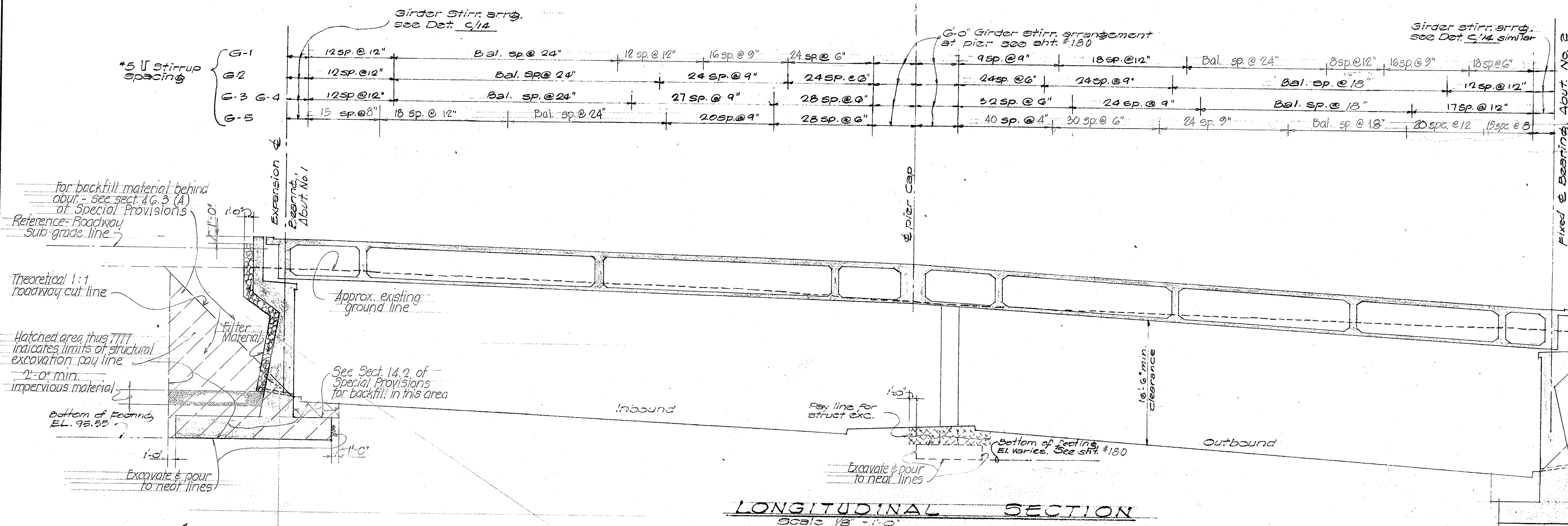


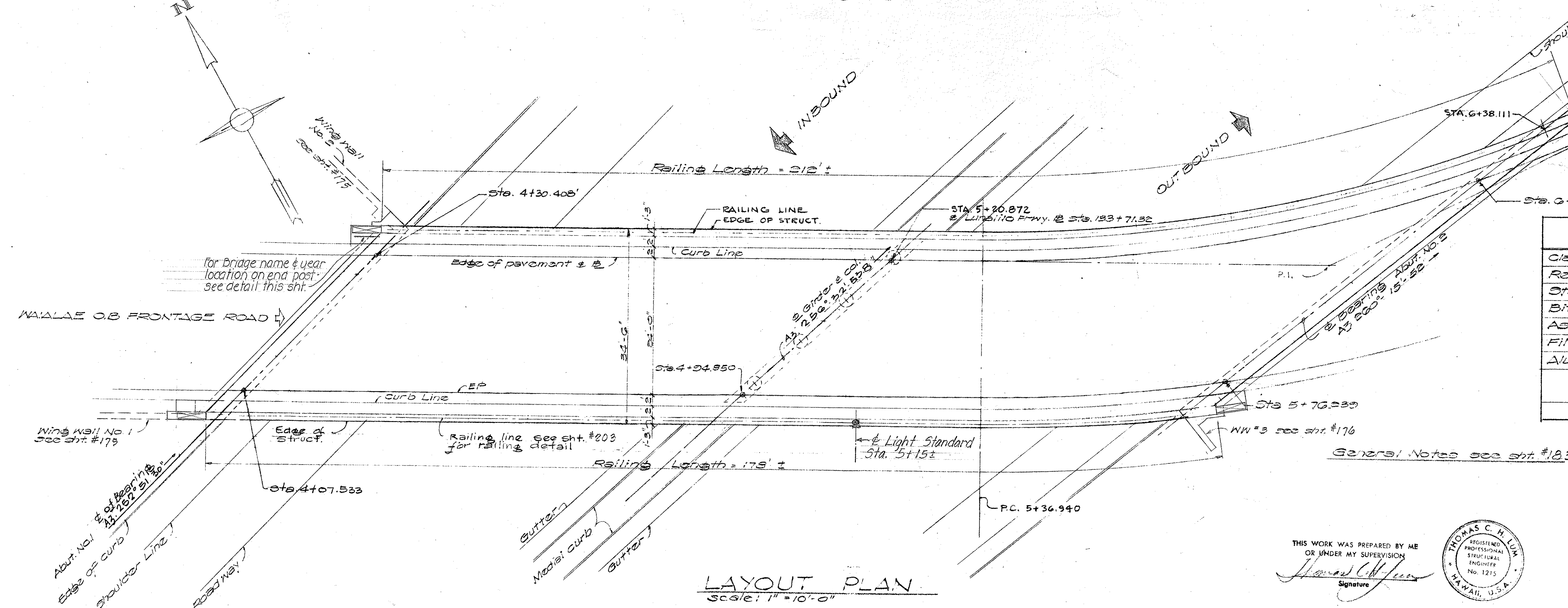
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(6) UNIT 2	1966	174	202



NOTE:

- Place name of structure as shown. For location, see Layout Plan.
- Year shown will be year structure is completed.
- Letter size & detail - see Standard Letter Drawings.

TYPICAL BRIDGE NAME & YEAR
LOCATION AT END POST
 SCALE: 1/8" = 1'-0"
 Approx. exist. ground line



STRUCTURE #12 ESTIMATED QUANTITIES	
Class A-1 Concrete - Lump Sum	(1,000 c.y.)
Reinforcing Steel - Lump Sum	(250,000 lbs)
Structural Excavation	834 c.y.
Bituminous Tack Coat	76 gal.
Asphaltic Paving Mix II	42 ton
Filter Material	181 cy
Aluminum Bridge Railings	320 Lin.Ft.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WAILAE GRADE SEPARATION
 (STRUCTURE #12)
 LONGITUDINAL SECTION & LAYOUT PLAN
 INTERSTATE HIGHWAY (LUNAHIO Fwy)
 F.A.I. PROJ. 1-HI-1(6) UNIT 2

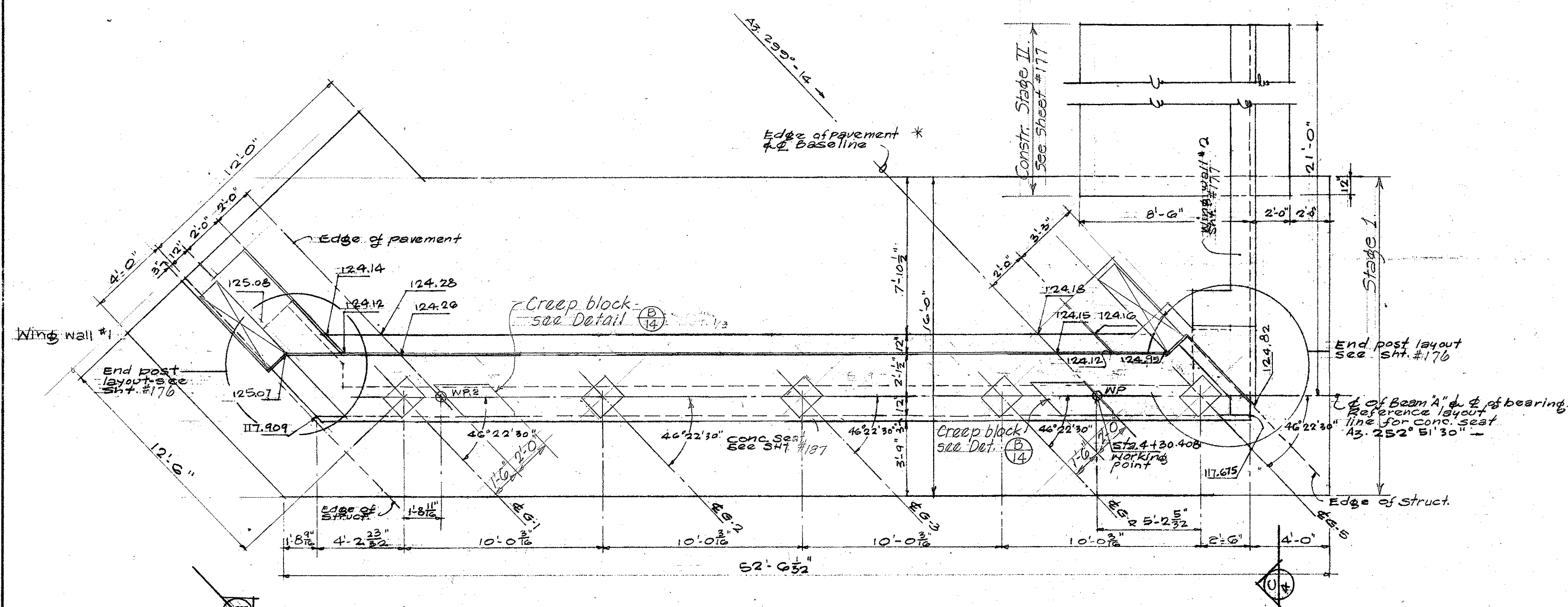
SCALE: AS SHOWN
 DATE: JANUARY 1966

WILSON, OKAMOTO, OKA, INC.
 PARK ASSOCIATES, INC.
 ARCHITECTS & ENGINEERS

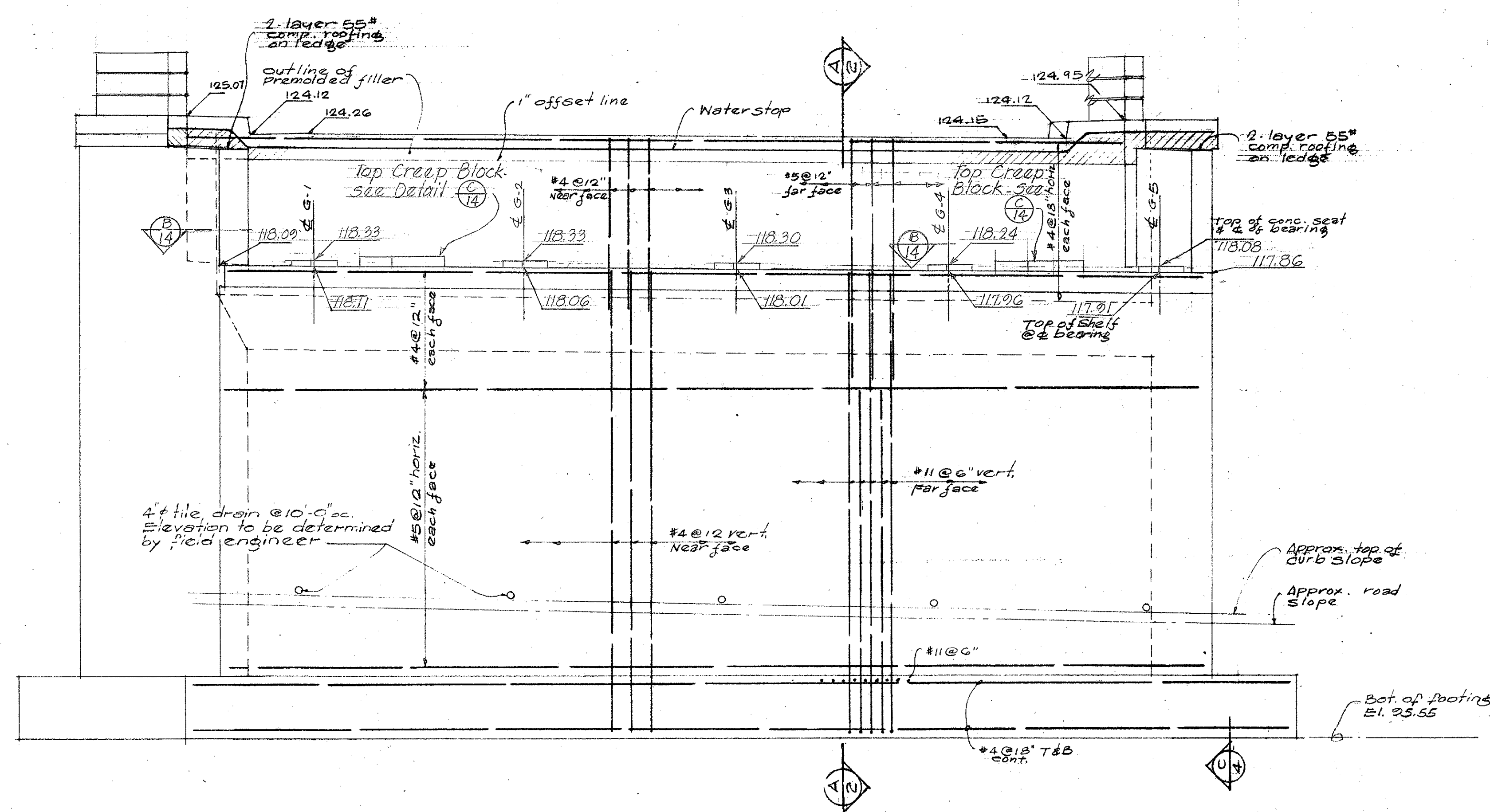
SHEET No. 1 OF 14 SHEETS

1174

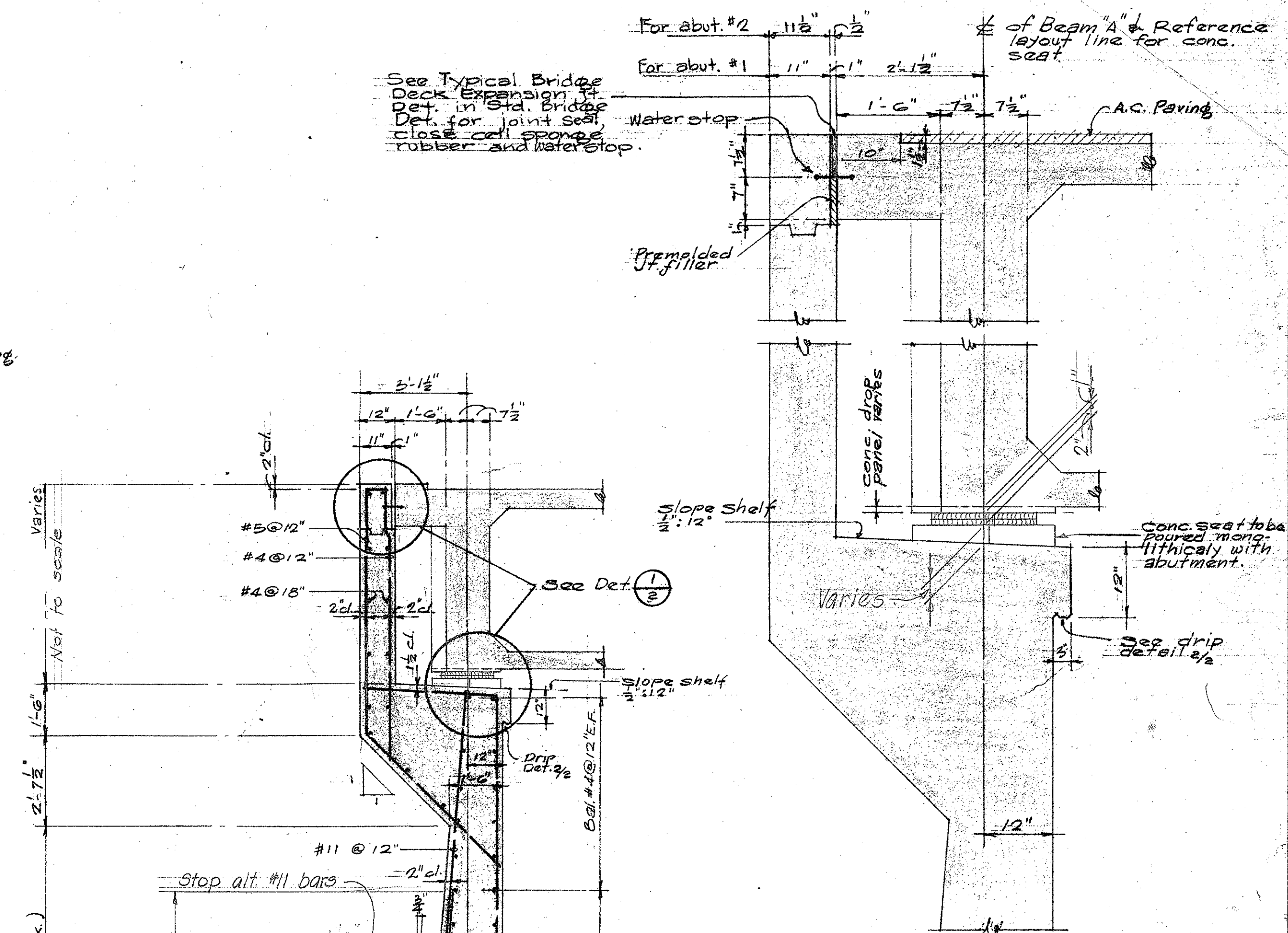
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(C) UNIT 2	1966	175	203



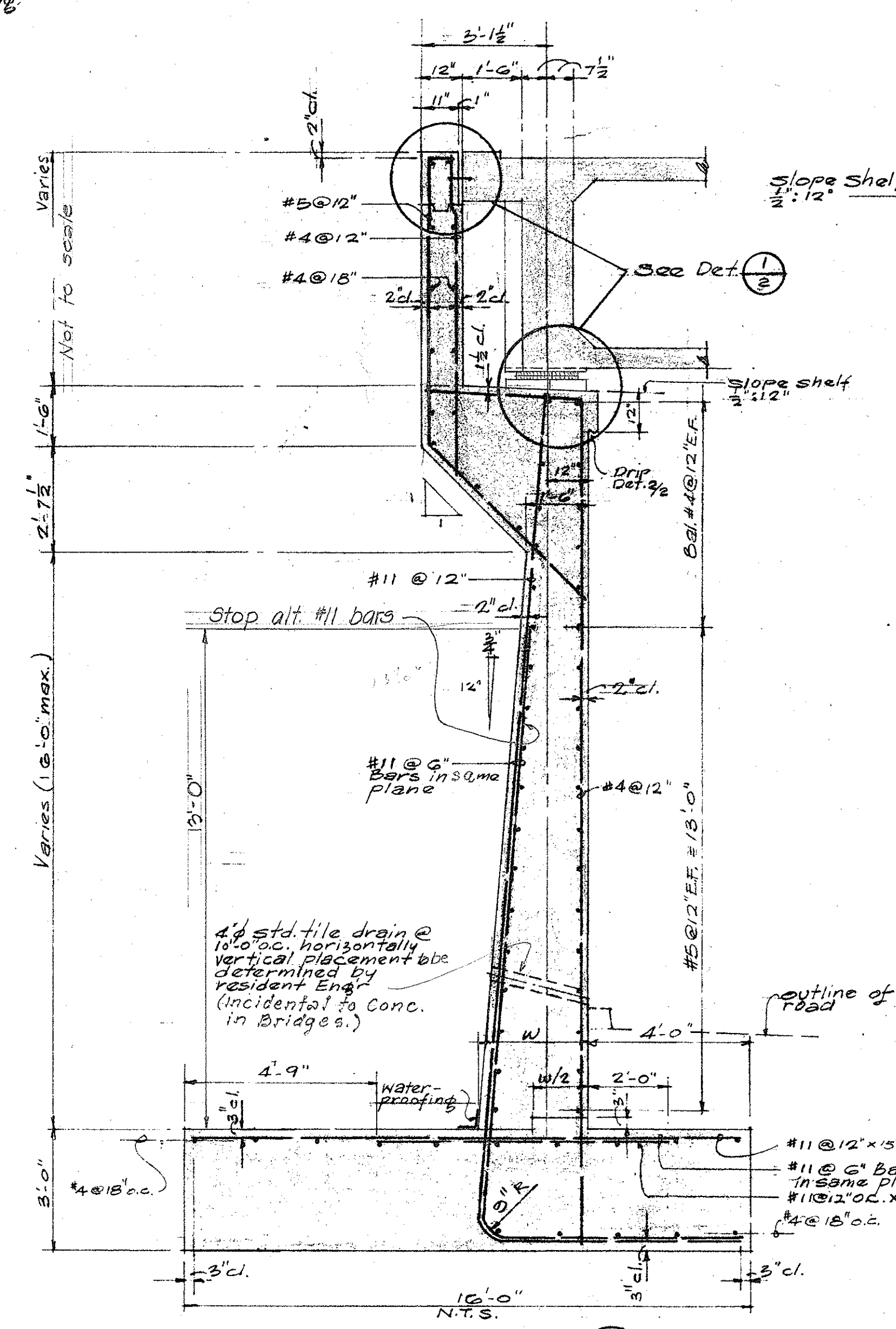
PLAN - ABUTMENT NO 1
Scale: 1" = 10'



