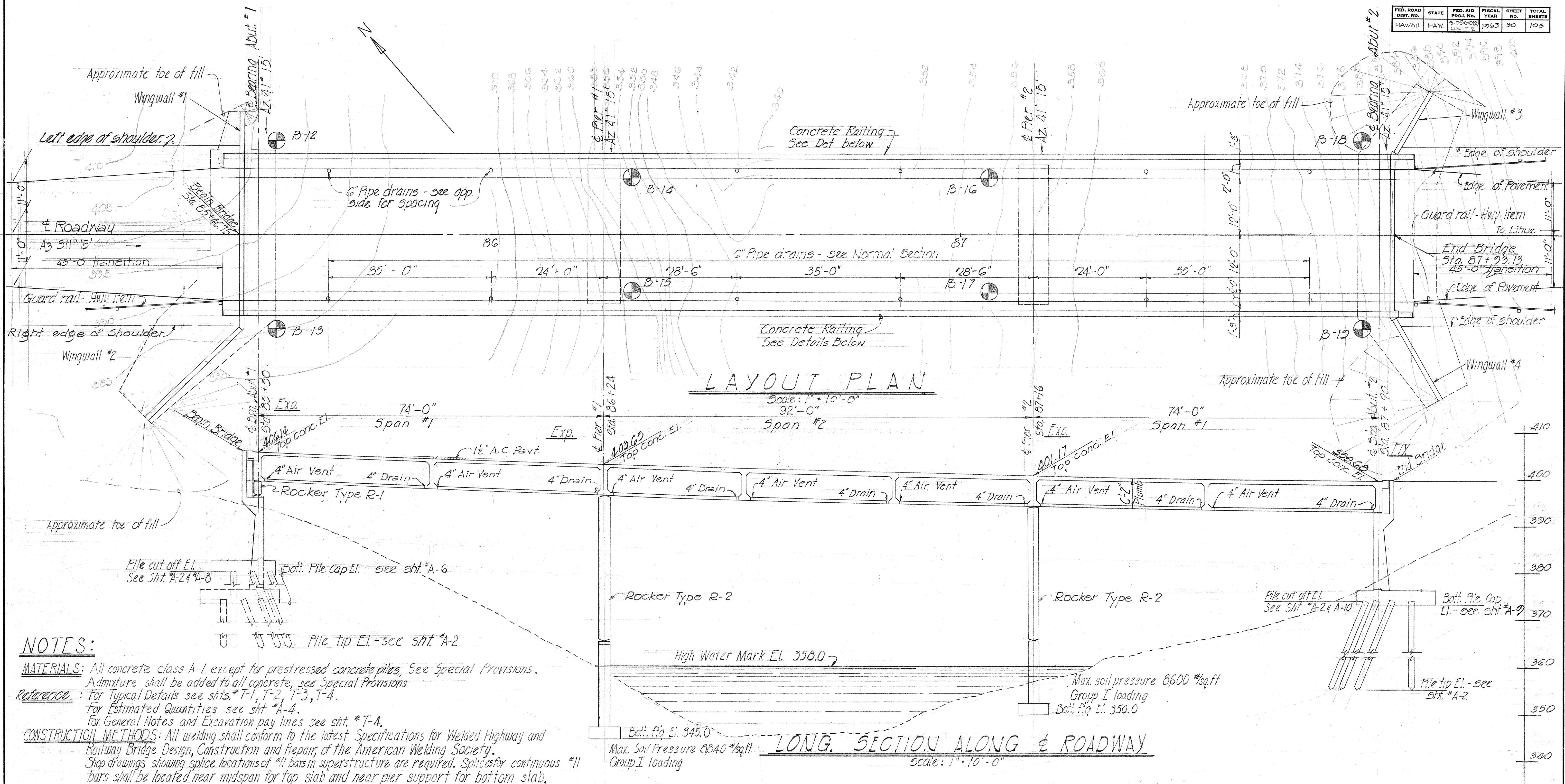


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0560(2)	1963	30	105



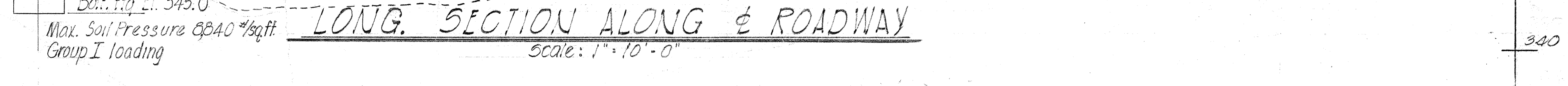
NOTES:

MATERIALS: All concrete class A-1 except for prestressed concrete piles, See Special Provisions. Admixture shall be added to all concrete, see Special Provisions.

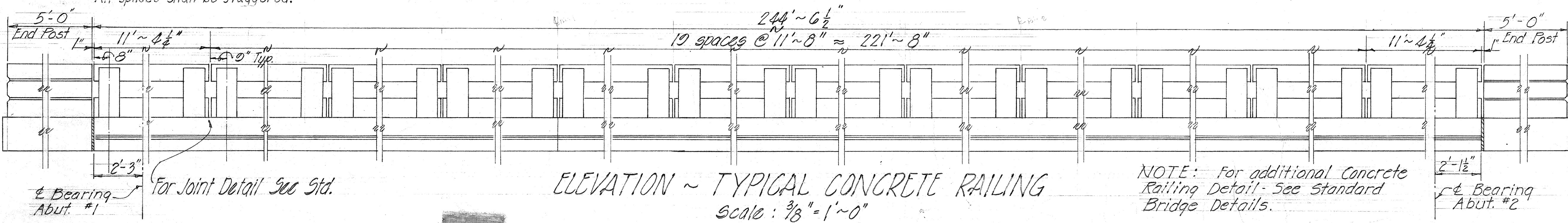
Reference: For Typical Details see shts. *T-1, T-2, T-3, T-4. For Estimated Quantities see sht *A-4. For General Notes and Excavation pay lines see sht. *T-4.

CONSTRUCTION METHODS: All welding shall conform to the latest Specifications for Welded Highway and Railway Bridge Design, Construction and Repair, of the American Welding Society. Shop drawings showing splice locations of #11 bars in superstructure are required. Splices for continuous #11 bars shall be located near midspan for top slab and near pier support for bottom slab. All splices shall be staggered.

LONG. SECTION ALONG & ROADWAY



ELEVATION ~ TYPICAL CONCRETE RAILING



ALTERNATE "A"

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII

LAYOUT PLAN

MOLOKAA STREAM BRIDGE
Sta. 85+46.75 to 87+93.13
KAUAI BELT ROAD PROJ. 5-0560(2)
Oct. 1961 UNIT 2

PILE DRIVING PLAN ABUTMENTS No. 1 & 2

Scale: 1/4" = 1'-0"

Symbols

- Direction of batter.
- Denotes Batter Piles
- Denotes Vertical Piles

GENERAL Note:

Pile length as shown are cast lengths.
Batter piles ~ 4:12
Design loads ~ 32 tons/pile.

1 Vert. pile 43.0' lg.
2 Batter piles 46.0' lg.
Pile cut-off elev. 323.3
Vert. pile tip elev. 353.3
Batter pile tip elev. 352.5

4 Vert. piles 37.0' lg.
8 Batter piles 42.0' lg.
Pile cut-off elev. 387.8
Vert. pile tip elev. 352.3
Batter pile tip elev. 350.3

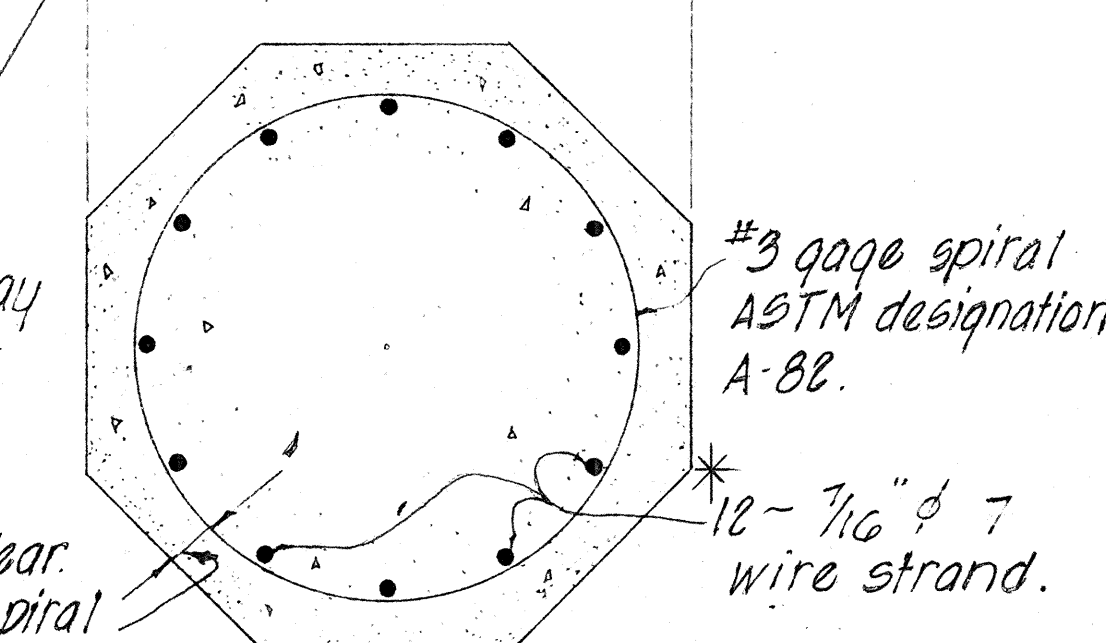
5 Vert. piles 30.0' lg.
16 Batter piles 33.0' lg.
Pile cut-off elev. 380.8
Vert. pile tip elev. 352.3
Batter pile tip elev. 351.0

4 Vert. piles 25.0' lg.
11 Batter piles 26.0' lg.
Pile cut-off elev. 375.8
Vert. pile tip elev. 352.3
Batter pile tip elev. 353.5

2 Vert. piles 22.0' lg.
5 Batter piles 23.0' lg.
Pile cut-off elev. 374.3
Vert. pile tip elev. 354.8
Batter pile tip elev. 354.0

12 Vert. piles 22.0' lg.
38 Batter piles 23.0' lg.
Pile cut-off elev. 373.8
Vert. pile tip elev. 354.3
Batter pile tip elev. 354.4

1'-4" Min.



TYPICAL SECTION

Scale: 1 1/2" = 1'-0"

* Nine 1/2" dia. high-tensile-strength seven-wire strands may be substituted for the twelve 1/2" dia. high-tensile-strength seven-wire strands shown. The 1/2" strands shall be spaced equally on a circle and inside of the spiral.

TYPICAL DETAIL

Scale: 1" = 1'-0"

PRESTRESSED CONCRETE PILES

B-10

376.60

Firm brn. silty clay.
Firm brn. silty clay & very stiff gray silty clay.
Very stiff gray silty clay.
Dense basaltic rock.
Hard decomp. rock & dense basaltic rock.
Dense basaltic rock.

340.60

B-17

375.05

Firm brn. silty clay.
Stiff brn. silty clay.
Very stiff brn. silty clay.
Dense basaltic rock.
Dense basaltic rock.

340.05

ABUTMENT No. 2

B-12

328.28

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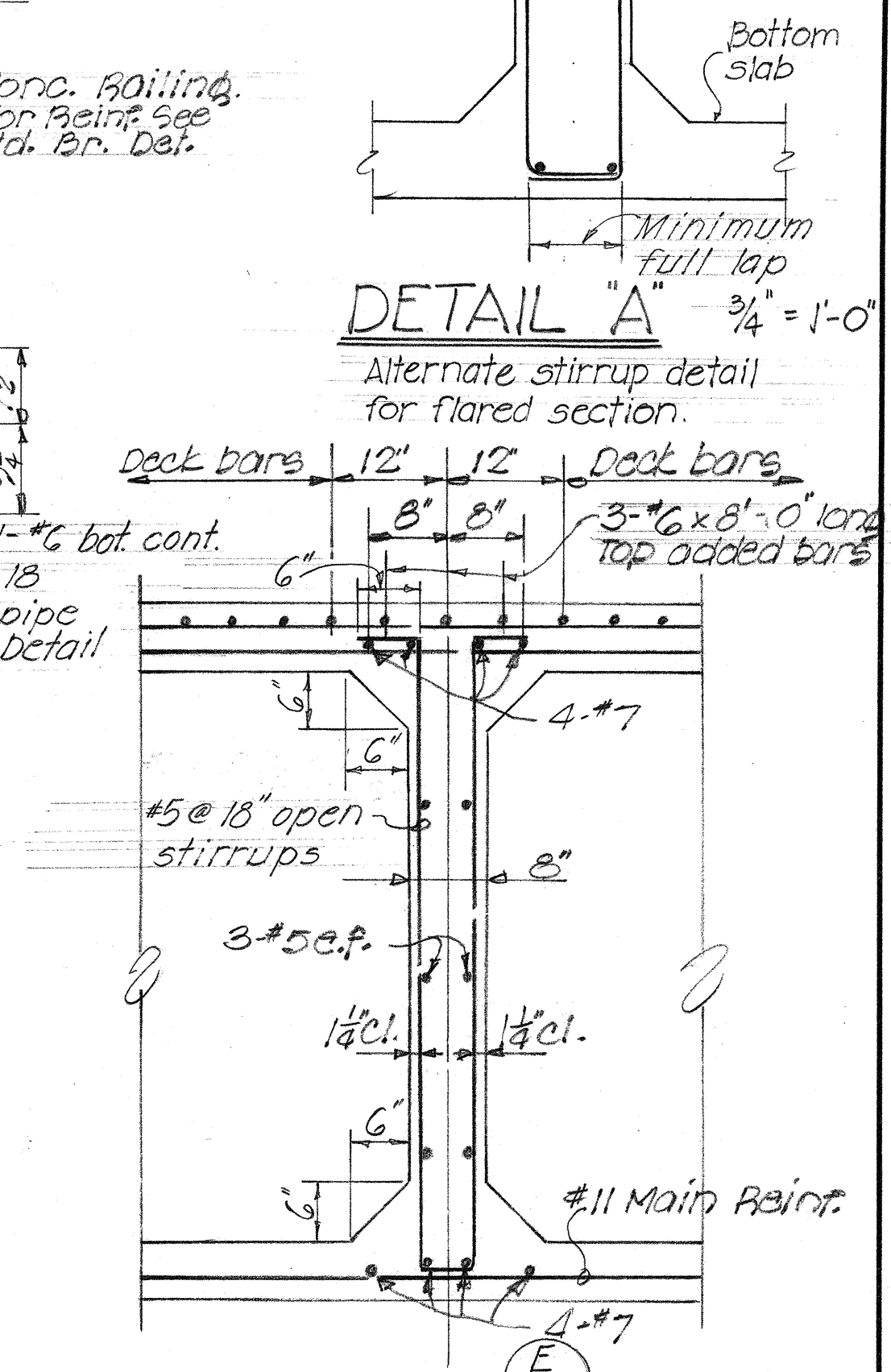
328.28

