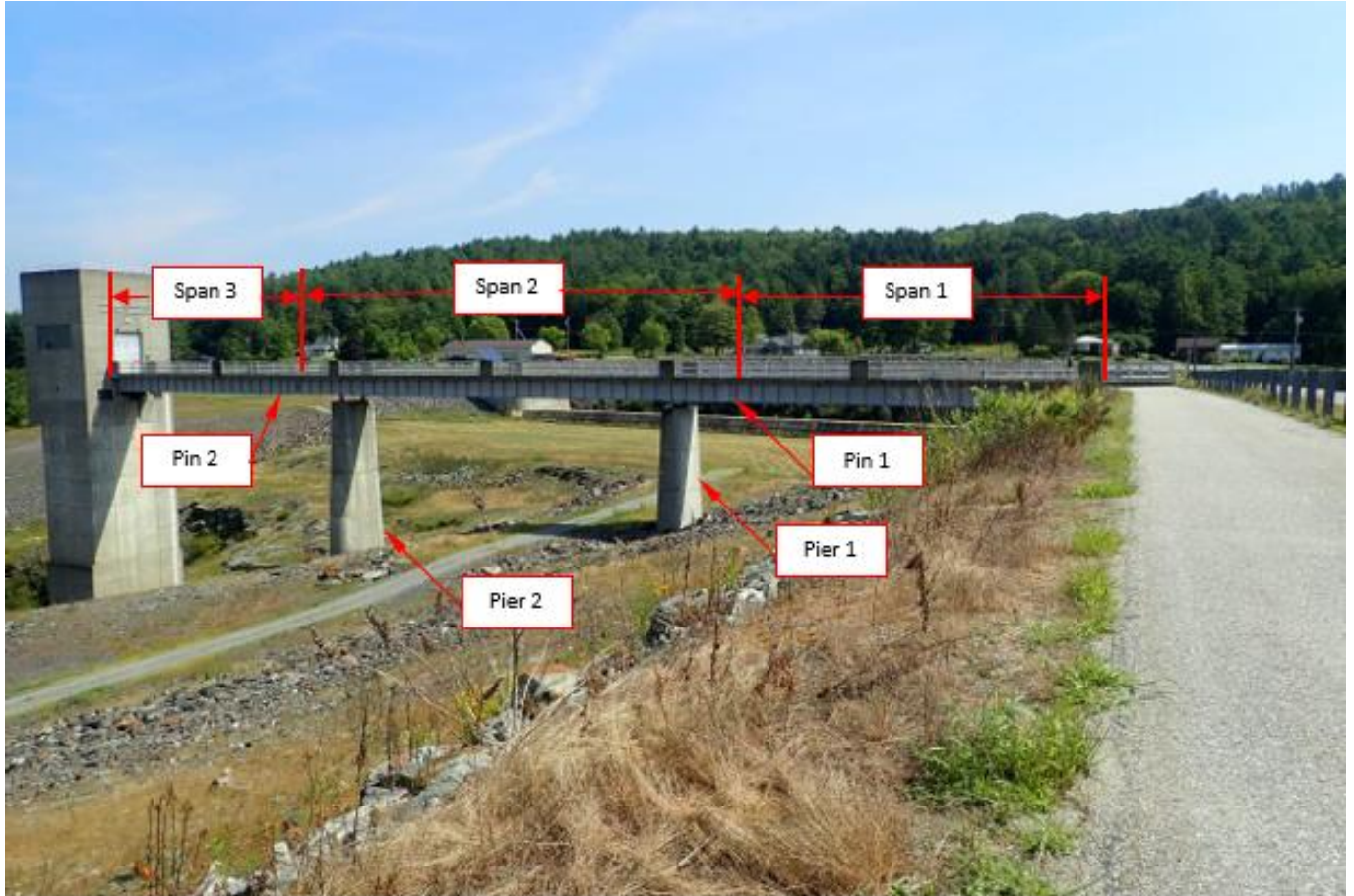


**BRIDGE PIN ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
PERFORMANCE WORK STATEMENT**

**Informational Photos**



**Informational Photo 1:** North Springfield Lake Service Bridge Profile looking West

**BRIDGE PIN ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
PERFORMANCE WORK STATEMENT**

**Informational Photos**



**Informational Photo 2:** Typical Girder Pin on North Springfield Lake Service Bridge

**BRIDGE PIN ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
PERFORMANCE WORK STATEMENT**

**Informational Photos**



**Informational Photo 3:** North Springfield Lake Service Bridge Approach



**BRIDGE PIN ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
PERFORMANCE WORK STATEMENT**

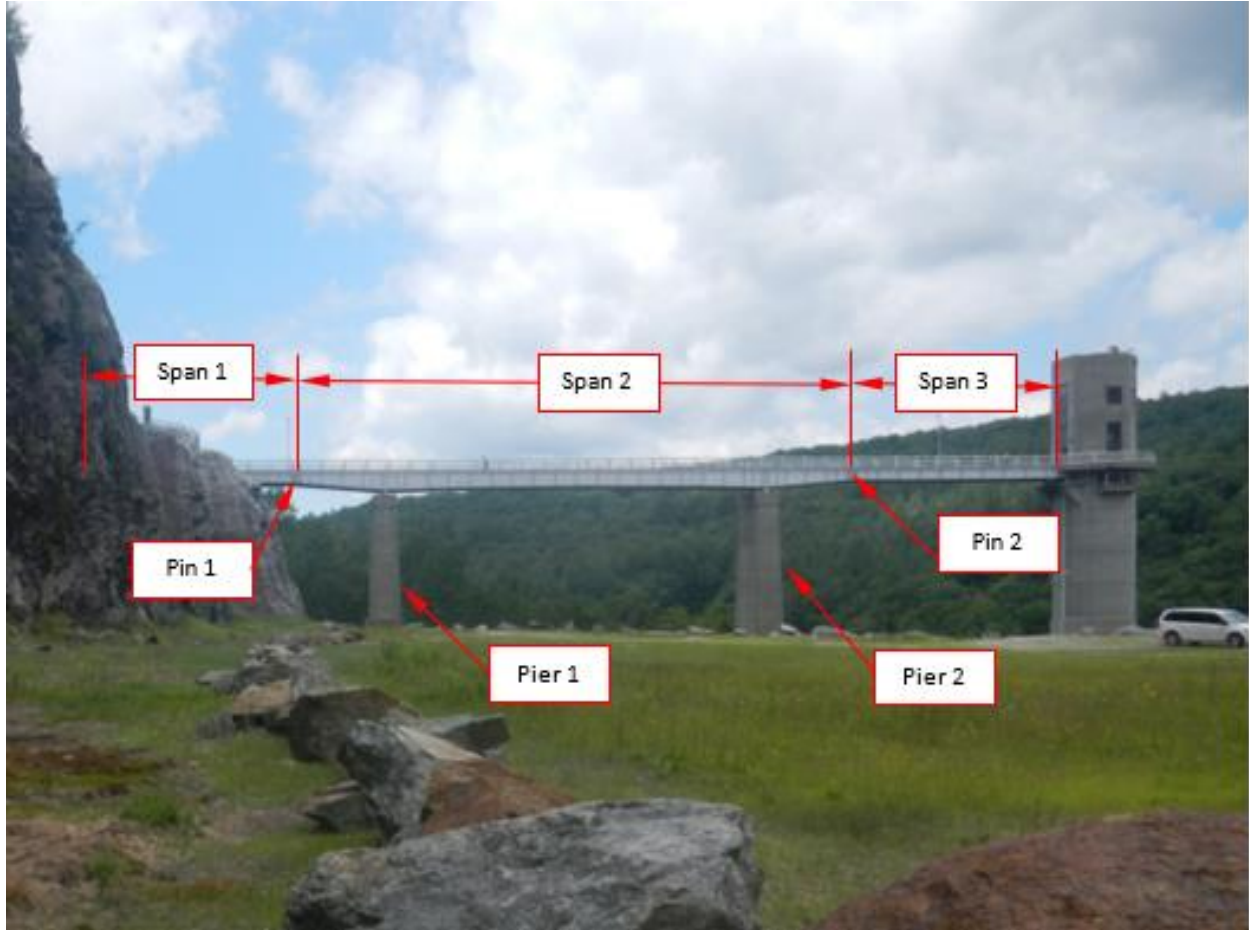
**Informational Photos**



**Informational Photo 4:** Snooper truck on the North Springfield Lake Service Bridge

**BRIDGE PIN ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
PERFORMANCE WORK STATEMENT**

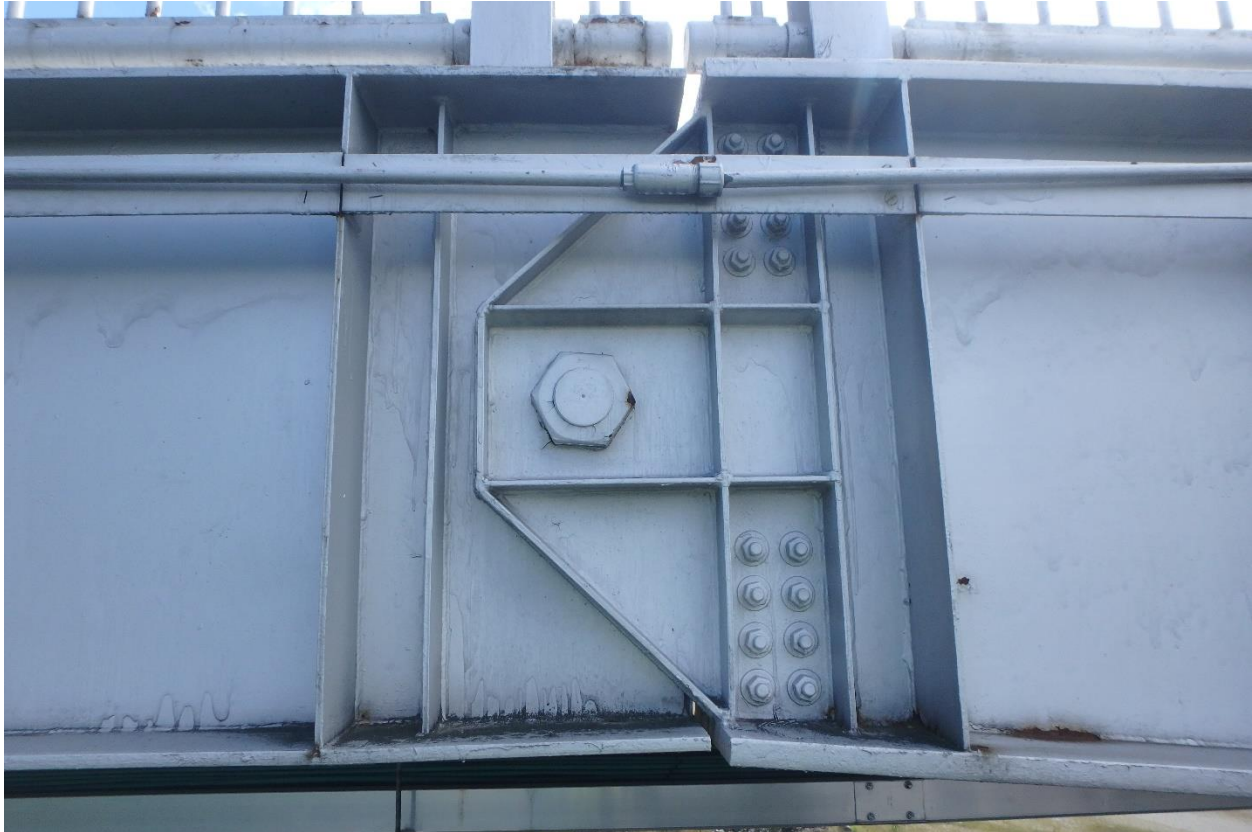
