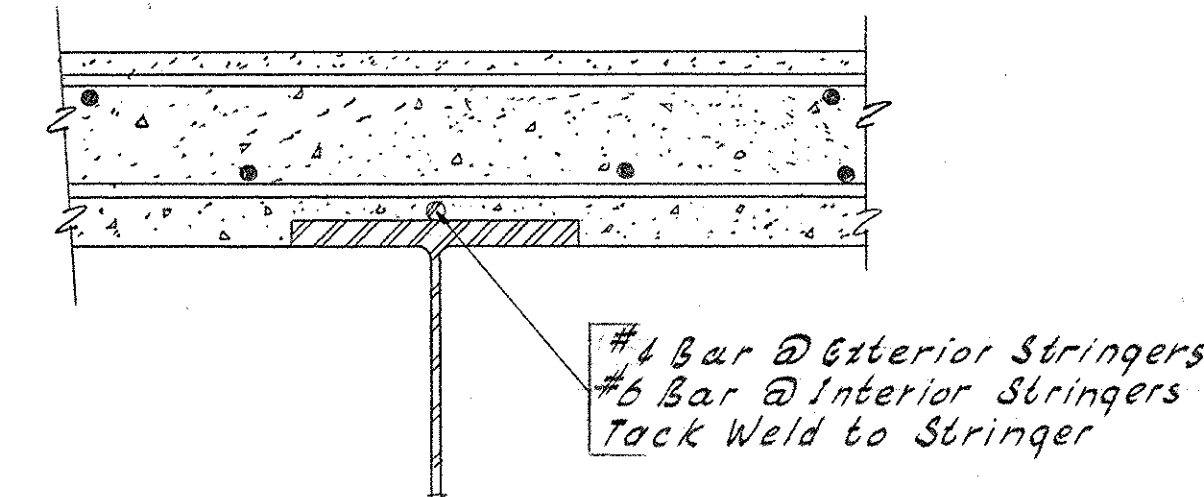


OUTSIDE ELEVATION



SECTION D-D

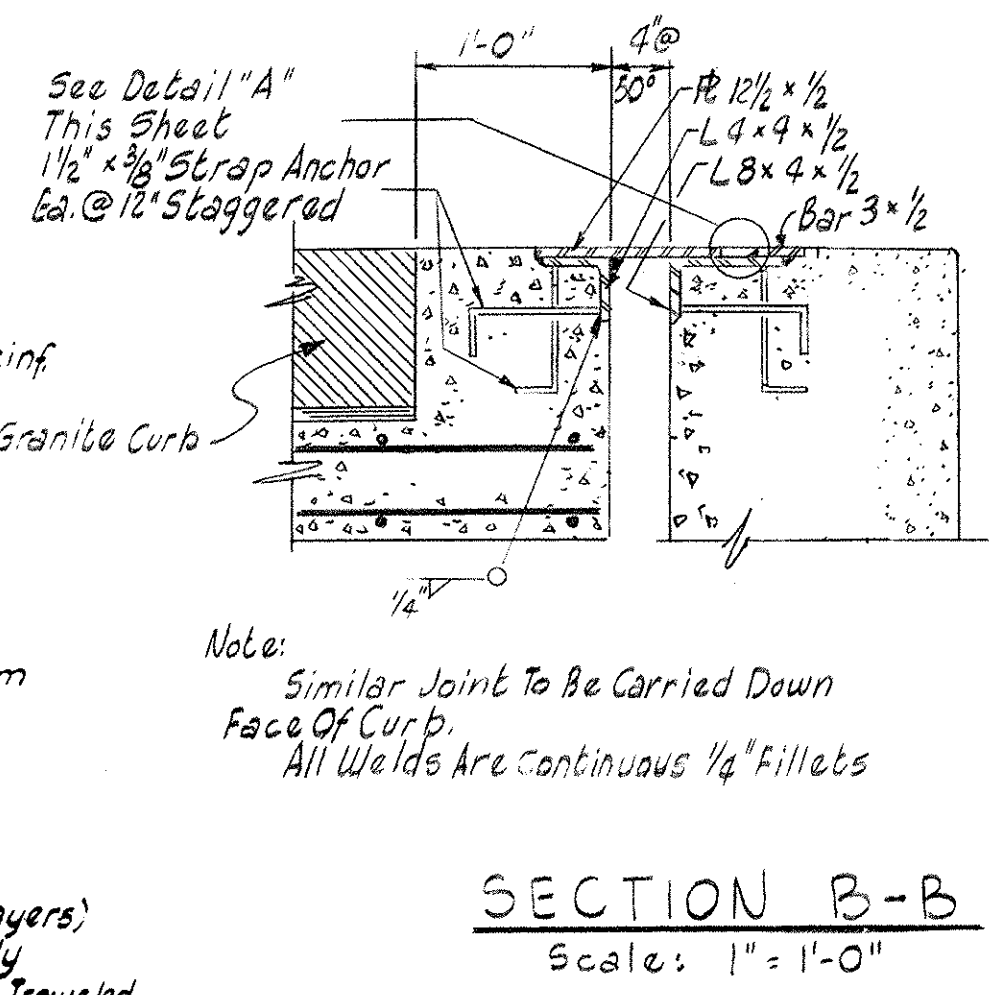
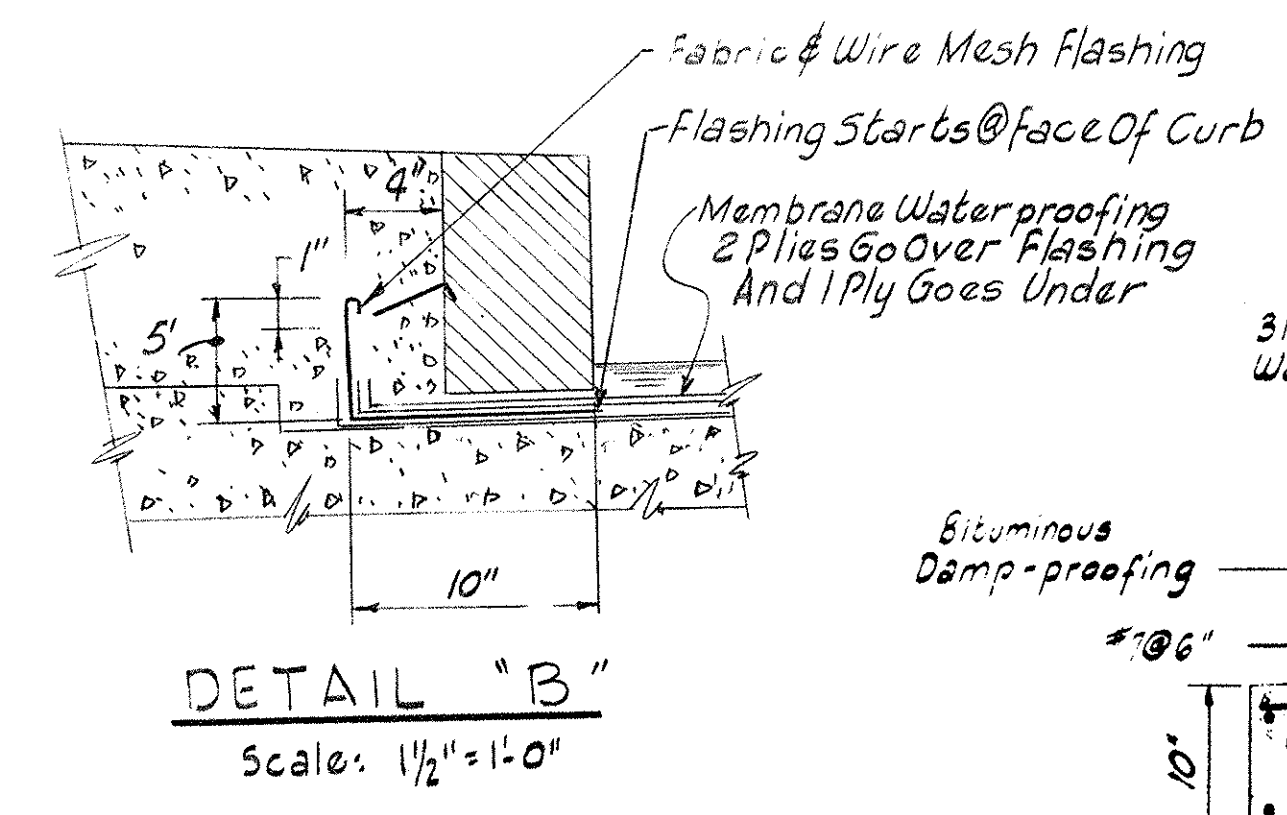
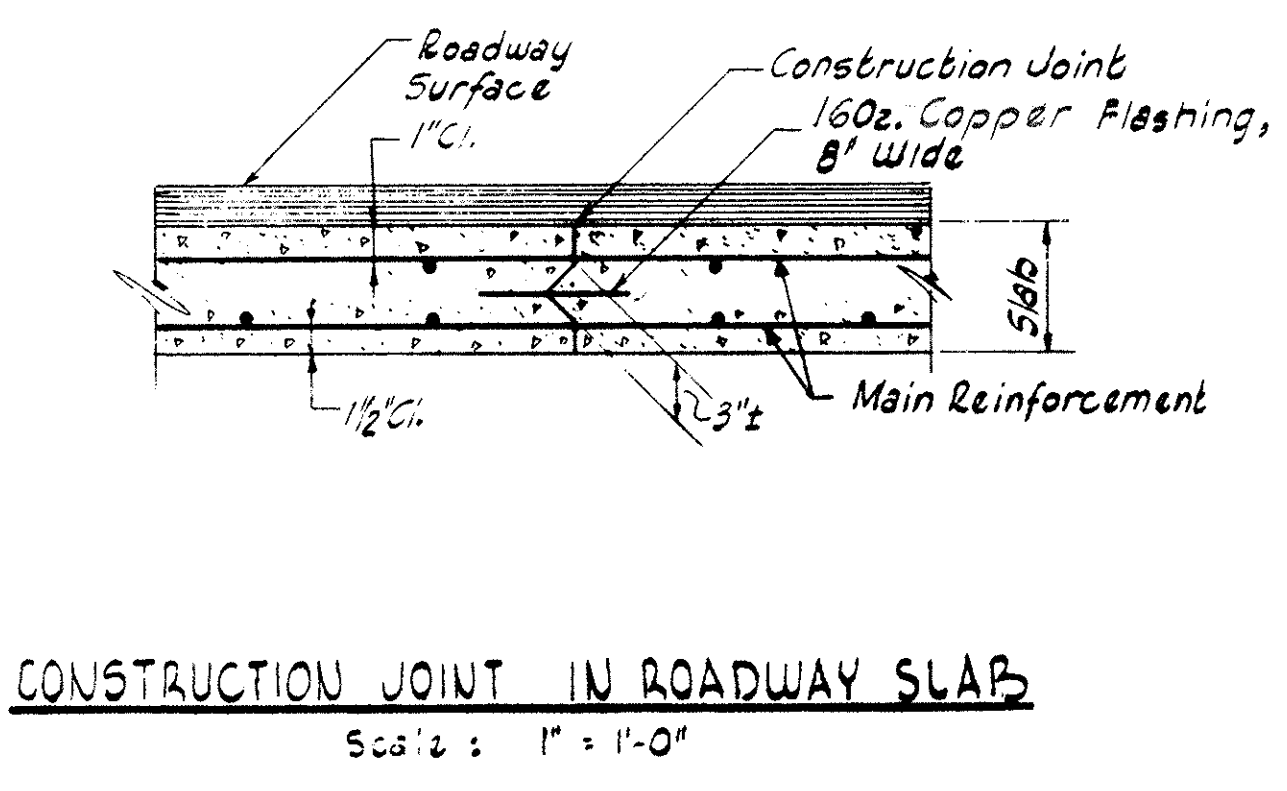
