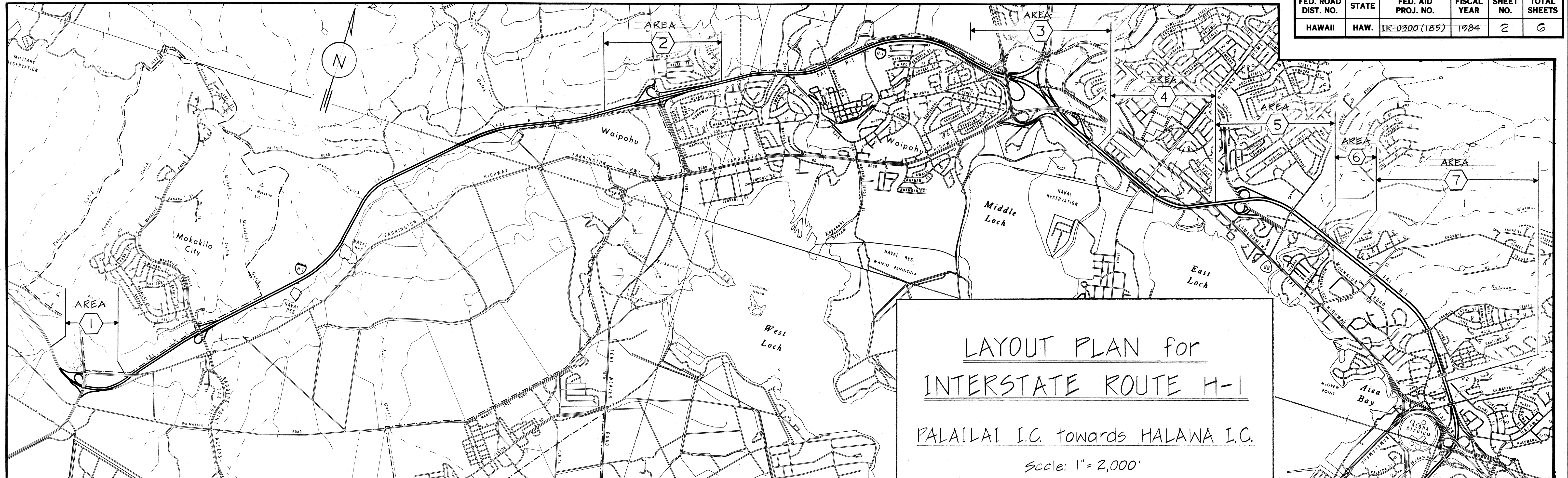


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-0300 (185)	1984	2	6



PALAILAI INTERCHANGE (AREA ①)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE II	250, TYPE II
FREEWAY - E. STA. 40+00 to 65+00		23
RAMP C	1	10
RAMP CI	2	4
RAMP IF	1	
WEAVING LANE	6	
FARRINGTON HWY.	1	2
KALAELOA BLVD.	1	6

KUNIA INTERCHANGE (AREA ②)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE II	250, TYPE II
FREEWAY - E. STA. 299+50 to 349+50		38
RAMP KA	7	
RAMP KB	3	2
RAMP KC	7	
RAMP KD	8	
RAMP KE	7	
KUNIA RD.		17

WAIKAWA INTERCHANGE (AREA ③)

LOCATION	LUMINAIRES (WATTS)			
	150, TYPE II	150, TYPE II	250, TYPE II	250, TYPE II
FREEWAY - E. STA. 472+00 to 521+00	5		8	49
RAMP D	10			
LOOP 5	3	4		4
KAMEHAMEHA HWY. CONNECTOR	16			5
WAIKAWA ST. REALIGNMENT	4			
FARRINGTON HWY.	38	3	1	3
RAMP G	16	1	2	5
LOOP 3	3	5		1
RAMP E	4			
RAMP D-1	2	8		1
RAMP H-G	1	2		2
RAMP H	2	4		
LOOP 4	6	4	1	4
RAMP C	6	4		3
RAMP B	6	1	2	2
RAMP N	4			2
H-1 OUTBOUND to H-2 OUTBOUND	9		2	13
H-2 INBOUND to H-1 INBOUND	10			5
RAMP H2-0	7			4
RAMP H2-1	13		7	2
RAMP M	4	3		

PEARL CITY VIADUCT (AREA ④)

LOCATION	LUMINAIRES (WATTS) 250, TYPE II
FREEWAY - E. STA. 21+00 to 63+00	69

WAIKAWA INTERCHANGE (AREA ⑤)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE II	250, TYPE II
FREEWAY - E. STA. 63+00 to 111+00		55
MOANALUA RD.		24
RAMP A	7	
RAMP B	3	
RAMP C	10	2
RAMP D	2	
RAMP E	11	
RAMP F	6	
RAMP G	3	
RAMP H	1	

WAIMALU VIADUCT (AREA ⑥)

LOCATION	LUMINAIRES (WATTS) 250, TYPE II
FREEWAY - E. STA. 111+00 to 124+00	13

WAIMALU VIADUCT TO HALAWA I.C. (AREA ⑦)

