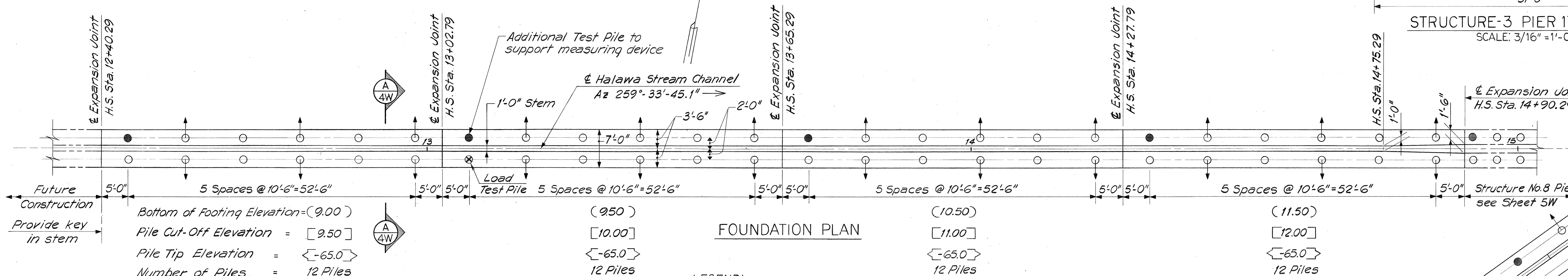
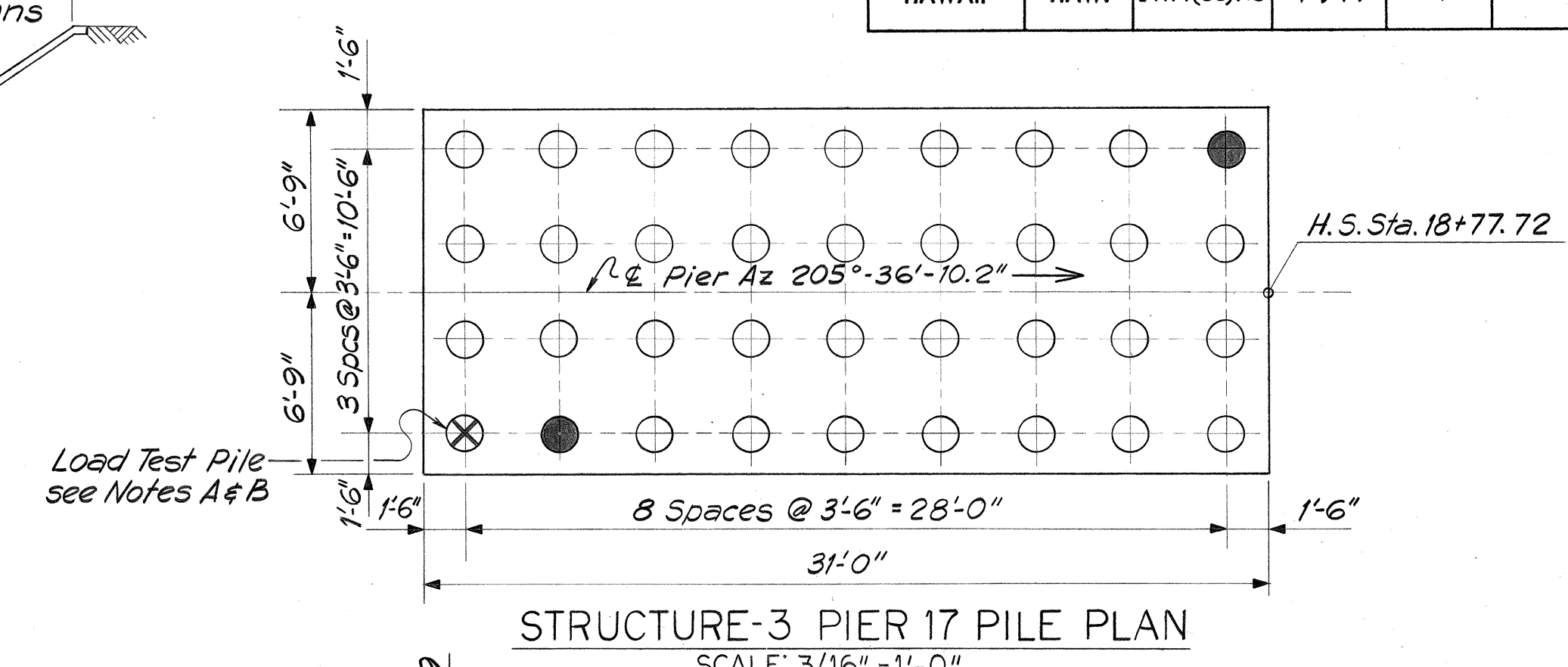
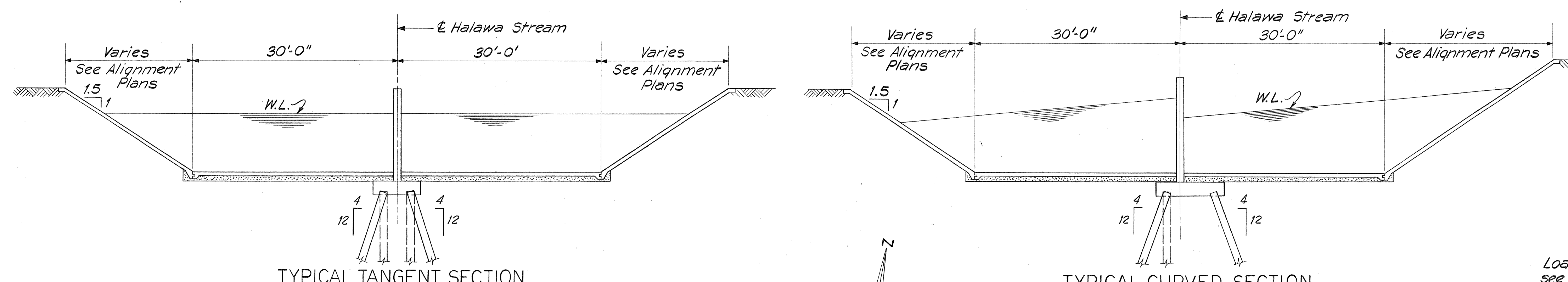
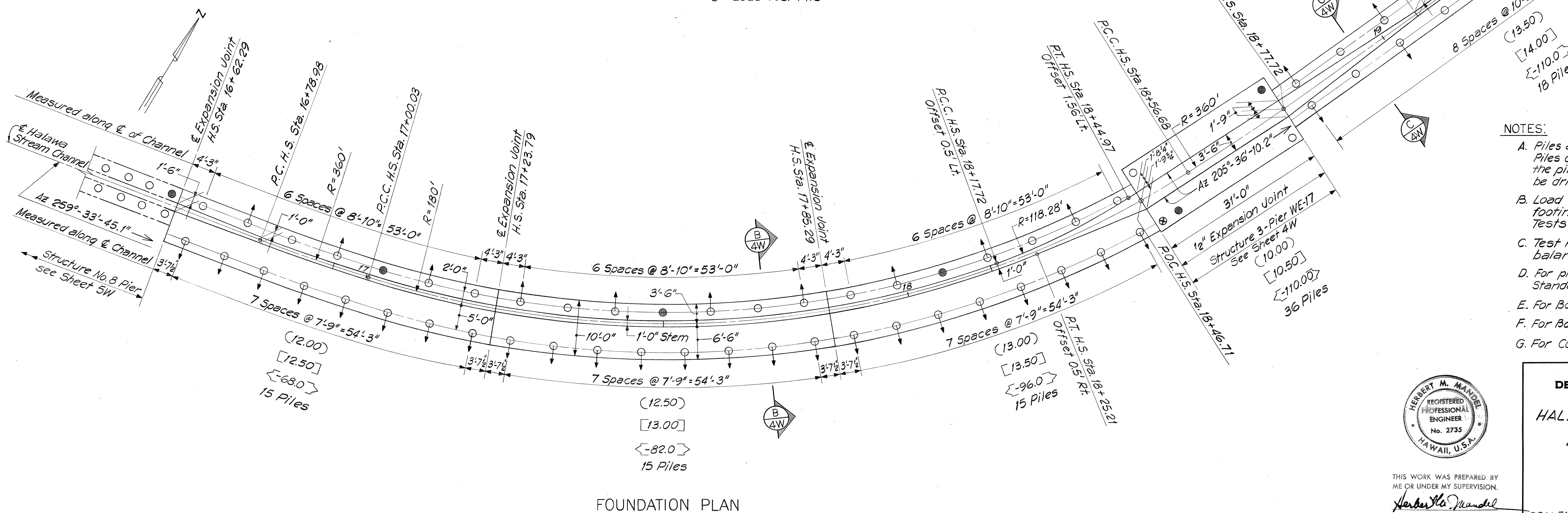


