

GENERAL NOTES

PRESTRESSED GIRDER

$f'_c = 4,200$ psi at transfer
 $7/16$ dia 7 wire strand
 Tension load = 18,900 lbs.

SPECIFICATION AASHTO

Standard specifications for Highway Bridges (7th Edition) with subsequent additions & modifications.

MATERIALS

Concrete - All concrete shall be Class A-1 except concrete for Prestressed

Girders. See Special Provisions.

Admixture - See Special Provisions.

CONSTRUCTION METHODS

General - See Special Provisions

Welding - All welding shall conform to the latest specifications for Welded Highway Railway Bridges, Design, Construction and Repair, of the American Welding Society.

All grades and elevations are approximate and shall be verified in the field by the Engineer.

GENERAL

(41.27) Denotes existing ground or pavement elevations.

* INCLUDES: Wing Walls #1 Inbound Bridge Widening

Wing Walls #2 & #3 Outbound Bridge Widening

ESTIMATED QUANTITIES

ITEMS	OUT-BOUND BRIDGE	IN-BOUND BRIDGE	RETAINING WALL #1	CHANNEL FLOOR
Class A-1 Concrete	LUMP SUM (109.0 cy)	LUMP SUM (111.0 cy)	134.0 cy	119.0 cy
Reinf. Steel	LUMP SUM (2800.0 lbs)	LUMP SUM (2800.0 lbs)	8000.0 lbs	426.0 lbs
Struc. Exc.	302.0 cy	143.0 cy	357.0 cy	—
Filter Material	20.0 cy	16.0 cy	52.0 cy	—
Aluminum Railing	73.0 4/F	72.0 4/F	—	—
Conc. Rail. & End Post	90.0 4/F	89.0 4/F	—	—
Prestressed Girder	109.92 4/F	146.50 4/F	—	—
Channel Exc. (To be Paid for as (Roadway Excavation))	—	—	—	239.0 cy

END POST DETAIL (A) AS SHOWN

END POST DETAIL (A) SIMILAR - OPR HAND

END POST DETAIL (B) AS SHOWN

END POST DETAIL (B) SIMILAR - OPR HAND

REDUCED PLANS
 SCALES REDUCED
 ACCORDINGLY

Outline existing railing to be demolished

#4 bars @ approx. 18" o.c. to be cut, cleaned & salvaged as shown

New parapet

For added conf. horiz. reinf. in conc. railing See Std. Alum. Railing drawing.

For dimensions of new parapet See Std. Aluminum Railing drawing

Existing conc. deck & sidewalk on curb to remain.

Note! For new parapet reinf. & railing details, see Std. Alum. Railing Det.

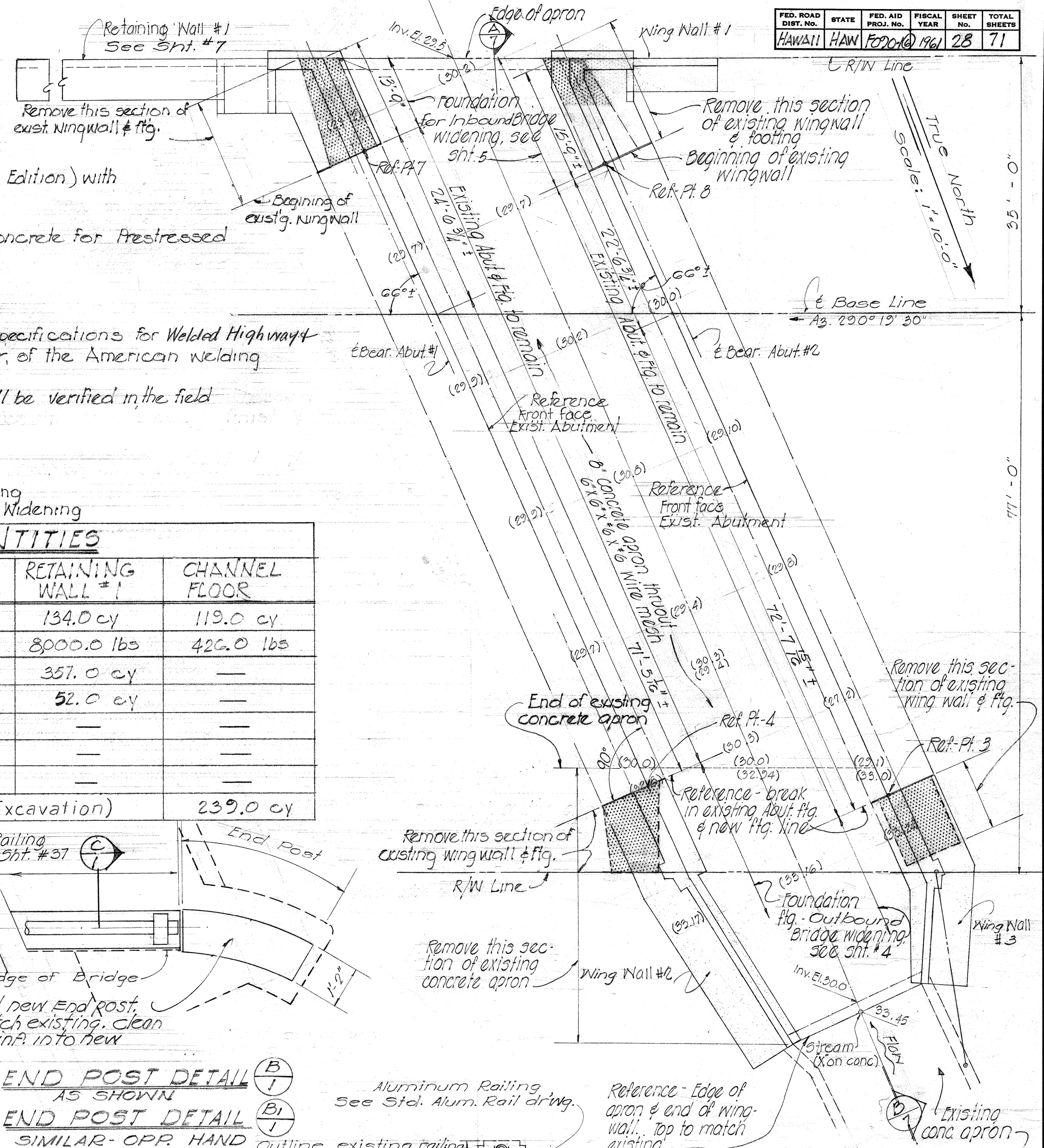
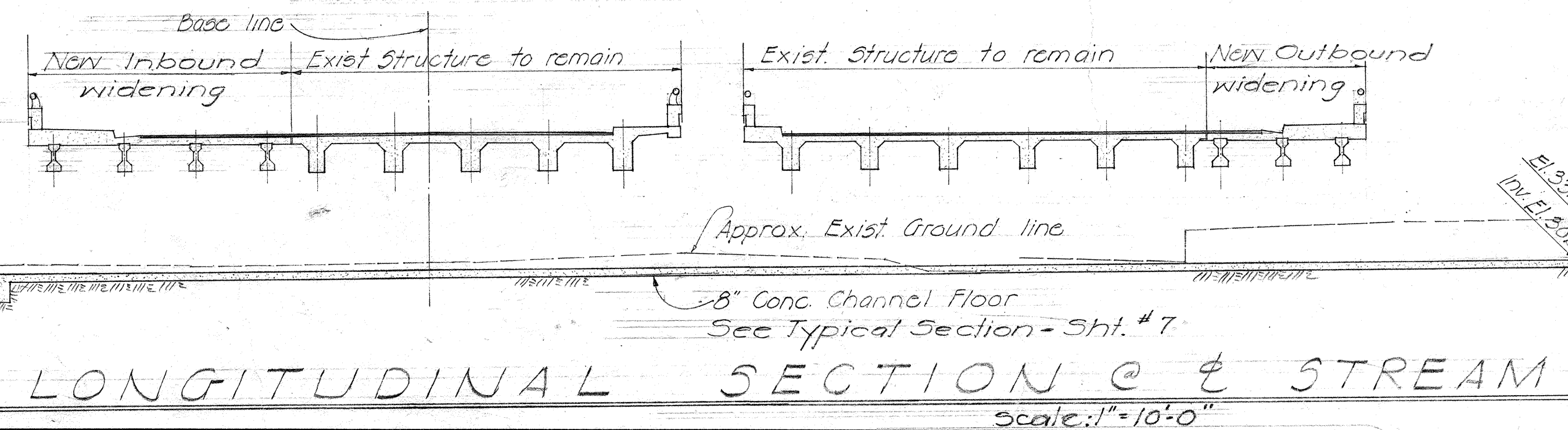
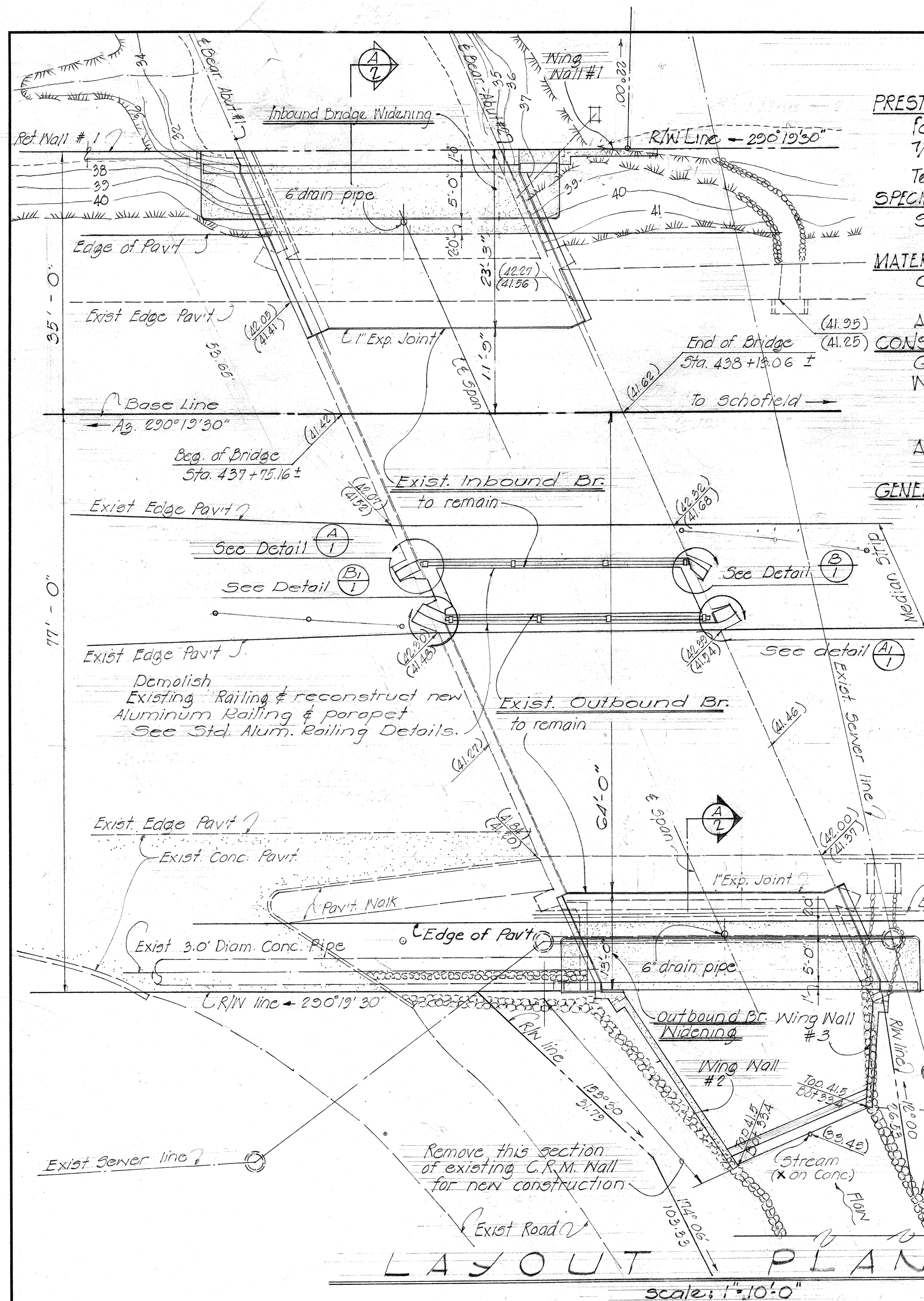
SECTION (C) SCALE: 1/2" = 1'-0"

FOUNDATION & CHANNEL PLAN

Scale: 1" = 10'-0"

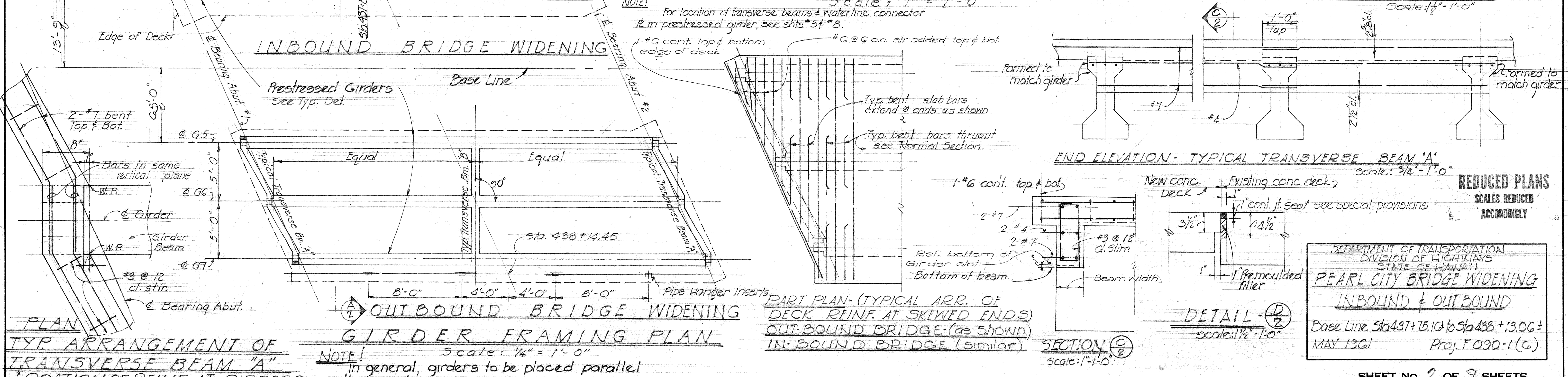
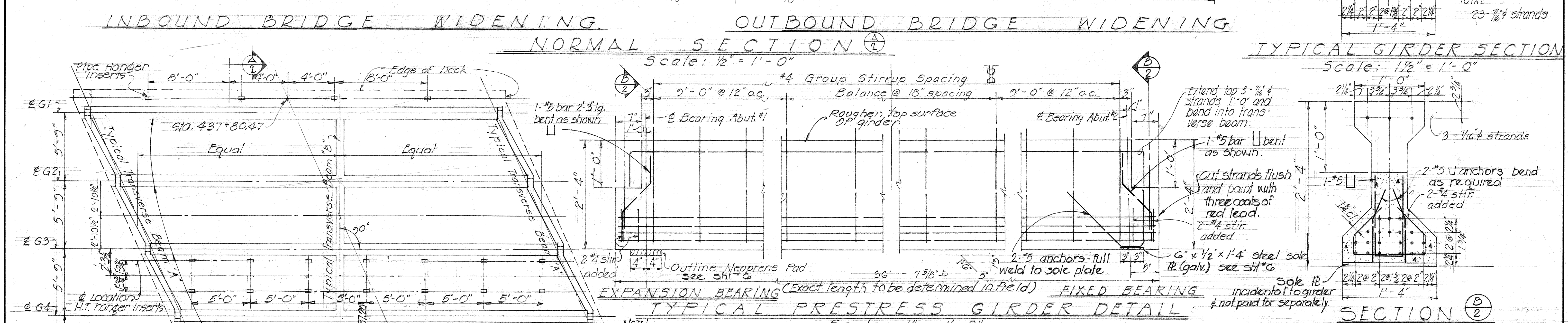
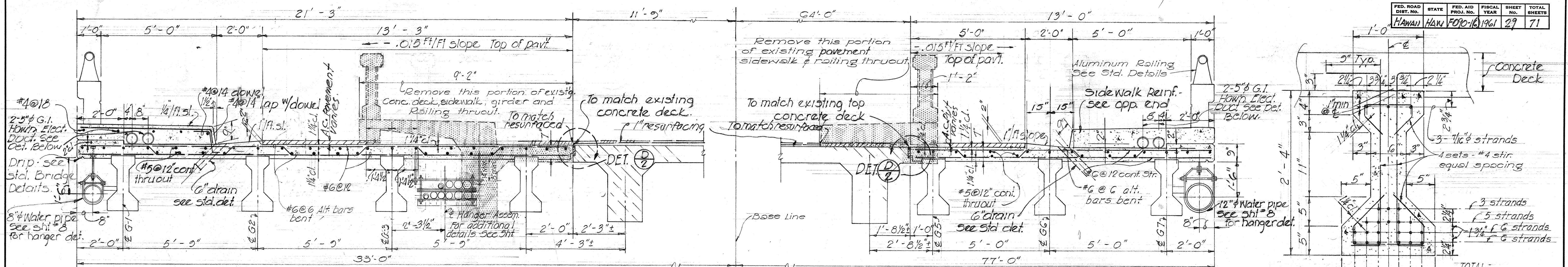
DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 STATE OF HAWAII
PEARL CITY BRIDGE WIDENING
INBOUND & OUTBOUND
 Base Line Sta 437+15.16 to Sta 438+13.06
 MAY 1961 Proj. F090-1(C)