**Informational Photos**



**Informational Photo 5:** Ball Mountain Lake Service Bridge Profile looking East

**BRIDGE PIN ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
PERFORMANCE WORK STATEMENT**

**Informational Photos**



**Informational Photo 6:** Typical Girder Pin on Ball Mountain Lake Service



**BRIDGE PIN ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
PERFORMANCE WORK STATEMENT**

**Informational Photos**

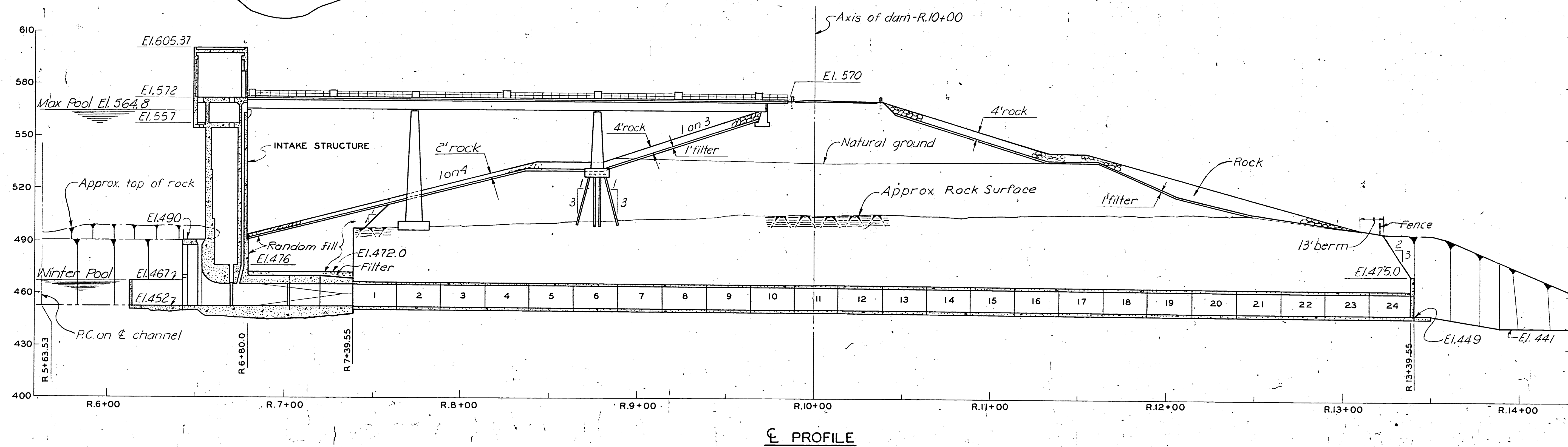
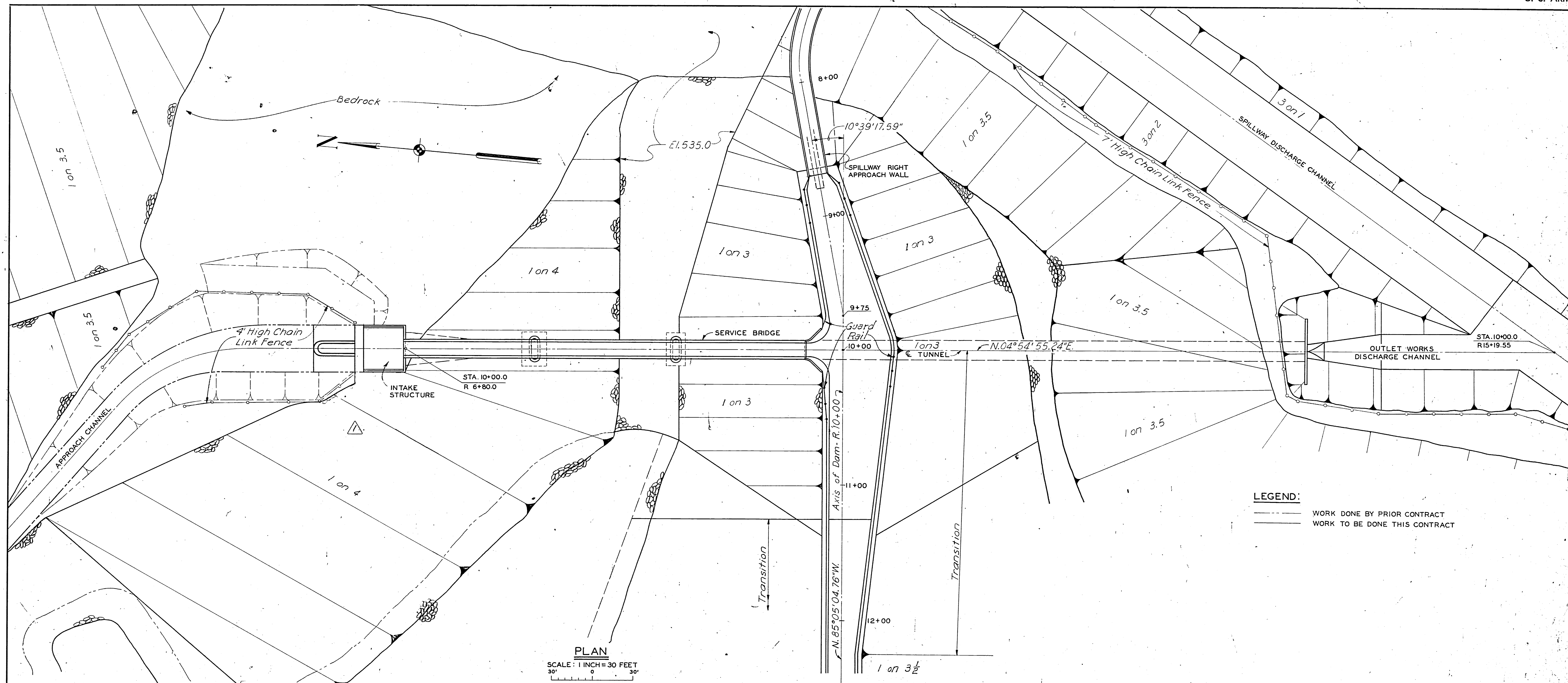


**Informational Photo 7:** Approach to the Ball Mountain Lake Service Bridge

**ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
STATEMENT OF WORK**

**Informational Plans  
North Springfield Service Bridge**





Record Drawing  
Contract No. DA-19-016-CIV-108332

DATE	REV.	DESCRIPTION	MADE	APPROVED
3-24-57		Turnaround deleted	J.C.	R.M.

DESIGNED BY: J.D.M.  
DRAWN BY: C.J.R.  
TRACED BY: C.J.R.  
CHECKED BY: R.L.R. P.E.D.  
SUBMITTED BY: J. J. J.  
APPROVED BY: J. J. J.  
CHIEF, CIV. DESIGN BRANCH

CORPS OF ENGINEERS, U. S. ARMY  
OFFICE OF THE DISTRICT ENGINEER  
OMAHA DISTRICT  
OMAHA, NEBRASKA

CONNECTICUT RIVER FLOOD CONTROL  
NORTH SPRINGFIELD DAM  
AND RESERVOIR  
OUTLET WORKS  
PLAN AND PROFILE  
BLACK RIVER, VERMONT

