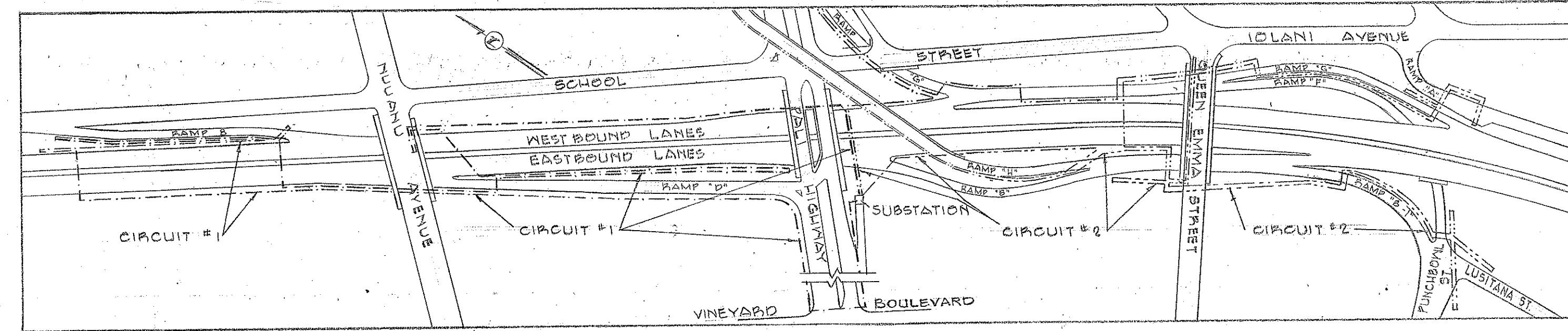


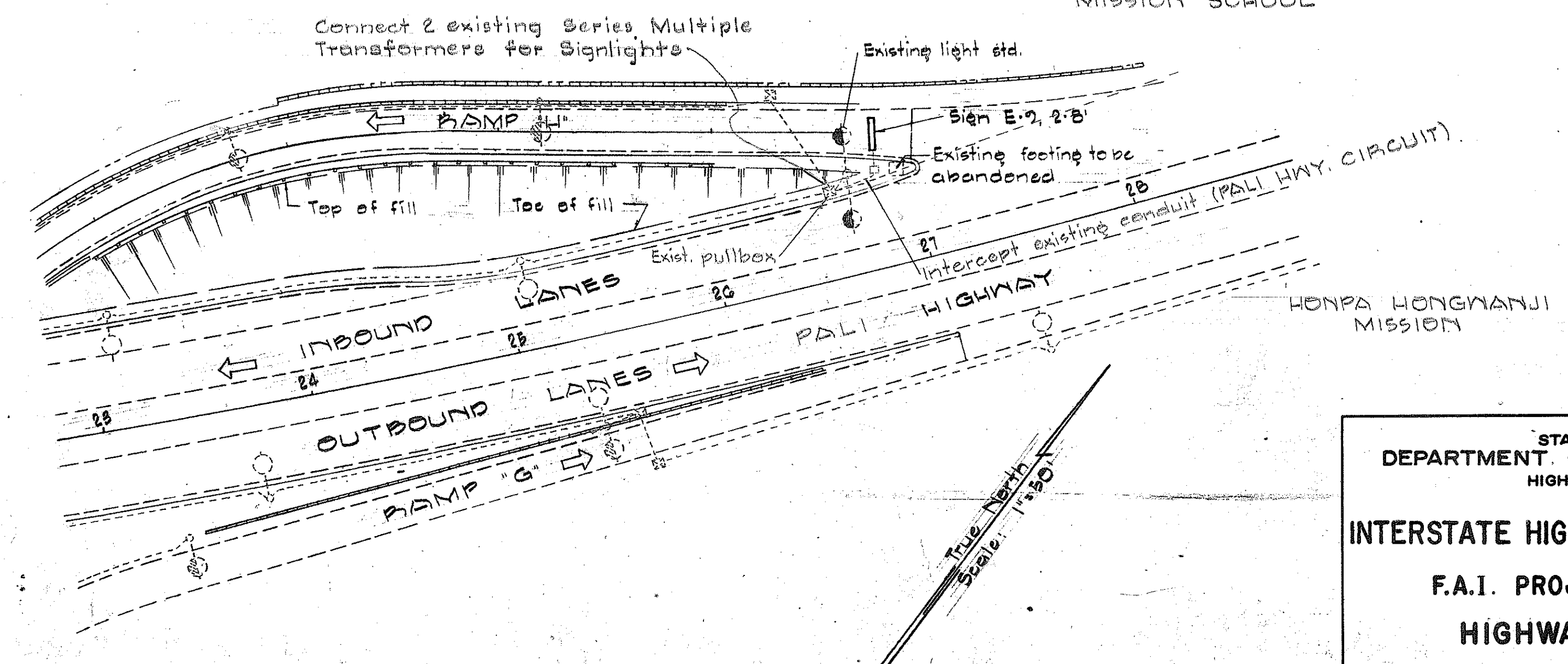
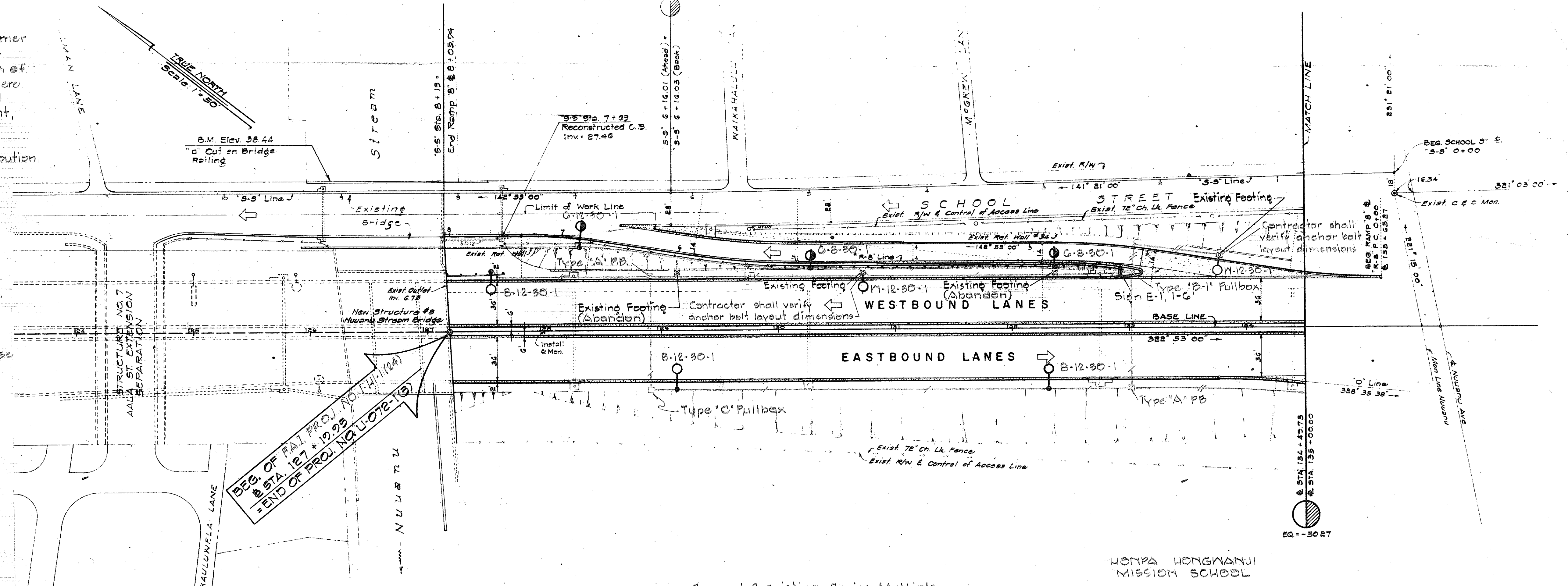
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	1-HI-1(24)	1965	25	64

SCHEMATIC DIAGRAM OF CIRCUITS #1 & #2



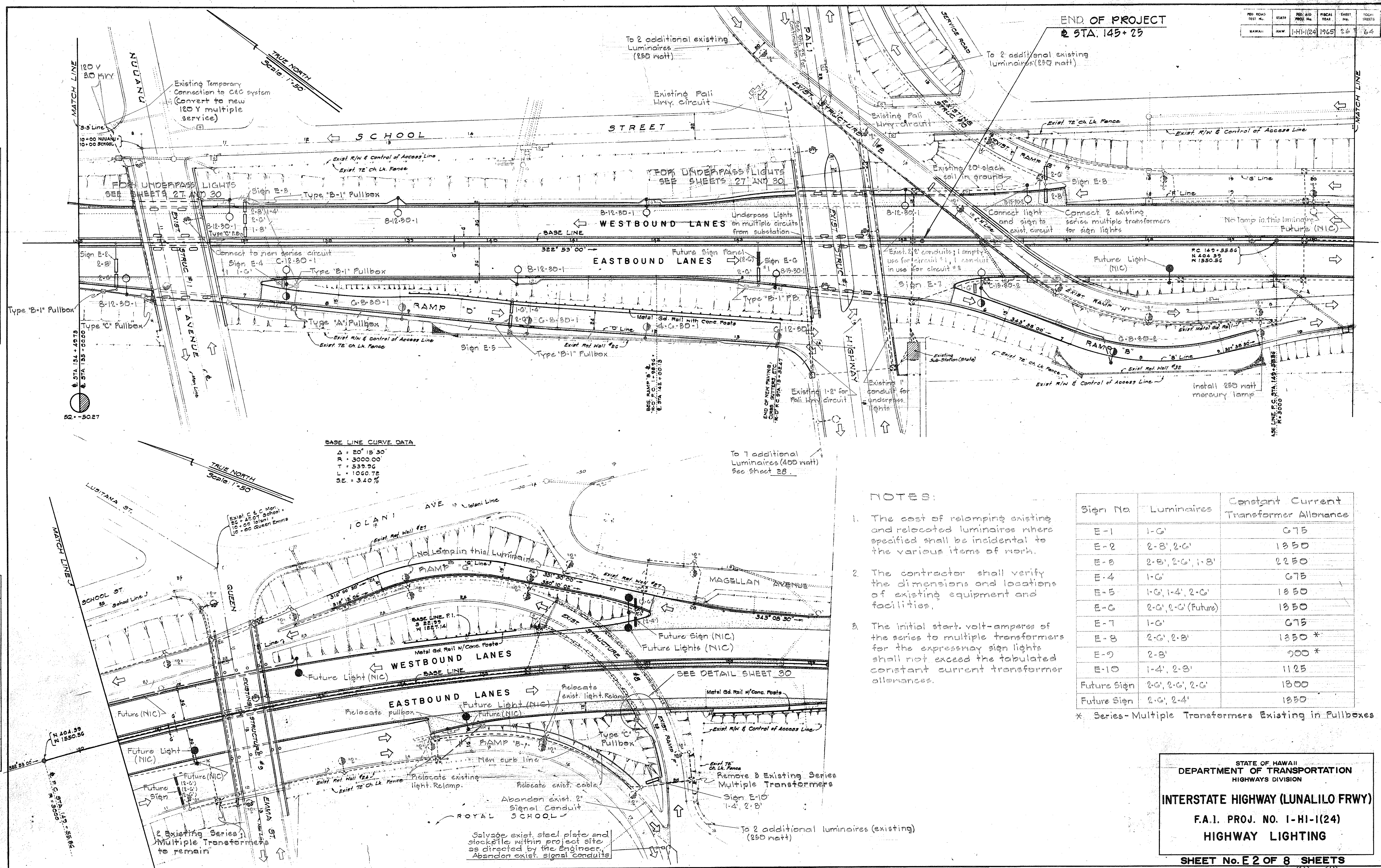
LEGEND

- 12-30-1 New metal lamp post with transformer base and luminaire. Numerals indicate face of transformer base is 6' back of edge of gutter or face of curb where there is no gutter with 12' bracket and 30' nominal luminaire mounting height, on circuit #1
- 20,500 lumen luminaire, Type III distribution, 400 watts.
- 11,000 lumen luminaire, Type II distribution, 250 watts.
- Illuminated sign, Sign "E-1" with 1-6' sign luminaire.
- New direct burial series lighting cable, # indicates 2 conductors, — indicates 1 conductor.
- Conduit, 2" diameter unless otherwise noted.
- Existing 20,000 lumen luminaire 400 watts, on circuit #2
- Existing 11,000 lumen luminaire 250 watts on circuit #2
- Future luminaire
- Future sign
- 120/240V 2.2 kW HECO service pt. voltage and load as indicated.
- Underpass luminaire
- W-12-30-1 Indicates lamp post foundation is at wall with 12' bracket and 30' nominal luminaire mounting height on circuit #1
- C-12-30-2 Indicates lamp post foundation is centered in median with 12' brackets and 30' nominal luminaire mounting height on circuit #2
- Type "A" Pullbox
- Type "B-1" Pullbox
- Type "C" Pullbox
- Existing Pullbox