SHEET NO. 1 OF 9 SHEETS

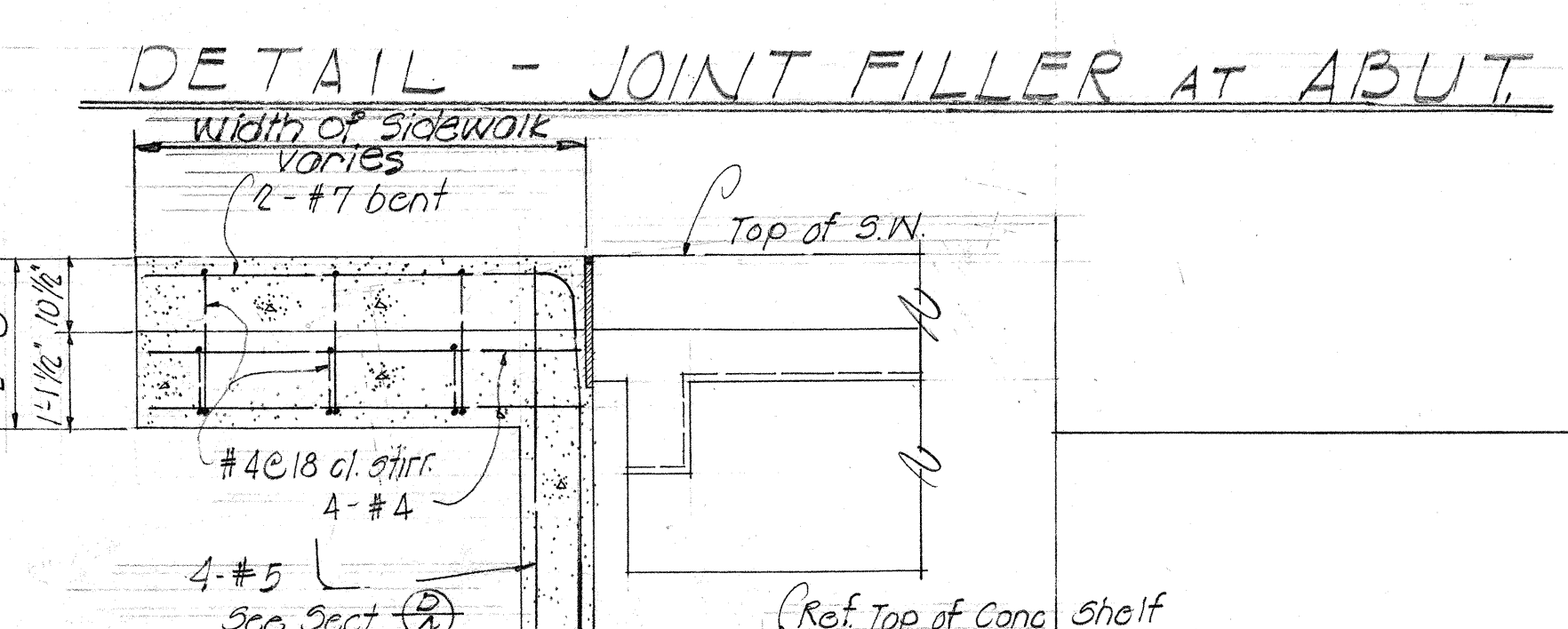
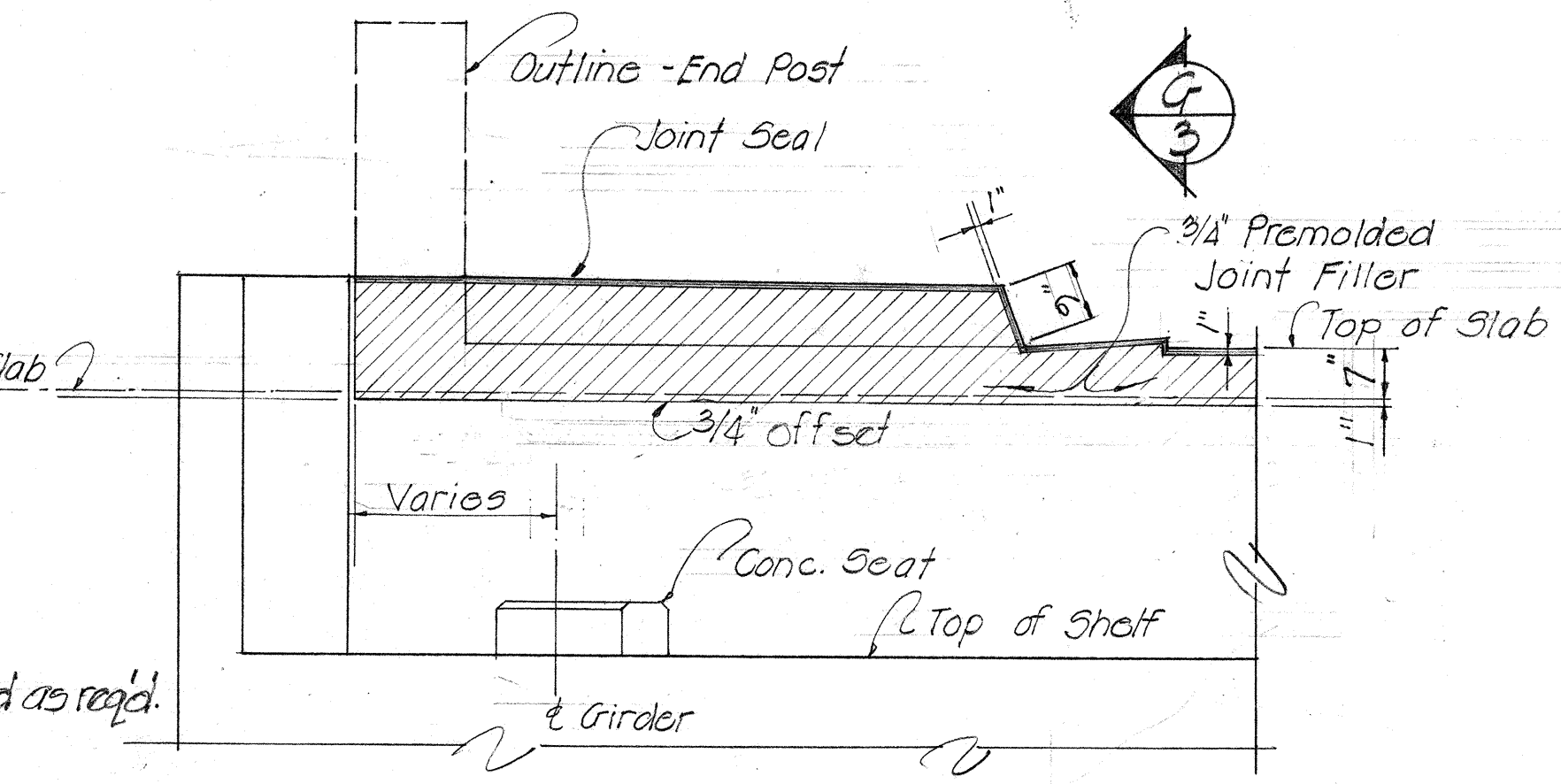
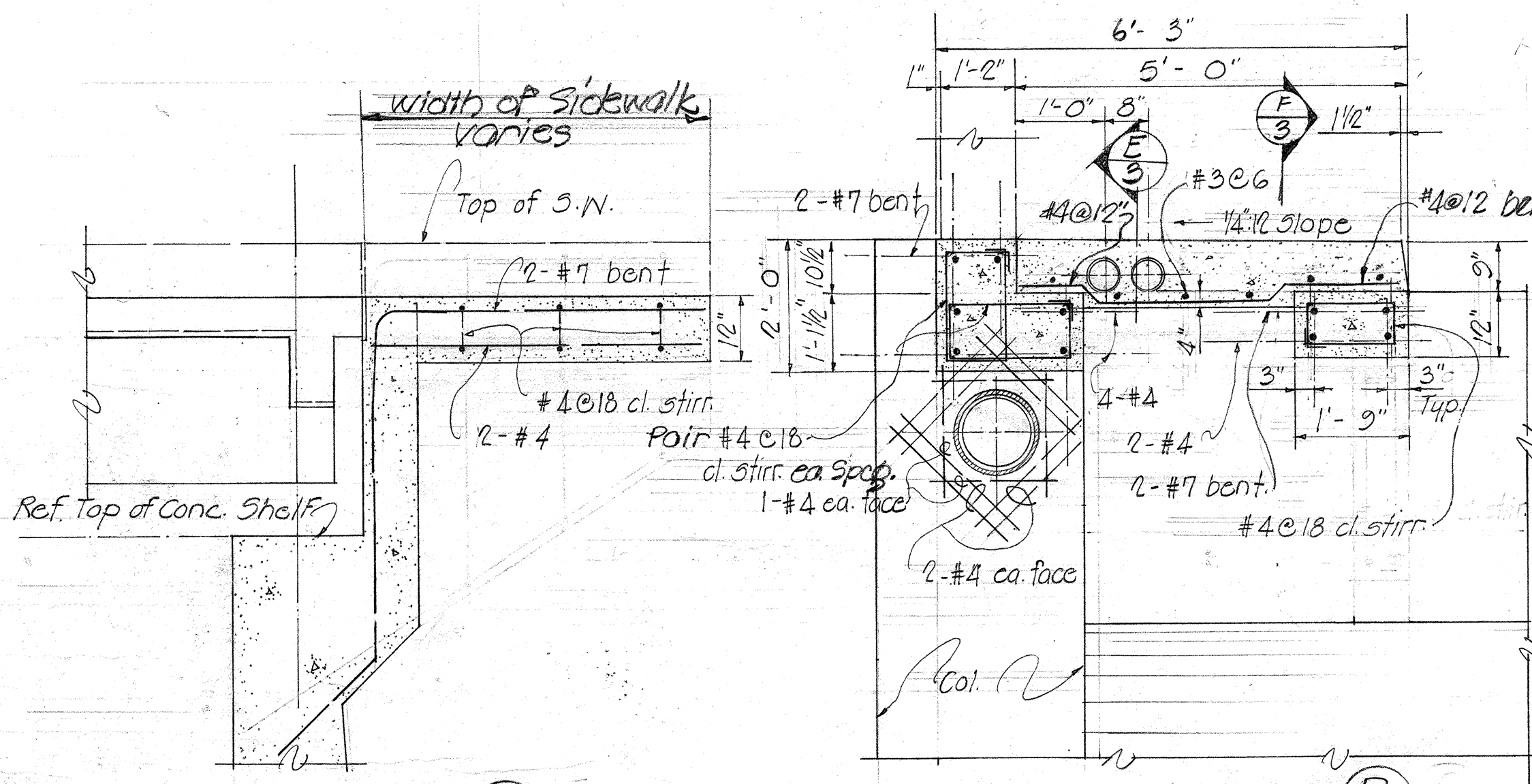
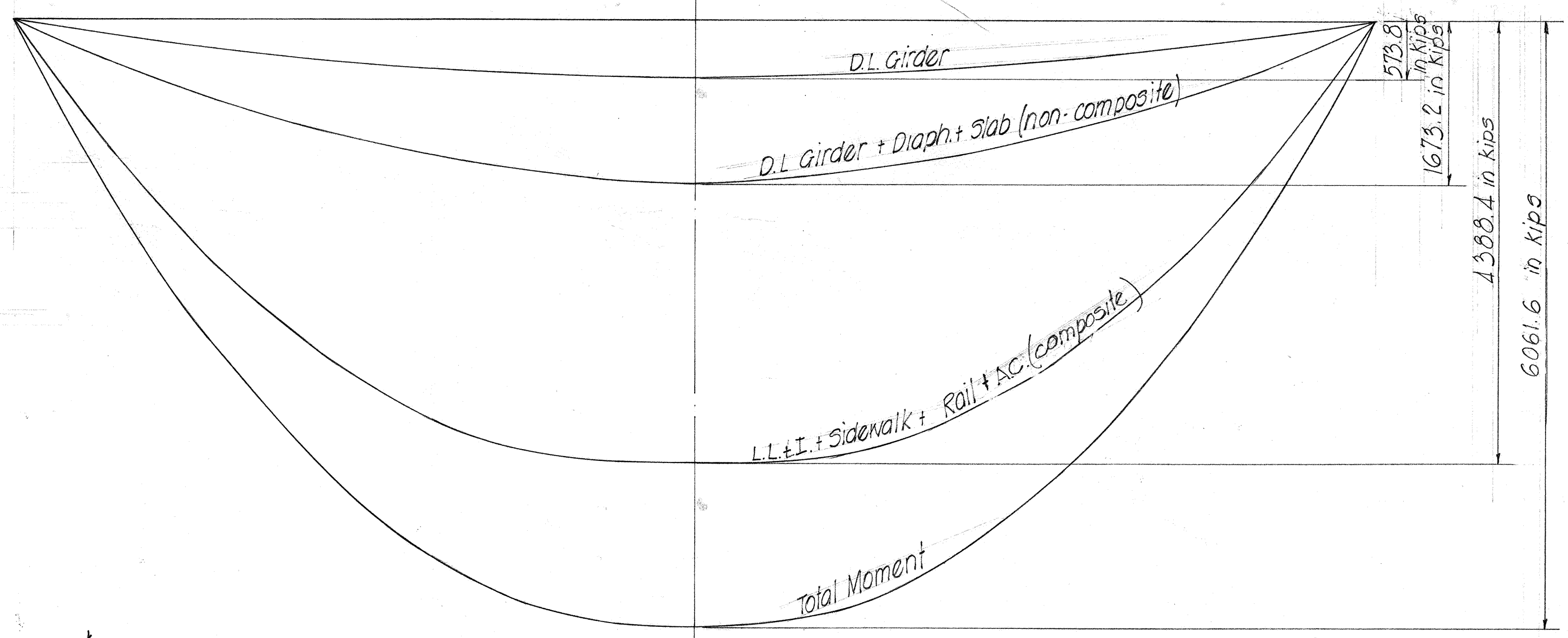
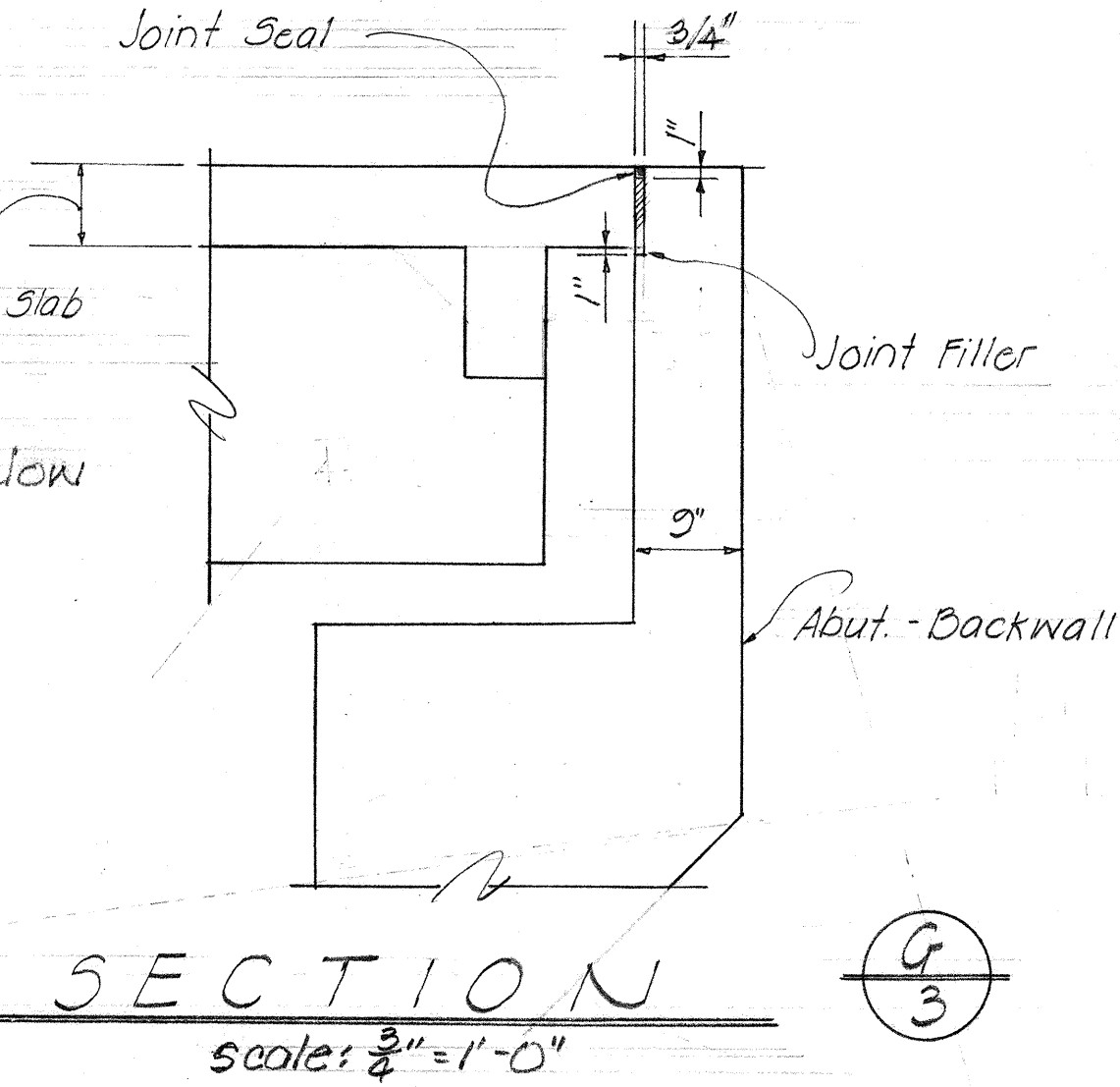
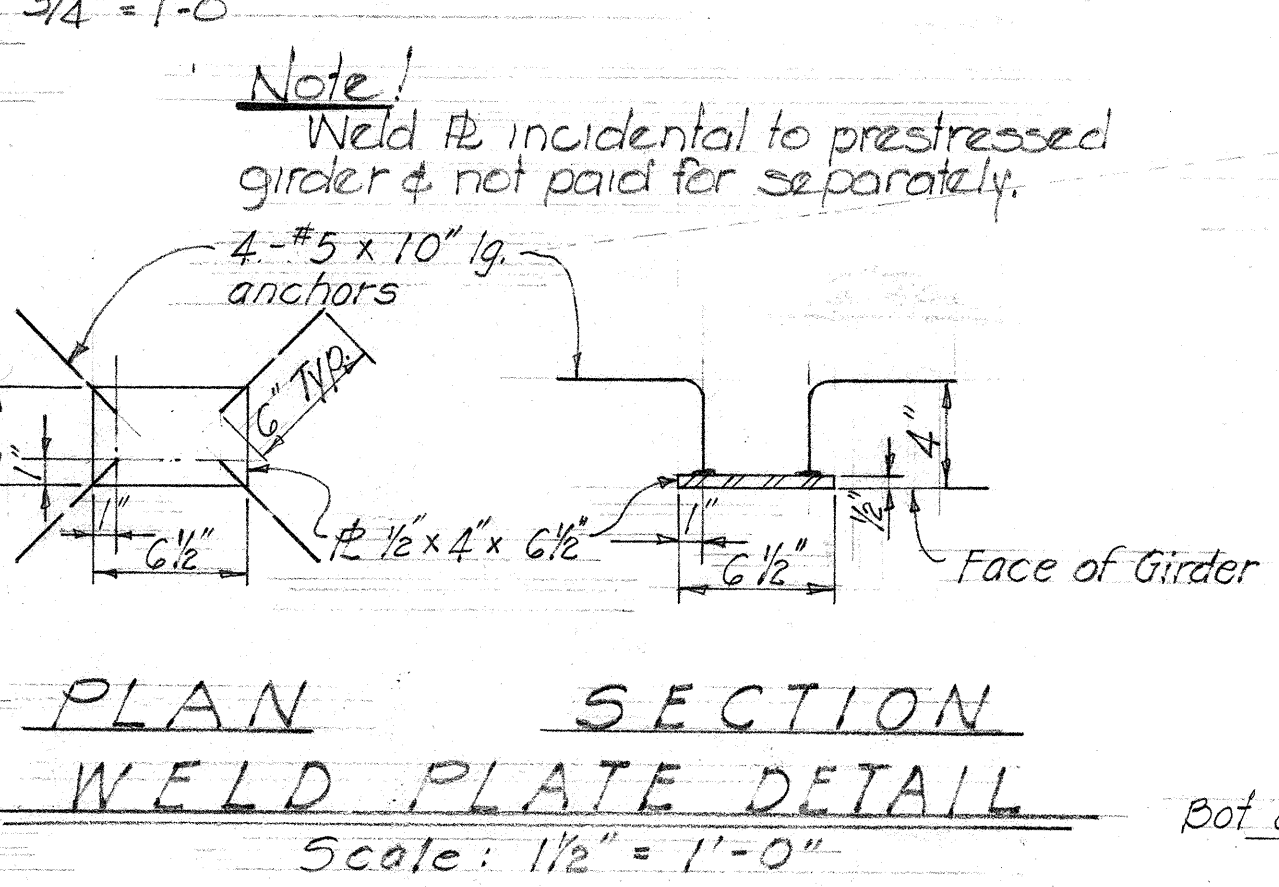
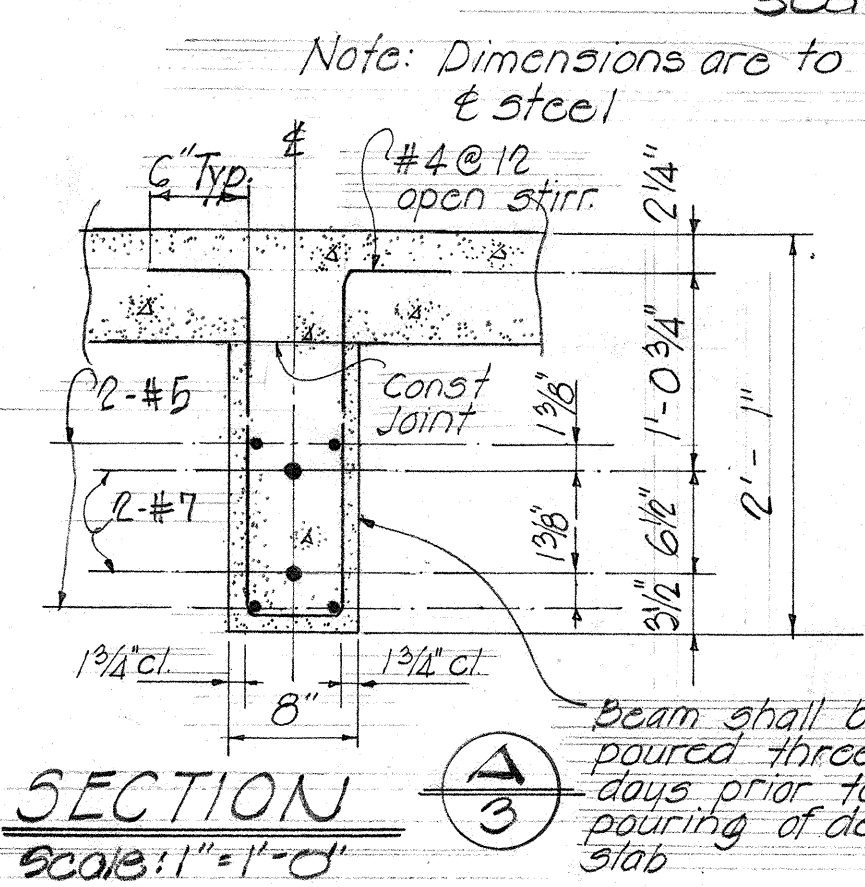
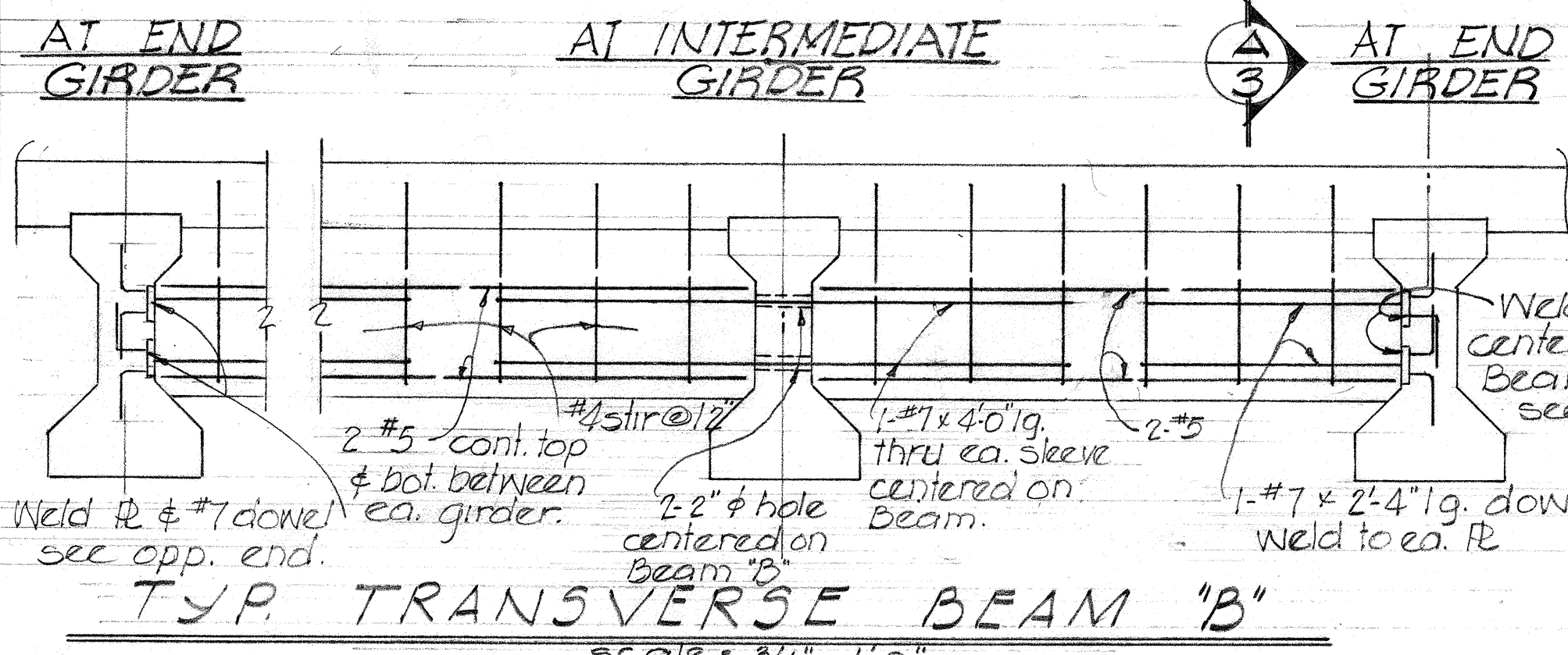


DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 DATE: 5-1-61
 ORIGINAL PLAN
 NOTE BOOK
 NO.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW	FO90-16	1961	29	71



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F090-106	1961	30	71

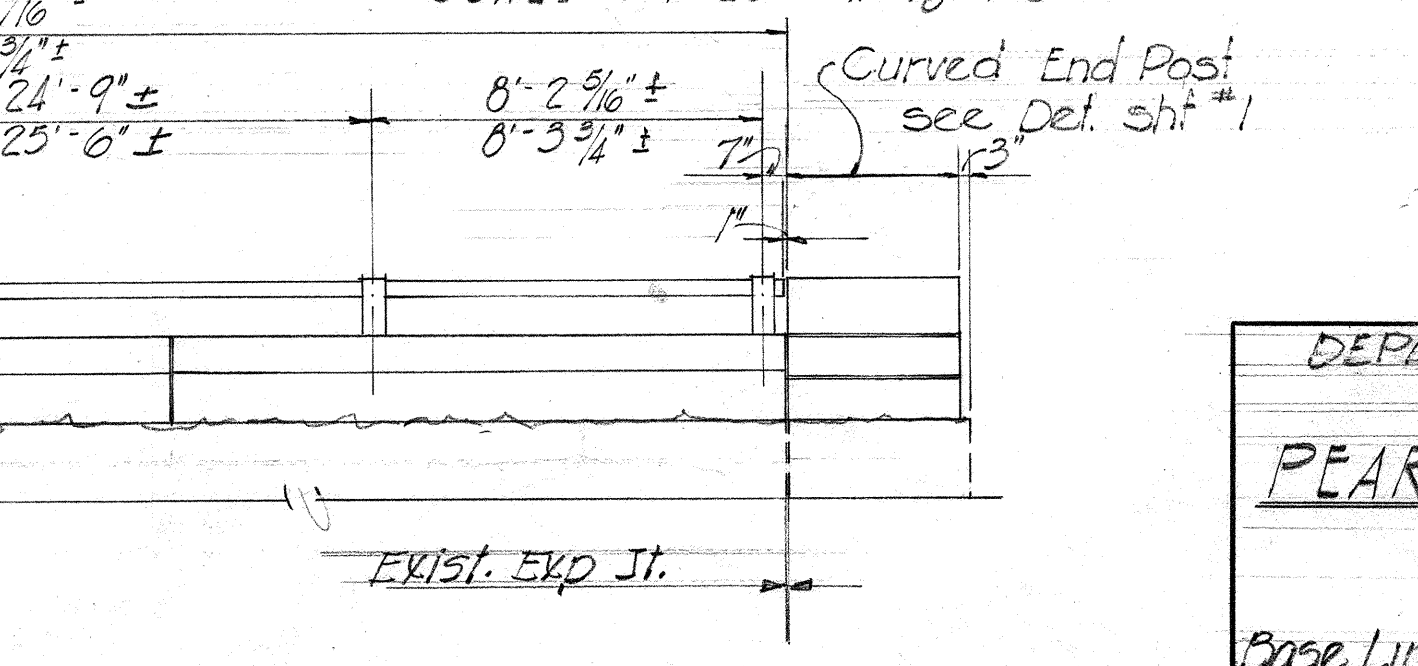
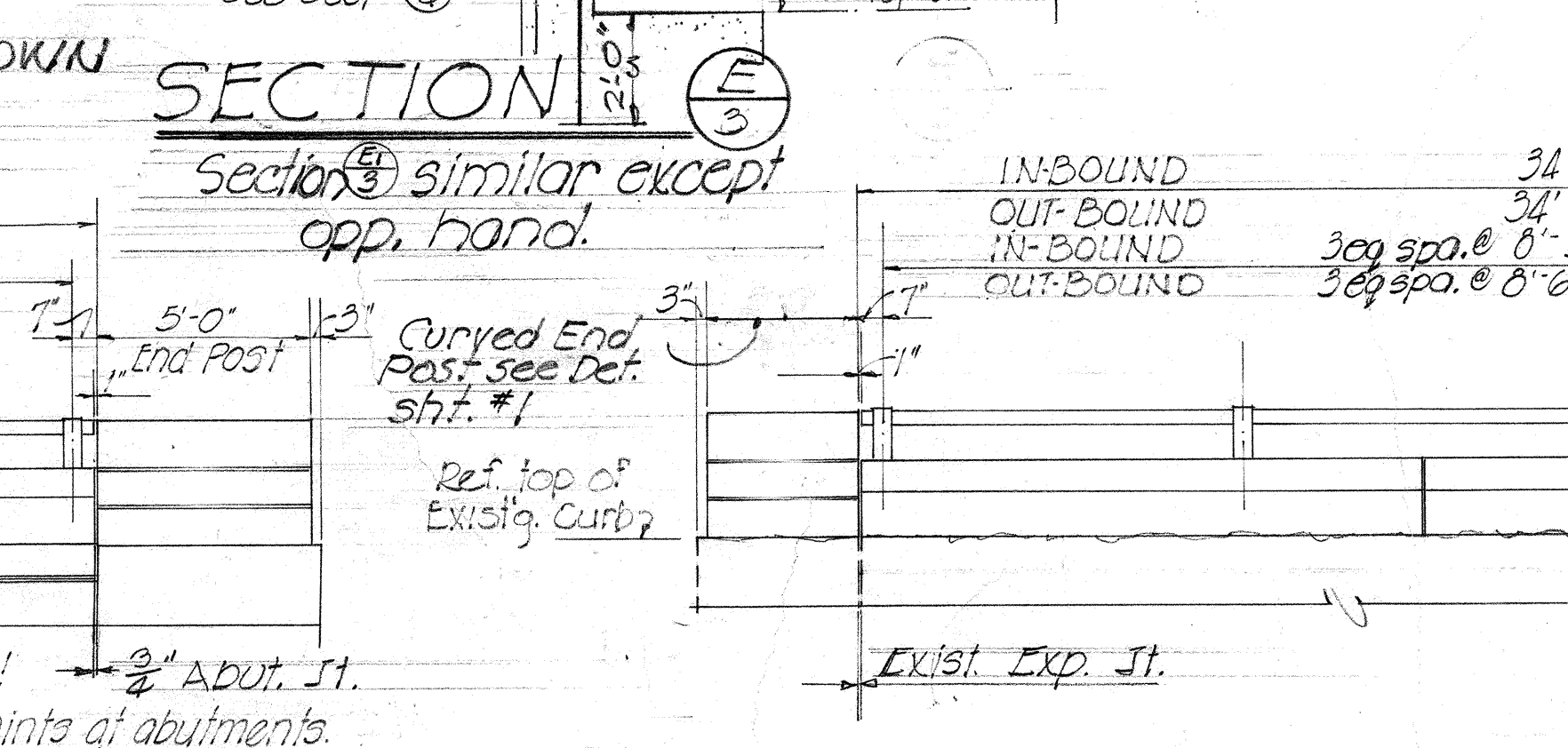
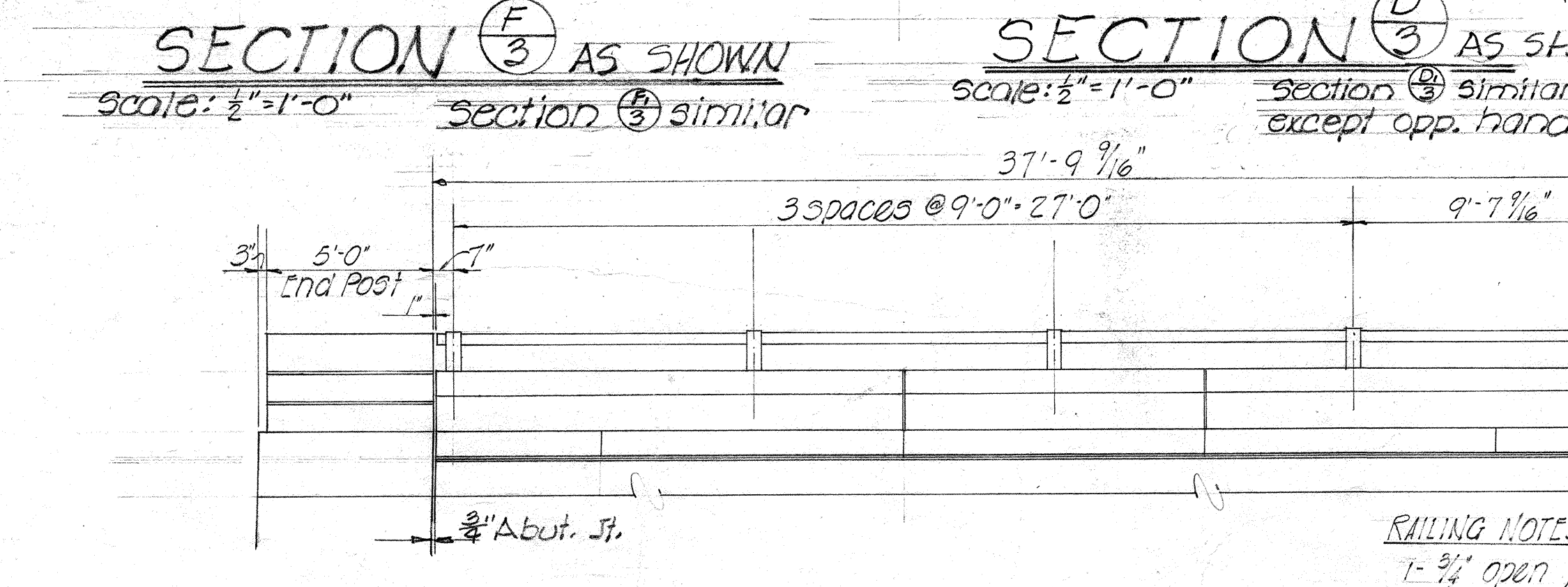


MOMENT DIAGRAM

SCALE: V = 1" = 1000'K - H = 3/8" = 1'-0"

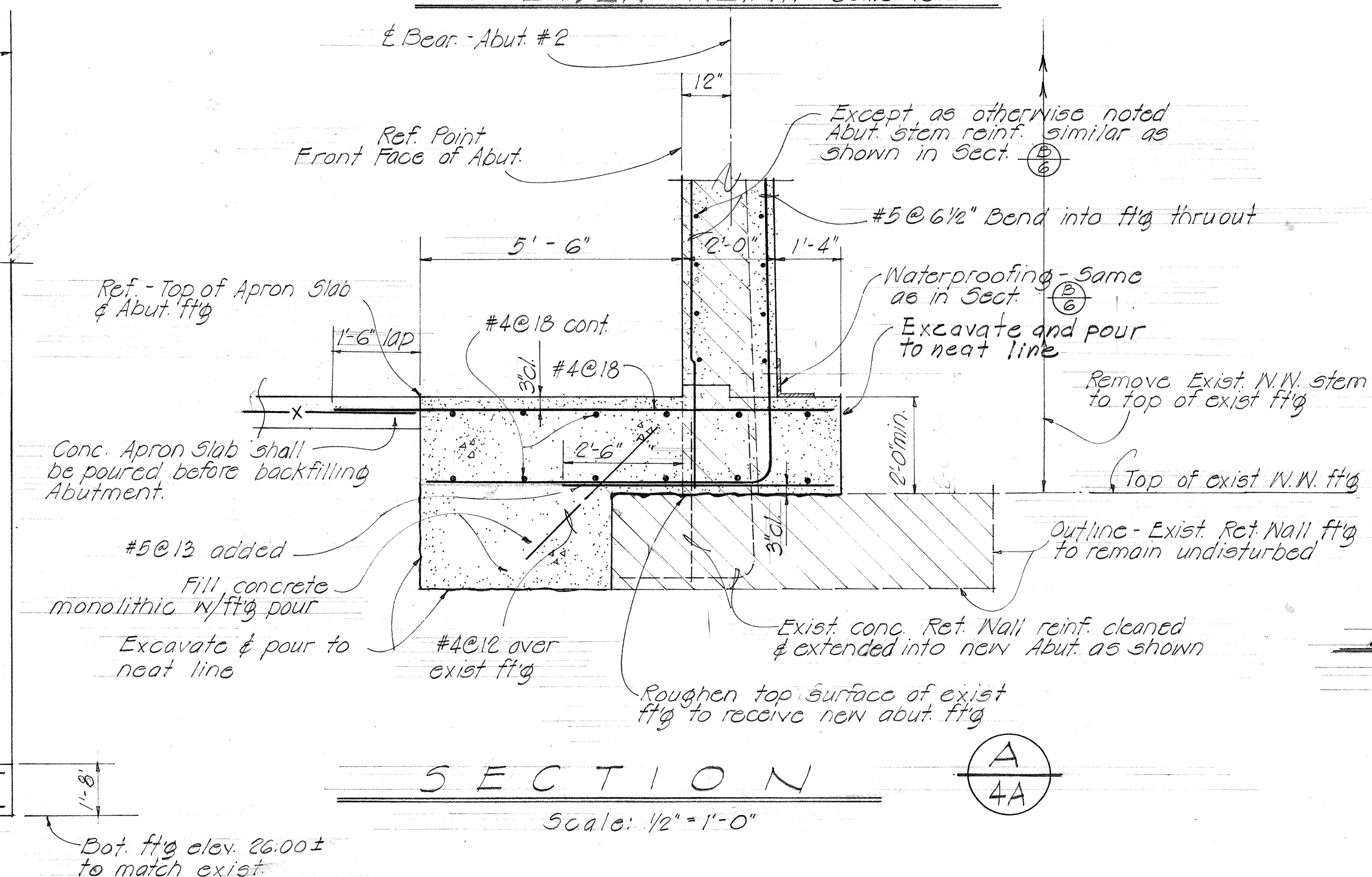
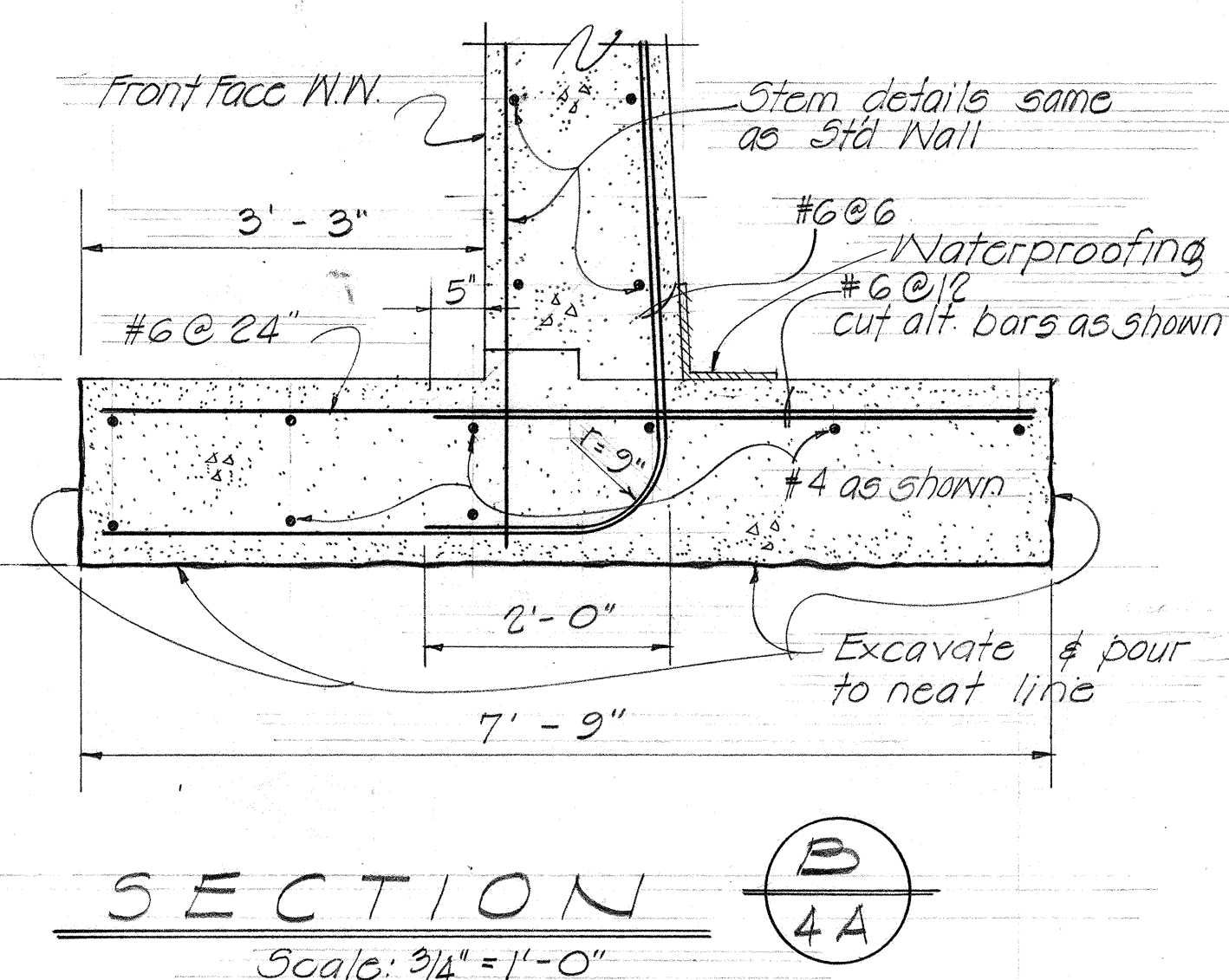
SHEAR DIAGRAM

SCALE: V = 1" = 20K - H = 3/8" = 1'-0"



REDUCED PLANS
SCALES REDUCED
ACCORDINGLY

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
PEARL CITY BRIDGE WIDENING
INBOUND & OUTBOUND
Base Line Sta 437+75.16 to Sta 438+13.06
MAY 1961 Proj. F090-1(G)