LOCATION	LUMINAIRES (WATTS) 250, TYPE II
FREEWAY - E. STA. 124+00 to 195+00	73

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

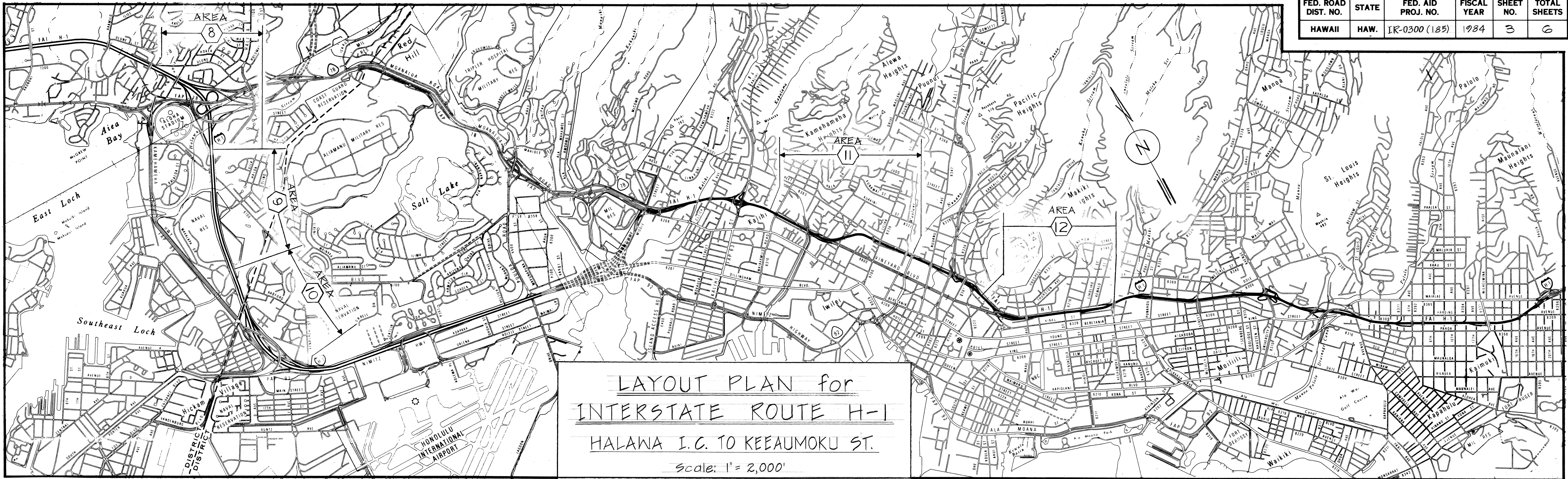
PLAN
VARIOUS INTERSTATE ROUTES
CONVERSION OF MERCURY LUMINAIRES
TO HIGH PRESSURE SODIUM

F.A.I. PROJ. NO. IR-0300 (185)
SCALE: AS SHOWN DATE: MARCH 1984

SHEET NO. 1 OF 5 SHEETS

5/17/84	Revised Quantities - Palailai I.C.
DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-0300 (185)	1984	3	6



LAYOUT PLAN for
INTERSTATE ROUTE H-1
HALAWA I.C. TO KEEAUMOKU ST.
Scale: 1" = 2,000'

HALAWA INTERCHANGE (AREA ⑧)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE II	400, TYPE III
FREEWAY - E STA. 195+00 to 241+00		31
RAMP WE	16	4
RAMP SWE	8	
RAMP SC	9	
RAMP C	4	
RAMP B	10	
RAMP SE	19	
RAMP J	6	
RAMP I	1	
RAMP H	6	
RAMP L	1	
ULUNE EXTENSION	6	12
SERVICE ROAD	2	
RAMP G	11	4
RAMP D	13	
RAMP E	11	
RELOCATED HALAWA HEIGHTS ROAD		14

NORTH LEG (AREA ⑨)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE II	400, TYPE III
FREEWAY - E STA. 5+00 to 55+00		46

PEARL HARBOR INTERCHANGE (AREA ⑩)

LOCATION	LUMINAIRES (WATTS)		
	250, TYPE II	250, TYPE III	400, TYPE III
FREEWAY - E STA. 55+00 to 92+00			28
RAMP MW	11		
RAMP NW	23		
RAMP NK	6		
MAUKA FRONTAGE RD.	20		
RAMP EK	5		
RAMP KE	9		
MAKAI FRONTAGE RD.	25		
RAMP WS	7		
RAMP WN	19		1
RAMP KN	11		
RAMP MN	7		
RAMP EN	12		
NIMITZ HWY. I.B.		2	
NIMITZ HWY. O.B.		2	

250' WEST OF HOUGHTAILING SEPARATION STRUCTURE TO NUUANU STREAM BRIDGE (AREA ⑪)

LOCATION	LUMINAIRES (WATTS)	
	250, TYPE III	400, TYPE III
FREEWAY - E STA. 62+50 to 126+00	83	2

250' WEST OF PELE ST. TO KEEAUMOKU ST. (AREA ⑫)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE II	250, TYPE III
FREEWAY - E STA. 165+50 to 225+50		89*
VINEYARD WB	2	6
VINEYARD EB		10
KINAU ST. OFF RAMP	7	
FRONTAGE RD "K"	4	
WARD OVERPASS	2	1
WARD ON-RAMP	1	
RAMP F	1	

*Luminaires located between Sta. 202+00 to 225+00 must have internal shields. (46 each)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN
VARIOUS INTERSTATE ROUTES
CONVERSION OF MERCURY LUMINAIRES
TO HIGH PRESSURE SODIUM
F.A.I. PROJ. NO. IR-0300 (185)
SCALE: AS SHOWN DATE: MARCH 1984
SHEET No. 2 OF 5 SHEETS

DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-0300 (189)	1984	4	6

LAYOUT PLAN for INTERSTATE ROUTE H-2 WAHIAWA INTERCHANGE & LEILEHUA INTERCHANGE

SCALE: 1"=2,000' DATE: MARCH 1984

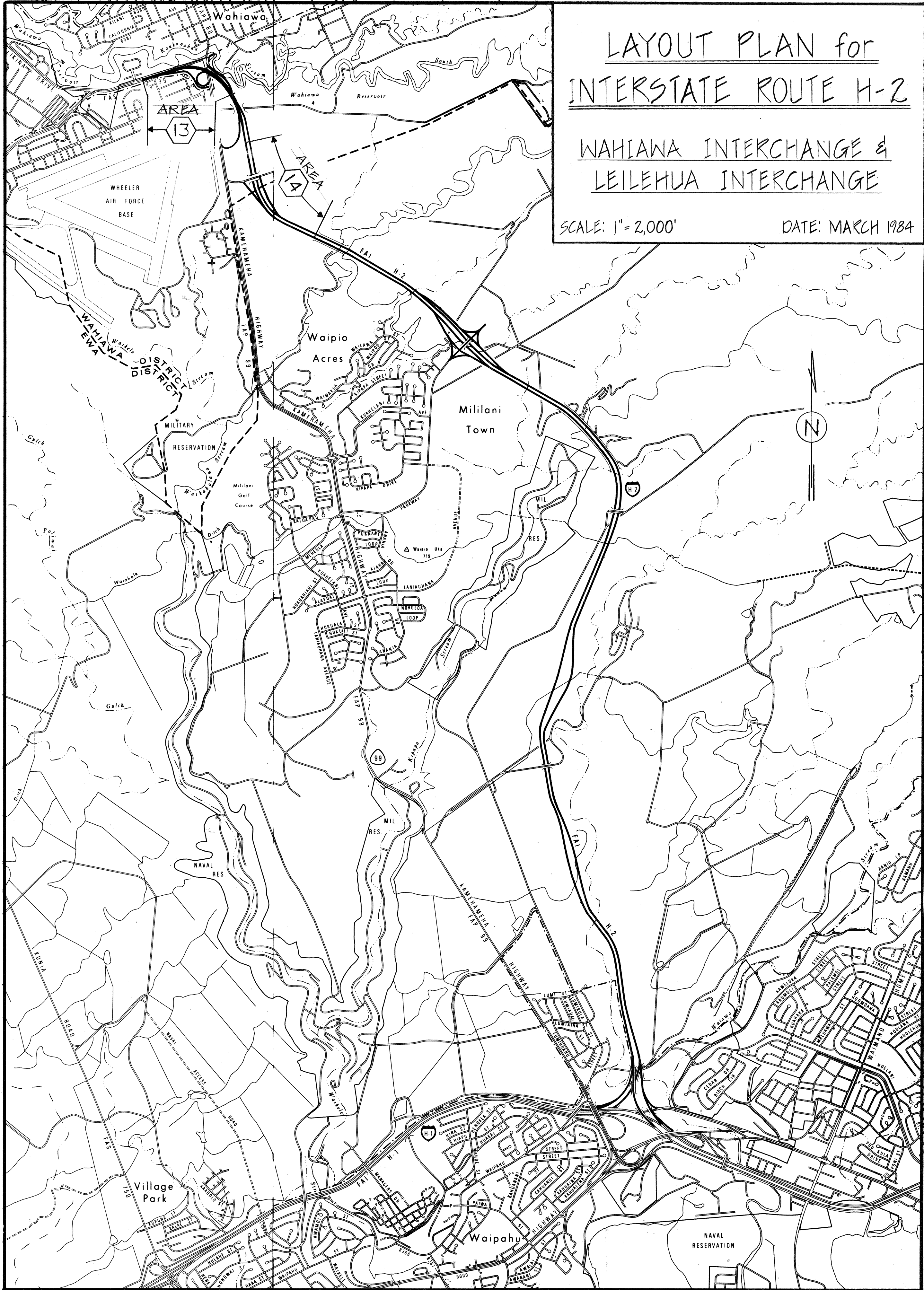
WAHIAWA INTERCHANGE (AREA ⑬)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE II	250, TYPE III
FREWAY- E STA. 42+20 to 62+00		24
RAMP E	7	5
LOOP I	4	2
RAMP C	4	3
KAM HWY.		21
WILIKINA DR.		8

LEILEHUA INTERCHANGE (AREA ⑭)

LOCATION	LUMINAIRES, (WATTS)		
	150, TYPE II	250, TYPE III	400, TYPE III
FREWAY- E STA. 88+00 to 128+25			23
GOLF COURSE ROAD		6	
KAM HWY.		4	
RAMP LO	18	1	
RAMP LI	12	1	

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN

VARIOUS INTERSTATE ROUTES
CONVERSION OF MERCURY LUMINAIRES
TO HIGH PRESSURE SODIUM

F.A.I. PROJ. NO. 1R-0300 (189)

SCALE: AS SHOWN DATE: MARCH 1984

SHEET No. 3 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-0300(185)	1984	5	6

KAILUA INTERCHANGE (AREA 15)

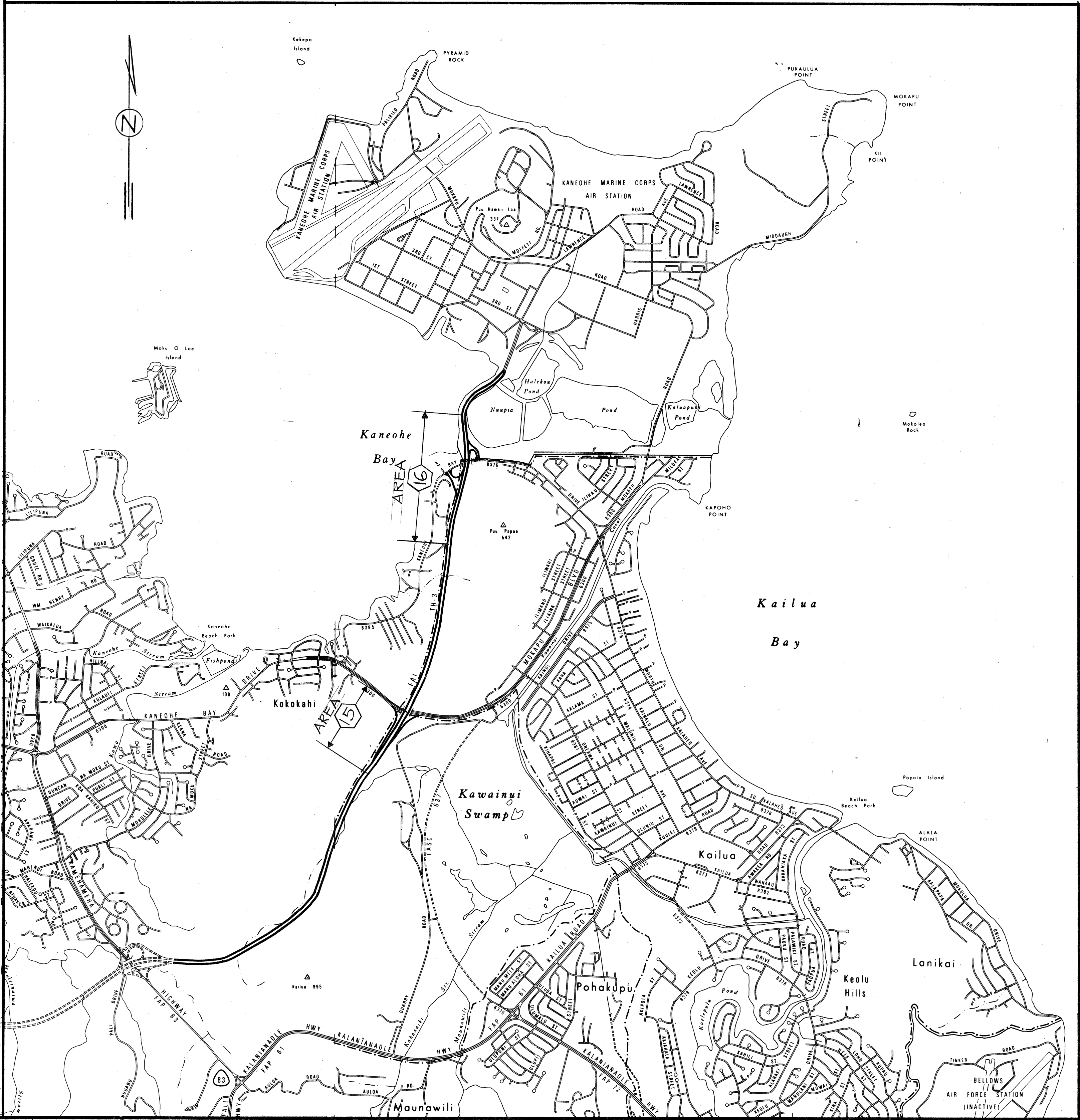
LOCATION	LUMINAIRES (WATTS)	
	150, TYPE III	250, TYPE II
FREWAY - STA. 609+50 to 631+00		8
RAMP K-1	6	2
RAMP K-2	7	2
MOKAPU SADDLE RD		12