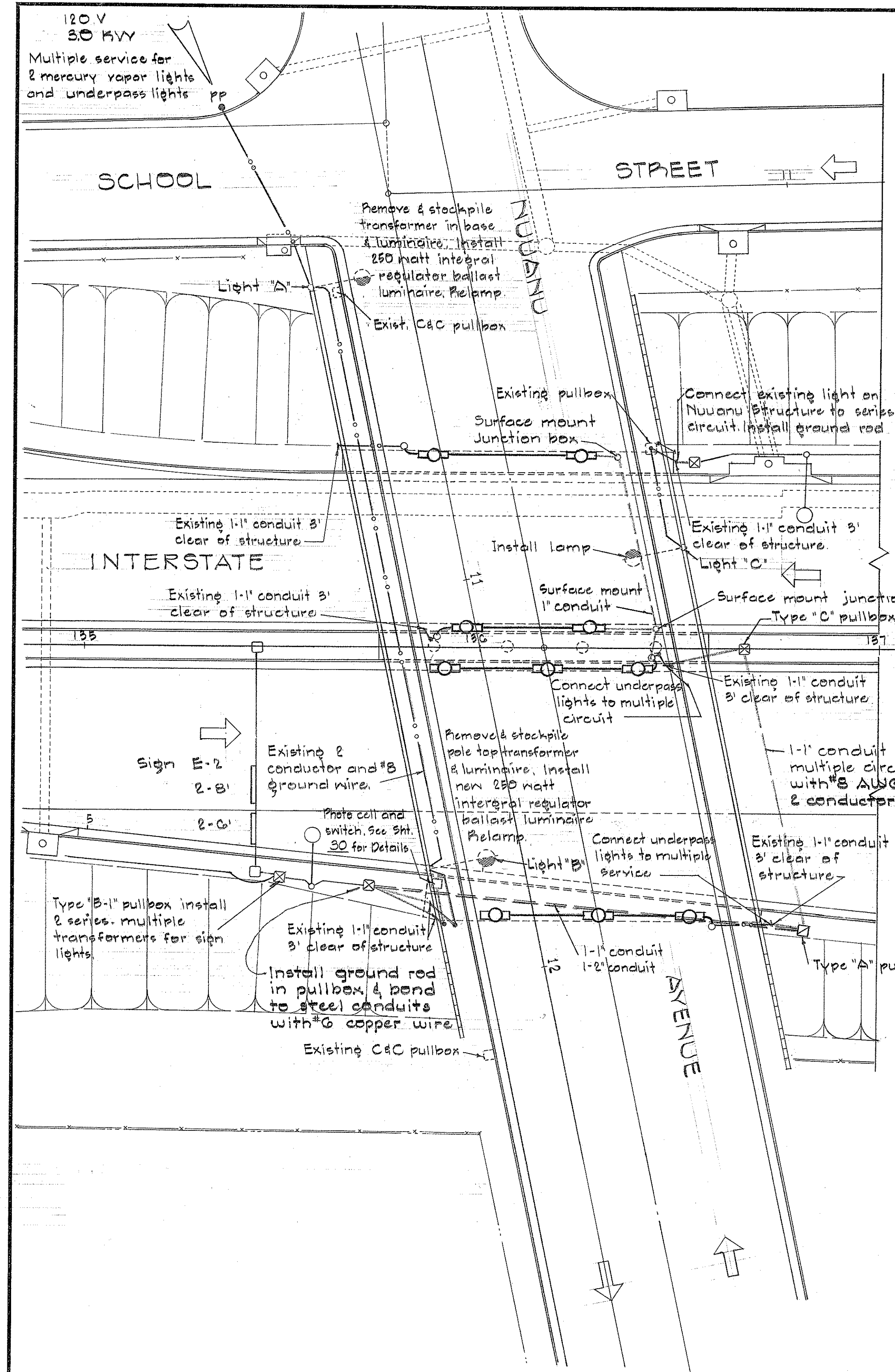


PLAN	DATE	BY	DATE
SURVEYED			
PLOTTED			
NOTE BOOK			
ALIGNMENT CHECKED			
RT. OF WAY CHECKED			

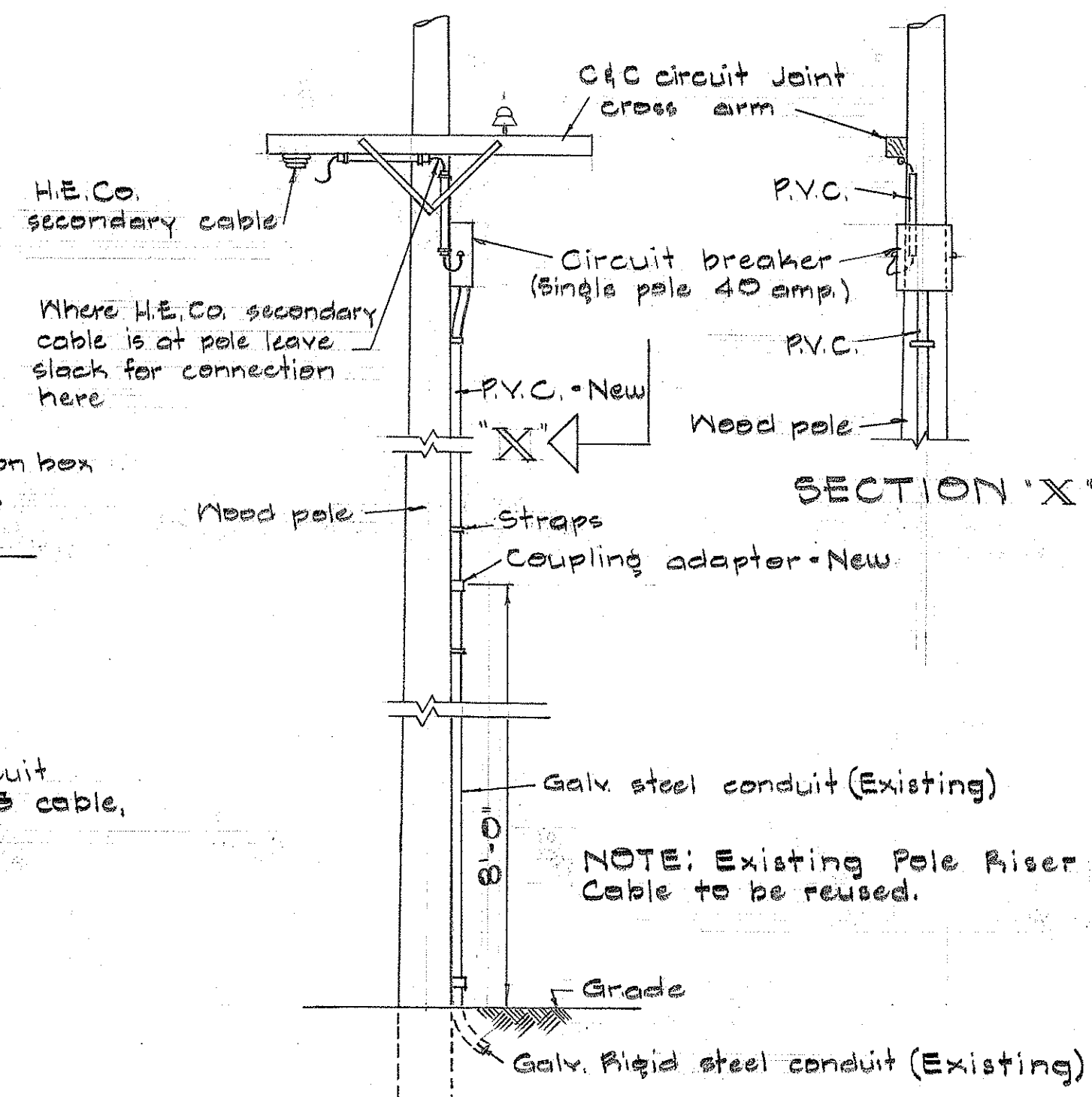
PLAN	DATE	BY	DATE
SURVEYED			
PLOTTED			
NOTE BOOK			
ALIGNMENT CHECKED			
RT. OF WAY CHECKED			



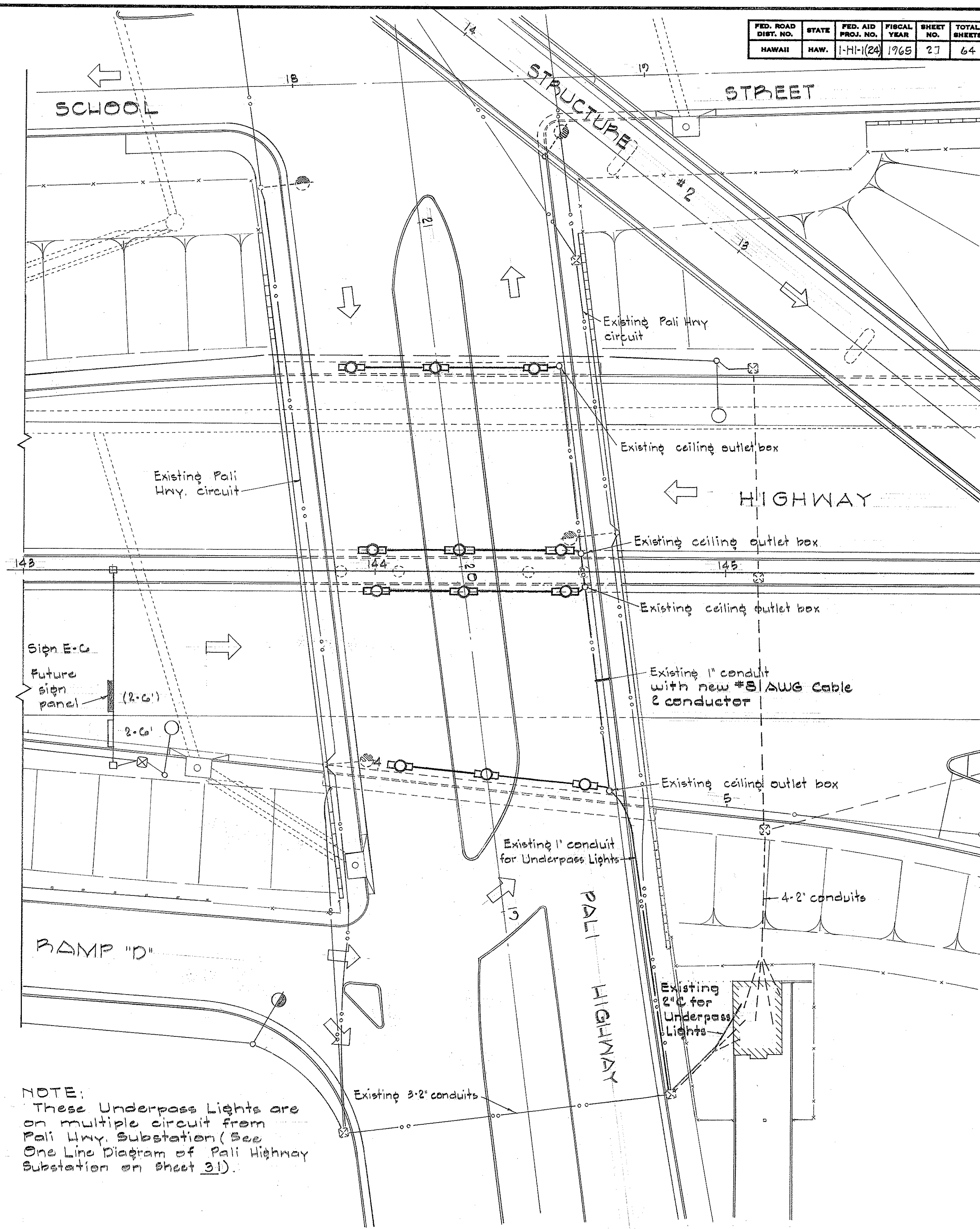
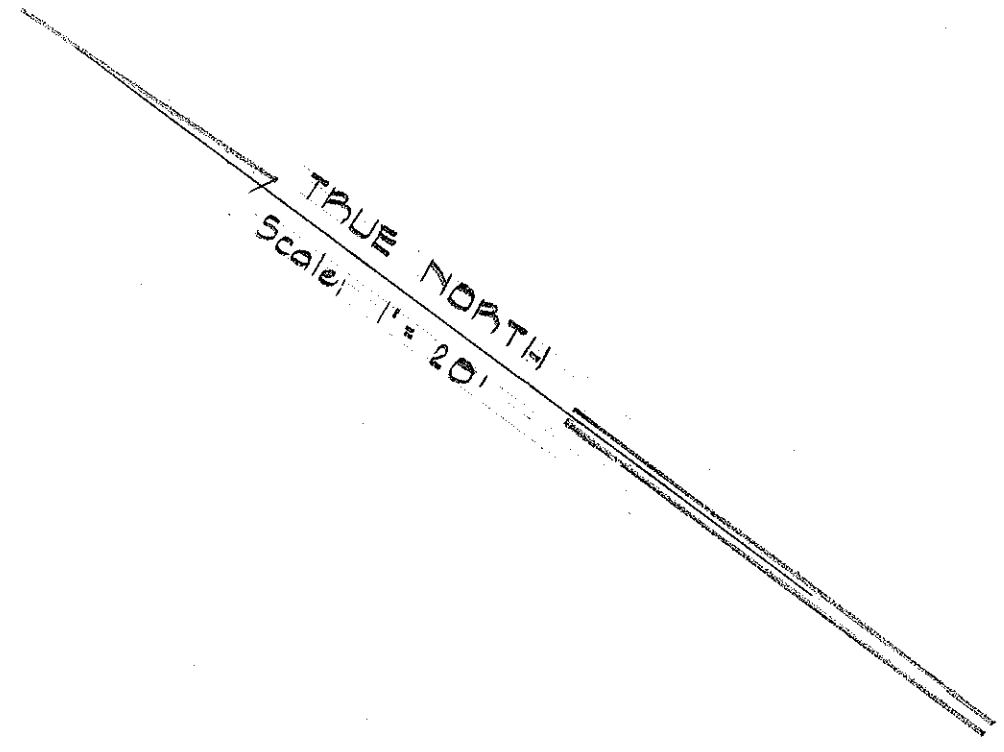
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(24)	1965	27	64



