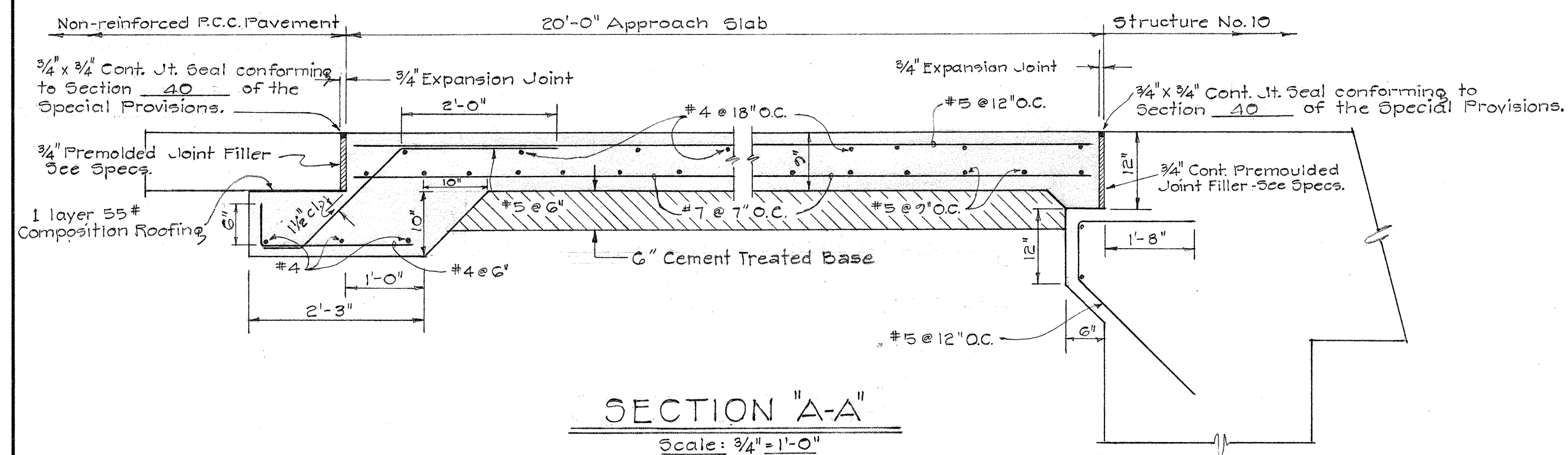
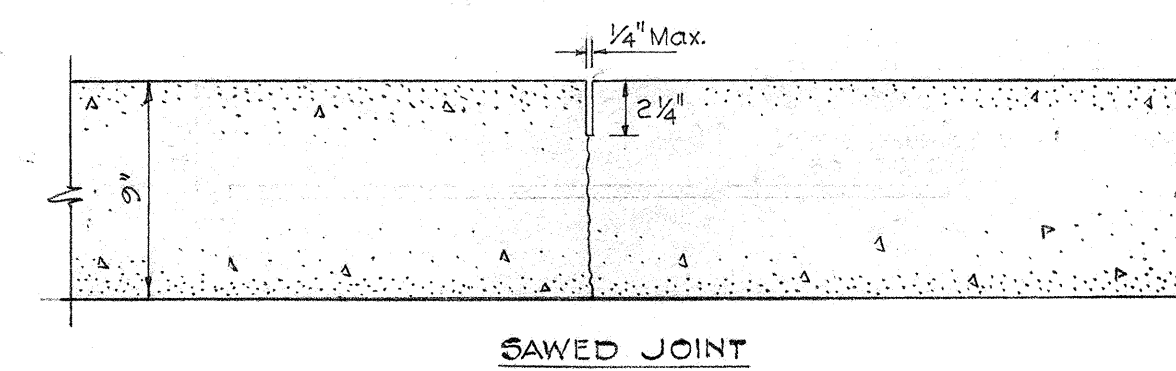
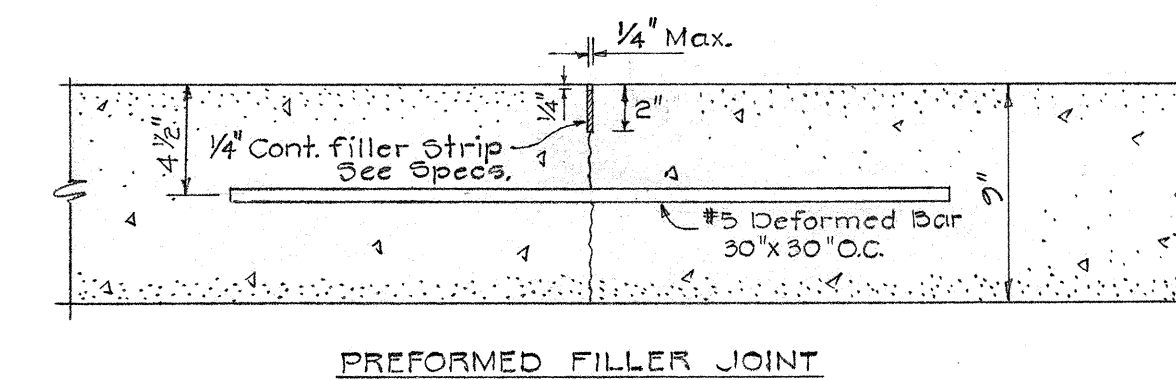




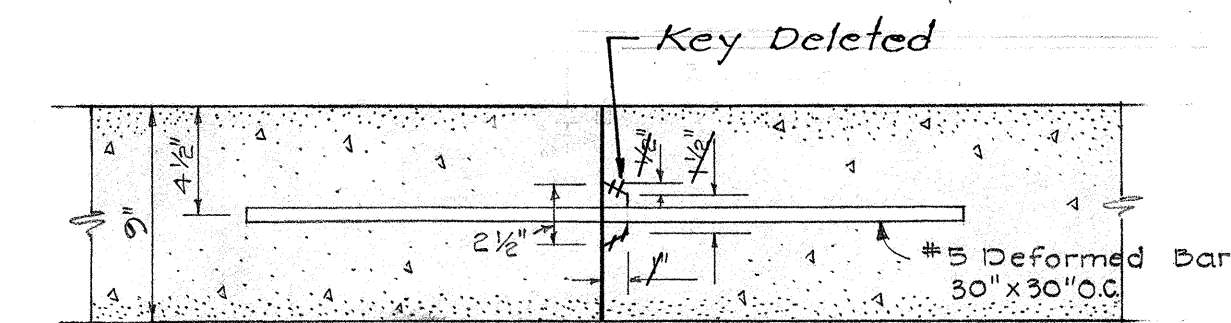
**EXPANSION JOINTS
AT APPROACH SLAB**



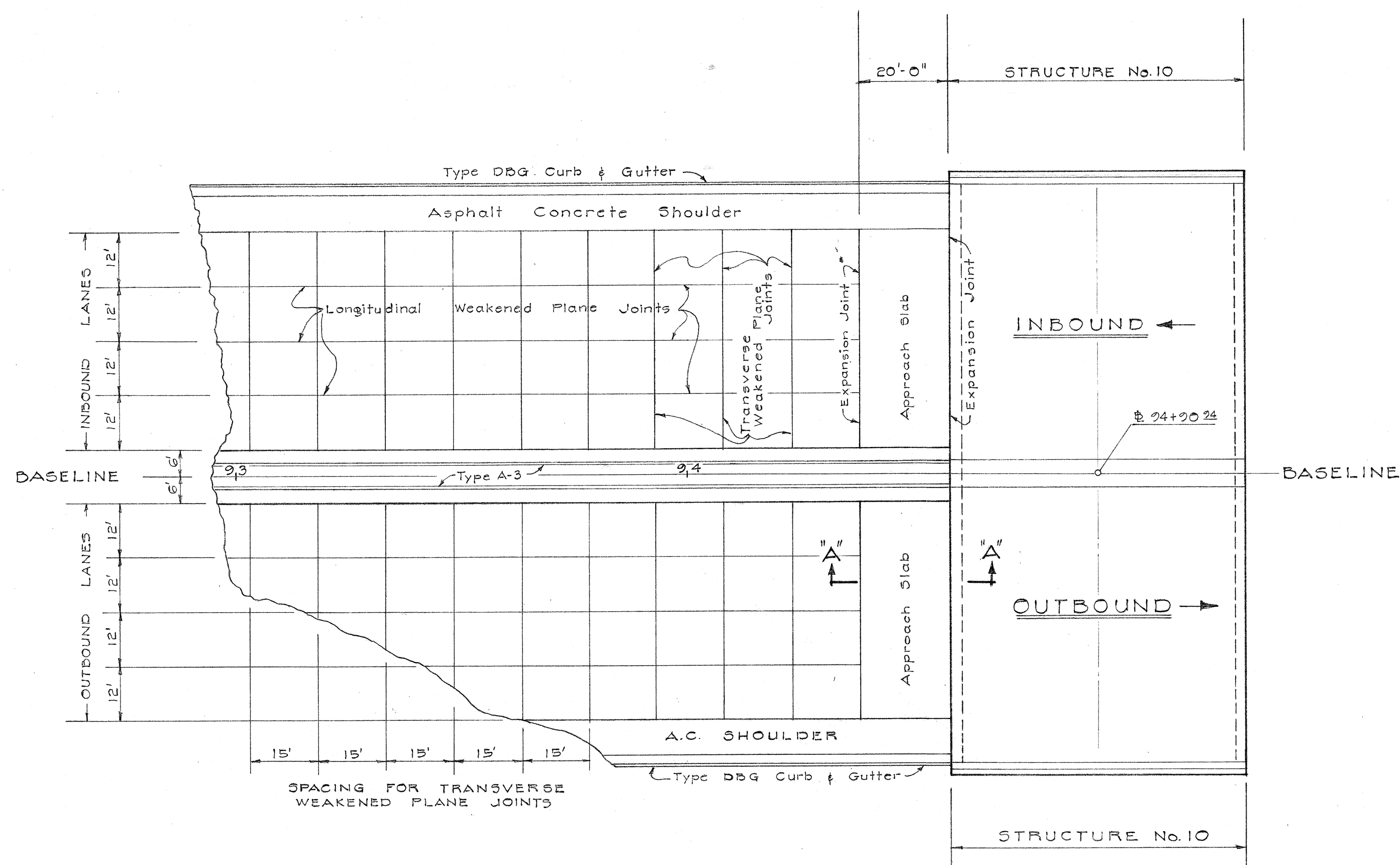
**TRANSVERSE WEAKENED PLANE
(CONTRACTION) JOINT**



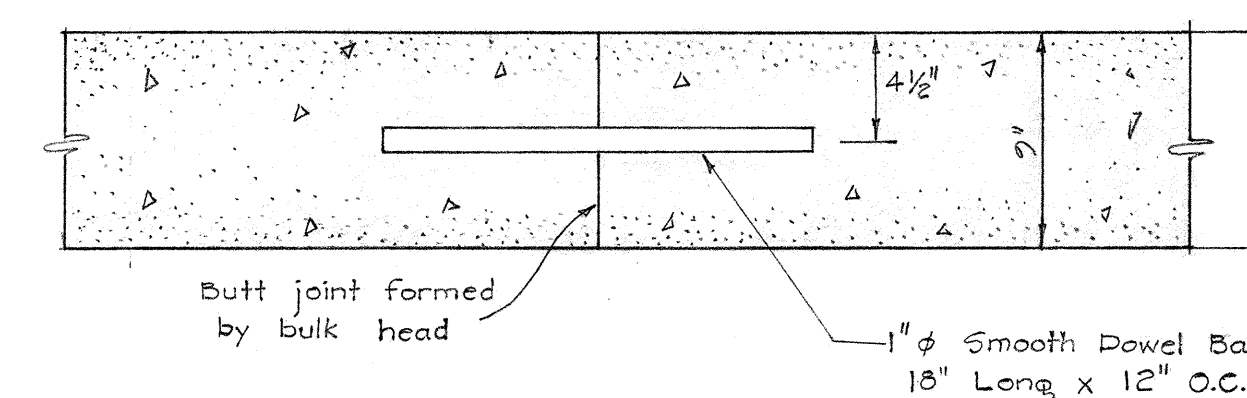
**LONGITUDINAL WEAKENED PLANE
(CONTRACTION) JOINT**



LONGITUDINAL CONSTRUCTION (CONTACT) JOINT



**TYPICAL JOINT LOCATION
AND LAYOUT PLAN**



TRANSVERSE CONSTRUCTION (CONTACT) JOINTS

GENERAL NOTES - P.C.C. JOINTS

- At the beginning and end of P.C.C. pavements (as shown on the plans) near the project limits, end caps shall be inserted with dowels. Dowels shall be removed (after the concrete has hardened) from the transverse construction joint. Dowel holes shall then be greased and plugged for future P.C.C. pavement connection.
- 6" Cement-treated base shall also be placed beneath the approach slab all in accordance with the requirements of Section 118 of the Special Provisions.
- The longitudinal weakened plane joint detail shall be applicable at the intermediate traffic lane edge when 2 lanes are paved in one continuous pour. The straight tie bars shall be placed mechanically to the depth shown on the detail. All other weakened plane longitudinal joints shall be constructed in accordance with the contact joint detail shown on these plans.
- In setting side forms for P.C.C. pavement construction, different type forms shall be used for the outside and inside edges of the outer lanes on multi-lane sections; that is, the keyed-forms for the inside edges and straight forms for the outer edges. All interior lanes shall be constructed using keyed-forms on both edges.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
JOINT DETAILS FOR PORTLAND CEMENT CONCRETE PAVEMENT	
LUNALILO FREEWAY	PROJ. No. IHI-1(4):24
Scale: As Shown	Date: April, 1963
SHEET No. OF SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(4)	1963	31	217

[illegible]

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(4)	1963	31	217

[illegible]

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(4)	1963	31	217

[illegible]

NOTE: All lengths and areas shown on this sheet are estimates only.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONCRETE CURB, GUTTER, CURB & GUTTER, AND SIDEWALK LIST

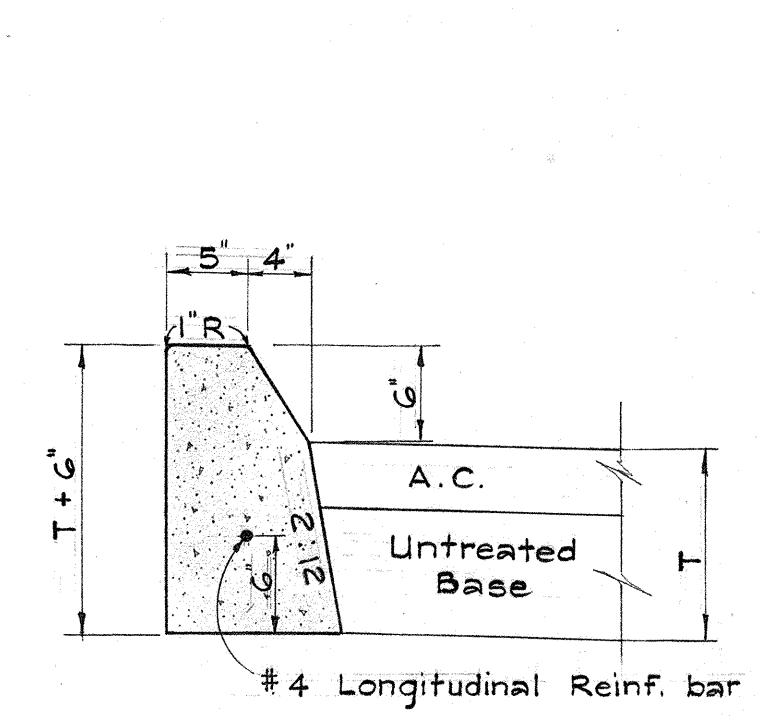
LUNALILO FREEWAY

PROJ. NO. I-HI-1(4):24

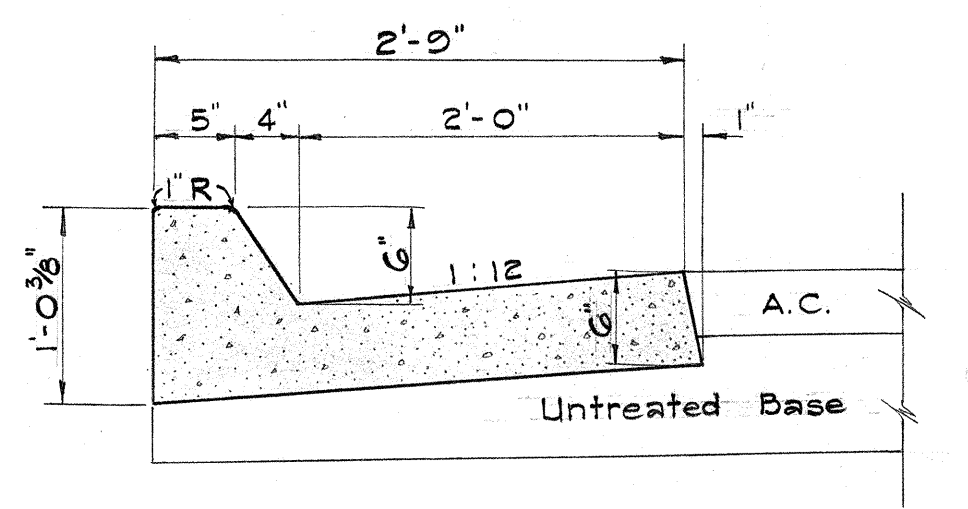
DATE : APRIL, 1963.