APPROVED: J. J. J.  
CHIEF, ENGINEERING DIVISION

DATE: FEB. 1958

SCALE: AS SHOWN  
SPEC. NO. CIVENG-19-014-53-36

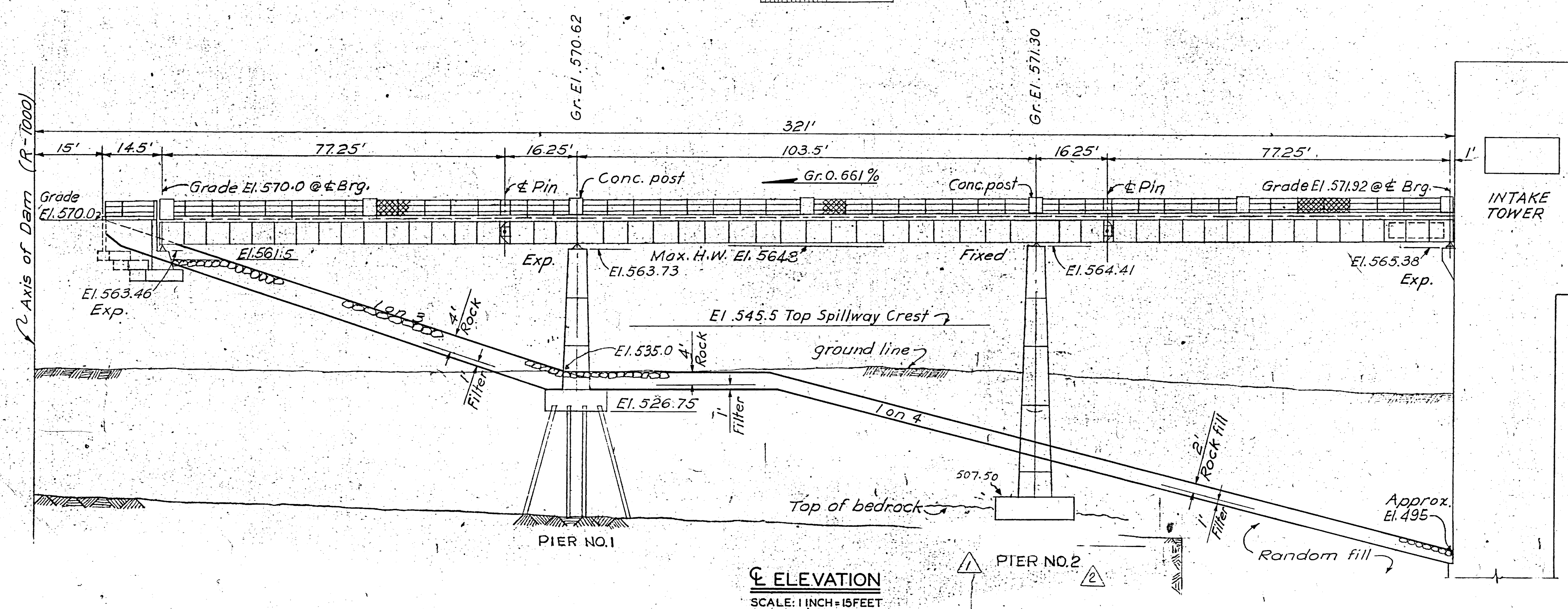
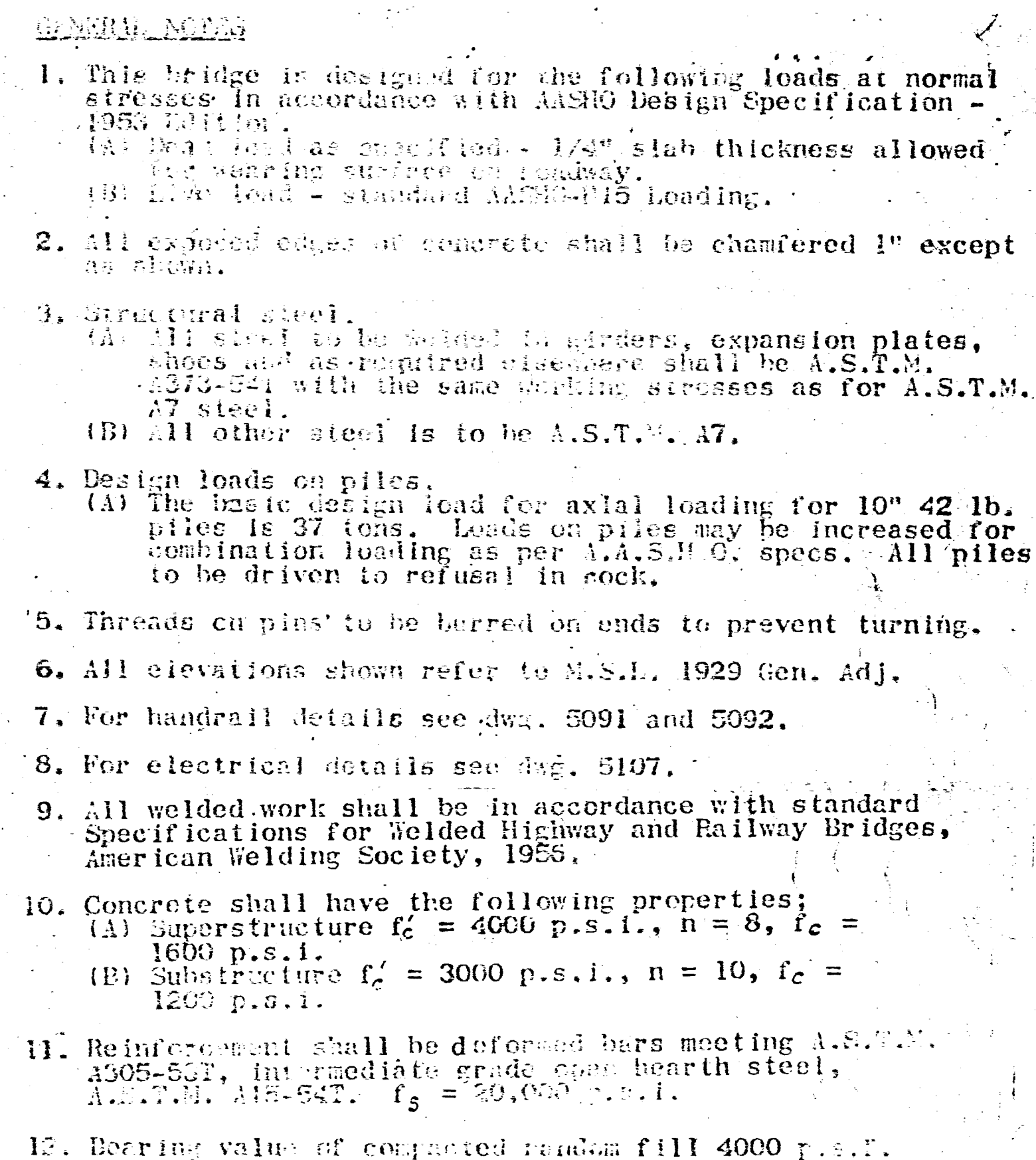
DRAWING NUMBER:  
CT-1-5065

SHEET 30 OF 134

PREPARED BY THE OMAHA DISTRICT FOR THE U.S.  
ARMY ENGINEER DIVISION, NEW ENGLAND.

J. J. J.  
COL, C. E. DISTRICT ENGINEER



[illegible]

## Record Drawing

Contract No. DA-19-016 CIV-50

PREPARED BY THE OMAHA DISTRICT FOR THE U.S.  
ARMY ENGINEER DIVISION, NEW ENGLAND.

COL. C. E. DISTRICT ENGINEER

SCALE: AS SHOWN	SPEC. NO. CIV. ENG. 19-016-59-
DRAWING NUMBER	
CT-1-5101	
SHEET 65 OF 134	







to under side of 2. Remove bars as soon as concrete has taken initial set.

ABUTMENT

SUSP. SPAN

2'-0"

2'-2"

1'-0 3/8" 11 7/8" 2"

3'-0" Sym. abt. C.

10'-0"

5'-0"

2'-2"

2" 11 7/8" 1'-0 3/8"

R 8 x 3/8 - bend to fit curb and weld to roadway pl.

Bars 2 x 1/4 x 2'-0" weld

3/8 R 5'-weld

Slope 1/4" / ft.

6 3/8"

3'-7"

1'-6"

1'-9"

10 1/4"

1'-7 1/2"

3'-10"

2'-4"

6"

3'-0"

2'-4"

6"

3'-7"

1'-6"

1'-9"

10 1/4"

1'-7 1/2"

3'-10"

2'-4"

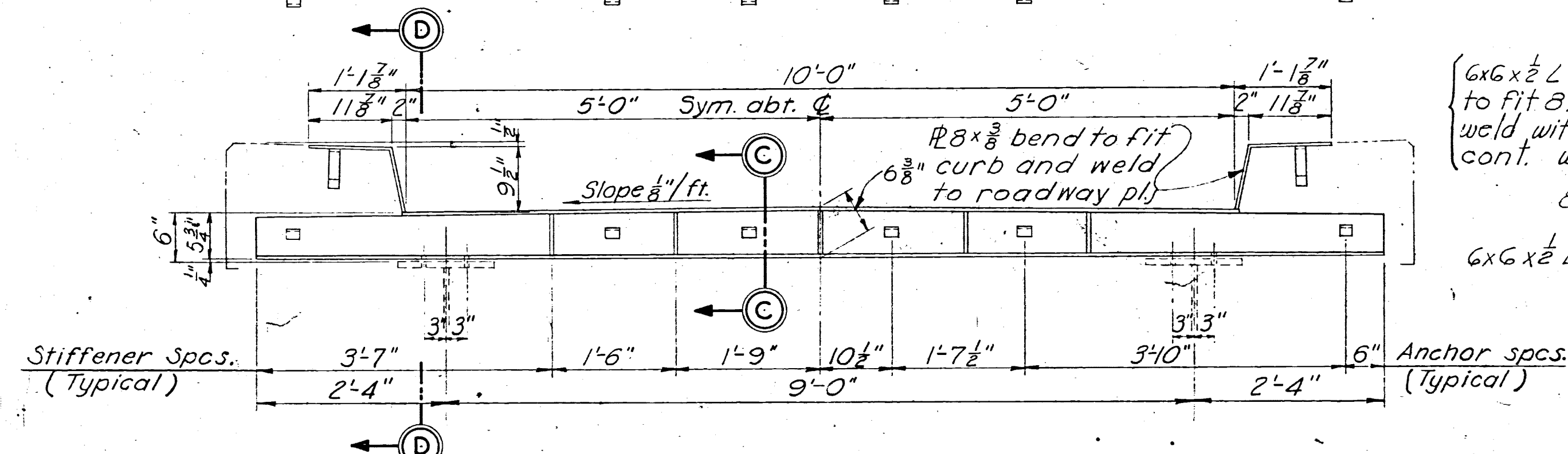
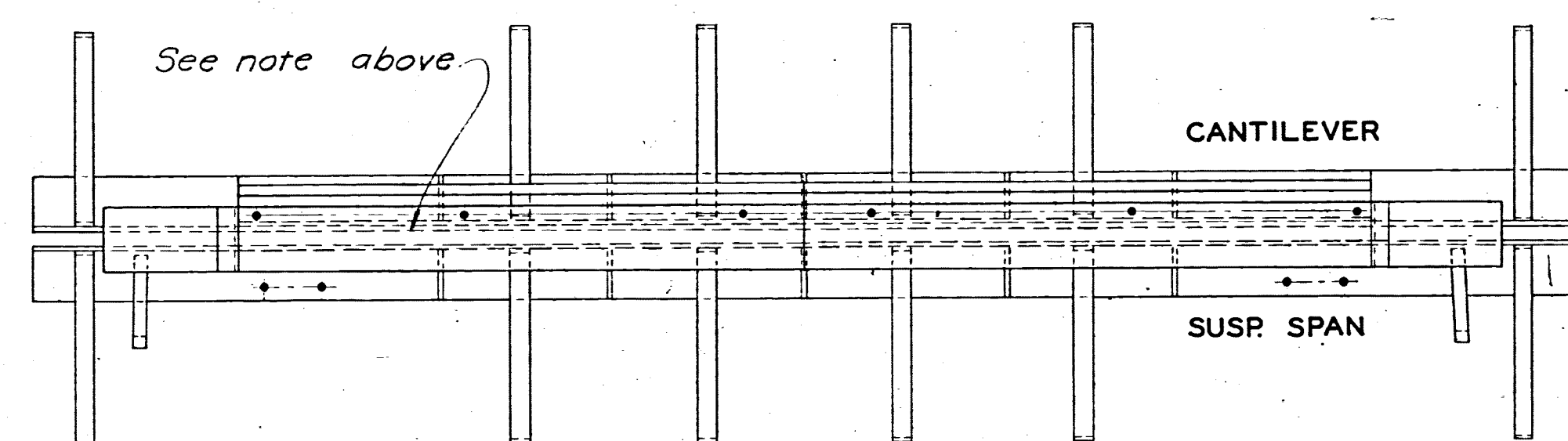
6"