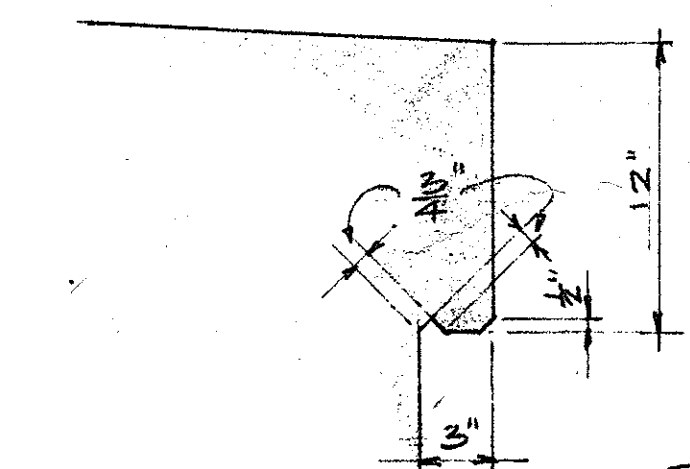
ELEVATION - ABUTMENT No 1
scale: $\frac{1}{4}$ " = 1'-0"



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



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



DRIP DETAIL 
Scale: $1/2" = 1'-0"$

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

WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

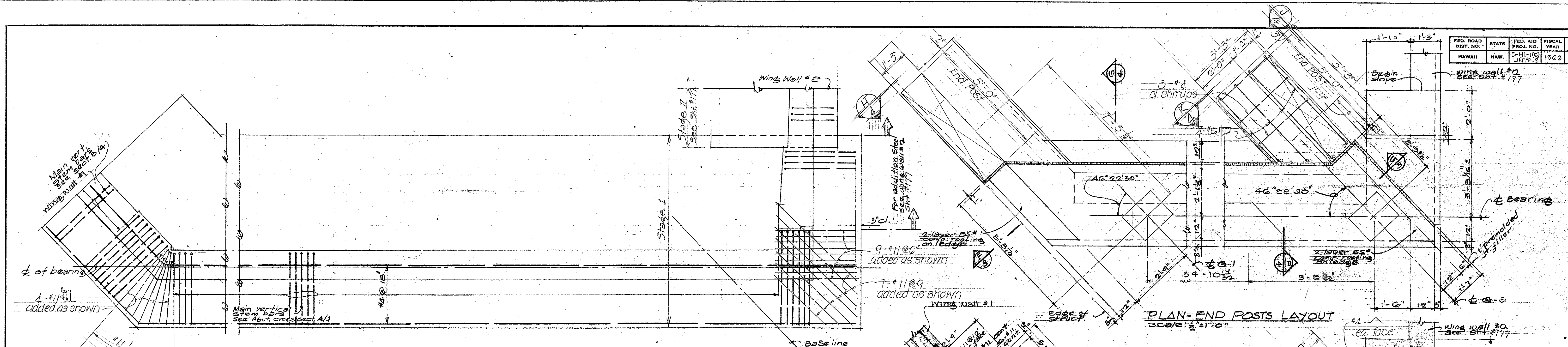
WAILALE GRADE SEPARATION
(STRUCTURE #10)
ABUTMENT N°1

INTERSTATE HIGHWAY (LUNALILO AVE)
E.A.T. PROJ. N° 1-HI-11(G) UNIT 2

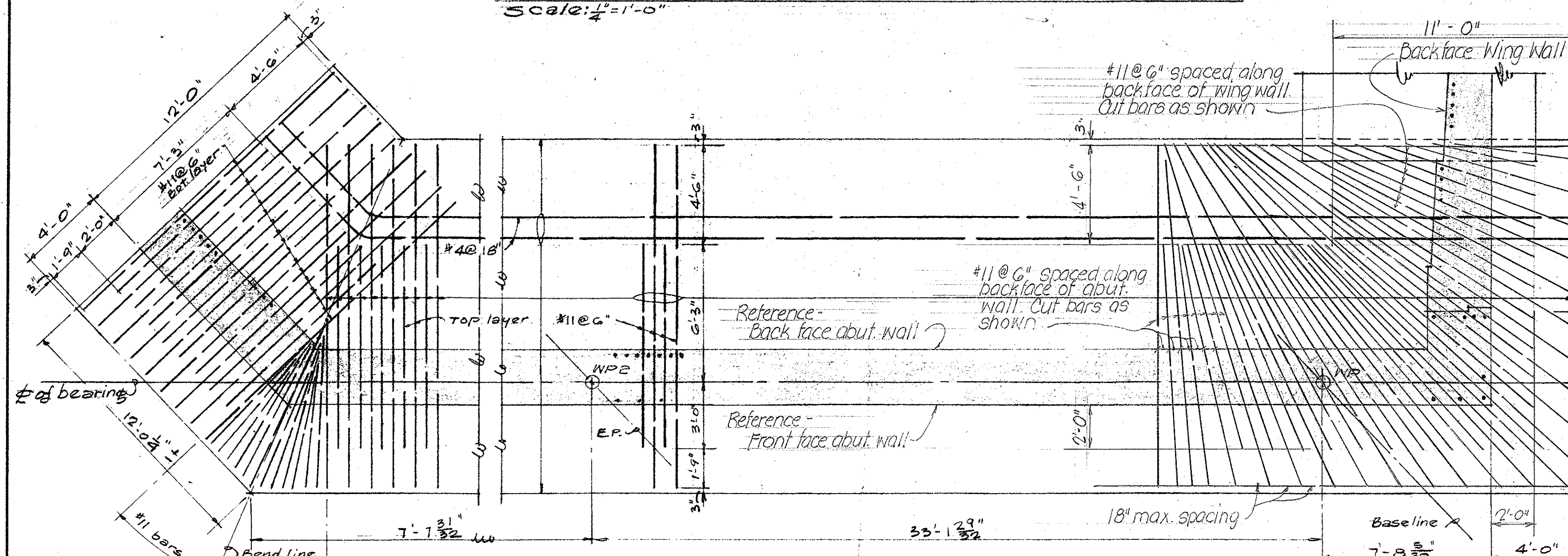
SCALE: AS SHOWN

DATE: JANUARY, 1965

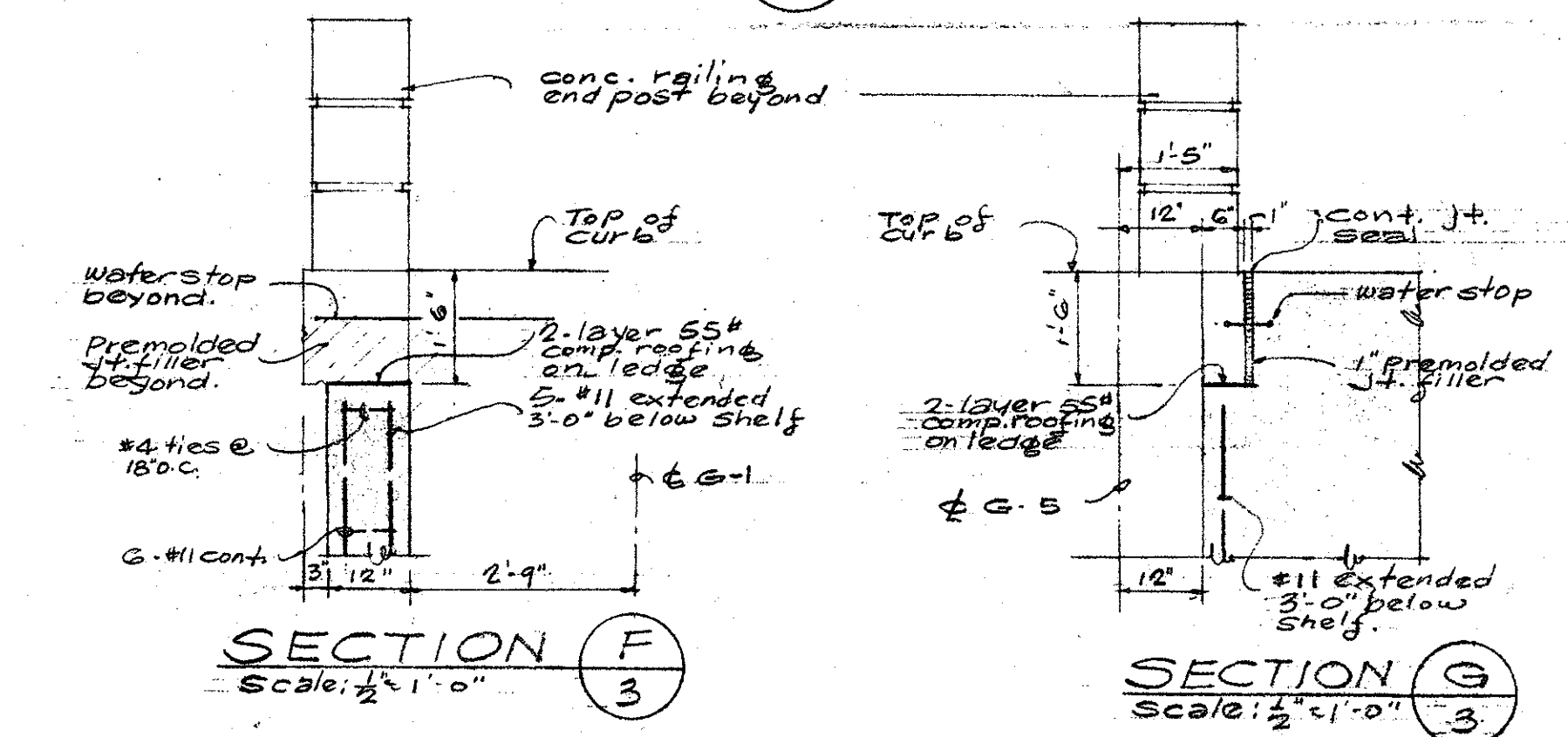
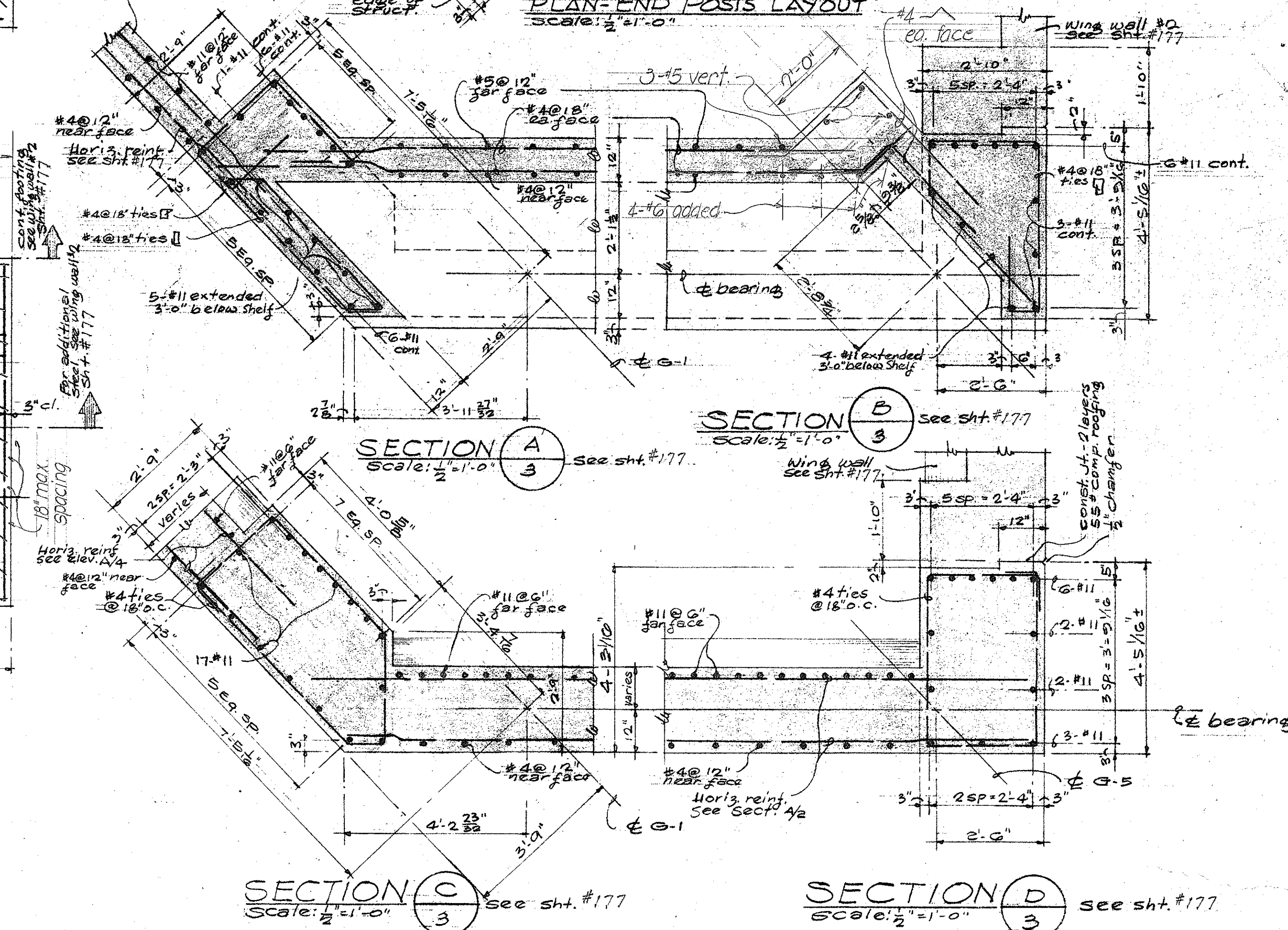
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-41-116	1966	176	203



BOTTOM STEEL OF FOOTING - ABUT. N^o 1
Scale: 1/2" = 1'-0"



TOP STEEL OF FOOTING - ABUT. N^o 1
Scale: 1/2" = 1'-0"



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

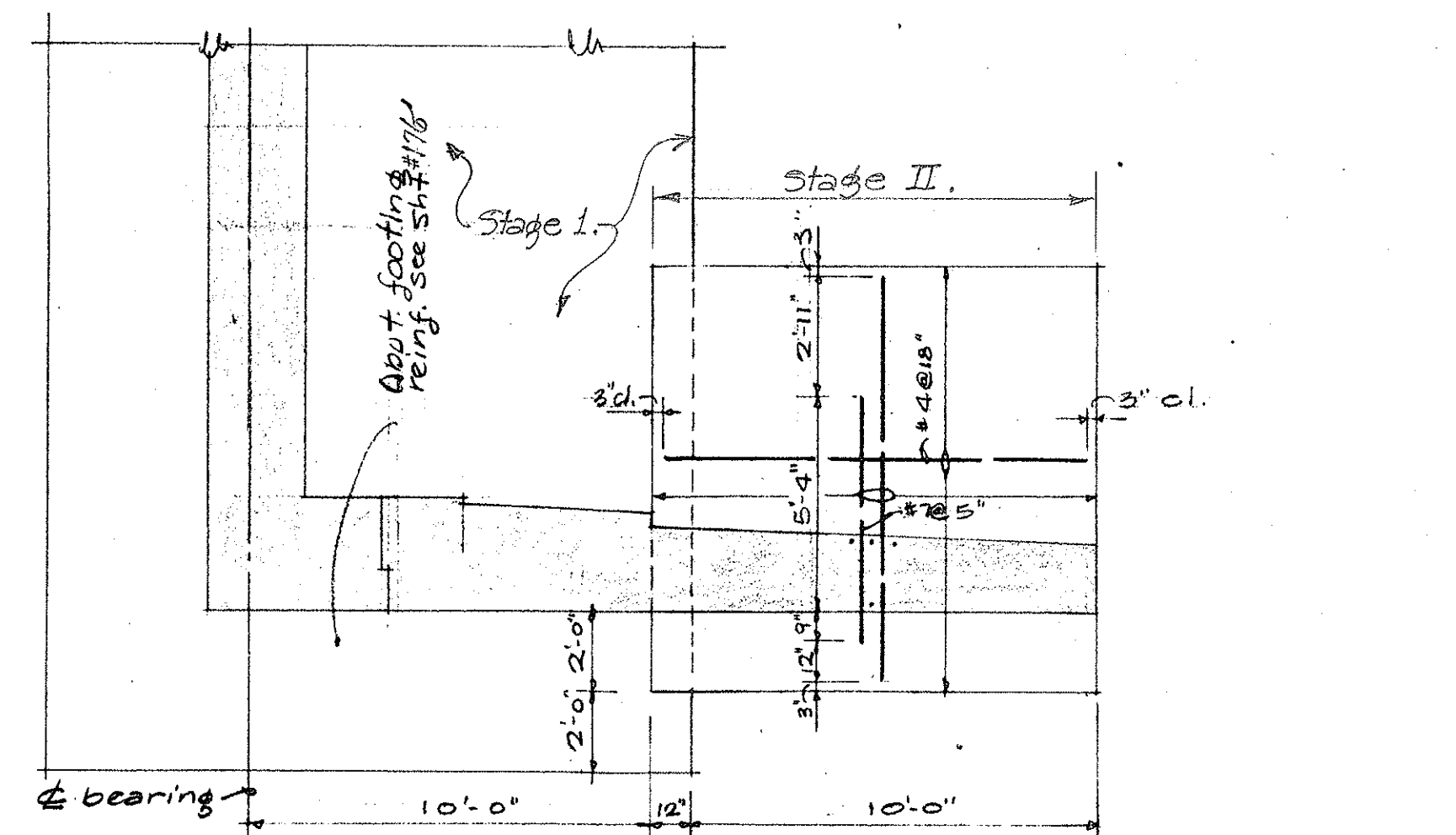
WAILAE GRADE SEPARATION
(STRUCTURE #10)
ABUTMENT N^o 1 & DETAILS
INTERSTATE HIGHWAY (LUNALILO FWY)
F.A.I. PROJ. N^o 1-HI-116 UNIT 2

SCALE: AS SHOWN DATE: JANUARY, 1965

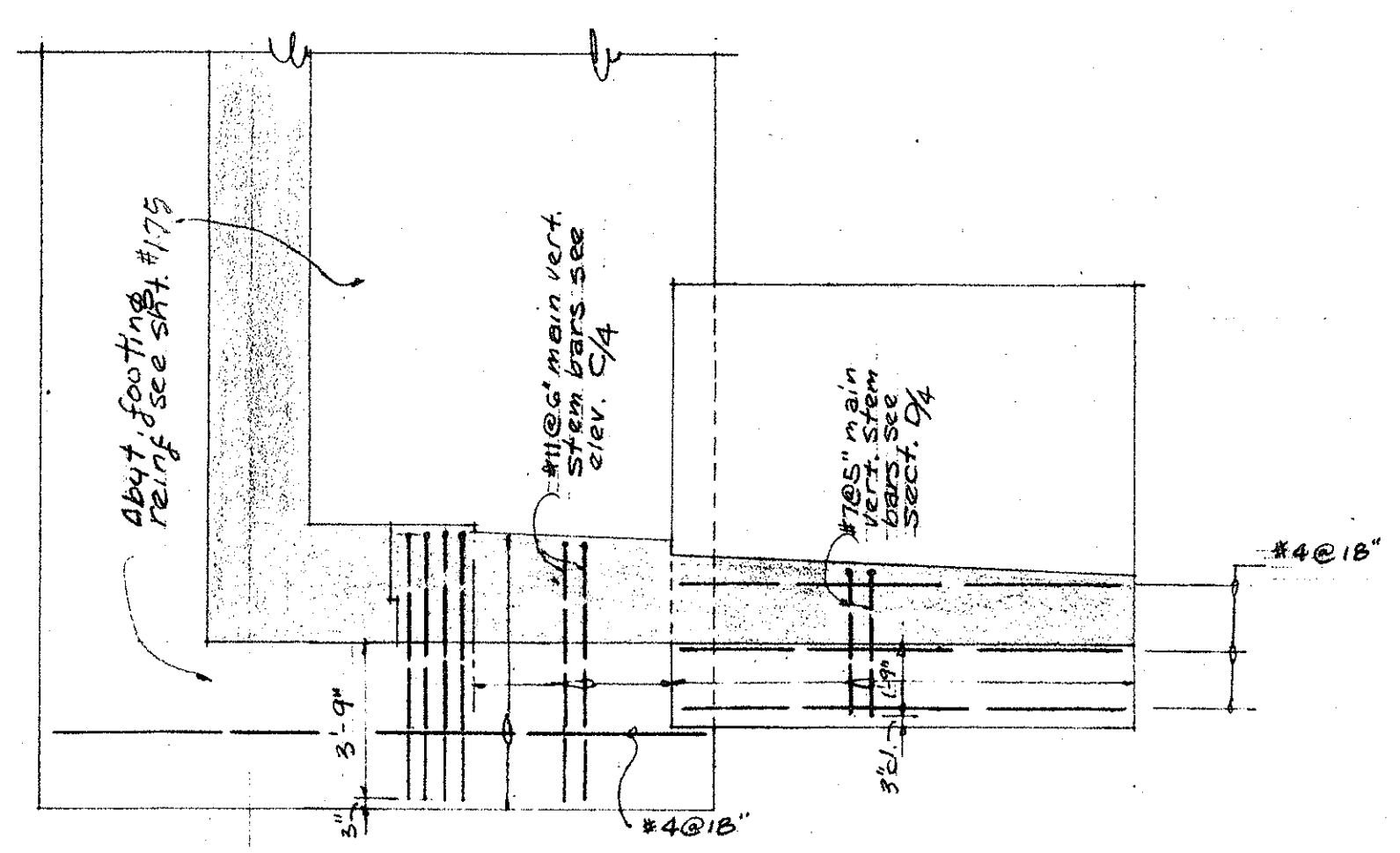
SHEET No. 3 OF 14 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	
NO.	