SHEET No. OF SHEETS

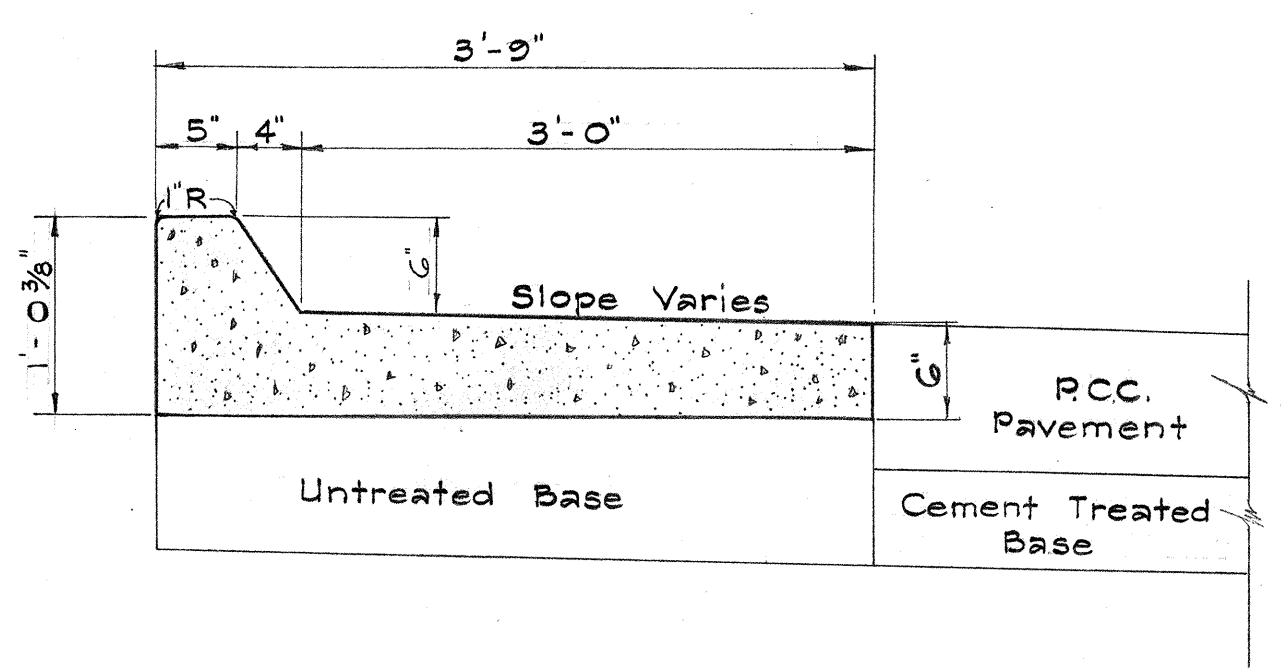
Revised: June 7, 1963



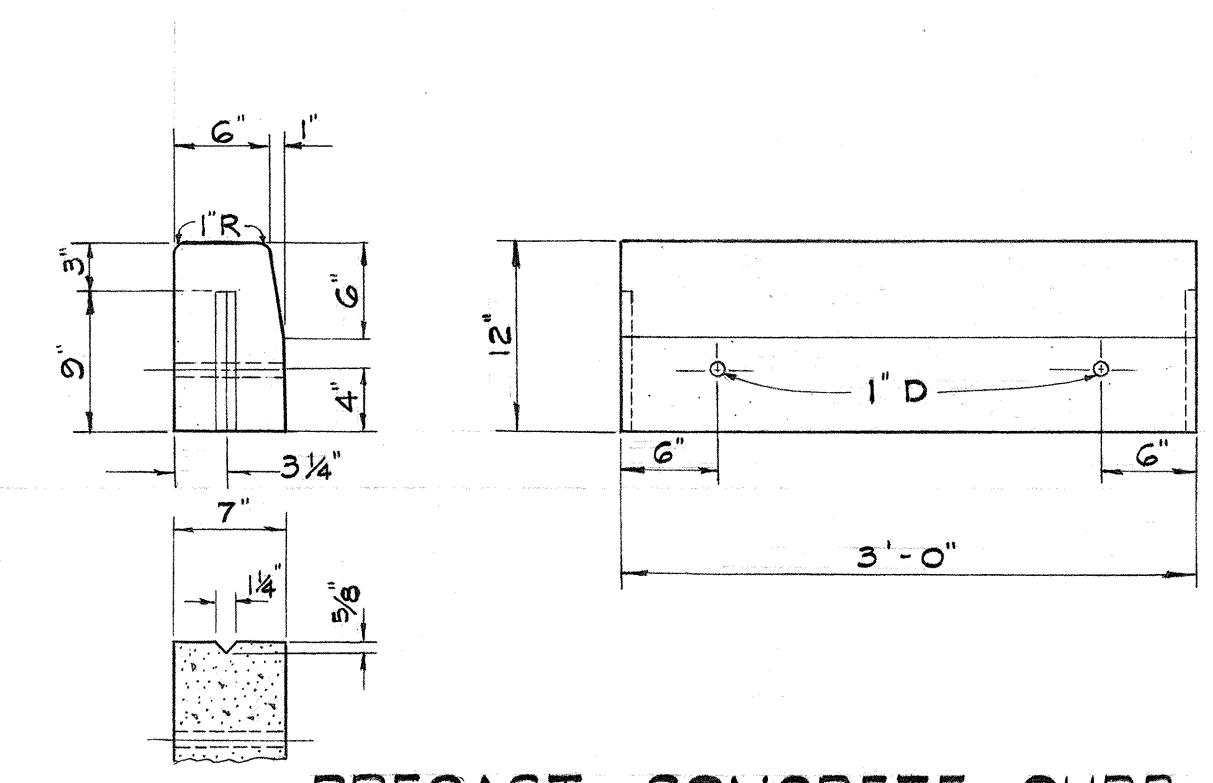
TYPE "A-1" CURB



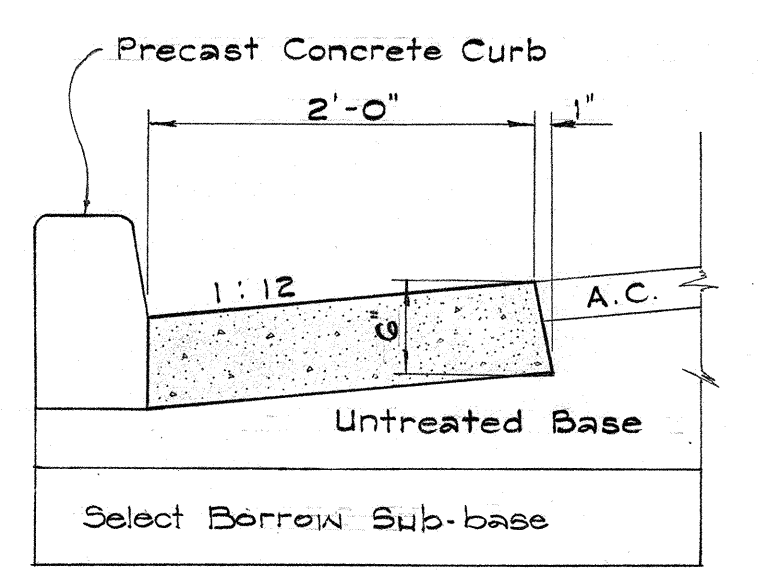
TYPE "A-2" CURB & GUTTER



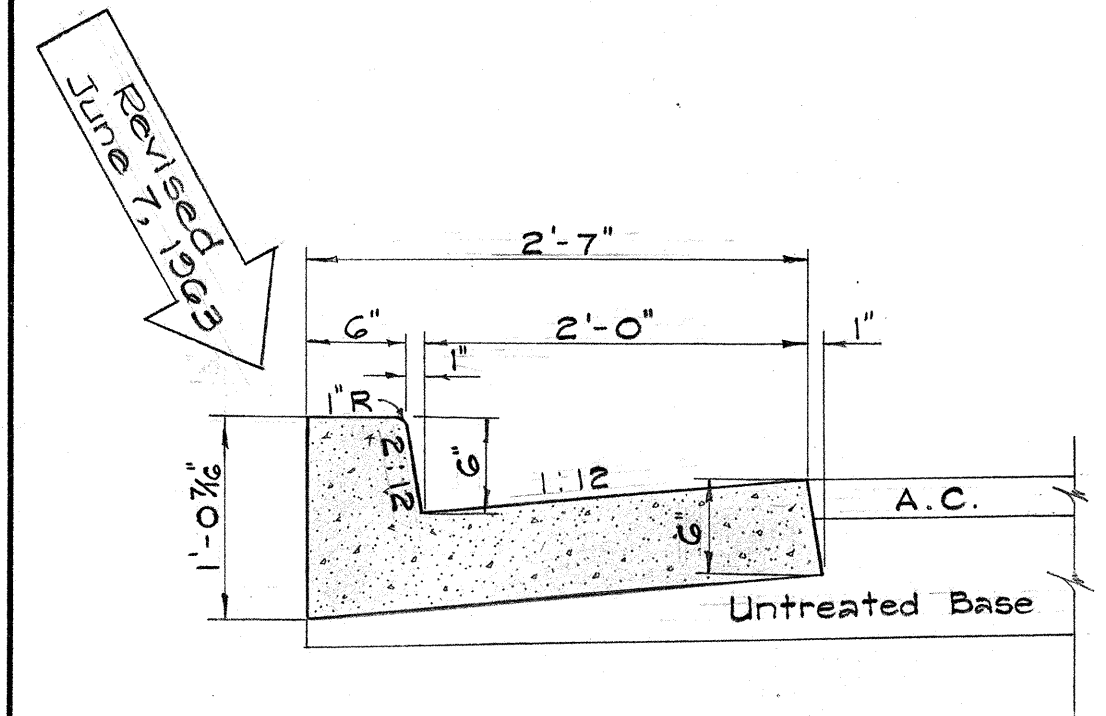
TYPE "A-3" CURB & GUTTER



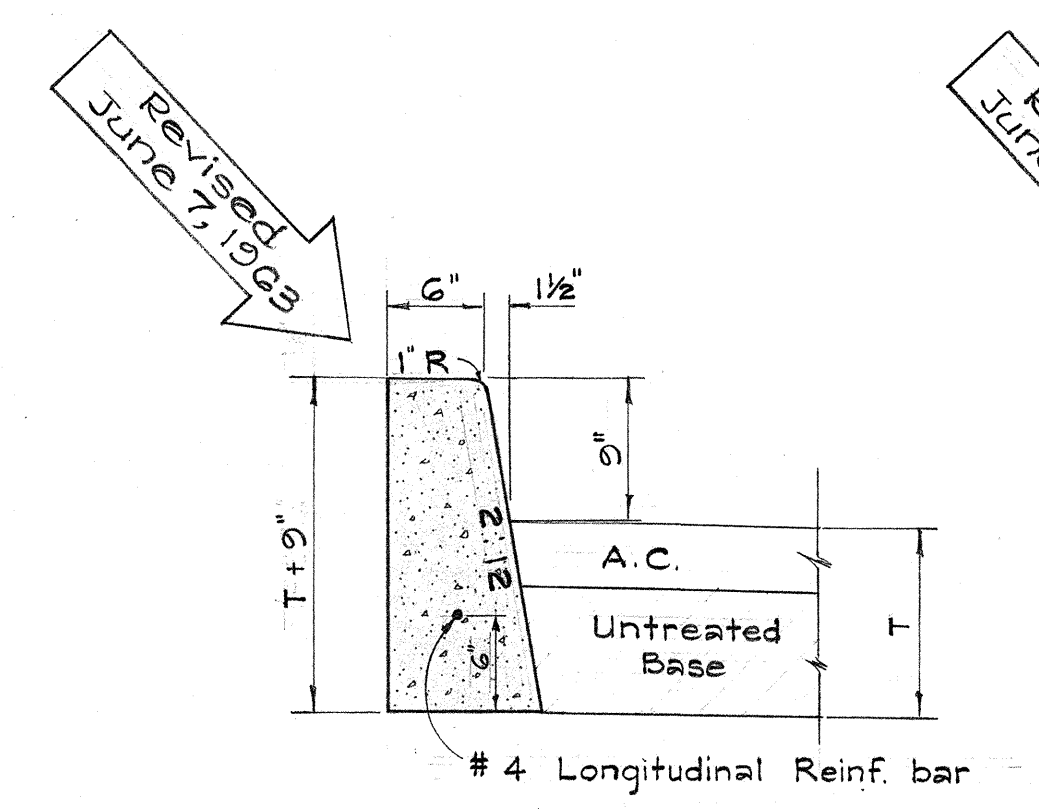
PRECAST CONCRETE CURB



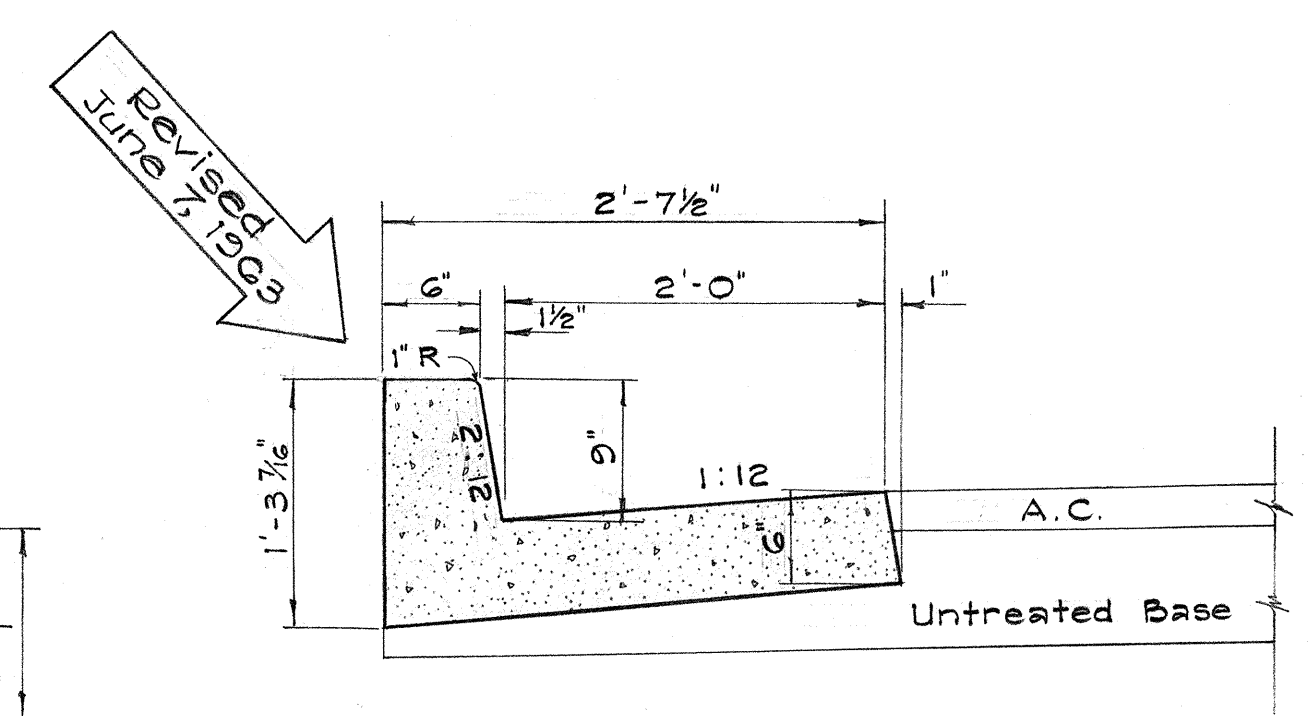
PRECAST CONCRETE CURB WITH TYPE "H" CAST-IN-PLACE GUTTER



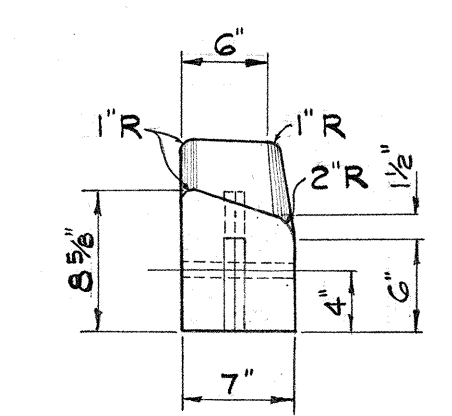
TYPE "DG" CURB & GUTTER



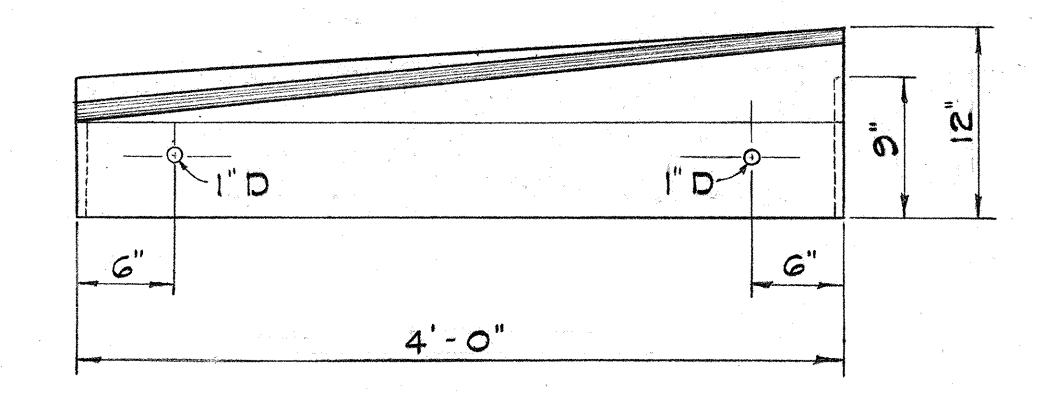
TYPE "DB" CURB



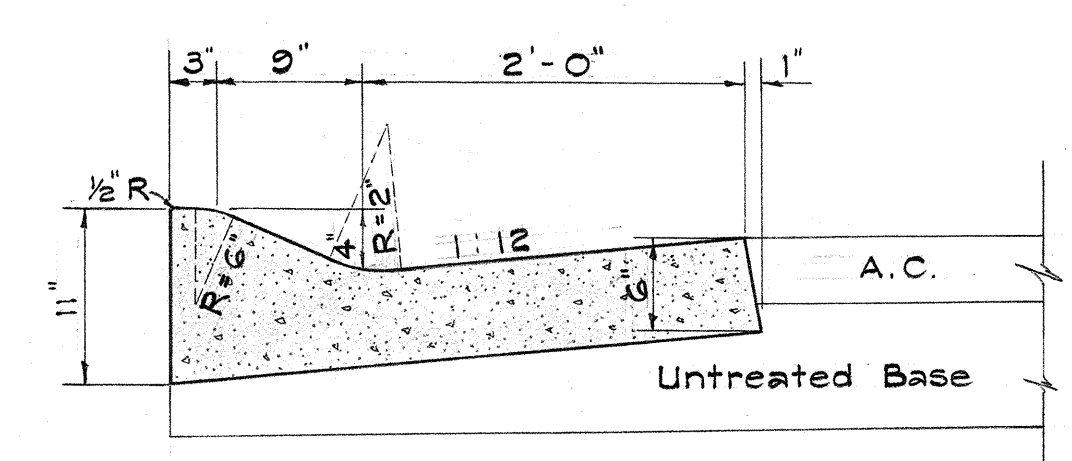
TYPE "DBG" CURB & GUTTER



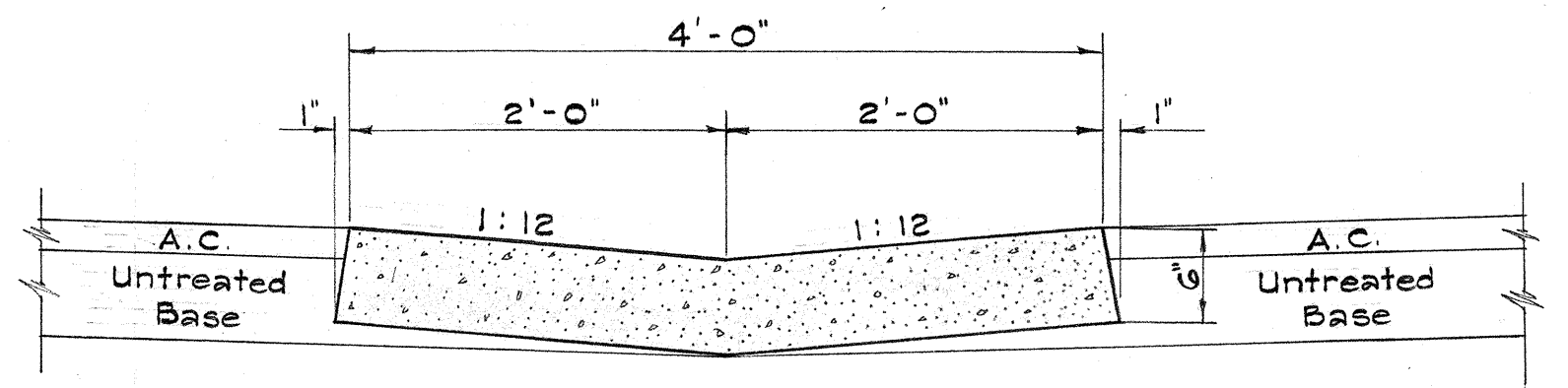
PRECAST CONCRETE DROP CURB



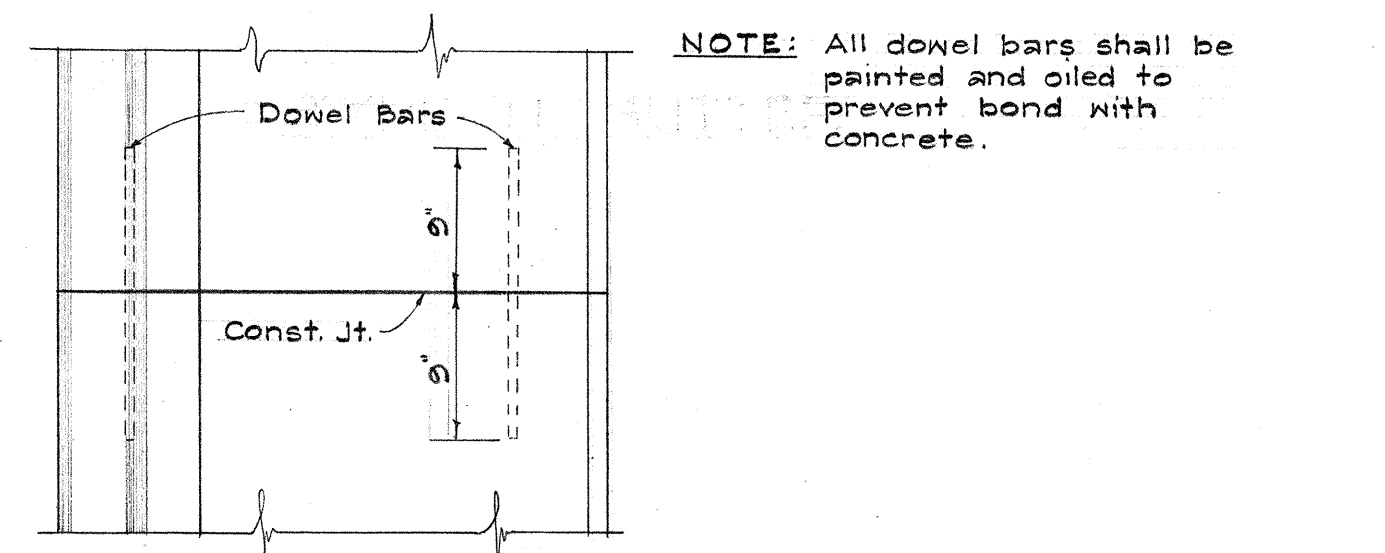
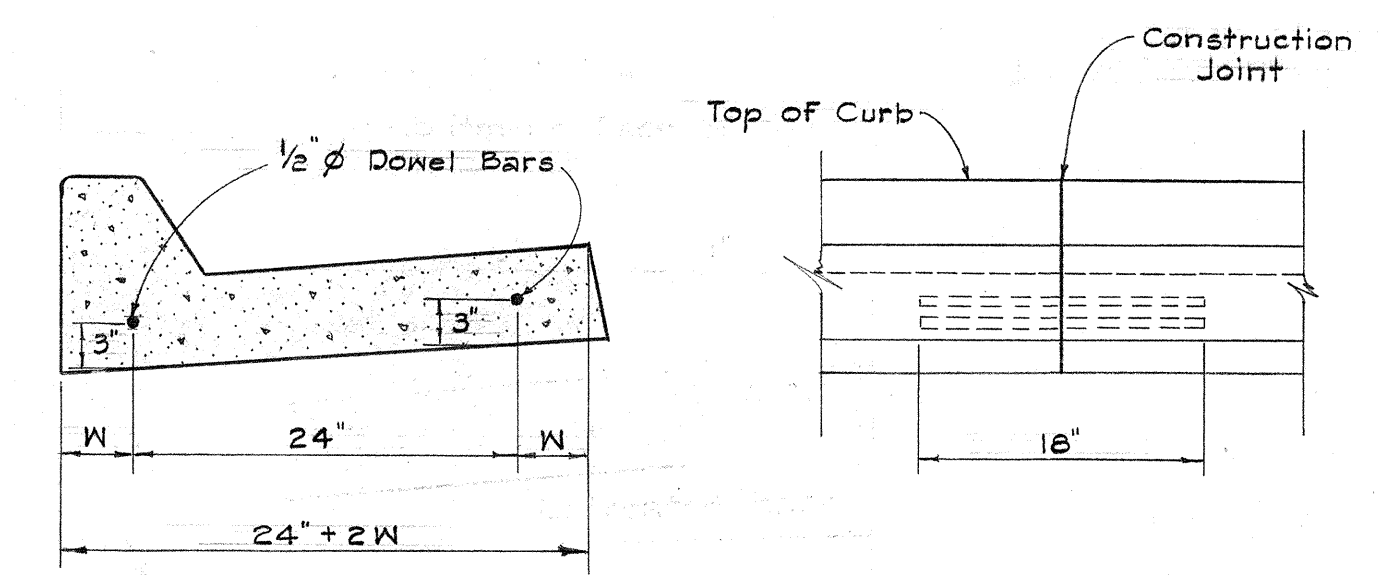
PRECAST CONCRETE DRIVEWAY CURB



