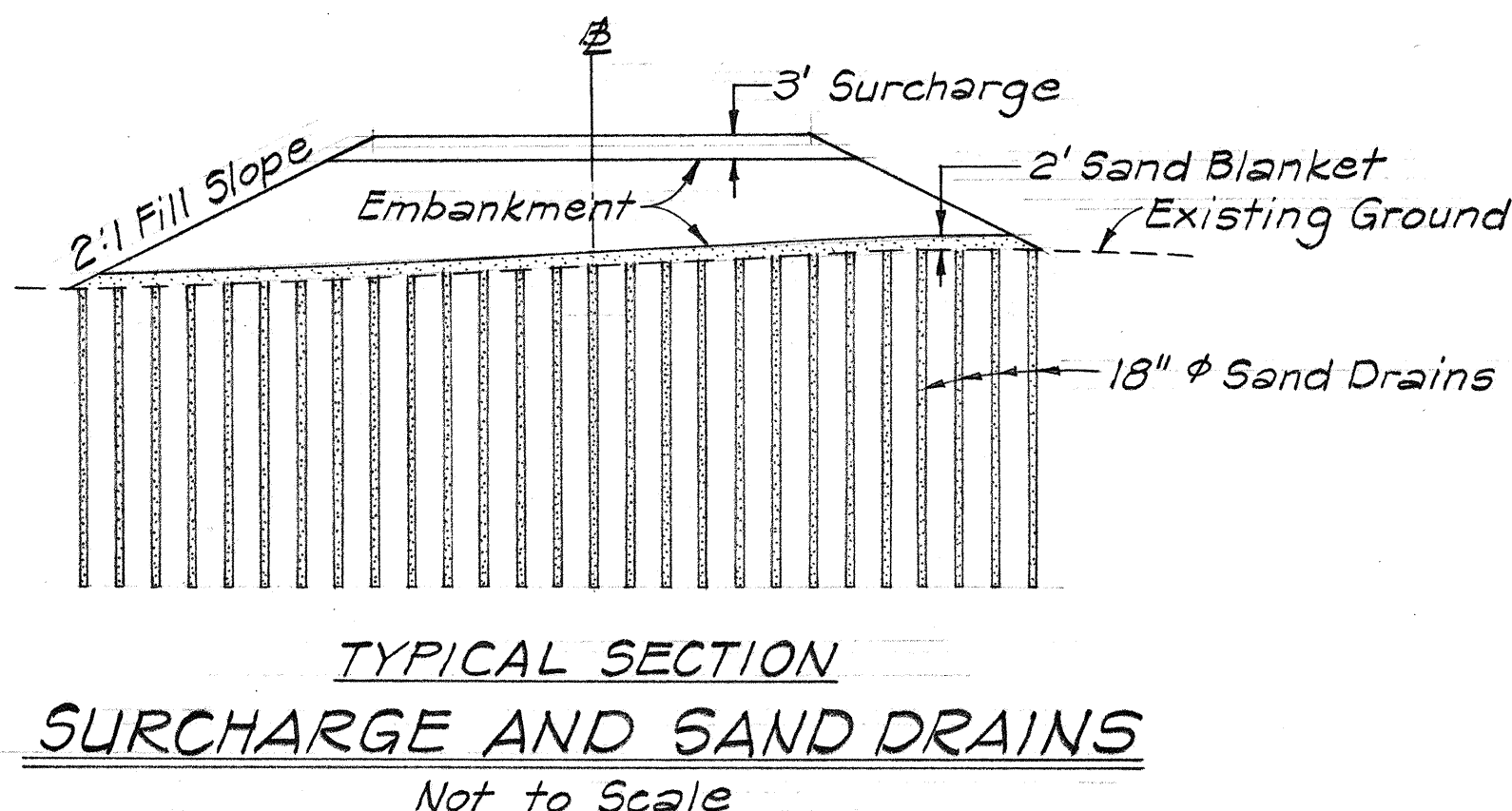
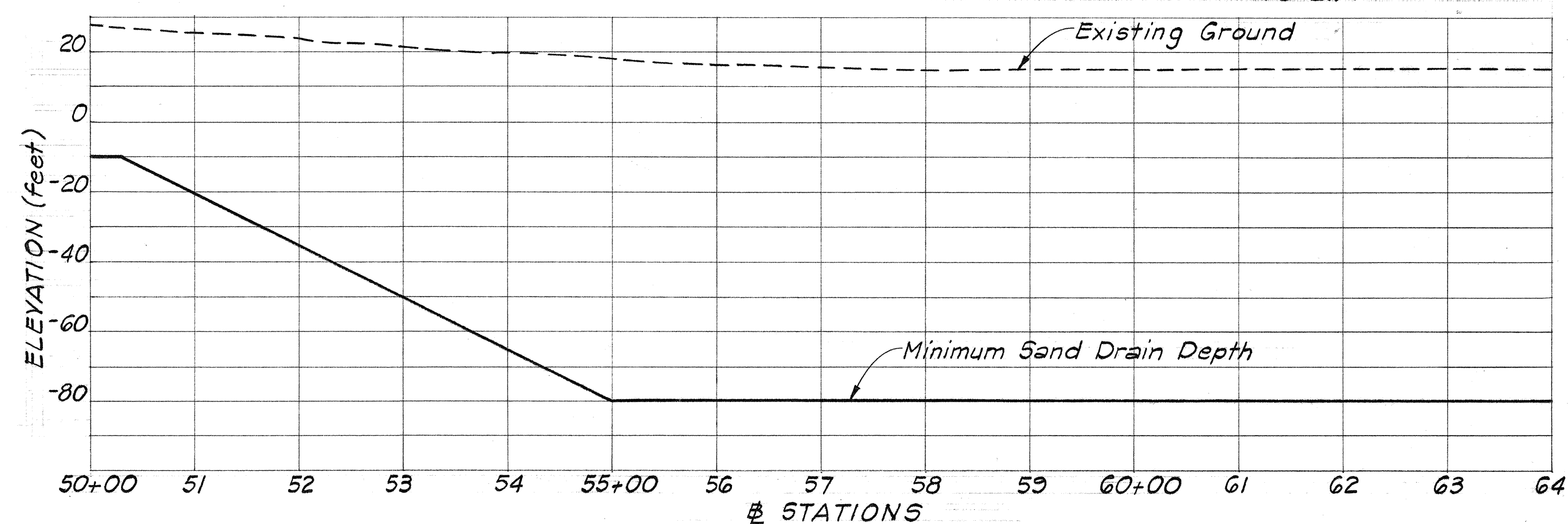
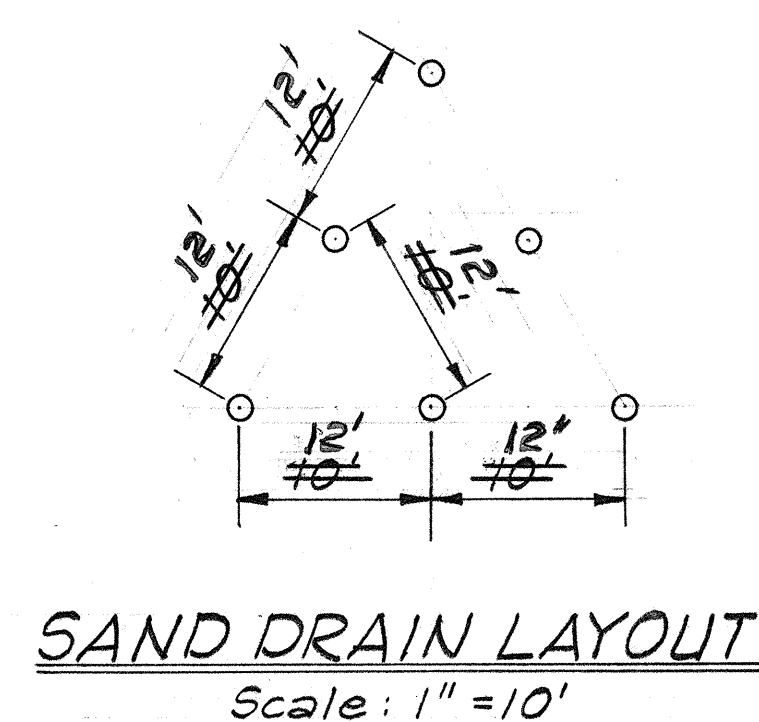
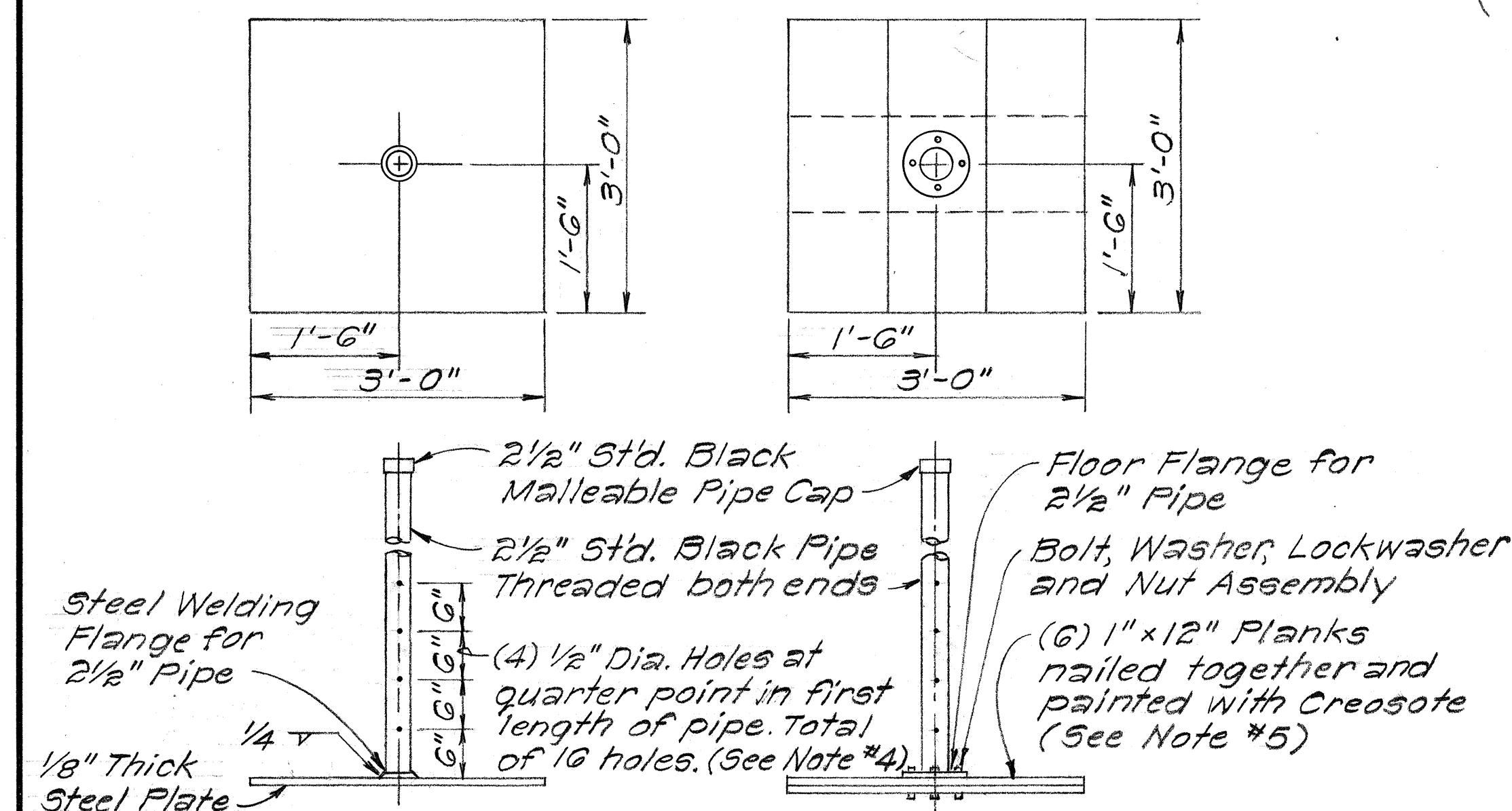
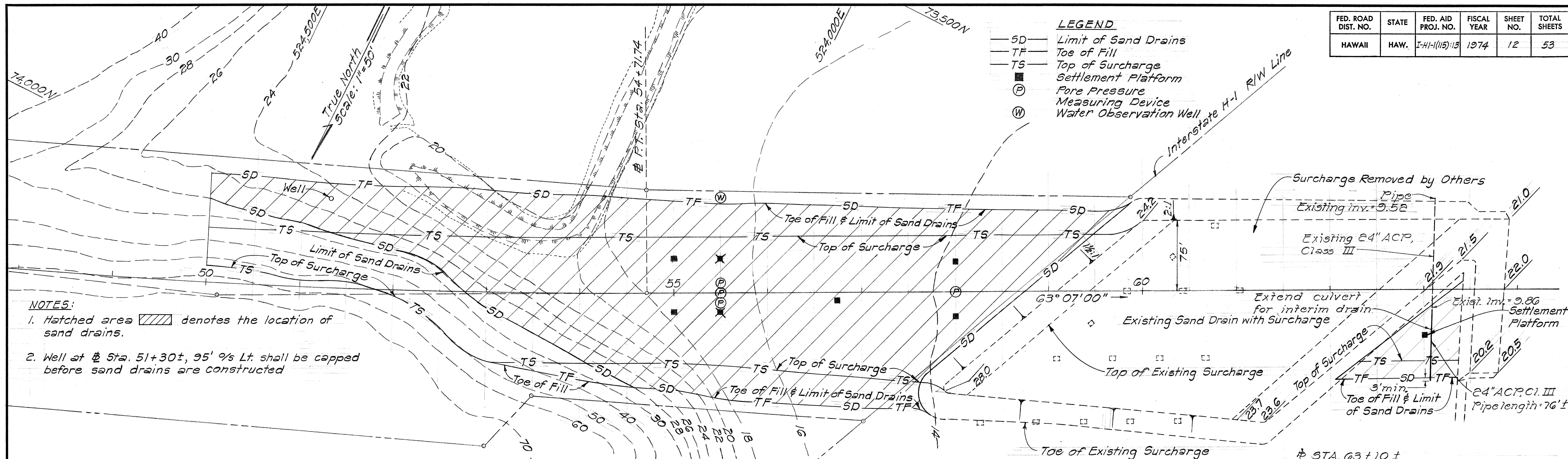


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(115):13	1974	12	53



- GENERAL NOTES:**
- The use of either the steel or wood base settlement platforms shall be the Contractor's option.
 - Contractor to furnish material and labor to extend pipe up through fill.
 - All vertical pipes of settlement platforms shall be accurately and consecutively numbered in one foot intervals measured from the bottom of the settlement platform base. The numbering and graduations shall be marked on the vertical pipe in durable yellow paint by the Contractor immediately after each section of pipe is added.
 - Holes to be drilled in first length of pipe if specified.
 - Sound lumber must be used for the wood base platform.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

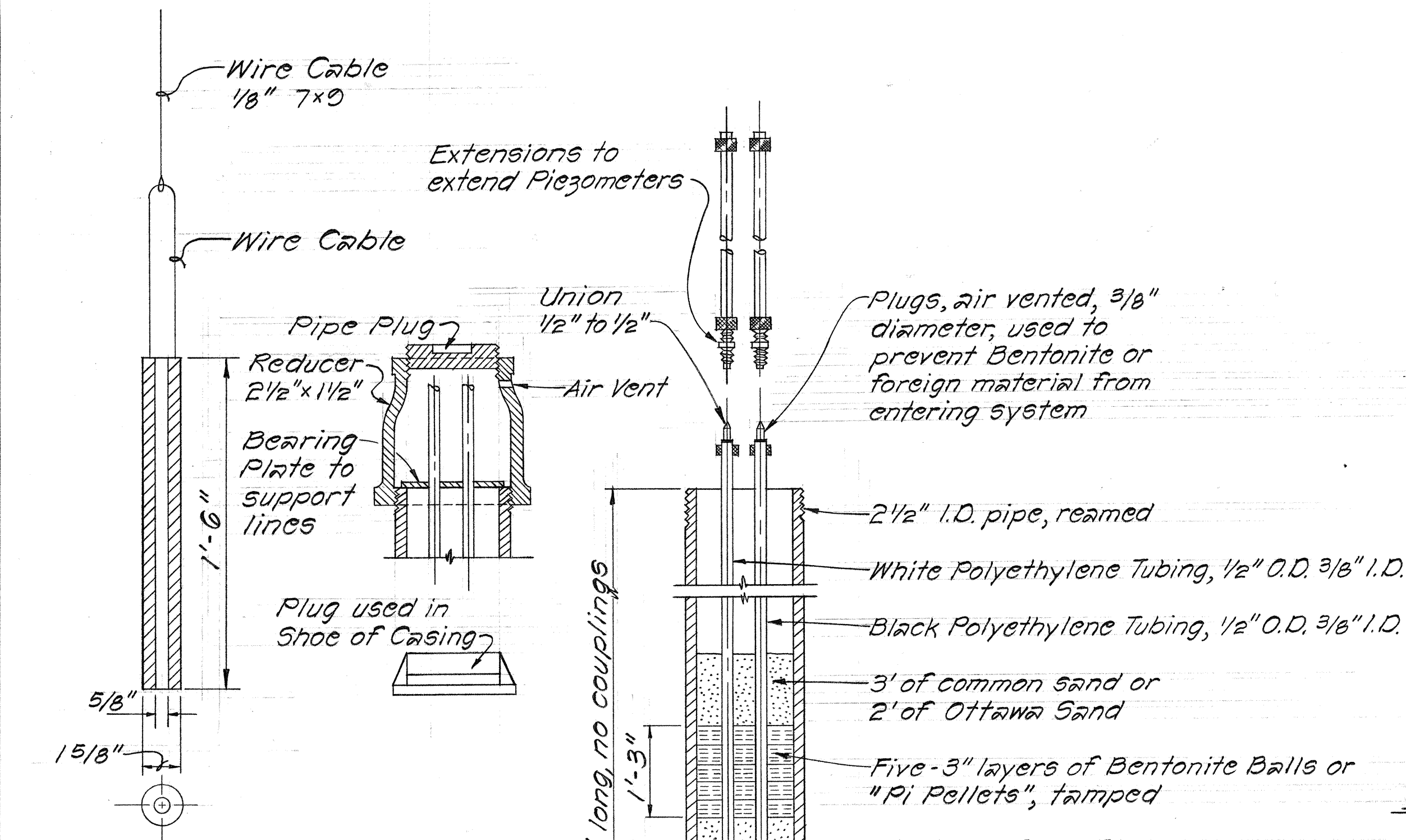
SAND DRAINS - SURCHARGE

INTERSTATE ROUTE H-1
Halawa Heights Road
F.A.I. Proj. No. I-HI-1(115):13

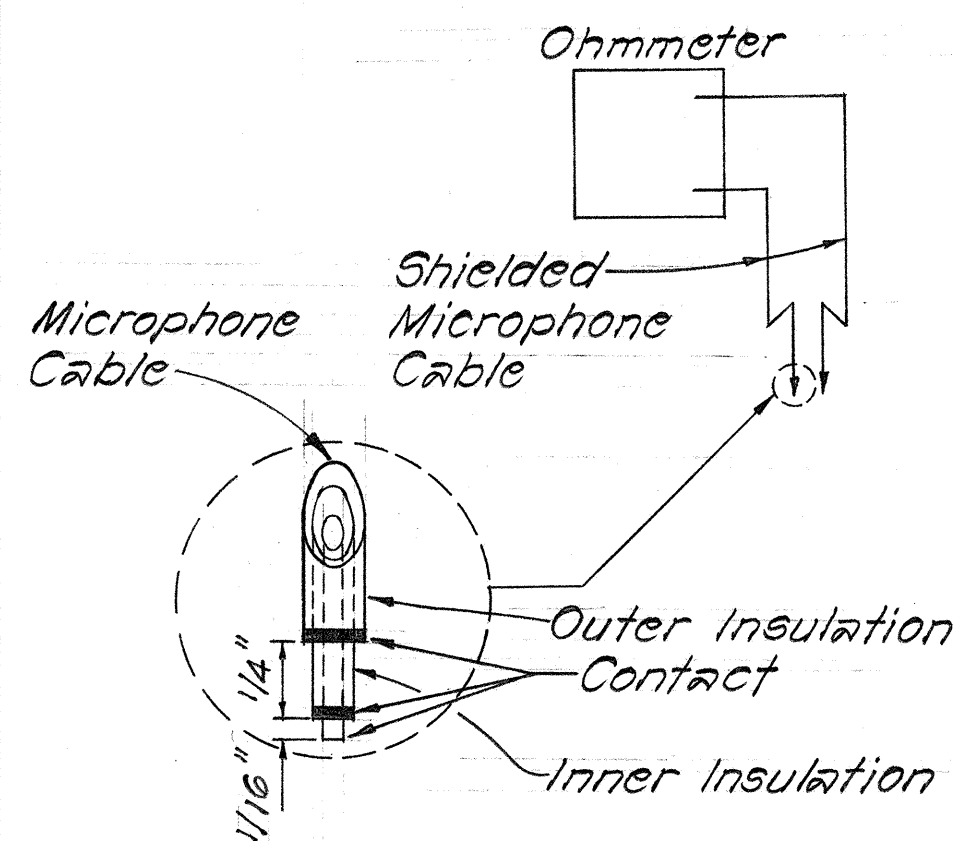
Scale: As Shown Date: Nov., 1973
SHEET No. 12 OF 14 SHEETS

DATE	
DESIGNED 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(115)13	1974	13	53

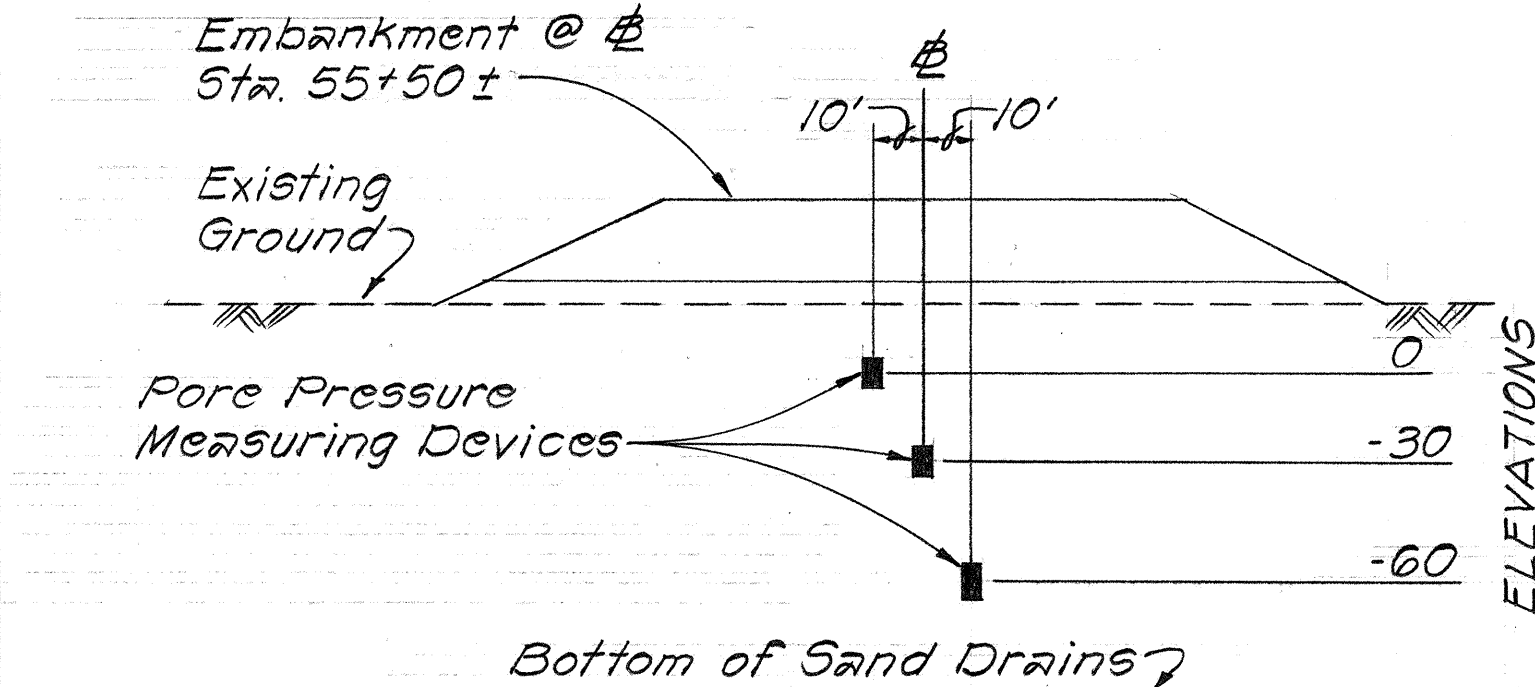


TAMPING HAMMER

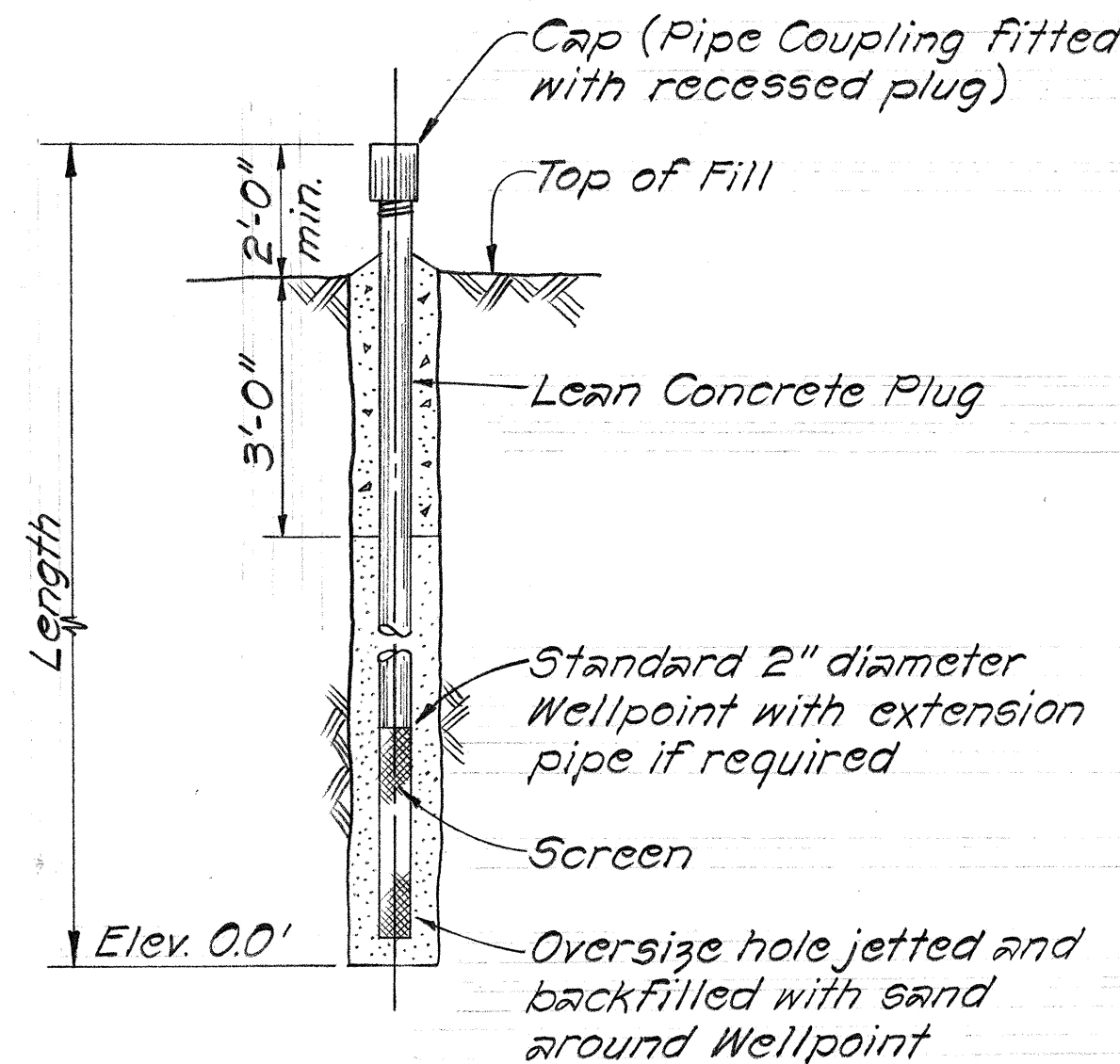


CONTACT POINT

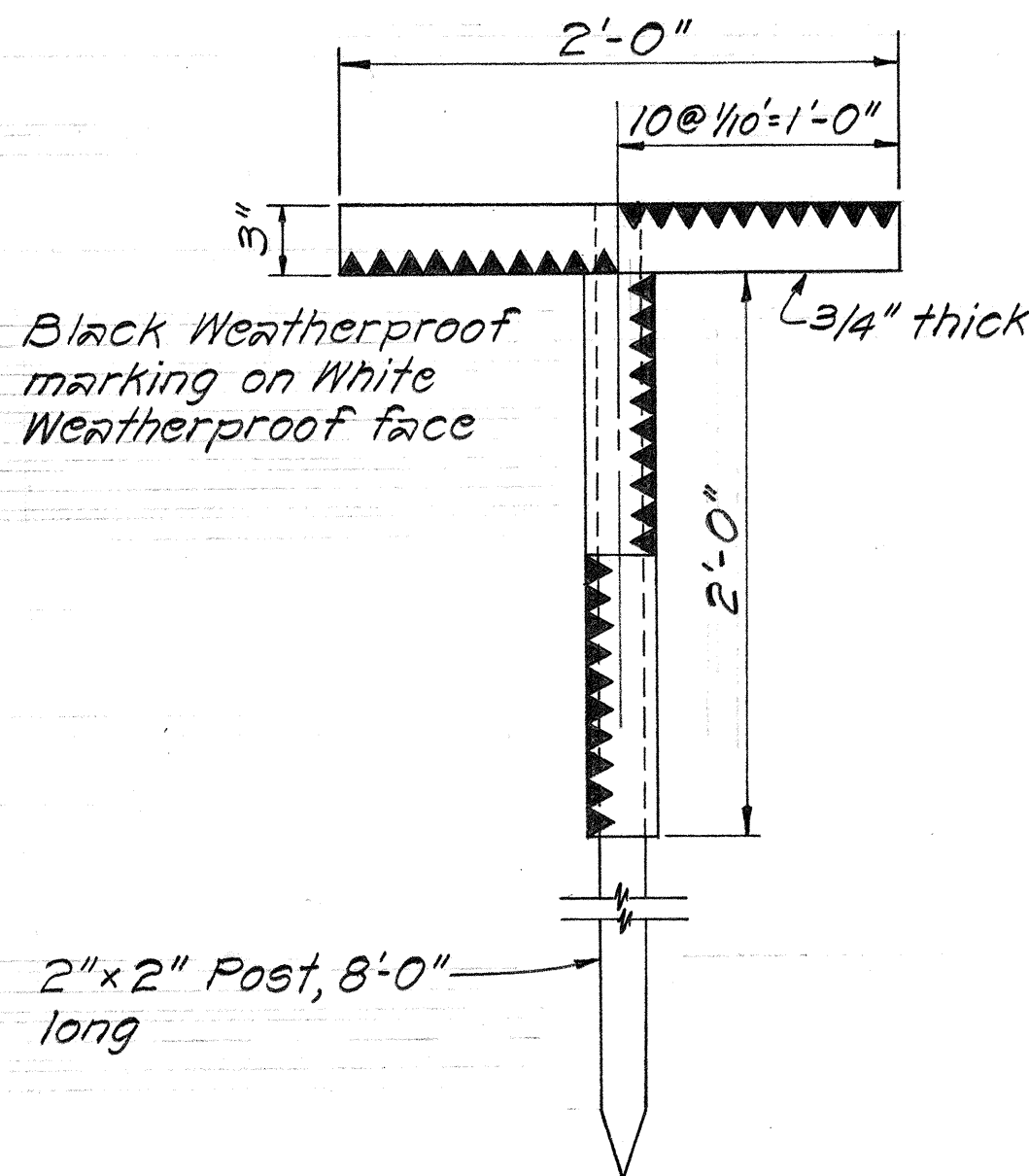
PORE PRESSURE MEASURING DEVICE DETAIL
Not to Scale



TYPICAL PORE PRESSURE MEASURING DEVICE INSTALLATION
Not to Scale



GROUND WATER OBSERVATION WELL DETAIL
Not to Scale



CONTROL STAKE DETAIL
Not to Scale

STA.	QUANTITY	OFFSET
55+00	2	38' Lt, 20' Rt.
56+75	1	8' Rt.
58+00	2	31' Lt, 27' Rt.
63+00	1	49' Rt.

