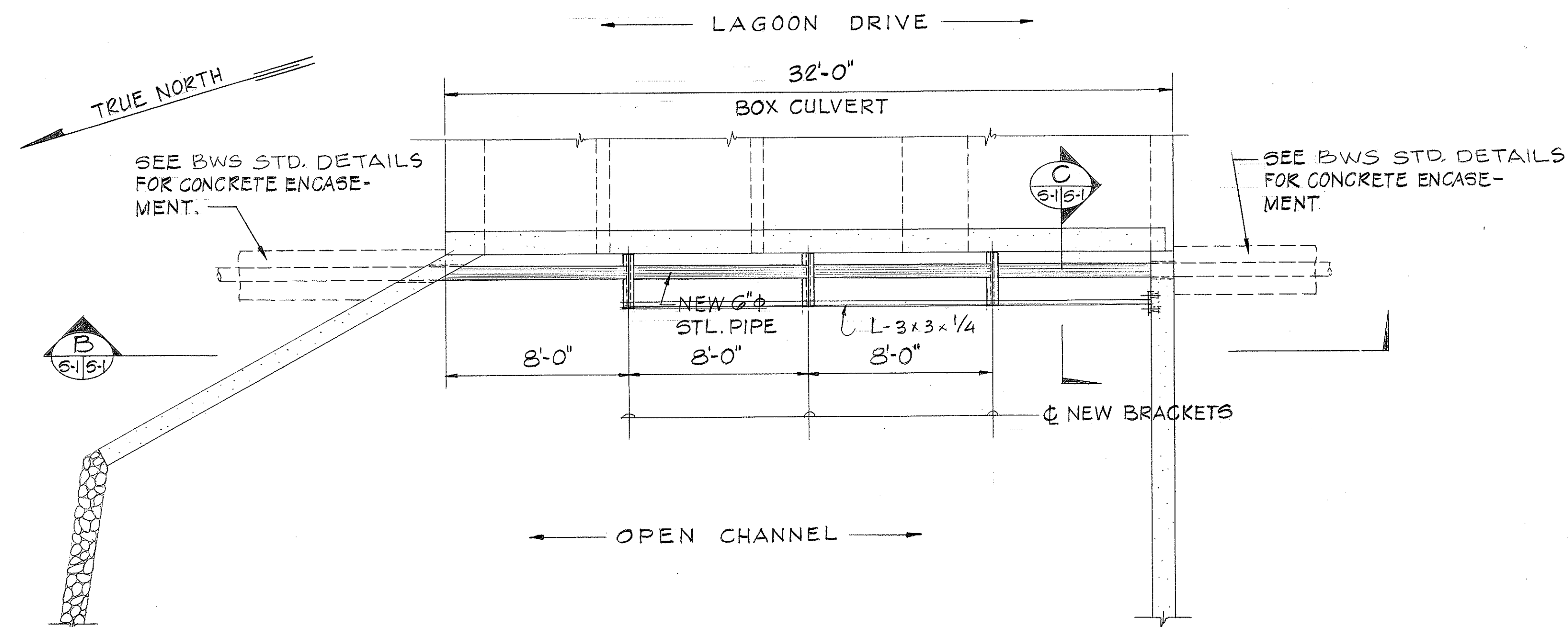
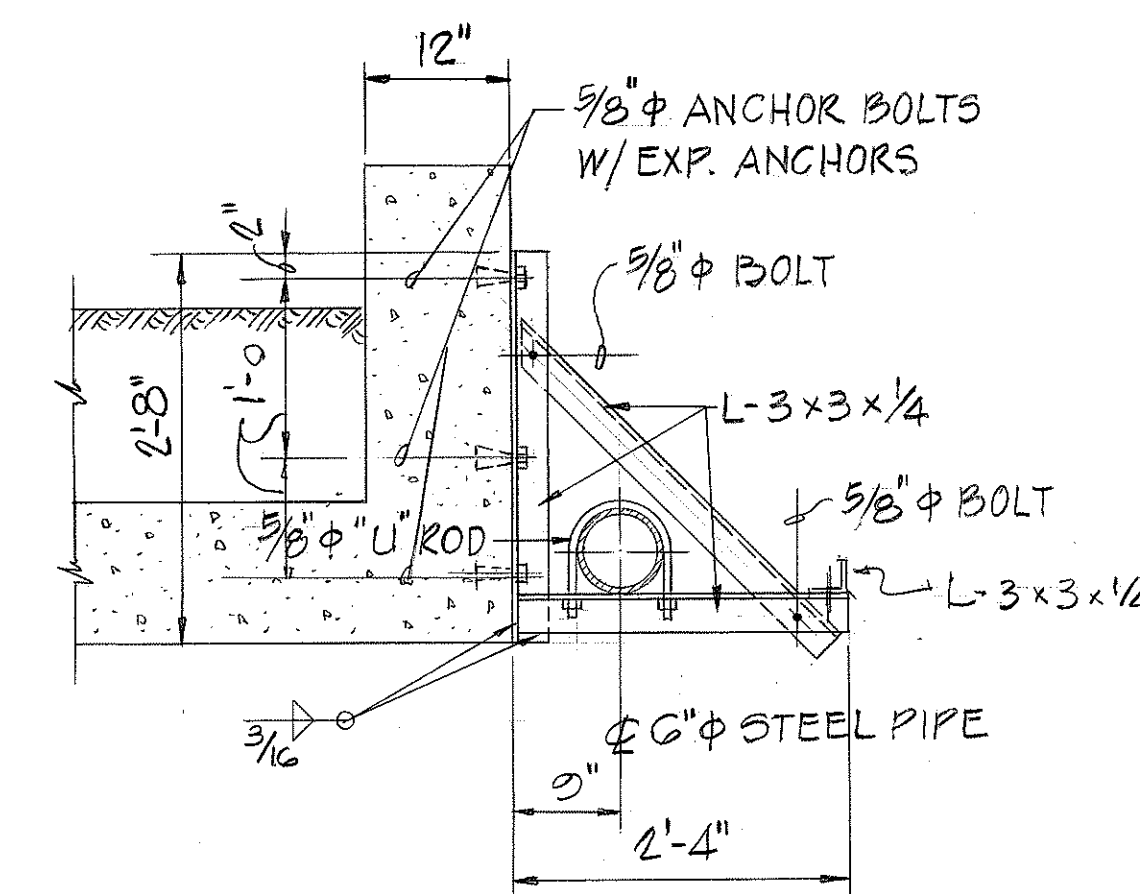


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1 (211)	1988	51	53

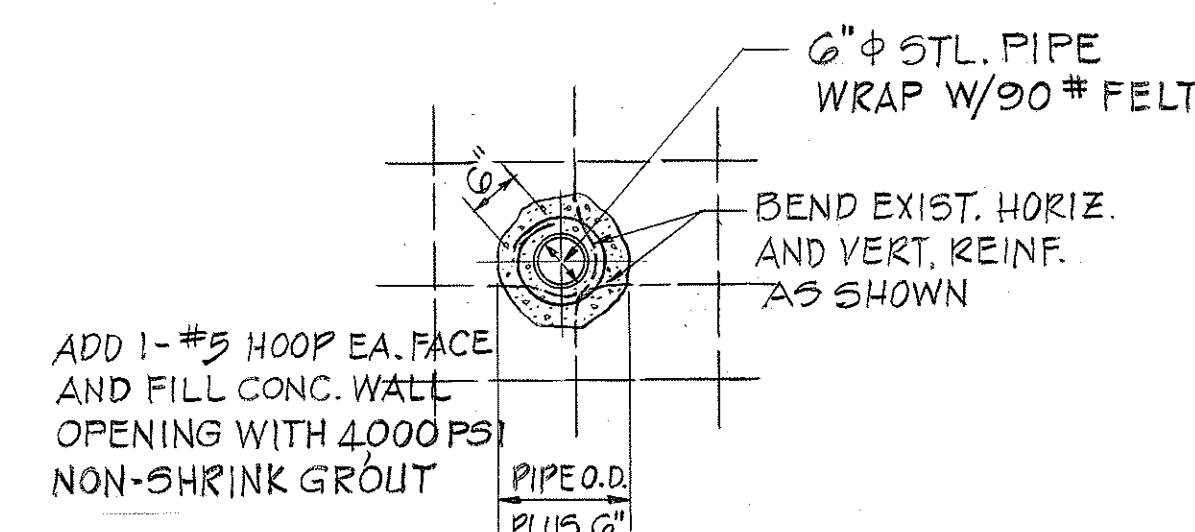


PLAN-PIPE CROSSING
SCALE: 1/4" = 1'-0"