3'-0"

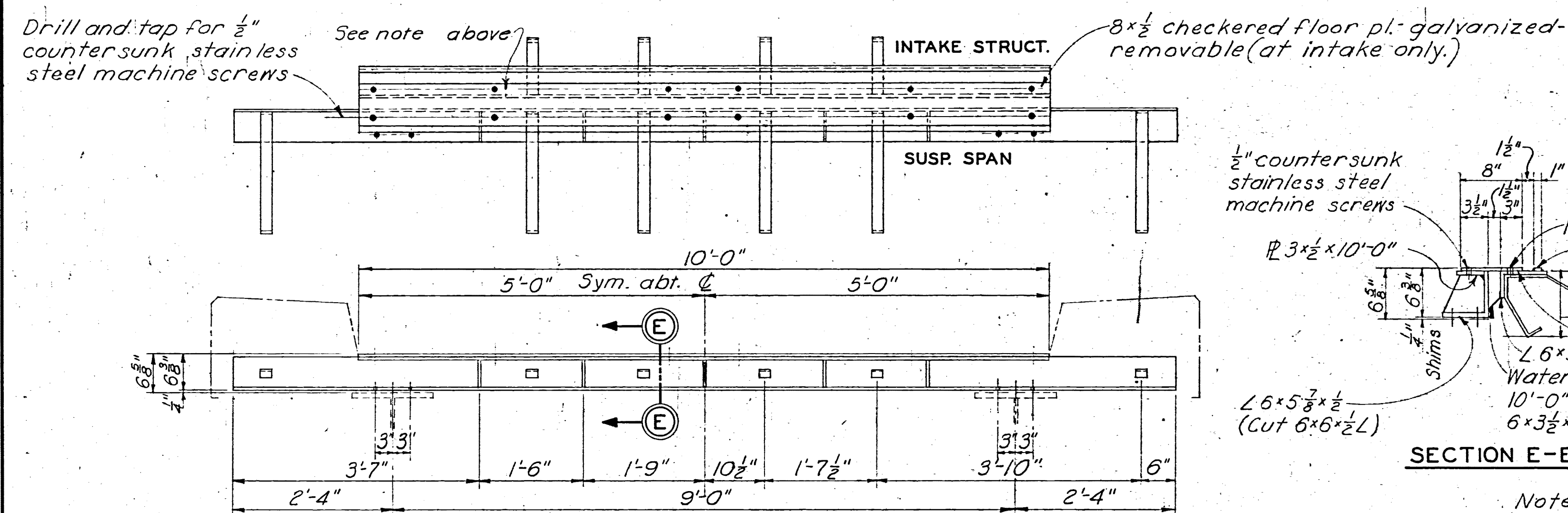
2'-4"

6"

