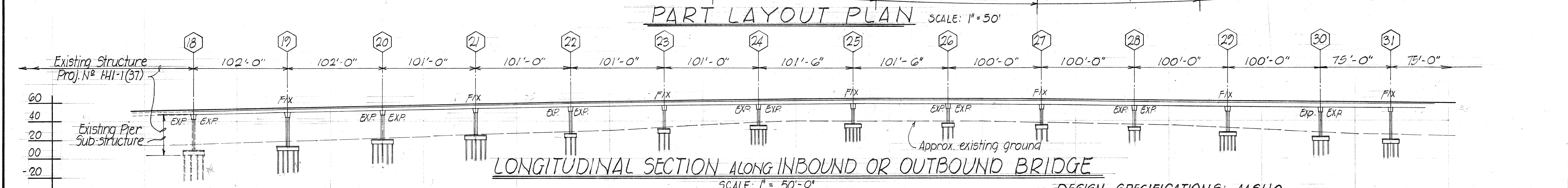
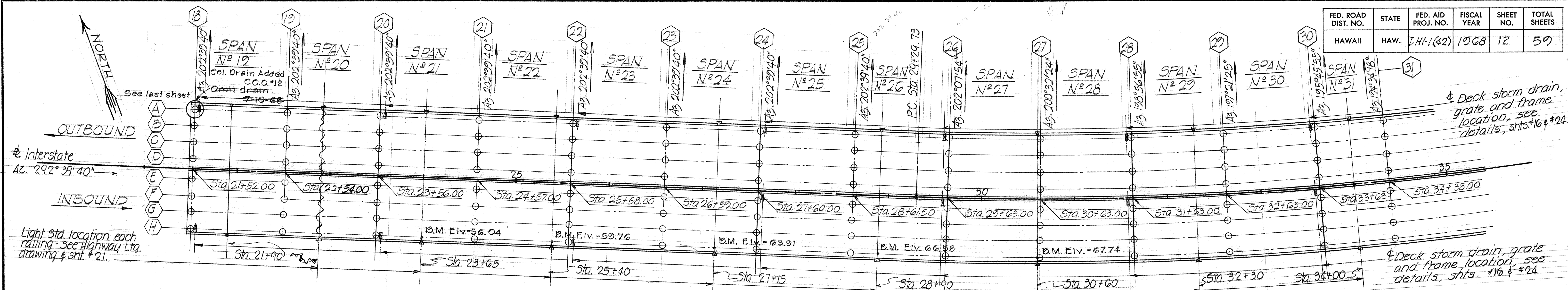


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IHI-1(42)	1968	12	59



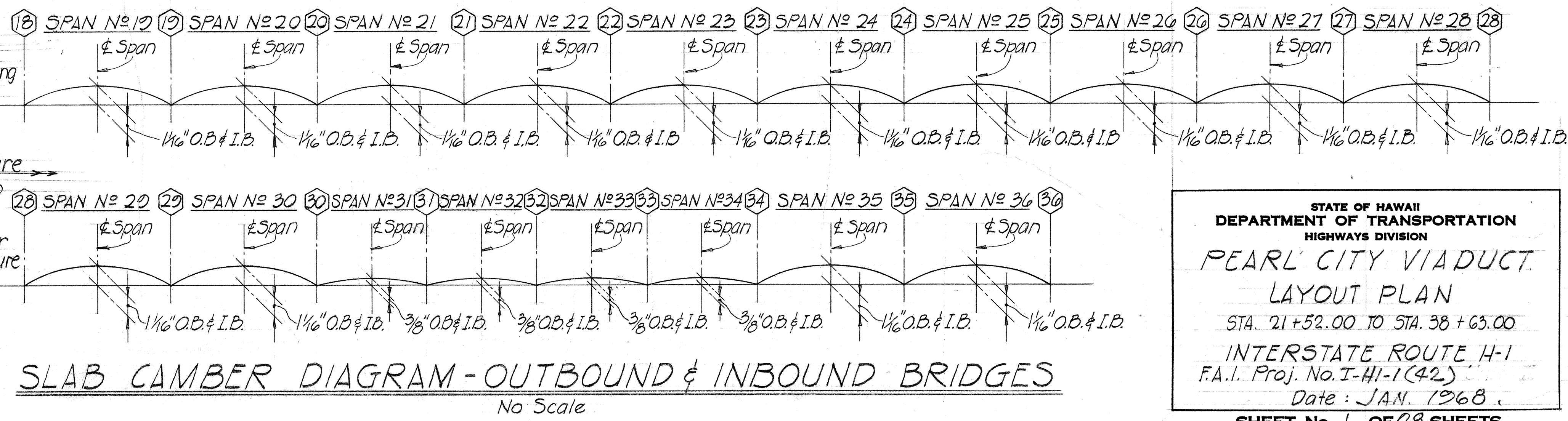
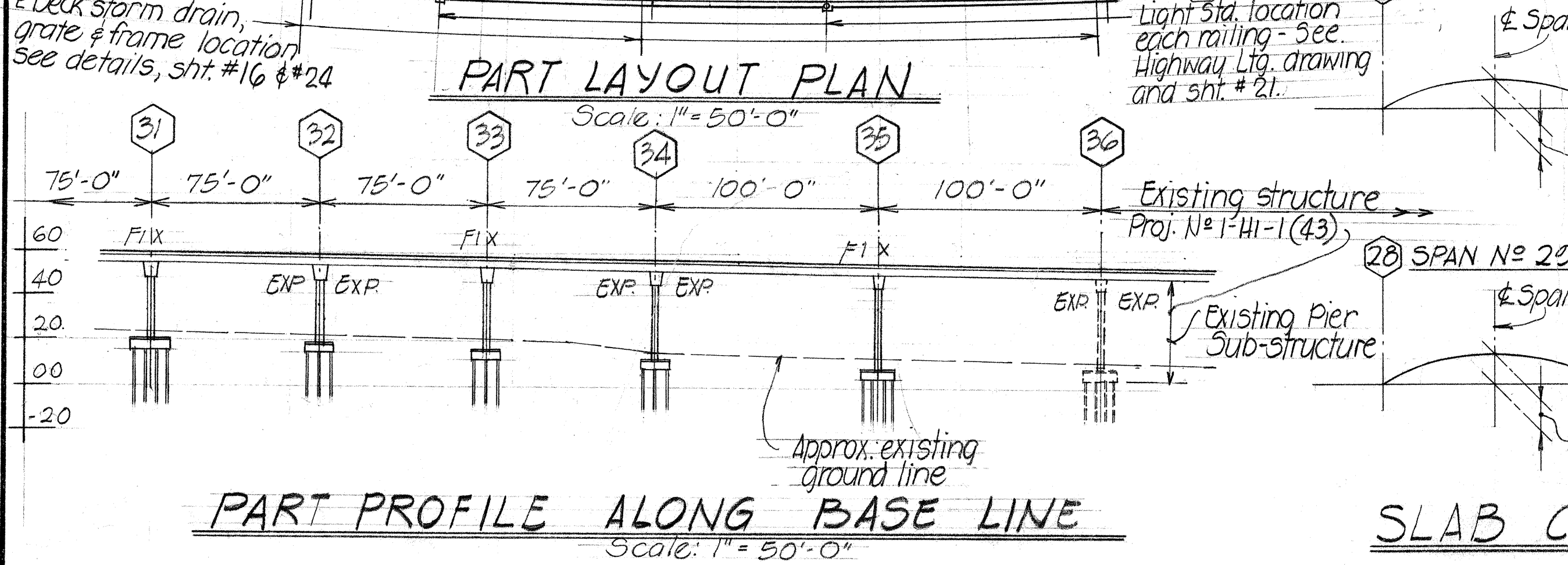
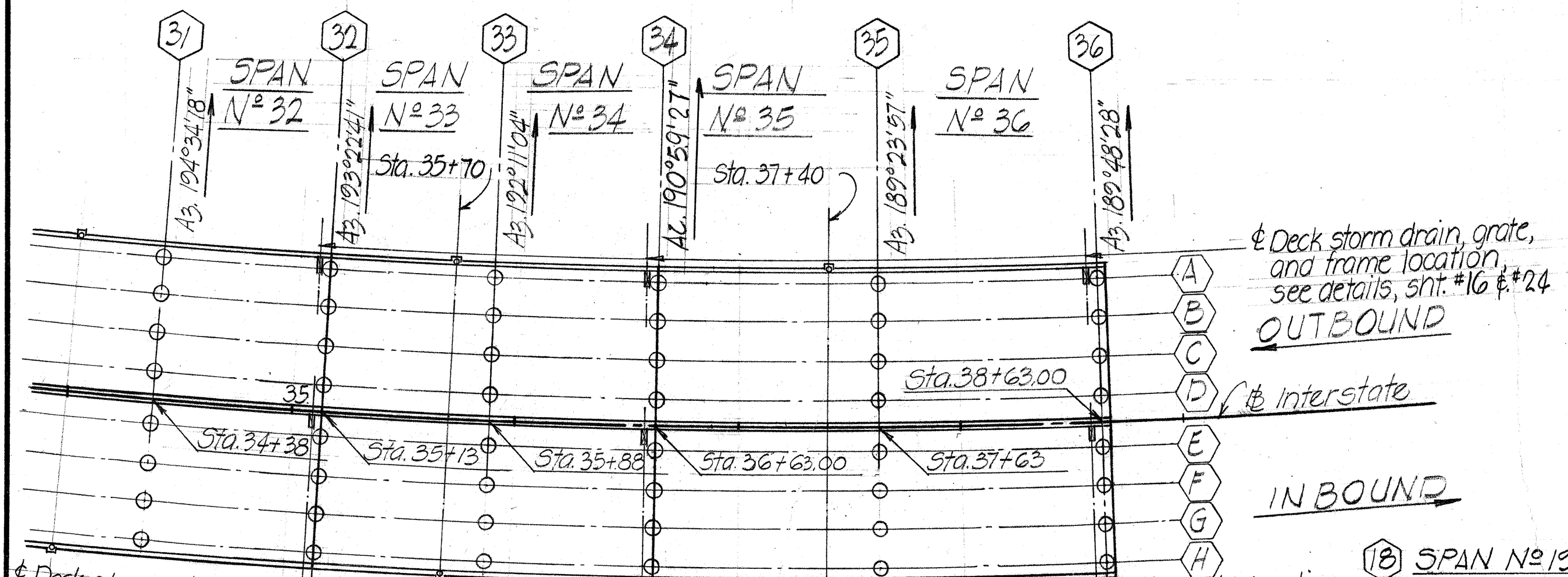
ESTIMATED QUANTITIES		
Concrete	(15,350 cu.)	LUMP SUM
Reinforcing steel	(3,878,100 lbs)	LUMP SUM
Prestressed Girder	(40,849 LIN.FT)	LUMP SUM
Furnishing - Type I Prestressed Conc. Piles	122,002 LIN.FT.	
Driving Piles	115,618 LIN.FT.	
Structural Excavation	13,110 c.y.	
Metal Bridge Railing (One Rail Traffic Type)	3,422 Lin.Ft.	
Concrete Bridge Railing (One Rail Traffic Type)	3,422 Lin.Ft.	
Load Test	2 only	

DESIGN SPECIFICATIONS: AASHTO
 Standard Specifications for Highway Bridges (9th Edition)
 with subsequent additions and modifications

DESIGN LOADS: HS-20-44 OR INTERSTATE LOADING

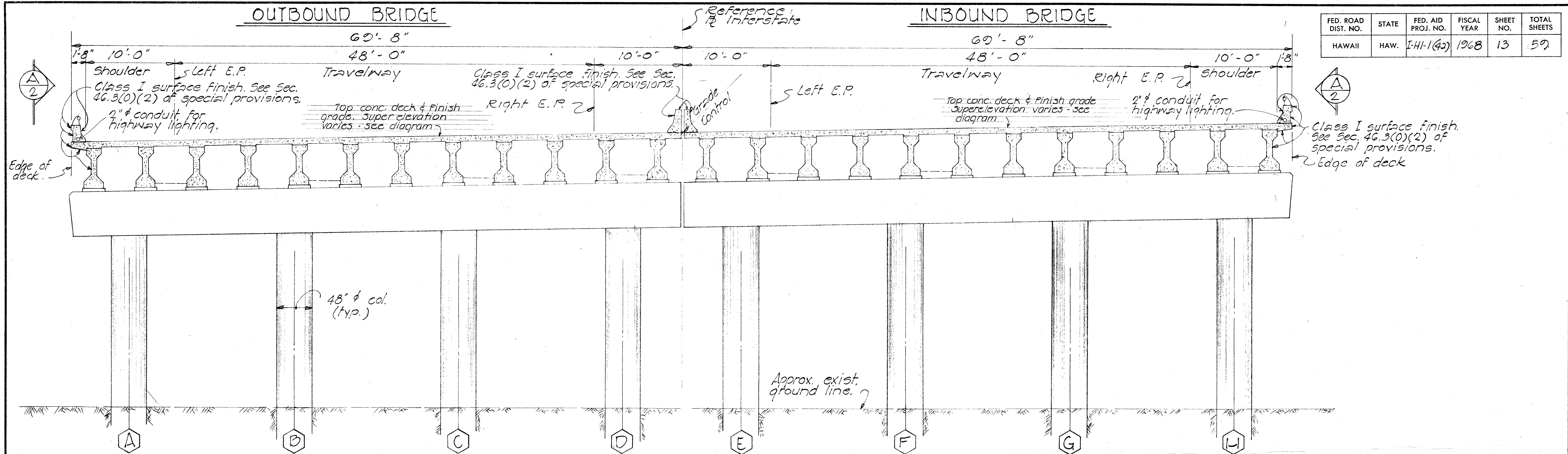
DESIGN STRESSES:

- R.C. Beams & Slabs - See AASHTO specifications & Special Provisions except as otherwise noted.
 (Class A-1) $f_c = 3,000$ psi. (Class E-1) $f_c = 4,500$ psi.
 $f_t = 1,200$ psi. $f_t = 1,800$ psi.
 $f_s = 20,000$ p.s.i. tension $f_s = 20,000$ p.s.i. tension
- Prestressed Girders
 $f_c = 5,500$ psi $1/2"$ dia. 7 wire strands
 $f_{ci} = 4,000$ psi Tensioning load = 25,200 lbs. per strand.
 Design load = 20,160 lbs. per strand
 Forms must be removed and the beam inspected before the strands are cut.
- Pile capacity - See Column Schedule sht. #6



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
PEARL CITY VIADUCT
 LAYOUT PLAN
 STA. 21+52.00 TO STA. 38+63.00
 INTERSTATE ROUTE H-1
 F.A.I. Proj. No. I-HI-1(42)
 Date: JAN. 1968
SHEET No. 1 OF 28 SHEETS

DATE: 1/26/68
 SURVEY PLOTTED BY: [Signature]
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 NOTE BOOK: [Signature]
 NO. [Signature]



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	13	50

NORMAL SECTION THRU VIADUCT

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

GENERAL NOTES

MATERIALS:

1. All concrete shall be Class A-1 except as otherwise noted on plans. Concrete for prestressed concrete girders see Special Provisions and as noted under Design Stresses, Sht. # 1.
2. Preformed fabric bridge bearing pads are incidental to concrete and will not be paid for separately.
3. See Special Provisions for admixture in concrete.
4. All piles to be prestressed concrete piles, Type I - see Standard Details Sht. # 52.
5. All reinforcing steel to be ASTM Designation A-15 Billet Steel, intermediate grade except as otherwise noted.

CONSTRUCTION METHODS:

1. See Standard Specifications and Special Provisions.
2. The Contractor shall verify the location of all existing utility lines and notify the respective owners before commencing work of excavation or pile driving.

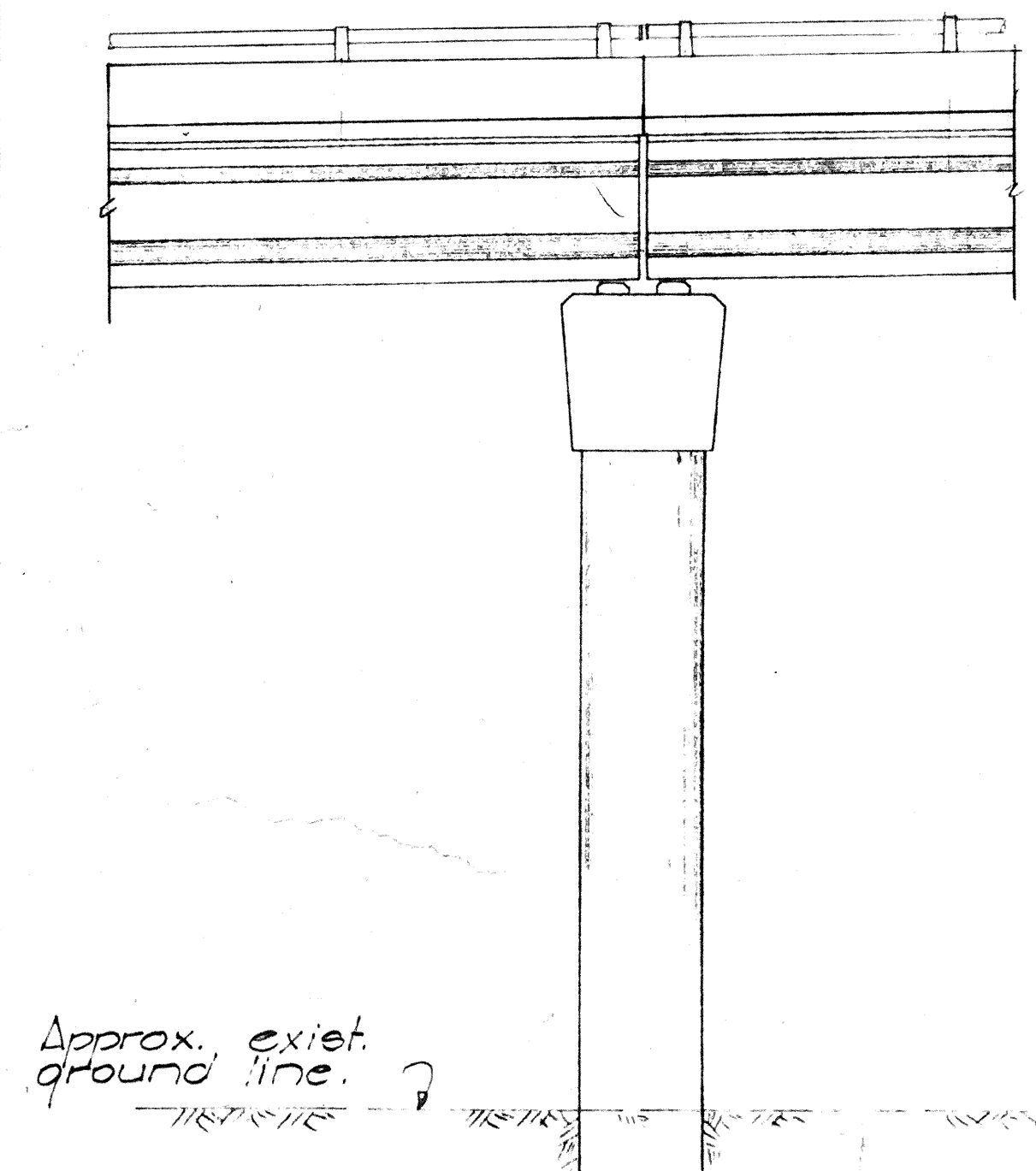
3. For concrete finish see Special Provisions. Concrete seats and creep blocks to be poured monolithically with pier.
4. See Plan above for additional Surface Finish.
5. In general, top & edge of concrete deck of superstructure shall be constructed to follow the finish roadway vertical & horizontal curves and grades.

REFERENCE:

1. Refer to Standard Detailed Drawing Shts. #5-1 thru #5-3 inclusive, for details not covered by these drawings.
2. For deck slab camber diagram refer to Sht. #1

SYMBOLS & ABBREVIATIONS

Location pier line number	1A	Pier column no.	I.B. - Inbound
	A	Column line alphabet	O.B. - Outbound
①			℄ - Baseline
②			Pt - Point
(00.0)			Exp. - Expansion
[00.0]			No. - Number
[00.0]			Cont. - Continuous
			E.F. - Each Face
			B.F. - Both Face
			N.F. - Near Face
			F.F. - Far Face
			W.P. - Working Point
			ea. - each
			Bal. - Balance
			Bot, Bott - Bottom
			T. - Top
			Ext. - Exterior
			Int. - Interior
			O.C. - On center
B5			
H.S.			
CPF-80			
G-1, G-2			
I.R.			
O.R.			
S.E.			



TYPICAL ELEVATION

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEARL CITY VIADUCT

TYPICAL SECTIONS & DETAILS

GENERAL NOTES

INTERSTATE ROUTE HI-1

F.A.I. Proj. No. I-HI-1(42)

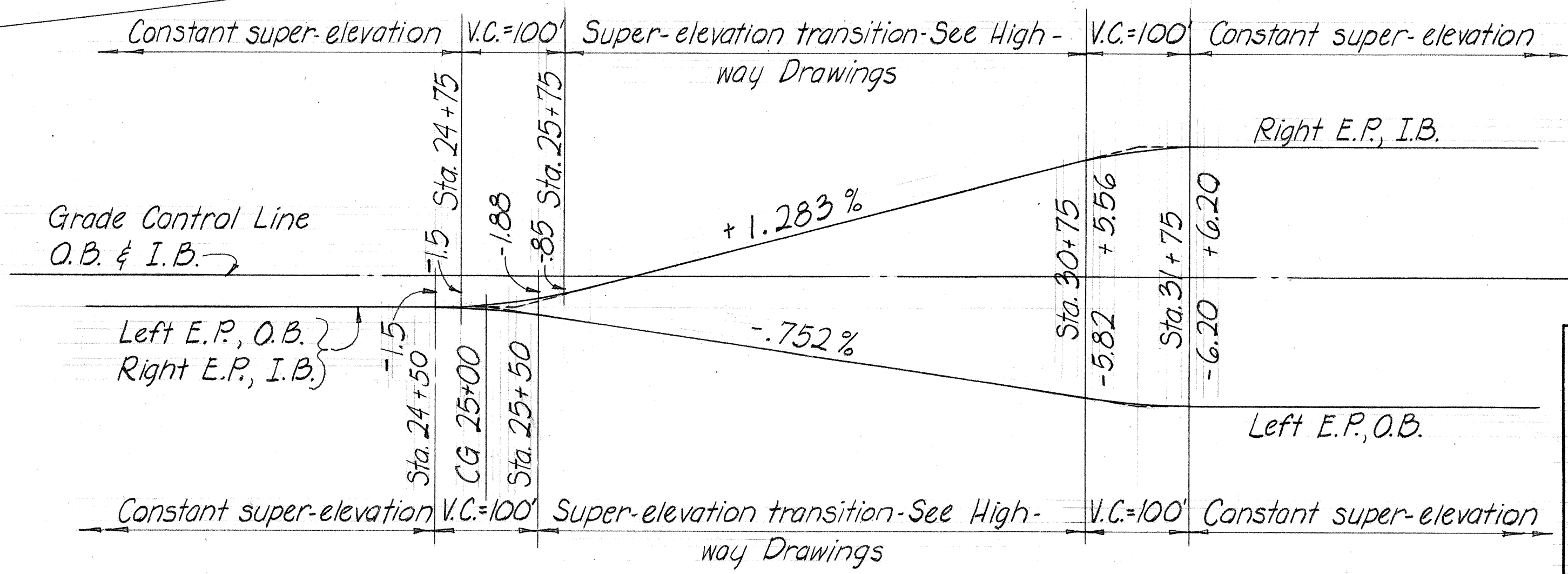
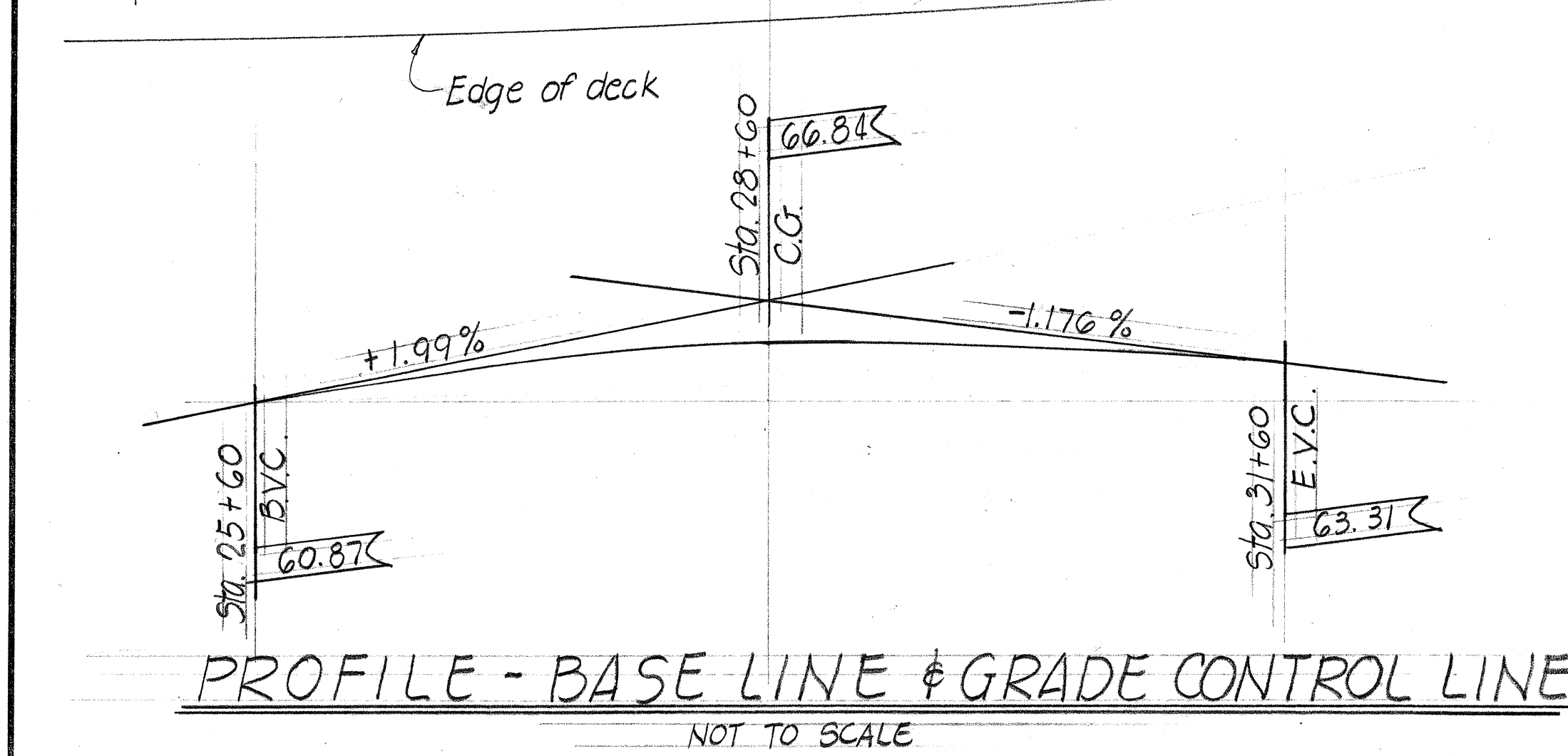
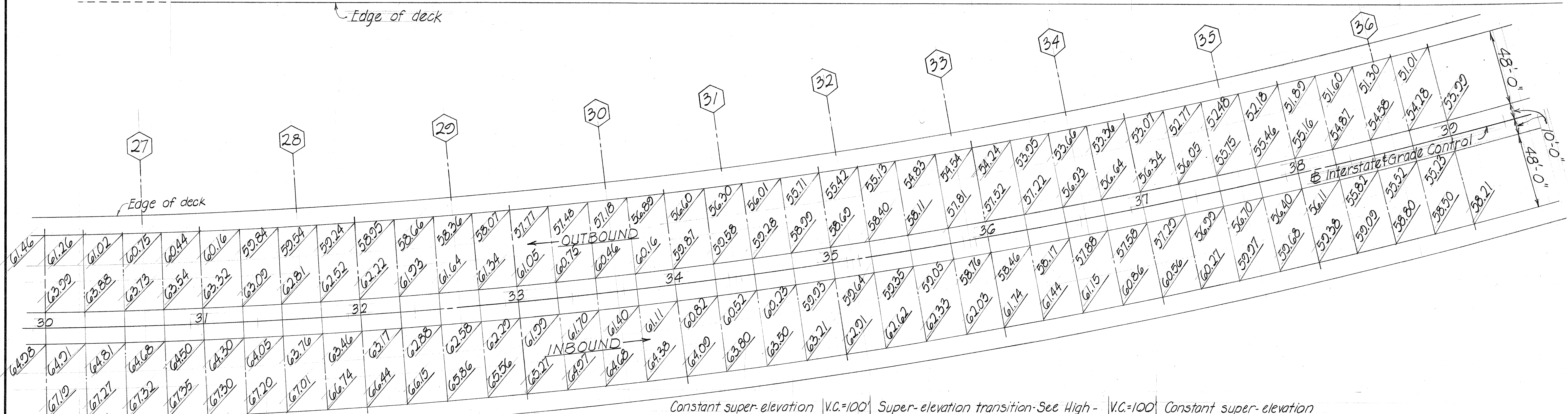
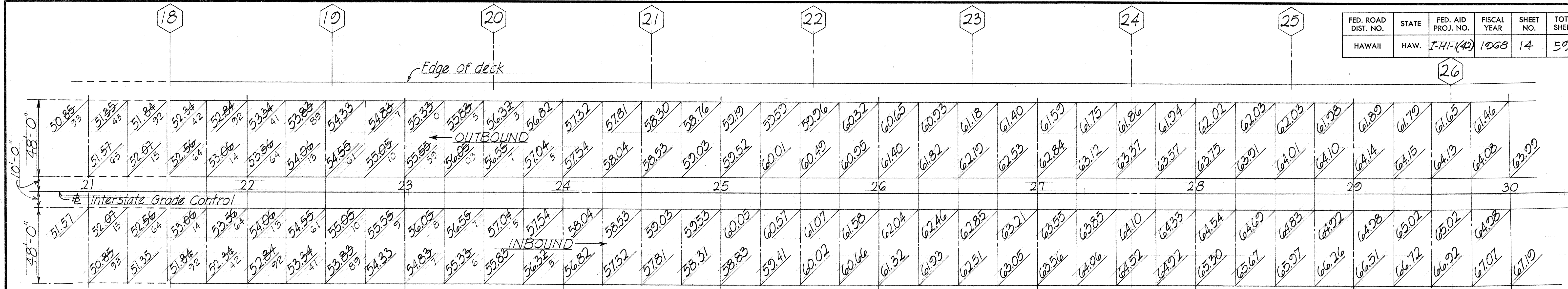
Scale: As Noted.

Jan. 1968

SHEET No. 2 OF 28 SHEETS

ORIGINAL PLAN	DATE	1968
DESIGNED BY	HI DO	
NOTED BY	SI TEA	
CHECKED BY	LA RK	

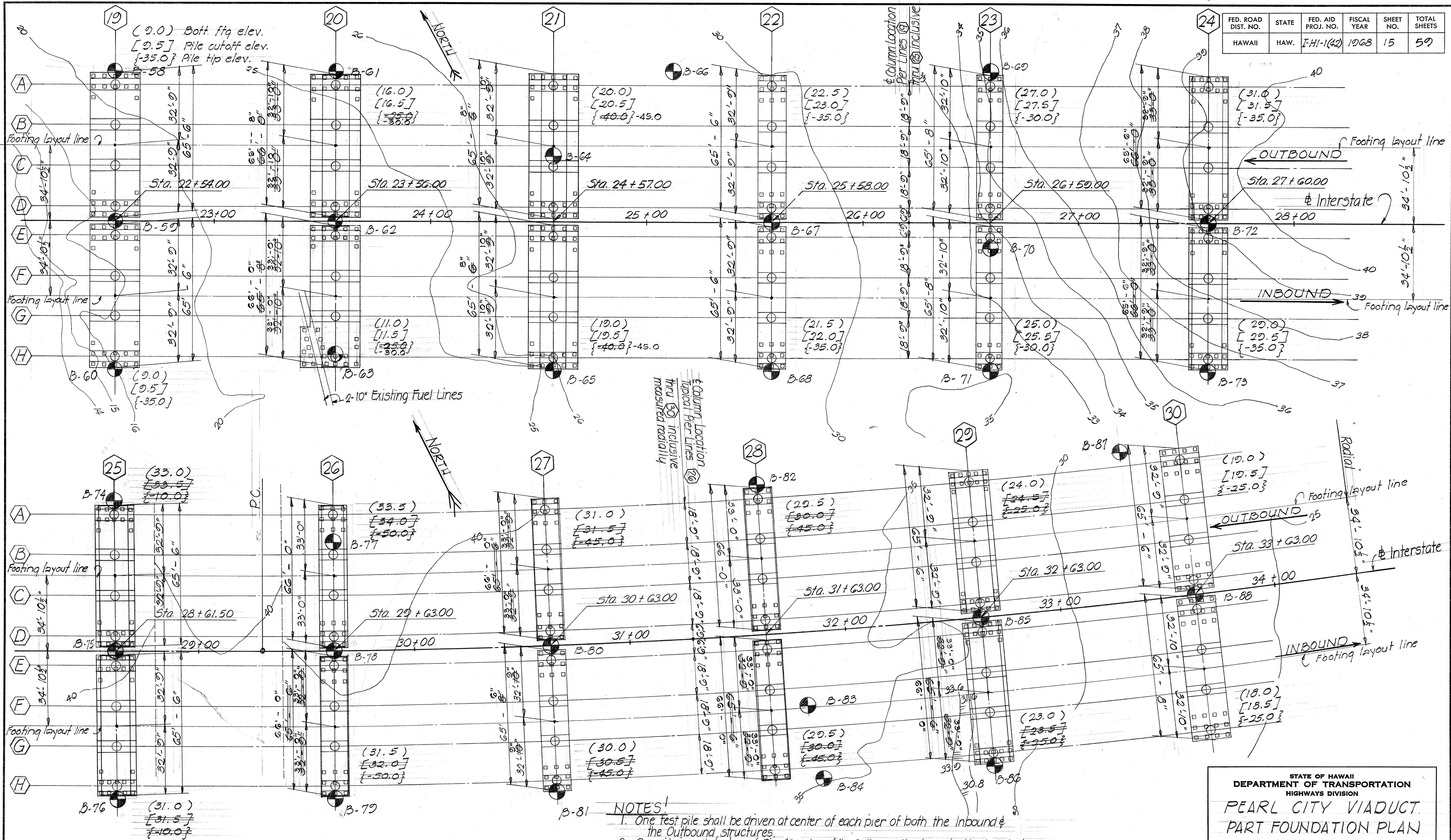
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-41-1(42)	1968	14	59



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
DECK FINISH GRADES
STA. 21+00 TO STA. 39+00
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-41-1(42)
Date: JAN. 1968
SHEET No. 3 OF 28 SHEETS

DATE: 1/26/68
SURVEY PLOTTED BY: G.U.
DRAWN BY: M.T.
DESIGNED BY: M.T.
NOTE BOOK: 67
QUANTITIES BY: M.T.
CHECKED BY: P.H.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(42)	1968	15	59



NOTES:

1. One test pile shall be driven at center of each pier of both the Inbound & the Outbound structures.
2. One pile in each footing of Pier #25 & #35 of the Outbound Structure shall be load tested.
3. Refer to sheets #5, #6, #7, #8, & #9 for additional foundation details & schedules.
4. Refer to sheets #25, #26, #27, & #28, for Boring Logs.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEARL CITY VIADUCT PART FOUNDATION PLAN

STA. 22+54.00 TO STA. 33+63.00

INTERSTATE ROUTE H-1

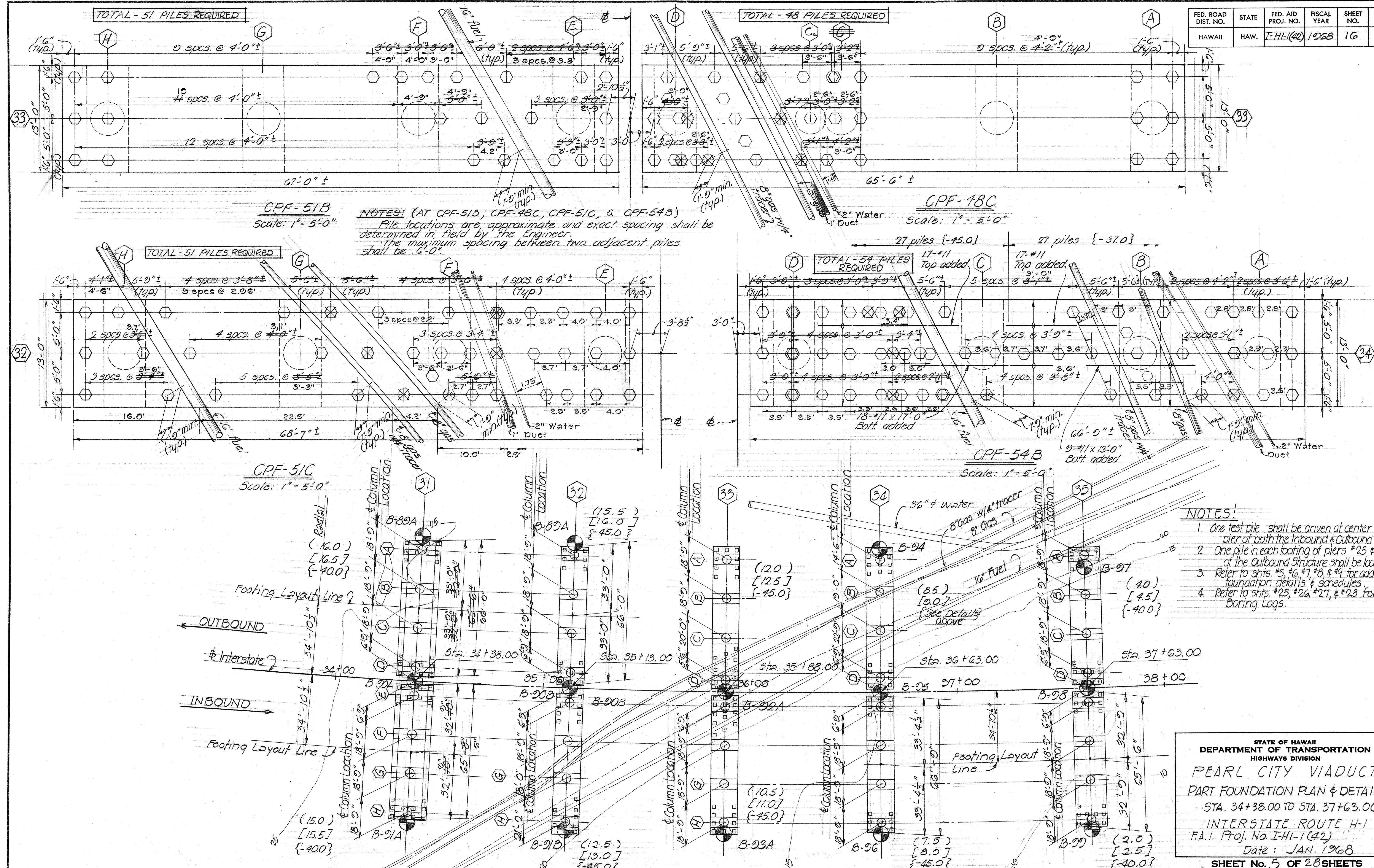
F.A.I. Proj. No. I-H-1(42)

Date: JAN. 1968

SHEET No. 4 OF 28 SHEETS

DATE	1/26/68
DESIGNED BY	...
CHECKED BY	...
NOTED BY	...
QUANTITIES BY	...
NO.	...

