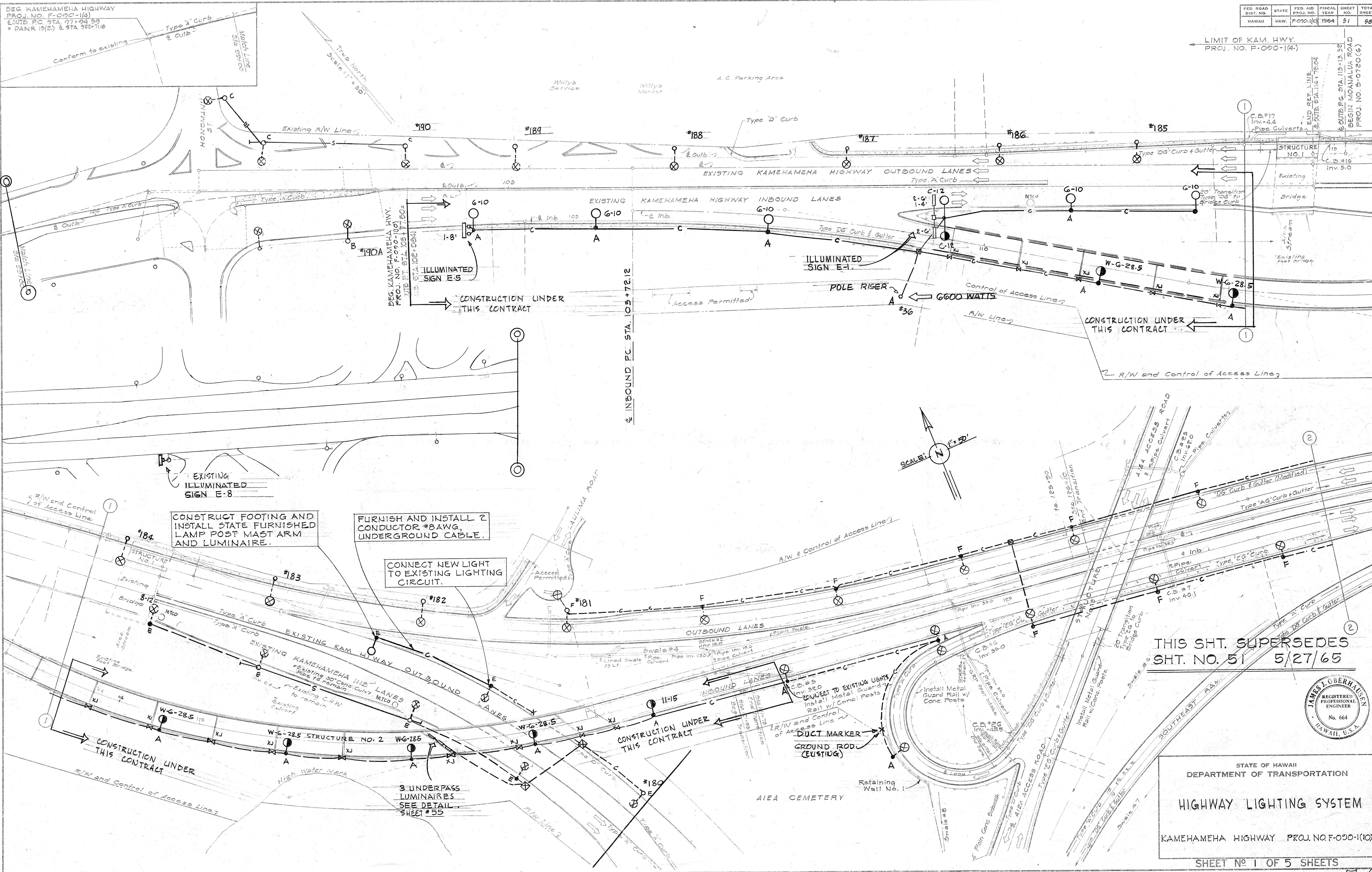


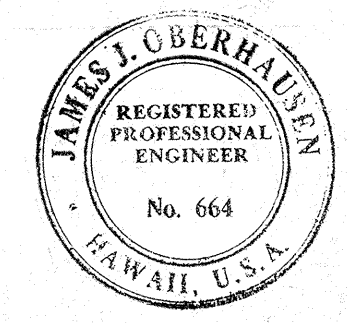
BEG. KAMEHAMEHA HIGHWAY
PROJ. NO. F-000-1(4)
E. OUT. PC STA. 97+24.59
= D.A.N.R. 19(2) & STA. 922+11.6

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-000-1(10)	1964	51	58



DATE	DESIGNED BY	CHECKED BY
5/27/65	J. J. OBERHAUSEN	J. J. OBERHAUSEN
ORIGINAL PLAN	TRACED BY	NOTED BY
NO.	NO.	NO.