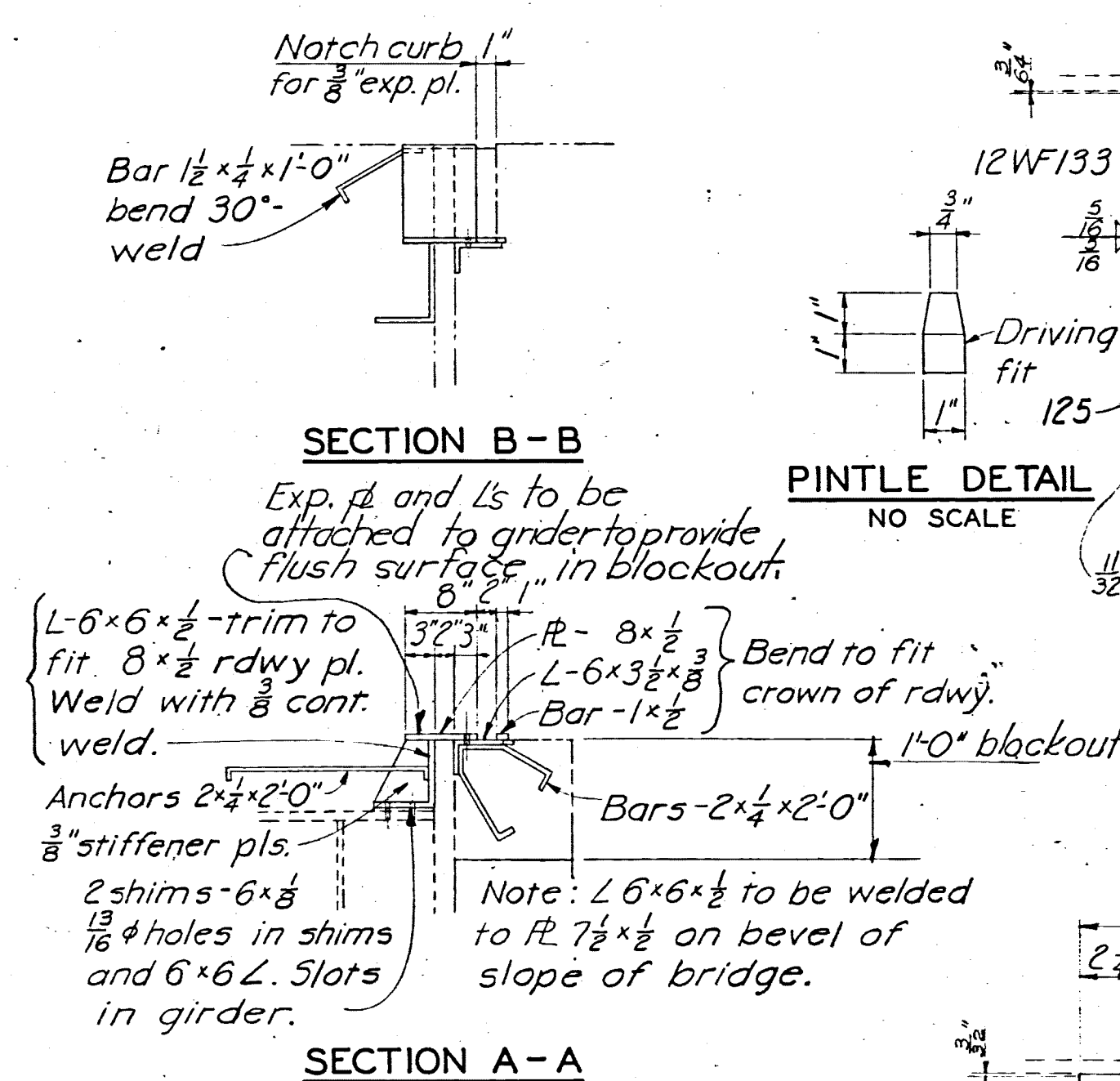
SCALE :  $\frac{3}{8}$  INCH = 1 FOOT



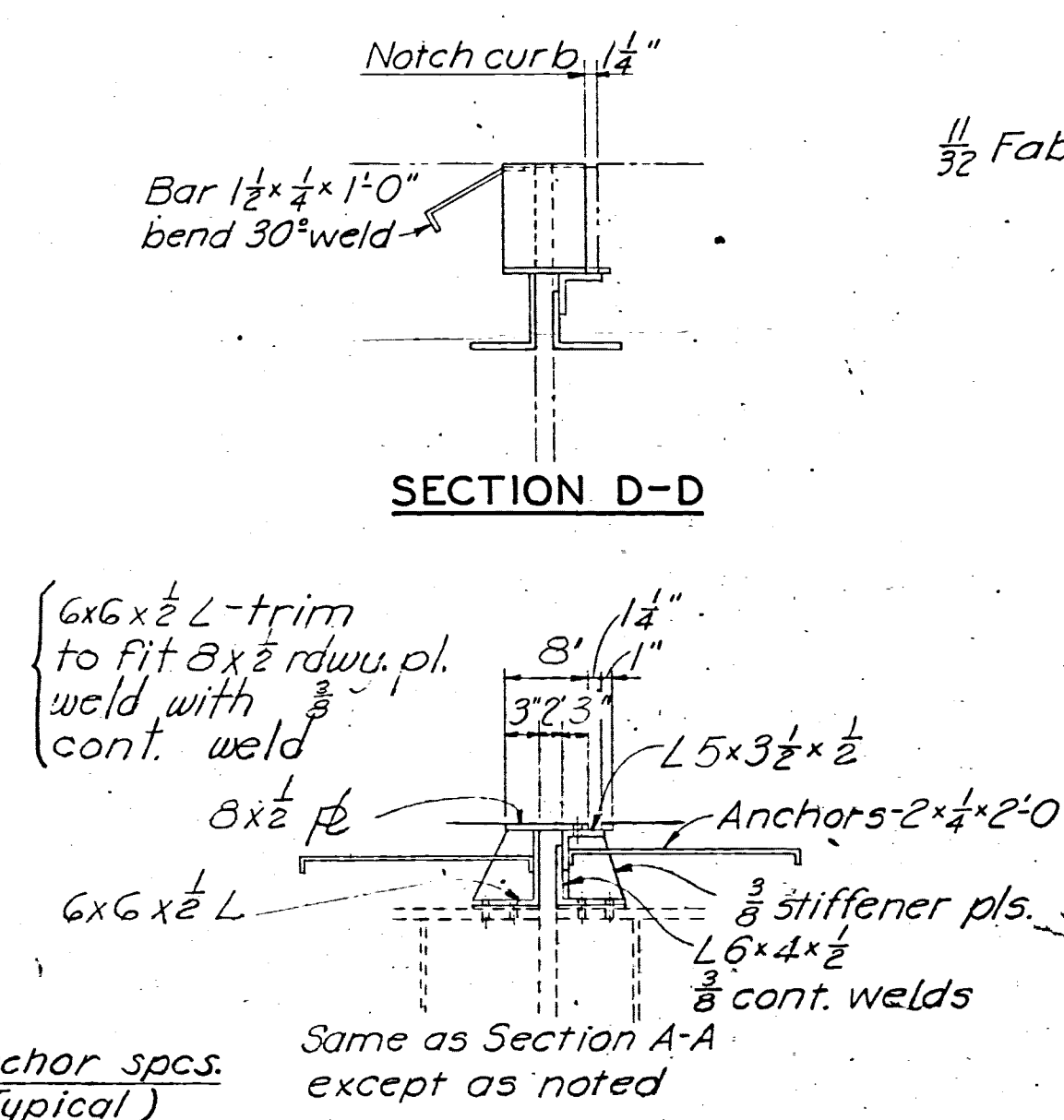
SCALE :  $\frac{3}{4}$  INCH = 1 FOOT



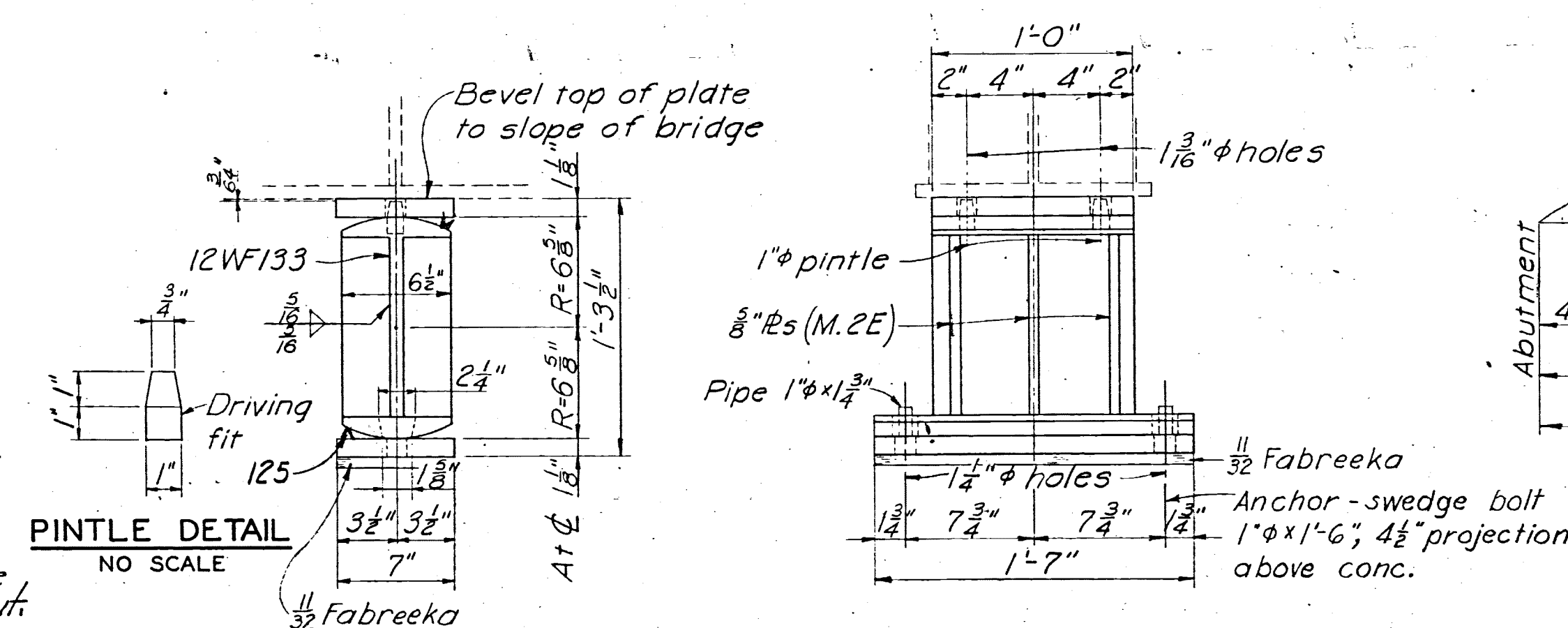
SCALE:  $\frac{3}{4}$  INCH = 1 FOOT



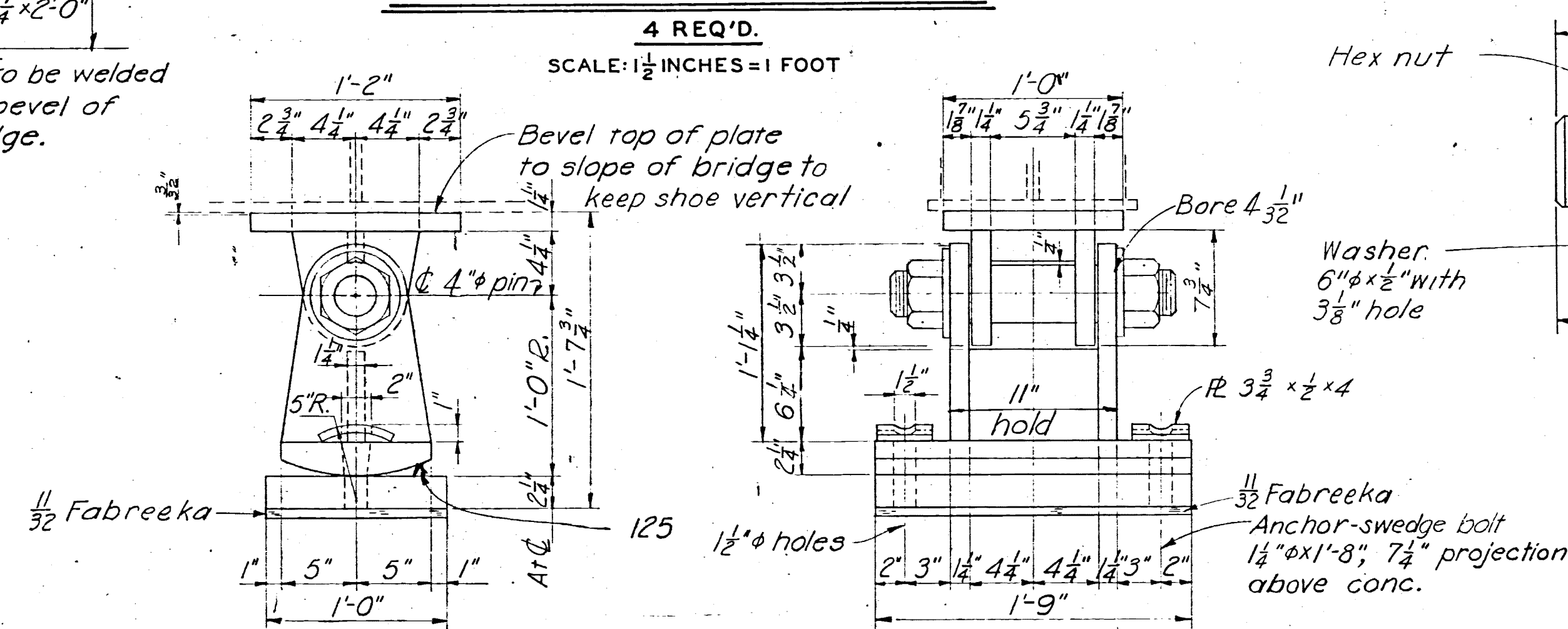
SECTION A - A



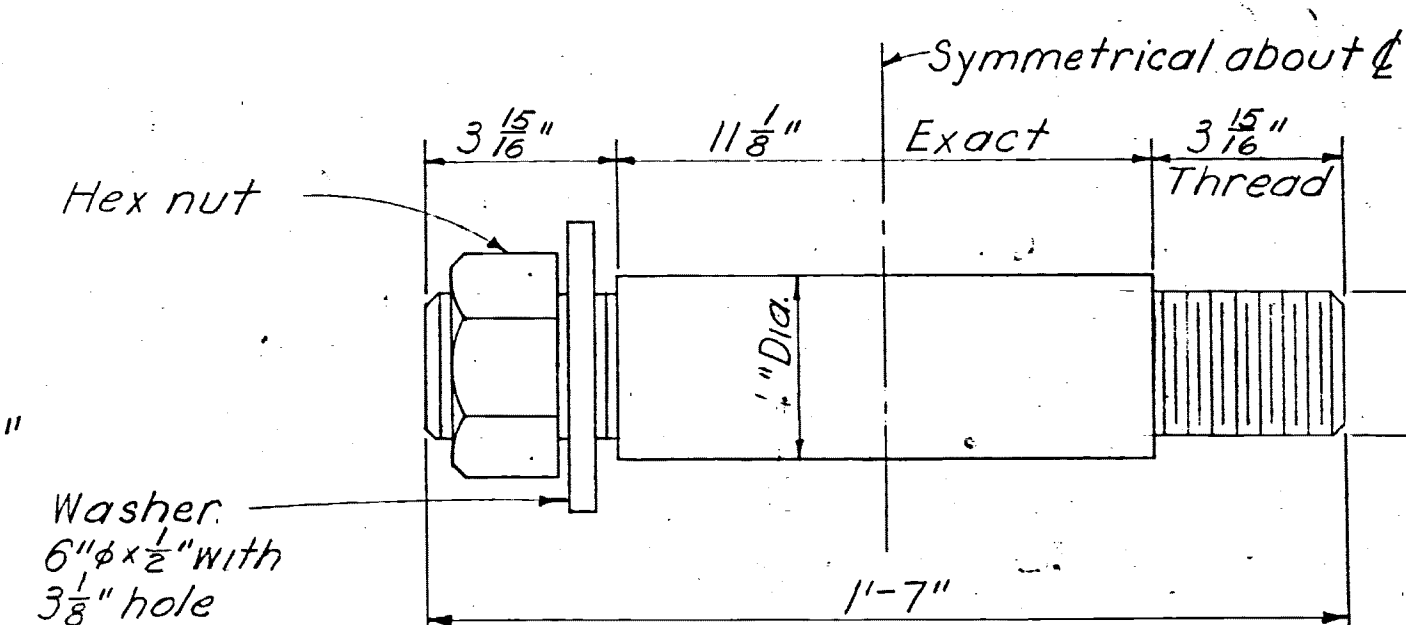
SECTION C-C



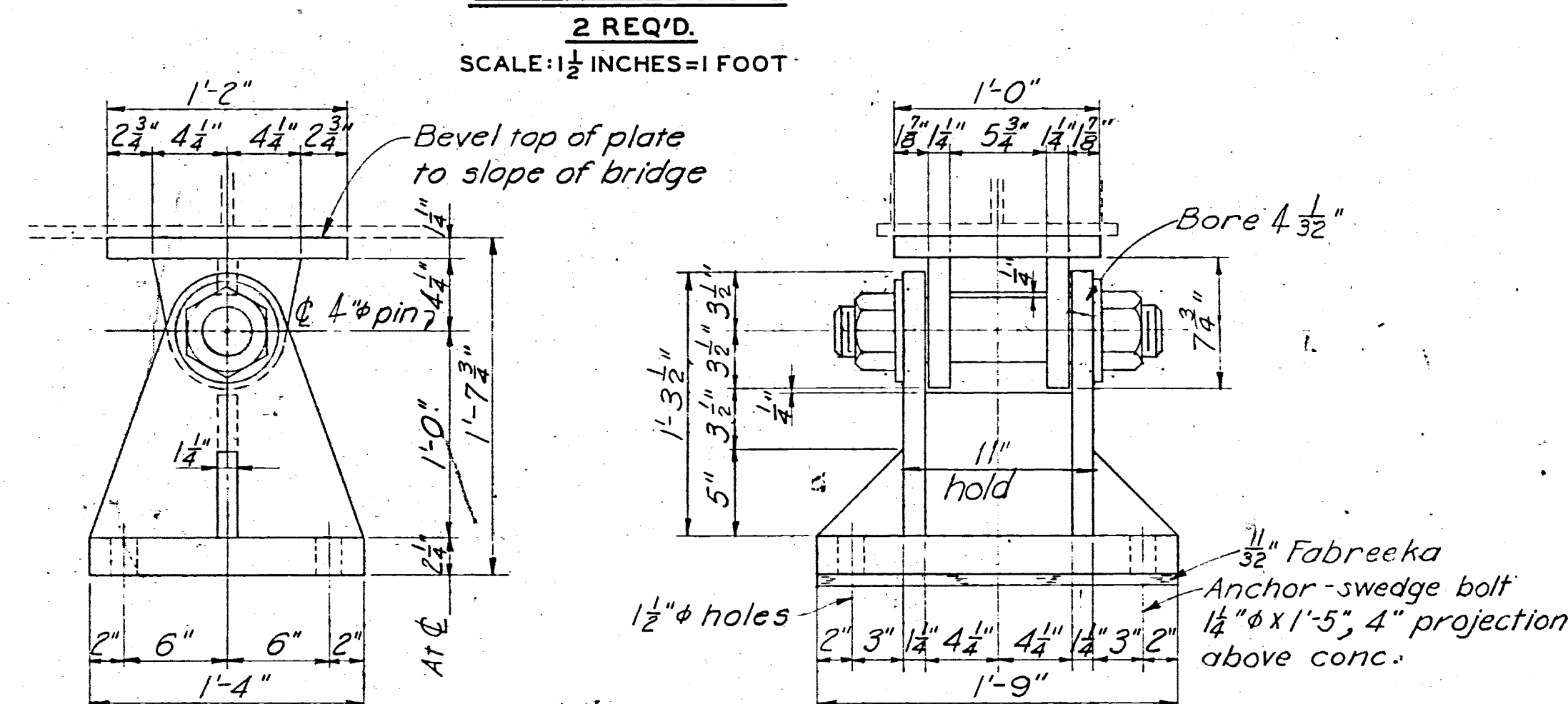
EXPANSION SHOE  
AT END OF GIRDER  
AT ABT. & INTAKE STRUCTURE



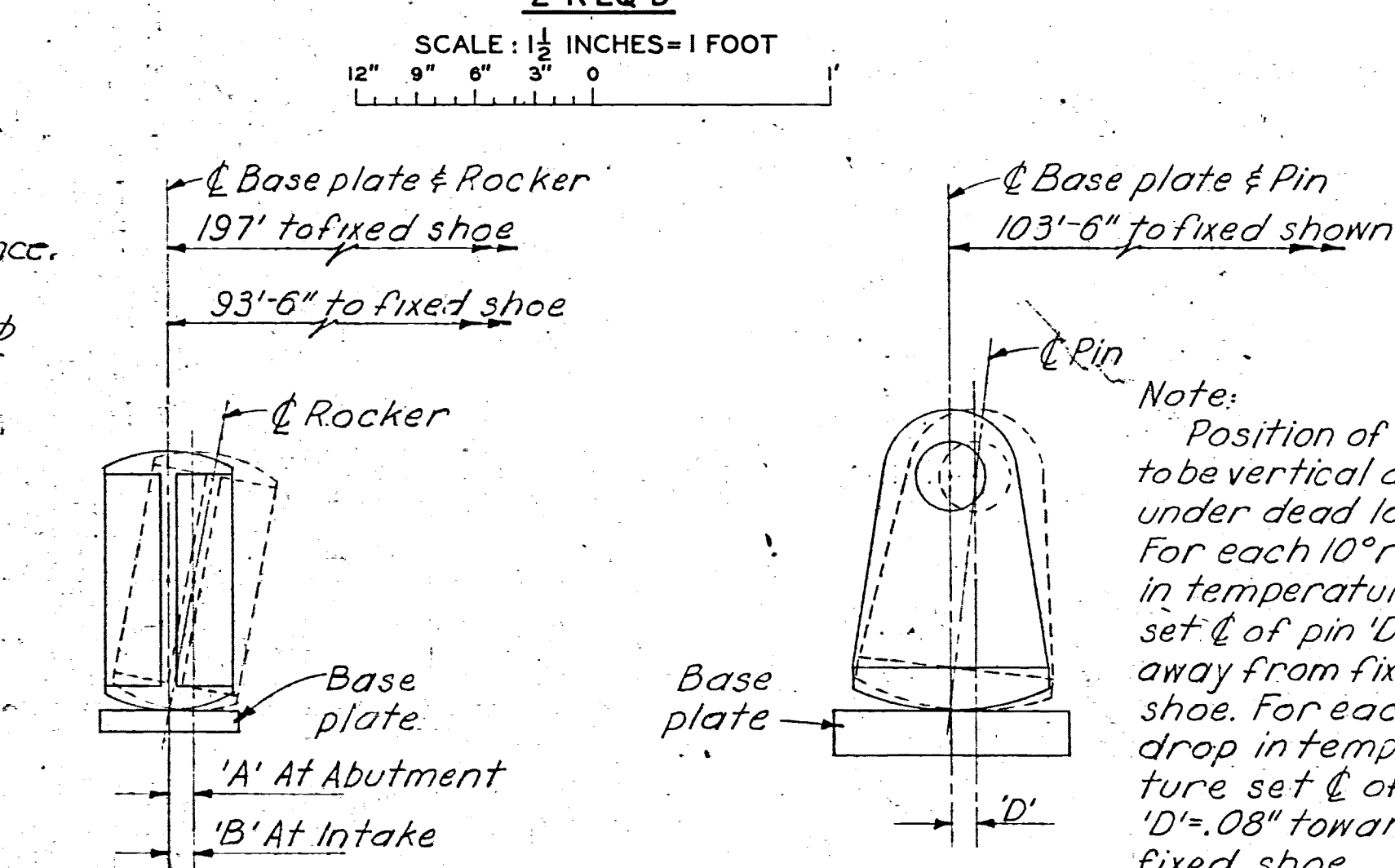
SCALE : 3" INCHES = 1 FOOT



INTERIOR EXPANSION SHOE  
AT PIER NO. 2



2 BFO'D



ROCKER AT  
ABUTMENT  
AND INTAKE

ROCKER AT  
PIER NO. 1

Note:  
Position of Rocker  
to be vertical at  $45^{\circ}F$   
under dead load.  
For each  $10^{\circ}$  rise  
in temperature  
set  $\angle$  of pin  $D'=.08''$   
away from fixed  
shoe. For each  $10^{\circ}$   
drop in tempera-  
ture set  $\angle$  of pin  
 $D'=.08''$  toward  
fixed shoe.

*Note:*  
Position of End Expansion  
Shoe to be vertical at  $45^\circ$   $\bar{F}$   
under dead load. For each  $10^\circ$   
rise in temperature, set  $\bar{C}$  of  
rocker 'B' =  $07\frac{1}{4}$ " & 'A' =  $15$ " away  
from fixed shoe. For each  $10^\circ$   
drop in temperature set  $\bar{C}$   
of rocker 'B' =  $07\frac{1}{4}$ " & 'A' =  $15$ " toward  
fixed shoe.

SCALE:  $1\frac{1}{2}$  INCHES = 1 FOOT

PREPARED BY THE OMAHA DISTRICT FOR THE U.S.  
ARMY ENGINEER DIVISION, NEW ENGLAND.

1. Provide 21 ply  $\frac{3}{8}$ " Fabreeca pads or equal under all bearings.
2. All shoes shall be structural steel welded together with  $\frac{3}{8}$ " fillet or vee welds. Surfaces in contact shall be milled to bear before welding.
3. Threads of shoe pins to be burned after erection.
4. Finished surfaces on rockers to be milled after welding.