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(42)	1968	16	59



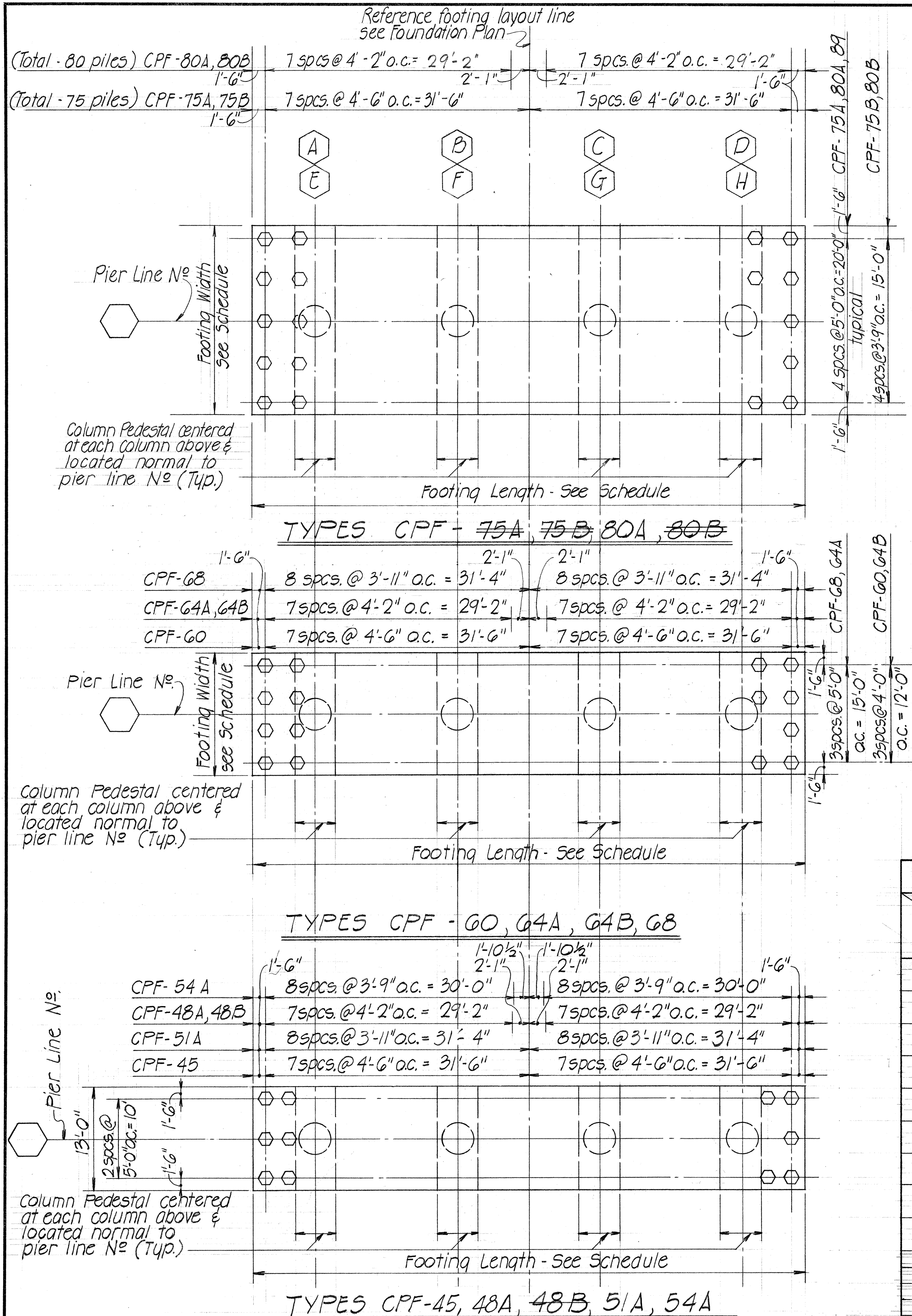
ORIGINAL PLAN	DATE: 1/26/68
DRAWN BY: [Signature]	
TRACED BY: [Signature]	
NOTED BY: [Signature]	
CHECKED BY: [Signature]	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-41-1(42)	1968	17	59

PIER COLUMN SCHEDULE																																								
PIER COLUMN NUMBERS	10A	10C	20E	20F	20A	20B	21A	21B	21E	22A	22B	22E	22F	23A	23B	23E	24A	24B	24E	25A	25B	25E	25F	26A	26B	26E	26F	27A	27B	27E	27F	28A	28B	28E	28F	29A	29B	29E	29F	
	10D	10B	20H	20G	20D	20C	21D	21C	21F	22D	22C	22H	22G	23D	23C	23F	24D	24C	24F	25D	25C	25H	25G	26D	26C	26H	26G	27D	27C	27H	27G	28D	28C	28H	28G	29D	29C	29H	29G	
	10E	10F							21G							23G			24G																					
	10H	10G							21H							23H			24H																					
LOCATION																																								
SOFFIT OF PIER CAP																																								
TOP OF COLUMN PEDESTAL																																								
DOWELS (EACH COLUMN)																																								
CONC. PEDESTAL TYPE (AT EACH COLUMN)																																								
CONTINUOUS PILE FOOTING TYPE																																								
PILE CAPACITY (TONS)																																								
NOTE: All vertical column reinforcing bars and dowels are high strength steel ASTM Designation A-432 Billet Steel. All #14 & #18 column steel to be continuous from footing unless Contractor elects to butt weld bars at splice. No doweling of #14 & #18 bars will be permitted.																																								

PIER COLUMN SCHEDULE																																				
PIER COLUMN NUMBERS	32A	32B	32E	32H	33A	33B	33E	33F	34A	34C	34D	34E	34F	35A	35E	35F																				
	32D	32C	32F		33D	33C	33H	33G	34B			34H	34G	35B	35H	35G																				
LOCATION			32G											35C																						
SOFFIT OF PIER CAP																																				
TOP OF COLUMN PEDESTAL																																				
DOWELS (EACH COLUMN)																																				
CONC. PEDESTAL TYPE (AT EACH COLUMN)																																				
CONTINUOUS PILE FOOTING TYPE																																				
PILE CAPACITY (TONS)																																				

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
PIER COLUMN SCHEDULE
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-H-1-1(42)
Date: JAN. 1968
SHEET No. 6 OF 28 SHEETS



CONTINUOUS PILE FOOTING SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-41-1(42)	1968	18	59

FOOTING PILE TYPE	SIZE		DEPTH	TOP MAIN REINF.		BOTTOM MAIN REINF.		TRANSVERSE REINF. BETWEEN PEDESTAL		REMARKS
	WIDTH	LENGTH		CONT.	ADDED BETWEEN COLUMNS	CONT.	ADDED UNDER INTERIOR COLUMNS	TOP LAYER (CONT.)	BOTTOM LAYER (CONT.)	
CPF-45	13'-0"	66'-0"	3'-6"	17-#11	17-#11	11-#11	10-#11 x 13'-0"	#5 @ 18"	#5 @ 12"	
CPF-48A	DO	65'-6"	3'-6"	19-#11	18-#11	11-#11	10-#11 x 13'-0"	DO	DO	
CPF-48B	DO	DO	4'-0"	18-#11	17-#11	10-#11	9-#11 x 13'-0"	DO	DO	
CPF-48C	DO	65'-6"±	3'-6"	20-#11	20-#11	11-#11	10-#11 x 14'-0"	DO	DO	Refer to Detail Sht. #5
CPF-51A	DO	65'-8"	4'-0"	18-#11	17-#11	10-#11	9-#11 x 13'-0"	DO	DO	
CPF-51B	DO	67'-0"±	3'-6"	15-#11	15-#11	11-#11	11-#11 x 13'-0"	DO	DO	Refer to Detail Sht. #5
CPF-51C	DO	68'-7"±	DO	15-#11	15-#11	11-#11	11-#11 x 13'-0"	DO	DO	Refer to Detail Sht. #5
CPF-54A	DO	66'-9"	3'-6"	15-#11	15-#11	10-#11	9-#11 x 13'-0"	DO	DO	
CPF-54B	DO	DO	DO	18-#11	see Detail Sht. #5	DO	see Detail Sht. #5	DO	DO	Refer to Detail Sht. #5
CPF-60	15'-0"	66'-0"	4'-0"	17-#11	17-#11	DO	10-#11 x 13'-0"	DO	DO	Refer to Detail Sht. #6
CPF-64A	18'-0"	65'-6"	DO	15-#11	14-#11	14-#9	13-#9 x 13'-0"	DO	DO	
CPF-64B	15'-0"	DO	DO	19-#11	19-#11	10-#11	10-#11 x 13'-0"	DO	DO	
CPF-68	18'-0"	65'-8"	DO	15-#11	14-#11	14-#9	13-#9 x 13'-0"	DO	DO	
CPF-75A	23'-0"	66'-0"	DO	19-#10	18-#10	15-#9	14-#9 x 13'-0"	DO	DO	
CPF-75B	18'-0"	DO	DO	15-#11	14-#11	14-#9	13-#9 x 13'-0"	DO	DO	
CPF-80A	23'-0"	65'-6"	DO	18-#11	18-#11	16-#9	15-#9 x 13'-0"	DO	DO	
CPF-80B	18'-0"	DO	DO	DO	DO	DO	DO	DO	DO	
CPF-89	23'-0" & varies	65'-8"	DO	DO	18-#11 & see Detail	DO	15-#9 x 13'-0" & see Detail	#5 @ 18" & see Detail	#5 @ 12" & see Detail	Refer to Detail Sht. #6
CSF-1	13'-0"	65'-6"	3'-6"	18-#11	18-#11	16-#9	15-#9 x 13'-0"	#5 @ 18"	#5 @ 12"	
CSF-2	13'-6"	66'-0"	DO	18-#11	17-#11	16-#9	15-#9 x 13'-0"	DO	DO	
CSF-3	12'-6"	DO	DO	15-#11	14-#11	15-#9	14-#9 x 13'-0"	DO	DO	
CSF-4	12'-0"	DO	DO	14-#11	13-#11	14-#9	13-#9 x 13'-0"	DO	DO	

FOOTING PIER COLUMN PEDESTAL SCHEDULE

LOCATION TYPE	SIZE		DEPTH	TOP REINF. CONT.	BOTTOM REINF.		STIRRUPS		REMARKS
	WIDTH	LENGTH			CONT.	ADDED	SIZE	TYPE	
P-1	5'-0"	23'-0" & 27'-8"	5'-0"	4-#11	12-#11	12-#11 x 14'-0" 2nd Layer	#5	U	27'-8" Length @ Col. (20H) ONLY
P-2	DO	18'-0"	DO	4-#5	10-#11	2-#11 x 12'-0" Bott. 8-#11 x 12'-0" 2nd Layer	DO	DO	8@4", Bal @ 12"
P-3	DO	18'-0"	DO	DO	10-#11	2-#11 x 12'-0" Bott. 6-#11 x 12'-0" 2nd Layer	DO	DO	12" sp. Thruout
P-4	DO	15'-0"	DO	DO	8-#11	4-#11 x 10'-0" Bott. 4-#11 x 10'-0" 2nd Layer	DO	DO	8" sp. Thruout
P-5	DO	13'-0"	DO	DO	6-#11	6-#11 x 8'-0" Bott.	DO	DO	5 1/2" sp. Thruout
P-6	DO	DO	5'-0"	DO	6-#11	6-#11 x 8'-0" Bott.	DO	DO	7" sp. Thruout
P-7	DO	DO	4'-6"	DO	7-#11	5-#11 x 8'-0" Bott. 2-#11 x 8'-0" 2nd Layer	DO	DO	4 1/2" sp. Thruout
P-8	DO	DO	DO	DO	7-#11	5-#11 x 8'-0" Bott. 2-#11 x 8'-0" 2nd Layer	#5	DO	4" sp. Thruout
P-9	DO	DO	DO	DO	10-#11	2-#11 x 8'-0" Bott. 6-#11 x 8'-0" 2nd Layer	#6	DO	5" sp. Thruout
P-10	5'-0"	13'-0"	4'-6"	4-#5	6-#11	6-#11 x 8'-0" Bott.	#5	DO	12" sp. Thruout
P-11	DO	13'-6"	DO	DO	6-#10	6-#10 x 7'-0" Bott.	DO	DO	DO
P-12	DO	12'-6"	DO	DO	6-#9	6-#9 x 8'-0" Bott.	DO	DO	DO
P-13	DO	12'-0"	DO	DO	6-#9	6-#9 x 8'-0" Bott.	DO	DO	DO

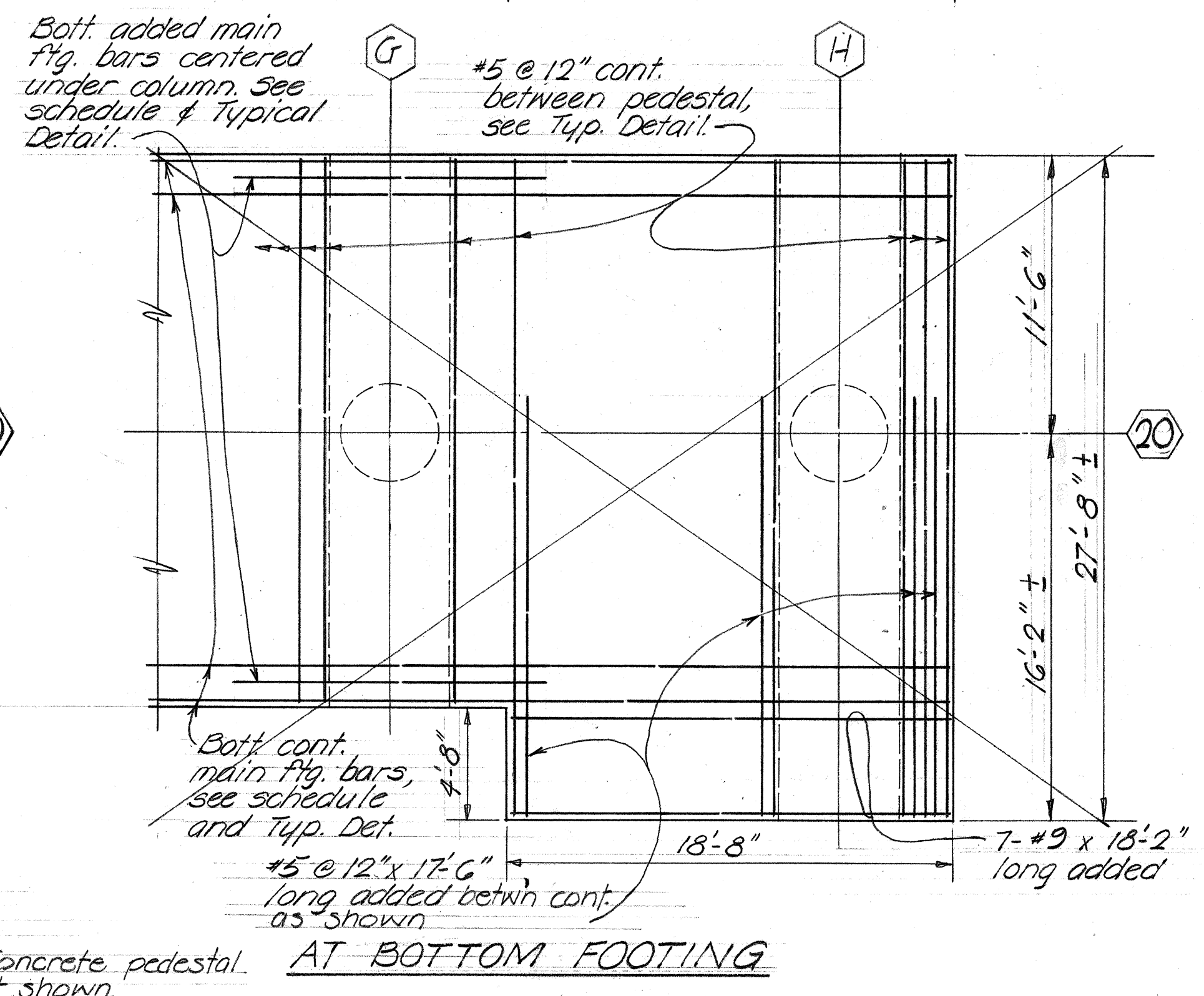
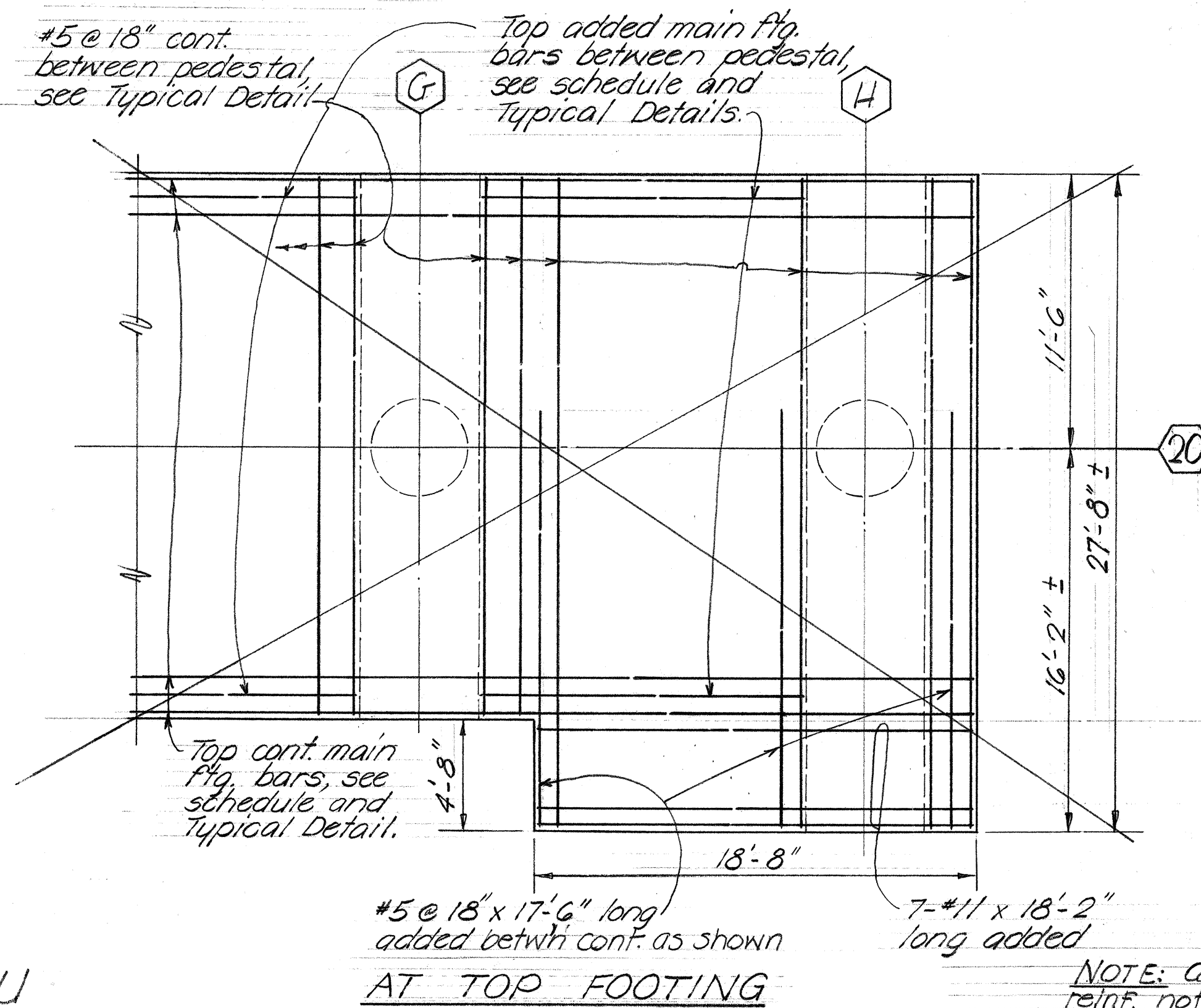
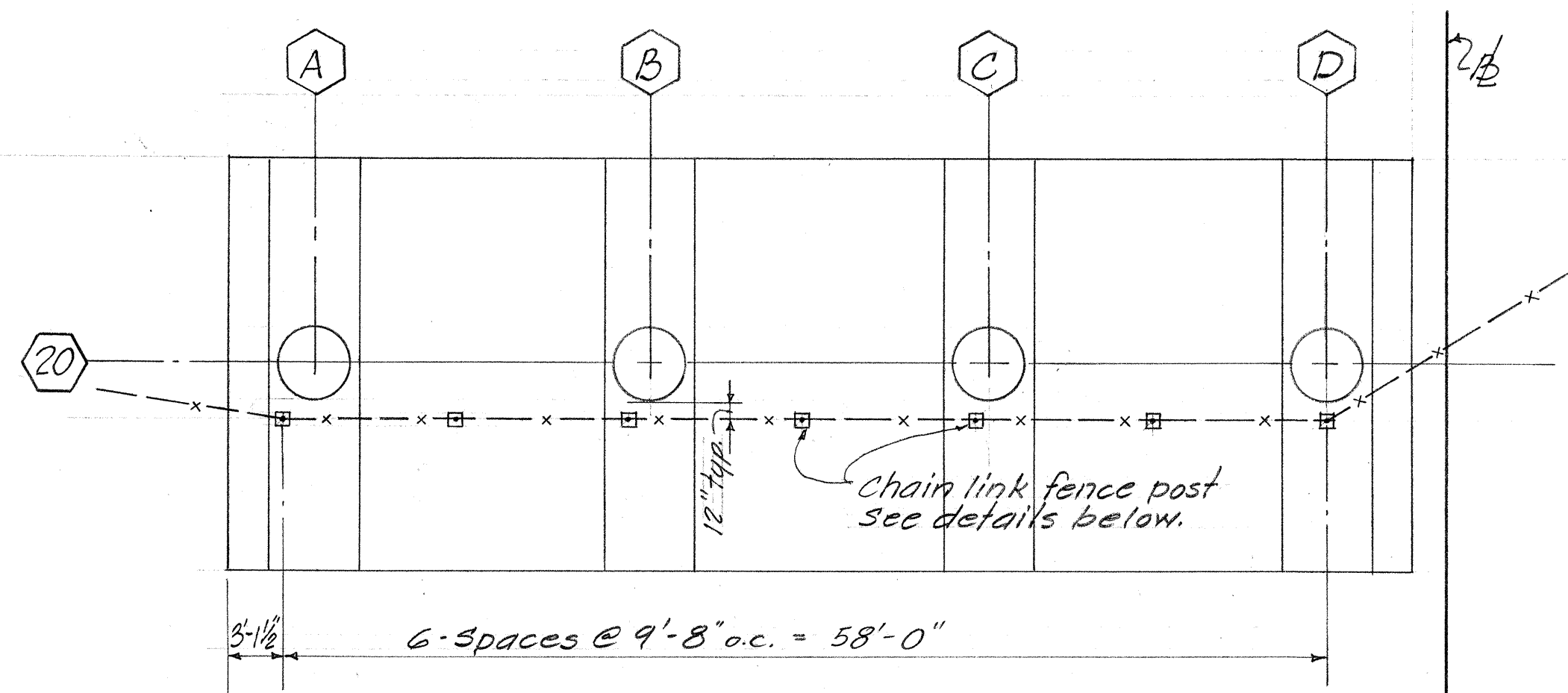
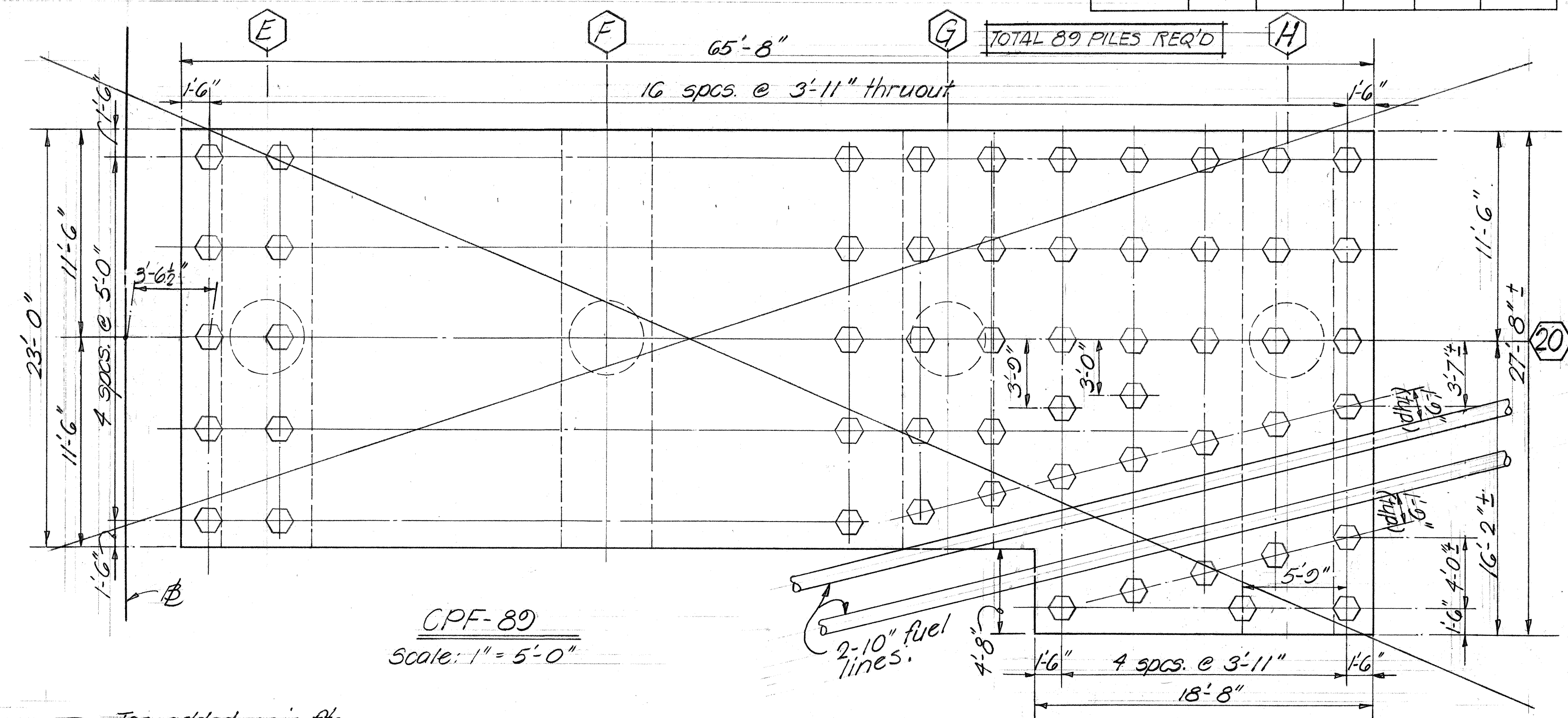
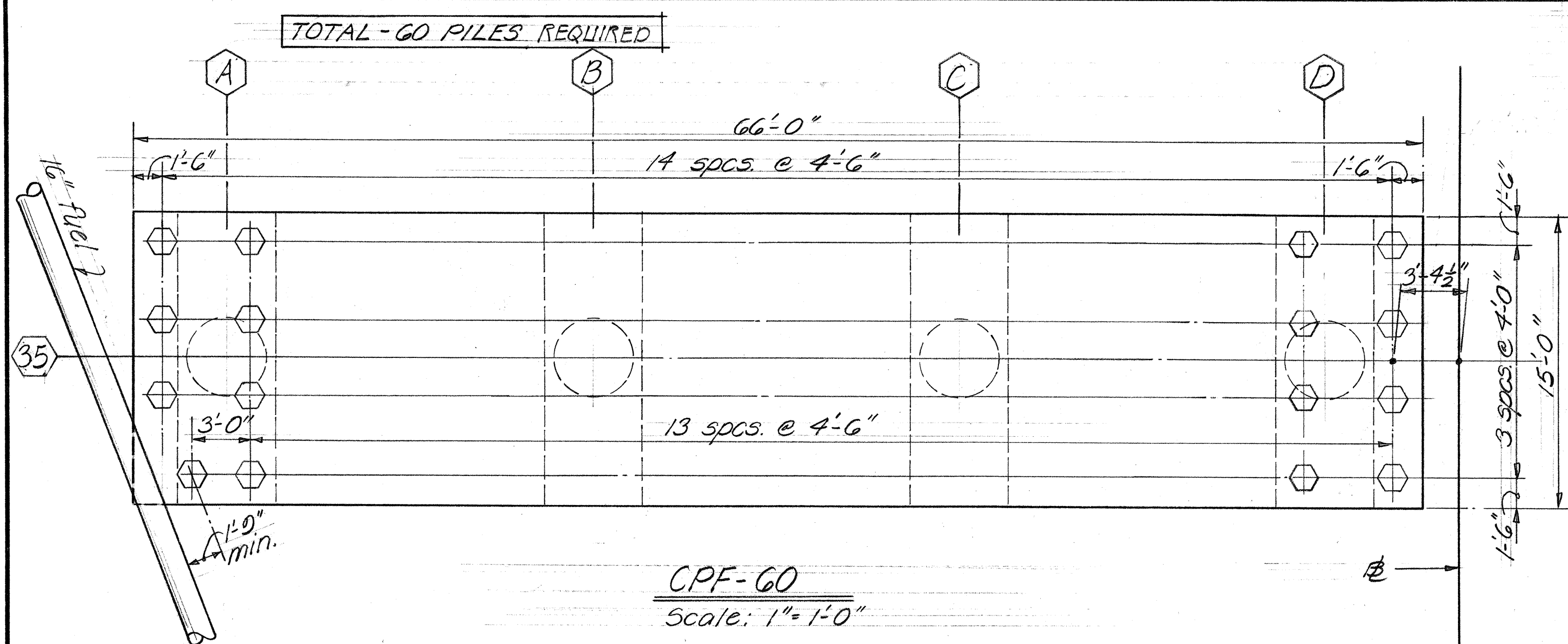
Reference Notes: Refer to Shts. #5 thru #9 inclusive for additional Foundation details & schedules.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
TYPICAL PIER FOOTING DETAILS
& SCHEDULES
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-41-1(42)
Date: JAN. 1968
SHEET No. 7 OF 28 SHEETS

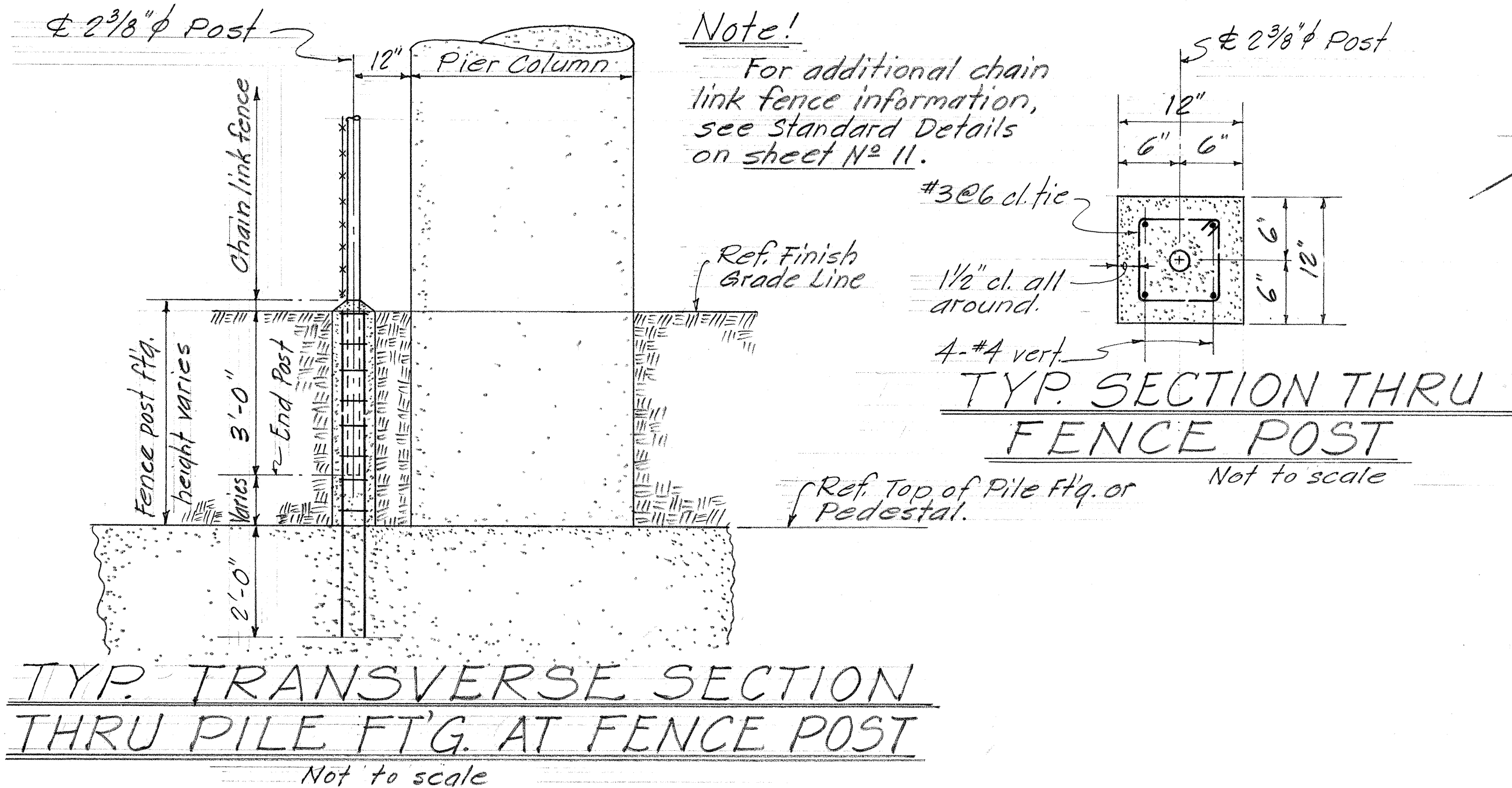
PLAN - TYPICAL CONTINUOUS PILE FOOTING

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	19	59

NOTES: AT CPF-60 & CPF-89. Pile locations are approximate and exact spacing shall be determined in field by the Engineer.
The maximum spacing between two adjacent piles shall be 6'-0".



PART PLANS-SHOWING TOP & BOTTOM SPECIAL REINFORCEMENT AT CPF-89
Scale: 1" = 5'-0"



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
PIER FOOTING DETAILS
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(42)
Date: JAN. 1968.
SHEET No. 8 OF 28 SHEETS

[illegible]

TYPICAL SECTION 

Diagram illustrating the reinforcement details for a column and pedestal assembly, showing two cross-sectional views.

Left View (Column and Pedestal):

- Column:** Labeled "Numerical Pier Line No." and "Column & Pedestal Below". It shows vertical reinforcement ("Vert. Column reinf. See Typ. Column Detail") and horizontal ties ("Ties spcg. see Schedule").
- Pedestal:** Labeled "Pedestal Depth". It shows horizontal reinforcement ("Bott. cont. pedestal reinf. see Schedule for size & nos.") and vertical ties ("Ties spcg. see Schedule").
- Reinforcement Details:** "Column dowels", "Same plane", "2nd. layer bott. added pedestal reinf. see Schedule for size & nos. Bars centered under column.", and "Bott. layer added pedestal reinf. see Schedule for size & nos. Bars centered under column".

Right View (Column and Pedestal with Footing):

- Column:** Labeled "Alphabet Column Line No." and "Column & Pedestal". It shows horizontal ties ("Ties").
- Pedestal:** Labeled "Width Pedestal" and "Pedestal Depth". It shows horizontal reinforcement ("Bott. layer added pedestal reinf. see Schedule for size & nos. Bars centered under column") and vertical ties ("Ties").
- Footing:** Labeled "Footing Depth". It shows horizontal reinforcement ("Bott. ftg. reinf. see Typical Det.") and vertical ties ("Ties").
- Reinforcement Details:** "Conc. pedestal poured monolithic with footing.", "Top cont. pedestal reinf. see Schedule for size & nos.", "Top ftg. reinf. see Typical Det.", "2nd layer (Bott.)", and "Bott. layer pedestal reinf.".

NOTE: Refer Sht #5, Foundation.