MOKAPU INTERCHANGE (AREA 16)

LOCATION	LUMINAIRES (WATTS)	
	150, TYPE III	250, TYPE II
FREWAY - STA. 685+00 to 725+00	7	20
RAMP M-1	6	3
RAMP M-2	7	1
RAMP M-3	5	3
RAMP M-4	6	1
KANEHOE BAY DR.	1	8

HIGHWAY LIGHTING GENERAL NOTES

- EXISTING HIGH PRESSURE SODIUM LUMINAIRES SHALL REMAIN IN PLACE UNLESS OTHERWISE DIRECTED.
- EXISTING MERCURY VAPOR ROADWAY LIGHTING LUMINAIRES WITHIN THE PROJECT LIMITS SHALL BE REPLACED WITH HIGH PRESSURE SODIUM LUMINAIRES AS SPECIFIED AND AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL VERIFY THE TOTAL NUMBER OF LUMINAIRES TO BE REPLACED OR REMAIN IN PLACE PRIOR TO THE START OF CONSTRUCTION OR AS OTHERWISE APPROVED. AS-BUILT PLANS OF THE EXISTING HIGHWAY LIGHTING SYSTEM ARE AVAILABLE FROM THE HIGHWAY DESIGN SECTION, HIGHWAYS DIVISION, DEPARTMENT OF TRANSPORTATION LOCATED AT 869 PUNCHBOWL ST., ROOM 403.
- ALL LIGHT SOURCES FOR 150 WATT HIGH PRESSURE SODIUM LUMINAIRES SHALL BE 55 VOLT UNITS.
- THE CONTRACTOR SHALL REMOVE THE EXISTING IDENTIFICATION TAGS AND INSTALL NEW IDENTIFICATION TAGS FOR MULTIPLE STREET LIGHTING ON LIGHTING STANDARDS THAT HAVE BEEN MODIFIED. SEE PLAN SHEET NO. 5 FOR DETAILS OF THE IDENTIFICATION TAG.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING SECTIONS OF THE SPECIAL PROVISION: SUBSECTION 107.13 - PUBLIC CONVENIENCE AND SAFETY AND SECTION 645 - TRAFFIC CONTROL.
- DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DAMAGE ANY EXISTING SPRINKLER HEADS, SPRINKLER LINES, CONDUITS, UTILITIES, PULLBOXES OR OTHER APPURTENANCES ADJACENT TO THE ROADWAY. ANY DAMAGES SHALL BE REPAIRED OR REPLACED, AS DIRECTED BY THE ENGINEER, BY THE CONTRACTOR AT HIS EXPENSE.



LAYOUT PLAN for
INTERSTATE ROUTE H-3
KAILUA INTERCHANGE &
MOKAPU INTERCHANGE

SCALE: 1"=2,000'

DATE: MARCH 1984

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN AND NOTES

VARIOUS INTERSTATE ROUTES
CONVERSION OF MERCURY LUMINAIRES
TO HIGH PRESSURE SODIUM
FAT. PROJ. NO. IR-0300(185)