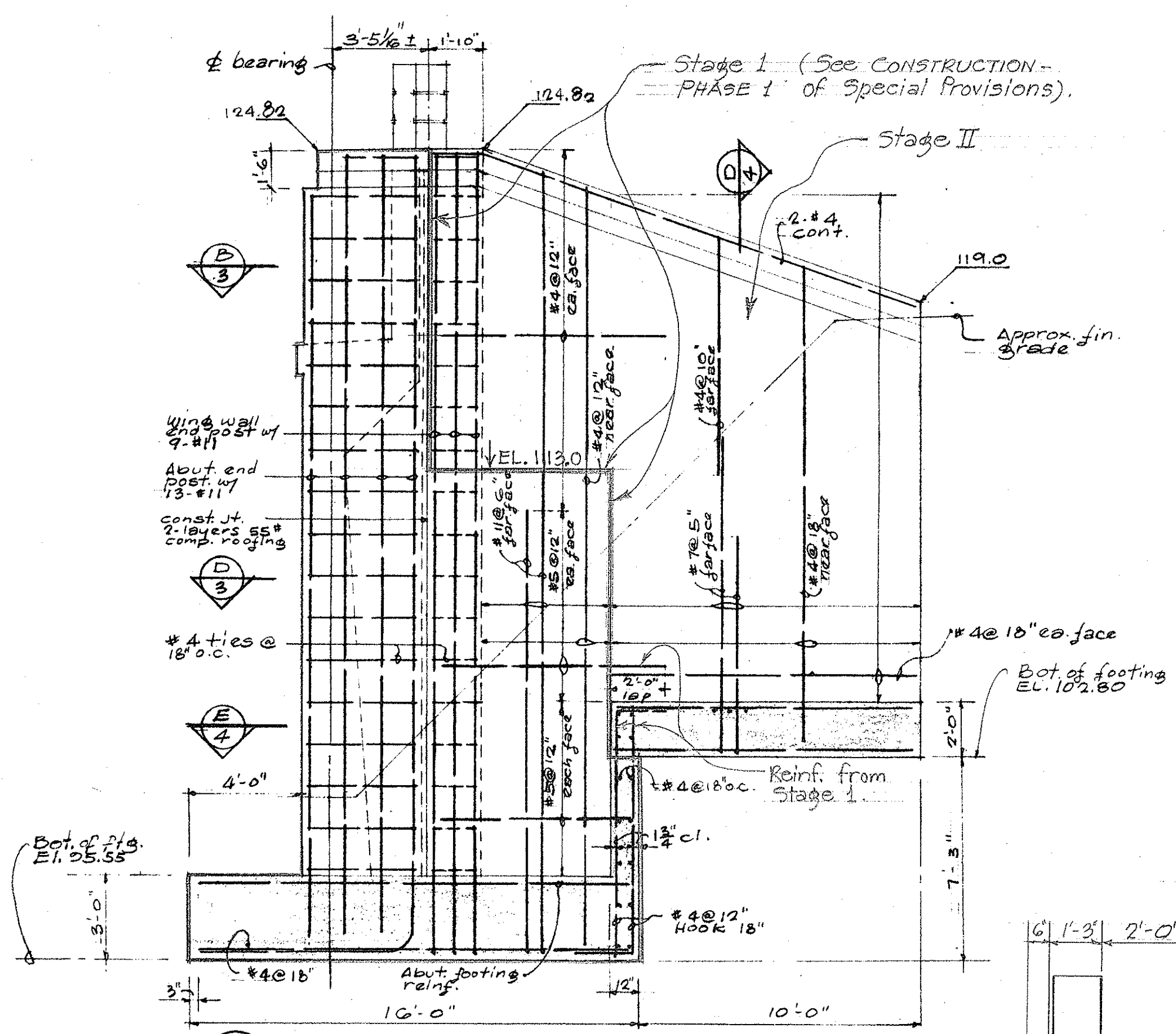
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-116	1966	177	203



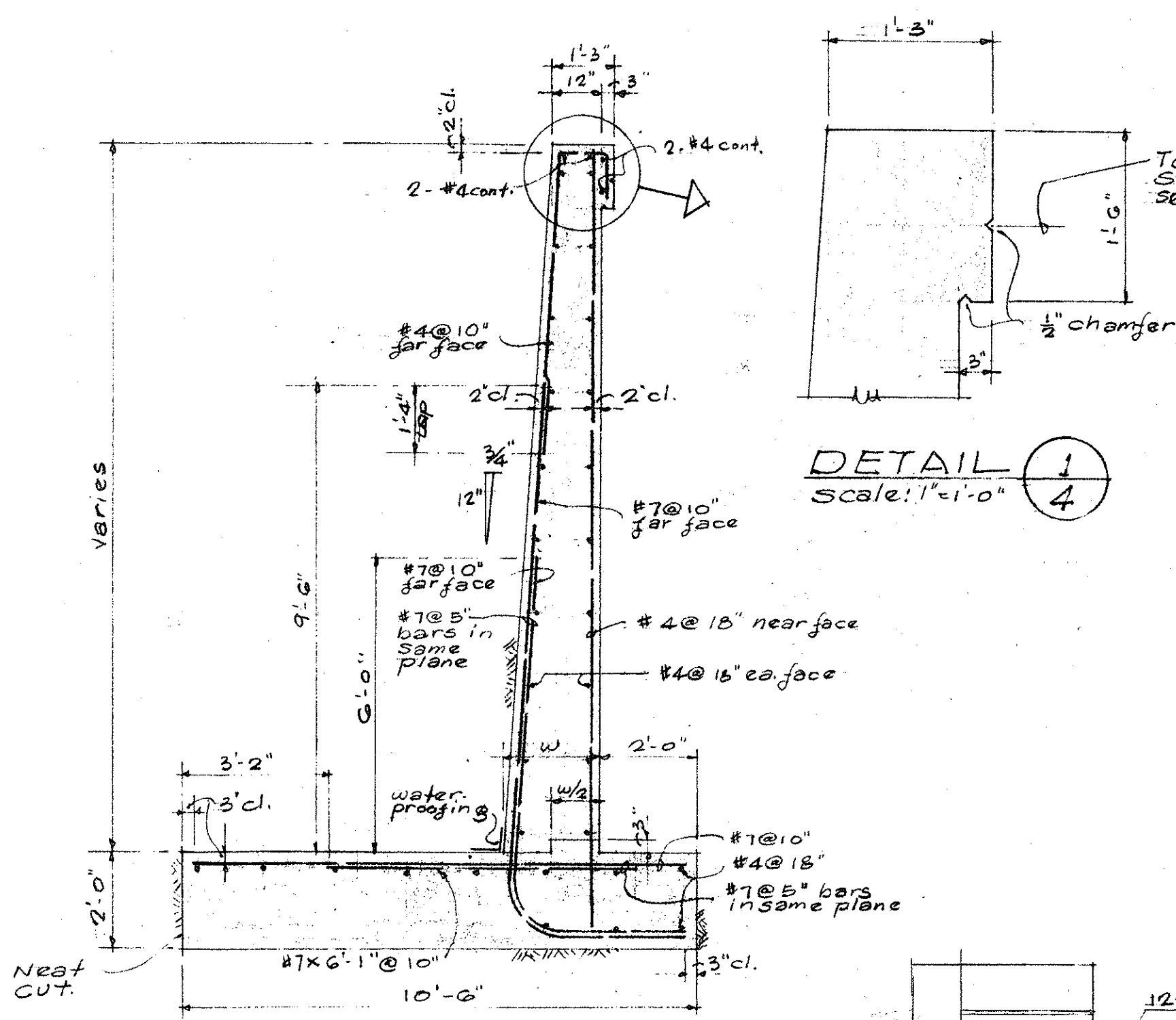
TOP STEEL OF FOOTING-WING WALL #2
Scale: 1/4"=1'-0"



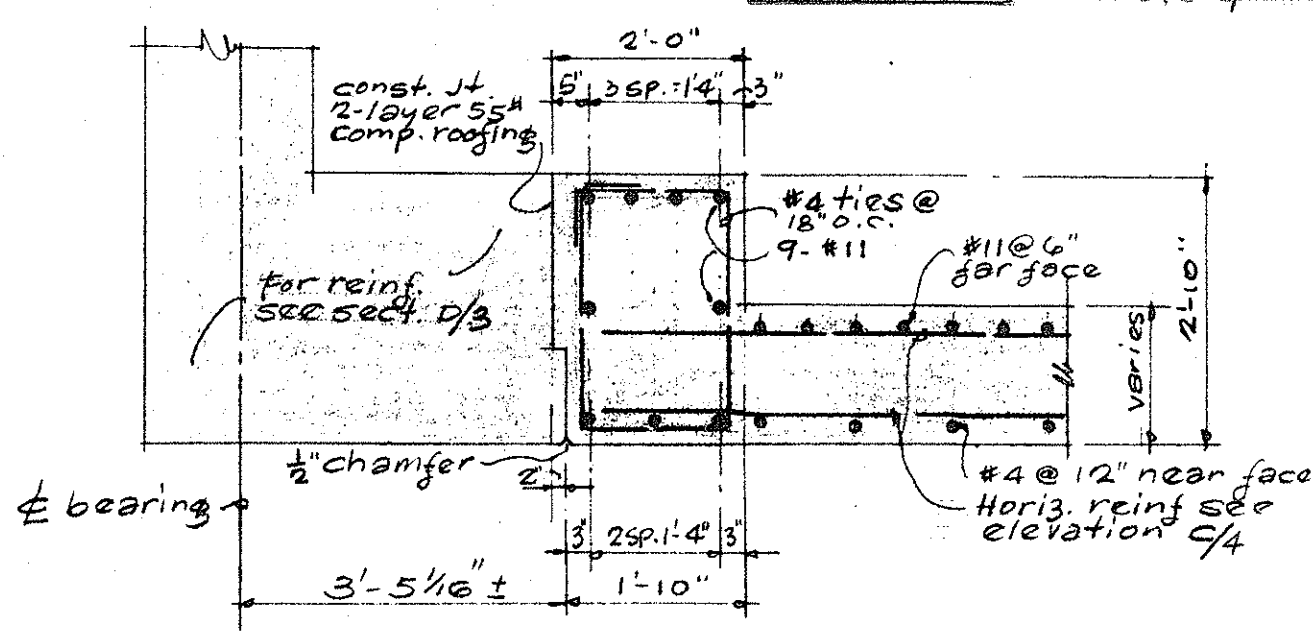
BOTTOM STEEL OF FOOTING-WING WALL #2
Scale: 1/4"=1'-0"



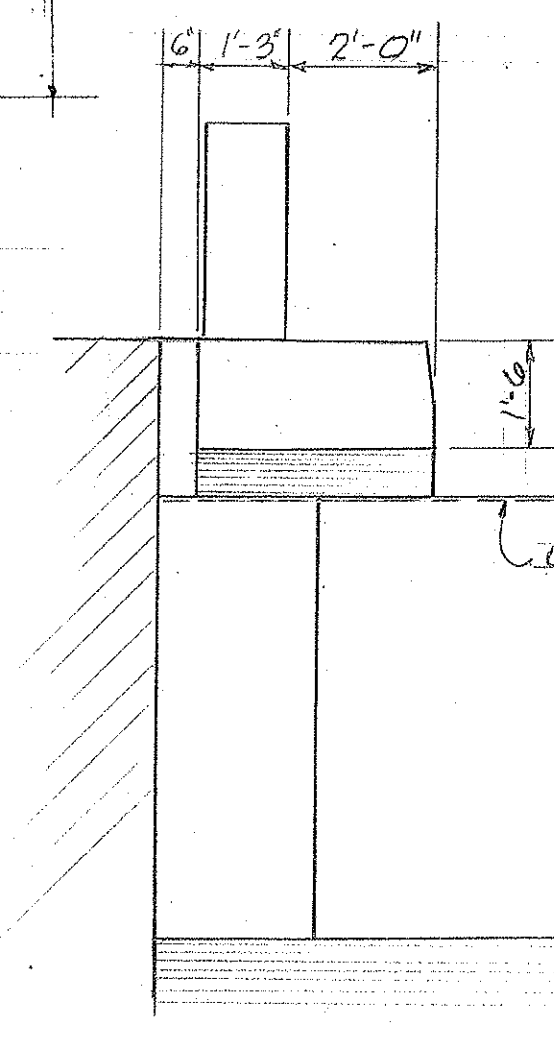
ELEVATION - WING WALL #2 & ABUT. END POST
Scale: 1/4"=1'-0"



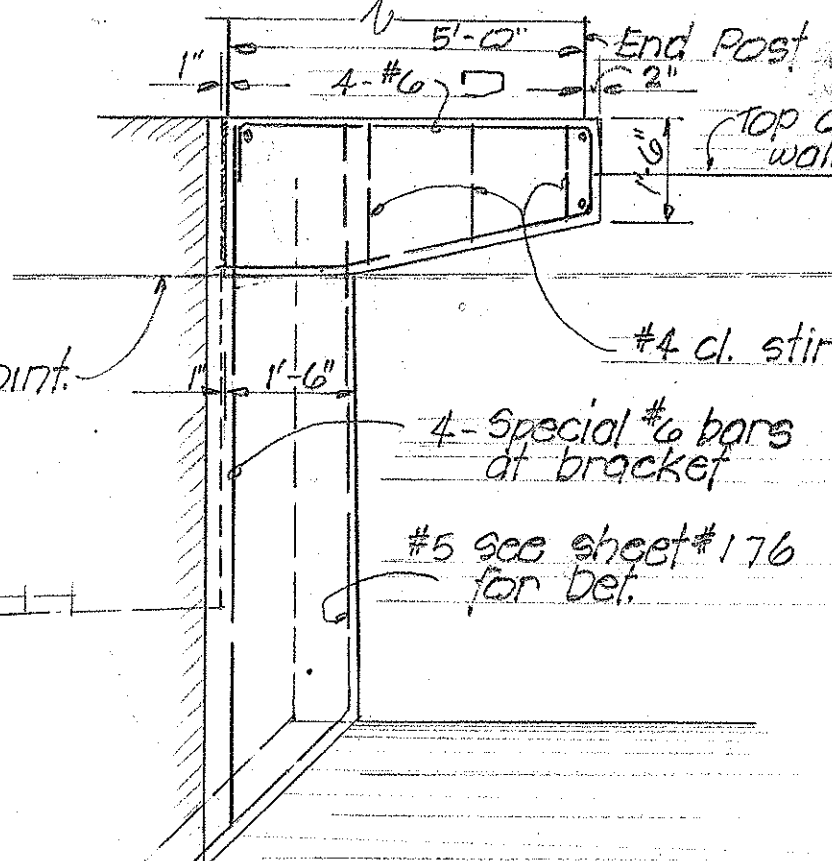
SECTION D
Scale: 3/8"=1'-0"



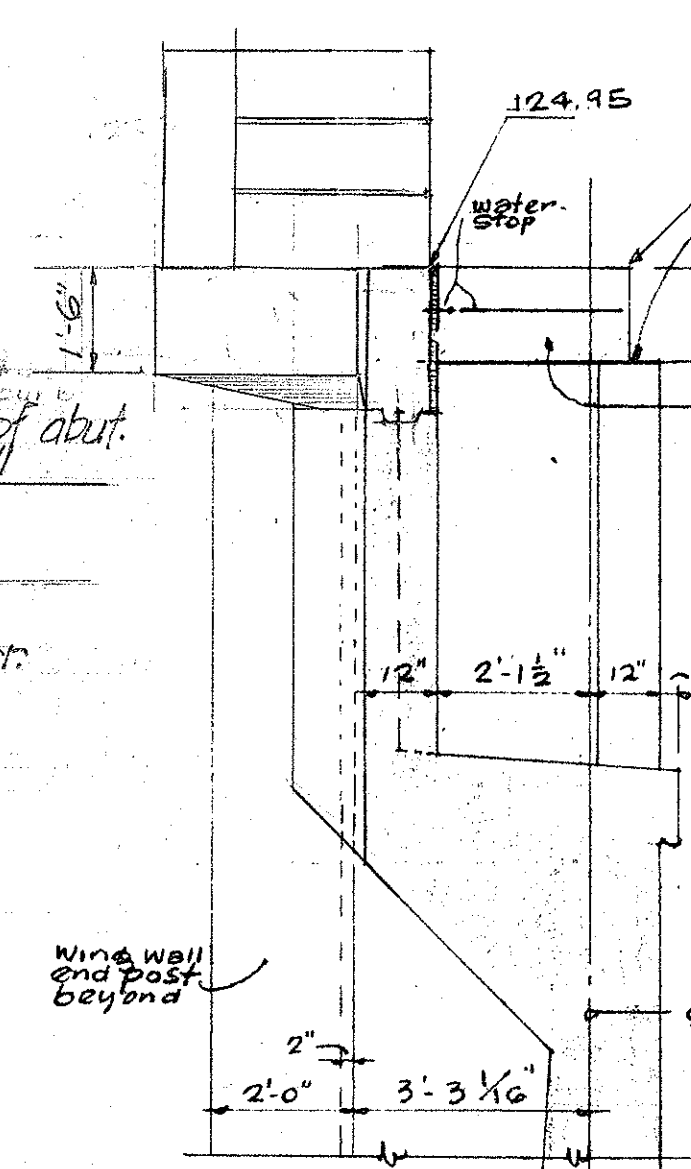
SECTION E
Scale: 1/2"=1'-0"