TYPE "EG" CURB & GUTTER

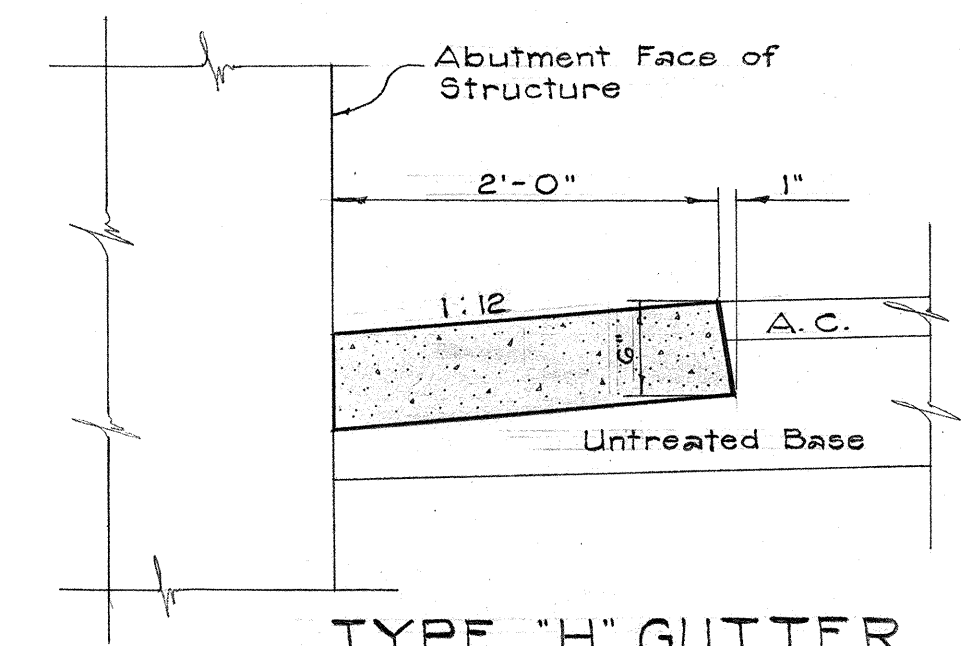


TYPE "G" GUTTER



TYPICAL CONSTRUCTION JOINT DETAIL FOR CAST-IN-PLACE CONCRETE CURB AND GUTTER

NOTE: All dowel bars shall be painted and oiled to prevent bond with concrete.



TYPE "H" GUTTER

GENERAL NOTES

1. "Special Type DG" Curb and Gutter shall be used on the high side of super-elevated paved shoulder sections utilizing Type DG curb and gutter. This "Special Type DG" Curb and Gutter shall have the same section and lateral dimensions as the standard "Type DG" Curb and Gutter. The gutter section shall have the same slope and slope in the same direction as the adjoining paved shoulder.
2. The gutter slope of Type A-3 Curb and Gutter shall be minus 1.5 per cent from the curb face on tangent and non-super-elevated sections of the adjacent roadway pavement.