STA.	No. of STAKES
54+00	4
55+00	4
56+00	4
57+00	4
58+00	4
TOTAL	20

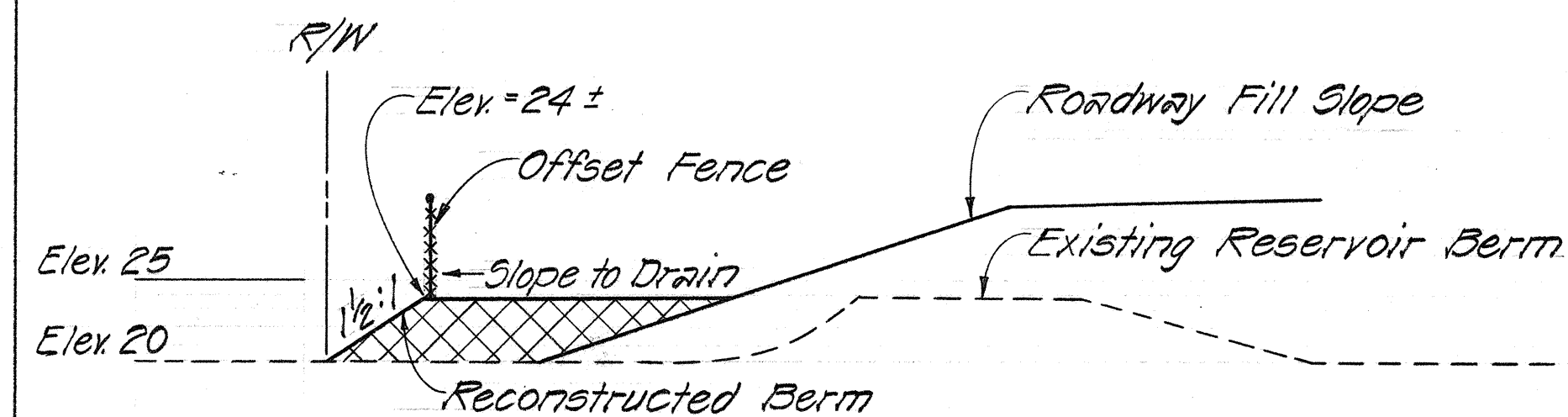
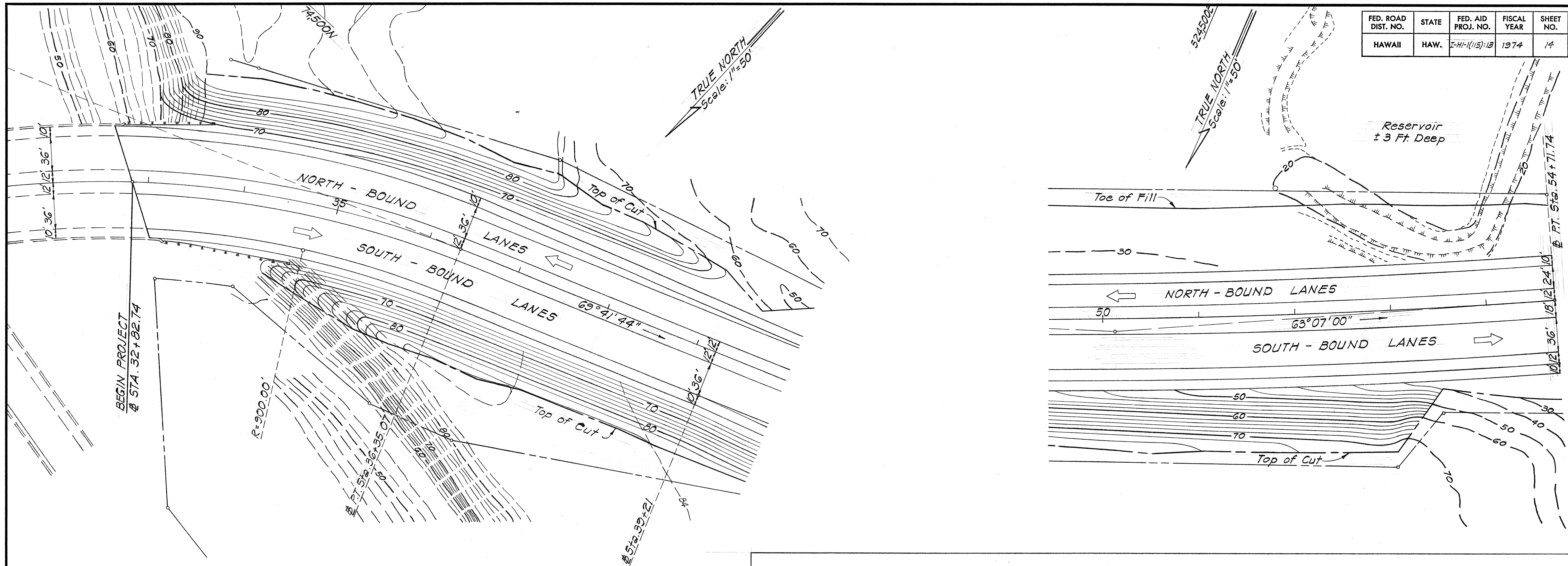
STA.	QUANTITY	OFFSET
55+50 ±	3	0, 10' Lt, 10' Rt.
58+00 ±	1	0

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SOIL STABILIZATION DETAILS
INTERSTATE ROUTE H-1
Halawa Heights Road
F.A.I. Proj. No. I-H-1(115)13
Scale: Not to Scale Date: Dec., 1973
SHEET No. 2 OF 14 SHEETS

DATE	_____
SURVEY PLATTED BY	_____
DRAWN BY	_____
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-HI-1(115):13	1974	14	53



SECTION "A-A" (SHEET NO. 5)
TYPICAL RESERVOIR RECONSTRUCTION
 Scale: 1"=10'-0"

NOTES:

1. Reconstruct reservoir berm with material as directed by the Engineer.
2. Offset fence to top of reservoir berm.
3. Cost of reservoir reconstruction shall be incidental to Roadway Excavation.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

**CONTOUR GRADING PLAN AND
 RESERVOIR RECONSTRUCTION DETAIL**

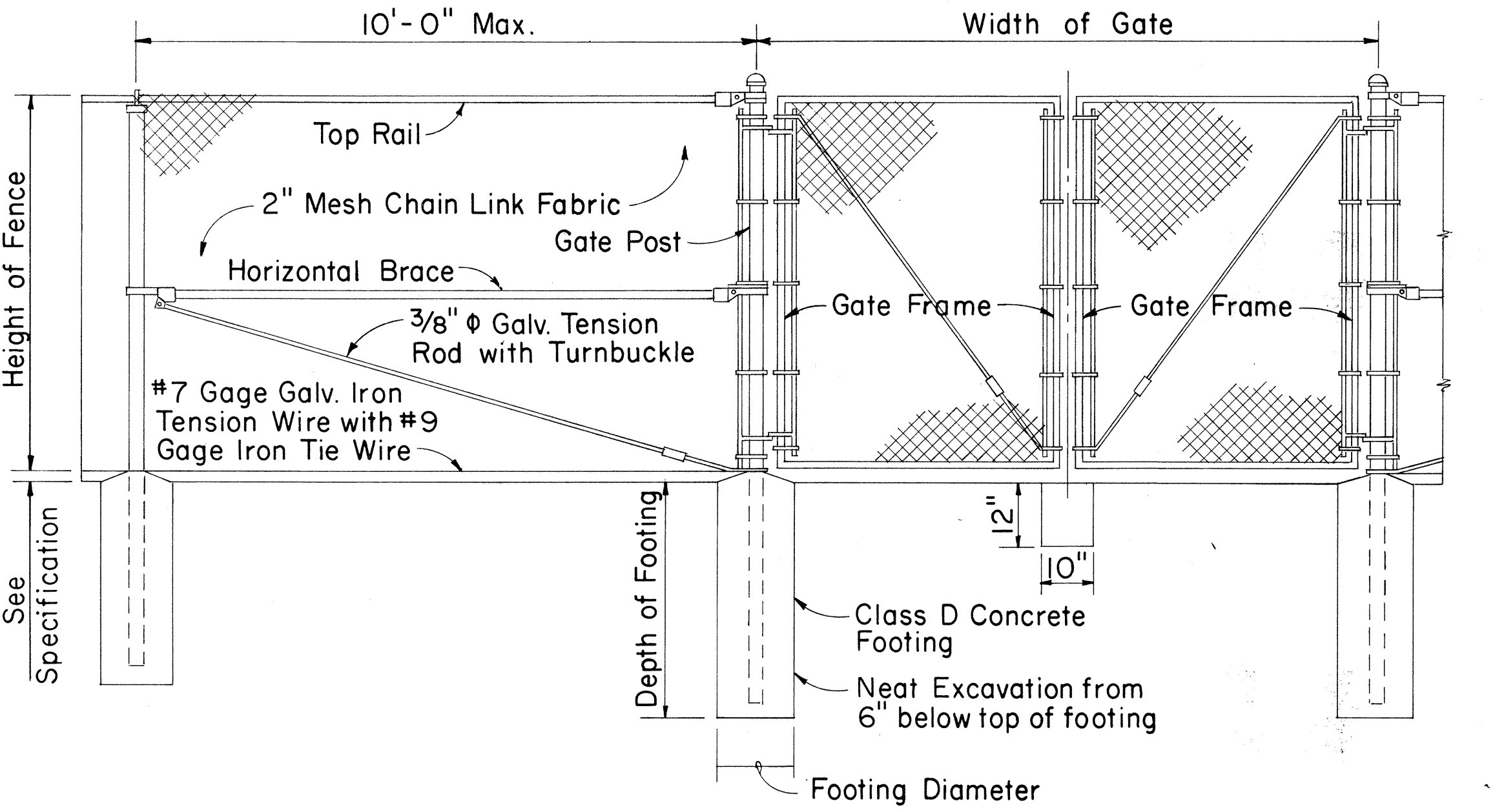
INTERSTATE ROUTE H-1
 Halawa Heights Road
 F.A.I. Proj. No. I-HI-1(115):13

Scale: 1"=50' Date: Dec., 1973

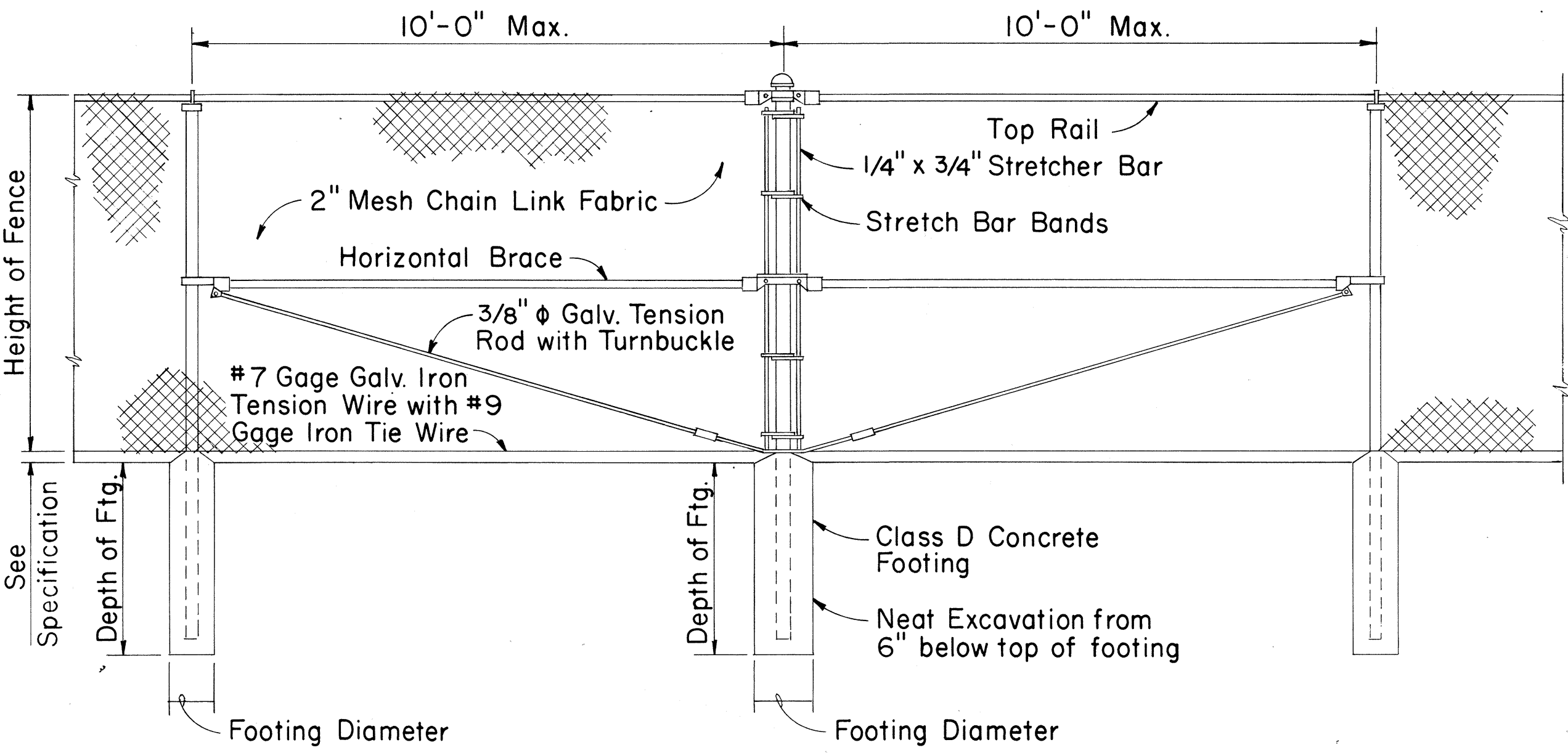
SHEET No. 3 OF 14 SHEETS

ORIGINAL PLAN	DATE
DRAWN BY	
CHECKED BY	
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
No.	

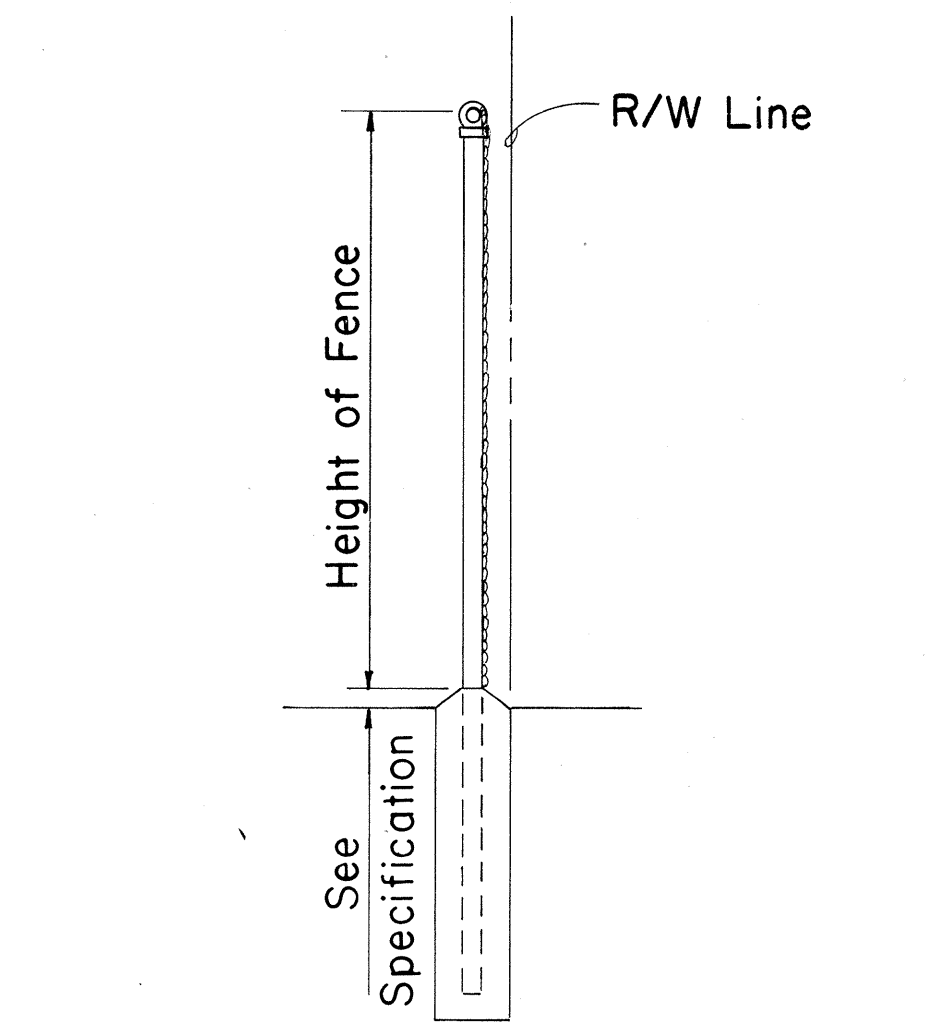
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HA-11(19)13	1974	15	53



LINE POST GATE POST GATE POST



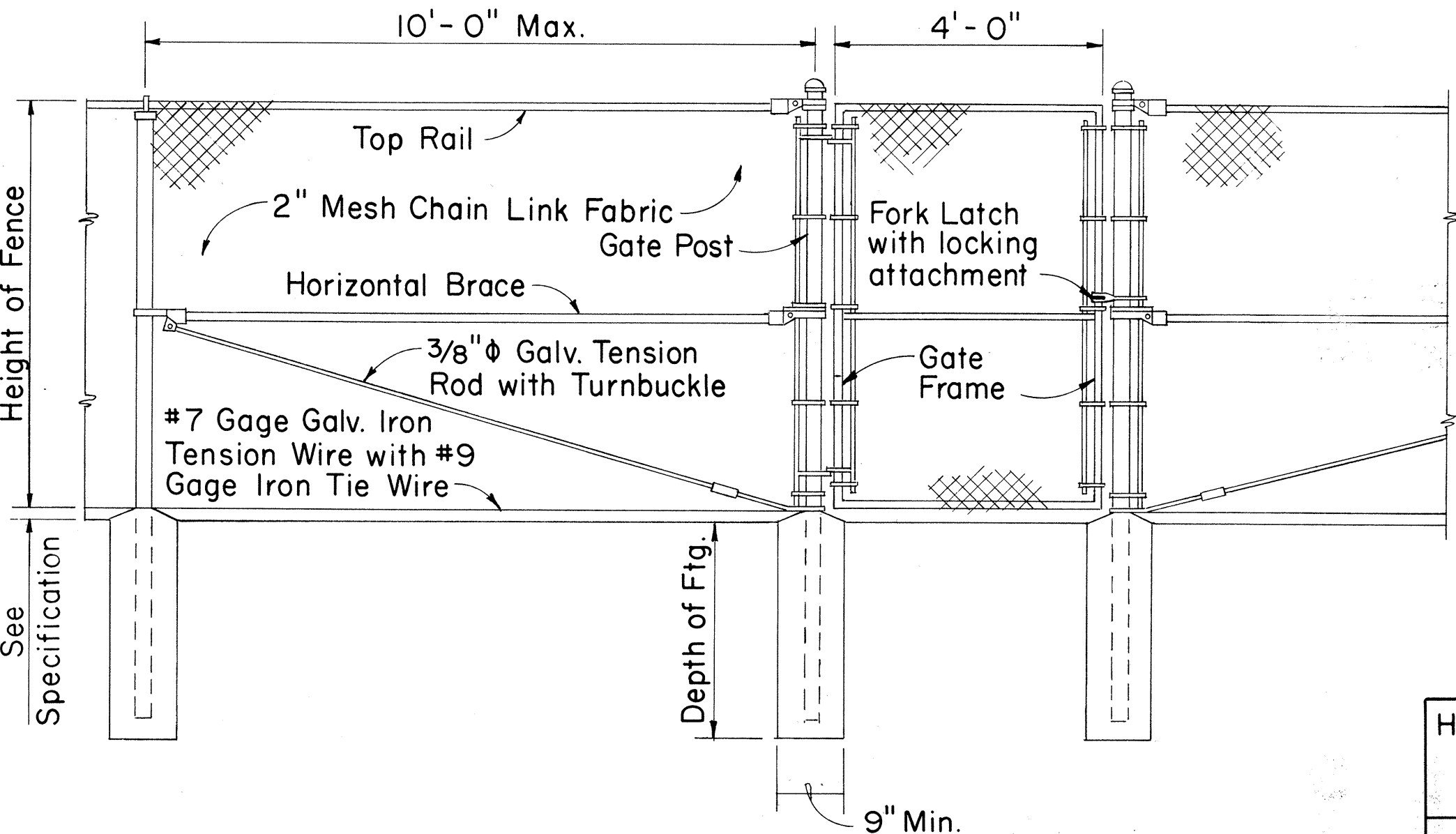
LINE POST PULL POST LINE POST



TYPICAL SECTION
(WITH CONCRETE FOOTING)

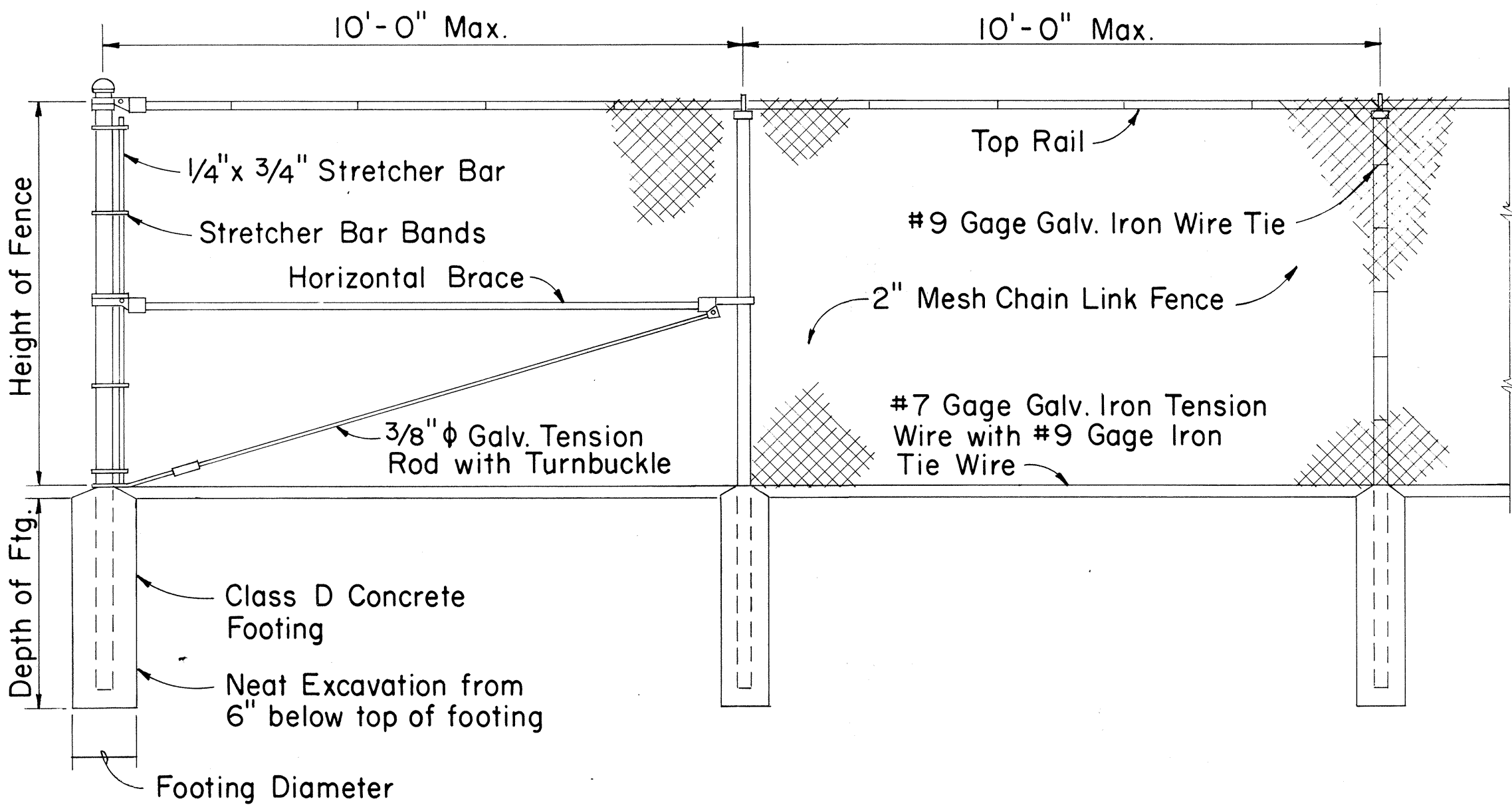
DETAIL OF CHAIN LINK GATE

- NOTE: 1. Gate fork latch and lock, flush plate and anchor, and plunger shall be installed with Gates, and shall be considered as incidental to Chain Link Fence Gate.
2. Gate frames shall be mitered and welded at corners.
3. Fence detail not shown shall be in accordance with the Standard Specifications.