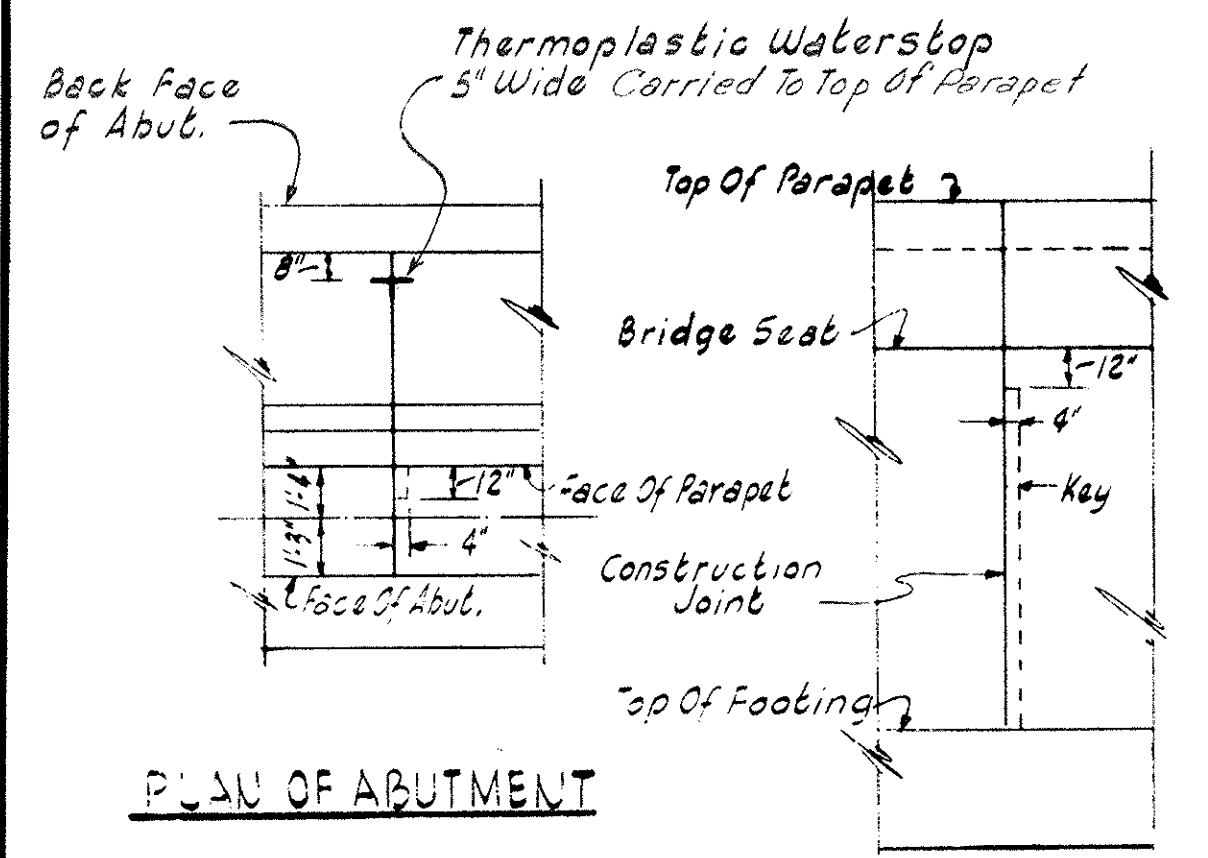
POST ELEVATION
ALUMINUM RAIL DETAILS
Scale 3/4"=1'-0"



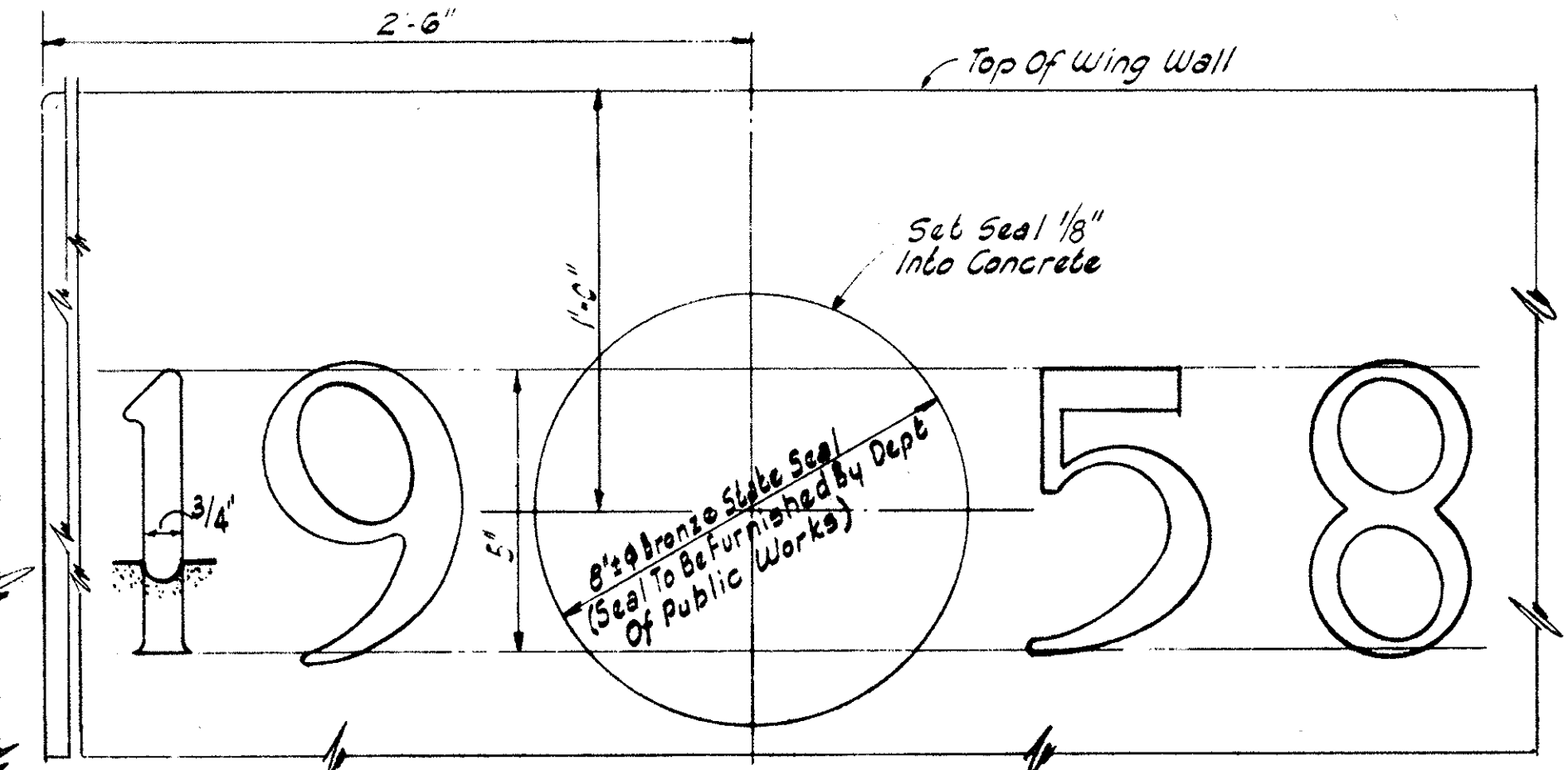
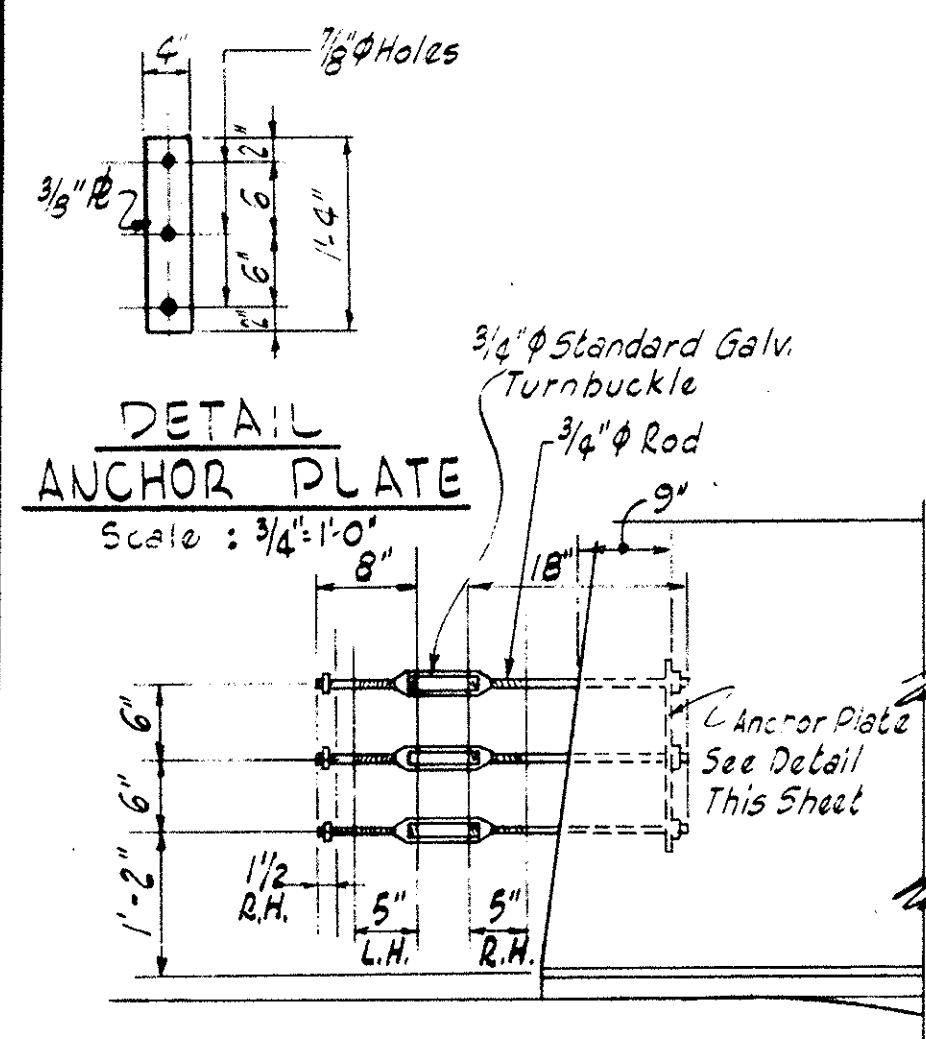