SHEET No. 32A
SUPERSEDES SHEET No. 32

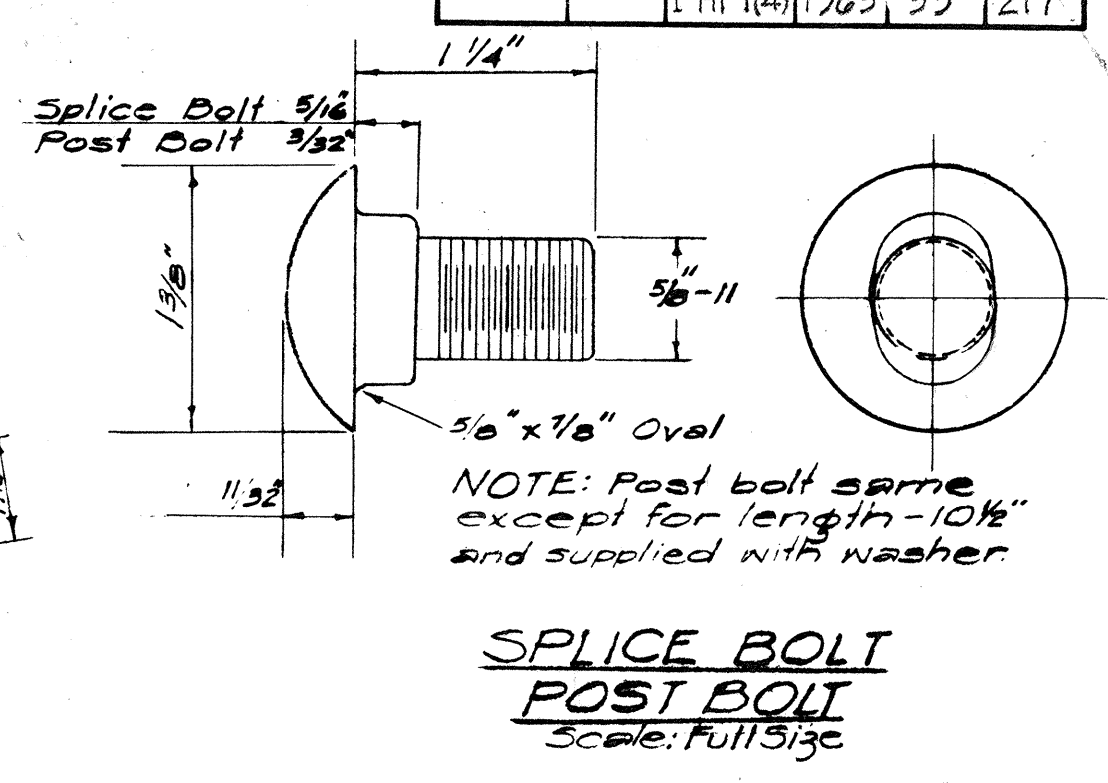
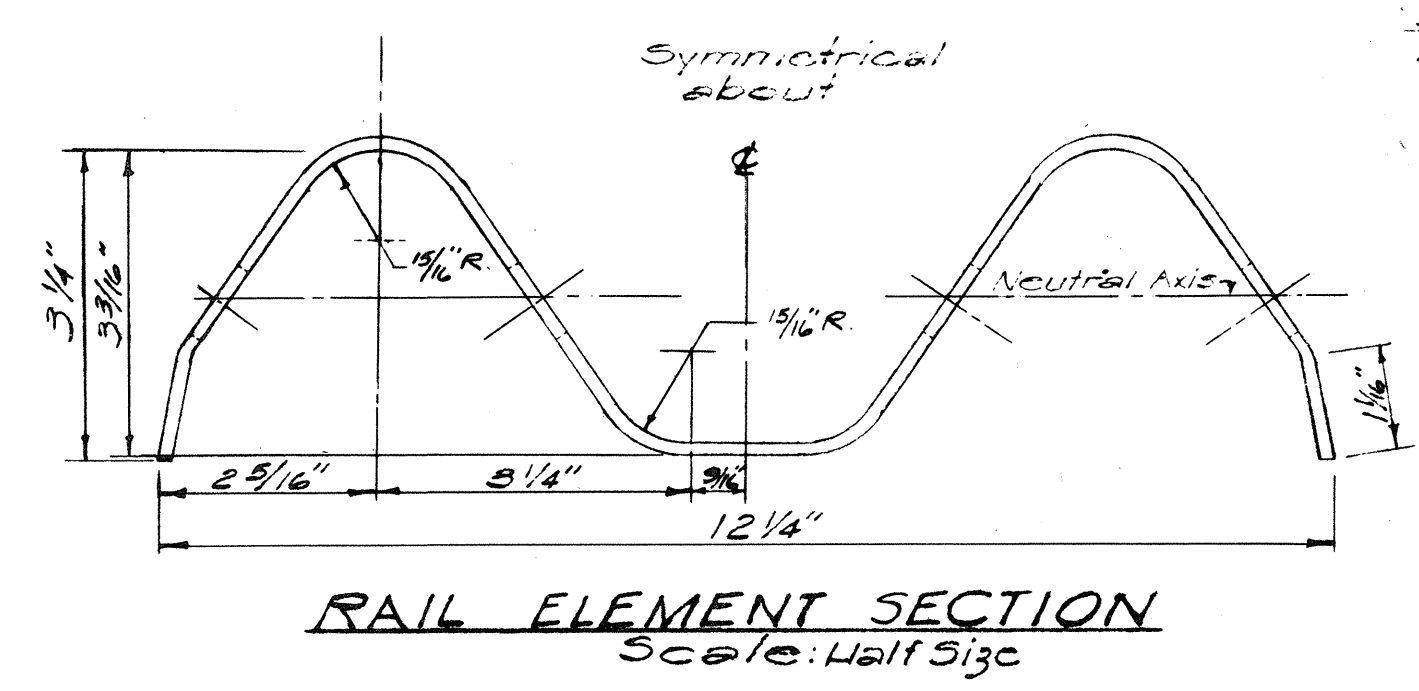
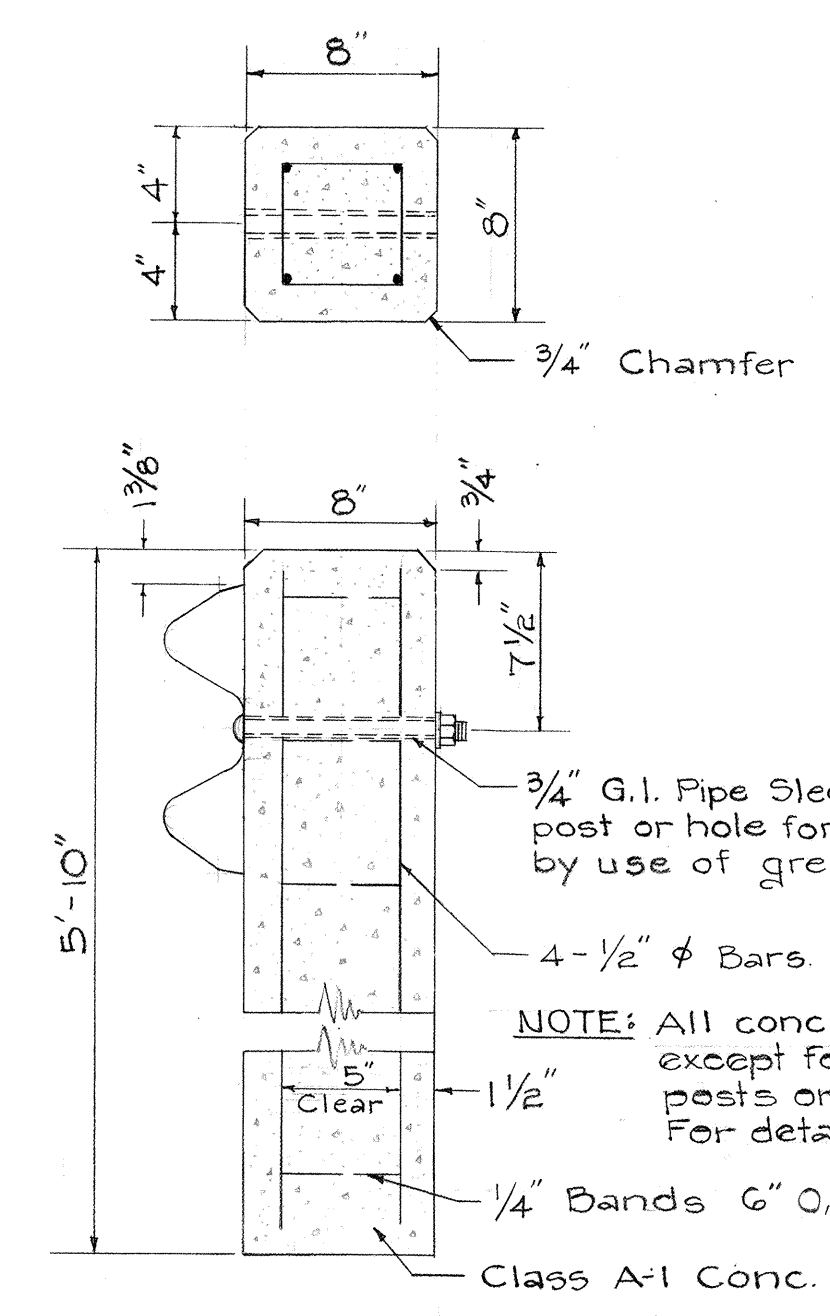
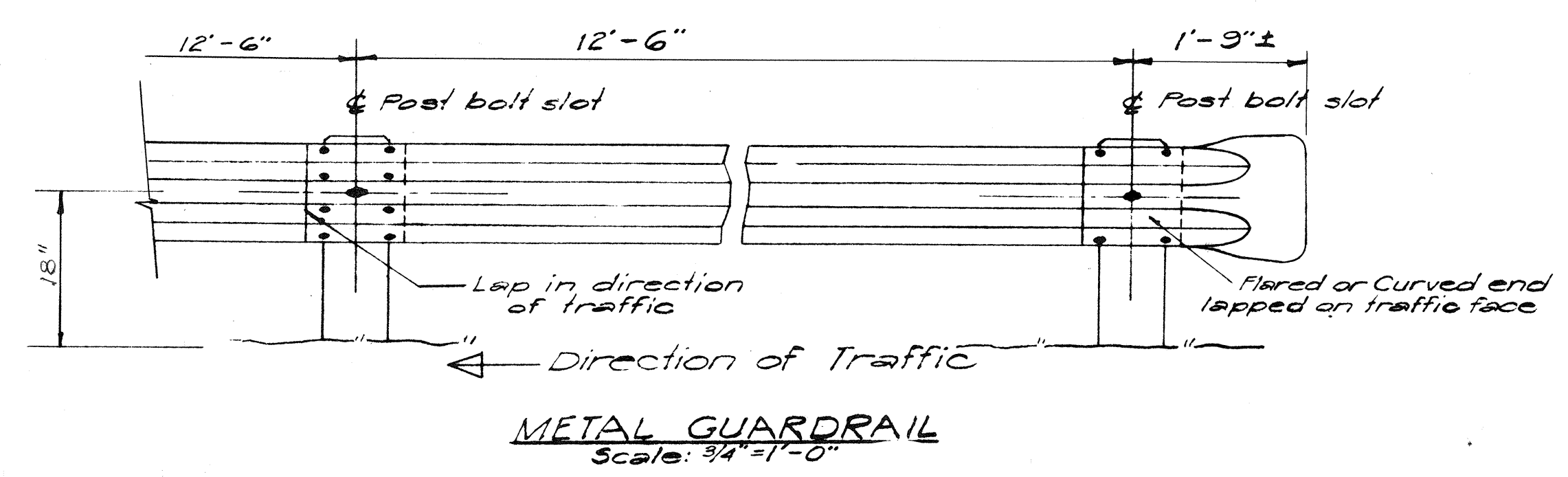
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS FOR
CONCRETE CURBS
AND GUTTER

LUNALILO FRWY. PROJ. No. I-H-14(4): 24
Scale: 1"=1'-0" Date: April, 1963

SHEET No. OF SHEETS

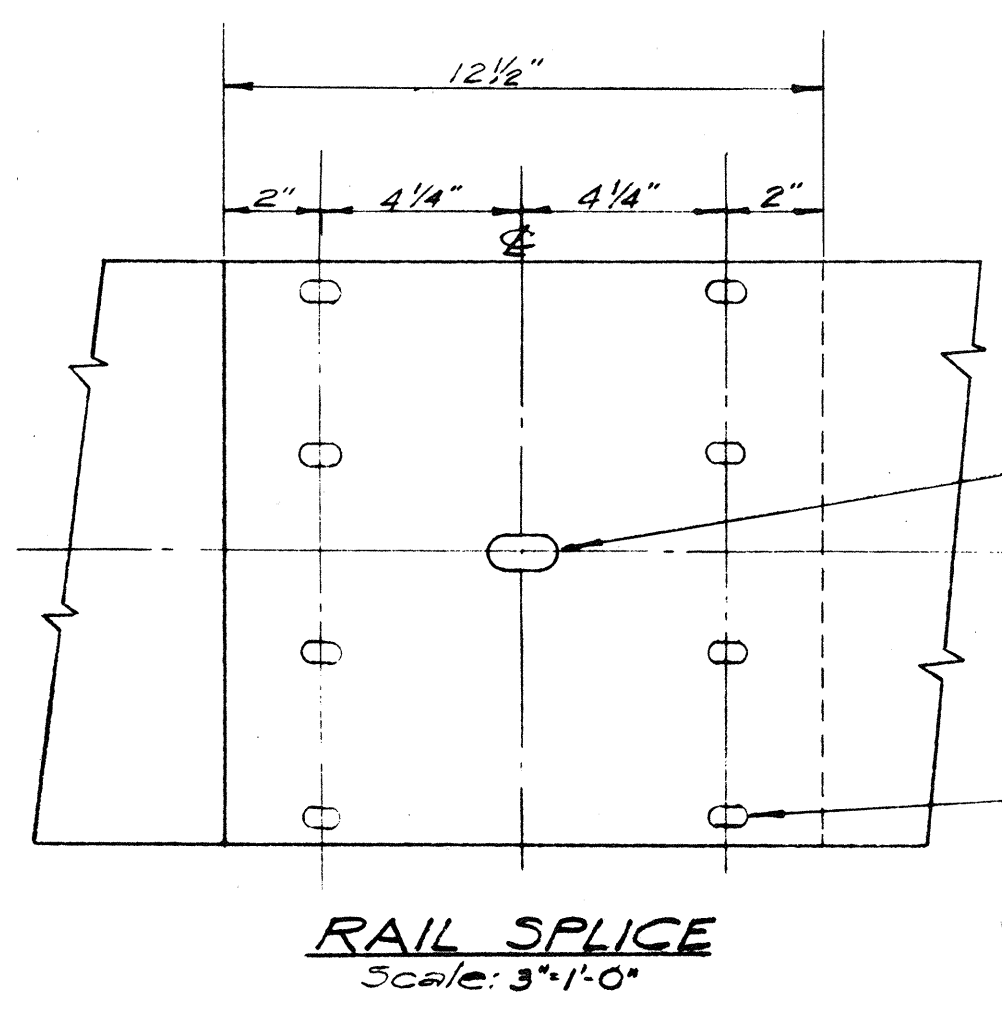
ORIGINAL PLAN
DRAWN BY
CHECKED BY
DATE



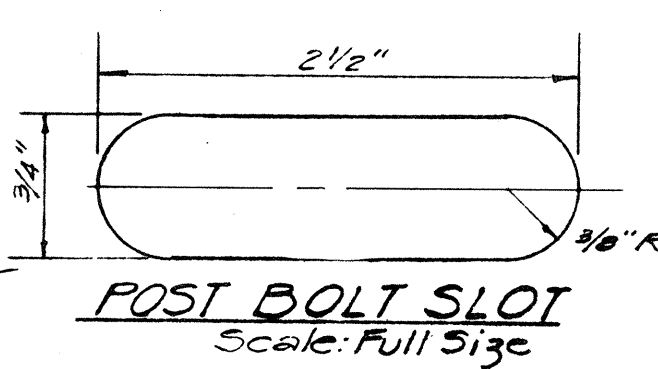
METAL GUARD RAIL PLACEMENT LIST		
STATION	LOCATION	ESTIMATED LENGTH
55 + 75 to 62 + 75	Right Edge Outbound Freeway	725 Lineal Feet
95 + 25 to 100 + 65	Right Edge Outbound Freeway	540 Lineal Feet
102 + 55 to 102 + 84	Right Edge Outbound Freeway Including Gore With Ramp K O	58 Lineal Feet
98 + 10 to 100 + 00	Left Edge Inbound Freeway	202 Lineal Feet
56 + 25 to 105 + 75	* Medial Strip Freeway	4,875 Lineal Feet
11 + 19 to 14 + 15	Right Edge Ramp 5-A	300 Lineal Feet
2 + 42 to 7 + 25	Left Edge Ramp 6-A Including Gore With Outbound Freeway	525 Lineal Feet
1 + 96 to 3 + 50	Left Edge Ramp 11-A	143 Lineal Feet
2 + 87 to 4 + 62	Right Edge Ramp 11-A Including Gore With Eleventh Avenue	197 Lineal Feet
5 + 20 to 8 + 37	Left Edge Ramp K O	317 Lineal Feet

*Note: Double guard rails, see medial strip installation detail below. Lineal Ft. of Length measured along baseline includes 65 lin. ft. of double guard rails with cast-in-place concrete posts on structure No. 10.