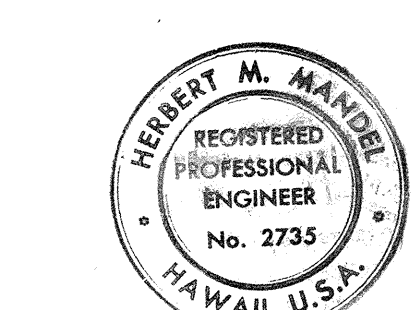
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H1(88)13	1971	291	457



LEGEND:
 ○ = Vertical Pile
 ⊖ = Battered Pile, 4:12 in direction of arrow
 ● = Test Pile
 ⊗ = Load Test Pile



- NOTES:
- Piles are Type I Precast Prestressed Concrete Piles driven to a capacity of 40 Tons except for the piles for Structure 3-Pier 17 which are to be driven to a capacity of 45 Tons.
 - Load Test one pile of Structure 3-Pier 17 footing for 45 Ton capacity. All other Load Tests to be 40 Ton capacity.
 - Test Piles shall be driven before casting balance of piles.
 - For prestressed concrete pile details see Standard Drawings DB-300-1 & DB-300-2.
 - For Boring Locations see Sheet No. 105.
 - For Boring Logs see Sheet Nos. 106 - 113.
 - For Curve Data see Alignment Plans.

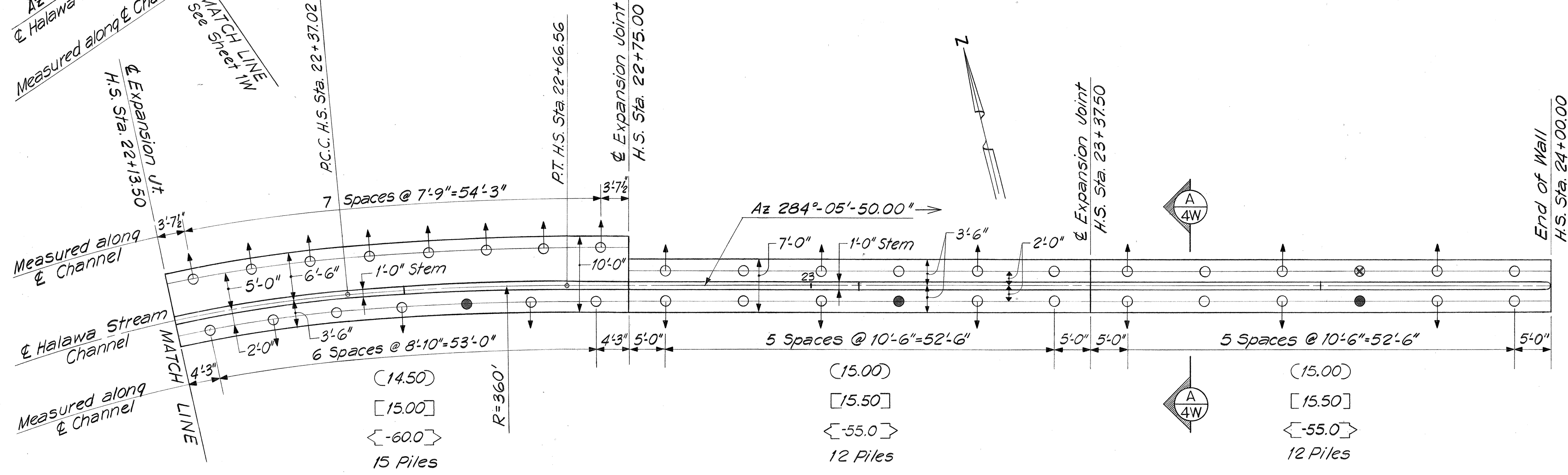
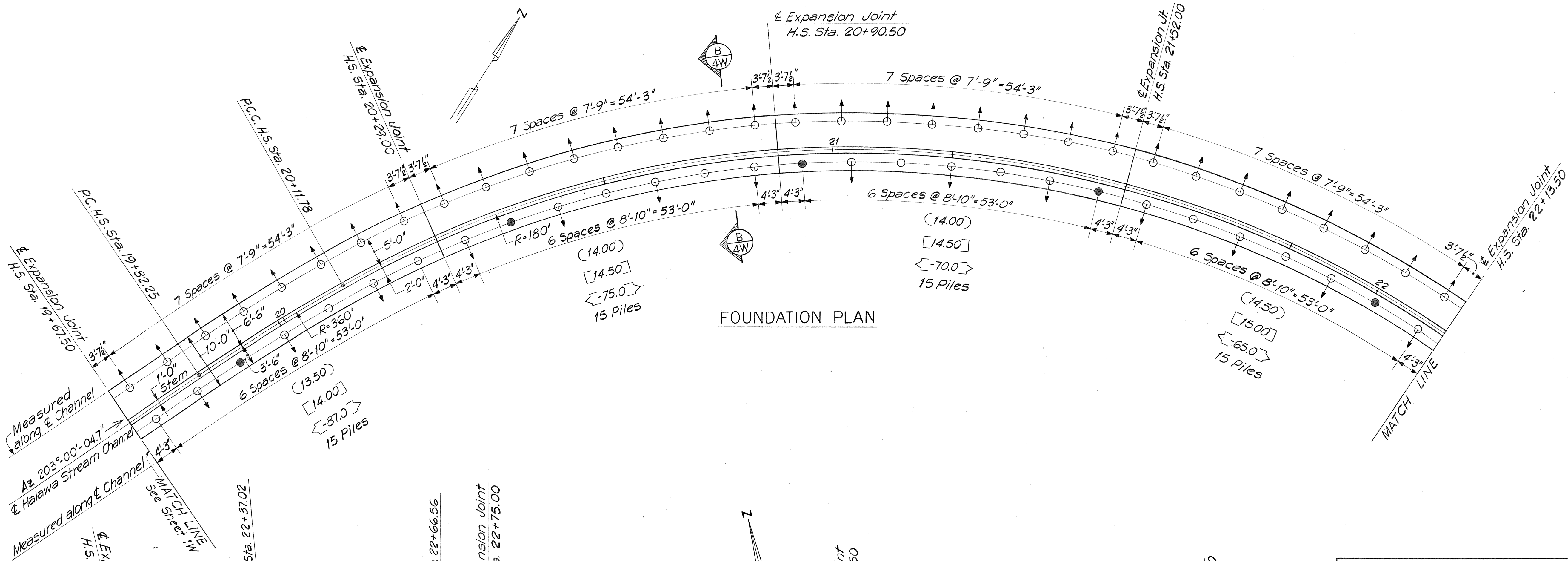


STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HALAWA STREAM SEPARATOR WALL
 FOUNDATION PLAN I
 INTERSTATE ROUTE H-1
 PROJ. NO. I-H1(88)13