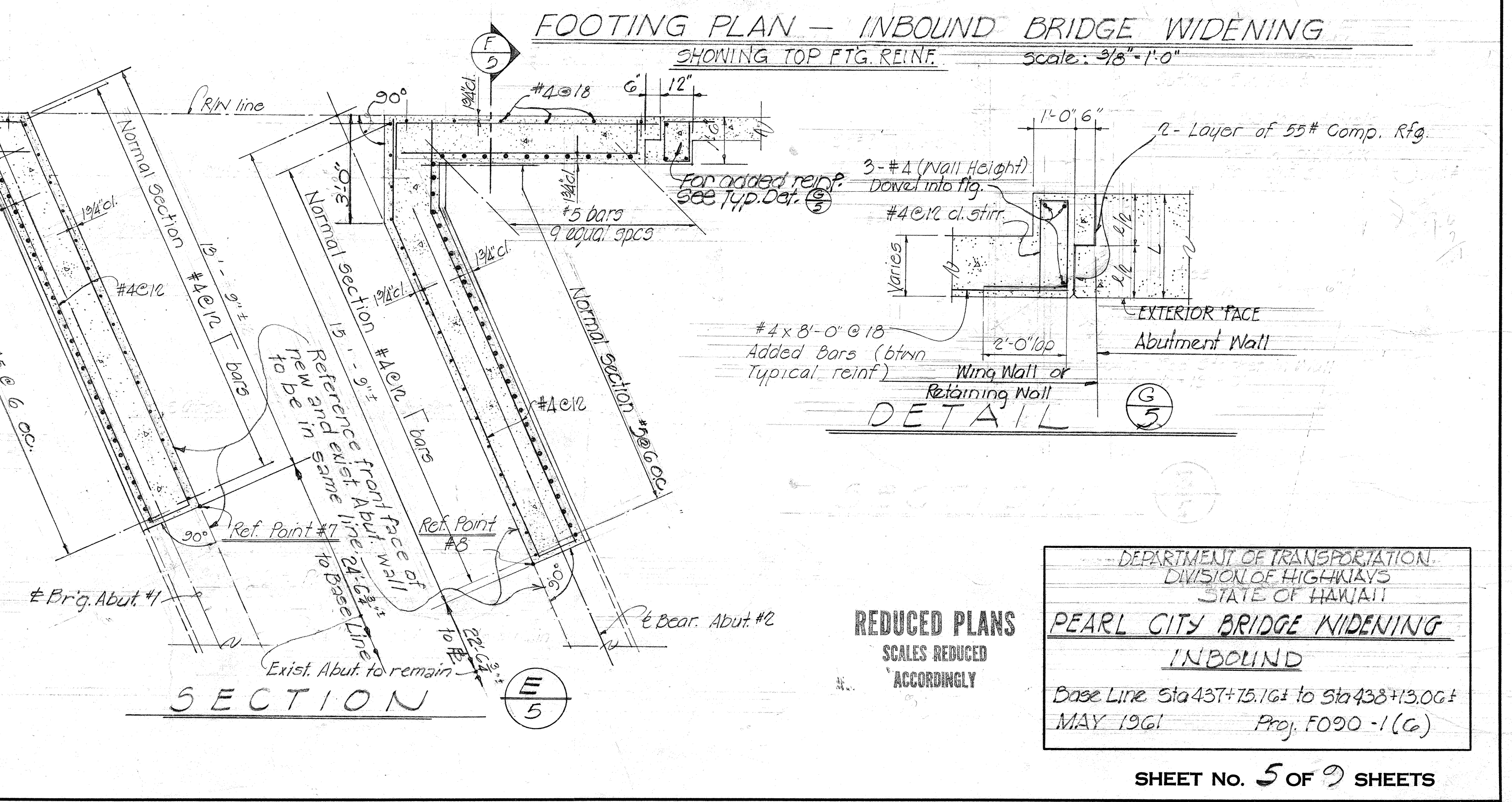
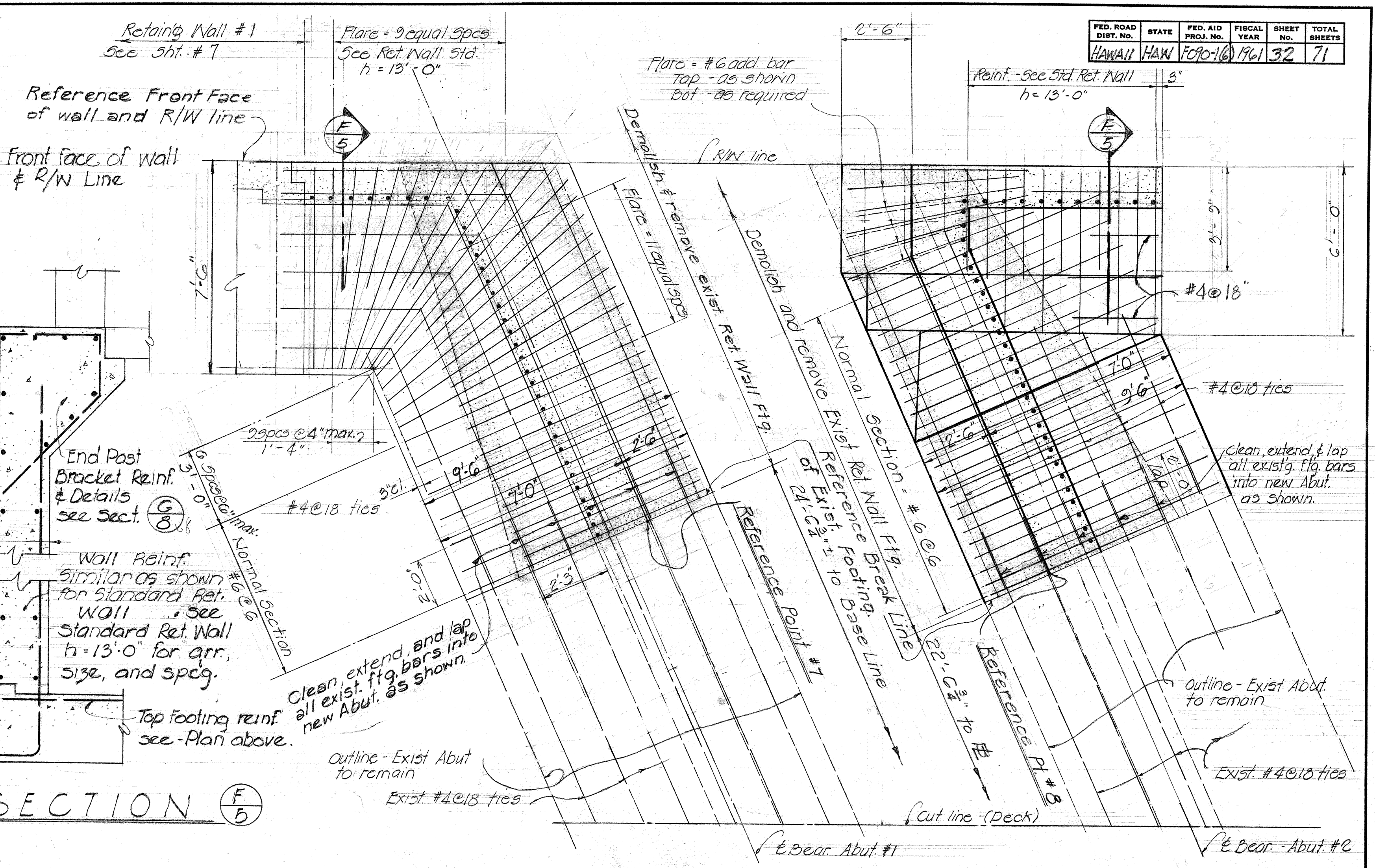
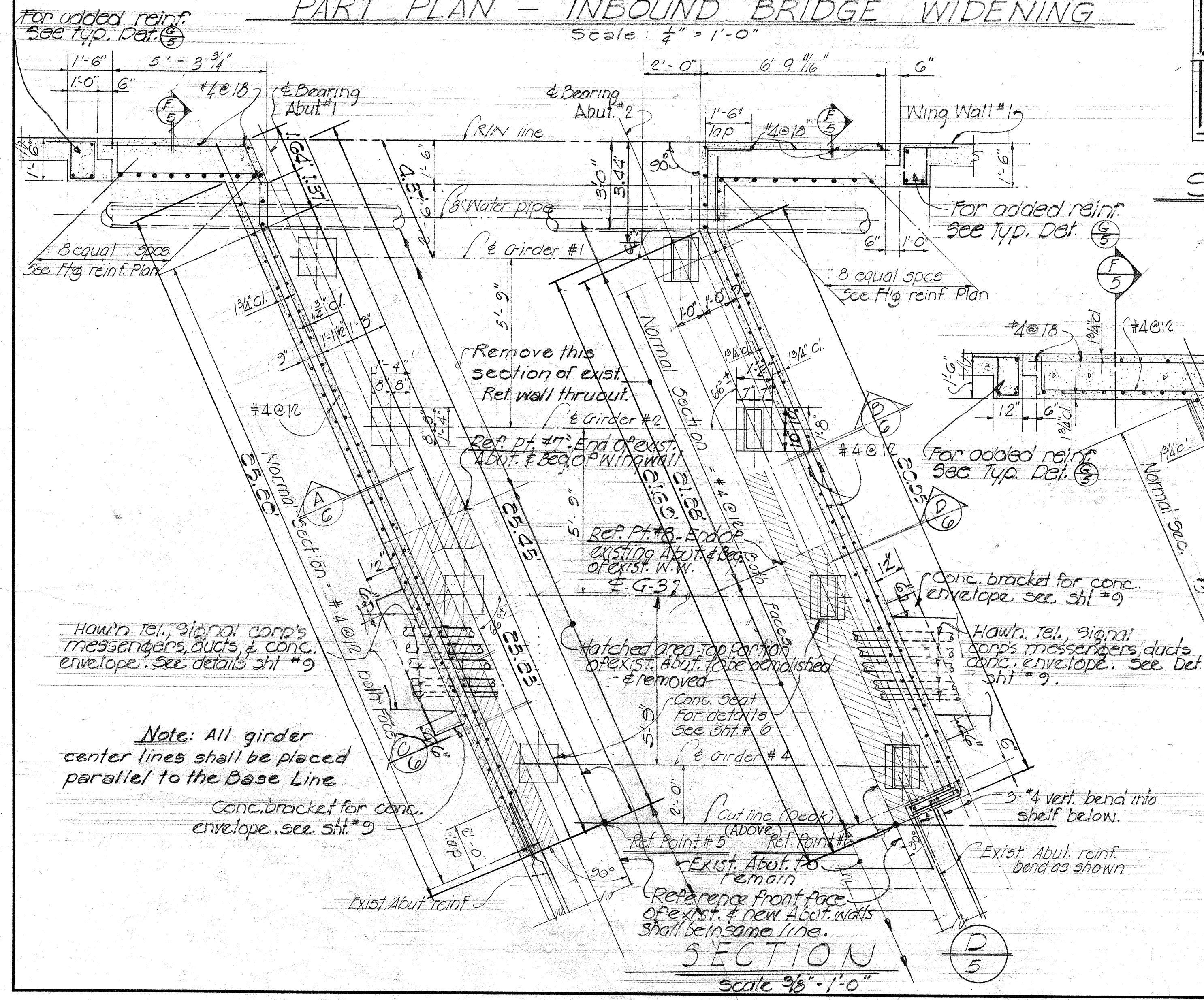
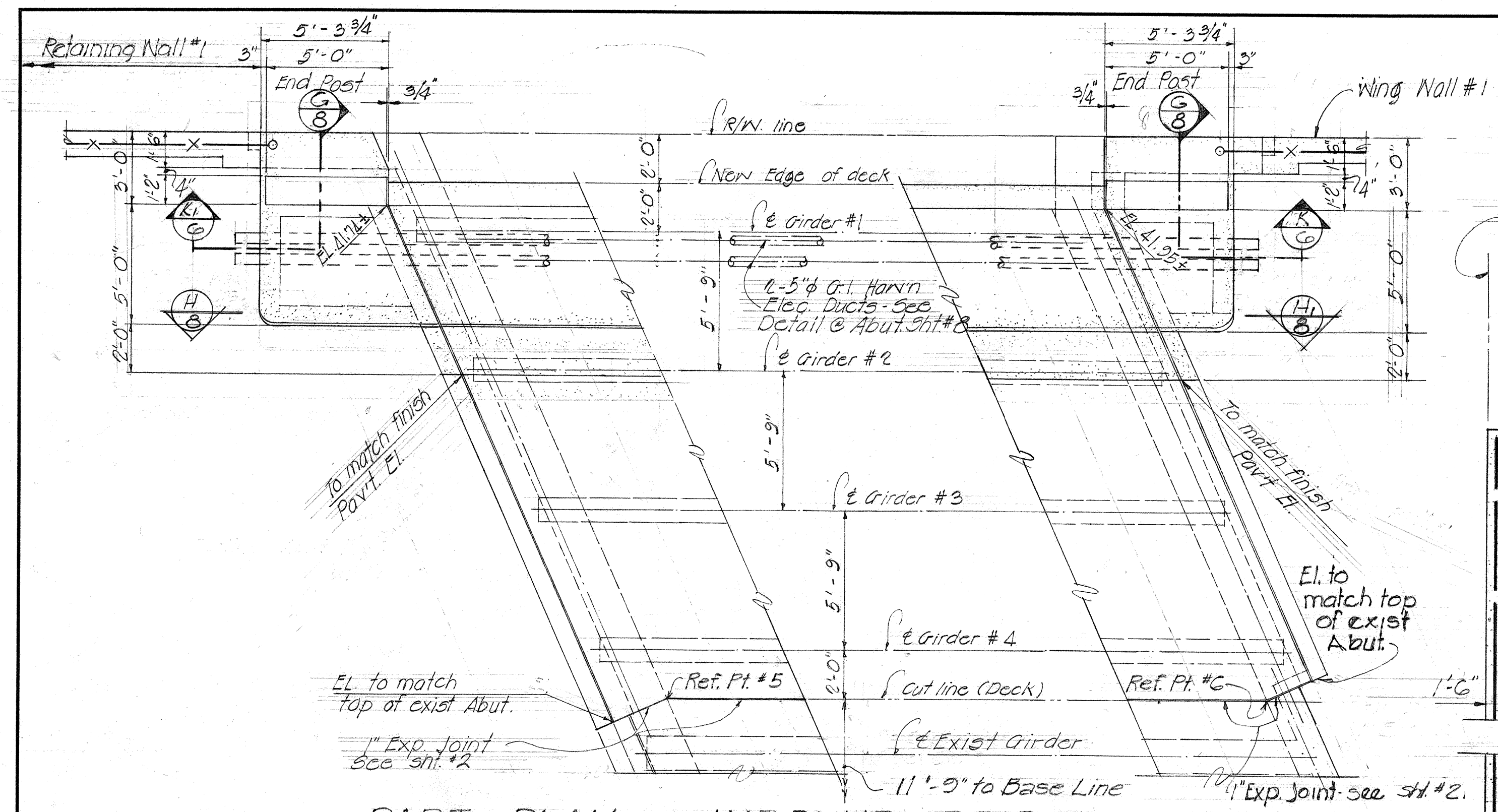
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

PEARL CITY BRIDGE WIDENING
REVISED OUTBOUND- ABUT.#2

Base Line Sta. 437+75.16 ± to Sta. 433+13.06 ±

NOV. 1961 Proj. F090-1(6)

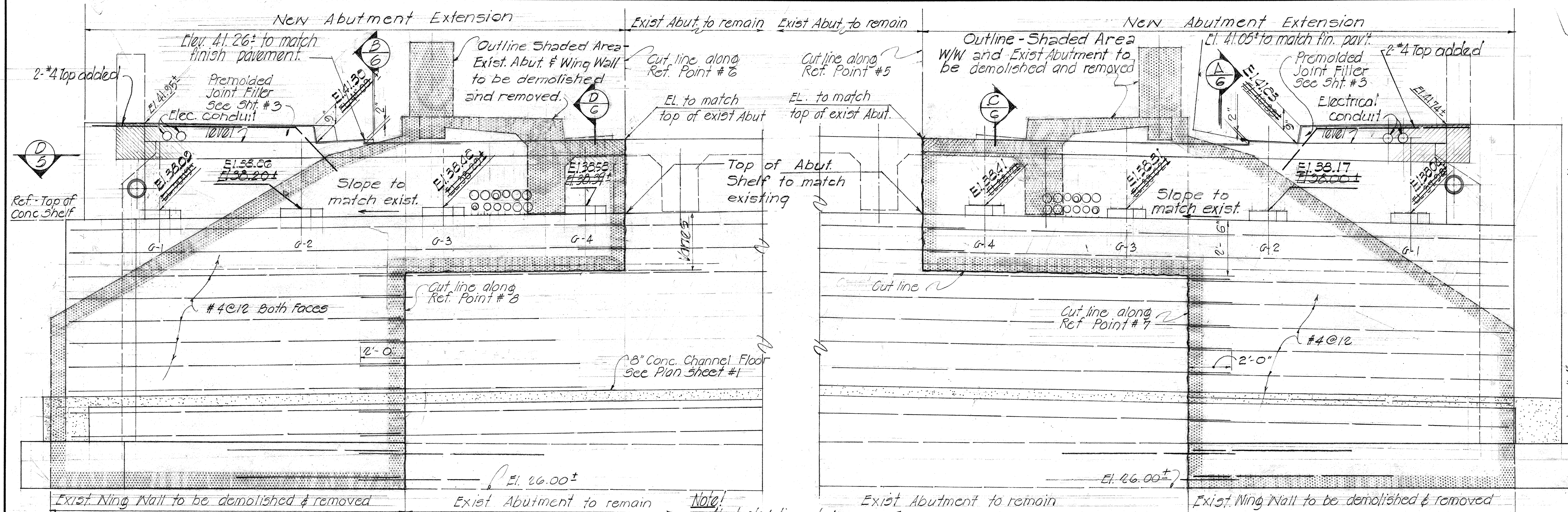
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F090-1(6)	1961	32	71



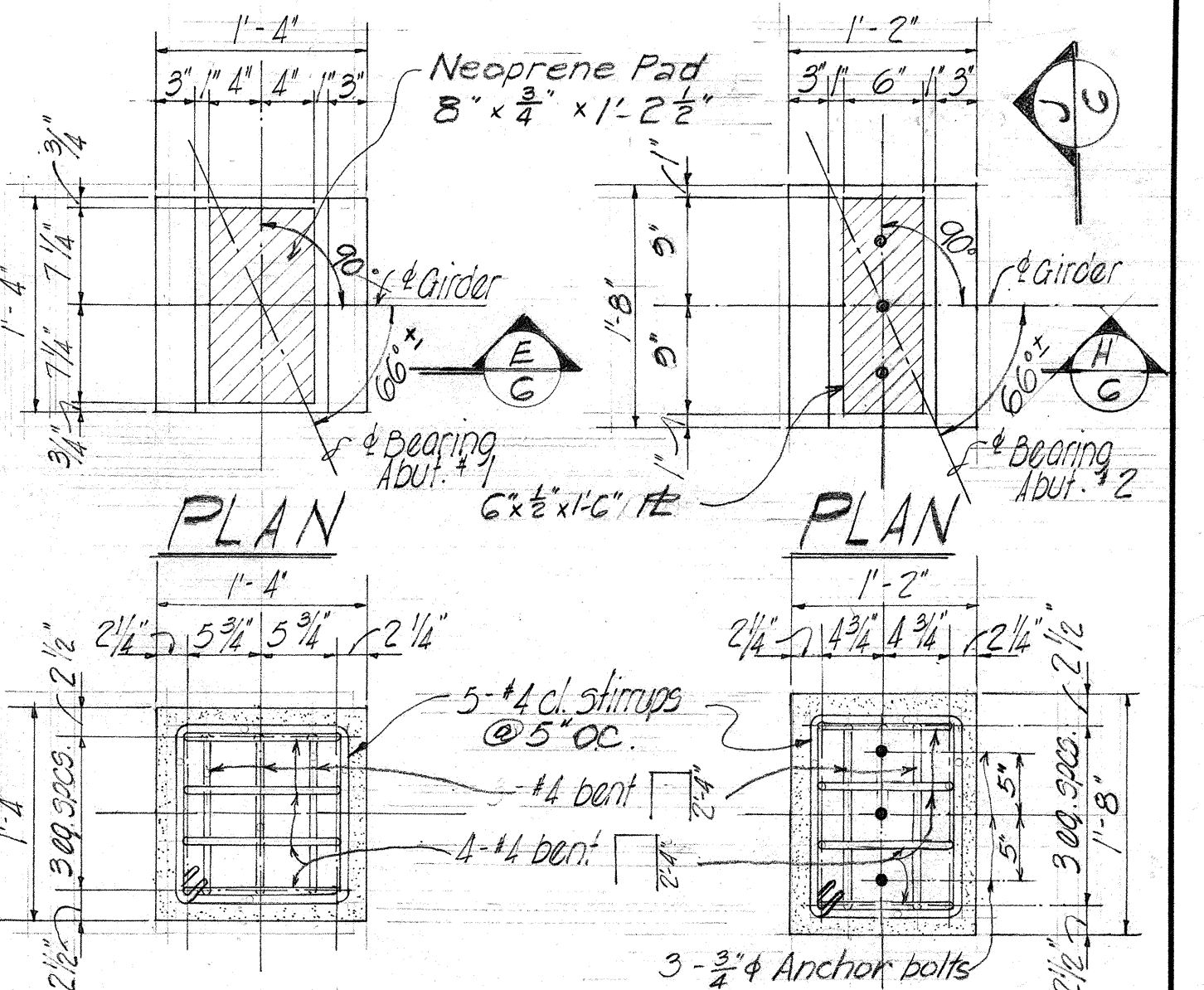
SURVEY PLOTTED BY	DATE
TRACED BY	
QUANTITIES CHECKED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

