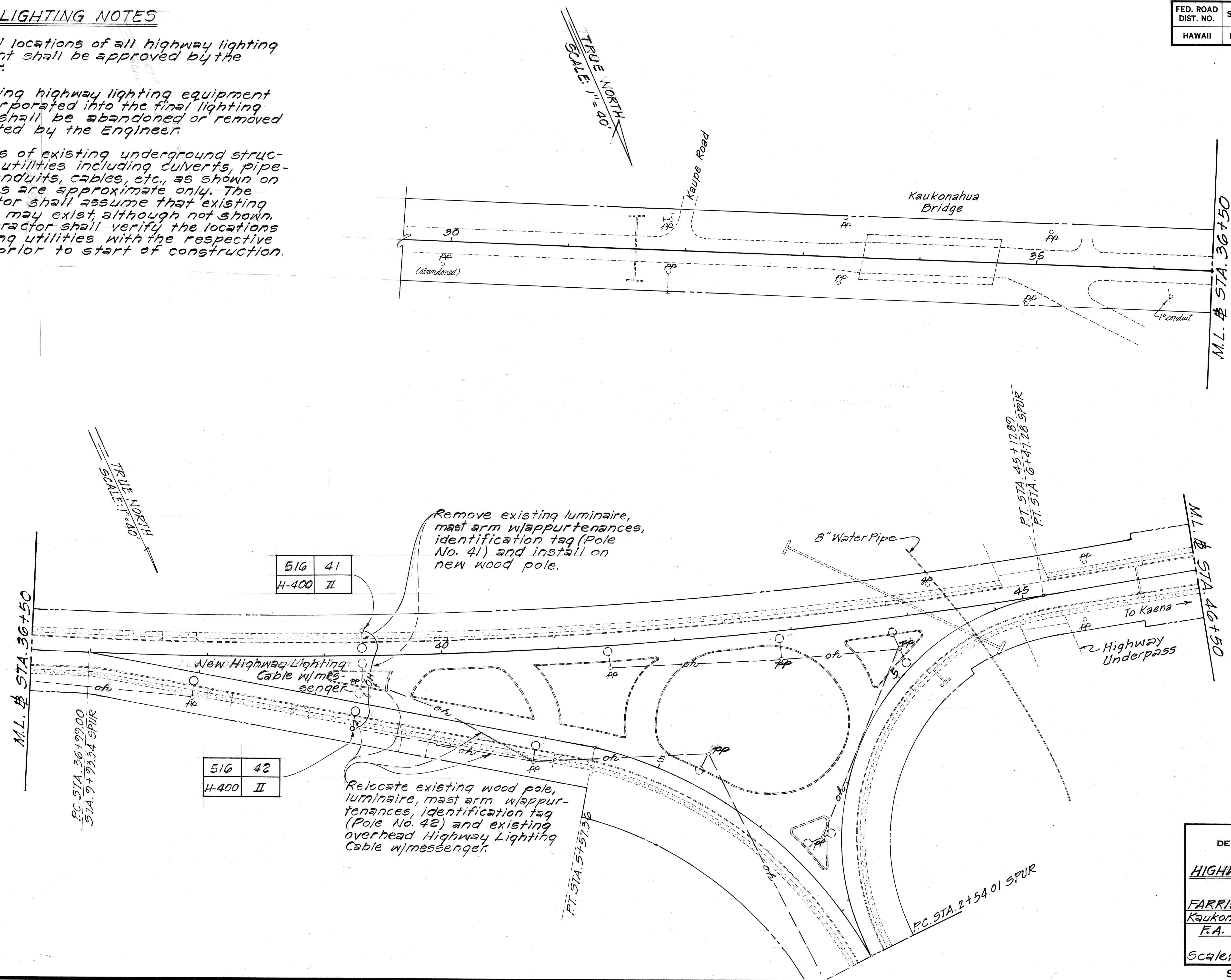


HIGHWAY LIGHTING NOTES

1. The final locations of all highway lighting equipment shall be approved by the Engineer.
2. All existing highway lighting equipment not incorporated into the final lighting system shall be abandoned or removed as directed by the Engineer.
3. Locations of existing underground structures & utilities including culverts, pipelines, conduits, cables, etc., as shown on the plans are approximate only. The Contractor shall assume that existing utilities may exist although not shown. The Contractor shall verify the locations of existing utilities with the respective owners prior to start of construction.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0030(5)	1987	37	39



ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HIGHWAY LIGHTING PLAN

FARRINGTON HIGHWAY RESURFACING
Kaukonahua Rd. toward Makaleha Br.
F.A. Project No. RS-0030(5)