SCALE: 1"=10' or as shown Date: March 19, 1971
 SHEET No. 1W OF 6W SHEETS

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____

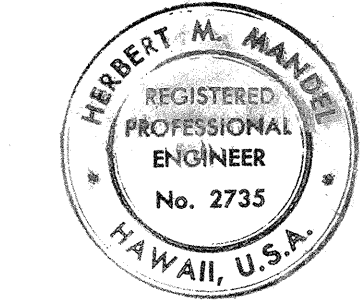
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(88):13	1971	292	457



ESTIMATED QUANTITIES			
ITEM NO.	ITEM	UNIT	QUANTITY
206.01	Structure Excavation Other Than At Bridges	C.Y.	956
503.051	Concrete In Halawa Stream Separator Wall (Except Footings)	L.S.	(585 C.Y.)
503.052	Concrete In Halawa Stream Separator Wall Footings	L.S.	(612 C.Y.)
505.001	Pile Load Tests	Ea.	2
505.040	Precast, Prestressed Concrete Piles, Furnished	L.F.	18,897
505.400	Precast, Prestressed Concrete Piles, Driven	L.F.	16,675
505.800	Driving Test Piles	L.F.	1,505
602.051	Reinforcing Steel In Halawa Stream Separator Wall	L.S.	(168,160 lb.)

NOTE:
1. For Legend and Notes see Sheet 1W.

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTE BOOK	_____
No.	_____

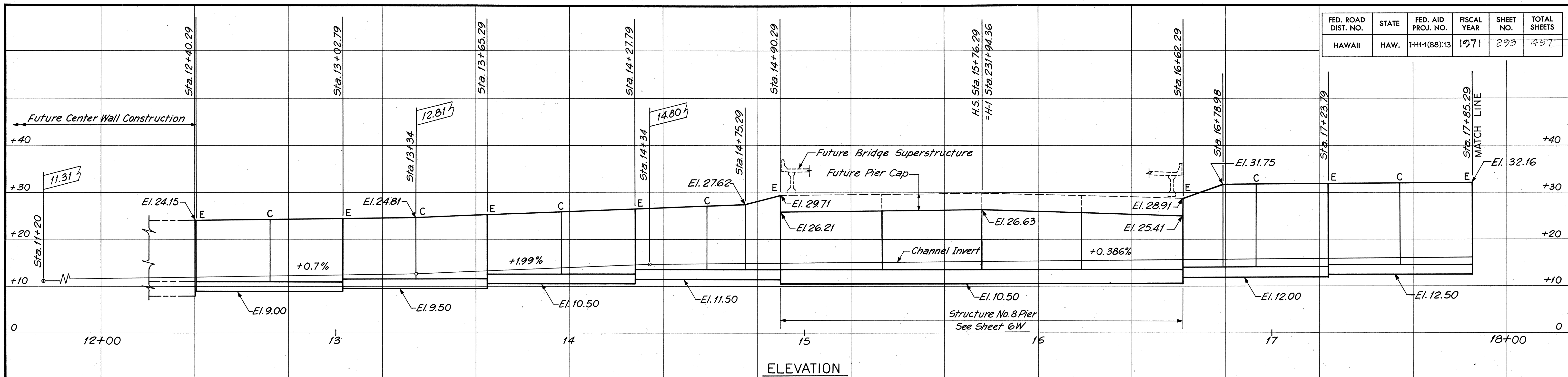


THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
Herbert M. Mandel

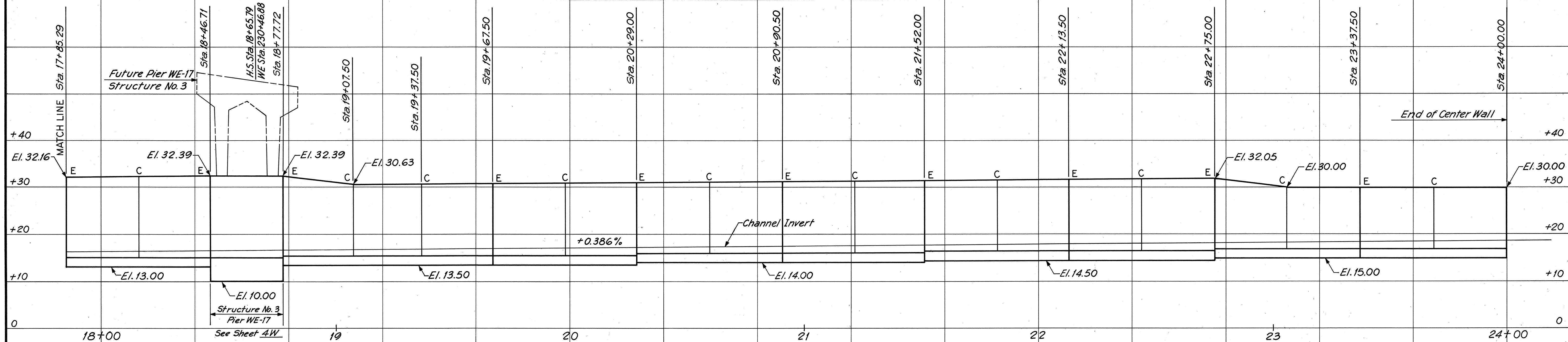
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HALAWA STREAM SEPARATOR WALL
FOUNDATION PLAN II
INTERSTATE ROUTE H-1
PROJ. NO. I-H-1(88):13
SCALE: 1"=10'
Date: March 19, 1971
SHEET No. 2W OF 6W SHEETS

292

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(88):13	1971	293	457



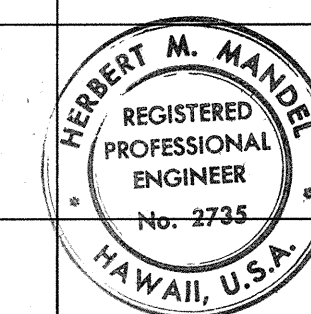
ELEVATION



ELEVATION

NOTES:

E = 1/2" Expansion Joint in stem and footing.
 C = Construction Joint in stem only. Unless shown otherwise construction joints are located midway between adjacent expansion joints.
 For details of Expansion and Construction Joints see Sheet 6W.