SECTION
No Scale

Hatched area denotes limits of structural excavation

Well compacted backfill to existing ground line

Existg. ground line

No scale

NOTE: Refer to Schedules and Footing Details -
Sht. #5, #6 & #8 for special and additional
Foundation dimensions and details.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

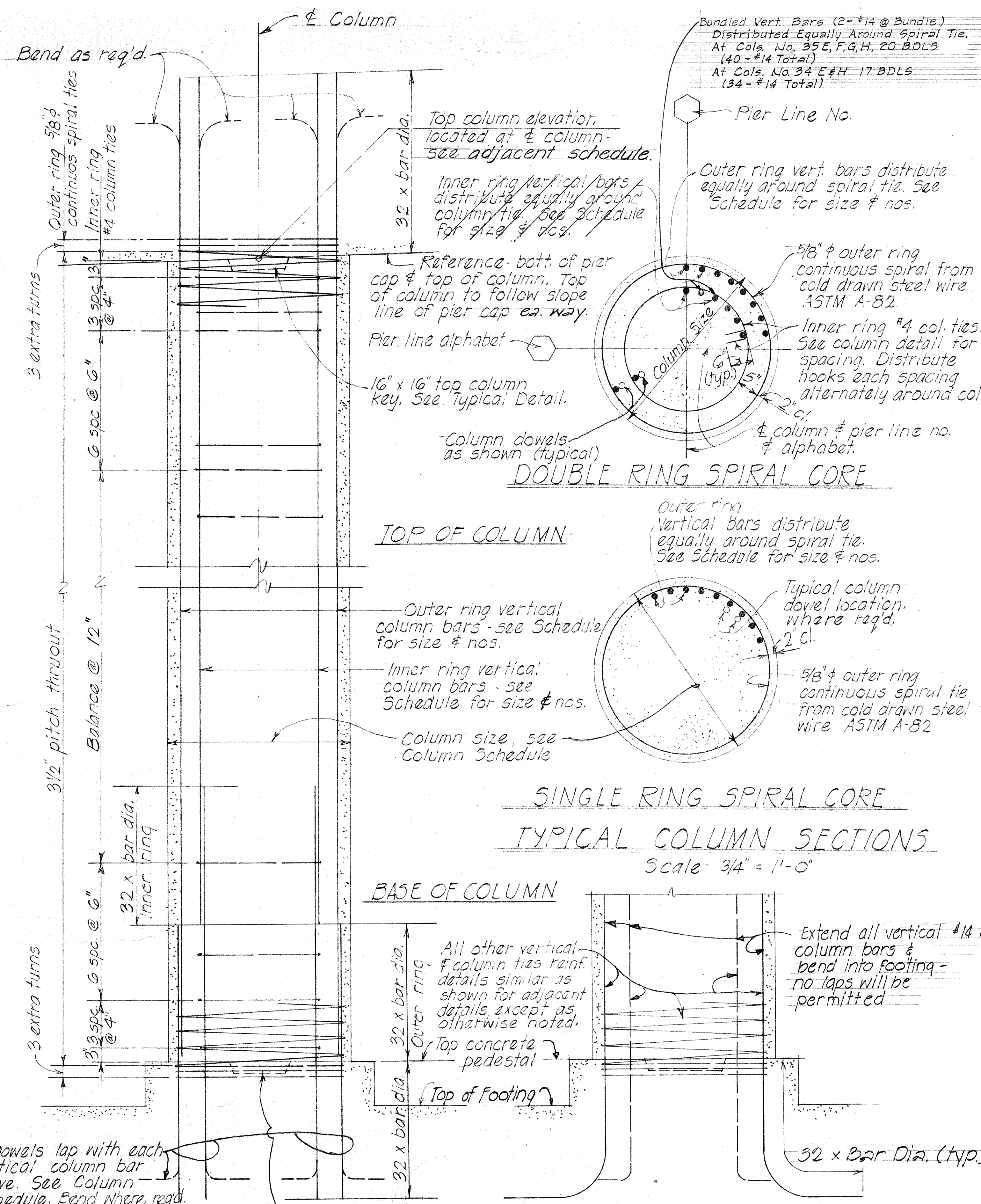
PEARL CITY VIADUCT
TYPICAL PIER FOOTING SECTIONS
& DETAILS

INTERSTATE ROUTE H-1
F.A.I. Proj. N° I-HI-1(42) Unit
Scale: As Noted JAN. 1968

SHEET No. 9 OF 28 SHEETS

TOP PIER COLUMN ELEVATION SCHEDULE (AT E COLUMN)

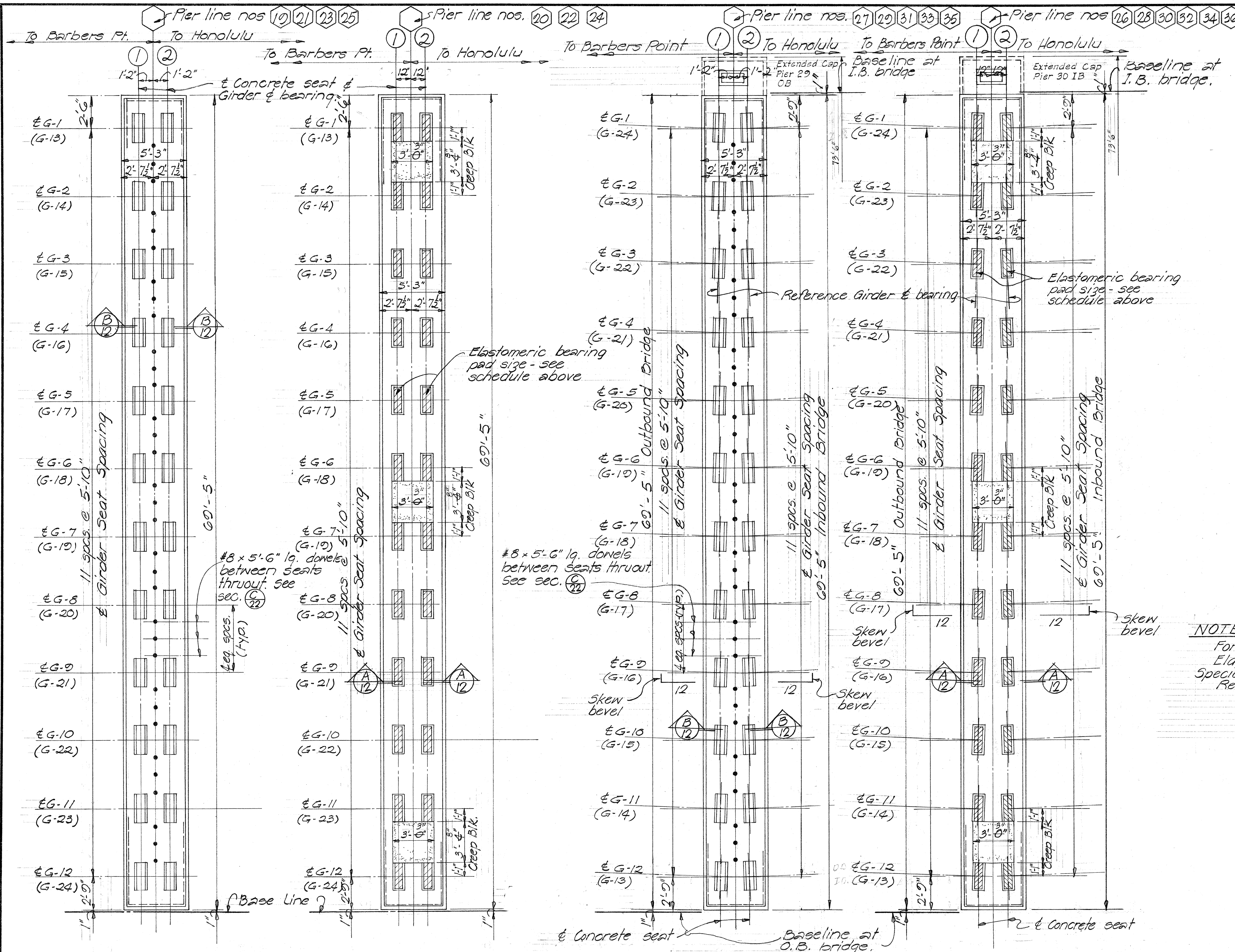
COLUMN LINE LOCATION	OUTBOUND BRIDGE				INBOUND BRIDGE			
	A	B	C	D	E	F	G	H
19	43.38	43.66	43.94	44.22	44.22	43.94	43.66	43.38
20	45.42	45.70	45.98	46.26	46.26	45.98	45.70	45.42
21	47.43	47.71	47.99	48.27	48.27	47.99	47.71	47.43
22	49.12	49.48	49.84	50.20	50.20	49.84	49.48	49.12
23	50.39	50.90	51.40	51.90	52.10	52.14	52.18	52.21
24	51.14	51.78	52.43	53.08	53.41	53.60	53.97	54.25
25	51.34	52.13	52.92	53.71	54.18	54.70	55.23	55.76
26	50.98	51.92	52.85	53.79	54.41	55.18	55.95	56.72
27	50.10	51.18	52.26	53.33	54.09	55.10	56.12	57.13
28	48.89	50.05	51.21	52.37	53.21	54.37	55.53	56.69
29	47.70	48.87	50.03	51.19	52.03	53.19	54.35	55.52
30	46.51	47.67	48.83	50.00	50.83	52.00	53.16	54.32
31	45.63	46.79	47.95	49.11	49.95	51.11	52.28	53.44
32	44.74	45.91	47.07	48.23	49.07	50.23	51.35	52.66
33	43.86	45.02	46.19	47.43	48.19	49.35	50.51	51.67
34	42.98	43.88	45.06	46.47	47.30	48.47	49.63	50.79
35	41.82	42.98	44.15	45.31	46.15	47.31	48.47	49.63



ORIGINAL PLAN
DATE: 12-1-67
DRAWN BY: J.Y.
CHECKED BY: J.Y.
NOTE BOOK
No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(42)	1968	22	59

TYPICAL CONCRETE SEAT ELASTOMERIC BEARING PAD SIZE EACH SEAT			
Width	Depth	Length	Girder Type
6"	1"	26"	PG-IV T
8"	1"	26"	PG-IV R, PG-IV S



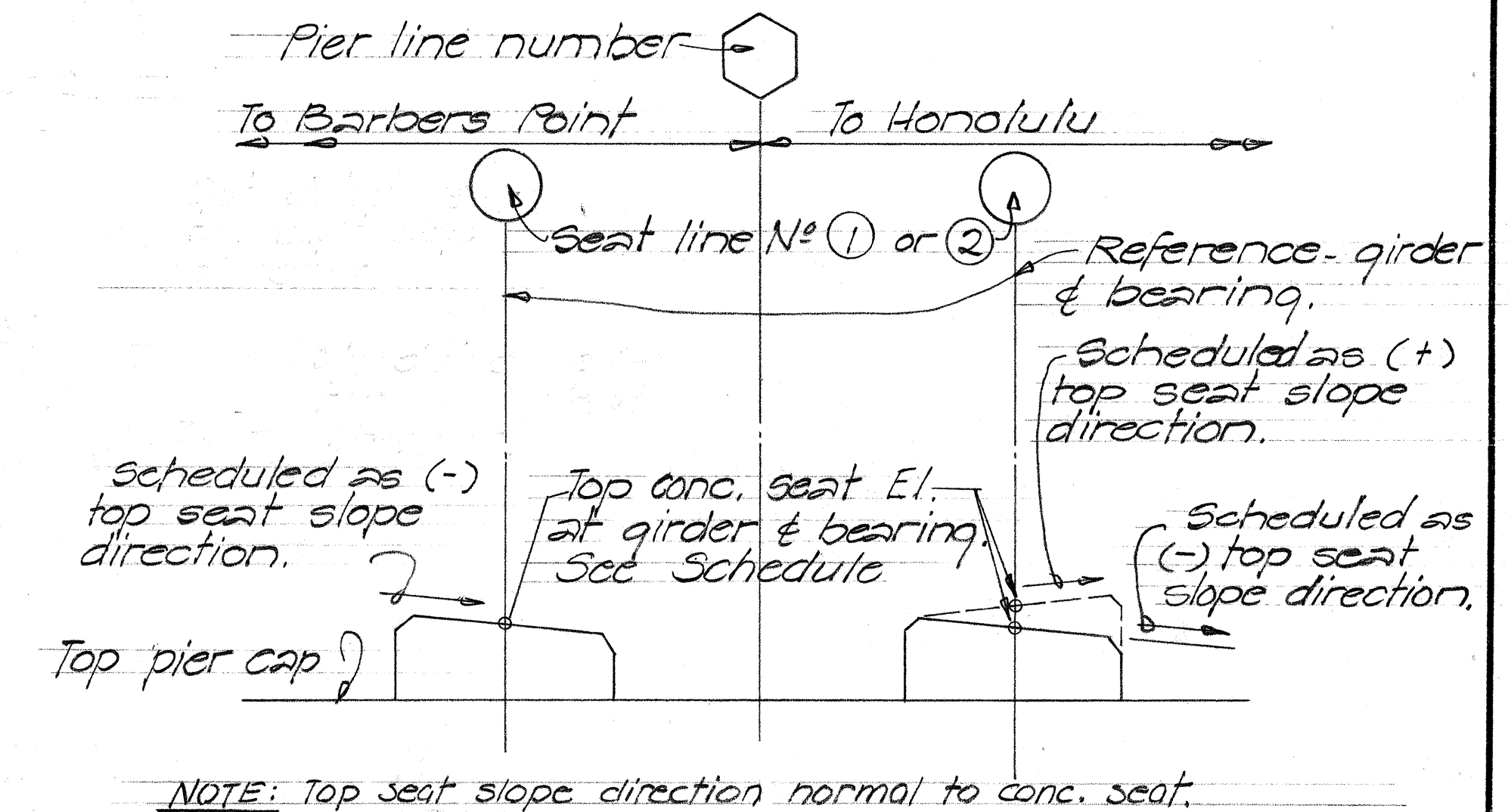
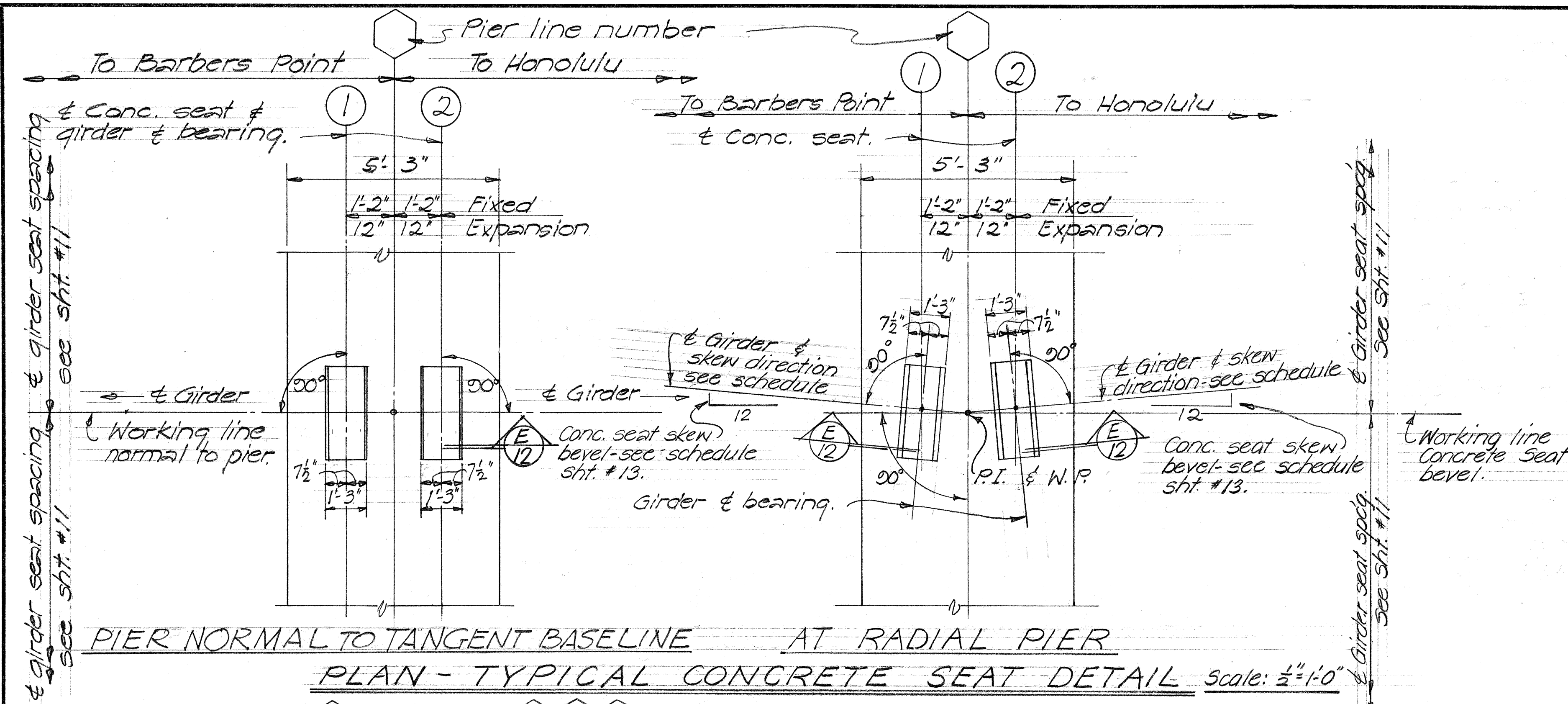
NOTES:

For typical concrete seat details see sht. #12.
Elastomeric bearing pads at girder concrete seats, see Special Provisions.
Refer to shts. #18, #10 for girder locations.

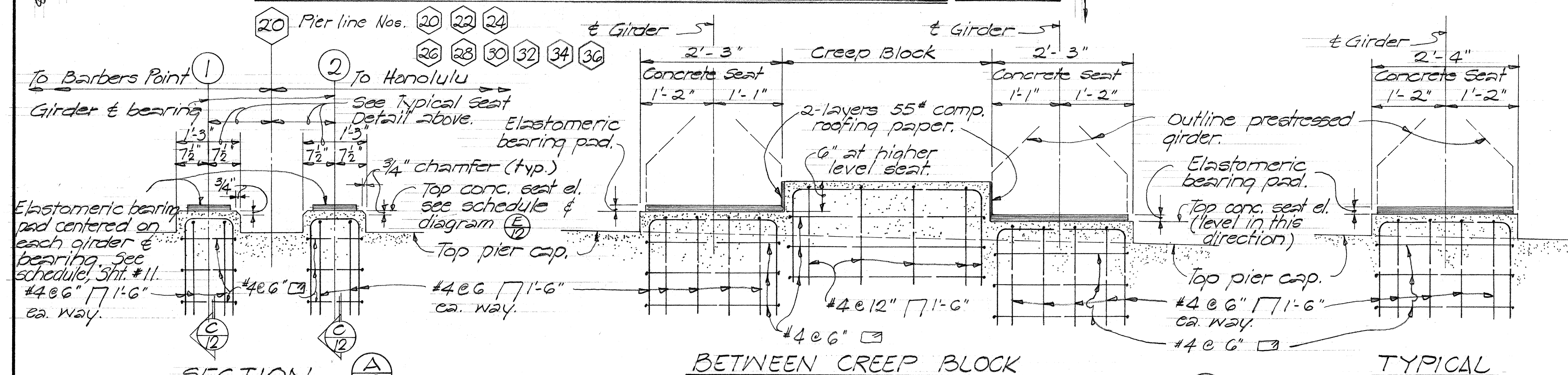
PLAN-PIER LINES 19 21 23 25 PLAN-PIER LINES 20 22 24 PLAN-PIER LINES 27 29 31 33 35 PLAN-PIER LINES 26 28 30 32 34 36
OUTBOUND BRIDGE - AS SHOWN OUTBOUND & INBOUND BRIDGES AS NOTED
(INBOUND BRIDGE SIMILAR EXCEPT OPPOSITE HAND AS NOTED)
Scale: 1/4" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
PLAN~TOP PIER CAPS
INTERSTATE ROUTE-H1
F.A.I. Proj. No. I-H-1(42)
Scale: As Noted JAN. 1968
SHEET No. 11 OF 28 SHEETS

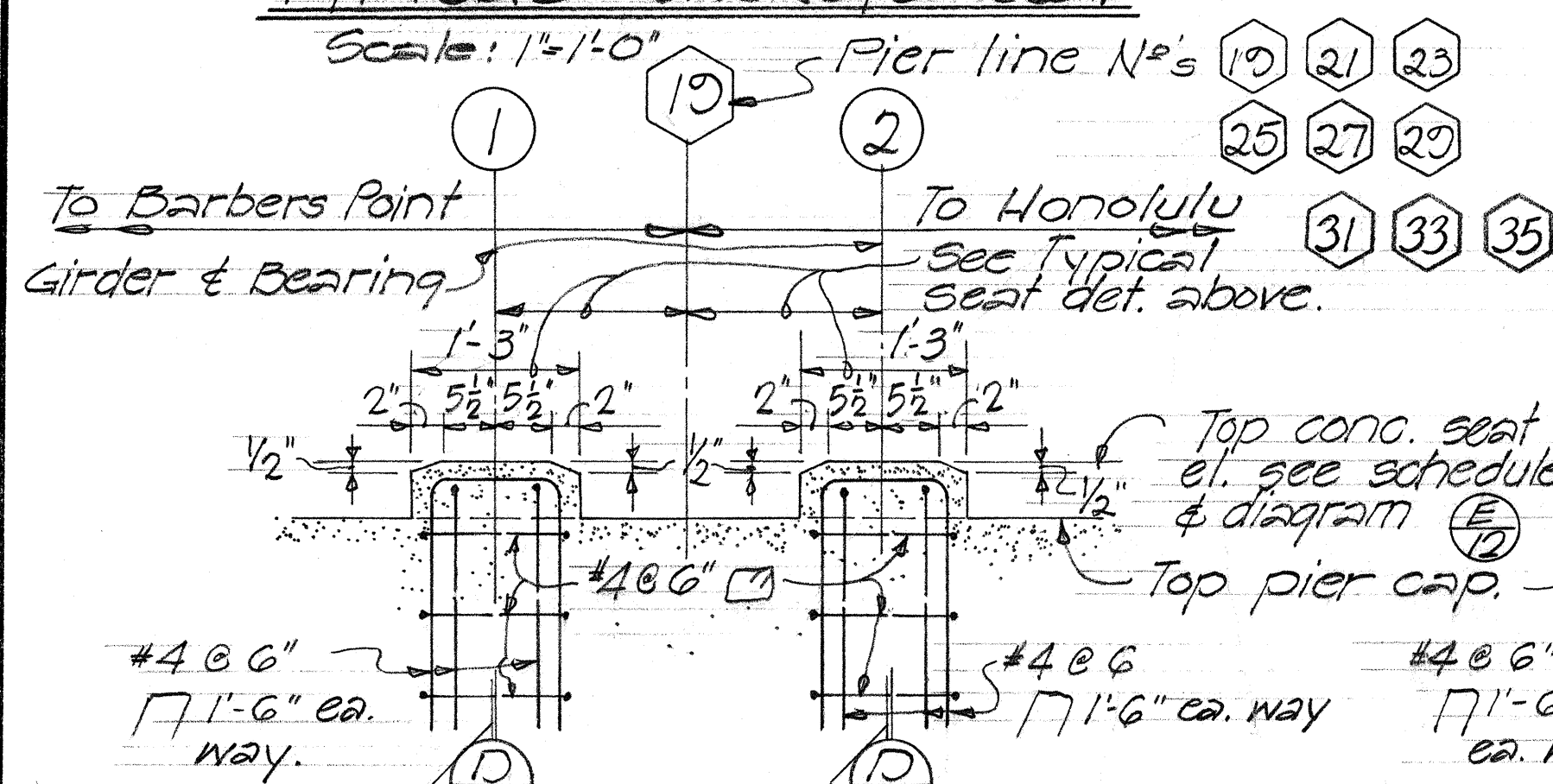
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	23	59



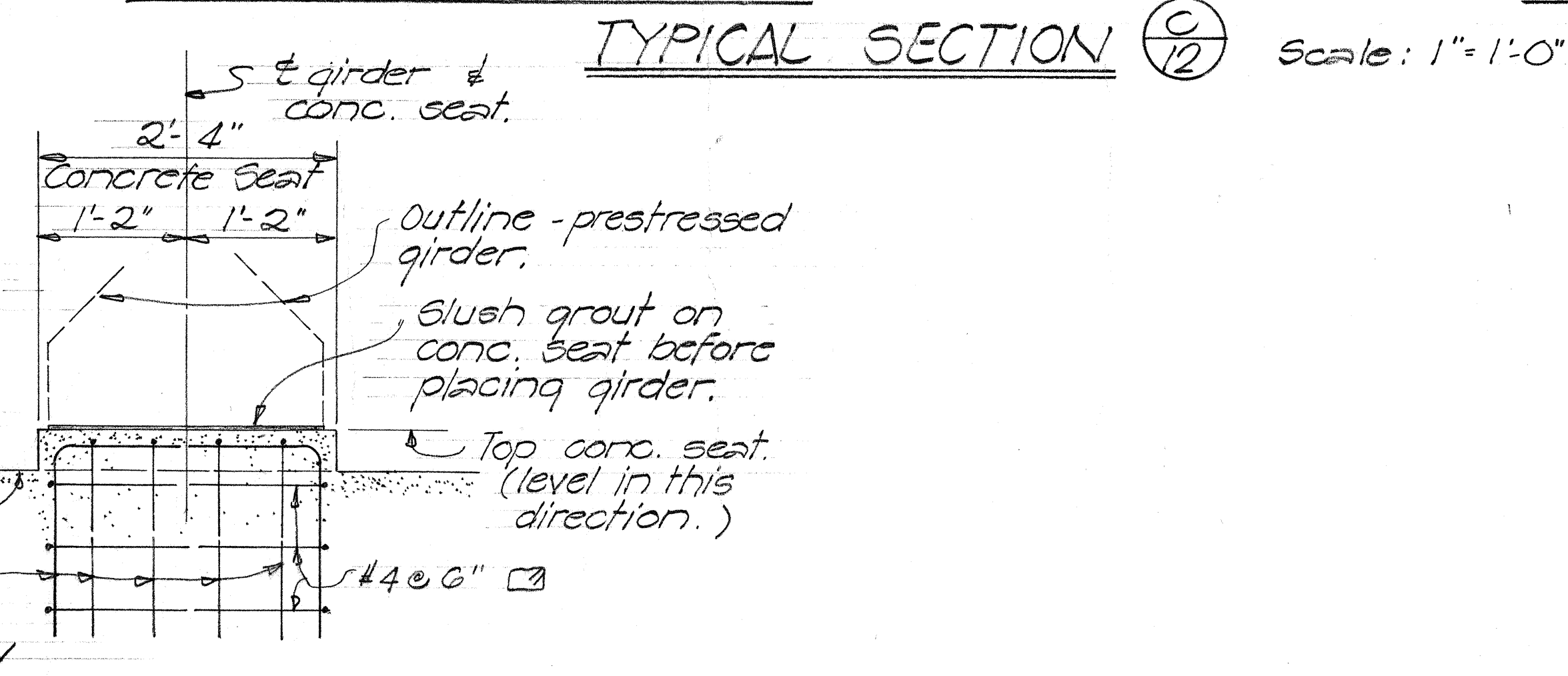
(E/12) DIAGRAM - VARIOUS CONDITIONS OF TOP CONCRETE SEAT SLOPE & DESIGNATIONS



SECTION 
TYPICAL CONCRETE Seat
Scale: 1" = 1'-0"  Pier line



SECTION 
(TYPICAL CONCRETE SEAT)



SECTION 
Scale: 1" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEARL CITY VIADUCT
CONCRETE SEAT DETAILS

INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-H-1(42)

Date : JAN. 1968

SHEET No. 12 OF 28 SHEETS

CONCRETE SEAT SKEW BEVEL SCHEDULE (MEASURED FROM WORKING LINE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-142	1968	24	59

		25		26		27		28		29		30		31		32		33		34		35	
		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
OUTBOUND BRIDGE	G1	0:12	1/32:12	3/32:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	3/16:12	3/16:12	3/16:12
	G2																						
	G3																						
	G4																						
	G5																						
	G6																						
	G7																						
	G8																						
	G9																						
	G10																						
	G11																						
	G12	0:12	1/32:12	3/32:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	3/16:12	3/16:12	3/16:12
INBOUND BRIDGE	G24	0:12	1/32:12	3/32:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	3/16:12	3/16:12	3/16:12
	G23																						
	G22																						
	G21																						
	G20																						
	G19																						
	G18																						
	G17																						
	G16																						
	G15																						
	G14																						
	G13	0:12	1/32:12	3/32:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	3/16:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	1/8:12	3/16:12	3/16:12	3/16:12

⊗ skew direction measured from working line concrete seat bevel.
Refer to sht. #12 for skew bevel designation & diagram.

DATE 1/28	DESIGNED BY FE	CHECKED BY BY
QUANTITIES BY BY	NOTED BY	ORIGINAL PLAN
NO.		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEARL CITY VIADUCT
CONCRETE SEAT SKEW
BEVEL SCHEDULE
INTERSTATE ROUTE H-1
F.A.I. Proj. No I-HI-142
Scale: As noted
JAN. 1968
SHEET No.13 OF 28 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	25	59

TOP GIRDER CONCRETE SEAT ELEVATION SCHEDULE (AT GIRDER & BEARING)

Pier Line No.		19				20				21				22				23				24				25				26									
Girder Seat No.	DIRECTION	TOP SEAT SLOPE		1	2	TOP SEAT SLOPE		1	2	TOP SEAT SLOPE		1	2	TOP SEAT SLOPE		1	2	TOP SEAT SLOPE		1	2	TOP SEAT SLOPE		1	2	TOP SEAT SLOPE		1	2										
OUTBOUND BRIDGE	G1	1/4 : 12	(+)	48.58	48.62	(+)	1/4 : 12	(+)	50.61	50.65	(+)	1/4 : 12	(+)	52.62	52.66	(+)	1/4 : 12	(+)	54.34	54.32	(+)	1/8 : 12	(+)	55.54	55.56	(+)	1/16 : 12	(+)	56.25	56.26	(+)	1/16 : 12	(+)	56.42	56.42	(-)	1/16 : 12	(-)	56.05
	G2			48.66	48.71				50.70	50.74				52.70	52.75				54.45	54.44		1/8 : 12		55.69	55.72		1/16 : 12		56.45	56.46				56.66	56.66				56.34
	G3			48.75	48.80				50.78	50.82				52.79	52.84				54.57	54.55		3/16 : 12		55.85	55.87		1/8 : 12		56.65	56.66				56.91	56.91				56.63
	G4			48.84	48.89				50.87	50.91				52.88	52.92				54.68	54.66				56.01	56.03				56.85	56.86				57.16	57.16				56.92
	G5			48.93	48.97				50.96	51.00				52.97	53.01				54.79	54.78				56.16	56.19				57.05	57.06				57.40	57.40				57.21
	G6			49.01	49.06				51.05	51.09				53.05	53.10				54.90	54.89				56.32	56.35				57.25	57.27				57.65	57.65				57.50
	G7			49.10	49.15				51.13	51.17				53.14	53.19				55.02	55.00				56.48	56.50				57.45	57.47				57.89	57.90	↓	↓	↓	57.79
	G8			49.19	49.24				51.22	51.26				53.23	53.27				55.13	55.12				56.63	56.66				57.66	57.67				58.14	58.14	(-)	1/16 : 12	(-)	58.08
	G9			49.28	49.32				51.31	51.35				53.32	53.36				55.24	55.23				56.79	56.82				57.86	57.87				58.38	58.39	LEVEL			58.37
	G10			49.36	49.41				51.40	51.44				53.40	53.45				55.35	55.34				56.95	56.98				58.06	58.07				58.63	58.64	LEVEL			58.66
	G11			49.45	49.50				51.48	51.52				53.49	53.54				55.47	55.46				57.10	57.14				58.26	58.28				58.87	58.88	(+)	1/16 : 12	(+)	58.95
	G12	1/4 : 12	(+)	49.54	49.59	(+)	1/4 : 12	(+)	51.57	51.61	(+)	1/4 : 12	(+)	53.58	53.63	(+)	1/4 : 12	(+)	55.58	55.57	(+)	3/16 : 12	(+)	57.26	57.29	(+)	1/8 : 12	(+)	58.46	58.48	(+)	1/16 : 12	(+)	59.12	59.13	(+)	1/16 : 12	(+)	59.24
INBOUND BRIDGE	G24	1/4 : 12	(+)	49.54	49.59	(+)	1/4 : 12	(+)	51.57	51.61	(+)	1/4 : 12	(+)	53.58	53.63	(+)	1/4 : 12	(+)	55.60	55.59	(+)	3/16 : 12	(+)	57.34	57.38	(+)	1/8 : 12	(+)	58.60	58.62	(+)	1/16 : 12	(+)	59.32	59.33	(+)	1/16 : 12	(+)	59.50
	G23			49.45	49.50				51.48	51.52				53.49	53.54				55.54	55.53		1/4 : 12		57.35	57.39		3/16 : 12		58.69	58.71		1/16 : 12		59.48	59.49				59.74
	G22			49.36	49.41				51.40	51.44				53.40	53.45				55.48	55.47				57.37	57.40				58.78	58.80		1/8 : 12		59.65	59.66				59.98
	G21			49.28	49.32				51.31	51.35				53.32	53.36				55.42	55.41				57.38	57.42				58.86	58.89				59.81	59.83				60.21
	G20			49.19	49.24				51.22	51.26				53.23	53.28				55.35	55.35				57.39	57.43				58.95	58.98				59.97	59.99				60.45
	G19			49.10	49.15				51.13	51.17				53.14	53.19				55.29	55.29				57.40	57.44				59.04	59.07				60.14	60.16				60.69
	G18			49.01	49.06				51.05	51.09				53.05	53.10				55.23	55.23				57.41	57.46				59.13	59.15				60.30	60.32				60.93
	G17			48.93	48.97				50.96	51.00				52.97	53.01				55.17	55.17		1/4 : 12		57.43	57.47		3/16 : 12		59.21	59.24		1/8 : 12		60.46	60.49				61.17
	G16			48.84	48.89				50.87	50.91				52.88	52.93				55.11	55.11		5/16 : 12		57.44	57.49		1/4 : 12		59.30	59.33		3/16 : 12		60.63	60.65		1/16 : 12		61.41
	G15			48.75	48.80				50.78	50.82				52.79	52.84				55.04	55.04				57.45	57.50				59.39	59.42				60.79	60.82		1/8 : 12		61.65
	G14			48.66	48.71				50.70	50.74				52.70	52.75				54.98	54.98				57.46	57.51				59.48	59.51				60.95	60.98				61.89
	G13	1/4 : 12	(+)	48.58	48.62	(+)	1/4 : 12	(+)	50.61	50.65	(+)	1/4 : 12	(+)	52.62	52.66	(+)	1/4 : 12	(+)	54.92	54.92	(+)	5/16 : 12	(+)	57.47	57.53	(+)	1/4 : 12	(+)	59.56	59.60	(+)	3/16 : 12	(+)	61.12	61.15	(+)	1/8 : 12	(+)	62.03

NOTE: Refer to sht. #12 for seat details & schedule designations.

DATE 1/28/68
 SURVEY PLOTTED BY
 DESIGNED BY
 QUANTITIES BY
 CHECKED BY

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

PEARL CITY VIADUCT

CONCRETE SEAT ELEVATION

SCHEDULE

INTERSTATE ROUTE H-1

F.A.I. Proj. No. I-HI-1(42)

Scale: As Noted JAN. 1968

SHEET No. 14 OF 28 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	26	59

TOP GIRDER CONCRETE SEAT ELEVATION SCHEDULE (AT GIRDER & BEARING)

Pier Line No.	Girder Seat No.	26		27		28		29		30		31		32		33		34							
		DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE	DIRECTION	TOP SEAT SLOPE						
OUTBOUND BRIDGE	G1	56.03	(-) 1/8 : 12 (-)	55.15	55.12	(-) 1/8 : 12 (-)	53.91	53.89	(-) 1/8 : 12 (-)	52.73	52.70	(-) 1/8 : 12 (-)	51.55	51.51	(-) 1/8 : 12 (-)	50.65	50.63	(-) 1/8 : 12 (-)	49.77	49.75	(-) 1/8 : 12 (-)	48.89	48.86	(-) 1/8 : 12 (-)	48.01
	G2	56.32	↑	55.48	55.46	↑	54.27	54.25	↑	53.09	53.07	↑	51.92	51.87	↑	51.02	50.99	↑	50.13	50.11	↑	49.25	49.22	↑	48.37
	G3	56.62	↓	55.82	55.79	↓	54.63	54.61	↓	53.46	53.43	↓	52.28	52.23	↓	51.38	51.35	↓	50.49	50.47	↓	49.61	49.58	↓	48.73
	G4	56.91	1/8 : 12	56.15	56.13	1/8 : 12	54.99	54.97	1/8 : 12	53.82	53.79	1/8 : 12	52.64	52.60	1/8 : 12	51.74	51.71	1/8 : 12	50.85	50.83	1/8 : 12	49.97	49.95	1/8 : 12	49.09
	G5	57.20	1/16 : 12	56.48	56.46	1/16 : 12	55.36	55.33	1/16 : 12	54.18	54.15	1/16 : 12	53.00	52.96	1/16 : 12	52.10	52.07	1/16 : 12	51.22	51.19	1/16 : 12	50.34	50.31	1/16 : 12	49.45
	G6	57.49	↑	56.82	56.80	↑	55.72	55.69	↑	54.54	54.51	↑	53.36	53.32	↑	52.46	52.43	↑	51.58	51.55	↑	50.70	50.67	↑	49.81
	G7	57.78	↓	57.15	57.13	↓	56.08	56.05	↓	54.90	54.87	↓	53.72	53.68	↓	52.82	52.80	↓	51.94	51.92	↓	51.06	51.03	↓	50.17
	G8	58.07	↑	57.49	57.47	↑	56.44	56.42	↑	55.26	55.24	↑	54.09	54.04	↑	53.19	53.16	↑	52.39	52.28	↑	51.42	51.39	↑	50.54
	G9	58.36	↓	57.82	57.80	↓	56.80	56.78	↓	55.63	55.60	↓	54.45	54.40	↓	53.55	53.52	↓	52.66	52.64	↓	51.78	51.75	↓	50.90
	G10	58.65	↑	58.15	58.14	↑	57.16	57.14	↑	55.99	55.96	↑	54.81	54.77	↑	53.91	53.88	↑	53.02	53.00	↑	52.14	52.12	↑	51.26
	G11	58.94	↓	58.49	58.47	↓	57.52	57.50	↓	56.35	56.32	↓	55.17	55.13	↓	54.27	54.24	↓	53.39	53.36	↓	52.51	52.48	↓	51.62
	G12	59.23	(-) 1/16 : 12 (-)	58.82	58.81	(-) 1/8 : 12 (-)	57.89	57.86	(-) 1/8 : 12 (-)	56.71	56.68	(-) 1/8 : 12 (-)	55.53	55.49	(-) 1/8 : 12 (-)	54.63	54.60	(-) 1/8 : 12 (-)	53.75	53.72	(-) 1/8 : 12 (-)	52.87	52.84	(-) 1/8 : 12 (-)	51.98
INBOUND BRIDGE	G24	59.49	(-) 1/16 : 12 (-)	59.14	59.12	(-) 1/8 : 12 (-)	58.24	58.21	(-) 1/8 : 12 (-)	57.06	57.03	(-) 1/8 : 12 (-)	55.88	55.84	(-) 1/8 : 12 (-)	54.98	54.96	(-) 1/8 : 12 (-)	54.10	54.08	(-) 1/8 : 12 (-)	53.22	53.19	(-) 1/8 : 12 (-)	52.33
	G23	59.73	↑	59.45	59.44	1/8 : 12	58.60	58.57	↑	57.42	57.40	↑	56.25	56.20	↑	55.34	55.32	↑	54.46	54.44	↑	53.58	53.55	↑	52.70
	G22	59.98	↓	59.77	59.75	1/8 : 12	58.96	58.94	↓	57.78	57.76	↓	56.61	56.56	↓	55.71	55.68	↓	54.82	54.80	↓	53.94	53.91	↓	53.06
	G21	60.22	↓	60.08	60.07	1/16 : 12	59.32	59.30	↓	58.15	58.12	↓	56.97	56.93	↓	56.07	56.04	↓	55.18	55.16	↓	54.30	54.28	↓	53.42
	G20	60.46	(-) 1/16 : 12 (-)	60.39	60.39	↑	59.68	59.66	↑	58.51	58.48	↑	57.33	57.29	↑	56.43	56.40	↑	55.55	55.52	↑	54.67	54.64	↑	53.78
	G19	60.70	LEVEL	60.71	60.70	↑	60.04	60.02	↑	58.87	58.84	↑	57.69	57.65	↑	56.79	56.76	↑	55.91	55.88	↑	55.03	55.00	↑	54.14
	G18	60.94	(+) 1/16 : 12 (+)	61.02	61.02	↓	60.40	60.38	↓	59.23	59.20	↓	58.05	58.01	↓	57.15	57.13	↓	56.27	56.25	↓	55.39	55.36	↓	54.50
	G17	61.18	↑	61.34	61.34	↑	60.76	60.74	↑	59.59	59.57	↑	58.42	58.37	↑	57.51	57.49	↑	56.63	56.61	↑	55.75	55.72	↑	54.87
	G16	61.42	↓	61.65	61.65	↓	61.12	61.10	↓	59.95	59.93	↓	58.78	58.73	↓	57.88	57.85	↓	56.99	56.97	↓	56.11	56.08	↓	55.23
	G15	61.66	↑	61.97	61.97	↑	61.49	61.46	↑	60.32	60.29	↑	59.14	59.10	↑	58.24	58.21	↑	57.35	57.33	↑	56.47	56.45	↑	55.59
	G14	61.90	↓	62.28	62.28	↓	61.85	61.82	↓	60.68	60.65	↓	59.50	59.46	↓	58.60	58.57	↓	57.72	57.69	↓	56.84	56.81	↓	55.95
	G13	62.15	(+) 1/16 : 12 (+)	62.60	62.60	(-) 1/16 : 12 (-)	62.21	62.19	(-) 1/8 : 12 (-)	61.04	61.01	(-) 1/8 : 12 (-)	59.86	59.82	(-) 1/8 : 12 (-)	58.96	58.93	(-) 1/8 : 12 (-)	58.08	58.05	(-) 1/8 : 12 (-)	57.20	57.17	(-) 1/8 : 12 (-)	56.31

NOTE: Refer to sht. #12 for seat details & schedule designations.

