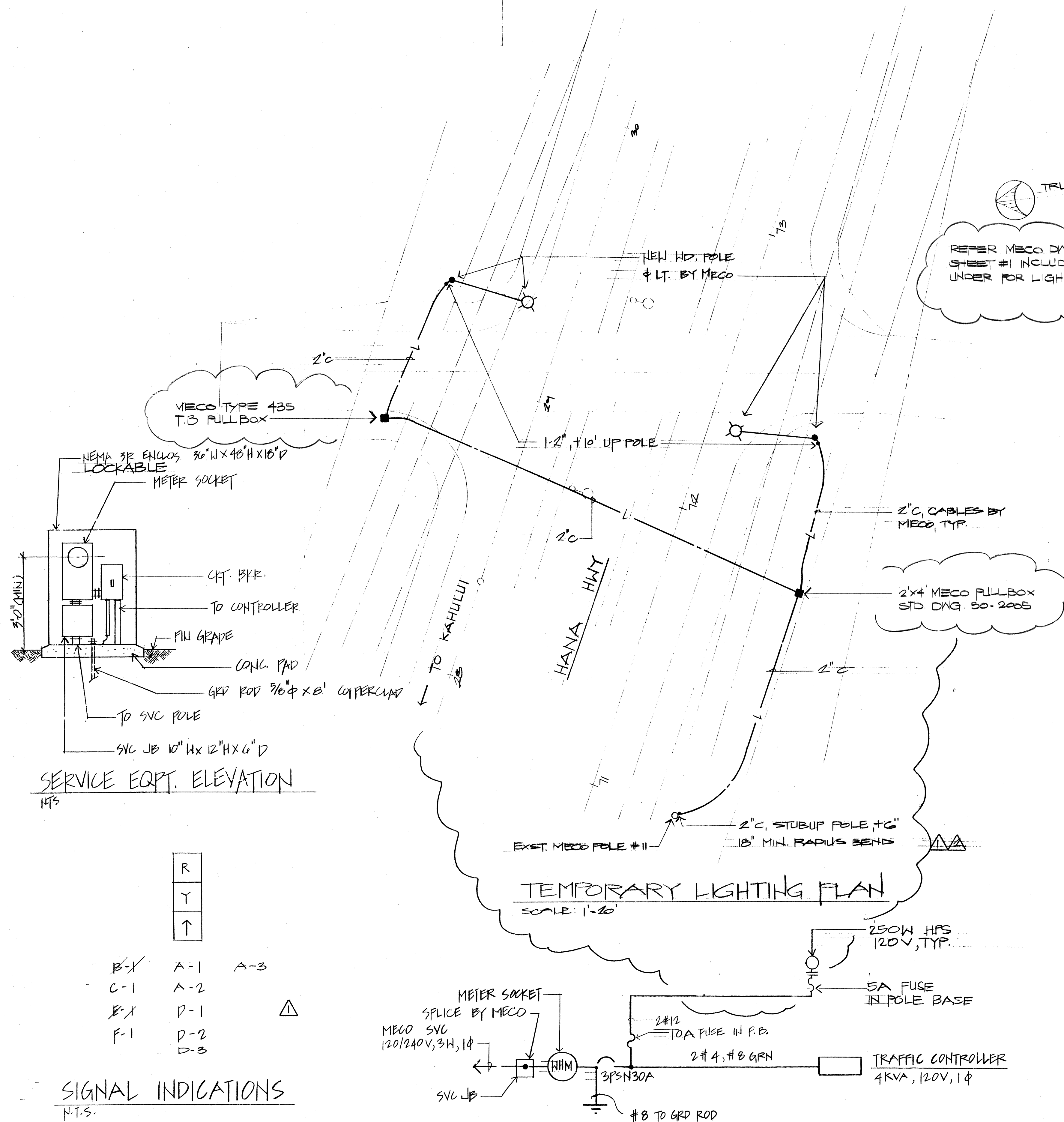
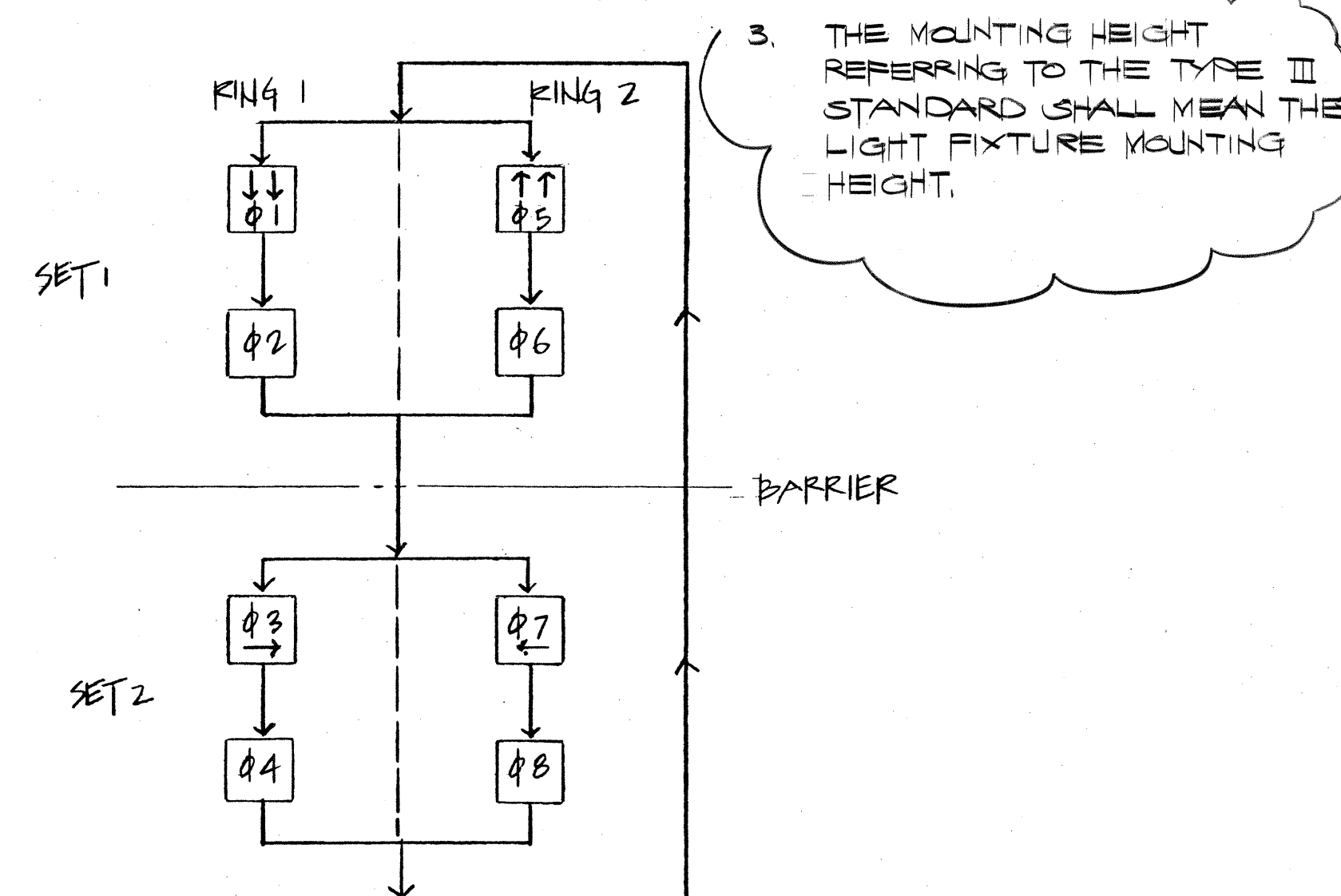