THIS SHT. SUPERSEDES
SHT. NO. 51 5/27/65



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

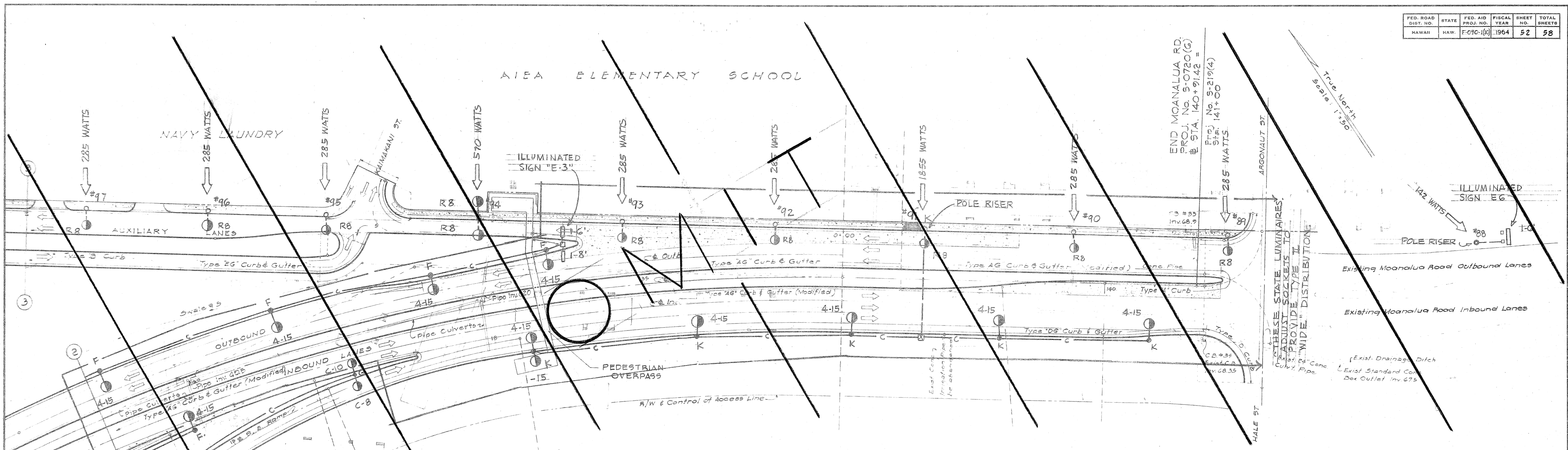
HIGHWAY LIGHTING SYSTEM

KAMEHAMEHA HIGHWAY PROJ. NO. F-000-1(10)