GENERAL NOTES:
1. The Contractor shall verify the dimensions of existing outlet boxes and shall provide hubs and cover plates as necessary to enclose the boxes. Unused outlet boxes shall be covered.



LOCATION OF STATE EQUIPMENT ON WOOD POLE FOR MULTIPLE CIRCUIT - NUUANU AVE. AND SCHOOL ST. NOT TO SCALE



NOTE:
These Underpass Lights are on multiple circuit from Pali Hwy. Substation (See One Line Diagram of Pali Highway Substation on Sheet 31).

DATE	_____
DESIGNED BY	_____
DRAWN BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

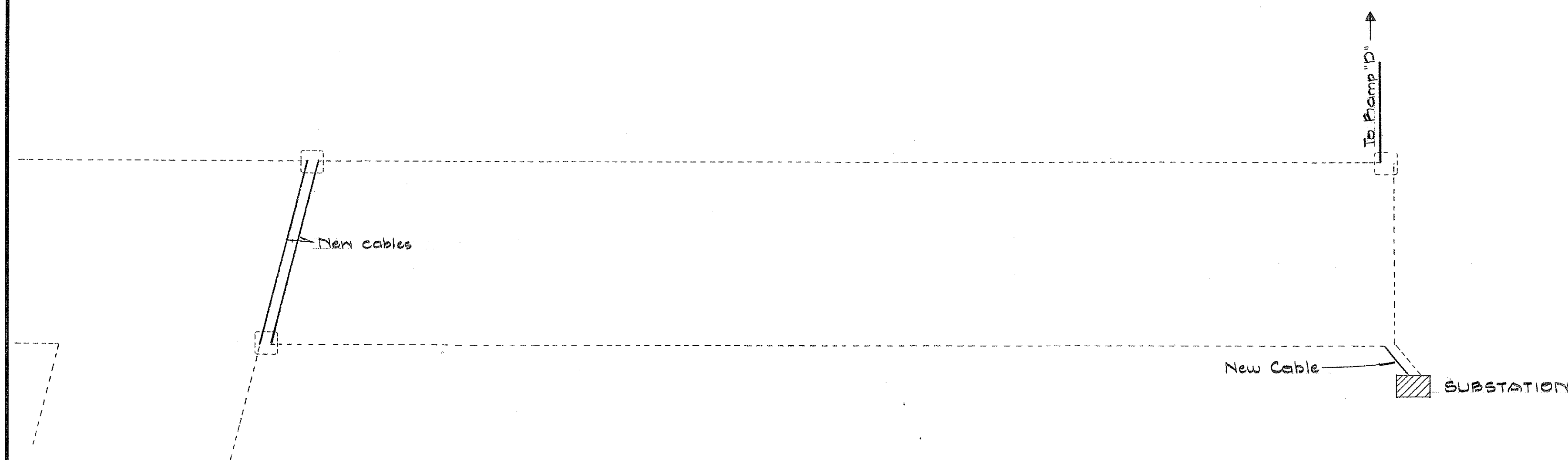
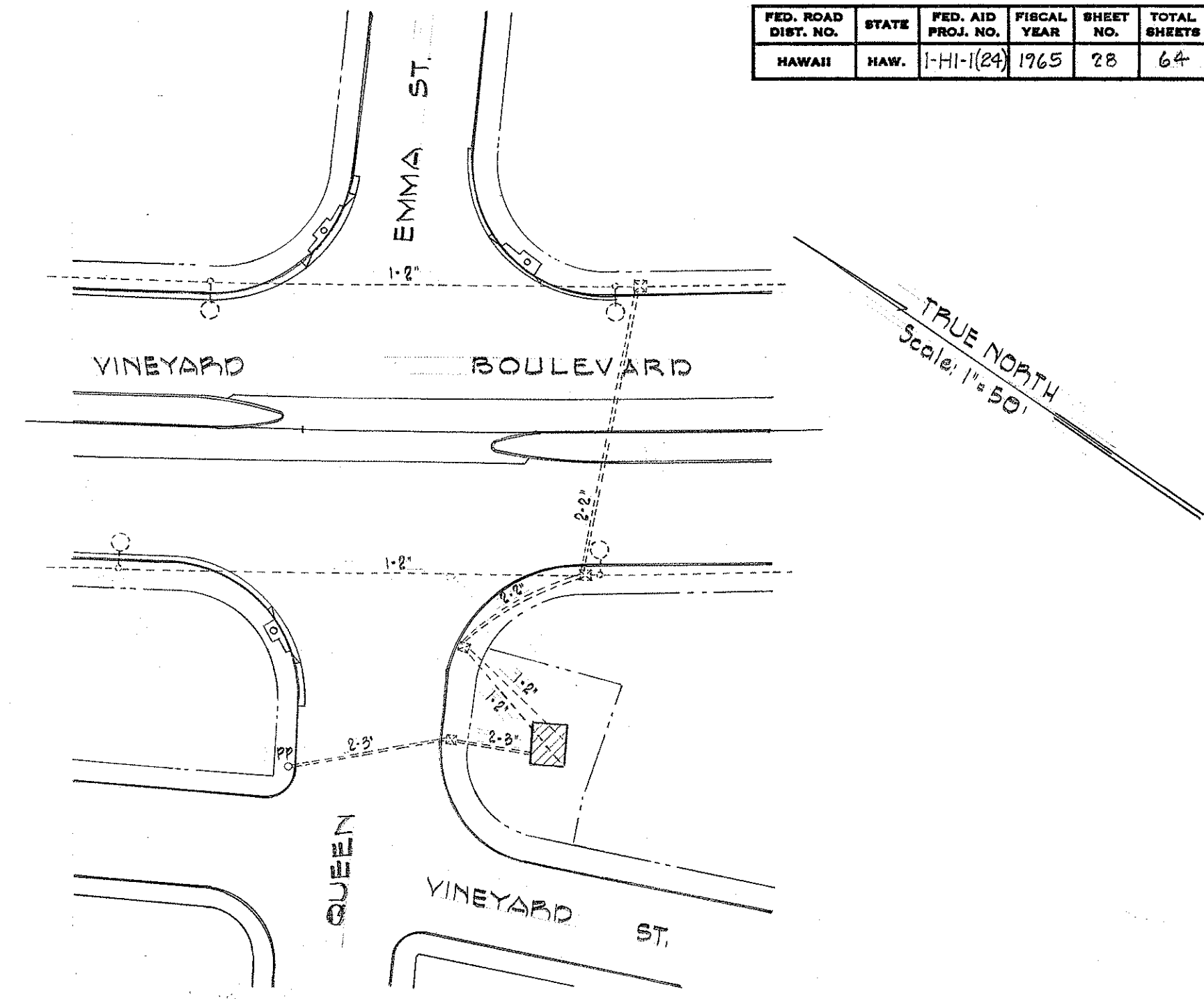
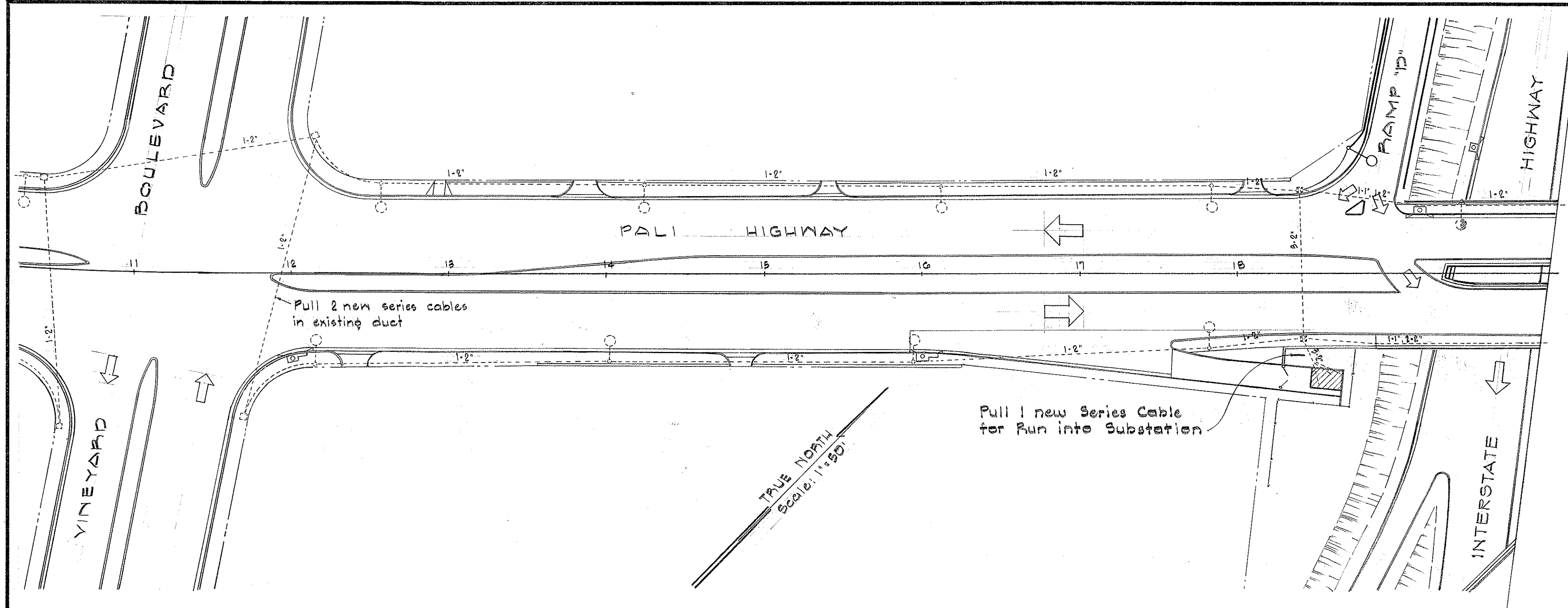
INTERSTATE HIGHWAY (LUNALILO FRWY)

F.A.I. PROJ. NO. I-HI-1(24)