EXST	NEW	DESCRIPTION
	↕	12" RT ← PROGRAMMED VISIBILITY TRAFFIC SIGNAL HEAD
	→	12" RTG STANDARD TRAFFIC SIGNAL HEAD
	↗	12" RT ↑ TRAFFIC SIGNAL HEAD
○	→	STANDARD TRAFFIC SIGNAL HEAD MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT = 10' (DOT-H STD. PLAN TE-38)
	↕	12" RT ← TRAFFIC SIGNAL HEAD
	↗	TRAFFIC SIGNAL HEADS MOUNTED ON TYPE II SIGNAL STANDARD, ARM SPREAD SHOWN 24' & DISTANCE BETWEEN SIGNAL HEADS SHOWN IS 12', ASSEMBLY A, UNITS 1 & 2 (DOT-H STD. PLAN TE-38 & -39)
	↗	TRAFFIC SIGNAL HEADS & ST LIGHT MOUNTED ON TYPE III SIGNAL STANDARD (DOT-H STD. PLAN TE-42)
	⊠	LIGHT STANDARD, 1-ARM BY MECO (250 W HPS)
	⊞	LIGHT STANDARD, 2-ARM BY MECO (150 W HPS)
	⊞	LIGHT STANDARD, 1-ARM BY MECO (150 W HPS)