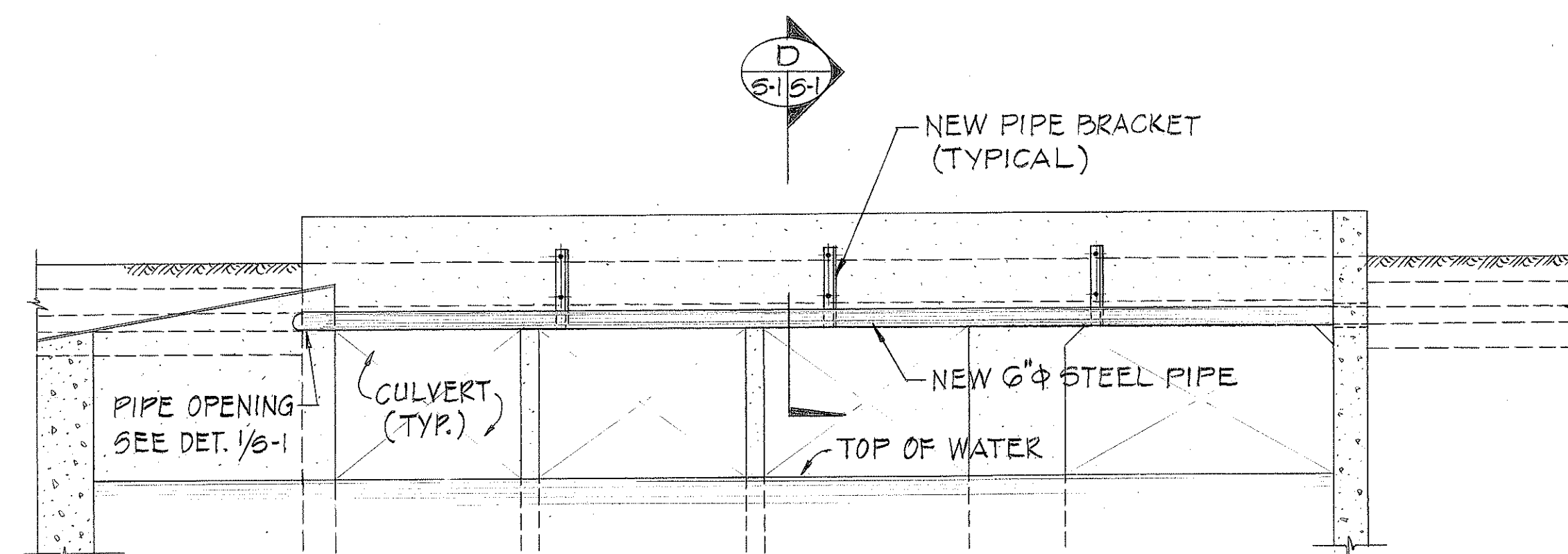


PIPE BRACKET
SECTION D
SCALE: 3/4" = 1'-0"

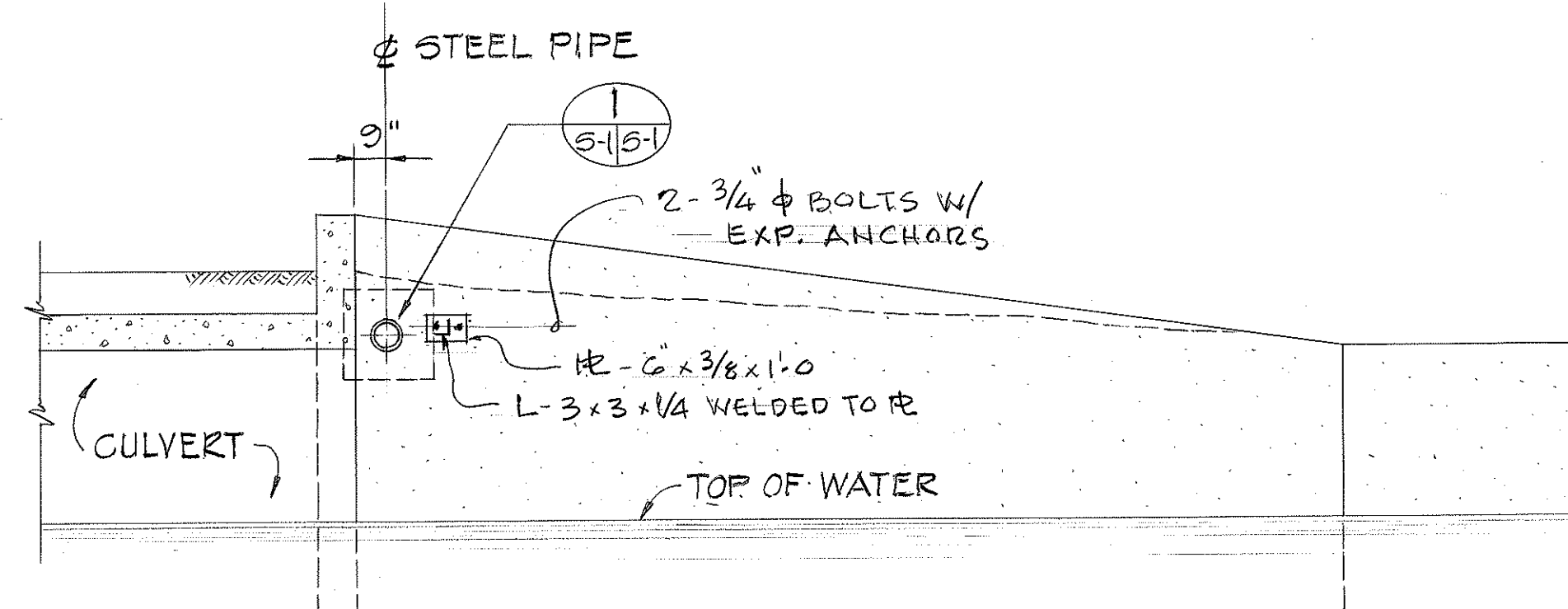
- ### STRUCTURAL NOTES
- A-STRUCTURAL STEEL**
- 1-STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 AND GALVANIZED.
 - 2-ALL WELDING SHALL CONFORM TO THE LATEST AWS SPECIFICATIONS. (USE E70XX ELECTRODE)
 - 3-ALL BOLTS SHALL CONFORM TO ASTM A307 UNLESS OTHERWISE NOTED AND GALVANIZED.
 - 4-ALL STEEL SURFACES SHALL HAVE ONE SHOP COAT OF PRIMER EXCEPT ON SURFACES TO BE FIELD WELDED OR BONDED TO CONCRETE.
 - 5-ALL DAMAGED GALVANIZED SURFACES AND WELDS SHALL RECEIVE 2-COATS OF GALVANIZING PAINT CONFORMING TO MIL-P-21035
 - 6-ALL SURFACES SHALL RECEIVE 2-FIELD COATS OF PAINT. SEE SPECS.
- B-STEEL PIPE**
- 1-24" CONCRETE LINED STEEL PIPE SHALL BE CLASS XS, SCHEDULE 40
 - 2-NEOPRENE PAD SHALL BE 40 HARDNESS
 - 3-EXPOSED STEEL PIPES SHALL BE PROTECTED BY THE TAPE COATING SYSTEM, SEE SPECS.
- C-CONSTRUCTION**
- 1-CARE SHALL BE TAKEN IN DRILLING OF HOLES FOR THRU BOLTS AND ANCHOR BOLTS WITH EXPANSION ANCHORS IN EXISTING STRUCTURE. EXISTING REINFORCING SHALL NOT BE DAMAGED
 - 2-PLUG ALL UNUSED HOLES WITH EPOXY ADHESIVE
 - 3-NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI



TYPICAL PIPE OPENING DET.
NOT TO SCALE



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



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



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HIGHWAYS DIVISION

STRUCTURAL DETAILS

H-1 NONPOTABLE WATER SYSTEM
HALAWA INTERCHANGE TO KEEHI INTERCHANGE
F.A.I. PROJ. NO. IR-HI-1 (211)

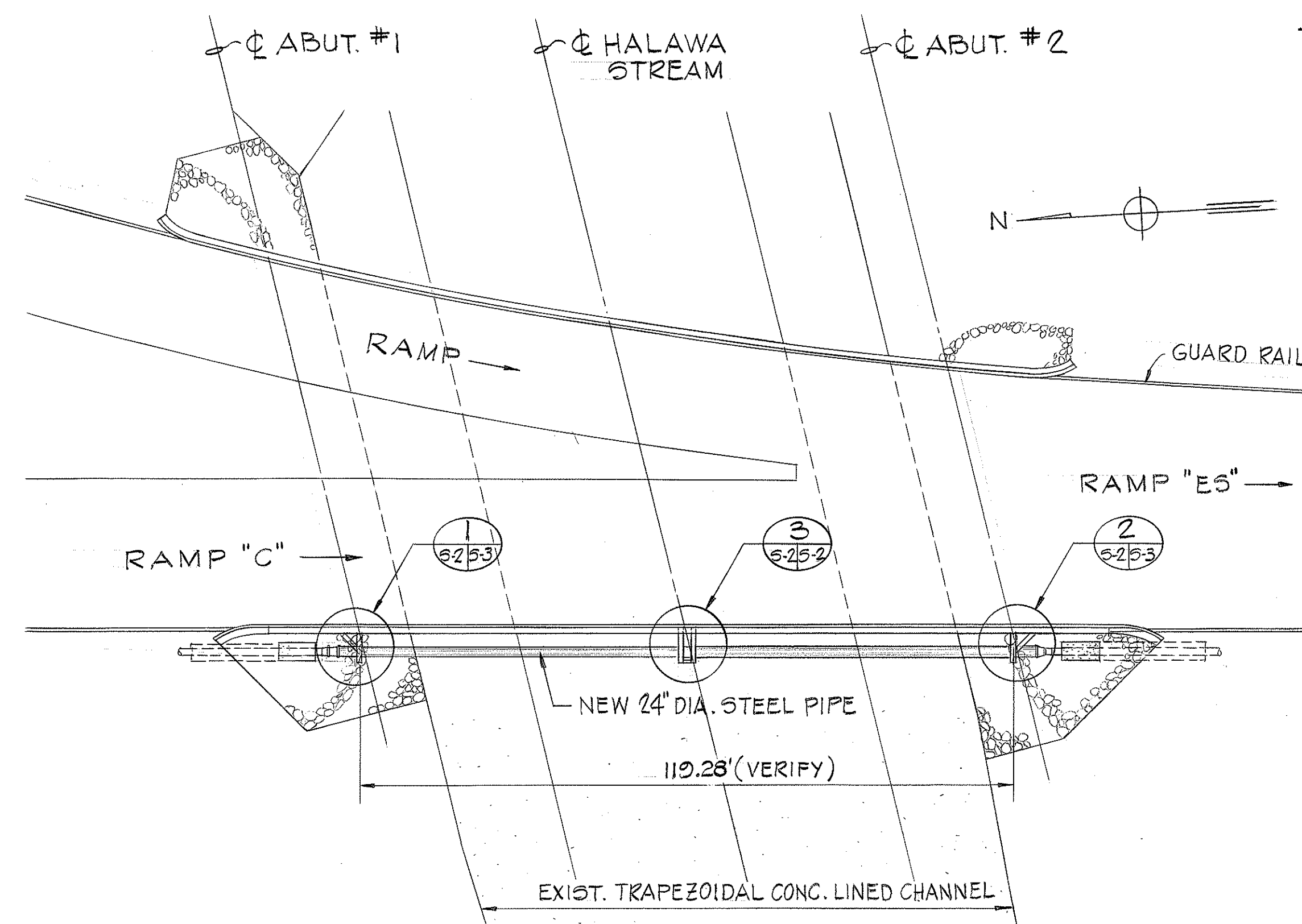
SCALE: AS SHOWN DATE: NOV. 22, 1988