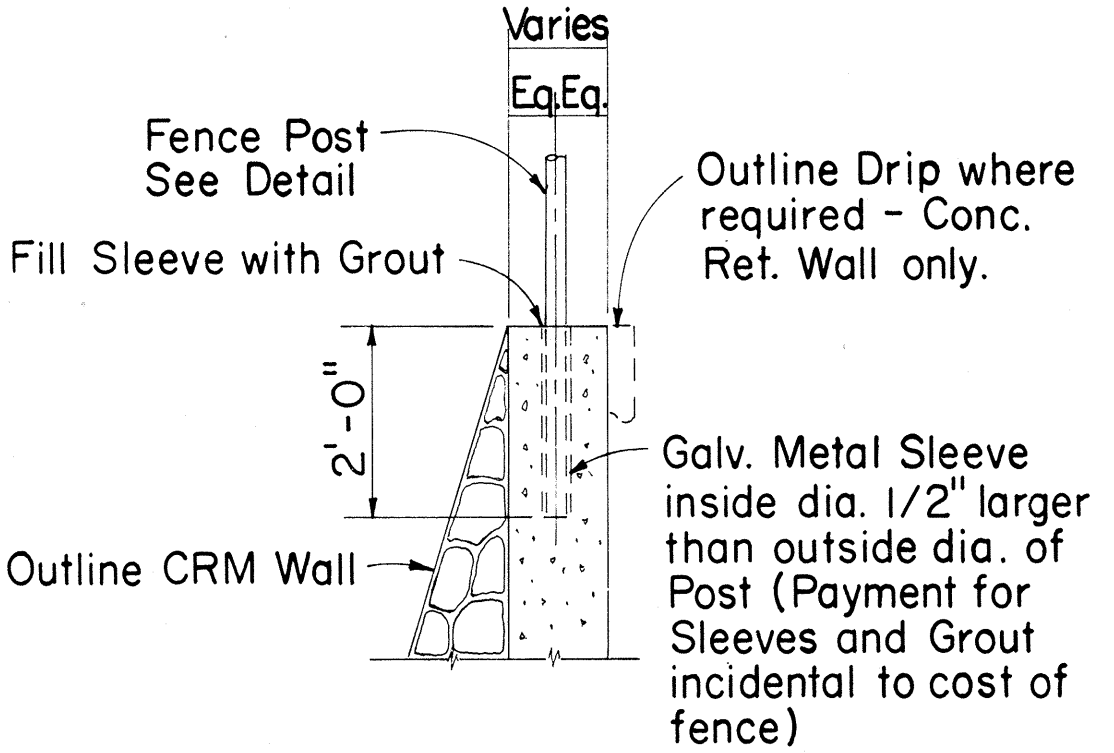


LINE POST GATE POST GATE POST

DETAIL OF 4 FT. CHAIN LINK GATE



END POST LINE POST LINE POST



TYPICAL SECTION
(ON CRM & CONC. RET. WALL)

CHAIN LINK FENCE DETAILS

Height of Fence	Minimum Depth of Footing		Minimum Footing Diameter	
	Line Post	Corner, Pull, End and Gate Posts	Line Post	Corner, Pull and End Posts
3'	2'-0"	2'-6"	8"	8"
4'	2'-6"	2'-6"	8"	8"
5'	3'-0"	3'-0"	8"	8"
6'	3'-0"	3'-0"	8"	9"

APPROVAL, RECOMMENDED: *[Signature]* 12-4-69
HIGHWAY DESIGN ENGINEER DATE

APPROVED: *[Signature]* 12-10-69
ASSISTANT CHIEF, ENGINEERING DATE

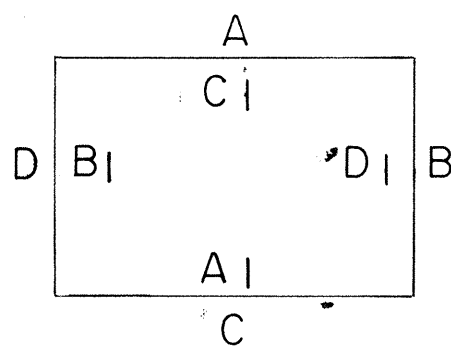
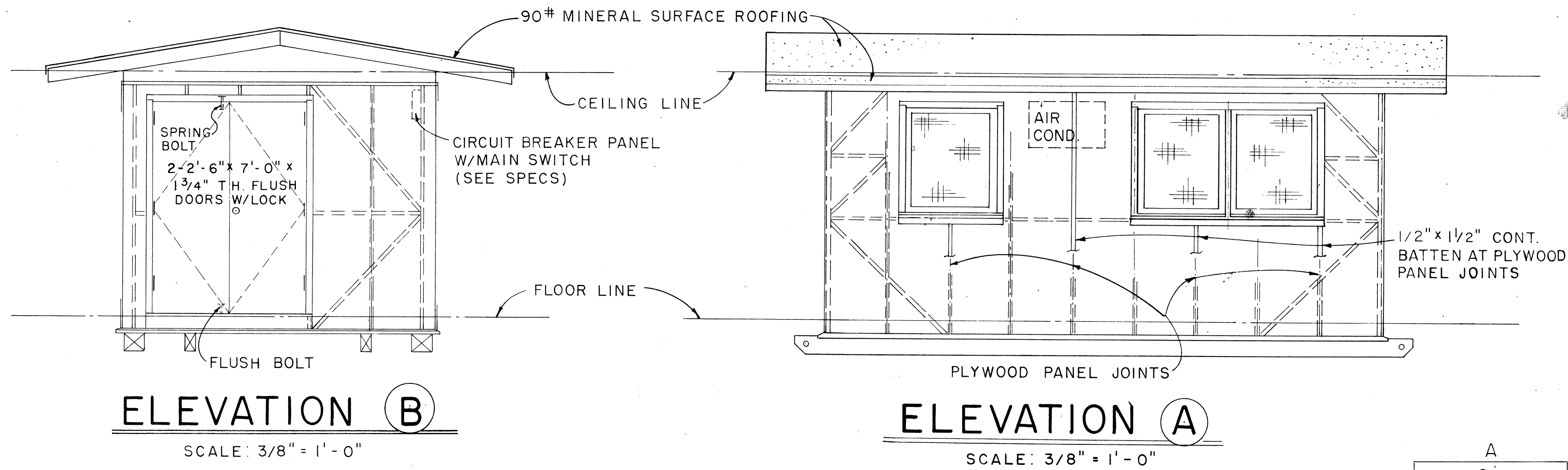
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

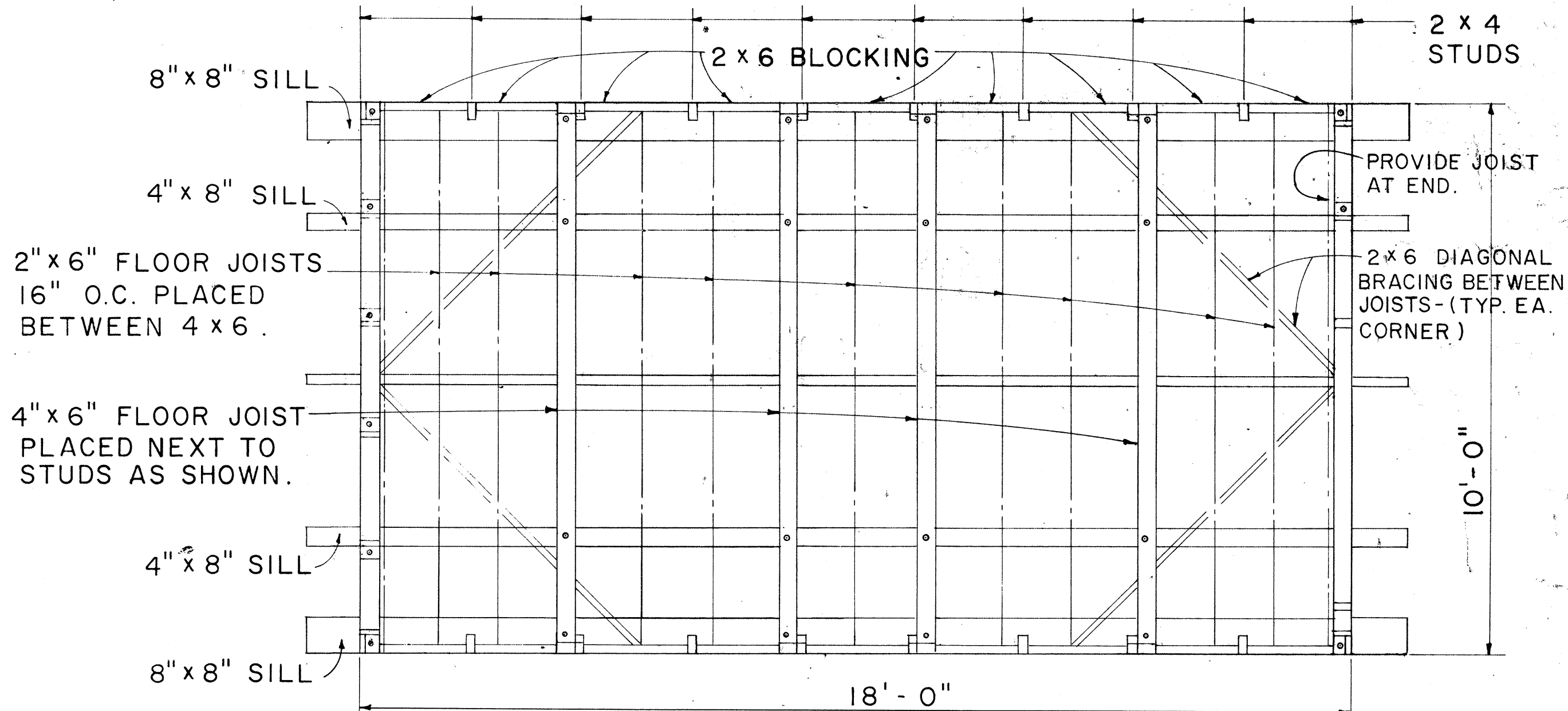
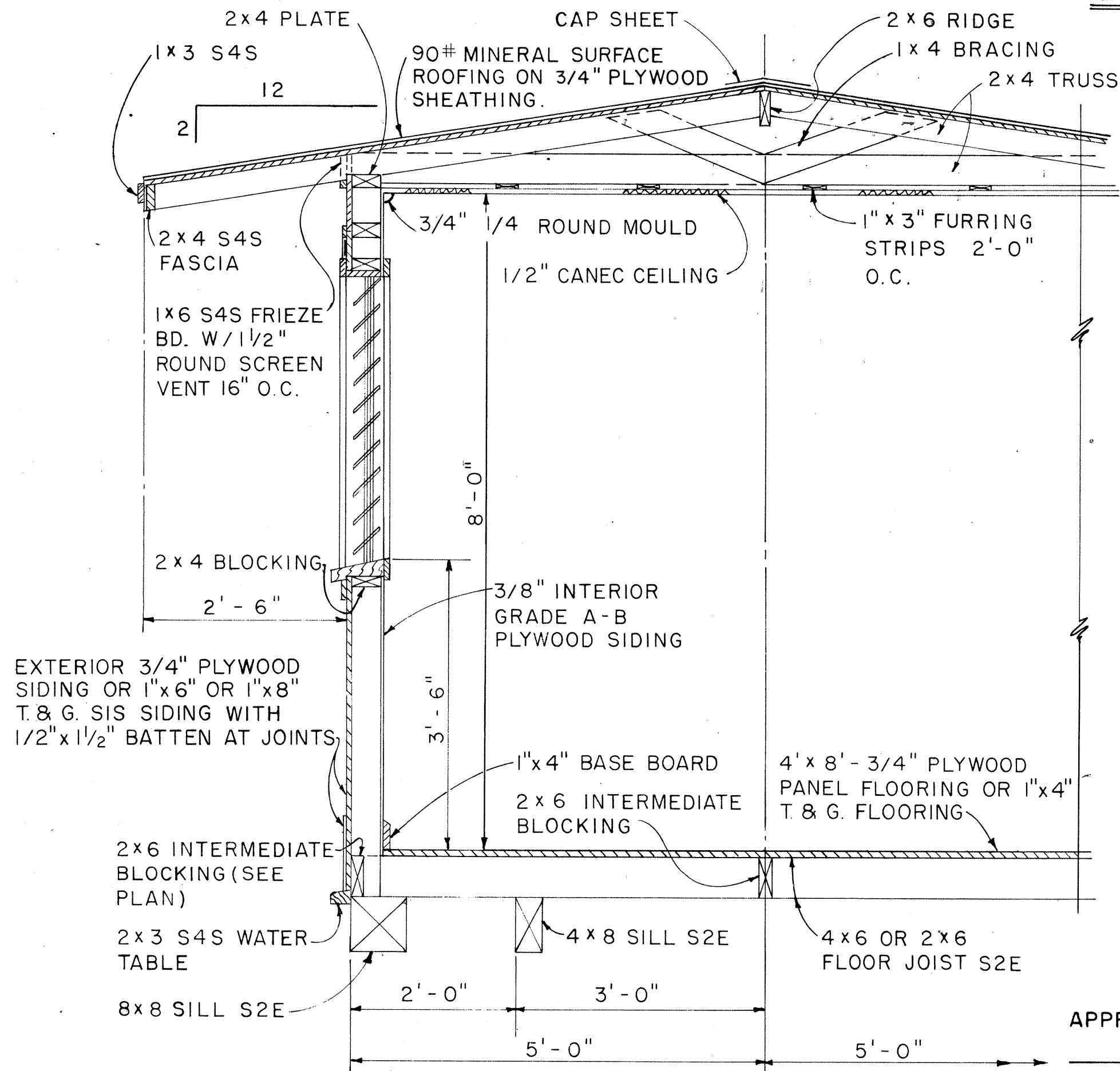
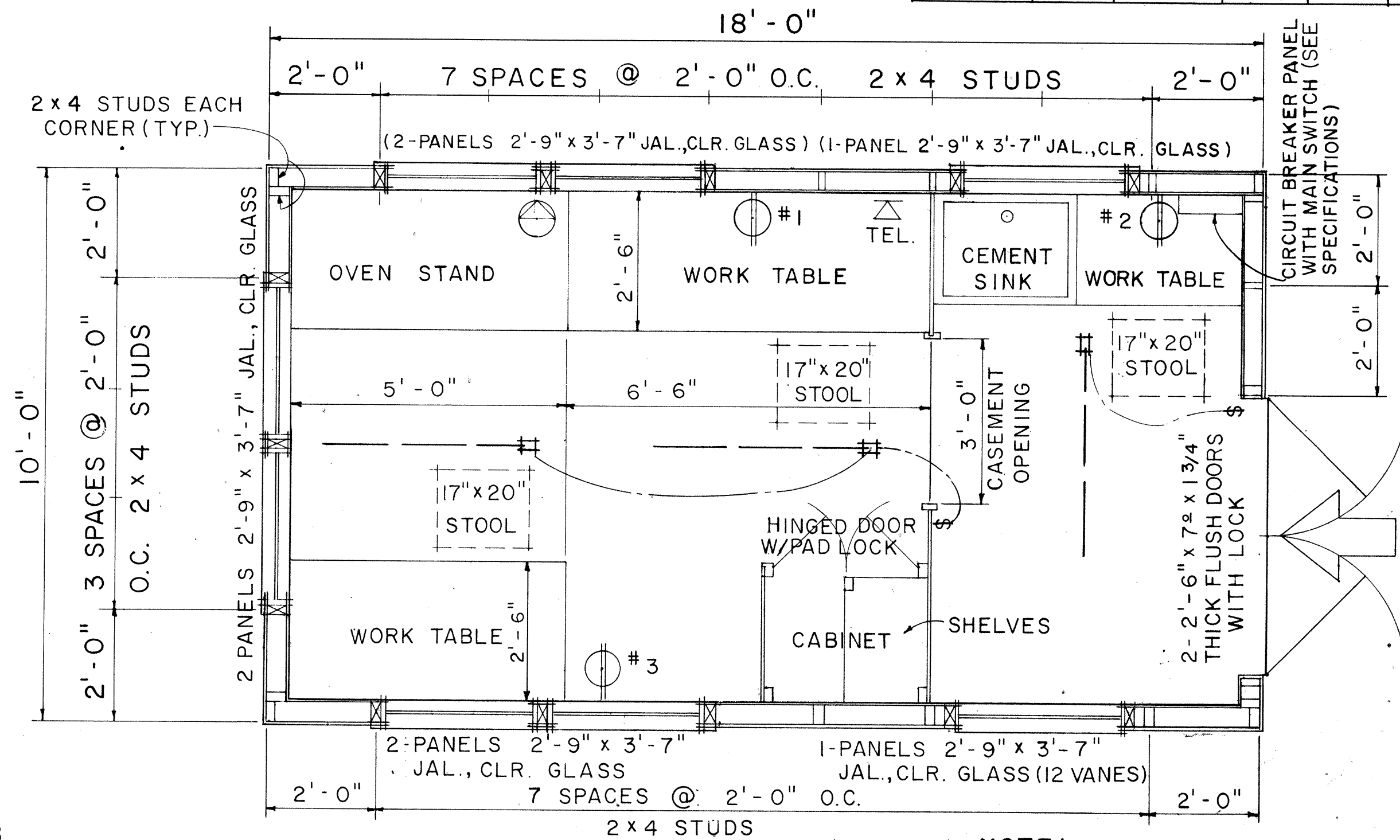
STANDARD DETAILS
CHAIN LINK FENCE
(WITH TOPRAIL)

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-1(115)13	1974	18	53



EXTERIOR & INTERIOR KEY



NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT SITE LABORATORY

Scale: As Noted

NOTE:
ALL 3/4" PLYWOOD SHALL BE EXTERIOR GRADE A-C OR BETTER.

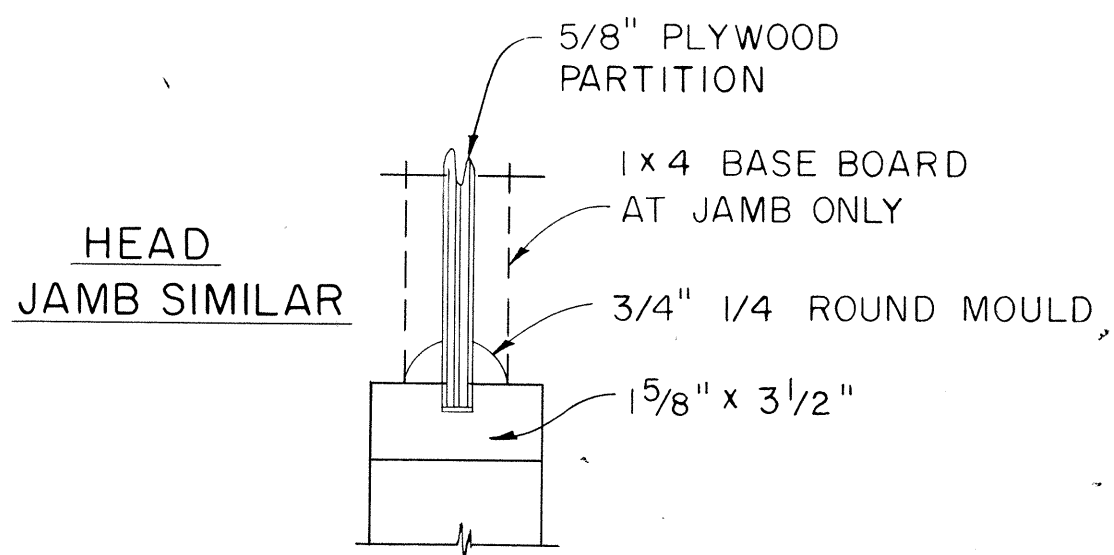
APPROVAL RECOMMENDED:

 HIGHWAY DESIGN ENGINEER
 12-4-69
 DATE

APPROVED:

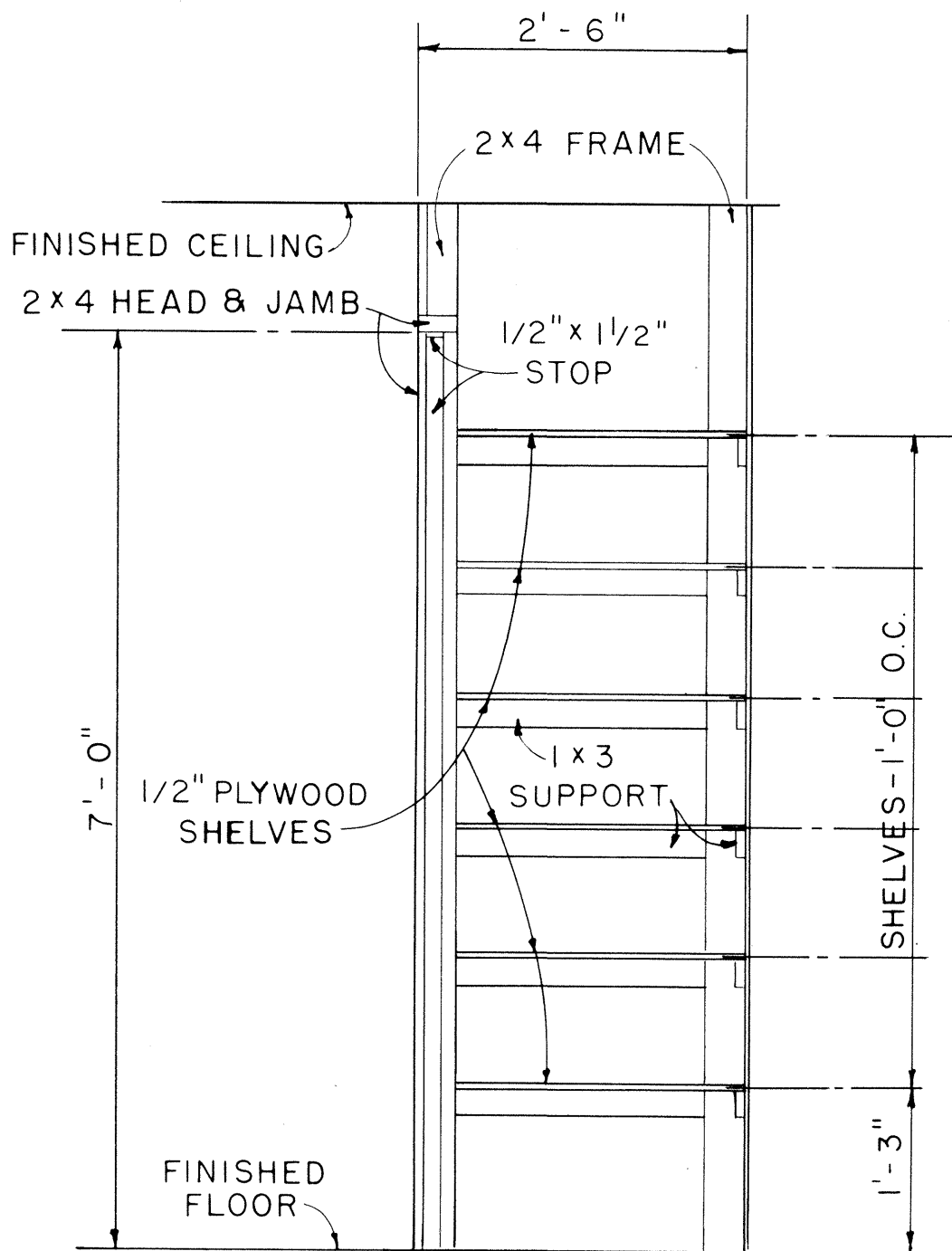
 ASSISTANT CHIEF, ENGINEERING
 12-10-69
 DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	111-115113	1974	19	53



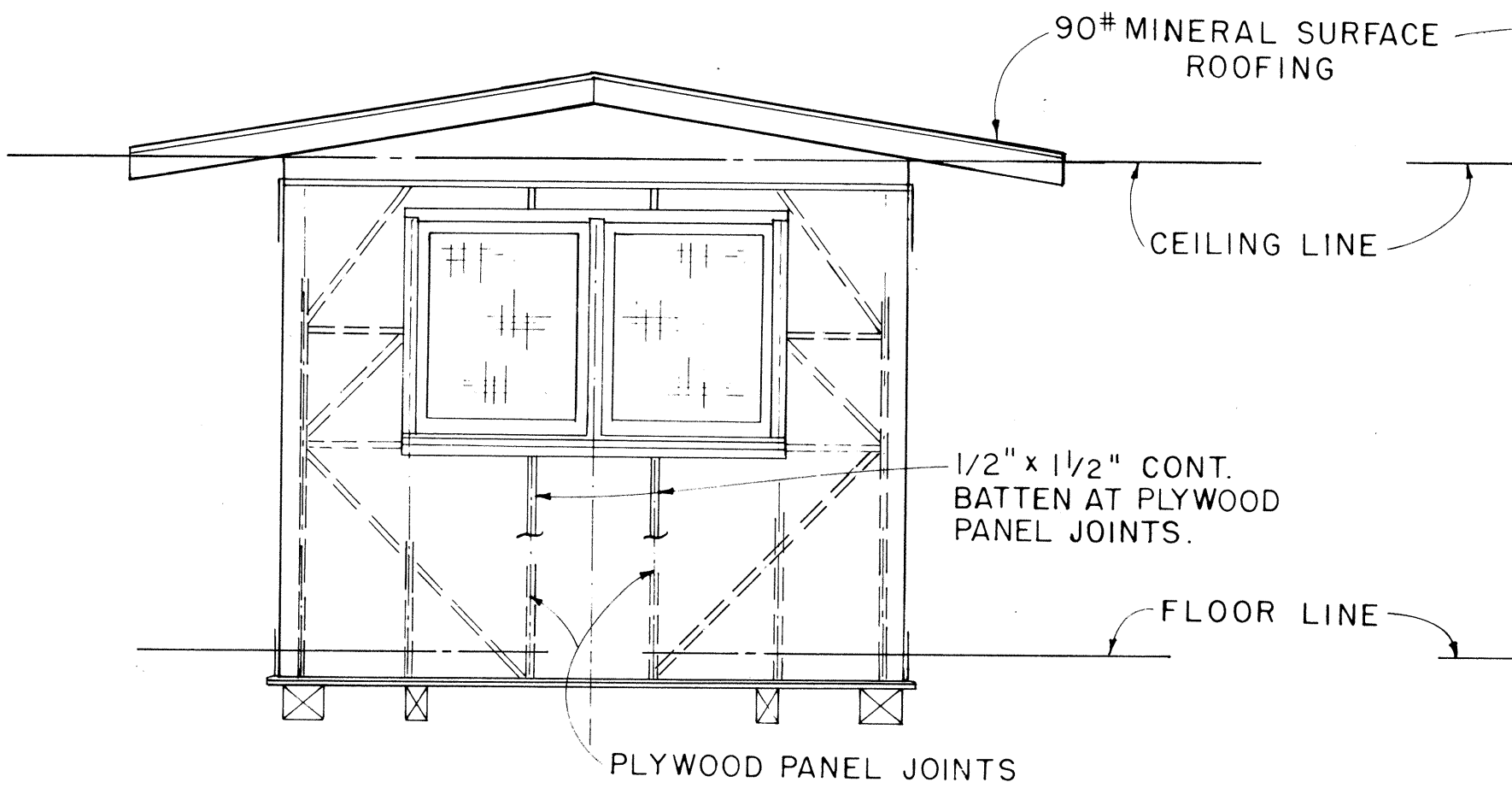
CASEMENT DETAIL

SCALE: 3" = 1'-0"