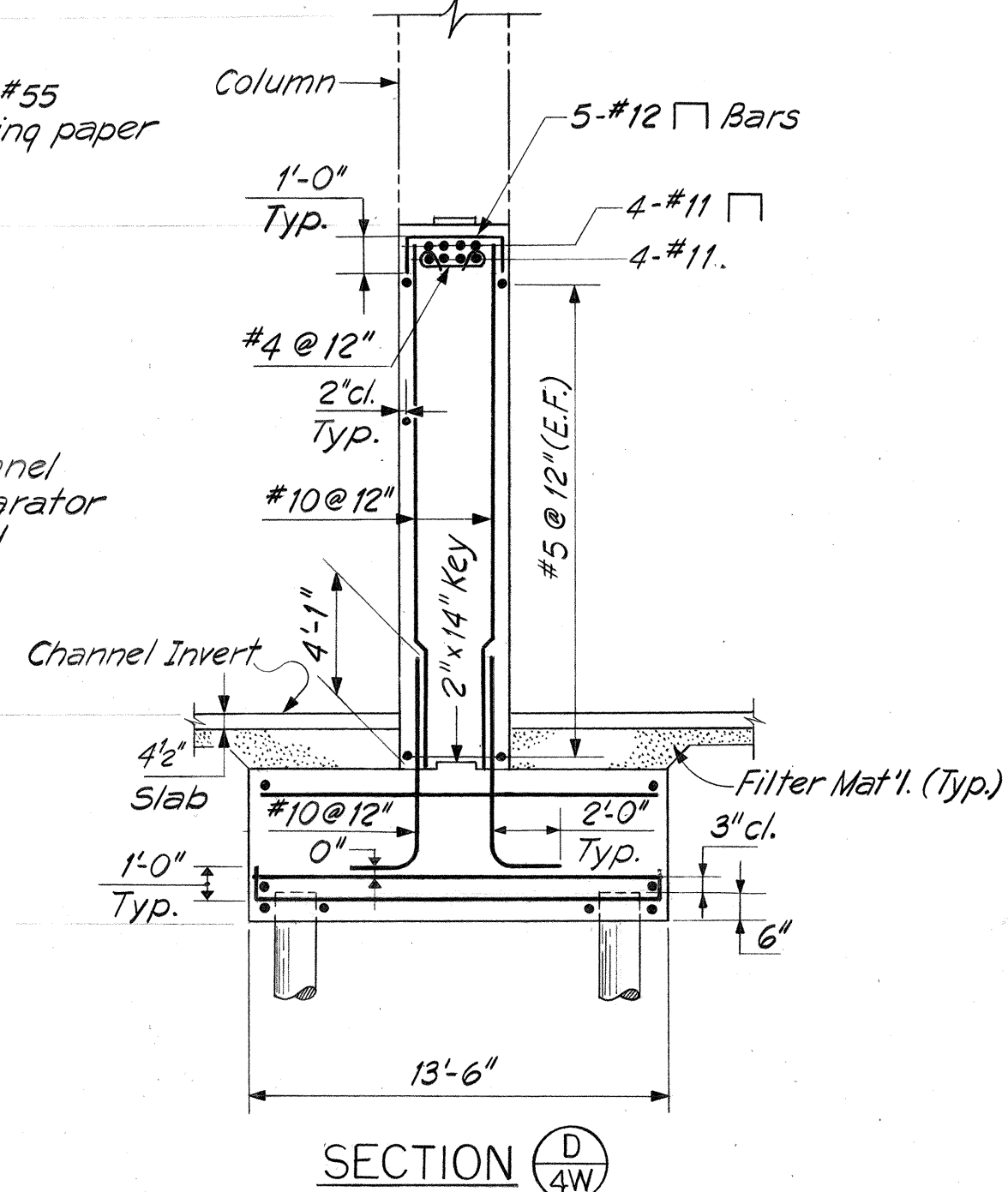
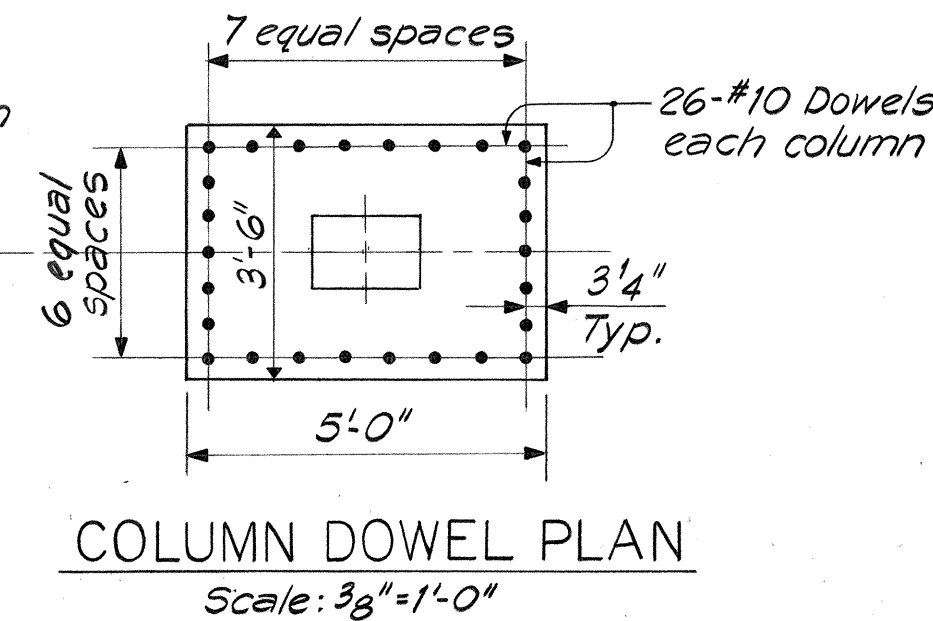
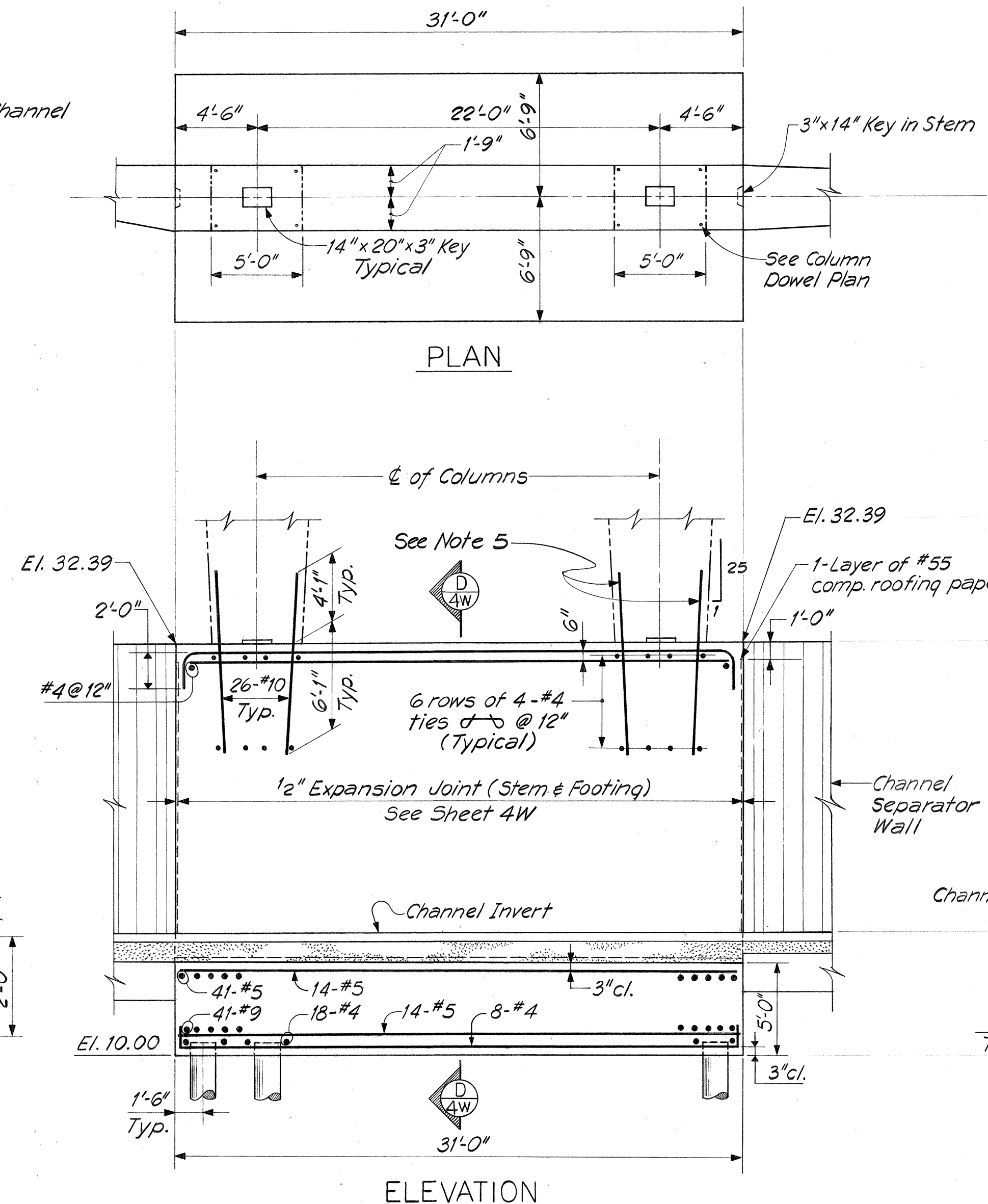
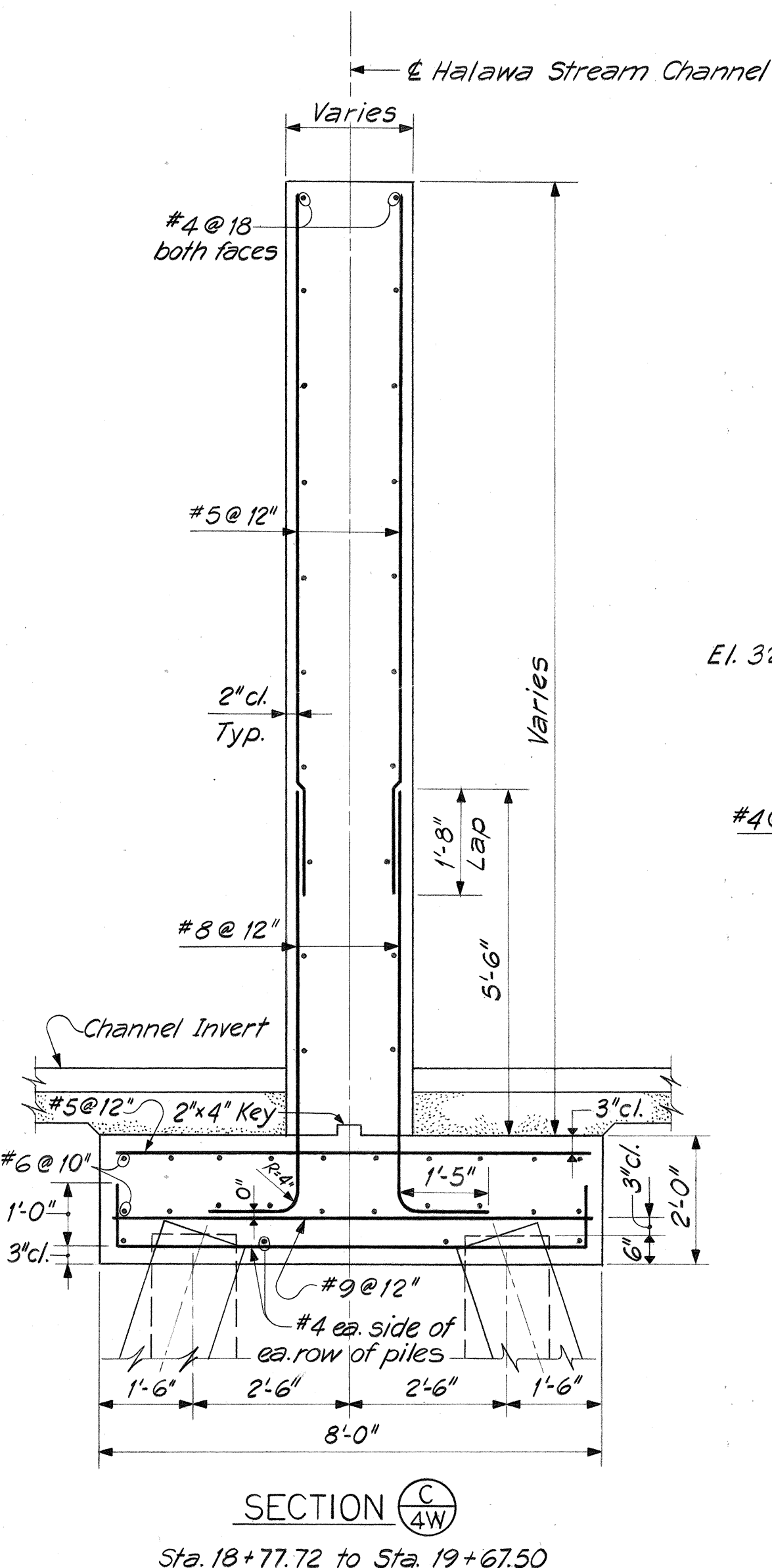