SHEET NO. 51 OF 3 SHEETS

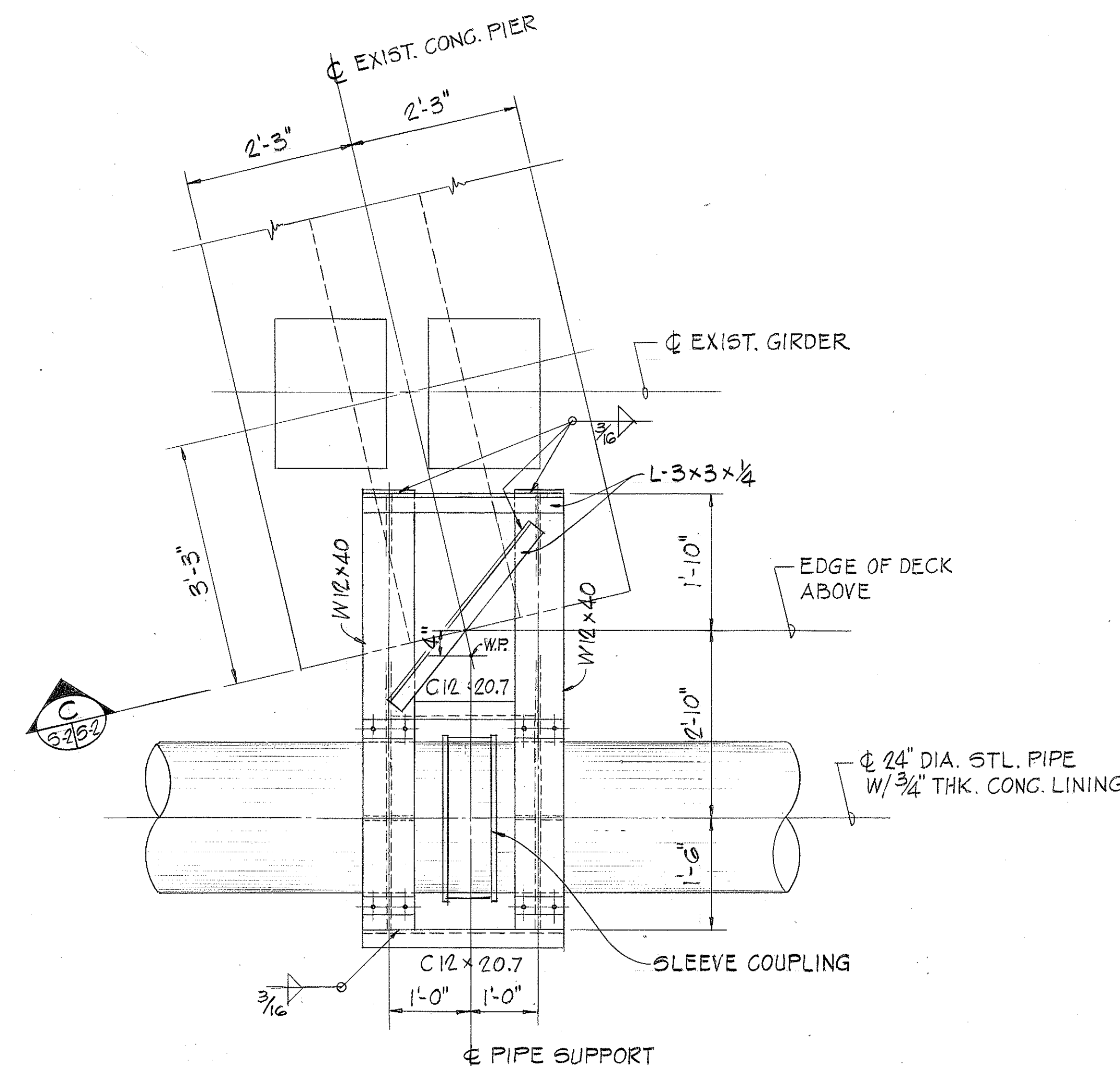
S-1

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

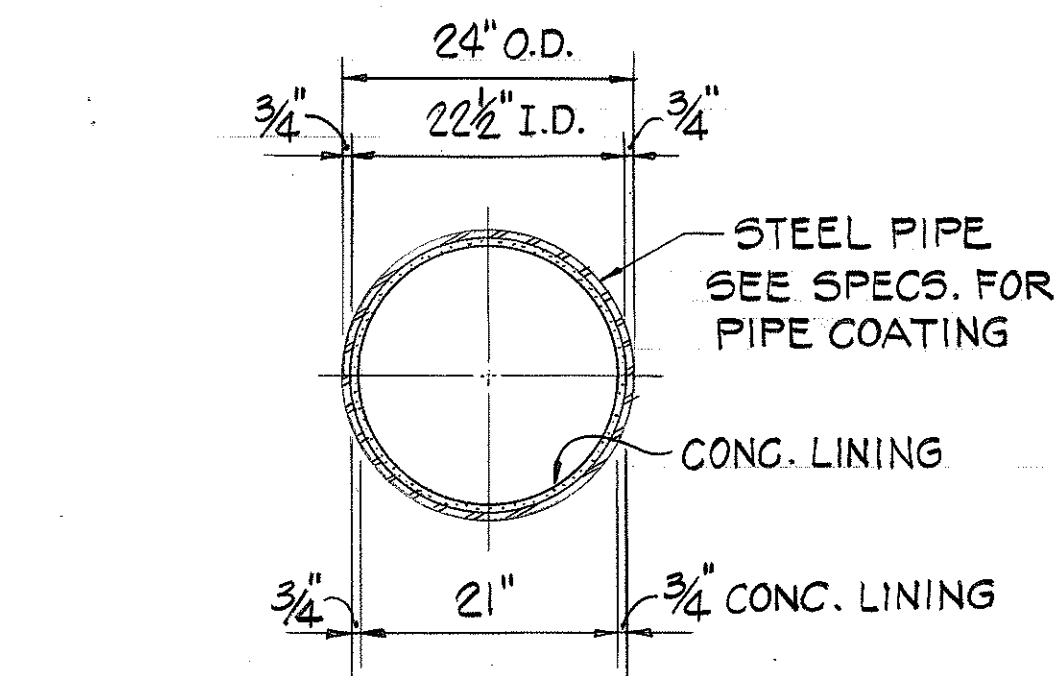
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1 (211)	1988	52	53



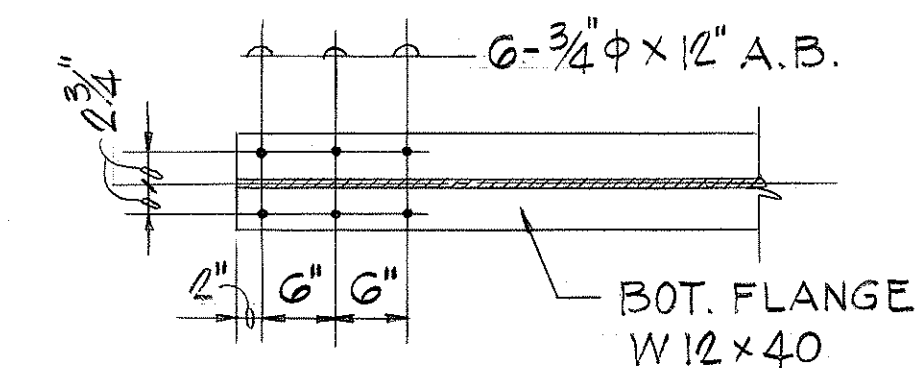
LOCATION PLAN OF 24" DIA. PIPE CROSSING
SCALE: 1" = 20'-0"



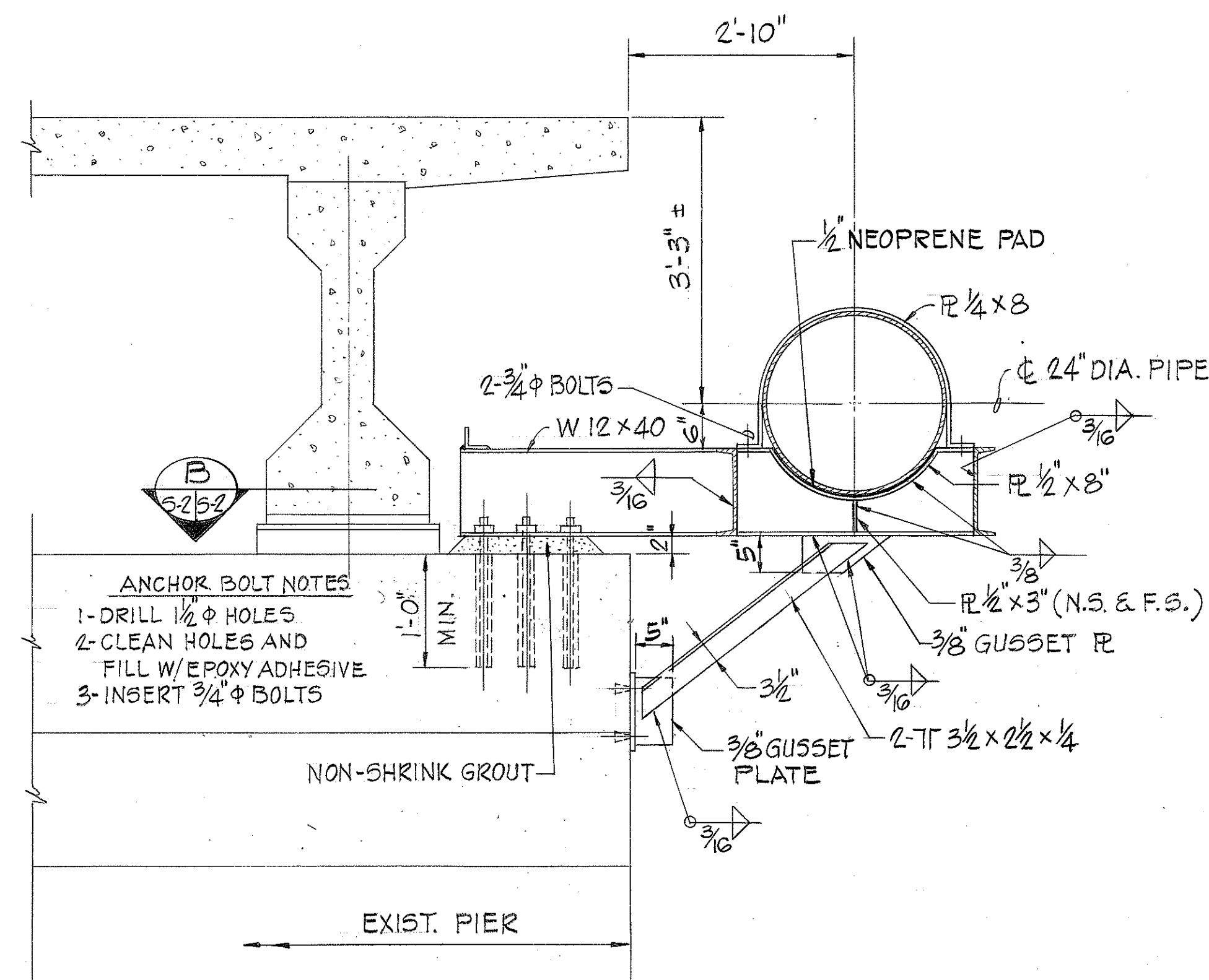
PLAN - DETAIL 3
SCALE: 3/4" = 1'-0"