SHEET NO. 1 OF 5 SHEETS

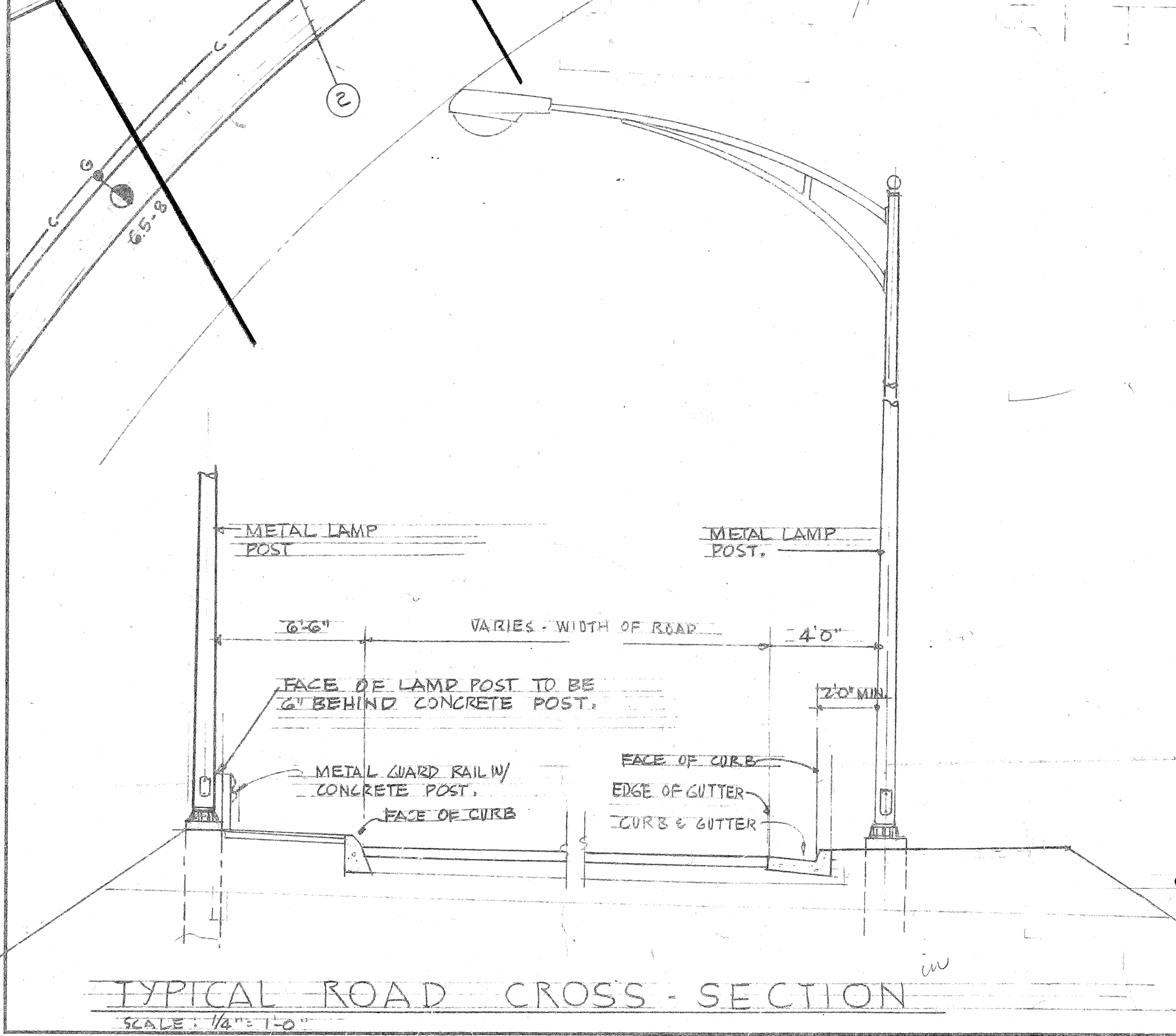
51A

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-090-1(10)	1964	52	58

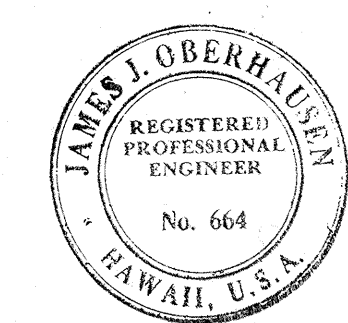


SYMBOLS

- ILLUMINATED SIGN, 1-6' AND 1-4' INDICATES 1-6' SIGN LUMINAIRE AND 1-4' SIGN LUMINAIRE, WITH PHOTO CELL EXCEPT AS NOTED.
- MULTIPLE CIRCUIT UNDERGROUND CABLE - DIRECT BURIED 3 CONDUCTORS EXCEPT 2 CONDUCTORS TO LAST LIGHT.
- MULTIPLE CIRCUIT UNDERGROUND CABLE IN 1 1/2" GALV. STEEL CONDUIT, 3 CONDUCTORS EXCEPT 2 CONDUCTORS TO LAST LIGHT.
- MULTIPLE CIRCUIT OVERHEAD WIRE.
- GUY AND ANCHOR.
- EXISTING MULTIPLE CIRCUIT OVERHEAD WIRE.
- EXPANSION COUPLING FOR CONDUIT IN CONSTRUCTION (EXPANSION) JOINT AT STRUCTURE.
- DUCT MARKER.
- H.E.CO. SERVICE POINT, LETTER IS SERVICE POINT DESIGNATION USED WHERE STATE CONNECTS MORE THAN ONE LIGHT. TOTAL WATTS IS INDICATED. CIRCUIT BREAKER REQUIRED, EXISTING PHOTO SWITCH RELOCATED TO THIS LOCATION WHERE INDICATED.
- NEW STATE MAST ARM AND LUMINAIRE ON WOOD POLE (POLE INSTALLED BY OTHERS). NUMERAL INDICATES MAST ARM LENGTH.
- NEW METAL LAMP POST AND LUMINAIRE, LETTER INDICATES H.E.CO. SERVICE CONNECTION CIRCUIT, 4-15 INDICATES FACE OF LAMP POST 4' BACK OF EDGE OF GUTTER OR FACE OF CURB WHERE THERE IS NO GUTTER, WITH 15' BRACKET AND WITH 30' NOMINAL LUMINAIRE MOUNTING HEIGHT.
- EXISTING STATE MAST ARM AND LUMINAIRE.
- NEW 11,000 LUMEN LUMINAIRE WITH PHOTOCELL UNLESS OTHERWISE NOTED, TYPE II DISTRIBUTION, 285 WATTS.
- NEW 20,000 LUMEN LUMINAIRE WITH PHOTOCELL UNLESS NOTED OTHERWISE, TYPE III DISTRIBUTION, 450 WATTS.