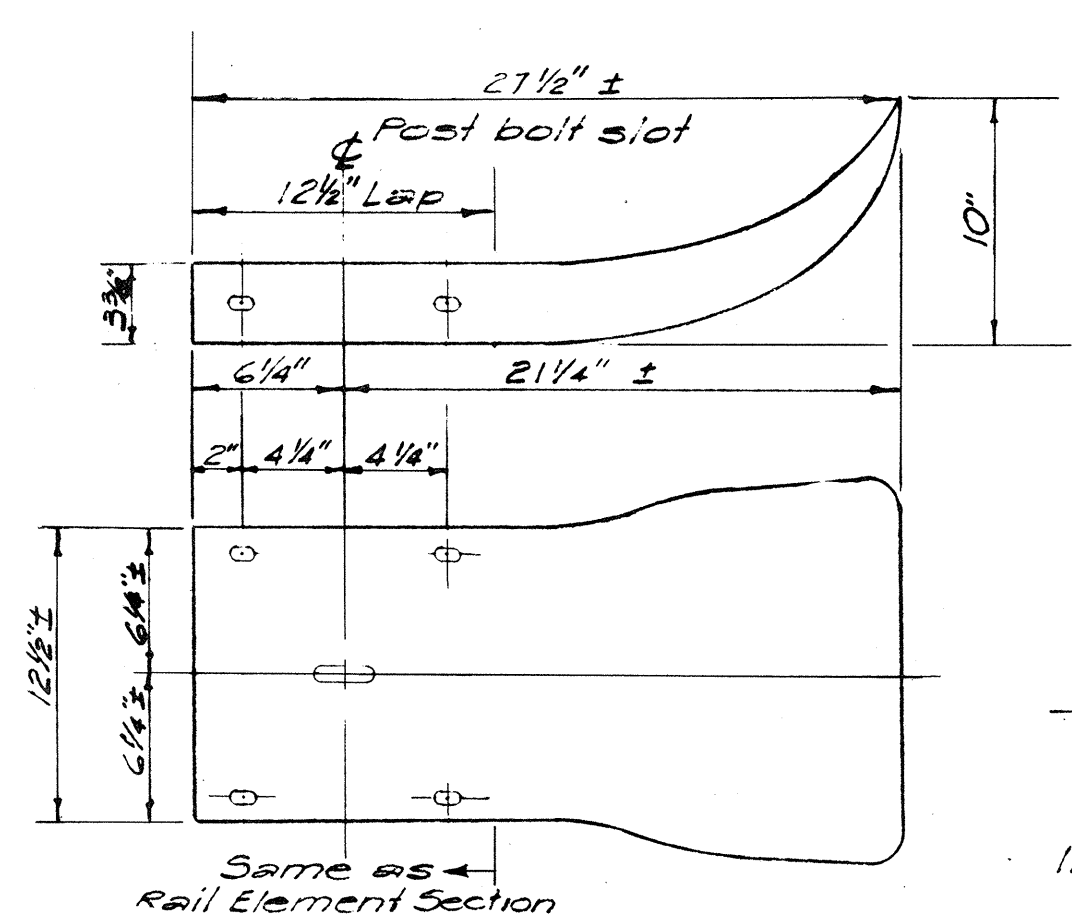
DETAIL OF PRE-CAST CONC. POST Scale: 1 1/2" = 1'-0"



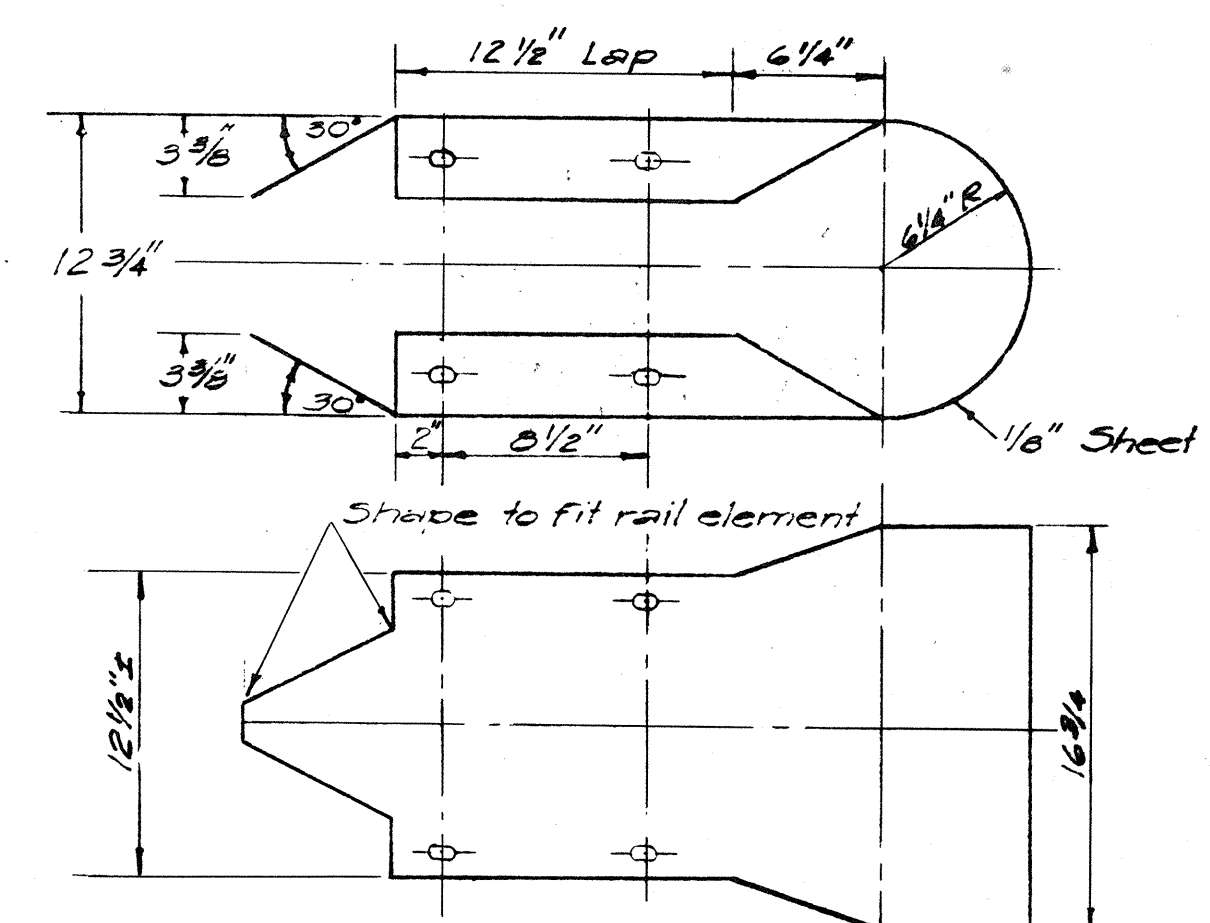
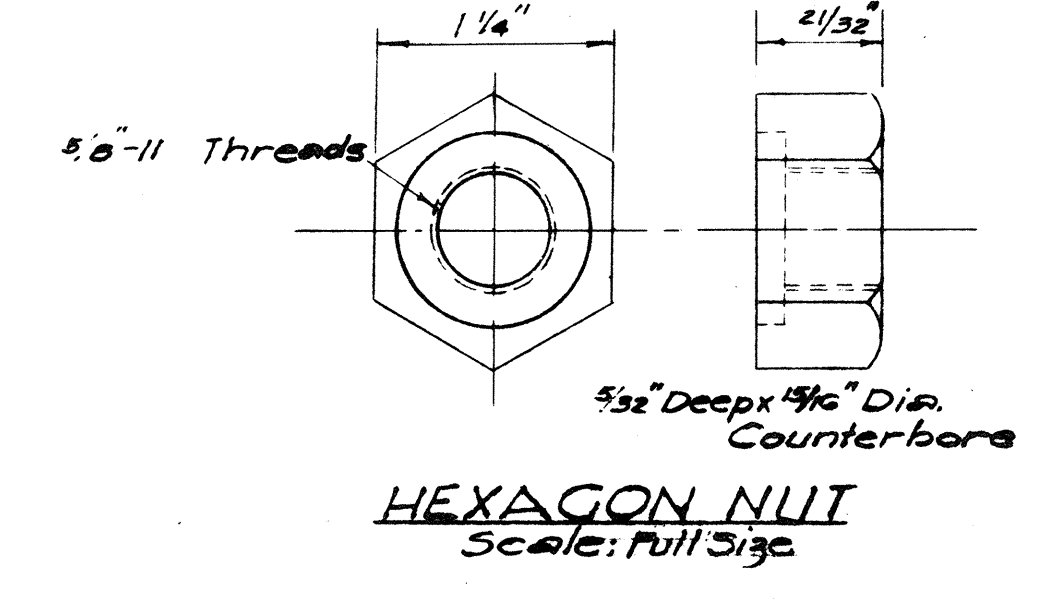
SPICE BOLT SLOT FOR ALL ENDS Scale: Full Size



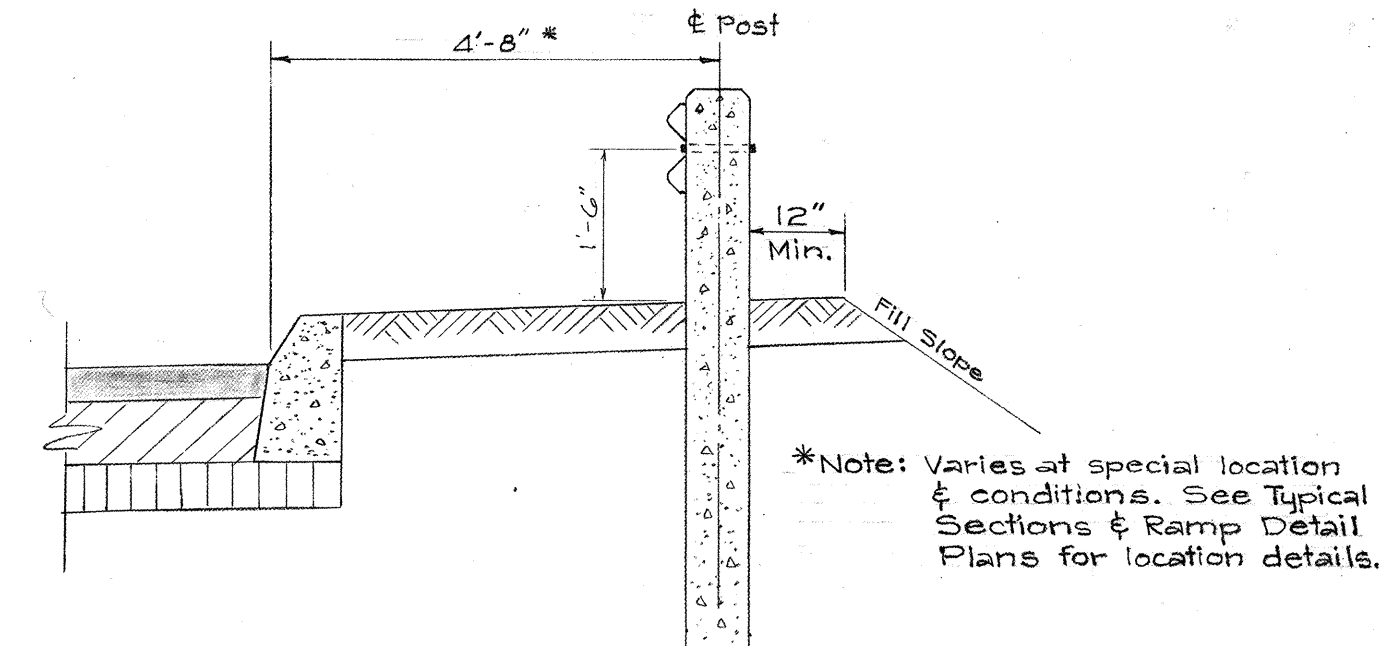
SPICE BOLT SLOT Scale: Full Size



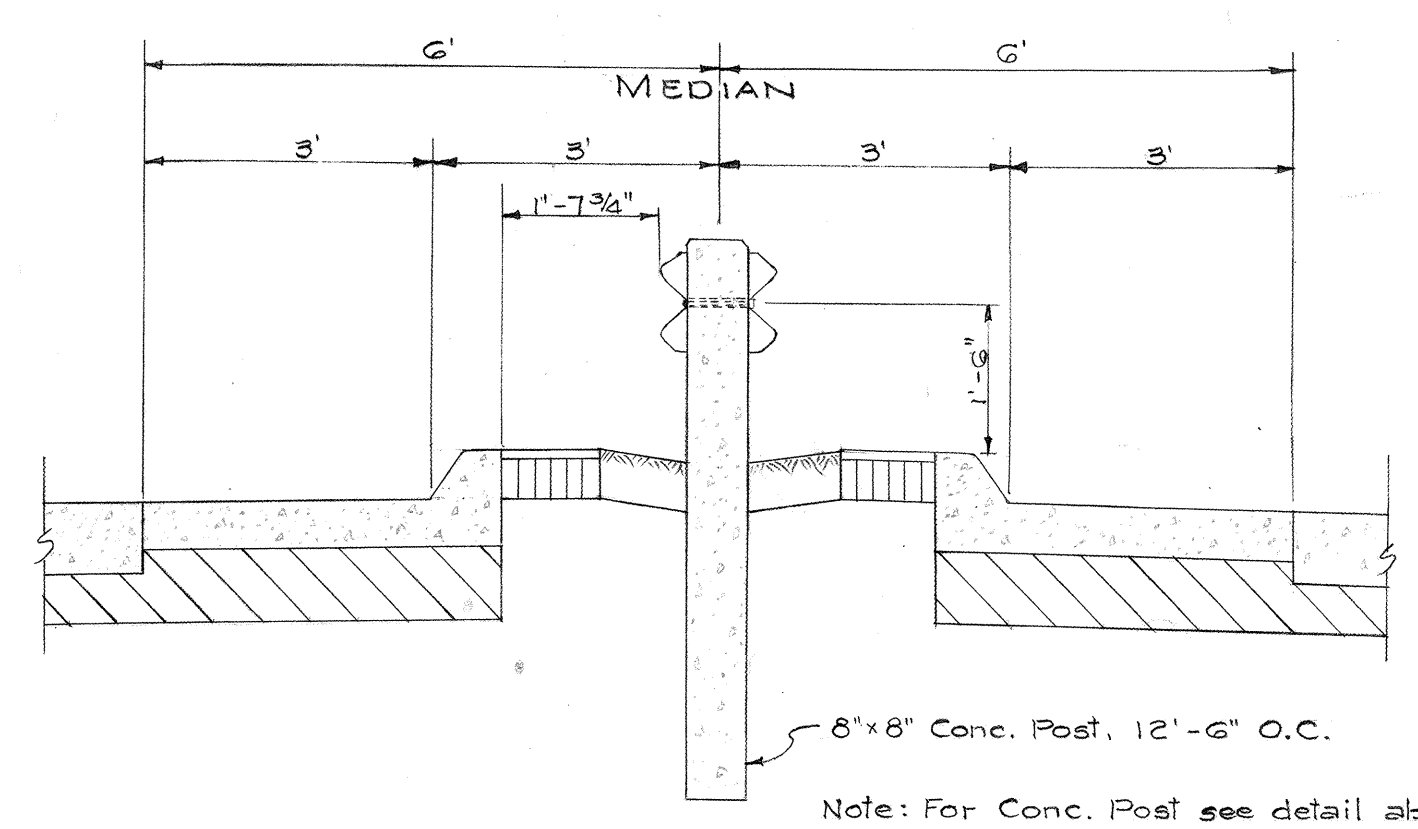
SPICE BOLT POST BOLT Scale: Full Size



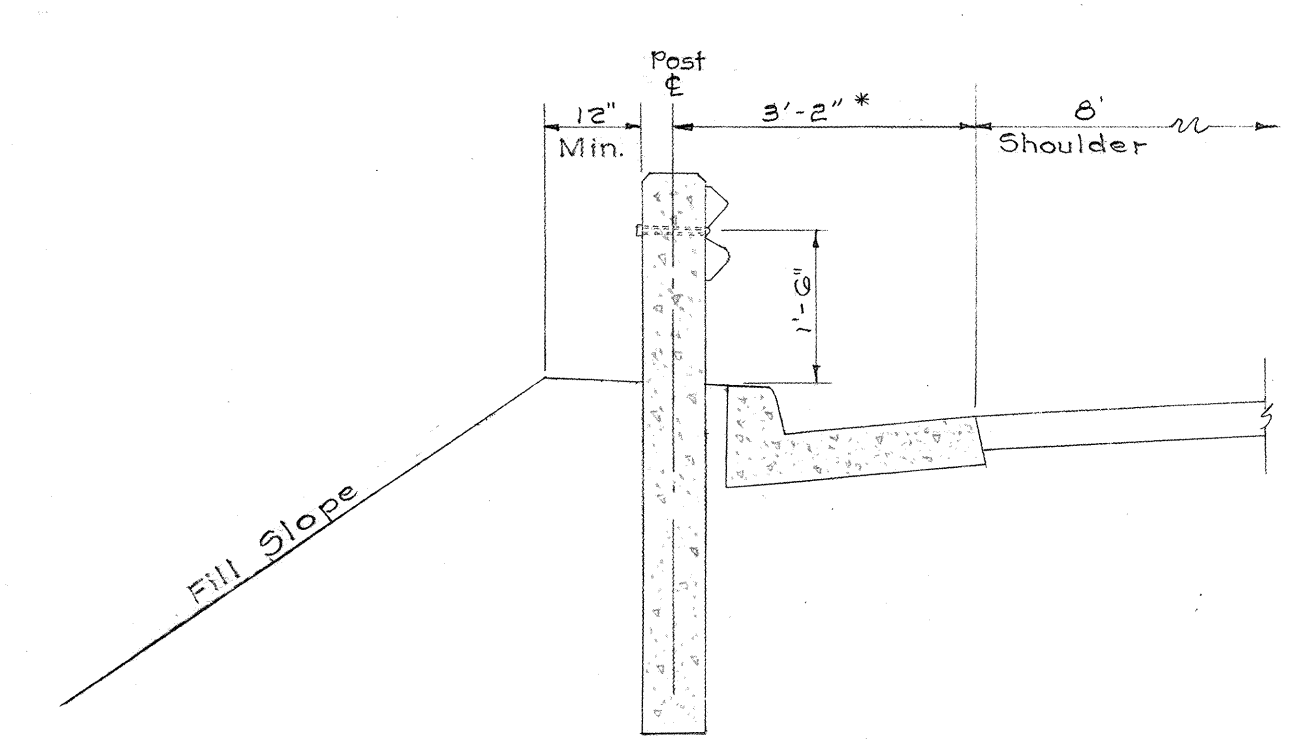
MEDIAN END Scale: 1 1/2" = 1'-0"