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32

varies

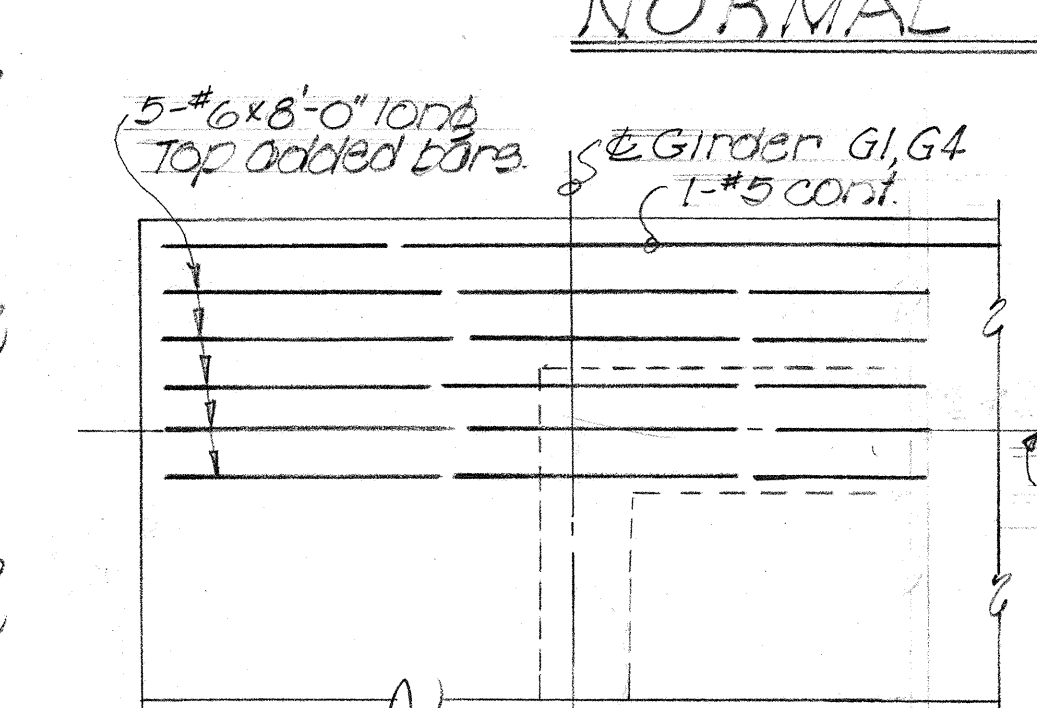
v



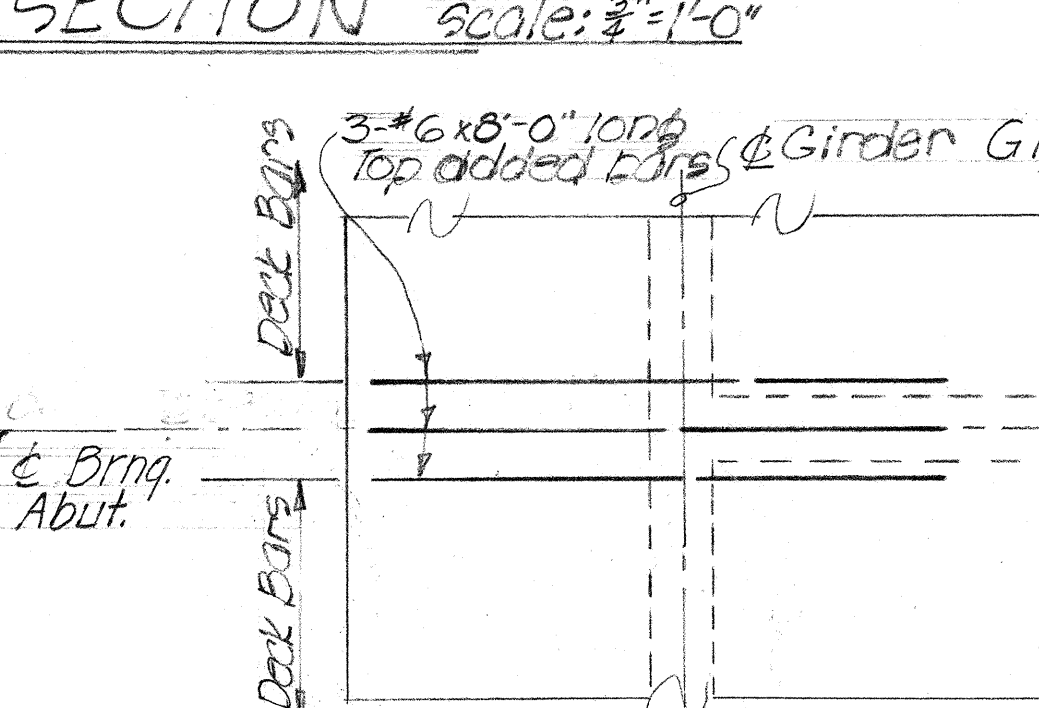
HALF-SECTION NEAR PIERS

SECTION $\left(\frac{L}{A-3} \right)$ scale: $\frac{3}{4}'' = 1' - 0''$

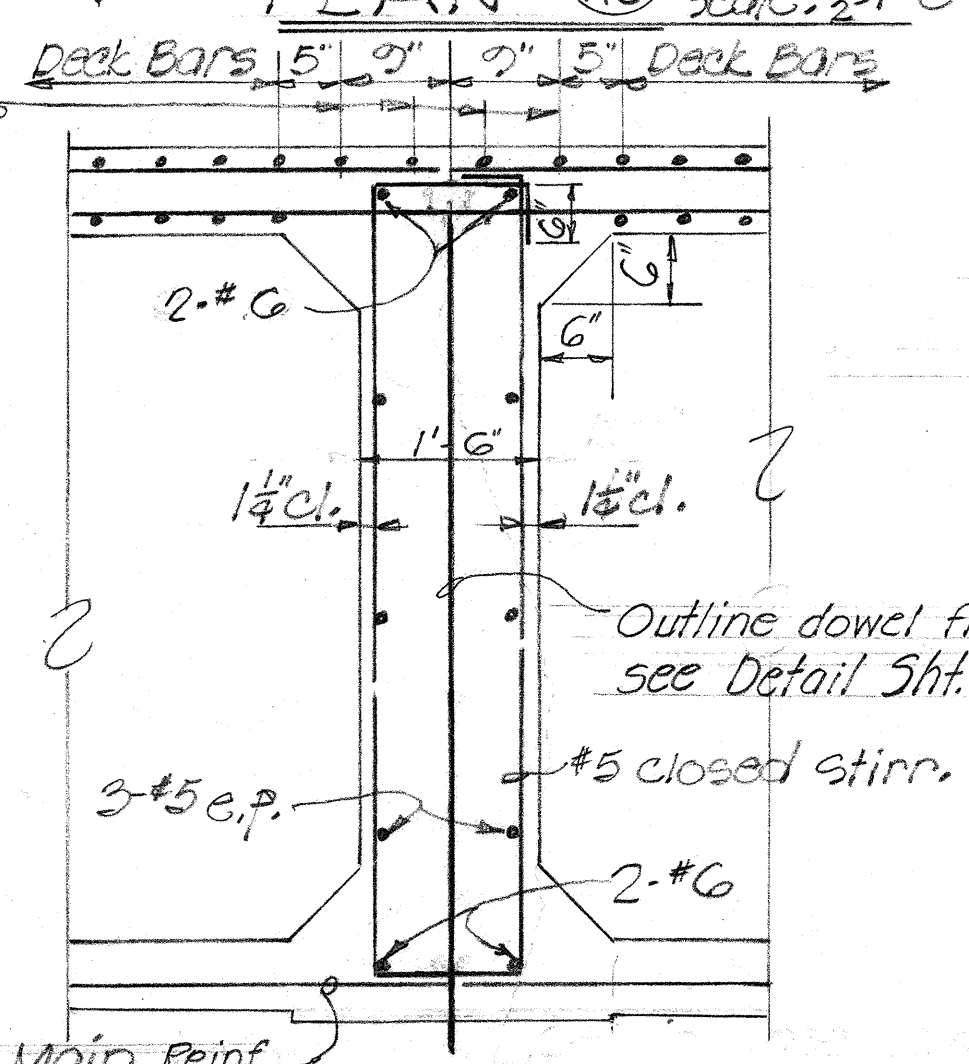
NORMAL SECTION scale: $\frac{3}{4}'' = 1'-0''$



PLAN  Scale: $\frac{1}{2}'' = 1'-0''$



Deck Bars 5" 9" 9" 5" Deck Bars

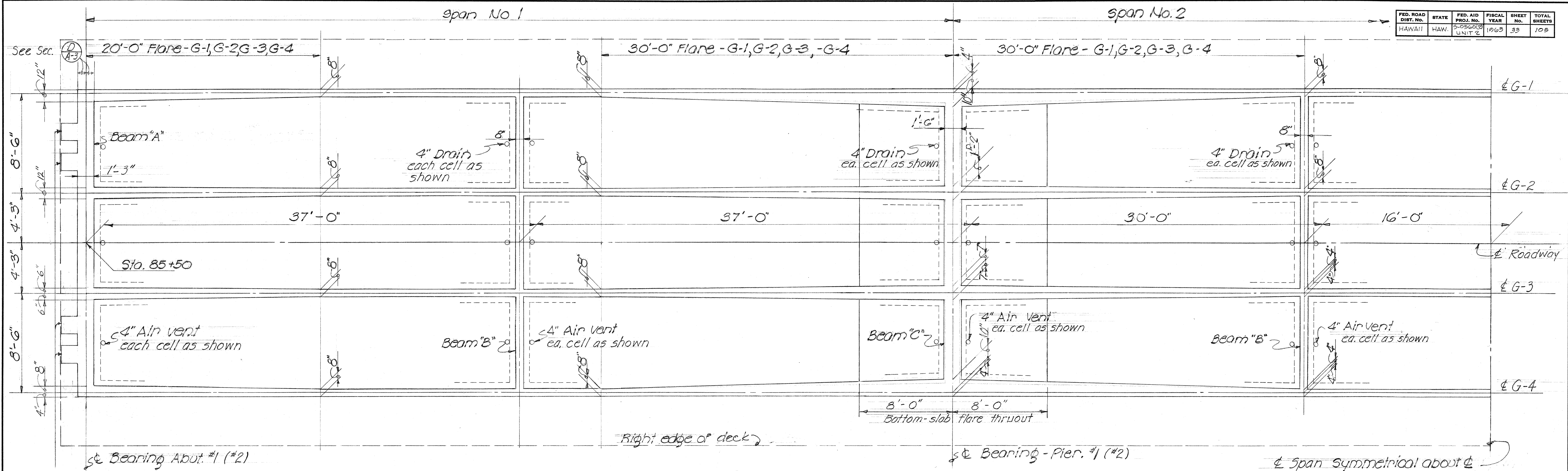


5-#6 x 18'-0" long top added bars.
 3-#5 cont.
 Beam "C"
 #4 @ 18"
 2-#6
 Bearing
 14" c/c
 14" c/c
 #5 @ 12" closed stirr.
 3-#5 c.f.
 2-#6
 2-#11 cont. for fixed end only
 Outline Abut. dowel from rocker or conc. seat for see Abut. Det. Sh. #A-5

OUT. #1) 9" 6" SCALE: 3/4" = 1'-0"

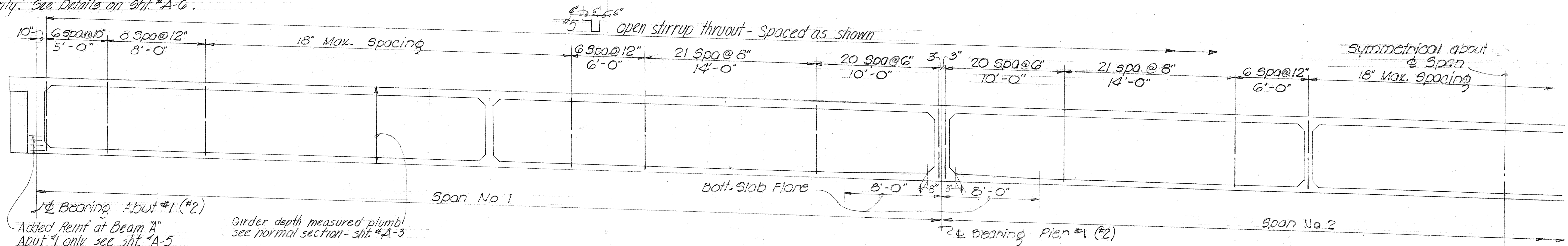
ALTERNATE "A"
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
DECK NORMAL SECTION & DETAILS
MOLOAA STREAM BRIDGE
Sta. 85+46.75 to Sta. 87+93.13
KAUAI BELT ROAD Proj. S-0560(?)
Oct. 1961 UNIT 2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0560(2) UNIT 2	1963	33	105



HALF FRAMING PLAN
SCALE: 1/4" = 1'-0"

Concrete Block - both sides of Abut. Creep.
Block poured monolithic with Beam "A". Abut. #1 only. See Details on Sht. #A-6.