REDUCED PLANS
SCALES REDUCED
ACCORDINGLY

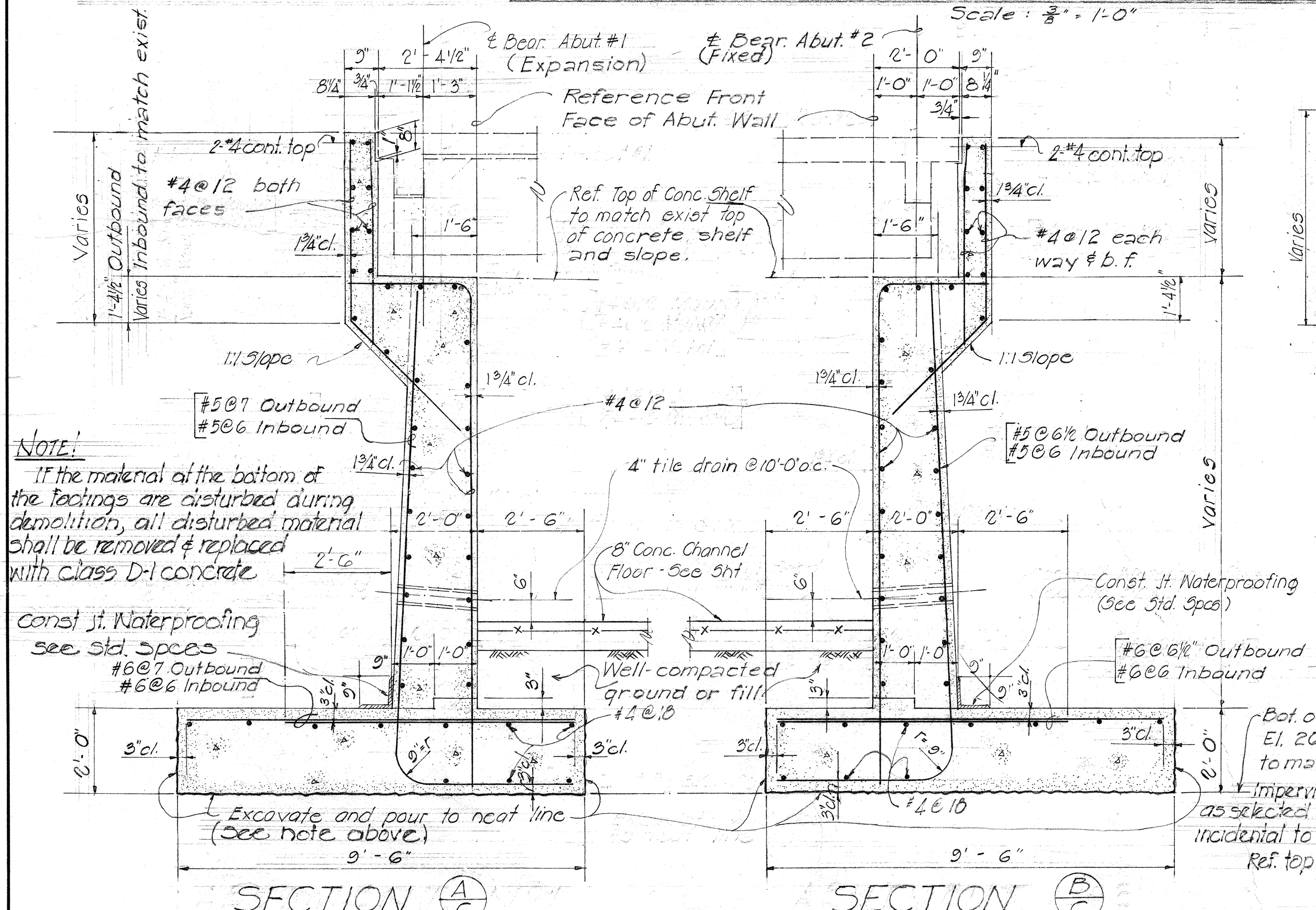
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
PEARL CITY BRIDGE WIDENING
INBOUND
Base Line Sta 437+75.161 to Sta 438+13.061
MAY 1961 Proj. F090-1(6)



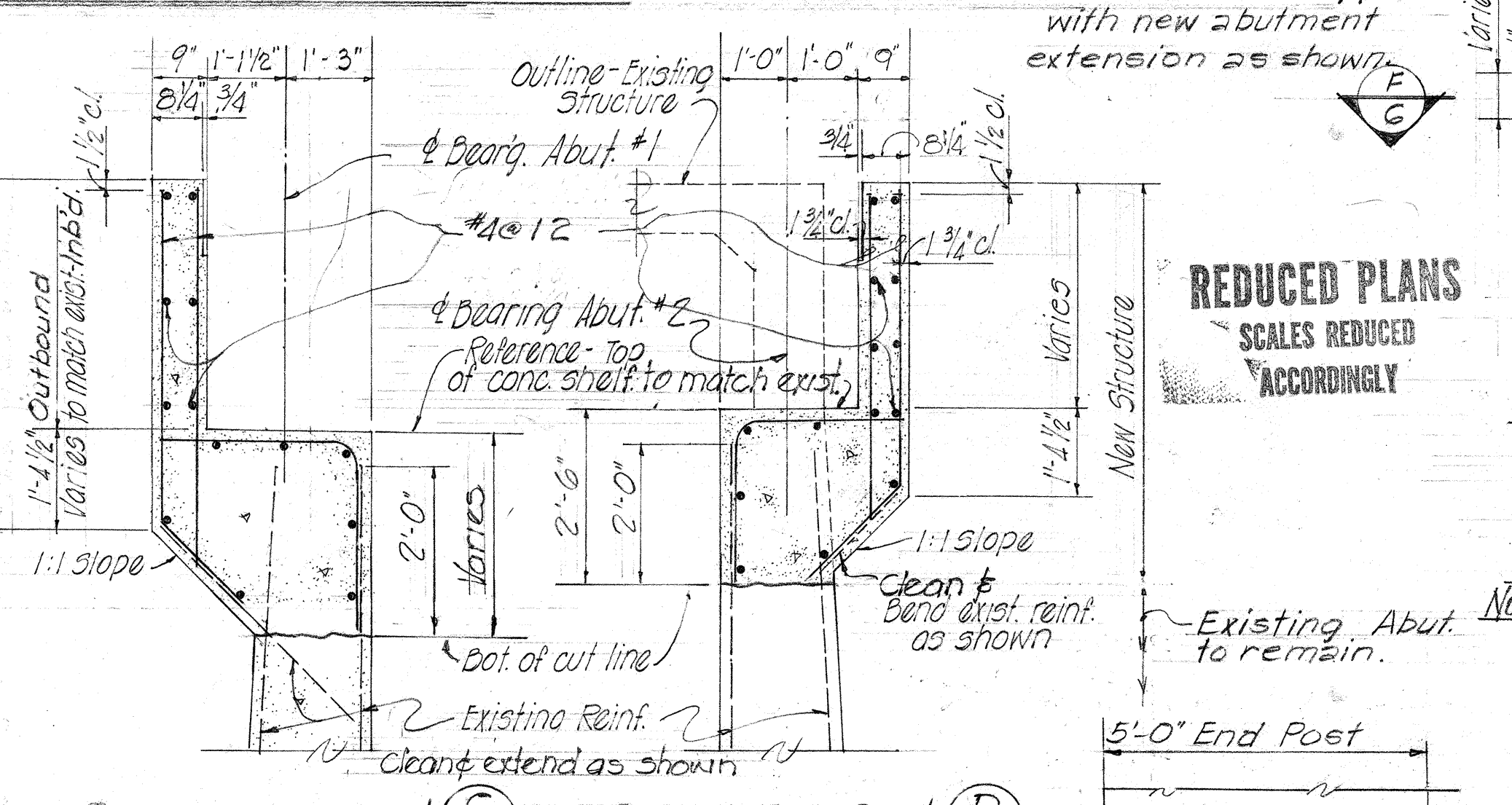
ABUTMENT NO. 2
ABUTMENT NO. 1
ELEVATION - INBOUND BRIDGE WIDENING



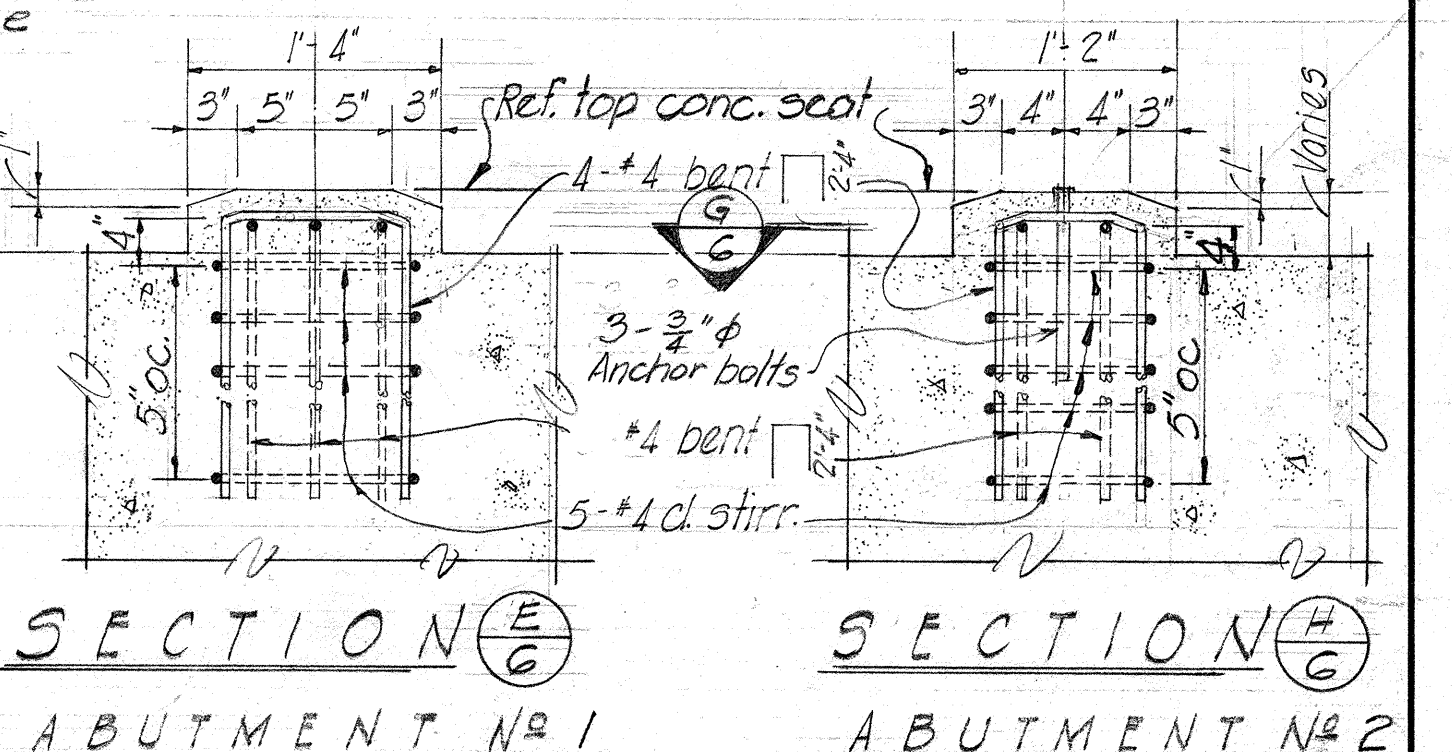
PLAN
PLAN
SECTION (F)
SECTION (G)



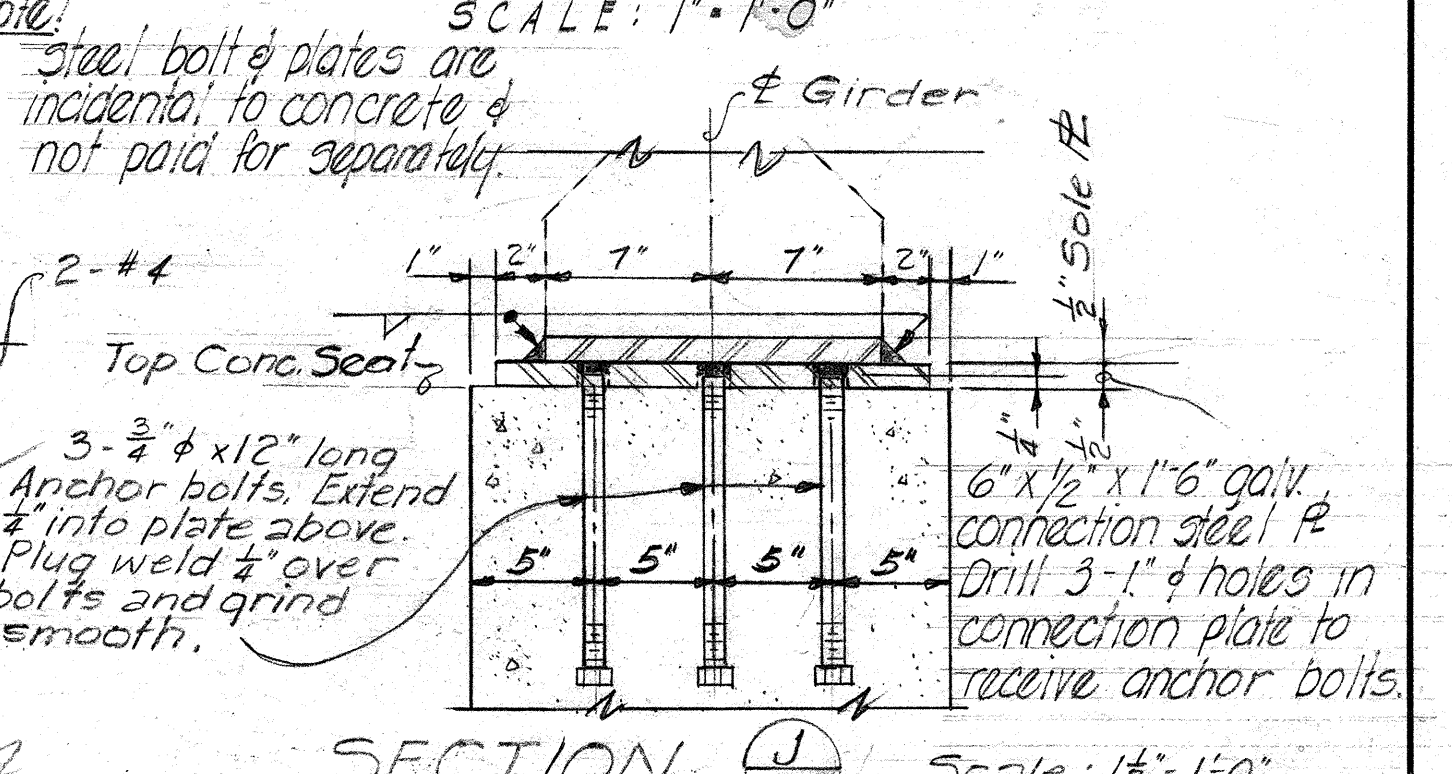
SECTION (A)
SECTION (B)
OUTBOUND & INBOUND BR. WIDENING - TYP. ABUT. SECTION



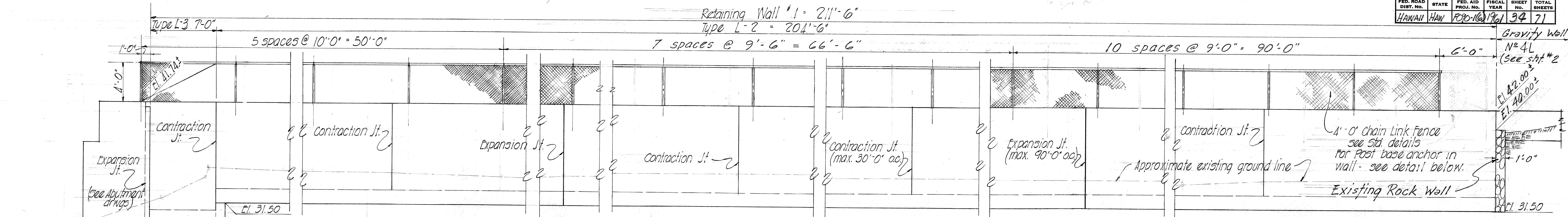
SECTION (C)
SECTION (D)
TYPICAL ABUT. WALL EXC. & BACKFILL
INBOUND & OUTBOUND BRIDGE WIDENING



SECTION (E)
SECTION (F)
ABUTMENT NO. 1
ABUTMENT NO. 2
TYPICAL SEAT DETAILS

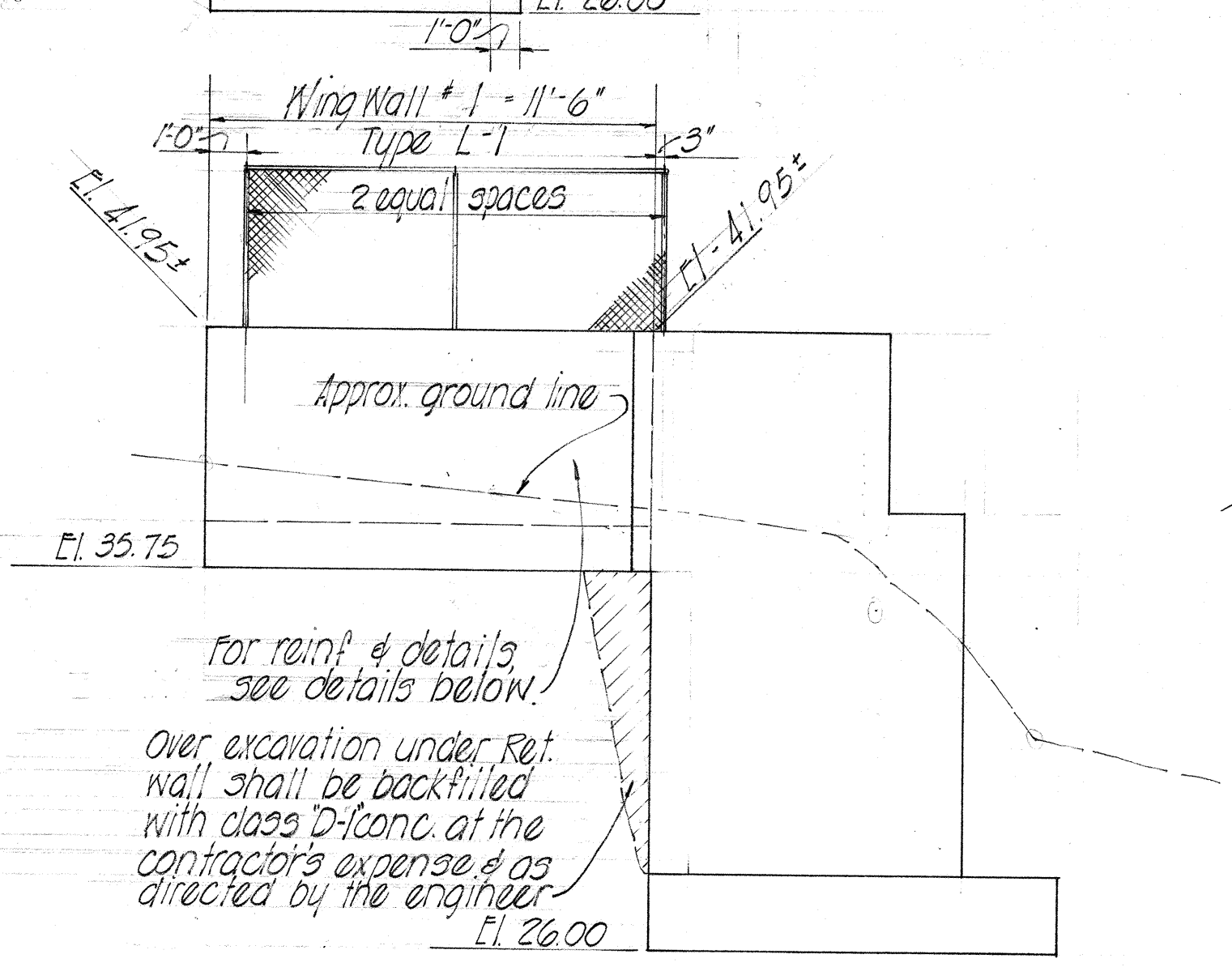


SECTION (G)
SECTION (H)
SCALE: 1/2" = 1'-0"
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
PEARL CITY BRIDGE WIDENING
INBOUND & OUTBOUND
Base Line Sta 437+75.16 to Sta 438+13.06
MAY 1961 Proj. F090-1 (G)

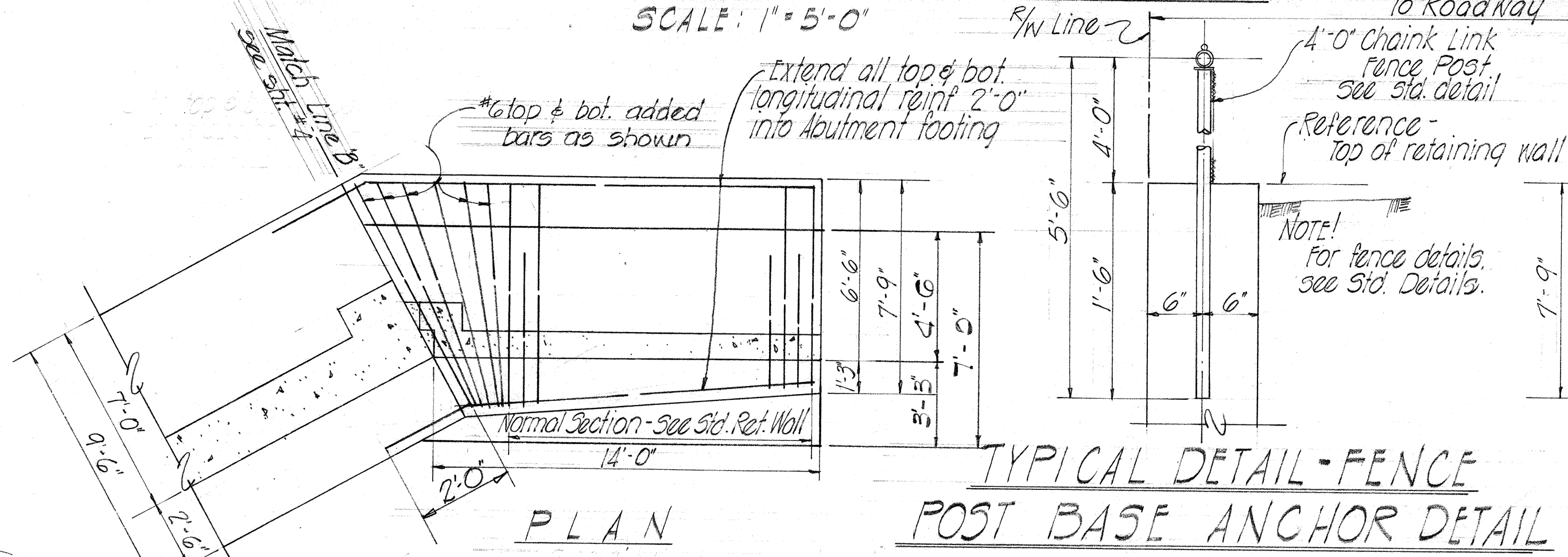


ELEVATION - RET. WALL #1
SCALE: 1" = 5'-0"