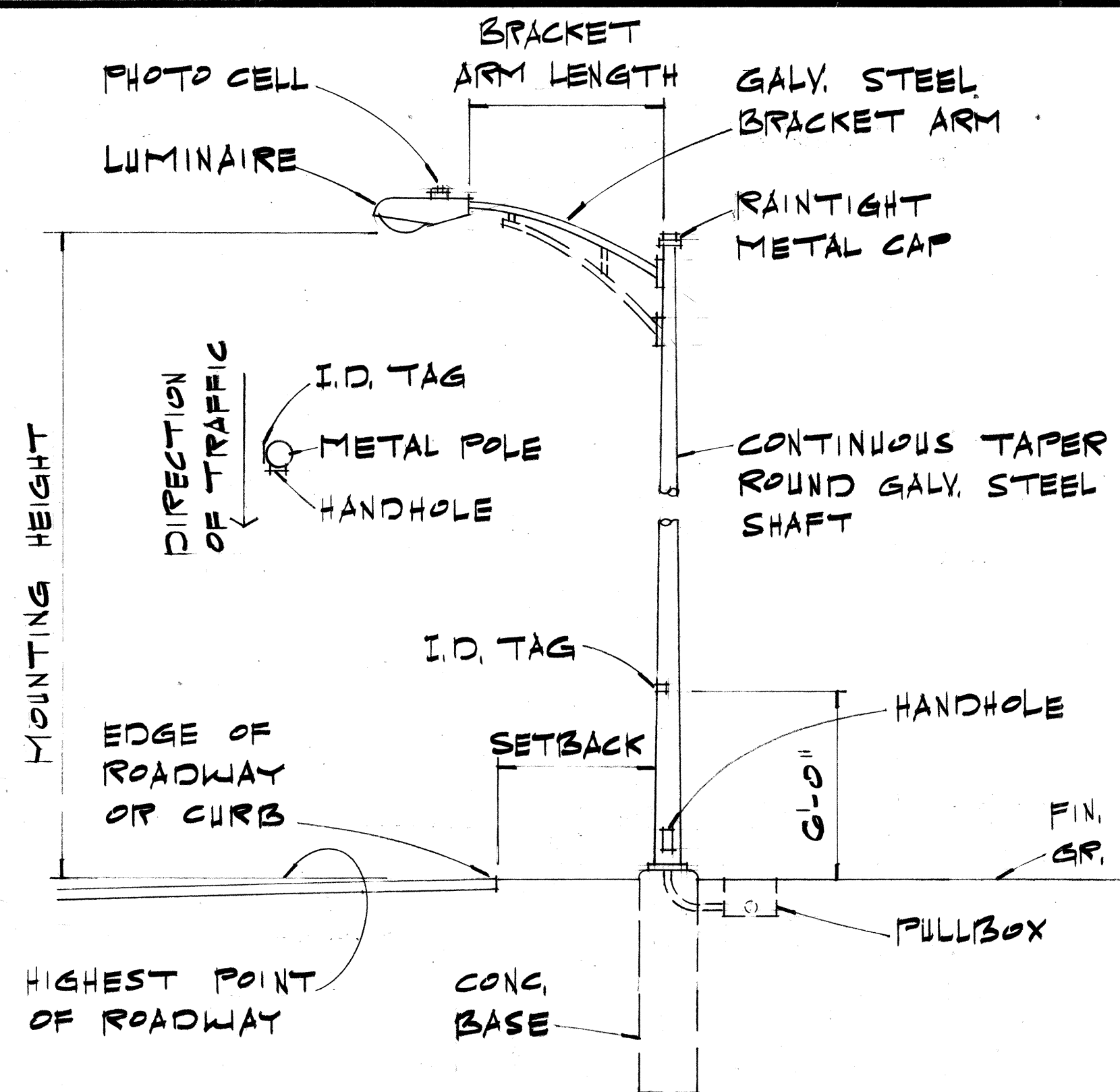
SCALE: AS SHOWN DATE: MARCH 1984

SHEET NO. 4 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-0300 (185)	1984	6	6