TYPICAL ROAD CROSS-SECTION
SCALE: 1/4" = 1'-0"

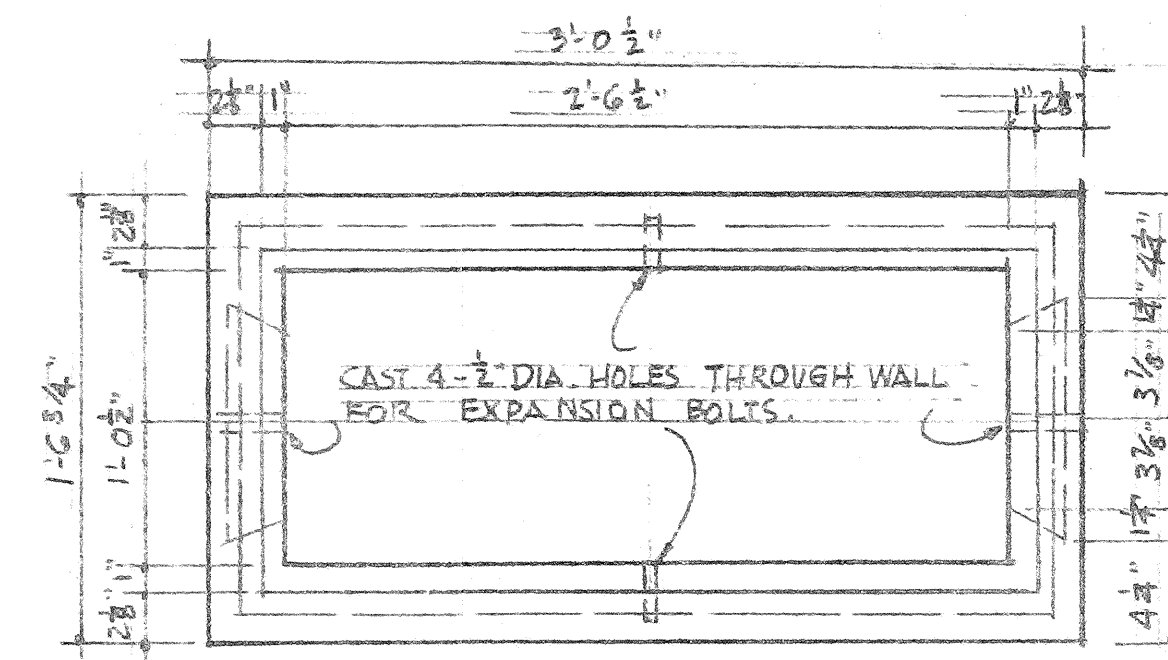


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

HIGHWAY LIGHTING SYSTEM

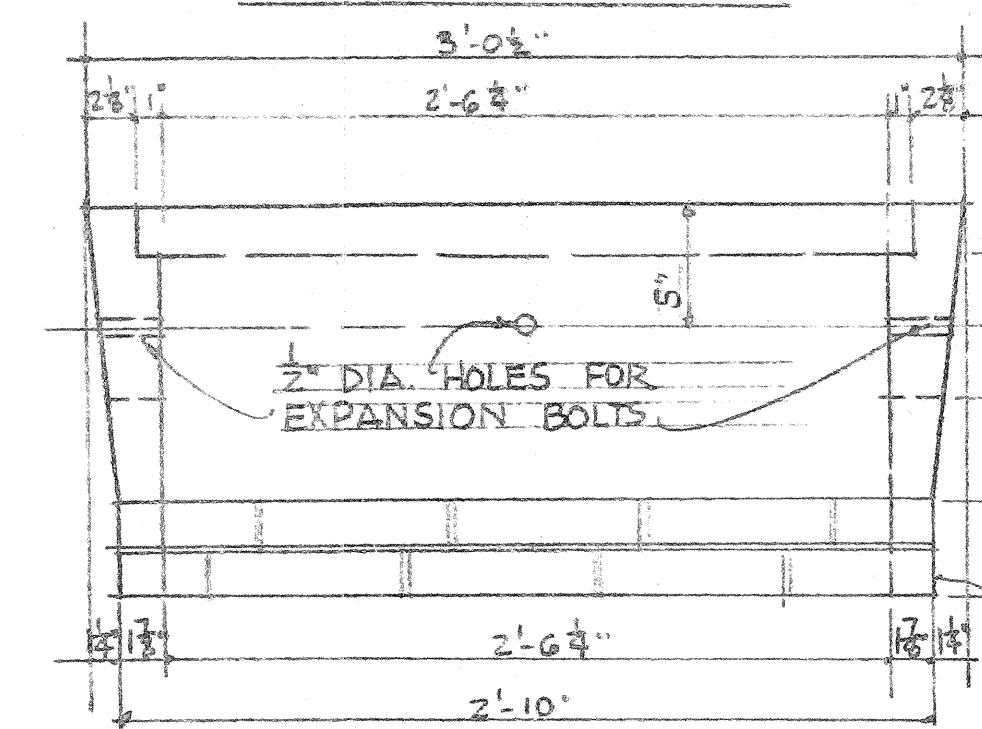