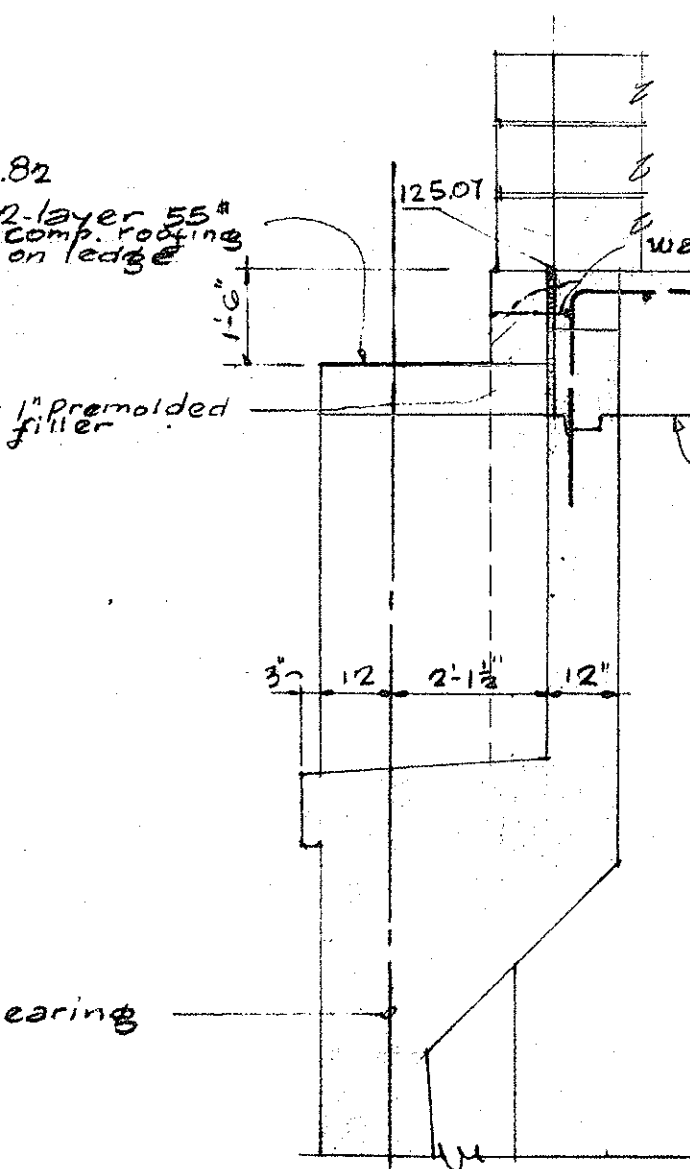
SECTION K
Scale: 1/2"=1'-0"



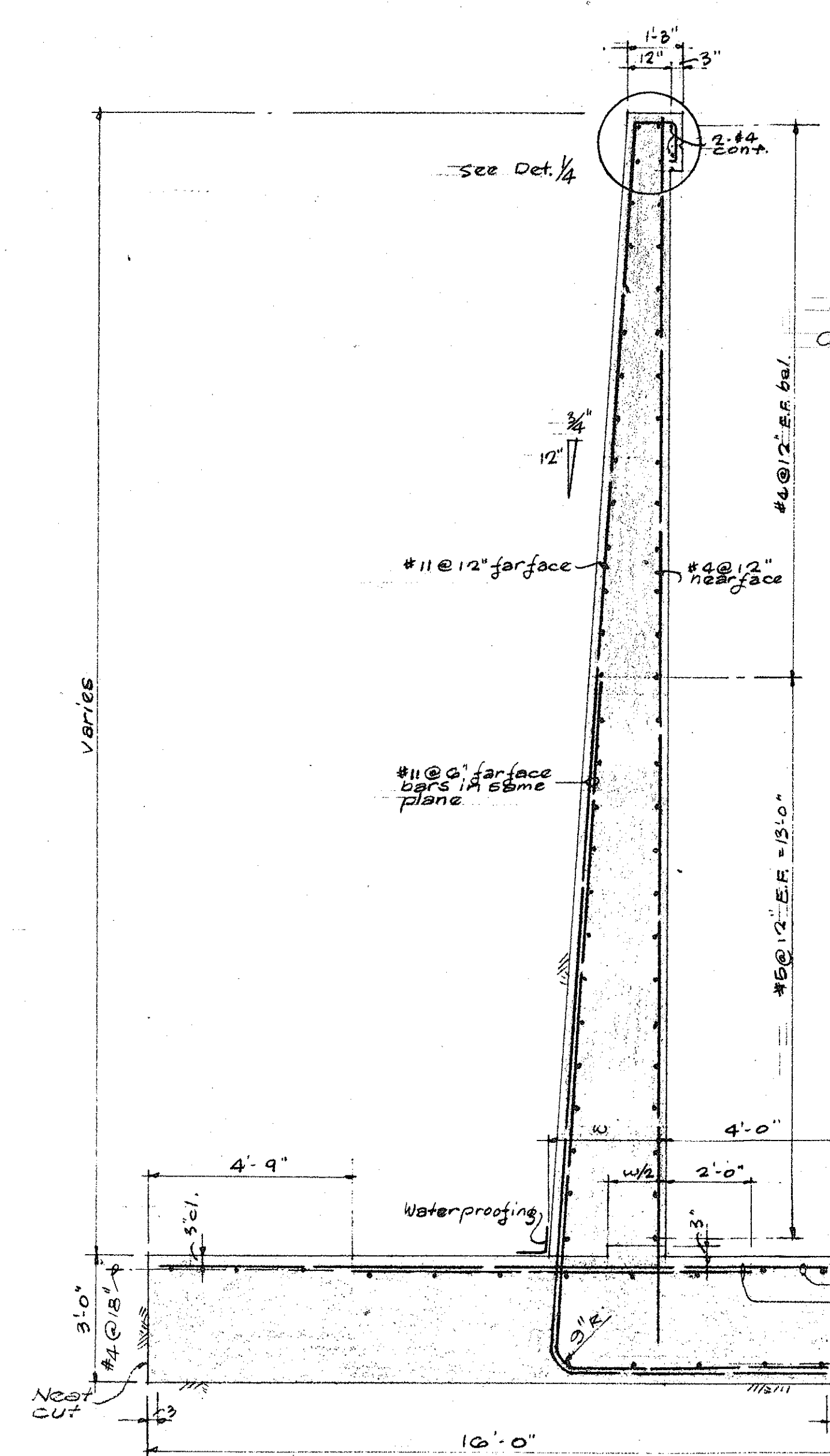
SECTION J
Scale: 1/2"=1'-0"



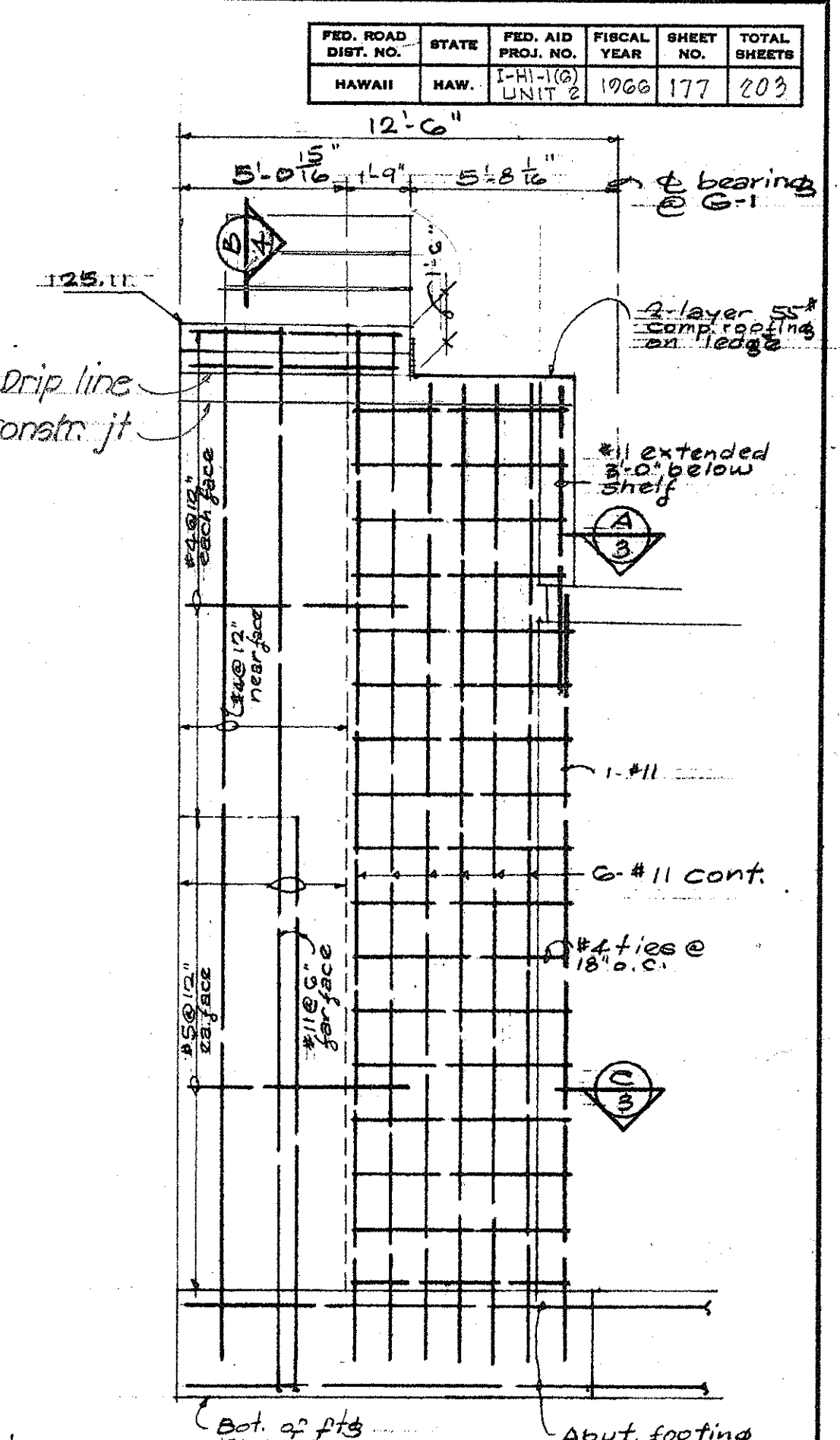
SECTION F
Scale: 3/8"=1'-0"



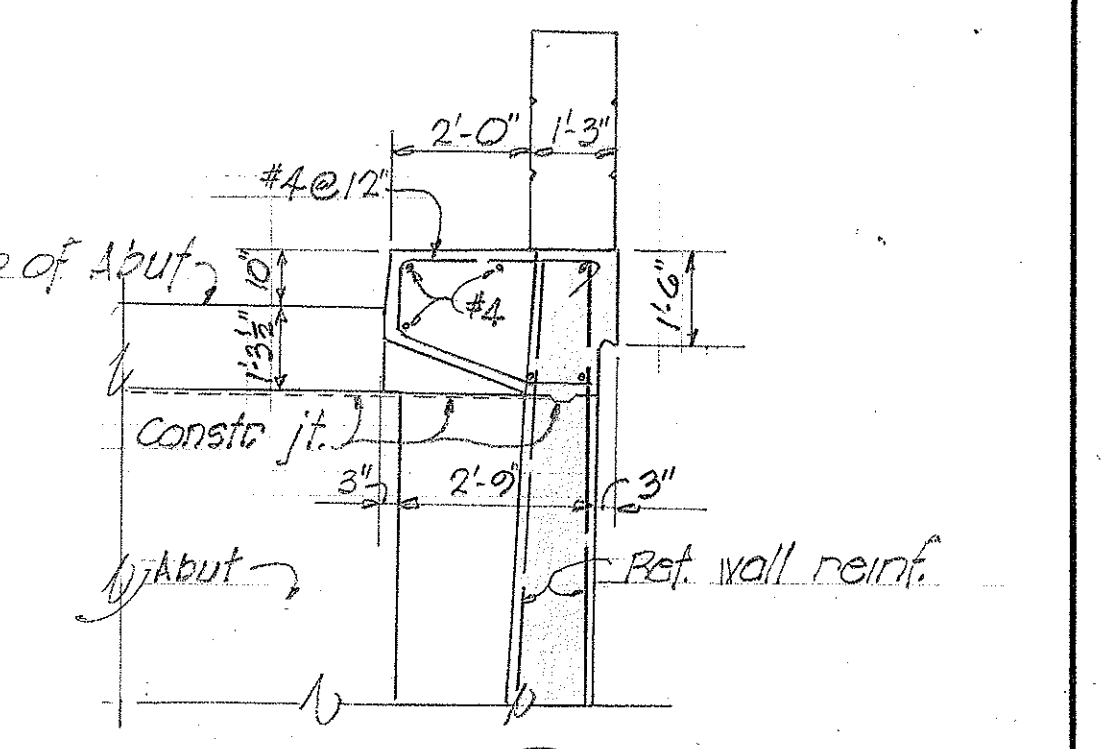
SECTION G
Scale: 3/8"=1'-0"



SECTION B
Scale: 3/8"=1'-0"



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



SECTION H
Scale: 3/8"=1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WAILAE GRADE SEPARATION
(STRUCTURE #10)

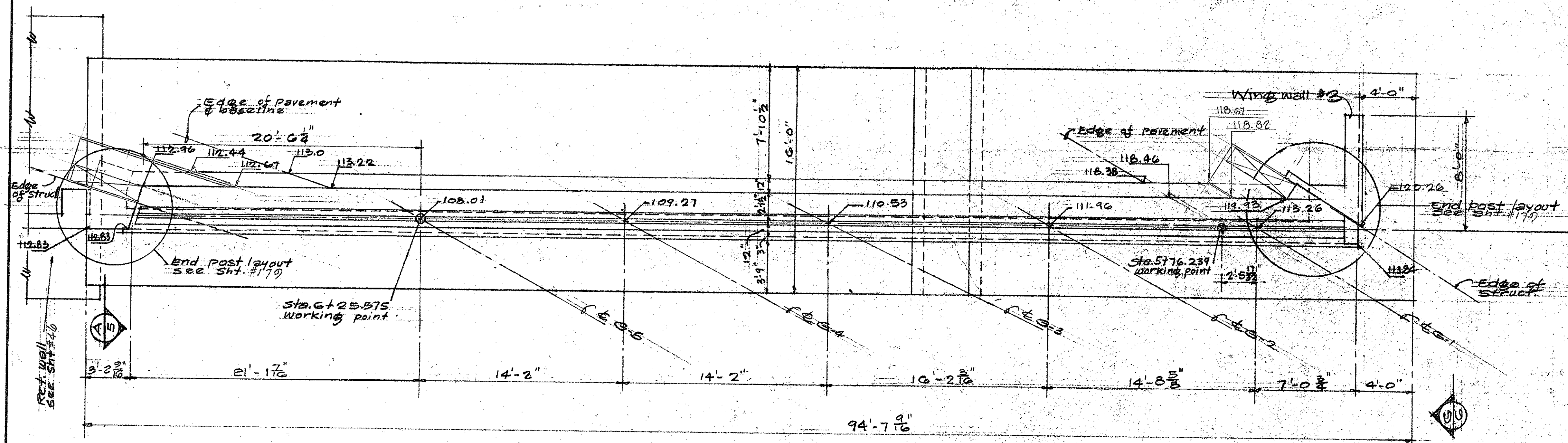
ABUTMENT No. 1 END POST
& WING WALL DETAILS

INTERSTATE HIGHWAY (LUNALILO HWY)
F.A.I. PROJ. No. 1-H-116 UNIT 2

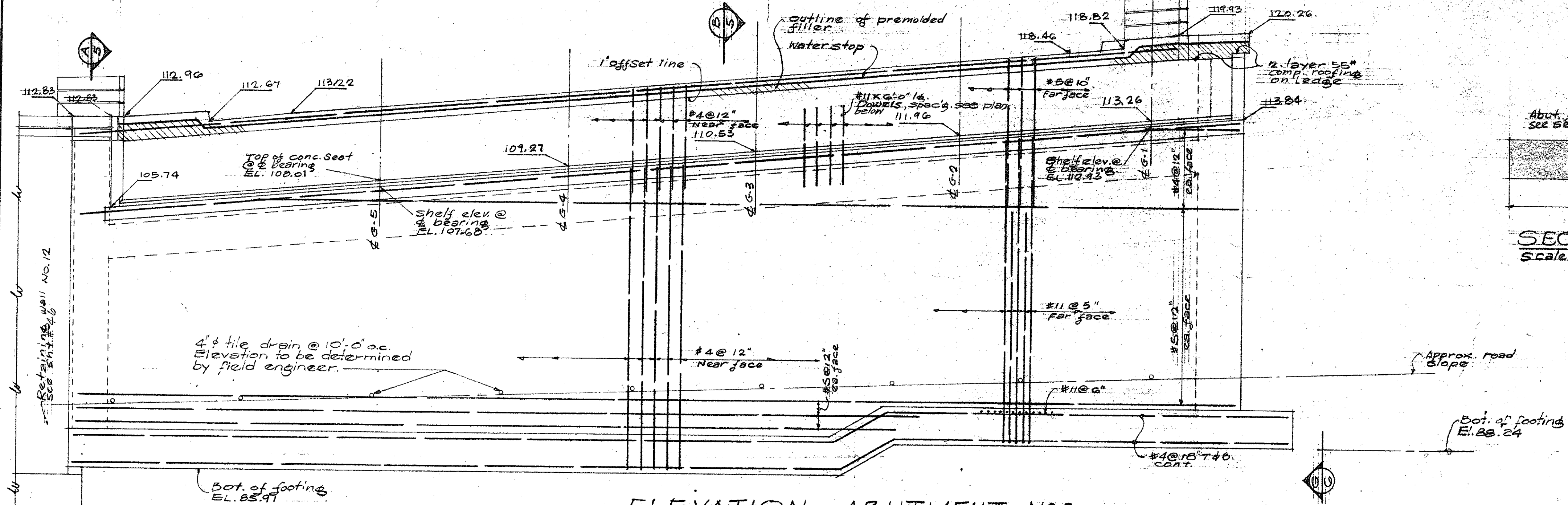
SCALE: AS SHOWN. DATE: JANUARY 1965

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ARCHITECTS & ENGINEERS

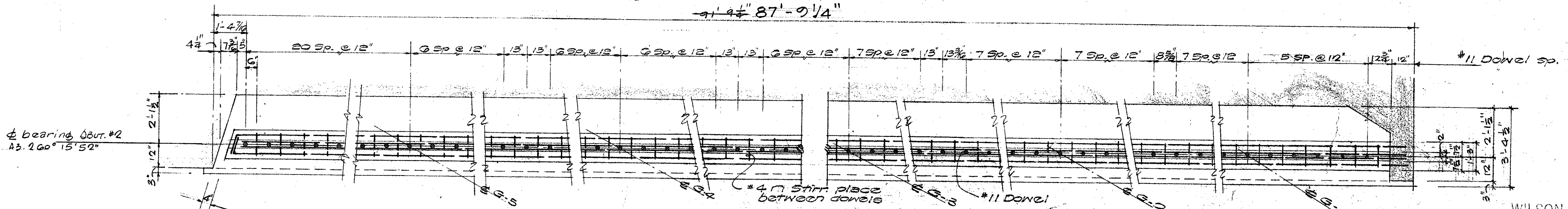
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-41-1(6)	1966	178	203