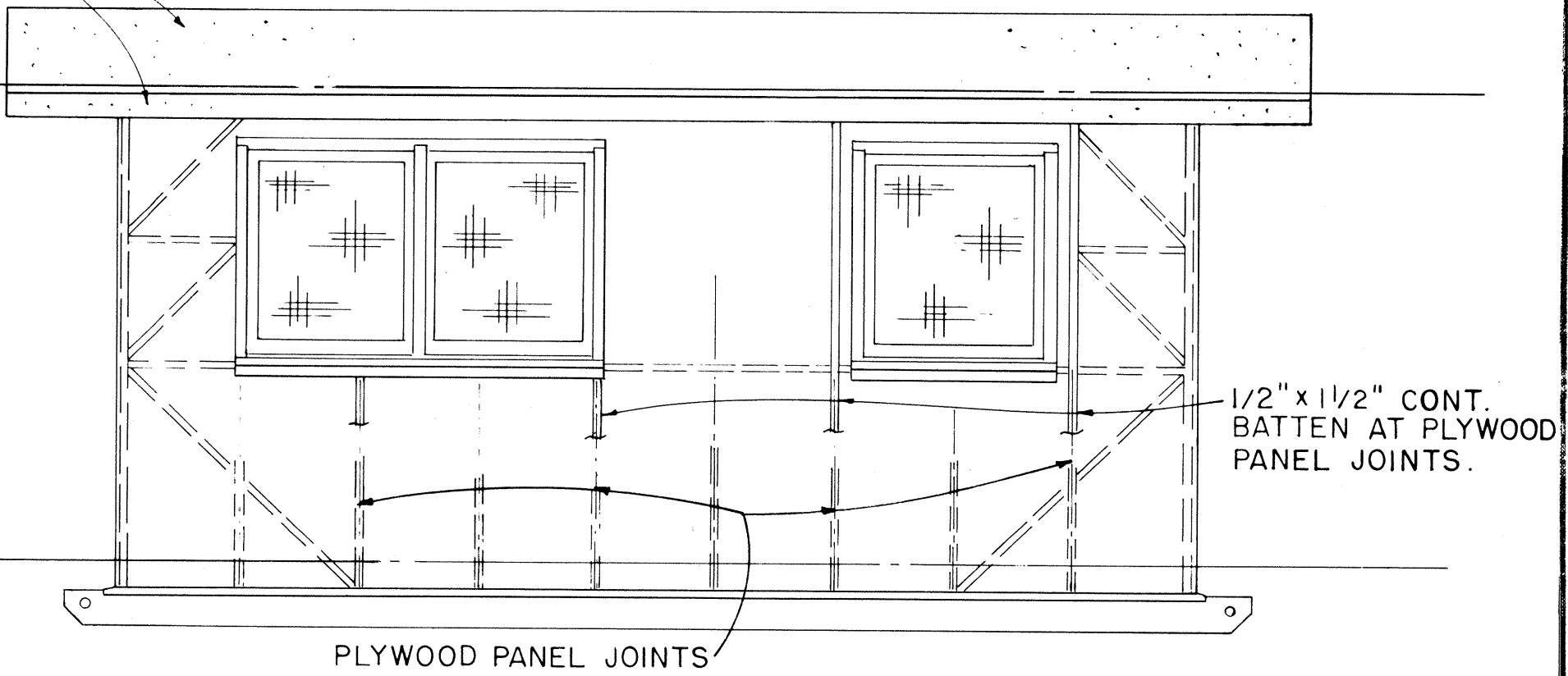
CABINET DETAIL

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



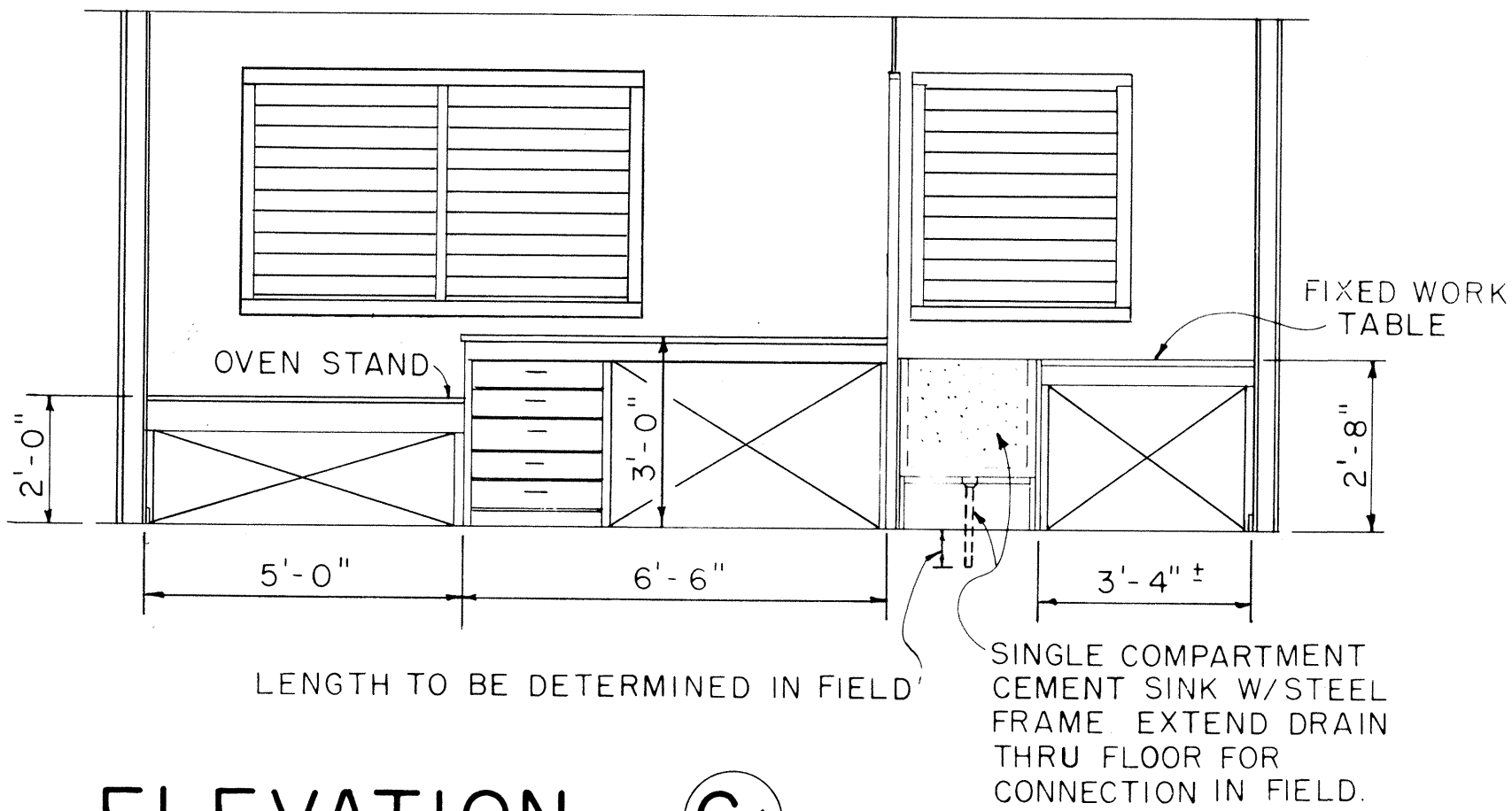
ELEVATION D

SCALE: 3/8" = 1'-0"



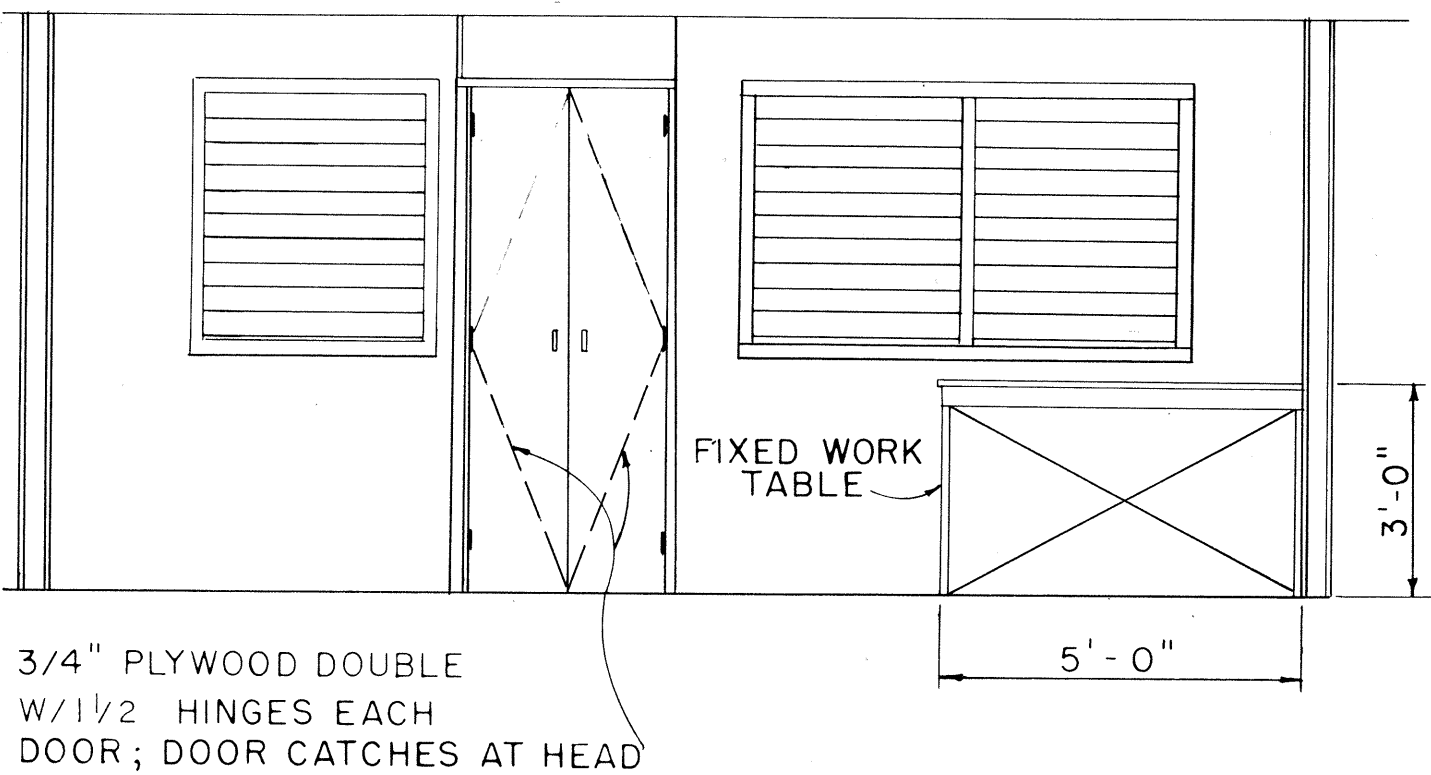
ELEVATION C

SCALE: 3/8" = 1'-0"



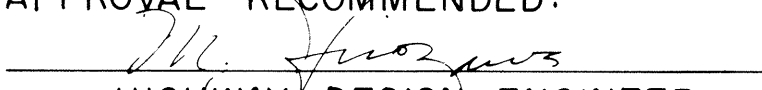
ELEVATION C1

SCALE: 3/8" = 1'-0"



ELEVATION A1

SCALE: 3/8" = 1'-0"

APPROVAL RECOMMENDED:

HIGHWAY DESIGN ENGINEER
12-4-69
DATE

APPROVED:

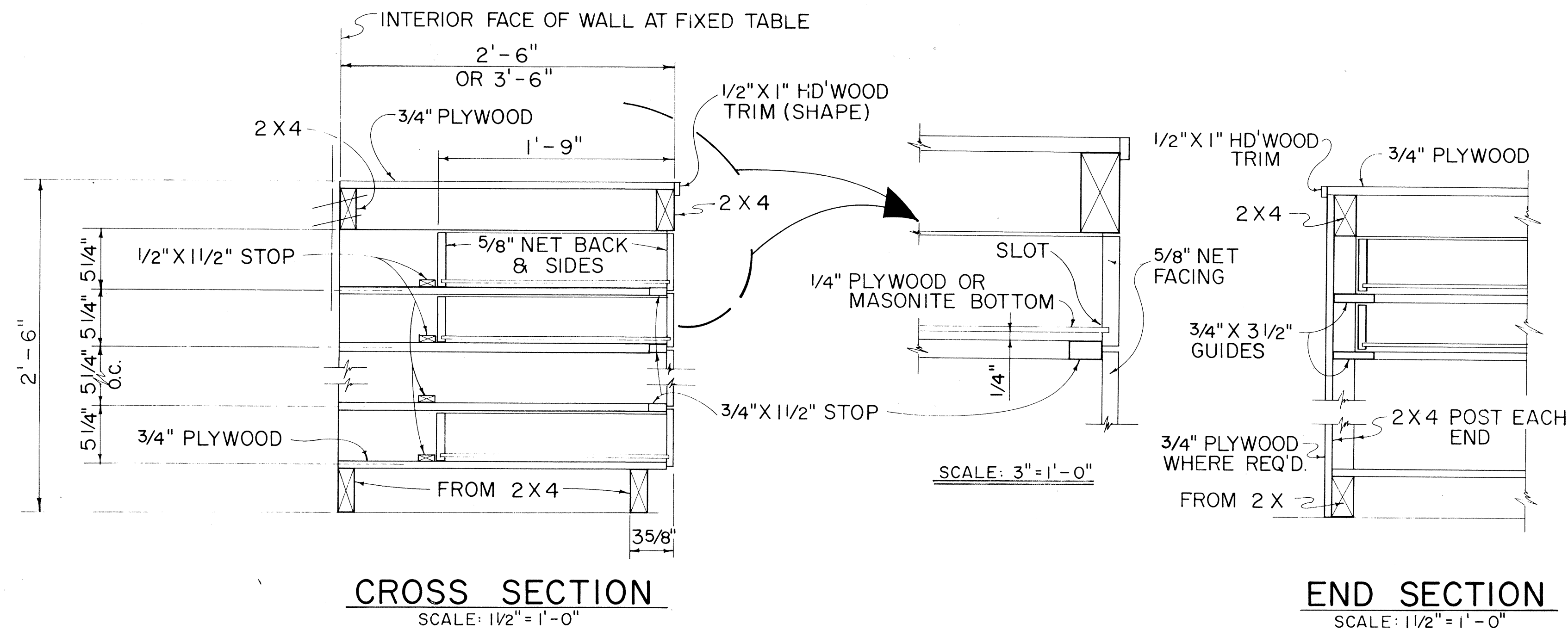
ASSISTANT CHIEF, ENGINEERING
12-10-69
DATE

NO	REVISION	APPROVED BY	DATE

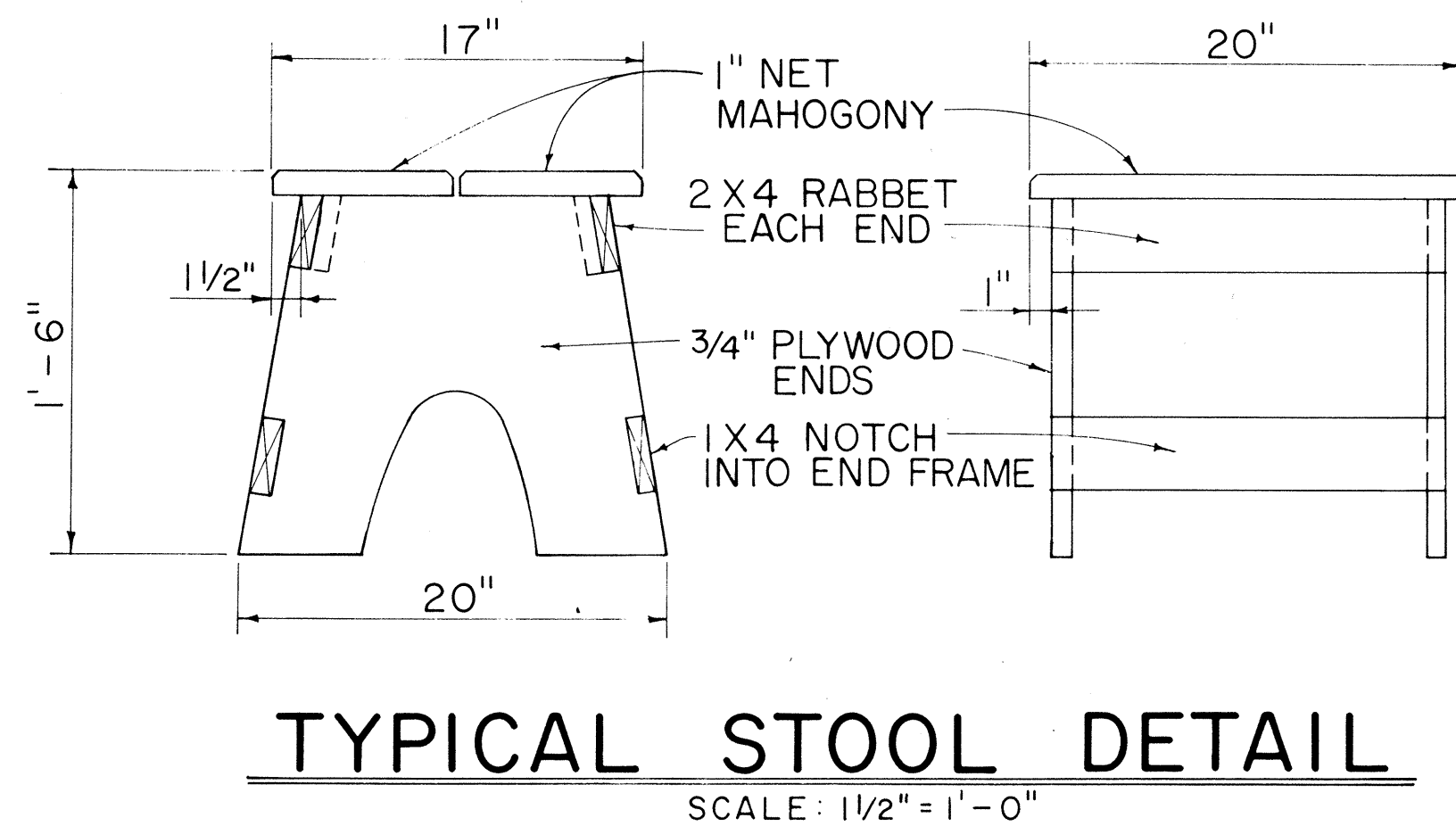
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT SITE LABORATORY

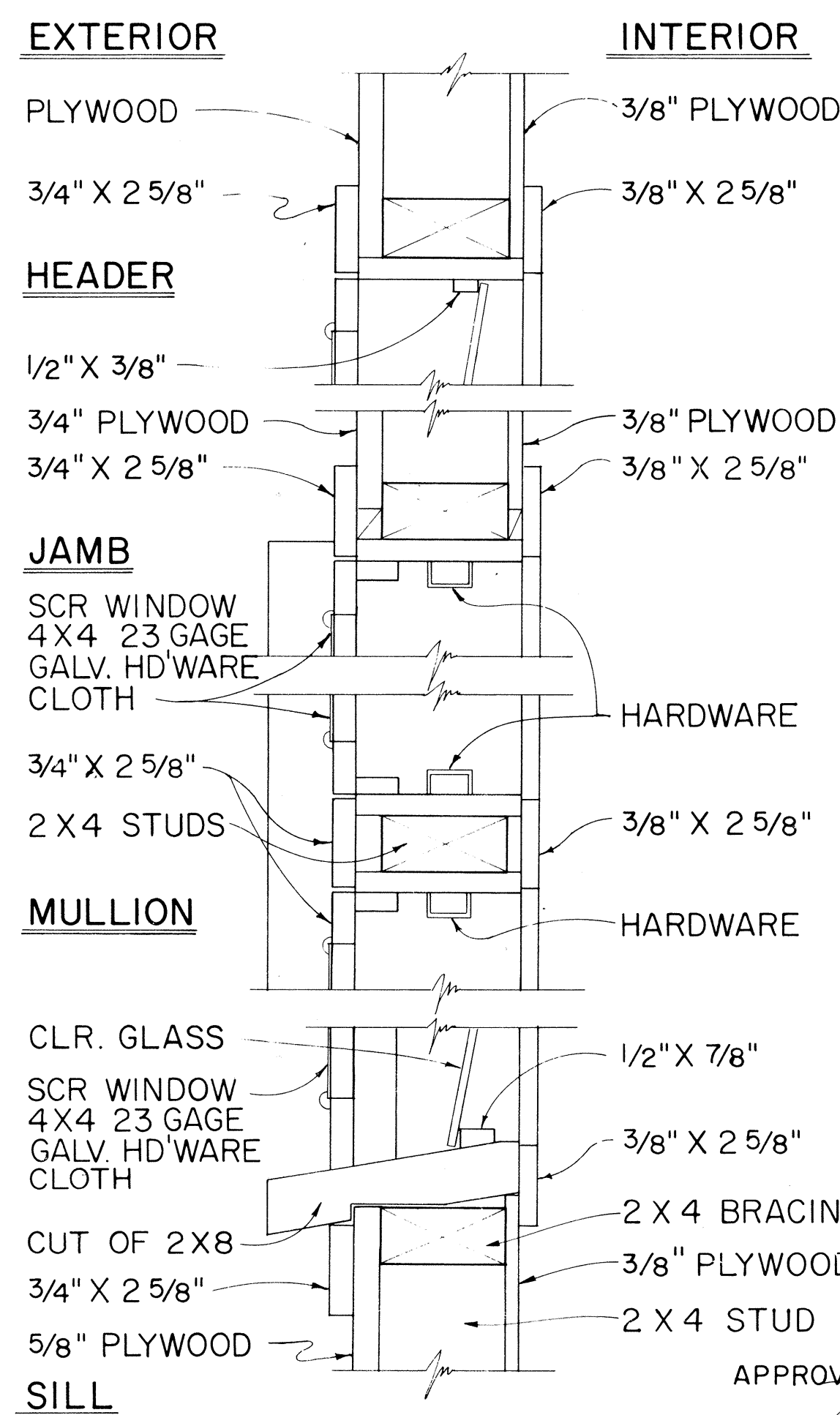
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	I-41-1(115)-13	1974	20	53



TYPICAL WORK TABLE DRAWER DETAIL



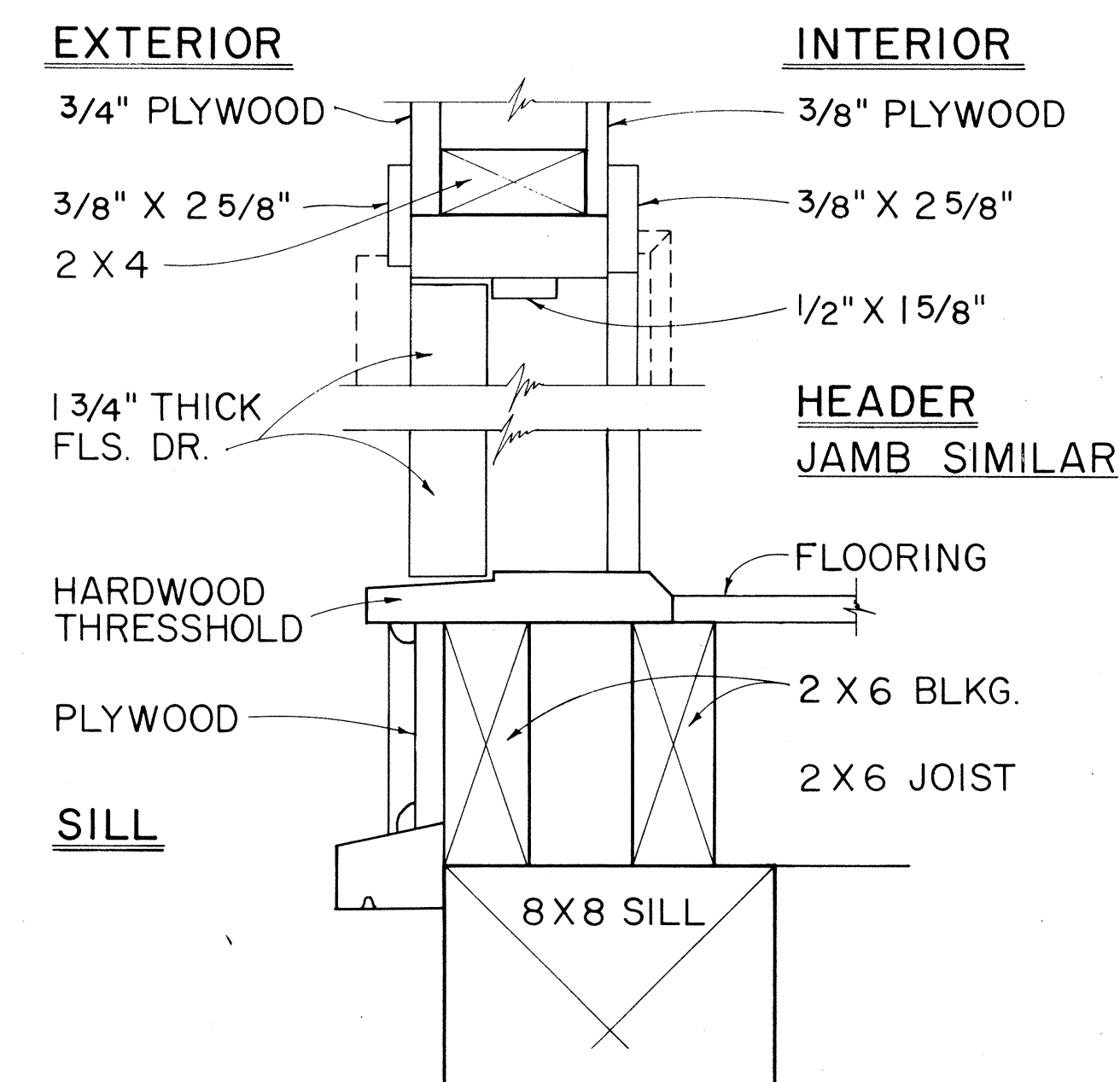
NOTE: CONTRACTOR MAY WITH THE APPROVAL OF THE ENGINEER FURNISH THE FIELD OFFICE OR PROJECT SITE LABORATORY WITH STOOLS OTHER THAN THE TYPE SHOWN IN THE DETAIL.