KAMEHAMEHA HIGHWAY PROJ. NO. F-090-1(10)

SHEET NO 2 OF 5 SHEETS

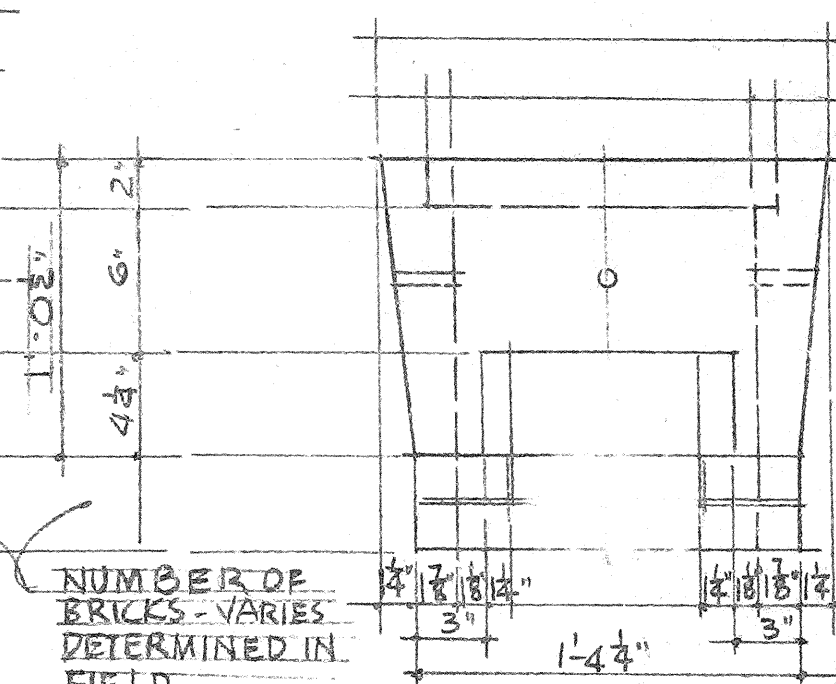
[illegible]

TOP PLAN

SIDE



SIDE VIEW



END VIEW

TYPICAL • PULL BOX TYPE "C"