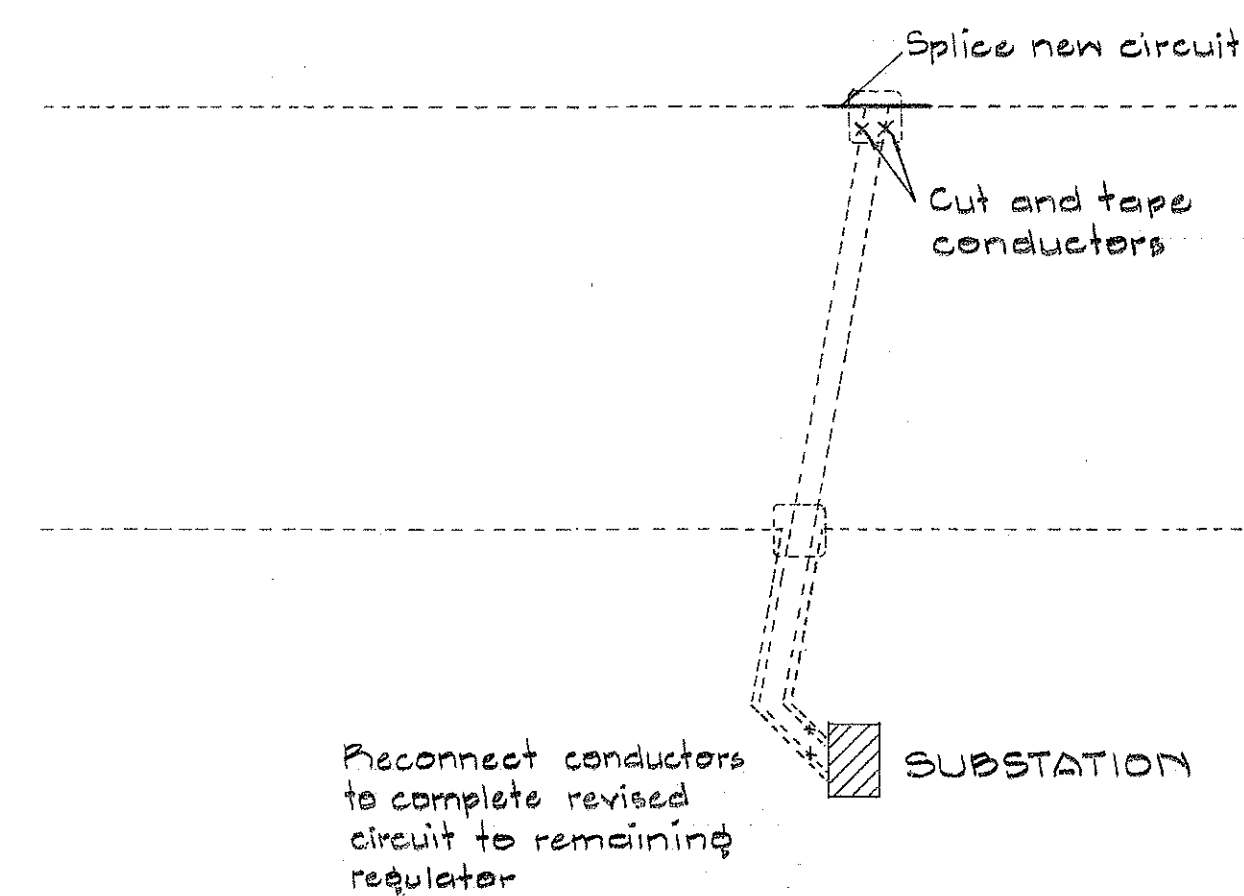
HIGHWAY LIGHTING

SHEET No. E 3 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(24)	1965	28	64