Scale: 1"=40' Date: Nov., 1986

SHEET NO. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-093015	1987	38	39

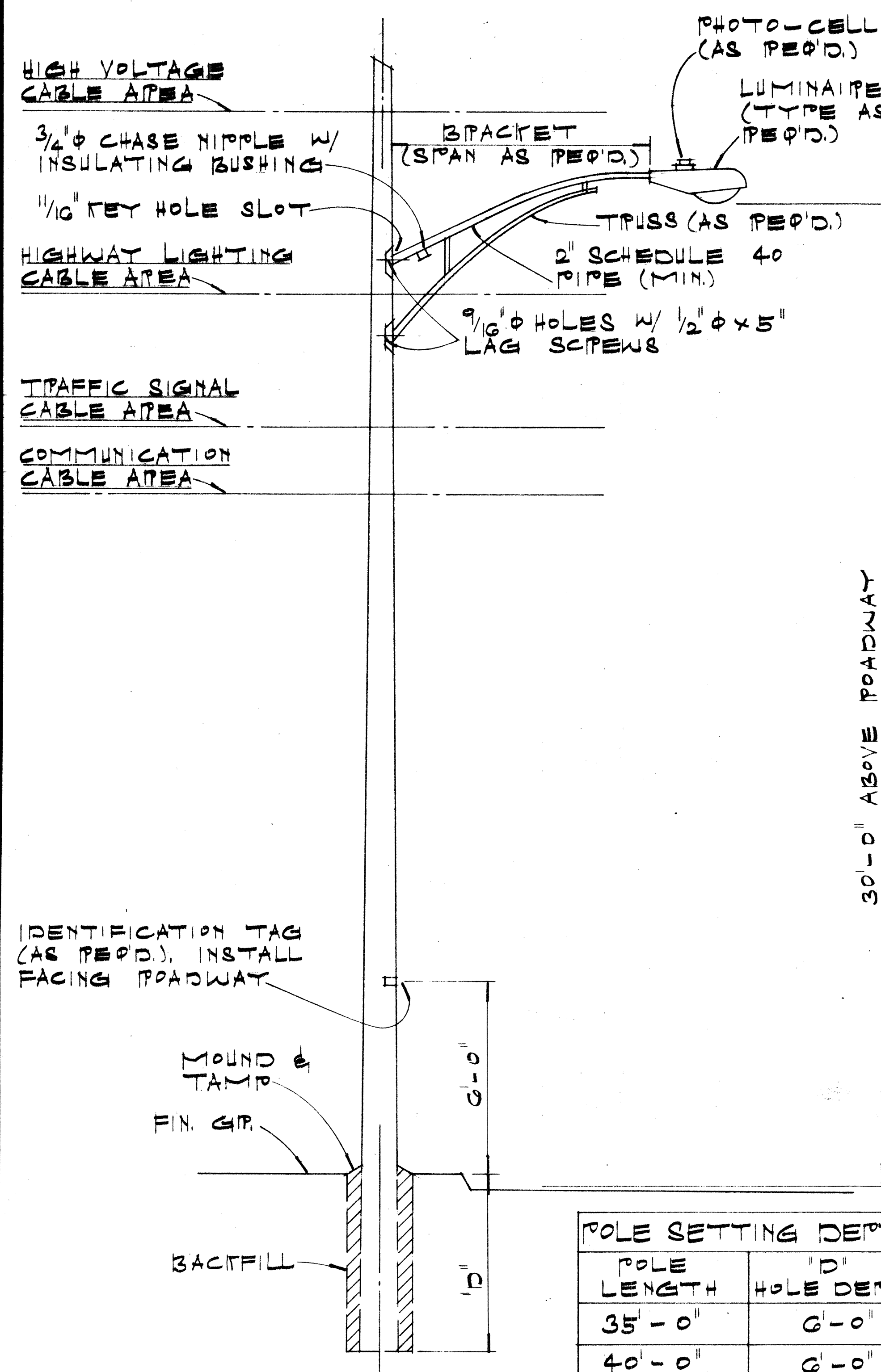
MATERIAL LIST

ITEM NO.	DESCRIPTION
1	LUMINAIRE (TYPE AS REQ'D. ON PLANS) & BRACKET (AS REQ'D.) WITH PHOTO-ELECTRIC CONTROL (AS REQ'D.).
2	CONDUIT, 3/4" PVC SCHEDULE 80 & STRAPS.
3	IN LINE FUSE HOLDER W/10A FUSE.
4	WIPE, #10 AWG STRANDED COPPER, TYPE PHW BLACK.
5	WIPE, #10 AWG STRANDED COPPER, TYPE PHW WHITE.
6	IN LINE UNFUSED, INSULATED SEPARABLE CONNECTOR.
7	WIPE #8 AWG 7-STRAND ALUMINUM, TYPE PHW.
8	THIMBLE CLEVIS, ALUM. ALLOY W/ ALUM. ALLOY EYELET.
9	WIRES, 2-#1/0 CROSS-LINKED POLYETHYLENE ALUM. W/ #3/0 AAAC NEUTRAL MESSENGER.
10	PREFORMED GUY GRIP
11	GUY WIPE, 3/8" EHS, GALV.
12	ANCHOR GUY HOOK W/ 3/4" ϕ THRU BOLT & 2 1/4" SQ. WASHER.
13	MESSENGER HANGER, CAST ALUM. W/ 5/8" ϕ ALUM. ALLOY THRU BOLT & 2 1/4" ALUM. ALLOY SQ. WASHER.
14	ALUM. SHEET WRAP (AROUND MESSENGER)
15	5/8" ϕ ALUM. ALLOY THRU BOLT W/ 2 1/2" SQ. ALUM. ALLOY CURVED WASHER (LENGTH AS REQ'D.).
16	ALUM. ALLOY SUSPENSION CLAMPS W/ LINE GUARD & ALUM. ALLOY EYELET.
17	ALUM. ALLOY PREFORMED DEADEND.
18	ANCHOR ROD 1" ϕ x 8'-0" COPPER CLAD.
19	CONCRETE DEADMAN 1'-6" ϕ W/ GALV. SQ. WASHER.
20	GUY WIPE GUARD, GALV.
21	INSULATOR, PORCELAIN.
22	LAG SCREW (SIZE AS REQ'D.)
23	5/8" ϕ GALV. THRU BOLT W/ 2 1/2" SQ. GALV. WASHER (LENGTH AS REQ'D.).
24	DEADEND SPOOL & FORK
25	ALUM. COMPRESSION TAP CONDUCTOR, #1/0 ALUM.
26	ALUM. COMPRESSION TAP CONDUCTOR, #3/0 ALUM.