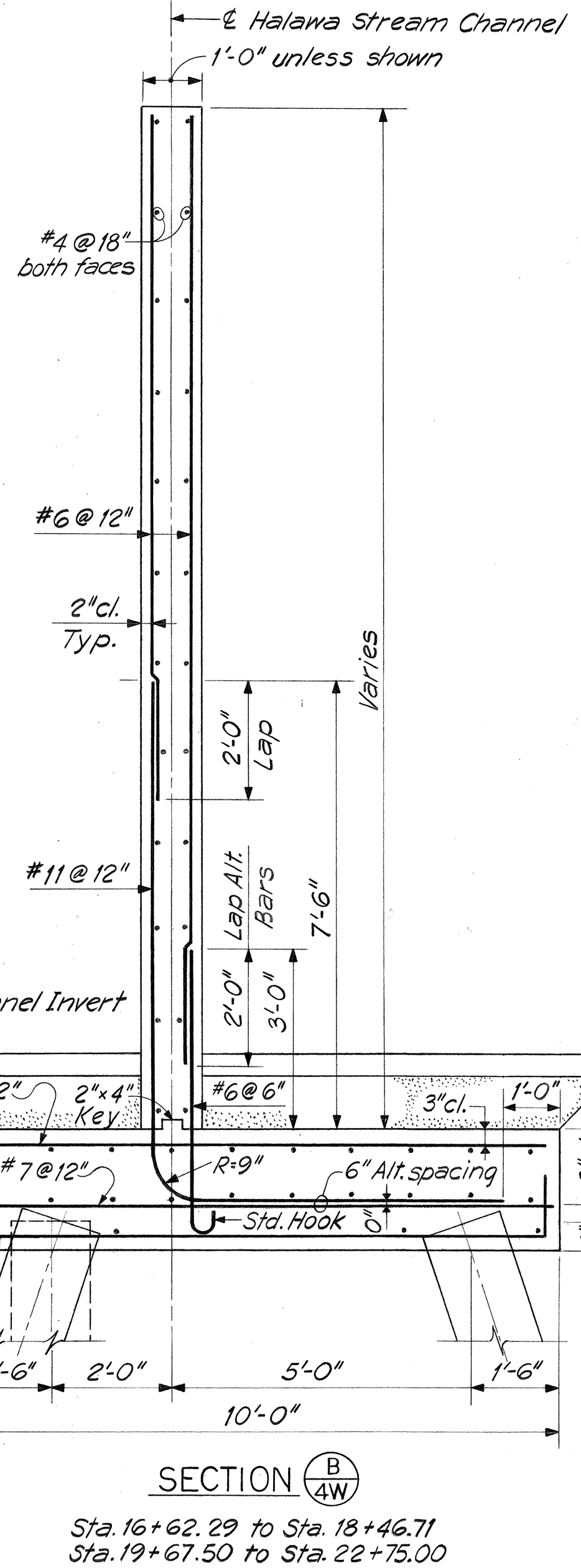
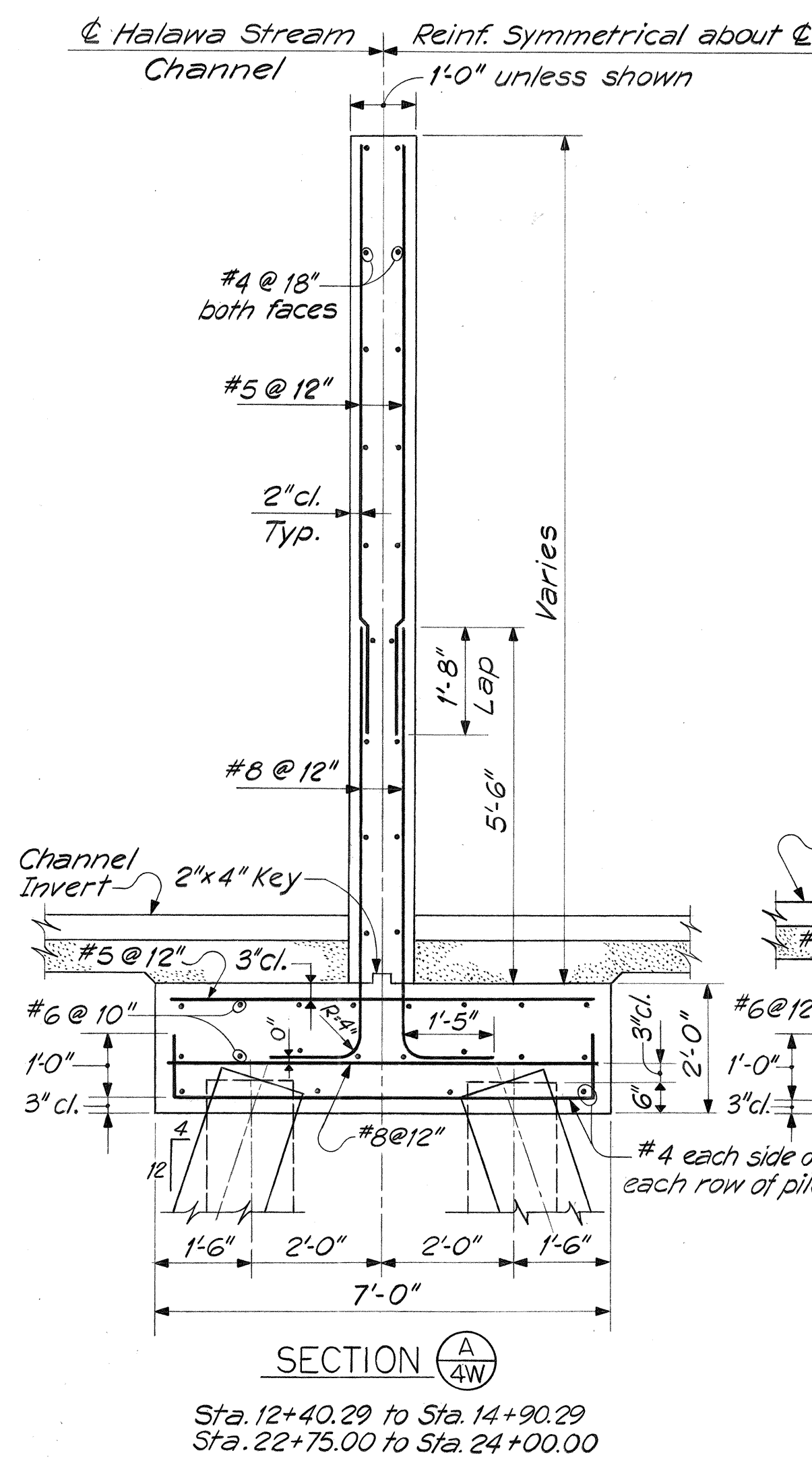
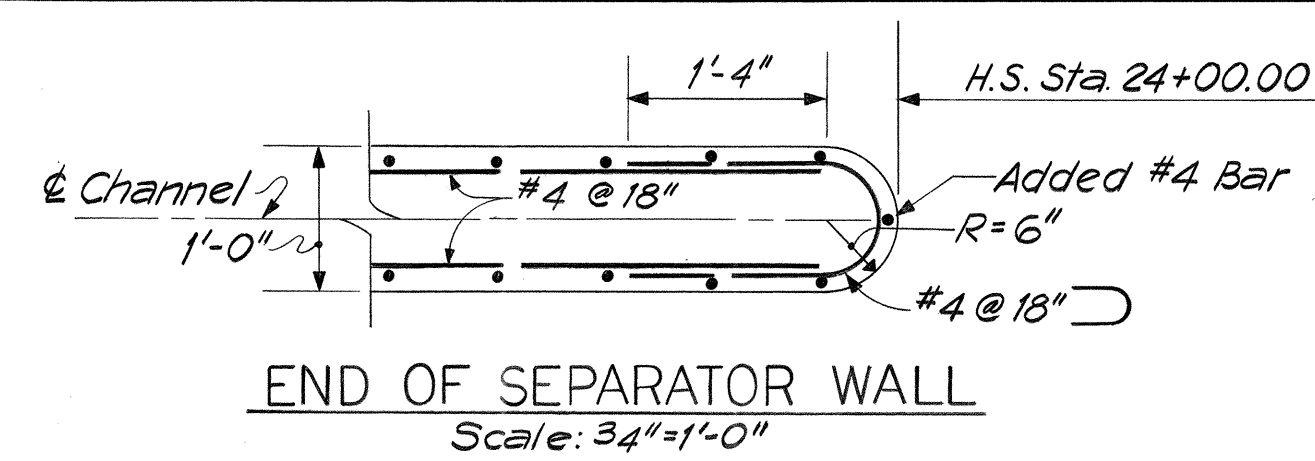
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Herbert M. Mandel