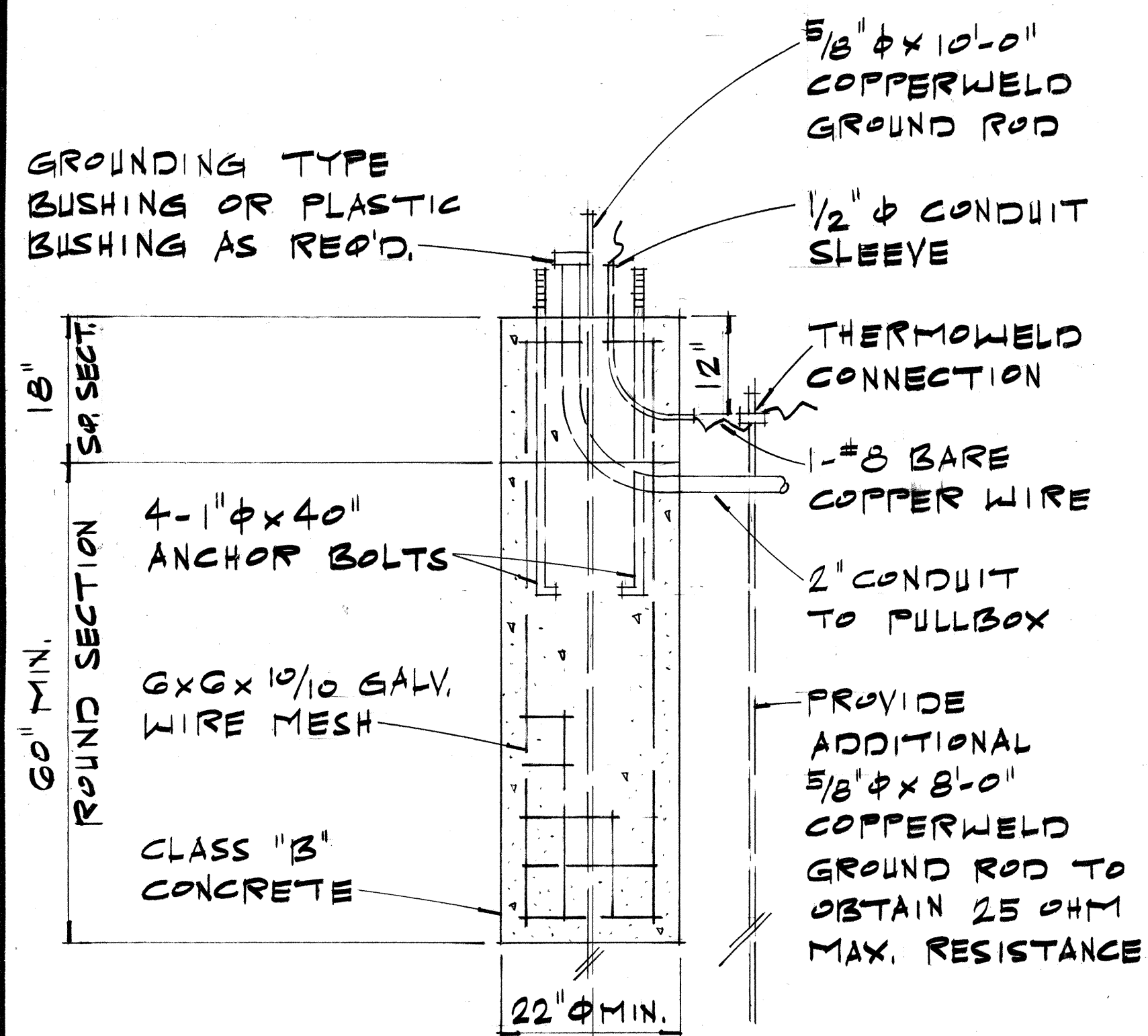
GENERAL NOTES

- ALL LUMINAIRES SHALL BE HIGH PRESSURE SODIUM TYPE W/ WATTAGE & IES TYPE LIGHT DISTRIBUTION AS SHOWN ON PLANS.
- THE CONTRACTOR SHALL NOTIFY & COORDINATE WORK W/ THE STATE ELECTRICAL MAINTENANCE SECTION, ADDRESS: 5127 KAKOI ST., PHONE NO. 548-4077, 72 HOURS IN ADVANCE OF COMMENCING INSTALLATION OF STREET LIGHT SYSTEM.