□	LOOP DETECTOR
-L/TR-	UNDERGROUND ST LIGHT/TRAFFIC SIGNAL DUCTLINE
-TR-	UNDERGROUND TRAFFIC SIGNAL DUCTLINE
-L-	UNDERGROUND ST LT. CONDUIT, 2" TYP. (CABLES BY MECO, EXCEPT WHERE NOTED)
-O(EL)-	OVERHEAD ELEC/TEL LINES
* *	REMOVE OR ABANDON IN PLACE AS REQD
⊞	REMOVE PULLBOX
⊞	REMOVE SIGNAL STANDARD, TYPE AS NOTED
PP	POWER POLE BY UTILITY CO.
⊞	ST. LT. ON WOOD POLE TO BE REMOVED BY MECO.
→	CONDUIT STUBOUT
⊞	TRAFFIC CONTROLLER (FOR BASE SEE DOT-H STD PLAN TE-39) (COMPLETE W/ MANUAL CONTROL OPERATION PER DOT & POLICE DEPT. RMT'S)
⊞	PULLBOX, TYPE B (DOT-H STD. PLAN TE-41)
⊞	MECO TYPE 435 TB

GEN. NOTES: 1. ALL ROADWAY LUMINAIRES TO HAVE A MEDIUM, SEMI CUT-OFF, TYPE III DISTRIBUTION
2. PROVIDE GRD WIRE IN ALL SIGNAL CONDUITS, SEE SPECS



PHASE DIAGRAM
(8-PHASE SEQUENCE)

ONE-LINE DIAGRAM

NOTES: 1. VERIFY PERMITS W/ MECO
2. FOR TRAFFIC SIGNAL & LIGHT & OTHER TRAFFIC SIGNAL DET., SEE SHT. C.O. E-4

RECORD DRAWING
DATE 7/12/91



Airports Division



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CONSULTING ENGINEERS

DSGN. DRWN. CHKD. APPD.

KEY PLAN / NOTES:

△	1-23-91	PROVIDED TEMPORARY LIGHTING PLAN
△	11-20-91	REV. SIGNAL INDICATOR DELETED SIGNAL PLAN
NO.	DATE	REVISIONS

PROJECT TITLE:

HANA HIGHWAY
IMPROVEMENTS

PROJECT NO.:

STATE NO. AM-1061-2
AIP NO. 3-15-00010-11

SHEET TITLE:

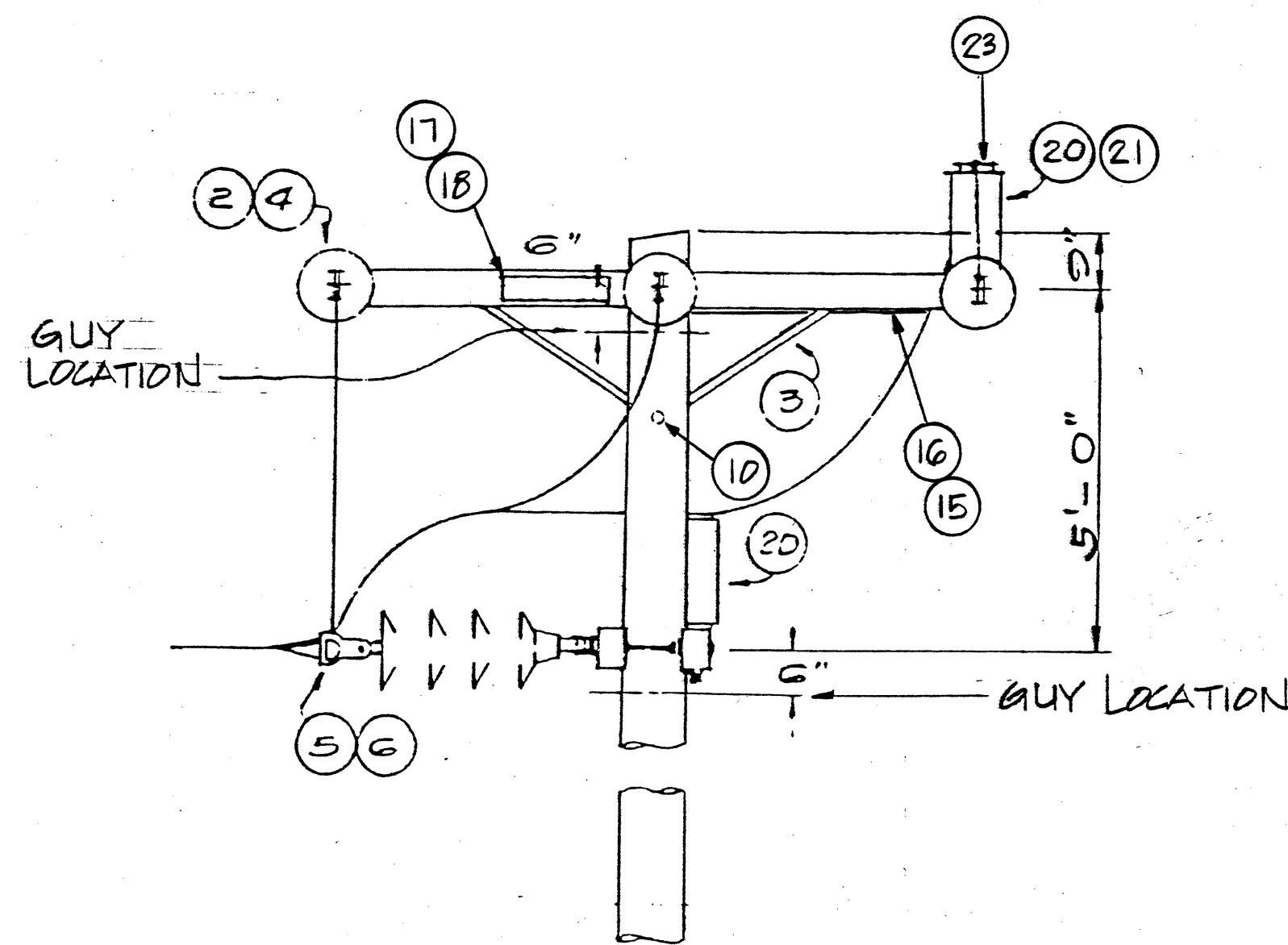
TRAFFIC SIGNAL PLAN
LEGEND

DATE:

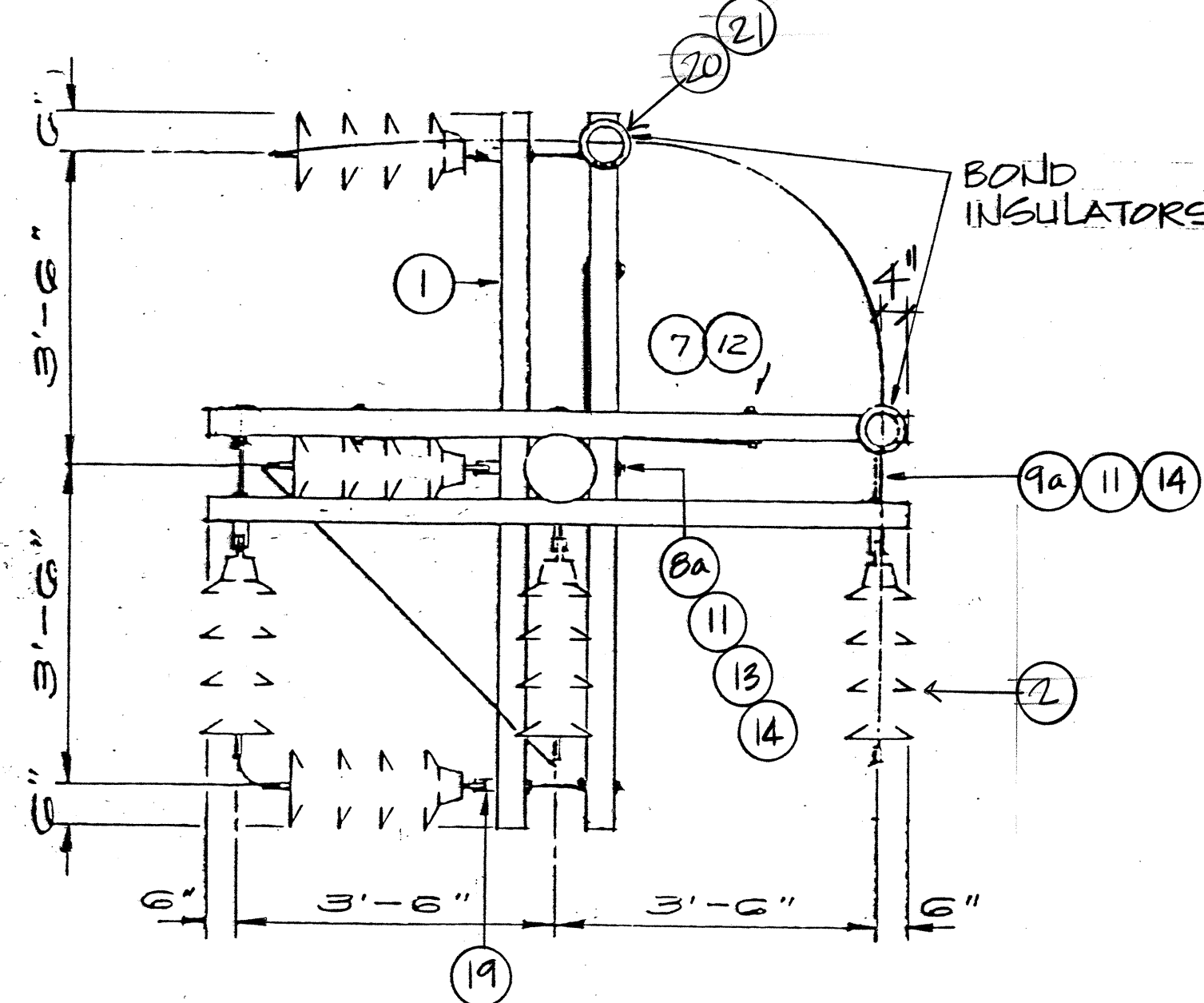
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DWG. NO.:

C.O.E-11A

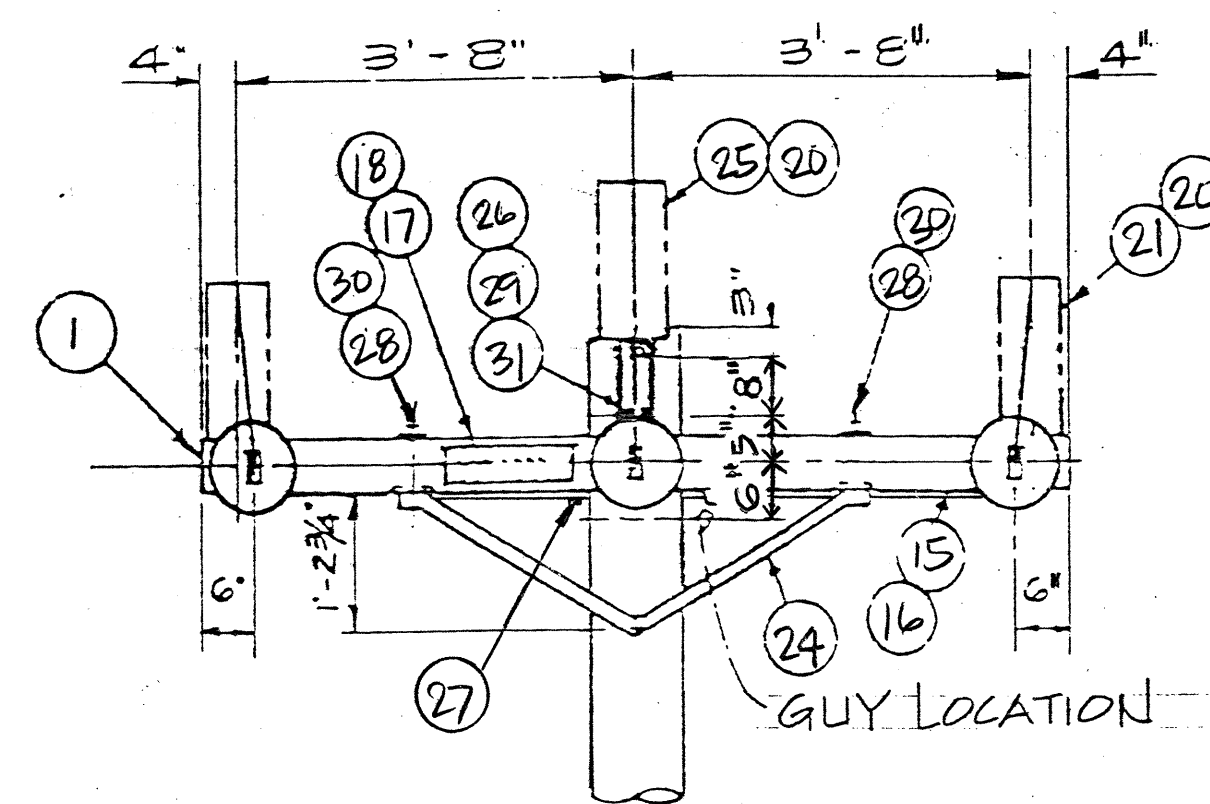


ELEVATION

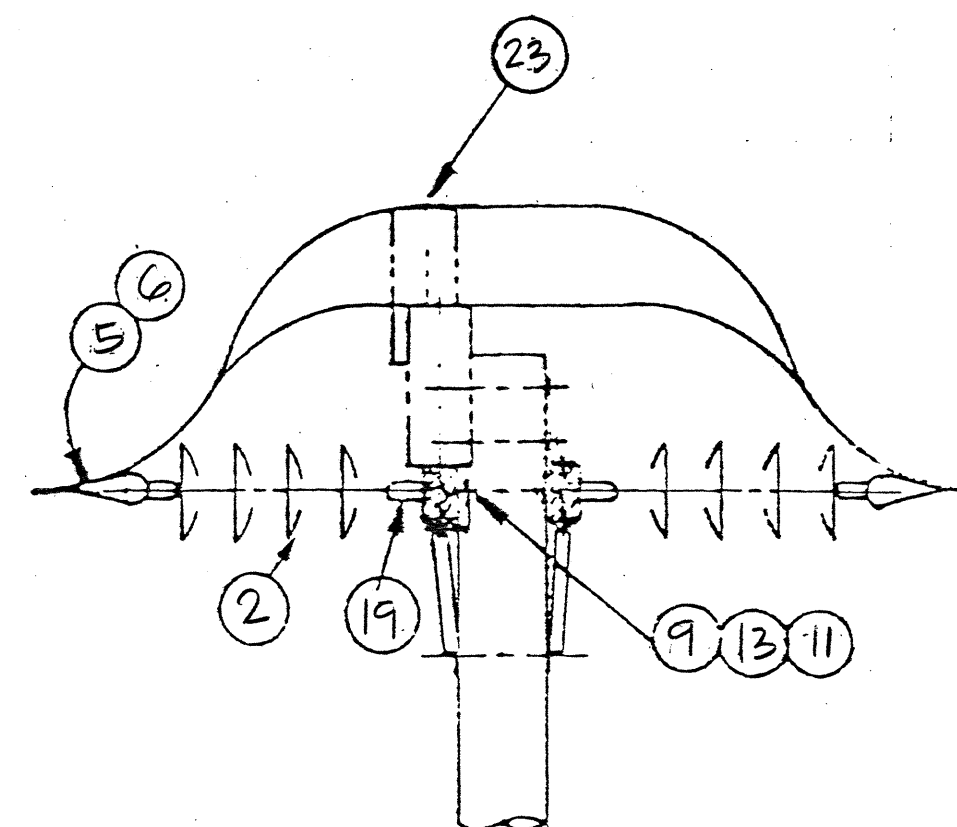


PLAN

CORNER POLE DETAIL (P-2)



ELEVATION



SIDE ELEVATION

ANGLE POLE DETAIL (P-1)
(P-3 SIMILAR)

ITEM	DESCRIPTION
1	CROSSARM, 8'-0" WOOD, 6" X 6"
2	INSULATOR, SUSP. W/GALV. CAP, CLASS 52-4
3	BRACE, 3/4" GALV. CROSSARM
4	EYELET, GALV.
5	THIMBLE, DEADEND W/GALV. COTTER BOLT & STAINLESS STEEL PIN (336.4 KCM & SMALLER)
6	GRIP, DEADEND
7	BOLT, 3/8" GALV. MACHINE (4-1/2" OR 8")
8	BOLT, 5/8" X 18" GALV. MACHINE
8a	BOLT, 5/8" X 26" GALV. MACHINE
9	BOLT, 5/8" X 20" GALV. DBL. ARMING
9a	BOLT, 5/8" X 28" GALV. DBL. ARMING
10	SCREW, 1/2" X 4" GALV. LAG
11	NUT, 5/8" GALV. SQUARE
12	WASHER, 3/8" GALV. ROUND
13	WASHER, 5/8" GALV. ROUND
14	WASHER, GALV. SQUARE, 1/16"
15	CONDUCTOR, #8 CU. BONDING
16	STAPLE, GALV.
17	NAIL, STD. ALUMINUM
18	SIGN, PLASTIC, "HIGH VOLTAGE"
19	CLEVIS, EYE, GALVANIZED 11/16" HOLE W/BOLT
20	INSULATOR, POST TYPE, GALV. BASE, CLASS 56-2L
21	STUD, GALV. LONG SHANK
22	CONNECTOR, TAP
23	CLAMP, INS. POST
24	BRACE, CROSSARM GALV. 48" ANGLE IRON
25	STUD, POST LINE GALV. 3/4" X 1-3/4" SSH
26	BRACKET, POLE TOP GALV. 9"
27	CONNECTOR, CU. SPLIT BOLT
28	BOLT, M GALV. 1/2" X 7"
29	BOLT, M GALV. 5/8" X 10"
30	WASHER, RND. GALV. 1/2"
31	WASHER, 5/8" DOUBLE COIL SPRING LOCK

RECORD DRAWING
DATE 7/12/91



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DSGN DRWN CHKD APPD.

