

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(86):17	1981	51	207

NOTE: ESTIMATED QUANTITY FOR LUMP SUM ITEMS WILL BE USED TO DETERMINE THE THEORETICAL UNIT PRICE AS DEFINED IN SUB-SECTION 104.02(B) OF THE STANDARD SPEC.

GENERAL NOTES APPLYING TO ALL ELECTRICAL SHEETS

- 1/EI. ON PLAN SHEETS EXISTING FACILITIES ARE DESIGNATED BY NOTATION OR BY THE LETTER (E) IN CONJUNCTION WITH THE SYMBOL.
- 2/EI. DETAIL AND NOTES ARE NUMBERED AS FOLLOWS:
 1/E3 ← DETAIL OR NOTE NUMBER
 1/E3 ← ELECTRICAL SHEET ON WHICH DETAIL OR NOTE APPEARS.
- 3/EI. PROVIDE UNDERGROUND RACEWAYS AND RACEWAYS RUN IN STRUCTURE IN 2" SIZE, EXCEPT AS NOTED, AND OF TYPE NMR, EXCEPT AS NOTED. PROVIDE 1 INCH AND SMALLER SIZE RACEWAYS OF TYPE RGS.
- 4/EI. FOR A DISTANCE OF 10 FEET ON BOTH SIDES OF & OF BEARING AT STRUCTURE ABUTMENTS PROVIDE RACEWAYS OF TYPE RGS.
- 5/EI. PROVIDE AN EXPANSION-DEFLECTION FITTING IN ALL RACEWAY AT BRIDGE EXPANSION JOINTS.
- 6/EI. IN TYPE NMR RACEWAY RUN IN STRUCTURE, PROVIDE A#6 BARE COPPER CABLE AND BOND ALL LTG. STANDARDS, PULL BOXES, AND METAL RACEWAY SEGMENTS TO IT. CONNECT CABLE TO GND ROD IN PULL BOX NOTED ON PLAN.
- 7/EI. EXTEND ALL PHASES OF FEEDER TERMINATION TO POINT INDICATED ON PLAN.
- 8/EI. NONE.
- 9/EI. NONE.
- 10/EI. NONE.
- 11/EI. NONE.
- 12/EI. LOCATE UNDERDECK LUMINAIRES APPROXIMATELY AS SHOWN ON PLAN. VERIFY LOCATION WITH ENGINEER.

ELECTRICAL

ITEM NO	ITEM	UNIT	QUANTITIES	
			HIGHWAY	BRIDGE
622.7001	METAL LIGHTING STANDARD ON STRUCTURE	EA		15
622.7003	METAL LTG. STD. ON GRADE, TWIN ARM	EA	1	
622.7005	UNDERGROUND RACEWAY, LTG. SYSTEM	LS	(350')	
622.7006	UNDERDECK LUMINAIRE	EA		17
622.7013	PULLBOX, CAST IRON	LS		(32 EA.)
622.7016	PULLBOX, TYPE CC, LIGHTING SYSTEM	EA	2	
622.7024	RACEWAY ON STRUCTURE	LS		(6900') + 102.0' *
622.7029	MISCELLANEOUS ELECTRICAL APPURTENANCES	LS		
622.7008	WIRE, 400 VOLT, 1/C, #6	LS		(13000')
622.7009	WIRE, 600 VOLT, 1/C, #4	LS	(825')	(2800')
623.9010	PULLBOX TYPE CC, TRAFFIC SIGNAL SYSTEM	LS	(2 EA.)	
623.9023	TRAFFIC SIGNAL SYSTEM N° N5B	LS	(1 EA.)	

* 102 L.F. of "Raceway on Structure" Added on Ramp B between Piers B-6 and B-7 (CCO #17)

CAST IRON PULLBOXES IN STRUCTURE

PLAN SYMBOL	SIZE (INCHES) LxWxD	GENERAL APPLICATION
A ■	16 X 6 X 4	#4 LTG. FEEDERS
B ■	8 X 6 X 4	#6 LTG. FEEDERS COMM. LATERALS

NOTE: PROVIDE ALL BOXES WITH INSIDE RECESSED FLANGE.

DETAIL 1/EI - PULLBOX SCHEDULE

LIST OF ABBREVIATIONS

C	RACEWAY (TYPE AND SIZE AS INDICATED)
NMR	NON-METALLIC RACEWAY (TYPE PVC OR CAD)
RGS	RIGID GALVANIZED STEEL CONDUIT
RAL	RIGID ALUMINUM CONDUIT
PVC	POLYVINYLCHLORIDE CONDUIT
CAD	CEMENT ASBESTOS DUCT
LTG	LIGHTING
LTG STD	LIGHTING STANDARD
BKT	BRACKET ARM
FND	FOUNDATION
CKT	CIRCUIT
FDR	FEEDER (OR BRANCH THEREOF)
GND	GROUND
N.T.S.	NOT TO SCALE
N.I.C.	NOT IN CONTRACT
FUT.	FUTURE
(E)	EXISTING
CONC.	CONCRETE
H.P.S.	HIGH PRESSURE SODIUM LAMP
HG	MERCURY VAPOR LAMP
E.T.W.	EDGE OF TRAVELED WAY
P.B.	PULL BOX
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN

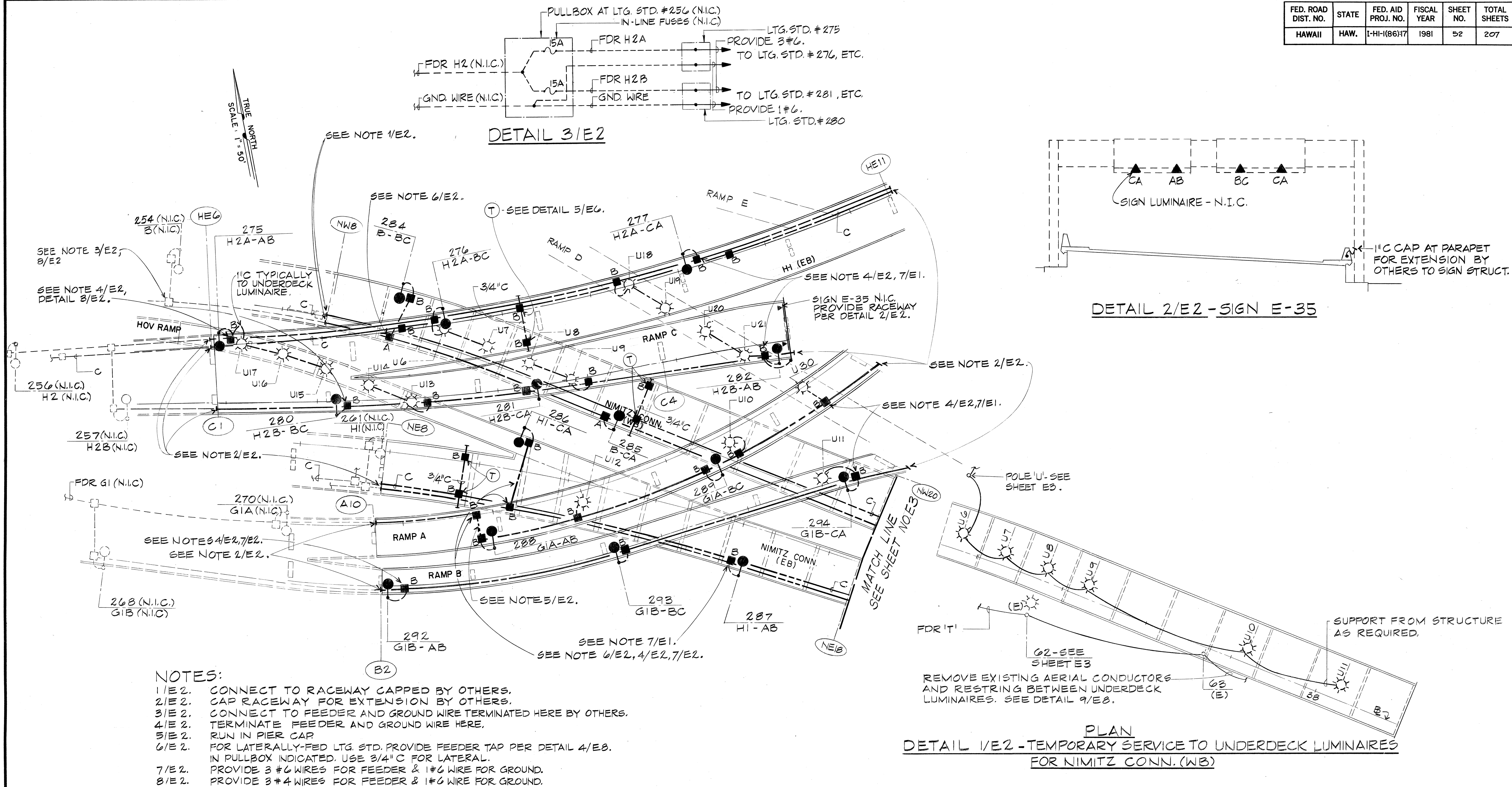
LEGEND, NOTES, DETAILS

INTERSTATE ROUTE H-1
PROJECT NO. I-HI-1 (86):17

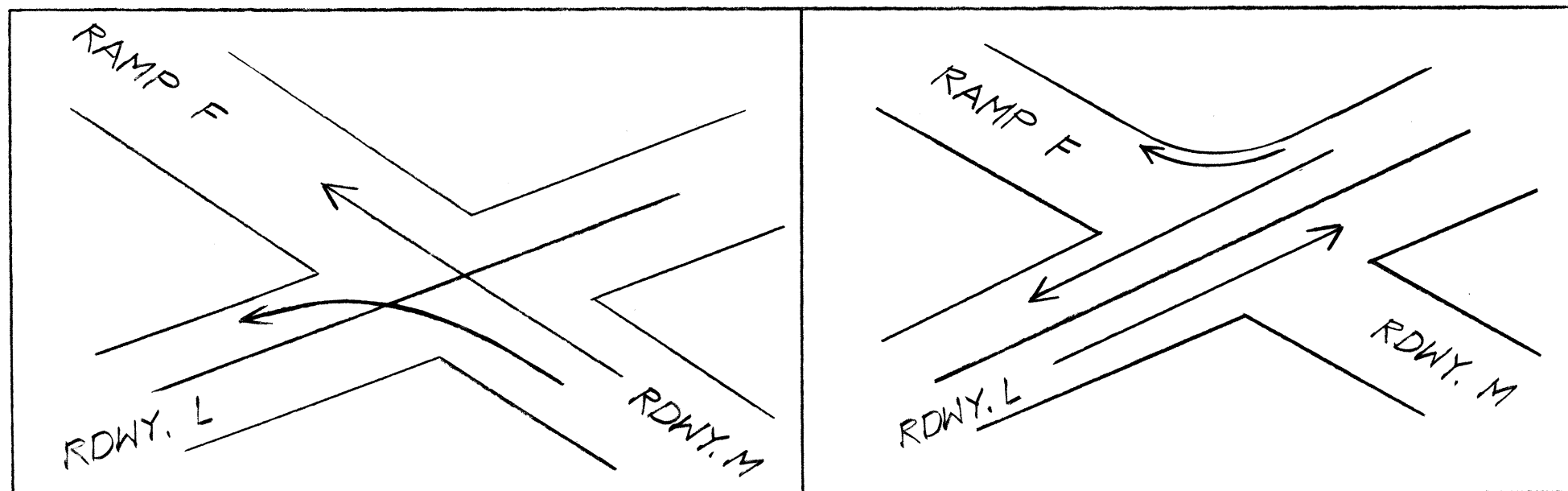
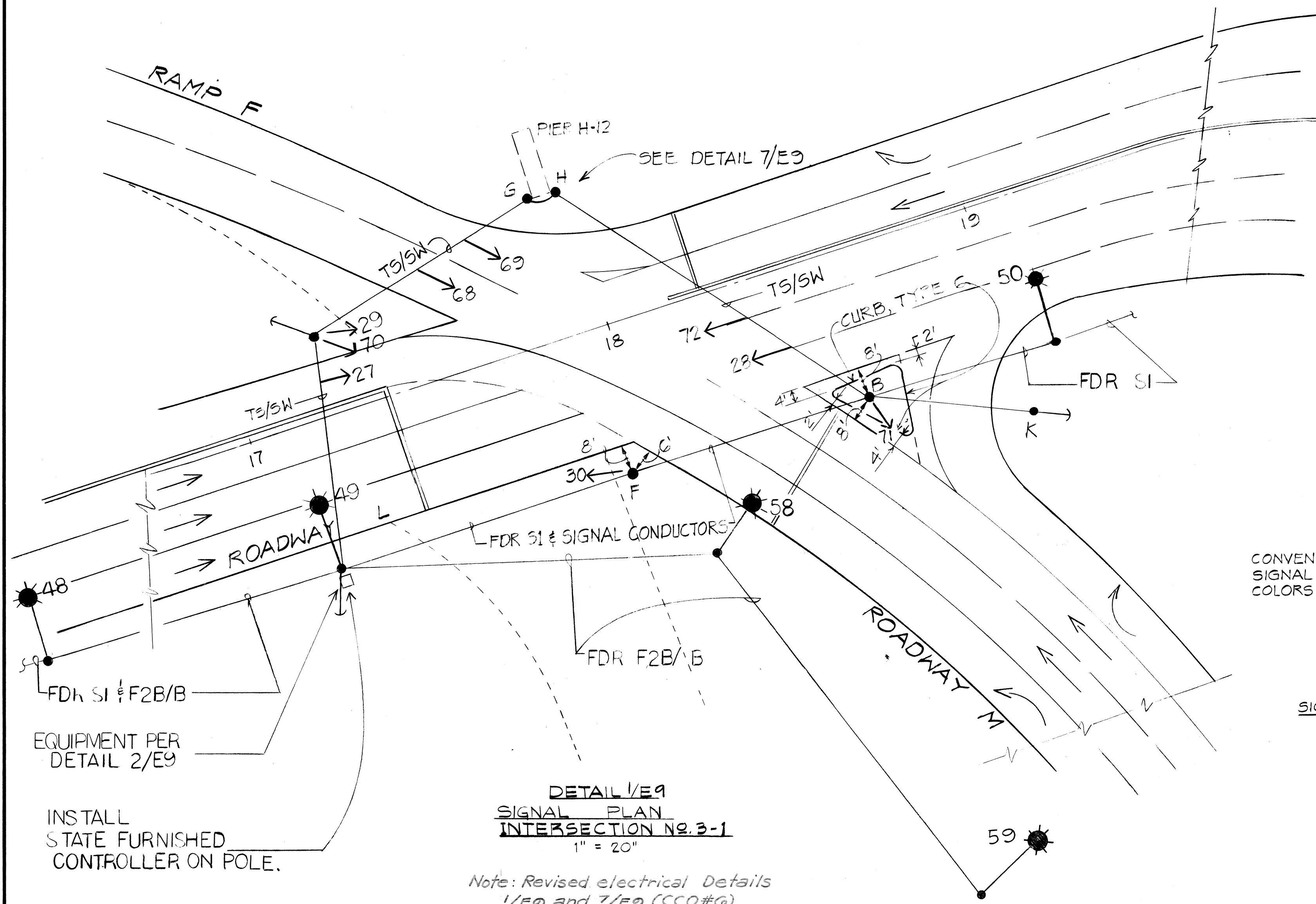
SCALE: NONE DATE: 6/15/81

SHEET No. 51 OF 210 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(86)H7	1981	52	207



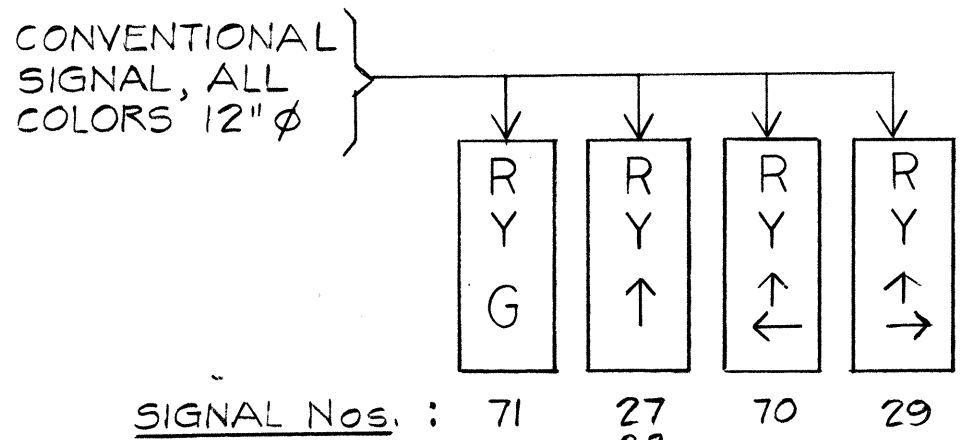
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(86):17	1981	54	207



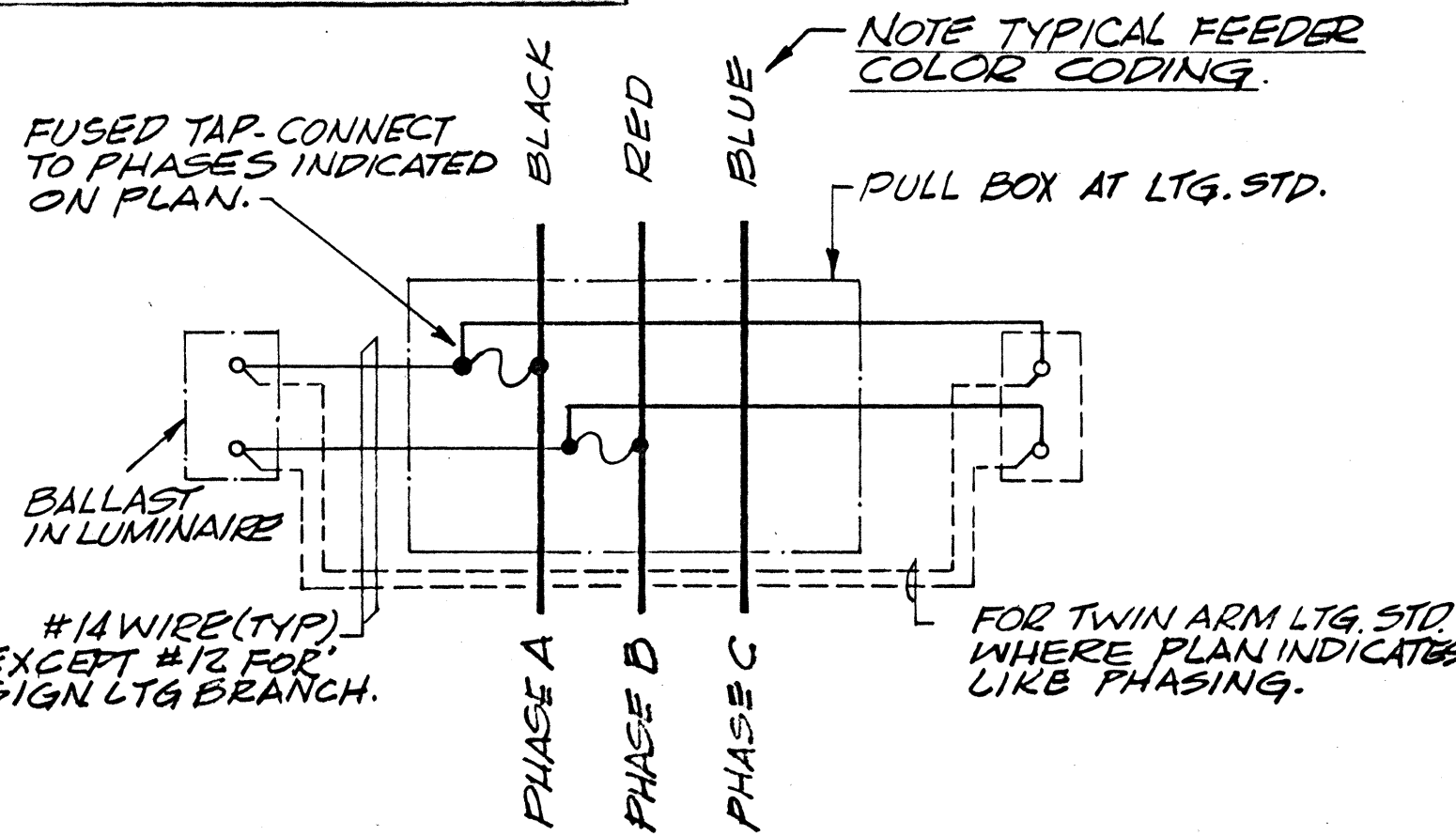
TRAFFIC PHASES

N.I.C.