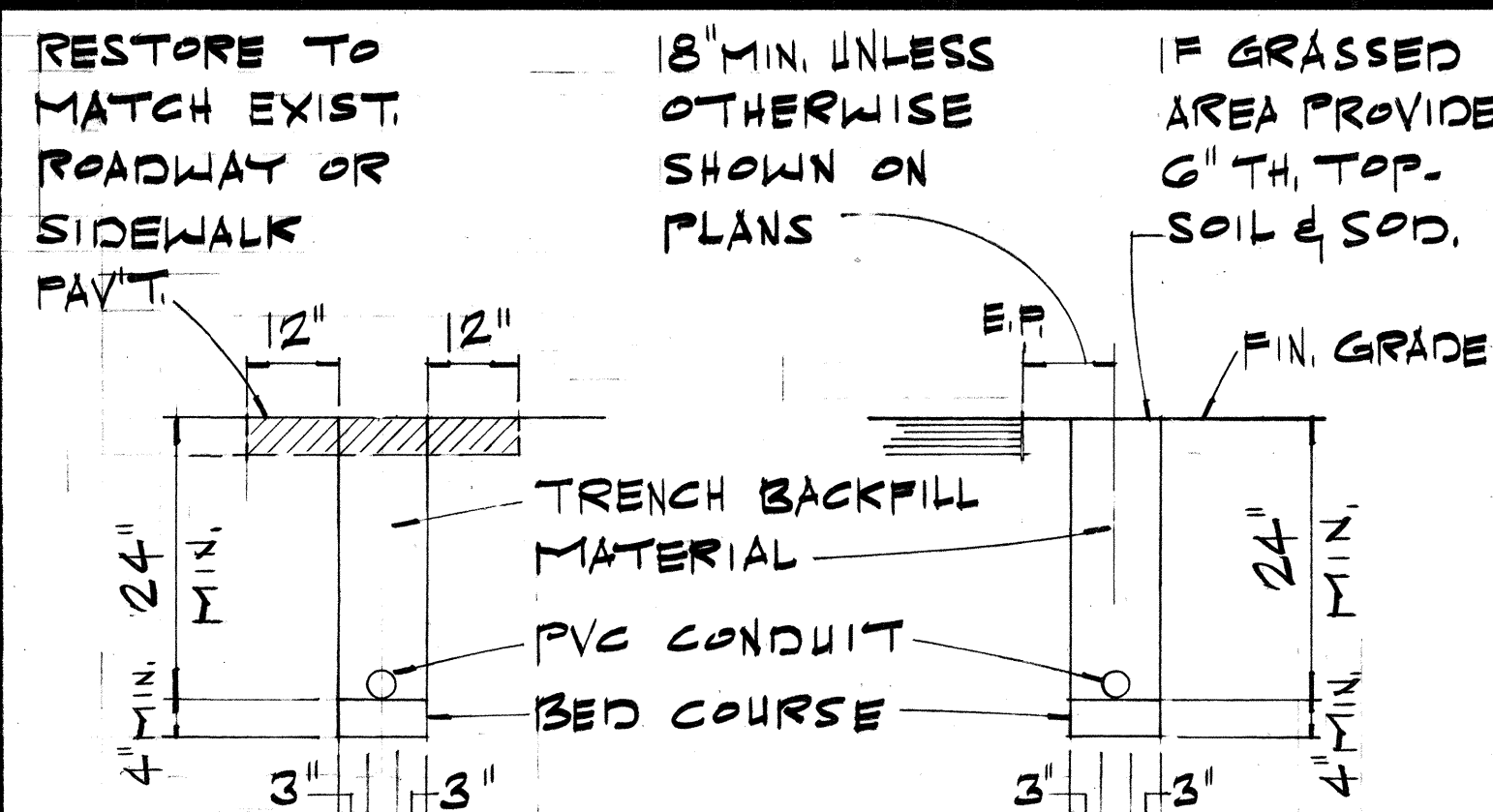
STREET LIGHT DETAIL

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



CONCRETE BASE DETAIL

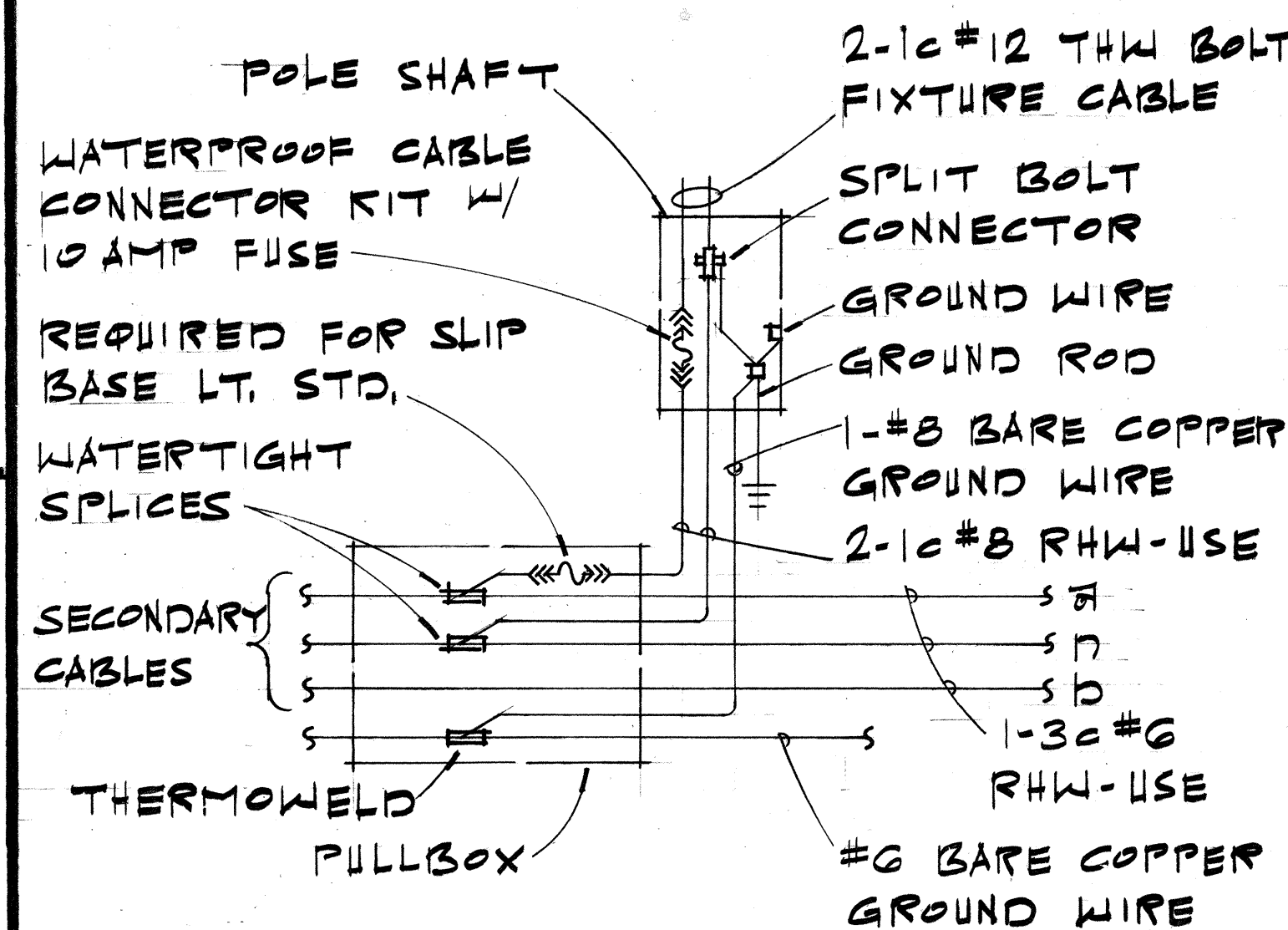
SCALE: 3/4" = 1'-0"



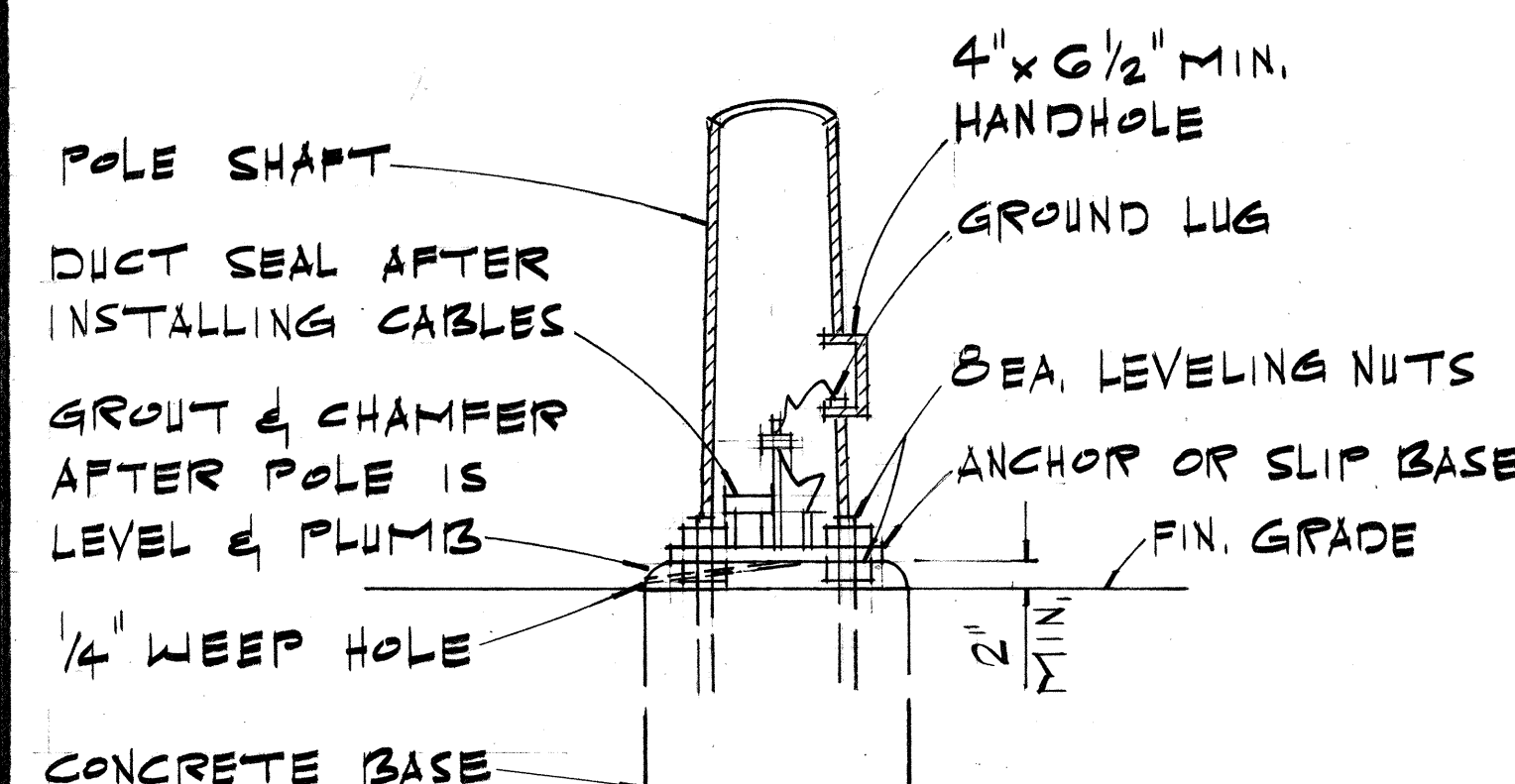
ROAD CROSSING EDGE OF SHOULDER OR CURB CROSSING