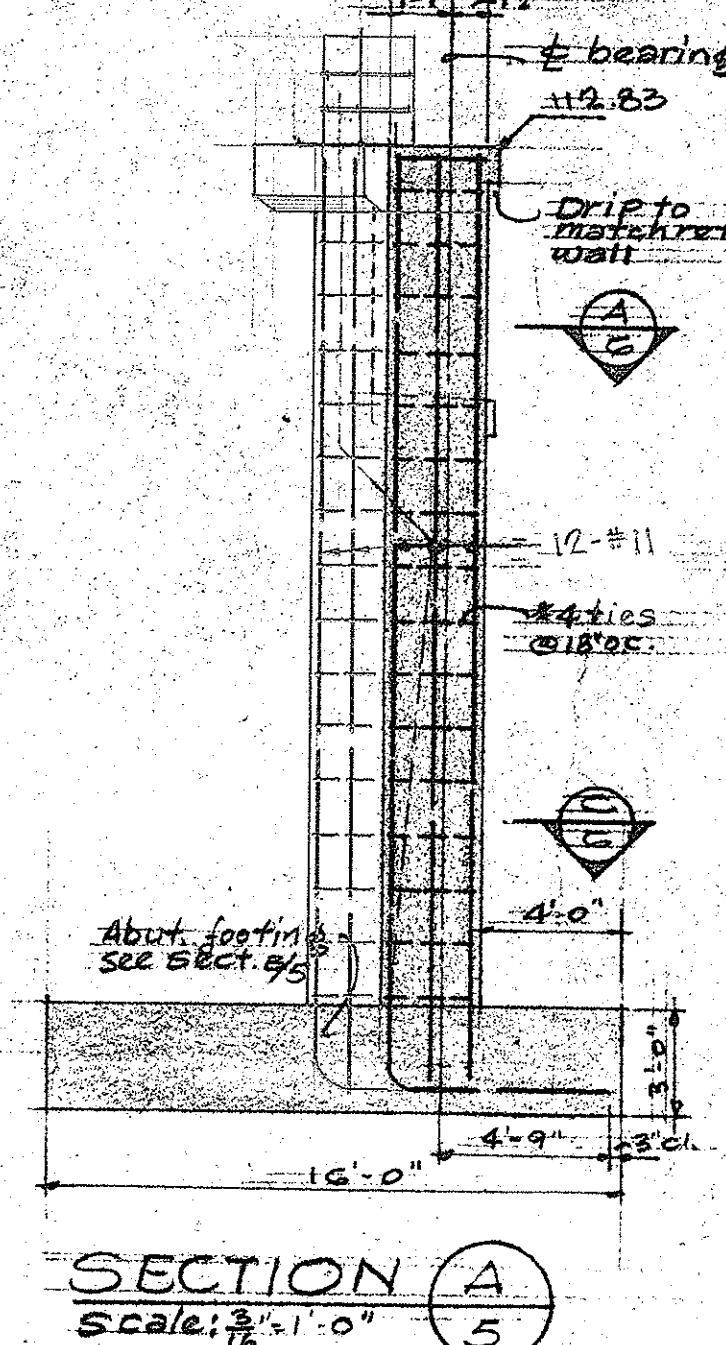
PLAN - ABUTMENT N^o 2
Scale: 3/8" = 1'-0"



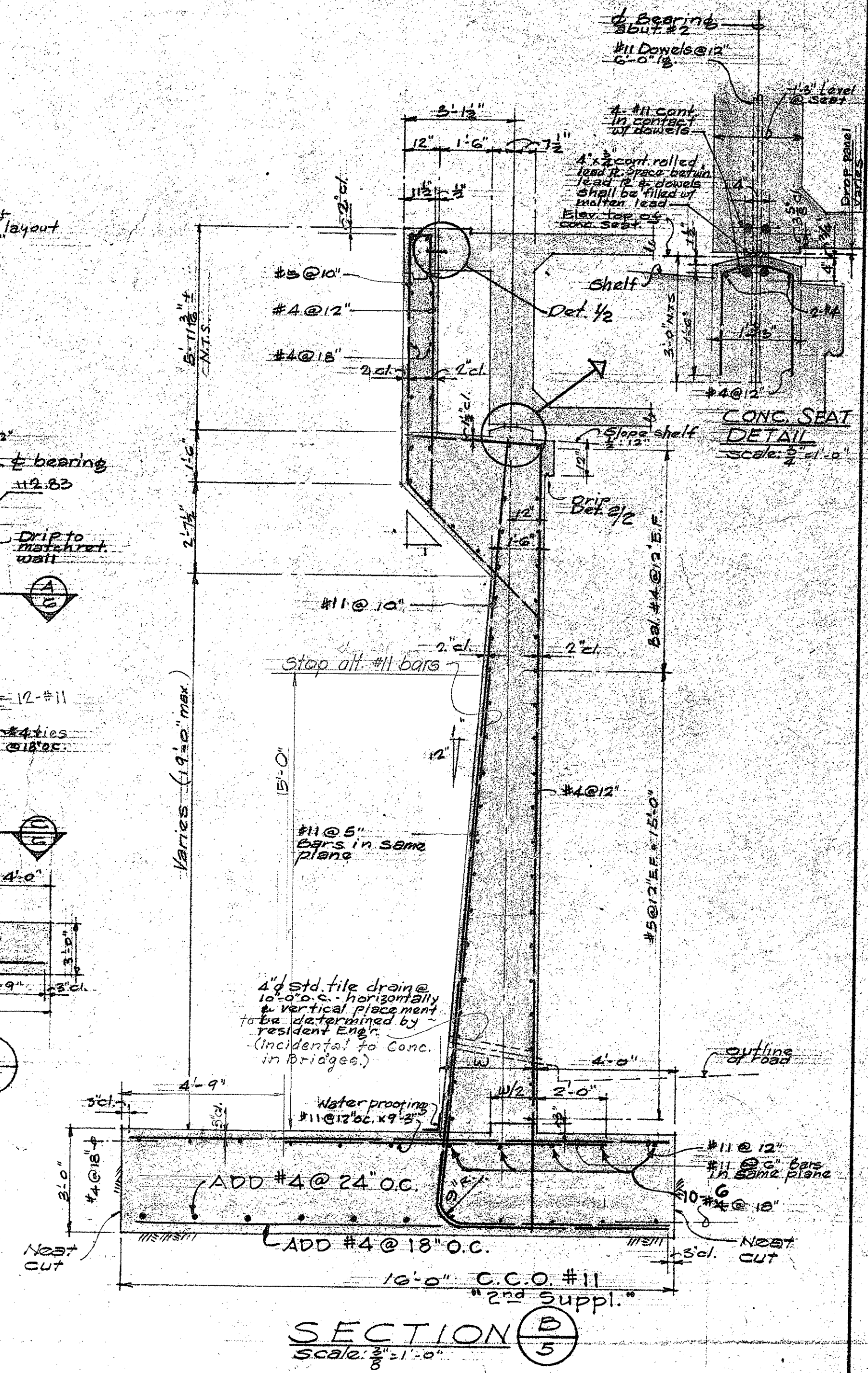
ELEVATION - ABUTMENT N^o 2
Scale: 3/8" = 1'-0"



PLAN - CONCRETE SEAT (ABUT. #2)
Scale: 3/8" = 1'-0"



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



SECTION B
Scale: 3/8" = 1'-0"

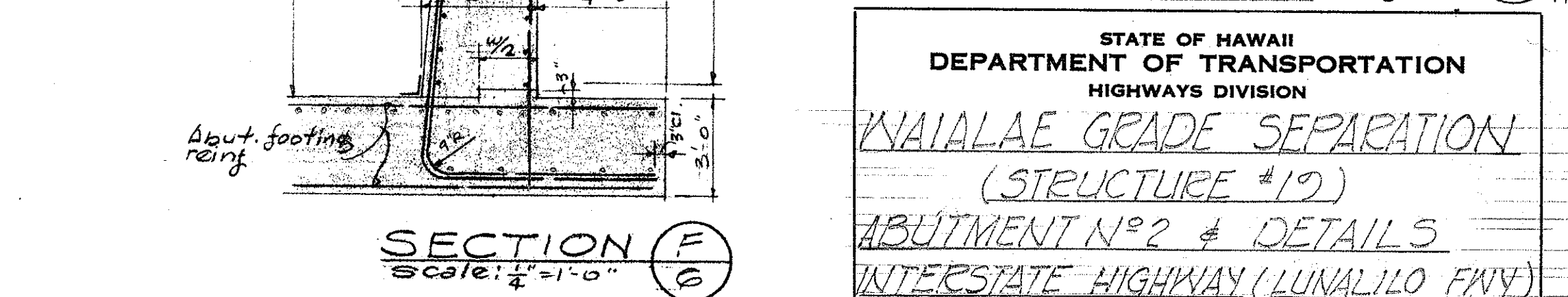
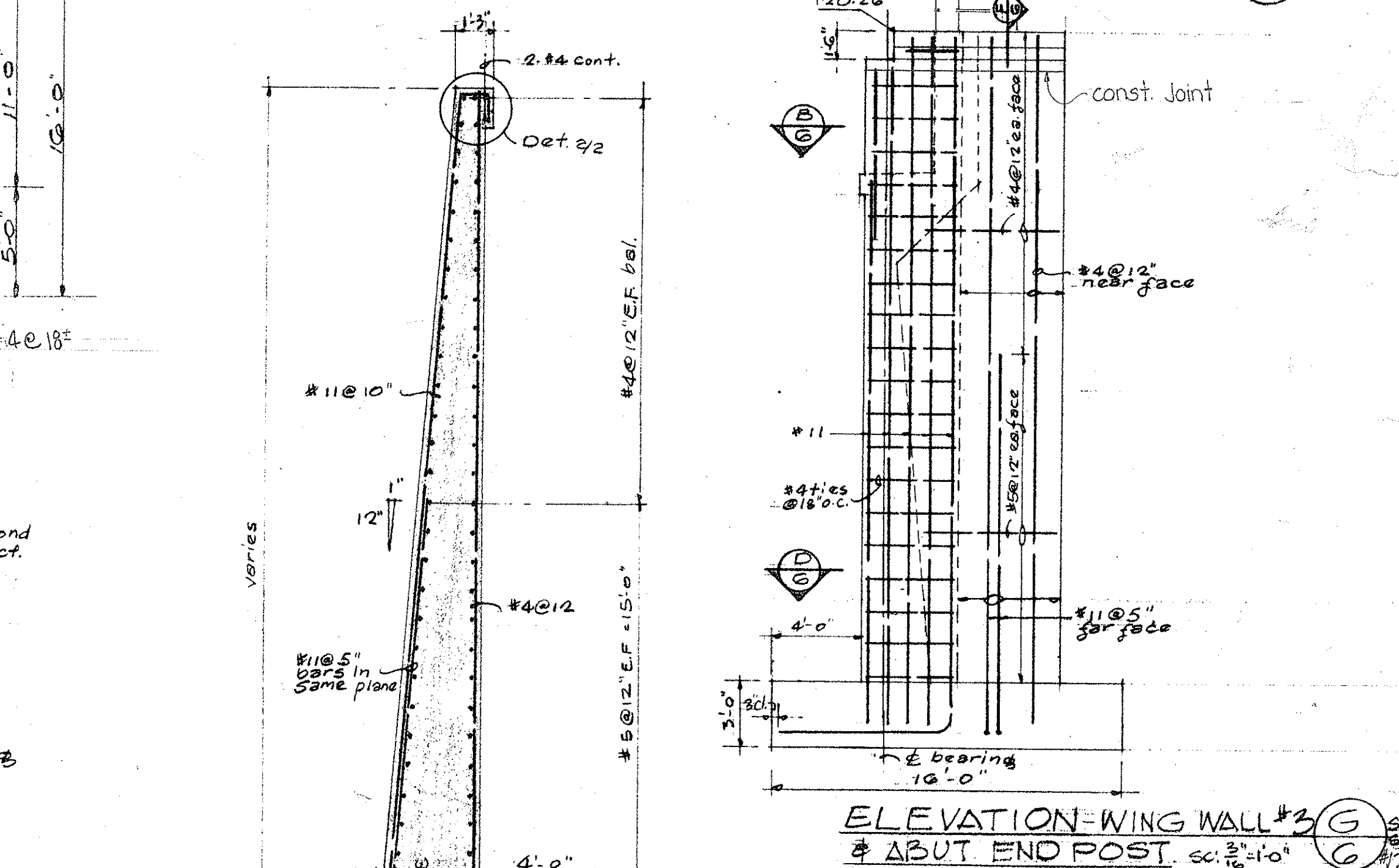
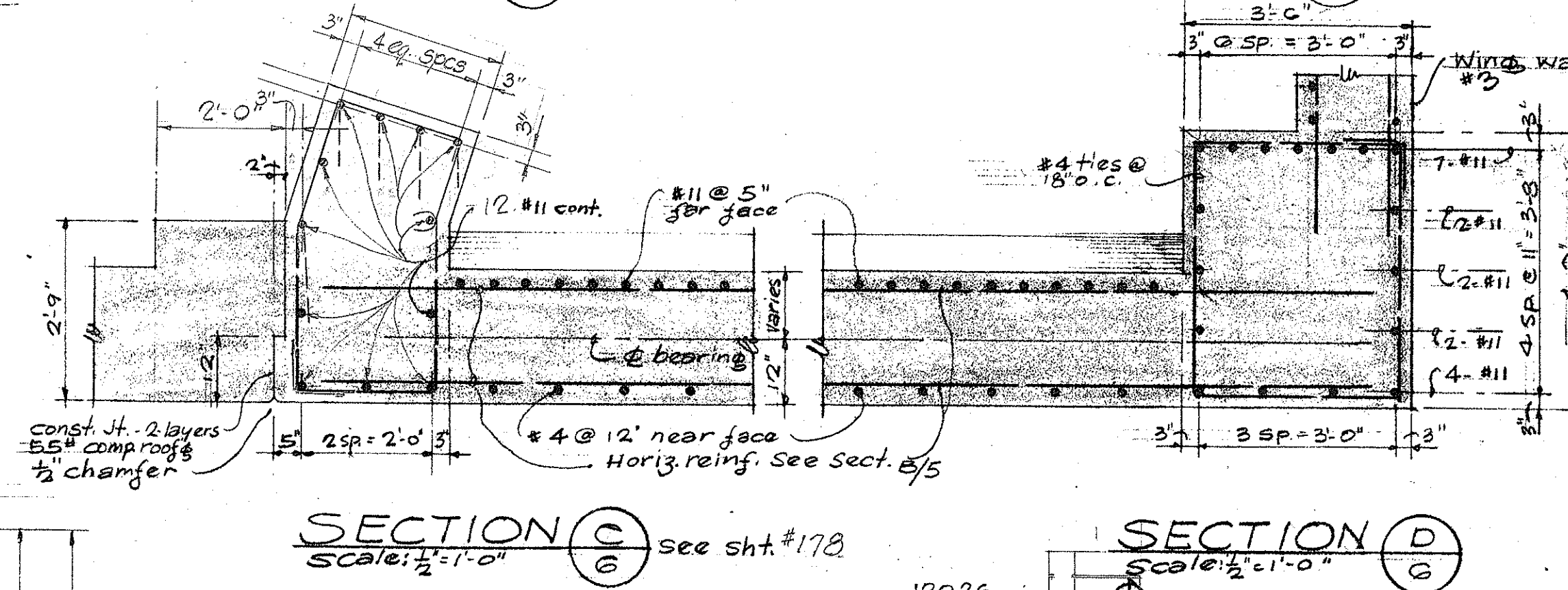
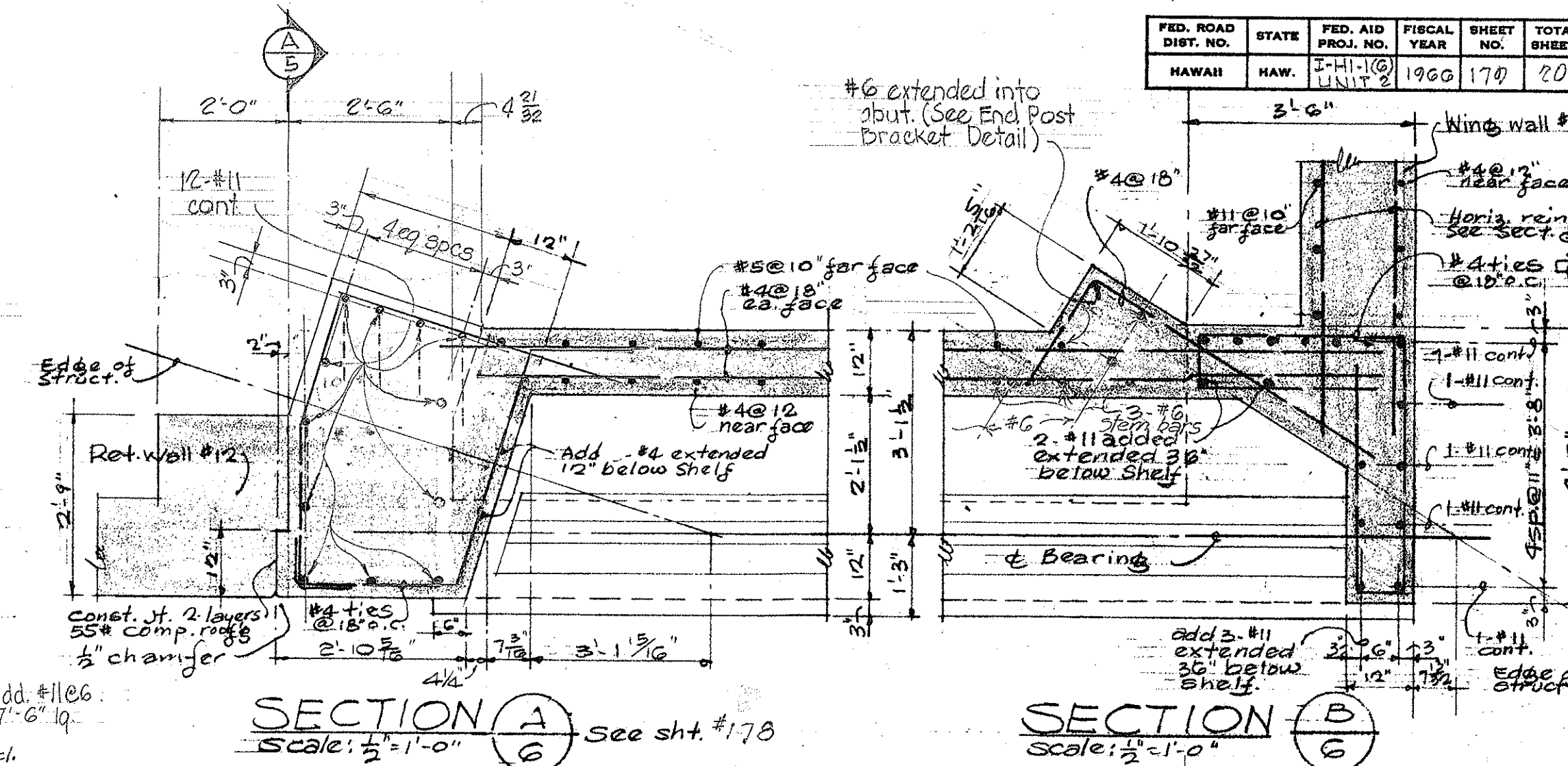
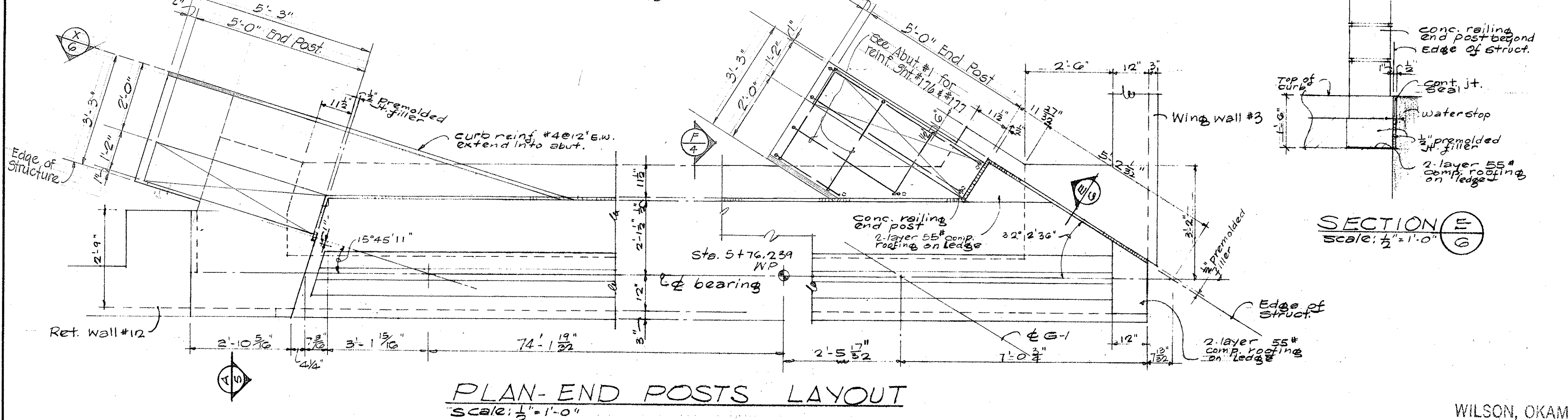
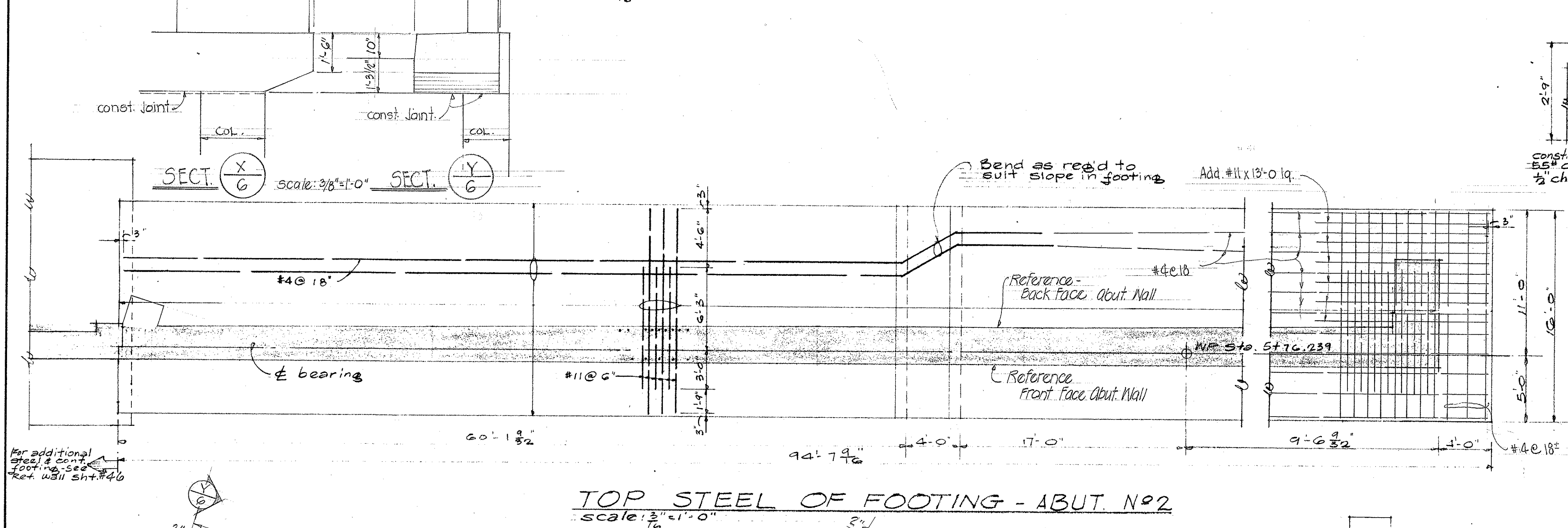
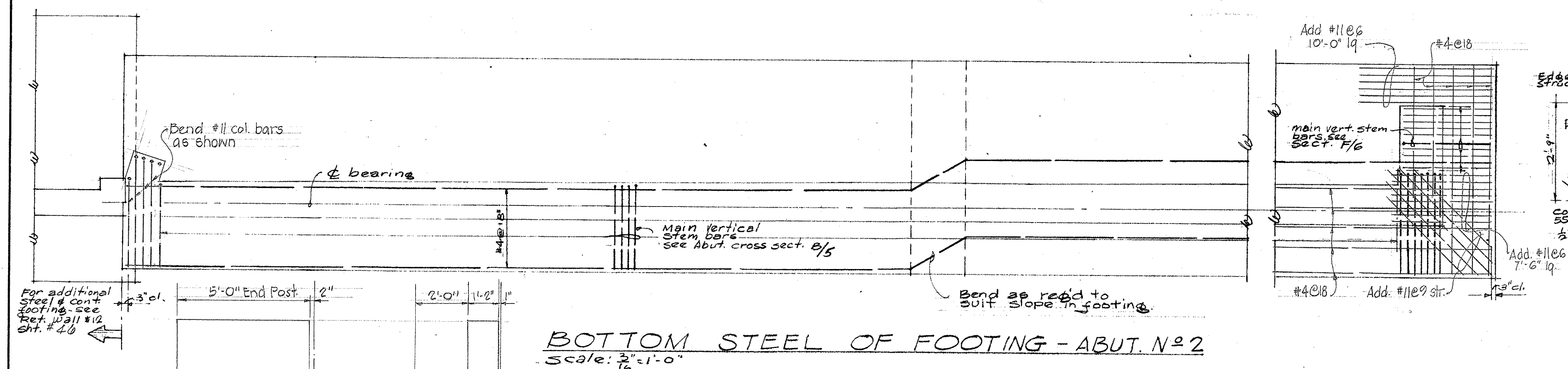
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAILAE GRADE SEPARATION
(STRUCTURE #19)
ABUTMENT N^o 2
INTERSTATE HIGHWAY (LUNALILO Fwy)
F.A.T. PROJ. NO. 1-41-1(6) UNIT 2
SCALE: AS SHOWN
DATE: JANUARY, 1965