ALL WORK ON THIS SHEET
BY OTHERS



DETAIL 4/E9 - SIGNAL TYPES



DETAIL 5/E9

TAP TO LTG. STD. LUMINAIRE
TAP TO UNDERDECK LUMINAIRE
TAP TO SIGN LIGHTING BRANCH

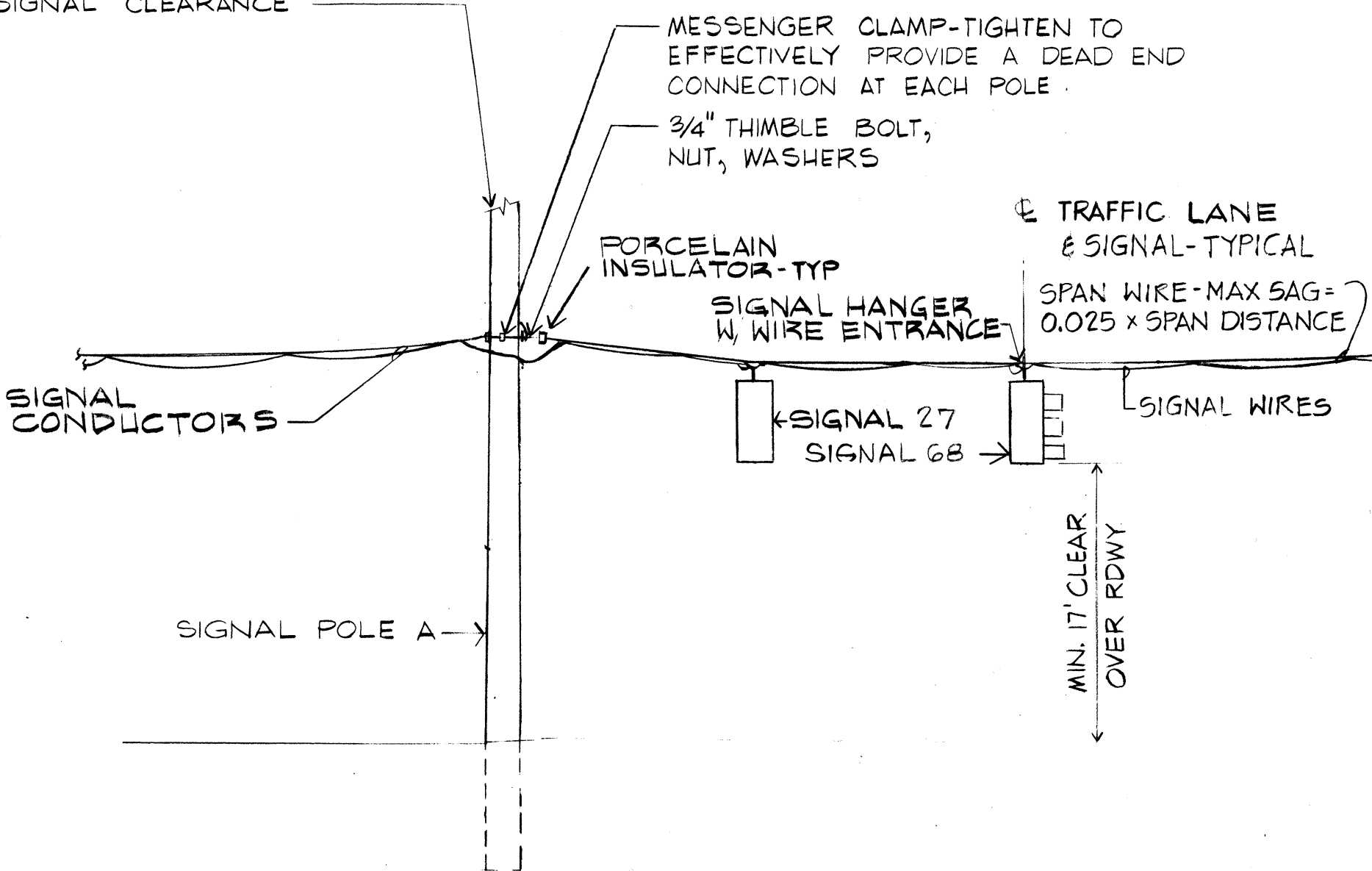
DETAIL 1/E9
SIGNAL PLAN
INTERSECTION NO. 3-1
1" = 20"

Note: Revised electrical details
1/E9 and 7/E9 (CCO#G)

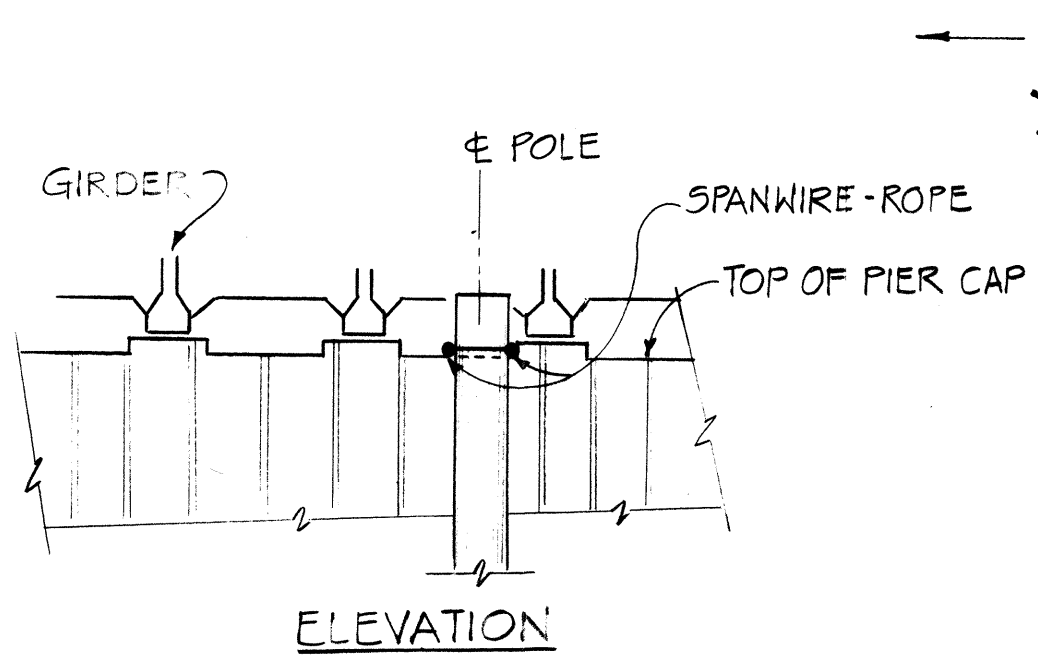
EQUIPMENT PER
DETAIL 2/E9

INSTALL
STATE FURNISHED
CONTROLLER ON POLE.

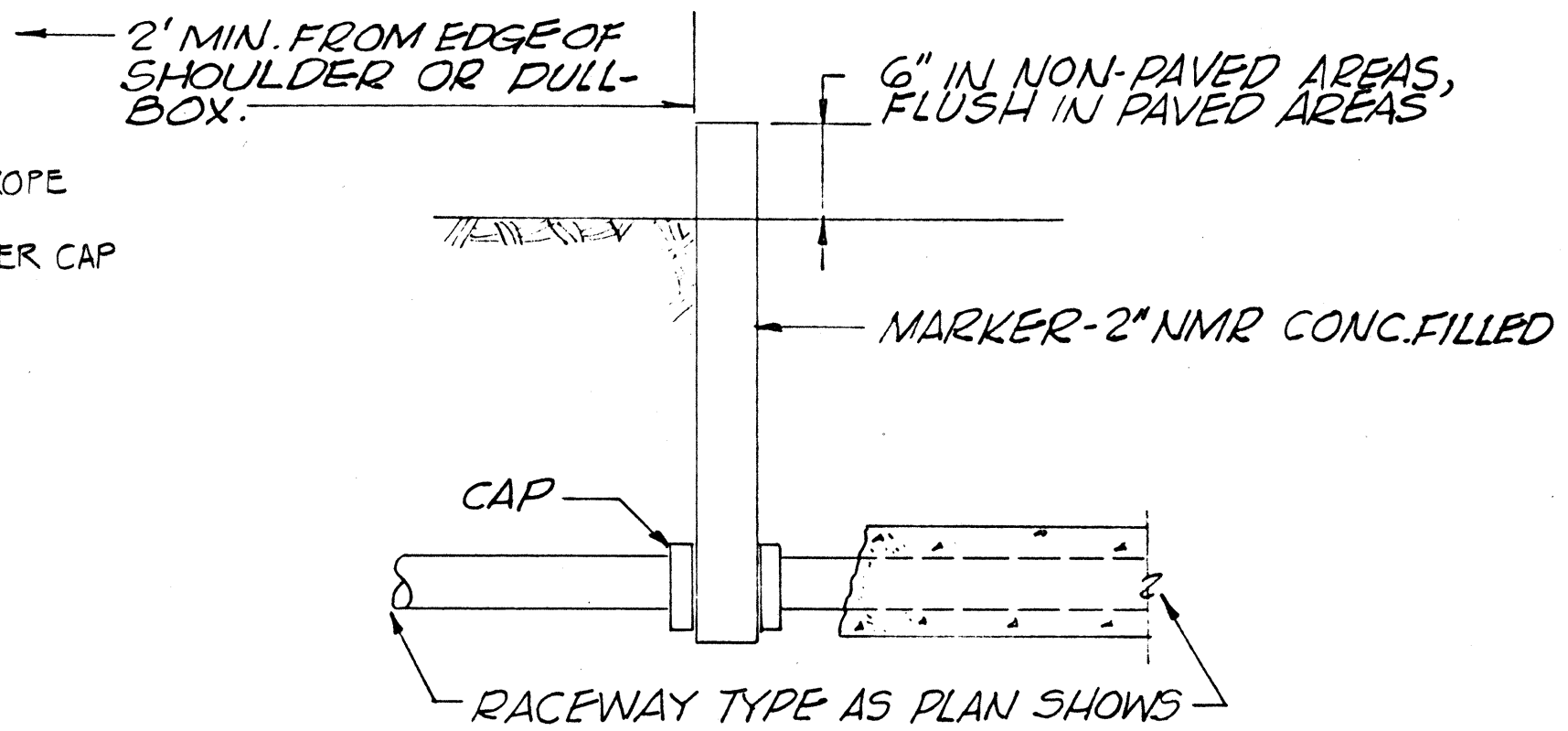
POLE HEIGHT AS REQUIRED
TO PROVIDE INDICATED MINIMUM
SIGNAL CLEARANCE



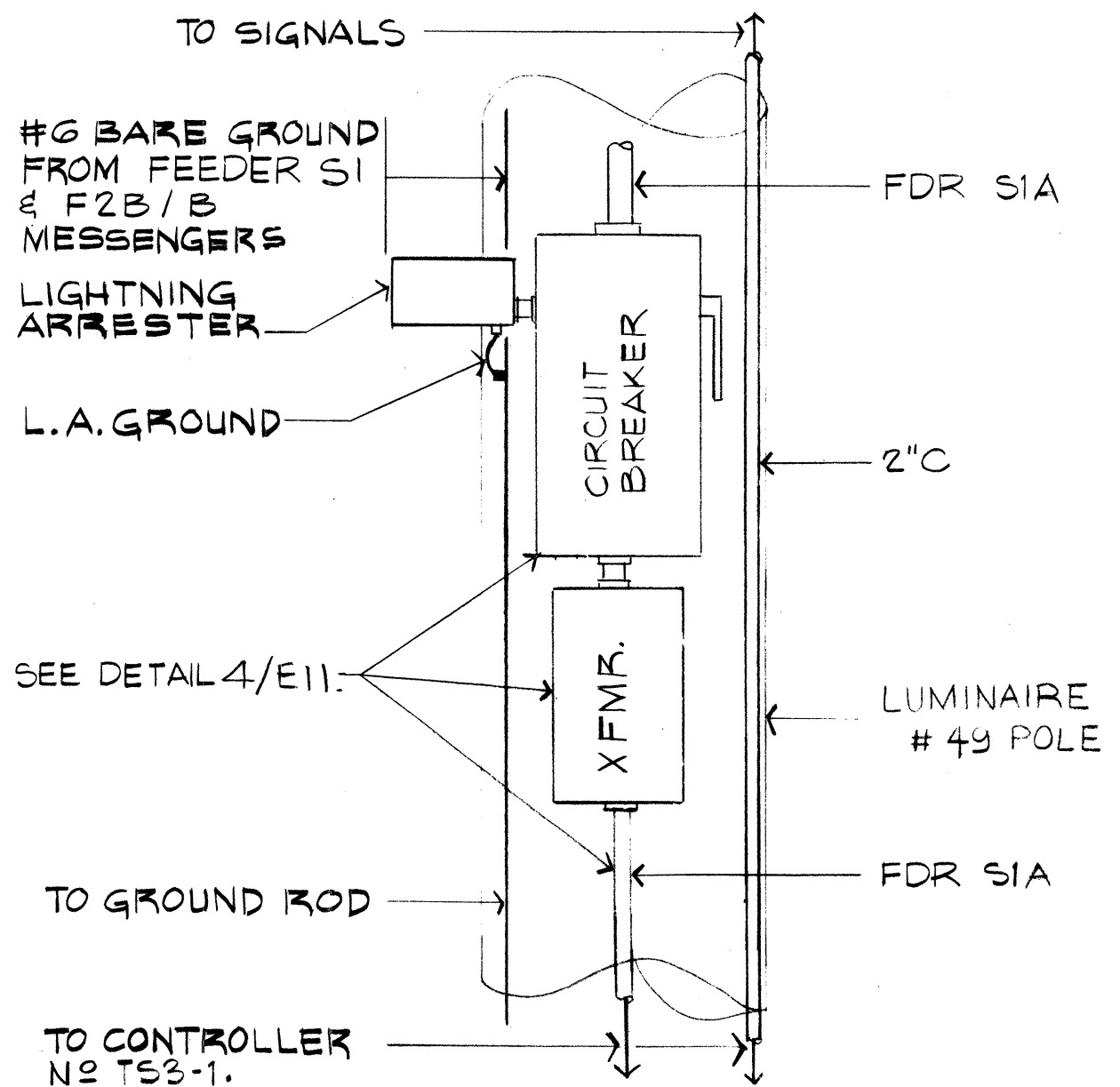
DETAIL 3/E9
TRAFFIC SIGNAL FACILITIES
INTERSECTION NO. 3-1
N.T.S.



DETAIL 7/E9 - POLES G & H
N.T.S.



DETAIL 6/E9
CAP & MARK RACEWAY



DETAIL 2/E9
SUPPLY TO TS-3-1 CONTROLLER
N.T.S.

FOR INFORMATION ONLY,
NOT FOR CONSTRUCTION

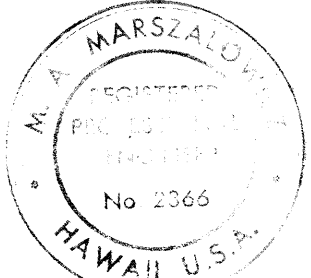
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**ELECTRICAL DETAILS
CONSTRUCTED IN:**