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

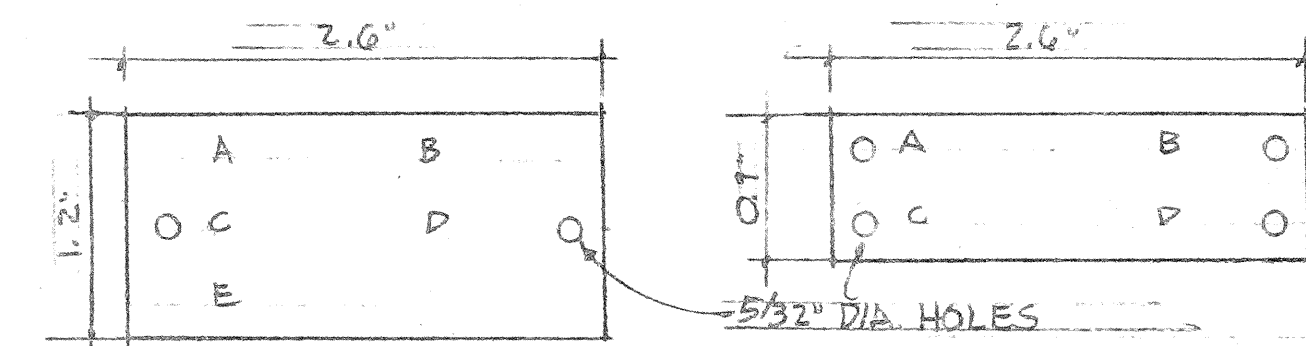


Diagram illustrating an expansion joint for a 1/2" conduit. The joint is labeled "EXPANSION JOINT" and "TYPE 'XJ' FOR 4" MOVEMENT". It shows two 1/2" conduits connected by a central joint assembly. A ground strap and clamp are shown connecting the conduits to a vertical ground rod. The joint is labeled "LEAD WOOL" and "CONDUIT".

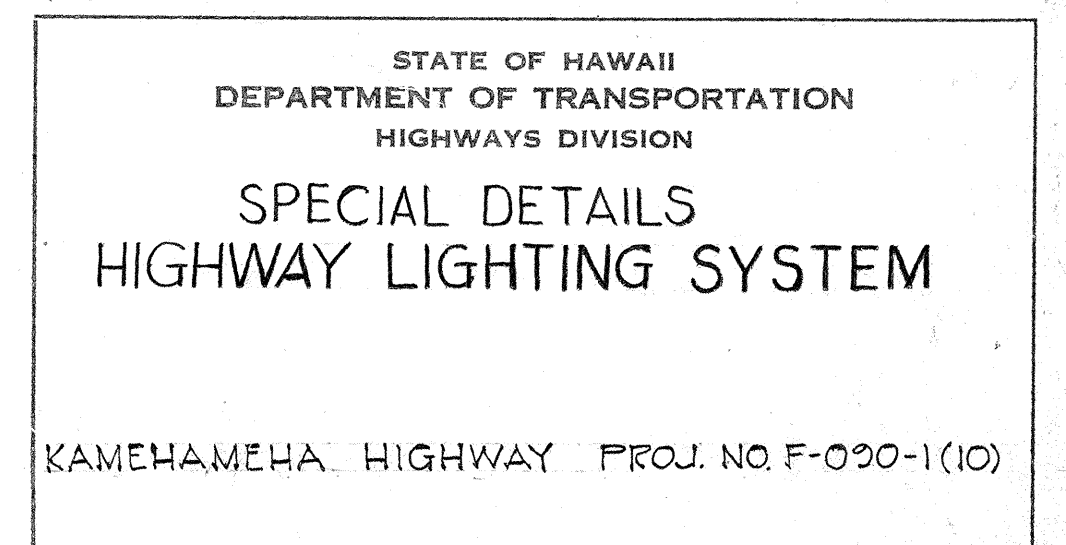
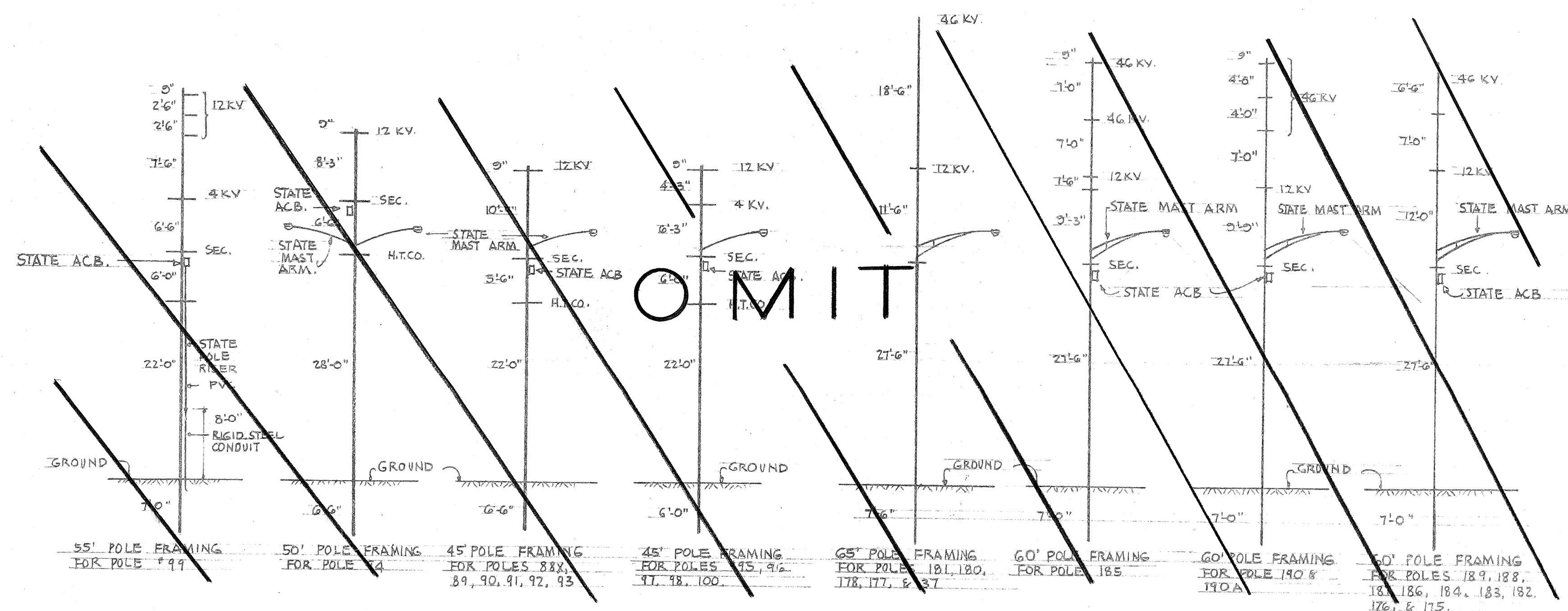
TYPE "XJ" EXPANSION JOINT
INSTALLED WITH GROUNDING
STRAP & CLAMP *NOT TO SCALE*