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ARCHITECTS & ENGINEERS

SHEET No. 5 OF 14 SHEETS

178

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(6) UNIT 2	1960	179	20



WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

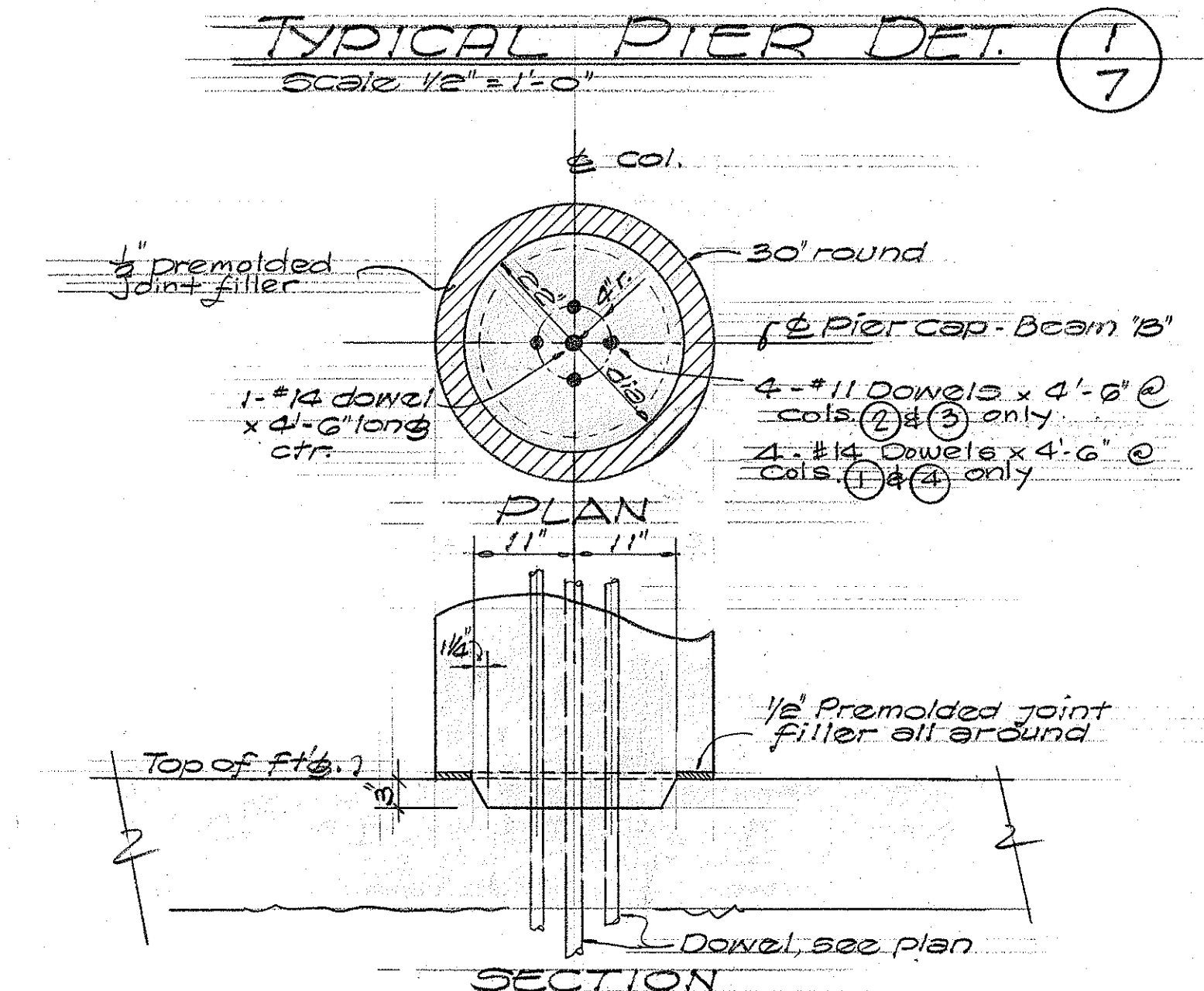
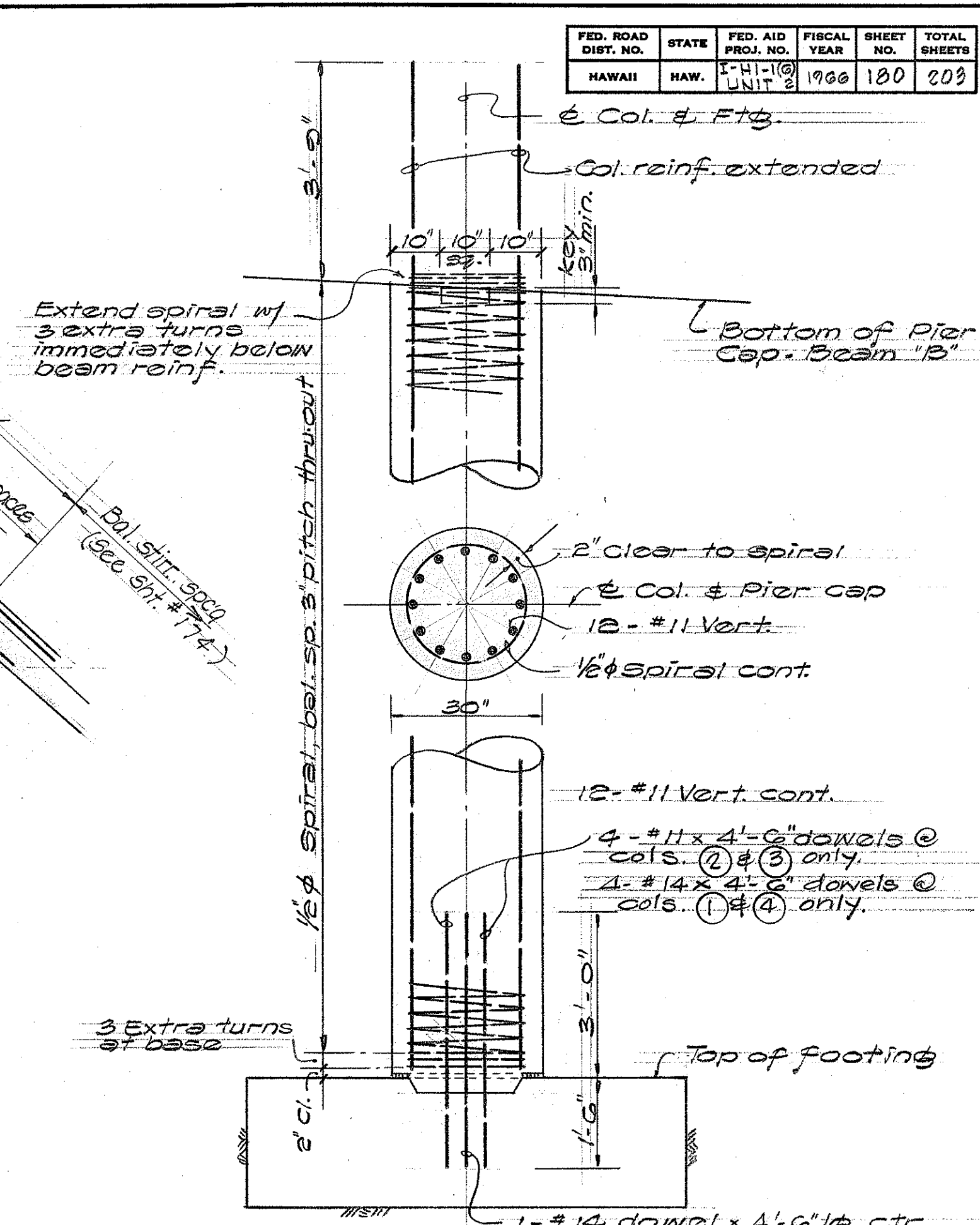
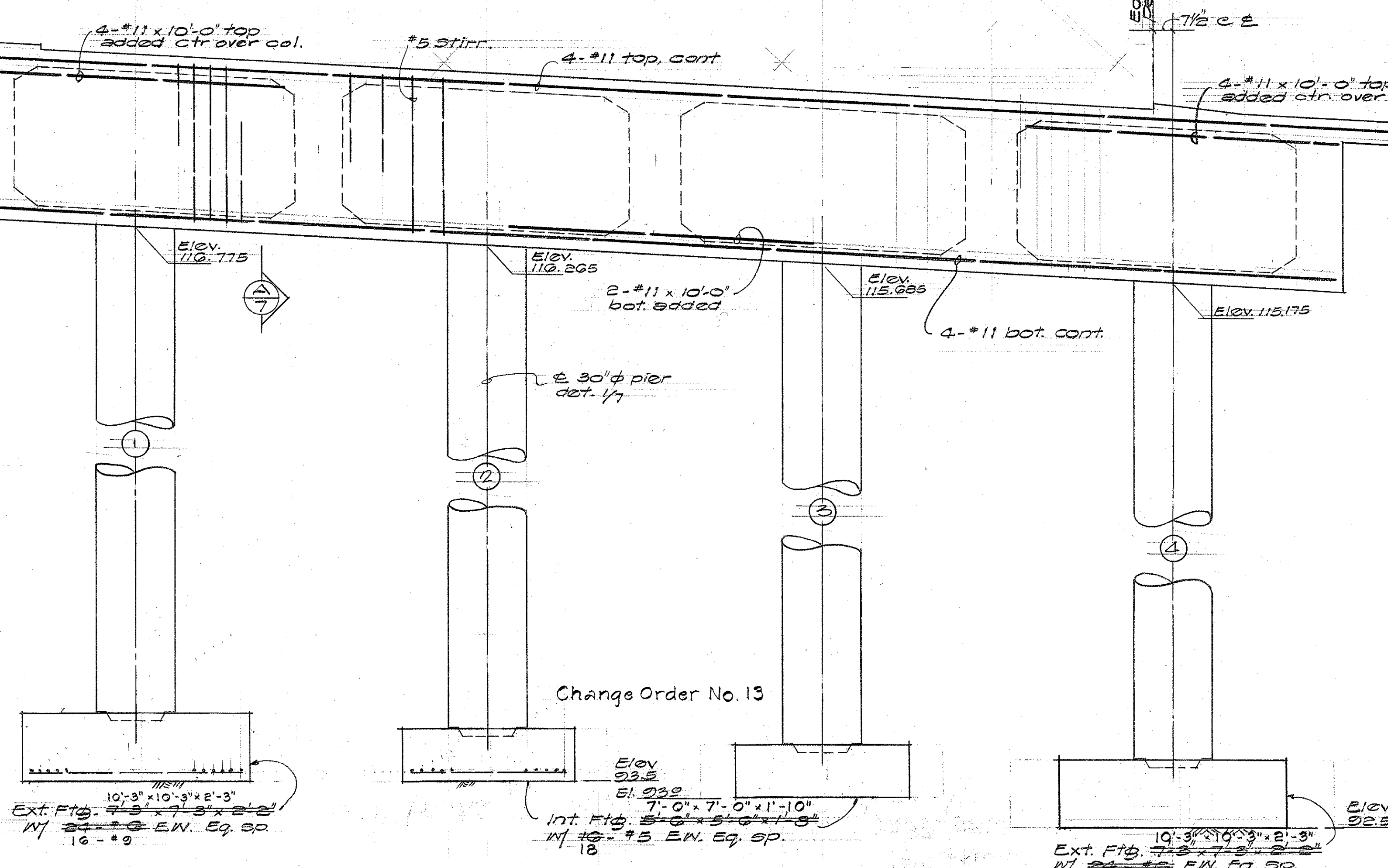
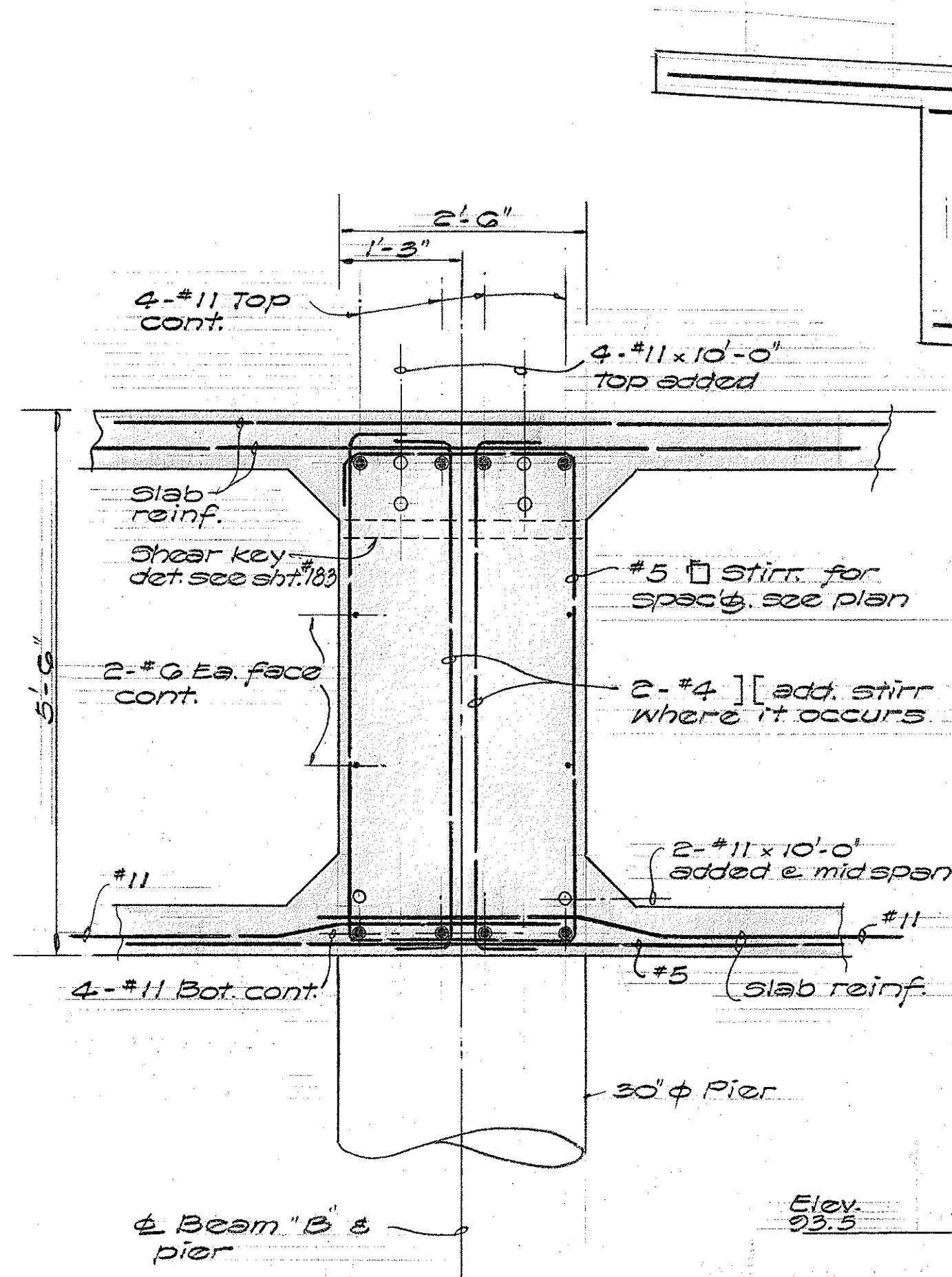
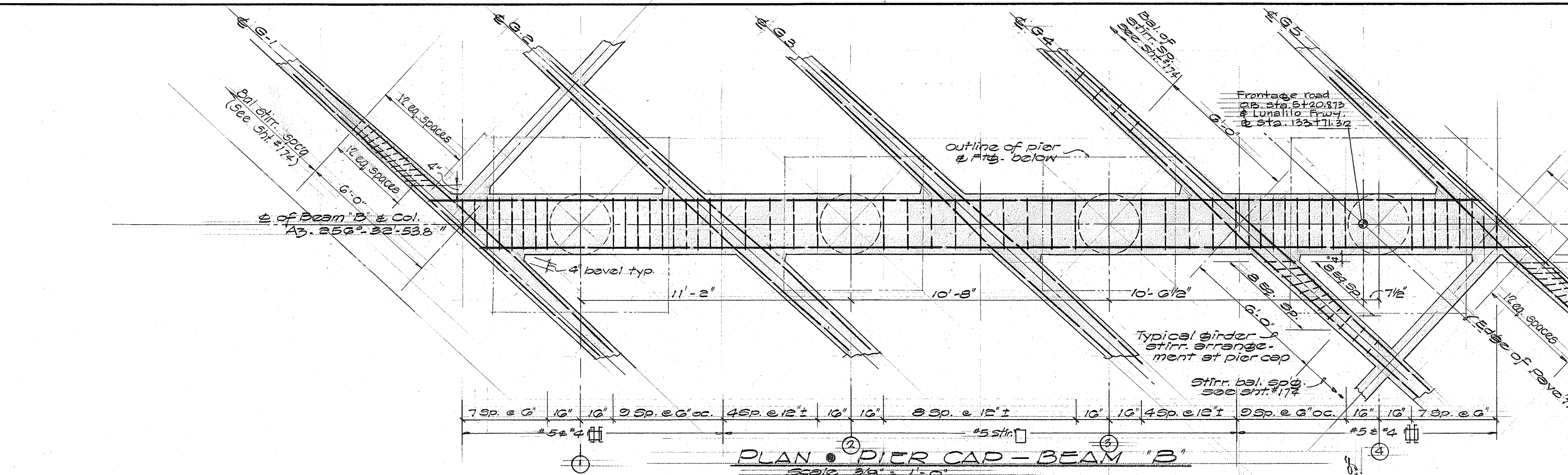
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WAIALAE GRADE SEPARATION
(STRUCTURE #19)
ABUTMENT N°2 & DETAILS
INTERSTATE HIGHWAY (LUNALILO Fwy)
EAT POOL N°1-HI-1(K) UNIT 2