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
HALAWA STREAM SEPARATOR WALL
ELEVATION
 INTERSTATE ROUTE H-1
 PROJ. NO. I-H-1(88):13
 SCALE: 1"=20' HORIZONTAL
 1"=10' VERTICAL
 DATE: MARCH 19, 1971
 SHEET No. 3W OF 6W SHEETS

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

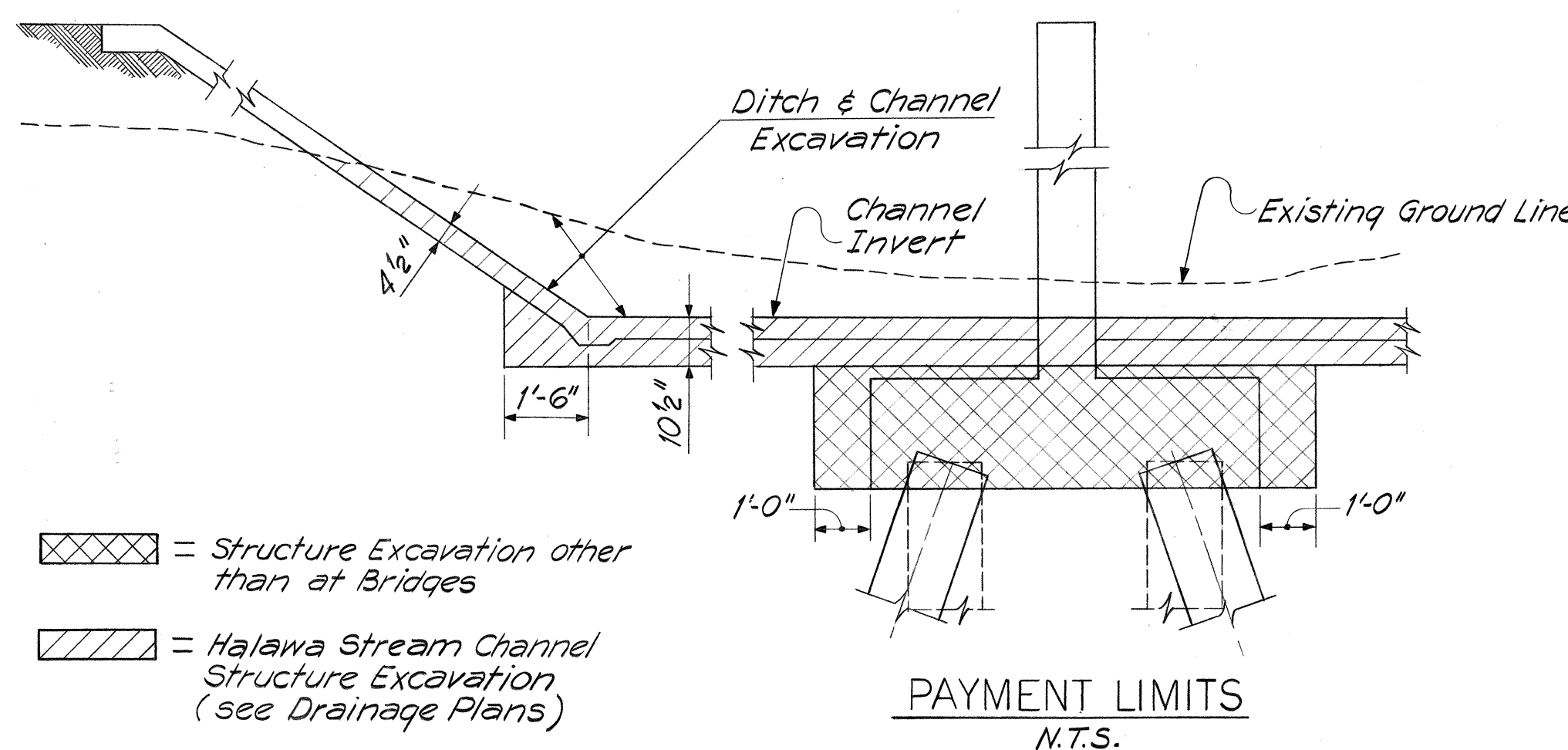
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(88)13	1971	294	457