NOTE:

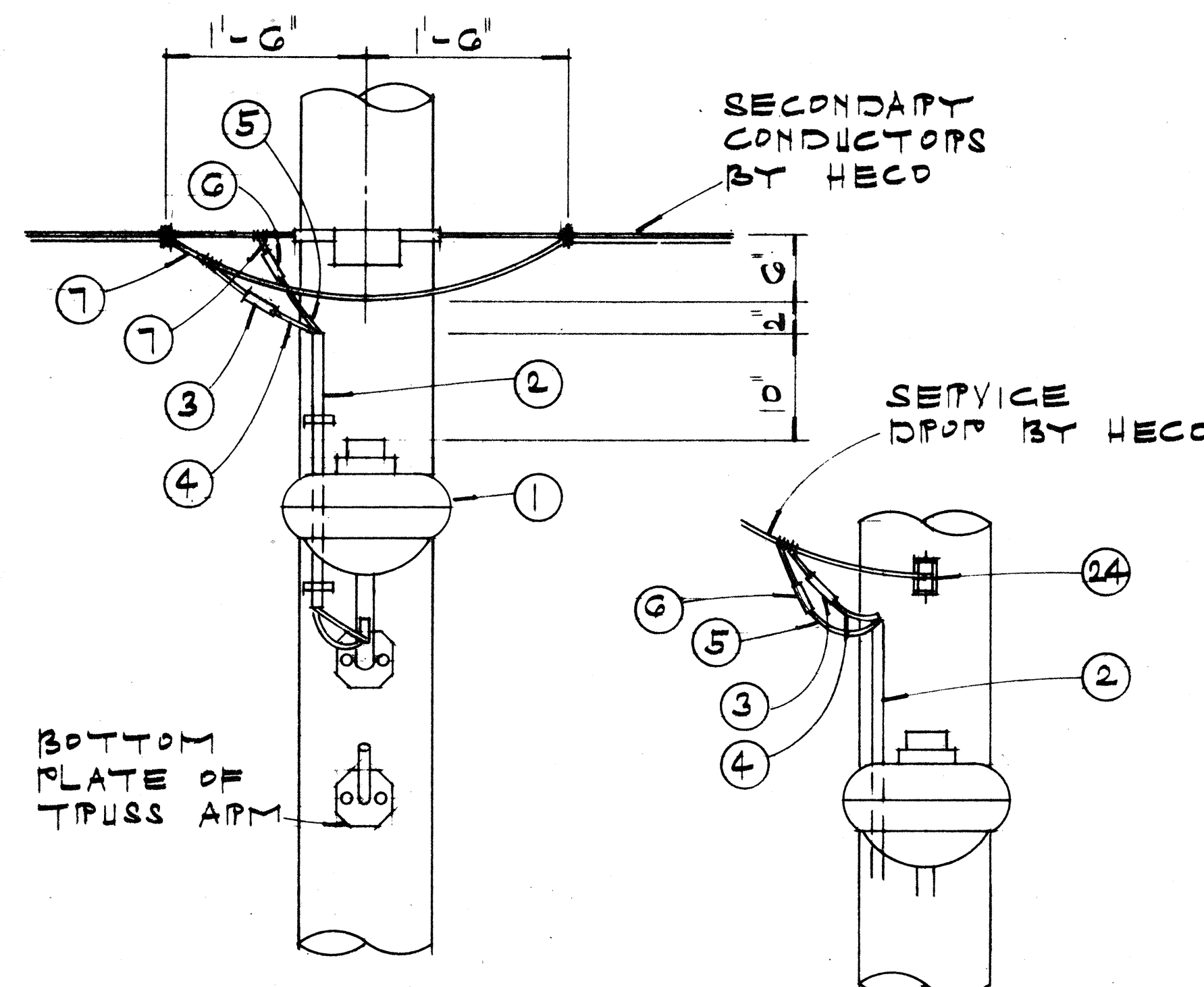
ALL HARDWARE, UNLESS INDICATED AS ALUM. OR ALUM. ALLOY, SHALL BE HOT DIPPED GALV. STEEL.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL DETAILS
HIGHWAY LIGHTING
LUMINAIRE MOUNTED
ON WOOD POLE**
NOT TO SCALE MAY 1976
SHEET NO. 2 OF 3 SHEETS