INTERSTATE ROUTE H-1
PROJECT NO. I-HI-1(131):17

SCALE: AS NOTED DATE: AUG. 31, 1977

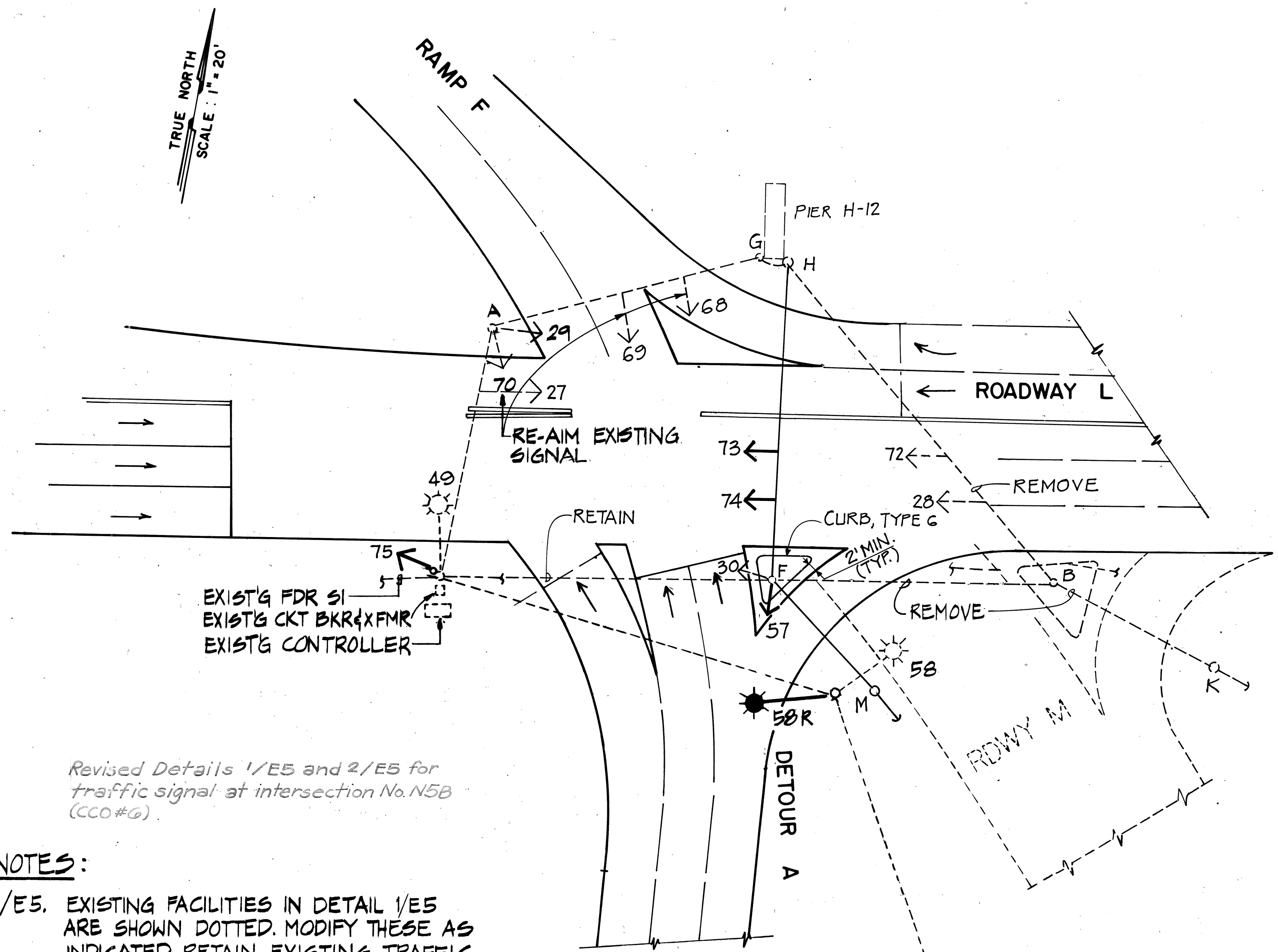
SHEET No. E4 OF E10 SHEETS



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
M. A. Marszalowicz

8/10/83	REVISED DETAIL 1/E9. ADDED DETAIL 7/E9.
DATE	REVISION

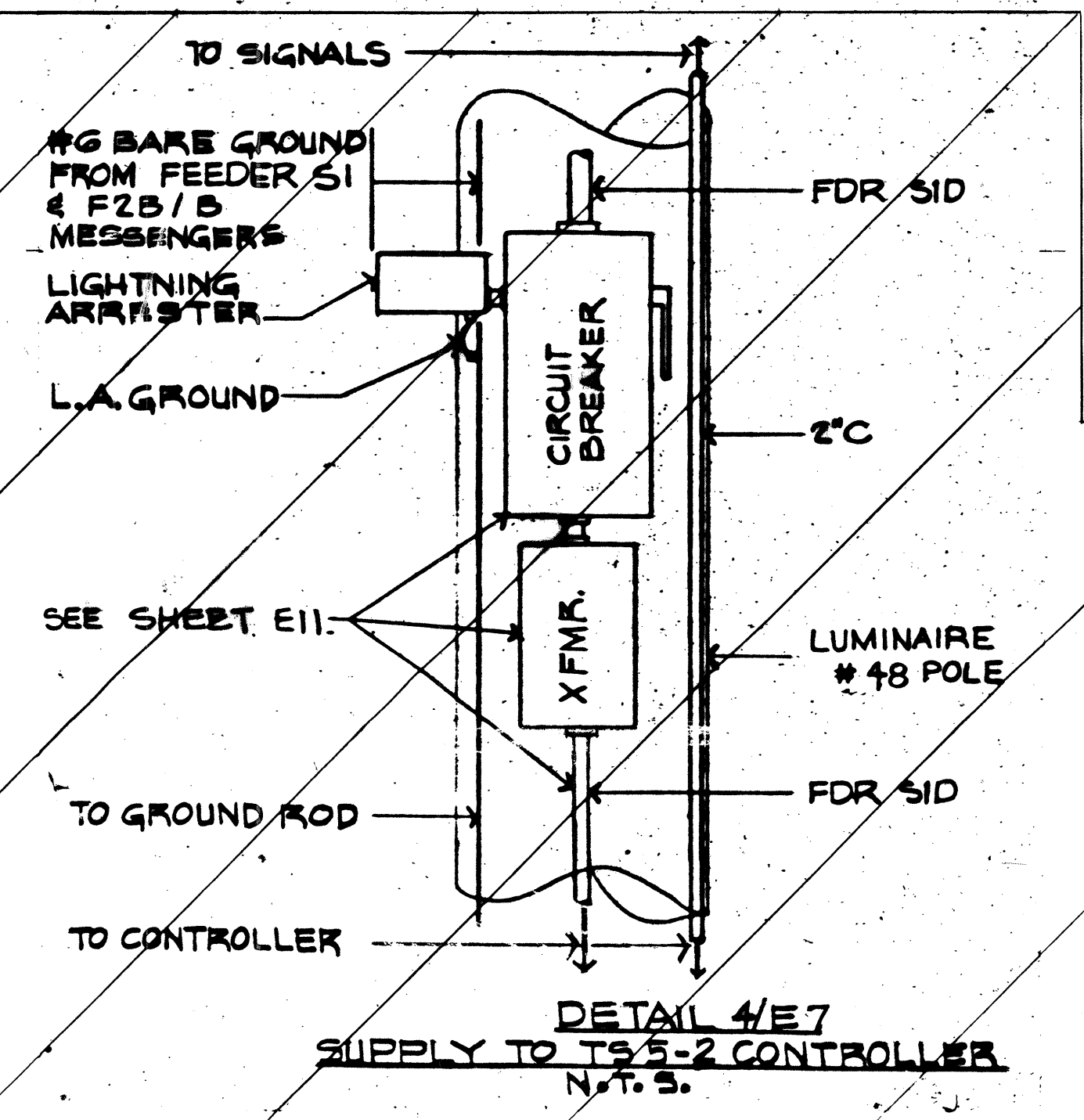
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(86)17	1981	55	207



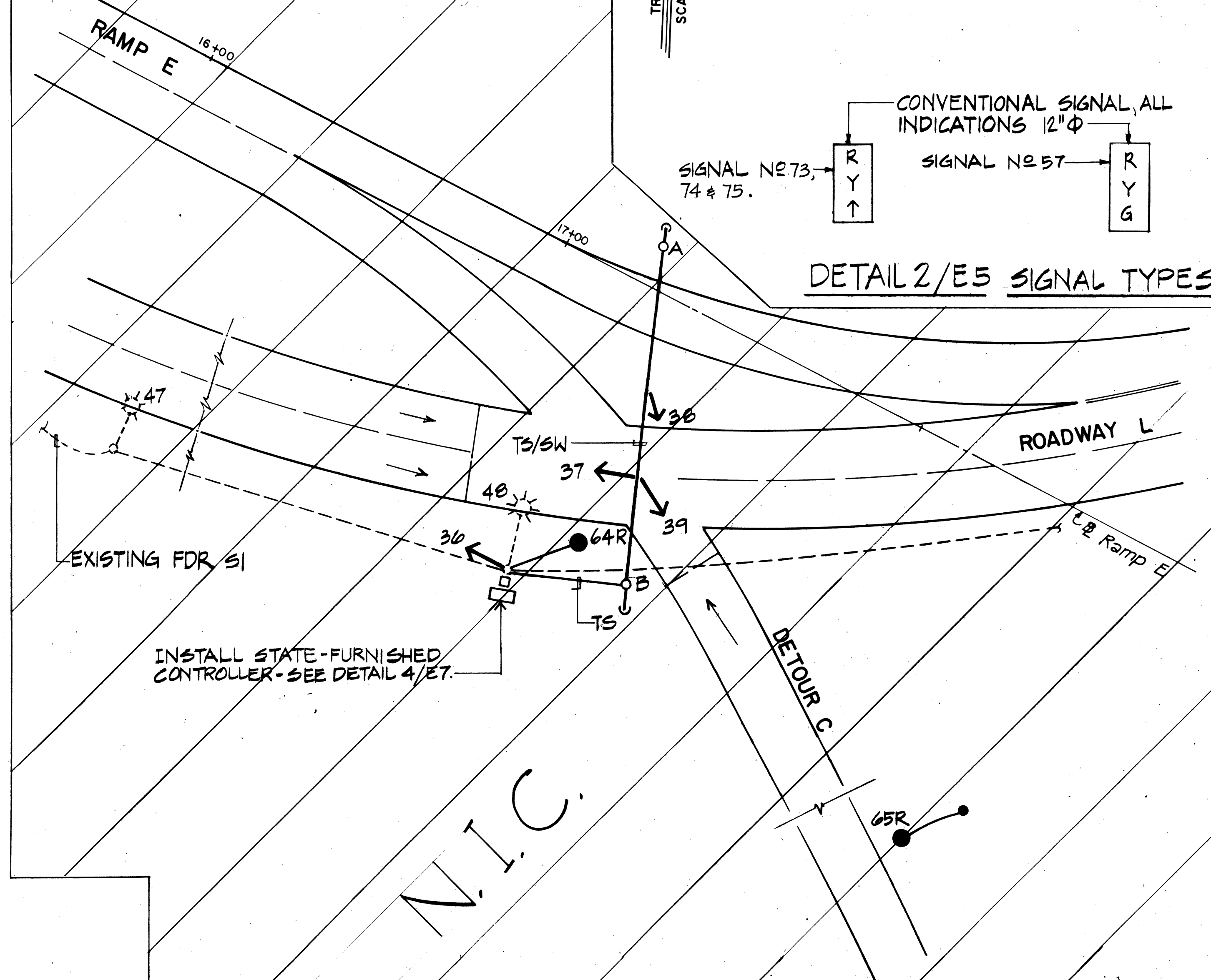
Revised Details 1/E5 and 2/E5 for traffic signal at intersection No. N5B (CCO#6)

NOTES:

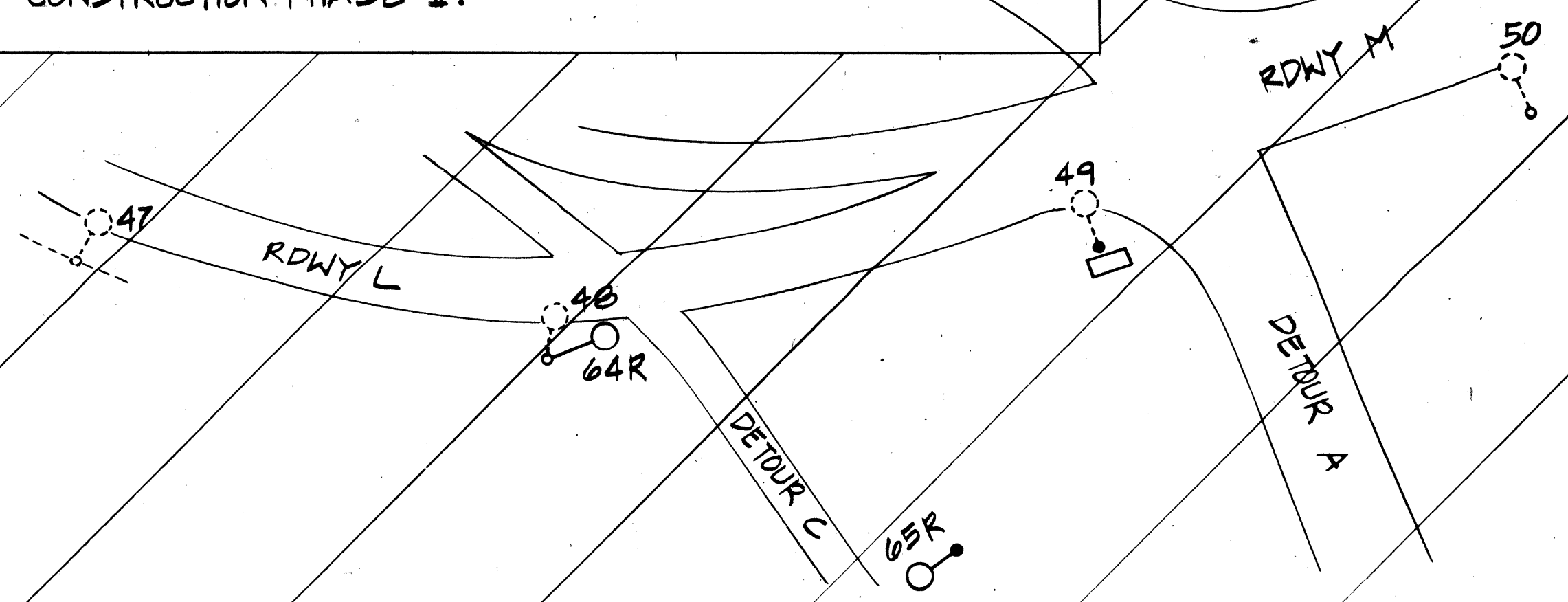
- 1/E5. EXISTING FACILITIES IN DETAIL 1/E5 ARE SHOWN DOTTED. MODIFY THESE AS INDICATED. RETAIN EXISTING TRAFFIC PHASING.
- 2/E5. INSTALL NEW POLES 10 FEET (MIN) CLEAR OF E.T.W.



DETAIL 1/E5 TRAFFIC SIGNAL PLAN INTERSECTION No 5B
SEE DETAIL 2/E5.
CONSTRUCTION PHASE I.



DETAIL 2/E7 TRAFFIC SIGNAL PLAN INTERSECTION No 5-2
SEE DETAIL 3/E7.
CONSTRUCTION PHASE III



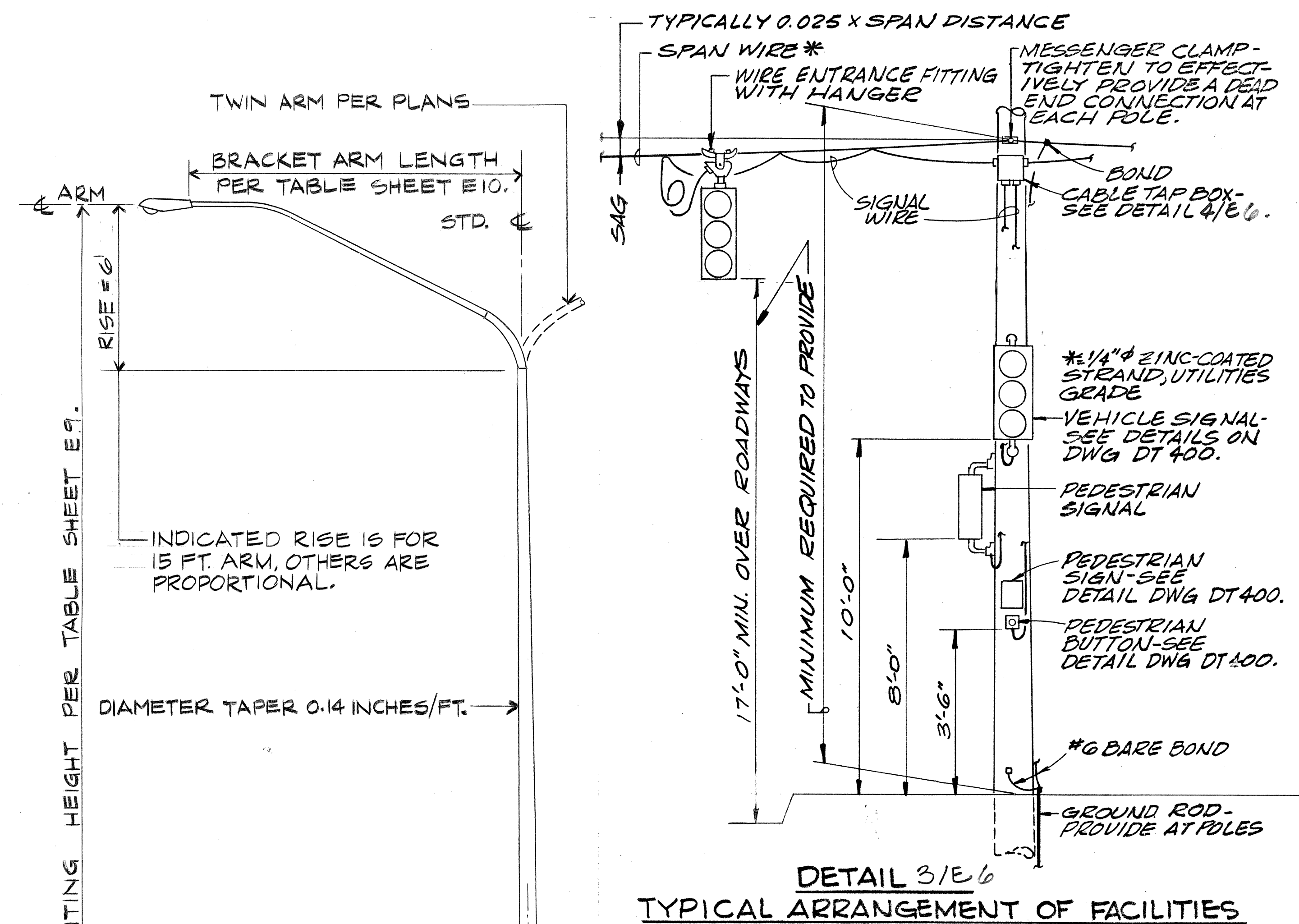
DETAIL 3/E7 LOCATION PLAN 1" = 30'



THIS DESIGN WAS PREPARED BY
M. A. Marszalovic

8/10/83	REVISED DETAILS 1/E5 & 2/E5.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION LAND TRANSPORTATION FACILITIES DIVISION	
SIGNAL PLAN	
INTERSTATE ROUTE H-1 PROJECT NO. I-HI-1(86)17	
SCALE: 1" = 20'	DATE: 6/15/81
SHEET NO. 55 OF 10 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(86)-17	1981	56	207

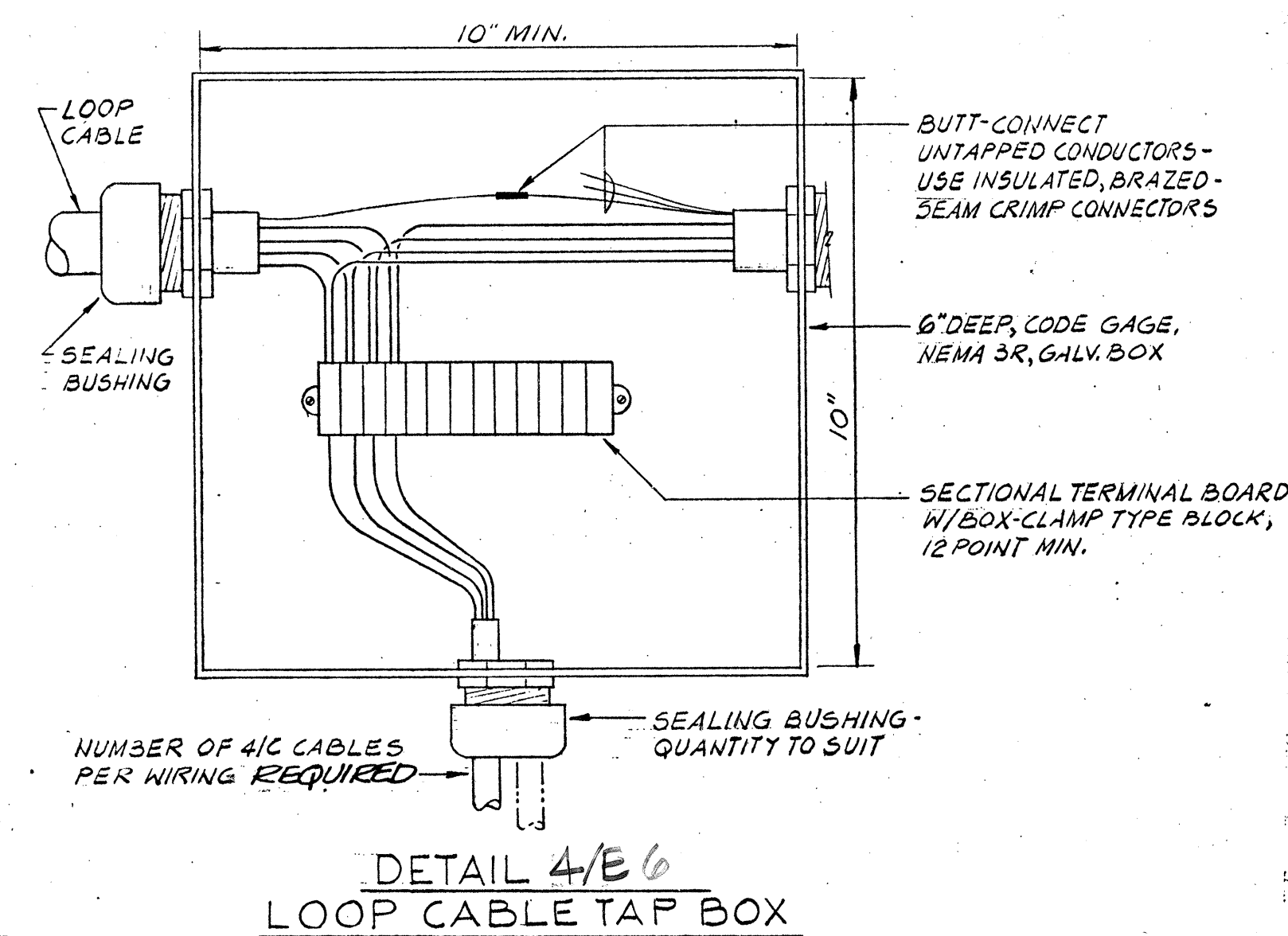


FOR LOCATION SEE
STRUCTURAL SHEETS.
FOR ANCHORAGE
DETAILS SEE STR.
SHEET SD-2.