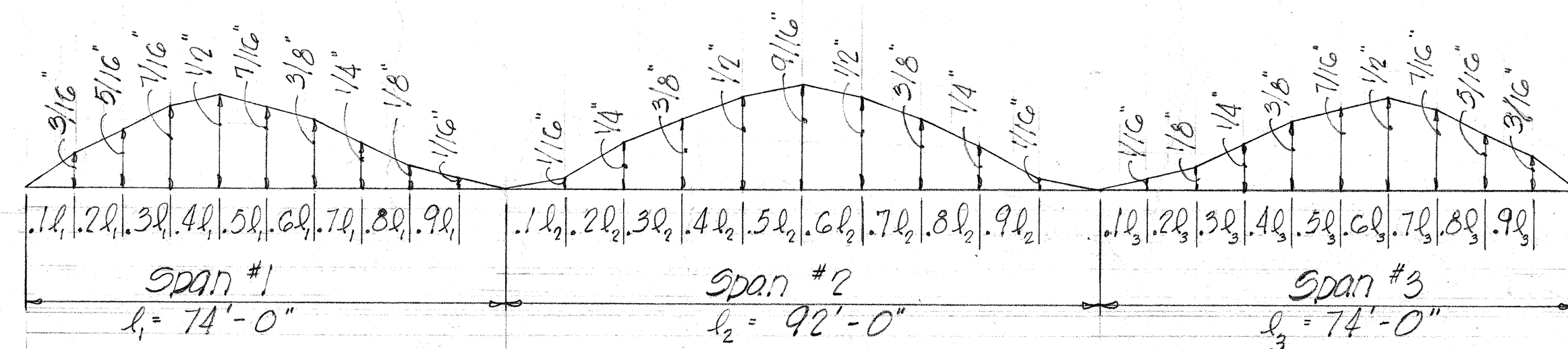


TYPICAL GIRDER STIRRUP SPACING
SCALE: 1/4" = 1'-0"

Note: All stirr. to be placed plumb

ESTIMATED QUANTITIES

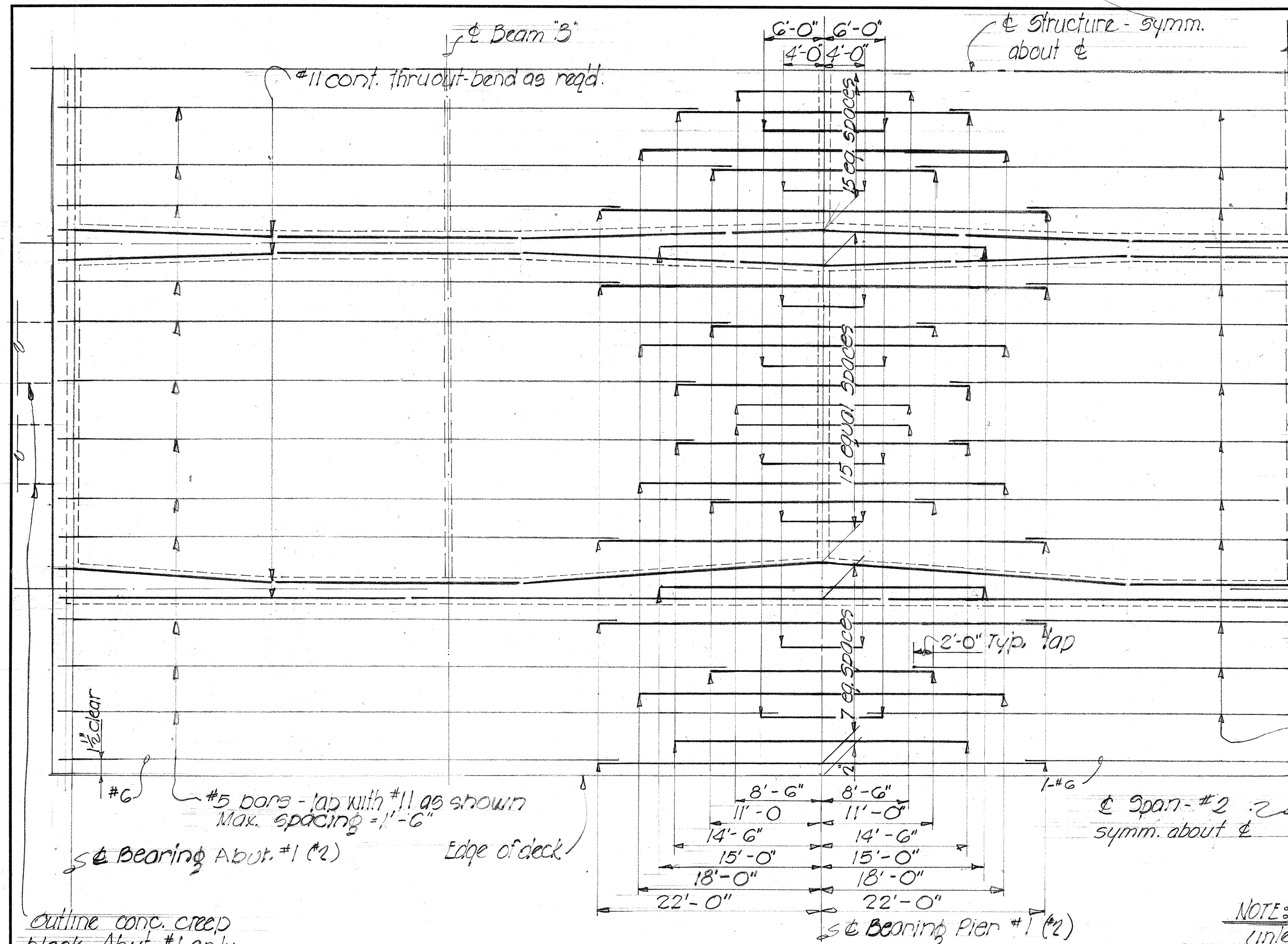
Class A-1 concrete	Lump Sum	1,168.00	c.y.
Reinforcing Steel	Lump Sum	222,050.0	Lbs.
Structural Excavation		262.0	cy
Asphalt Concrete Pavement		56.50	Tons
Bituminous Tack Coat		161.50	Gal.
Filter Material		64.50	c.y.
Prestress Concrete Pile		3,116.0	Lin. ft.
Concrete Railing and End Post		508.75	Lin. ft.



DEAD LOAD CAMBER DIAGRAM

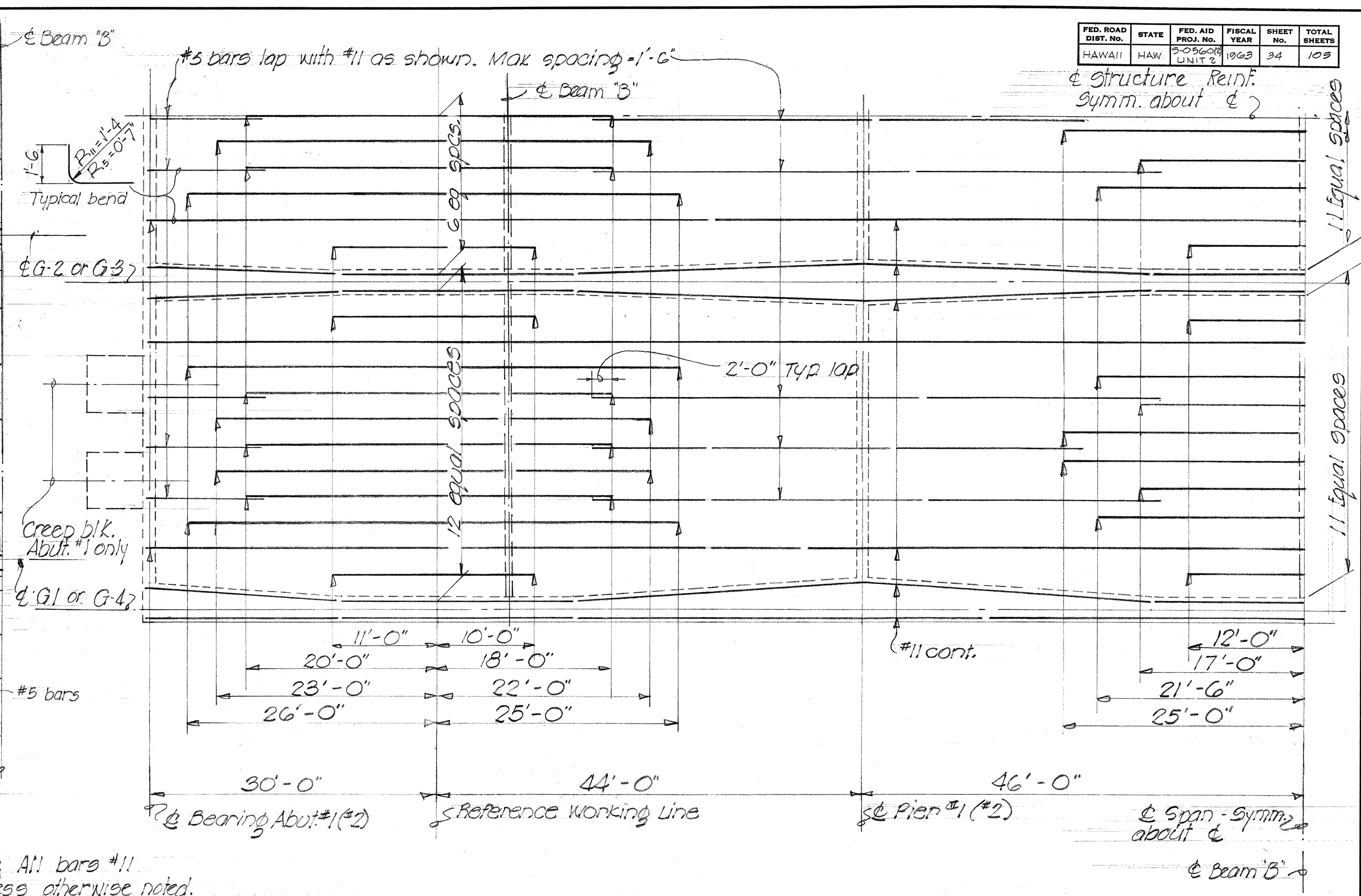
ALTERNATE 'A'
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
DECK FRAMING PLAN & DETAILS
MOLOAA STREAM BRIDGE
Sta. 85+46.75 to Sta. 87+93.13
KAUAI BELT ROAD Proj. S-0560(2)
Oct. 1961 UNIT 2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW.	5-0560(2)	1963	34	103



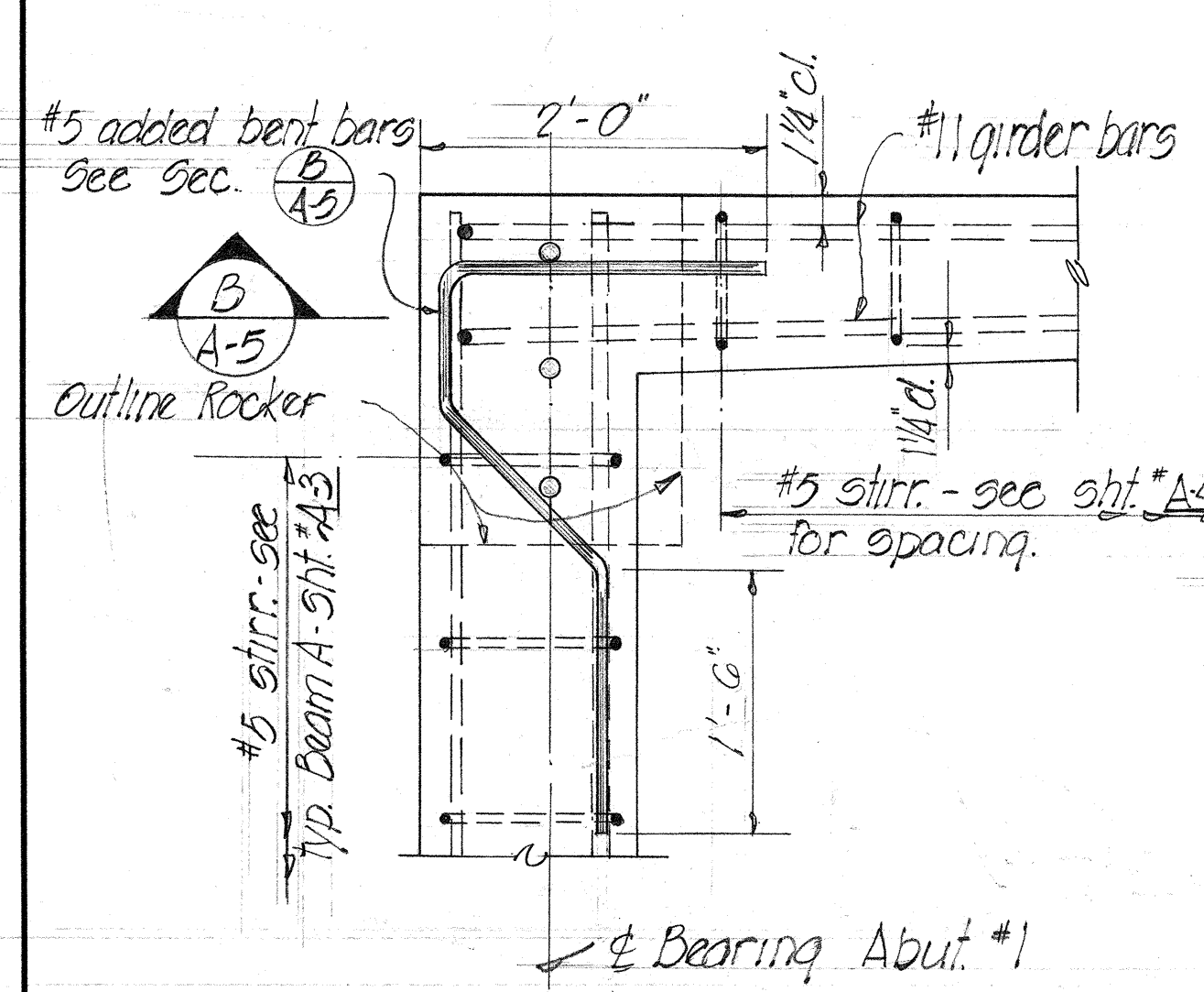
PLAN-TOP SLAB TOP LAYER REINFORCING

SCALE: Vertical 1/8" = 1'-0"
Horizontal 1/8" = 1'-0"