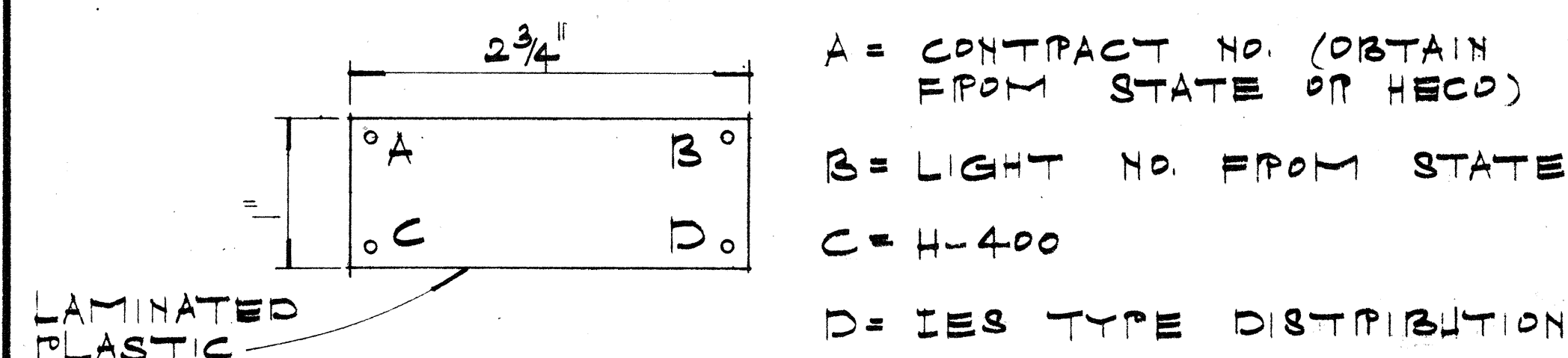
POLE LENGTH	"D" HOLE DEPTH
35'-0"	6'-0"
40'-0"	6'-0"
45'-0"	6'-0"

**LUMINAIRE MOUNTED
ON WOOD POLE**



NOTE:
PROVIDE ENOUGH CABLE SLACK FOR HECO TO TAKE UP & TAKE CONNECTION.