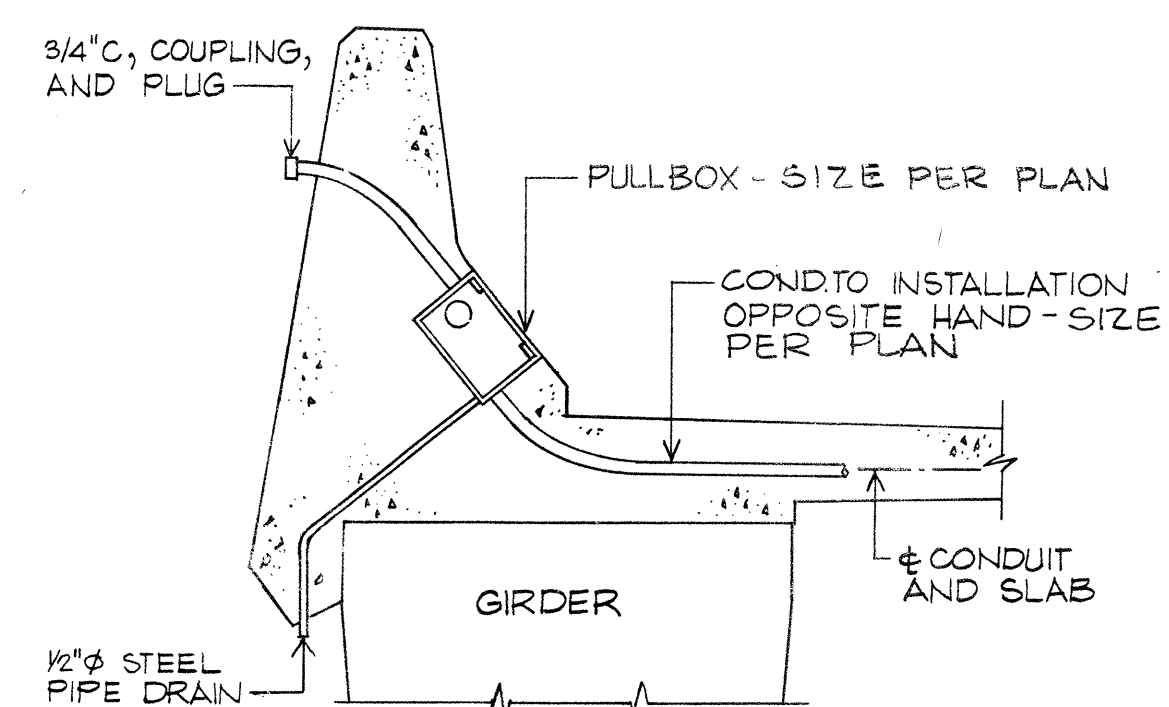
PARAPET M'T'D

ON GRADE

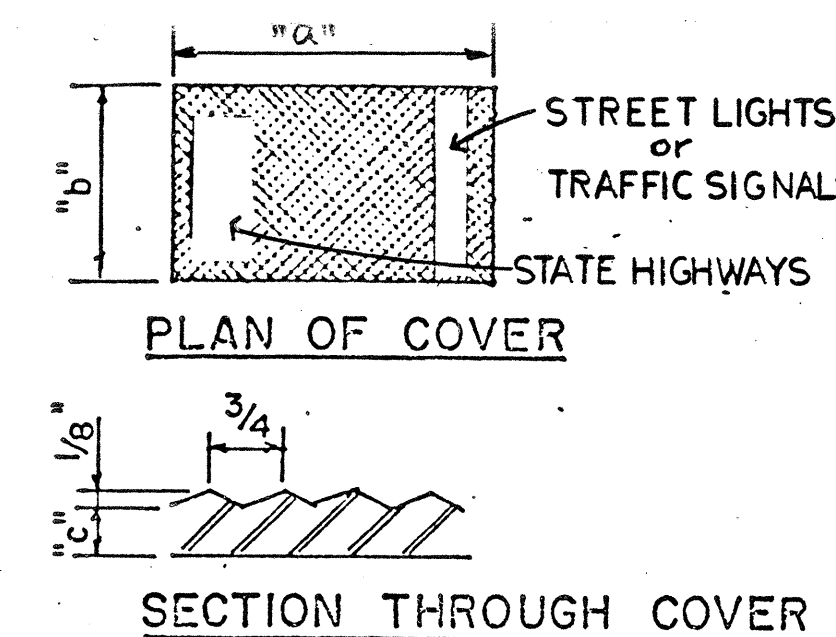
DETAIL 1/E6 METAL LIGHTING STANDARD



DETAIL 4/E6
LOOP CABLE TAP BOX

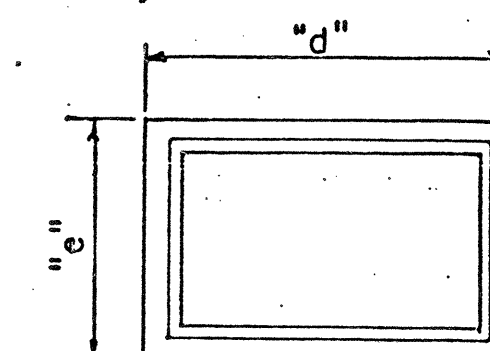


DETAIL 5/E6
COMMUNICATIONS FACILITY ON STRUCTURE
N.T.S.

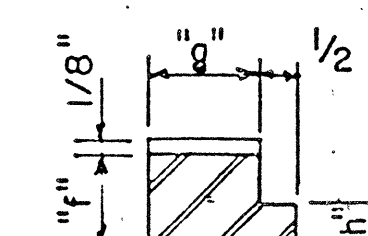


PLAN OF COVER

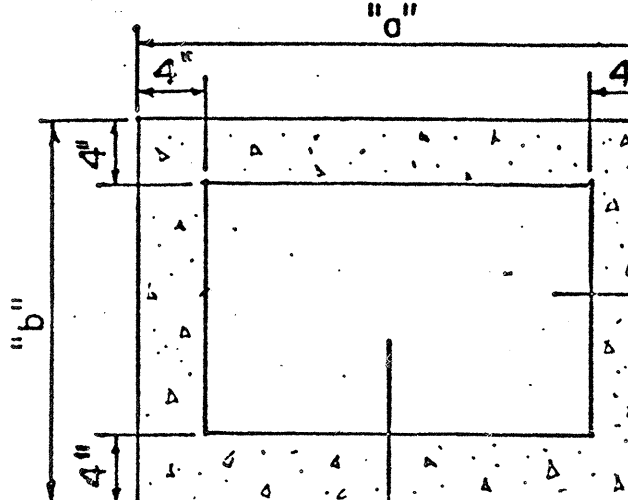
SECTION THROUGH COVER



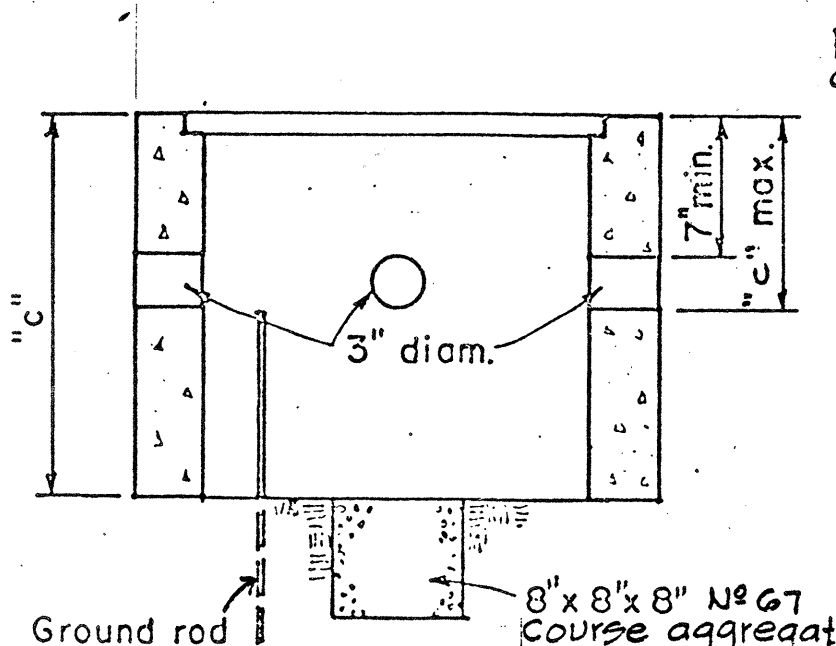
PLAN OF FRAME



SECTION THROUGH FRAME

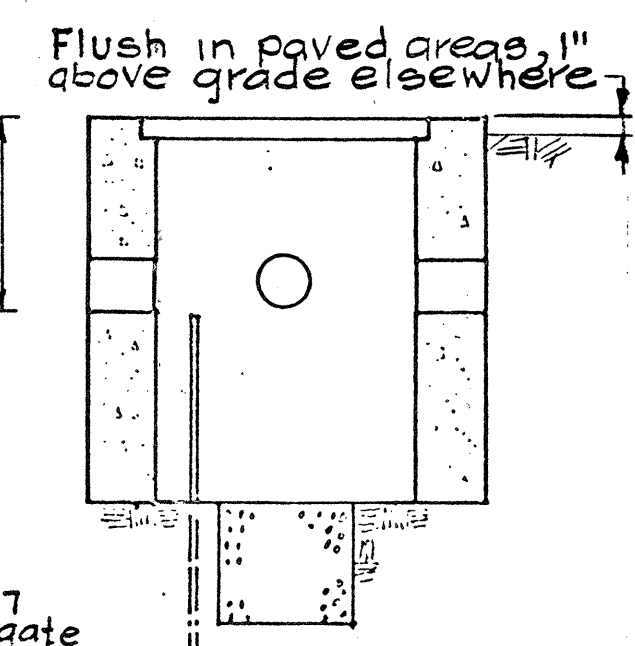


PLAN OF PULLBOX



SECTION A-A

DETAIL 2/E6

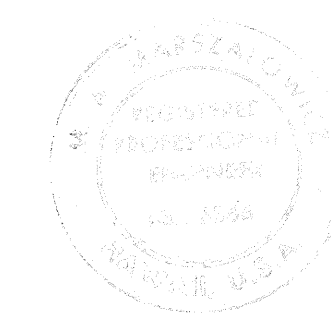


SECTION B-B

PULL BOX TYPES CC

Frame & cover size-inches	TYPE CC1	TYPE CC2	TYPE CC3
"a"	19 3/4	23 1/2	30
"b"	12	15 3/4	20
"c"	1/2	1/2	5/8
"d"	22 1/2	26 1/4	33 3/16
"e"	14 3/4	18 1/2	23 3/16
"f"	1	1	2
"g"	1 1/4	1 1/4	1 1/2
"h"	1/2	1/2	1 3/8

Pullbox size-inches	TYPE CC1	TYPE CC2	TYPE CC3
"a"	28	32	40
"b"	19	24	28
"c"	18	24	24



M.A. Mangalovics

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN

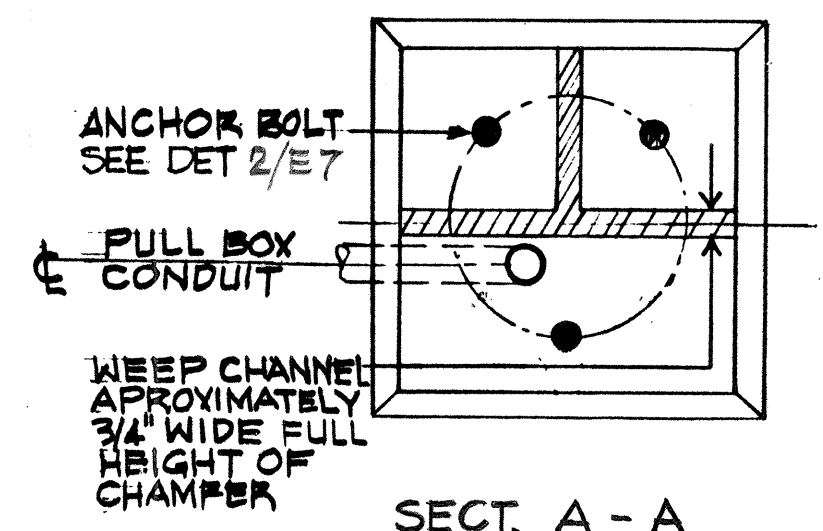
DETAILS — PART II

INTERSTATE ROUTE H-1
PROJECT NO. I-HI-1 (86):17

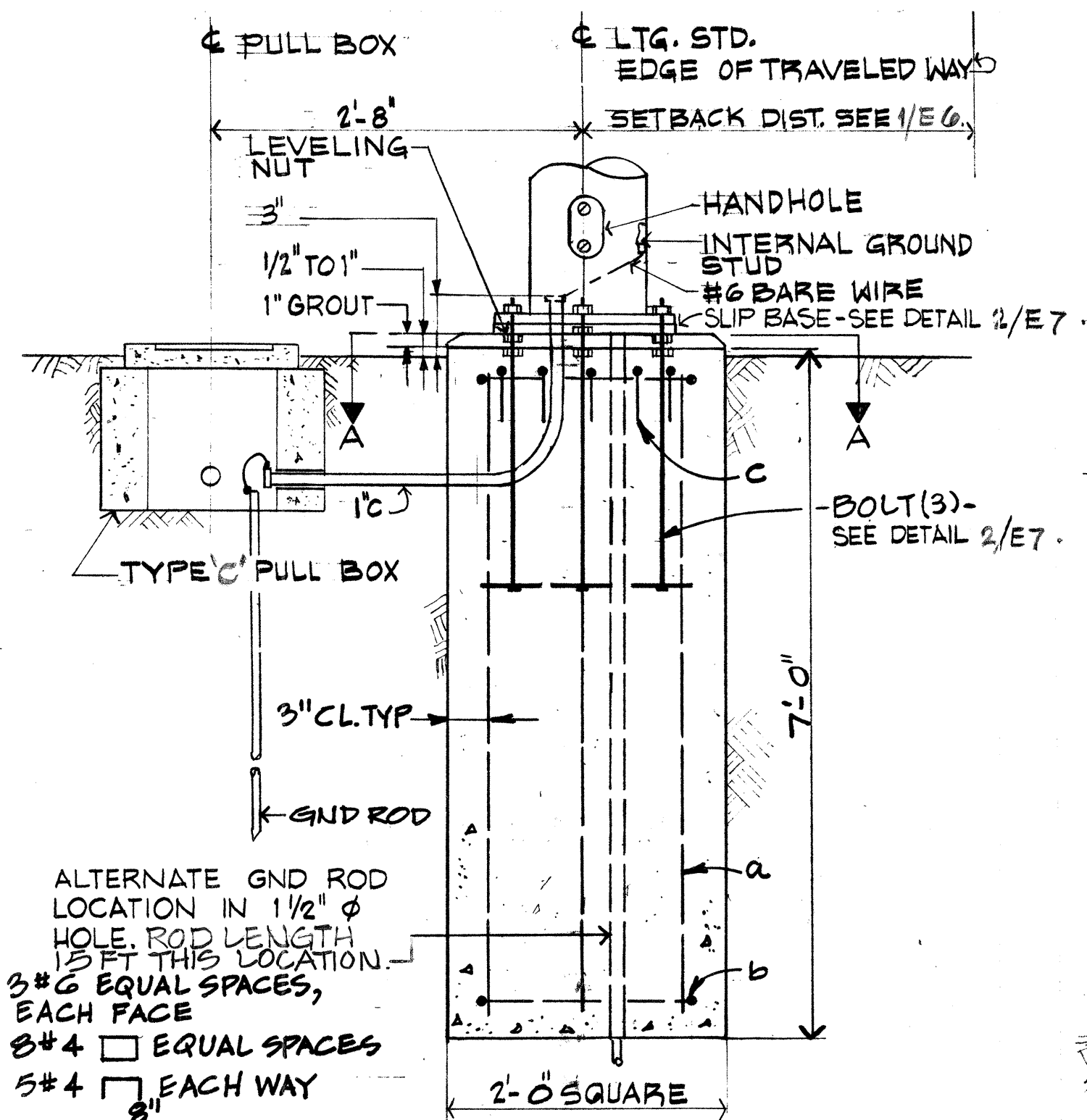
SCALE: AS NOTED DATE: 6/15/81

SHEET No. E6 OF E10 SHEETS

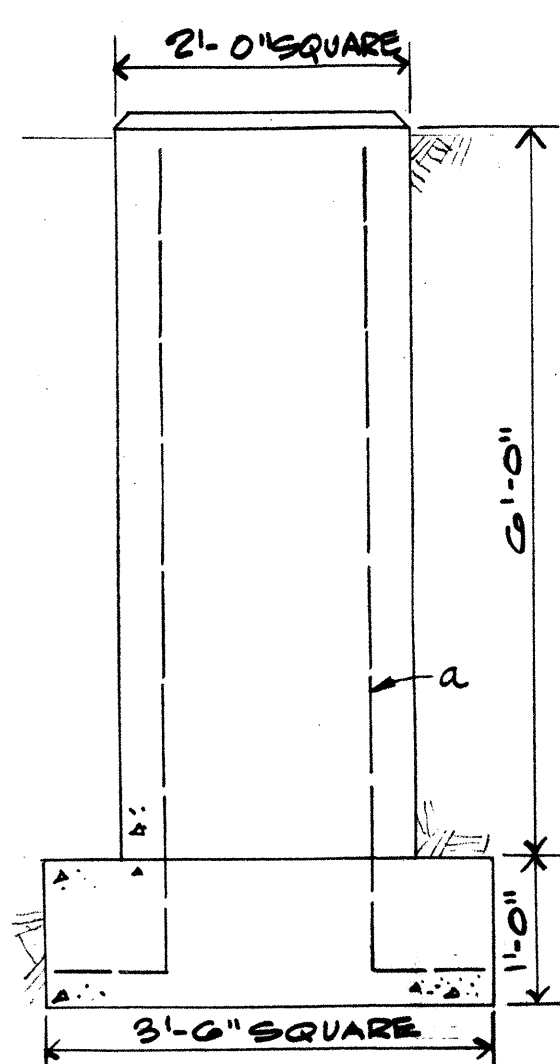
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(86):17	1981	57	207



SECT. A-A



TYPE GS/SB
(GOOD SOIL/SLIP BASE)