ML JS WN

KEY PLAN / NOTES

NO. DATE REVISIONS

PROJECT TITLE :

HANA HIGHWAY
IMPROVEMENTS

PROJECT NO. :

STATE NO. AM-1061-12
AIP NO. 3-15-0006-11

SHEET TITLE :

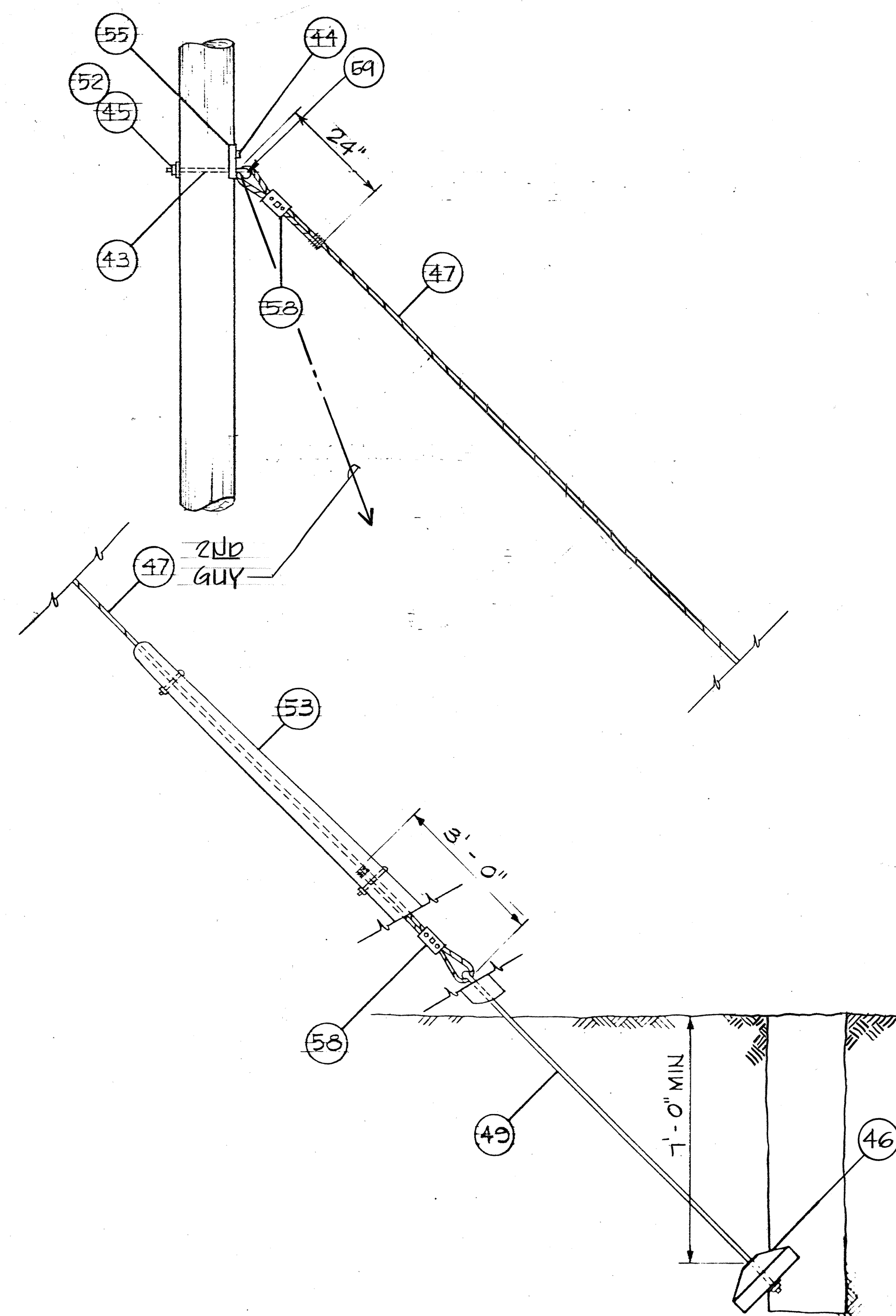
FLAT DEADEND POLE &
DOUBLE DEADEND POLE
DETAIL, MATERIAL LISTS

DATE

AUG 1990

DWG. NO.