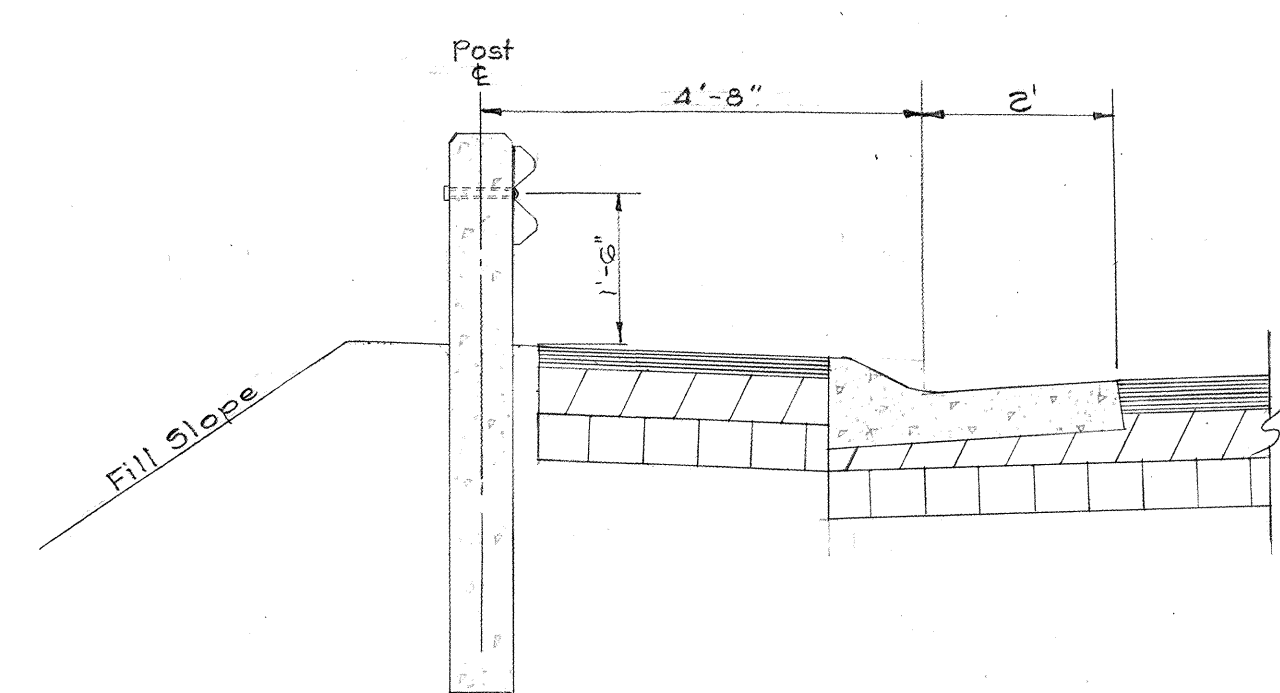
GUARD RAIL ALONG RAMP CURB Scale: 1/2" = 1'-0"



MEDIAL GUARD RAIL DETAIL Scale: 1/2" = 1'-0"



GUARD RAIL AT FREEWAY SHOULDER Scale: 1/2" = 1'-0"



GUARD RAIL AT RAMP SHOULDER Scale: 1/2" = 1'-0"

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

METAL GUARD RAIL

DETAIL

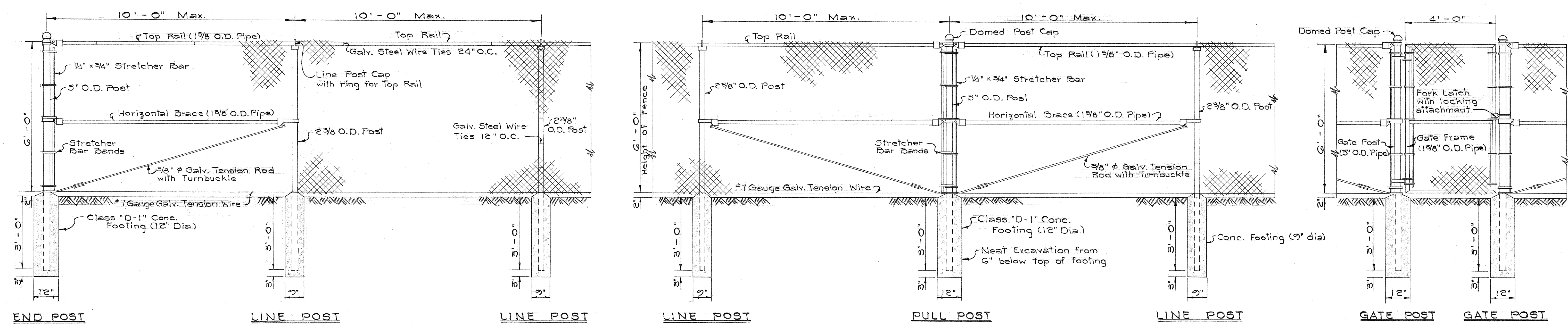
LUNALILO FREEWAY

SCALE: As Noted.

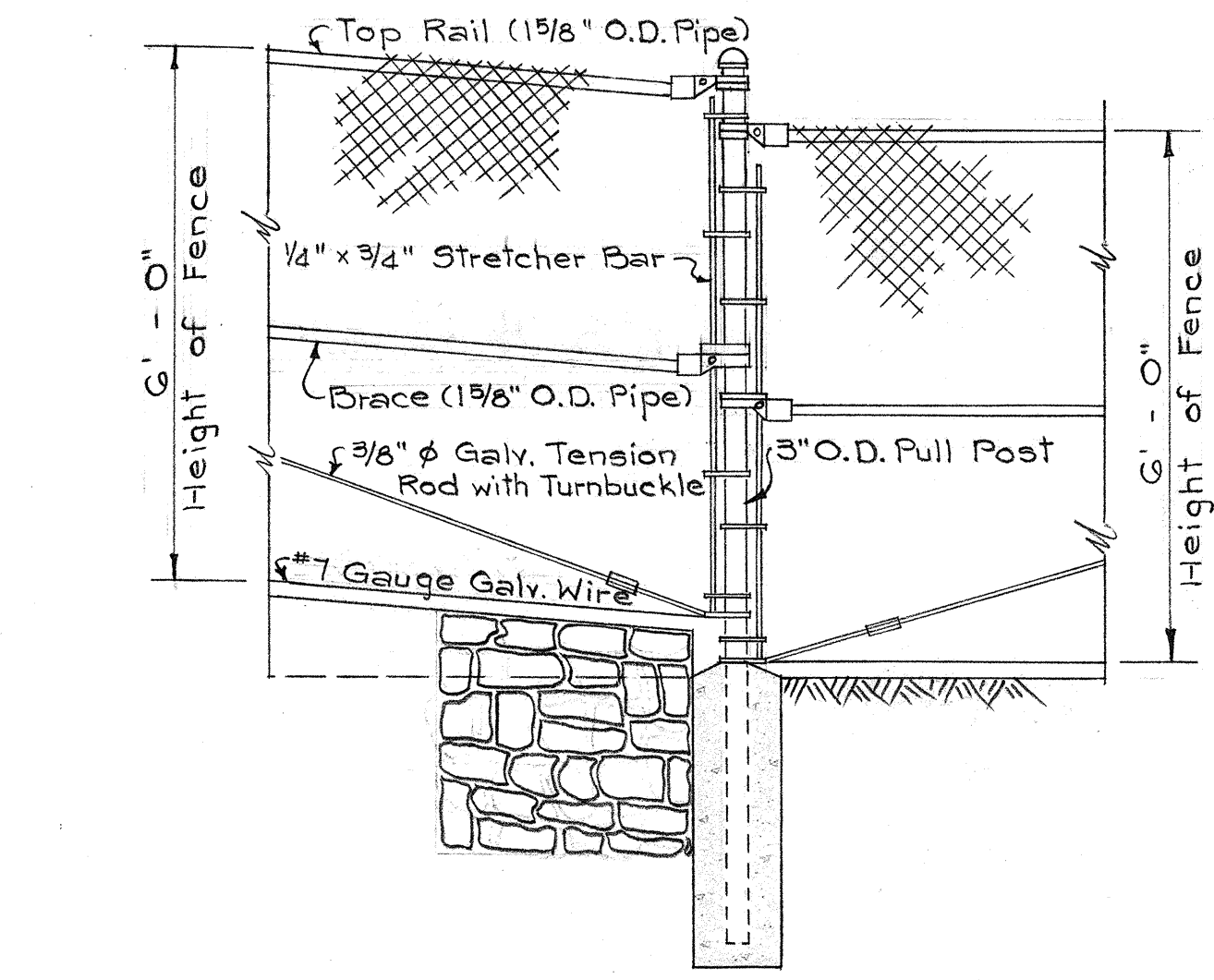
PROJ. NO. 1-HI-1(4)-24

DATE: APRIL, 1963

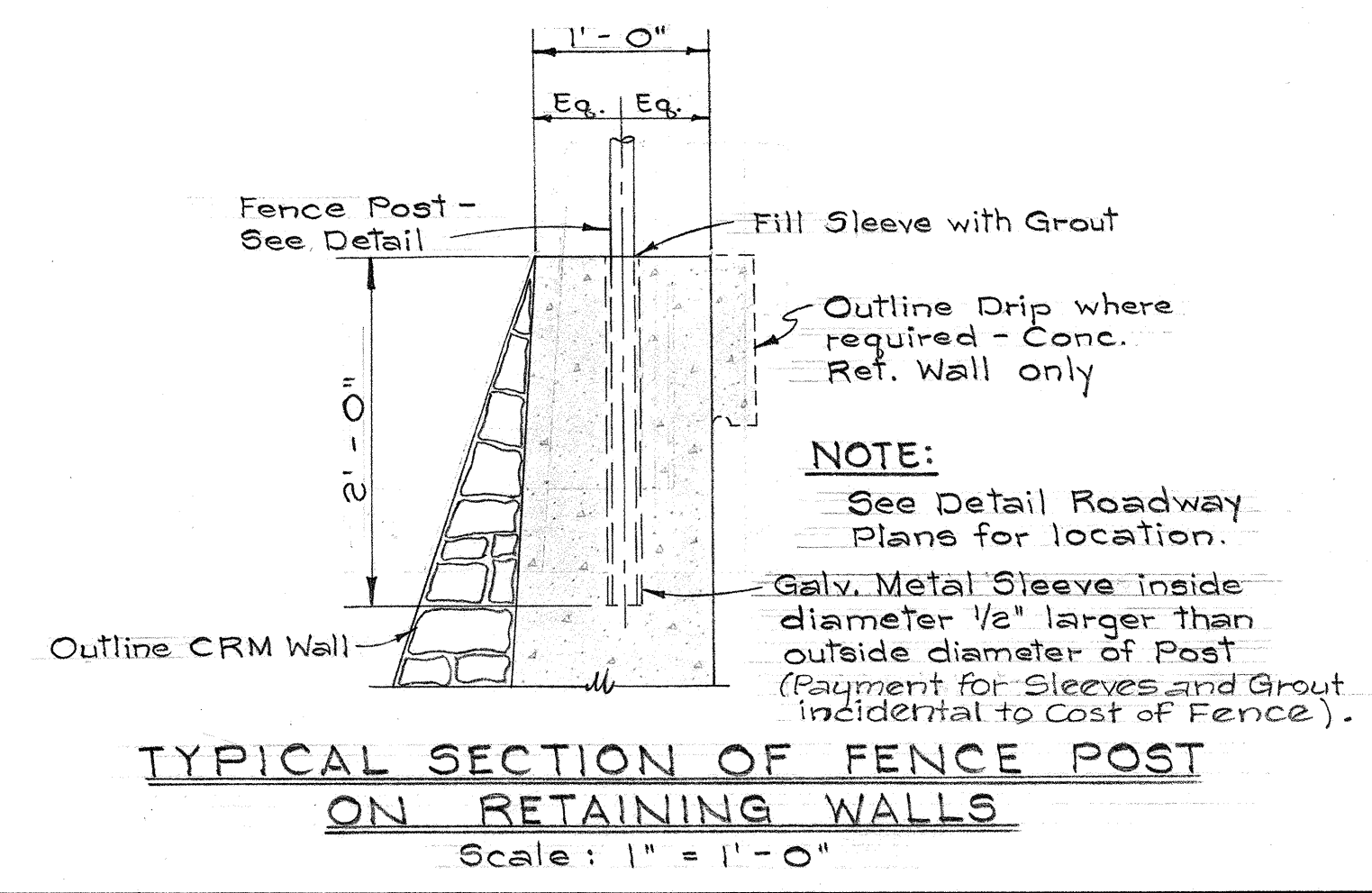
DESIGNED BY: _____
 CHECKED BY: _____
 DATE: _____
 SURVEY PLOTTED BY: _____
 TRACED BY: _____
 QUANTITIES BY: _____
 NOTE BOOK NO. _____



CHAIN LINK FENCE DETAIL
Scale: 1/2" = 1' - 0"



TYPICAL FENCE CONNECTION
DETAIL AT RETAINING WALL
Scale: 1/2" = 1' - 0"



ACCESS CONTROL
6 FT. CHAIN LINK FENCE
WITH CONCRETE FOOTINGS

LOCATION				LENGTH Lin. Ft.
ROAD	STA. TO	STA.	SIDE	
2-OB	53+88	to 55+30	Rt.	230
2-IB	55+87	to 62+60	Lt.	734
2-OB	58+97	to 61+95	Rt.	291
2-OB	62+96	to 71+15	Rt.	850
2-IB	65+67	to 71+19	Lt.	577
Ramp 5-A	12+02	to 13+00	Lt.	80
Ramp 5-A	12+05	to 14+14	Rt.	220
2-IB	72+10	to 76+65	Lt.	478
Ramp 6-A	3+10	to 5+91	Rt.	293
Ramp 6-A	6+10	to 7+58	Lt. & Rt.	198
2-OB	77+15	to 81+20	Rt.	416
2-IB	77+15	to 81+20	Rt.	410
2-IB	81+61	to 91+66	Lt.	146
2-OB	81+61	to 91+00	Rt.	146
10th Ave.	12+50	to 12+59	Lt. & Rt.	18
10th Ave.	13+91	to 14+00	Rt.	9
2-OB	95+21	to 96+96	Rt.	192
Ramp 11-A	1+95	to 4+95	Lt.	257
Ramp 11-A	3+82	to 4+82	Rt.	77
2-IB	99+16	to 106+00	Lt.	896
Ramp KO	1+59	to 8+53	Lt. & Rt.	832

ACCESS CONTROL
6 FT. CHAIN LINK FENCE
ON RETAINING WALLS

LOCATION	LENGTH Lin. Ft.
Wing Wall #2, Structure #3	280
Ret. Wall #3-IB	297
Ret. Wall #5-A	60
Ret. Wall #5-B	110
Ret. Wall #2-OB	77
Ret. Wall #3-OB	105
Ret. Wall #6-A	100
Ret. Wall #6-B	118
Ret. Wall #11-OB	467

NOTE: Lineal feet of fencing shown above are only estimated lengths. The exact amount to be determined at the time of construction.