CIRCUIT DIAGRAM
REVISIONS TO PALI HIGHWAY CIRCUITS



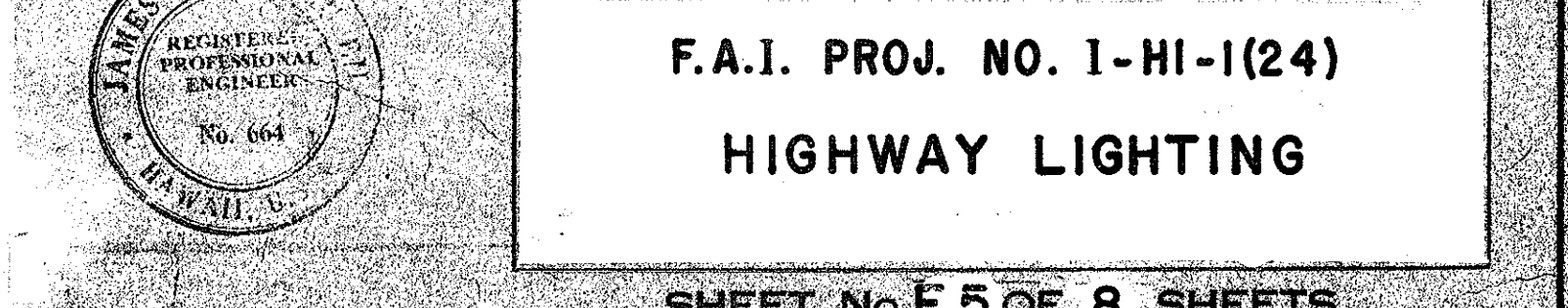
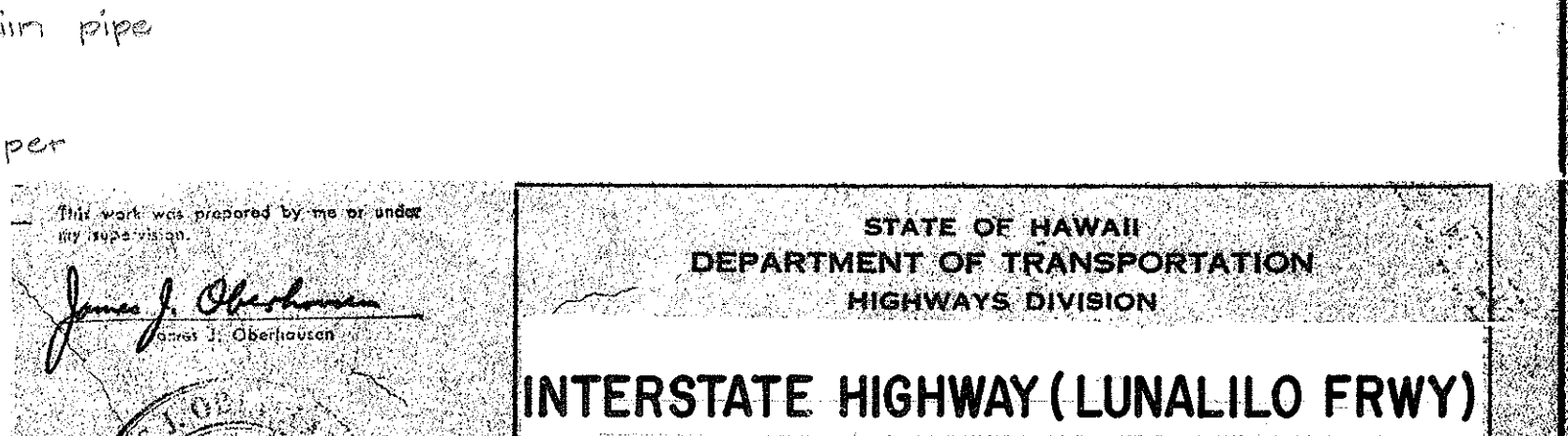
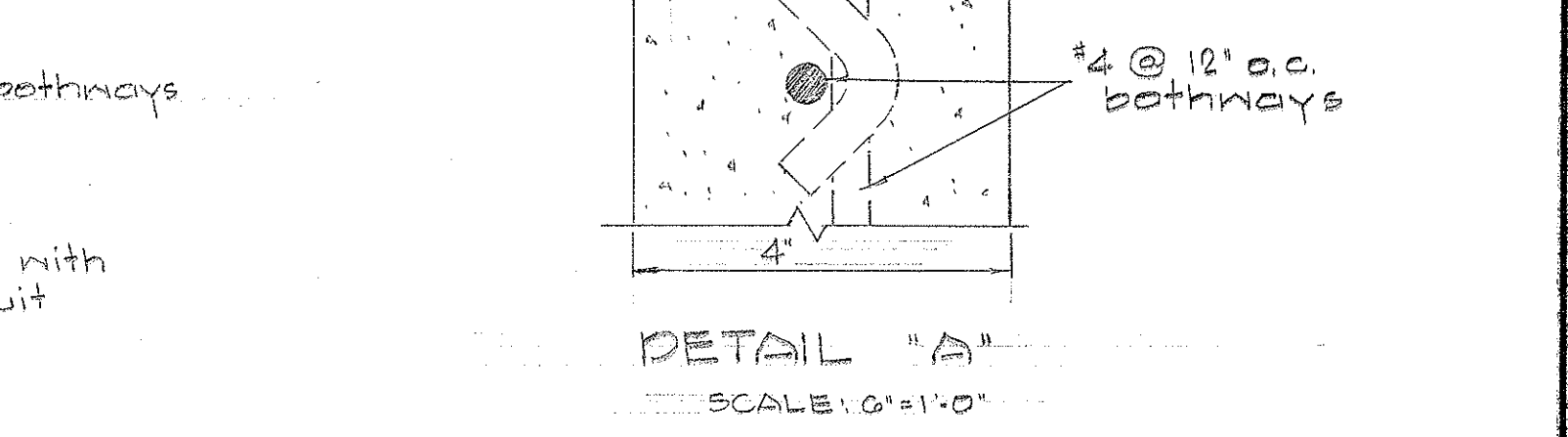
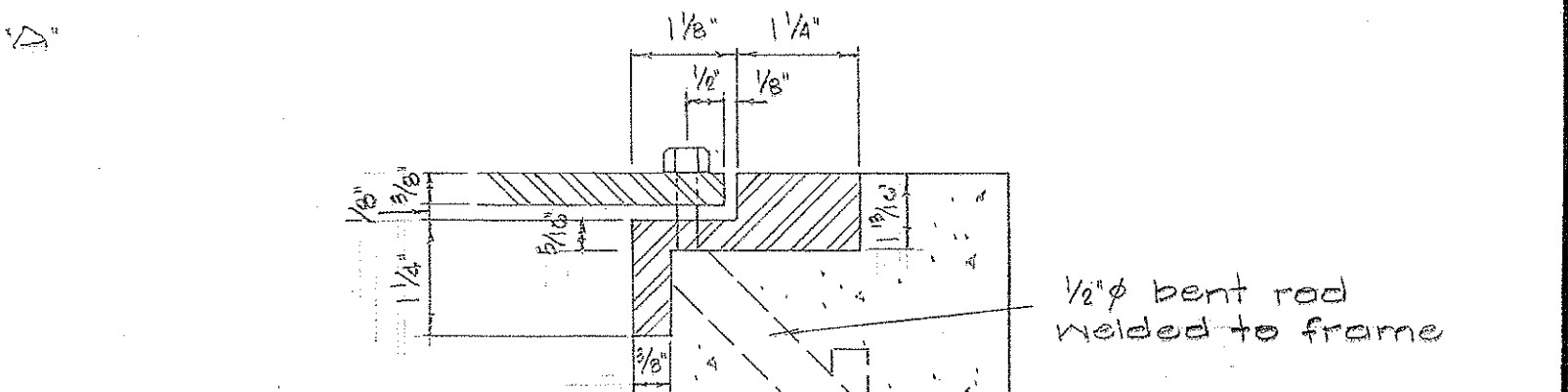
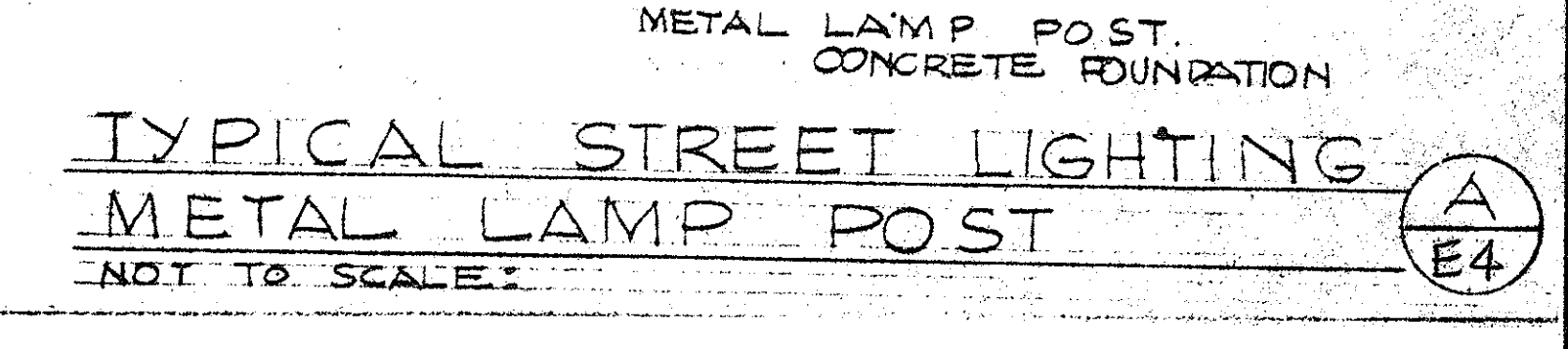
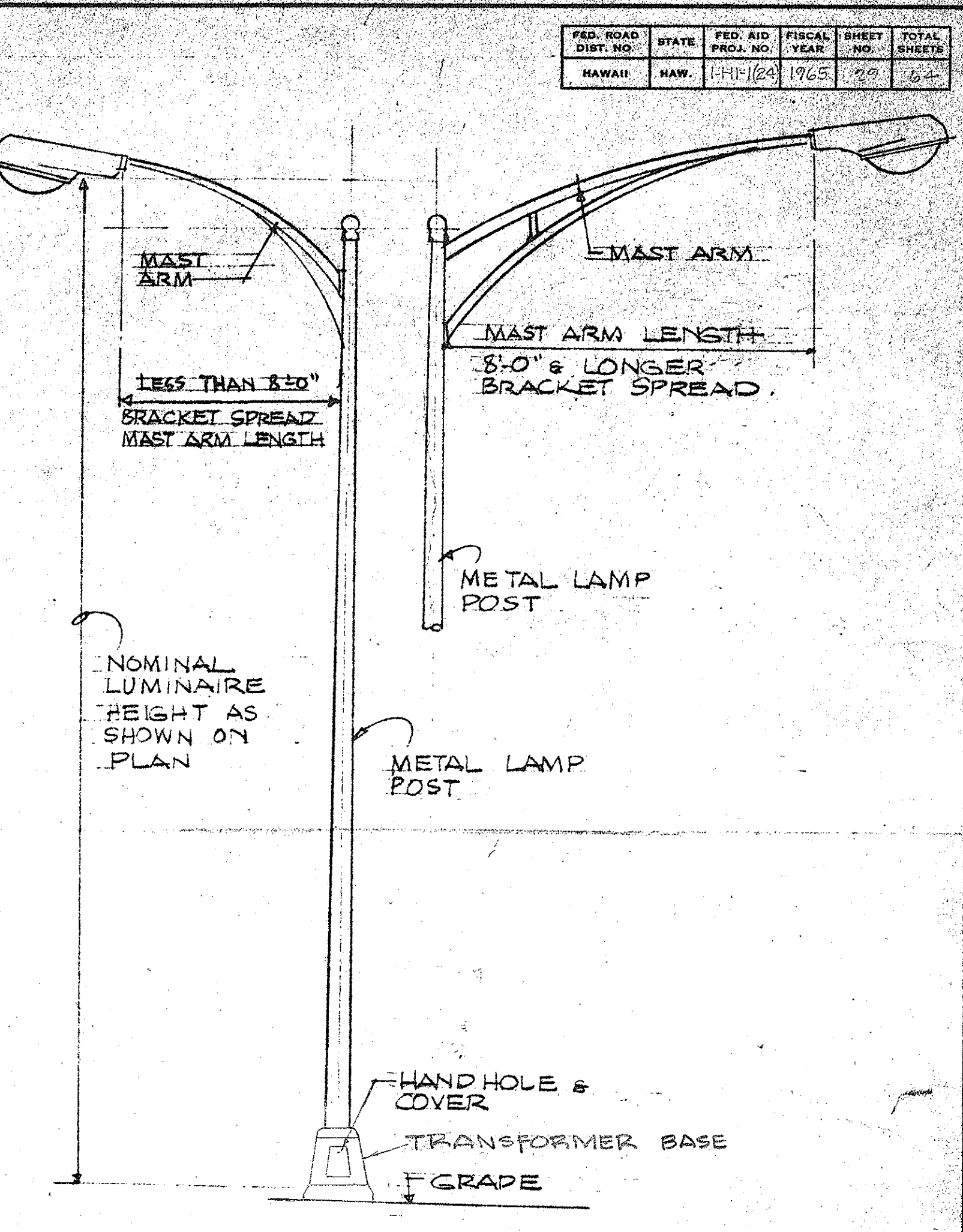