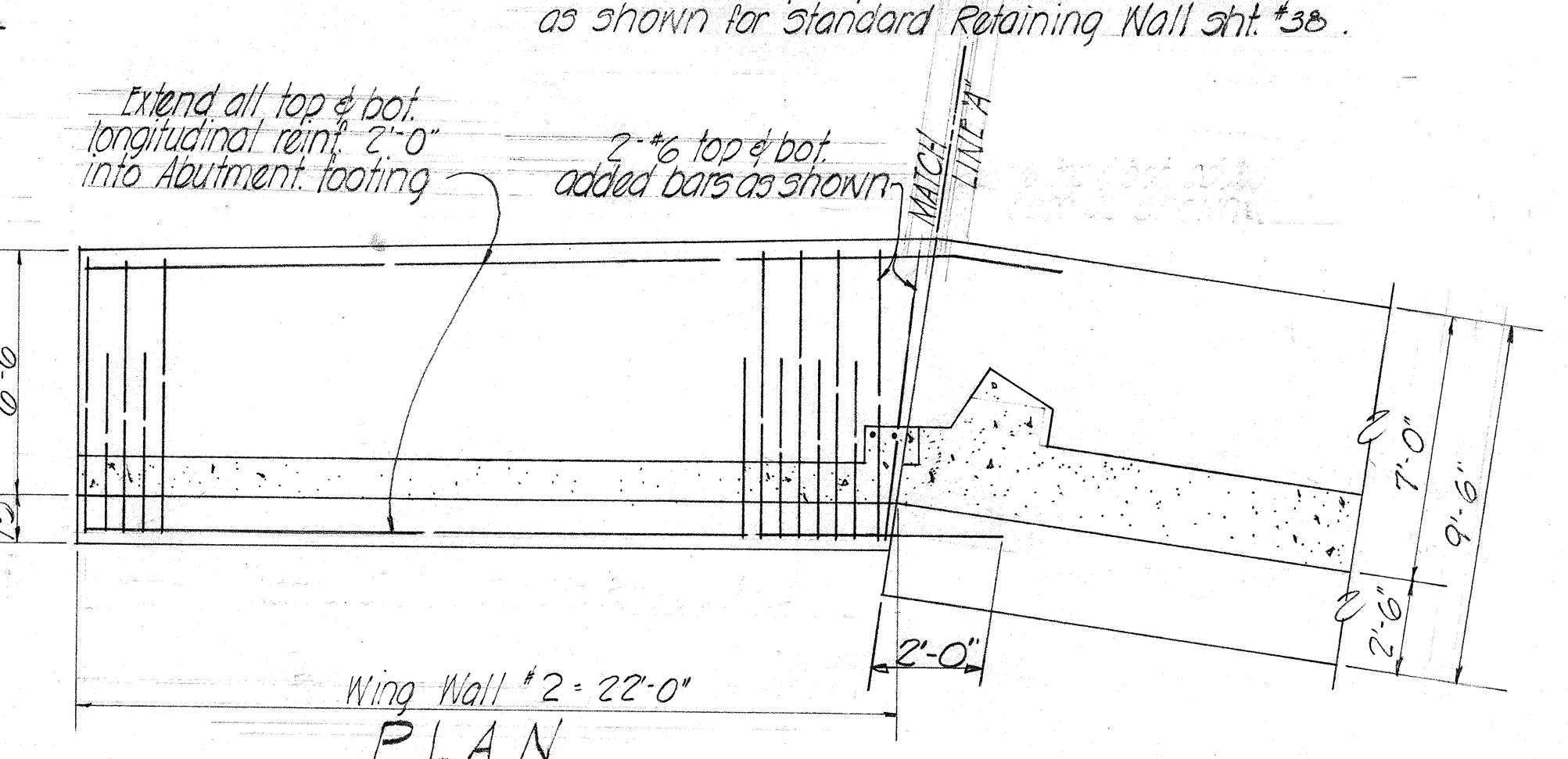
NOTE!
contraction & expansion details similar as shown for Standard Retaining Wall sh. #38.



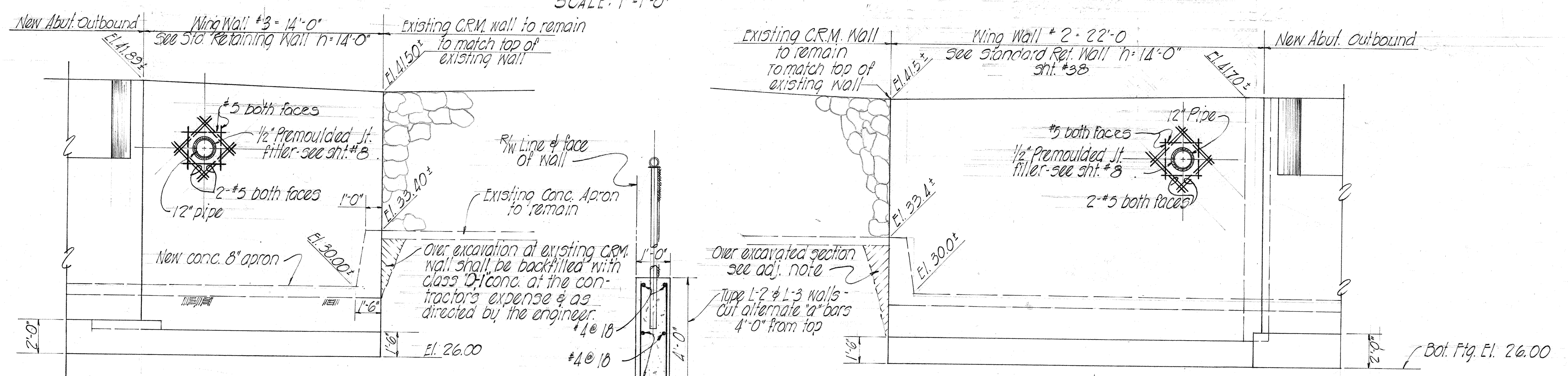
ELEVATION - WING WALL #1
SCALE: 1" = 5'-0"



TYPICAL DETAIL - FENCE POST BASE ANCHOR DETAIL
SCALE: 1" = 1'-0"

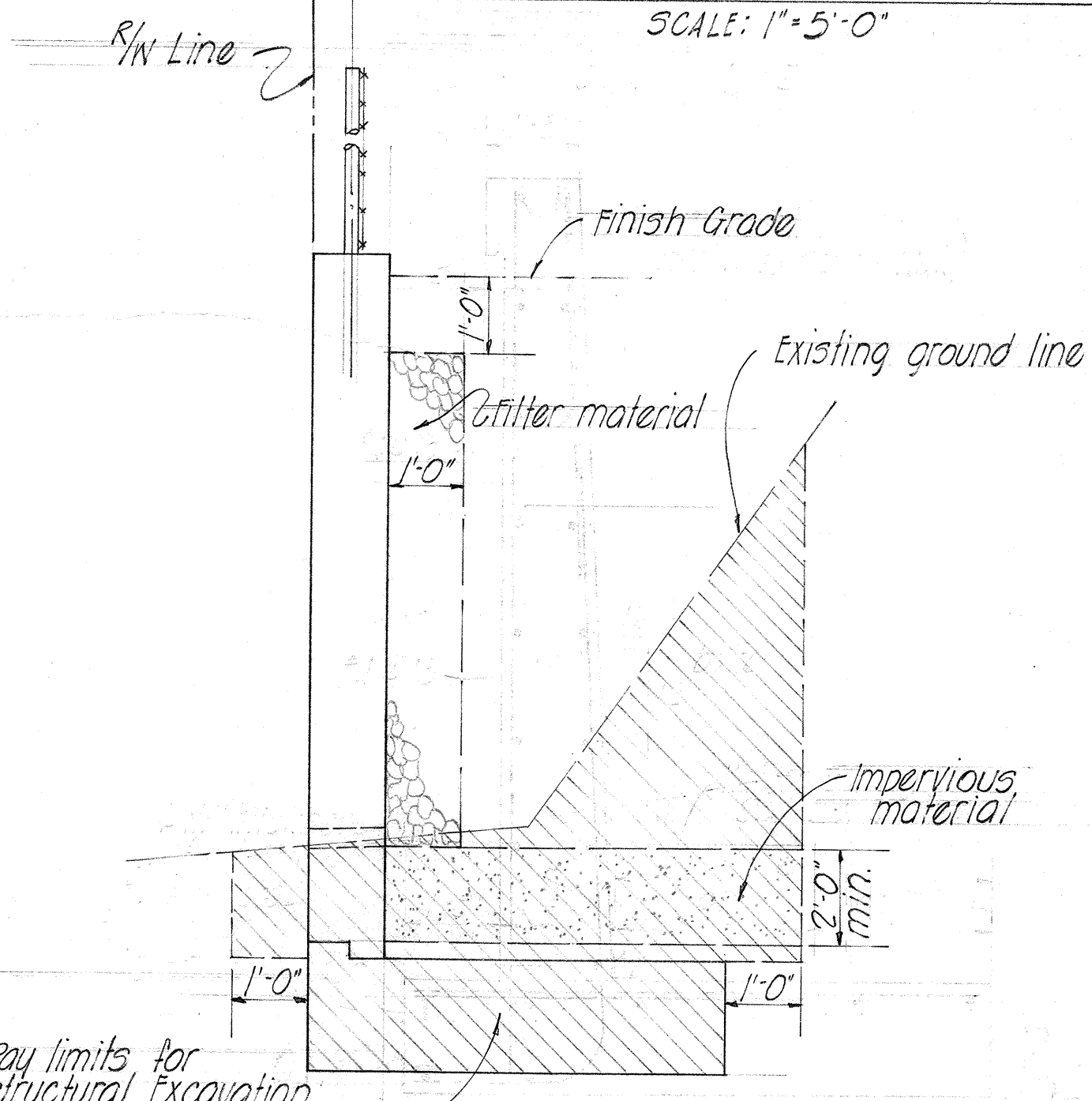


Wing Wall #2 - 22'-0" PLAN

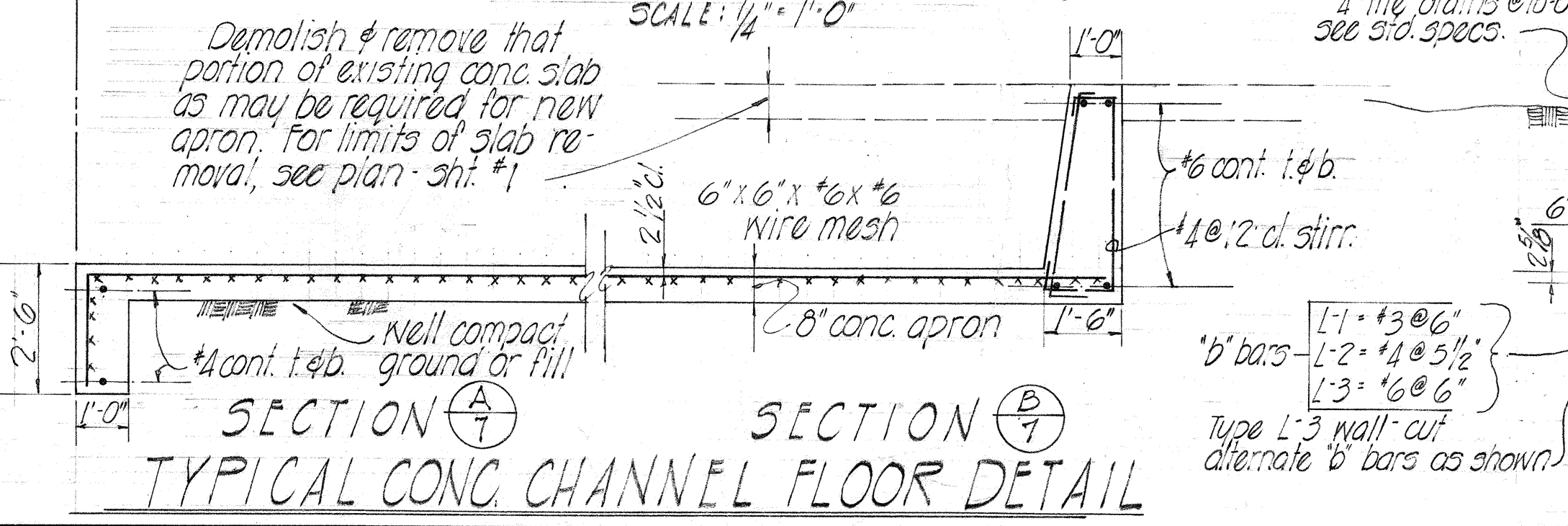


ELEVATION WING WALL #3
SCALE: 1/4" = 1'-0"

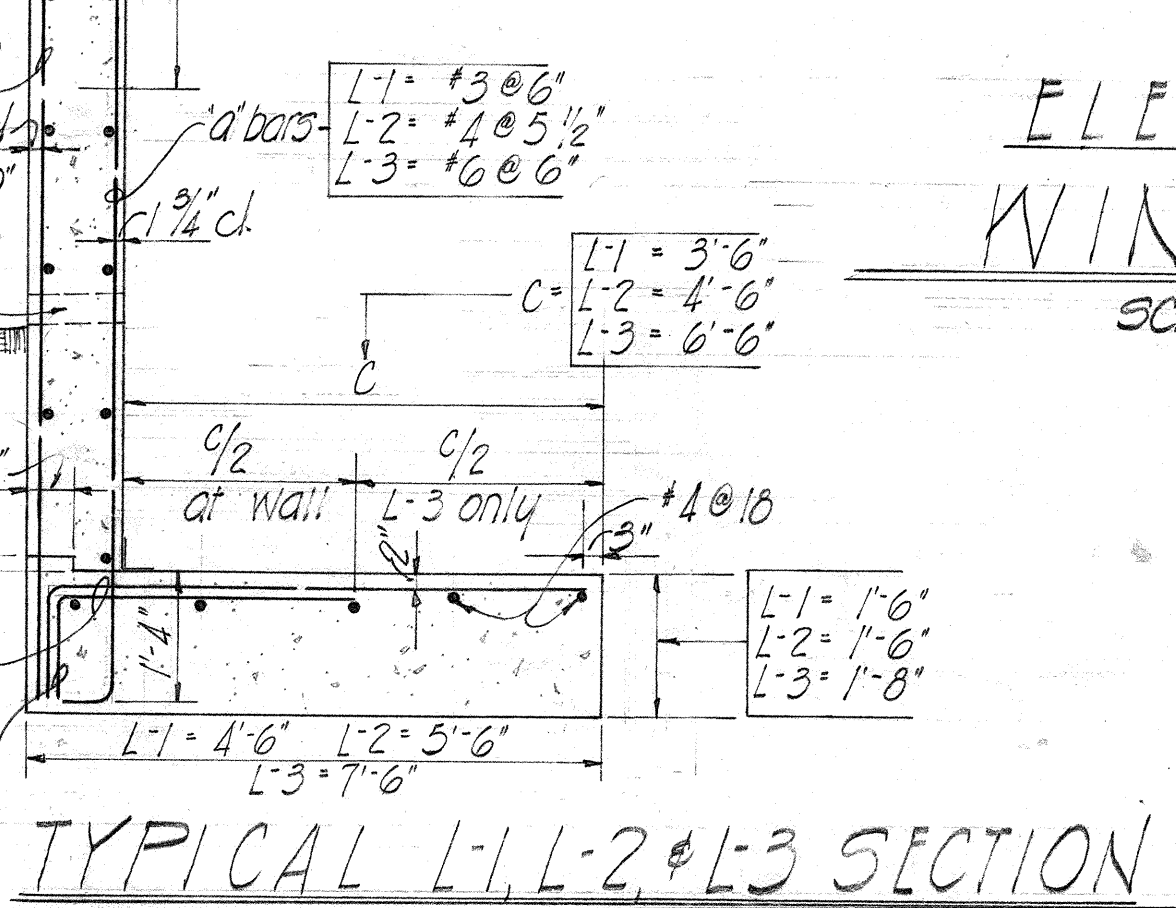
ELEVATION WING WALL #2
SCALE: 1/4" = 1'-0"



TYPICAL DETAIL - STRUCT. EXC. TYPE L-1, L-2 & L-3 WALLS



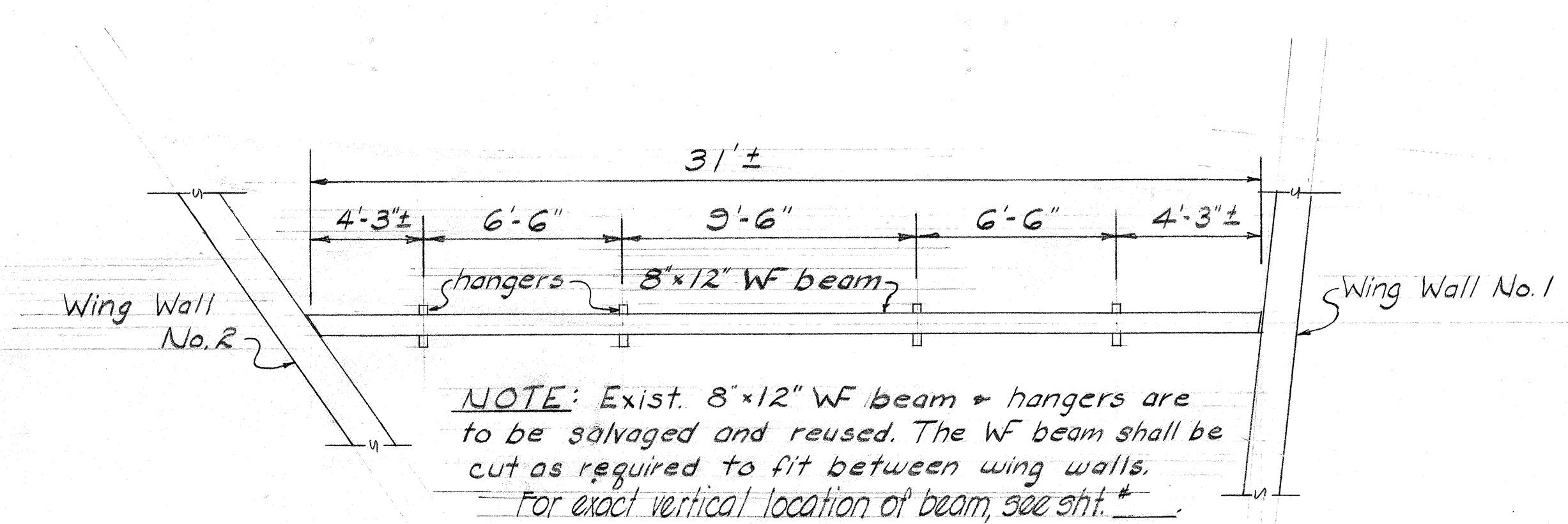
TYPICAL CONC. CHANNEL FLOOR DETAIL



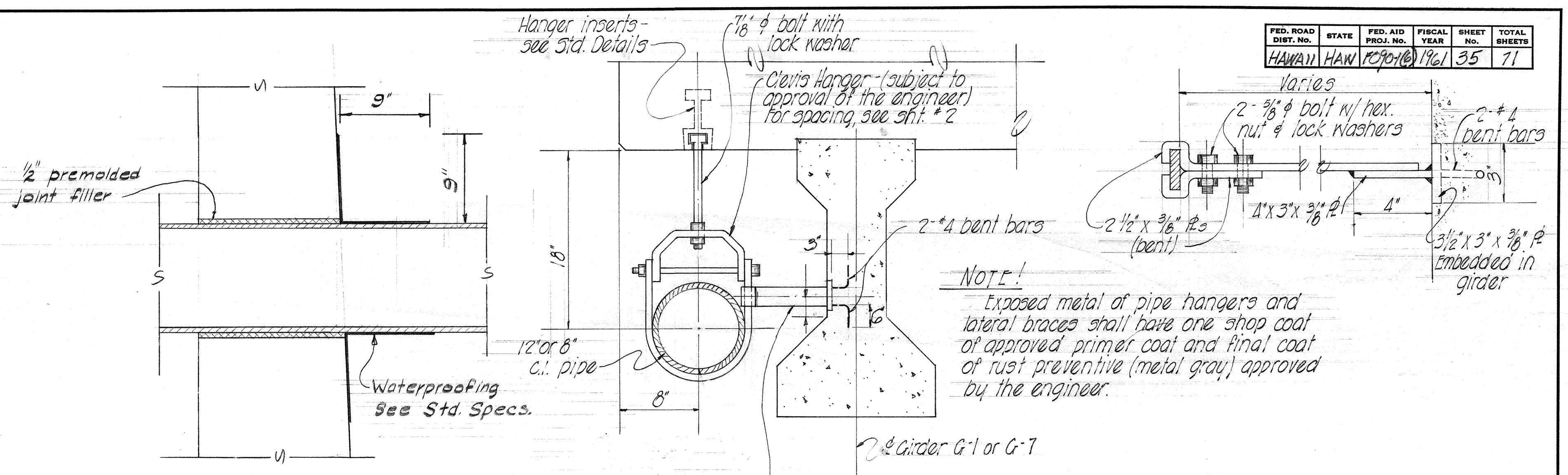
TYPICAL L-1, L-2, & L-3 SECTION

REDUCED PLANS
SCALES REDUCED ACCORDINGLY

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
PEARL CITY BRIDGE WIDENING
INBOUND & OUTBOUND
Base Line Sta 437+15.16 to Sta 438+13.06±
MAY 1961 Proj. F090-1(6)