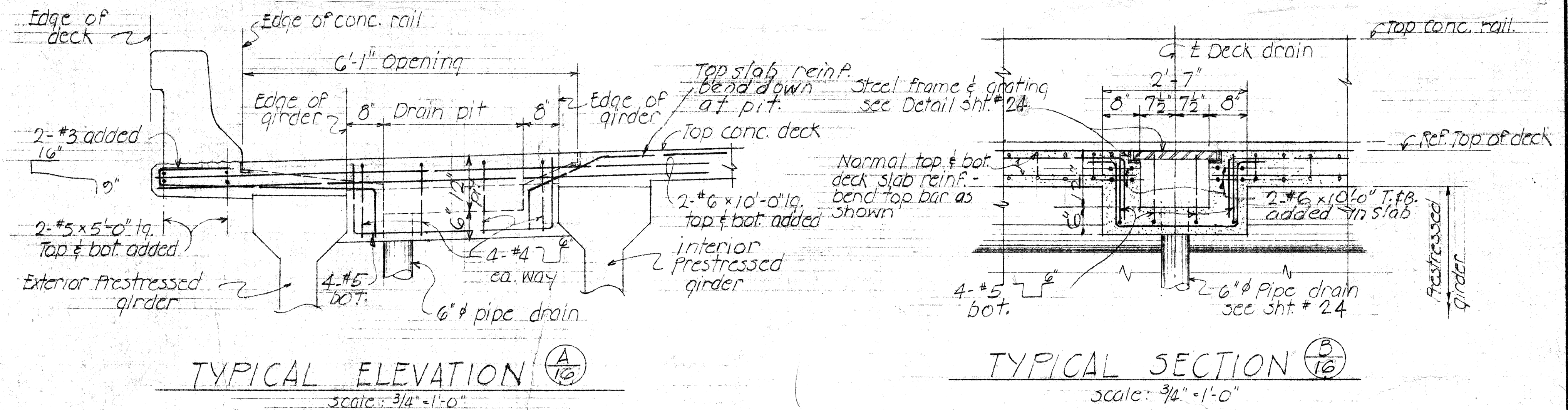
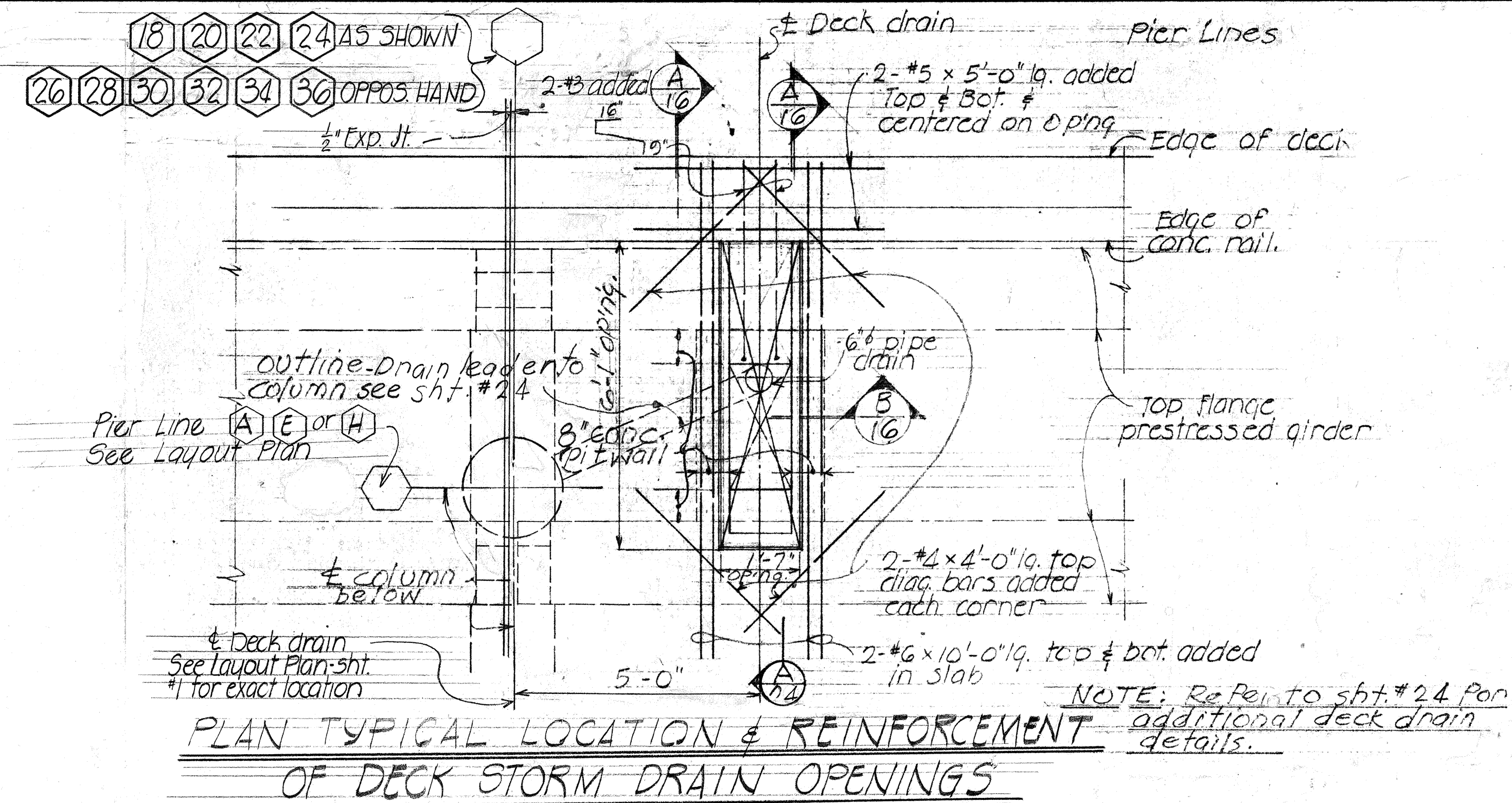
DATE 1/2/68
SURVEY PLOTTED BY G.L.
CHECKED BY
DESIGNED BY E.L.
QUANTITIES BY
NOTED BY
ORIGINAL PLAN
NOTE BOOK

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
CONCRETE SEAT ELEVATION
SCHEDULE
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(42)
Scale: As Noted Jan., 1968
SHEET No. 15 OF 28 SHEETS

TOP GIRDER CONCRETE SEAT ELEVATION SCHEDULE

(AT GIRDER & BEARING)

Girder No. Seat No.	Pier Line	DIRECTION		DIRECTION	TOP SEAT SLOPE	TOP SEAT SLOPE
		②	①		②	①
G1	34	48.00	(-) 1/8 : 12 (-)	46.85	46.82	(-) 1/8 : 12
G2		48.36		47.21	47.18	
G3		48.72		47.57	47.55	
G4		49.09		47.94	47.91	
G5		49.45		48.30	48.27	
G6		49.81		48.66	48.63	
G7		50.17		49.02	48.99	
G8		50.53		49.38	49.35	
G9		50.89		49.74	49.72	
G10		51.26		50.11	50.08	
G11		51.62		50.47	50.44	
G12		51.98	(-) 1/8 : 12 (-)	50.83	50.80	(-) 1/8 : 12
G24		52.33	(-) 1/8 : 12 (-)	51.18	51.15	(-) 1/8 : 12
G23		52.69		51.54	51.51	
G22		53.05		51.90	51.88	
G21		53.42		52.26	52.24	
G20		53.78		52.63	52.60	
G19		54.14		52.99	52.96	
G18		54.50		53.35	53.32	
G17		54.86		53.71	53.68	
G16		55.22		54.07	54.05	
G15		55.59		54.43	54.41	
G14		55.95		54.80	54.77	
G13		56.31	(-) 1/8 : 12 (-)	55.16	55.13	(-) 1/8 : 12



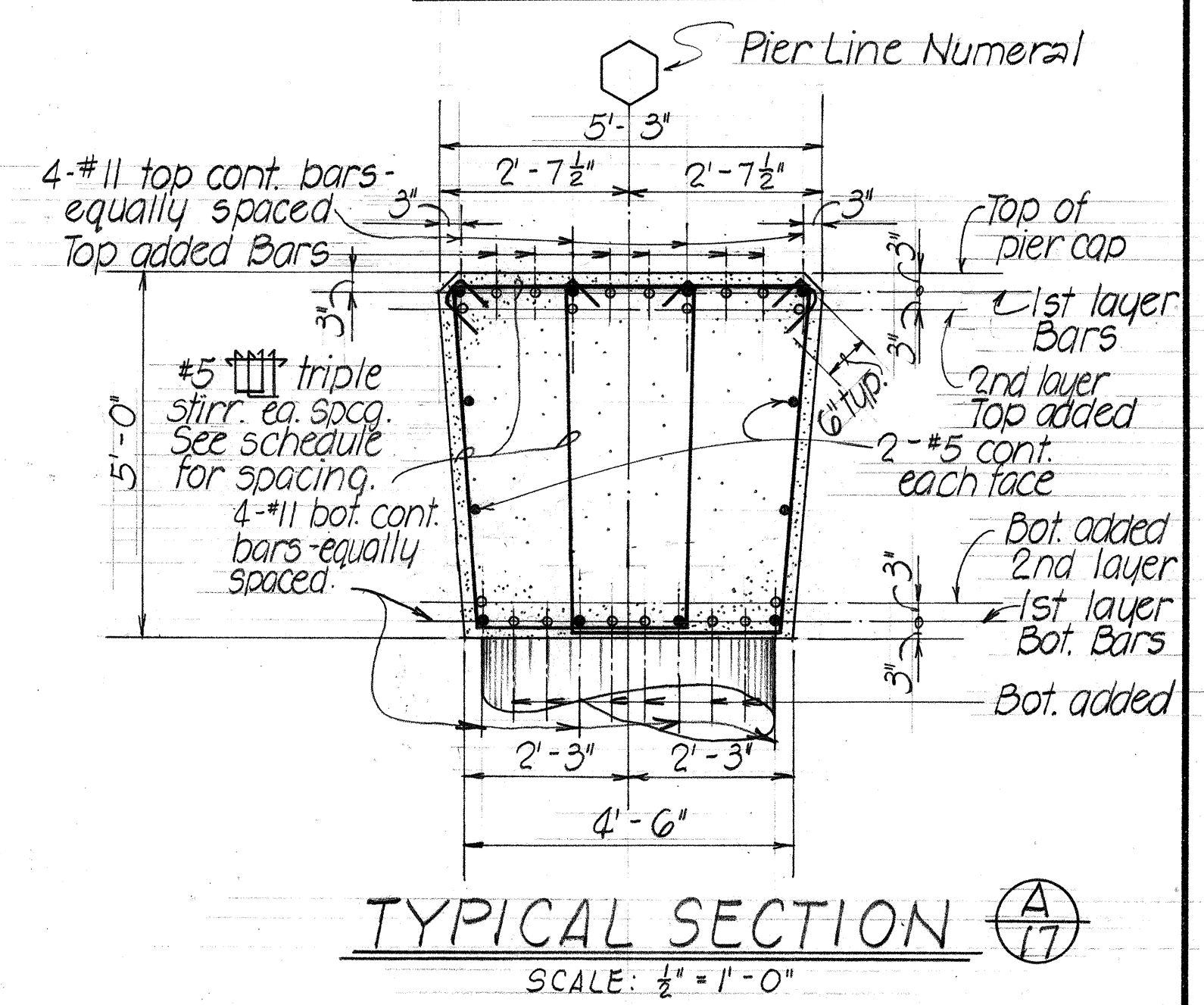
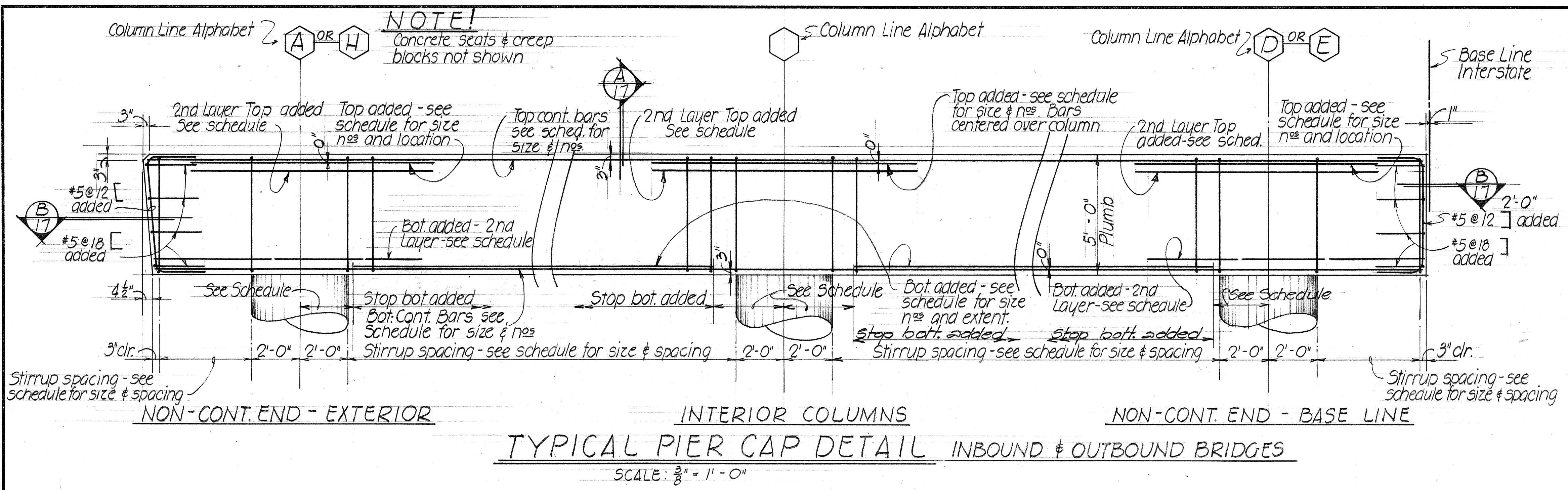
Reference:
Refer to Sht. #12 for seat details &
schedule designations.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	27	59

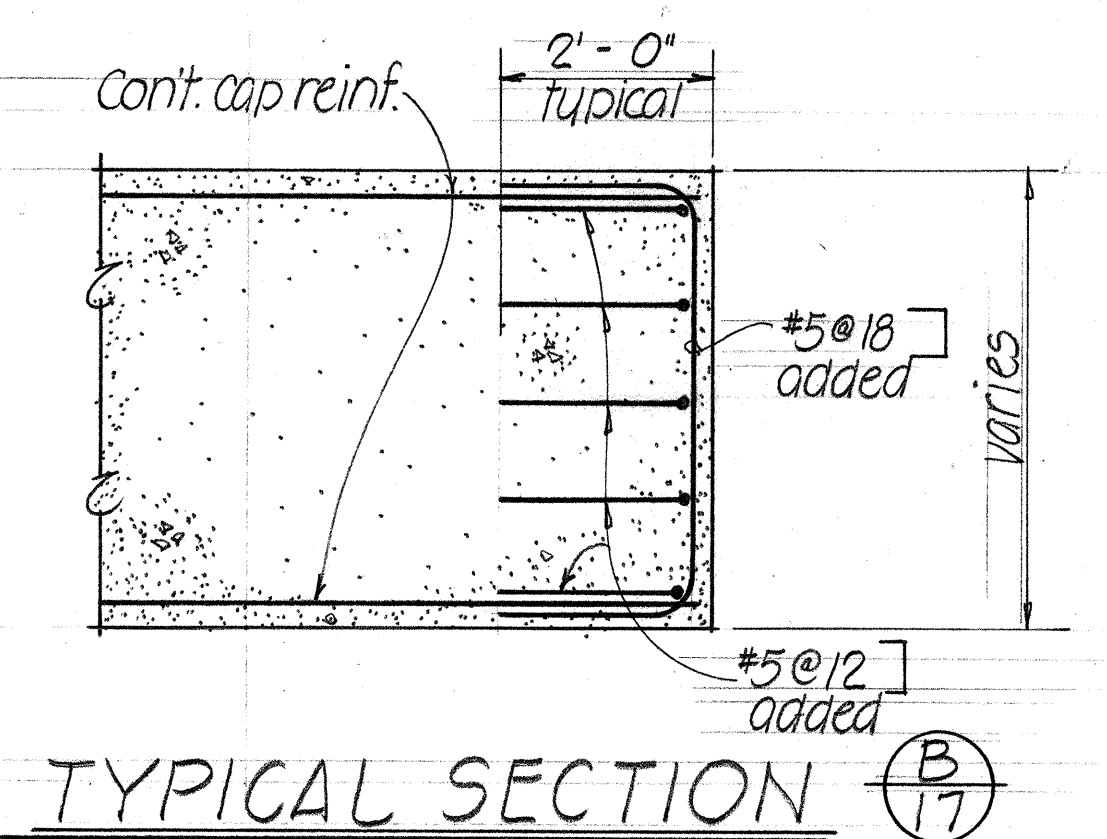
SURVEY PLOTTED BY	DATE
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
PEARL CITY VIADUCT CONCRETE SEAT ELEVATION SCHEDULE
INTERSTATE ROUTE 4-1 F.A.I. Proj. No. I-HI-1(42) Scale: As Noted Jan. 1968
SHEET No. 16 OF 28 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	[H-1-(42)]	1968	28	59



TYPICAL SECTION A-17
SCALE: 1/2" = 1'-0"



TYPICAL SECTION B-17

PIER CAP REINFORCEMENT SCHEDULE

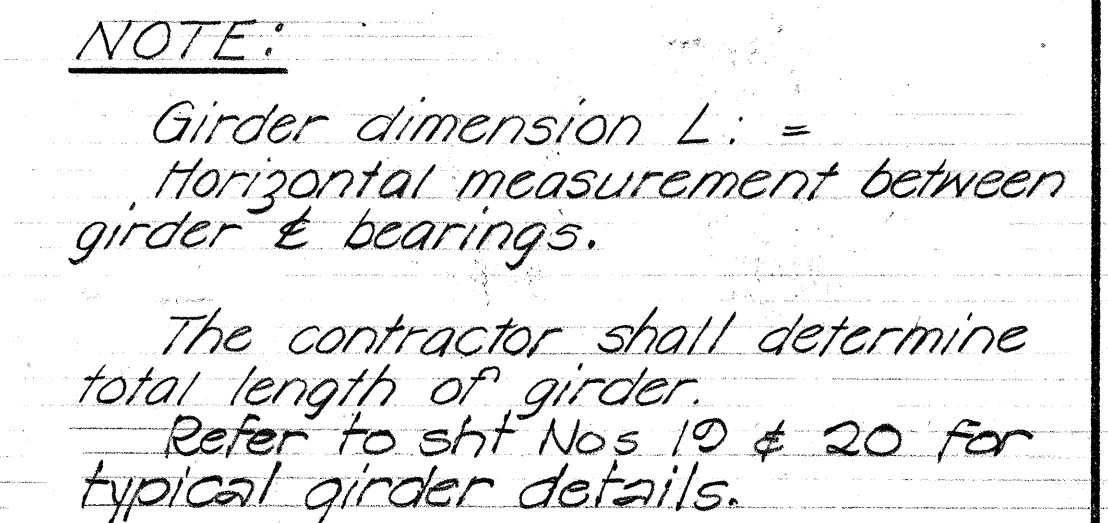
REINFORCEMENT		OUTBOUND		INBOUND		OUTBOUND		INBOUND		OUTBOUND		INBOUND					
LOCATION		A		H		B		G		C		F		D		E	
OUTBOUND	19 21 23 25 27 29 35	6-#11 added 4'-6"		5'-6"		6-#11 added 5'-6"		5'-6"		5'-6"		6-#11 added 5'-6"		5'-6"		4'-6"	
INBOUND	19 21 23 25 27 29 35	2-#11 2nd Layer bot. added 5'-0"		2-#11 2nd Layer top added 6-#11 added 2'-6"		2-#11 2nd Layer top added 4-#11 added 3'-0"		2-#11 2nd Layer bot. added 6-#11 added 5'-0"		2-#11 2nd Layer bot. added 6-#11 added 5'-0"		2-#11 2nd Layer bot. added 6-#11 added 5'-0"		2-#11 2nd Layer bot. added 6-#11 added 5'-0"		2-#11 2nd Layer bot. added 6-#11 added 5'-0"	
OUTBOUND	20 22	12" spcg. 4'-6"		8@4 1/2, 4@7, Bal. @ 12, 8@7, 5'-6"		8@4 1/2, 3@7, Bal. @ 12, 3@7, 8@4 1/2, 5'-6"		8@7, Bal. @ 12, 4@7, 8@4 1/2, 2'-0"		8@7, Bal. @ 12, 4@7, 8@4 1/2, 2'-0"		8@7, Bal. @ 12, 4@7, 8@4 1/2, 2'-0"		8@7, Bal. @ 12, 4@7, 8@4 1/2, 2'-0"		12" spcg. 4'-6"	
INBOUND	20 22	6-#11 added 2'-0"		6-#11 added 2'-0"		4-#11 added 3'-0"		6-#11 added 3'-0"		4-#11 added 3'-0"		6-#11 added 3'-0"		4-#11 added 3'-0"		6-#11 added 2'-0"	
OUTBOUND	24 26 28	12" spcg. 4'-6"		8@6, Bal. @ 12, 4@9, 5'-6"		6@5, 3@8, Bal. @ 12, 3@8, 6@5, 5'-6"		4@9, Bal. @ 12, 8@6, 5'-6"		4@9, Bal. @ 12, 8@6, 5'-6"		4@9, Bal. @ 12, 8@6, 5'-6"		4@9, Bal. @ 12, 8@6, 5'-6"		12" spcg. 4'-6"	
INBOUND	24 26 28	6-#11 added 2'-0"		2-#11 2nd Layer bot. added 6-#11 added 2'-6"		2-#11 2nd Layer top added 4-#11 added 3'-0"		2-#11 2nd Layer bot. added 6-#11 added 2'-6"		2-#11 2nd Layer top added 4-#11 added 3'-0"		2-#11 2nd Layer bot. added 6-#11 added 2'-6"		2-#11 2nd Layer top added 4-#11 added 3'-0"		6-#11 added 2'-0"	
OUTBOUND	30	6-#11 added 2'-0"		4-#11 cont. 4'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		6-#11 added 2'-0"	
INBOUND	30 34	12" spcg. 4'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		5@6, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		12" spcg. 4'-0"	
OUTBOUND	31	6-#11 added 2'-0"		4-#11 cont. 4'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		6-#11 added 2'-0"	
INBOUND	31 33	12" spcg. 4'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		5@6, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		4@7, Bal. @ 12, 5@6, Bal. @ 12, 5@6, 3'-0"		12" spcg. 4'-0"	
OUTBOUND	32	4-#11 added 2'-0"		4-#11 added 4'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 2'-0"	
INBOUND	32	12" spcg. 4'-0"		3@10, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		12" spcg. 4'-0"	
OUTBOUND	33	4-#11 added 2'-0"		4-#11 added 4'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 2'-0"	
INBOUND	33	12" spcg. 4'-0"		3@10, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		12" spcg. 4'-0"	
OUTBOUND	34	4-#11 added 2'-0"		4-#11 added 4'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 3'-0"		4-#11 added 2'-0"	
INBOUND	34	12" spcg. 4'-0"		3@10, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		3@8, Bal. @ 12, 3@8, 5@5, 12" spcg.		12" spcg. 4'-0"	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEARL CITY VIADUCT
TYPICAL PIER CAP DETAIL
AND REINFORCEMENT SCHEDULE
INTERSTATE ROUTE H-1
F.A.I. PROJ. N° I-H-1-(42)
DATE: JAN. 1968
SHEET No. 17 OF 28 SHEETS

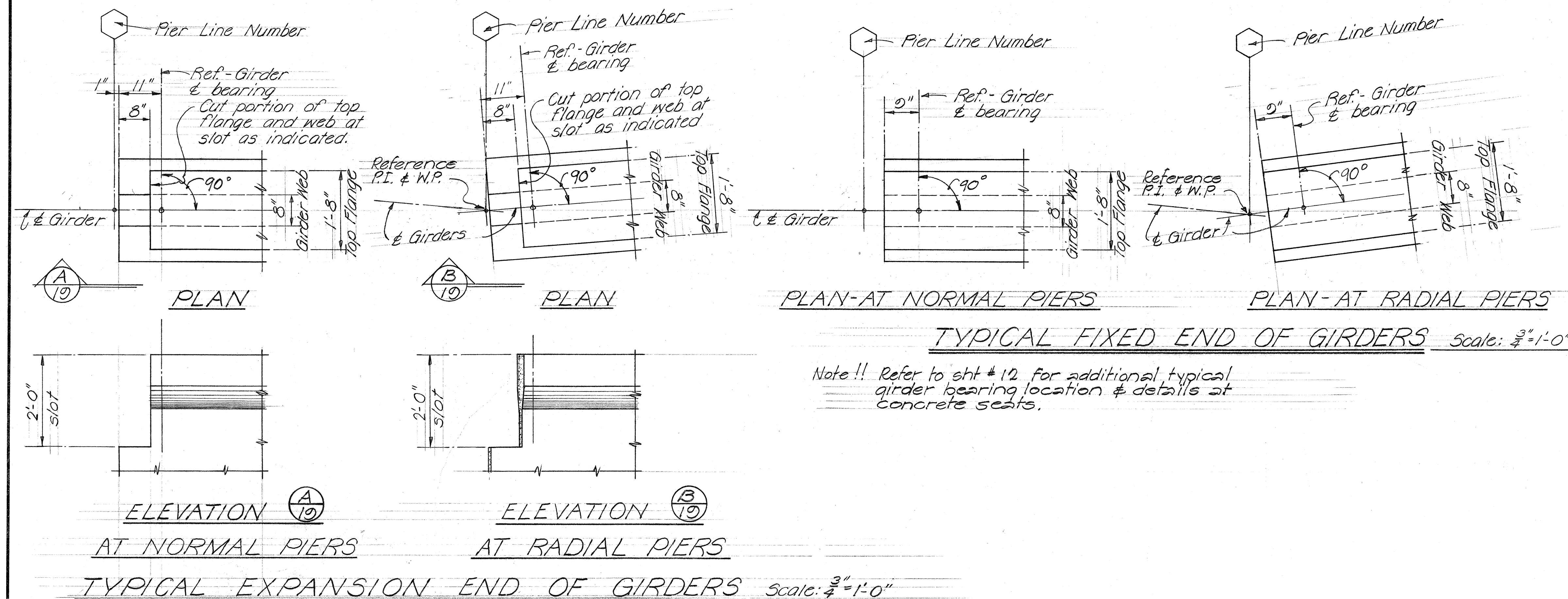
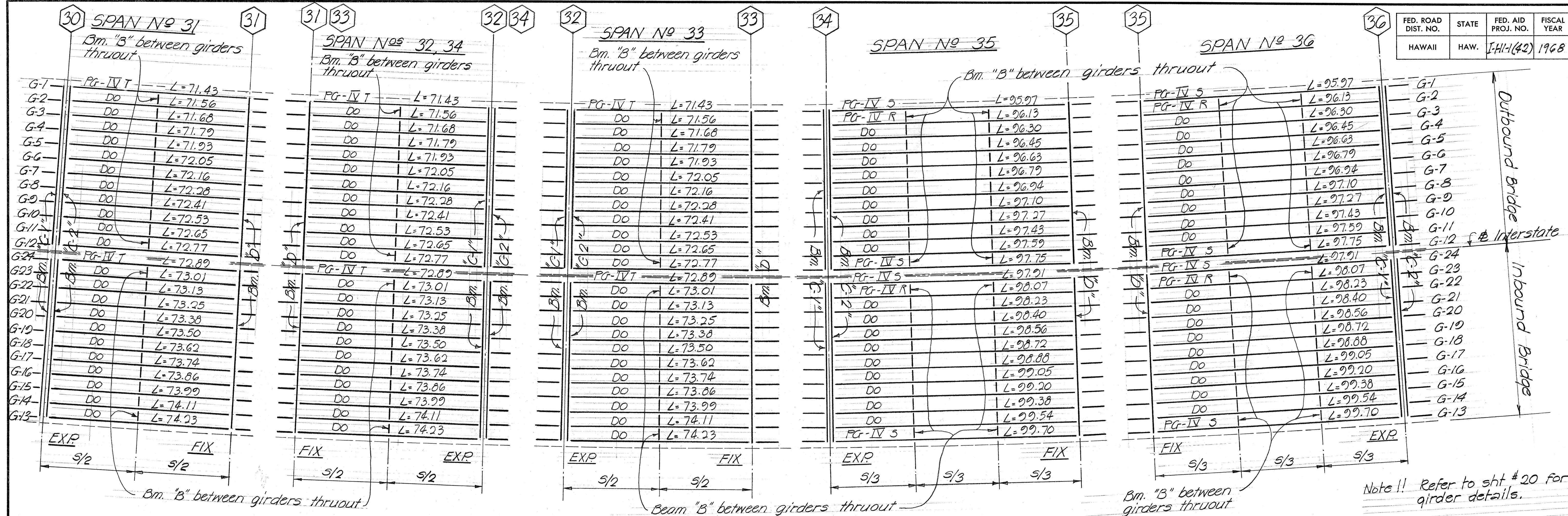
DATE: 1/26/68
DRAWN BY: J.E.
CHECKED BY: J.E.
NOTED BY: J.E.
QUANTITIES BY: J.E.
NO.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	12/13
	TRACED BY	
NOTE BOOK	DESIGNED BY	MT & FK
	QUANTITIES BY	HA & TKM
	CHECKED BY	P.T.Y
No.		



SHEET No. 18 OF 28 SHEETS

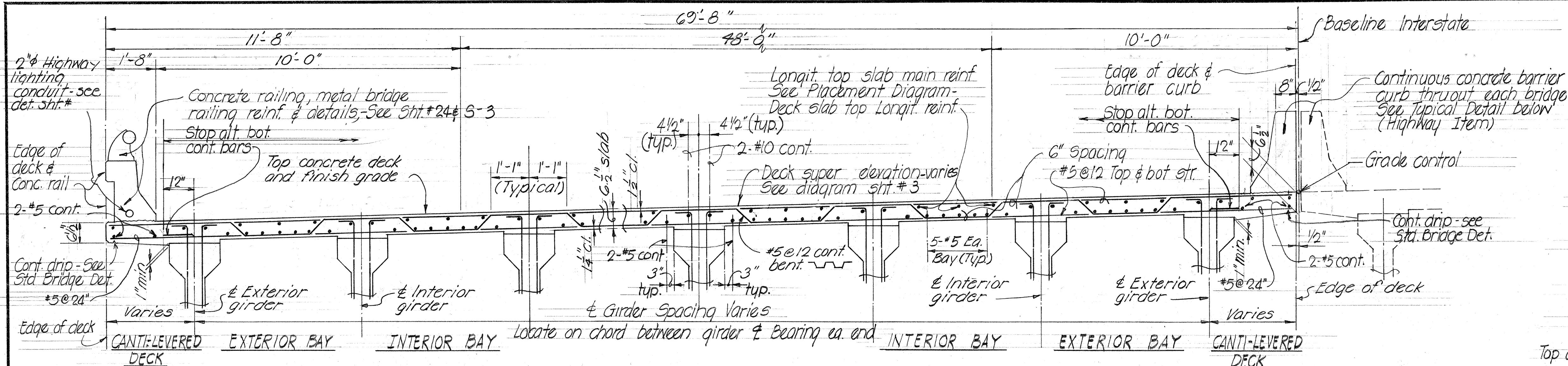
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	30	59



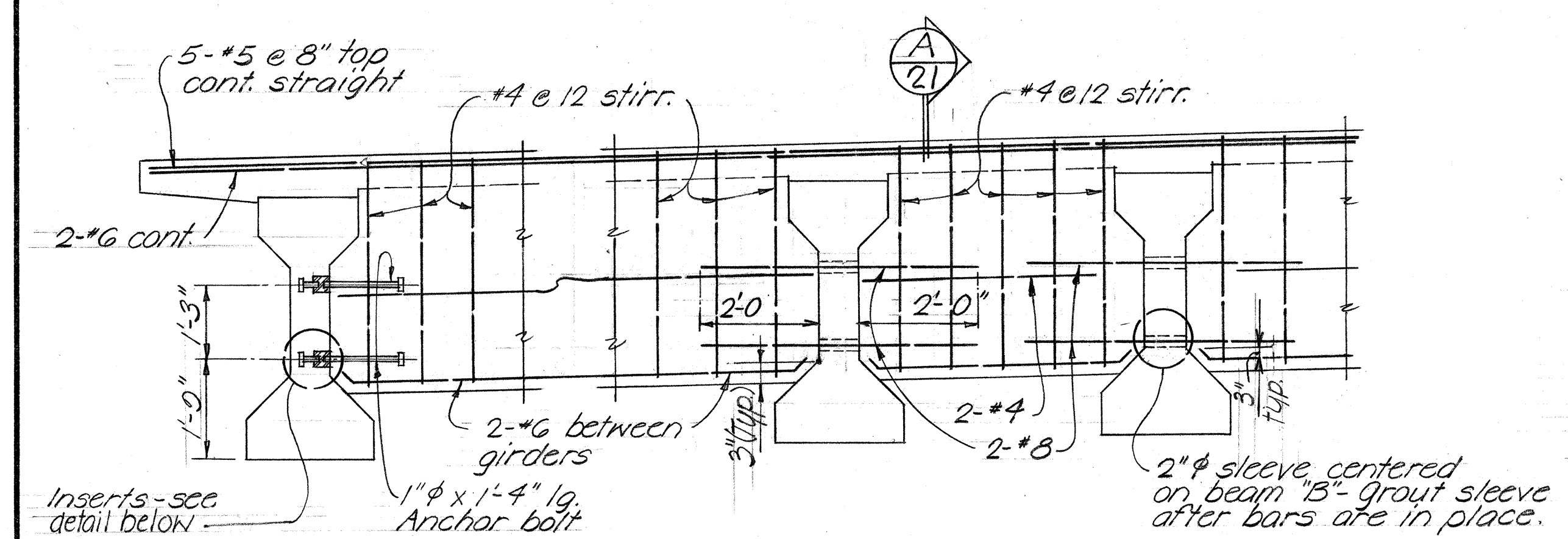
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
DECK FRAMING PLAN
Sta. 33+63.00 to Sta. 38+63.00
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(42)
Date: JAN. 1968
SHEET No. 30 OF 28 SHEETS

DATE: 10/68
DRAWN BY: LAL & WLB
DESIGNED BY: LAL & WLB
CHECKED BY: LAL & WLB
ORIGINAL PLAN
NOTE BOOK
No.

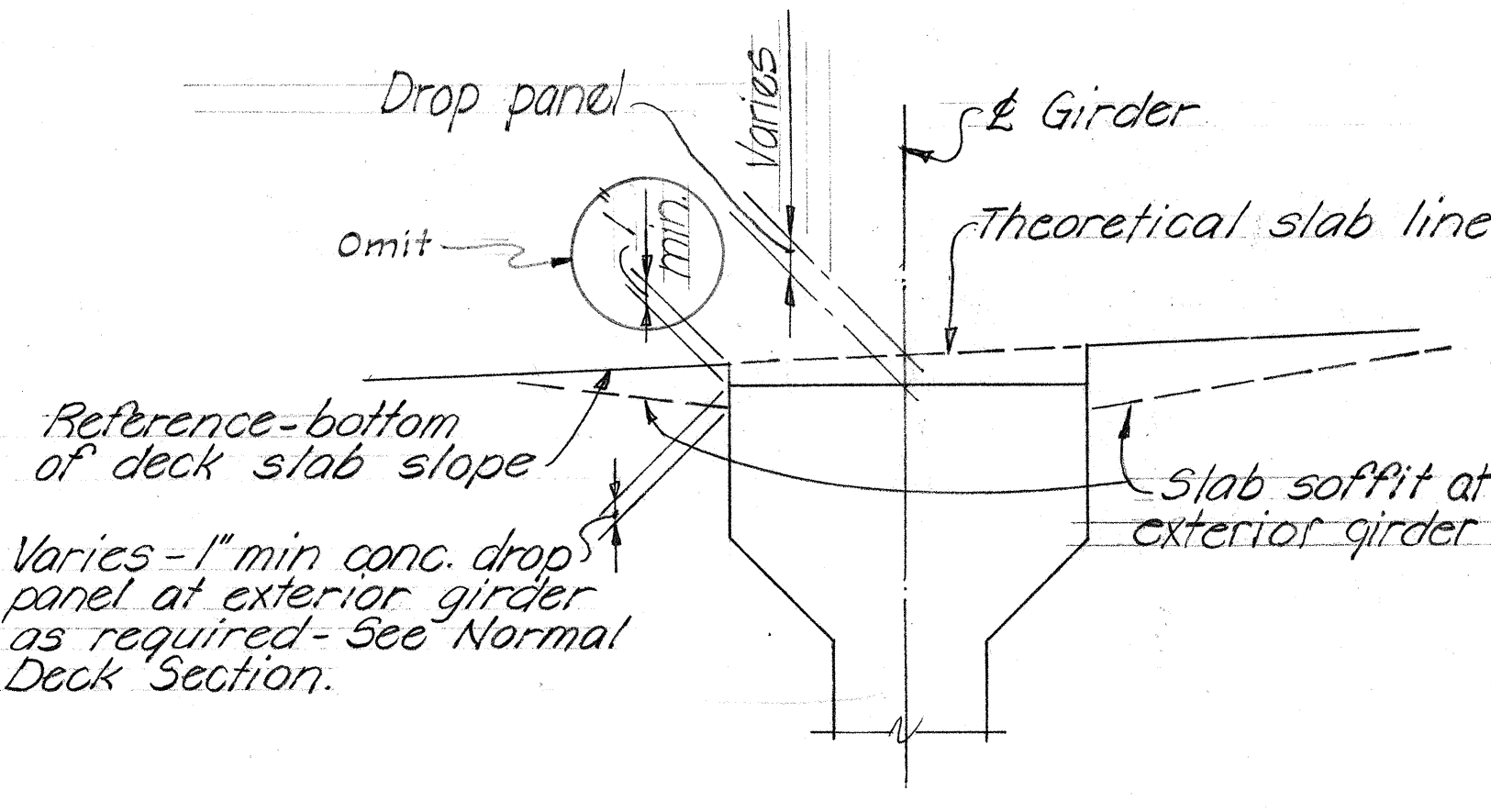
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(42)	1968	32	59



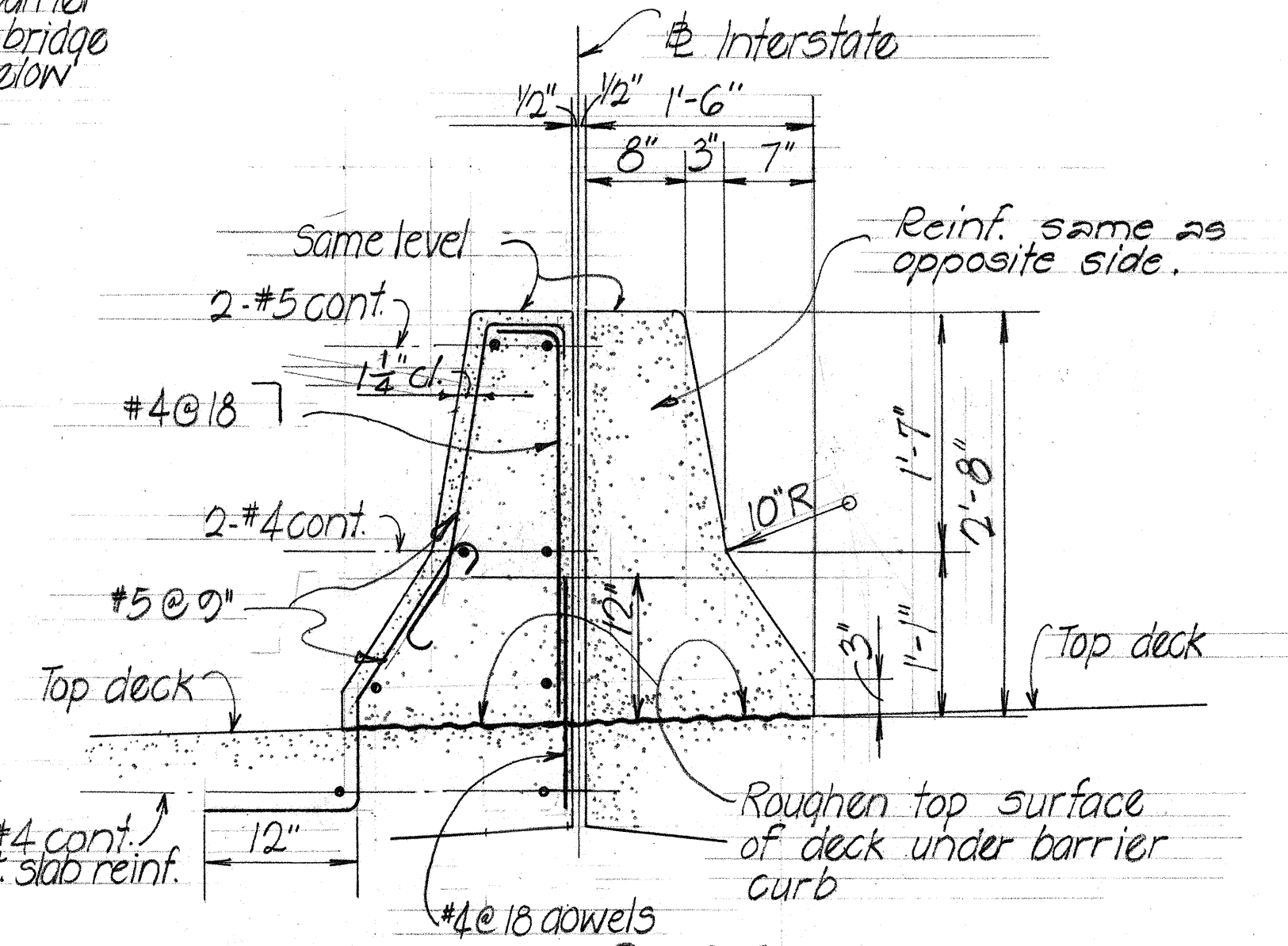
NORMAL DECK SECTION - OUTBOUND BRIDGE AS SHOWN
INBOUND BRIDGE SIMILAR EXCEPT OPPOSITE HAND Scale: 1/2" = 1'-0"