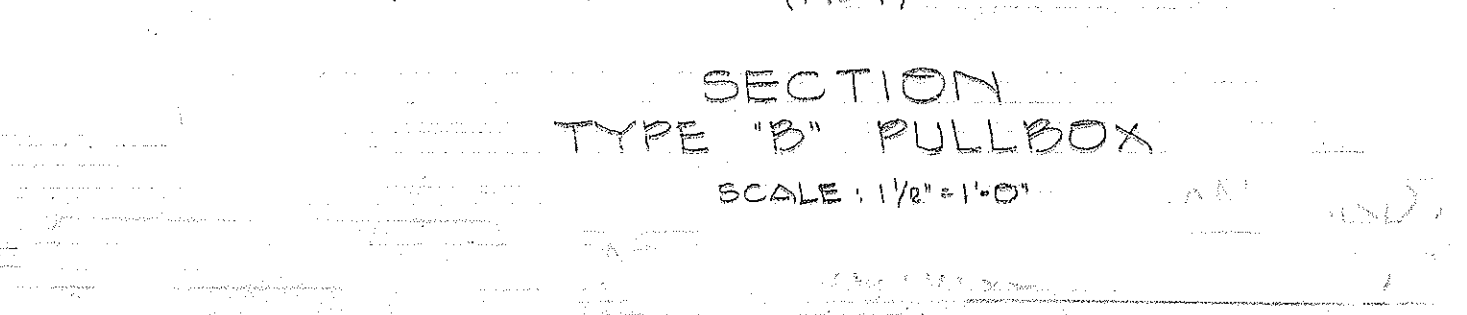
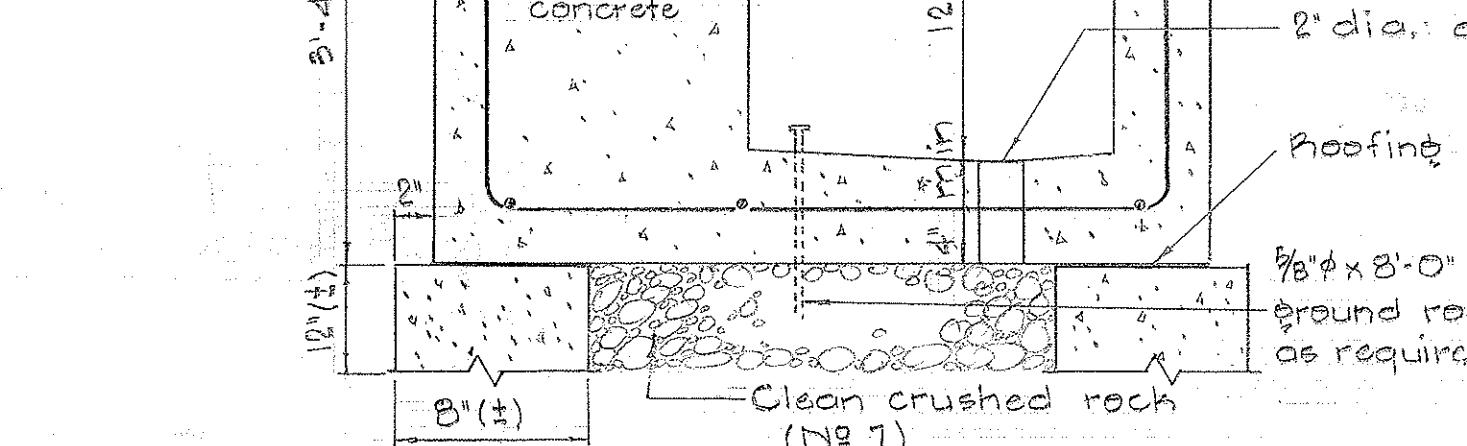
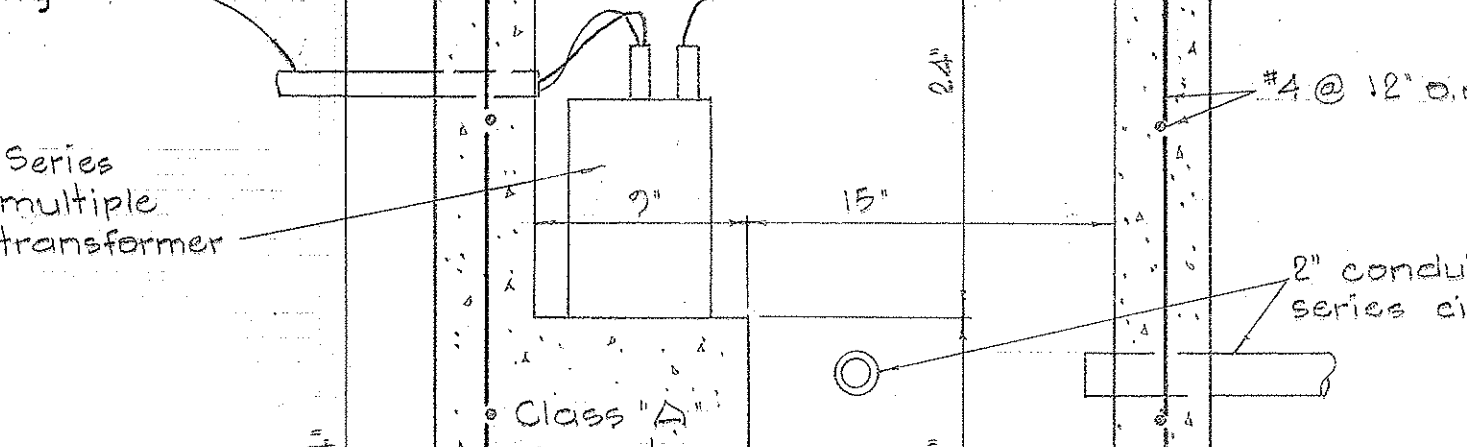
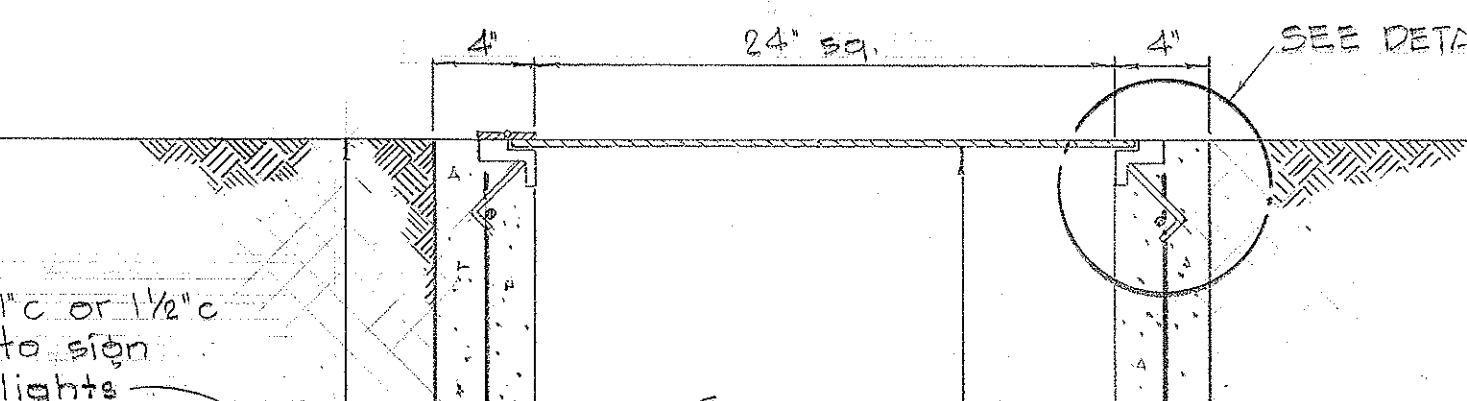
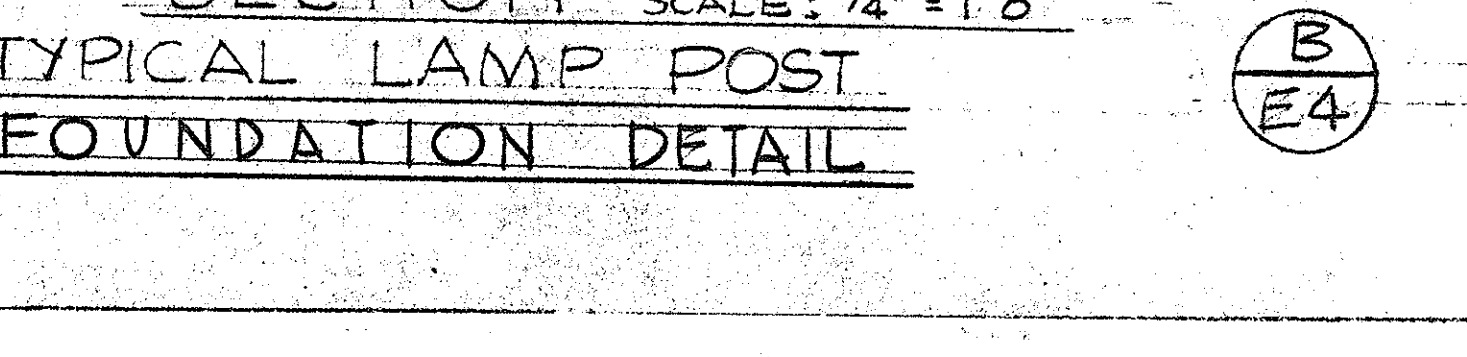
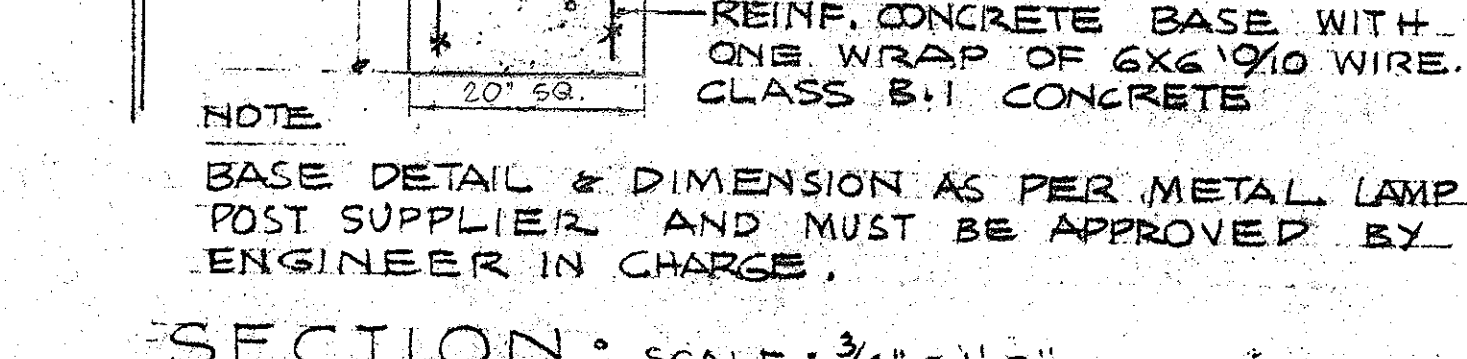