SCALE: AS SHOWN DATE: JANUARY, 1965

SHEET NO. 6 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	101-110	1965	180	203

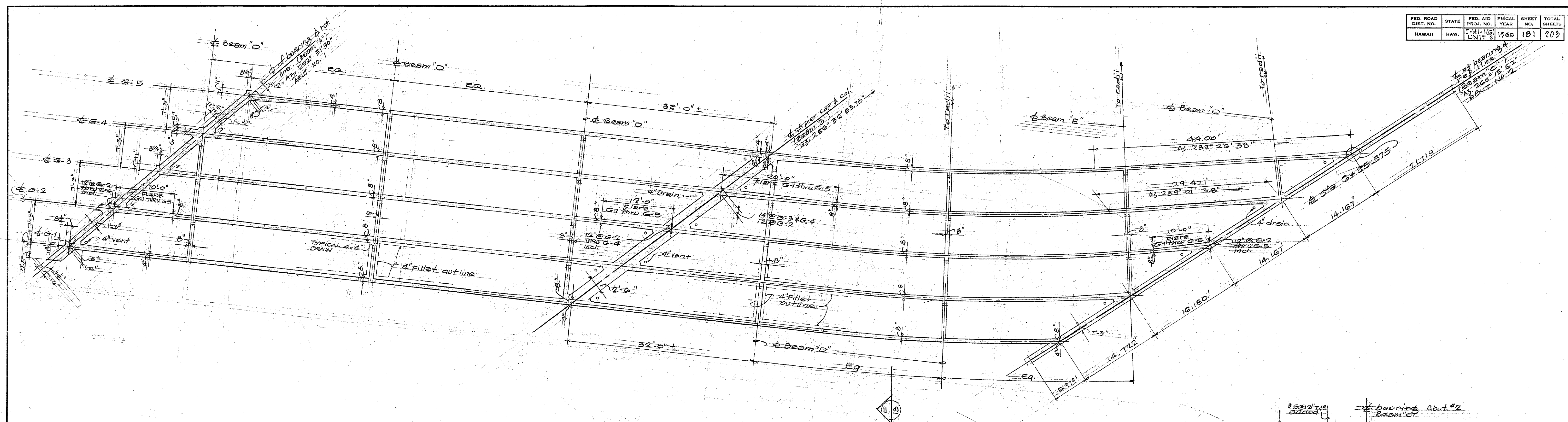


Change Order No. 11
To drill exploratory holes and pressure grout cavities in the footing subgrade for Structure #10 Waialae Overpass center pier footing 1, 2, 3, and 4 (twenty (20) holes).

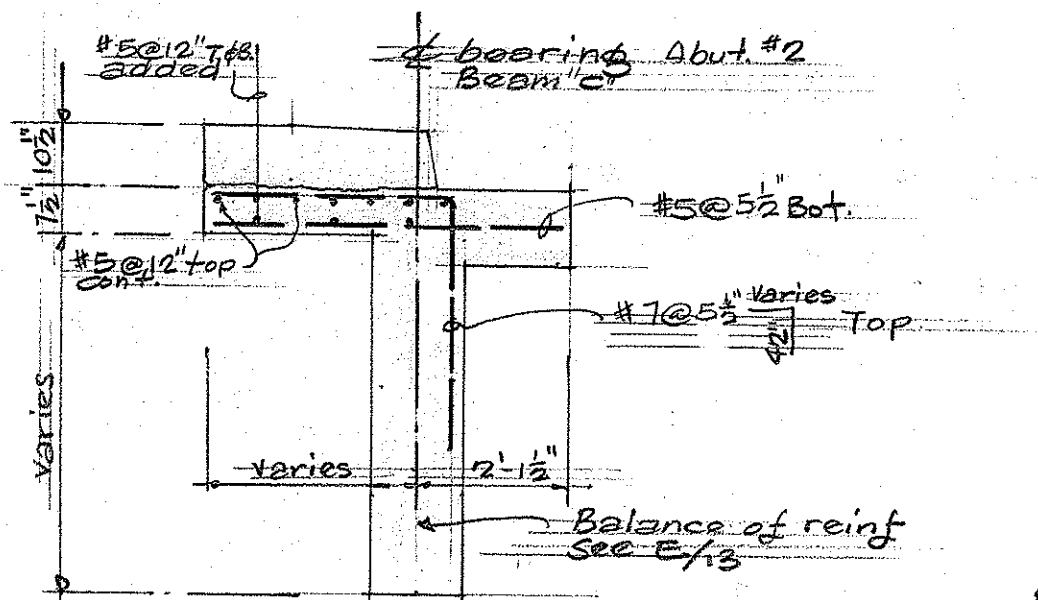
WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAIALAE GRADE SEPARATION
STRUCTURE #10
BEAM "B" & PIER DETAIL
INTERSTATE HIGHWAY (LUNALILO FERRY)
F.A.I. PROJ. NO. 101-110 UNIT 2
Scale as shown DATE JAN. 1965
SHEET No. 7 OF 14 SHEETS

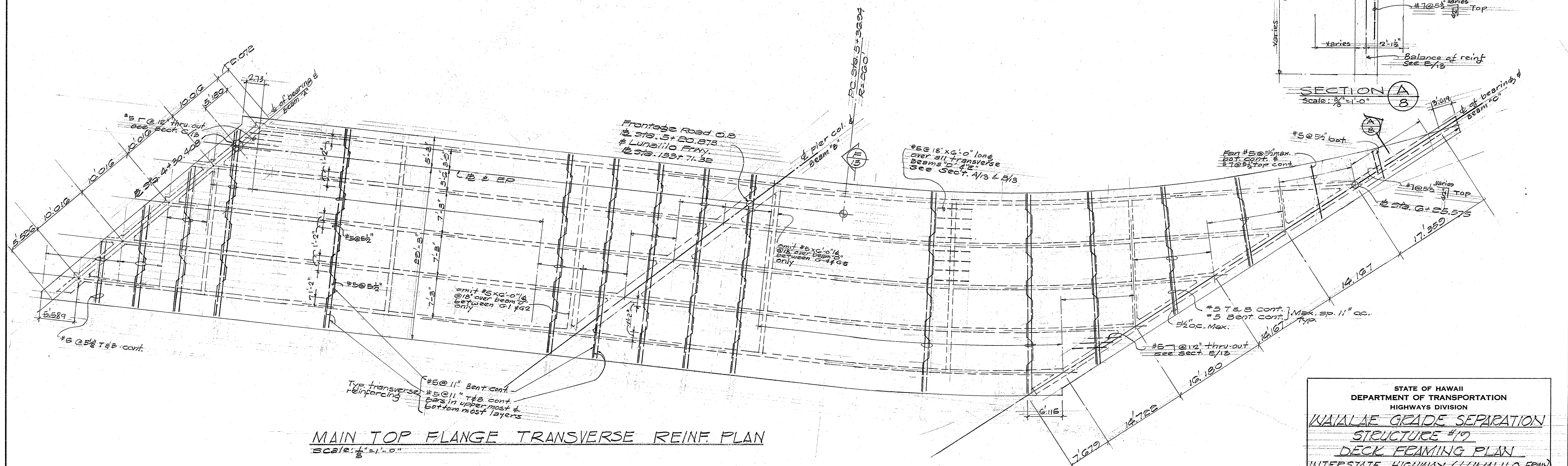
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(6) UNIT 2	1966	181	203



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



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



MAIN TOP FLANGE TRANSVERSE REINF. PLAN
Scale: $\frac{1}{8}'' = 1'-0''$

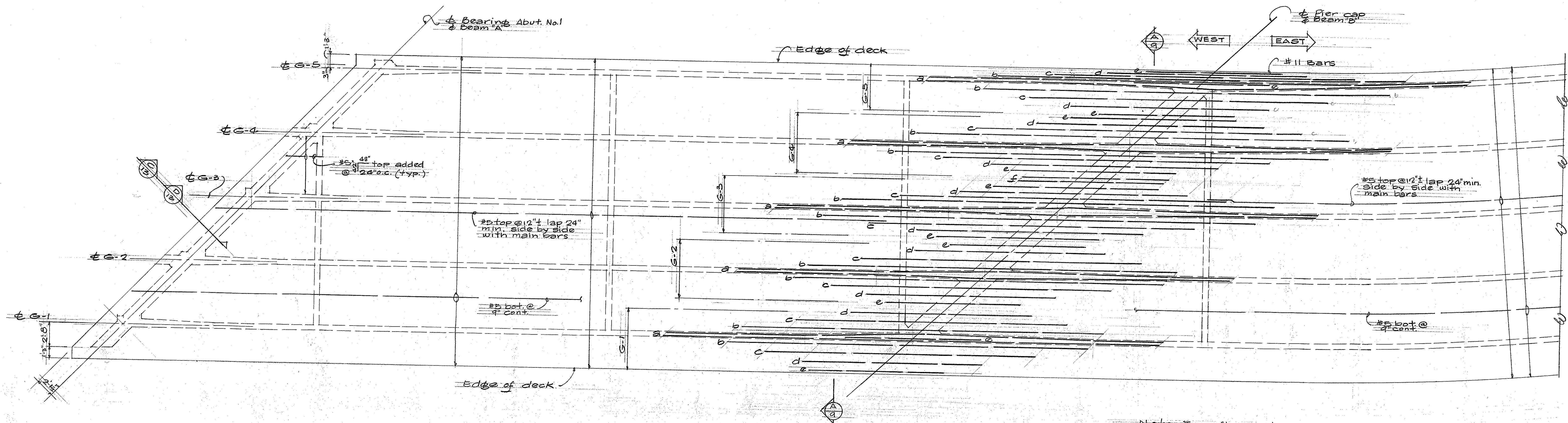
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**KAIALAE GRADE SEPARATION
STRUCTURE #19
DECK FRAMING PLAN**

INTERSTATE HIGHWAY (LUNALILO FRY)
F.A.I. PROJ. NO. 1-HI-1(6) UNIT 2

SCALE: $\frac{1}{8}'' = 1'-0''$ DATE: JANUARY, 1965

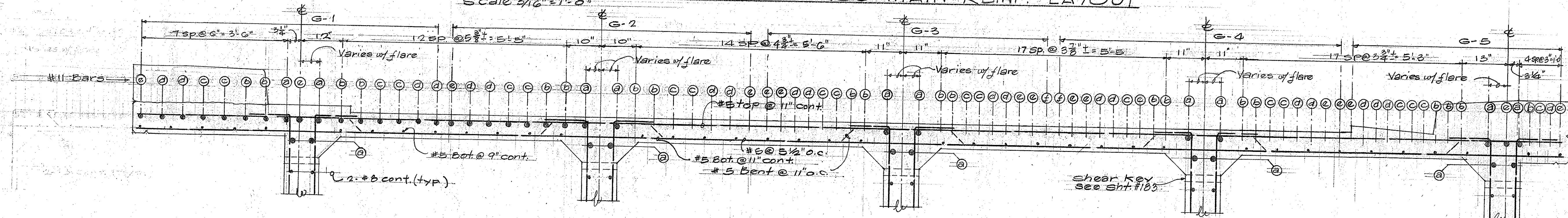
WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS



Note: Top flange transverse reinf. layout see Sht. #181

PARTIAL PLAN - TOP FLANGE MAIN REINF. LAYOUT

Scale: 3/16" = 1'-0"



SECTION (A)

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

G-1				
No. of Bars	Mark	Dist. from C of pier	West	East
4	a	27.5'	27.5'	55'
4	b	20.0'	20.0'	40'
4	c	15.0'	15.0'	30'
4	d	10.0'	10.0'	20'
2	e	7.5'	7.5'	15'

G-2				
No. of Bars	Mark	Dist. from C of pier	West	East
4	a	27.5'	27.5'	55'
4	b	20.5'	20.5'	41'
4	c	15.5'	15.5'	31'
4	d	10.5'	10.5'	21'
2	e	7.5'	7.5'	15'

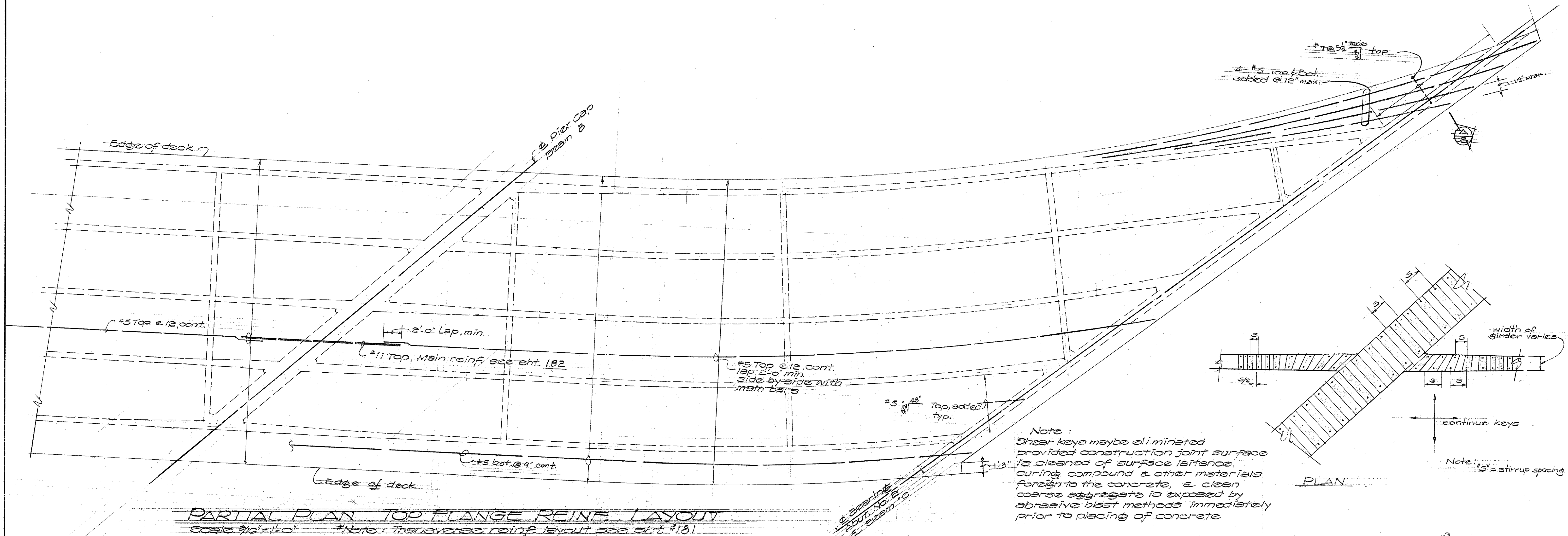
G-3 & G-4				
No. of Bars	Mark	Dist. from C of pier	West	East
4	a	31.0'	29.0'	60'
4	b	25.0'	23.0'	48'
4	c	19.0'	17.0'	36'
4	d	13.0'	12.0'	25'
4	e	10.0'	8.0'	18'
1	f	8.0'	8.0'	16'

G-5				
No. of Bars	Mark	Dist. from C of pier	West	East
4	a	20.5'	19.5'	40'
4	b	23.0'	22.0'	45'
4	c	17.0'	16.0'	33'
4	d	11.5'	10.5'	22'
3	e	7.5'	7.5'	15'

TOP FLANGE - #11 BAR SCHEDULES

WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAI'ALE GRADE SEPARATION
STRUCTURE #19
TOP FLANGE REINFORCING
INTERSTATE HIGHWAY (LUNALILO FERRY)
F.A.I. PROJ. NO. 1-HI-1(6) UNIT 2
SCALE: AS SHOWN DATE: JAN., 1966
SHEET No. 9 OF 14 SHEETS



PARTIAL PLAN TOP FLANGE REINF. LAYOUT
Scale: 3/8" = 1'-0" *Note: Transverse reinf. layout see aht. #181

GENERAL NOTES

Design Specifications: Design is in accordance with AASHTO Standard Specifications for Highway Bridges, (Eighth edition)

Materials:

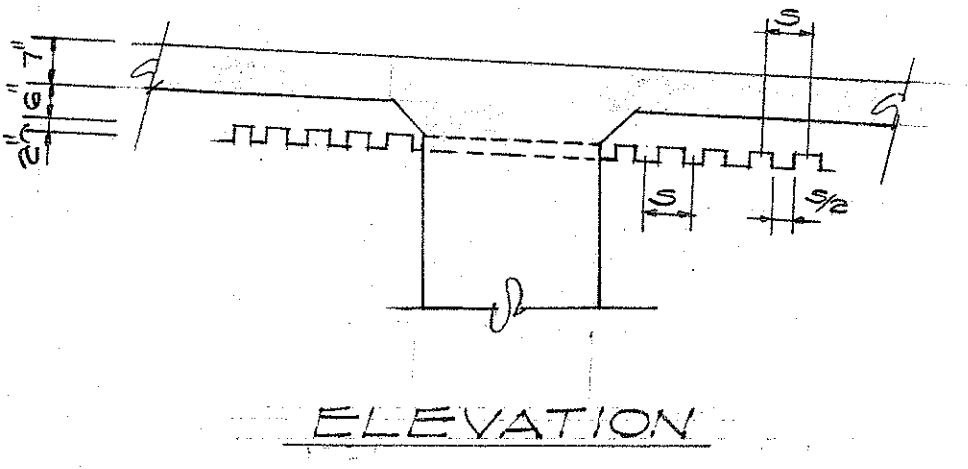
1. All concrete shall be Class A-1 unless otherwise noted on plans.
2. Concrete clear cover for reinforcing bars shall be as follows unless noted otherwise: 1 1/2" for stirrups on sides of beams 2 1/2" to main reinforcing of pier cap 2" for formed walls 2 3/4" to main reinforcing of column. 3" for footings.
3. Concrete seats receiving steel plates, lead plates or neoprene pads shall be poured monolithically with supporting structures, and top surfaces of the concrete seats shall be finished with a steel trowel to a smooth level surface at the elevation shown on the plan.
4. Reinforcing bars shall be detailed in accordance with ACI "Manual of Standard Practice for Detailing Reinforced Concrete Highway Structures" unless otherwise noted.
5. Reinforcing bars shall be securely tied at all intersections and lap splices, and shall be held in place during pouring to maintain their proper locations as shown on plans.
6. All reinforcing steel to be ASTM Designation A-15 Billet Steel, intermediate grade, except as otherwise noted.