HECO SECONDARY CONNECTION DETAIL



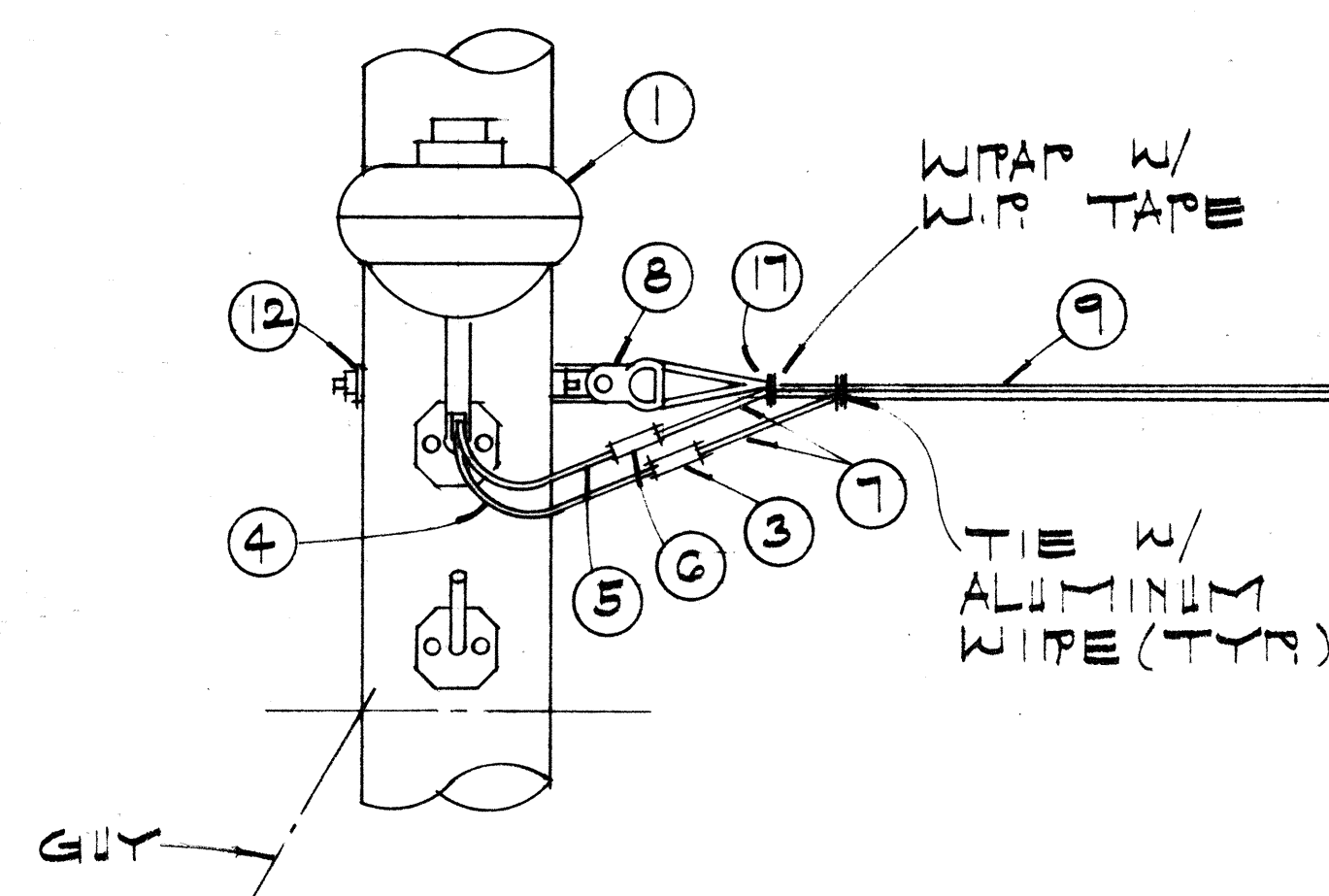
IDENTIFICATION TAG

NOTE:

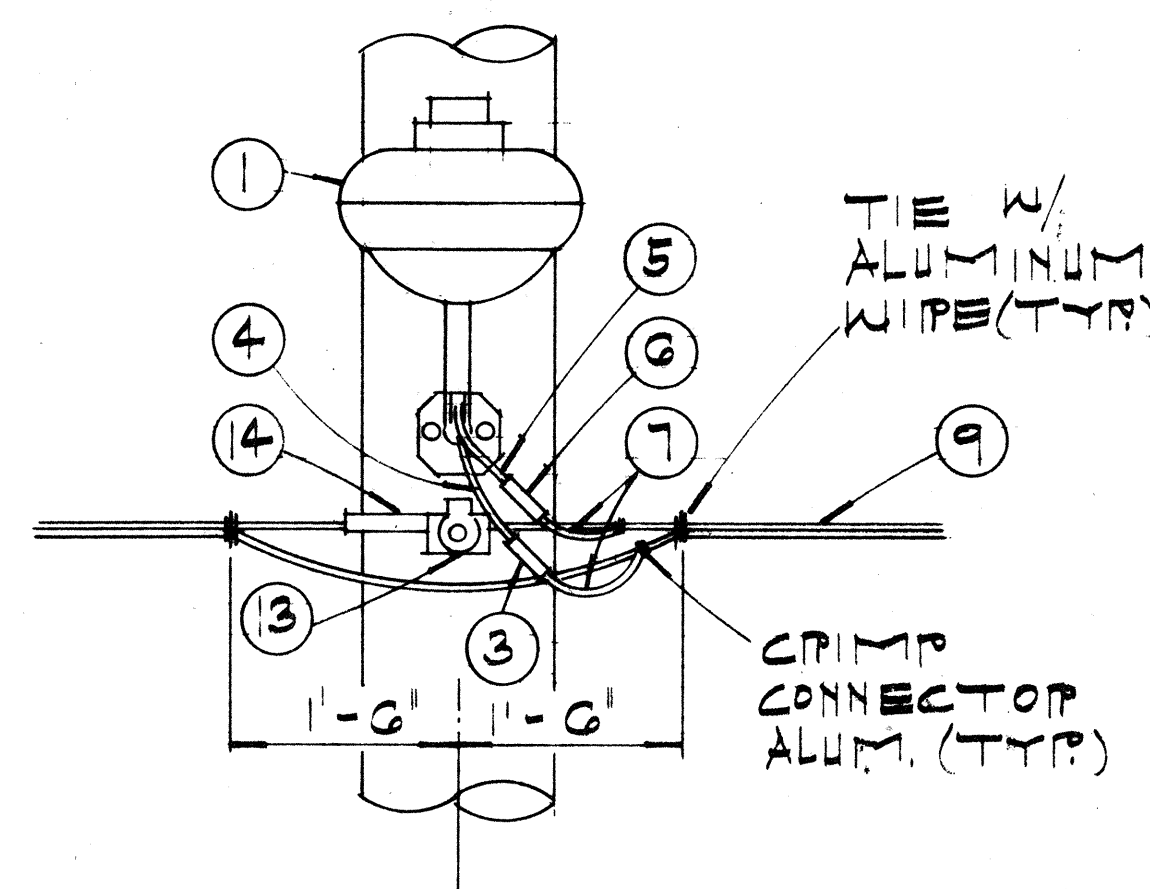
- PROVIDE IDENTIFICATION TAG ON ALL POLES UNLESS OTHERWISE SPECIFIED.
- HIGHWAY LIGHT NUMBERS ON PLANS MAY NOT CORRESPOND W/ NUMBERS ON IDENTIFICATION TAGS. VERIFY LIGHT NUMBERS W/ STATE OF HAWAII.