TYPICAL DUCT SECTION DETAIL

NOTE: SCALE: 1/2" = 1'-0"
FOR MULTIPLE CONDUIT LAYOUTS PROVIDE 3" CL. SPACING BETWEEN CONDUITS.

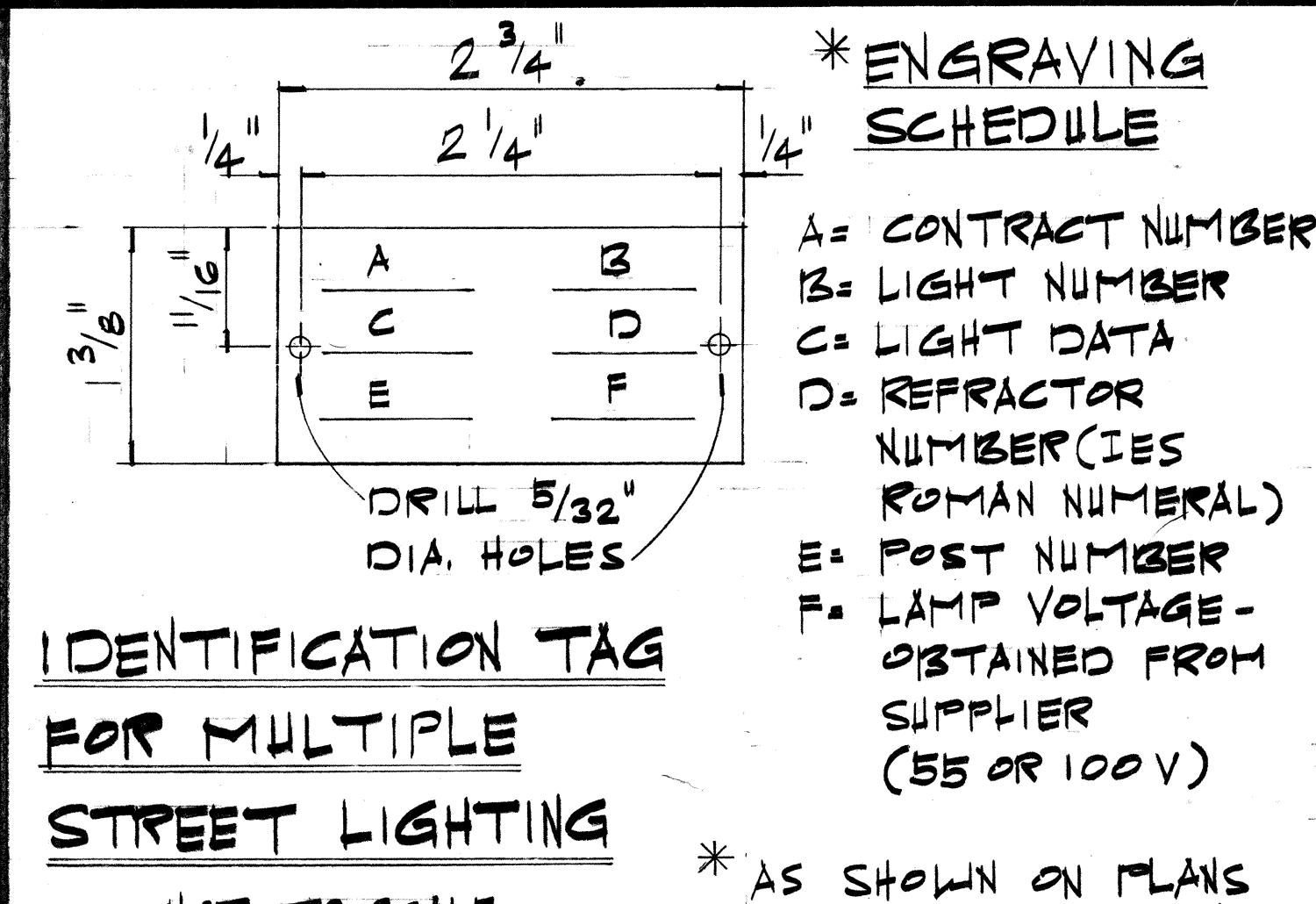


WIRING CONNECTION DIAGRAM



POLE MOUNTING DETAIL

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



IDENTIFICATION TAG FOR MULTIPLE STREET LIGHTING

NOT TO SCALE

NOTE:

- MAKE FROM 3-PLY LAMINATED PLASTIC (BLACK-WHITE-BLACK) W/ 1/5" HIGH COMMERCIAL GOTHIC LETTERS ENGRAVED.
- ATTACH TO POLE W/ #7 CADMIUM PLATED SCREWS.

* ENGRAVING SCHEDULE

- A = CONTRACT NUMBER
B = LIGHT NUMBER
C = LIGHT DATA
D = REFRACTOR NUMBER (IES ROMAN NUMERAL)
E = POST NUMBER
F = LAMP VOLTAGE - OBTAINED FROM SUPPLIER (55 OR 100 V)

* AS SHOWN ON PLANS

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION LAND TRANSPORTATION FACILITIES DIVISION					
TYPICAL DETAILS					
VARIOUS INTERSTATE ROUTES CONVERSION OF MERCURY LUMINAIRES TO HIGH PRESSURE SODIUM					
F.A.I. PROJ. NO. IR-0300(185)					
SCALE: AS SHOWN DATE: MARCH 1984					
SHEET NO. 5 OF 5 SHEETS					