DETAIL OF SUPPORT BAR
AT END SPANS
Scale: 1/8"=1'-0"

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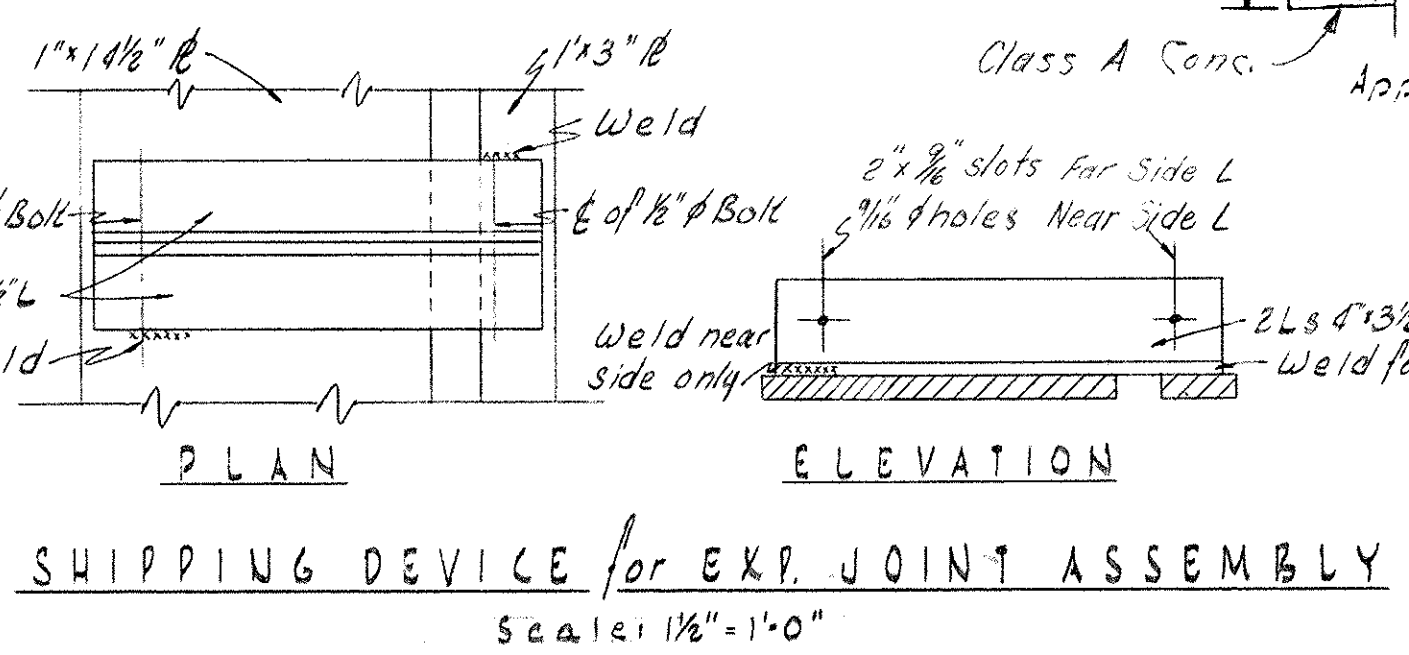