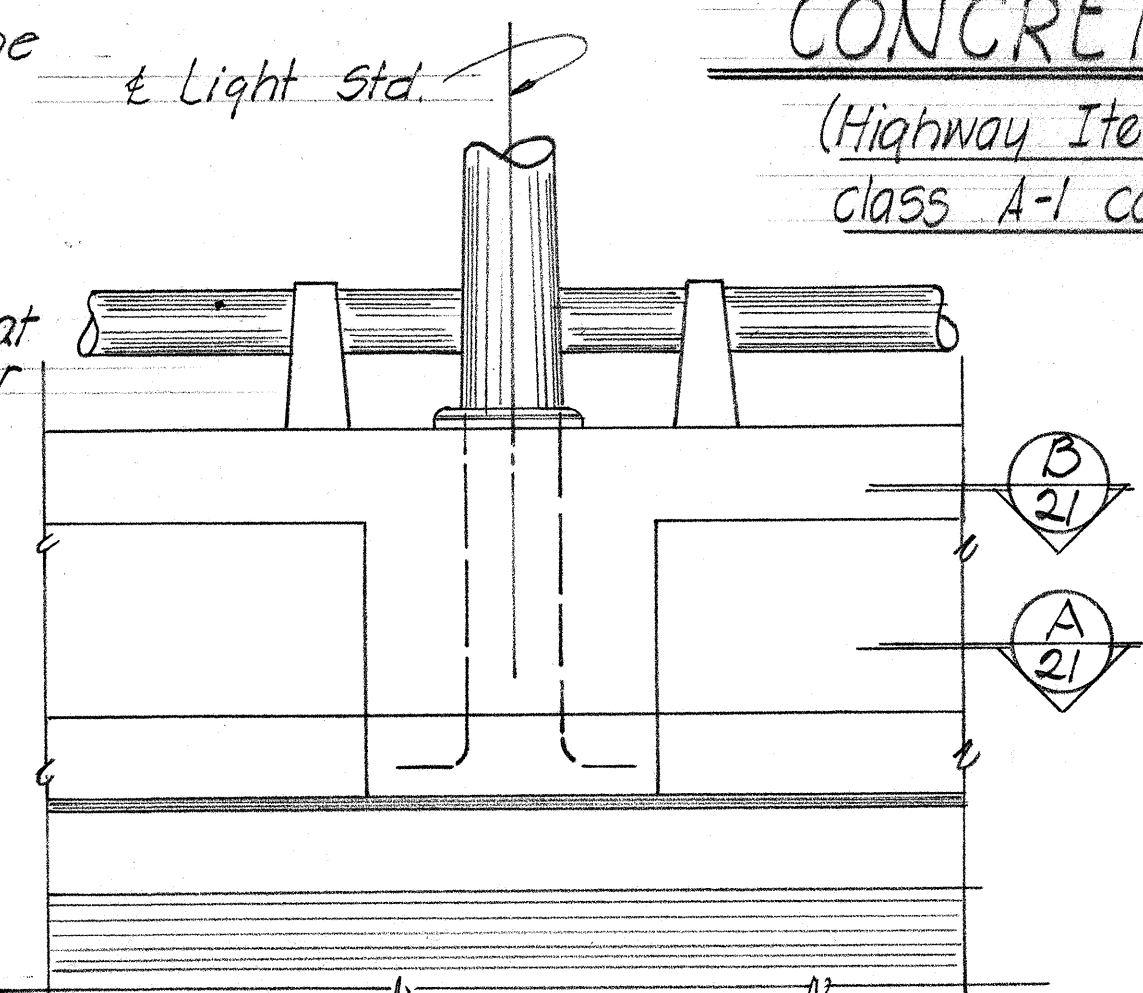
TYPICAL BEAM "B" DETAILS
 Scale: 3/4" = 1'-0"



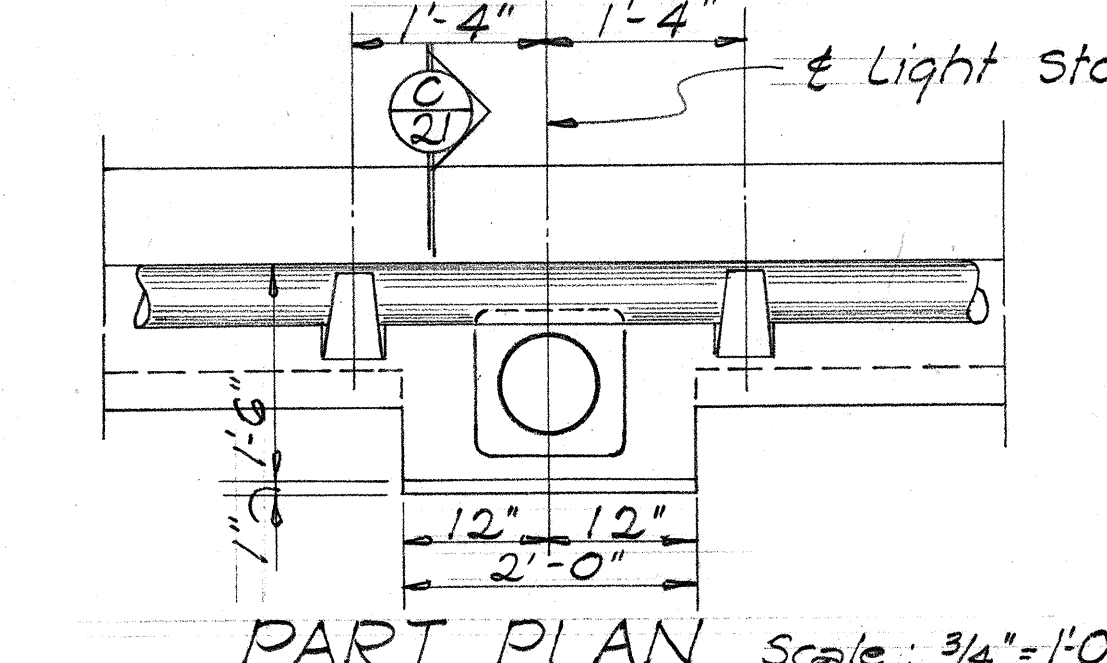
PRESTRESSED GIRDER DROP PANEL DETAIL
 No Scale



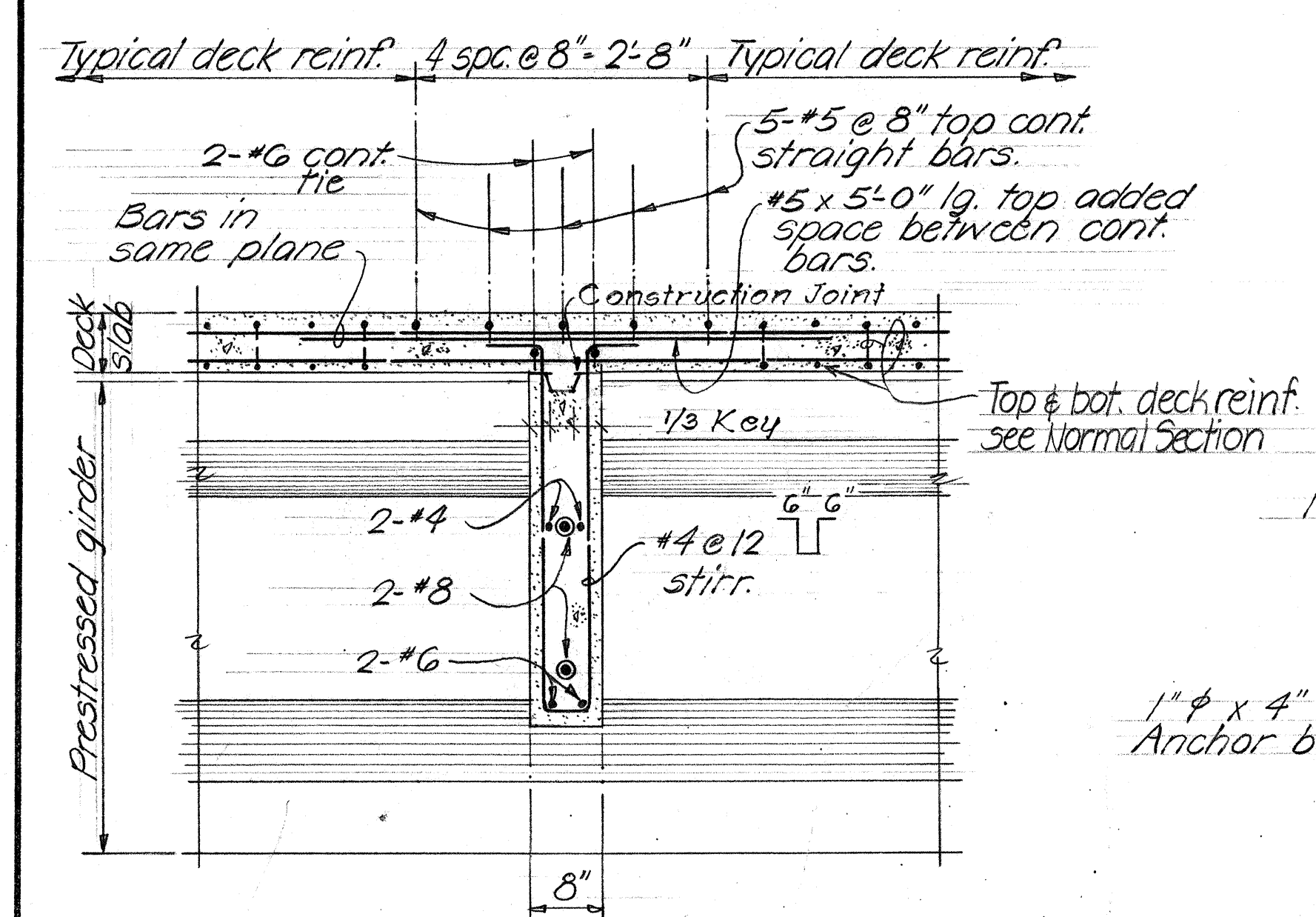
TYPICAL SECTION CONCRETE BARRIER CURB Scale: 1" = 1'-0"
 (Highway Item - reinforcing incidental to class A-1 concrete for barrier curb)



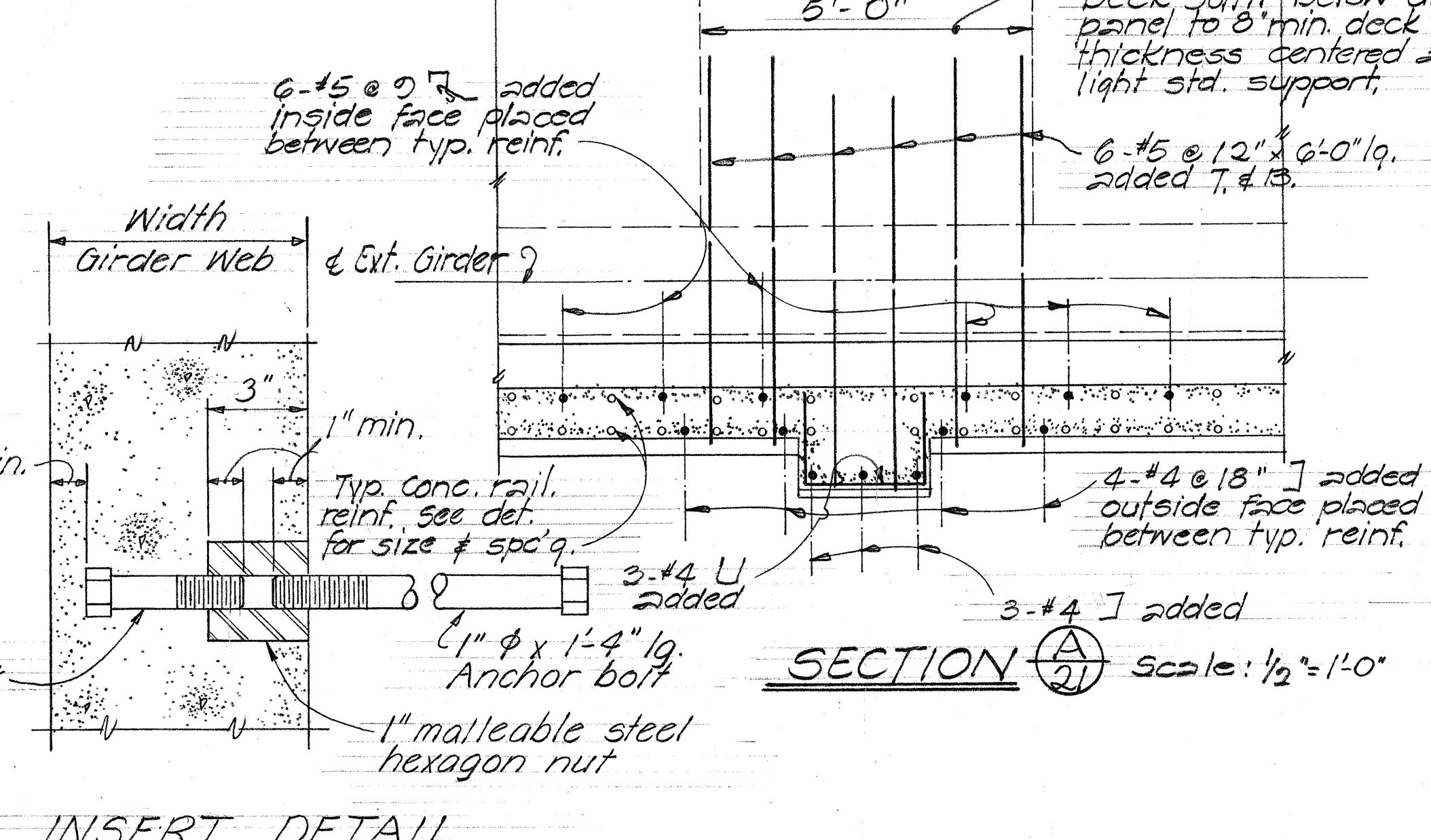
PART ELEVATION Scale: 3/4" = 1'-0"



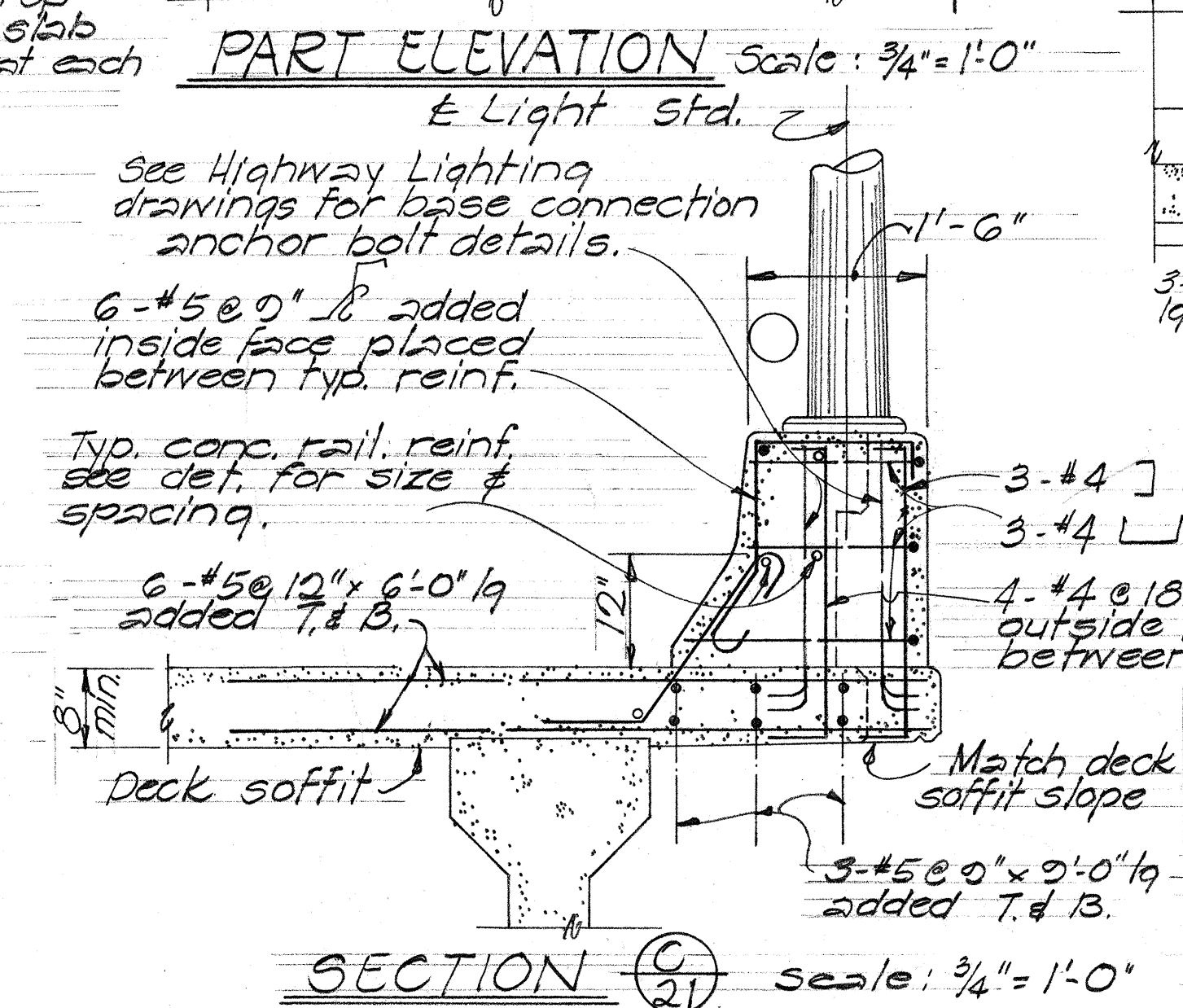
PART PLAN Scale: 3/4" = 1'-0"



SECTION A-21 Scale: 3/4" = 1'-0"



SECTION A-22 Scale: 1/2" = 1'-0"



SECTION C-21 Scale: 3/4" = 1'-0"

TYPICAL DETAILS AT LIGHT STANDARD ON VIADUCT
 Scale: As Noted

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
PEARL CITY VIADUCT
NORMAL DECK SECTION & DET.
 STA. 21+52 TO STA. 38+63
 INTERSTATE ROUTE H-1
 F.A.I. Proj. No. I-H-1(42)
 Date: JAN. 1968
SHEET No. 21 OF 28 SHEETS

ORIGINAL PLAN
 SURVEY PLOTTED BY
 DRAWN BY
 DESIGNED BY
 CHECKED BY
 DATE
 1/21/68
 1/21/68
 1/21/68
 1/21/68
 1/21/68

[illegible]

Technical drawing of a bridge deck cross-section showing reinforcement details. The drawing includes labels for 'Exterior Girder', 'Interior Girder', 'Top deck', and 'End to match shape of girder'. Reinforcement details include '3-#5 @ 6" added 6'-0" long', '2-#4 ties cont.', '2-#8 cont. top & bott.', and '1/4 @ 12" stirr. between girders'. A diamond-shaped sign with 'D 22' is shown on the left, and a diamond-shaped sign with 'E 22' is shown on the right.

[illegible]

Hand-drawn cross-section diagram of a bridge pier and abutment. The diagram shows a central pier with two abutments on either side. The abutments are labeled "Prestressed Girder" at the top. The pier is labeled "Pier" in the center. The diagram shows various reinforcement details: #5 girder bars, 2-#6 added girder bars, 2-#5 added tie rod, and 2-#5 cont. bottom. A dimension of 1'-6" is shown for the pier width. A circular callout "A 22" is present. The diagram is labeled "Reference - top pier cap" and "Pier Depth".

thru 35 inclusive.

Pier Line Nos. 39 41
35 inclusive,

2-#5 x 3'-0" bott. added tie rod for girder bars

Exterior Girder

Top Flange

10"

#8 x 5'-6" lg. dowels as shown

#5 @ 12" stirr. as shown

Outline - #5 cont. bottom each side of dowels

5-#5 each face between girders

Interior Girder

2-#5 cont. top

2-#5 x 4'-0" bott. added each girder. Tie rod for girder bars.

5-#5 ea. face between girders.

Interior Girder

12" 12" 2'-0"

TYPICAL SECTION

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

Typical Exterior Bay

Typical Interior Bay

Interior Bay

SECTION (D-22)

Scale: $\frac{3}{4}" = 1'-0"$

DETAIL (X)

NOTE:

Transverse deck construction joints may be eliminated if permitted by the Engineer in writing. If the construction joints are eliminated, water reducing and retarding admixture conforming to AASHTO Designation: M194 Type B or Type D, shall be added to the deck concrete over the pier within

To Barber's Pt. To Honolulu

DETAIL

Scale: $3'' = 1'-0''$

± Pier (Fixed) —

$\frac{1}{5}$ to $\frac{1}{4}$ span $\frac{1}{5}$ to $\frac{1}{4}$ span

X
22

Designation to the de the indi of the ad shall be

7
S

DETAIL OF CONTINUOUS

SLAB OVER FIXED PIER

Scale: $\frac{1}{4}'' = 1'-0''$

coated joints. The type and dosage
 mixture, and the method of pour
 approved by the Engineer.

Transverse deck construction joint
 shall be used at these locations.
 See "Note" above.

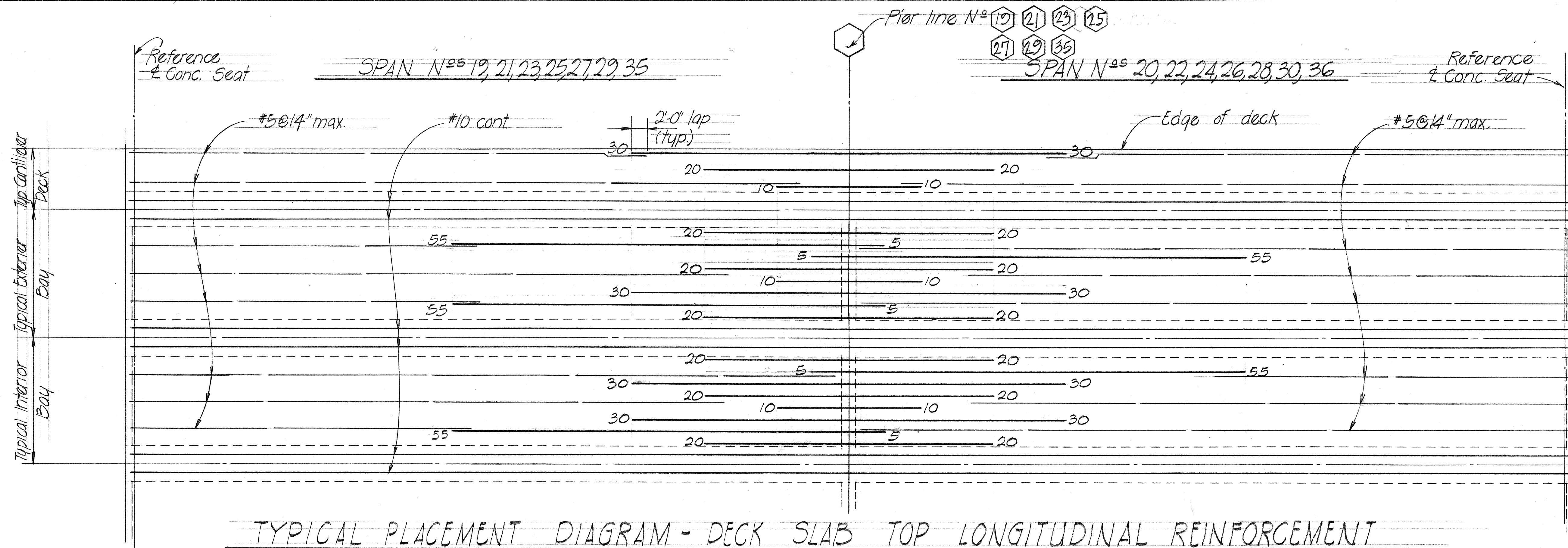
TYPICAL SECTION

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

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 PEARL CITY VIADUCT
 BEAMS "C1", "C2", "D" SECTIONS & DET.
 STA. 21+52 TO STA. 38+63
 INTERSTATE ROUTE H-1
 F.A.I. Proj. No. I-HI-1(42)
 Date: JAN. 1968
 SHEET NO. 22 OF 28 SHEETS

PEARL CITY VIADUCT
BEAMS "C1", "C2", "D" SECTIONS & DET.
STA. 21+52 To STA. 38+63
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-H-1(42)
Date: JAN. 1968
SHEET No. 22 OF 28 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-41-1(42)	1968	34	59



G-1, G-12	G-13, G-24
G-2, G-11	G-14, G-23
G-2, G-4... thru G-10 inclusive	G-14, G-16... thru G-22 inclusive
G-3, G-5... thru G-11 inclusive	G-15, G-17... thru G-23 inclusive

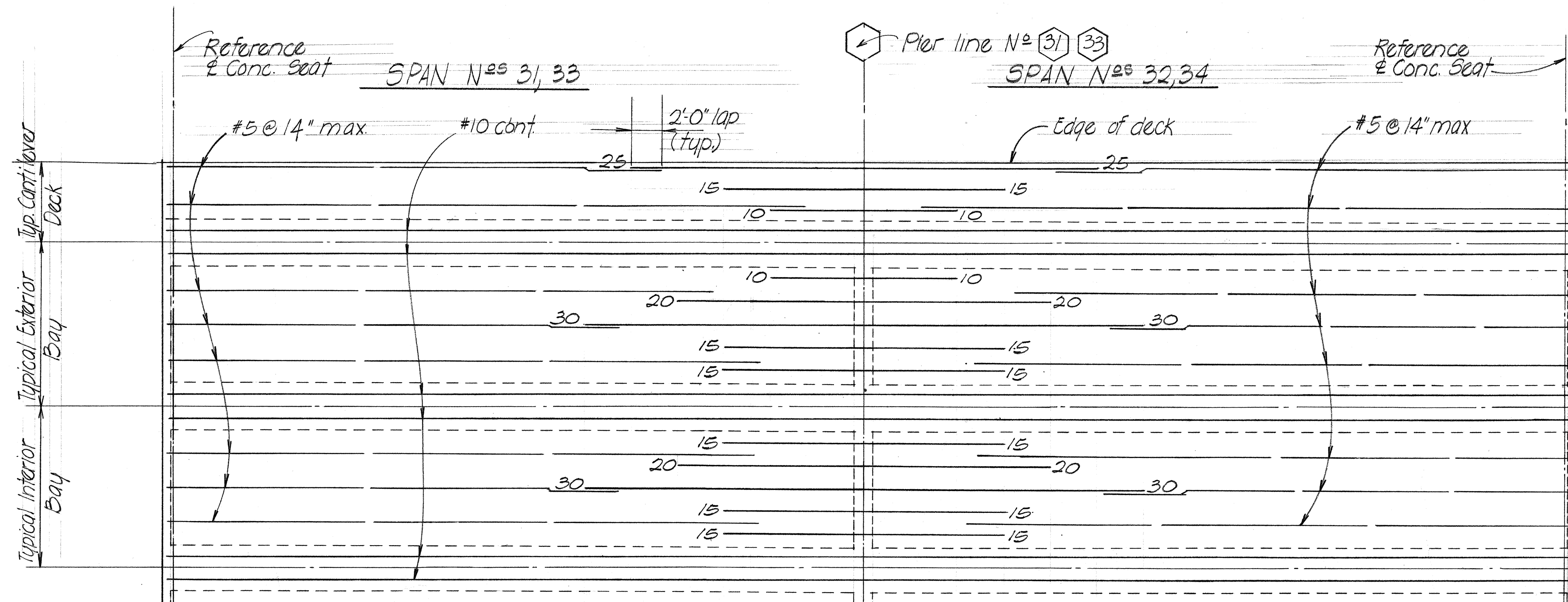
TYPICAL PLACEMENT DIAGRAM - DECK SLAB TOP LONGITUDINAL REINFORCEMENT

INBOUND & OUTBOUND BRIDGES - SPANS N° 19 thru 30 inclusive, N° 35, 36

Scale: Longitudinal: 1/8" = 1'-0"
Transverse: 3/8" = 1'-0"

NOTE:

All reinforcement in diagram are #10 except as otherwise noted.
Numbers at ends of bars indicate distance in feet from corresponding pier line number.
All #5 @ 14" max. bars shall be extended and lapped with the adjacent #10 bars as shown for additional top reinf. See sheet # 21.



G-1, G-12	G-13, G-24
G-2, G-11	G-14, G-23
G-2, G-4... thru G-10 inclusive	G-14, G-16... thru G-22 inclusive
G-3, G-5... thru G-11 inclusive	G-15, G-17... thru G-23 inclusive

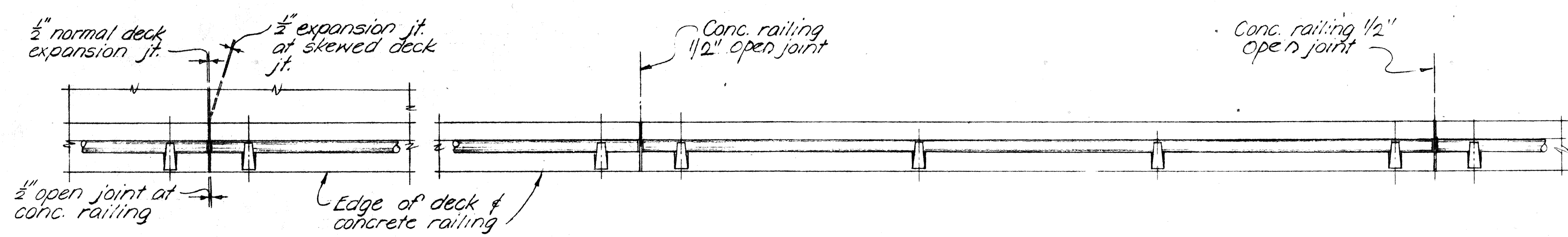
TYPICAL PLACEMENT DIAGRAM - DECK SLAB TOP LONGITUDINAL REINFORCEMENT

(INBOUND & OUTBOUND BRIDGES - SPANS 31 thru 34 INCLUSIVE)

Scale: Longitudinal: 1/8" = 1'-0"
Transverse: 3/8" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
DECK STEEL PLACEMENT DIAGRAM
SPAN NOS 19 THRU 36 INCL.
INTERSTATE ROUTE 4-1
F.A.I. Proj. No. I-41-1 (42)
Date: JAN. 1968
SHEET No. 23 OF 28 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	35	59



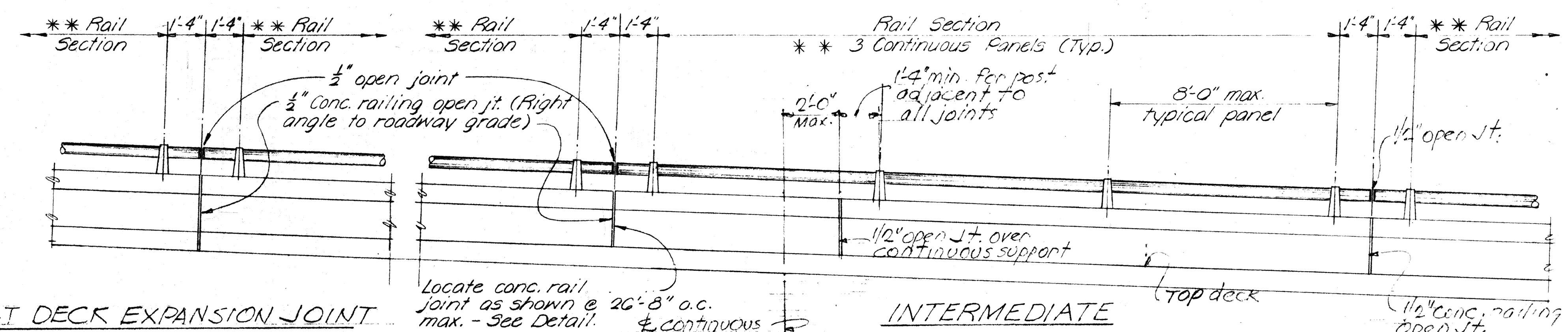
AT DECK EXPANSION JOINT

INTERMEDIATE

**** NOTE !!**

The contractor shall layout the railing to provide 3 cont. panels whenever possible. 2 or 4 cont. panels will be permitted to complete the layout when 3 cont. panels cannot be made. Single panels will not be permitted. Rail Posts shall be normal to grade. Provide double posts at each expansion jt., fixed bridge jt. and as shown on detailed drawings.

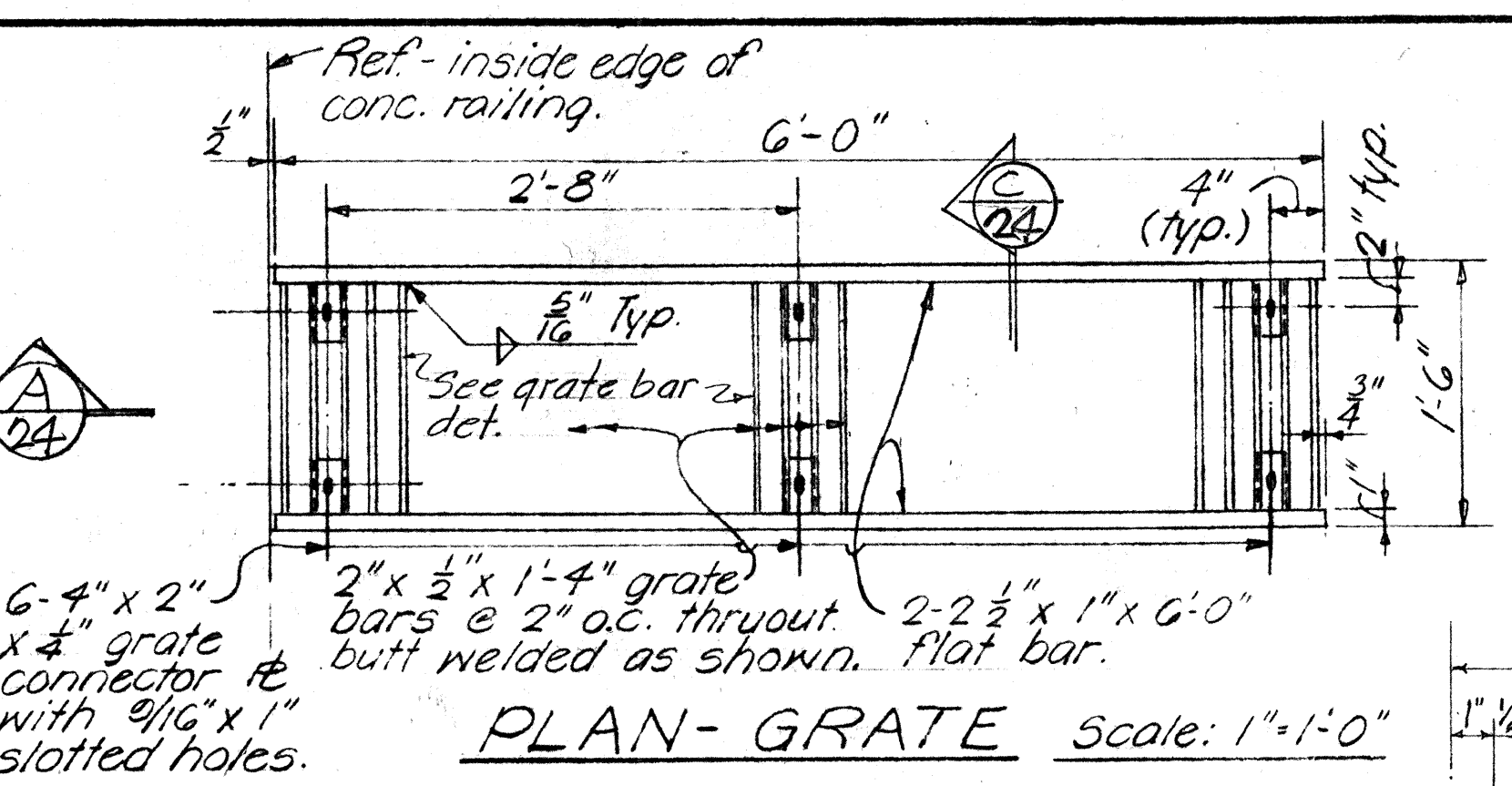
RAILING PLAN Scale: 3/8"=1'-0"



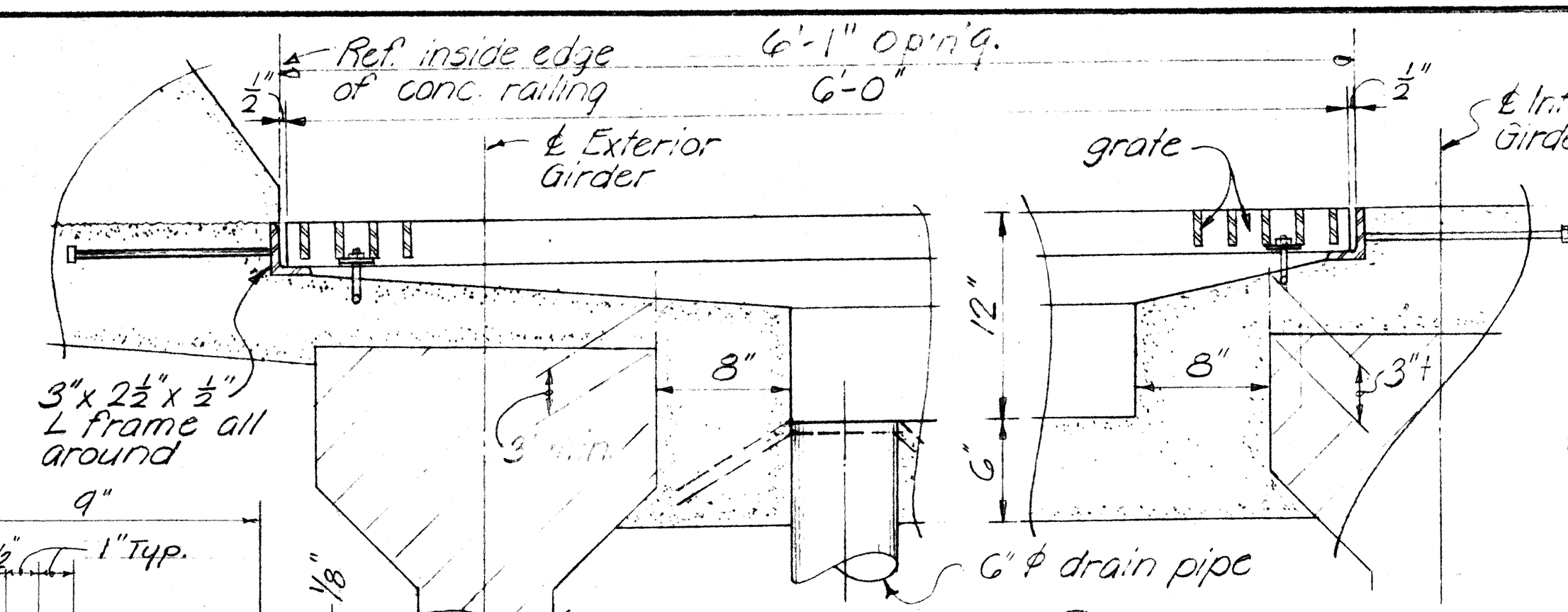
AT DECK EXPANSION JOINT

INTERMEDIATE

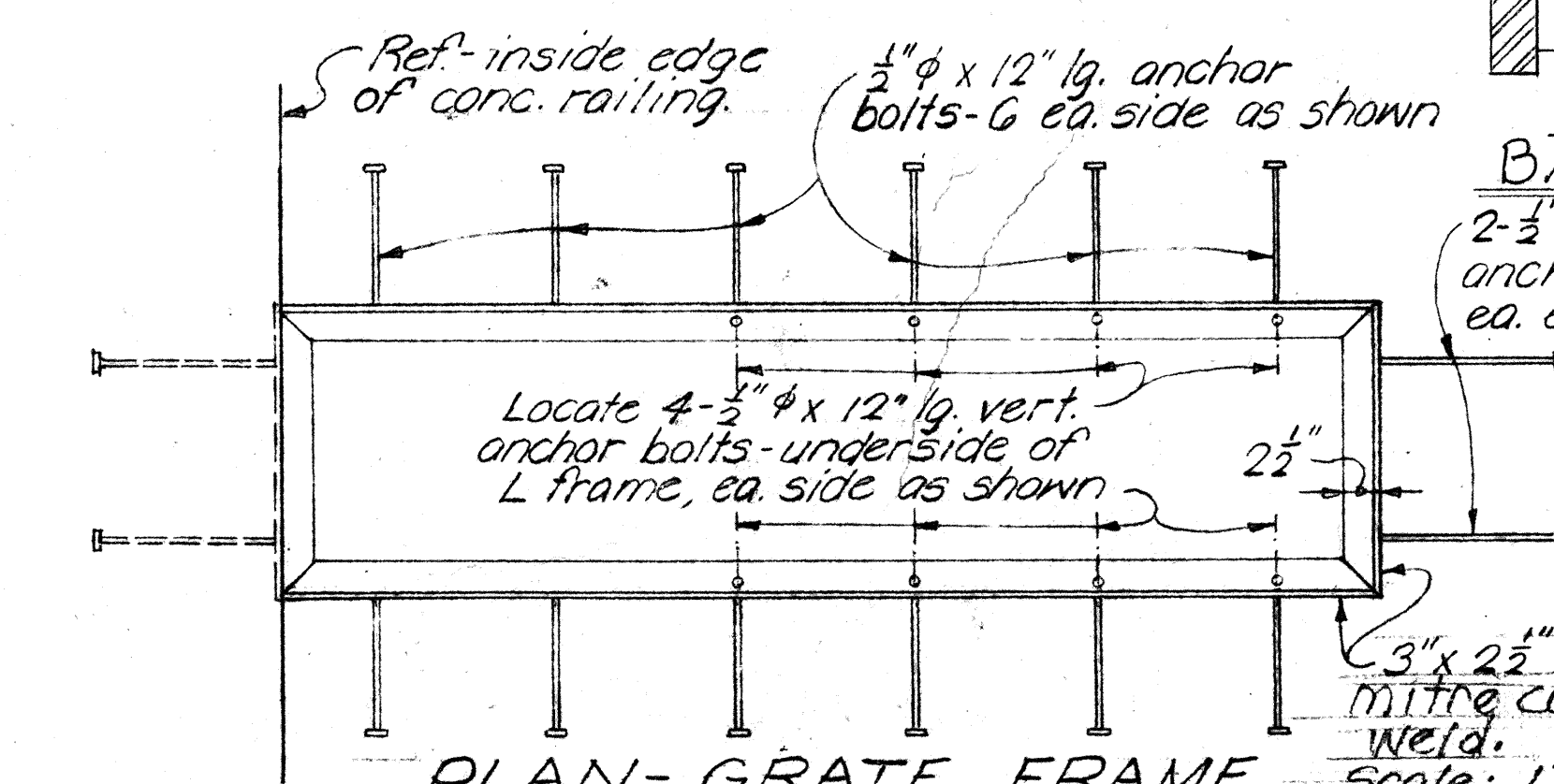
EXTERIOR RAILING ELEVATION Scale: 3/8"=1'-0"