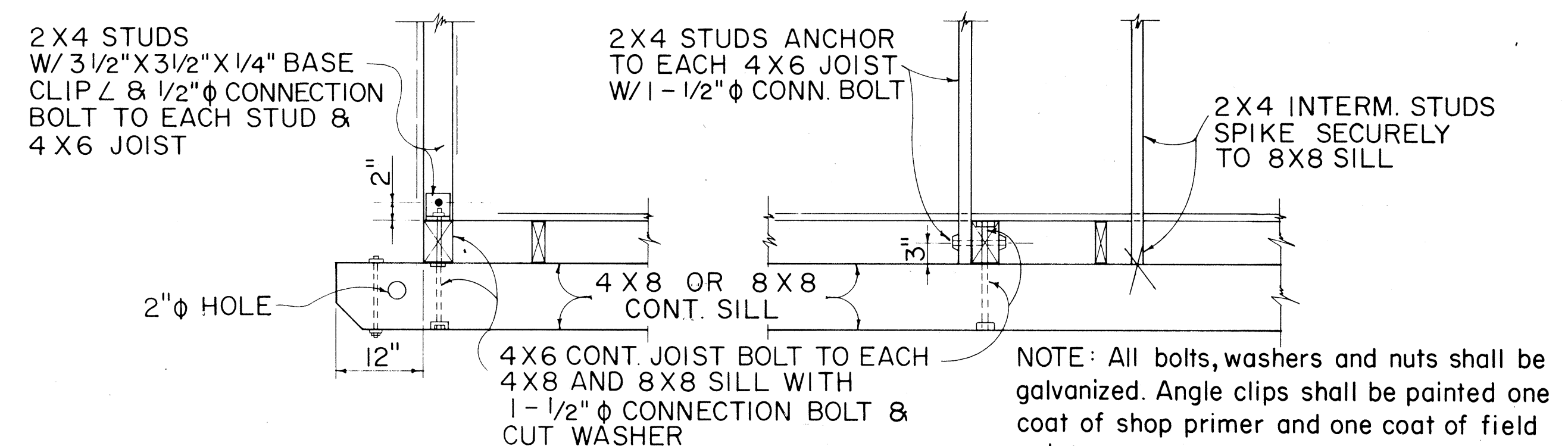
TYPICAL DETAIL JALOUSIES WINDOWS

APPROVAL RECOMMENDED:
HIGHWAY DESIGN ENGINEER
DATE: 12-4-69

APPROVED:
ASSISTANT CHIEF, ENGINEERING
DATE: 12-10-69



TYPICAL SINGLE OR DOUBLE EXTERIOR DOOR DETAIL



TYPICAL 2 X 4 STUD & 4 X 6 FLOOR JOIST BASE CONNECTION DETAILS

NO.	REVISION	APPROVED BY	DATE

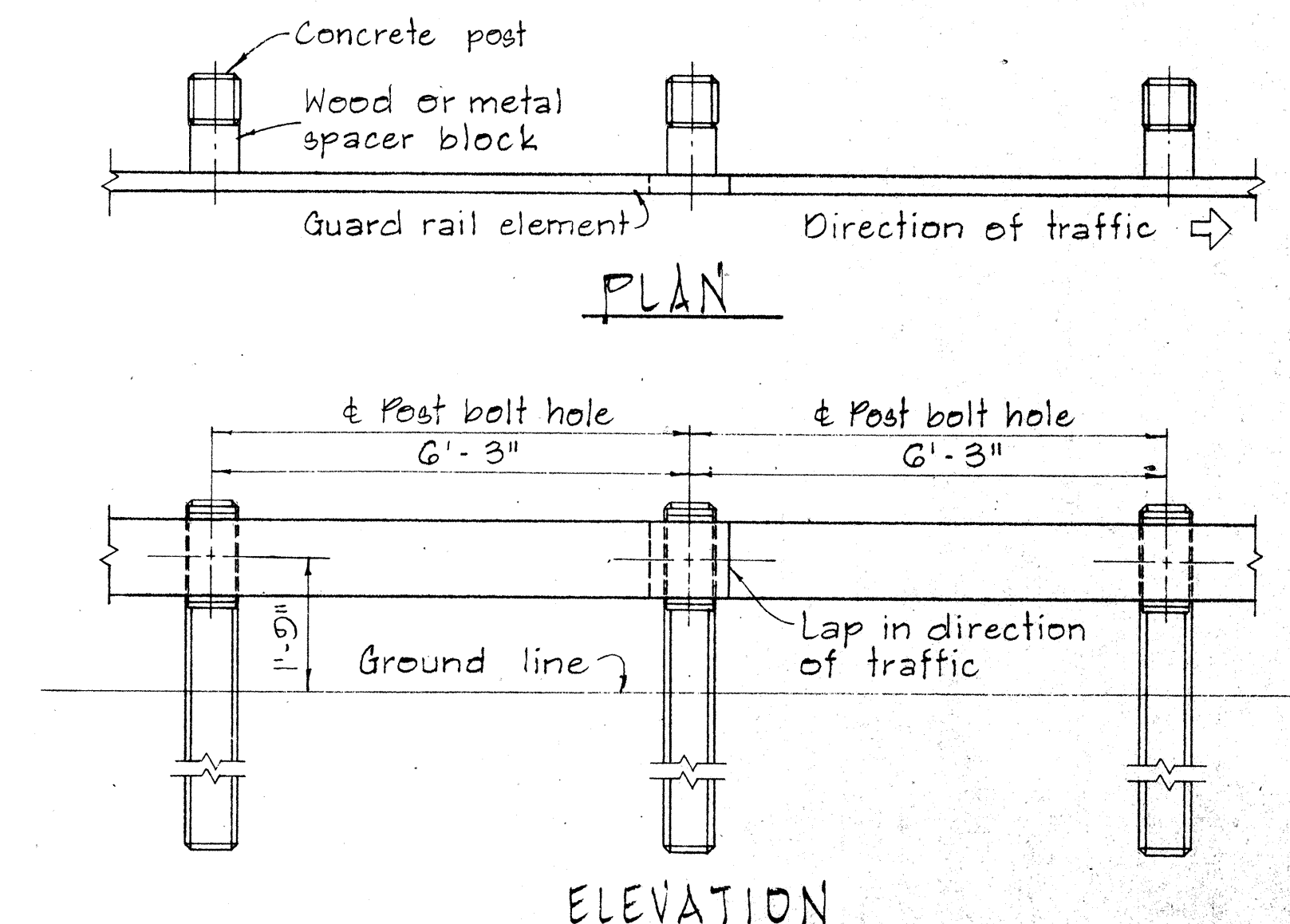
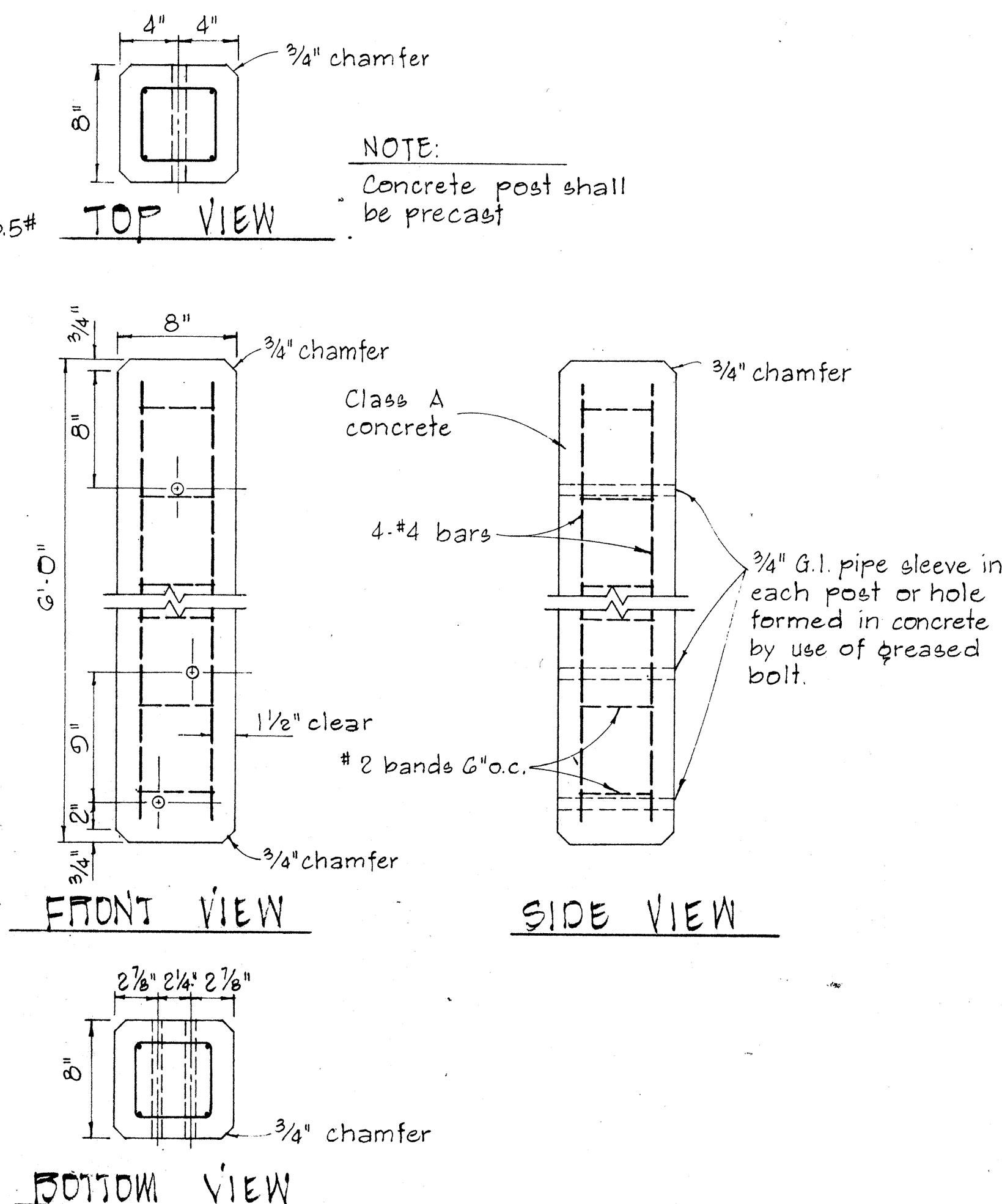
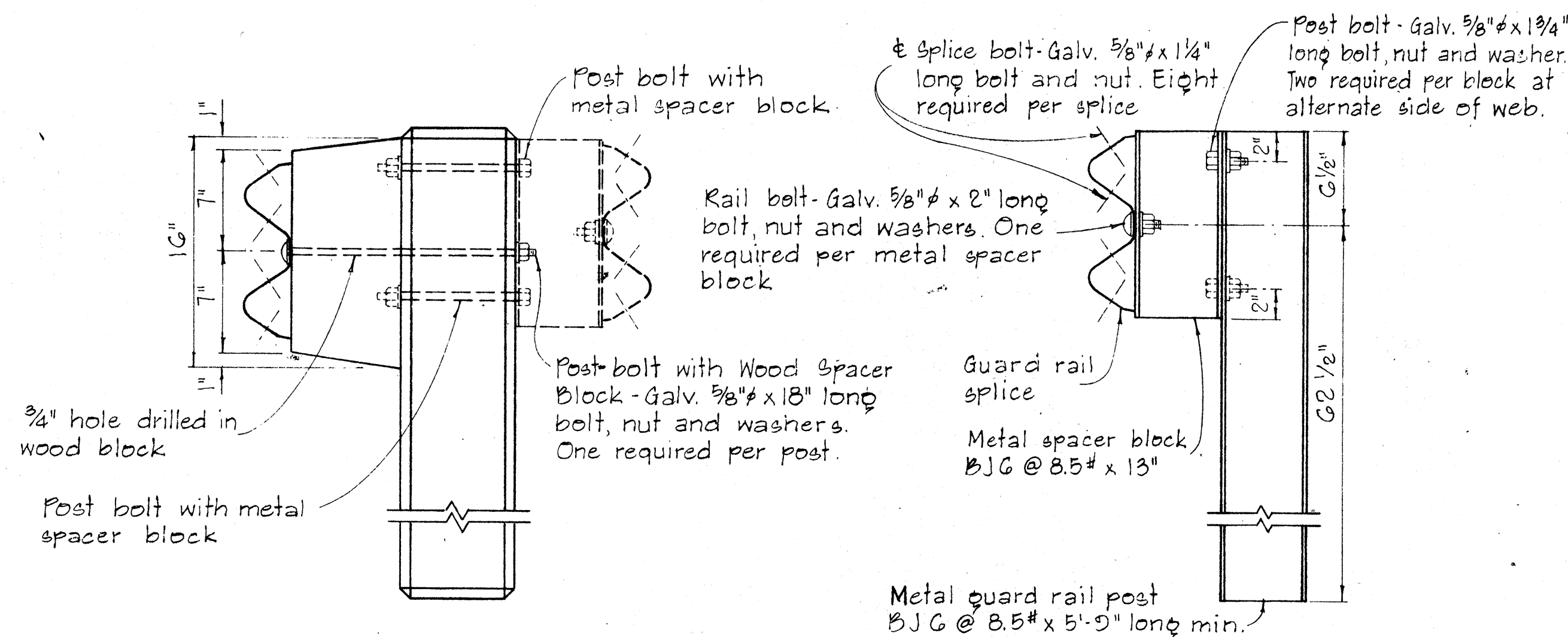
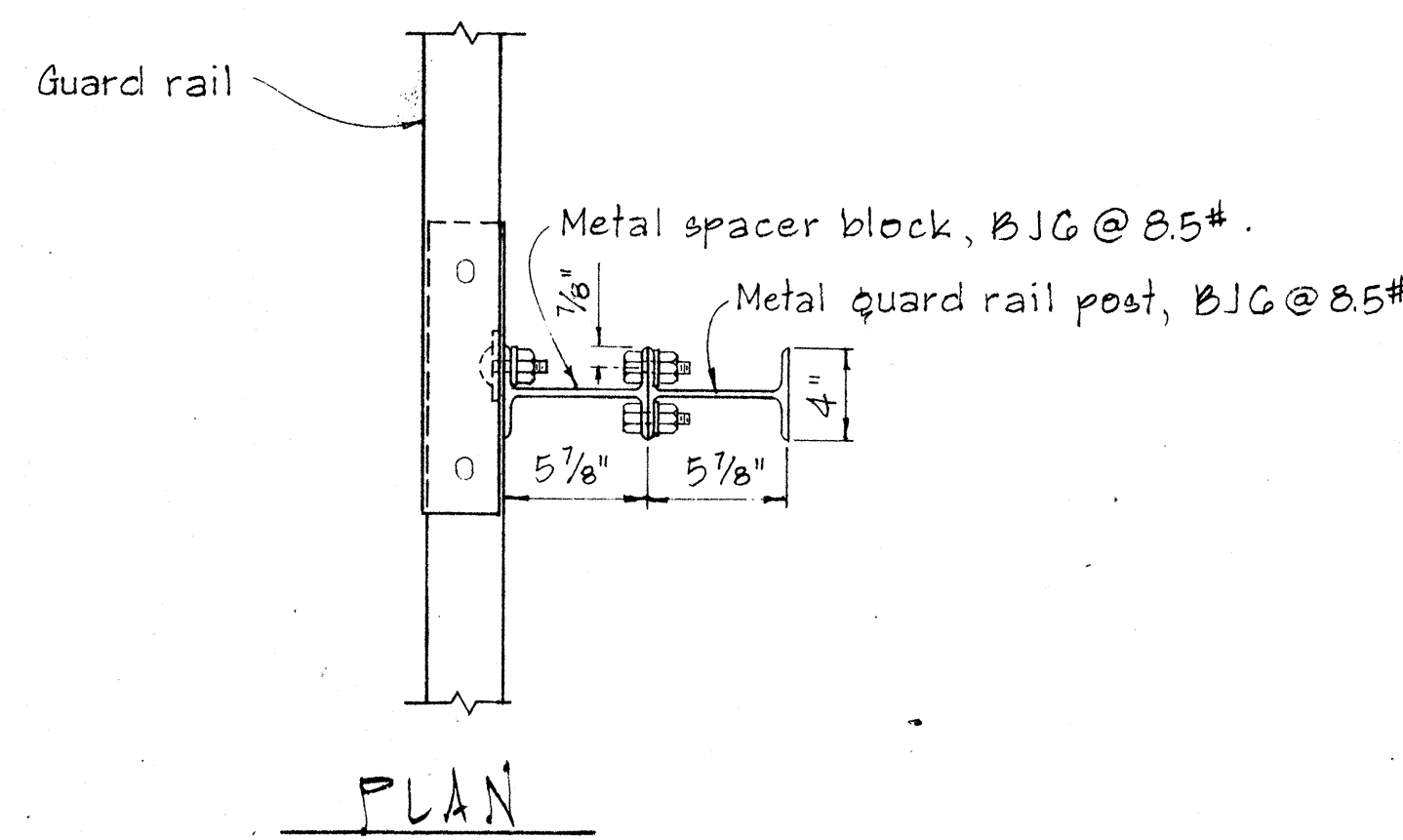
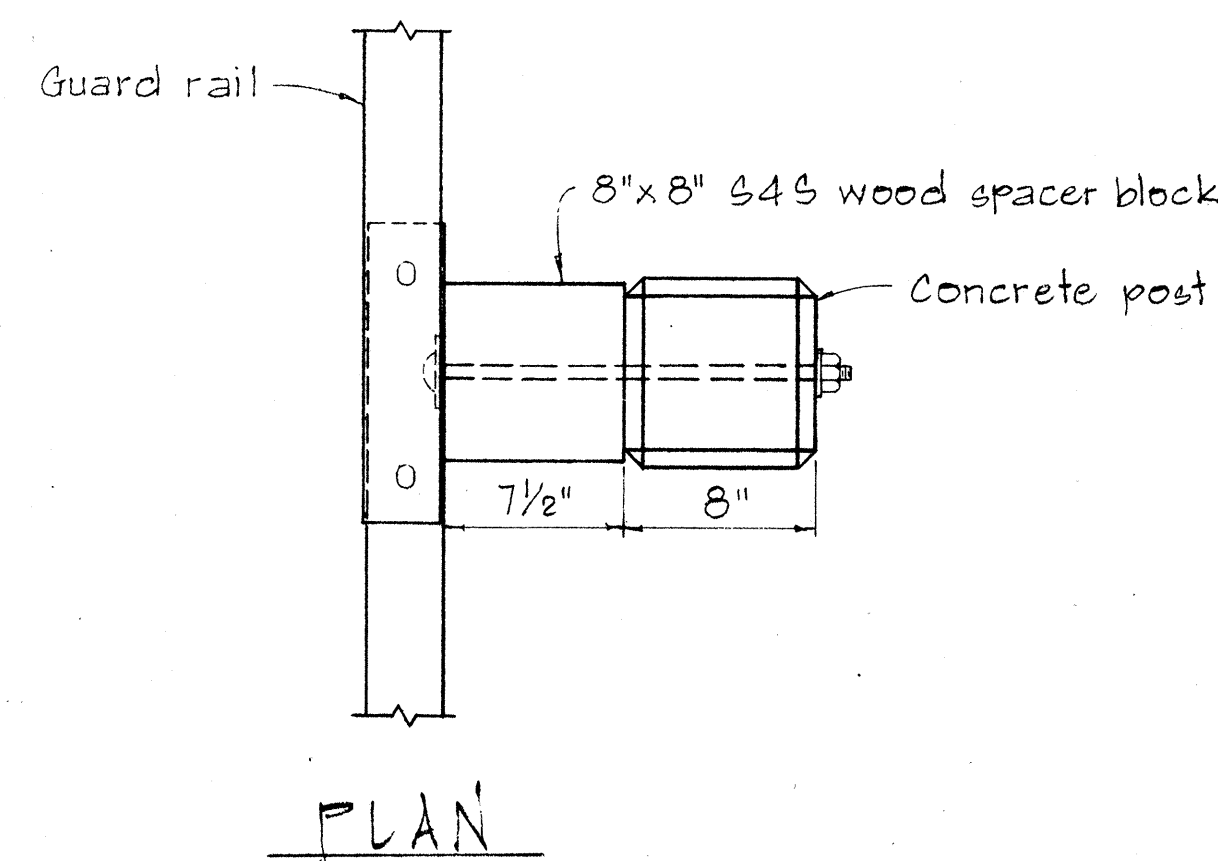
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIELD OFFICE
&
PROJECT SITE LABORATORY

Scale: As Noted

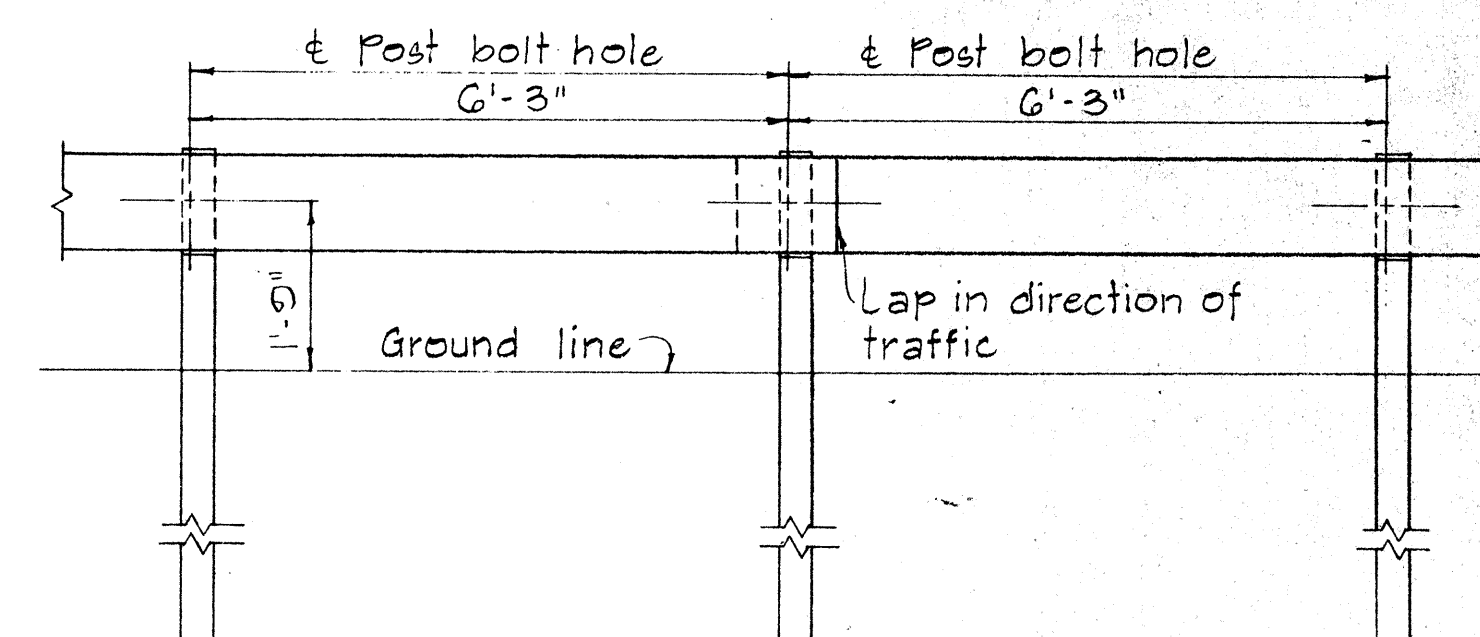
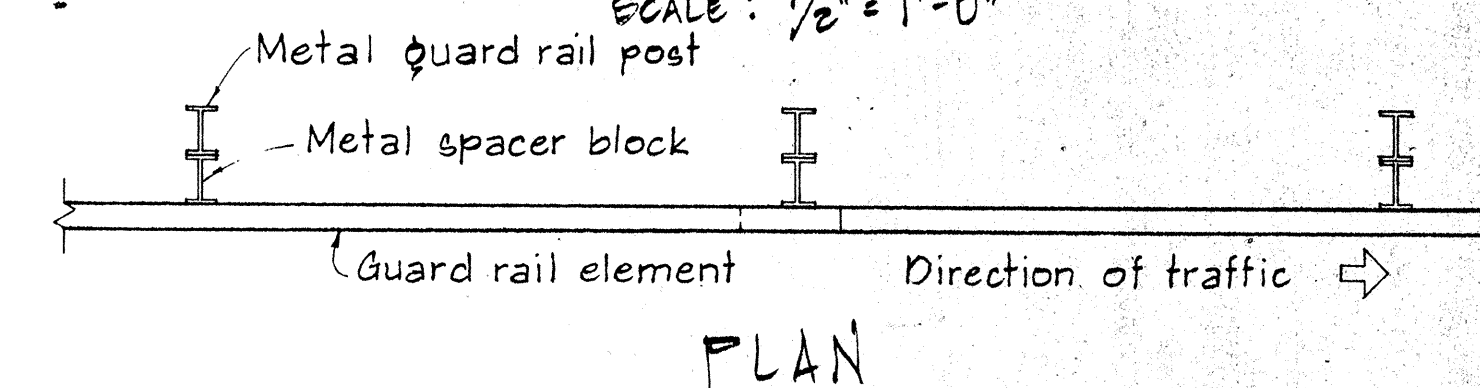
SHEET No. 20 OF 14 SHEETS DD 636.5

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HA-1(115)13	1974	21	53



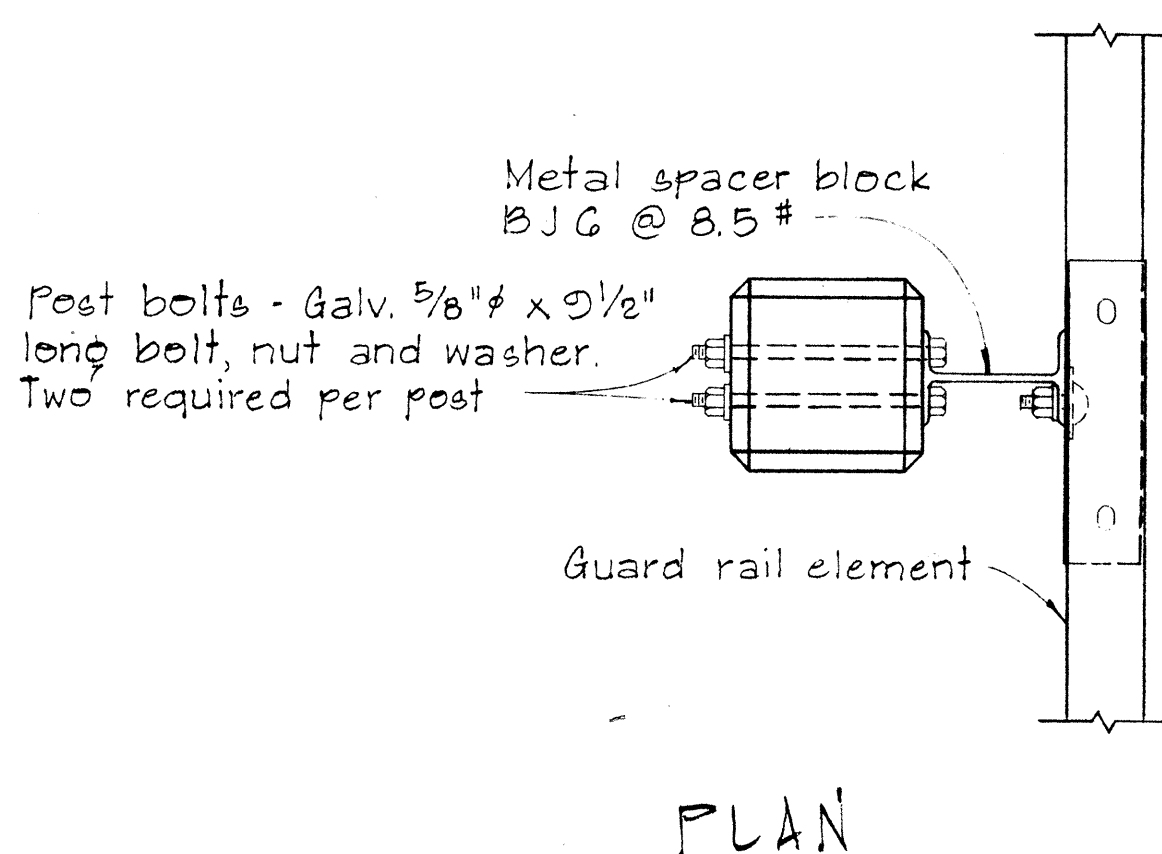
METAL GUARD RAIL ON CONCRETE POST WITH WOOD OR METAL SPACER BLOCK.

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



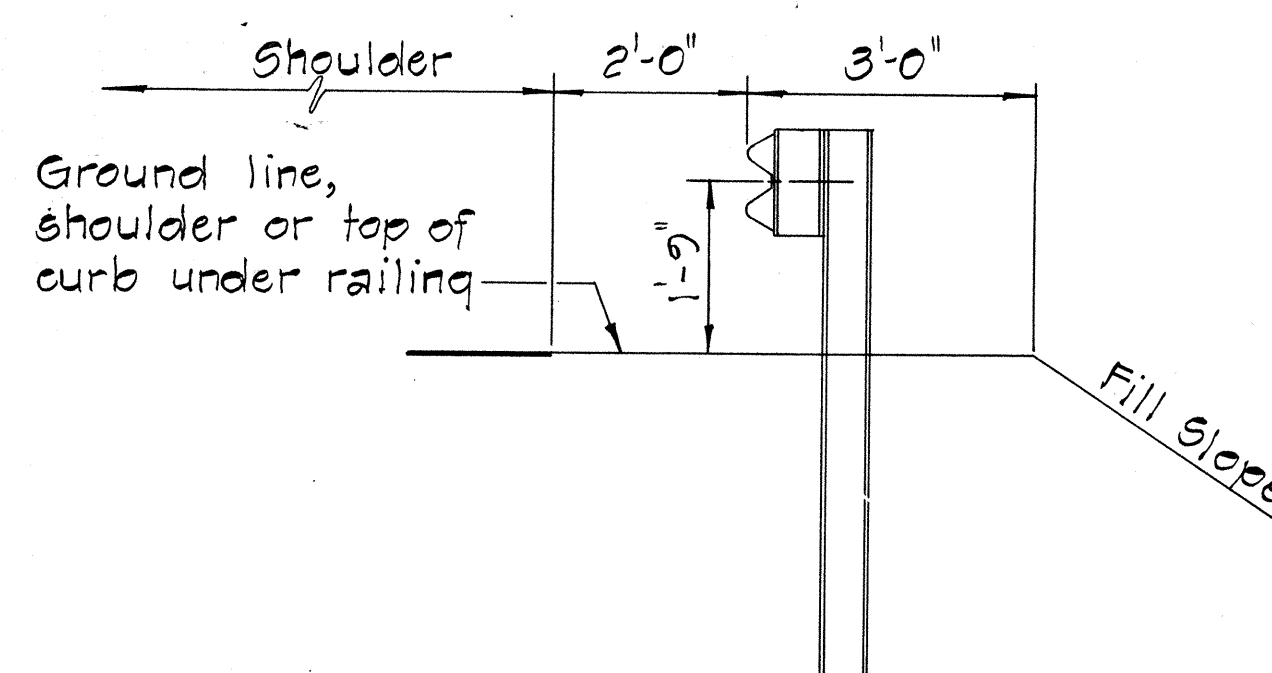
METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK

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



SINGLE METAL GUARD RAIL ON PRECAST CONCRETE POST WITH WOOD OR METAL SPACER BLOCK

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



TYPICAL METAL GUARD RAIL DETAIL

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

APPROVAL RECOMMENDED:
Traffic Engineer
12/29/69
DATE

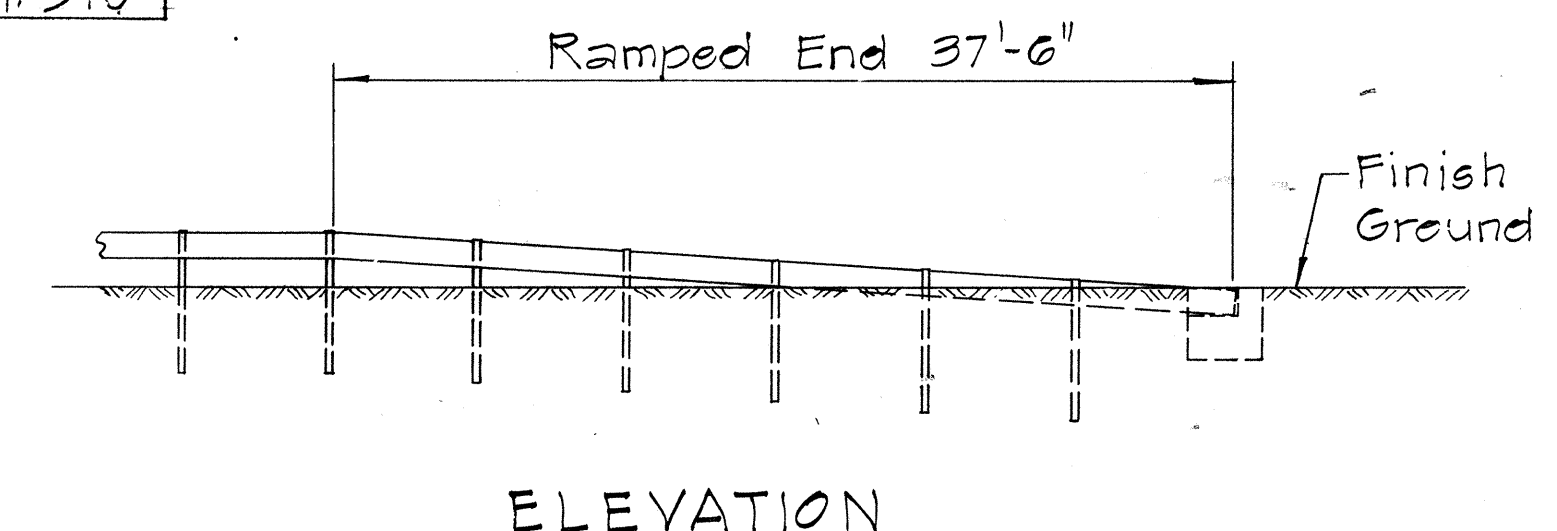
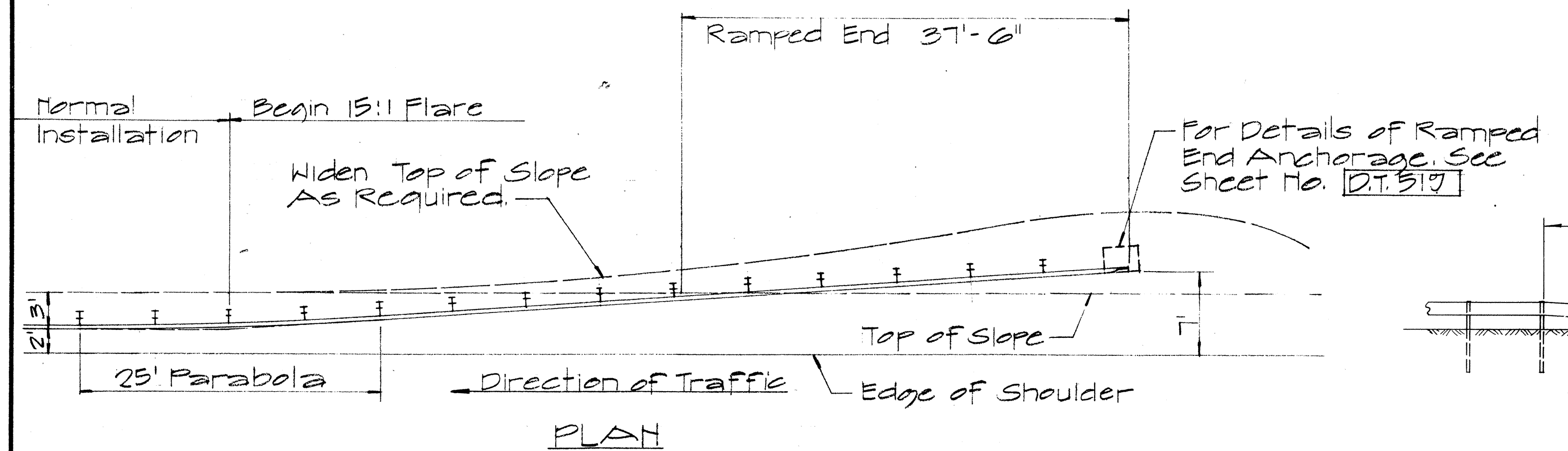
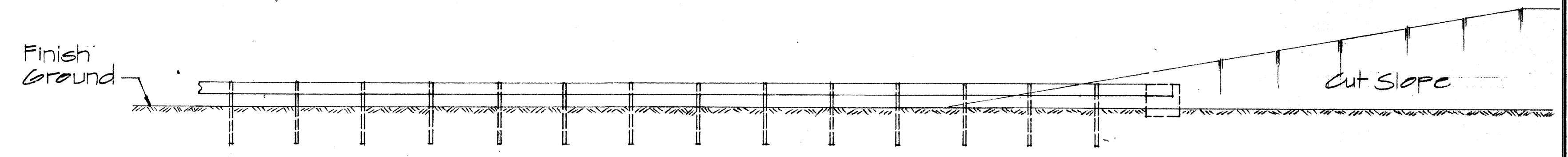
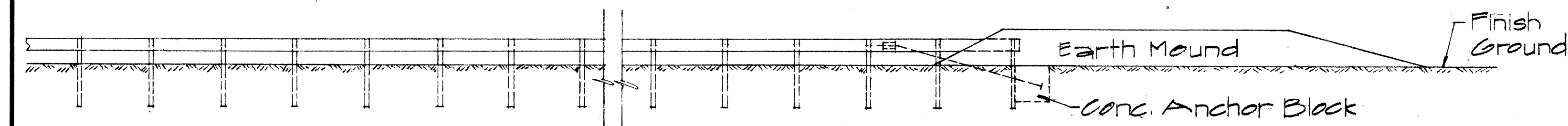
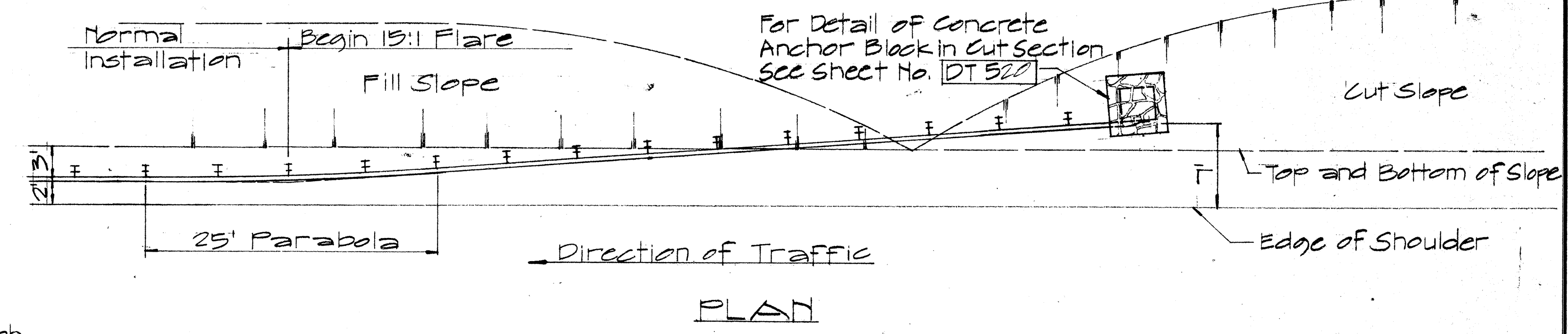
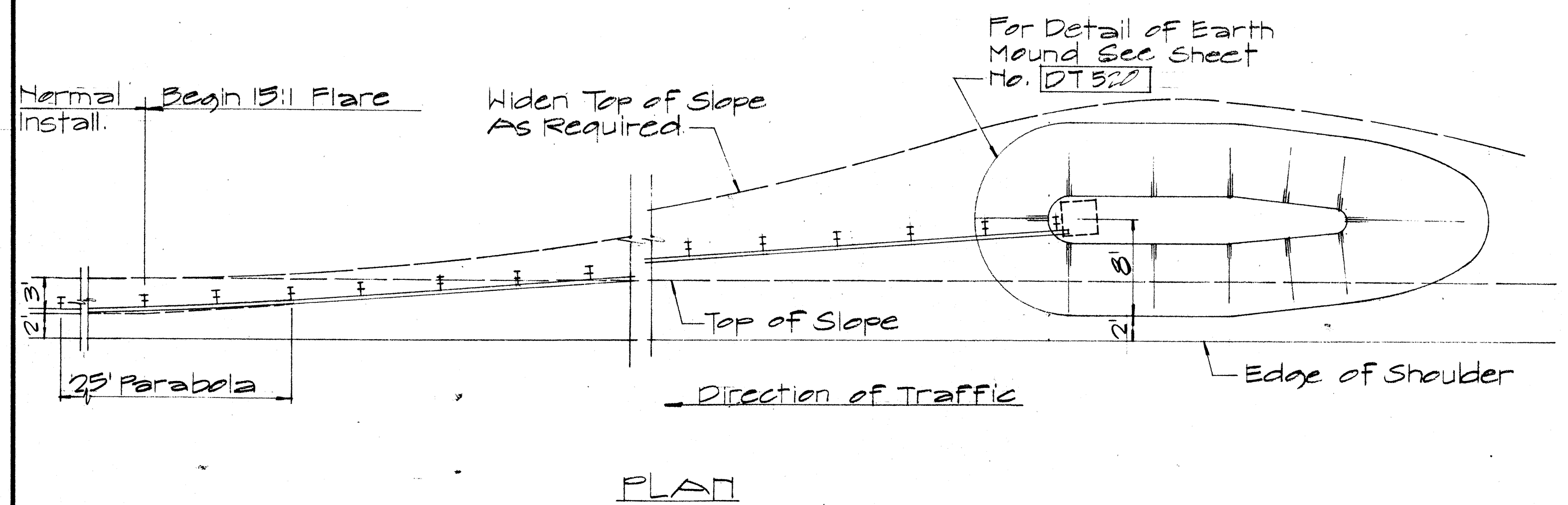
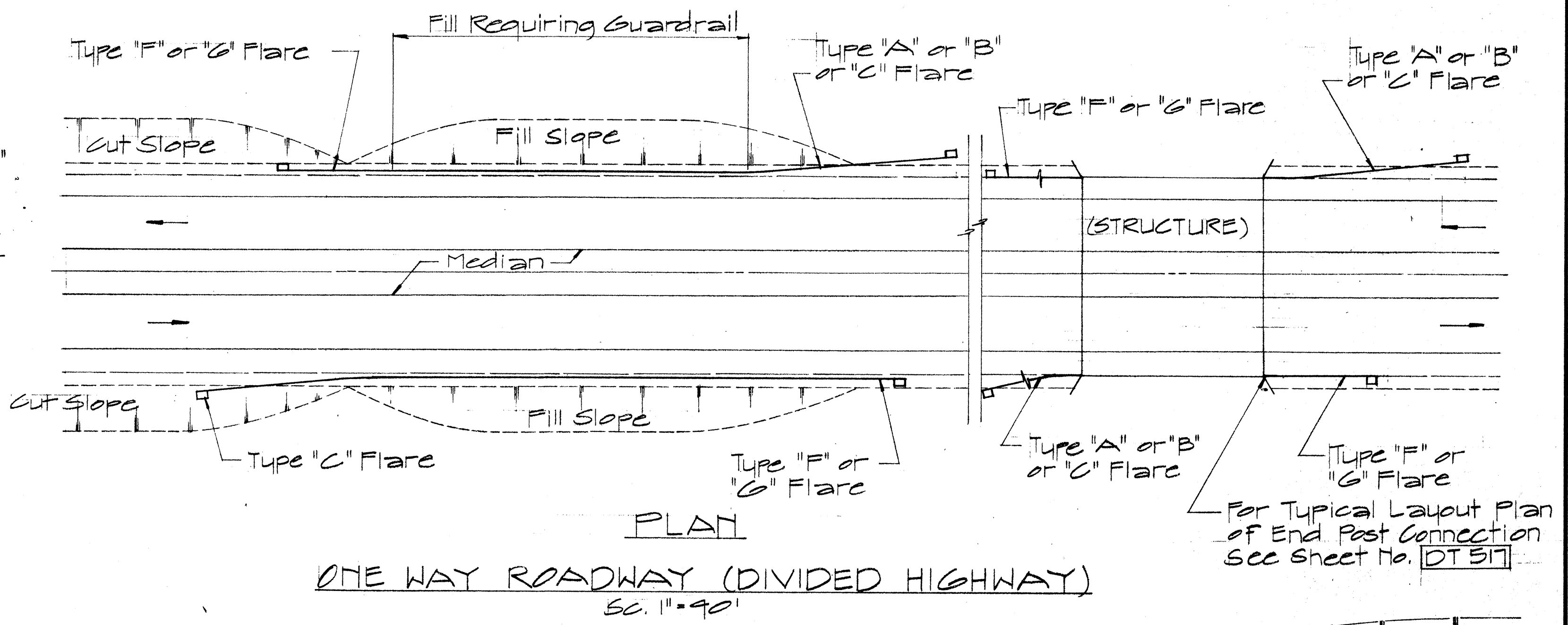
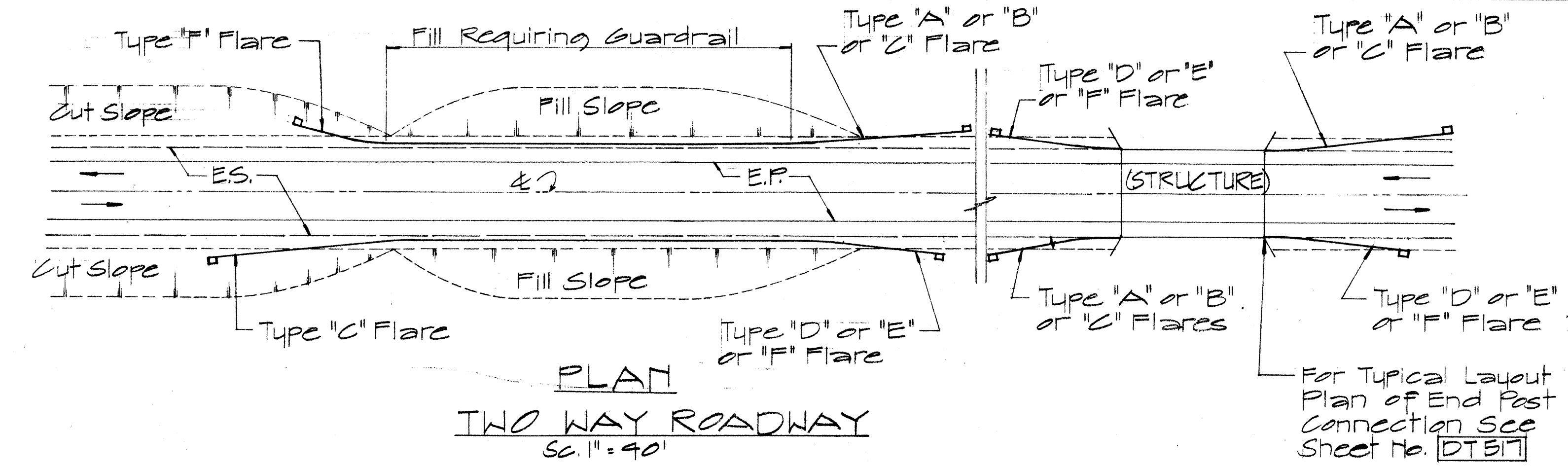
APPROVED:
Assistant Chief, Engineering
12-30-69
DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD DETAILS METAL GUARD RAIL	
SCALE: AS SHOWN	NOV. 1968
SHEET No. 10 OF 14 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(15)13	1974	23	53

NOTE:
Metal guard rail connection to structures requires End Post Connection. See structure plans.



ELEVATION
TYPE "C" FLARE
Sc. 1/8" = 1'-0"

NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED:
Eichi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:
W. B. Smith 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

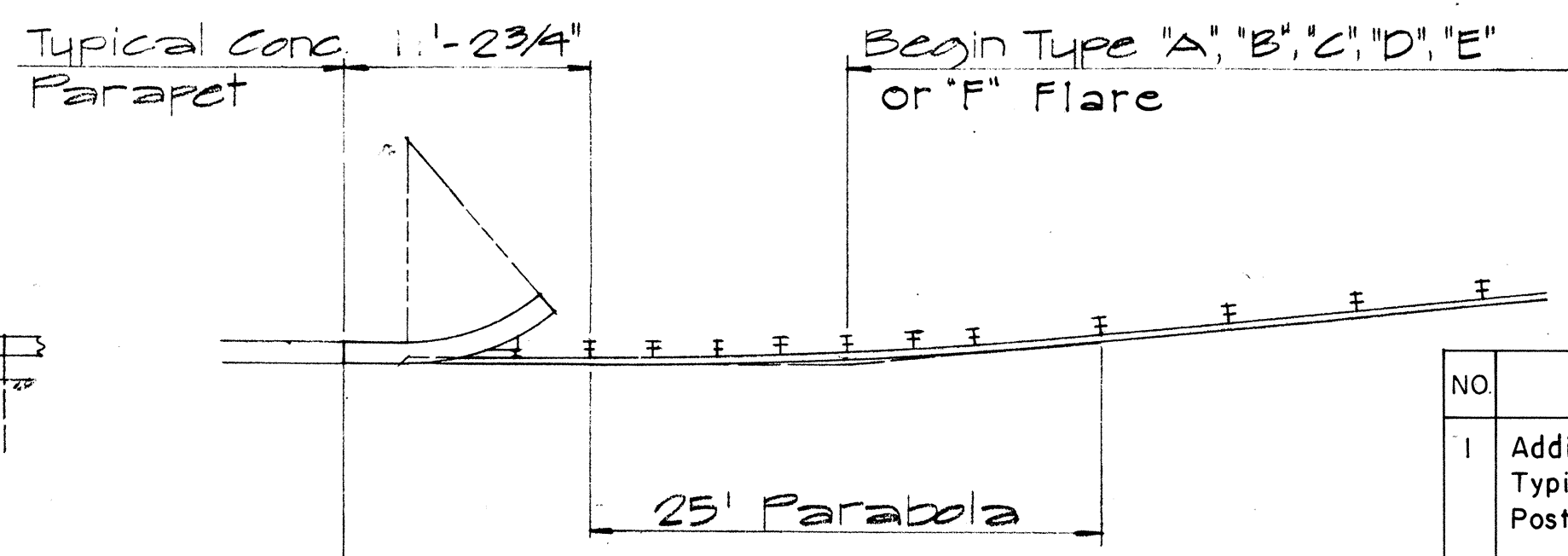
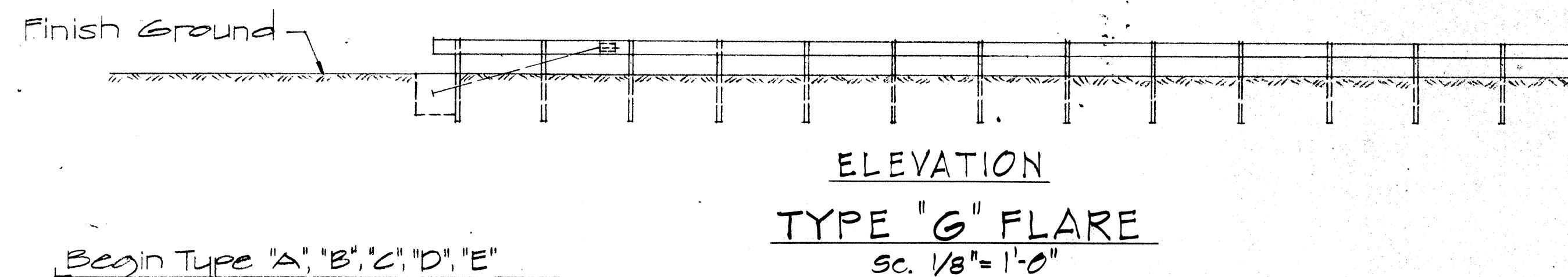
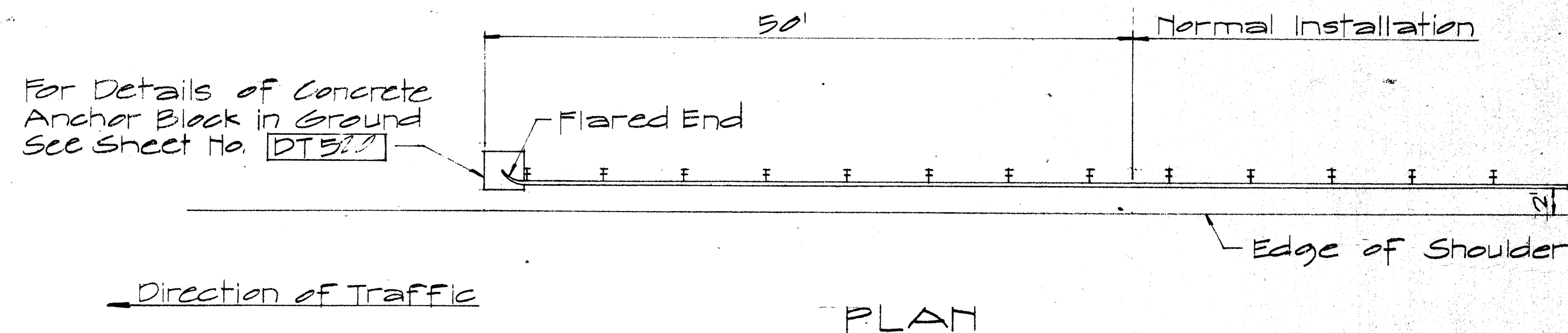
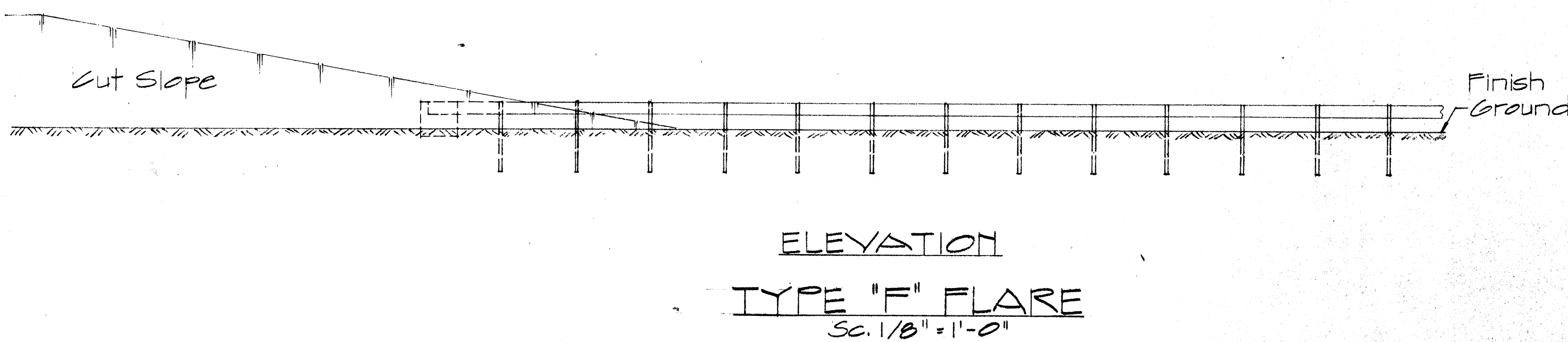
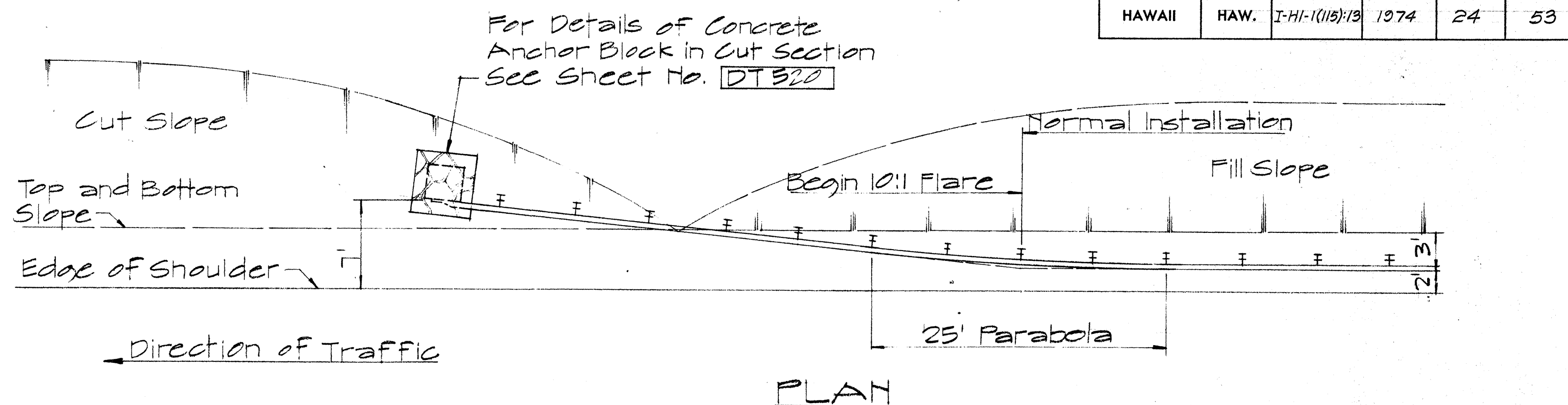
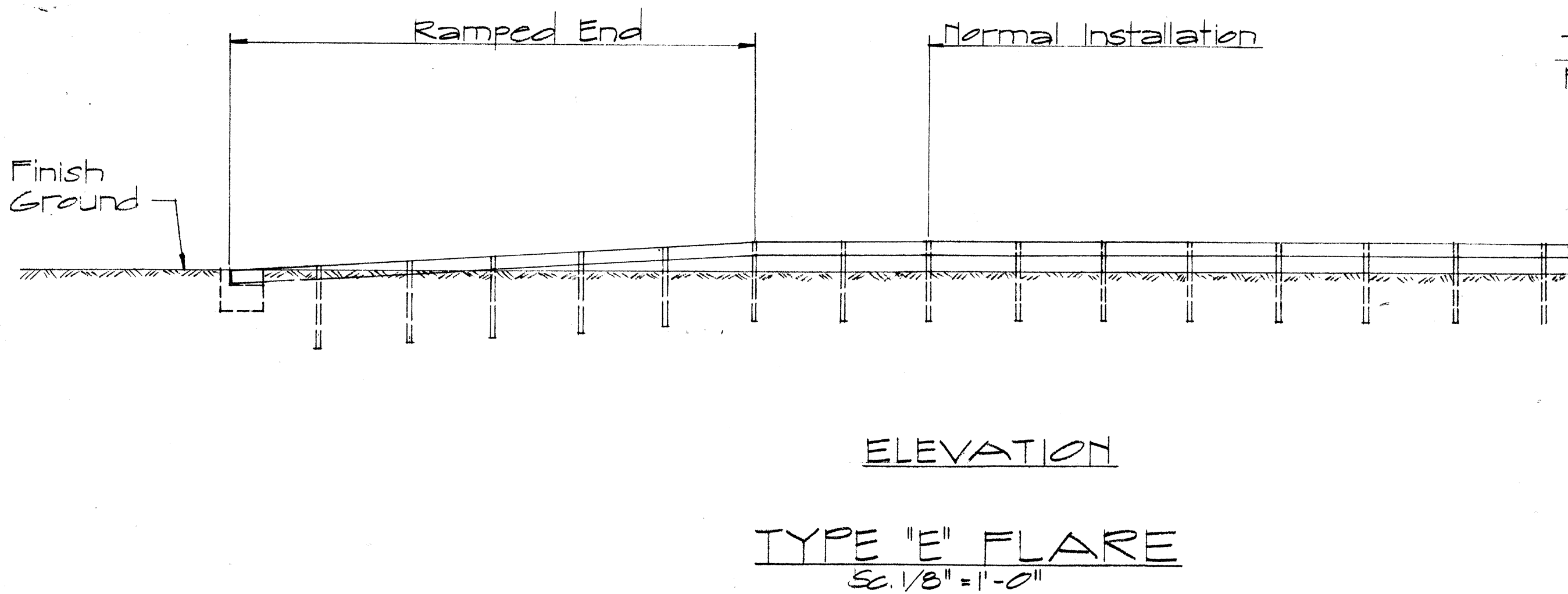
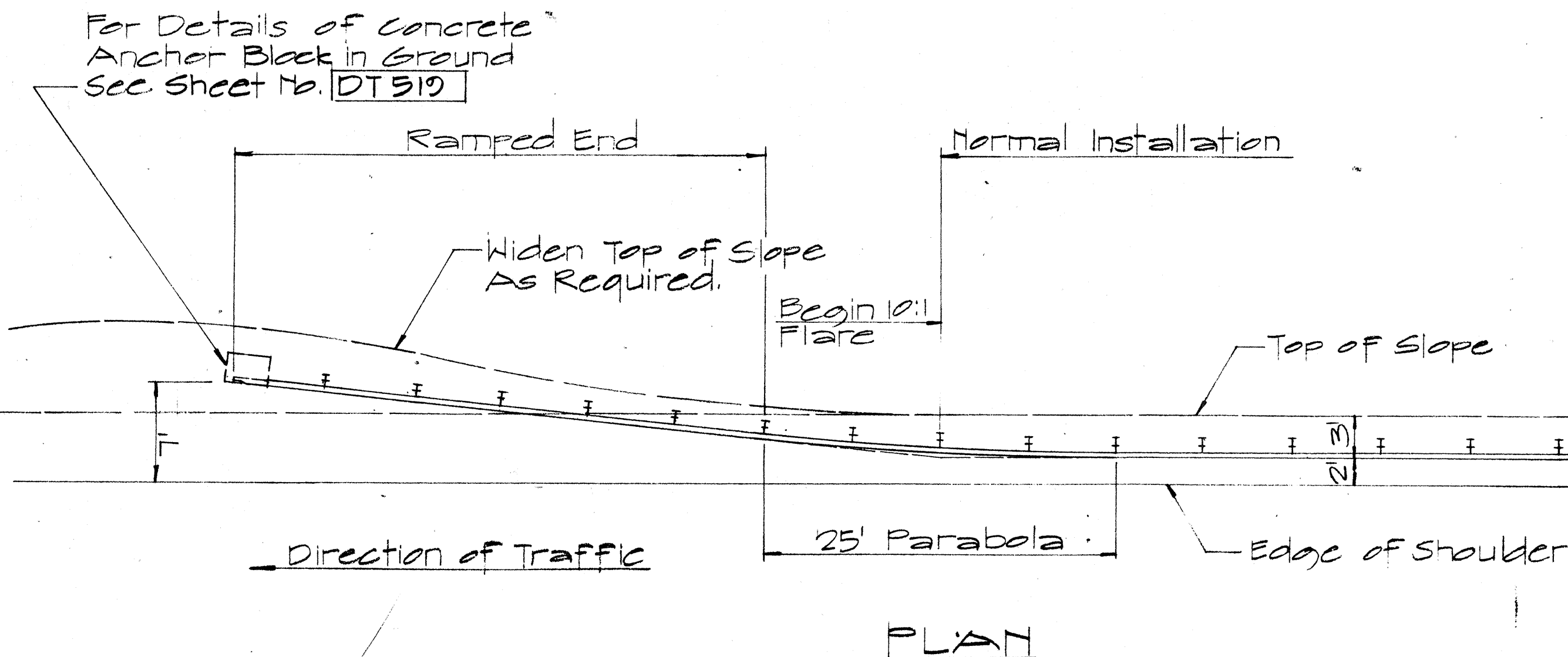
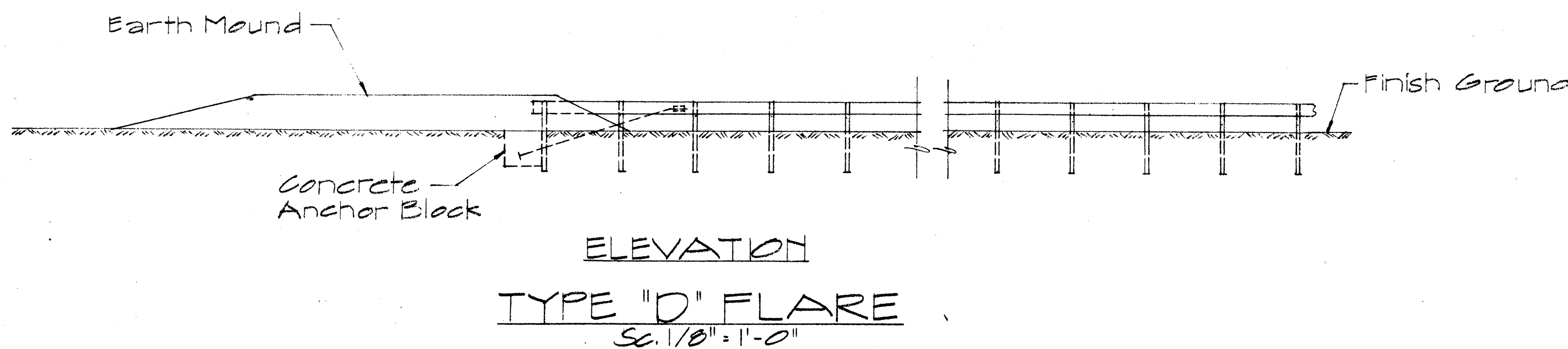
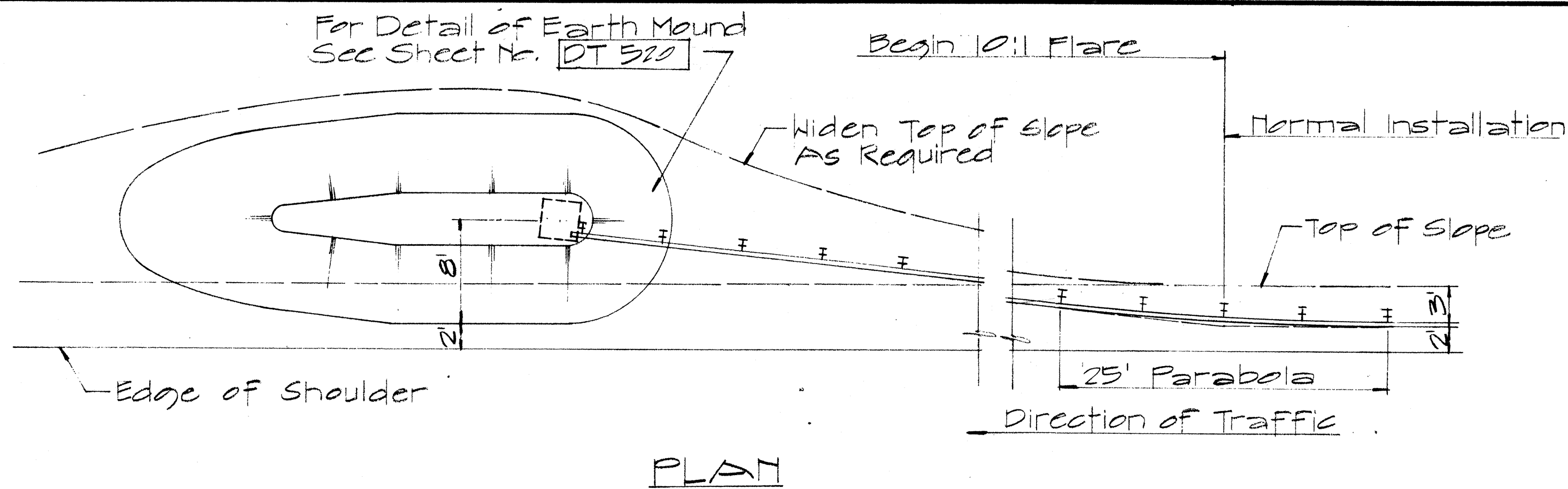
**STANDARD DETAILS
OF APPROACH END
FLARE - ONE & TWO
WAY ROADWAY**