[illegible]

CONNECTICUT RIVER FLOOD CONTROL  
NORTH SPRINGFIELD DAM  
AND RESERVOIR  
OUTLET WORKS-SERVICE BRIDGE  
MISCELLANEOUS STRUCTURAL DETAILS  
BLACK RIVER, VERMONT

DESIGNED BY:	E. S. .
DRAWN BY:	W.R.L.
TRACED BY:	W.R.L.
CHECKED BY:	A. E. E
SUBMITTED BY:	<i>E. A. John</i>
	PROJECT ENGINEER
APPROVED:	<i>E. A. John</i>
	CHIEF, CIVIL DESIGN BRANCH
APPROVED:	

APPROVED: <i>J. Ackerman</i> CHIEF ENGINEERING DIVISION	DATE: FEB. 1958
--	-----------------

D. S. Hammond  
COL. C. E. DISTRICT ENGINEER

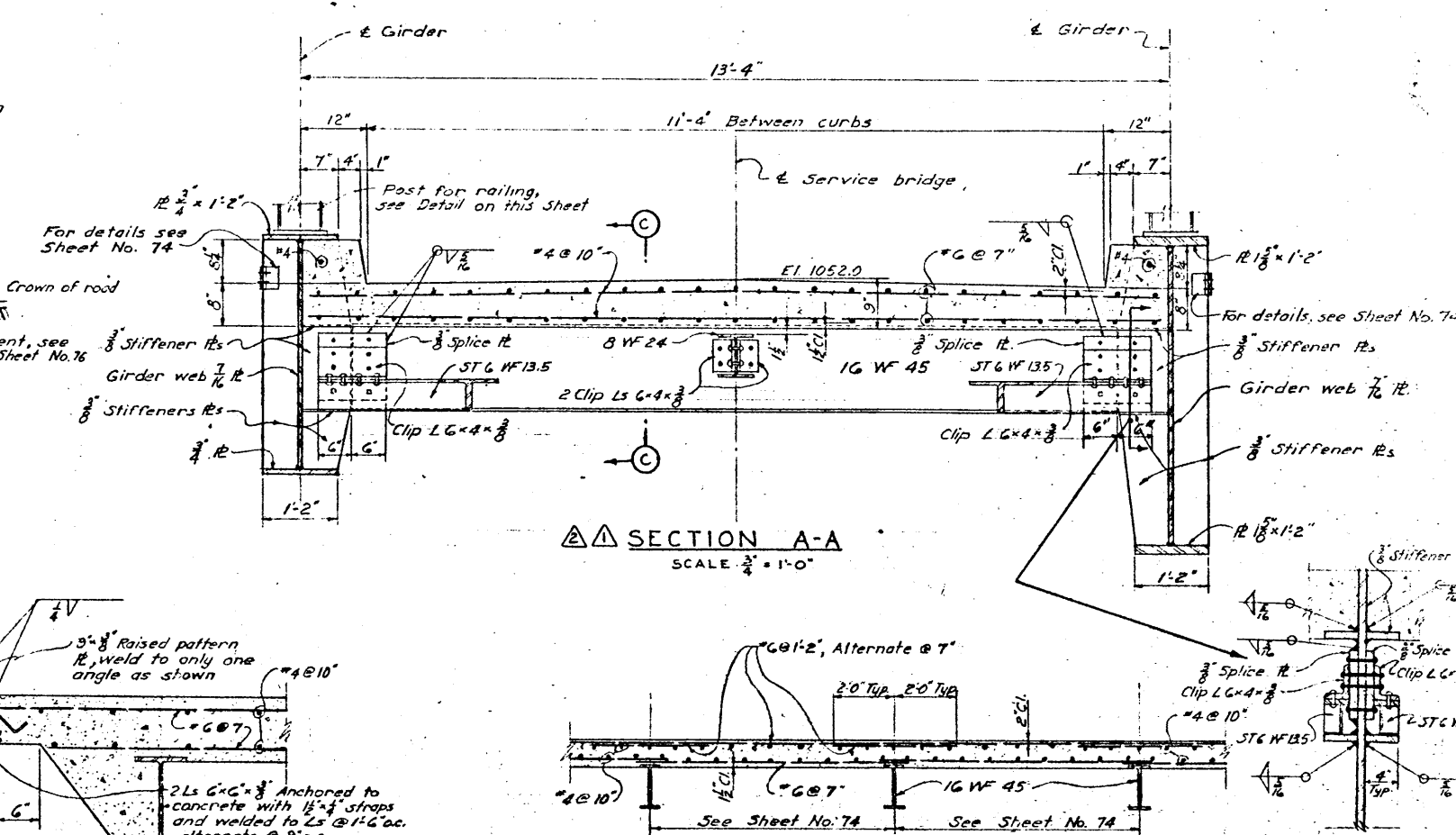
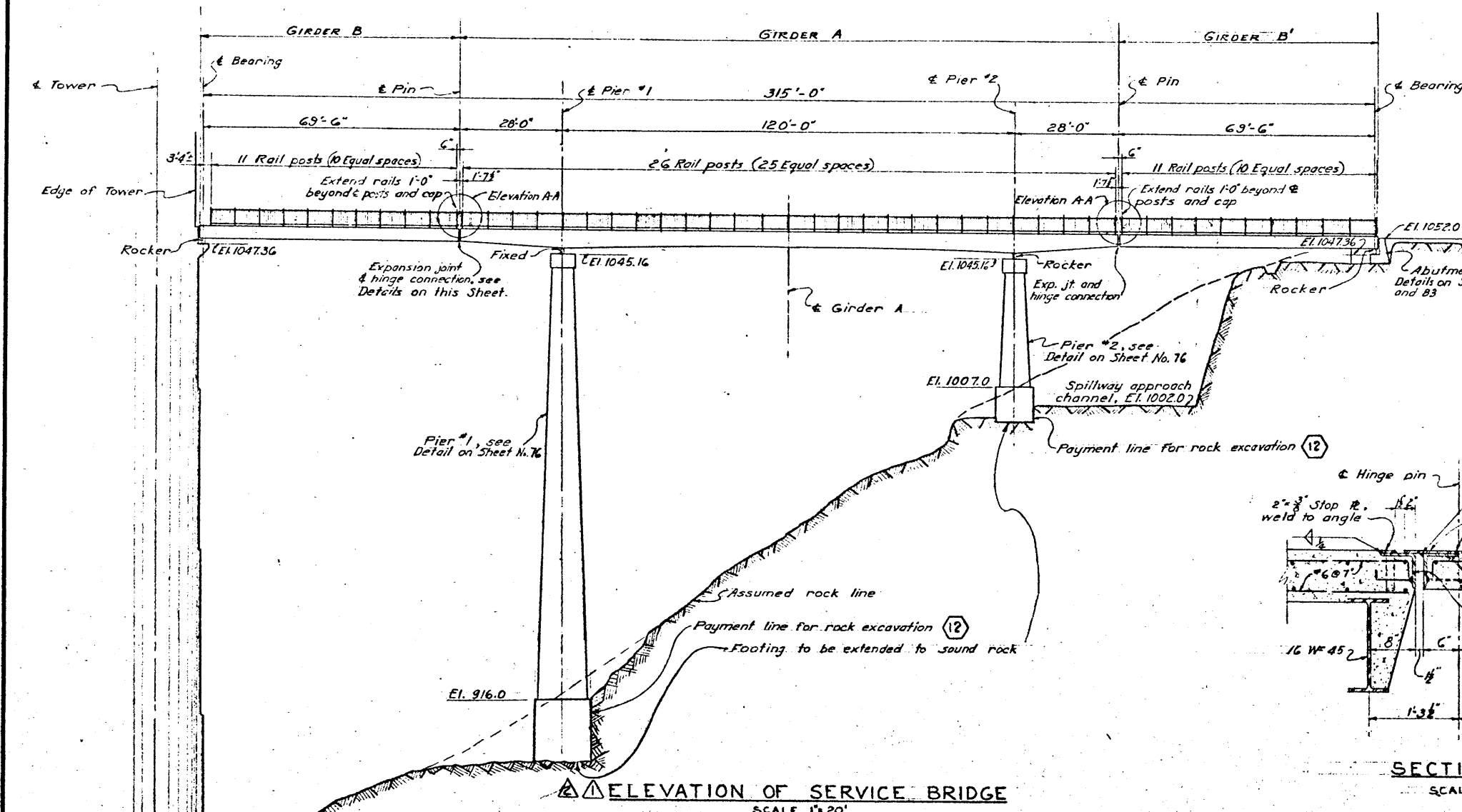
SCALE: AS SHOWN	SPEC. NO. CIV. ENG-19-016-58-3
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DRAWING NUMBER  
CT-1-5106  
SHEET 79 OF 134

**ULTRASONIC PHASED ARRAY TESTING  
U.S. ARMY CORPS OF ENGINEERS  
NORTH SPRINGFIELD & BALL MOUNTAIN LAKES  
NORTH SPRINGFIELD & JAMAICA, VERMONT  
STATEMENT OF WORK**