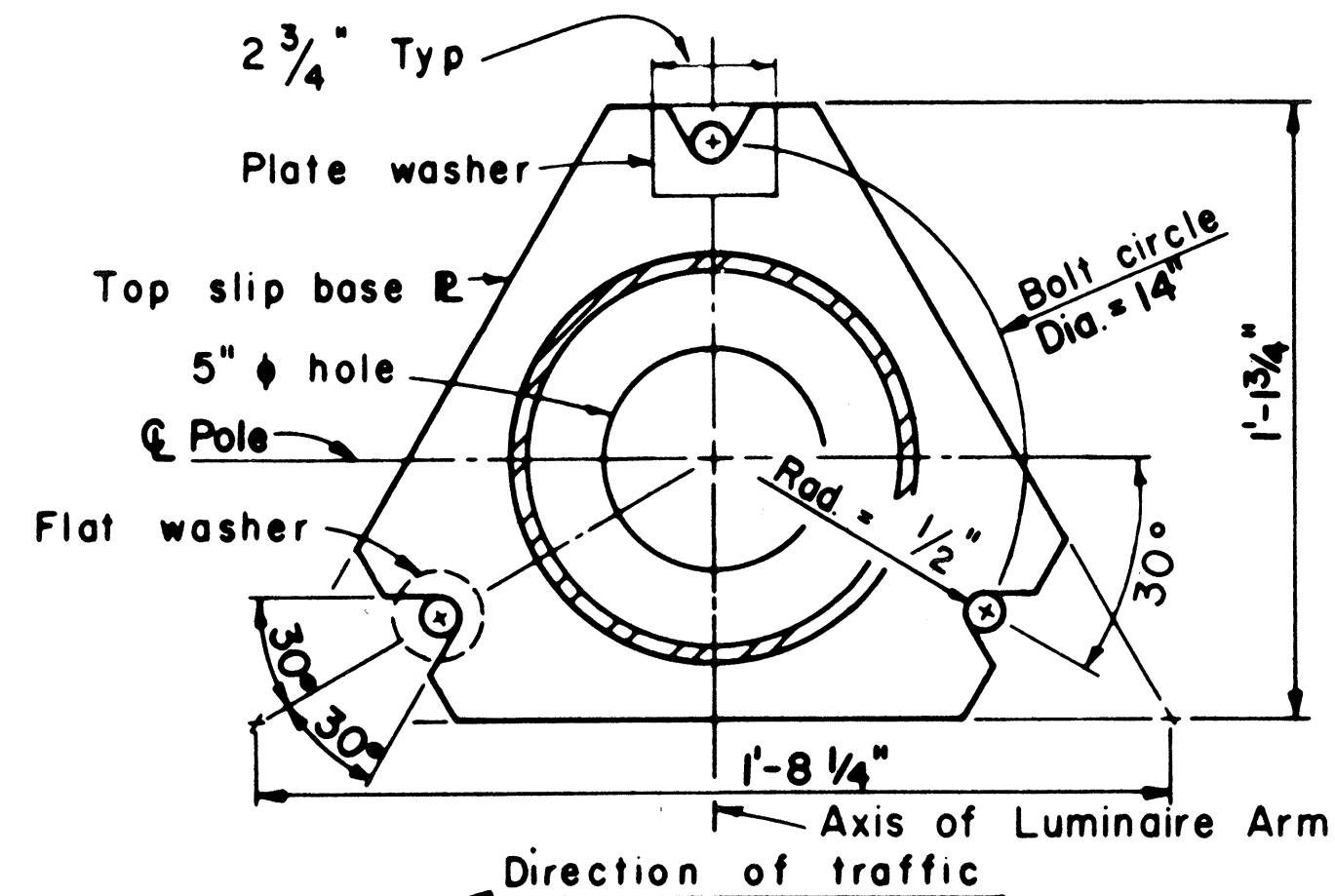


TYPE PS/SB (POOR SOIL/SLIP BASE)
EXCEPT AS SHOWN SIMILAR TO TYPE GS/SB

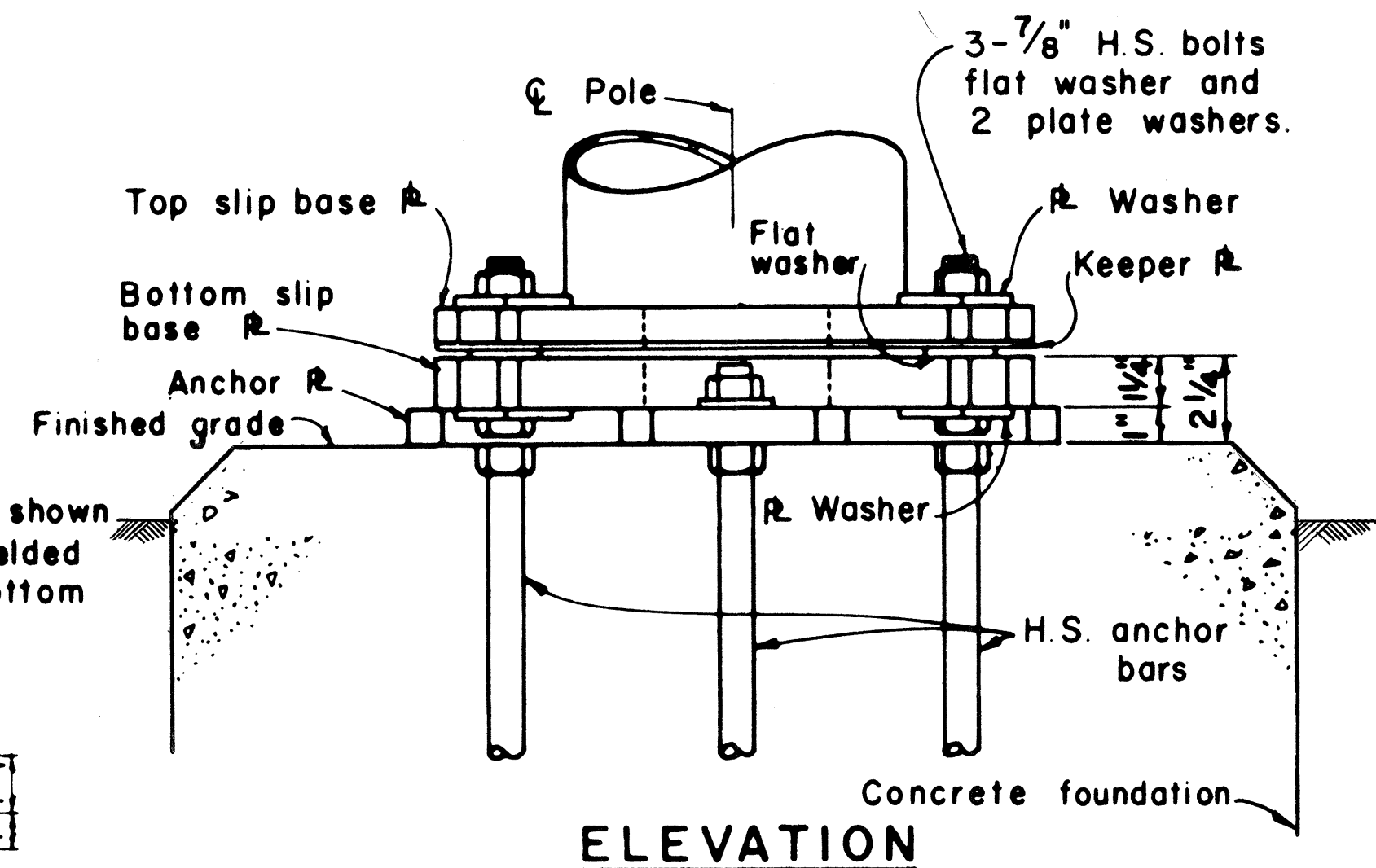
DETAIL 1/E7
LIGHTING STANDARD FOUNDATION SLIP BASE

NOTES:

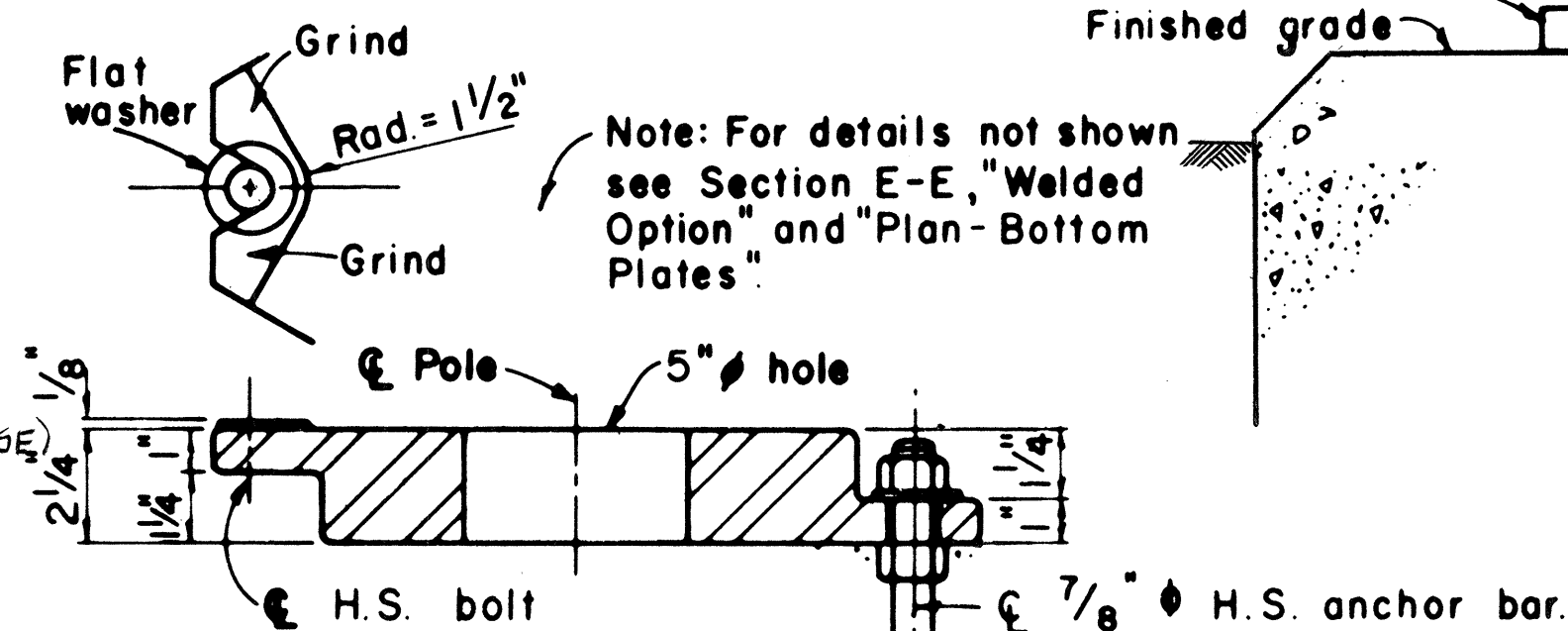
1. PLATES SHALL CONFORM TO A.S.T.M. A-36, EXCEPT AS NOTED.
2. CAST OPTION SHALL CONFORM TO A.S.T.M. A-27 GRADE 70-40. ALTERNATIVE DETAILS APPROVED BY THE ENGINEER MAY BE SUBSTITUTED FOR THE ARM CONNECTIONS SHOWN.
3. TORQUE 7/8" H.S. BOLTS TO 84 FOOT-POUNDS.
4. 7/8" HIGH STRENGTH ANCHOR BARS, WRENCH TIGHTEN, TORQUE REQUIREMENT WAIVED. FABRICATORS ELECTING TO USE LARGER MINIMUM ARM DIAMETERS MUST ADJUST THE DETAILS AS REQUIRED TO PERMIT SOLID SEATING OF CAP SCREWS. IN LIEU OF THE TORQUE REQUIREMENTS FOR H.S. BOLTS, CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD 1/6 TURN FROM SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
5. H.S. BOLTS, FLAT WASHERS AND NUTS AND WASHERS FOR H.S. ANCHOR BARS SHALL CONFORM TO A.S.T.M. A-325.



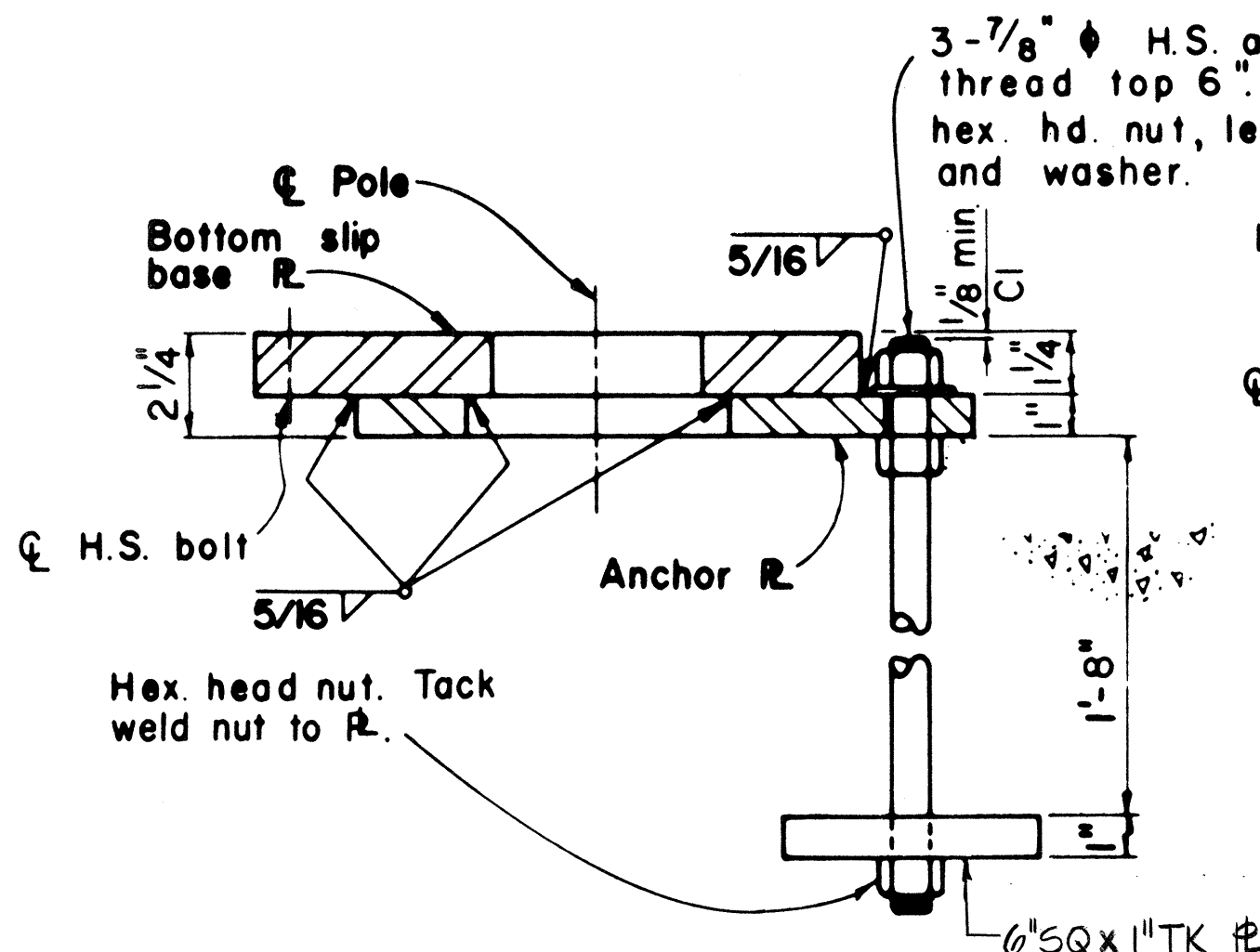
PLAN-TOP PLATE



ELEVATION

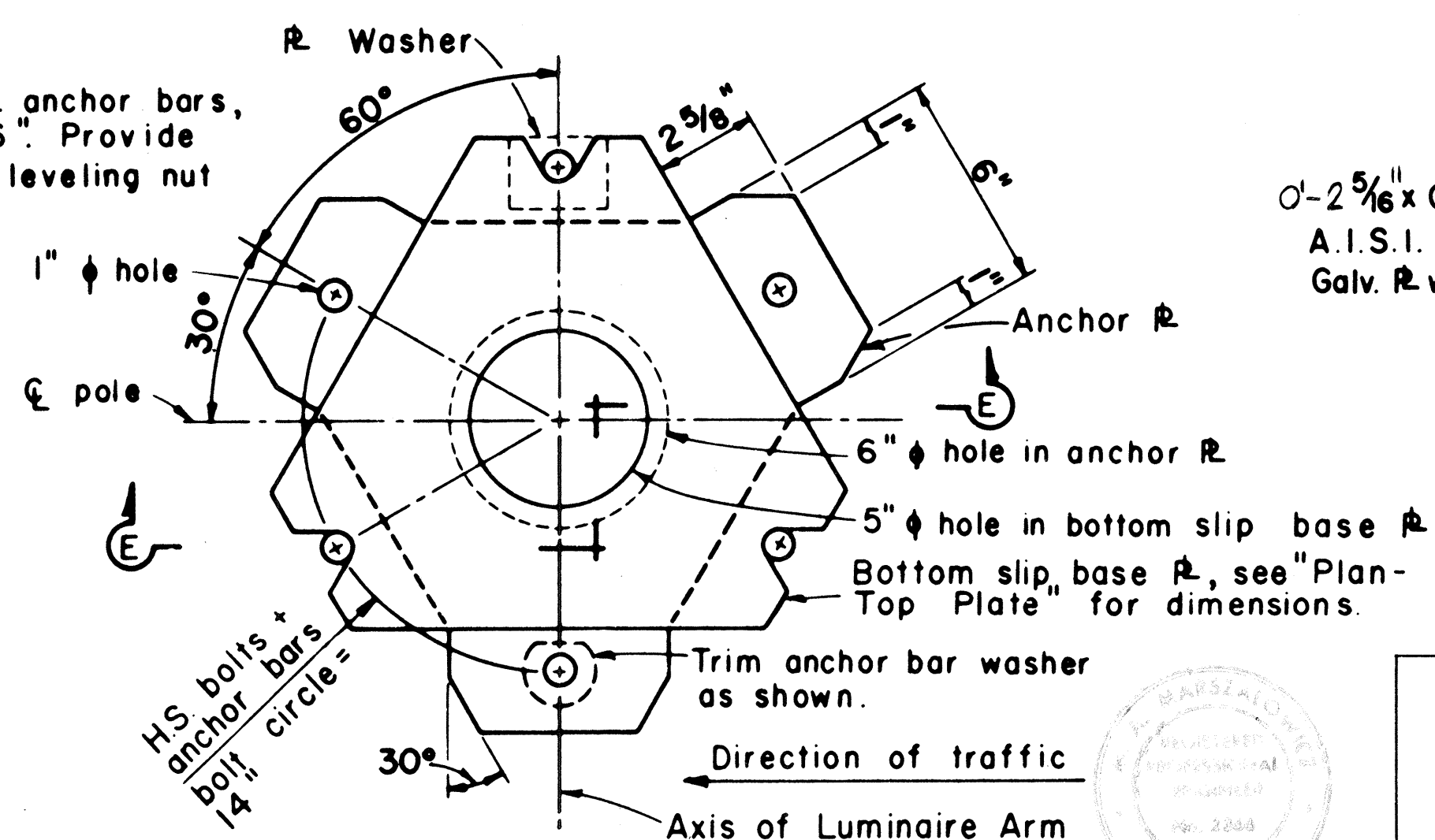


CAST OPTION



WELDED OPTION

SECTION E-E



PLAN - BOTTOM PLATES

SLIP BASE PLATE DETAILS

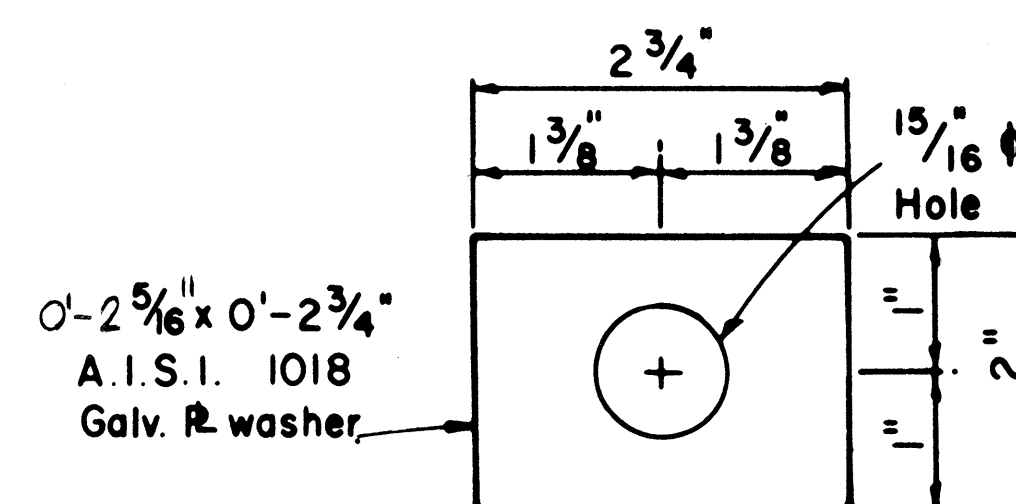
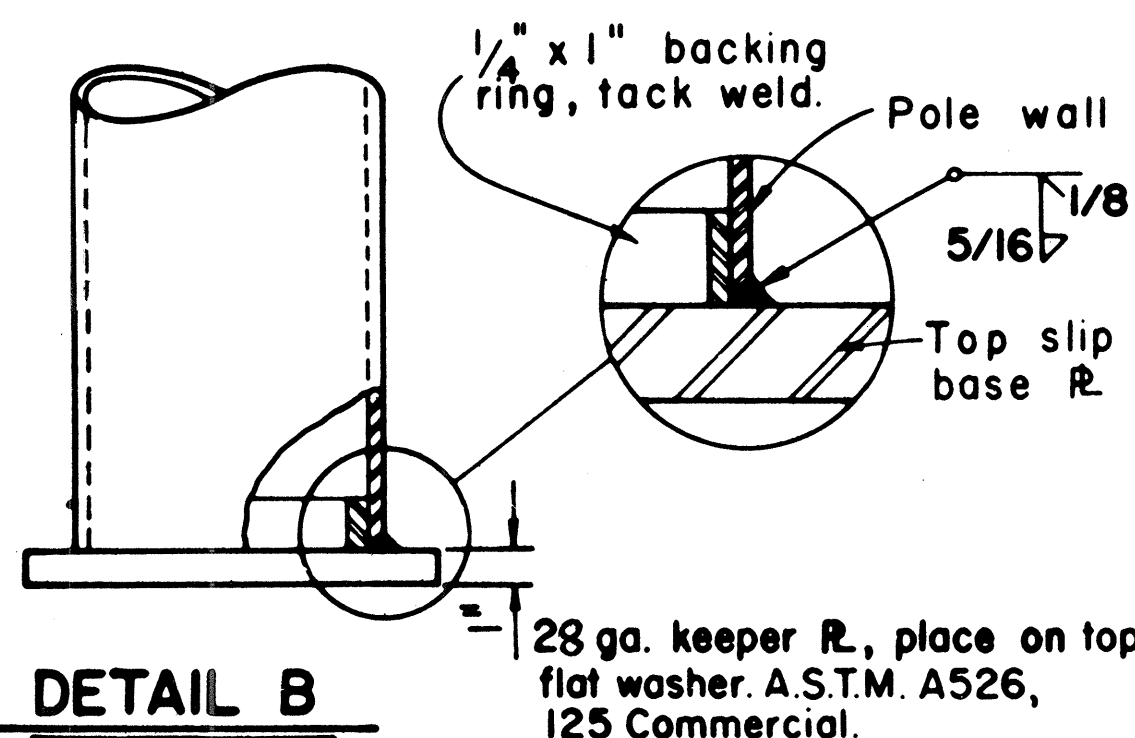
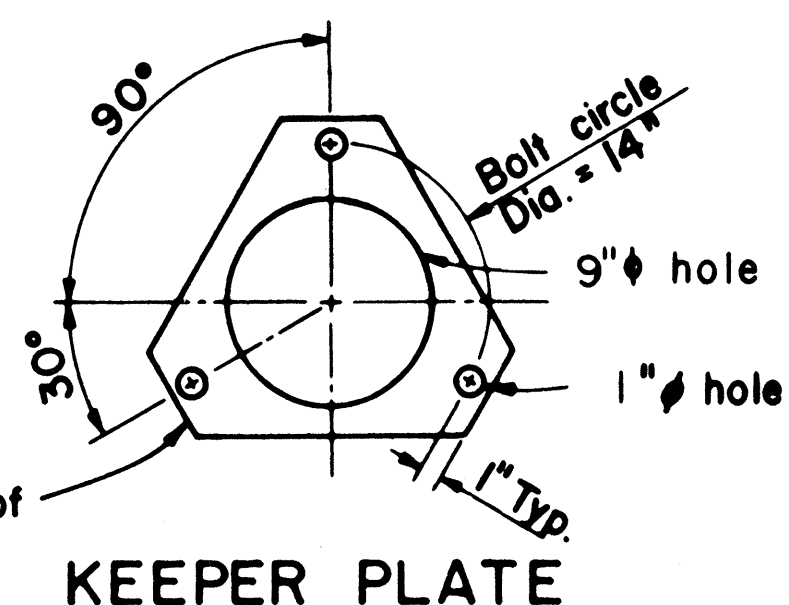