ORIGINAL PLAN	DATE
SURVEY PLATTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

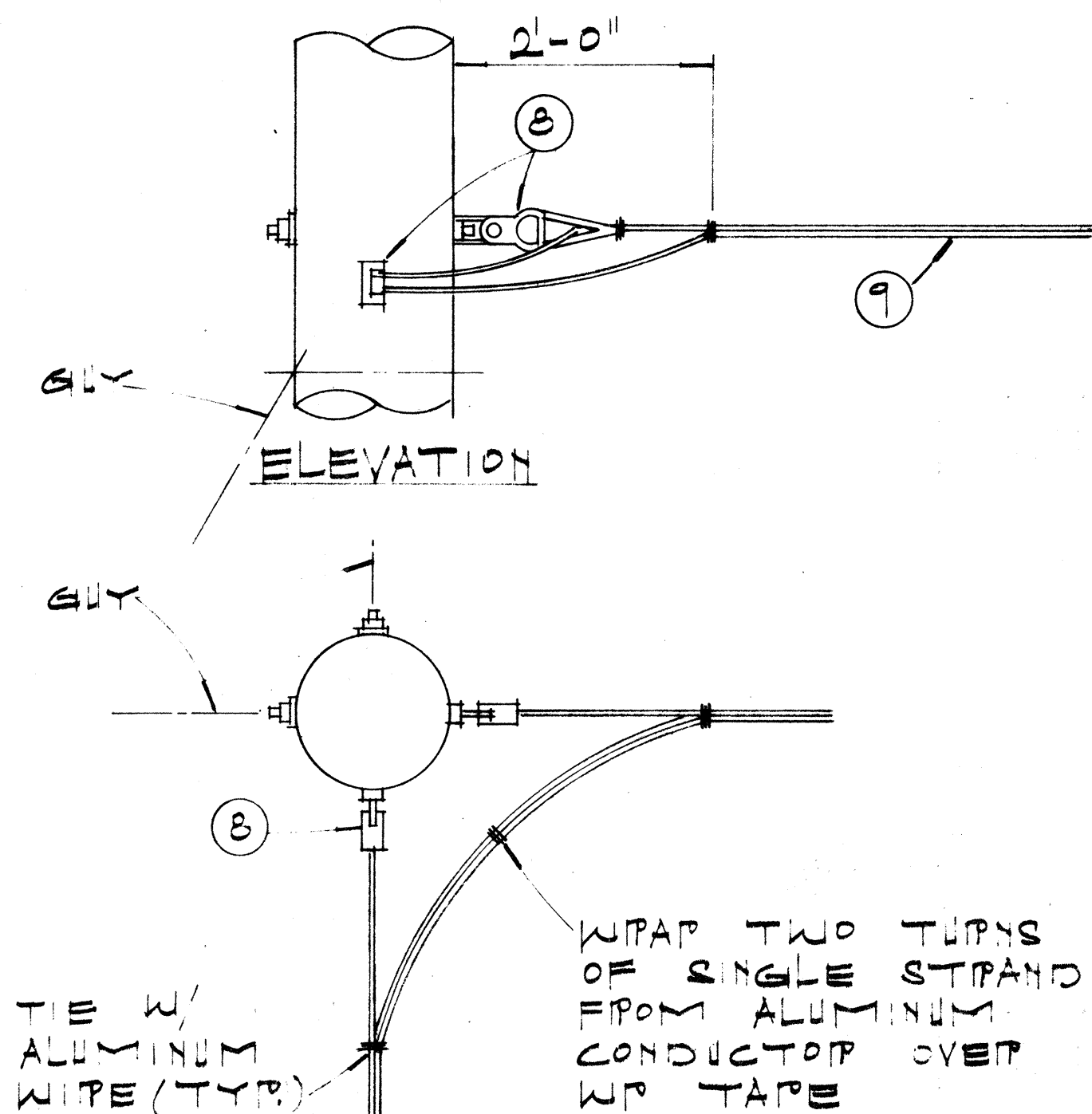
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	75-0230(5)	1987	39	39