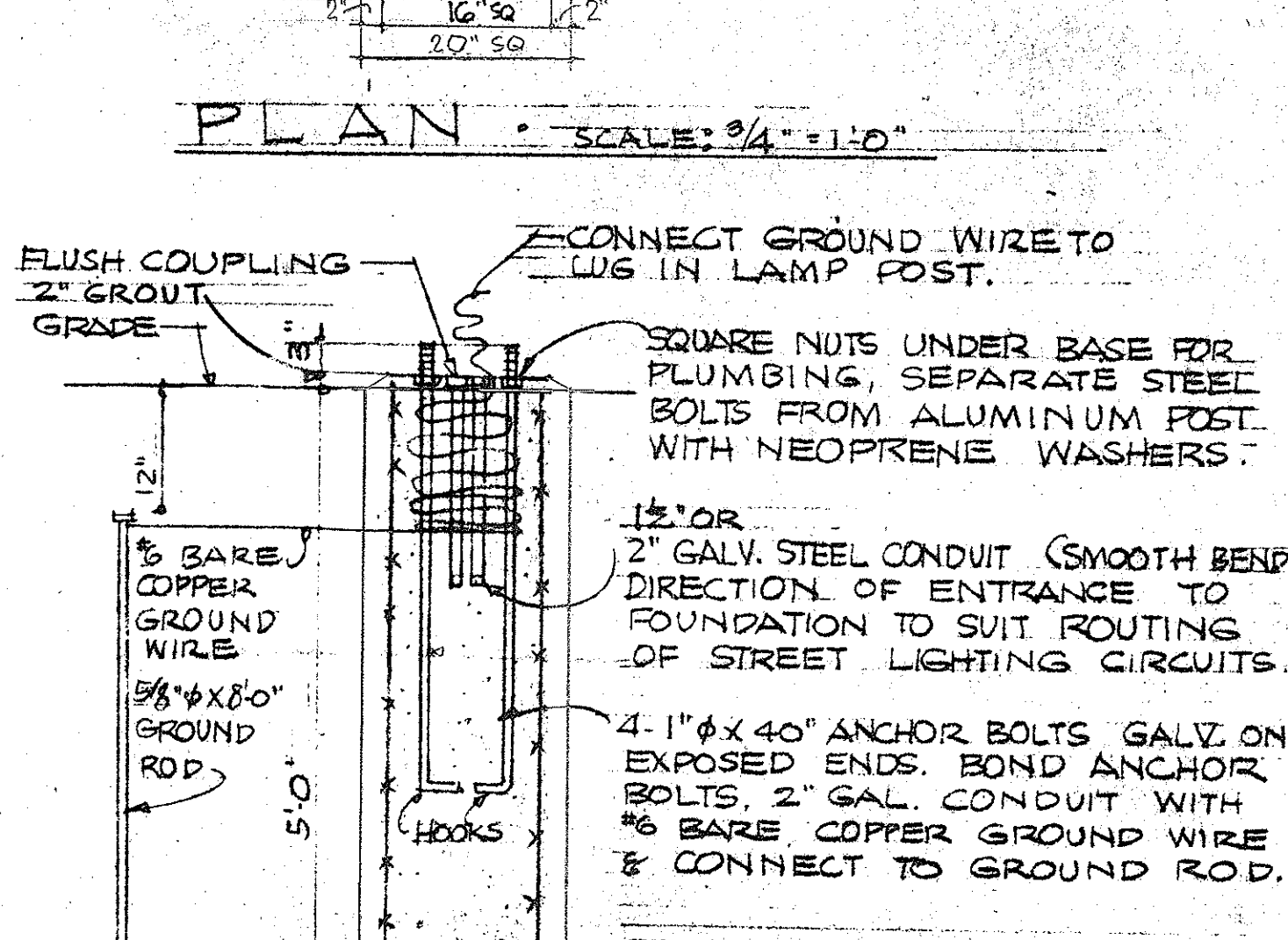
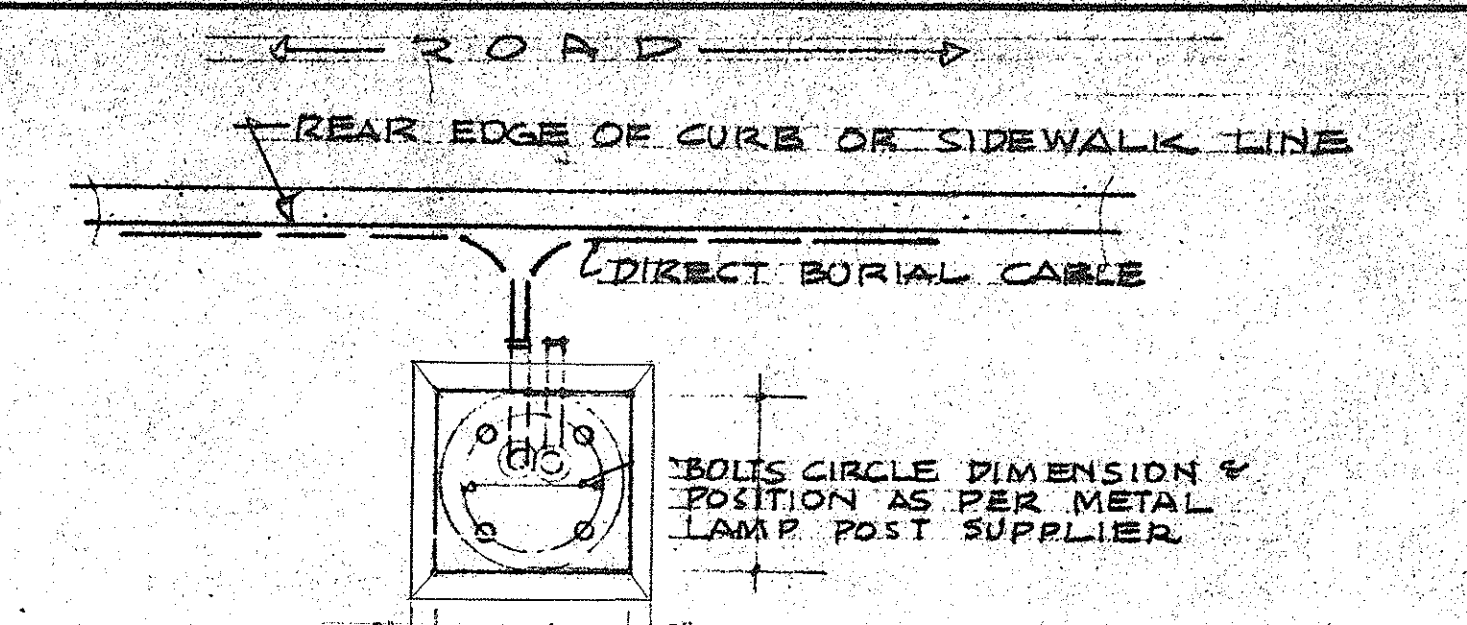
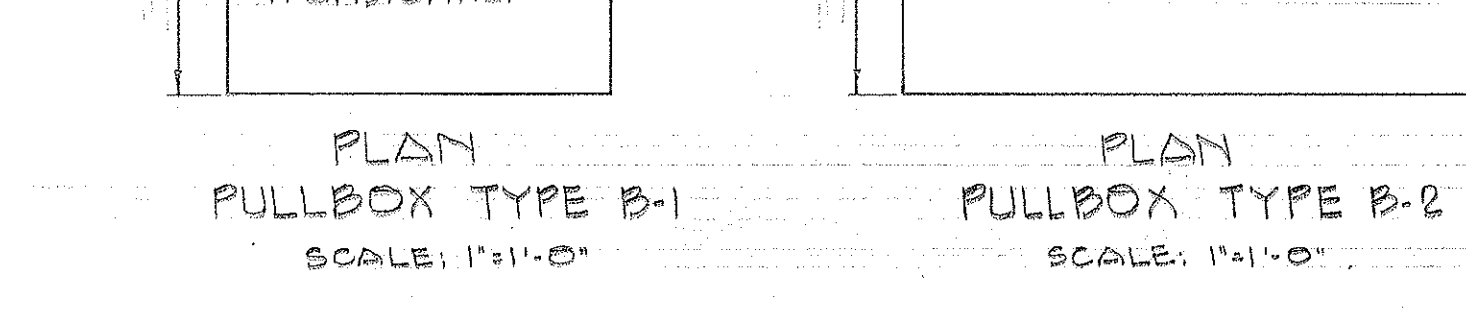
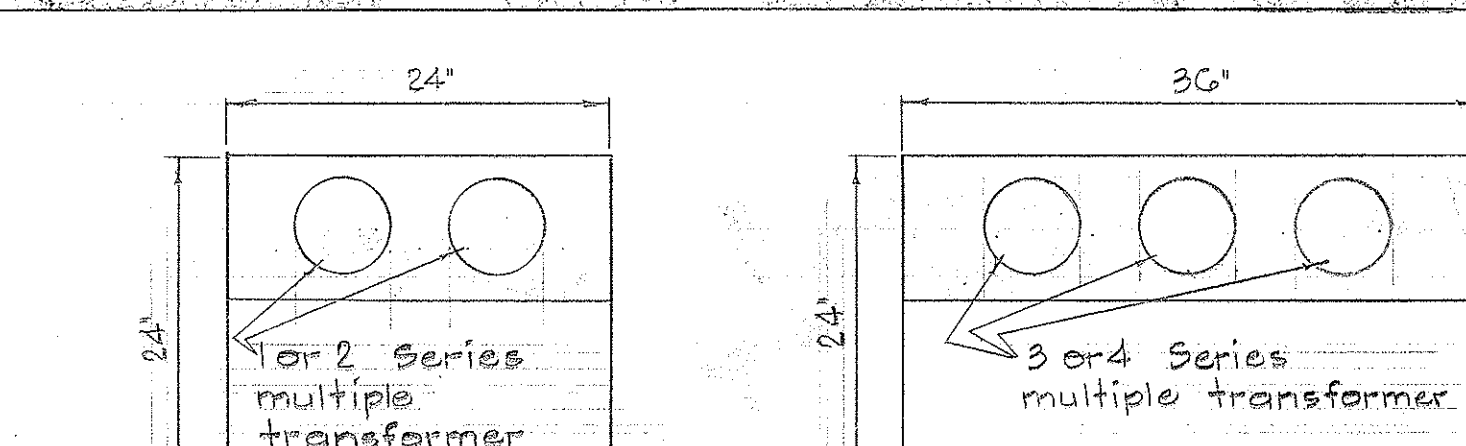
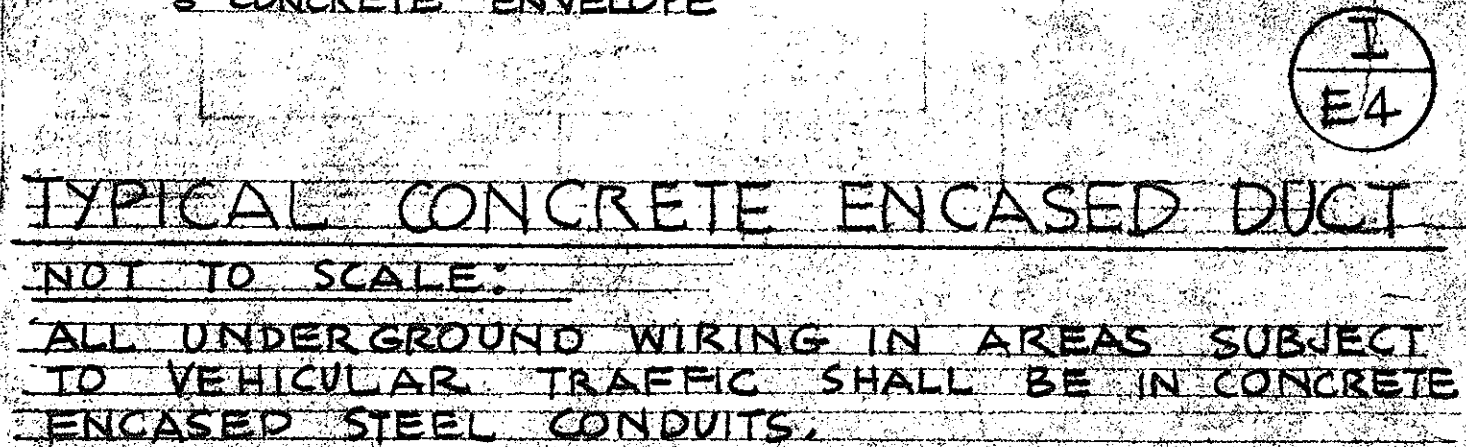
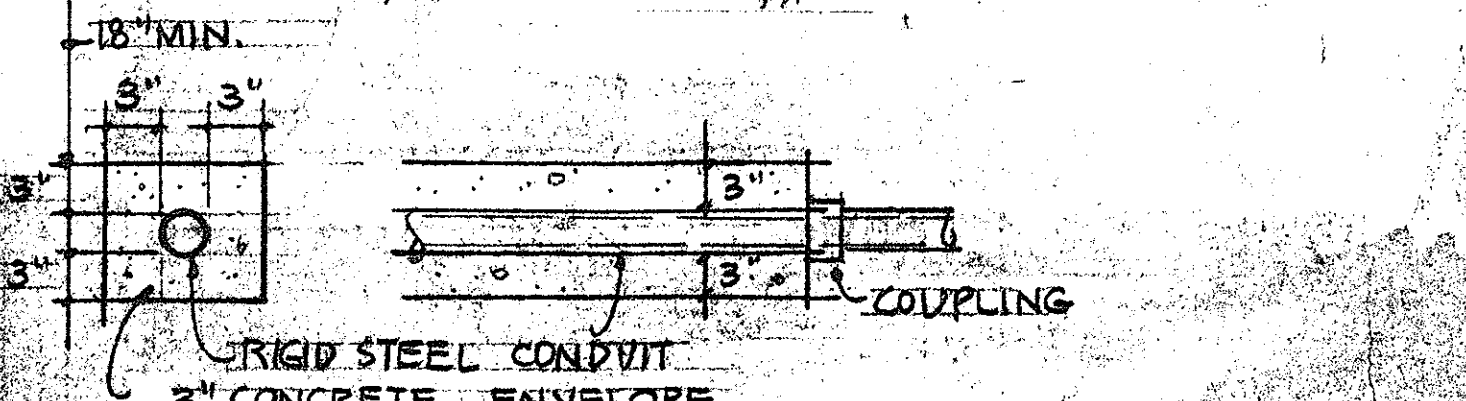
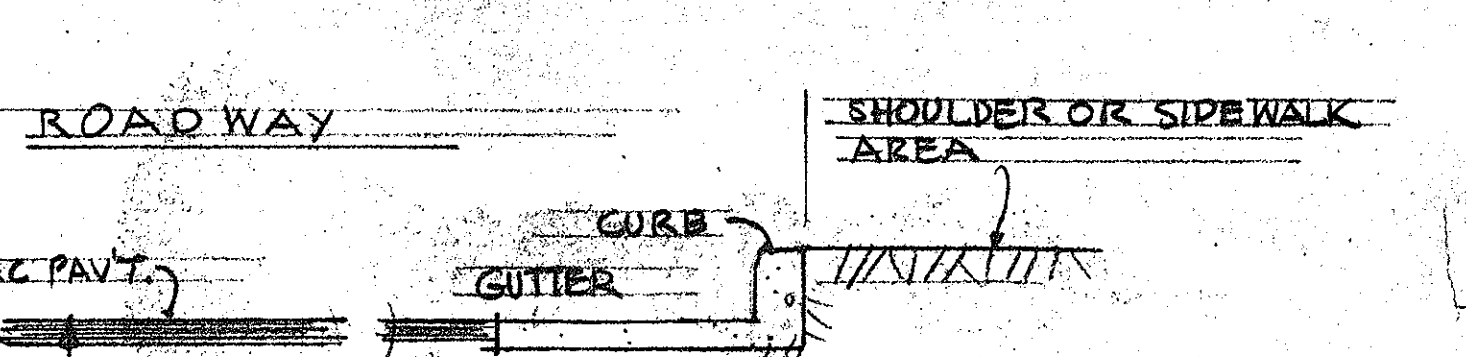