A = CONTRACT NUMBER, OBTAIN FROM STATE OR H.E.CO. LTD.
B = LIGHT NUMBER, FROM CONTRACT DRAWINGS, STATE OR H.E.CO.
C = LAMP DATA, SEE NOTE #5 BELOW.
D = REFRACTOR DATA, USE ROMAN NUMERAL "IES" TYPE AS
INDICATED ON DRAWING OR IN SPECIFICATIONS I-IV
E = POST NUMBER, OBTAIN FROM STATE OR H.E.CO.LTD.

NOTES :

1. MAKE FROM AMINATED "GRAVOFLEX" BLACK ON WHITE.
2. ATTACH TO ALUMINUM POST WITH NO.7 ALUMINUM DRIVE SCREWS. ATTACH TO STEEL POST WITH NO.7 CAD. PLATED DRIVE SCREWS. ATTACH TO WOOD POLES WITH 4D ALUMINUM NAILS.
3. ATTACH 8'-0" ABOVE CURB. IF NO CURB, 8'-0" ABOVE FINISH GRADE.
4. LETTERS NO.5 REDUCTION - VS ENGRAVED OR STENCILED.
5. ATTACH TO ALL POLES WITH STATE MULTIPLE SYSTEM LUMINAIRE LAMP DATA CODE. H 250 (250 WATT) OR H400 (400 WATT) IF POST IS DOUBLE BRACKET, CODE SHALL INDICATE NUMBER & TYPE OF LUMINAIRES. Z-H250 (TWO 250 WATT) OR Z-H400 (TWO 400 WATT).
6. FOR NOMENCLATURE OF TAGS AT ILLUMINATED SIGNS, SEE D.E. CO.

MULTIPLE STREET LIGHTING
IDENTIFICATION TAG.



SHEET No. 3 OF 5 SHEETS