Construction Methods:

1. Shop placement and detail drawings for all reinforcing steel in deck are required. Splices for continuous slab strip bars shall be located near midspan for top slab and near pier support for bottom slab. All splices shall be staggered.
2. Sides of footings shall be excavated and poured to nest lines when called for on the plans. For excavation of bottom of footings, see Standard Specifications. Over excavation beyond nest lines for sides of footings and the elevations indicated on the plans for the bottom of footings shall be backfilled with a minimum of Class D concrete at the contractor's

- expense and as directed by the Engineer.
 2. All backfill behind abutments shall be completely in place before placing of superstructure.
 3. Forms for all exposed surfaces of concrete structures, walls & members. See General Notes, Standard Bridge Detail drawing sheet #62.
 5. Concrete finish - See Standard Specifications and/or Special Provisions.
 6. All welding shall conform to the latest Specifications for Welded Highway and Railway Bridge Design Construction and Repair of the American Welding Society.
 7. Vert. Col. bars shall be arranged in such a manner as to miss Pier Cap reinforcing above.
 8. In general, top of concrete deck of structure shall be constructed to follow the finish roadway vertical and horizontal curves & grades.
- General:** In general, all elevations, stations & locations of supporting structure shall be verified in the field before commencing with the work. The contractor shall verify the location of all existing utility lines. The contractor shall furnish shop placement and detail drawings for all structural steel work including bearing & end Frame and Grating Assemblage for deck drains.

Reference: for additional details not covered by these drawings refer to Standard details sheets #201, #202, & #203.

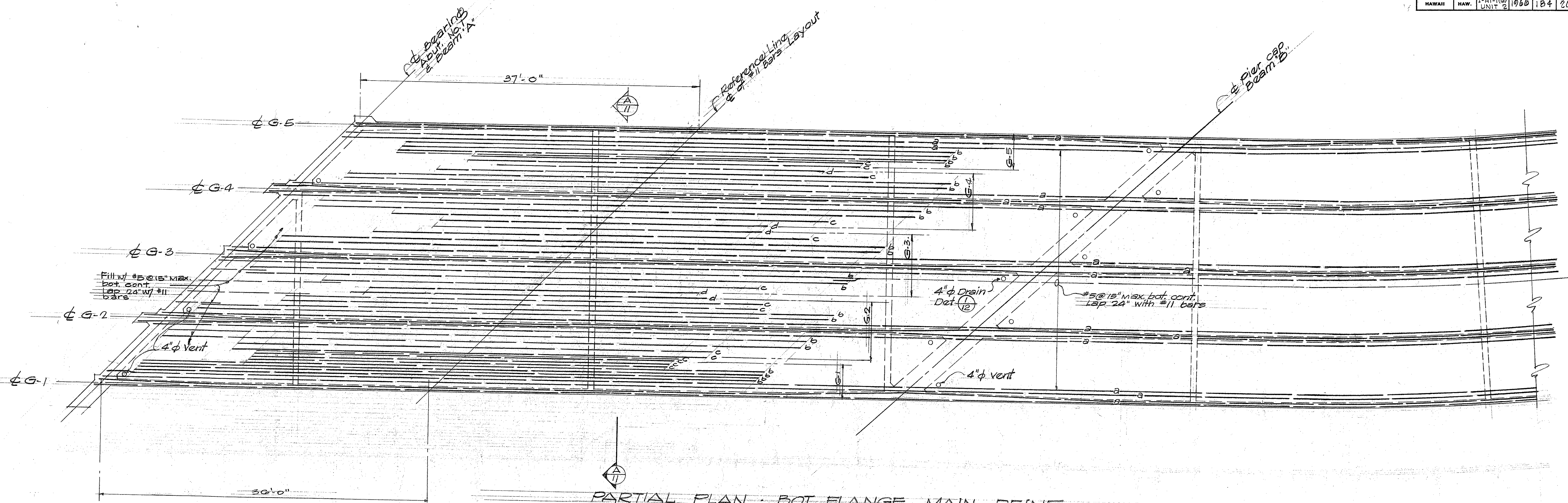


SHEAR KEY DETAIL
Scale: 3/8" = 1'-0"

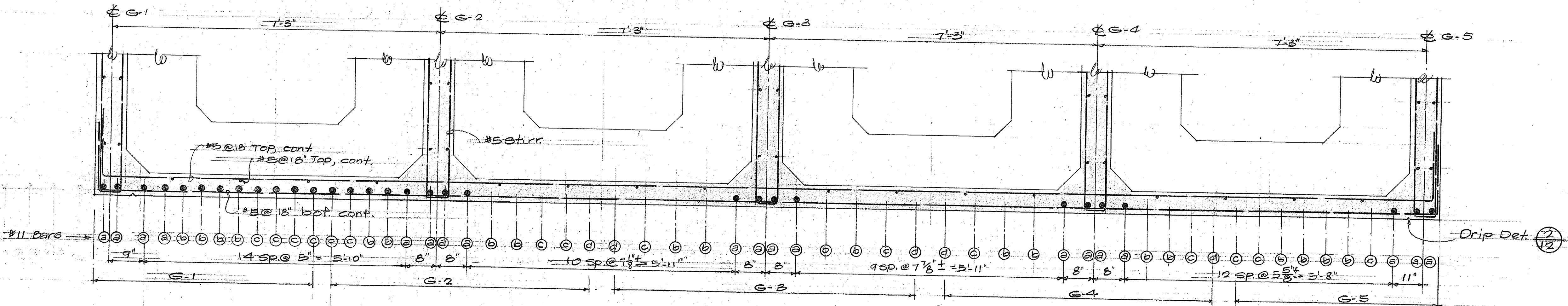
DATE: _____
SURVEY PLATTED BY: _____
DRAWN BY: _____
DESIGNED BY: _____
CHECKED BY: _____
NO. _____

WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAILAE GRADE SEPARATION
STRUCTURE #19
TOP FLANGE REINFORCING
INTERSTATE HIGHWAY (LUNALILO FERRY)
F.A.I. PROJ. NO. I-41-1(6) UNIT 2
SCALE: AS SHOWN DATE: JANUARY 1968
SHEET No. 10 OF 14 SHEETS



PARTIAL PLAN - BOT. FLANGE MAIN REINF.
Scale: 3/16" = 1'-0"



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

BOT. FLANGE - #11 BAR SCHEDULE														
Girder	G-1			G-2			G-3 & G-4			G-5				
No. of Bars	4	4	4	4	4	1	4	4	2	2	4	4	2	
Mark	a	b	c	a	b	c	d	a	b	c	d	a	b	c
Length	cont. 630 460			cont. 720 520 390			cont. 660 480 360			cont. 600 430				

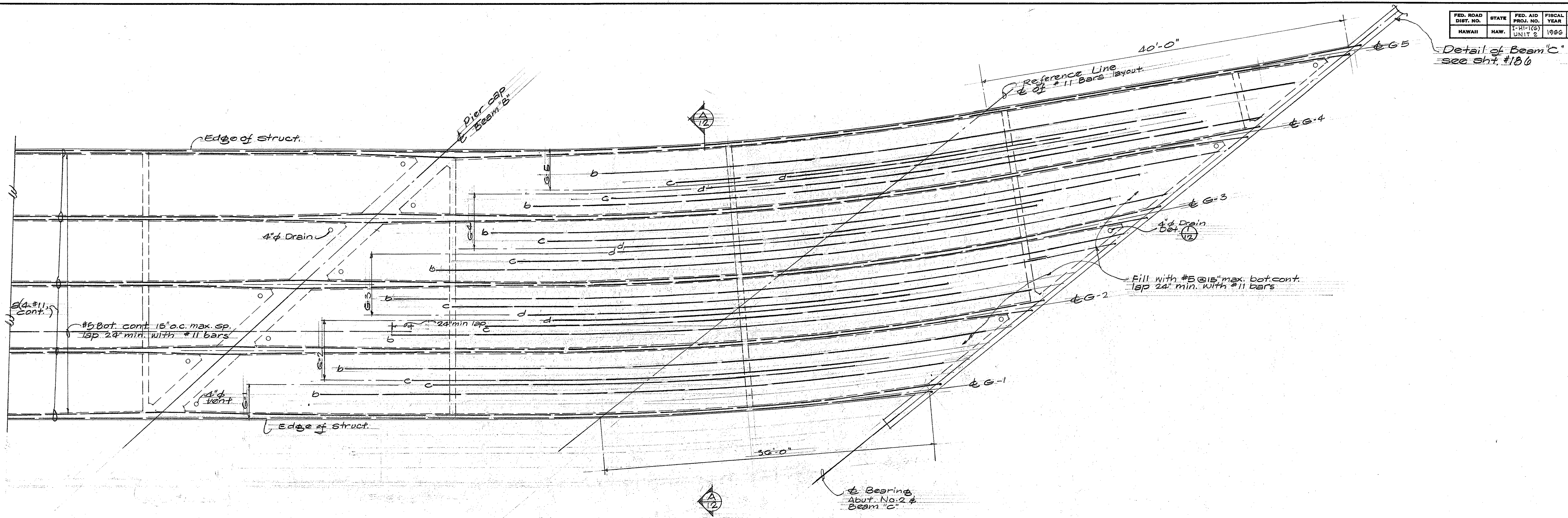
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WAILAE GRADE SEPARATION
STRUCTURE #19
BOTTOM FLANGE REINFORCING
INTERSTATE HIGHWAY (UNALIKA FRY)
F.A.I. PROJ. NO. 1-11-16(6) UNIT 2

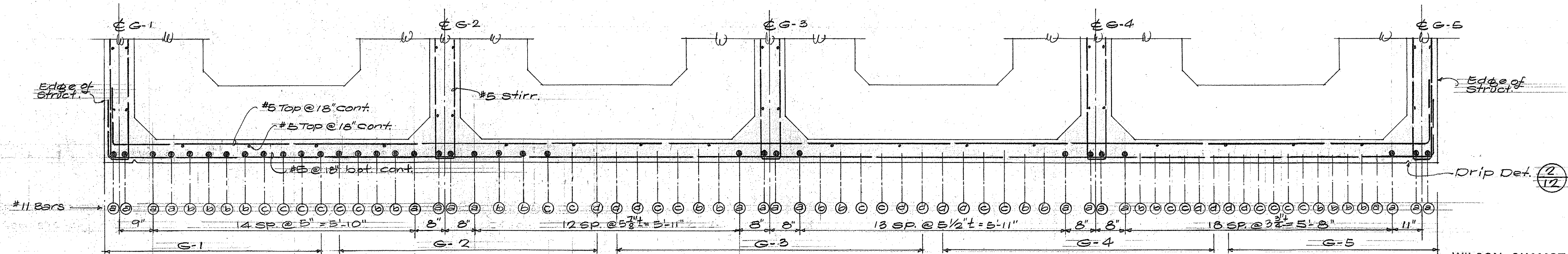
SCALE: AS SHOWN DATE: JAN. 1, 1965

SHEET No. 11 OF 14 SHEETS

WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

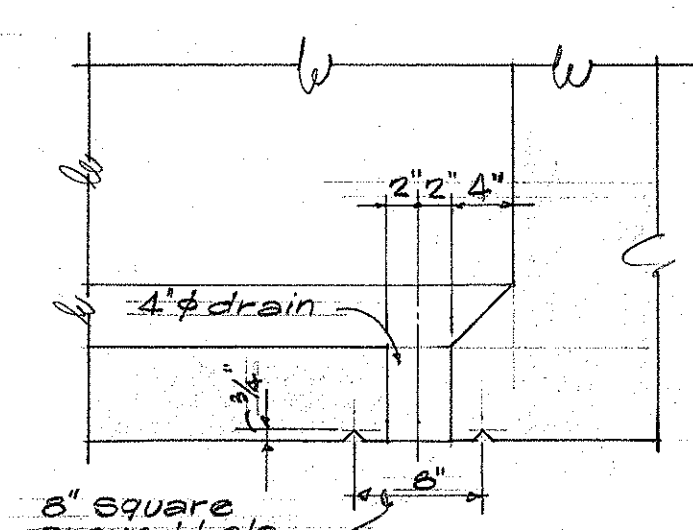


PARTIAL PLAN - BOT. FLANGE MAIN REINF.
Scale: 3/16" = 1'-0"

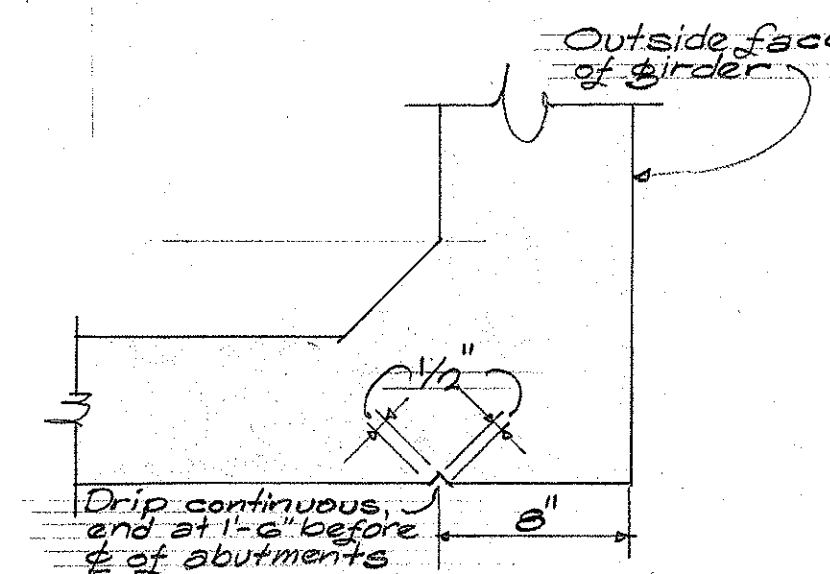


SECTION A-A
Scale: 2 3/4" = 1'-0"

BOT. FLANGE - #11 BAR SCHEDULE															
Girder	G-1			G-2				G-3 & G-4				G-5			
No. of bars	4	4	4	4	4	4	1	4	4	4	4	4	4	2	
Mark	a	b	c	a	b	c	d	a	b	c	d	a	b	c	d
Length	cont.	68.0'	46.0'	cont.	70.0'	52.0'	39.0'	cont.	80.0'	65.0'	46.0'	cont.	76.0'	56.0'	30.0'



TYPICAL DRAIN DET.
Scale: 1 1/2" = 1'-0"

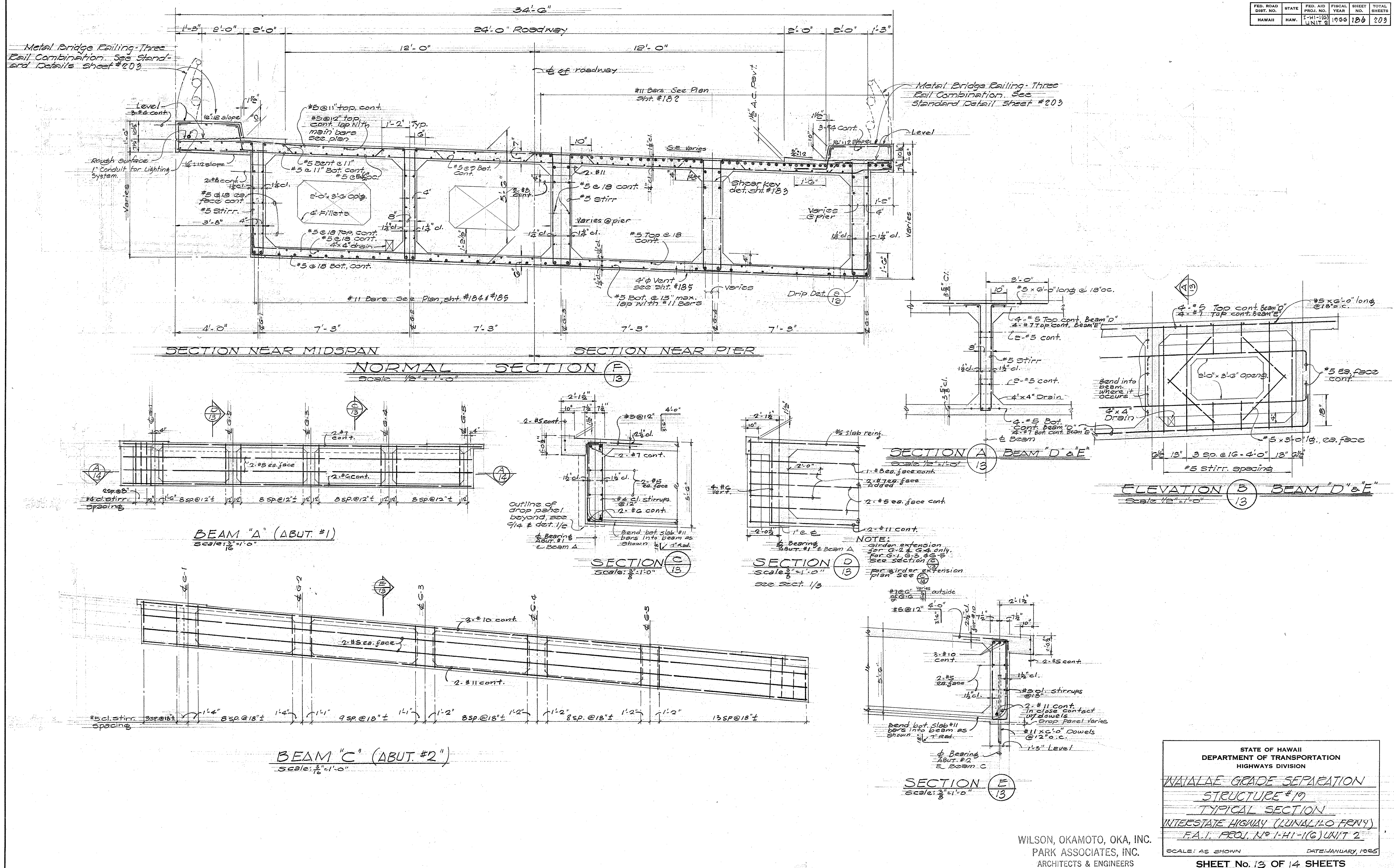


TYP. BOT. FLANGE DET.
Scale: 1 1/2" = 1'-0"

WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAILAE GRADE SEPARATION
STRUCTURE #10
BOTTOM FLANGE REINFORCING
INTERSTATE HIGHWAY (LUNALILO FERRY)
F.A.I. PROJ. NO. 1-H-1(6) UNIT 2
SCALE: AS SHOWN DATE: JAN., 1965

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



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