STRUCTURE NO. 3 - PIER WE-17
Scale: 3/16"=1'-0"

ITEM NO.	ITEM	UNIT	QUANTITY
206.60	Structure Excavation for Bridge	Cu. Yd	98
503.075	Concrete in Structure #3 (Except footing)	L.S.	(70 C.Y.)
503.076	Concrete in Structure #3 (Footing)	L.S.	(78 C.Y.)
505.001	Pile Load Tests	Each	1
505.040	Precast Prestressed conc. Piles, Furnished	L.F.	4,443
505.400	Precast Prestressed conc. Piles, Driven	L.F.	3,960
505.800	Driving Test Piles	L.F.	360
602.013	Reinforcing Steel in Structure #3	L.S.	(16,220 lb.)

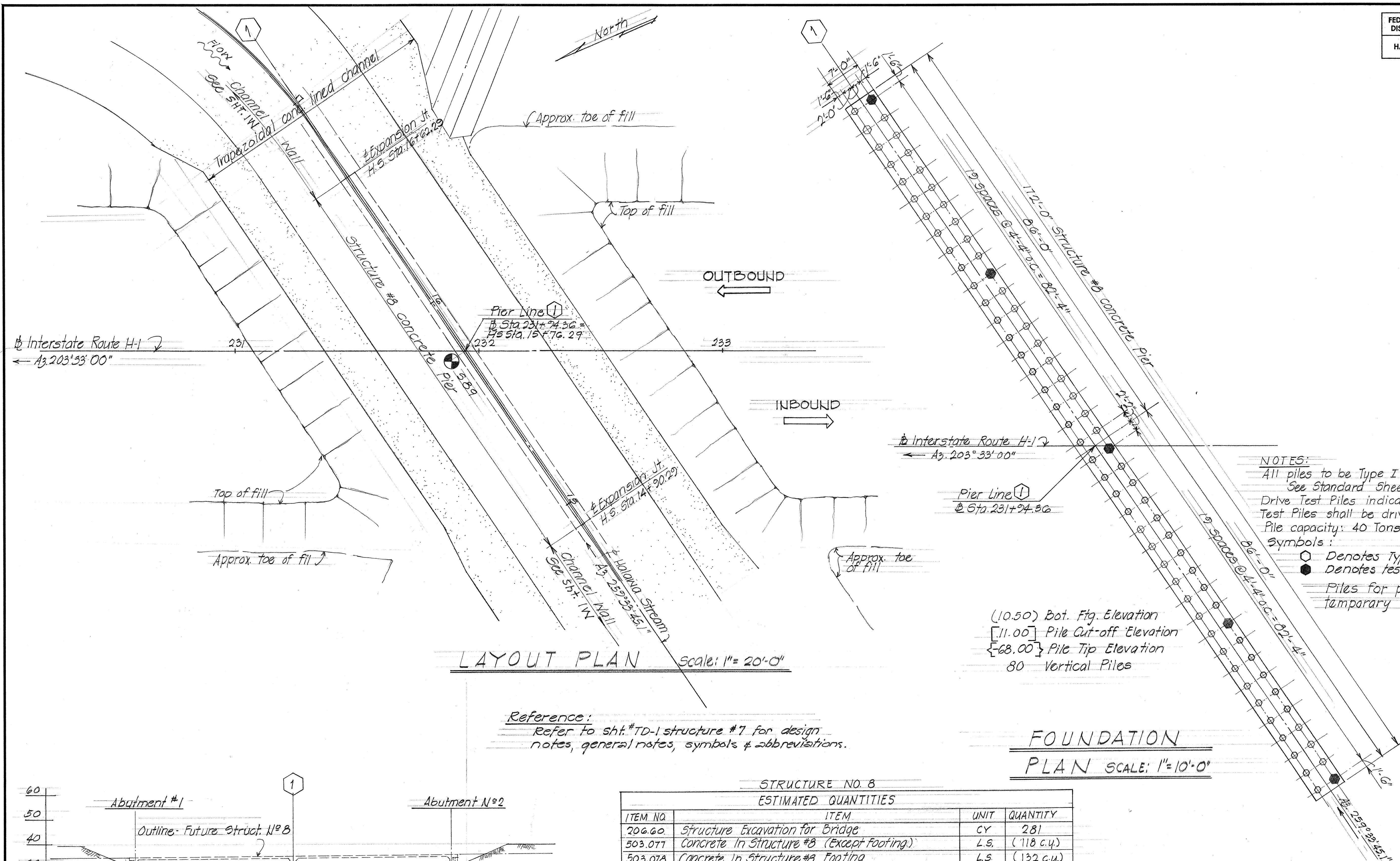
- NOTES:
- Design Stresses:
 $f'_c = 3000$ psi
 $f'_t = 1200$ psi
 $n = 10$
 $f_s = 20,000$ psi (tension)
 All reinforcing steel to be ASTM Designation A615 Grade 40.
 - All concrete shall be class A.
 - For details of Channel Lining see Drainage Plans, Sheet No. 60.
 - For details of expansion & compression joints see Sheet No. 61.
 - Wrap projecting bars with burlap and mastic as directed by the Engineer.



HERBERT M. MANDEL
REGISTERED
PROFESSIONAL
ENGINEER
No. 2735
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HALAWA STREAM SEPARATOR WALL
-TYPICAL SECTIONS-
INTERSTATE ROUTE H-1
PROJ. NO. I-H-1(88)13
SCALE: 1/2" unless noted Date: March 19, 1971
SHEET No. 4W OF 6W SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(88)13	1971	293	457



NOTES:
 All piles to be Type I prestressed concrete piles.
 See Standard Sheet DB-300-1, 300-2
 Drive Test Piles indicated on plan for length determination.
 Test Piles shall be driven before casting balance of piles.
 Pile capacity: 40 Tons.
 Symbols:
 ○ Denotes Type I prestressed concrete piles.
 ● Denotes test piles.
 Piles for pier shall not be driven until the temporary surcharge is completely removed.