PUB. ROAD DIV. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
1	MASS.	1-95E-3 (5) 3	1958	20	42



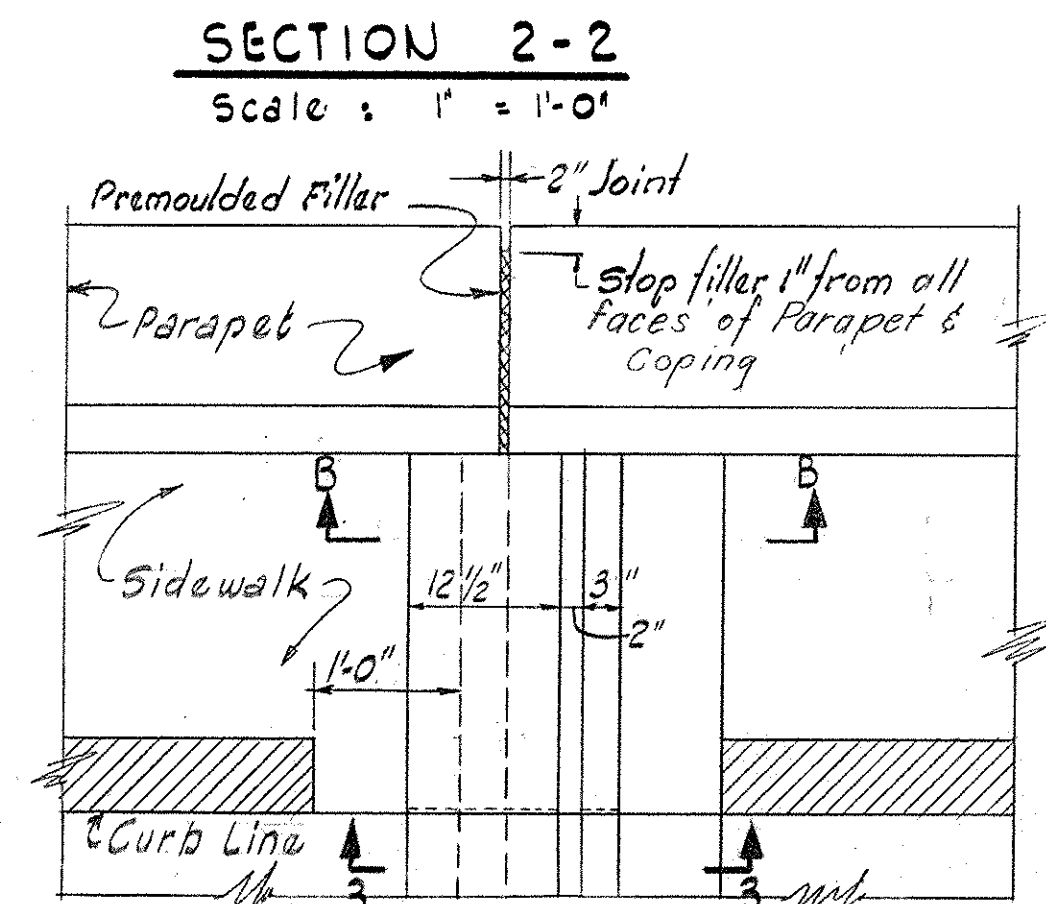
CONSTRUCTION JOINT IN ABUTMENTS
Scale: 3/16" = 1'-0"