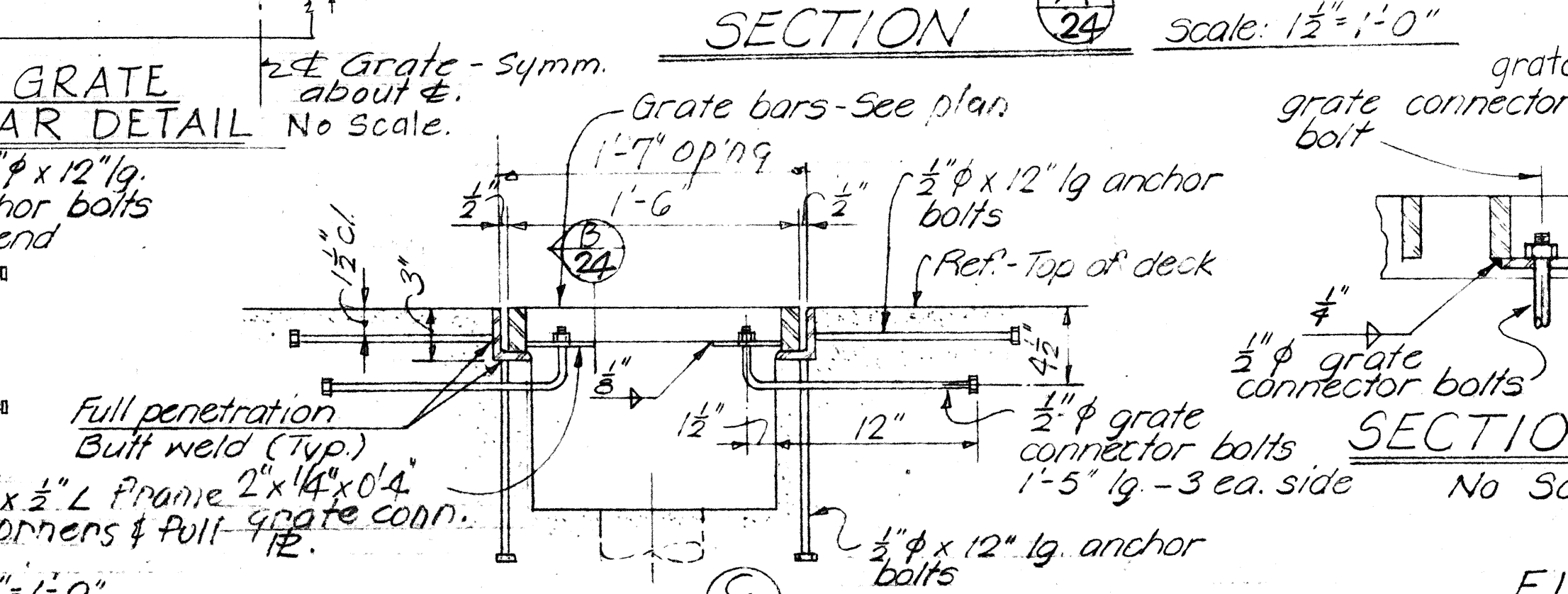
PLAN - GRATE Scale: 1"=1'-0"



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



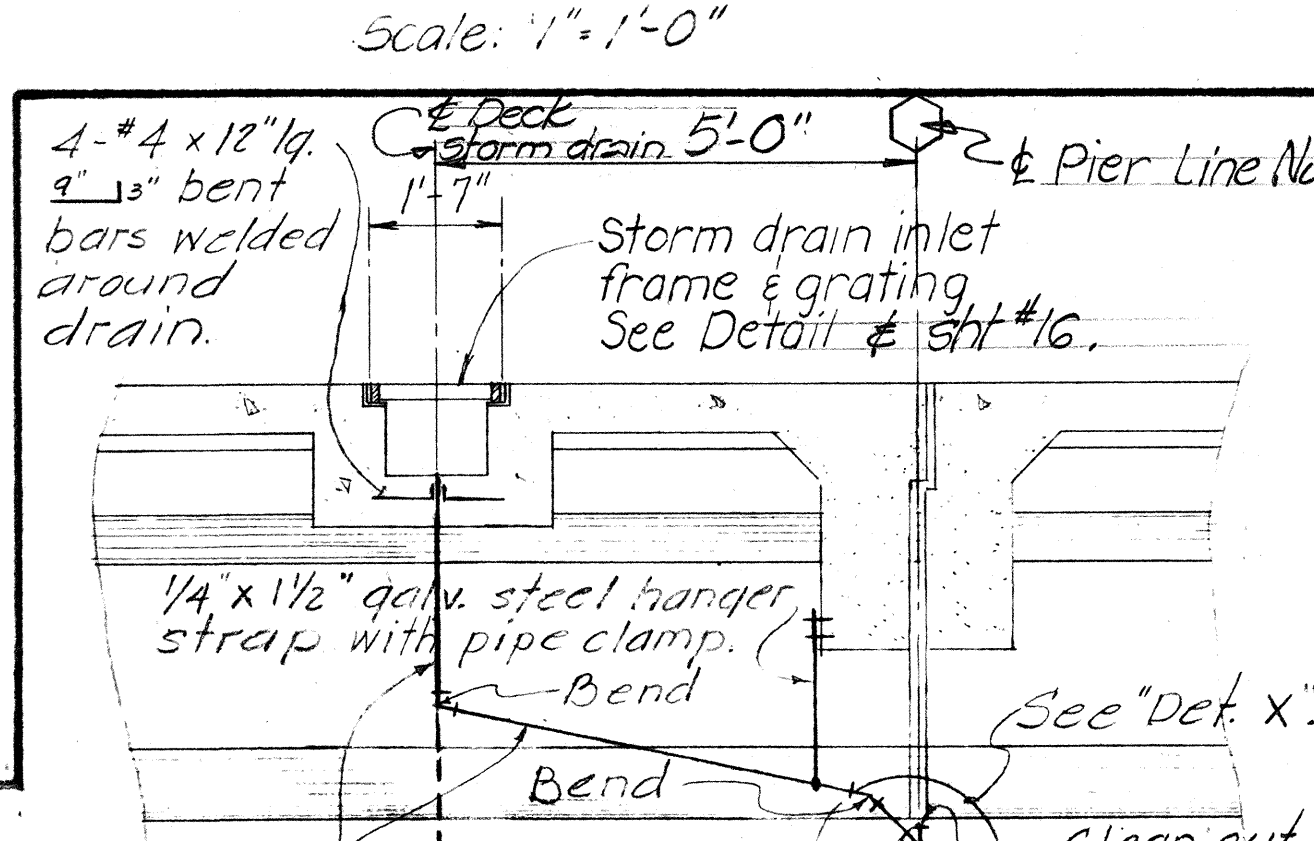
PLAN - GRATE FRAME Scale: 1"=1'-0"



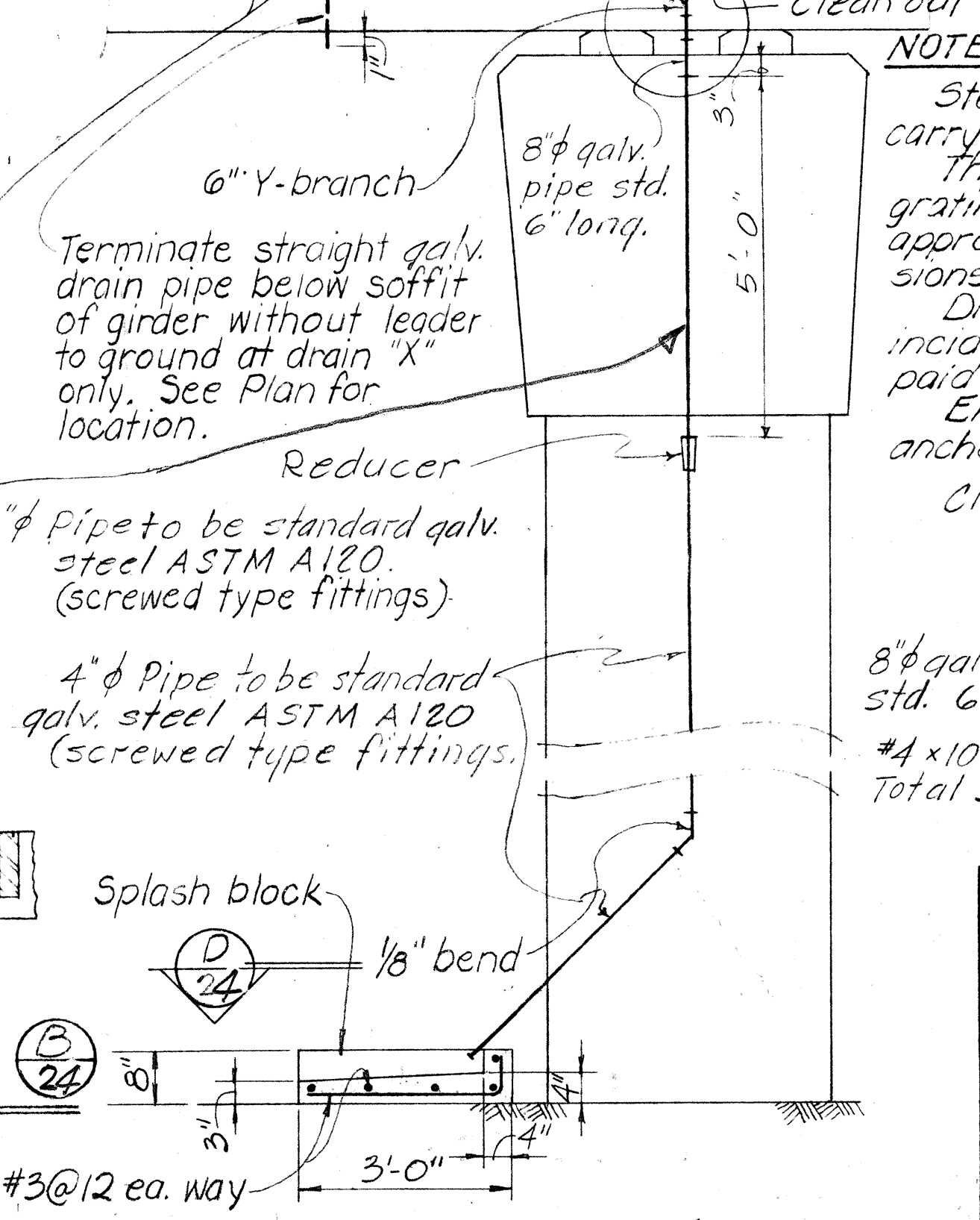
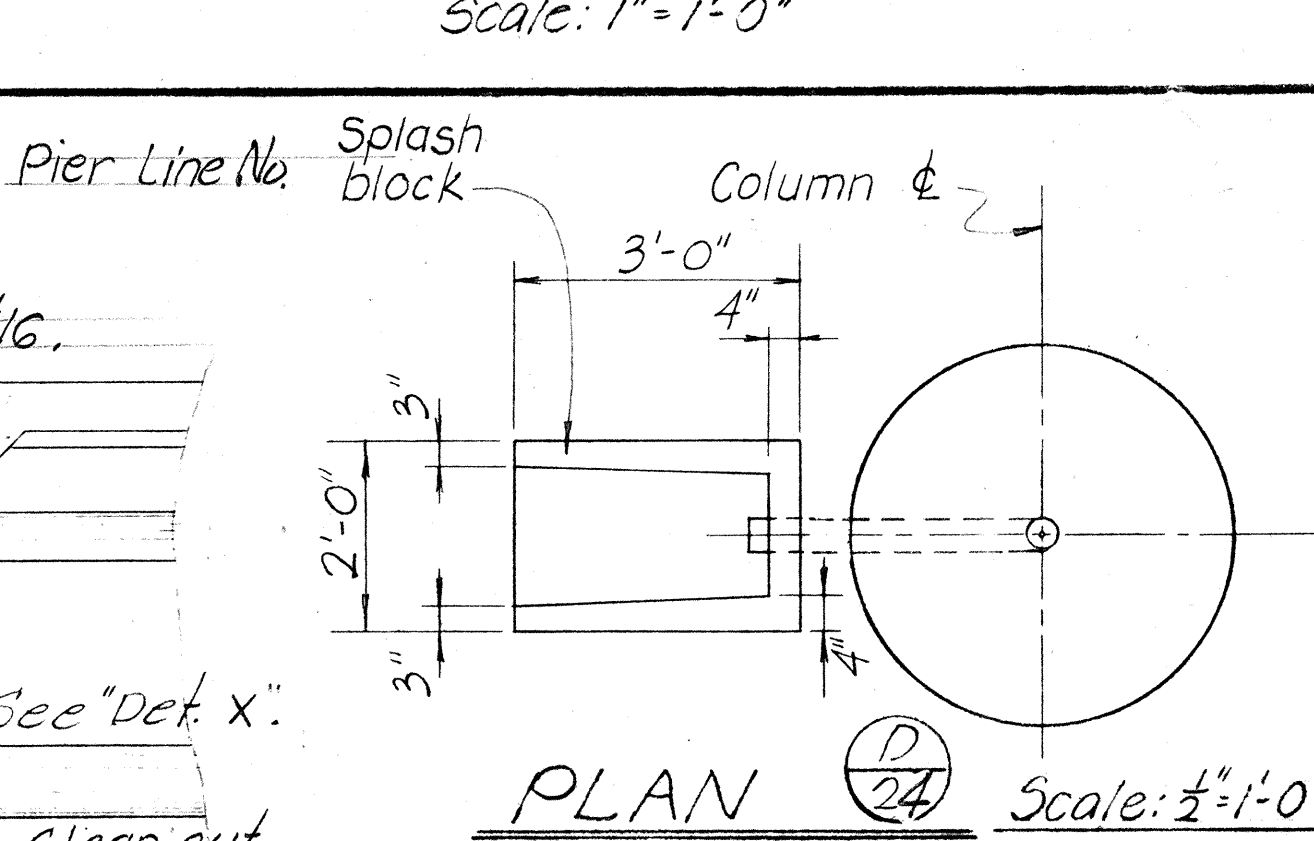
SECTION C Scale: 1 1/2"=1'-0"

TYPICAL DECK STORM DRAIN GRATE & FRAME

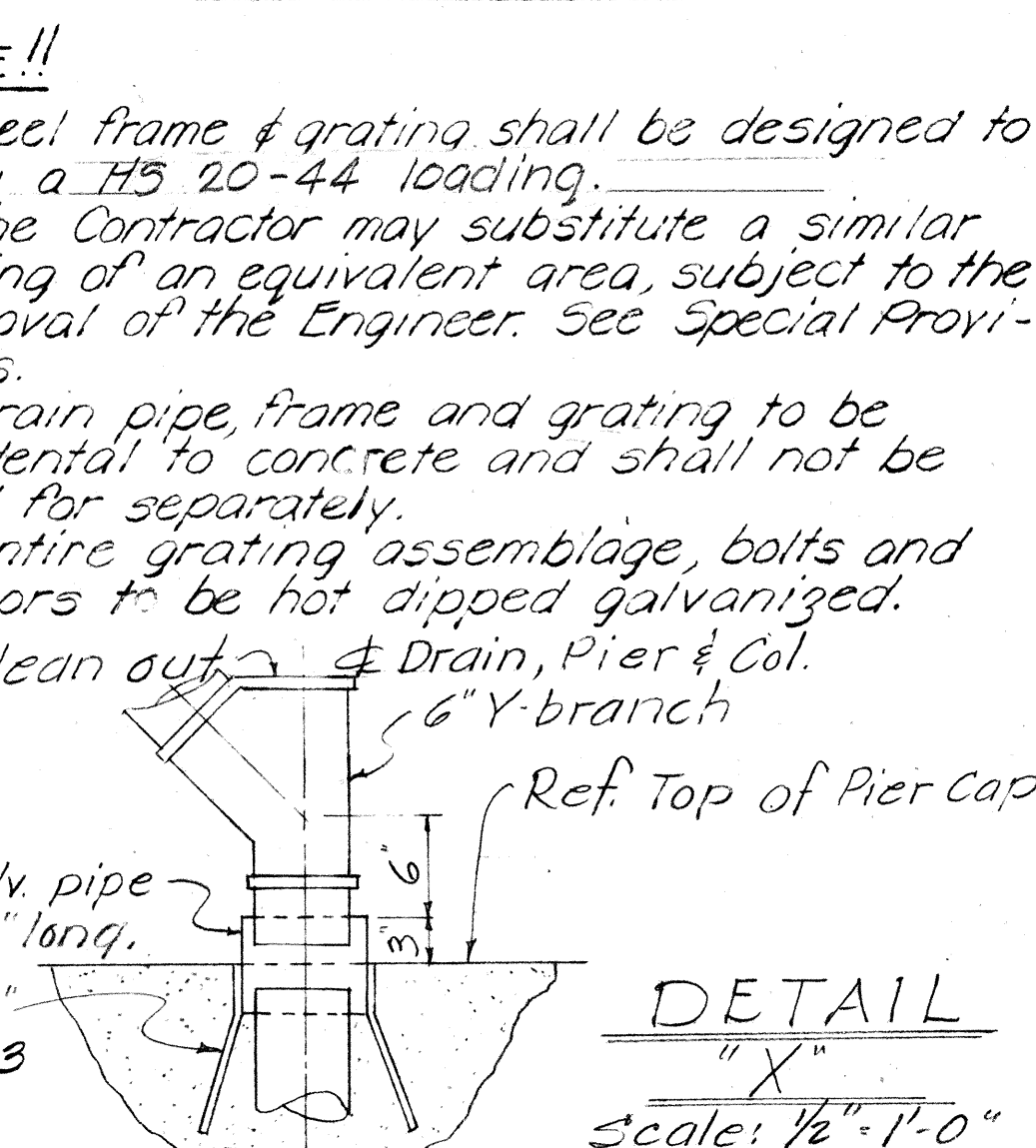
TYPICAL CONCRETE RAILING SECTION Scale: 1"=1'-0"



ELEV. 24 - SHOWING SPECIAL REINFORCEMENT AT JUNCTION BOX Scale: 1"=1'-0"



ELEVATION STORM DRAIN LEADER Scale: 1/2"=1'-0"



NOTE !!
Steel frame & grating shall be designed to carry a HS 20-44 loading. The Contractor may substitute a similar grating of an equivalent area, subject to the approval of the Engineer. See Special Provisions. Drain pipe, frame and grating to be incidental to concrete and shall not be paid for separately. Entire grating assemblage, bolts and anchors to be hot dipped galvanized. Clean out, 6" Y-branch, 8" galv. pipe std. 6' long, #4 x 10" Total 3, Ref. Top of Pier cap, 6" Y-branch, Clean out, 6" Y-branch, Terminate straight galv. drain pipe below soffit of girder without leader to ground at drain "X" only. See Plan for location, 6" Pipe to be standard galv. steel ASTM A120. (screwed type fittings), 4" Pipe to be standard galv. steel ASTM A120 (screwed type fittings), Splash block, 1/8" bend, #3@12 ea. way, 3'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
MISCELLANEOUS DETAILS
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(42)
Scale: As Noted JAN. 1968
SHEET No. 24 OF 28 SHEETS

DATE	1/24
DESIGNED BY	LA
CHECKED BY	LA
QUANTITIES BY	LA
NOTE BOOK	
ORIGINAL PLAN	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IHI-1(42)	1968	36	59

B-58 STA. 22+54
69' 1/2 Lt.

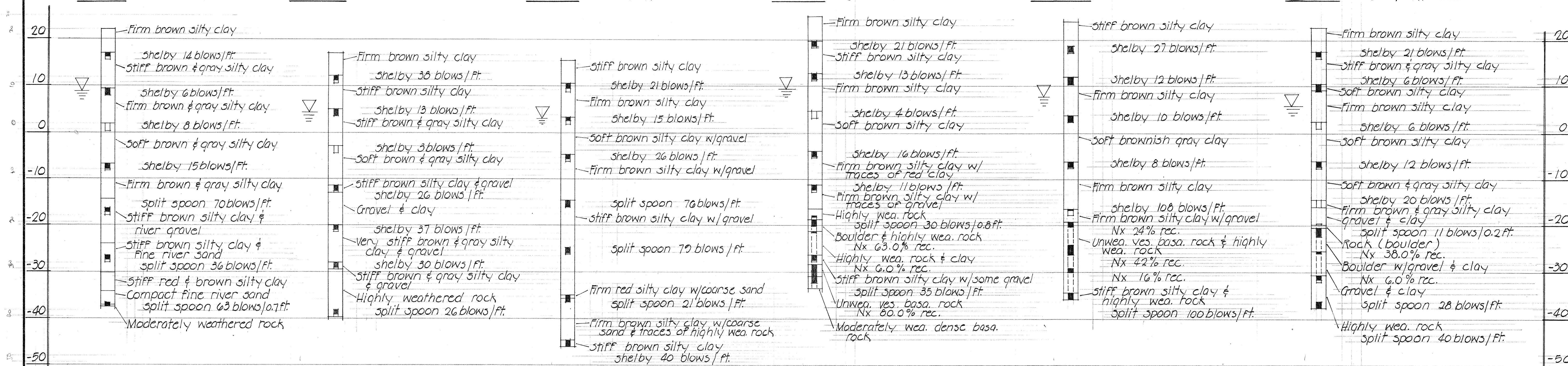
B-59 STA. 22+54
69' 1/2 Rt.

B-60 STA. 22+54
69' 1/2 Rt.

B-61 STA. 23+56
69' 1/2 Lt.

B-62 STA. 23+56
69' 1/2 Rt.

B-63 STA. 23+56
62' 1/2 Rt.



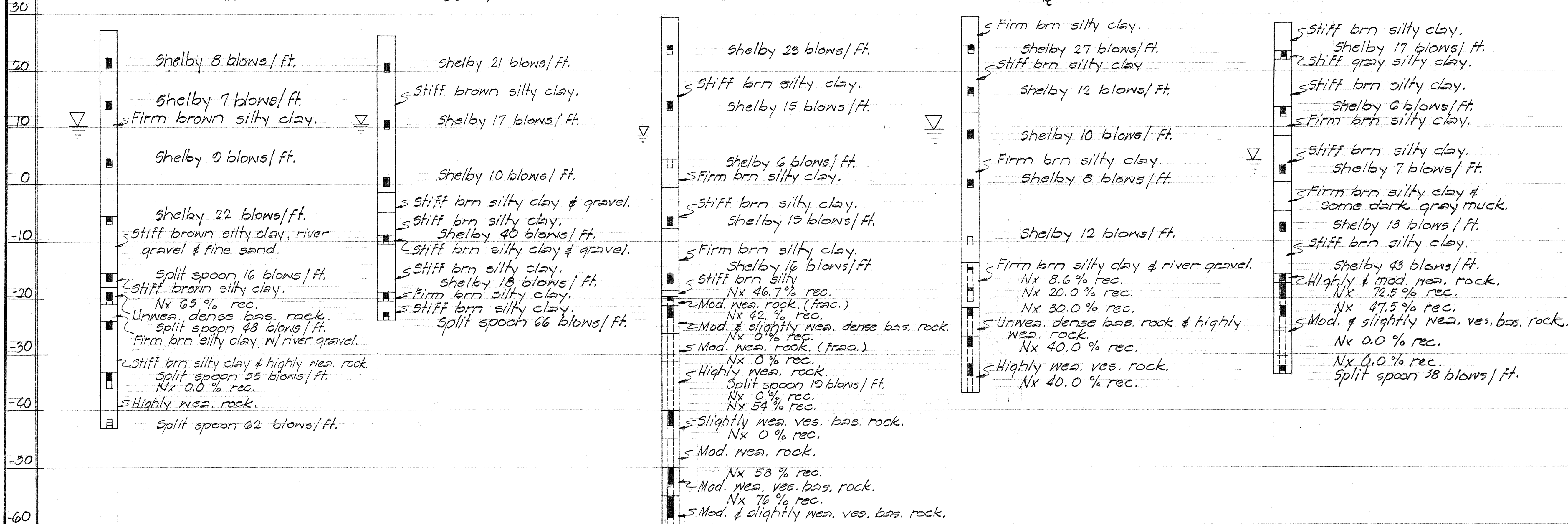
B-64 STA. 24+57
30' 1/2 Lt.

B-65 STA. 24+57
60' 1/2 Rt.

B-66 STA. 25+12
60' 1/2 Lt.

B-67 STA. 25+58
69' 1/2 Lt.

B-68 STA. 25+58
60' 1/2 Rt.



SURVEY PLOTTED BY	DATE	1968
DRAWN BY	SY	
DESIGNED BY		
NOTED BY		
CHECKED BY	PHY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEARL CITY VIADUCT
BORING LOG

INTERSTATE H-1
FAI PROJ. I-HI-1(42)
JAN. 1968
SHEET No. 25 OF 28 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	37	59



UNIT #

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEARL CITY VIADUCT
LOG OF BORINGS
INTERSTATE ROUTE H-1
F.A.I. Proj. No I-HI-1(42)

JAN. 1968

SHEET No. 26 OF 28 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	3-7
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

B-80 STA. 30+63
68' 9/5 RT

B-81 STA. 30+63
68' 9/5 RT

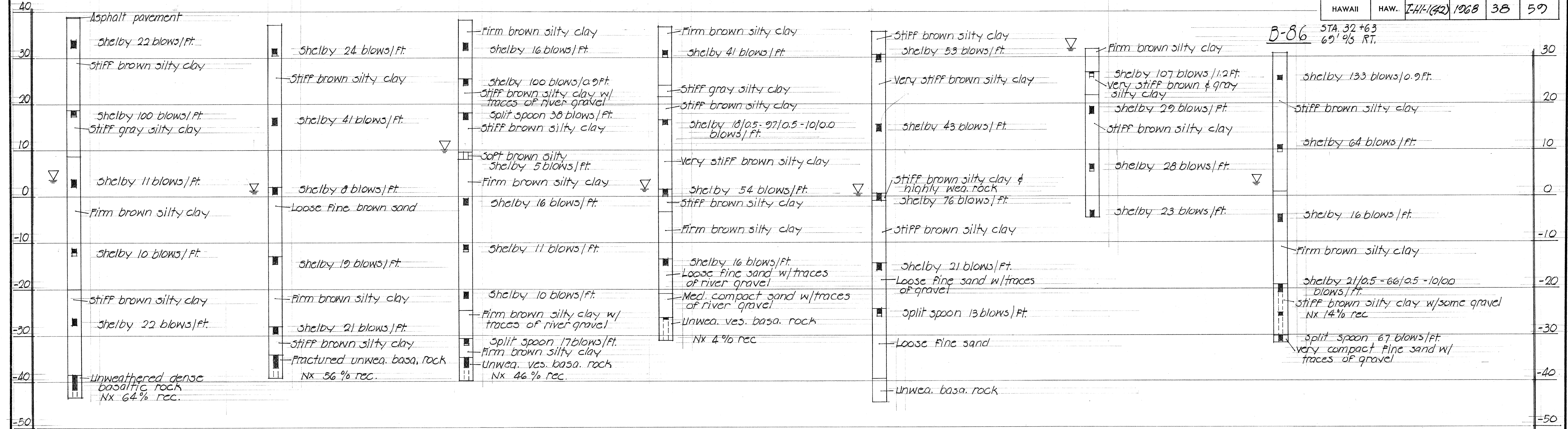
B-82 STA. 31+63
69' 9/5 LT

B-83 STA. 31+80
14' 9/5 RT

B-84 STA. 31+85
69' 9/5 RT

B-85 STA. 32+63
68' 9/5 RT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	241(42)	1968	38	59



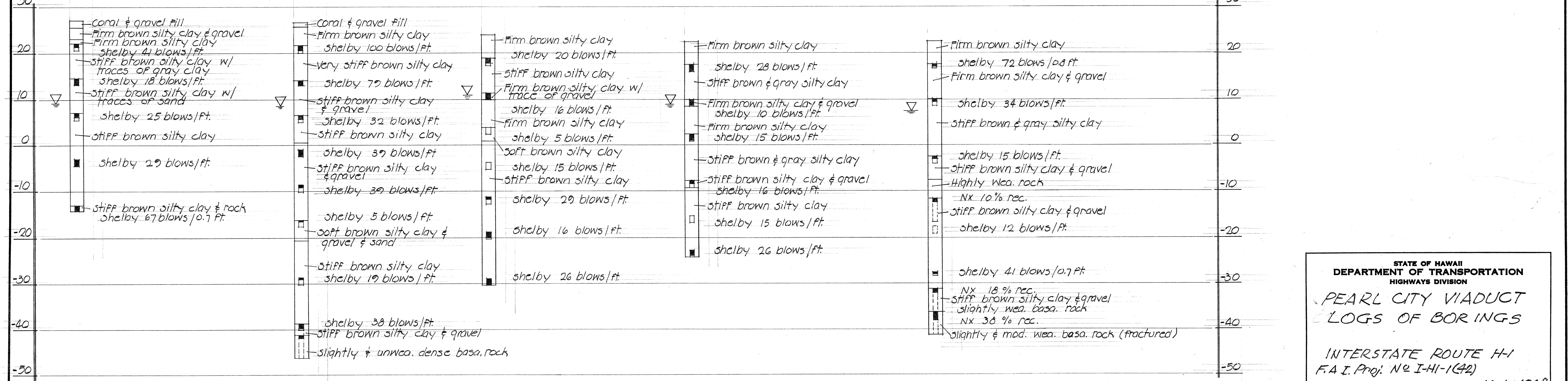
B-87 STA. 33+35
69' 9/5 LT

B-88 STA. 33+63
68' 9/5 RT

B-89A STA. 34+38
70' 9/5 LT

B-90A STA. 34+38
68' 9/5 RT

B-91A STA. 34+38
69' 9/5 RT

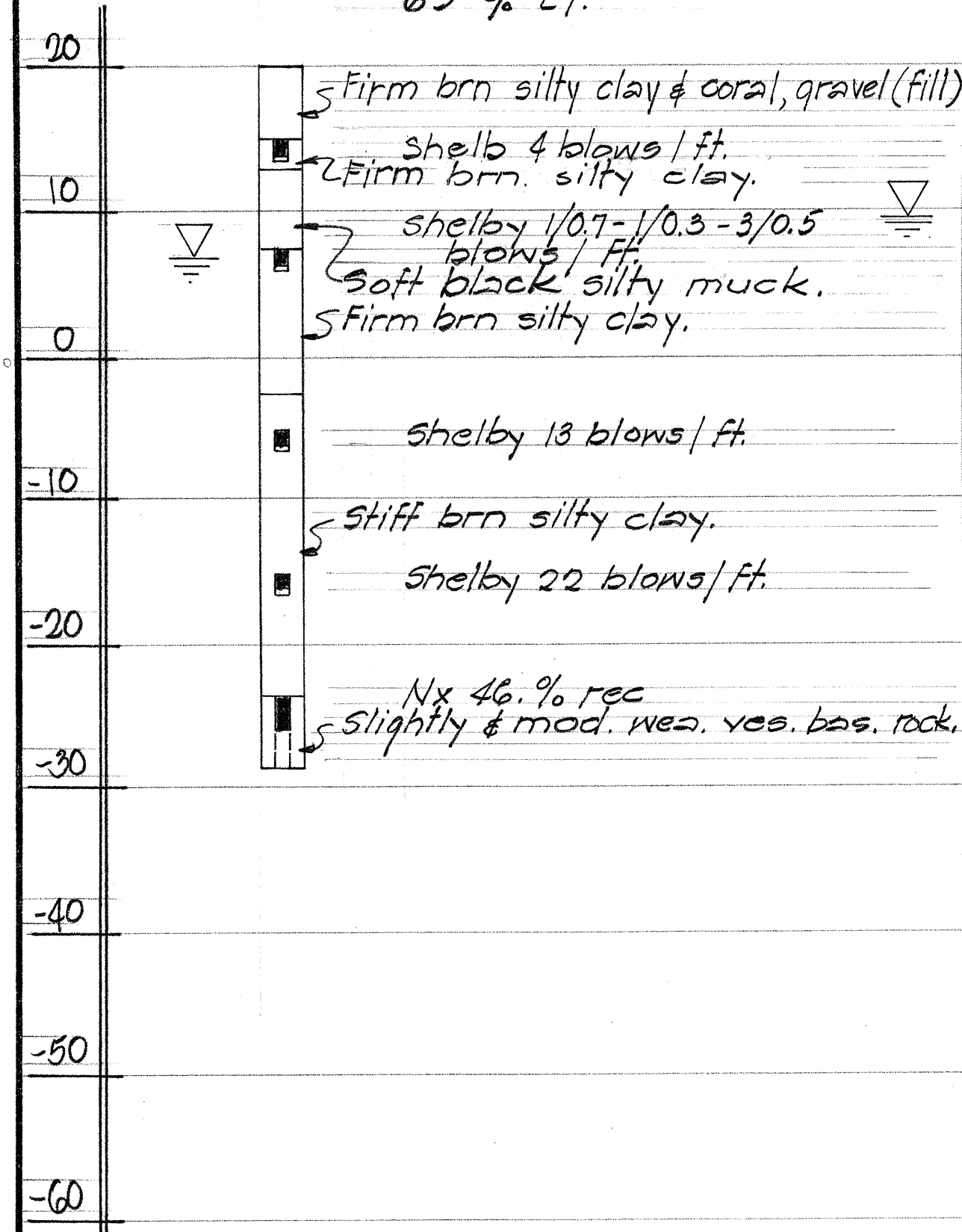


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
LOGS OF BORINGS
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(42)
JAN. 1968
SHEET No. 27 OF 28 SHEETS

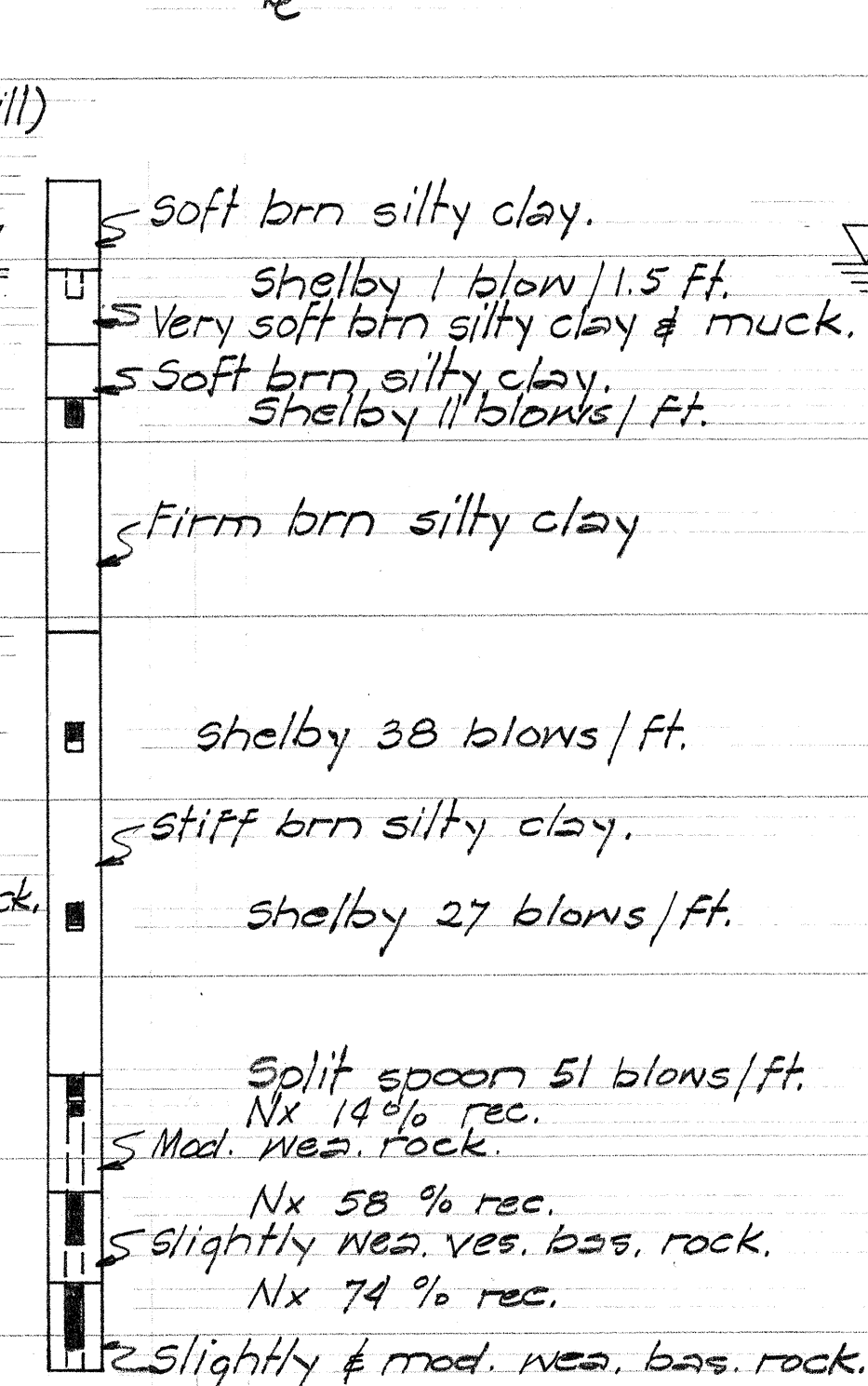
DATE: 1/26/68
SURVEY PLOTTED BY: WLB
DRAWN BY: WLB
CHECKED BY: PLY
ORIGINAL PLAN
NOTE BOOK
No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IHI-1(42)	1968	39	59

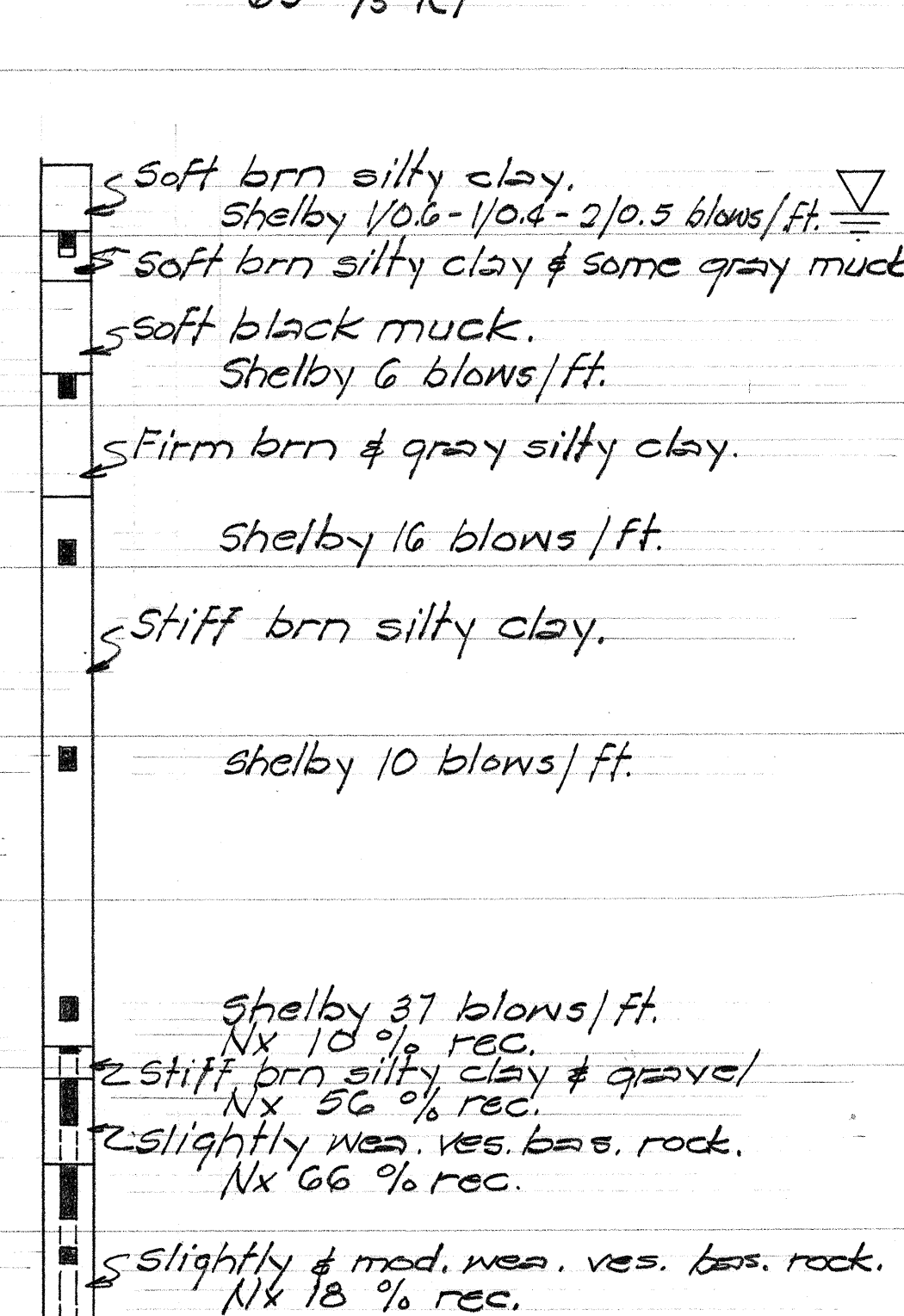
B-94 STA. 36+63
60' % LT.