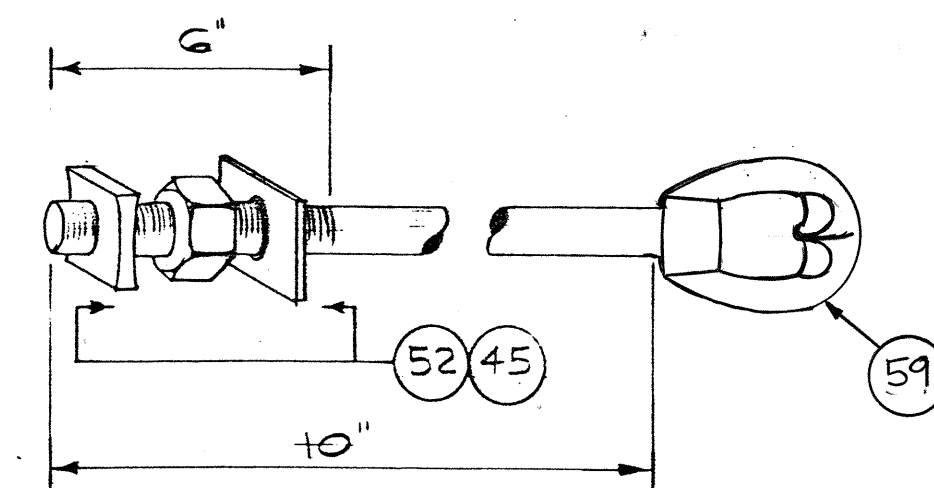
C.O.E-2



TYPICAL GUY AND ANCHOR ASSY

NO SCALE

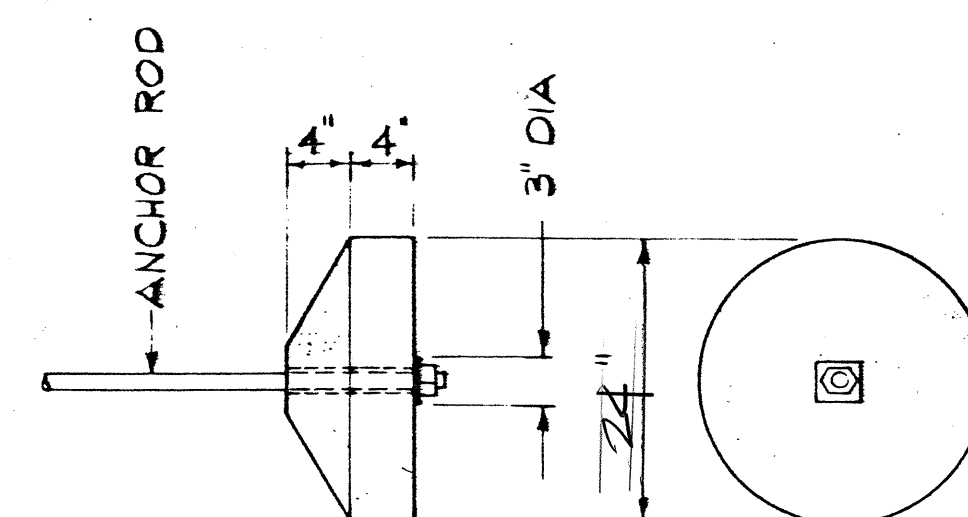
NOTE: ONE GUY & ANCHOR ASSY. DET. SHOWN, 2ND GUY & ANCHOR ASSY SIMILAR.



PART NO. 43

THIMBLEYE BOLT

NO SCALE



PART NO. 46

CONCRETE ANCHOR

NO SCALE

LIST OF MATERIALS

PART NO.	DISCRIPTION
43	BOLT, 5/8"x10"
44	LAG SCREW, 1/2"x4" (FETTERDRIVE)
45	WASHERS, SQUARE, 2-1/4"x2-1/4"x3/16", 1/2"PHOLE
46	CONCRETE ANCHOR
47	GALVANIZED GUY WIRE 7 STRAND UTILITIES, HI-STRENGTH 1/2" SIZE, 25,000 lb. ULT. STRENGTH.
49	ANCHOR ROD, THREADED THIMBLEYE TWINEYE 3/4"x8'-0", 25,000 lb. ULT. STRENGTH
52	SQUARE MF LOCKNUT, FOR 5/8" BOLT
53	GUY PROTECTOR, 8 FEET, 16 GAGE STEEL
55	LIFT PLATE, 3-HOLE, 1/4" STEEL PLATE
58	GUY CLAMP, 6" 3-BOLT, 5/8" BOLT
59	TWINEYE NUT, FOR 5/8" MAX. GUY WIRE

NOTES:

- ALL HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION A-153.
- GRIPPING TYPE OF DOWN GUY OF EQUIVALENT STRENGTH MAY BE USED IN LIEU OF THE TYPE AS SHOWN.

RECORD DRAWING

DATE 7/12/91



Airports Division
DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII



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ML JS WN

KEY PLAN / NOTES :

NO. DATE REVISIONS

PROJECT TITLE :

HANA HIGHWAY
IMPROVEMENTS

PROJECT NO. :

STATE NO. AM-1001-12
AIP NO. 3-15-0006-11

SHEET TITLE :

GUY DETAILS, & LIST
OF MATERIALS

DATE

AUG 1990

DWG. NO.

COLE-3