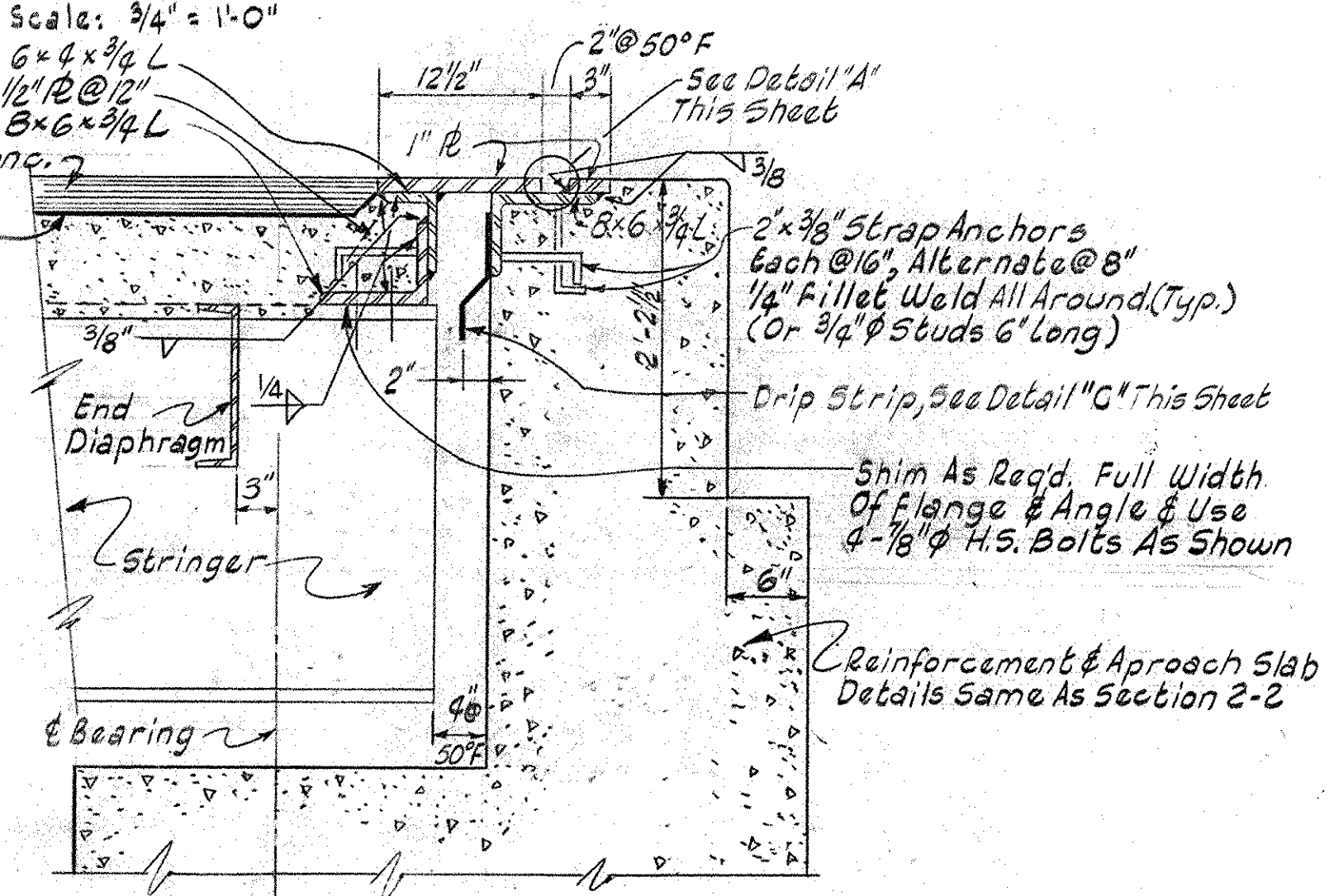
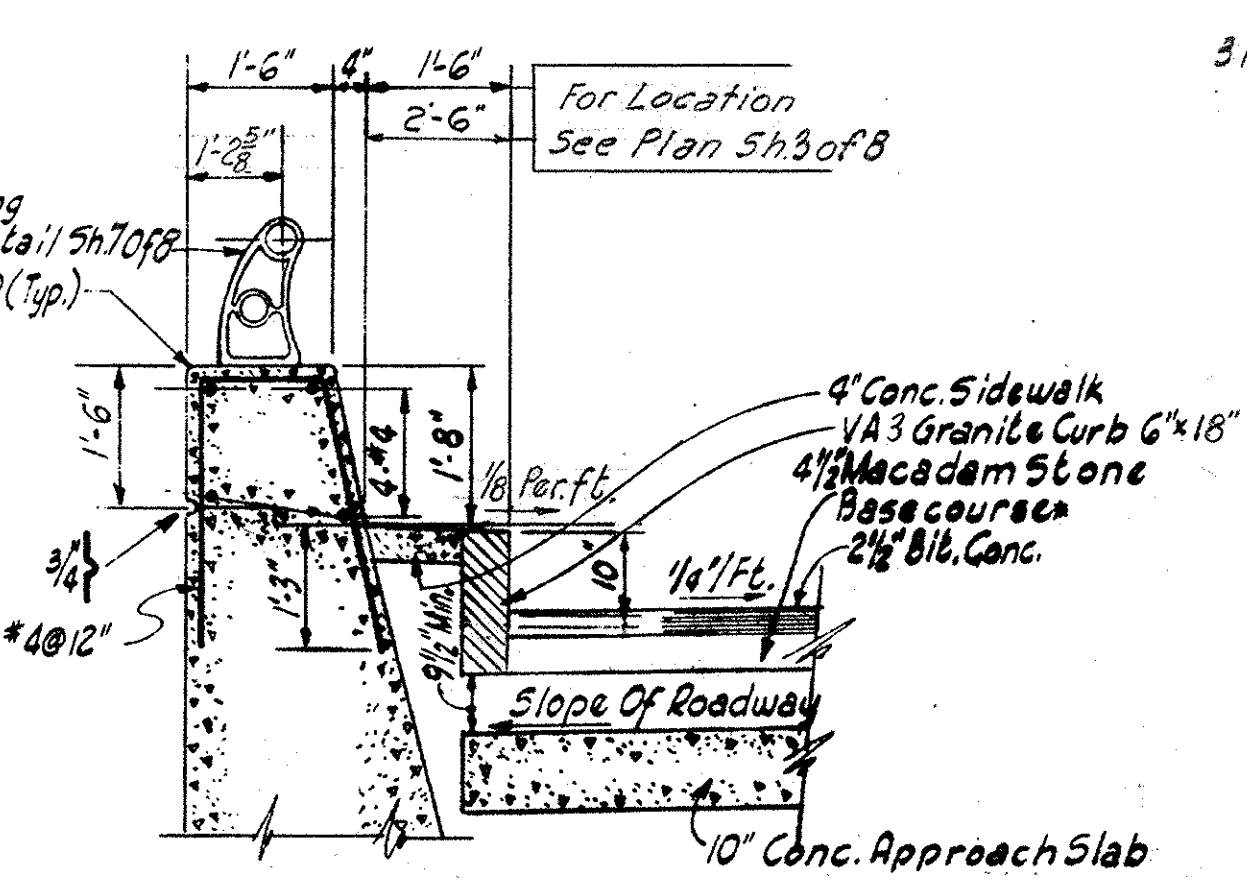
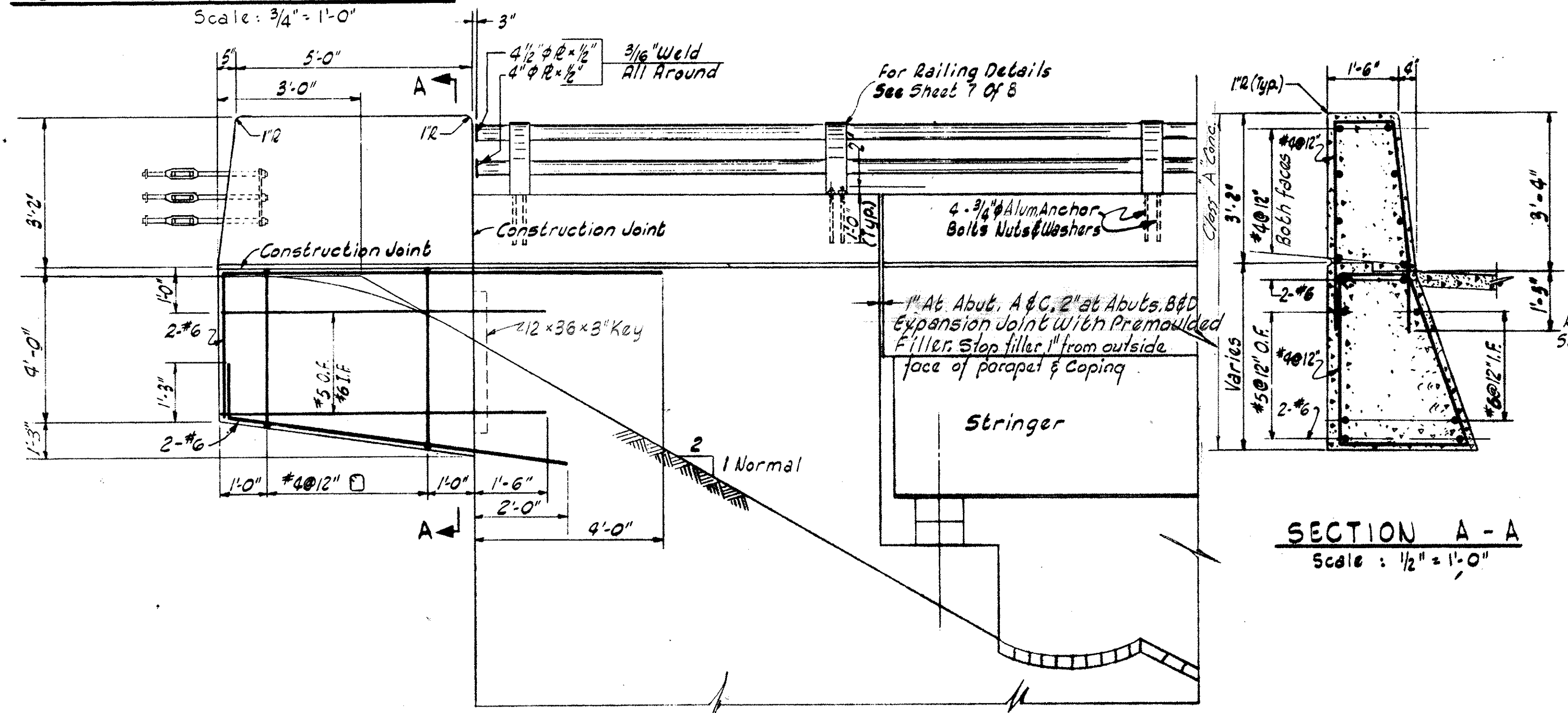
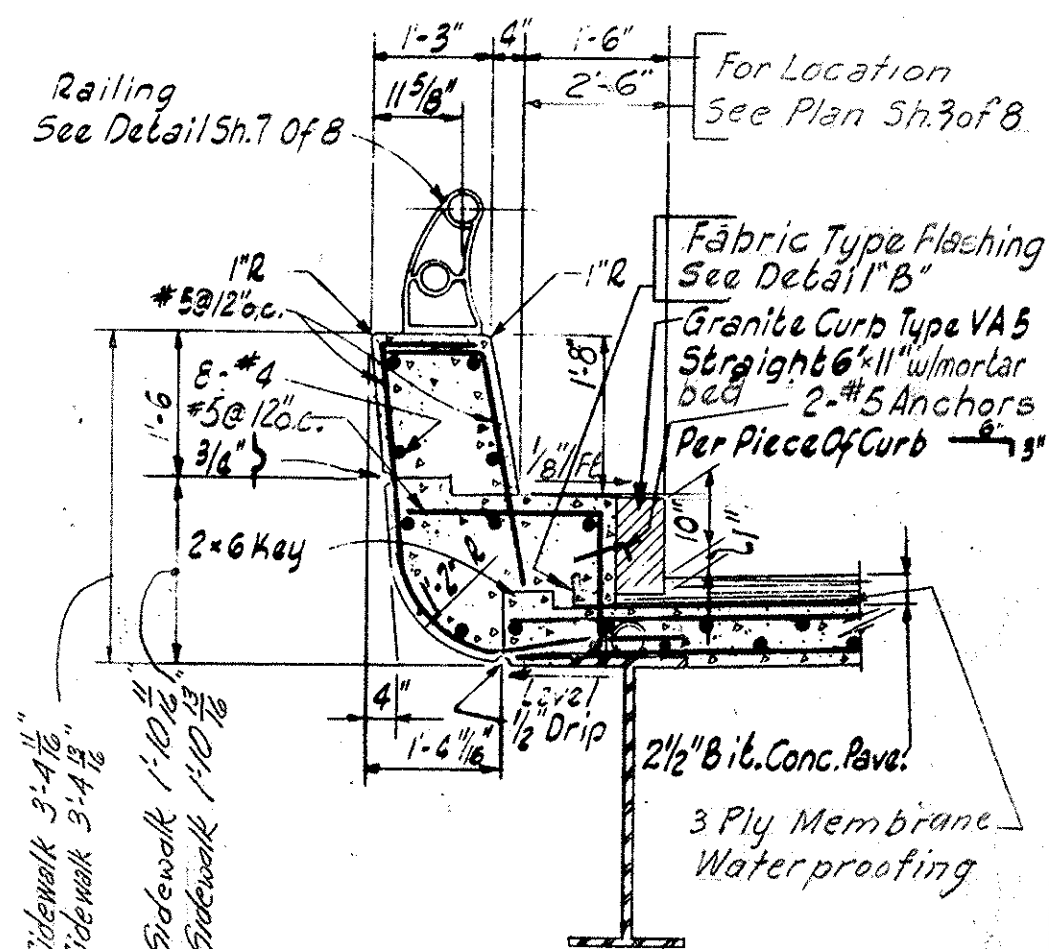