CHAIN LINK FENCE GATES

LOCATION			DIMENSIONS		NUMBER
ROAD	STATION	SIDE	HEIGHT	WIDTH	
2-OB	81+20	Rt.	6 Ft.	4 Ft.	1 each
2-IB	81+20	Lt.	6 Ft.	4 Ft.	1 each
2-IB	81+66	Lt.	6 Ft.	4 Ft.	1 each
10th Ave.	13+97	Rt.	6 Ft.	4 Ft.	1 each
2-IB	104+08	Lt.	6 Ft.	4 Ft.	1 each

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL OF
ACCESS CONTROL 6 FT.
CHAIN LINK FENCE & GATE

LUNALILO FREEWAY
PROJ. NO. I-HI-1(4)-24

SCALE: AS SHOWN
DATE: APRIL, 1963.

SHEET No. 34 OF 217 SHEETS

DATE: _____
DRAWN BY: _____
DESIGNED BY: _____
NOTED BY: _____
CHECKED BY: _____
No. _____

Revised: May 27, 1963.
Nov. 19, 1963

LIST OF DRIVEWAYS

LOCATION			CONC. DROPPED DRIVEWAY		PRIVATE DRIVEWAY			
					PCC CONC.		ASPHALT CONC.	
ROAD	STATION	SIDE	WIDTH (Ft.)	AREA (Sq. Ft.)	WIDTH (Ft.)	LENGTH (Lin. Ft.)	WIDTH (Ft.)	LENGTH (Lin. Ft.)
2nd Ave.	10+38	Rt.	10		2 , 2	1		
2nd Ave.	13+94	Rt.	10		2 , 2	8		
2nd Ave.	10+95.5	Lt.	15					
2nd Ave.	13+67	Lt.	10		2 , 2	15		
2nd Ave.	13+82	Lt.	10		2 1/2 , 2 1/2	15		
Belser St.	11+62.5	Rt.	10		2 , 2	9		
Belser St.	13+88	Rt.	10		3 , 2	7		
Belser St.	11+34	Lt.	11		11	3		
Belser St.	14+15.5	Lt.	10		10	3		
3rd Ave.	11+65	Rt.	10					
3rd Ave.	12+20	Rt.	11.5		11.5	9		
3rd Ave.	11+95	Lt.	32		23 , 8	5		
4th Ave.	14+45	Lt.	*(10)		2 1/2 , 2 1/2	29		
4th Ave.	11+68.5	Rt.	14					
4th Ave.	11+92.5	Rt.	20		20	3		
4th Ave.	11+69.5	Lt.	10.5				10.5	4
4th Ave.	12+19	Lt.	10		10	6		
Kikeke Ave.	11+82	Rt.	10					
Kikeke Ave.	11+60.5	Lt.	20					
Kikeke Ave.	11+83	Lt.	11		3 1/2 , 4	5		
5th Ave.	12+01.5	Rt.	19				19	7
5th Ave.	11+60	Lt.	20					
5th Ave.	12+11	Lt.	10					
* * Palolo Ave.	13+34	Lt.	2					
Harding Ave.	35+96	Rt.	9					
6th Ave.	11+13.5	Rt.	10				10	24
6th Ave.	12+00	Rt.	10		10	24		
6th Ave.	15+44	Rt.	12				12	171
6th Ave.	10+46.5	Lt.	20					
6th Ave.	11+75.5	Lt.	14				12	10
6th Ave.	14+57.5	Lt.	20		23	21		
6th Ave.	15+28.5	Lt.	12		12	8		
7th Ave.	10+83.5	Rt.	16.5		16.5	3		
7th Ave.	11+64	Rt.	14					
7th Ave.	11+94.5	Rt.	27		27	8		
7th Ave.	14+43	Rt.	10		2 , 2 1/2	7		
7th Ave.	15+19	Rt.	10				10	4
7th Ave.	15+36	Rt.	10		10	4		
7th Ave.	10+81	Lt.	10					
7th Ave.	11+69.5	Lt.	10		2 , 1 1/2	6		
7th Ave.	12+08	Lt.	10		10	7		
7th Ave.	12+27	Lt.	12					
7th Ave.	14+63	Lt.	17					
7th Ave.	15+15	Lt.	10		1 1/2 , 2	7		
7th Ave.	15+71	Lt.	10				10	9
8th Ave.	12+36.5	Rt.	20					
8th Ave.	11+81.5	Lt.	10		10	9		
8th Ave.	12+43.5	Lt.	12				12	161
8th Ave.	14+05	Rt.	12				11	12
9th Ave.	11+83	Rt.	10					
9th Ave.	14+69.5	Rt.	9				7	3
9th Ave.	12+39.5	Lt.	11.5					
9th Ave.	14+11	Lt.	10				9	10
11th Ave.	Ramp 11-A 5+61	Rt.	12					
11th Ave.	Ramp 11-A 5+08	Lt.	16				18	4

* denotes A.C. Connection only exclude from concrete dropped driveway list.

LIST OF DRIVEWAYS

LOCATION			CONC. DROPPED DRIVEWAY		PRIVATE DRIVEWAY			
					PCC CONC.		ASPHALT CONC.	
ROAD	STATION	SIDE	WIDTH (Ft.)	AREA (Sq. Ft.)	WIDTH (Ft.)	LENGTH (Lin. Ft.)	WIDTH (Ft.)	LENGTH (Lin. Ft.)
11th Ave.	14+67	Rt.	10		7	16		
11th Ave.	Ramp 11-A 5+58	Lt.	10		10	4		
11th Ave.	Mauka 0+51	Lt.	10		2 , 2	10		
11th Ave.	Mauka 1+08	Lt.	10					
11th Ave.	Mauka 1+36	Lt.	11					
11th Ave.	14+68	Lt.	10					
12th Ave.	11+68	Rt.	10		10	4		
12th Ave.	12+31	Rt.	10		10	1		
12th Ave.	14+33	Rt.	10		10	3		
12th Ave.	12+30	Lt.	12		12	30		
12th Ave.	14+77.5	Lt.	10		10	6		
12th Ave.	14+93.5	Lt.	10		10	15		
* * Koko Head Ave.	10+69	Rt.	36				44	5
* * Koko Head Ave.	11+57.5	Rt.	52				38	5
Koko Head Ave.	14+86	Rt.	10		3 , 2	4		
Koko Head Ave.	15+69	Rt.	10		2 1/2 , 2 1/2	16		
Koko Head Ave.	15+95	Rt.	15		2 , 2 , 2 , 2	2		
Koko Head Ave.	11+31	Lt.	18				18	2
Koko Head Ave.	11+82.5	Lt.	11				11	5
Koko Head Ave.	12+57.5	Lt.	16					
Koko Head Ave.	14+46	Lt.	10		10	35		
Koko Head Ave.	15+45	Lt.	10		9	5		
Koko Head Ave.	15+87.5	Lt.	12				12	5
Koko Head Ave.	11+78	Rt.						

* * denotes 6" thick R.C.C. dropped driveway and business & industrial driveway consisting of 2 1/2" A.C. over 6" Untreated Base.

- NOTE: 1. All lineal measurements shown on this sheet are estimated only.
2. Provide A.C. driveways at makai Cul-de-Sacs at Kikeke and 5th Avenues. See Plan Sheet No. 21 for details.
3. Private A.C. driveways shall have the following pavement section:
Wearing Surface: 1 1/2" Asphalt Concrete Mix II
Base Course: 6" Untreated Base
Sub-base Course: None

SHEET No. 35A
SUPERSEDES SHEET No. 35
AND 35AS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

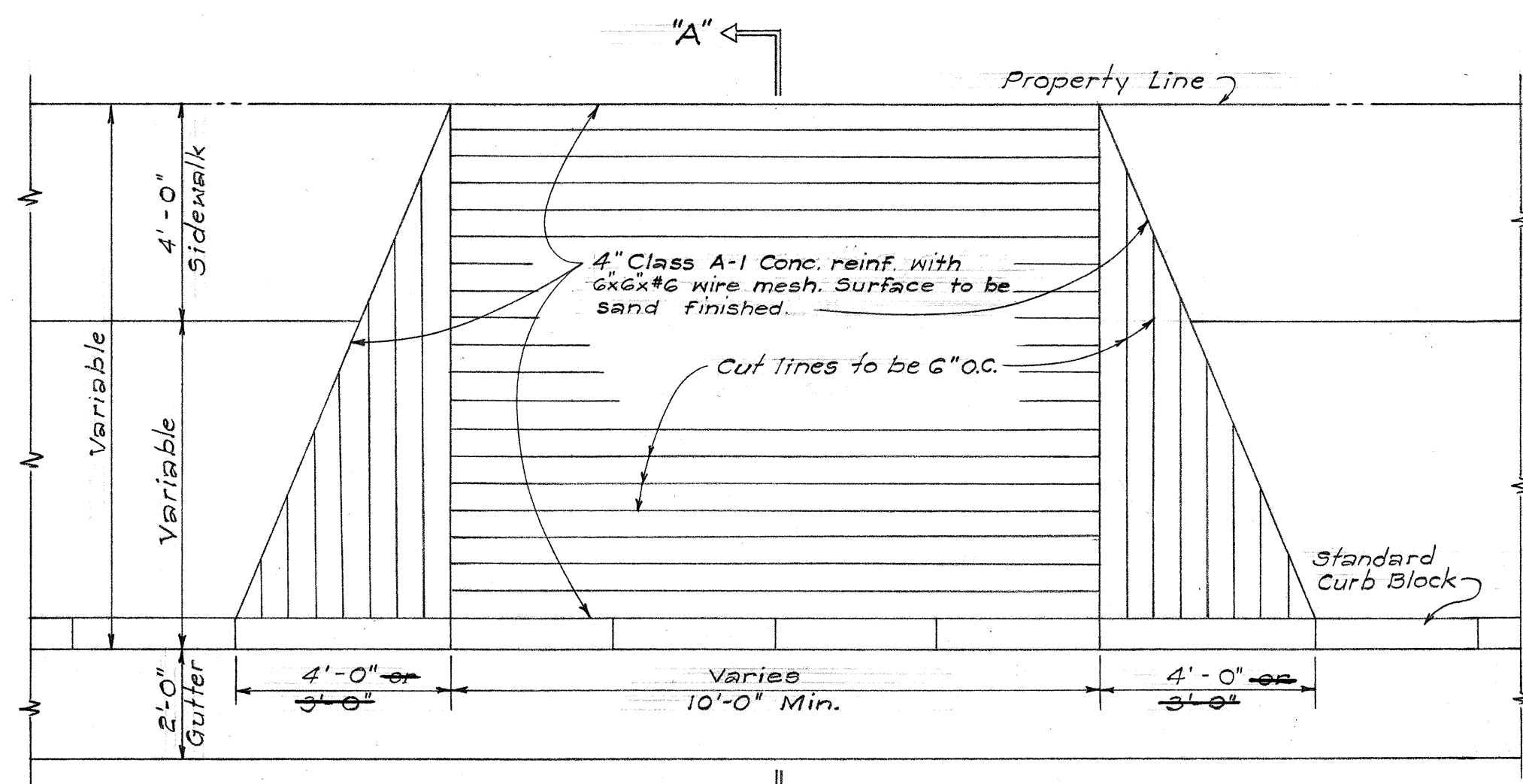
LIST OF DRIVEWAYS

LUNALILO FREEWAY PROJ. NO. I-HI-11(4):24

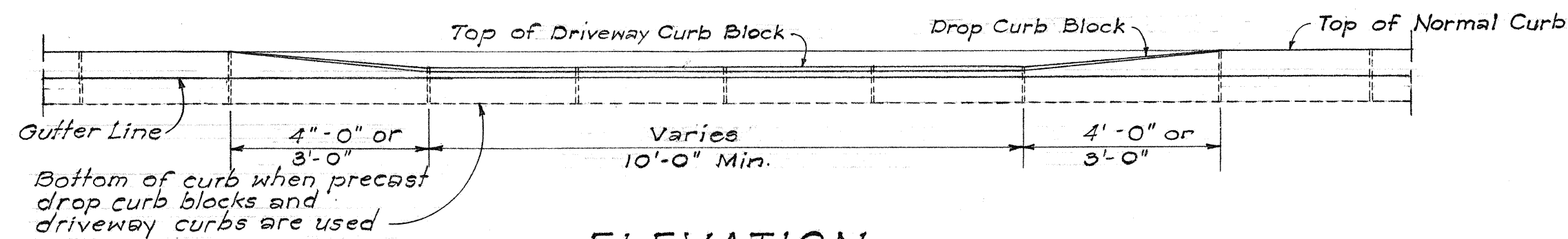
May 27,
Revised APRIL, 1963

SHEET No. OF SHEETS

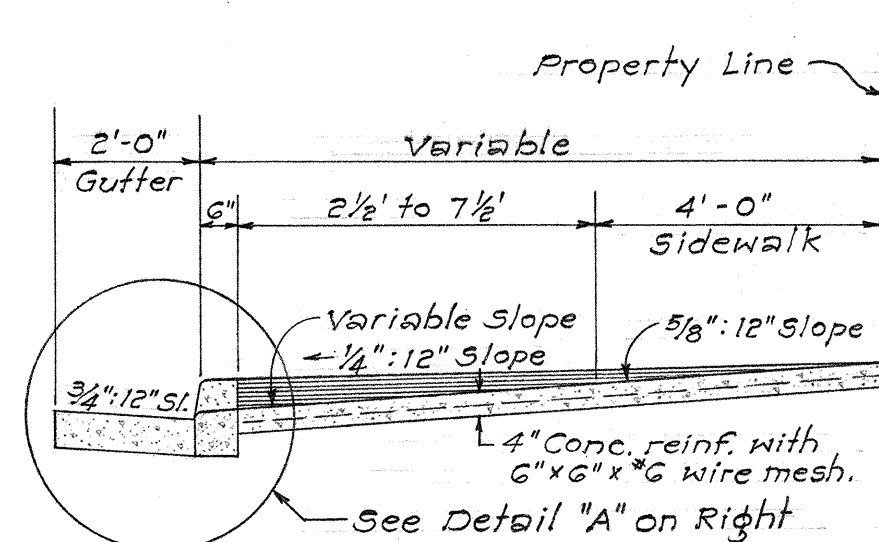
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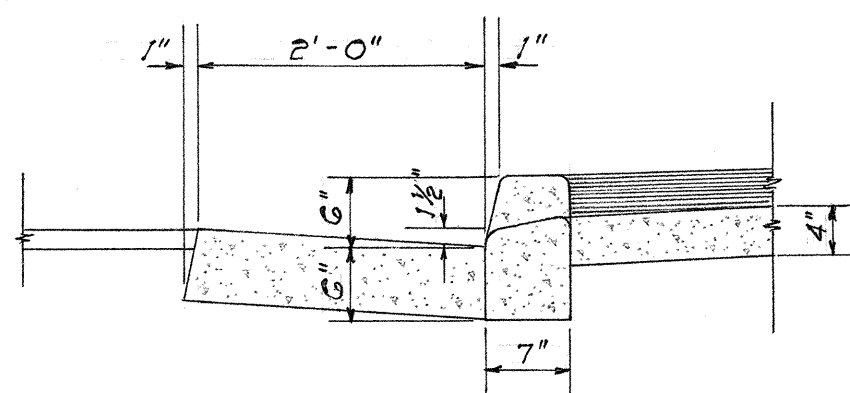
PLAN
Scale: 3/8" = 1'-0"



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



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

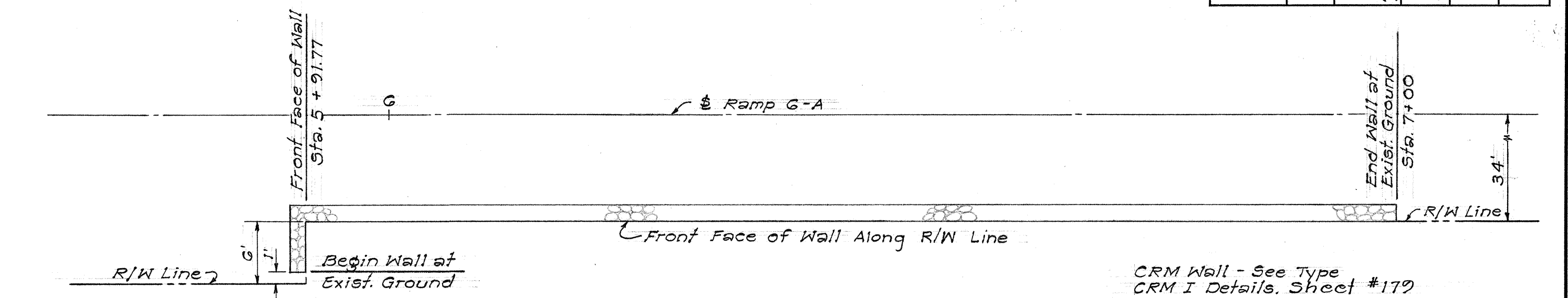


DETAIL "A"
Scale: 1" = 1'-0"

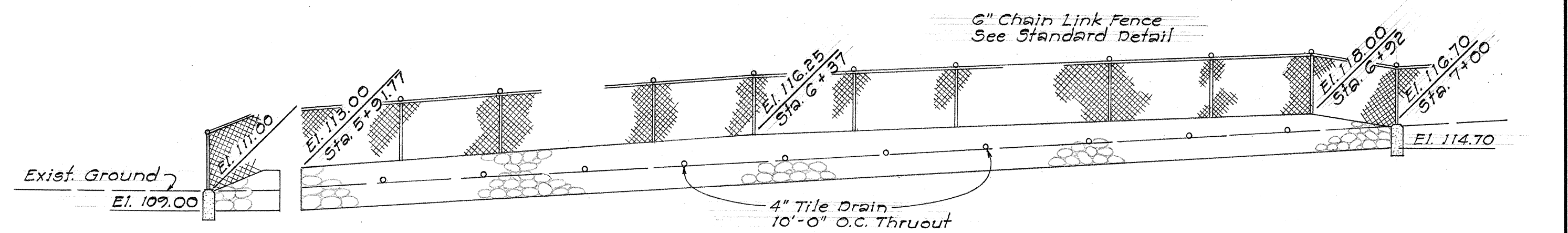
CONSTRUCTION DETAILS FOR DROP DRIVEWAY

GENERAL NOTES:

1. Refer to plan sheet No. 35 for list of dropped driveways
2. For precast curb details see plan sheet No. 32
3. In business and industrial districts use 6" concrete reinforced with 6"x6"x6 wire mesh. Refer to plan sheet No. 32 for location.