PLATE WASHER



DETAIL B



KEEPER PLATE

DETAIL 2/E7 - LIGHTING STANDARD SLIP BASE DETAILS

THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
DATE: 6/15/81
M.A. Managaling

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

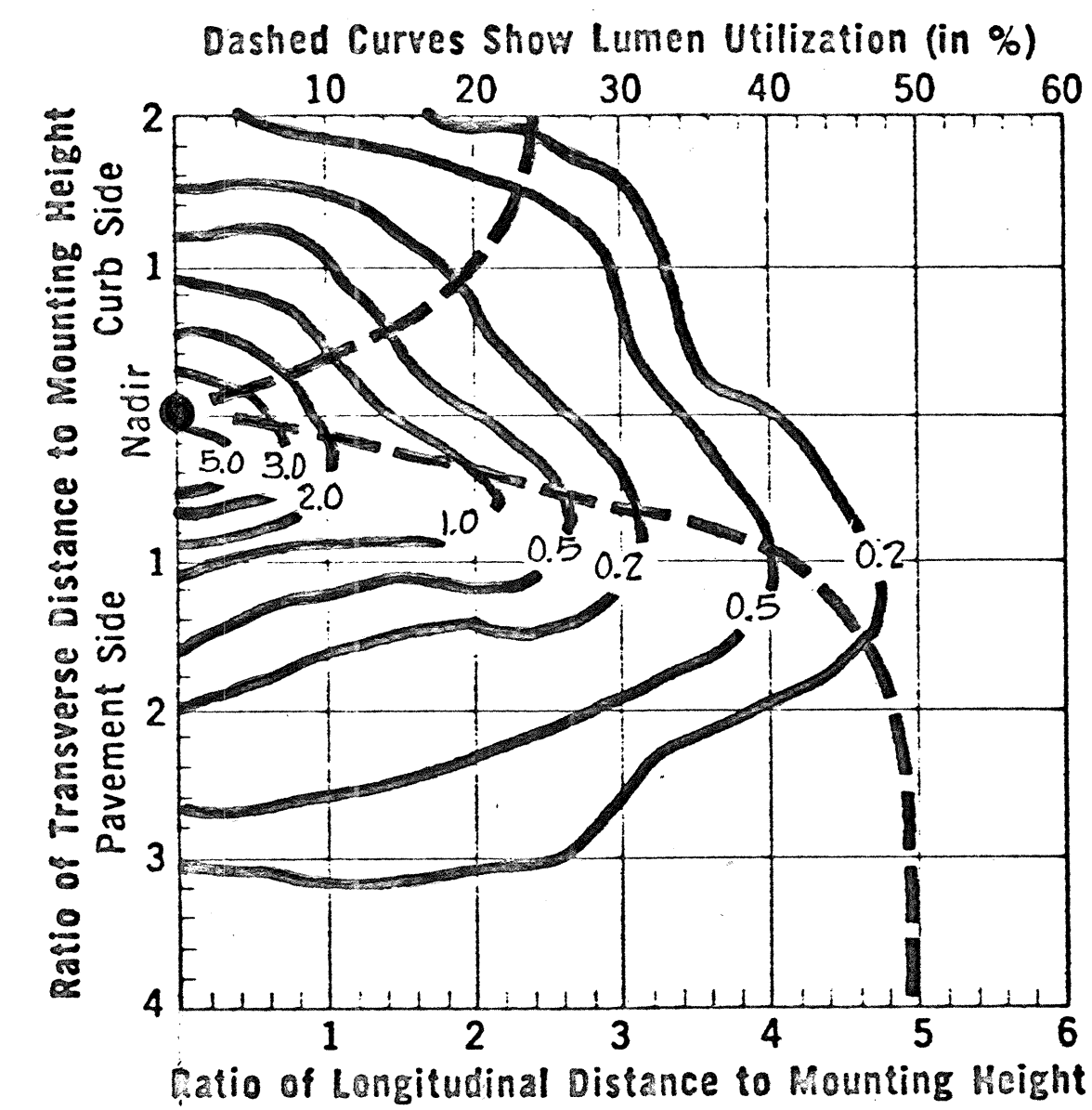
ELECTRICAL PLAN

DETAILS - PART III

INTERSTATE ROUTE H-1
PROJECT NO. I-HI-1(86):17

SCALE: AS NOTED DATE: 6/15/81
SHEET NO. E7 OF 10 SHEETS

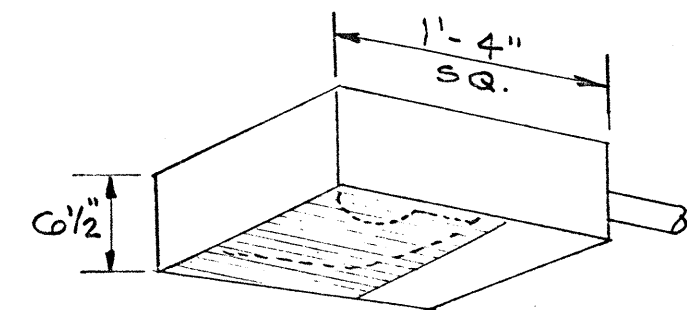
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI(86)17	1981	58	207



ISOFOOTCANDLE & UTILIZATION CURVES

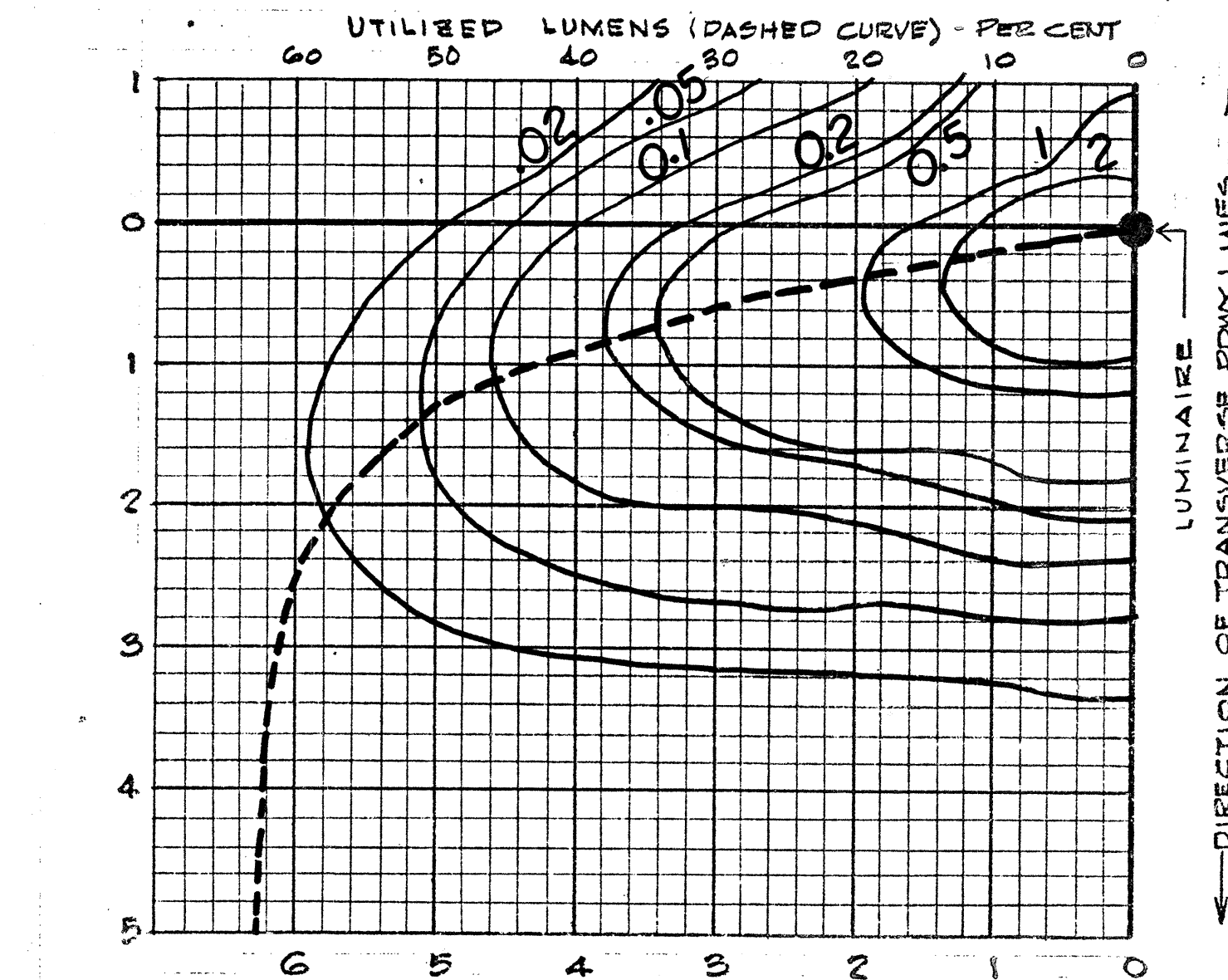
LUMINAIRE TYPE #U-L1 (SYMBOL $\frac{1}{2}$)

DATA BASED ON 150-WATT H.P.S. 16,000-LUMEN LAMP MOUNTED AT 25-FT HEIGHT. PROVIDE ANSI LAMP CODE No. S55SC-150.



DETAIL 1/E8

SEE NOTES 1/E8, 2/E8.

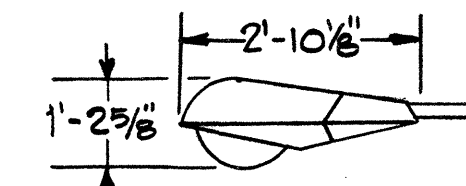


ISOFOOTCANDLE & UTILIZATION CURVES

LUMINAIRE TYPE

#L2-W

DATA BASED ON 250-WATT HPS 25,000 LUMEN LAMP @ 30' MTG. PROVIDE A.N.S.I. LAMP DESIGNATION S50VA-250/S.

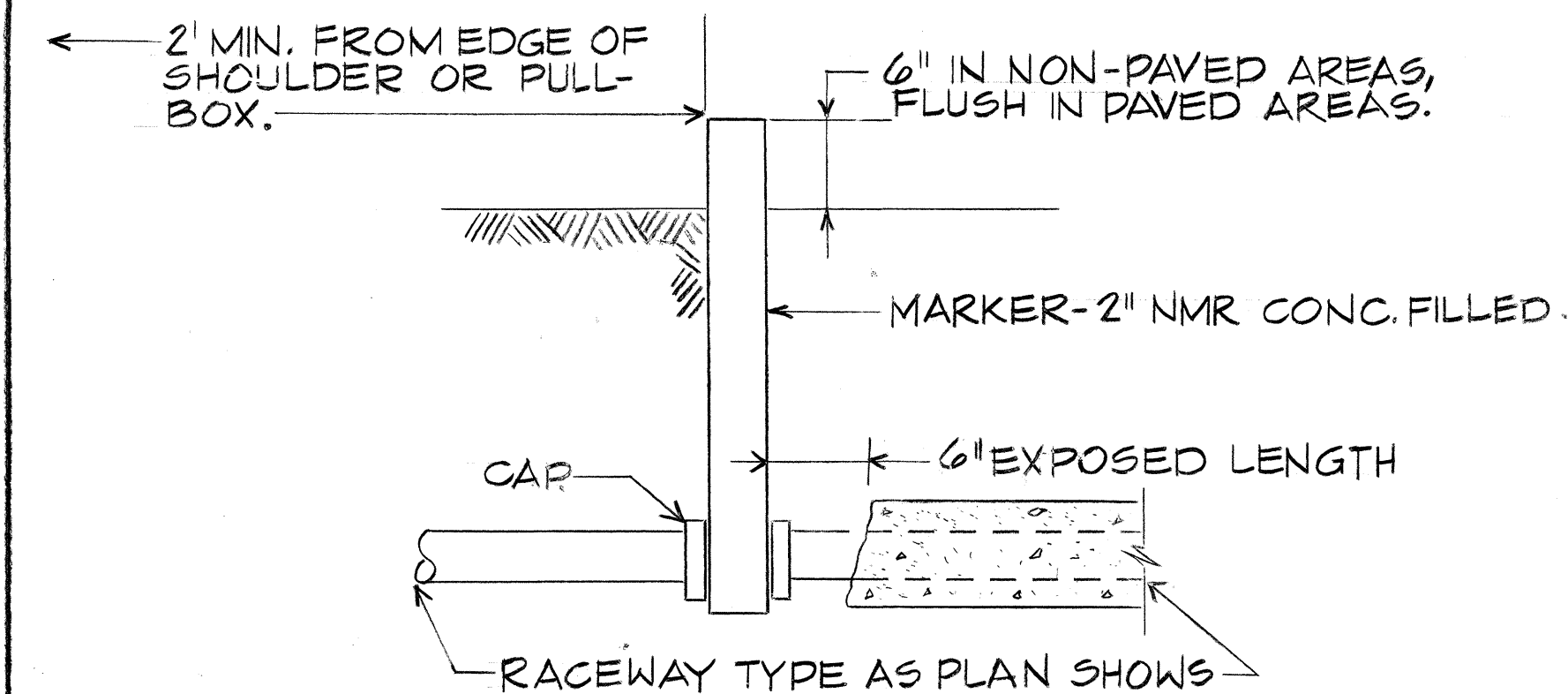


WIDTH = 1'-2"

NOTE: FOR 30,000-LUMEN LAMP MULTIPLY FOOTCANDLE VALUES BY 1.20.

DETAIL 3/E8

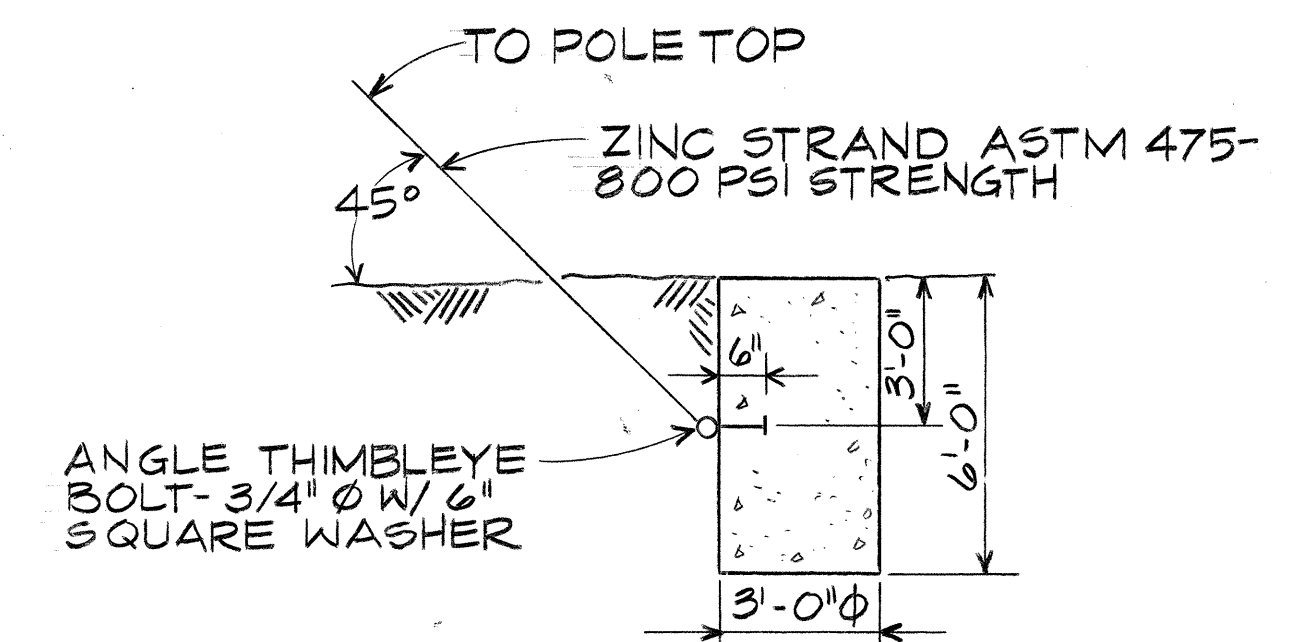
SEE NOTES 1, 2, 3/E8.