Sc. As Noted April 1969

SHEET No. 12 OF 14 SHEETS DT 516

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(118)-13	1974	24	53



TYPICAL LAYOUT PLAN OF END POST CONNECTION

Sc. 1/8" = 1'-0"

APPROVAL RECOMMENDED:
E. Iwaki Tanaka 12/23/69
TRAFFIC ENGINEER DATE

APPROVED:
W. J. Sal 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO	REVISION	APPROVED BY	DATE
1	Additional Posts Added to Typical Layout Plan Of End Post Connection	H.C.	4-12-72

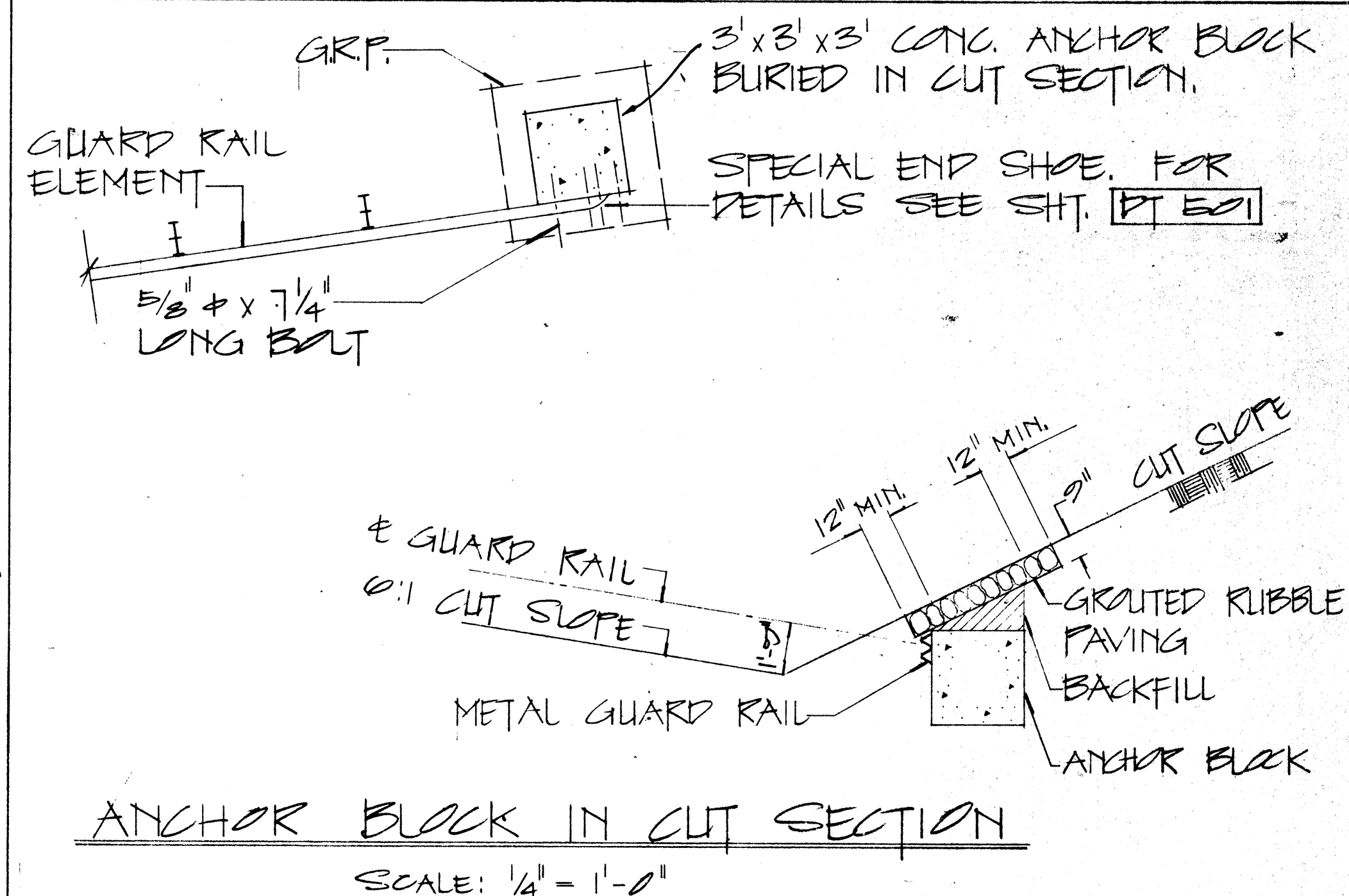
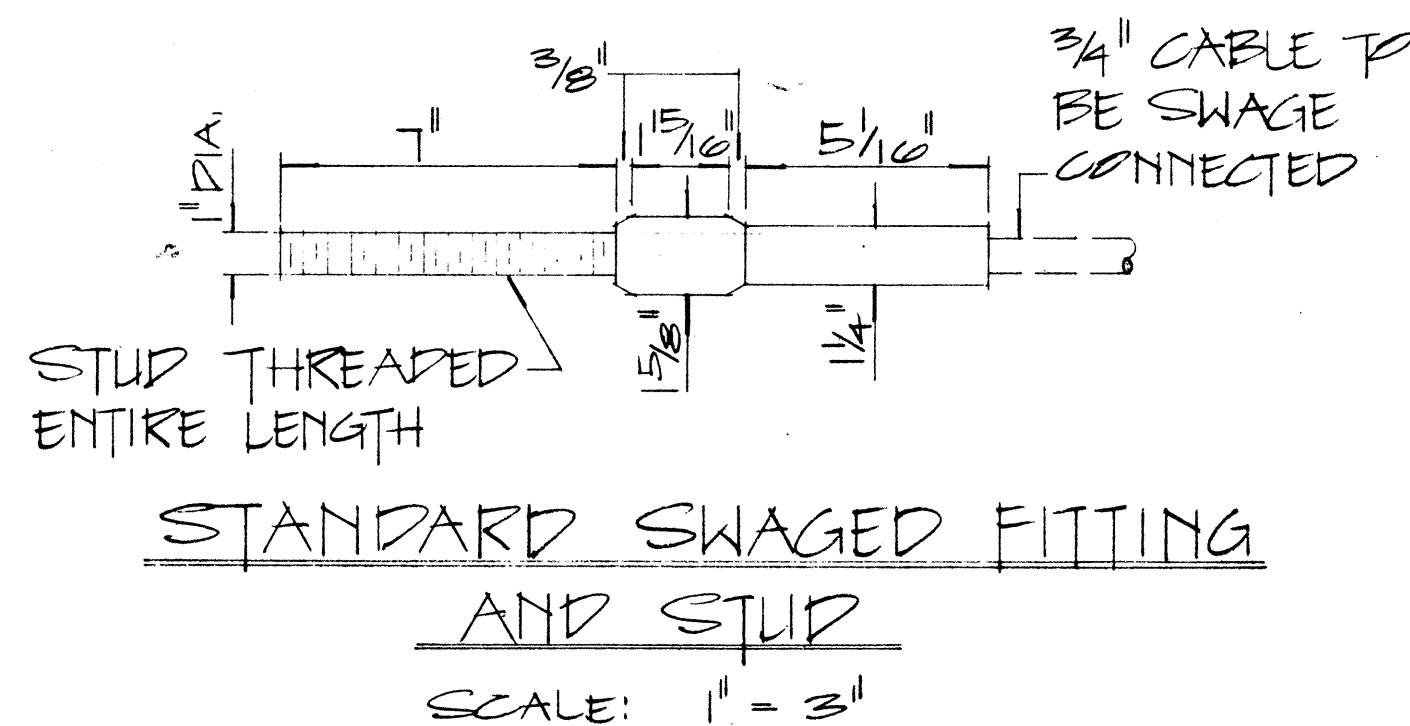
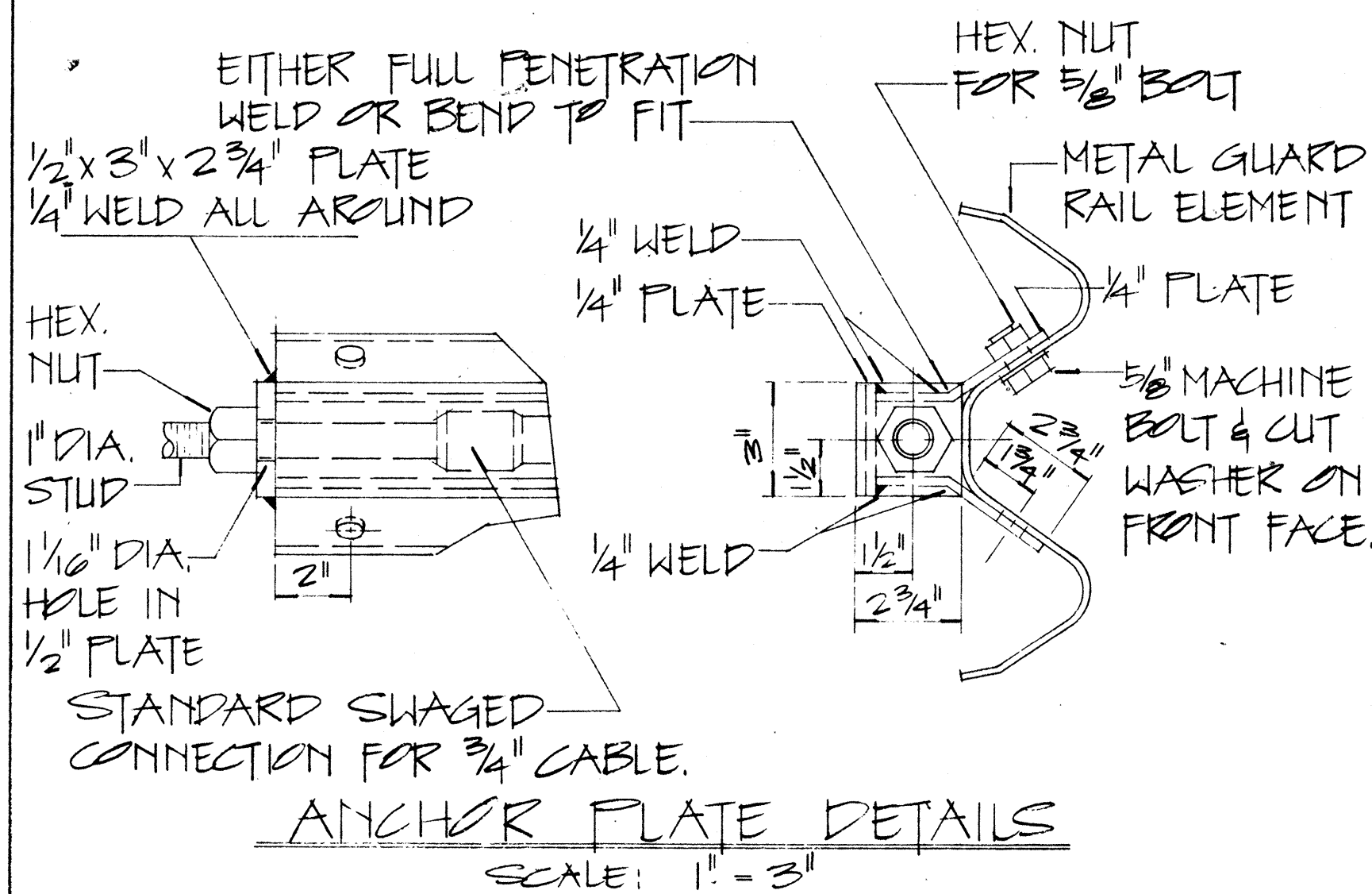
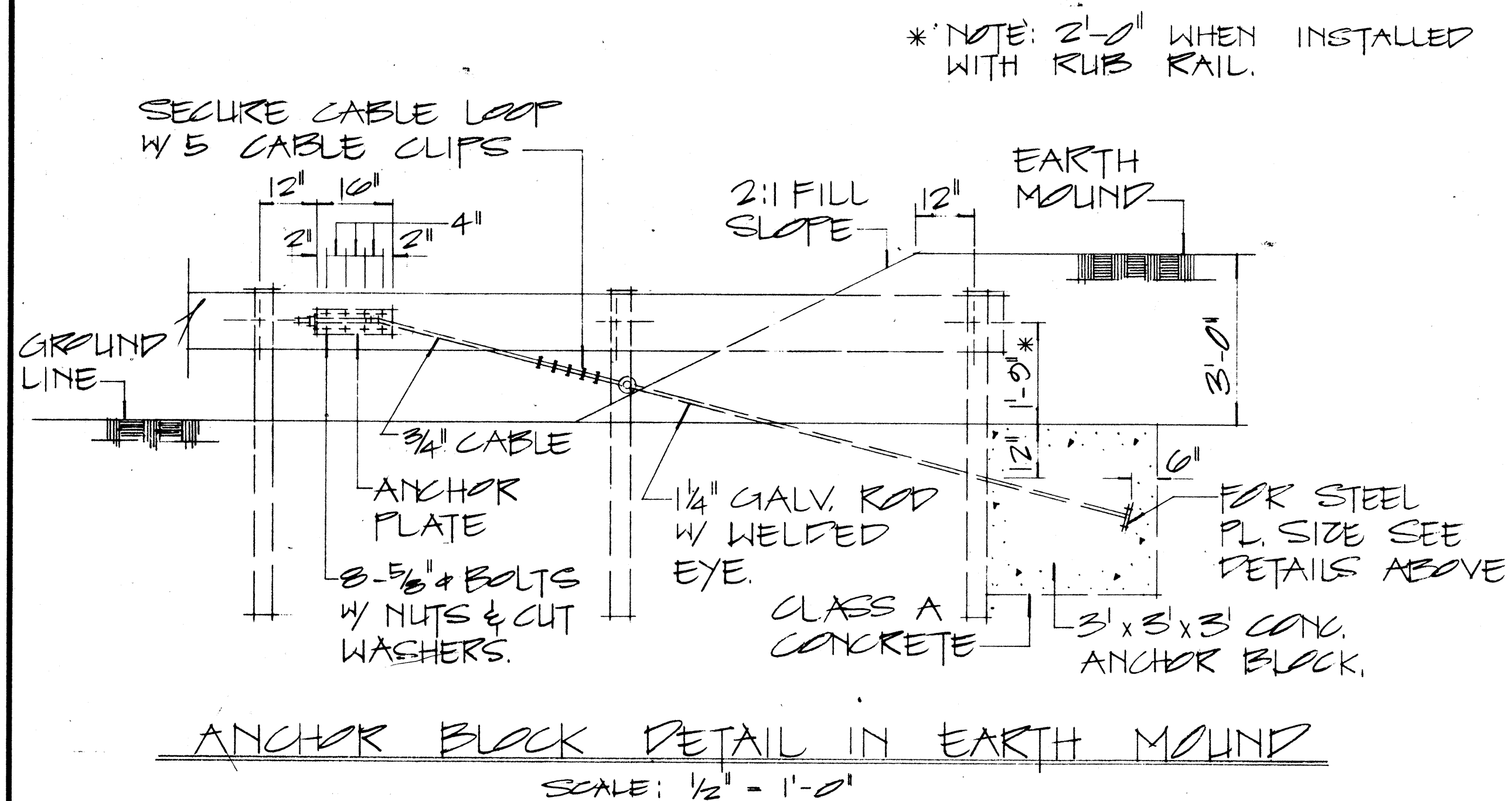
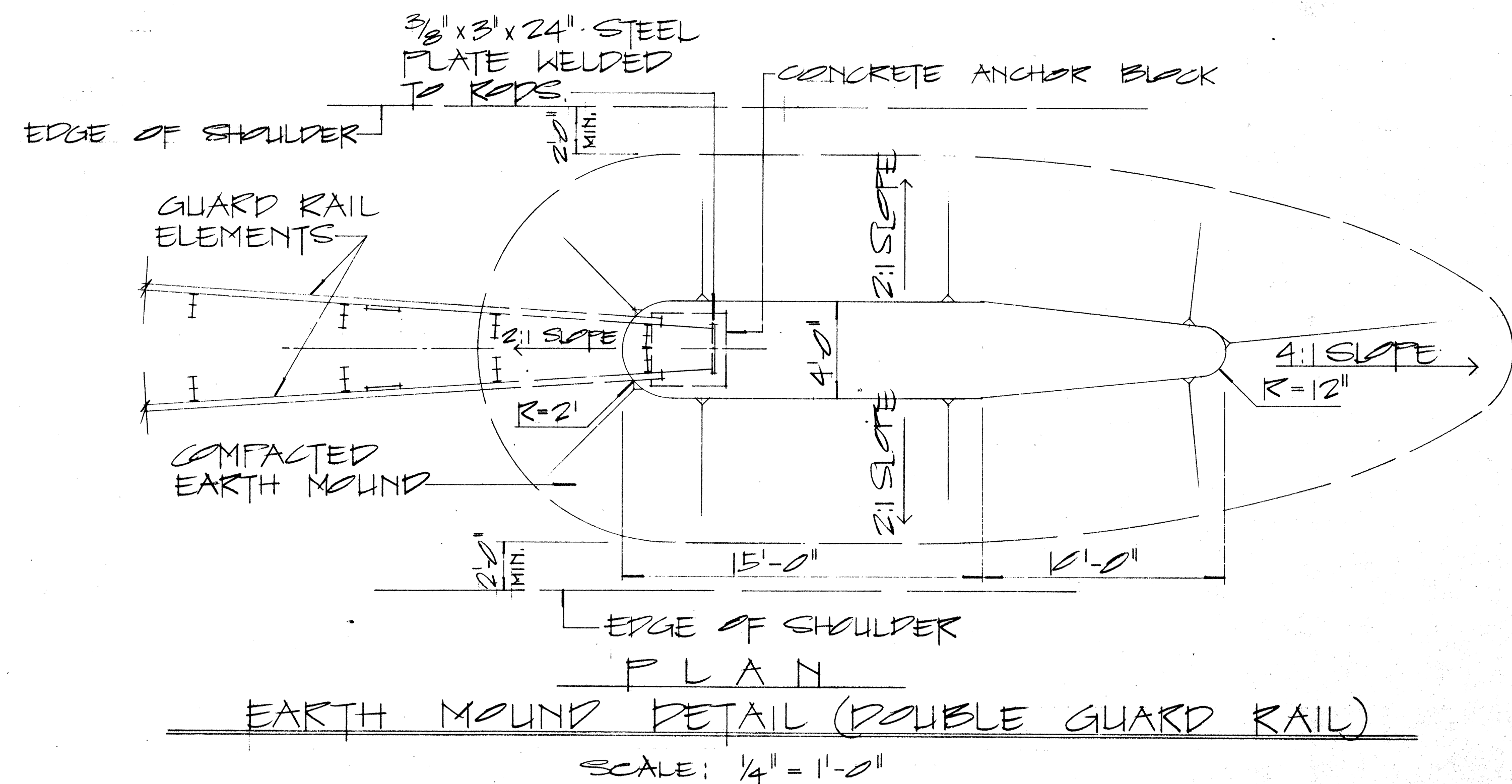
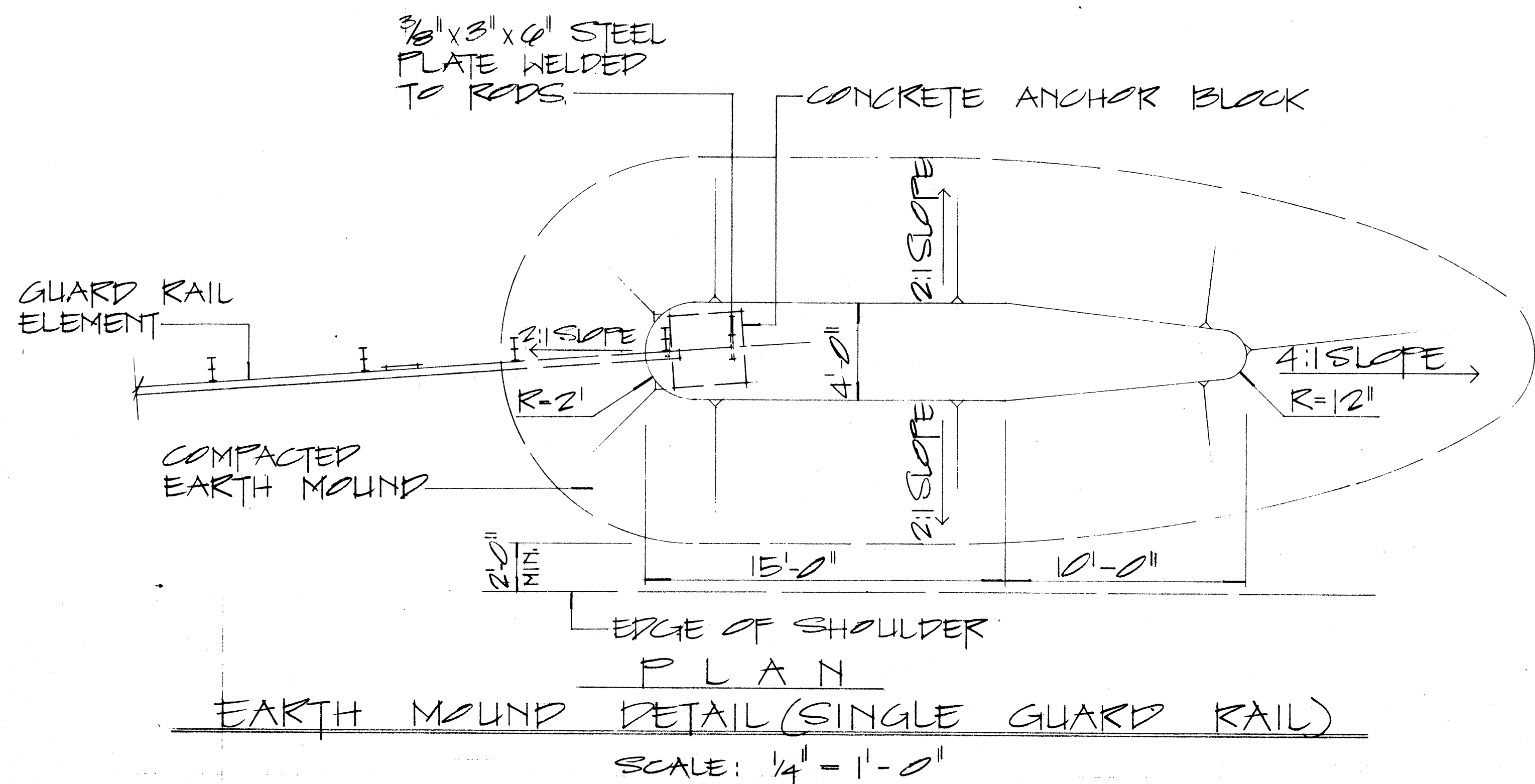
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
TRAILING END
FLARE - ONE & TWO
WAY ROADWAY