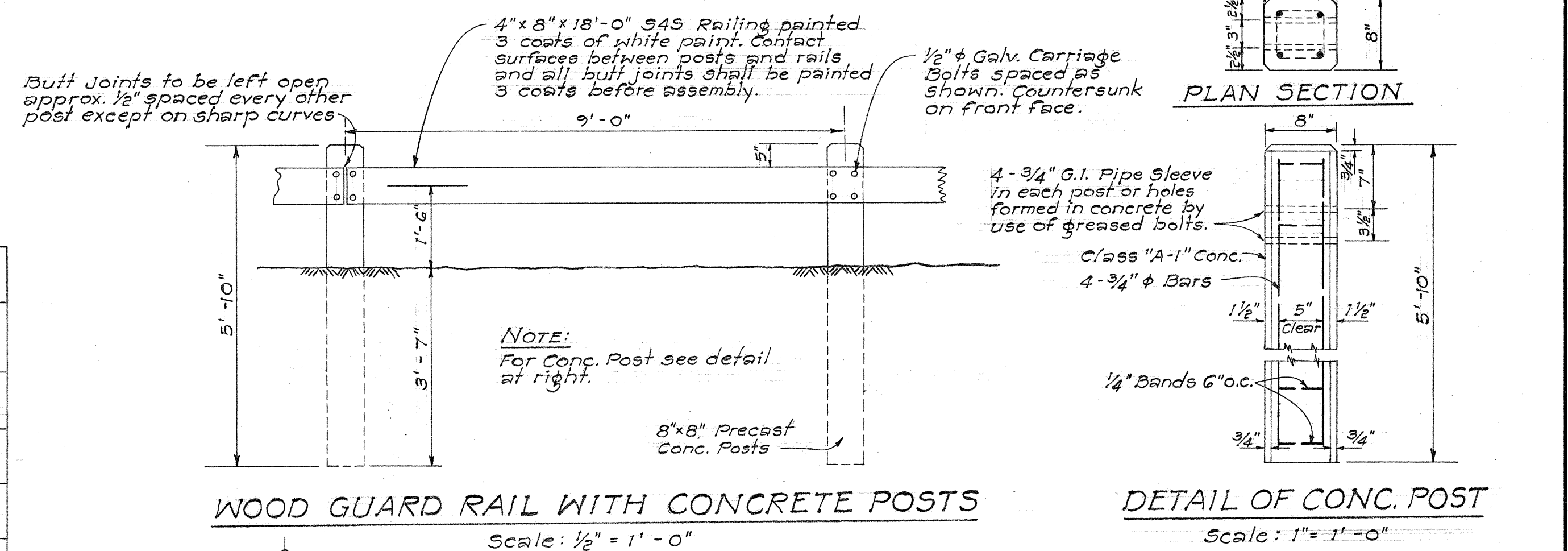


LAYOUT PLAN - RETAINING WALL No. "G-B"
Scale: 1" = 10'-0"



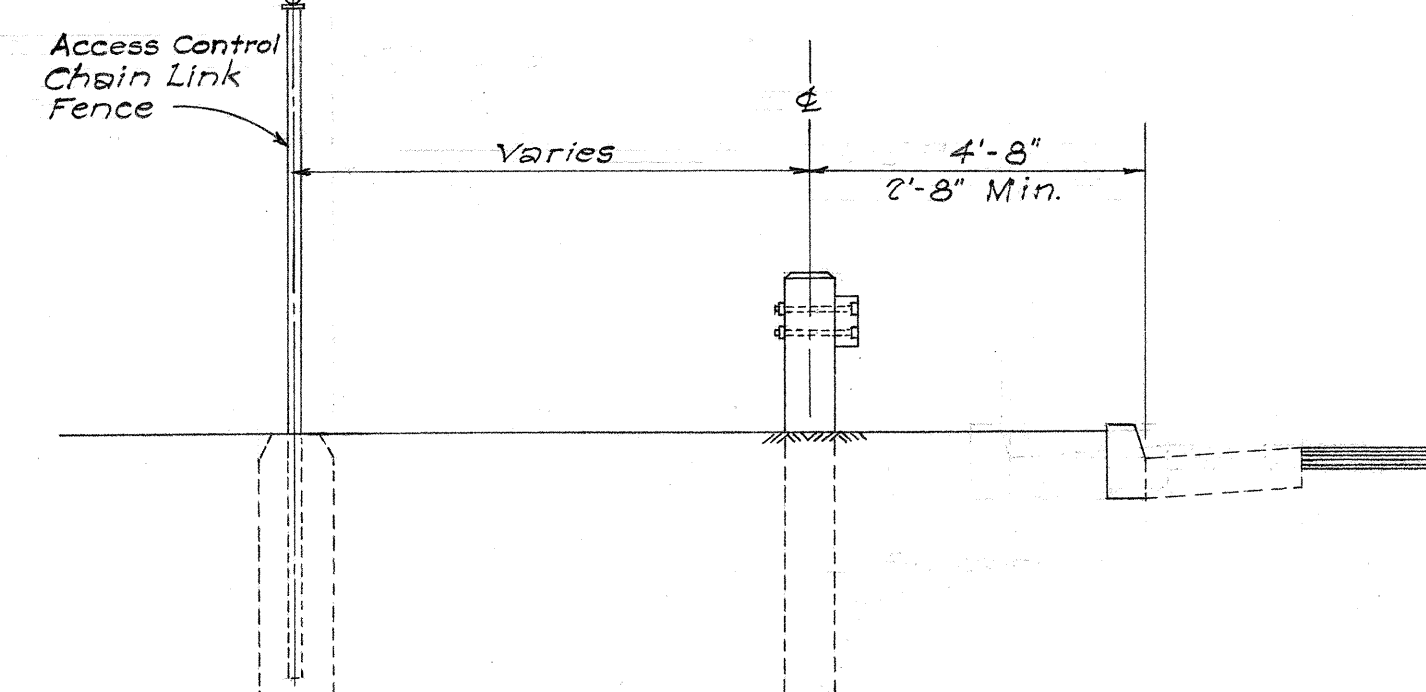
DEVELOPED ELEVATION
Scale: 1" = 10'-0"

LIST OF WOOD GUARD RAILS W/ CONC. POST		
LOCATION	STATION	ESTIMATED LENGTH (FT.)
2nd. Avenue	13 + 58	43
	11 + 13	41
Belser Street	13 + 74	45
	11 + 74	41
3rd. Avenue	12 + 31	45
	13 + 90	45
4th. Avenue	12 + 32	36
Kikele Street	14 + 28	36
	12 + 21	41
5th. Avenue	14 + 30	45
	12 + 23	41
8th. Avenue	13 + 98.5	45
	12 + 53	42
9th. Avenue	14 + 03	43
	12 + 48	45
11th. Avenue	12 + 50	89
	14 + 04	44
12th. Avenue	14 + 52	41
	12 + 38	45



WOOD GUARD RAIL WITH CONCRETE POSTS
Scale: 1/2" = 1'-0"

DETAIL OF CONC. POST
Scale: 1" = 1'-0"



TYPICAL SECTION AT END OF CUL-DE-SAC
Scale: 3/8" = 1'-0"

NOTE:
All conc. posts shall be precast

STATE OF HAWAII
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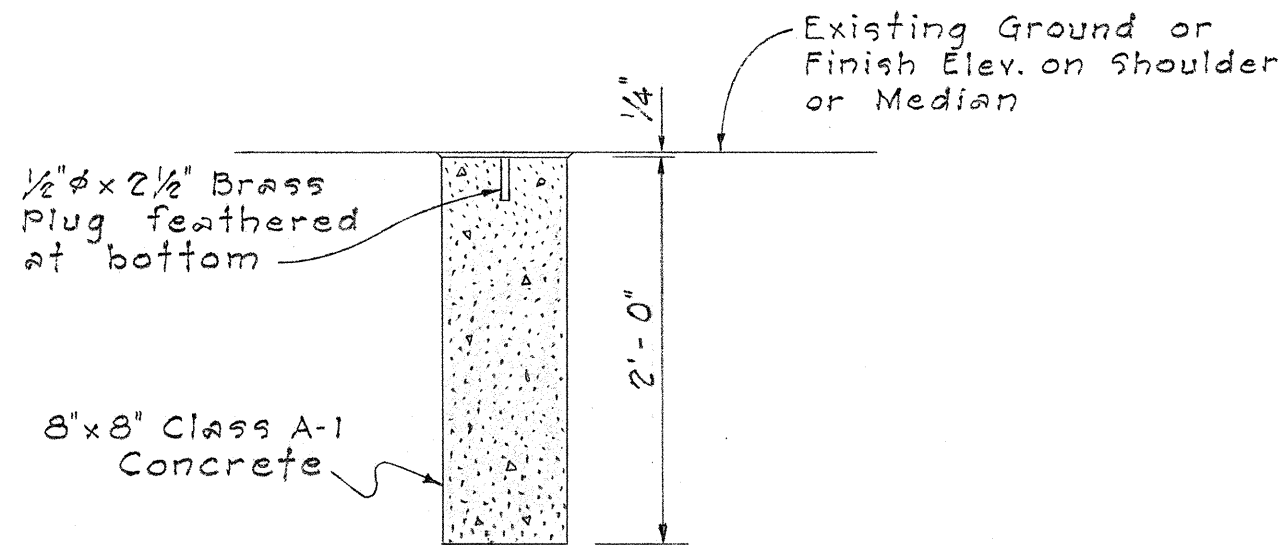
**RETAINING WALL No. G-B,
DETAILS FOR DROP DRIVEWAY
AND WOOD GUARD RAIL**

LUNALILO FREEWAY PROJ. No. I-HI-14/24
Scale: As Shown Date: April 1963

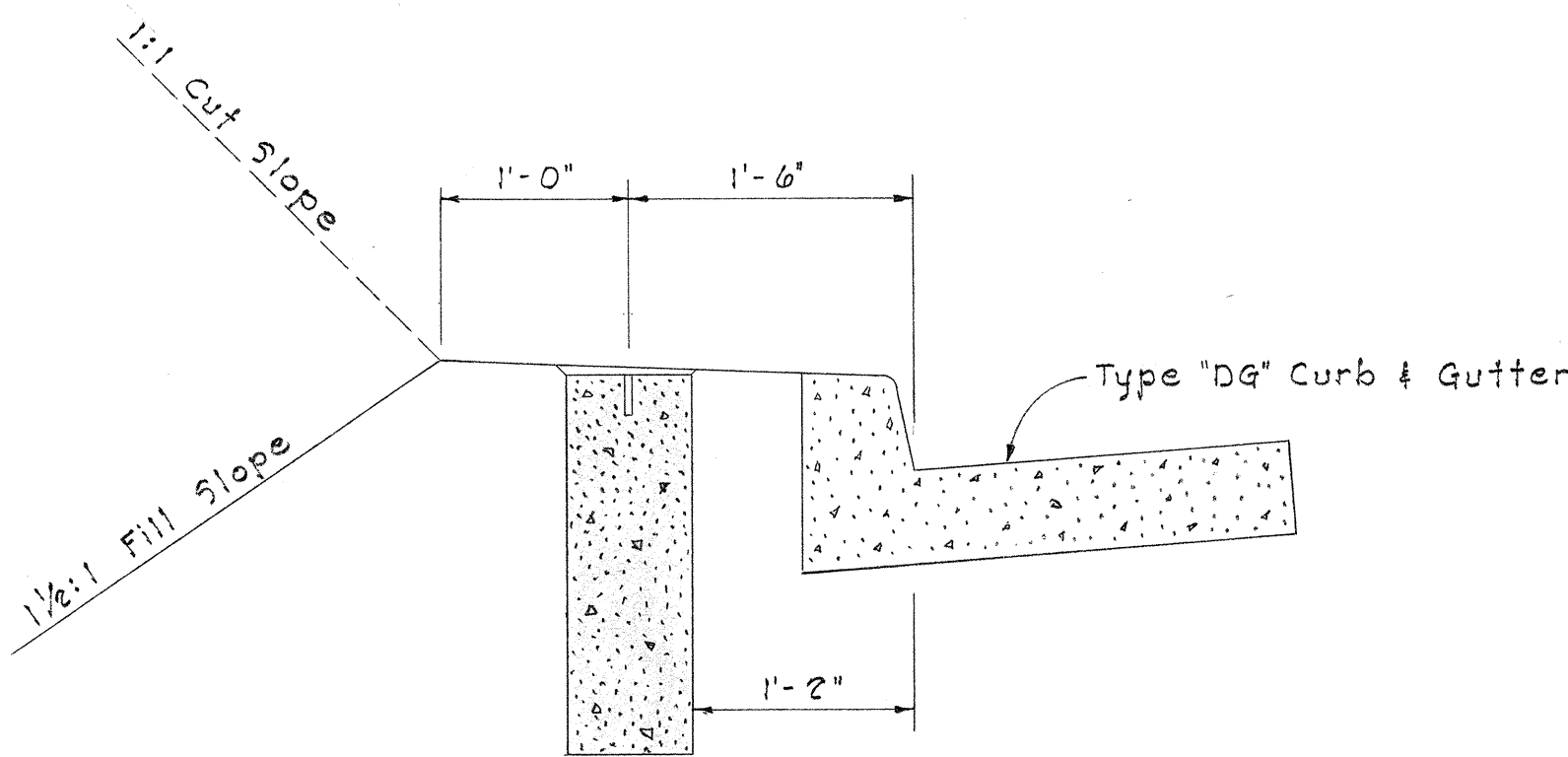
SHEET No. OF SHEETS

LIST OF CENTERLINE AND
REFERENCE SURVEY MONUMENTS

LOCATION				No. OF MONUMENTS
ROAD	STATION	OFFSET FROM BASELINE TO REF. MON.		
		LEFT	RIGHT	
Ⓔ - PC	56+98.50	77.50'	77.50'	3
Ⓔ - PT	65+71.93	87.00'	65.50'	3
Ⓔ - POT	75+00	65.50'	65.50'	3
Ⓔ - POT	82+50 82+50	65.50'	65.50'	3
Ⓔ - POT	89+00	65.50'	65.50'	3
Ⓔ - POT	99+00	53.50'	65.50'	3



DETAIL FOR CENTERLINE AND
REFERENCE SURVEY MONUMENTS
Scale: 1" = 1'-0"



TYPICAL SECTION OF
REFERENCE SURVEY MONUMENT
Scale: 1" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LIST OF MONUMENTS

LUNALILO FREEWAY
SCALE: AS SHOWN
PROJ. NO. I-H-1(4):24
DATE: APRIL, 1963.

SHEET No. OF SHEETS