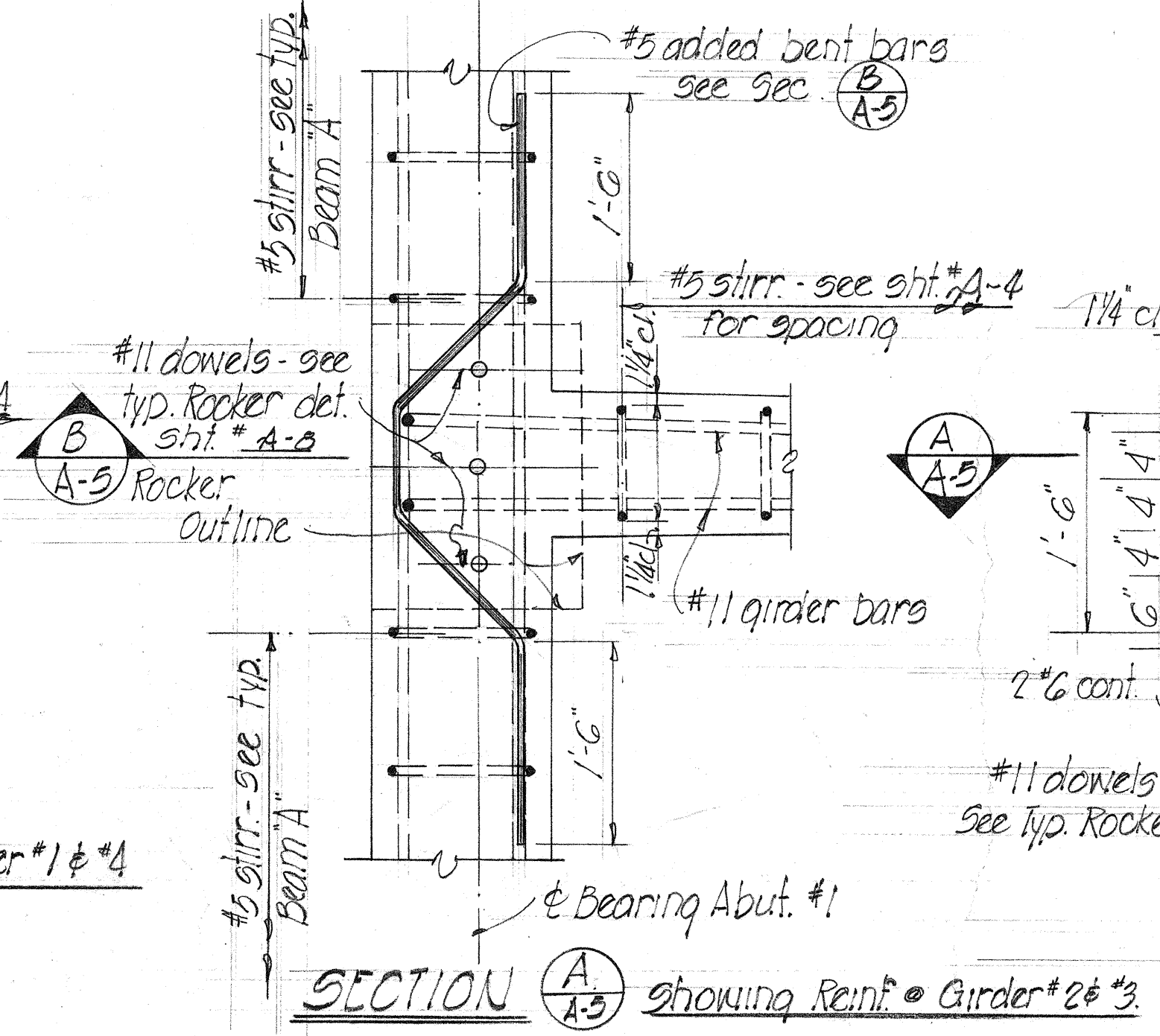


PLAN-BOTTOM SLAB BOTTOM LAYER REINFORCING

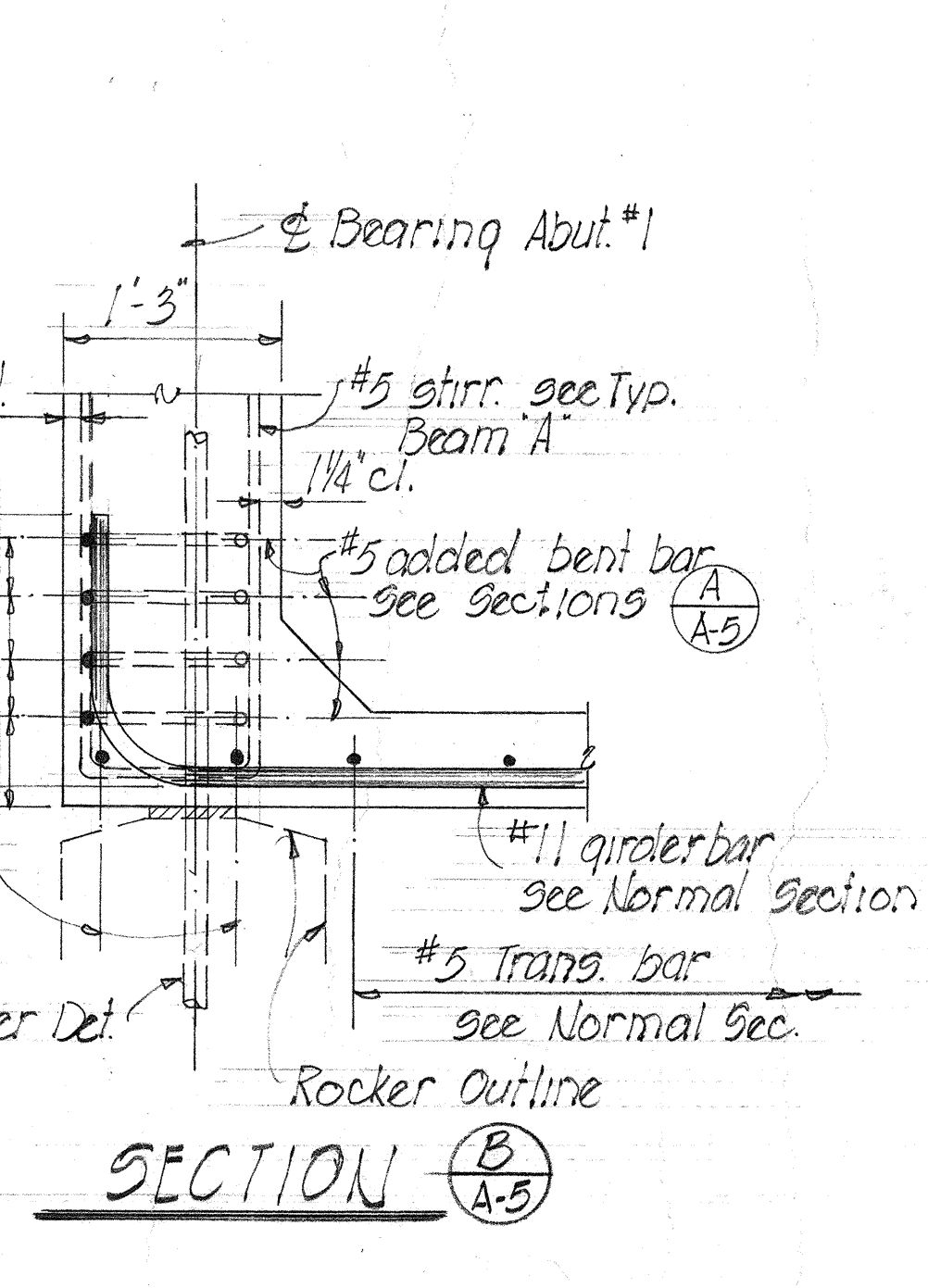
SCALE: Vertical 1/8" = 1'-0"
Horizontal 1/8" = 1'-0"



SECTION A-A showing Reinf. Girder #1 & #4



SECTION A-A showing Reinf. Girder #2 & #3

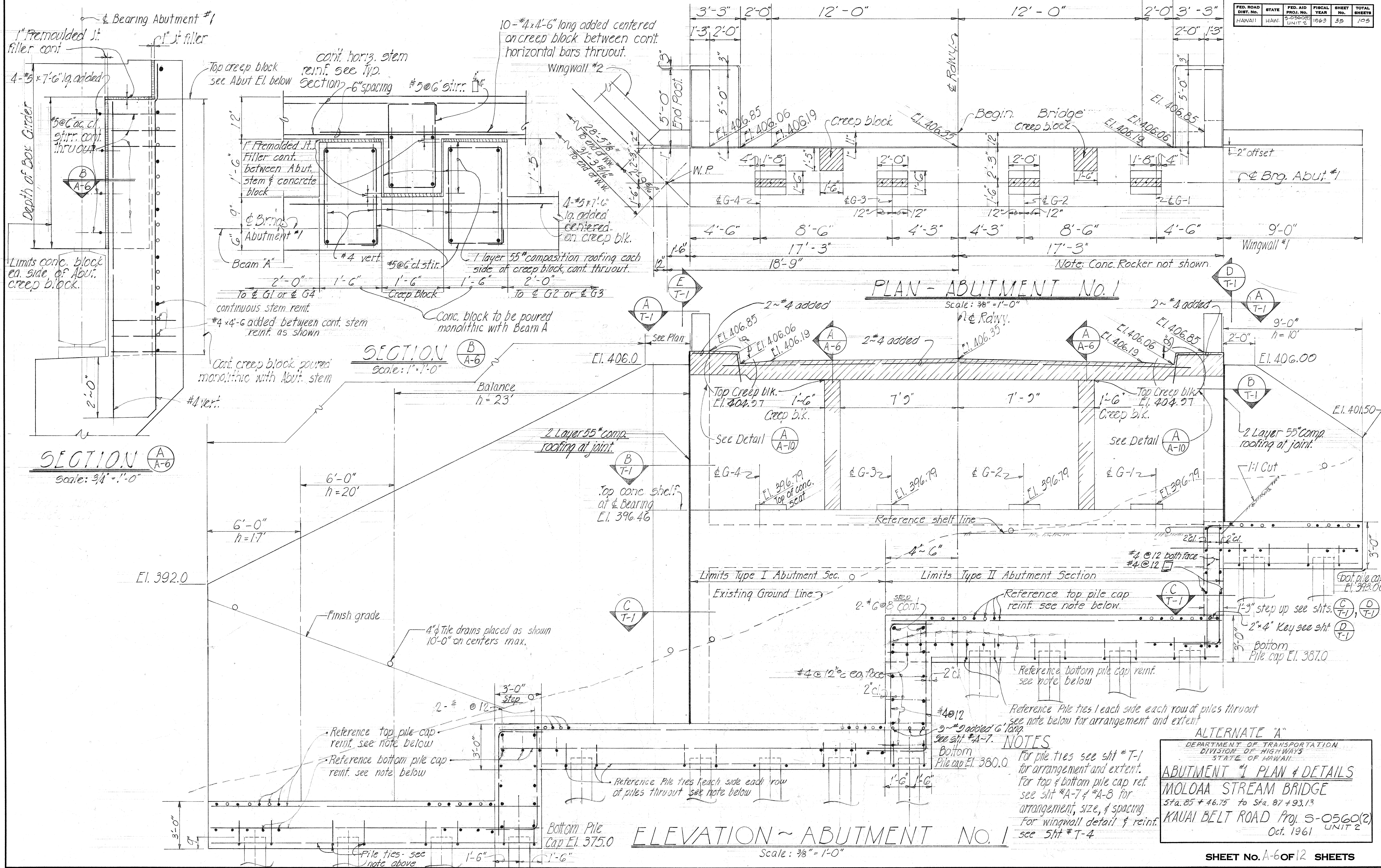


SECTION B-B showing Reinf. Girder #1 & #4

TYPICAL ADDED REINFORCING BEAM A - ABUTMENT #1 ONLY Scale: 1" = 1'-0"