(10.50) Bot. Ftg. Elevation
 [11.00] Pile Cut-off Elevation
 [68.00] Pile Tip Elevation
 80 Vertical Piles

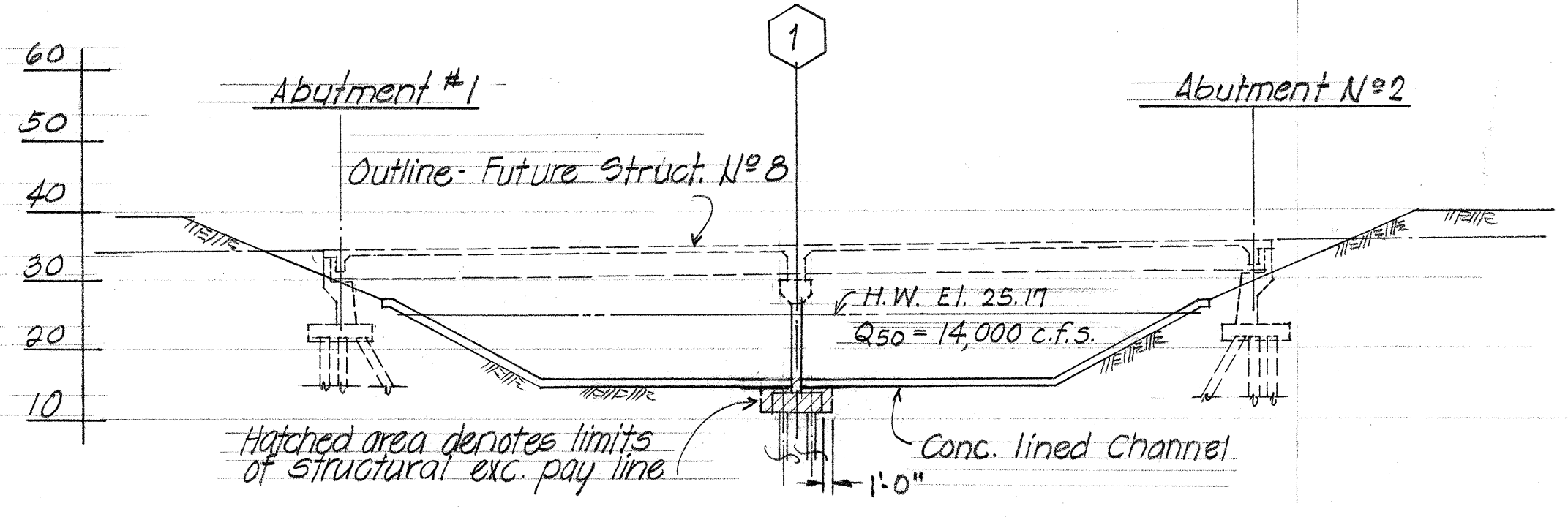
LAYOUT PLAN Scale: 1" = 20'-0"

Reference:
 Refer to sht. #TD-1 structure #7 for design notes, general notes, symbols & abbreviations.

FOUNDATION
PLAN SCALE: 1" = 10'-0"

STRUCTURE NO. 8
ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
204.60	Structure Excavation for Bridge	CY	281
503.077	Concrete In Structure #8 (Except Footing)	L.S.	(118 c.y.)
503.078	Concrete In Structure #8 Footing	L.S.	(132 c.y.)
505.040	Precast, Prestressed concrete Piles, Furnished	L.F.	6,520
505.400	Precast, Prestressed concrete Piles, Driven	L.F.	5,925
505.800	Driving Test piles	L.F.	395
602.014	Reinforcing Steel In Structure #8	L.S.	(27,600 lb.)

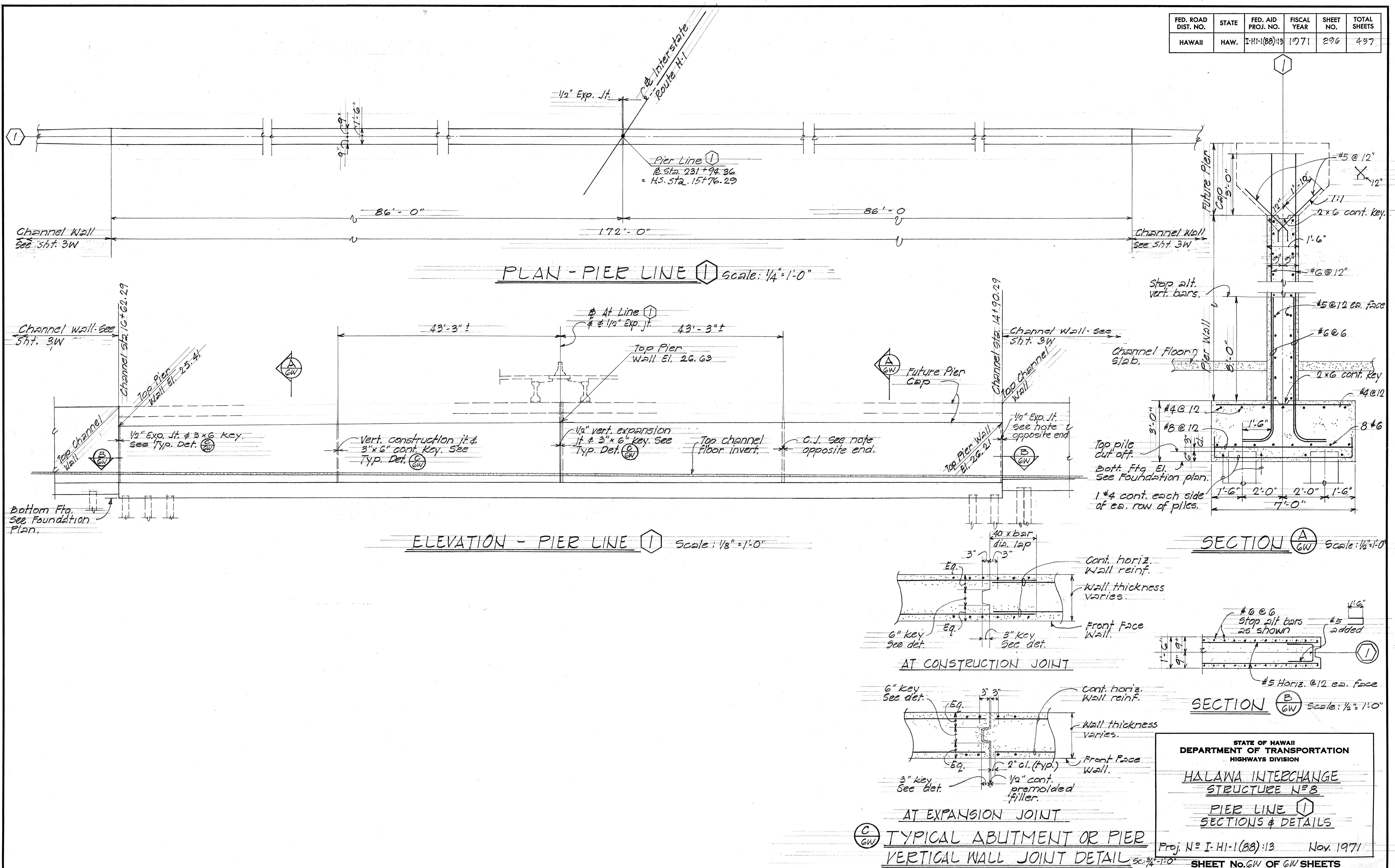


LONGITUDINAL SECTION ALONG A
 Scale: 1" = 20'-0"

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
HALAWA INTERCHANGE
STRUCTURE N°8
PIER- LAYOUT PLAN & DETAILS
 @ STA. 231+74.36
 Proj No. I-HI-1(88)13 Mar. 1971
SHEET No. 5W OF 6W SHEETS

DATE	1/28/71
DESIGNED BY	W. H. T.
CHECKED BY	J. B. T.
ORIGINAL	1
FLAT	1
NOTE BOOK	1
NO.	1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(88)43	1971	296	457



ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE <u>12 Dec 71</u>
	DRAWN BY <u>S.Y.</u>	"
	TRACED BY _____	"
NOTE BOOK	DESIGNED BY <u>T.M.</u>	"
	QUANTITIES BY _____	"
No. _____	CHECKED BY <u>J.P.</u>	"