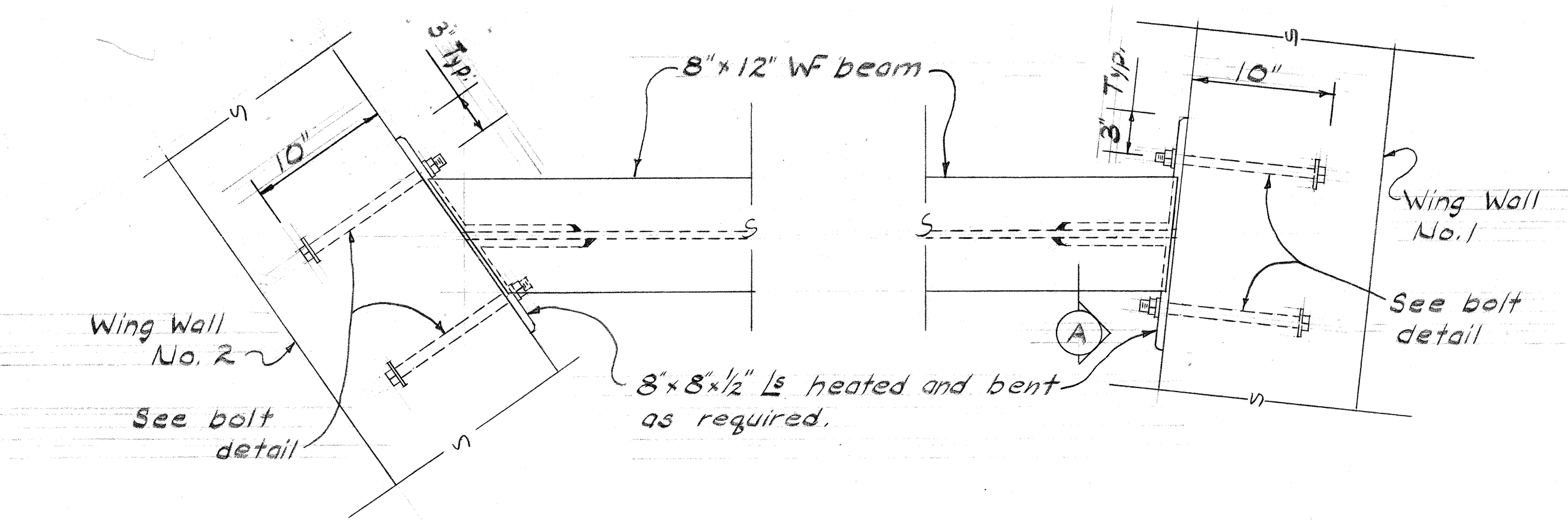


PLAN OF SEWER LINE SUPPORT

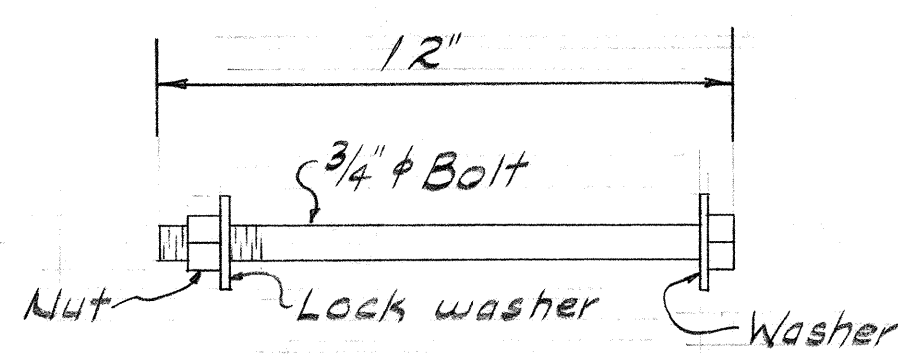


TYPICAL SECTION FOR PIPES THRU WALLS AND ABUTMENTS

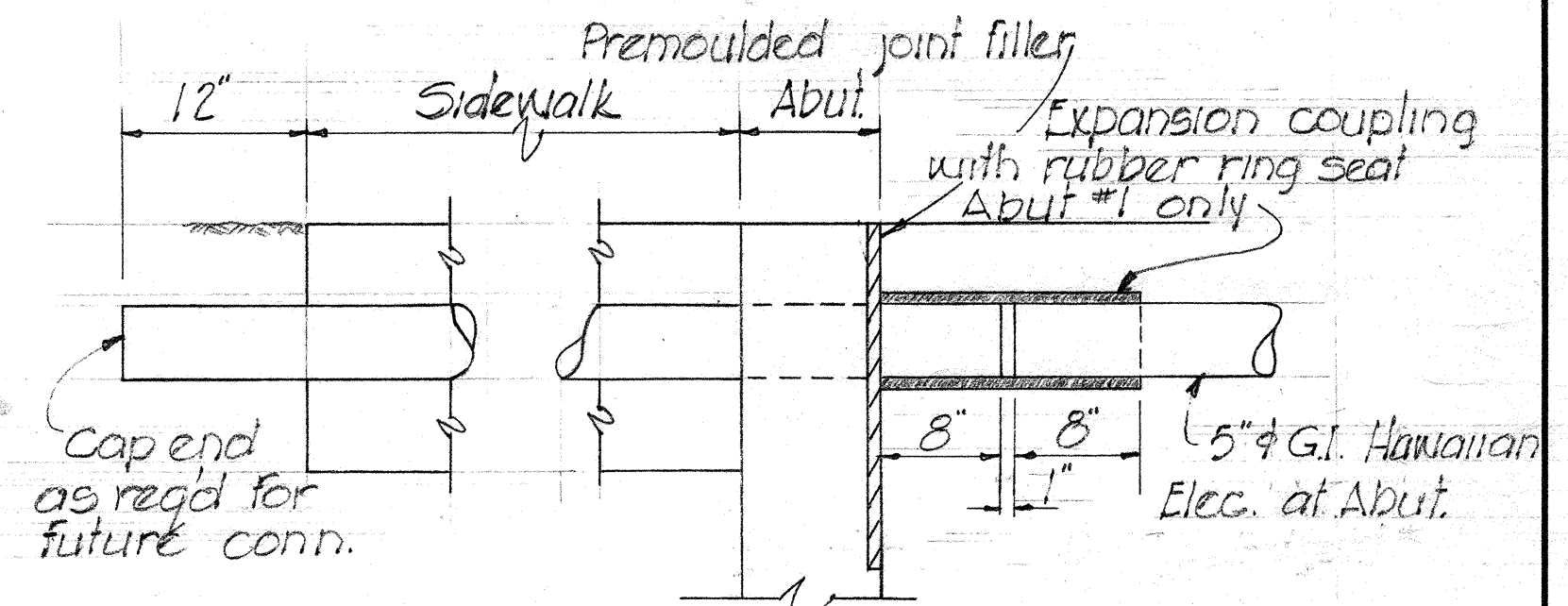
PIPE HANGER DETAILS FOR 12" & 8" WATER PIPE



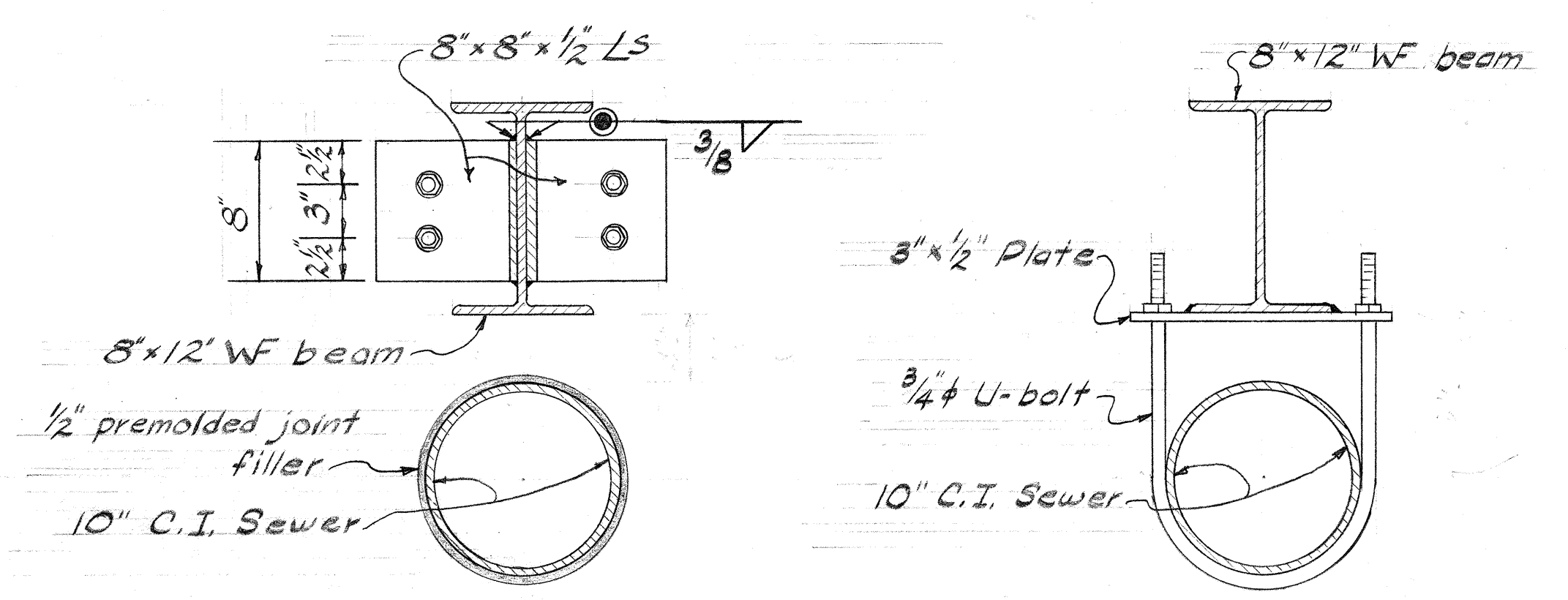
SUPPORT ATTACHMENT DETAILS



BOLT DETAIL



TYPICAL 5" G.I. DUCT ABUT #1 AS SHOWN ABUT #2 SIMILAR EXCEPT AS OTHERWISE NOTED



EXISTING HANGER DETAIL

Notes

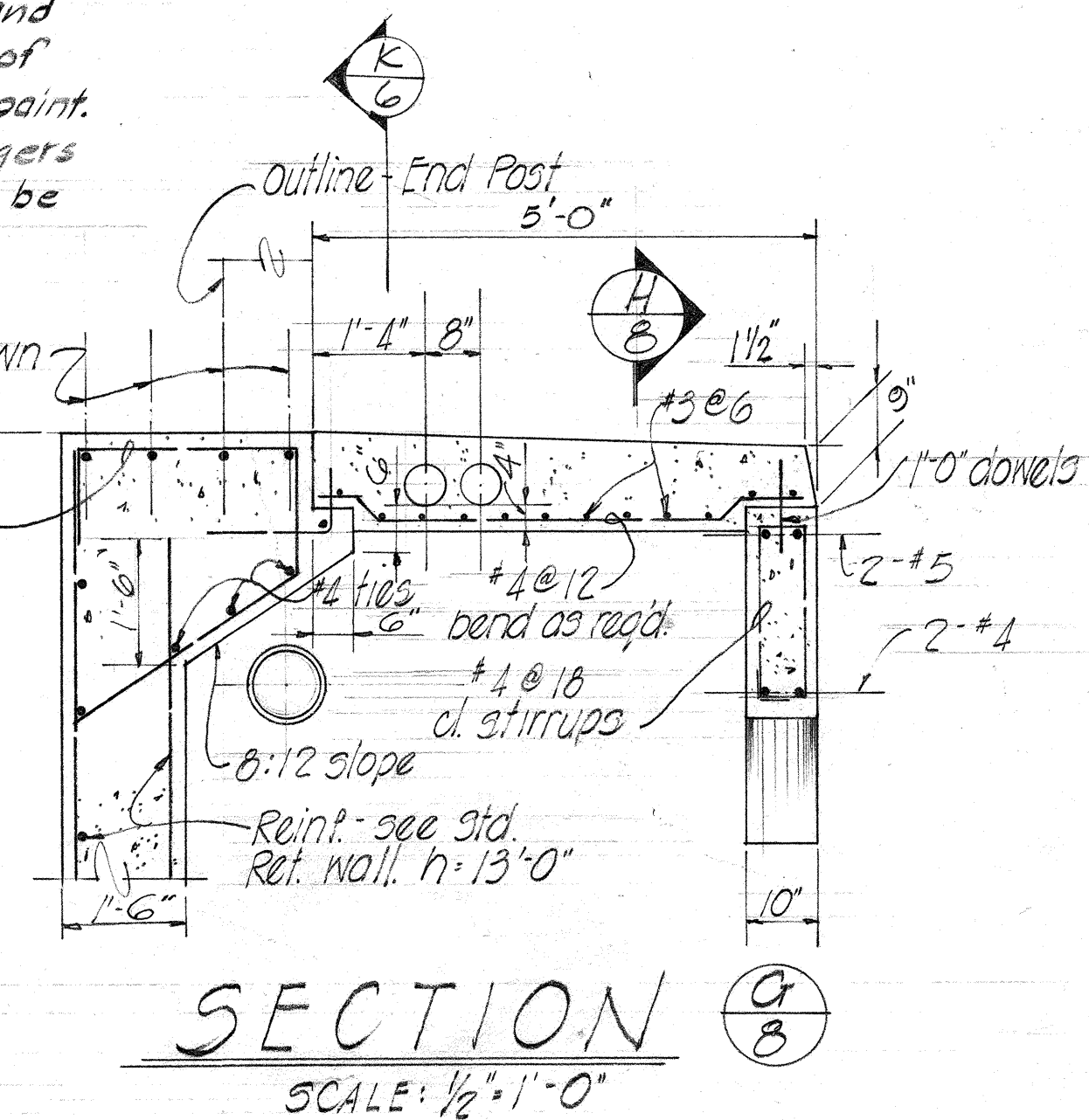
All new bolts, washers, + nuts shall be structural carbon steel, ASTM Designation A7. The bolts, washers, + nuts shall be galvanized. (See Section 4.4.3(H) of Std. Specs.)

The cut ends of the existing WF beam and new Ls shall be painted with two coats of red lead and one coat of black bridge paint.

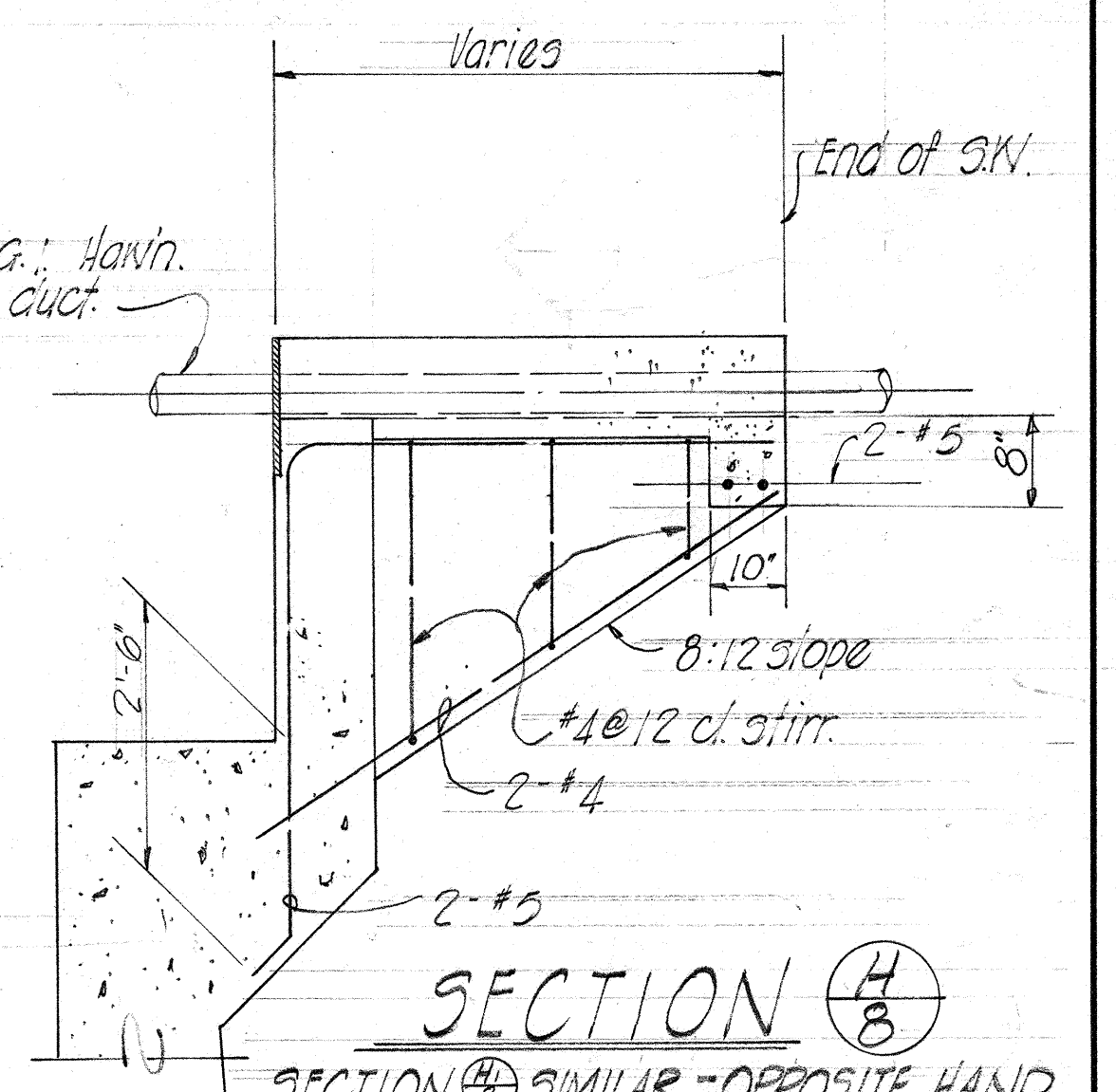
Any paint on the existing WF beam and hangers that are damaged due to handling shall be restored to the original condition.