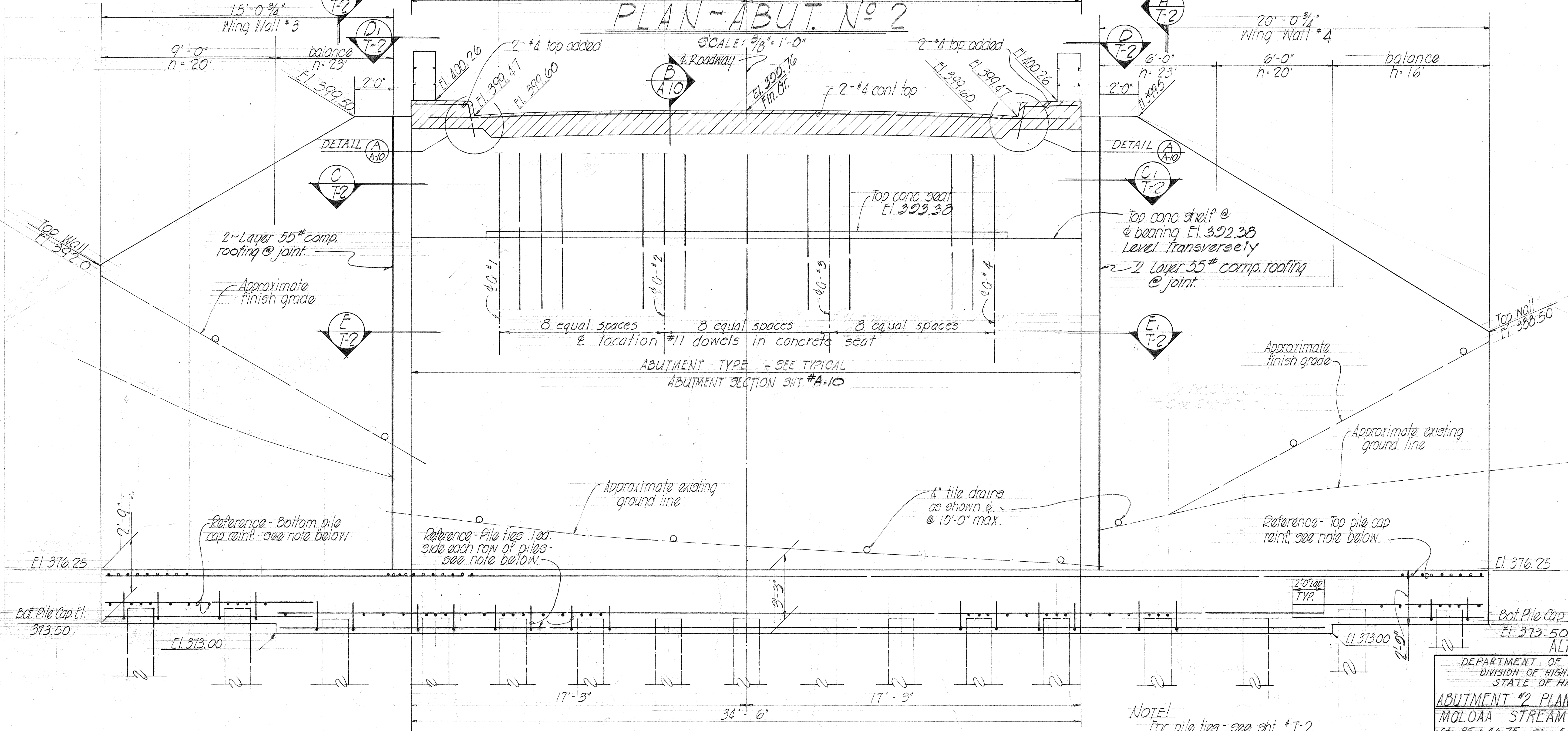
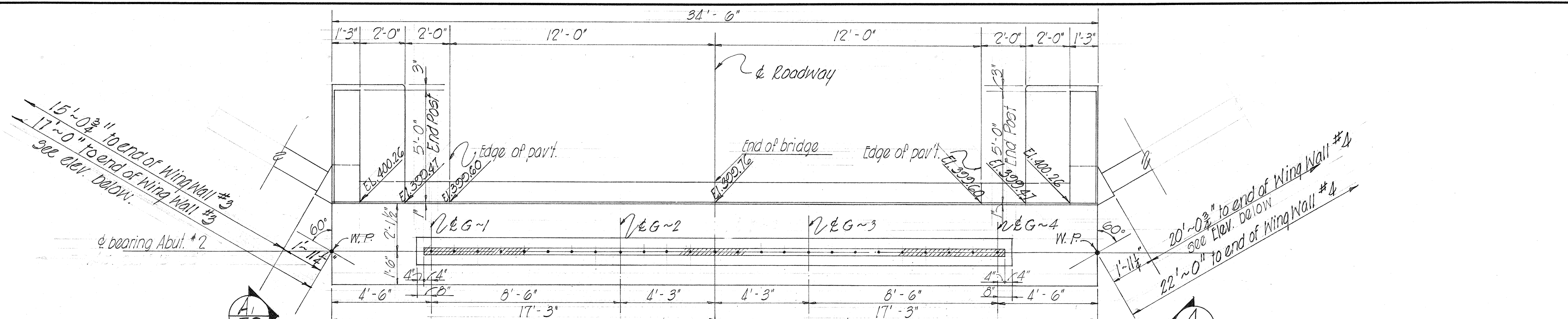
ALTERNATE "A"
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
DECK REINFORCEMENT DETAILS
MOLOAA STREAM BRIDGE
Sta. 85+46.75 to Sta. 87+93.13
KAUAI BELT ROAD Proj. 5-0560(2)
Oct. 1961 UNIT 2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0560(2)	1963	35	105



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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	S-0560	1968	38	105



NOTE!

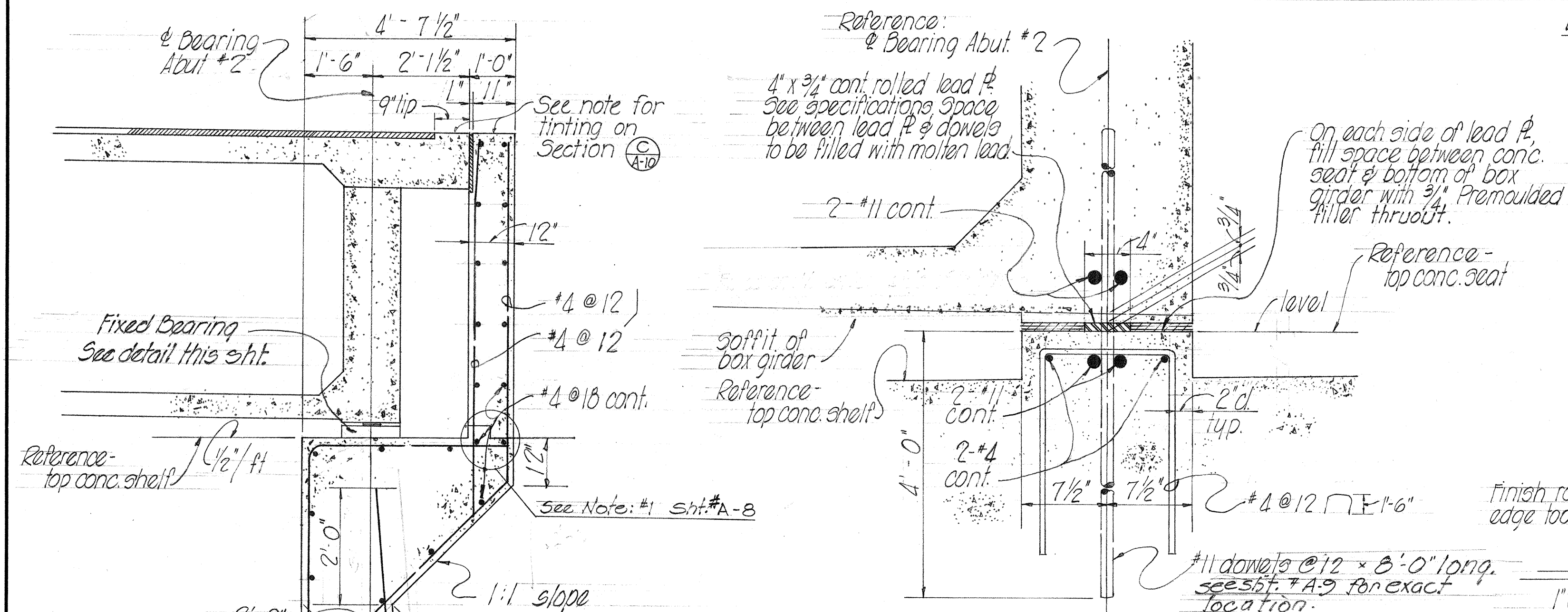
- For pile ties - see sht. #T-2.
- For top & bot. pile cap reinf. - see sht. #A-10 & T-3.
- For wingwall reinf. & details see Sht. #T-4

ALTERNATE "A"

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII

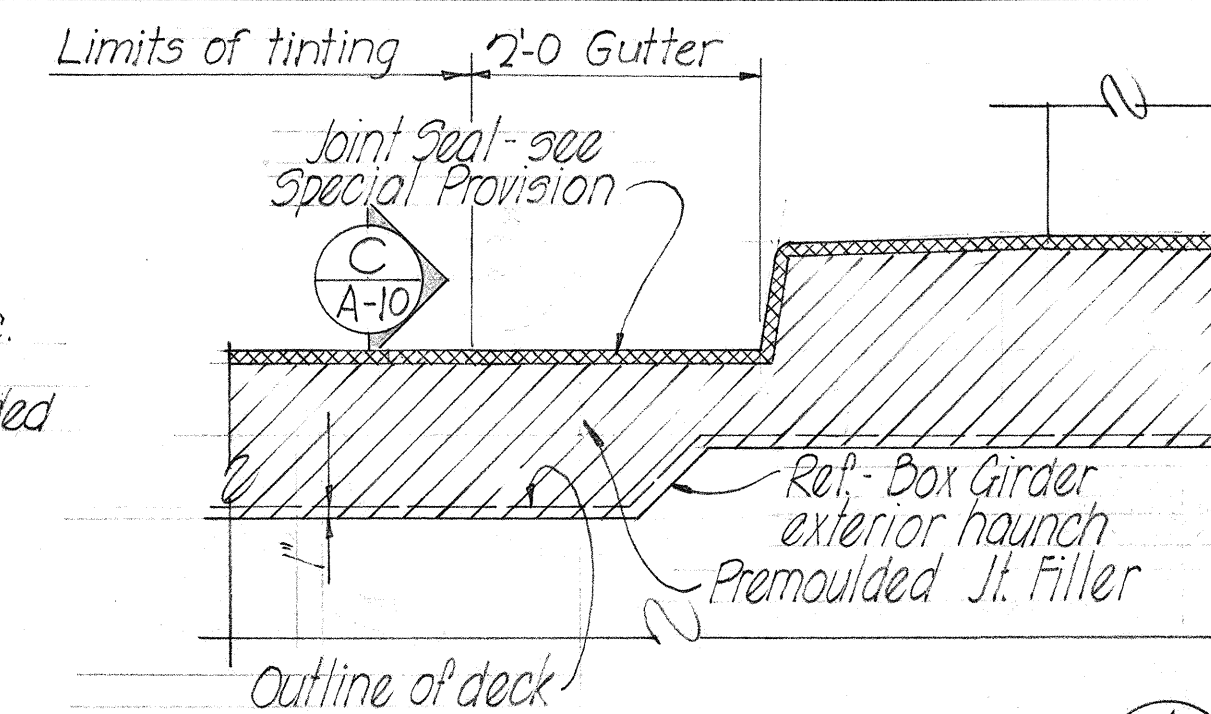
ABUTMENT #2 PLAN & ELEVATION
MOLOAA STREAM BRIDGE
Sta. 85+46.75 to Sta. 87+93.13
KAUAI BELT ROAD Proj. S-0560(2)
Oct. 1961 UNIT 2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	S-0560(2) UNIT 2	1963	39	103



FIXED BEARING DETAIL

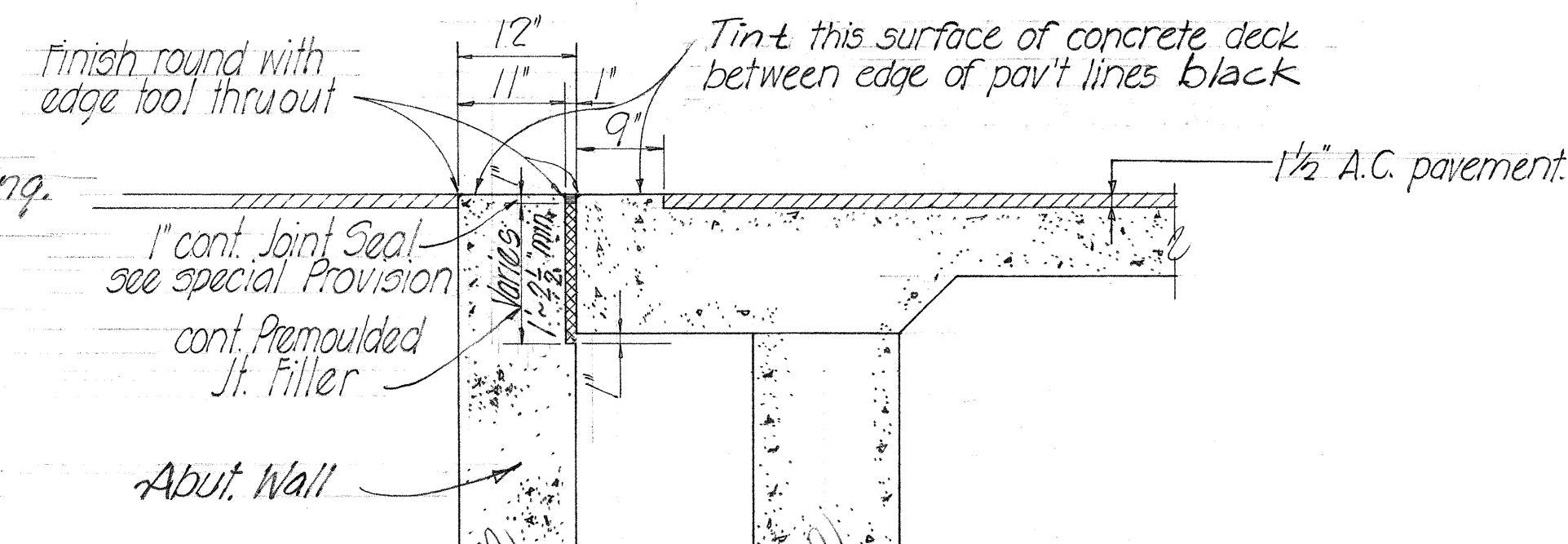
SCALE: 1 1/2" = 1'-0"