Scale: As Noted April 1969

SHEET No. 13 OF 14 SHEETS DT 517

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(115)13	1974	25	53



APPROVAL RECOMMENDED: *Eishi Tanaka* 12/29/69 DATE

TRAFFIC ENGINEER

APPROVED: *[Signature]* 12-30-69 DATE

ASSISTANT CHIEF, ENGINEERING

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

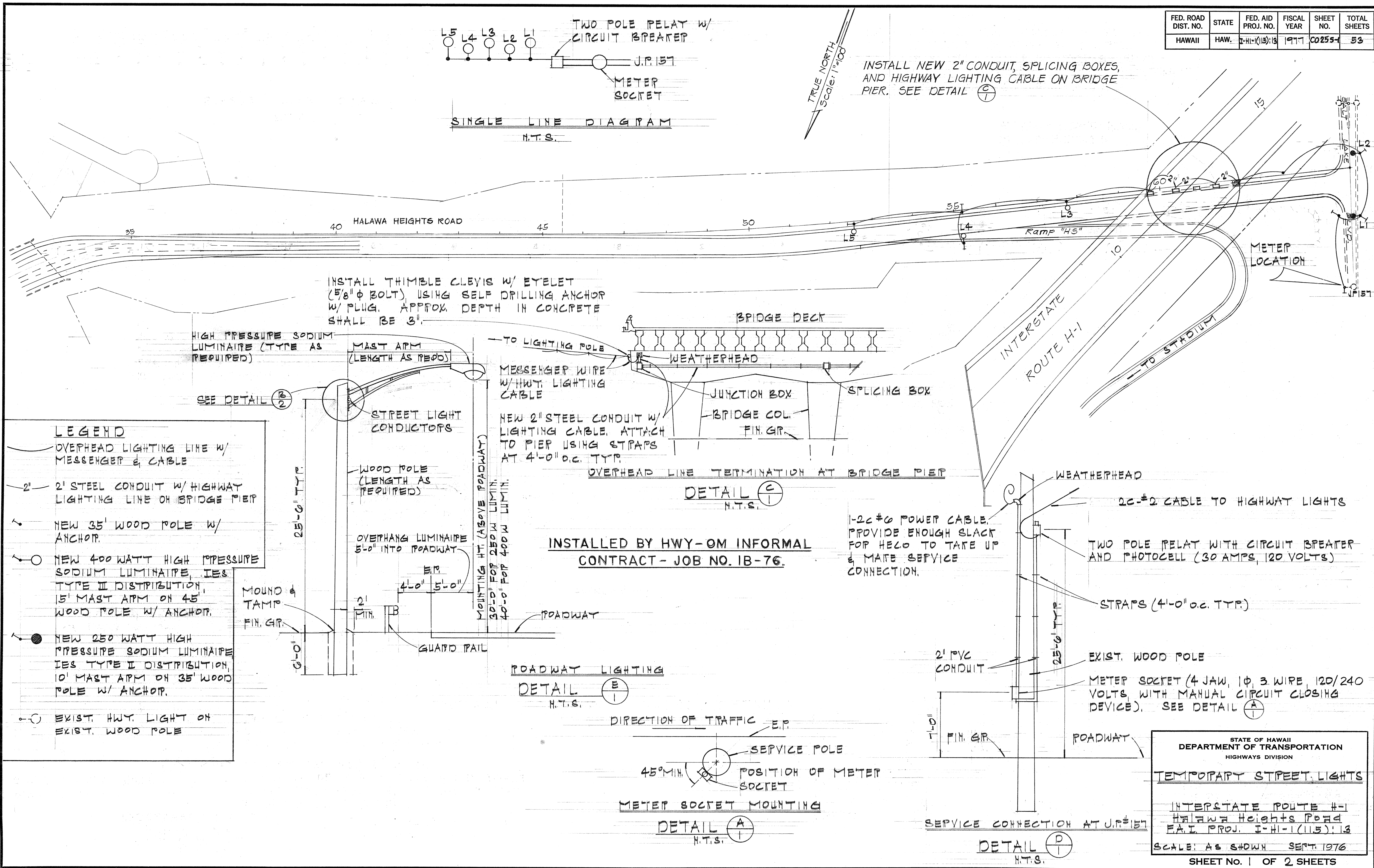
STANDARD DETAILS
EARTH MOUND AND
ANCHOR BLOCK DETAILS

SCALE: AS SHOWN OCT 1969

SHEET No. 14 OF 14 SHEETS PT 520

DATE
DRAWN BY
DESIGNED 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-HI-1(115):13	1977	C0255-1	53



ORIGINAL PLAN	DATE	10/75
DRAWN BY	HW-DT	
DESIGNED BY	HW-DT	
QUANTITIES BY		
CHECKED BY		
NO.		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY STREET LIGHTS

INTERSTATE ROUTE H-1
HALAWA HEIGHTS ROAD
F.A.I. PROJ. I-HI-1(115):13
SCALE: AS SHOWN SEPT. 1976

SHEET NO. 1 OF 2 SHEETS

C.O.25 S-1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-41-1(115)13	1977	C0255-2	53

LIST OF MATERIAL

ITEM NO.	DESCRIPTION
1.	LUMINAIRE, HIGH PRESSURE SODIUM 400W TYPE III OR 250 W TYPE II, AS INDICATED, W/ MAST ARM.
2.	IN LINE FUSE HOLDER W/ 10A FUSE.
3.	WIRE, #10 AWG STRANDED COPPER, TYPE RHW BLACK.
4.	WIRE, #10 AWG STRANDED COPPER, TYPE RHW WHITE.
5.	IN LINE UNFUSED, INSULATED SEPARABLE CONNECTOR.
6.	WIRE, #8 AWG 7-STRAND ALUMINUM TYPE RHW.
7.	THIMBLE CLEVIS, ALUMINUM ALLOY W/ ALUM. ALLOY EYELET.
8.	WIRES, 2-#2 CROSS-LINKED POLYETHYLENE ALUMINUM W/ #3/0 AAAC NEUTRAL MESSENGER.
9.	PREFORMED GUY GRIP.
10.	GUY WIRE, 3/8" EHS, GALV.
11.	ANCHOR GUY HOOK W/ 3/4" ϕ THRU BOLT & 2-1/4" SP WASHER.
12.	MESSENGER HANGER, CAST ALUMINUM W/ 5/8" ϕ ALUMINUM ALLOY THRU BOLT & 2-1/4" ALUM. ALLOY SP. WASHER.
13.	ALUMINUM SHEET WRAP (AROUND MESSENGER).
14.	5/8" ϕ ALUM. ALLOY THRU BOLT W/ 2-1/2" SP ALUM. ALLOY CURVED WASHER, LENGTH AS REQUIRED.
15.	ALUMINUM ALLOY PREFORMED DEADEND.
16.	LAG SCREW
17.	5/8" GALV. THRU BOLT W/ 2-1/2" SP. GALV. WASHER & NUT (LENGTH AS REQUIRED).

NOTES:

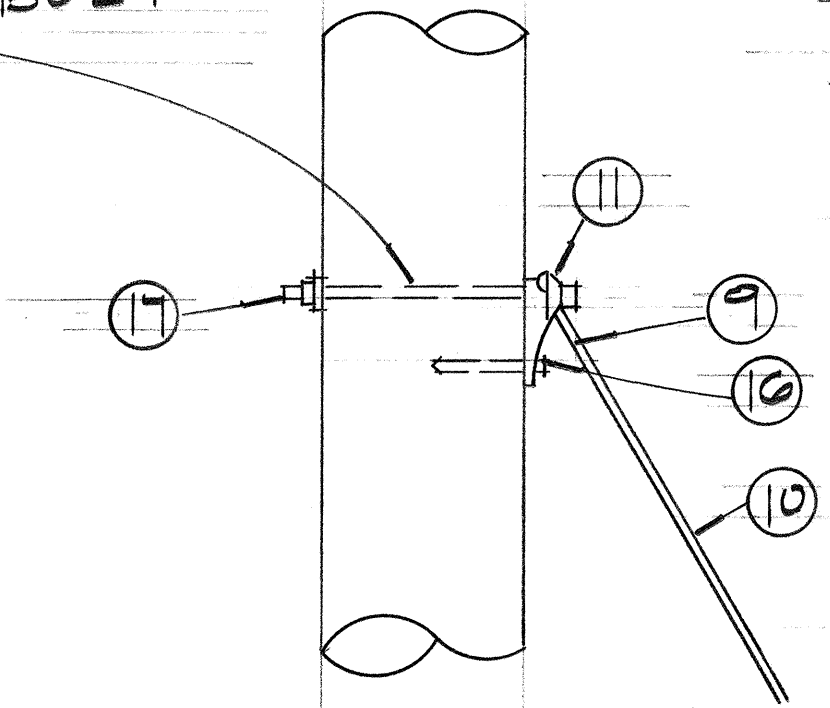
- ALL HARDWARE UNLESS INDICATED AS ALUMINUM OR ALUM. ALLOY SHALL BE HOT DIPPED GALV. STEEL.
- CONTRACTOR SHALL VERIFY LOCATION & CONDITION OF EXIST. HIGHWAY LIGHTING DUCTLINES, UNDERGROUND STRUCTURES, PIPELINES & UTILITY LINES.
- FOR ANCHOR DETAILS, SEE CONTRACT PLAN SHT. #27.
- CONTRACTOR SHALL NOTIFY HECO ONE WEEK IN ADVANCE FOR SERVICE CONNECTION. CONTACT MR. GILBERT GO, PH. 548-5605.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY STREET LIGHTS

INTERSTATE ROUTE H-1
HAWAII HEIGHTS ROAD
F&I PROJ. I-HI-1(115)13
SCALE: AS SHOWN SEPT. 1976
SHEET NO. 2 OF 2 SHEETS

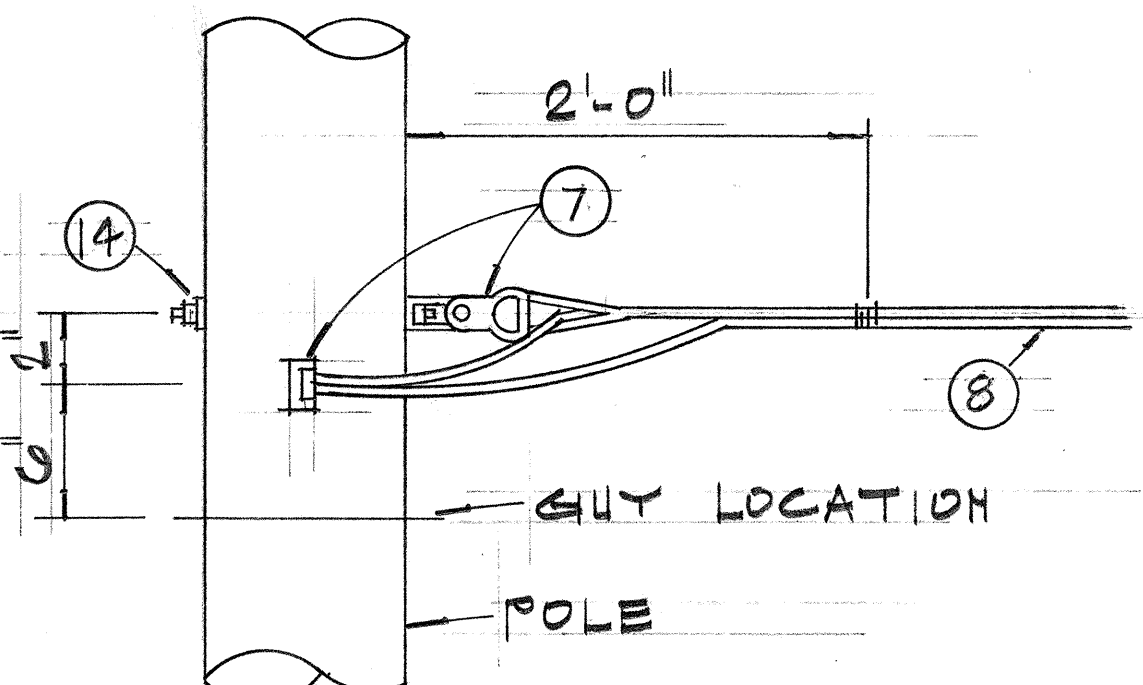
HOLE SIZE TO BE 1/16" LARGER THAN BOLT SIZE



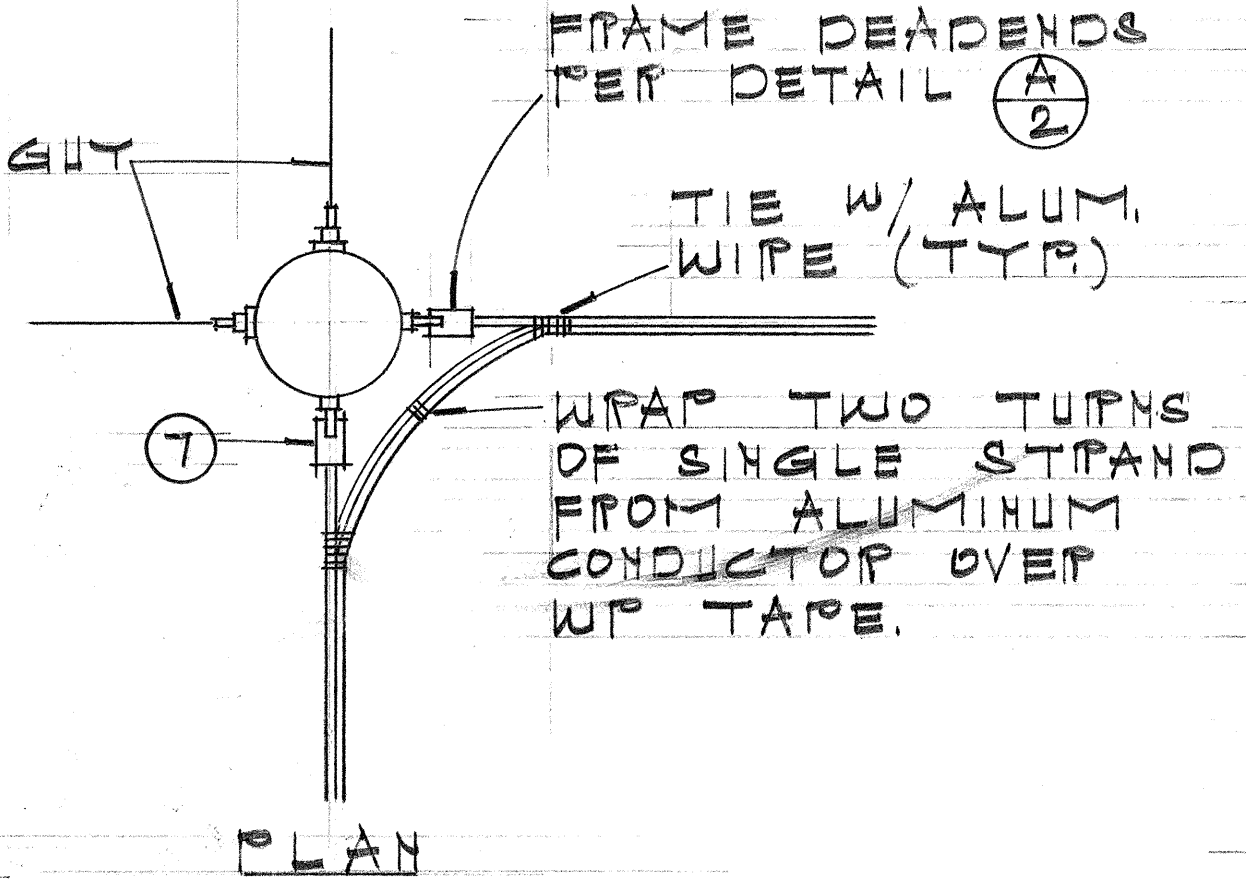
ANCHOR GUY ATTACHMENT

DETAIL (E) 2

INSTALLED BY HWY-OM INFORMAL CONTRACT - JOB NO. 1B-76.



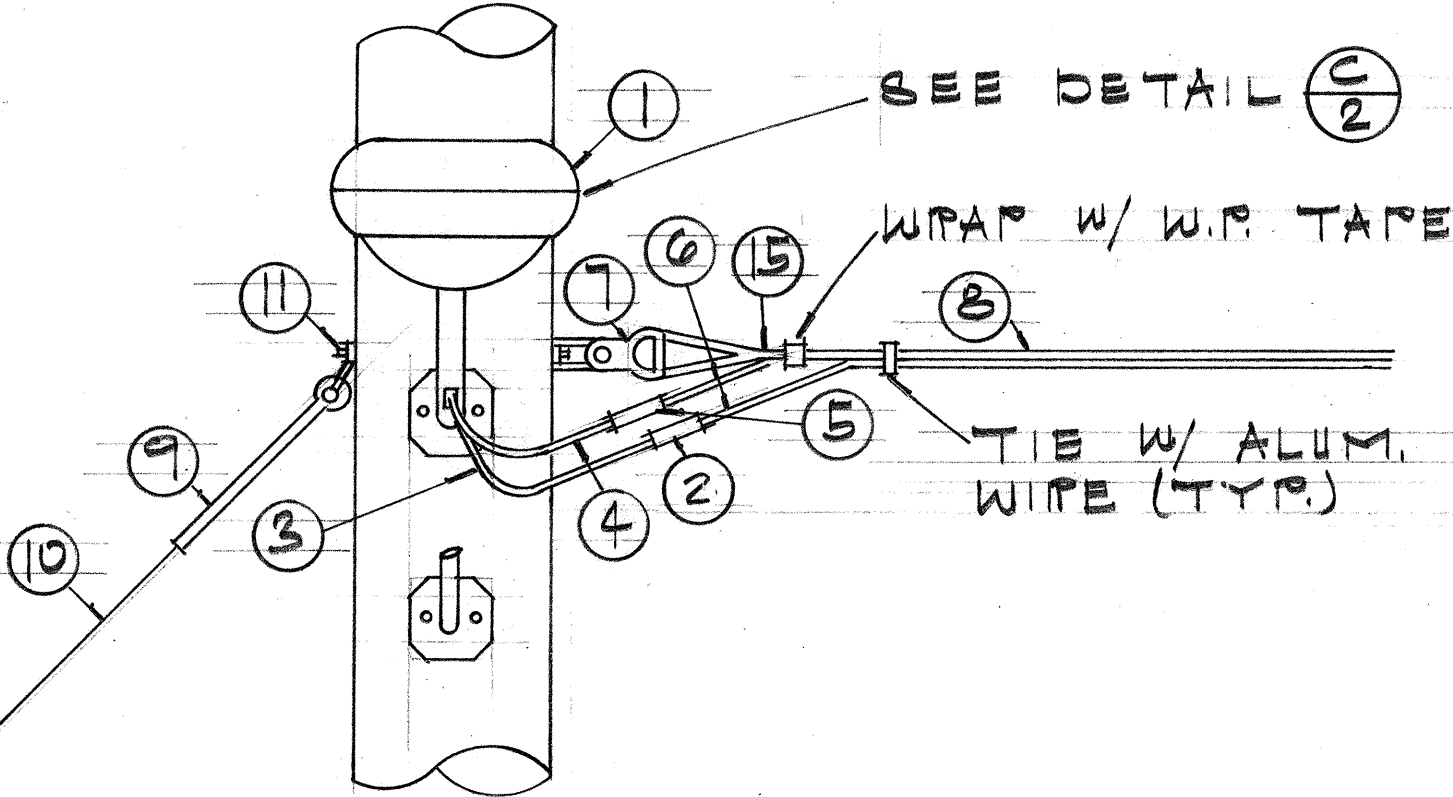
ELEVATION



PLAN

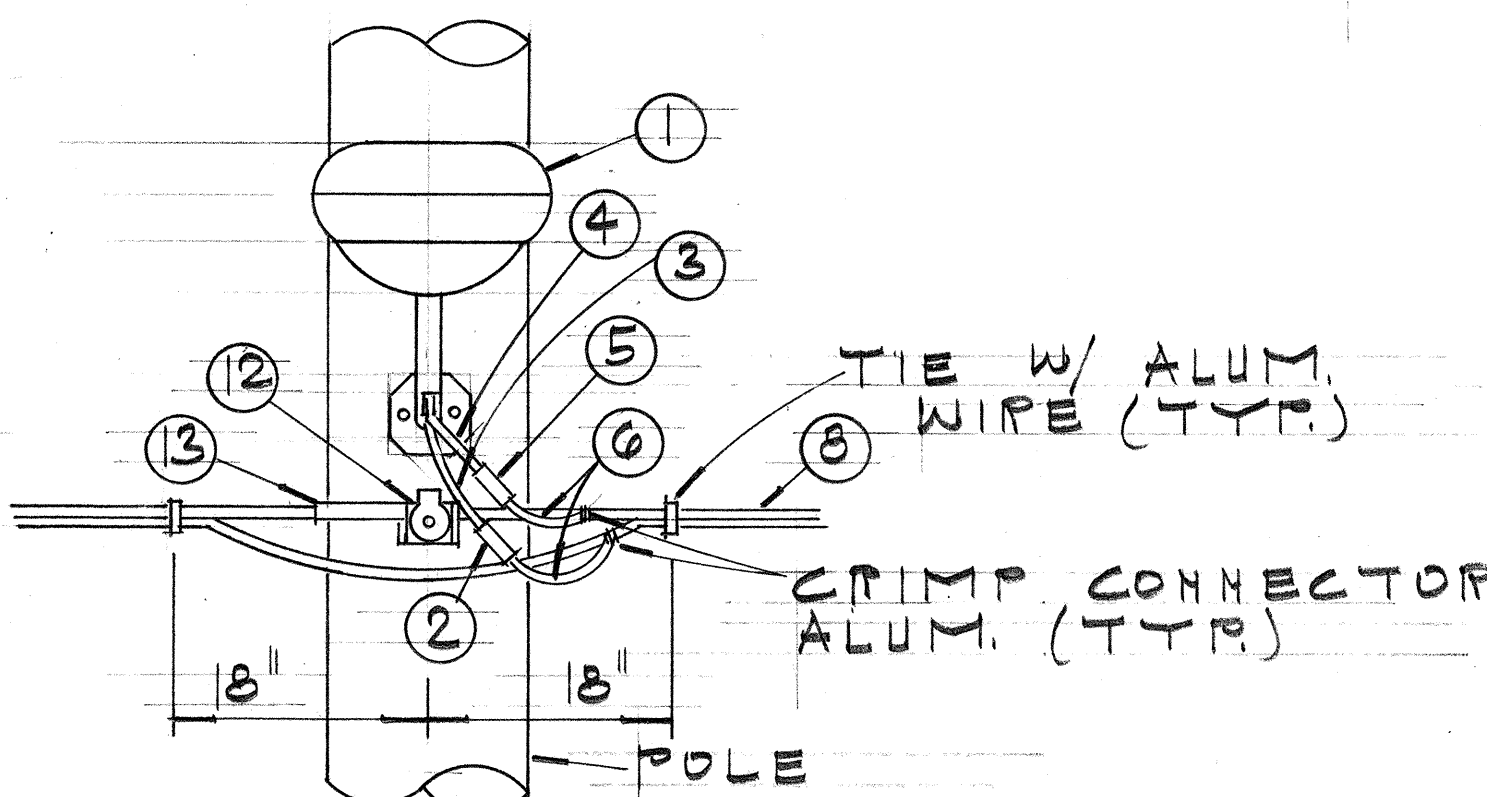
DEVIATION ANGLE 30°-90°

DETAIL (D) 2



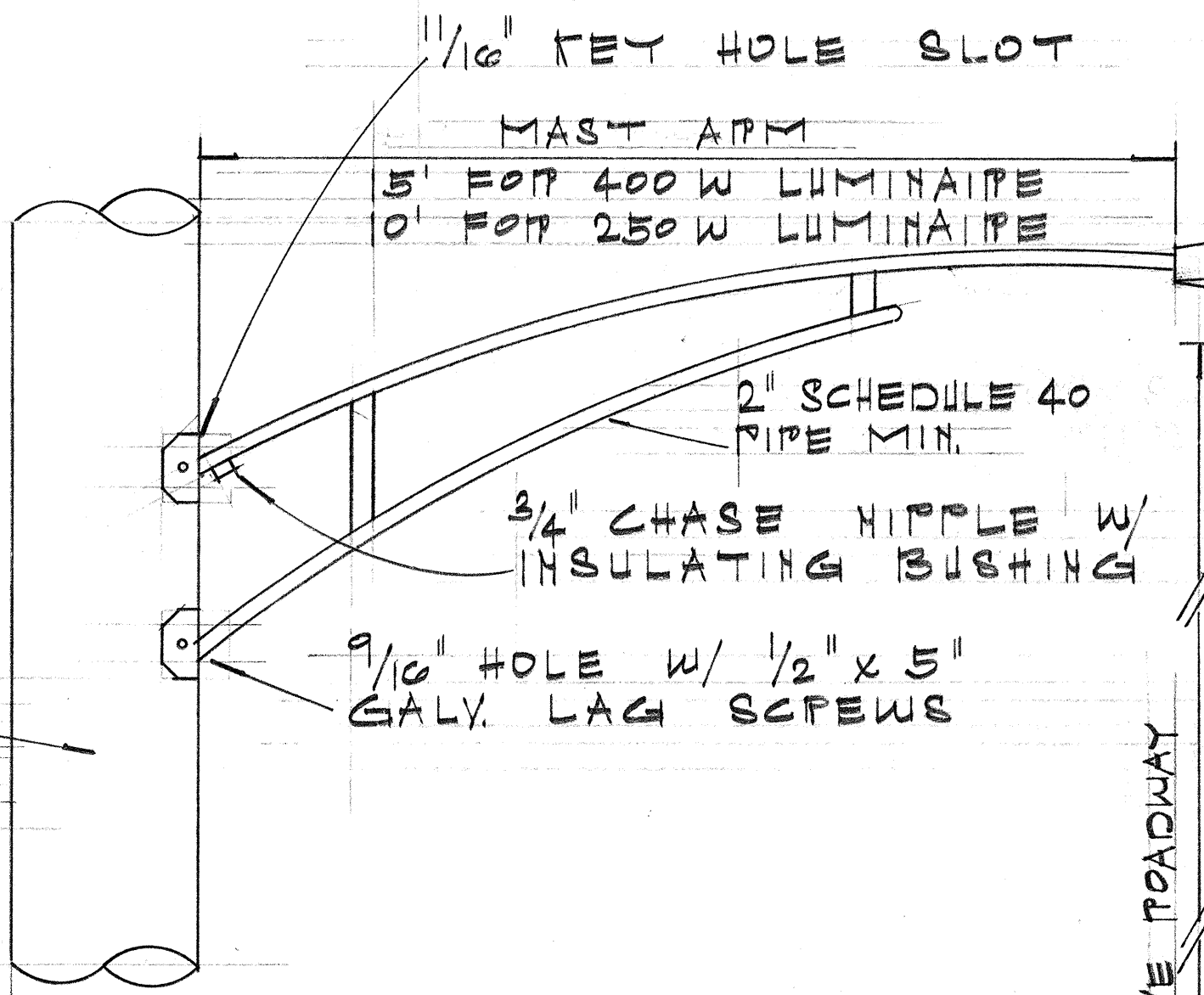
DEADEND POLE

DETAIL (A) 2

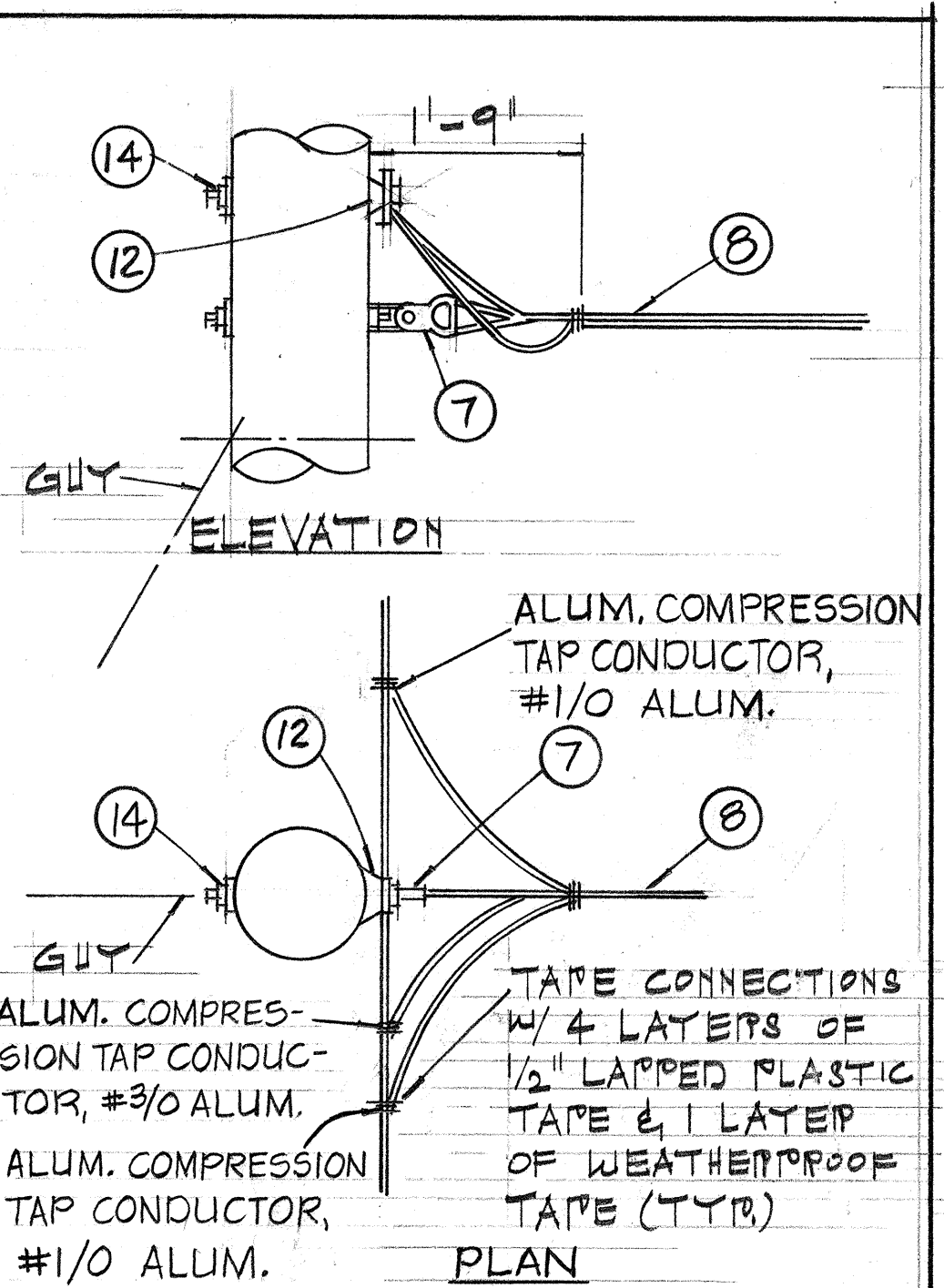


THRU POLE

DETAIL (B) 2



DETAIL (C) 2



TEE POLE DETAIL

DETAIL (F) 2

SURVEY PLOTTED BY	DATE
DRAWN BY	10-75
CHECKED BY	10-76
NOTED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	