REDUCED PLANS
SCALES REDUCED
ACCORDINGLY

APPROVED:
H. S. ...
Asst. Chief Engineer B.W.S. Date May 25 1961



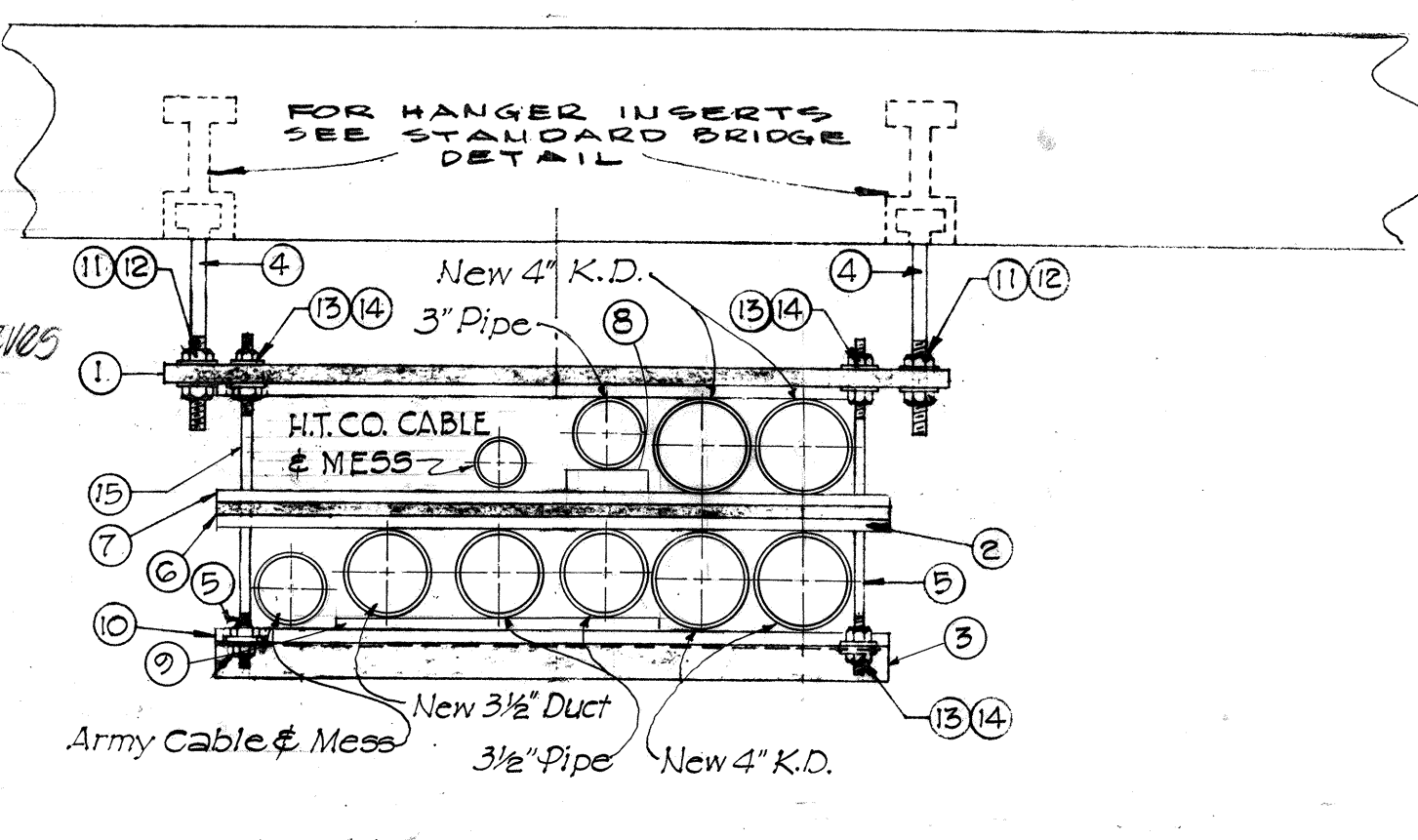
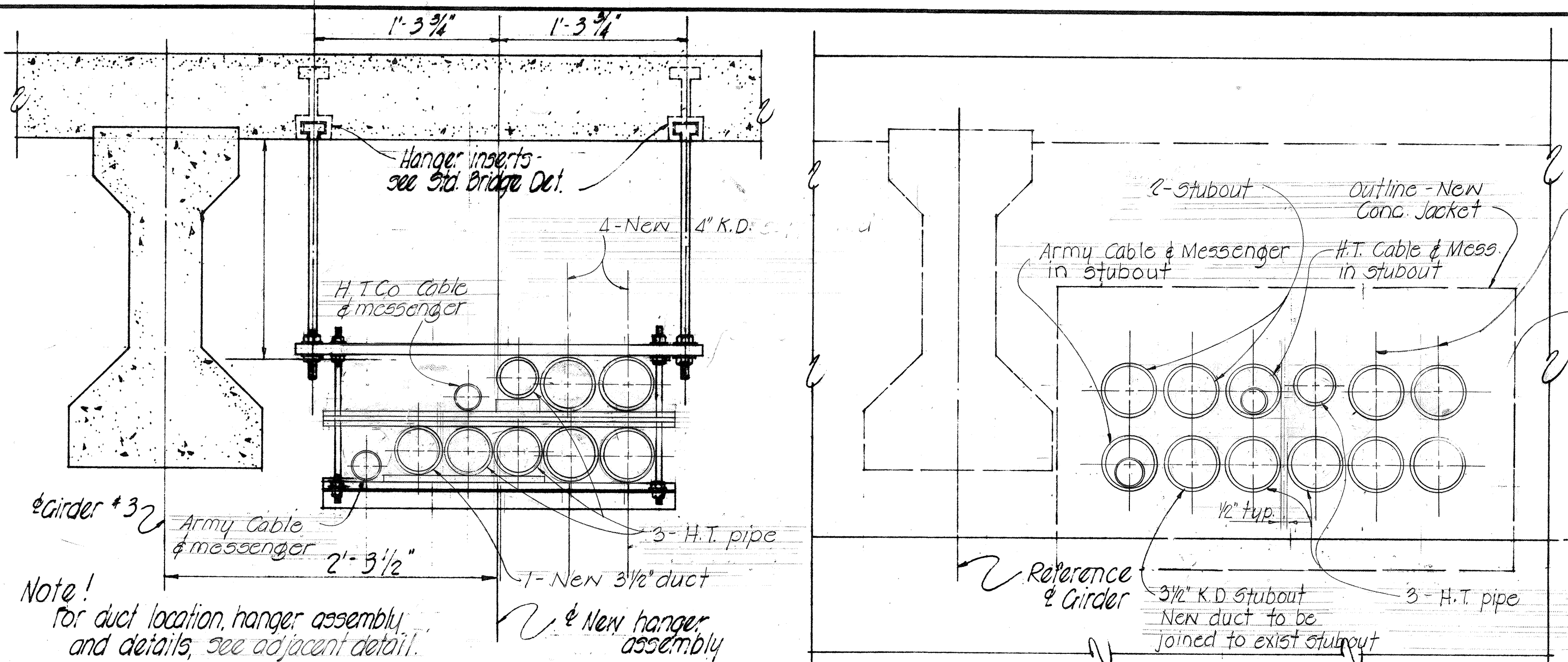
SECTION 6
SCALE: 1/2" = 1'-0"



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

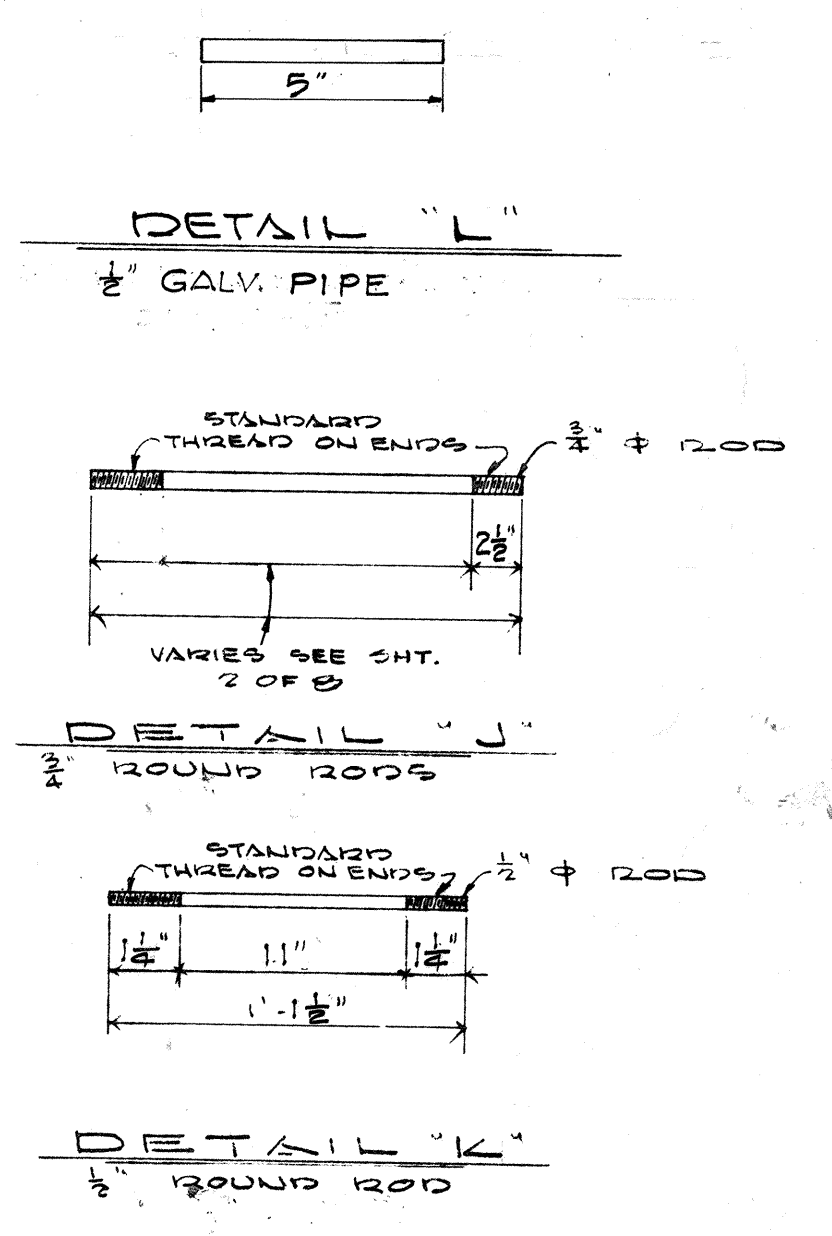
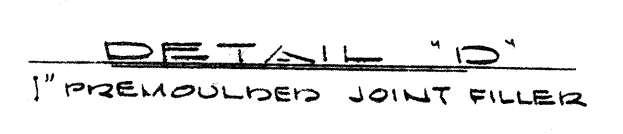
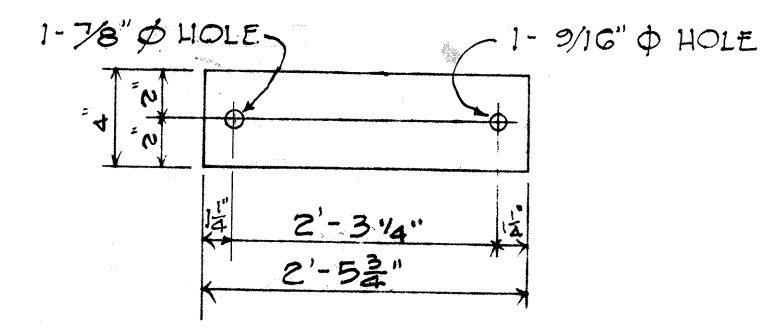
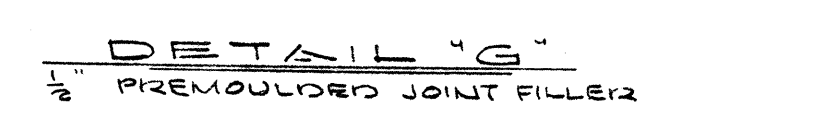
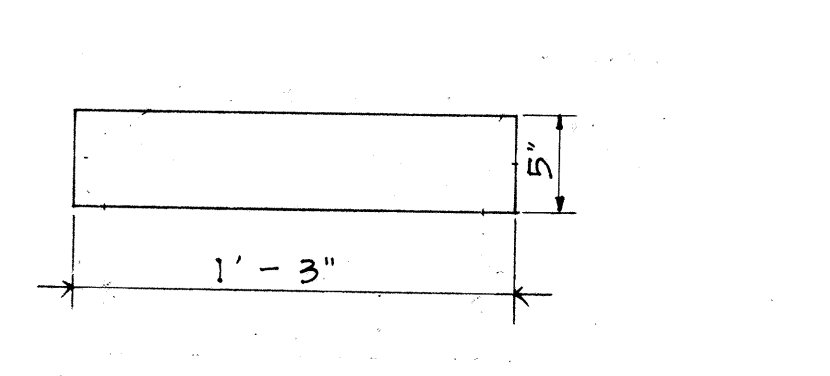
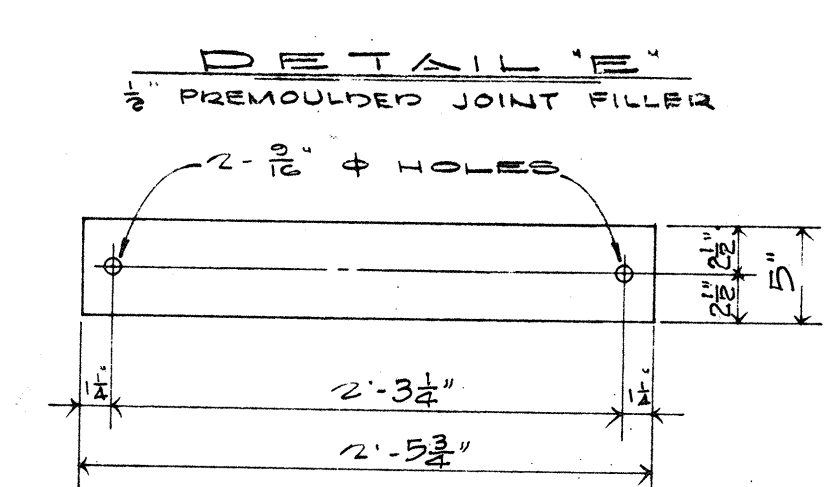
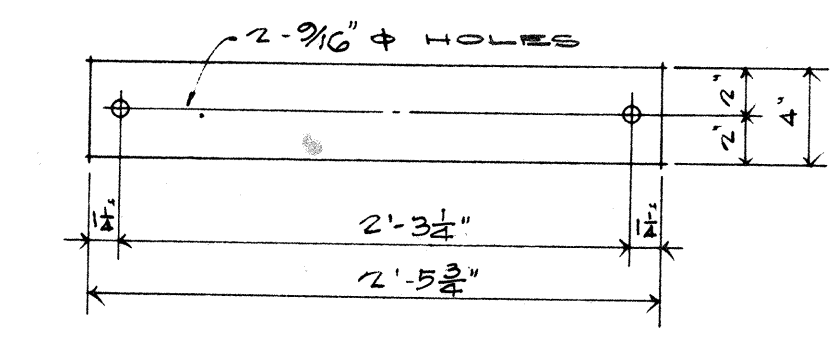
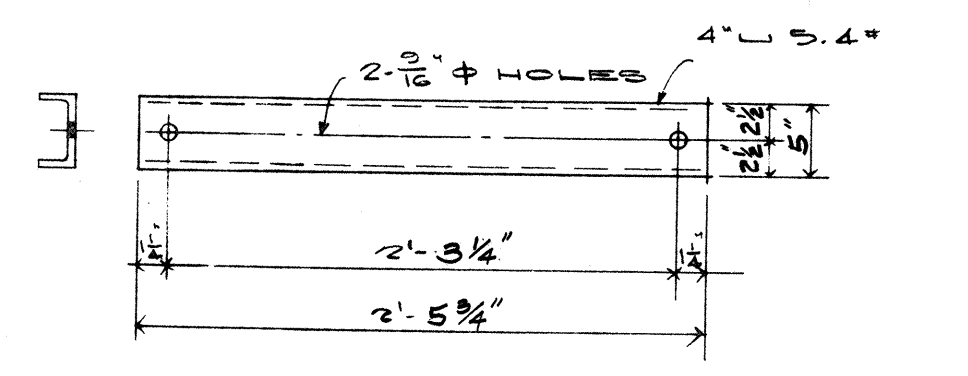
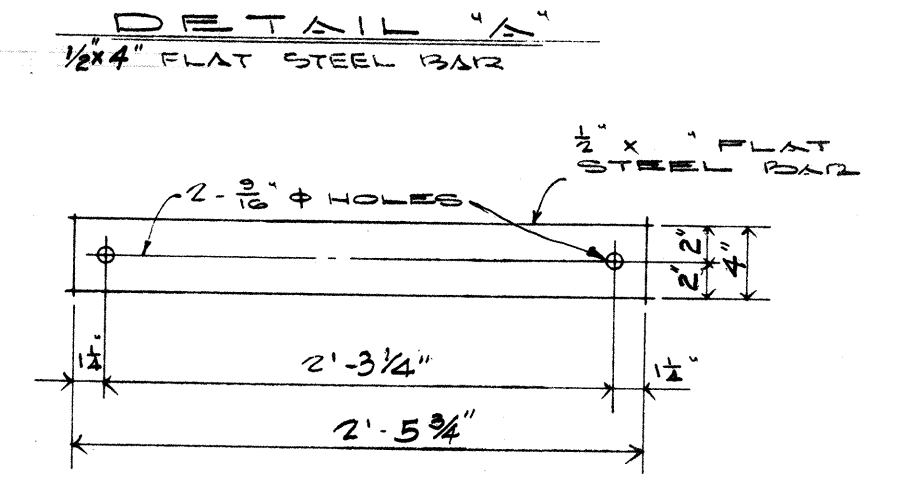
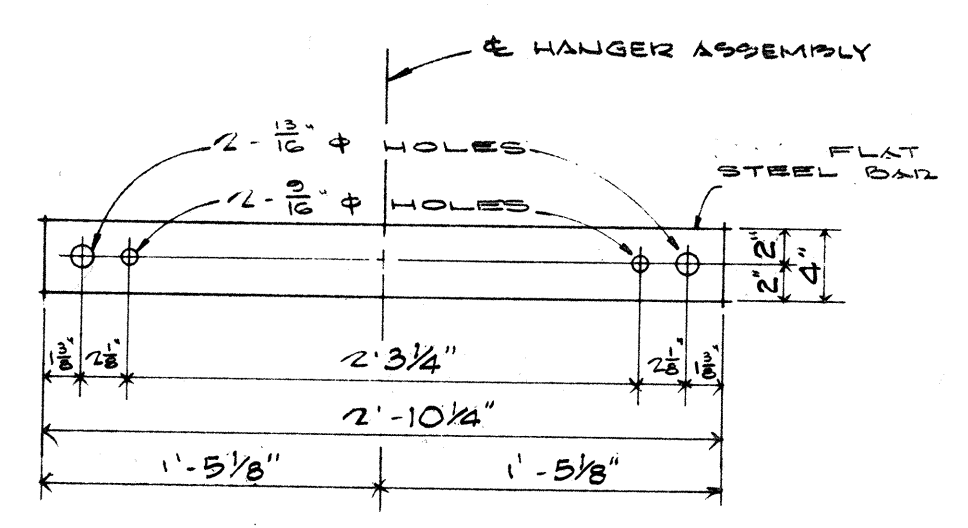
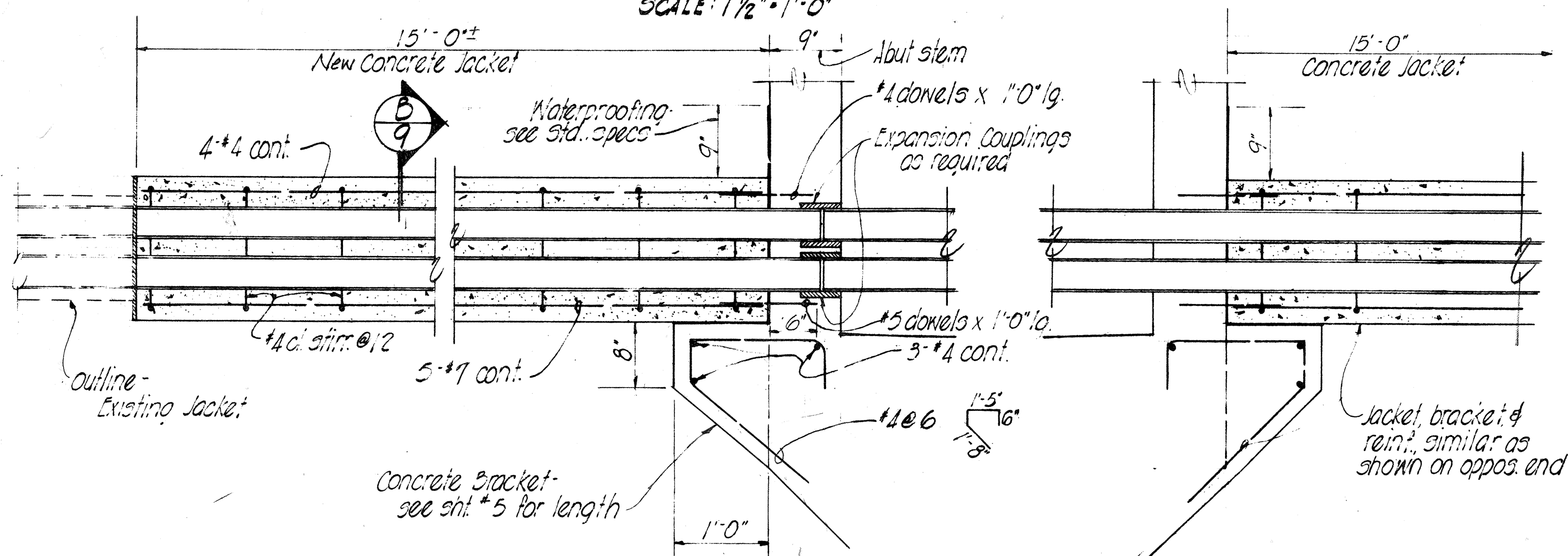
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
**SEWER WATER & STORMDRAIN
RELOCATION NEAR PEARL CITY
BRIDGES**
Base Line Sta 437+75.16 to Sta 438+13.06 +
Scale: AS NOTED MAY 1961

DATE 5-24-61
DESIGNED BY H. S. ...
CHECKED BY H. S. ...
QUANTITIES CHECKED BY H. S. ...
NOTE BOOK NO. ...



STOCKLIST PER ASSEMBLY			
QTY.	DETAIL	DESCRIPTION	ITEM
1	A	1/2" x 4" FLAT STEEL BAR	1
1	B	1/2" x 4" FLAT STEEL BAR (GALV.)	2
1	C	5" CHANNEL 6.7# (GALV.)	3
2	J	1/2" ROUND RODS (GALV.)	4
2	K	1/2" ROUND ROD (GALV.)	5
1	L	1/2" GALV. PIPE	15
1	D	1" PREMOULDED JOINT FILLER	6
1	H	1/2" PREMOULDED JOINT FILLER	7
1	G	1/2" PREMOULDED JOINT FILLER	9
1	F	1/2" PREMOULDED JOINT FILLER	10
1	E	1/2" PREMOULDED JOINT FILLER	6
4		1/2" JAM NUT - GALVANIZED	11
4		1/2" LOCKWASHER - GALVANIZED	12
4		1/2" HEX. NUT - GALVANIZED	13
4		1/2" LOCKWASHER - GALVANIZED	14

**TYPICAL HAWAIIAN TELEPHONE & SIGNAL CORPS
DUCT LINE & HANGER DETAILS**



**REDUCED PLANS
SCALES REDUCED
ACCORDINGLY**

DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 STATE OF HAWAII
**PEARL CITY BRIDGE WIDENING
 MISCELLANEOUS DETAILS**
 BASE LINE STA. 437+75.16 TO STA. 438+13.06
 MAY 1961 PROJ. F090-1(16)

DESIGNED BY: J. J. J.
 DRAWN BY: J. J. J.
 CHECKED BY: J. J. J.
 DATE: MAY 1961