TYPICAL DETAIL A-A-10

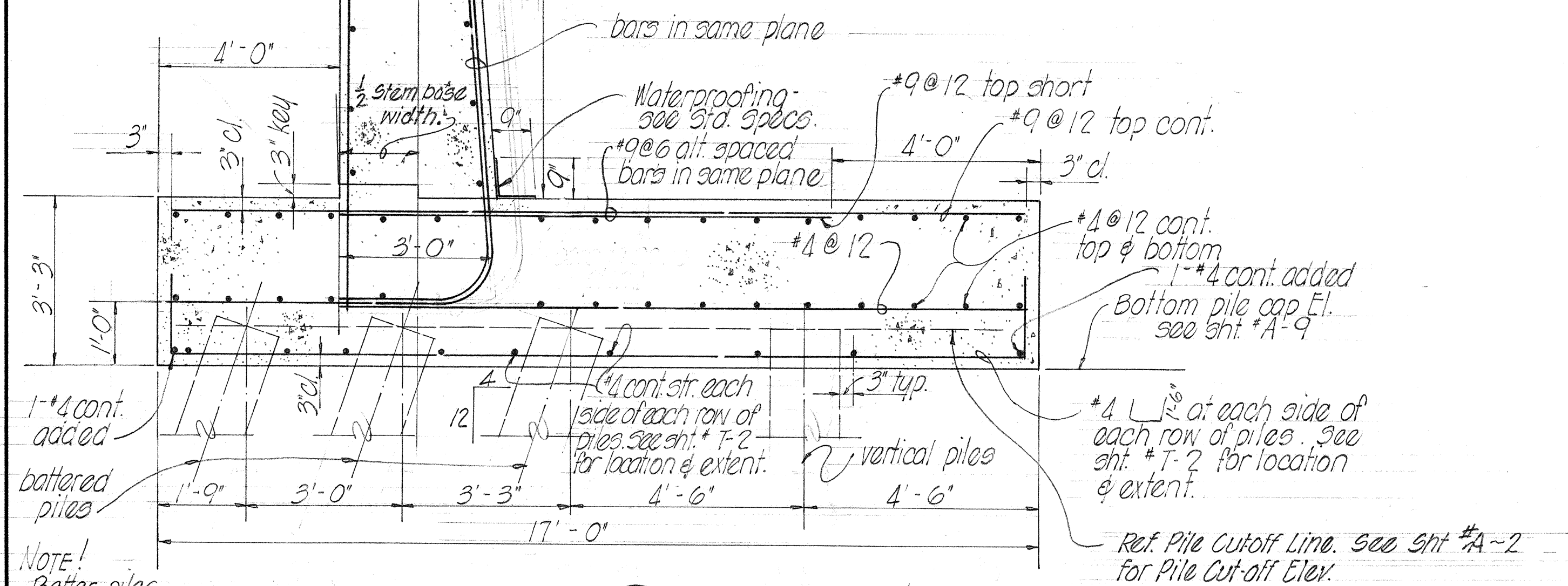
SCALE: 3/4" = 1'-0"

For location see sheet A-9



SECTION C-A-10

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



TYP. SECTION B-A-10 ABUT. #2

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

ALTERNATE "A"

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII

ABUTMENT #2-SECTION AND DETAILS

MOLOAA STREAM BRIDGE

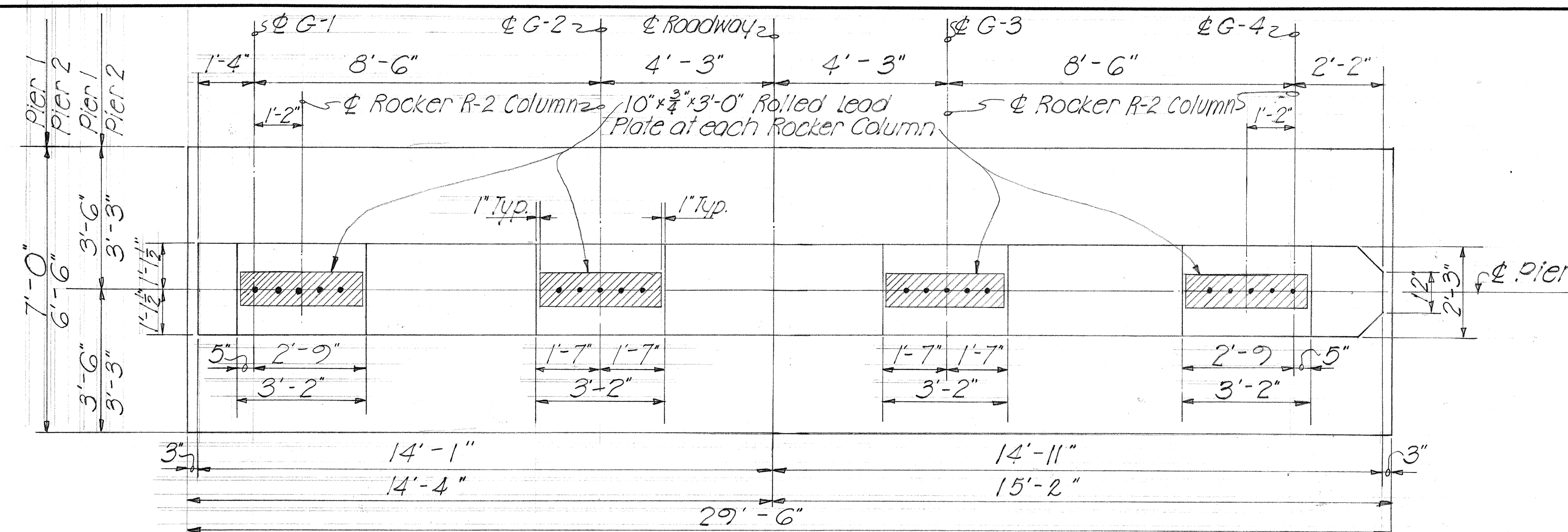
Sta. 85+46.75 to 87+93.13

KAUAI BELT ROAD Proj. S-0560(2)

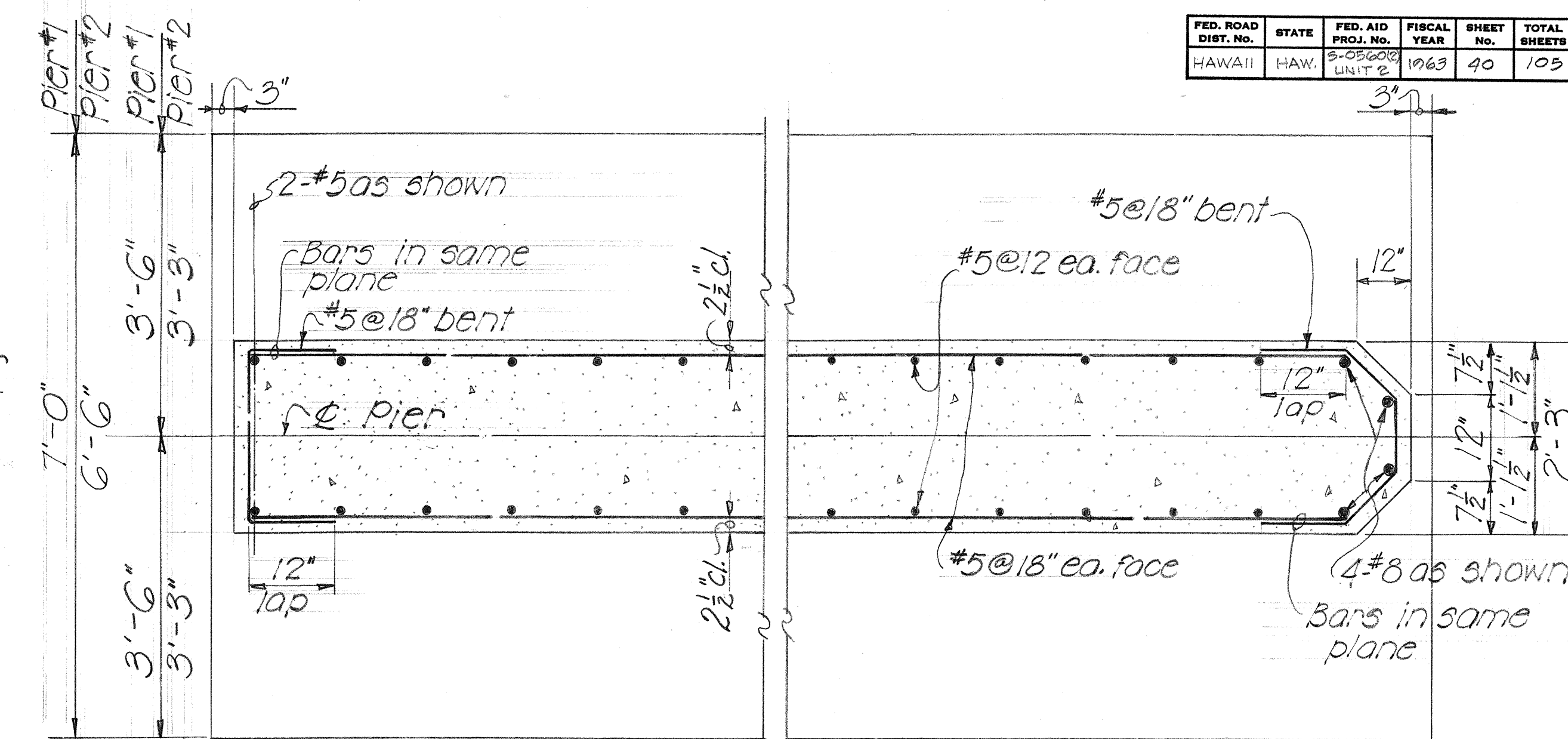
Oct. 1961 UNIT 2

SHEET No. A-10 OF 12 SHEETS

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEET
HAWAII	HAW.	S-0560(2) UNIT 2	1963	40	10