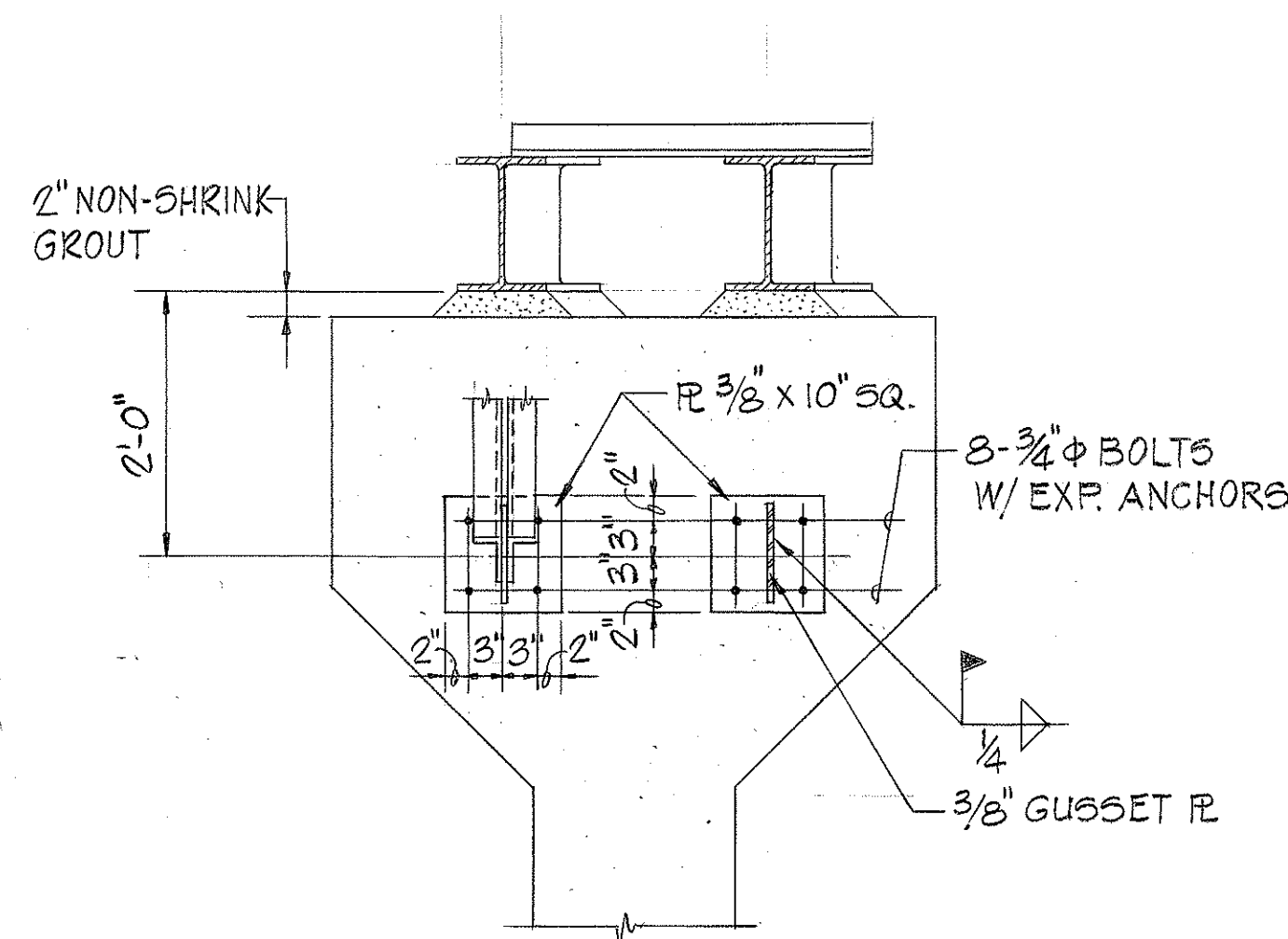
TYPICAL PIPE CROSS SECTION
SCALE: 3/4" = 1'-0"



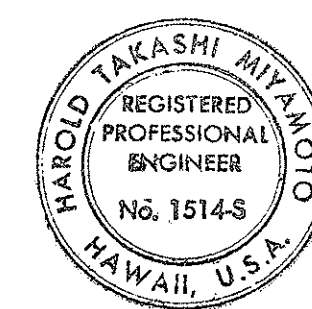
SECTION B
SCALE: 3/4" = 1'-0"



SECTION A
SCALE: 3/4" = 1'-0"



SECTION C
SCALE: 3/4" = 1'-0"