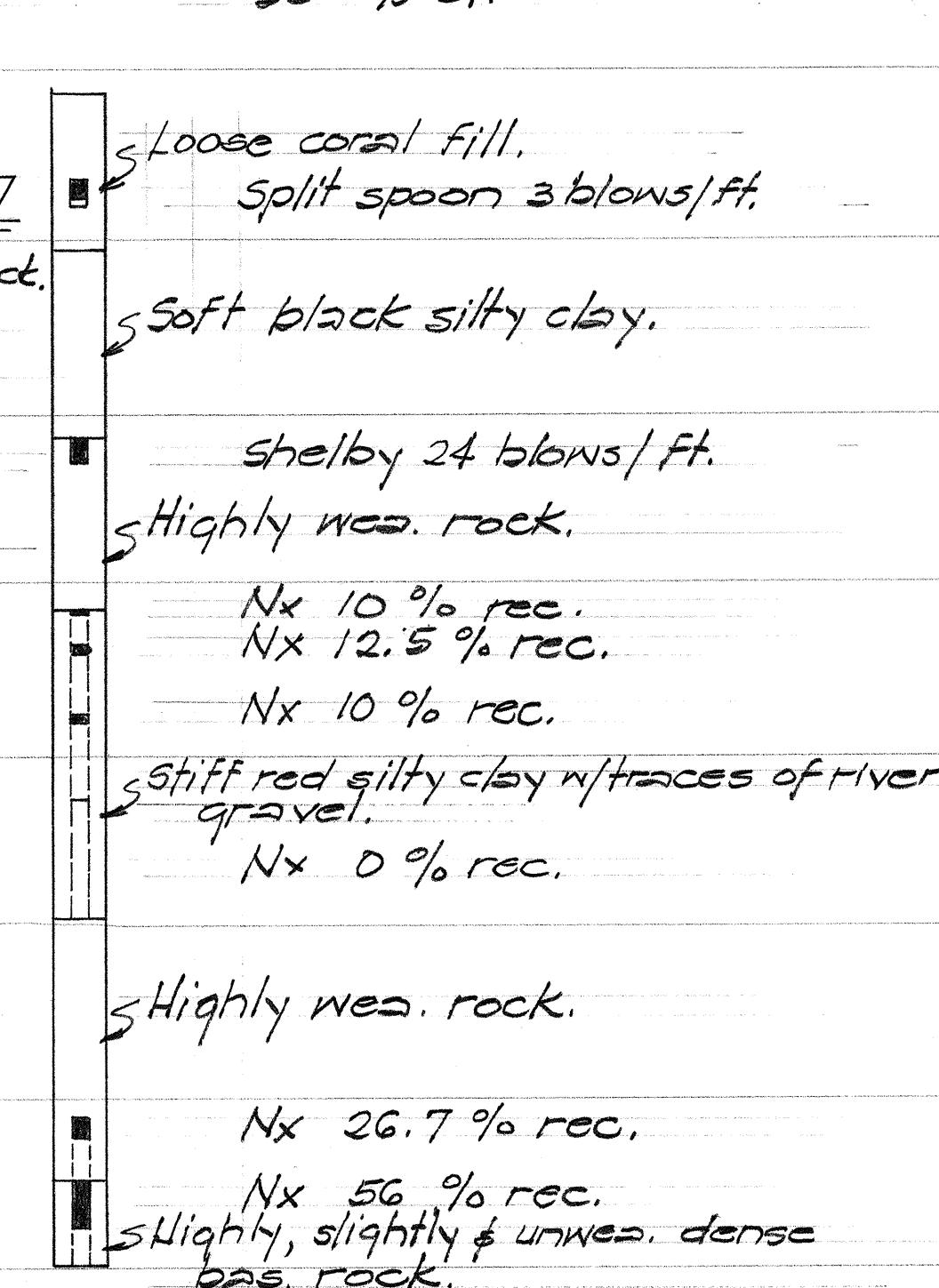
B-95 STA. 36+63
60' % RT.



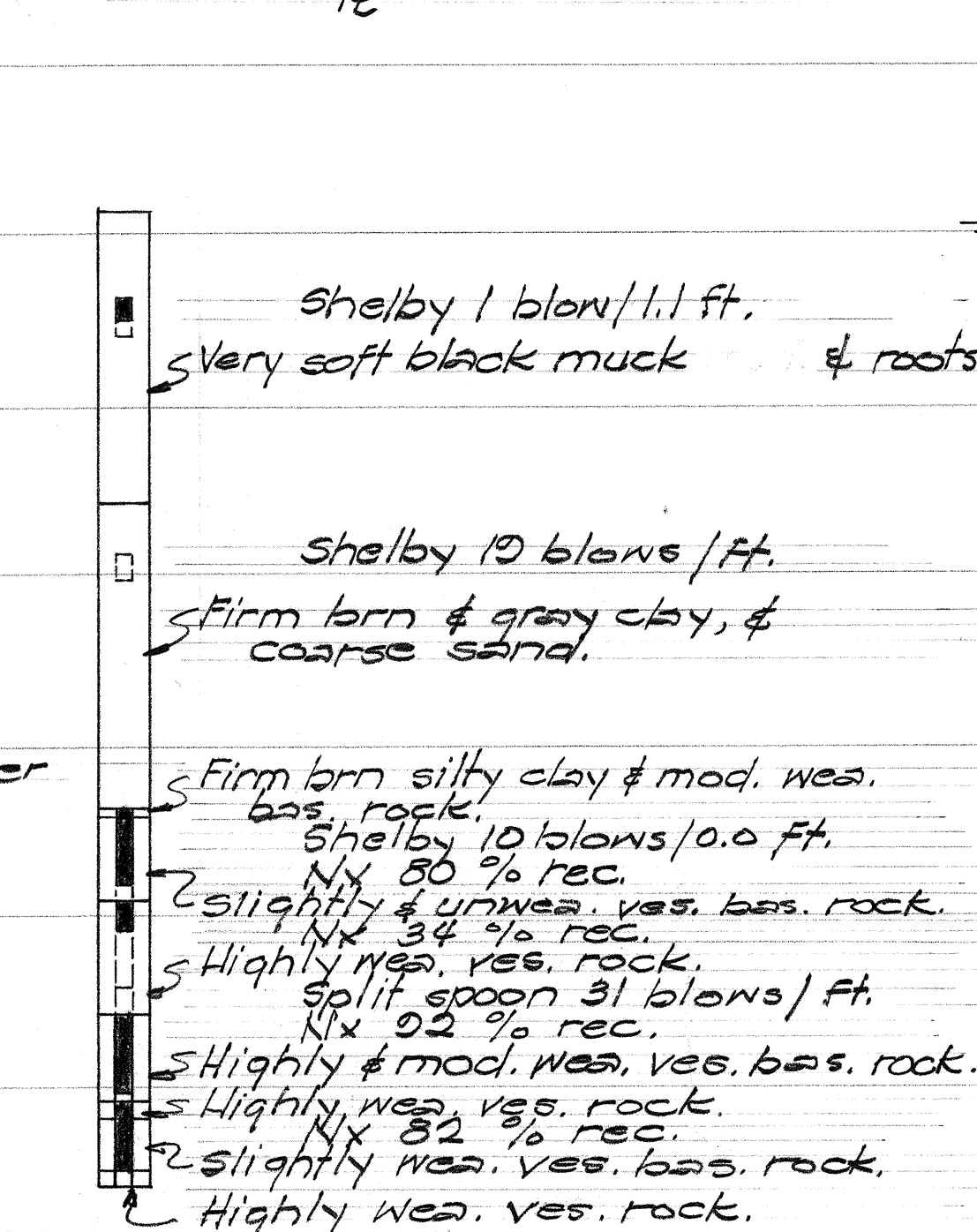
B-96 STA. 36+63
60' % RT.



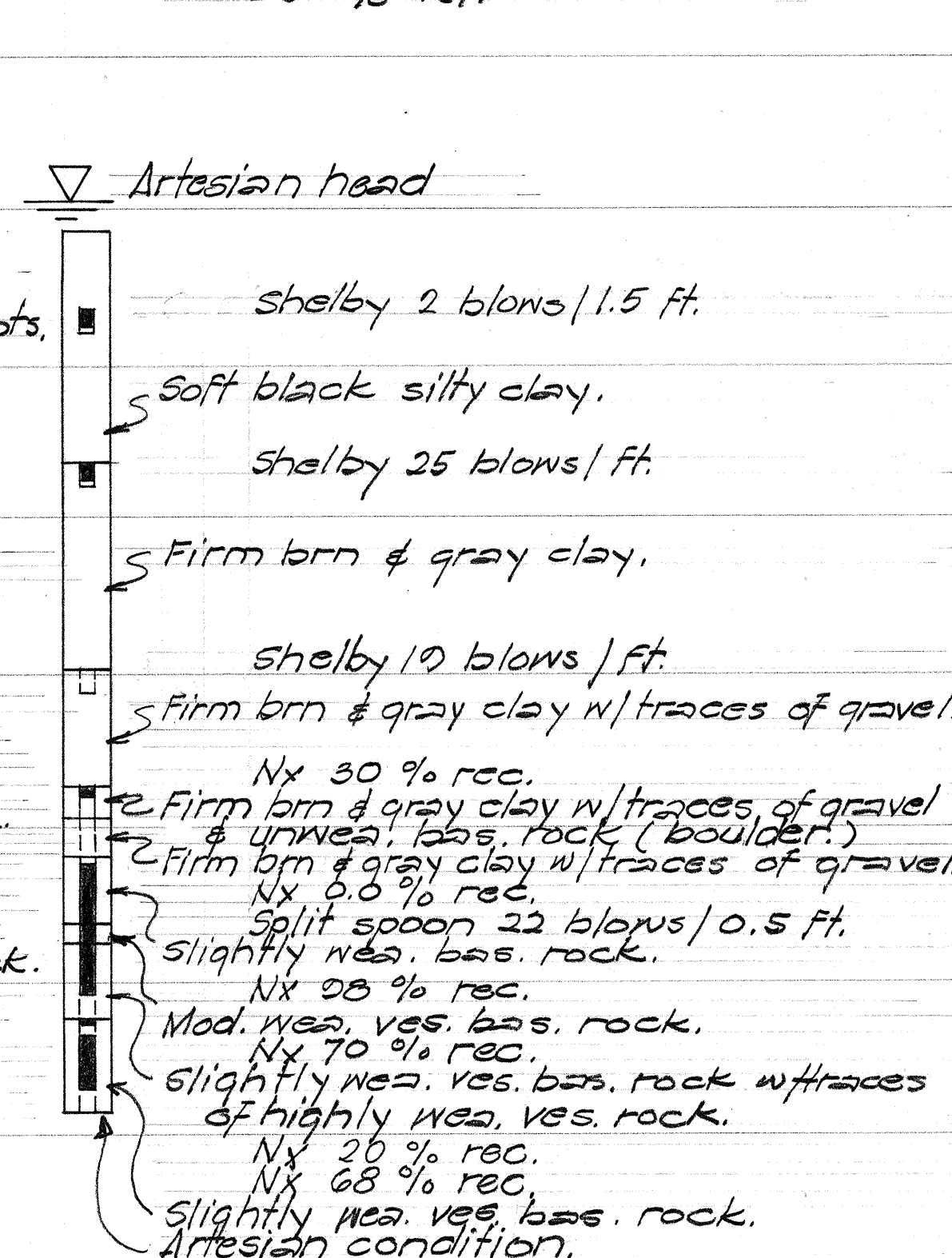
B-97 STA. 37+63
58' % LT.



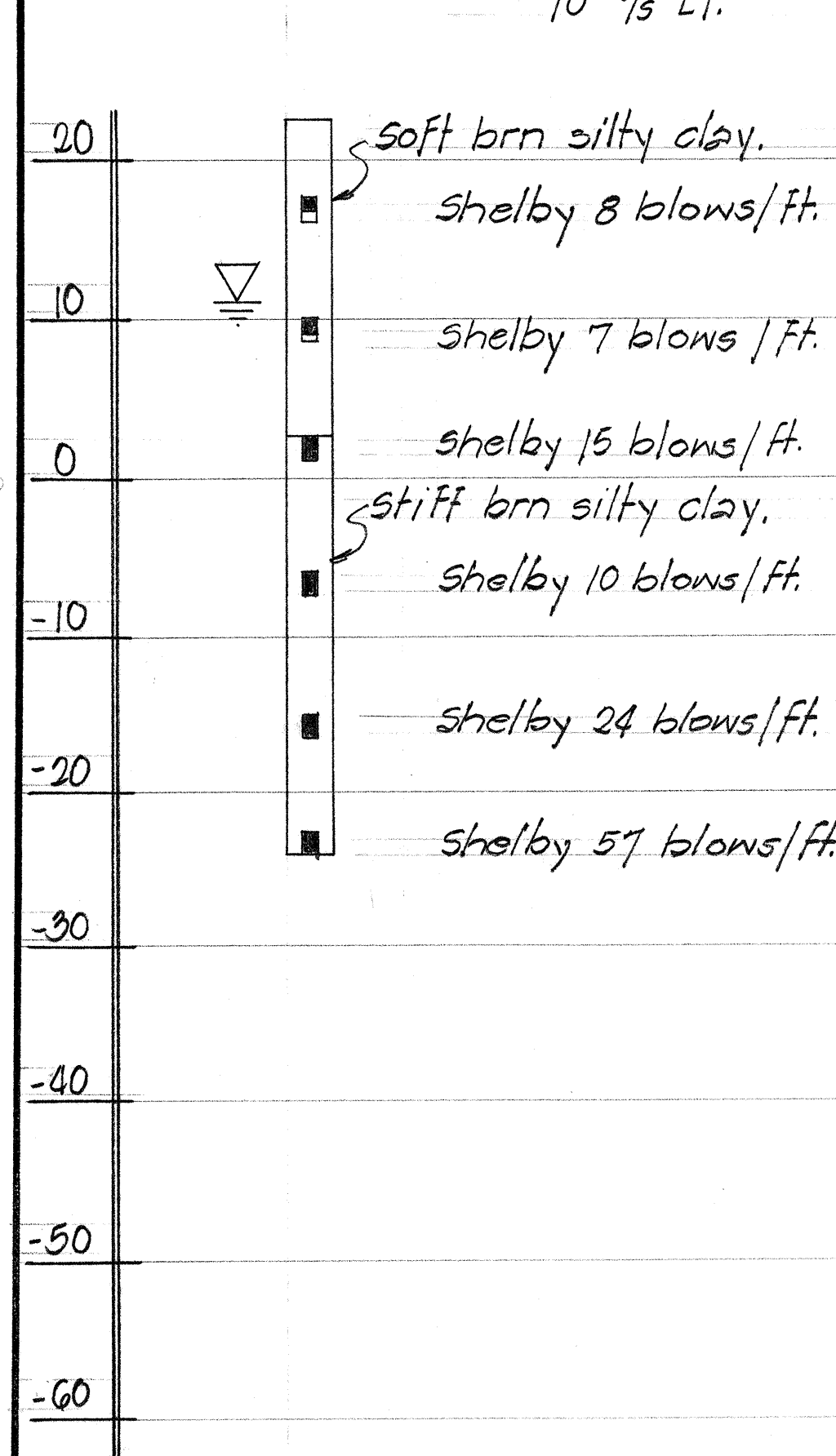
B-98 STA. 37+63
60' % RT.



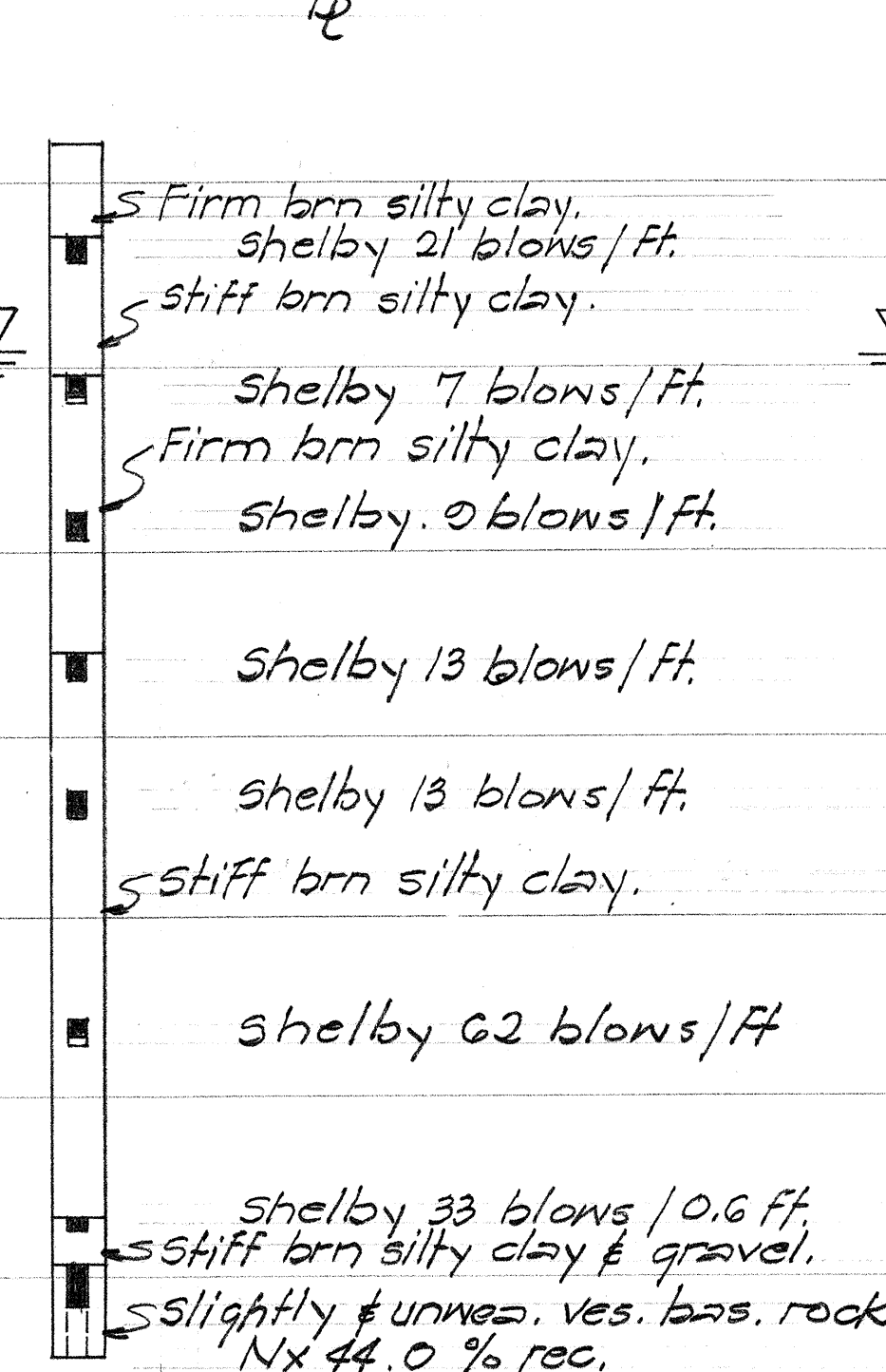
B-99 STA. 37+63
60' % RT.



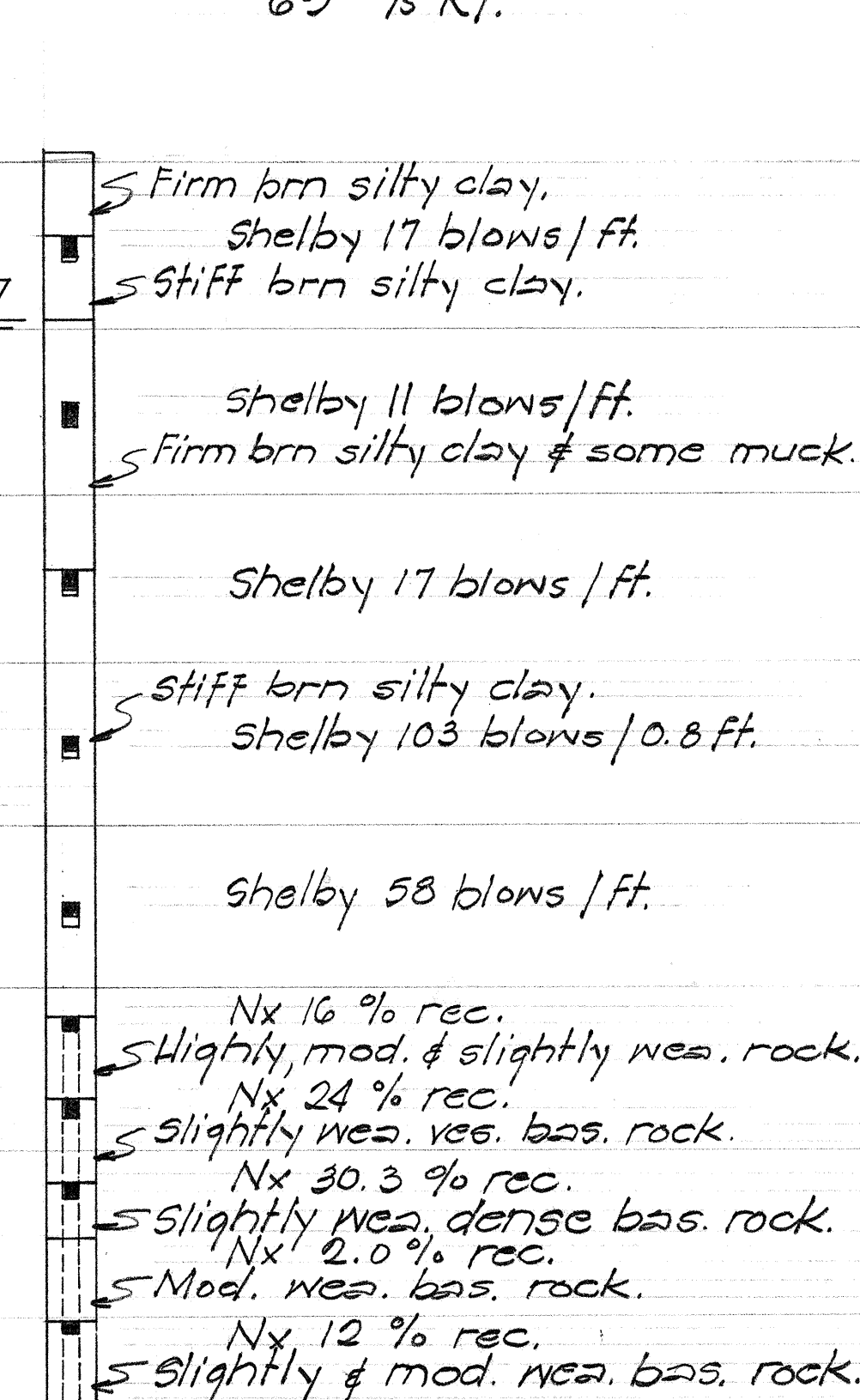
B-99B STA. 35+13
70' % LT.



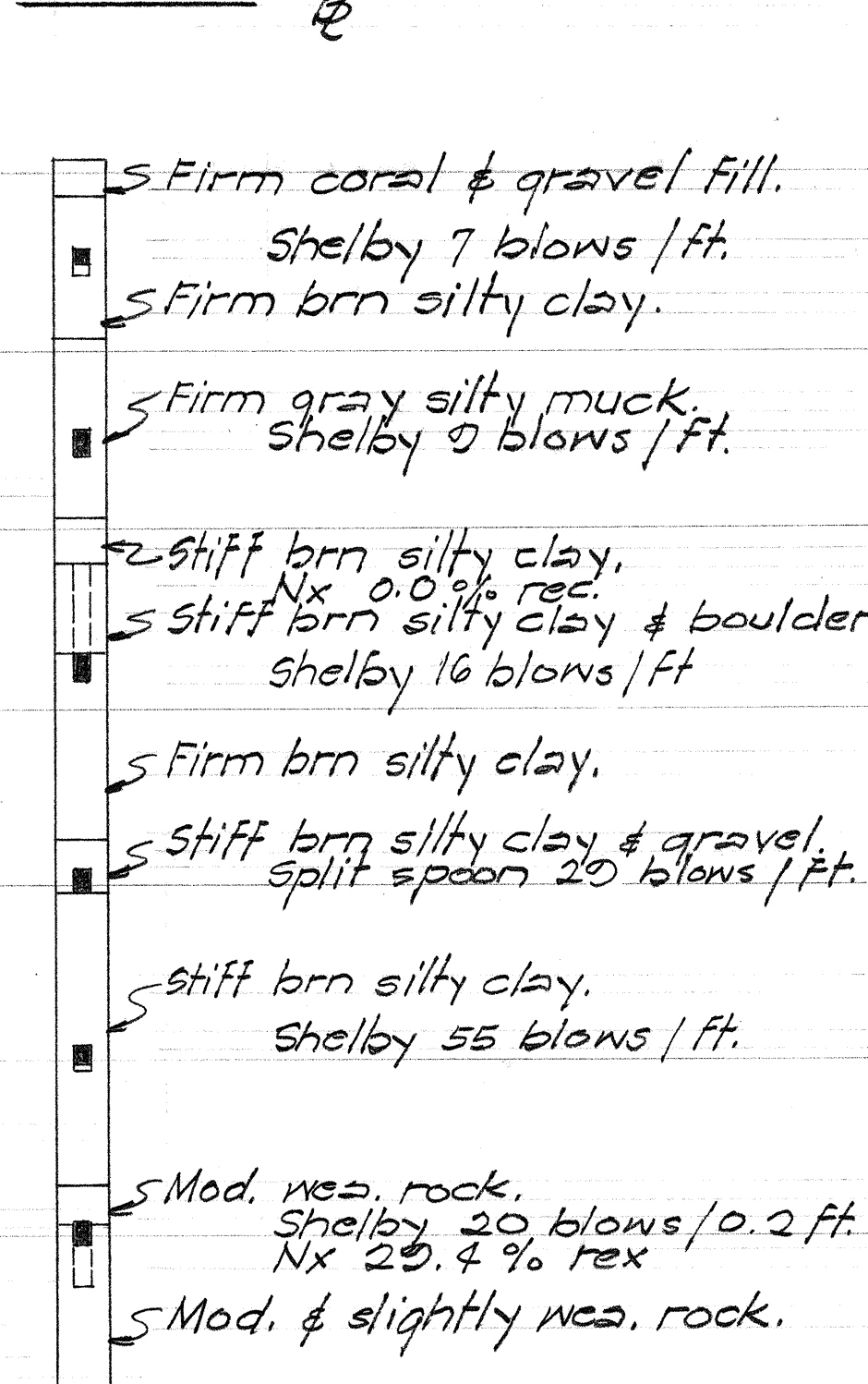
B-99B STA. 35+13
60' % RT.



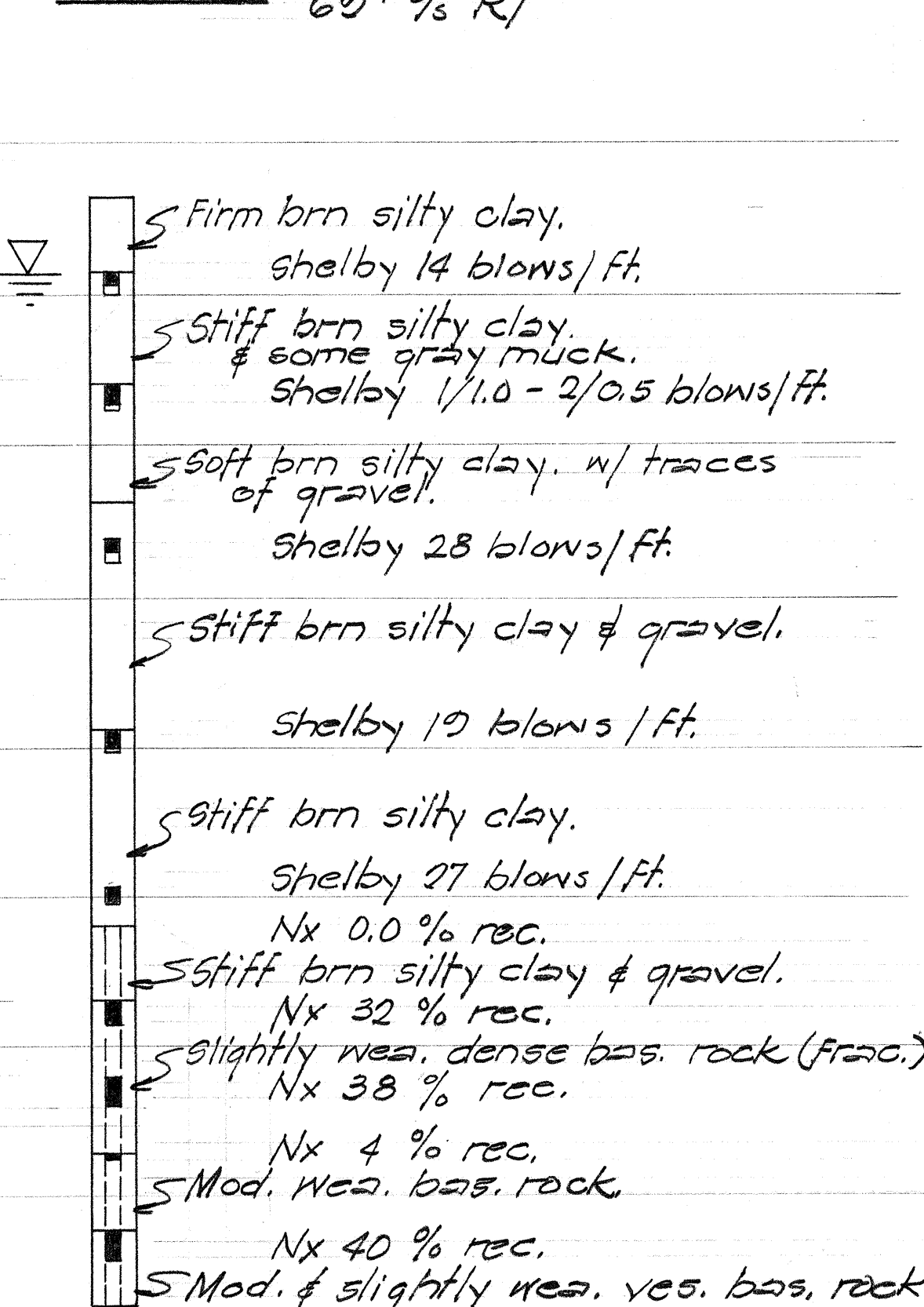
B-99B STA. 35+13
60' % RT.



B-92A STA. 35+88
60' % RT.



B-93A STA. 35+88
60' % RT.

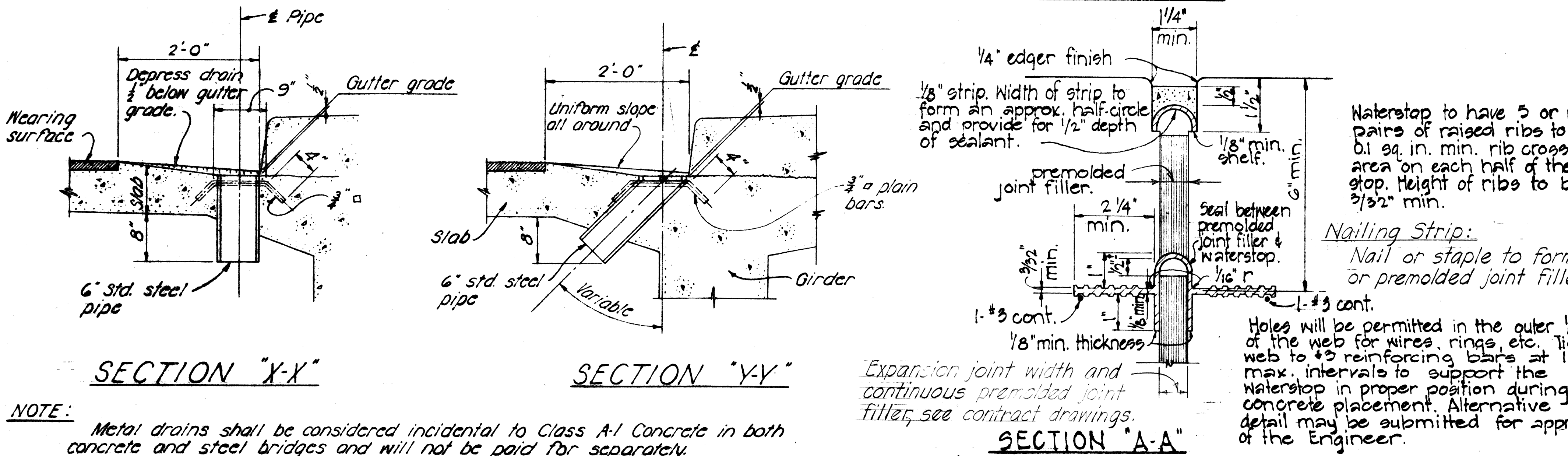
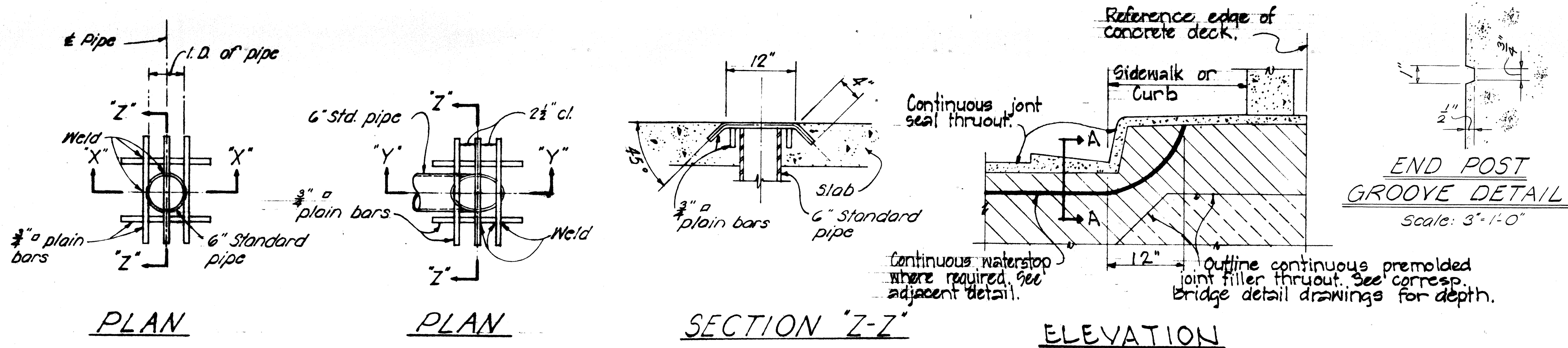


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
LOGS OF BORINGS
INTERSTATE ROUTE H-1
F.A.I. Proj. No. IHI-1(42)
JAN. 1968
SHEET No. 28 OF 28 SHEETS

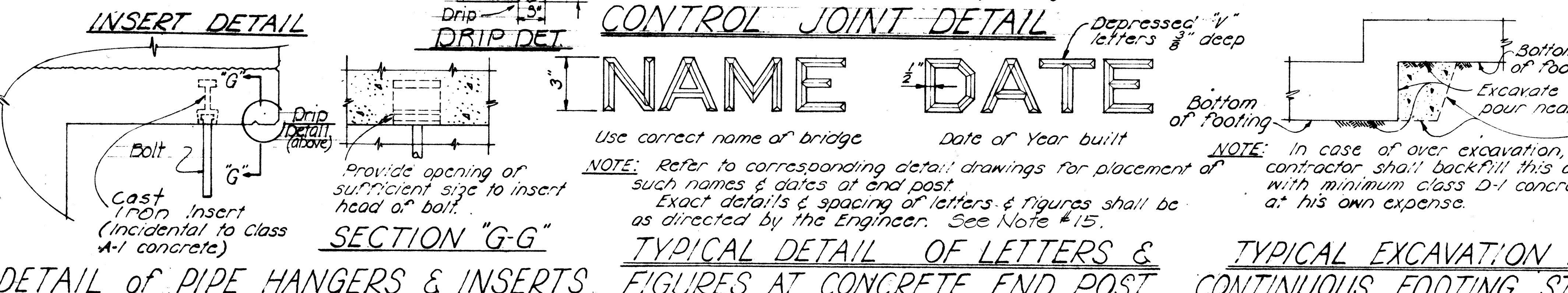
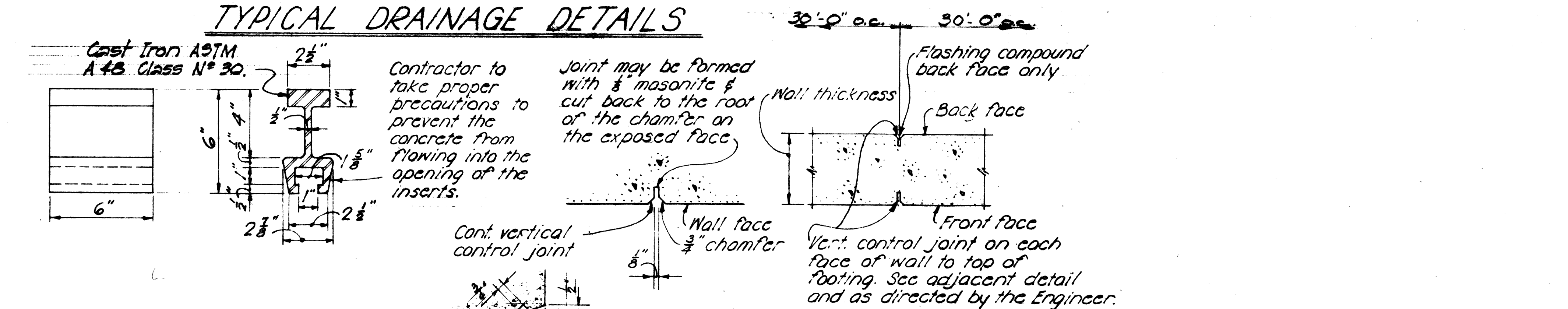
ORIGINAL PLAN	DATE 1968
DRAWN BY	SYL
TRACED BY	SYL
CHECKED BY	SYL
NOTED BY	SYL
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(42)	1968	40	59

REVISION
Jan. '67
Feb. '67
Apr. 67



NOTE: Metal drains shall be considered incidental to Class A-1 Concrete in both concrete and steel bridges and will not be paid for separately. Assemblage of grillage and pipe shall be hot-dip galvanized after all welding is completed.