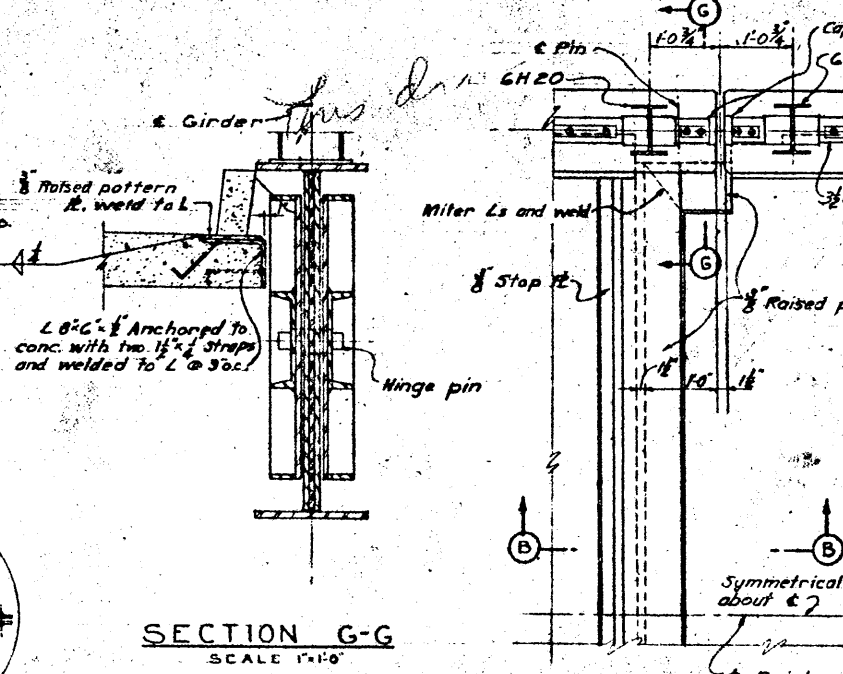
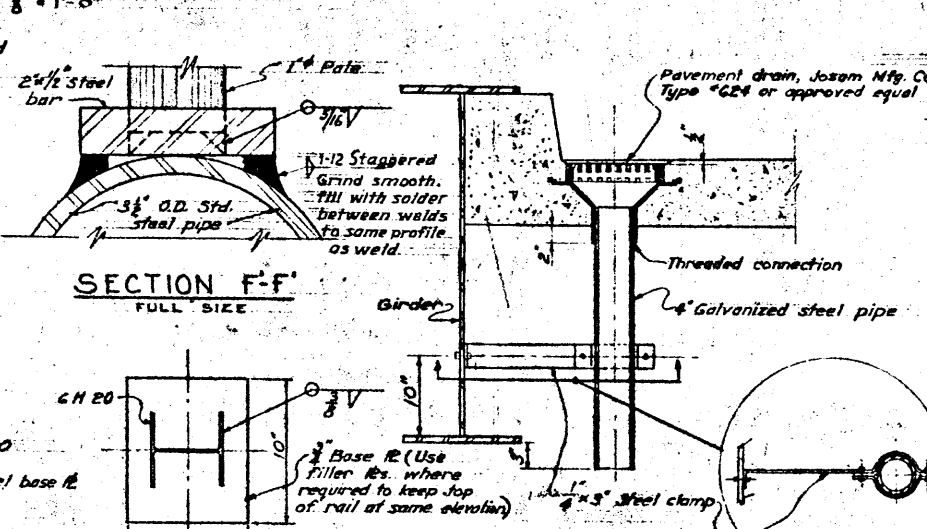
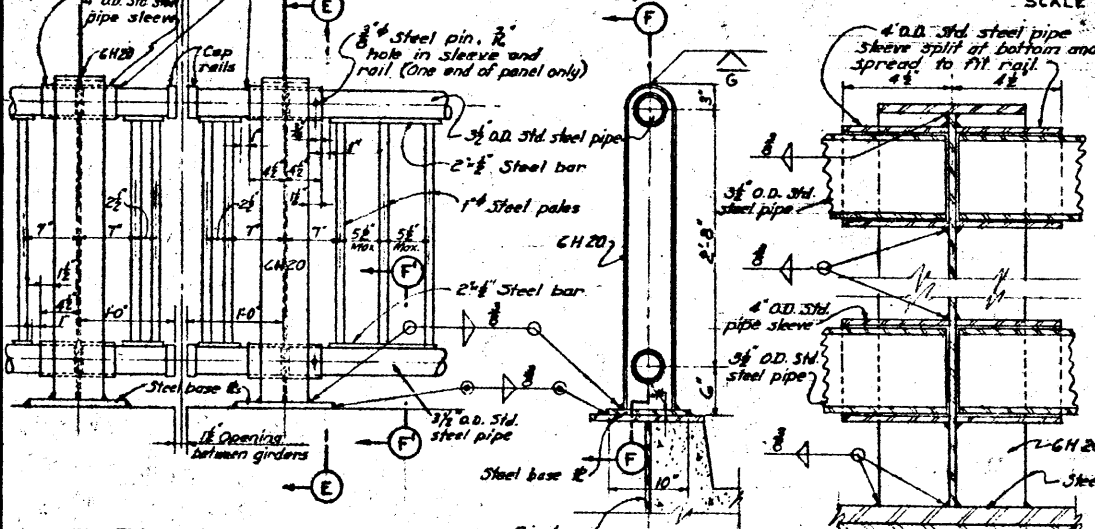
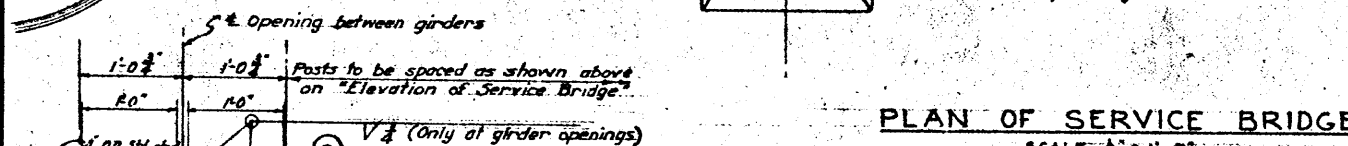
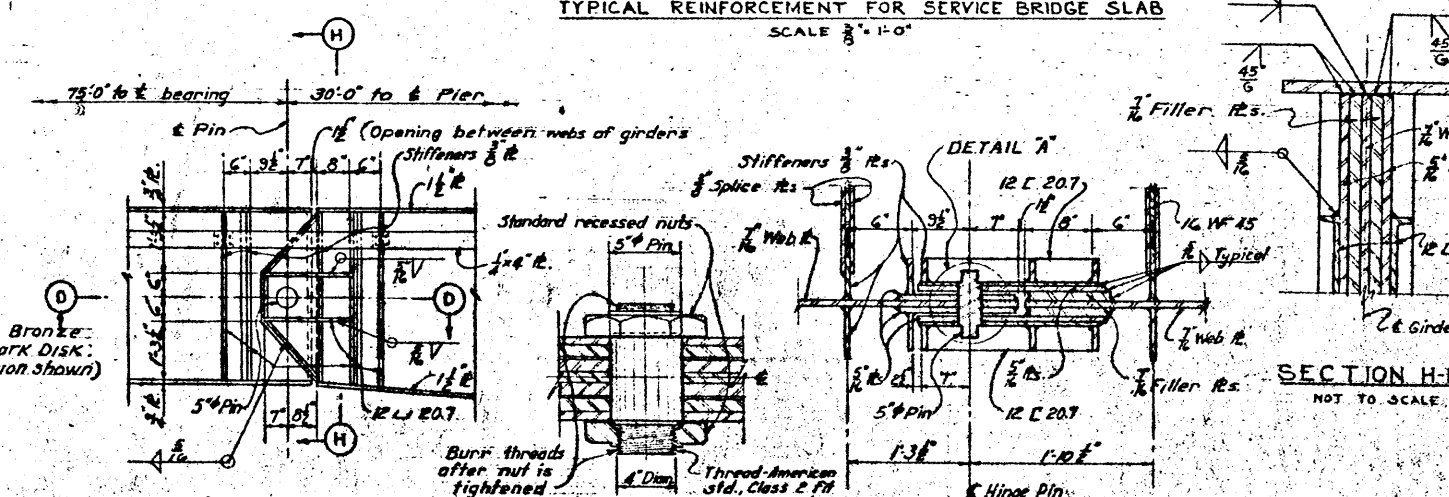
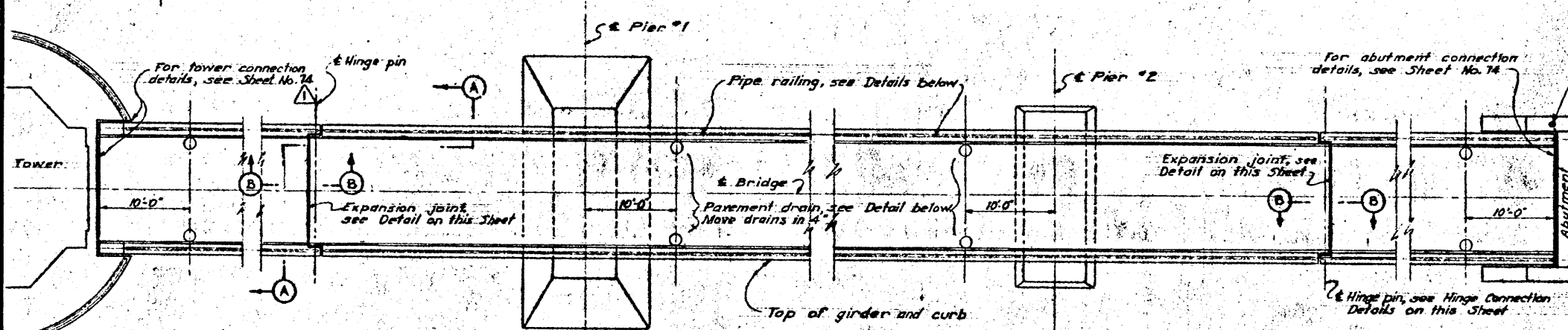
**Informational Plans  
Ball Mountain Service Bridge**





SECTION B-B

**SECTION C-C**  
**TYPICAL REINFORCEMENT FOR SERVICE BRIDGE SLAB**  
SCALE 3" = 1'-0"




SCALE: 1"=10'

Record Drawing

Contract No. DA-19-016 CIV ENG 57-294

**NOTES**

Bar splices shall equal 50 diameters of the smaller bar.  
All rebar to be placed in alternate Piers and Abutment will be paid for under Item No. 43.  
All concrete in the Service Bridge will be paid for under Item No. 44.  
All structural steel except metal railing will be paid for under Item No. 45.  
Metal railing will be paid for under Items No. 53 and 54.  
Payment for furnishing, bending and placing of all steel reinforcement will be paid for under Item No. 49.

10-31-63		Final field corrections			
2-13-68		Grider dimensions & size of flange & revision		244	244
		Sheet No. added, Sections A-A, C-C, Elevation of Service Bridge, Winge Connection and Base & details revised. (Add #2)		244	244
REVISION	DATE	DESCRIPTION			BY
<p align="center"><b>CORPS OF ENGINEERS. U. S. ARMY</b> OFFICE OF THE DIVISION ENGINEER NEW ENGLAND DIVISION BOSTON MASS</p>					
DR. BY J.W.C.		DES. BY E.P.R.		CK. BY J.W.C.	
PROJECT ENGINEER J.W.C.		CHIEF PLANNING BRANCH J.W.C.		CHIEF DESIGN BRANCH J.W.C.	
PROJECT ENGINEER J.W.C.		CHIEF PLANNING BRANCH J.W.C.		CHIEF DESIGN BRANCH J.W.C.	
APPROVED BY J.W.C.		APPROVED BY J.W.C.		DATE FEB. 1957	
PROJECT ENGINEER DIV.		LT. COL. C.E. ARST. DIVISION ENGINEER		VERMONT	
		SCALE: AS SHOWN		SPEC. NO. CIV. EBR. 10-018-57-73	
		DRAWING NUMBER		CT-1-4422	
		SHEET 73 OF 80			