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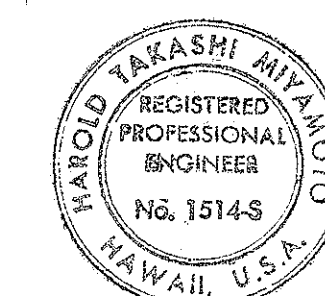
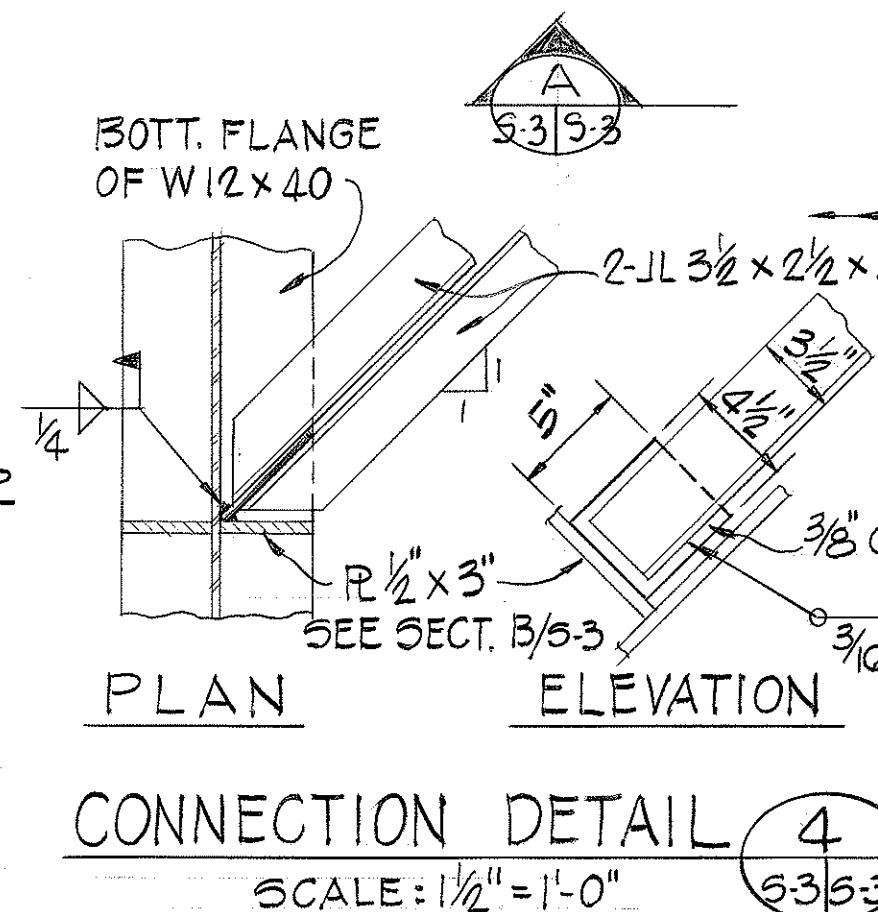
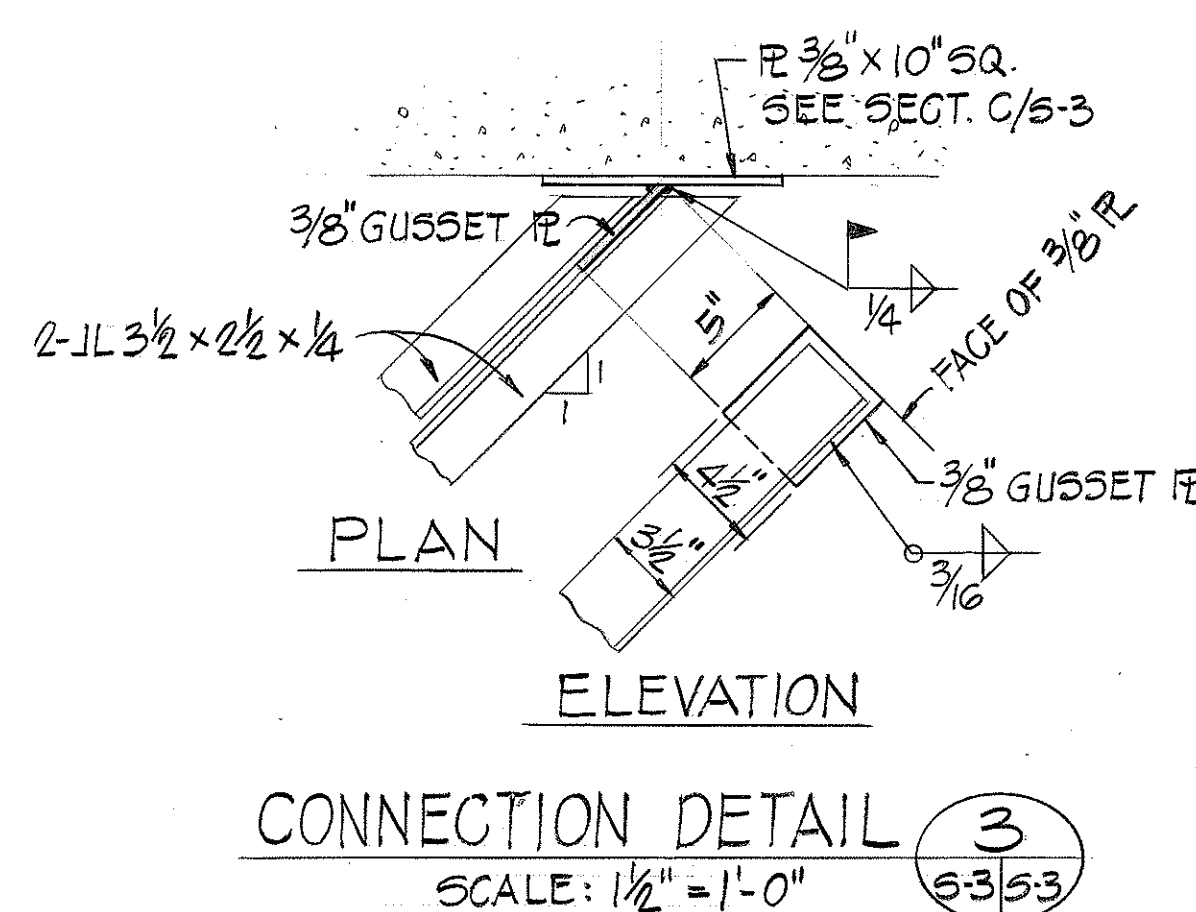
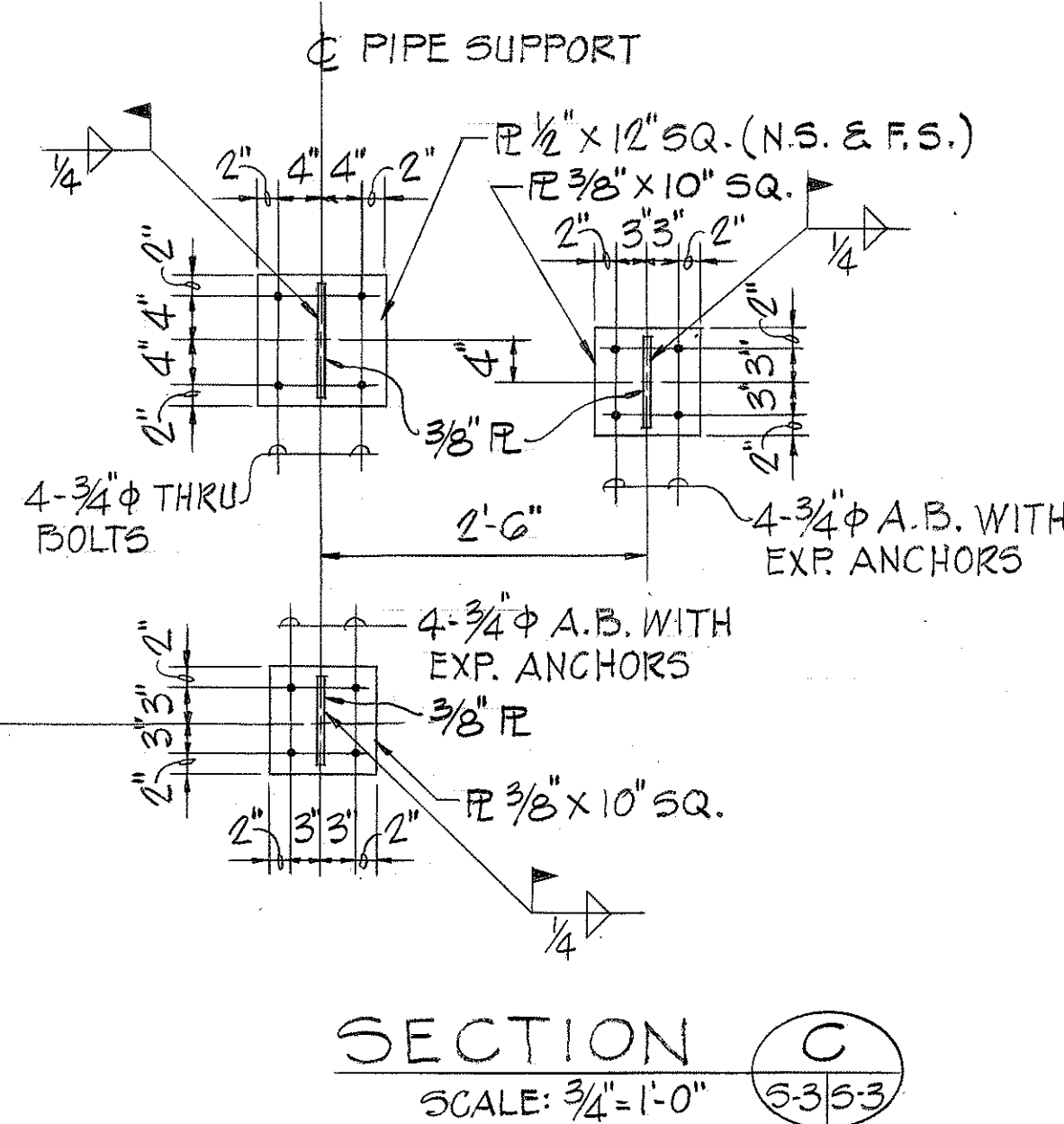
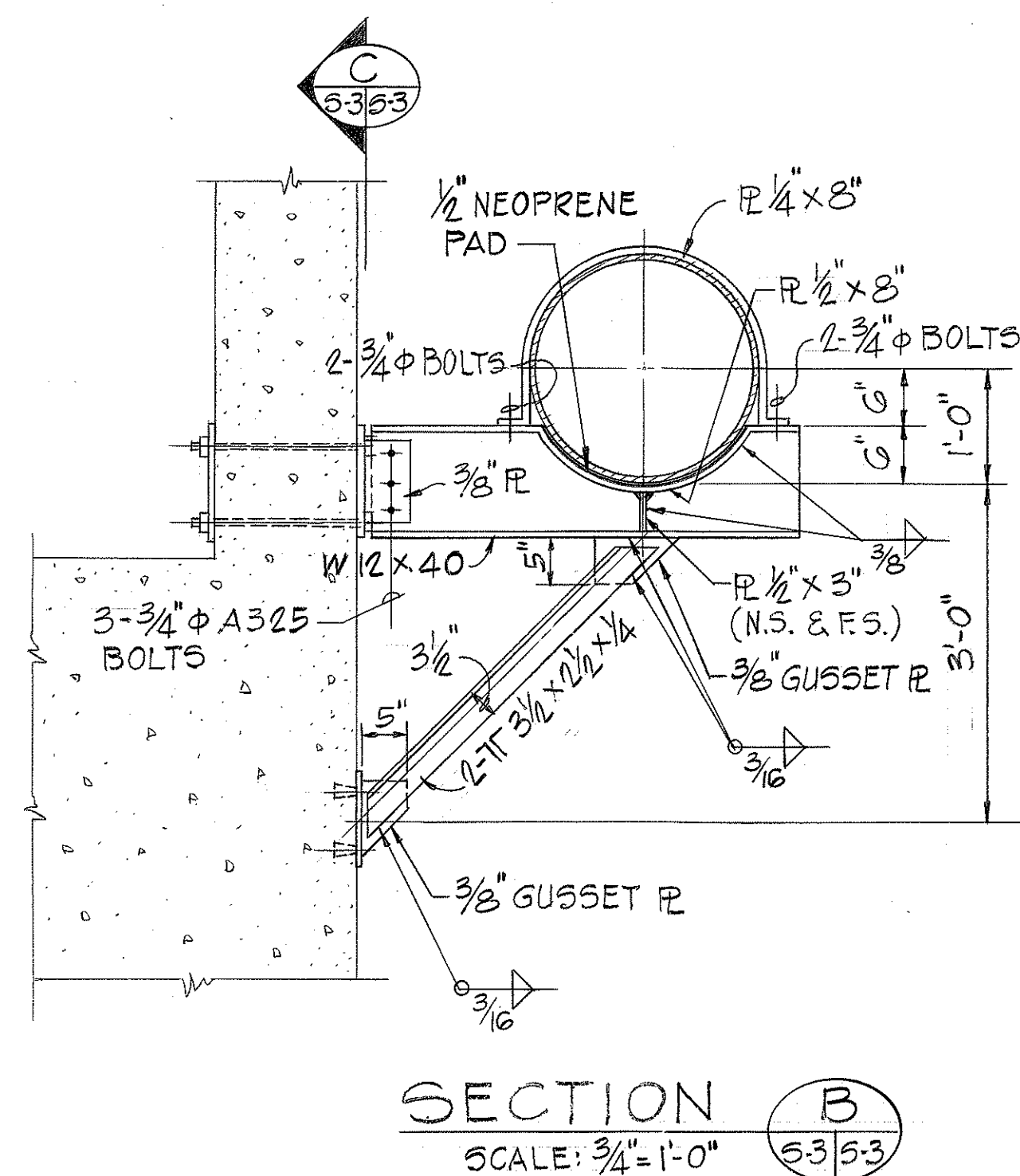
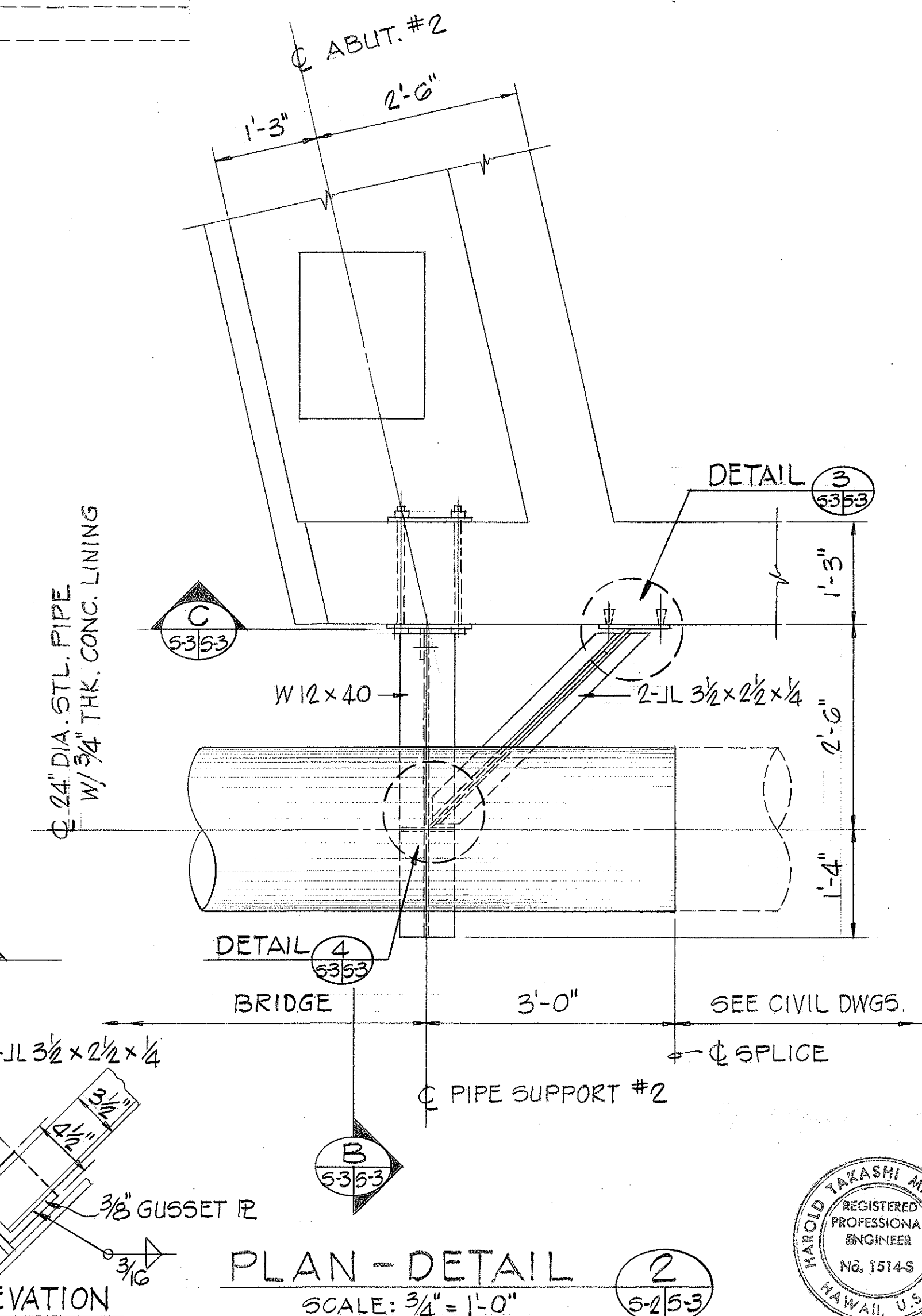
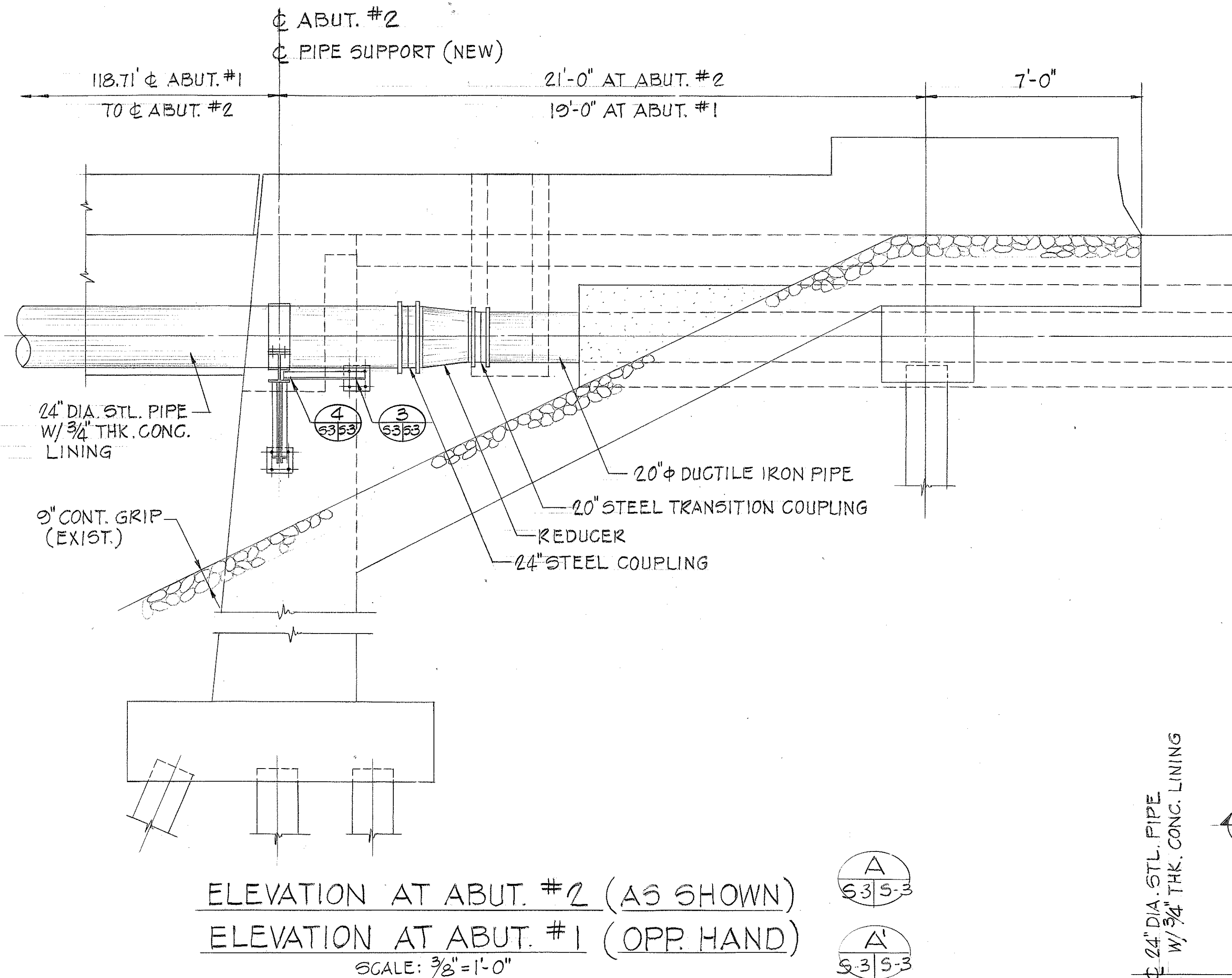