DETAIL of PIPE HANGERS & INSERTS

GENERAL NOTES

- Elastometric Pads: Top & bottom of bridge bearing pads shall be secured against displacement with adhesives approved by the Engineer. Pads shall be incidental to concrete and will not be paid for separately.
- The Contractor shall verify the location of all existing utility lines and notify the respective owners before commencing work of excavation.
- All concrete shall be Class A-1 unless otherwise noted.
- Clearance for reinforcing bars shall be as follows, unless otherwise noted:
 - 1 1/2" For stirrups of beams & pier caps.
 - 2" For ties of columns.
 - 2" For formed walls.
 - 3" For footings.
- Concrete seats receiving steel plates, lead plates or neoprene pads shall be poured monolithically with supporting structures & top surfaces of the concrete seats shall be finished with a steel trowel to a smooth level at the elevation shown on the plans.
- Reinforcing shall be detailed in accordance with A.C.I. Manual of Standard Practice for Detailing Reinforced Concrete Highway Structures unless otherwise noted.
- Reinforcing bars shall be securely tied at all intersections & lap splices & shall be held in place during pouring to maintain their proper locations as shown on plans.
- Splices of reinforcing - See Special Provisions.
- Minimum spacing between parallel bars shall be 2 1/2 times the diameter of bars, but in no case shall the clear distance between the bars be less than 1 1/2 times the maximum size of the coarse aggregate.
- All dimensions relating to reinforcing are to centers of bars unless otherwise noted.
- Forms for all exposed surfaces of separation structures and surfaces of retaining walls visible from a traveled way or from a populated area shall be plywood except that metal forms may be permitted provided a surface finish satisfactory to the Engineer can be obtained and the use of such forms is approved in writing by the Engineer. Forms for round columns shall be made of materials that will give a smooth finish and true dimensions as given in the plans. Forms for prestressed concrete members shall be either metal or plywood.
- Vertical column bars shall be arranged in such a manner as to miss pier cap bars above as directed by the Engineer.
- Except as otherwise noted on drawings, all exterior corners & re-entrant angles in concrete work shall be chamfered 3/4" x 3/4". See Standard Specifications.
- Concrete Finish - See Special Provisions.
- All welders and welding procedures shall be qualified according to the requirements of the Special Provisions.
- Gothic letters and figures approximating dimensions shown will be acceptable if approved by the Engineer.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD BRIDGE DETAILS

INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(42)

Scale as Noted Date: March 1968

SHEET No. 31 OF 3 SHEETS

DATE	12/62
DESIGNED BY	PTJ
CHECKED BY	PTJ
QUANTITIES BY	
NOTE BOOK	
ORIGINAL PLAN	

Grind strands flush with pile head & pile tip.
Remove concrete after driving, leaving strands exposed.
Pile cut-off line

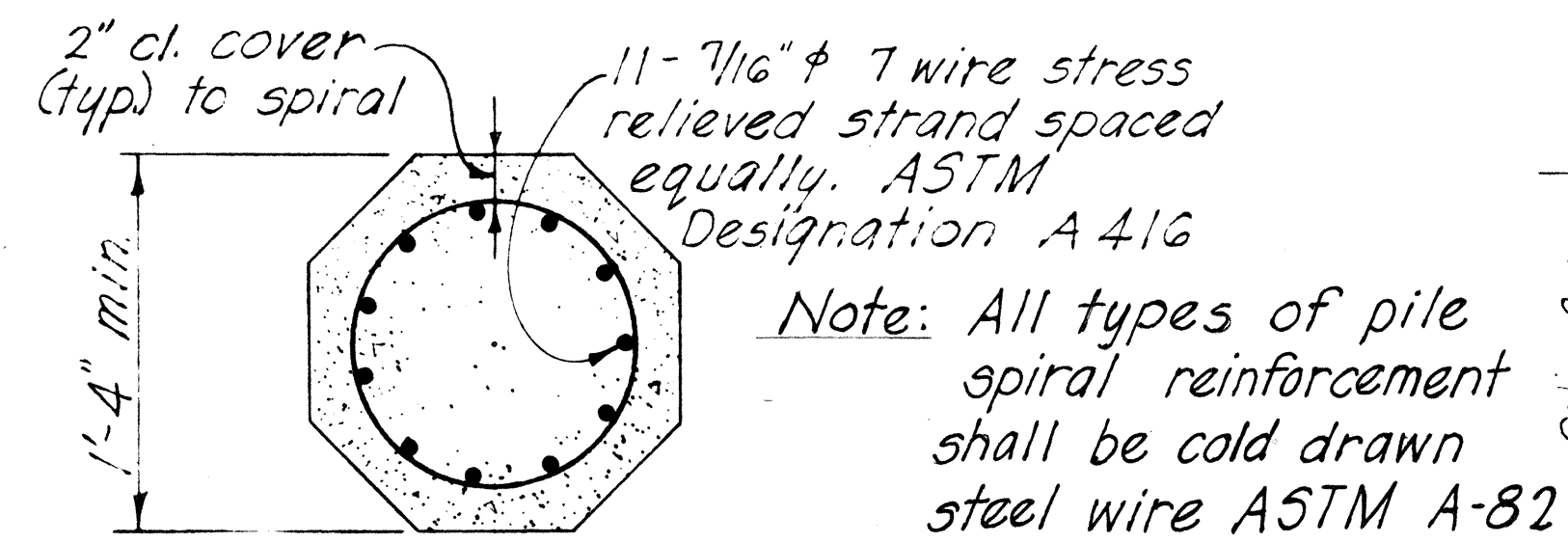
1" chamfer. On projects requiring splices for piles, chamfer shall be 1/2" for Type I piles & 3/4" for pile Types II & III

2'-6" min. unless otherwise directed by the Engineer. Remove concrete after driving, leaving reinf. exposed.

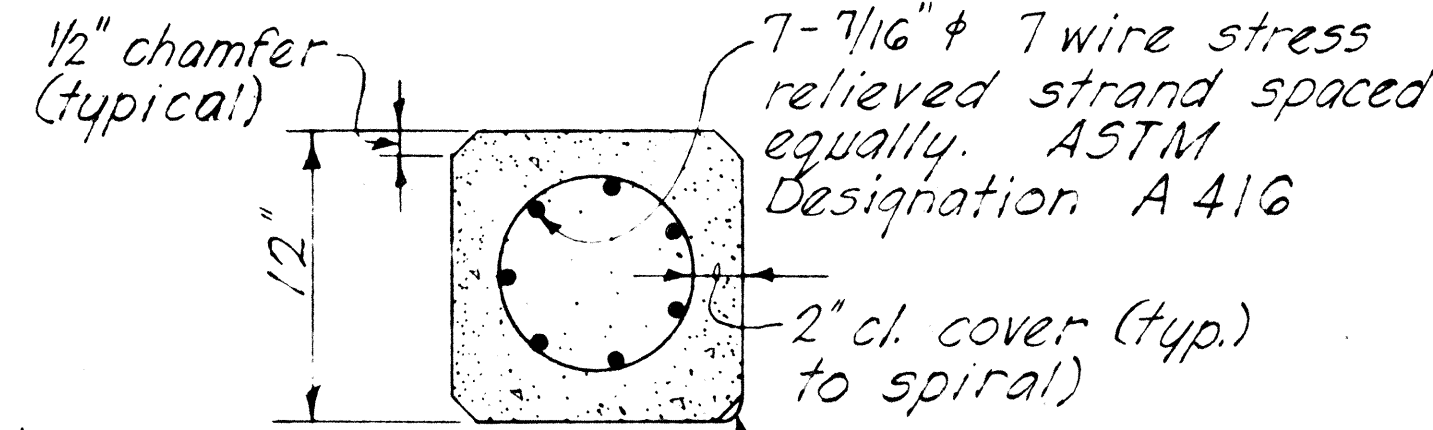
NOTE:

Concrete in pile build-ups without driving shall be Class A-1 Concrete. Concrete in pile build-ups with driving shall have a minimum compressive cylinder strength f_c of 5000 p.s.i. at 28 days. Build-ups may be driven if the specimen of concrete from which the piles were poured develops a strength of at least 3500 p.s.i. but not earlier than 7 days.

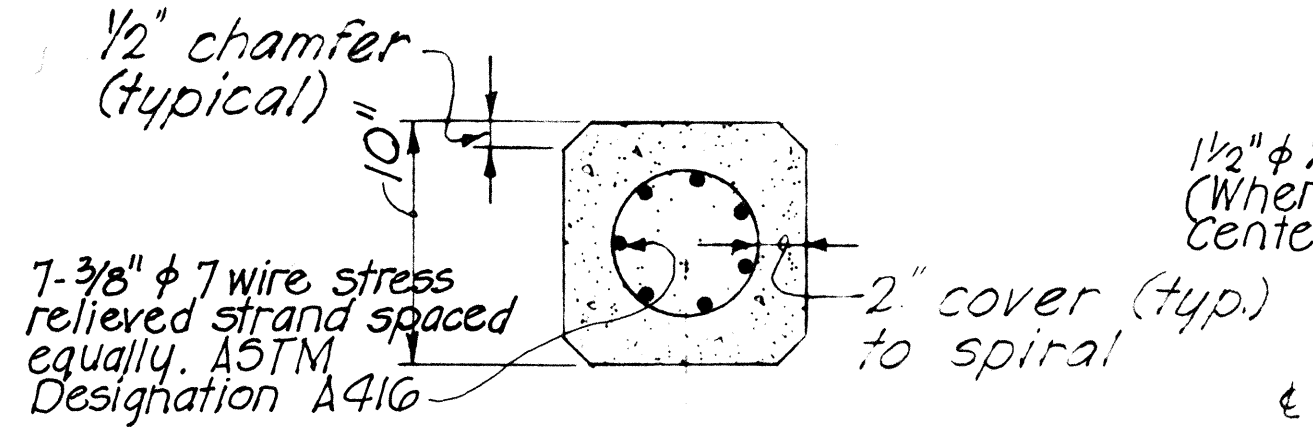
PART ELEVATION SECTION A TYPICAL ADDED REINFORCEMENT PILE ENDS - TYPE II & III ONLY



TYPE I



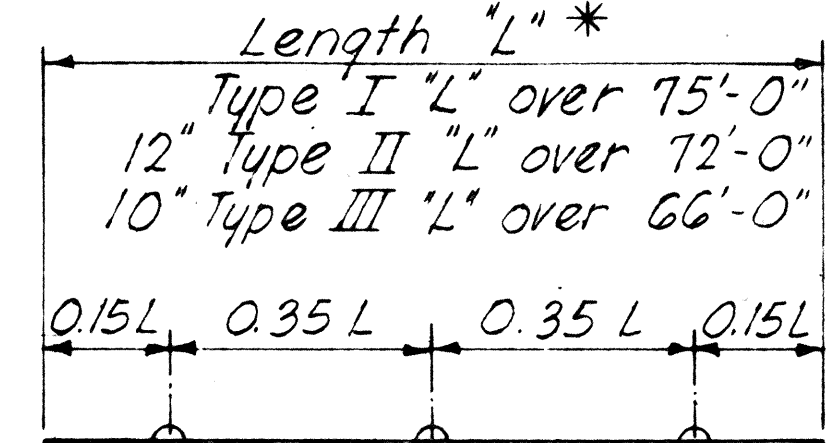
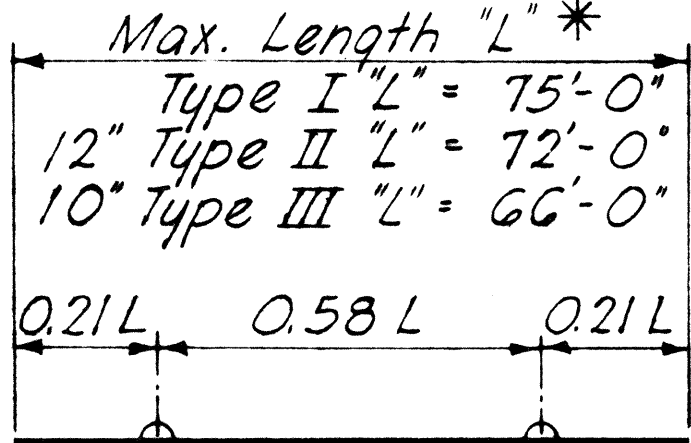
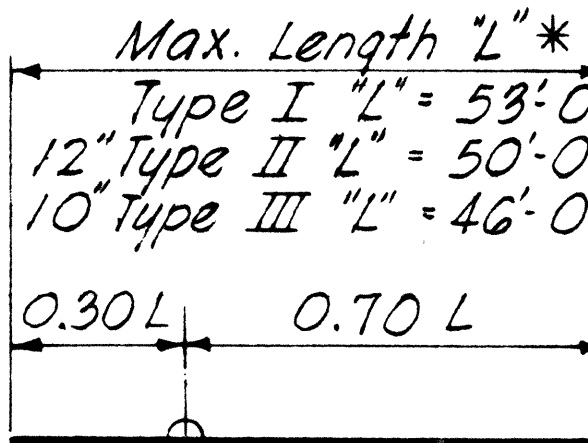
TYPE II



TYPE III

1" Chamfer - see note above

TYPICAL SECTIONS THRU PILES



*The length "L" is the distance end to end of pile.

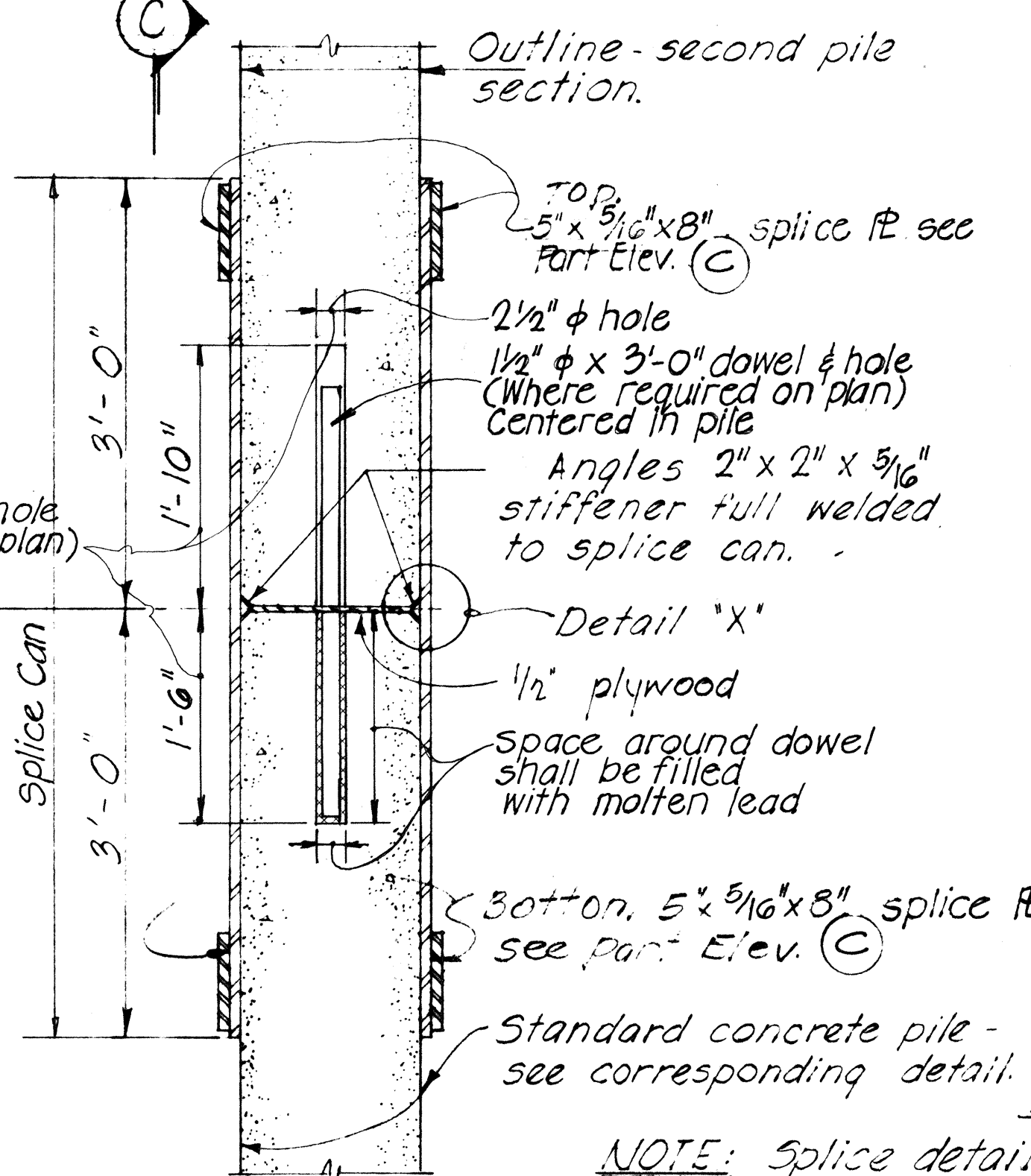
1 POINT PICK-UP

2 POINT PICK-UP

3 POINT PICK-UP

NOTE: Unless special lifting devices are attached for pick-up points, pick-up points shall be plainly marked on all piles after removal of the forms and all lifting shall be done at these points. The use of special embedded or attached lifting devices, the employment of other pick-up points or any other method of pick-up shall be subject to approval by the Engineer.

PART ELEV. (C) P.C. CAN SPLICE (E)

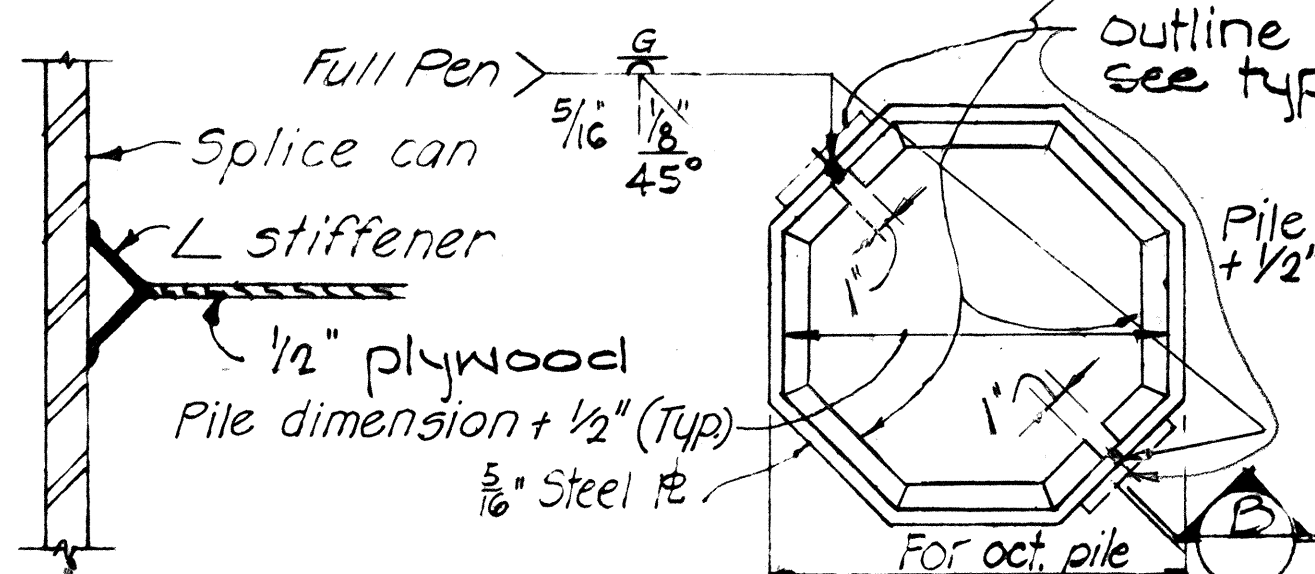


SECTION (B)

TYPICAL PILE SPLICE DETAILS (FOR PRESTRESSED CONCRETE PILES WHEN CAST IN TWO OR MORE SECTIONS)

NOTE: Splice detail shown above shall not be used except for pile length in excess of 85'-0" long & see Specifications.

DETAIL 'X'

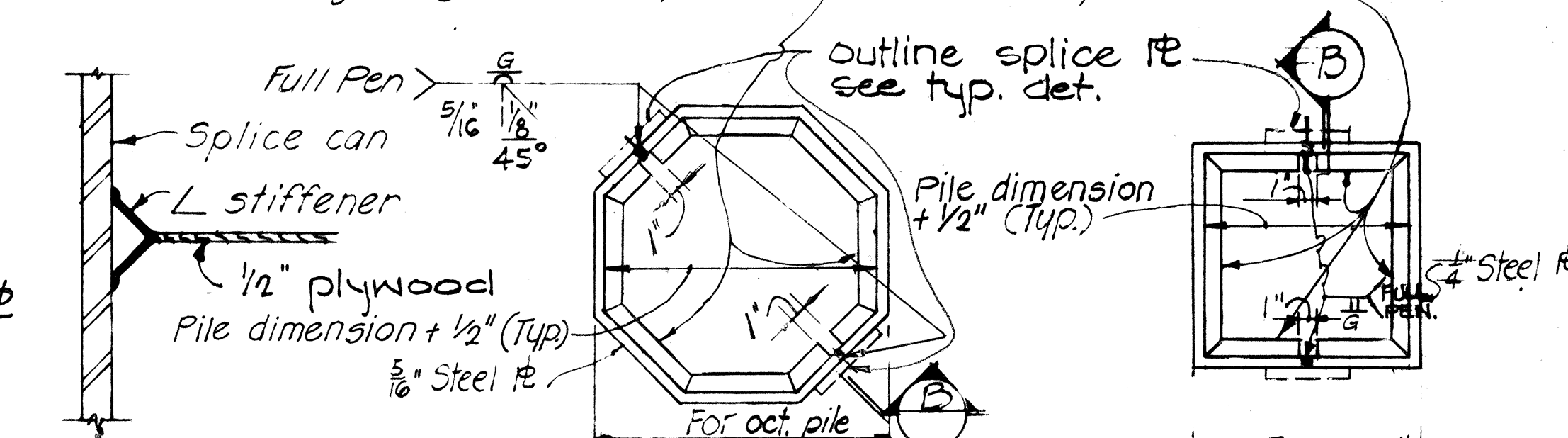


BUILD-UP WITH DRIVING TYPICAL PILE BUILD-UP DETAILS

L 2" x 2" x 5/8" all around. Miter corner and weld each leg to 5/8" PL with 5/8" weld.

BUILD-UP WITHOUT DRIVING

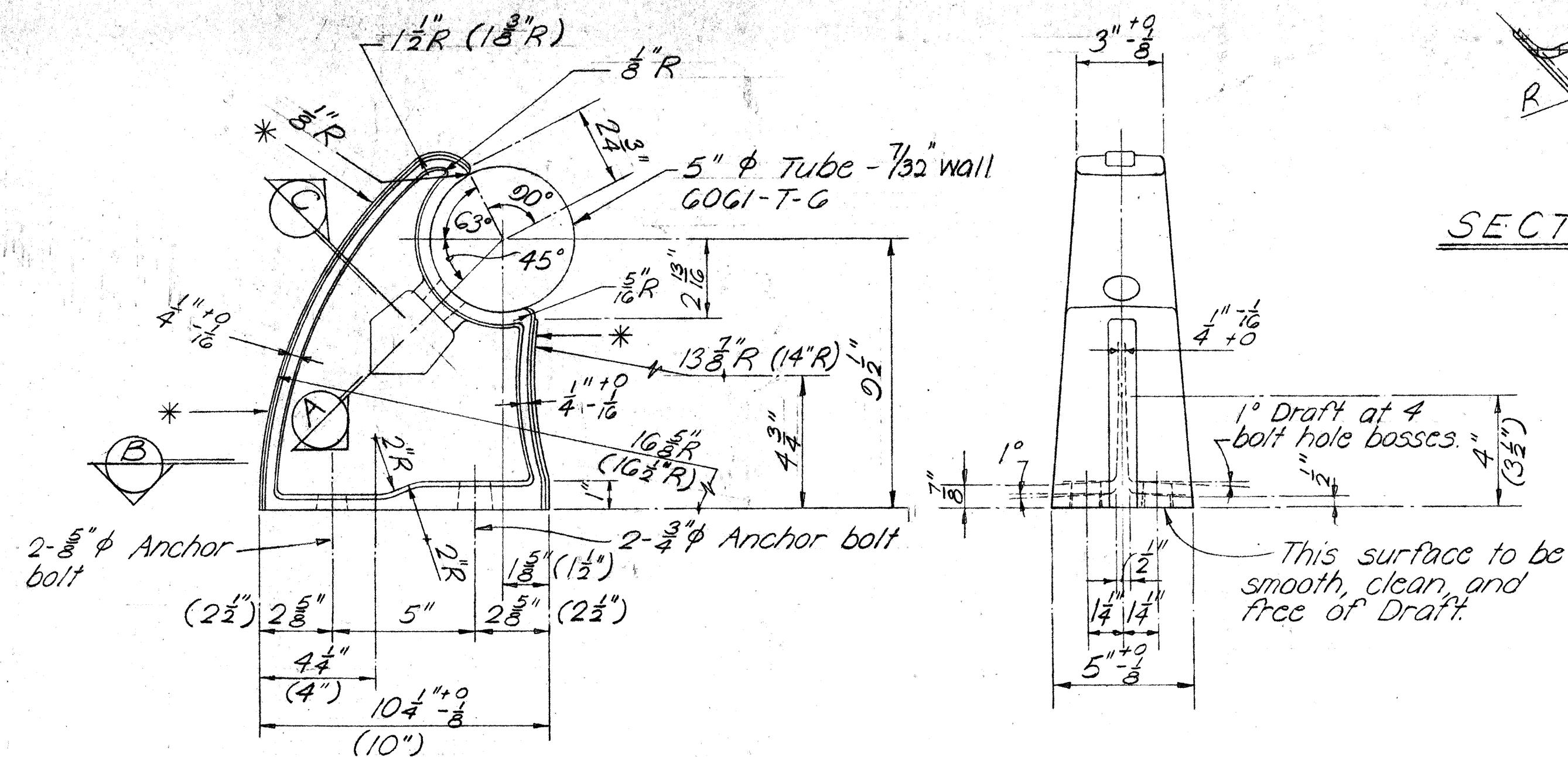
L 1x1x1/4" all around, welded to splice can.



TYPE I

TYPE II & III

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(42)	1968	42	59



SIDE ELEVATION

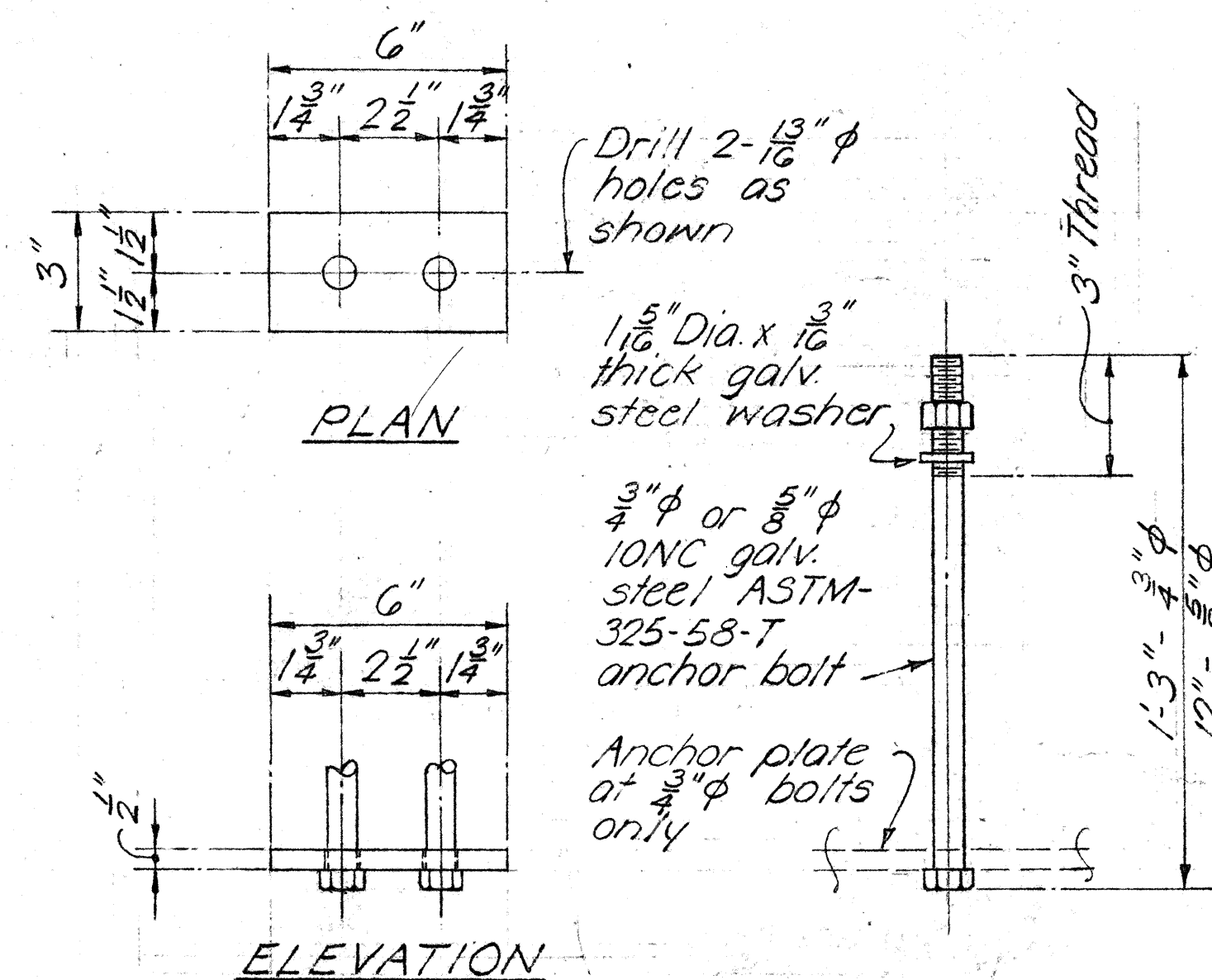
END ELEVATION

NOTE:

* Casting to be supplied with a standard scratch brush finish on entire gating rib surface and as indicated by an asterisk (*). Finish shall be approved by the Engineer.
Casting to be neatly trimmed and any protruding flash to be broken off.
For cast post specifications, see Special Provisions.
Unless otherwise specified, draft angles to be 3°, corner radii to be 3/32" R, fillet radii to be 3/8" R, casting tol. to be ±1/16", wall thickness to be ±3/32".
Dimensions may be as shown or as shown in parenthesis ().

TYPICAL RAIL POST DETAILS

Scale: 3" = 1'-0"



PLAN

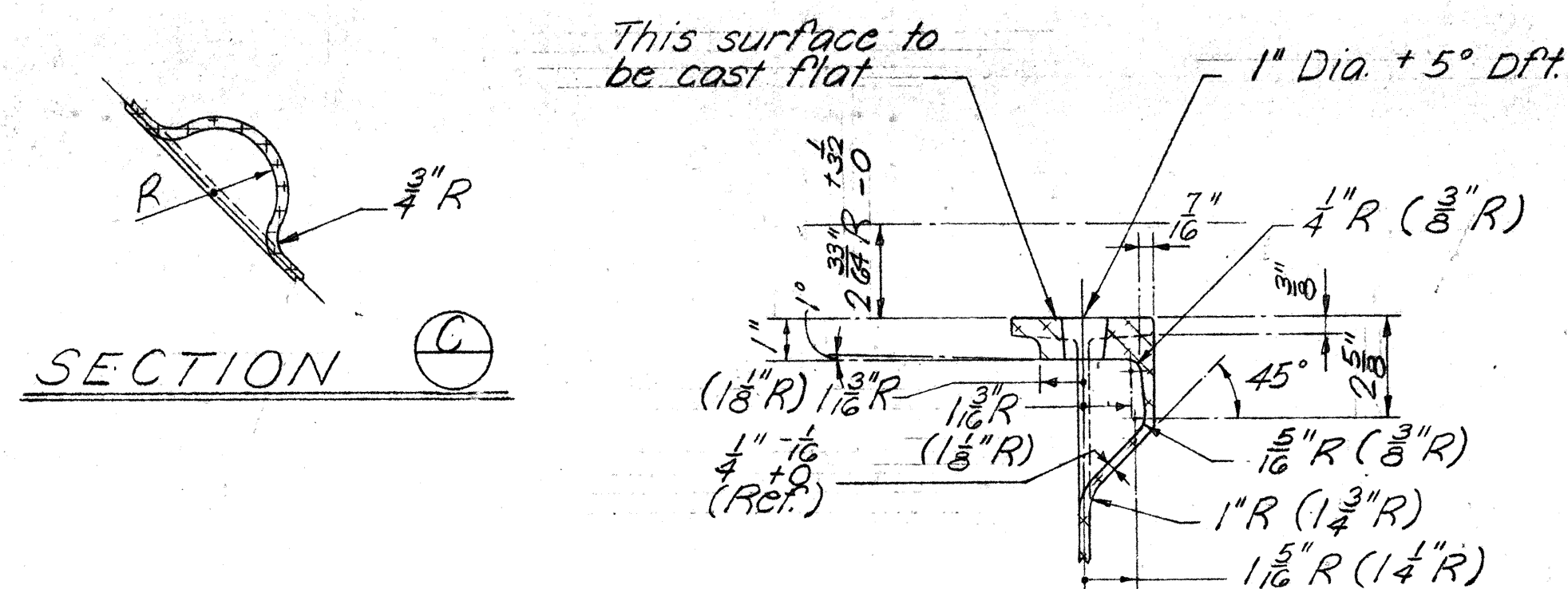
ELEVATION

ANCHOR PLATE DETAIL ANCHOR BOLT

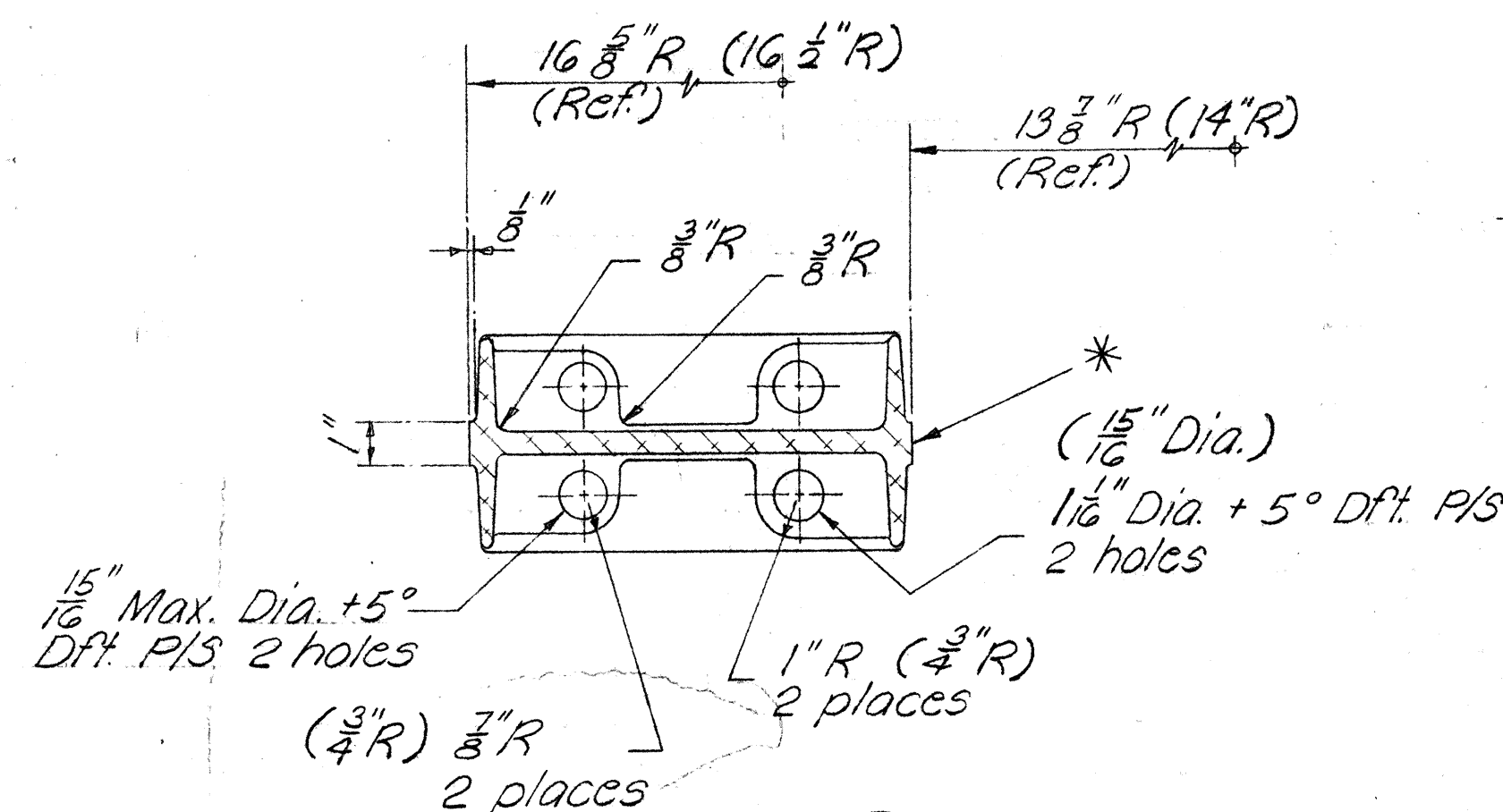
TYPICAL RAIL POST

ANCHOR BOLT ASSEMBLY

Scale: 3" = 1'-0"



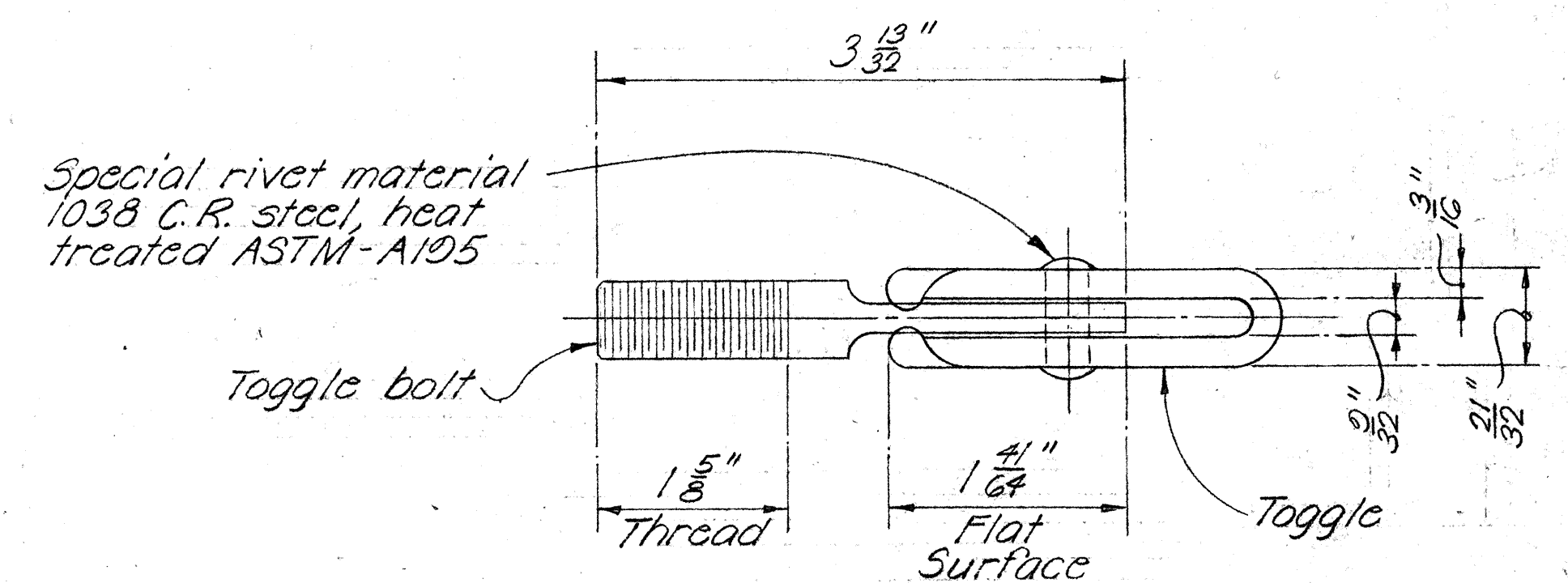
SECTION A



SECTION B

WASHER

SIDE ELEVATION ASSEMBLY



TOP PLAN

1/2" TOGGLE BOLT DETAILS

Full Scale

GENERAL NOTES

Metal bridge railing shown is for Aluminum bridge railing. See Special Provisions for alternate railing in steel.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD DETAILS METAL BRIDGE RAILINGS SINGLE RAIL INTERSTATE ROUTE H-1 F.A.I. Proj. No. I-HI-1(42) Scale as noted Date: March 1968
SHEET No. 53 OF 3 SHEETS

SURVEY PLOTTED BY: <i>1008</i>	DATE: <i>1008</i>
DRAWN BY: <i>1008</i>	CHECKED BY: <i>PTI</i>
QUANTITIES BY: <i>PTI</i>	
NOTE BOOK	
No.	