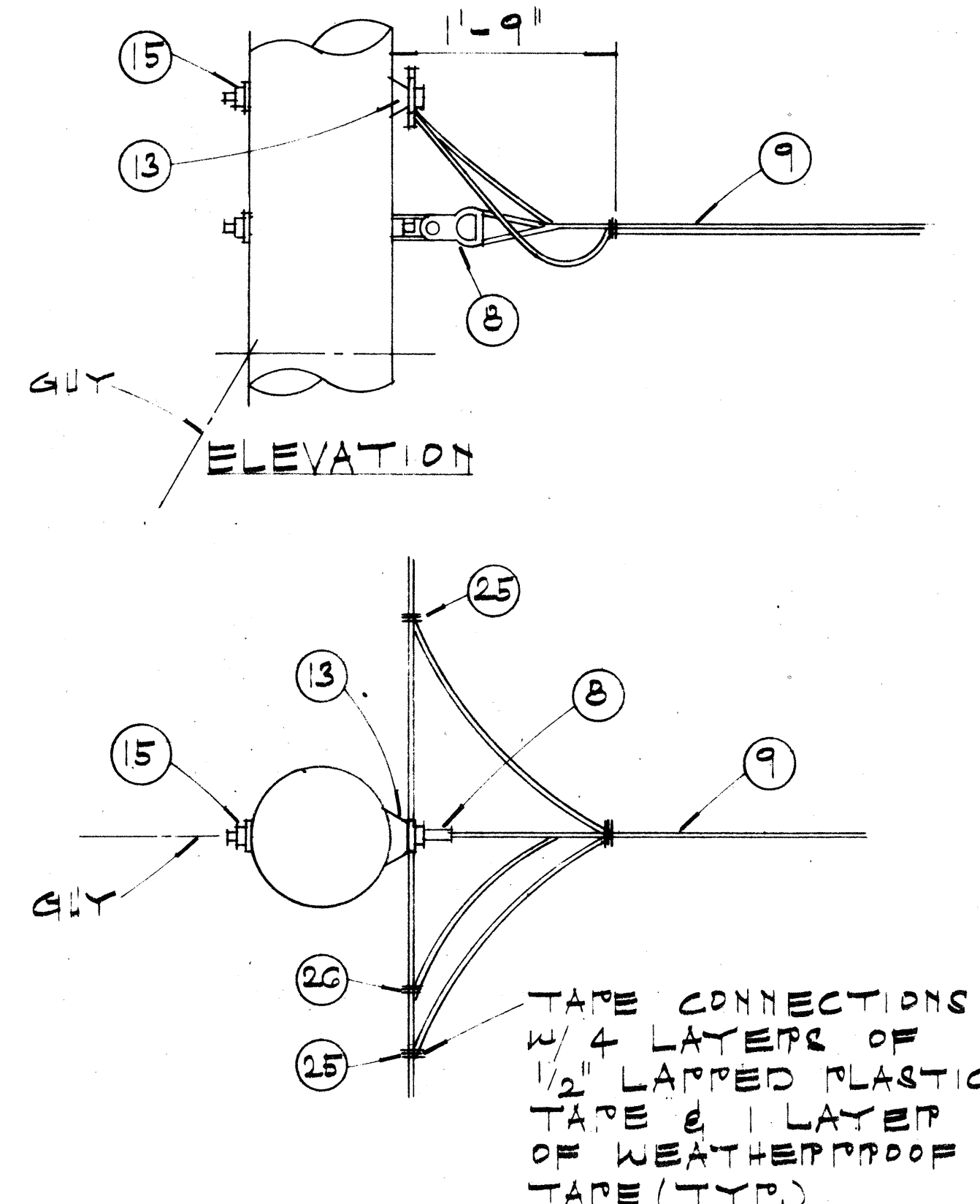
DEADEND POLE DETAIL



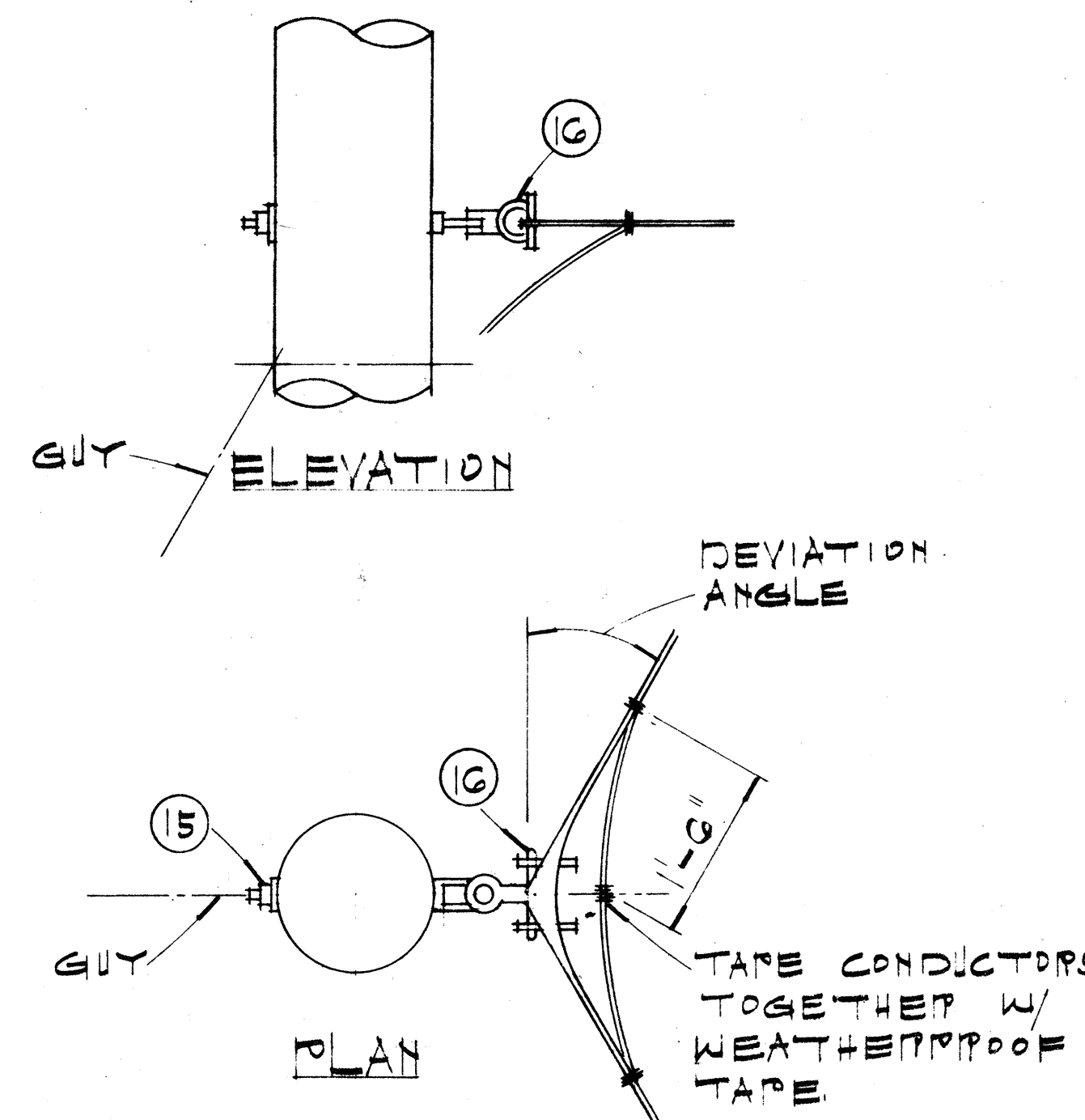
THRU POLE DETAIL



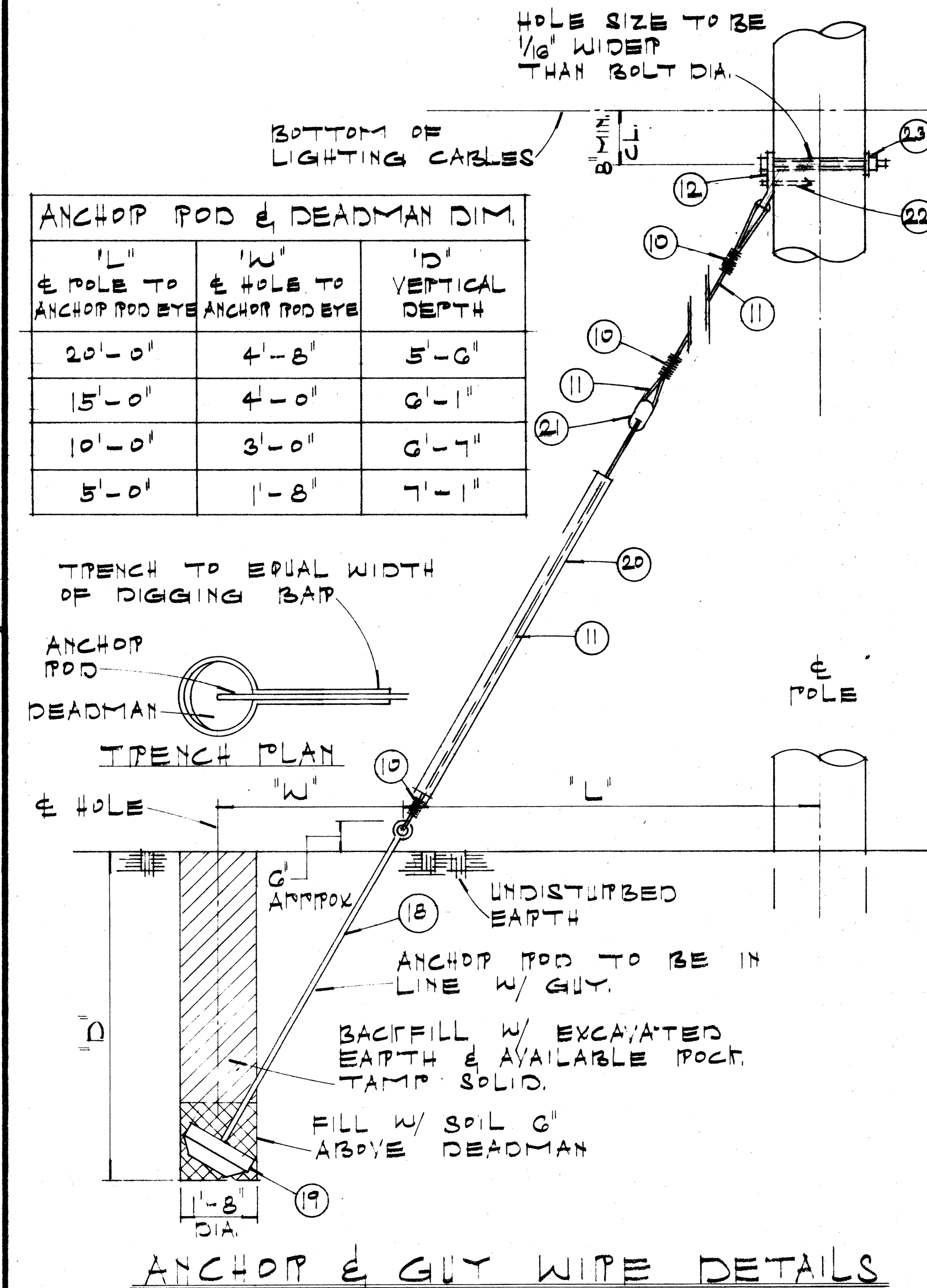
DEVIATION ANGLE 30°-90°
ANGLE POLE DETAIL



TEE POLE DETAIL



DEVIATION ANGLE 10°-30°
ANGLE POLE DETAIL



ANCHOR & GUY WIRE DETAILS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL DETAILS
HIGHWAY LIGHTING
LUMINAIRE MOUNTED
ON WOOD POLE
NOT TO SCALE MAY 1976
SHEET NO. 3 OF 3 SHEETS