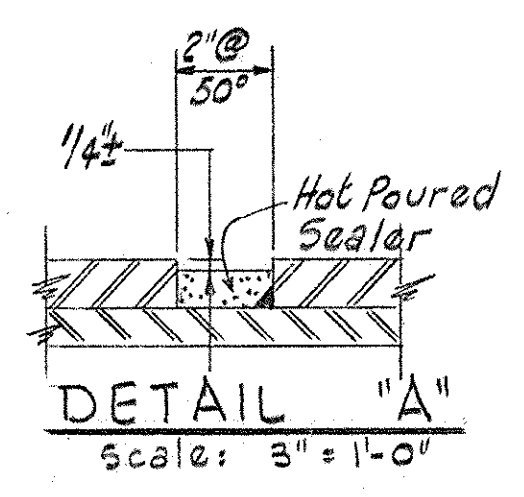
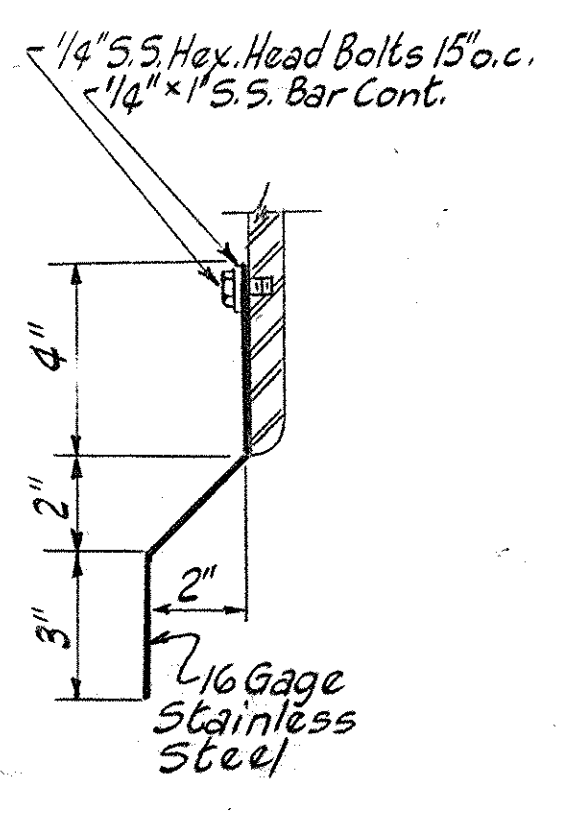
DETAIL OF BRIDGE ANCHOR ASSEMBLY
Scale: 3/4" = 1'-0"



Note: Bolts on shipping device must be removed within one hour after concrete is placed so that movement may take place. Device shall be removed after concrete has set on both sides of assembly.



PLAN OF EXPANSION DAM AT ABUTMENTS B & D
Scale: 3/4" = 1'-0"



DETAIL OF 1'-6" SIDEWALK
Scale: 1/2" = 1'-0"

For Location Of Sections 2-2 & 3-3 See Sheet 30 of 3

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