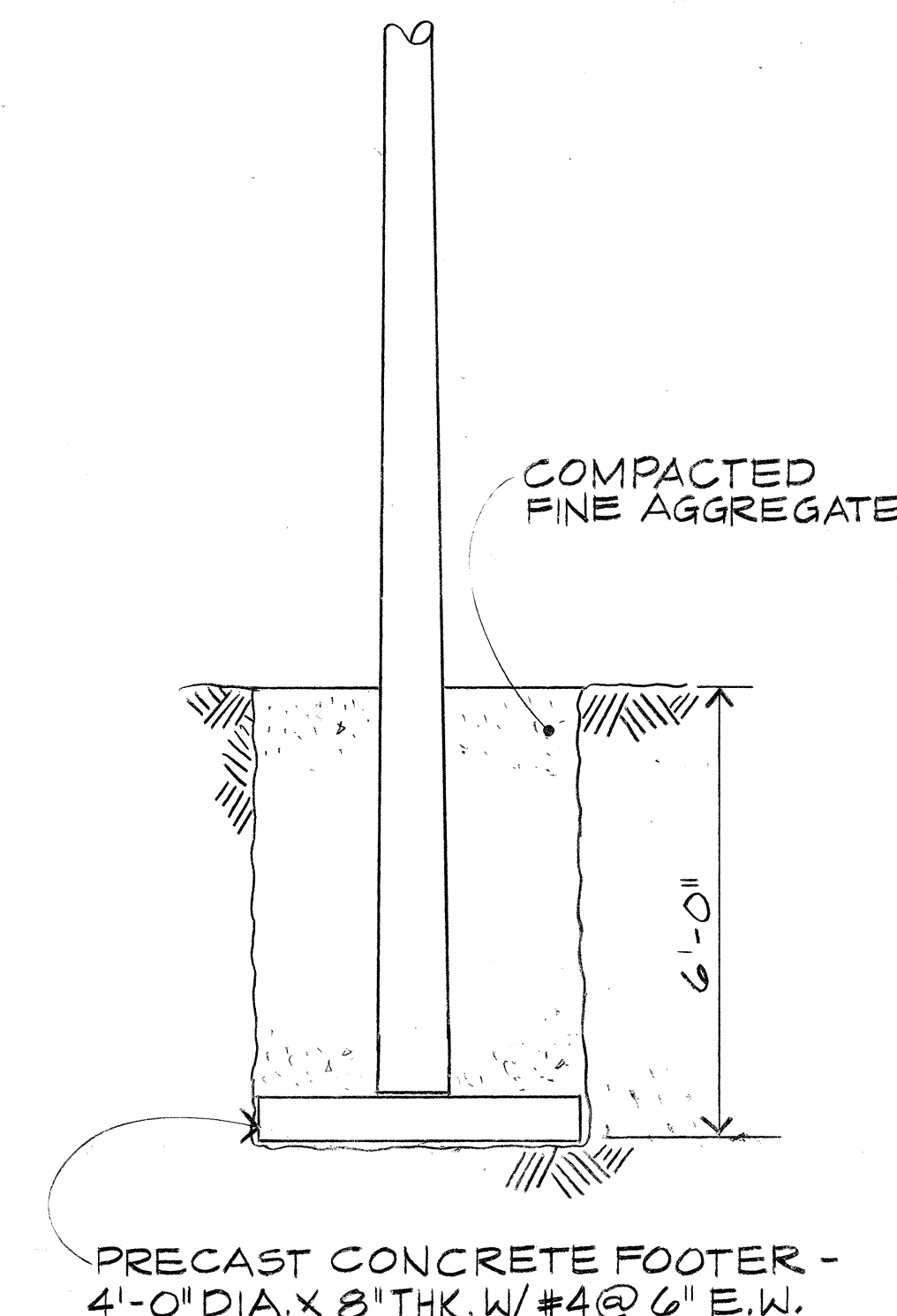
DETAIL 7/E8
CAP & MARK RACEWAY

NOTES:

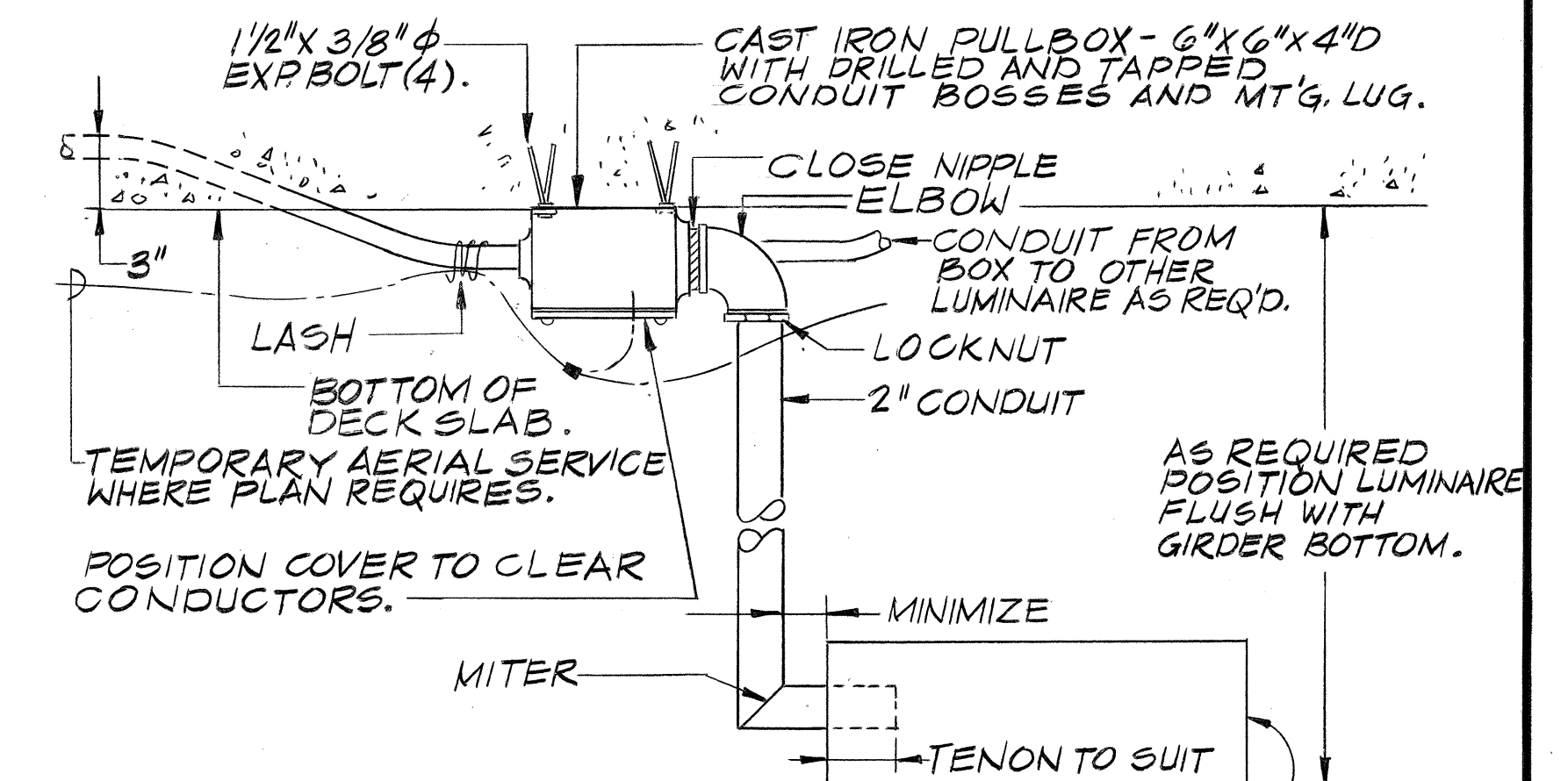
- 1/E8. INDICATED LUMINAIRE DIMENSIONS ARE MANDATORY.
- 2/E8. ISOFOOTCANDLE DISTRIBUTION IN THE RIGHT HAND QUADRANT IS AS SHOWN FOR LEFT QUADRANT.
- 3/E8. LIGHT DISTRIBUTION ABOVE THE HORIZONTAL SHALL NOT EXCEED 1/2% OF BARE BULB LUMENS ON THE STREET SIDE AND 1% ON THE HOUSE SIDE.



DETAIL 8/E8
WOOD POLE DOWN GUY



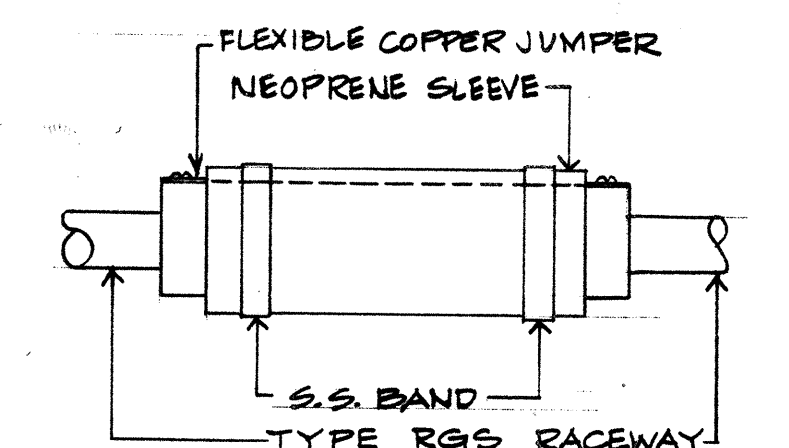
DETAIL 6/E8
WOOD LG. STD. INSTALLATION



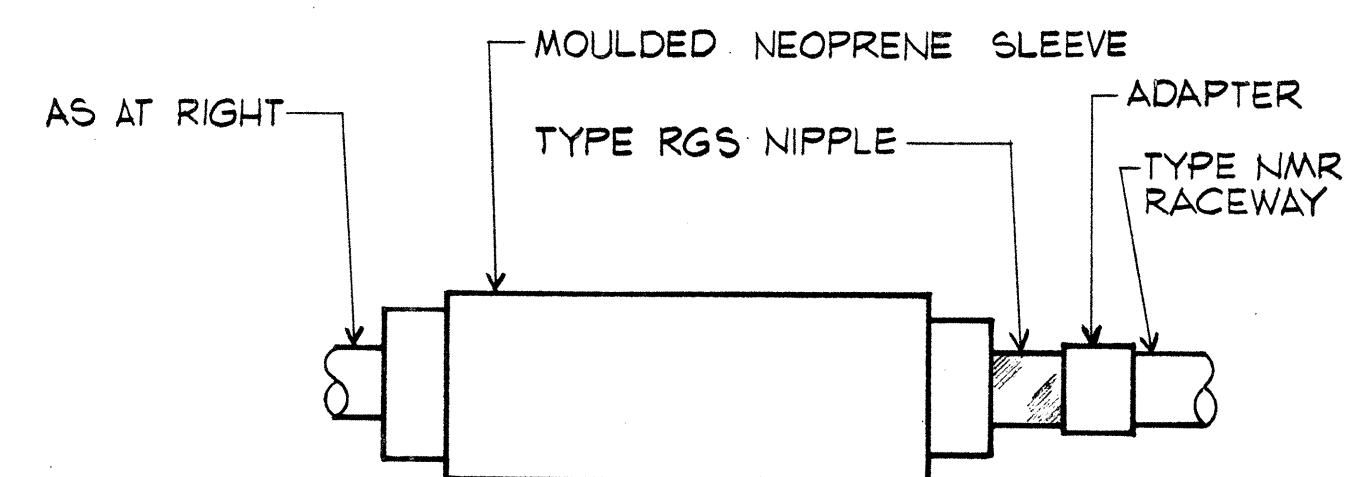
LUMINAIRE - ORIENTATE TO OPTIMIZE DISTRIBUTION.

DETAIL 9/E8
UNDERDECK LUMINAIRE MOUNTING

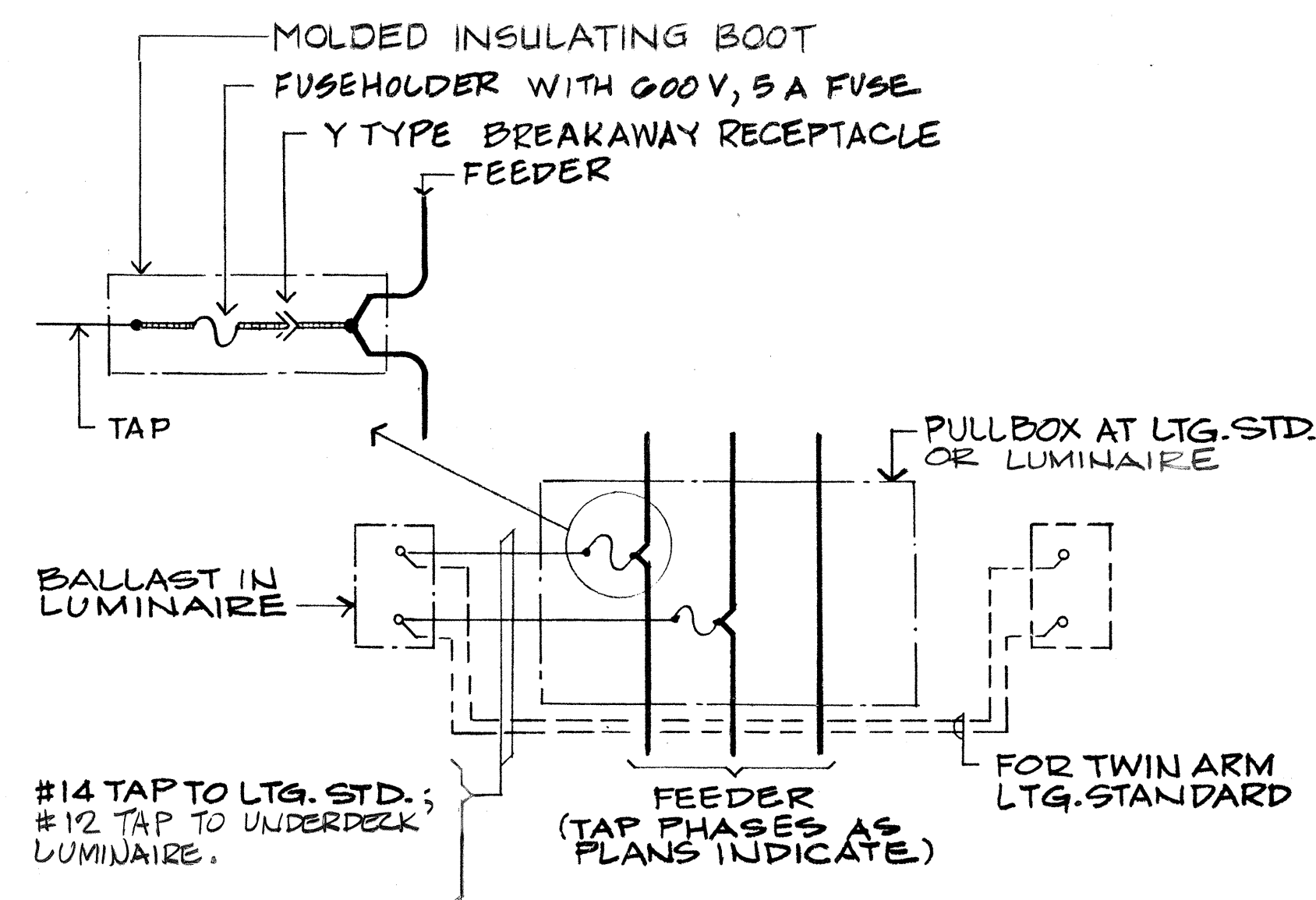
Note: Detail 9/E8 Revised by CCO #17 as shown (Sht #52) for the eleven luminaires mounted beneath Ramps H-1 (EB), Ramp A and Ramp B.



DETAIL 5/E8
EXPANSION-DEFLECTION FITTING



DETAIL 2/E8
EXPANSION - DEFLECTION FITTING



#14 TAP TO LTG. STD.; #12 TAP TO UNDERDECK LUMINAIRE.

DETAIL 4/E8
TAP TO LTG. STD. LUMINAIRE
TAP TO UNDERDECK LUMINAIRE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN

DETAILS - PART IV

INTERSTATE ROUTE H-1
PROJECT NO. I-HI-1 (86)17

SCALE: AS NOTED DATE: 6/15/81

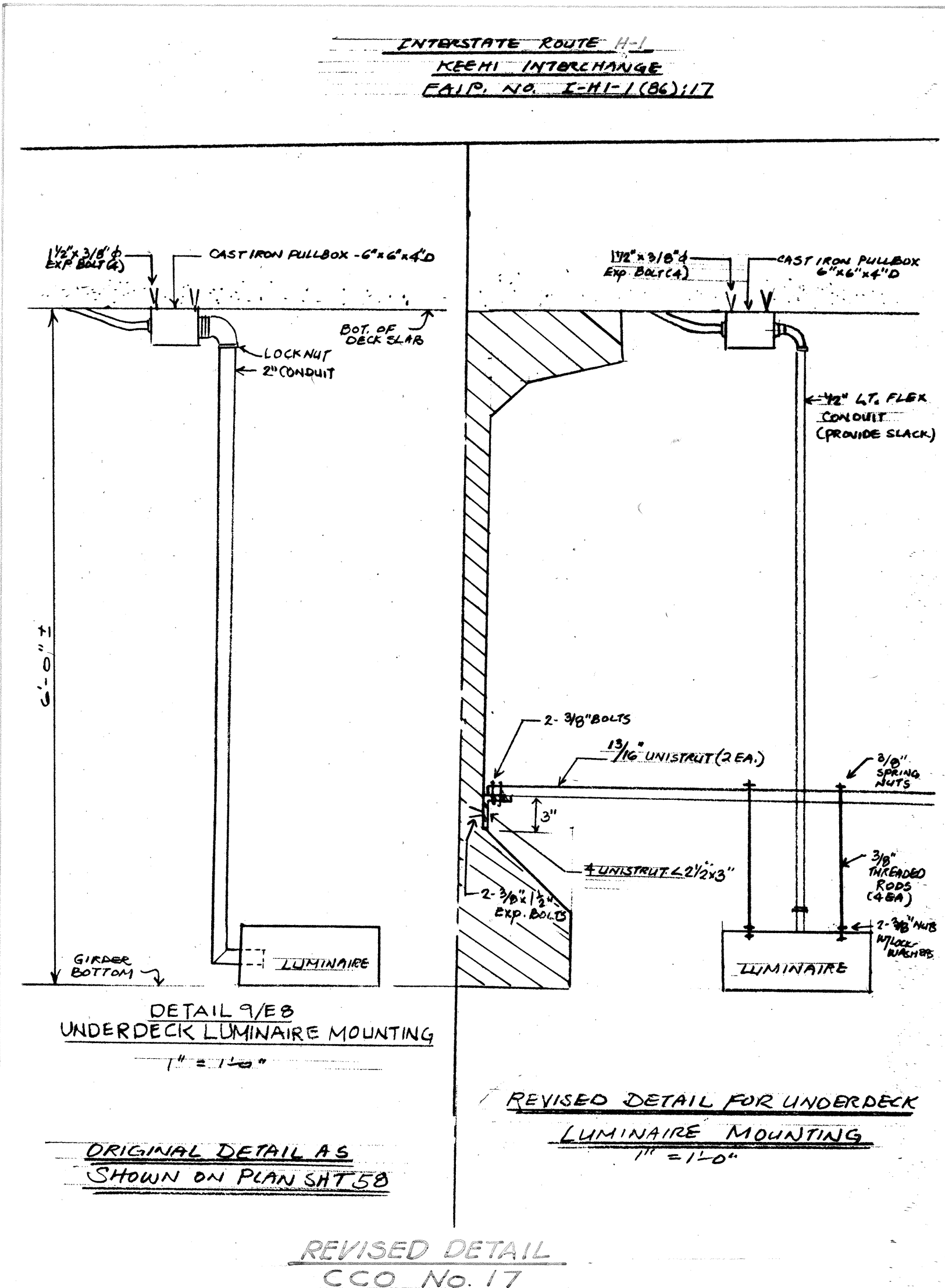
SHEET No. 58 OF 110 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI(86):17	1981	59	207

LIGHTING STANDARD DATA AND OPERATIONAL REQUIREMENTS.														
FDR	LUMINAIRE NO EXIST'G THIS CONT.	BKT. ARM	ON STRUCTURE		ON GRADE - FND TYPE				SETBACK DISTANCE	MTG. HT.	TRAFFIC PATTERN			NOTE
			DECK	PARAPET	G/S/B	G/S/PB	P/S/B	P/S/PB			(A)	(B)	(C)	
H2A	275	15		X						45'				
H2A	276	15		X										
H2A	277	15		X										
H2B	280	12		X										
H2B	281	12		X										
H2B	282	15		X										
B	284	15		X									✓	
B	285	15		X									✓	
H1	286	8		X										
H1	287	15		X										
G1A	288	12		X										
G1A	289	12		X										
G1B	292	8		X										
G1B	293	8		X										
G1B	294	8		X										
B	300	15											✓	
B	301	TWIN				X			AT & MEDIAN	✓			✓	
T	24RR										✓			3,13,14
T	29										✓			3,13
T	31										✓			3,13
F2B/B	47										✓		✓	13
F2B/B	48										✓	✓	✓	13
F2B/B	49										✓	✓	✓	13
E1	50										✓	✓	✓	13
E1	51										✓	✓	✓	13
E1	52										✓	✓	✓	13
E1	53										✓	✓	✓	13
E1	54										✓	✓	✓	13
E1	55										✓	✓	✓	13
F2B/B	58										✓			13
F2B/B	59	58R										✓	✓	13
F2B/B	59R										✓			13
F2B/B	60	59R										✓	✓	13
F2B/B	60R										✓		✓	13
F2B/B	61										✓	✓	✓	13
T	62										✓			3,13
T	63										✓			3,13
T	64										✓			3,13
F2B/B	64R													13
T	65										✓			3,13
F2B/B														
E1	142										✓	✓	✓	13
OTHERS											✓	✓	✓	6

UNDERDECK LUMINAIRE DATA & OPERATIONAL REQMTS.							
LUMINAIRE NO EXIST'G THIS CONT	SERVED BY FEEDER PHASES	TRAFFIC PATTERN			PATTERN		NOTE
		(A)	(B)	(C)			
	U 6	H2A	BC		✓		9
	U 7	H2A	CA		✓		↓
	U 8	H2B	CA		✓		
	U 9	H2B	AB		✓		
	U10	G1A	BC		✓		
	U11	G1B	CA		✓		
	U12	G1A	CA				
	U13	H2B	BC				
	U14	H2B	CA				
	U15	H2A	AB				
	U16	H2A	BC				
	U17	H2A	CA				
	U18	H2A	AB				
	U19	H2A	BC				
	U20	H2B	AB				
	U21	H2B	BC				

- FOOTNOTES TO TABLES:
1. TRAFFIC PATTERN A IS THE PATTERN EXISTING AT THE START OF WORK. FOR TRAFFIC PATTERNS SEE SHEETS P1 - P4.
 2. "✓" DENOTES LUMINAIRE IS TO BE OPERATIONAL FOR INDICATED TRAFFIC PATTERN.
 3. REMOVE AND STOCKPILE WOOD LTG. STD. AFTER REQUIRED OPERATIONAL PERIOD.
 4. NONE.
 5. NONE.
 6. OTHER EXISTING LUMINAIRES NOT TABULATED OR SHOWN ON PLANS ARE TO BE RETAINED AS IS UNLESS OTHERWISE DIRECTED.
 7. NONE.
 8. NONE.
 9. THE PERMANENT FEEDER WHICH IS TO SERVE THIS LUMINAIRE IS IN THIS CONTRACT BUT PROVIDE TEMPORARY SERVICE PER DETAIL I/E2. REMOVE TEMP. FACILITIES AFTER REQUIRED OPERATIONAL PERIOD.
 10. NONE.
 11. NONE.
 12. NONE.
 13. INDICATED FEEDER IS A TEMPORARY AERIAL SERVICE.
 14. REMOVE FEEDER IT' FUSES AT SUBSTATION, CUT AND ABANDON IN PLACE THE UNDERGROUND FEEDER AT RISER ON POLE 24 RR.