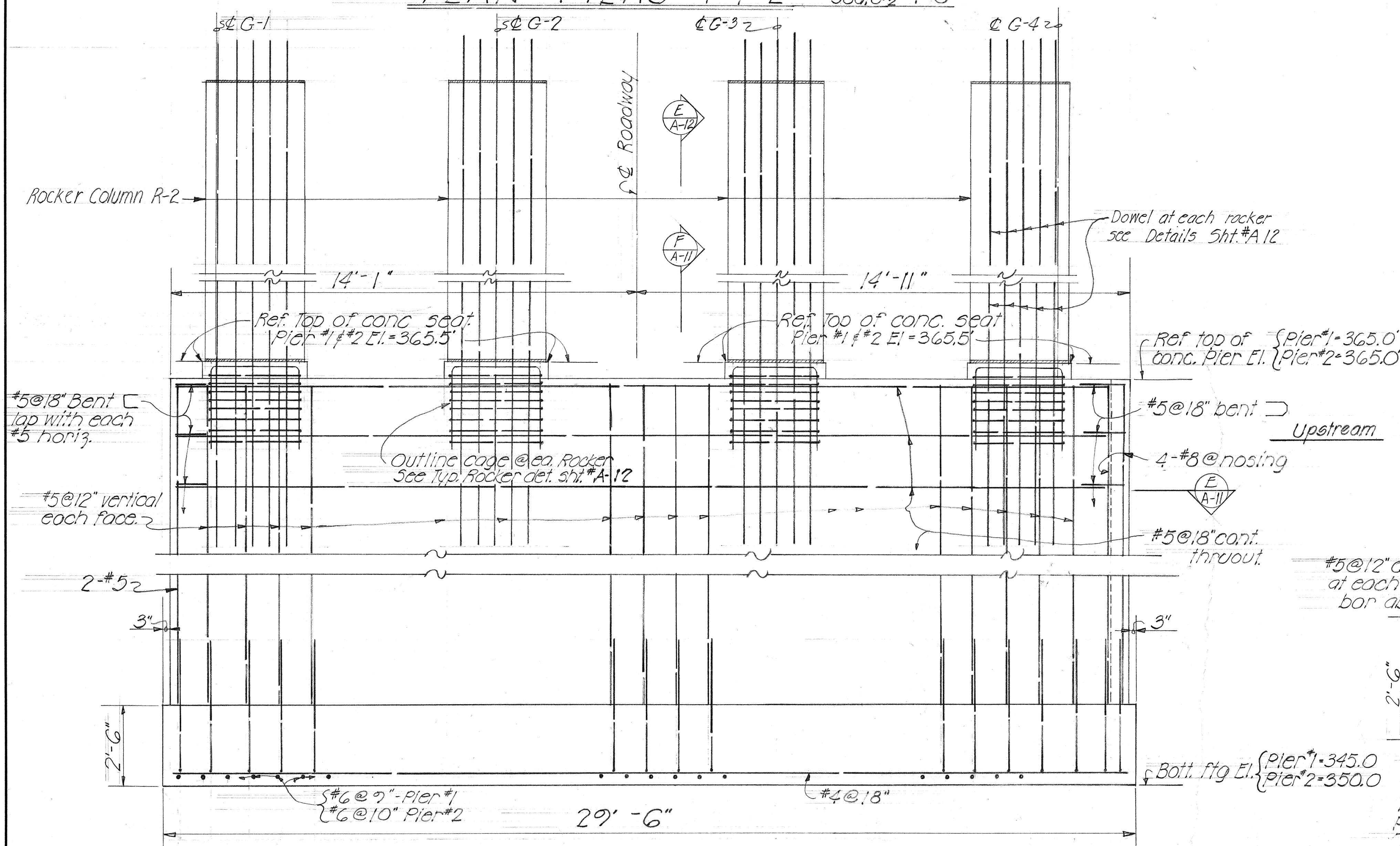


PLAN - PIERS 1 & 2 Scale: $\frac{1}{2}'' = 1'-0''$

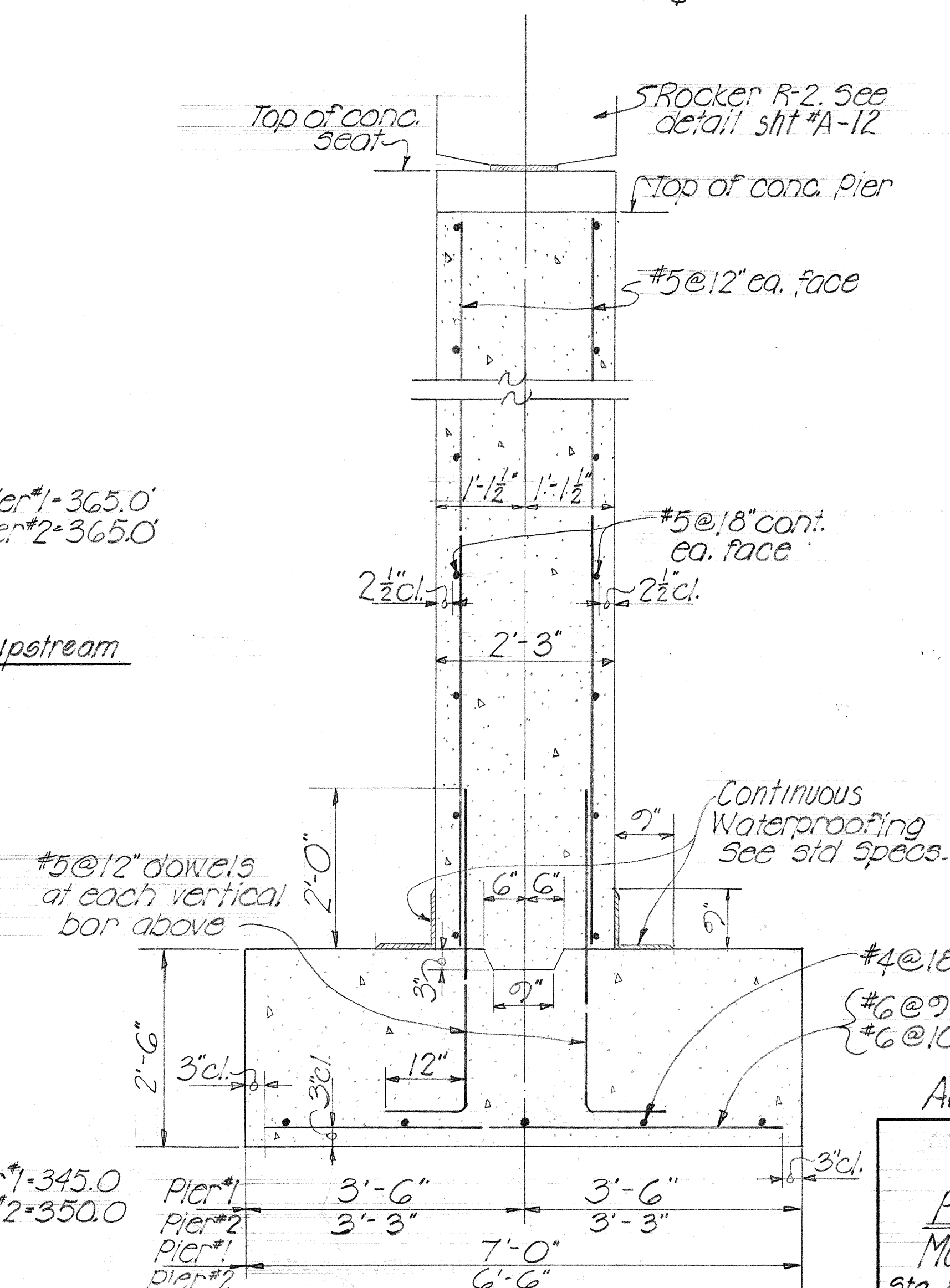


SECTION (E)
A-1

Scale: $\frac{3}{8}'' = 1'-0''$



ELEVATION-PIERS 1 & 2 scale: $\frac{1}{2}'' = 1'-0''$



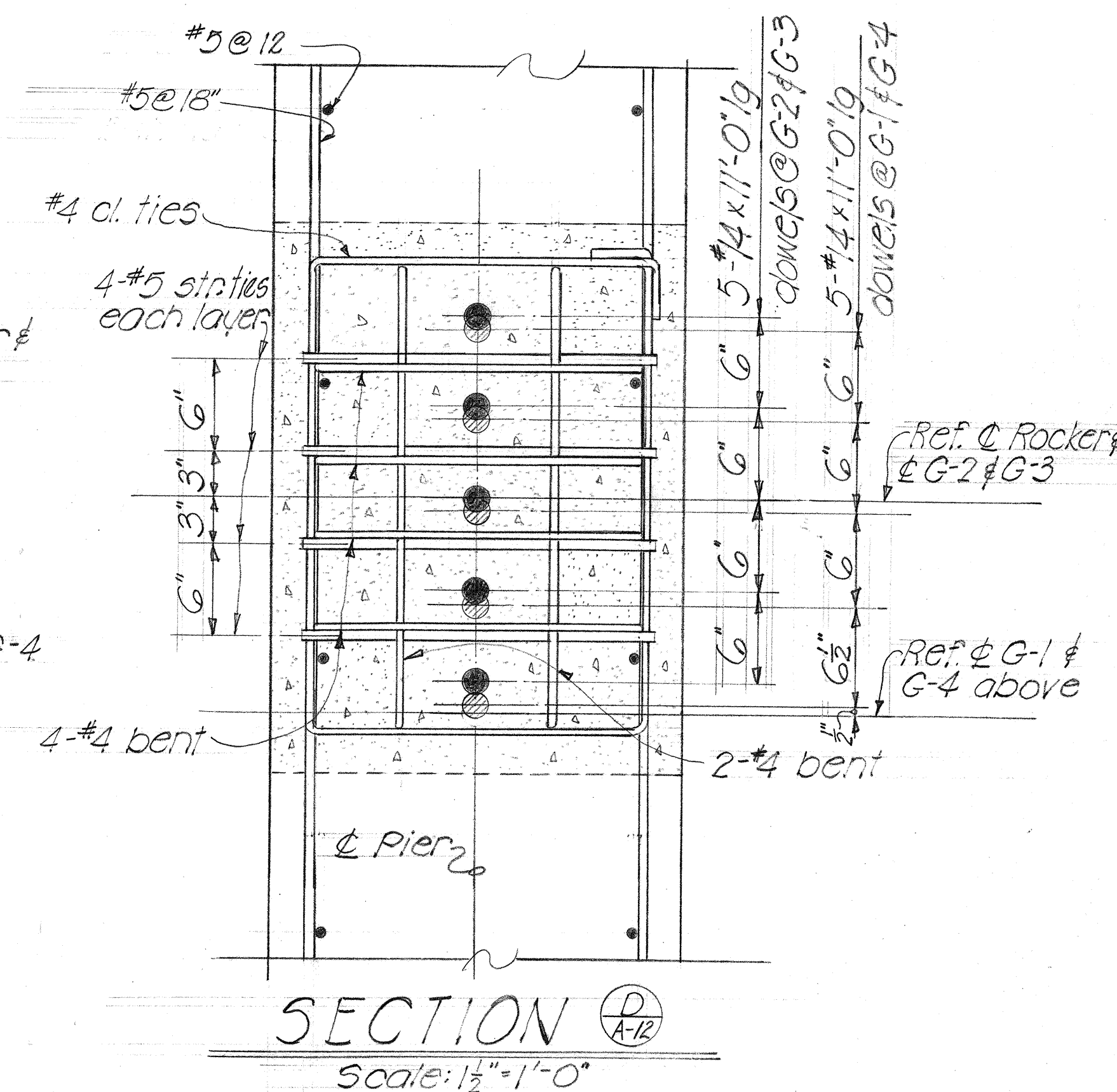
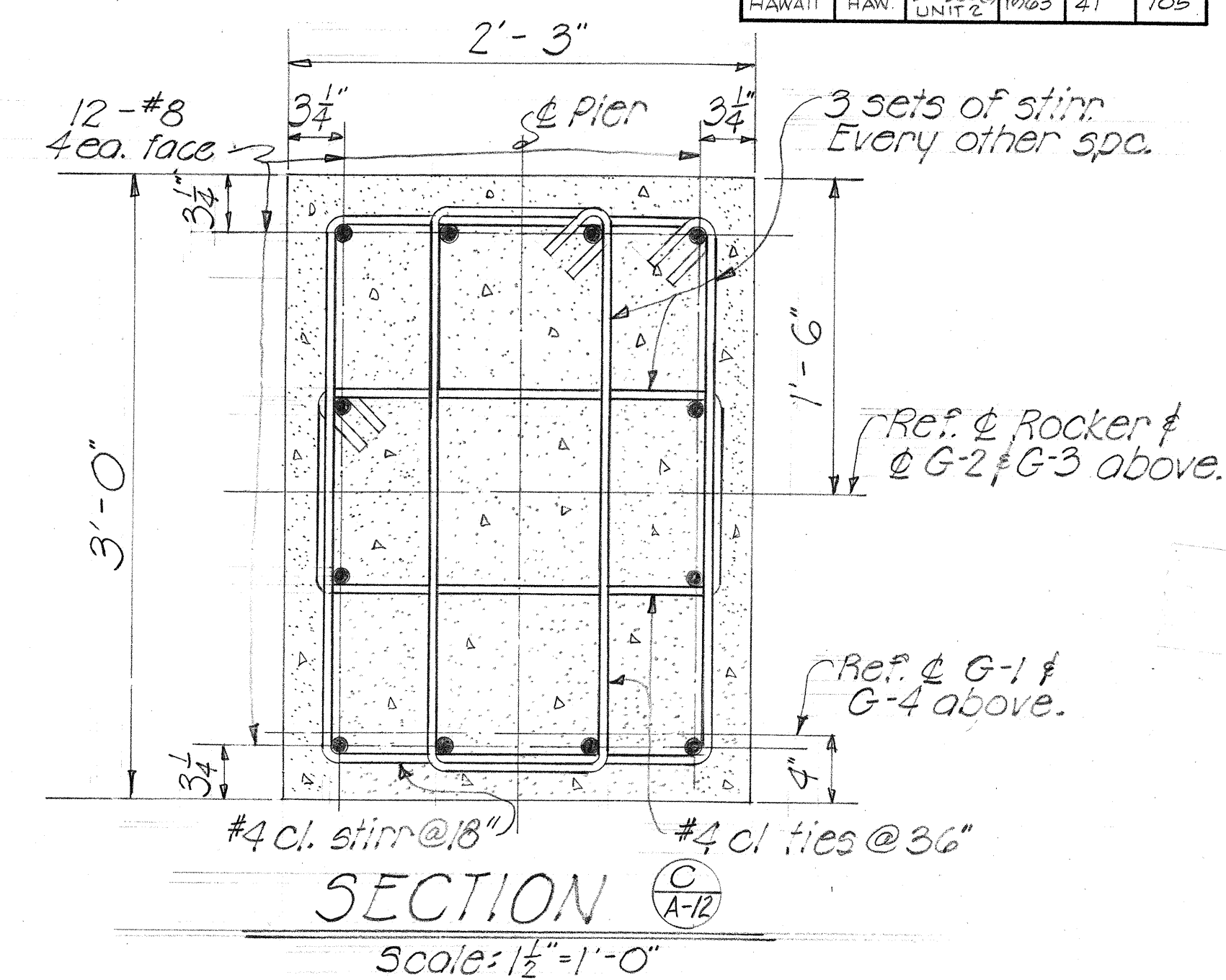
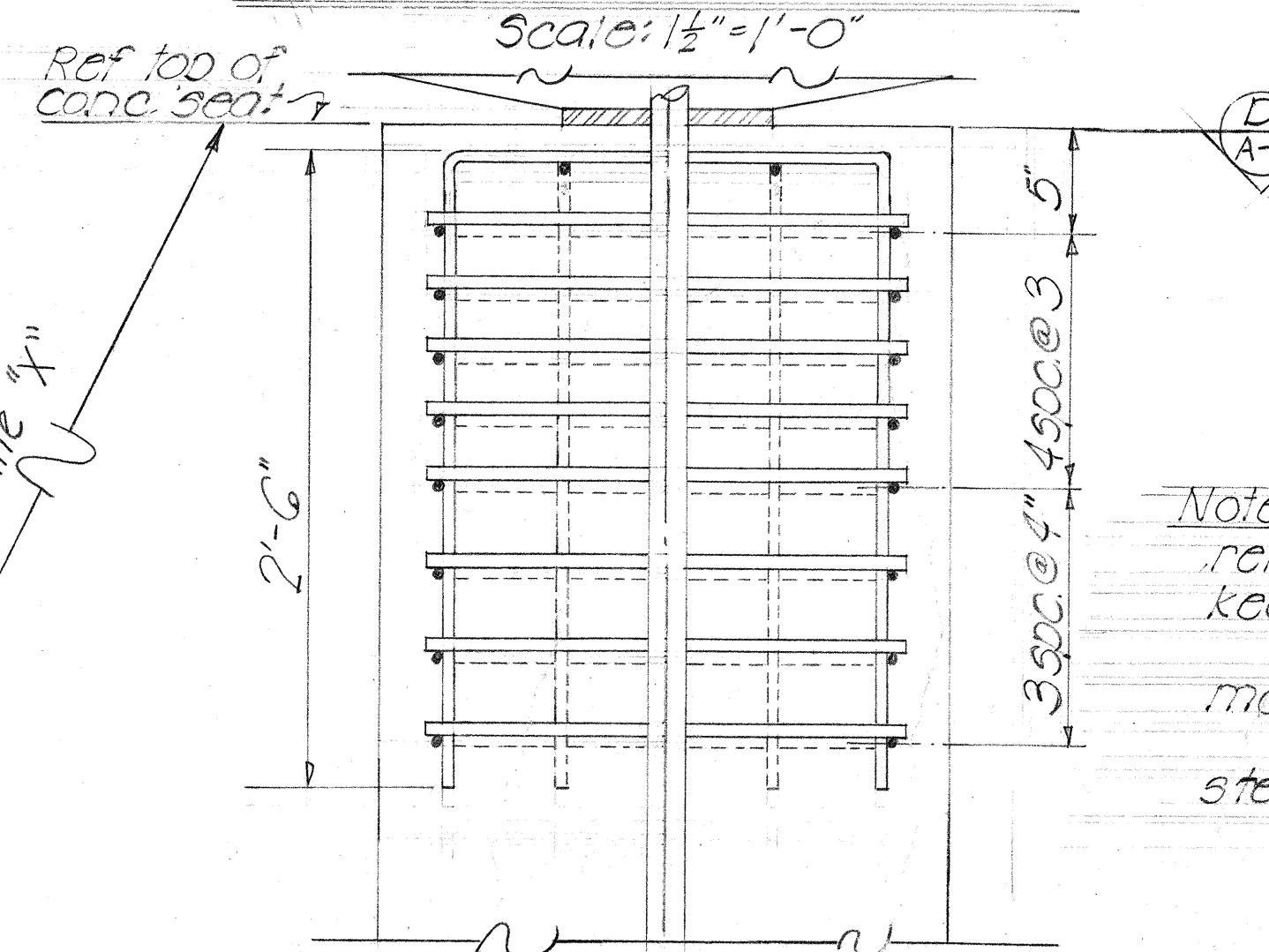
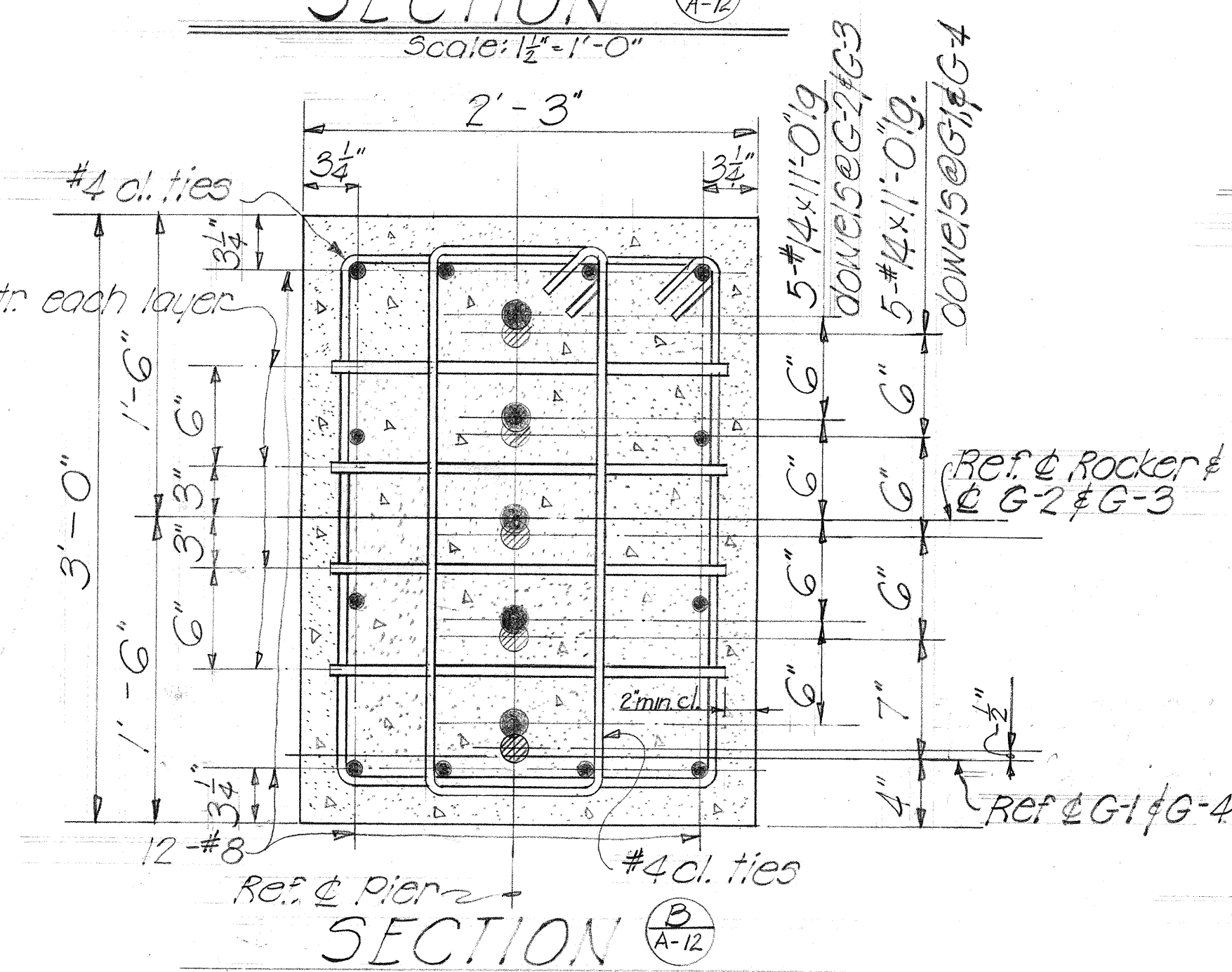
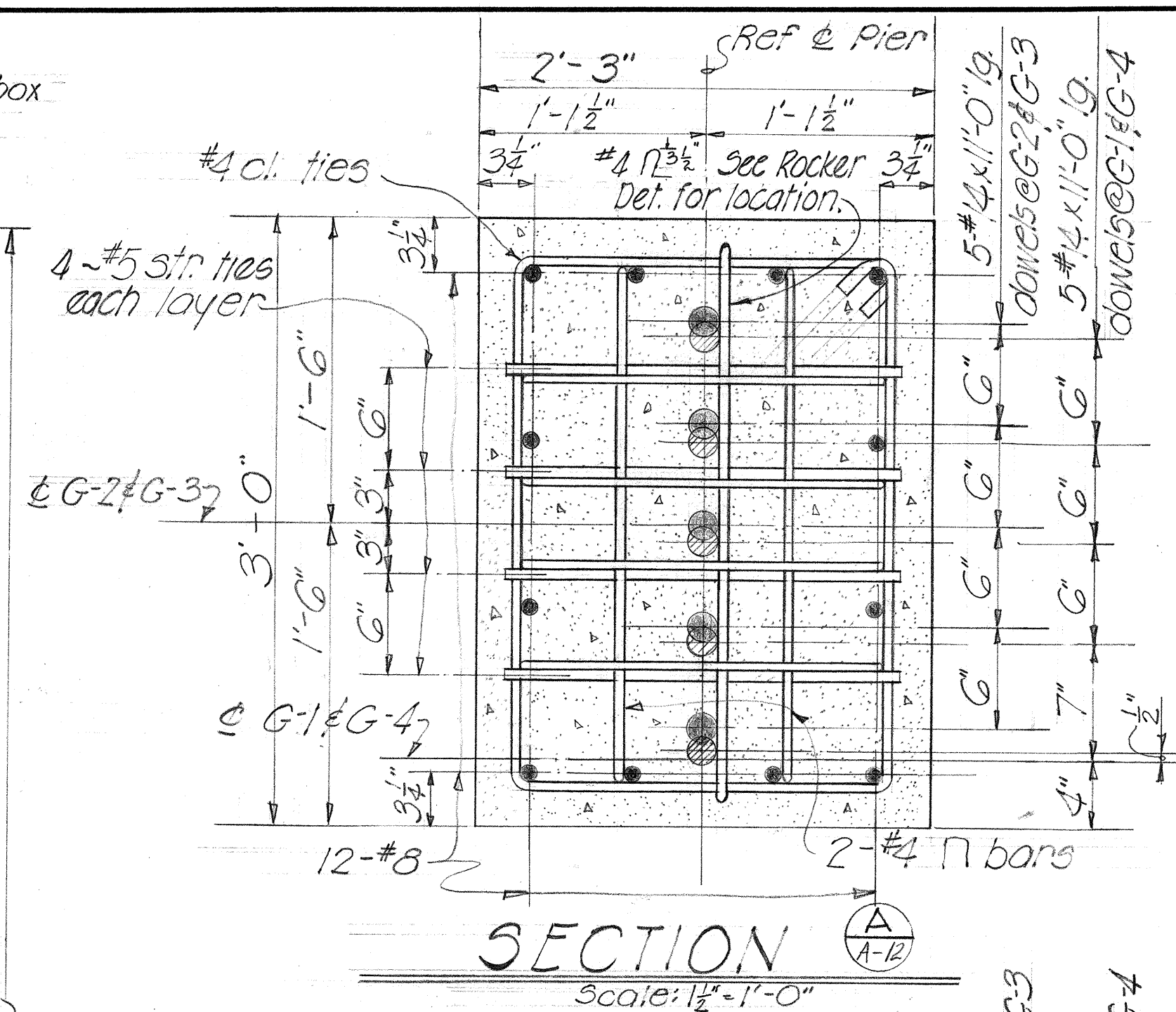
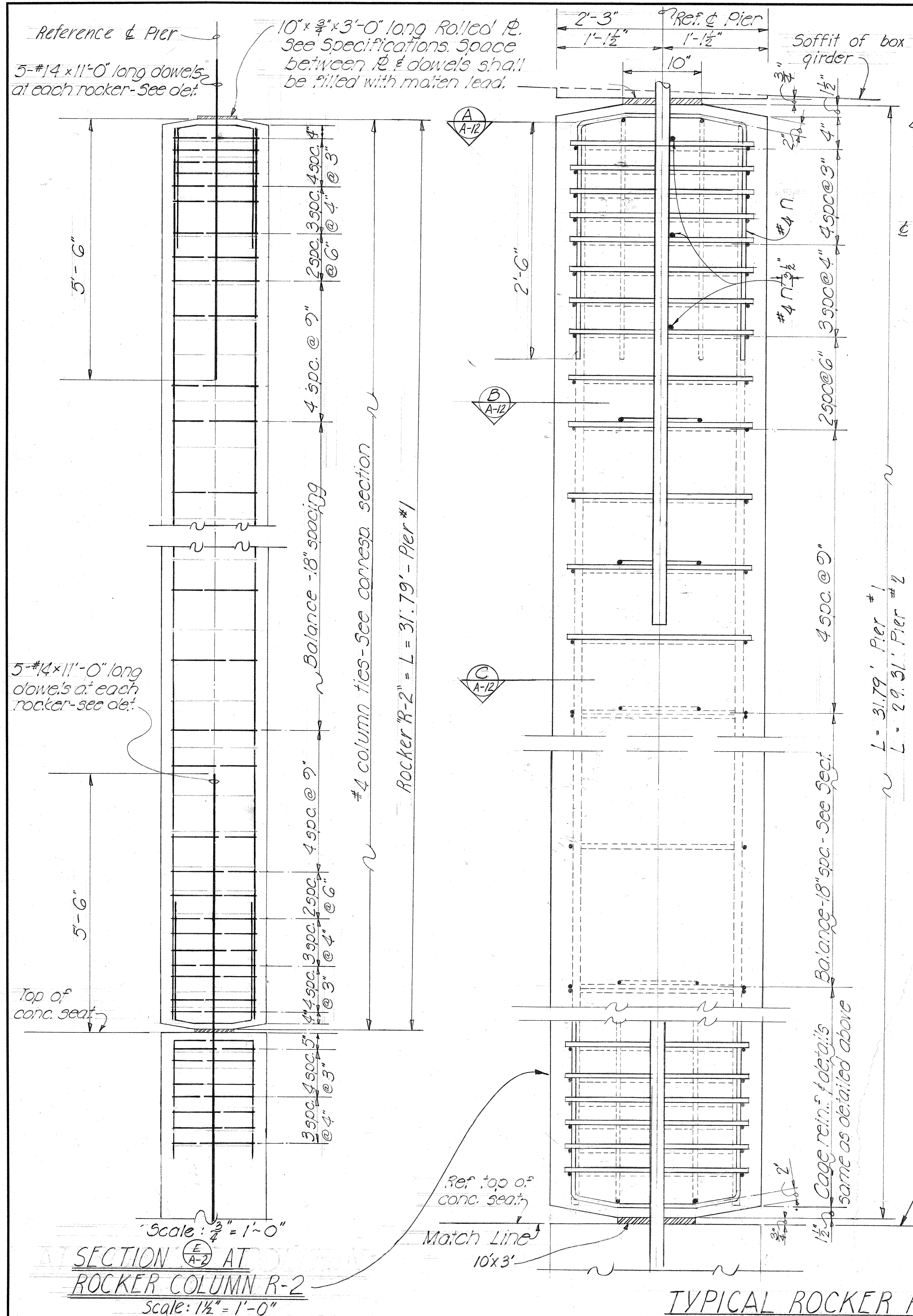
TYPICAL PIER SECTION
SHOWING PIER REINF.
Scale: $\frac{3}{4}'' = 1'-0$

ALTERNATE ~ "A"

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
PIERS #1 & #2 DETAILS
MOLOKA STREAM BRIDGE
Sta. 85 +46.75 to 87 +93.13
KAUAI BELT ROAD ~ Proj No. S-0560(2)
1961 UNIT

SHEET No. A-11 OF 12 SHEETS

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



Note: In fabricating cage reinforcement use tack welds to keep bars in their proper positions. Concrete seats to be poured monolithic with pier. Top of concrete seat to have steel trowel finish to level.

ALTERNATE ~ "A"

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII

PIERS #1 & #2 DETAILS
MOLOAA STREAM BRIDGE

Sta. 85 + 46.75 to Sta. 87 + 93.13
KAUAI BELT ROAD ~ Proj. No. S-0560(2)
1961 UNIT 2

SHEET No. A-12 OF 12 SHEETS