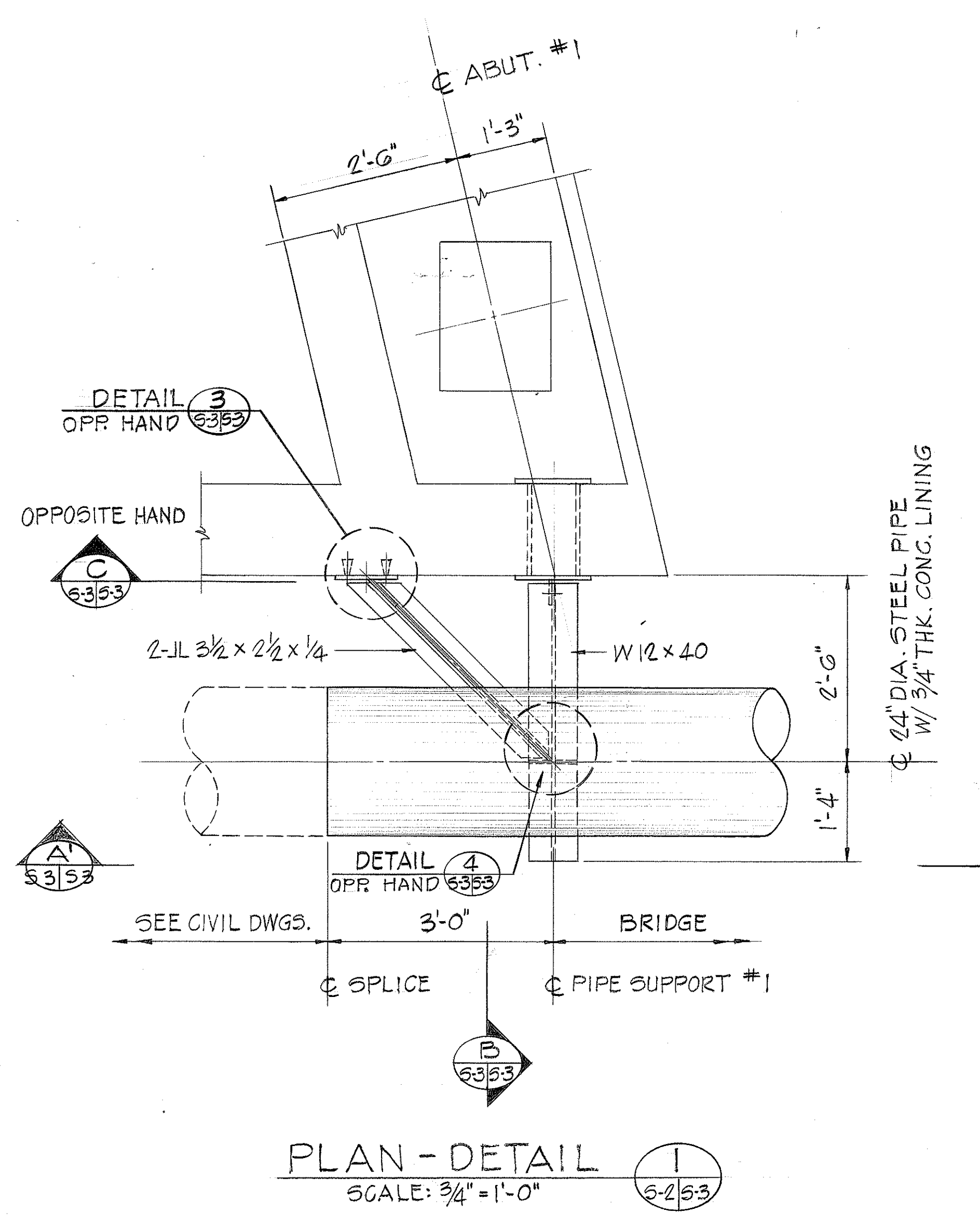
STRUCTURAL DETAILS

H-I NONPOTABLE WATER SYSTEM
HALAWA INTERCHANGE TO KEEHI INTERCHANGE
F.A.I. PROJ. NO. IR-HI-1 (211)

SCALE: AS SHOWN DATE: NOV. 22, 1988
SHEET No. 52 OF 3 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1 (211)	1989	53	53



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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STRUCTURAL DETAILS

H-I NONPOTABLE WATER SYSTEM
HALAWA INTERCHANGE TO KEEHI INTERCHANGE
F.A.I. PROJ. NO. IR-HI-1 (211)
SCALE: AS SHOWN DATE: NOV. 22, 1988
SHEET No. 53 OF 3 SHEETS

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