Note: This tracing detail prepared during "As-Built" posting.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN

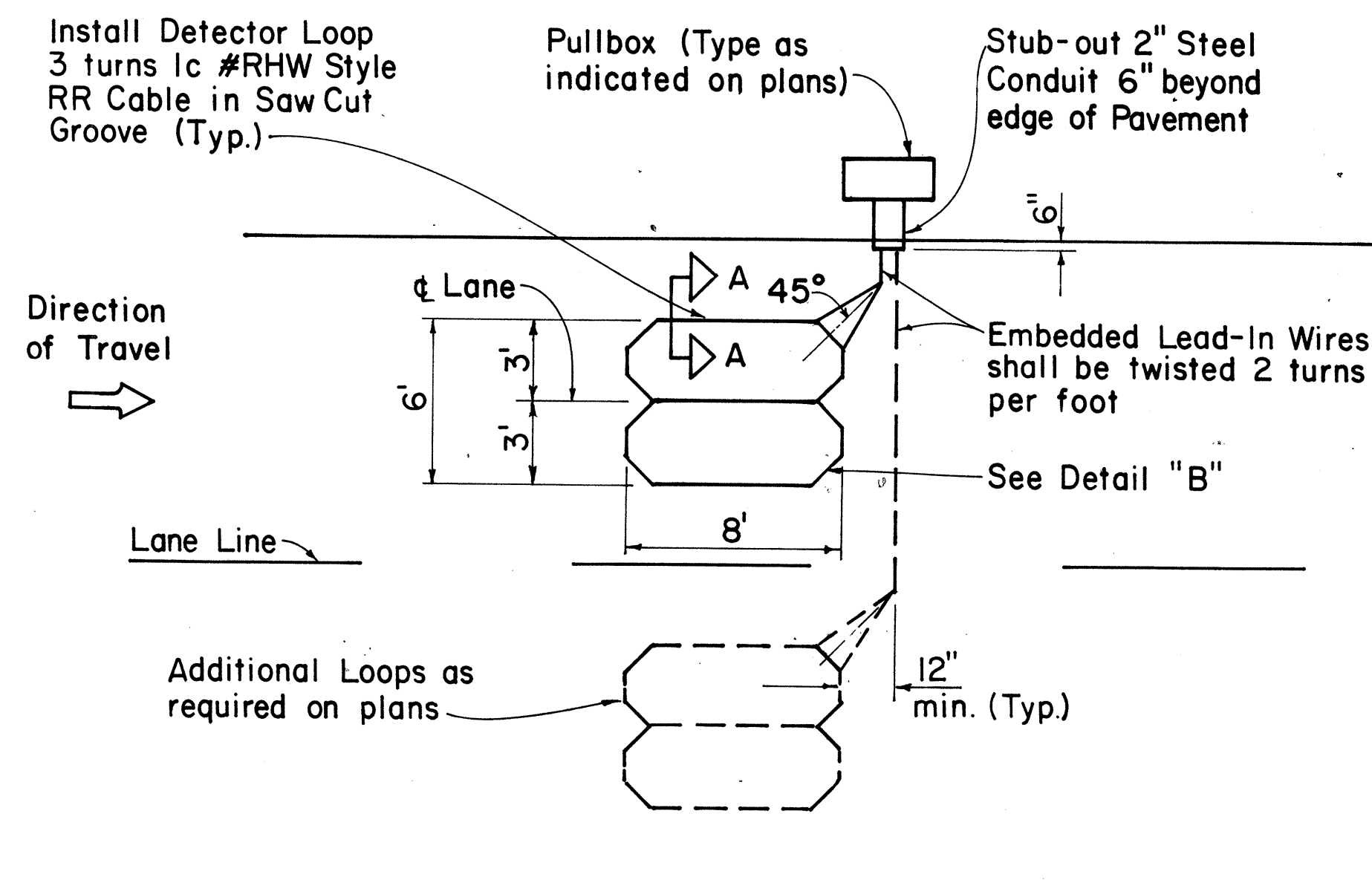
DETAILS - PART I

INTERSTATE ROUTE H-1
PROJECT NO. I-HI-1(86):17

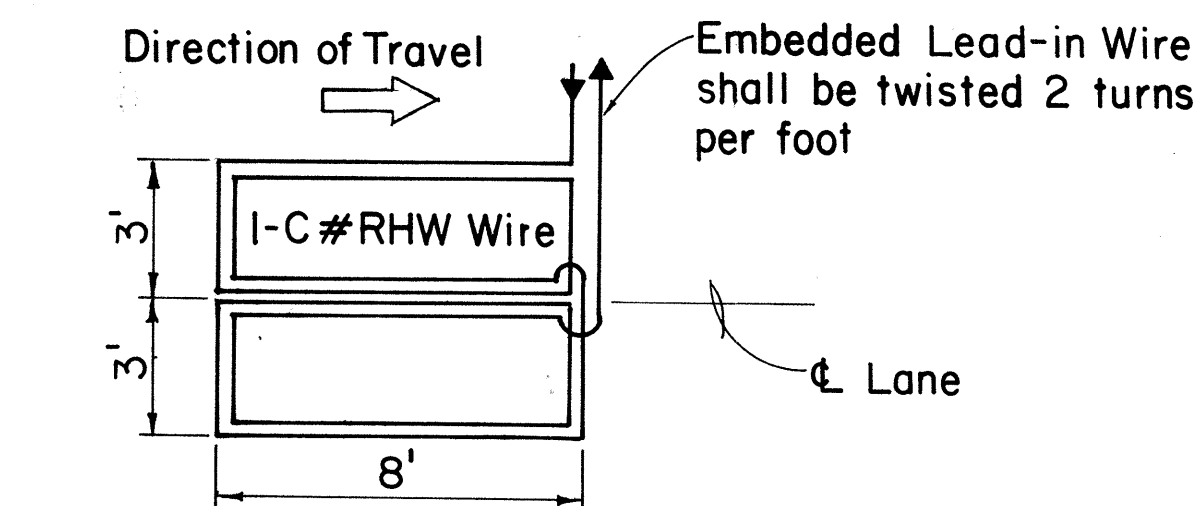
SCALE: NONE
DATE: 6/15/81

SHEET No. 59 OF 10 SHEETS

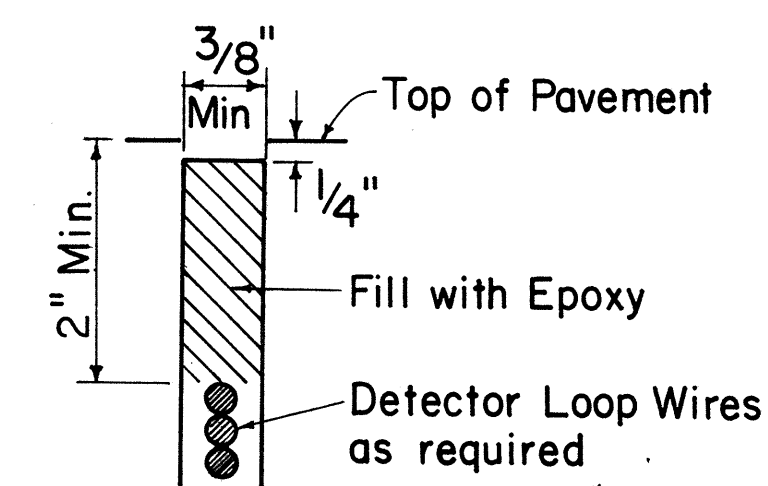
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(86)17	1981	60	207



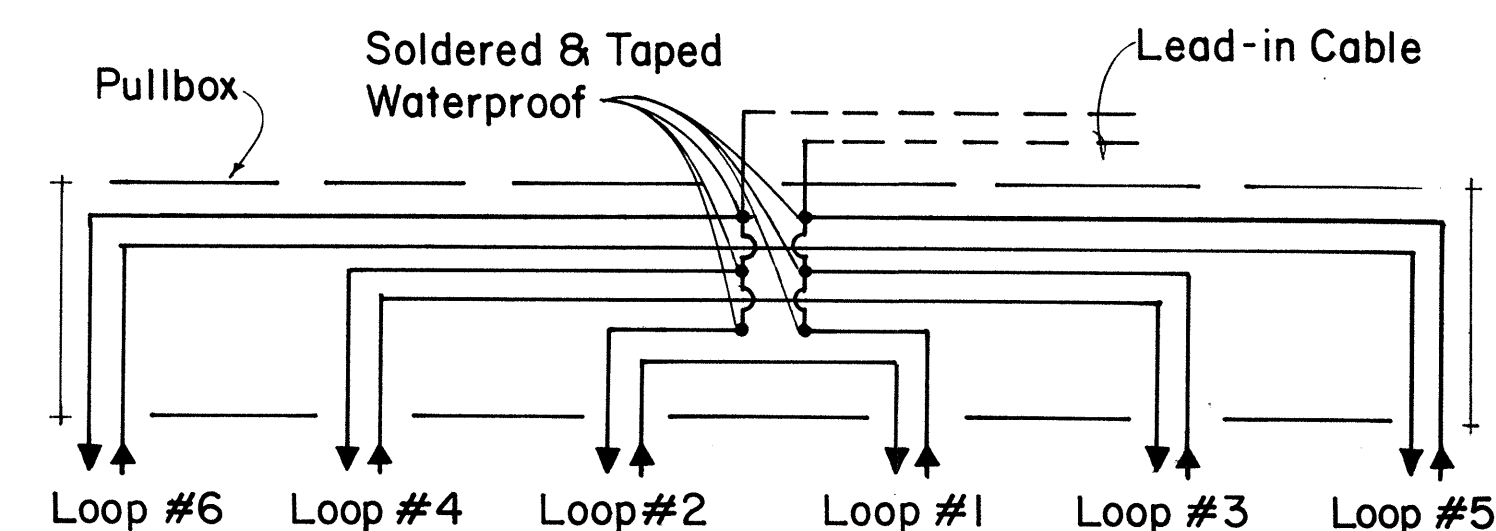
SINGLE LOOP LAYOUT



WIRING DIAGRAM

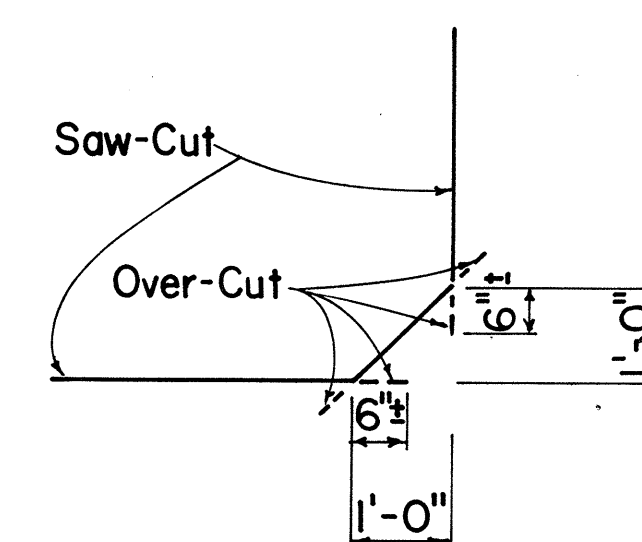


DETECTOR LOOP SAW-CUT SECTION A-A (TYPICAL)

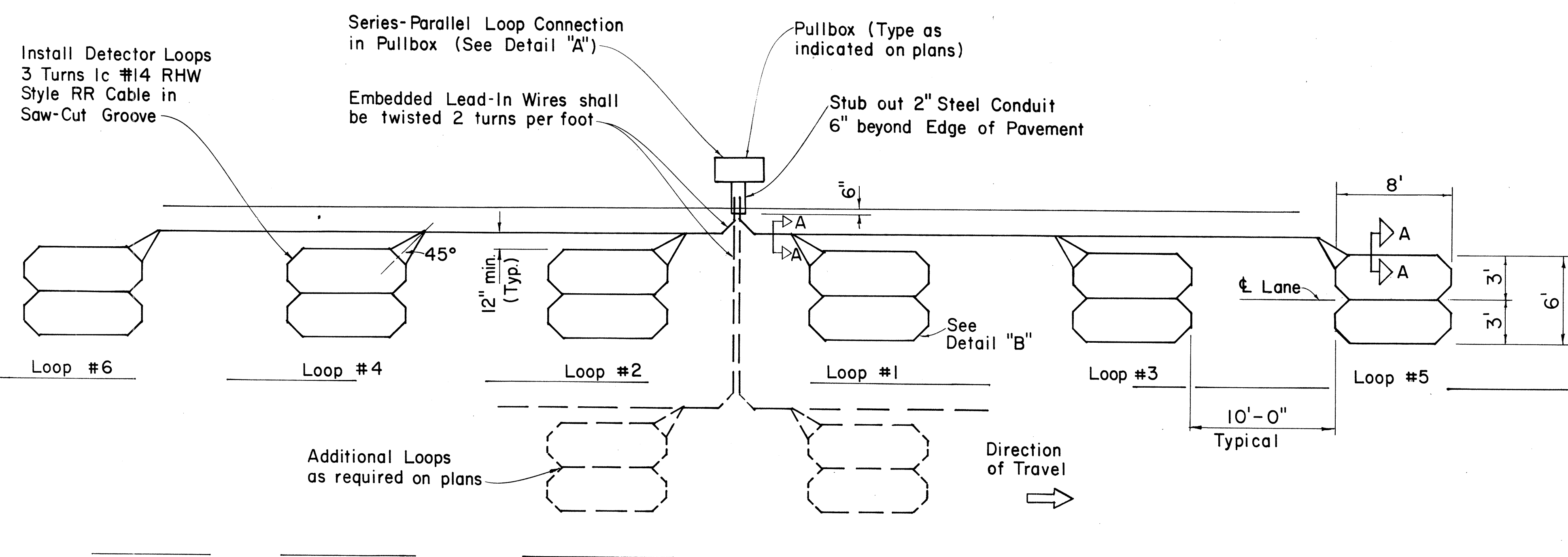


TYPICAL SERIES-PARALLEL LOOP CONNECTION

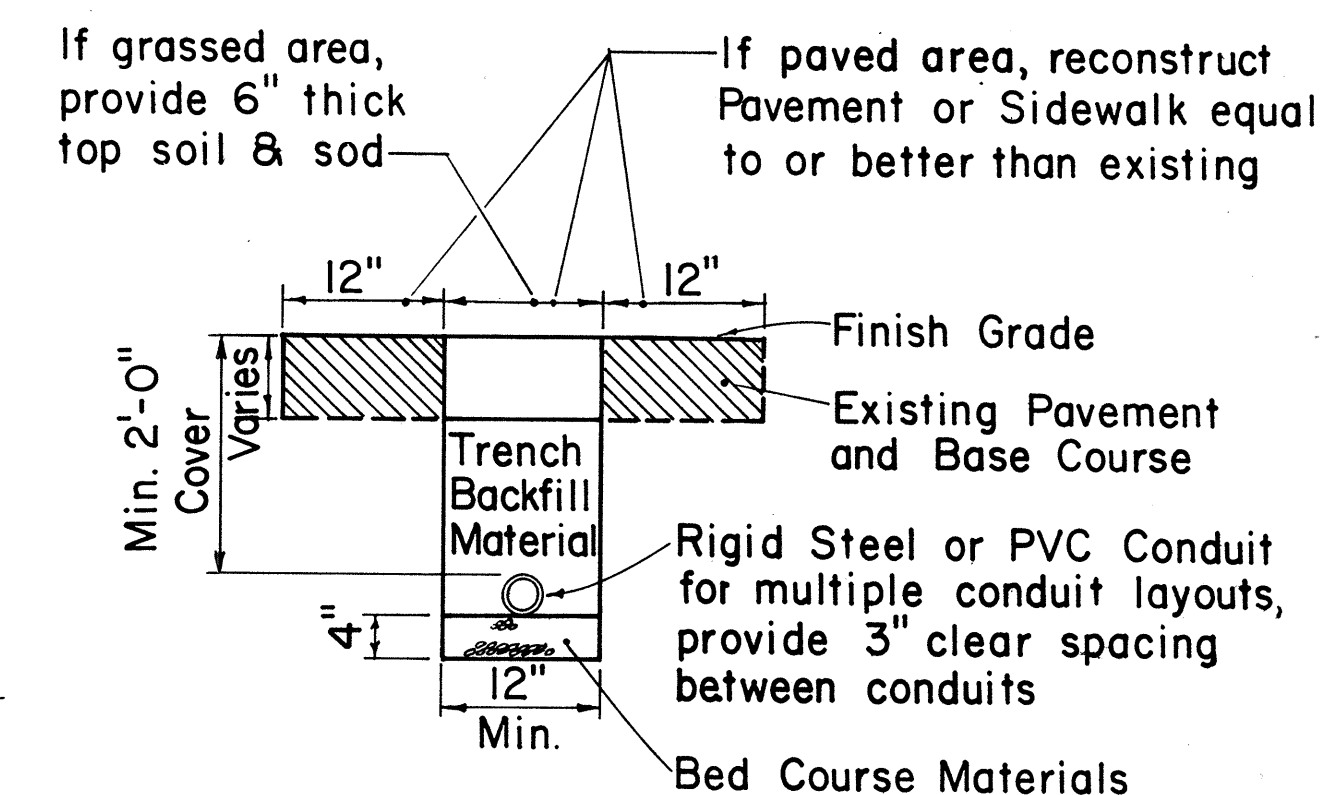
Note: Back-Fill Over-Cuts with Epoxy



DETAIL "B" SAW-CUT AT CORNERS



MULTIPLE LOOP LAYOUT



TYPICAL TRENCH SECTION FOR CONDUIT

NOTE:

- All conduits under roadways shall be steel or PVC schedule 80. All other conduits shall be steel or PVC schedule 40.

APPROVAL RECOMMENDED:

Erich Tanaka 9/26/80
TRAFFIC ENGINEER DATE

APPROVED:

Shelton Zalewski 9/30/80
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Replaces Sht. DT 405 dated 3/5/76	H.I.	9/30/80
2	Revised Section A-A	H.I.	5/15/81

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD DETAILS	
LOOP DETECTORS	
Not to Scale	Date: 6/15/81

SHEET No. E10 OF E10 SHEETS DT 405