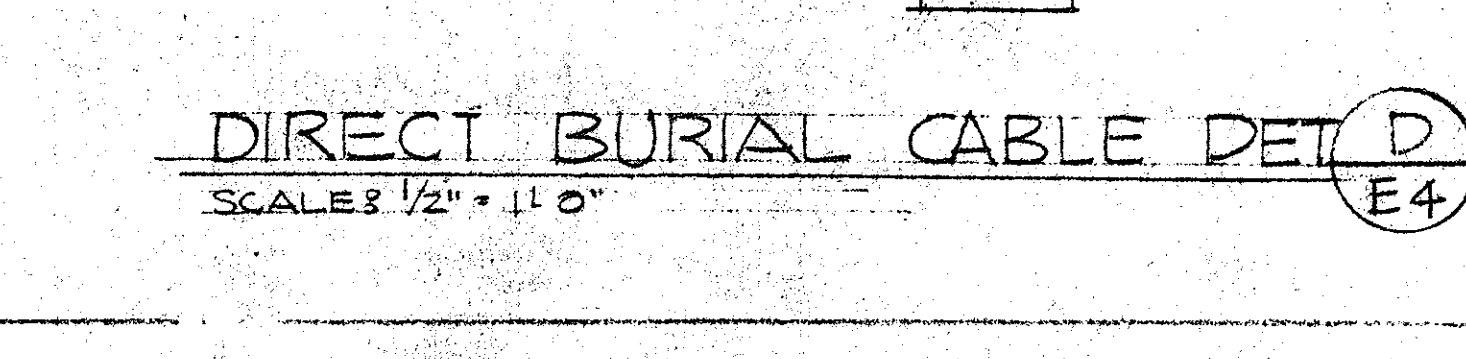
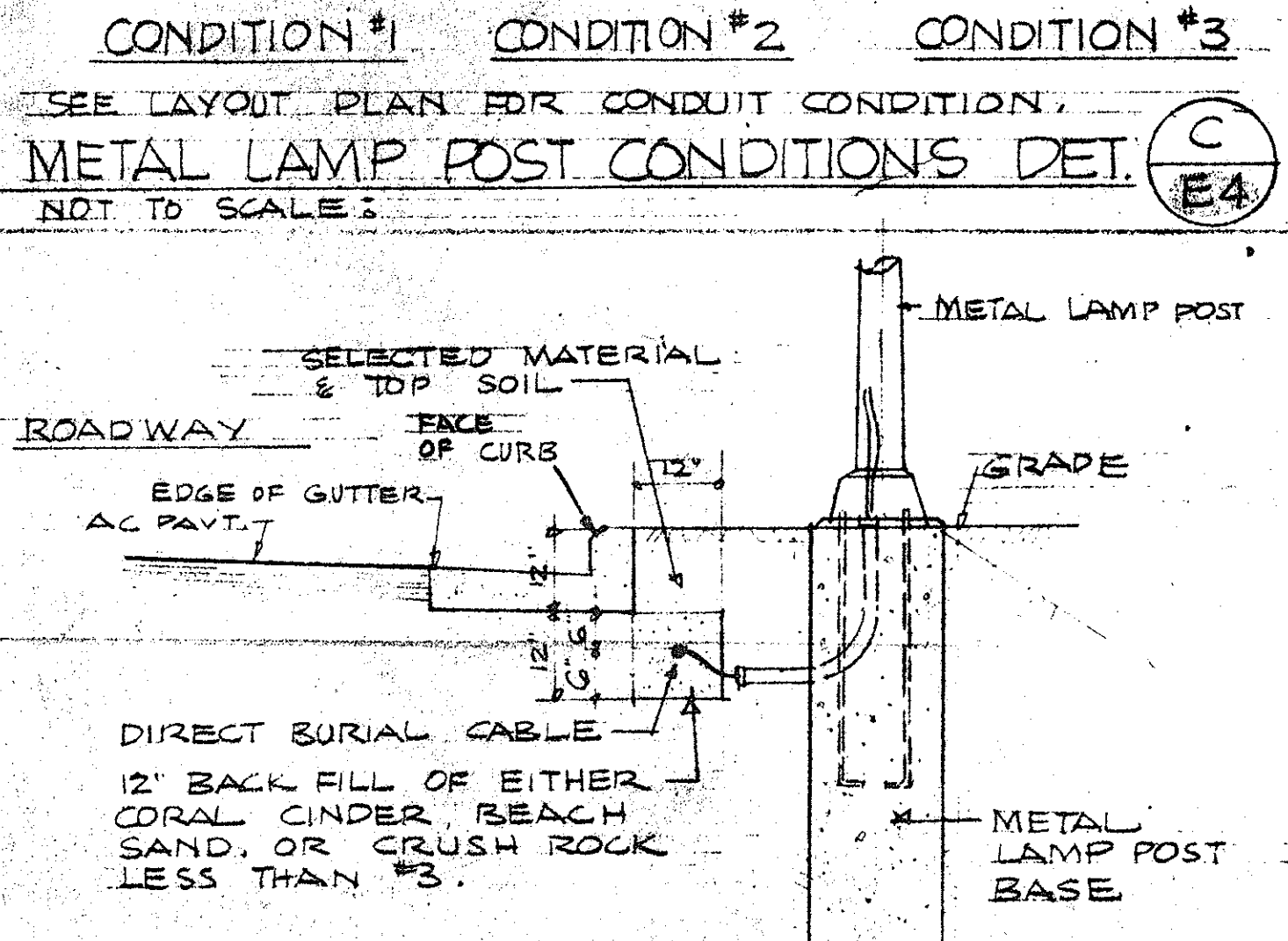
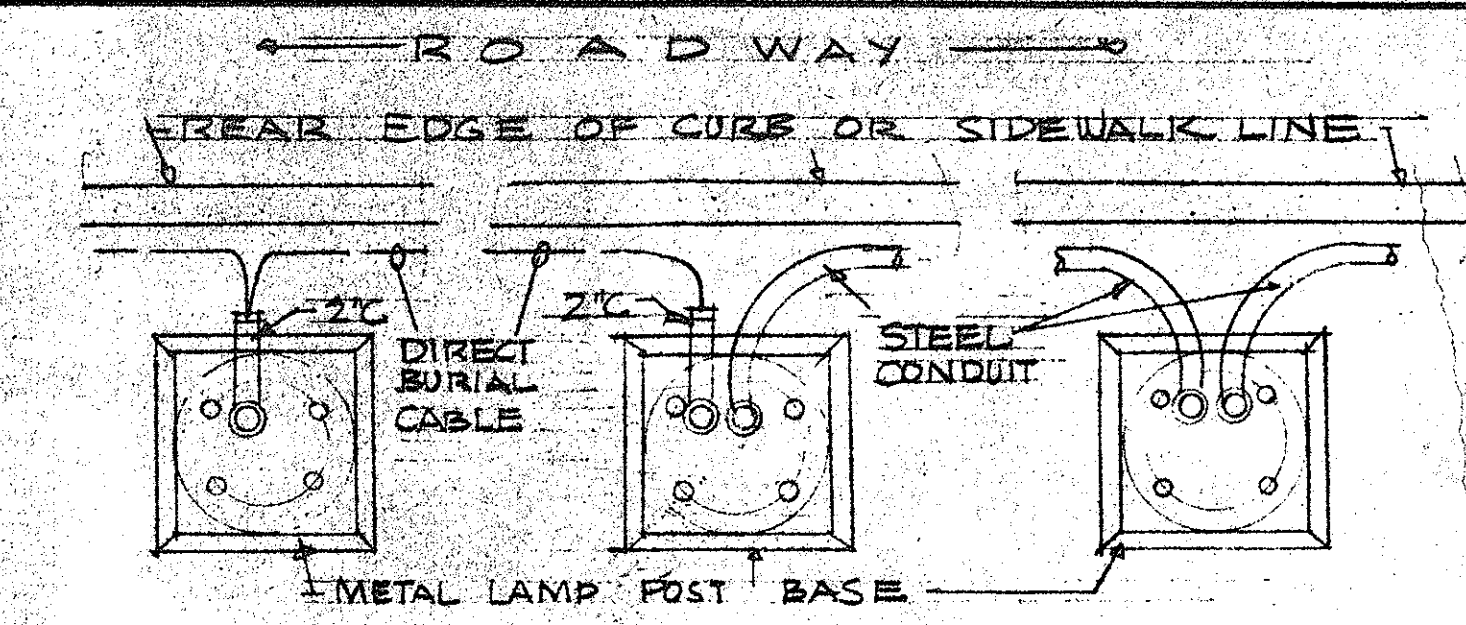
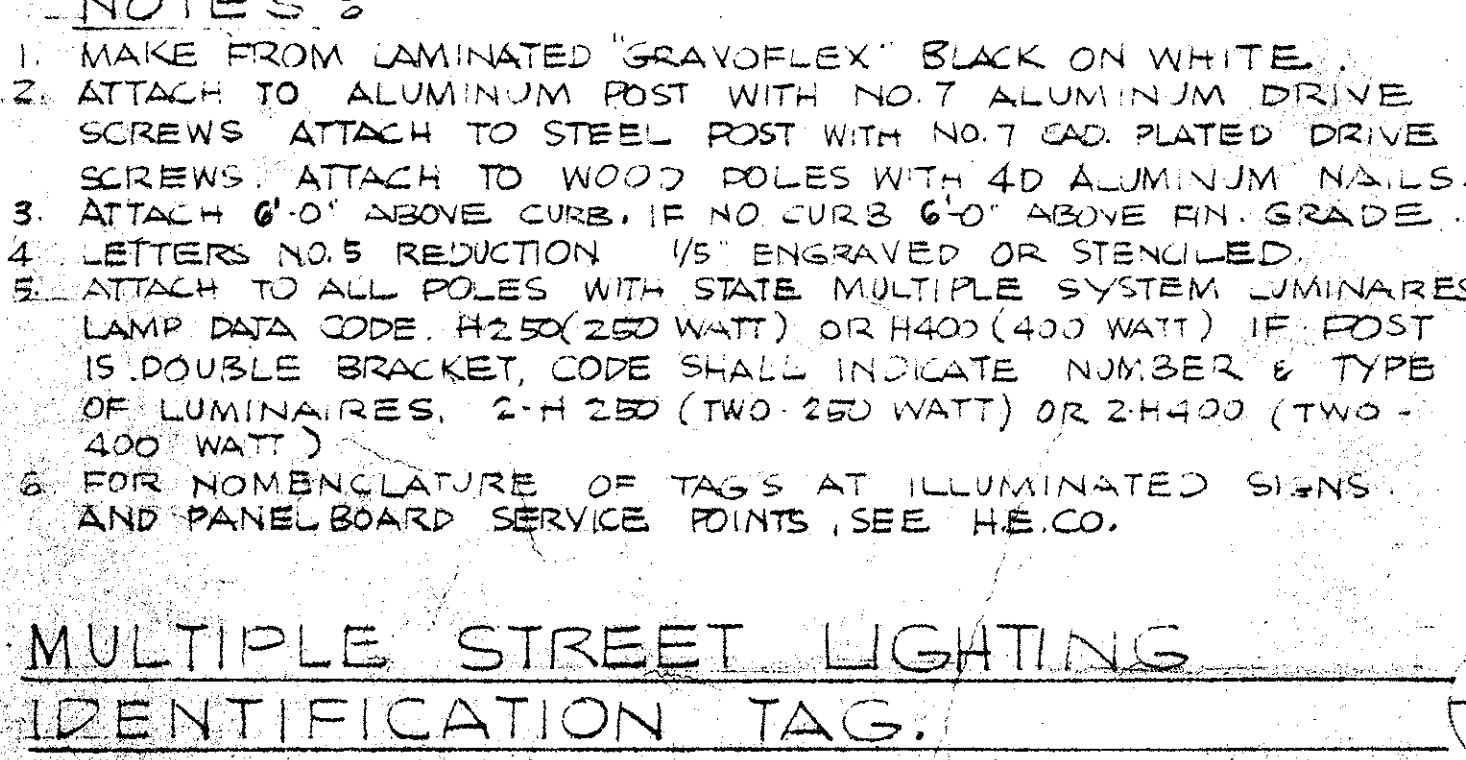
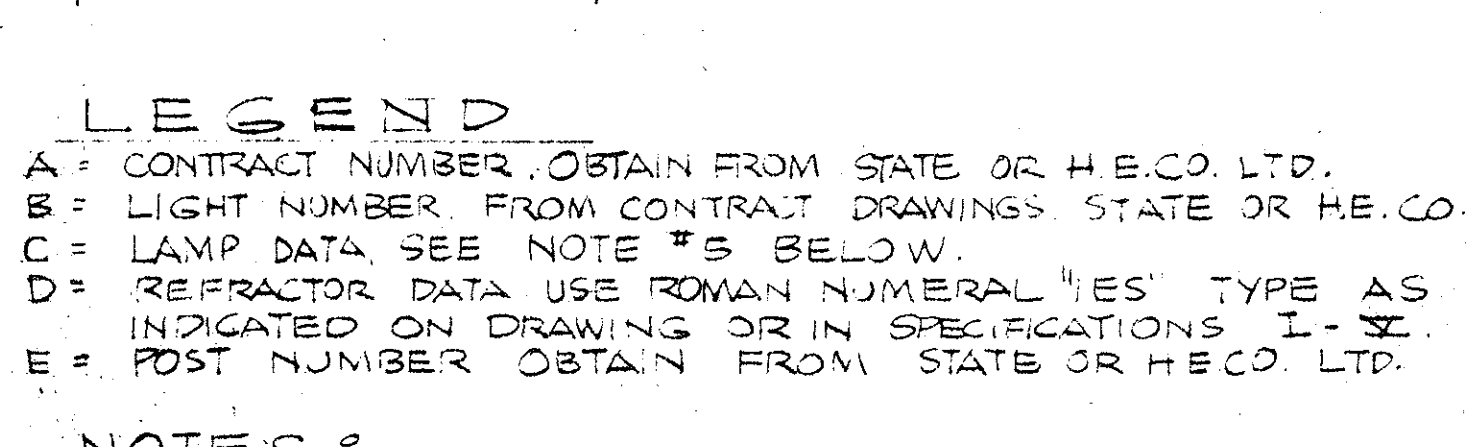
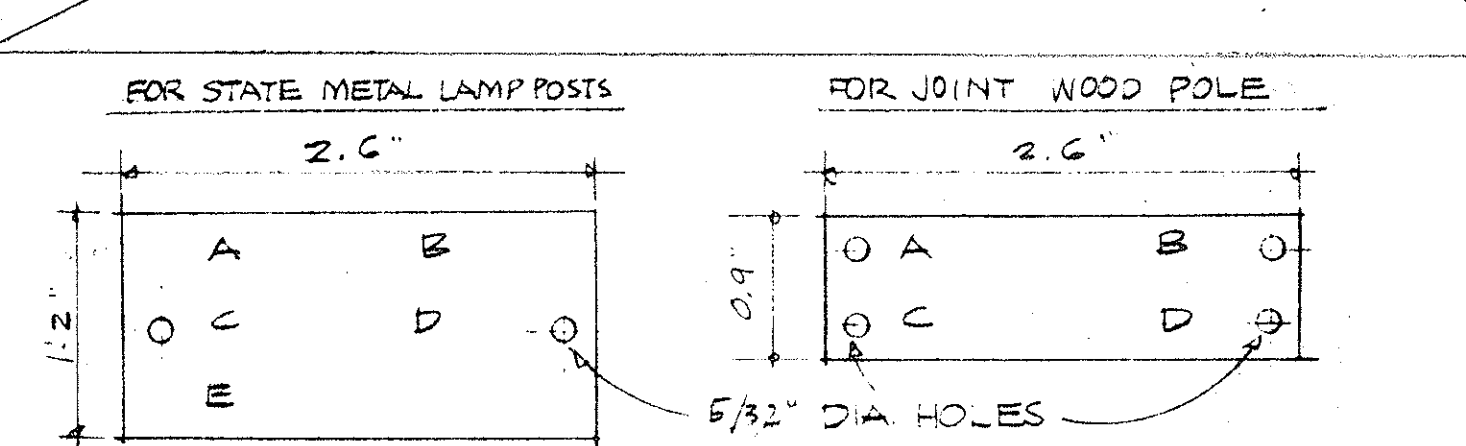
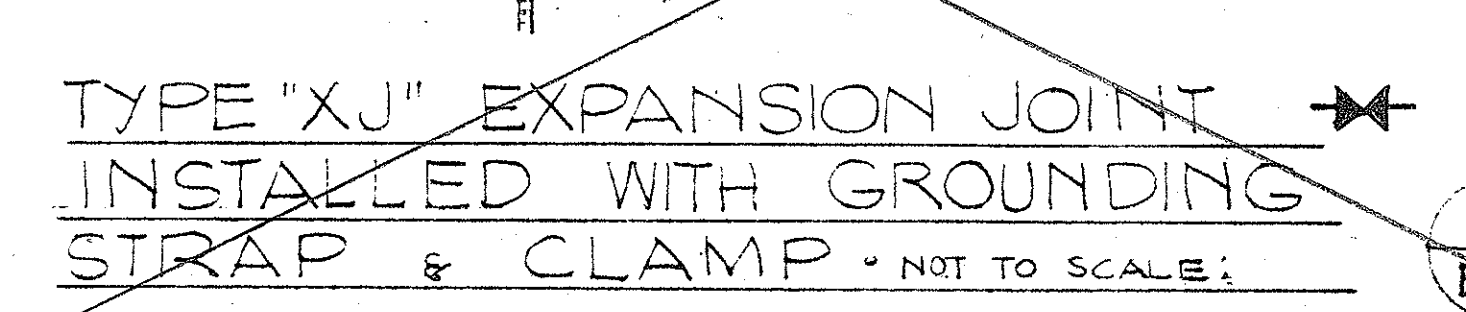
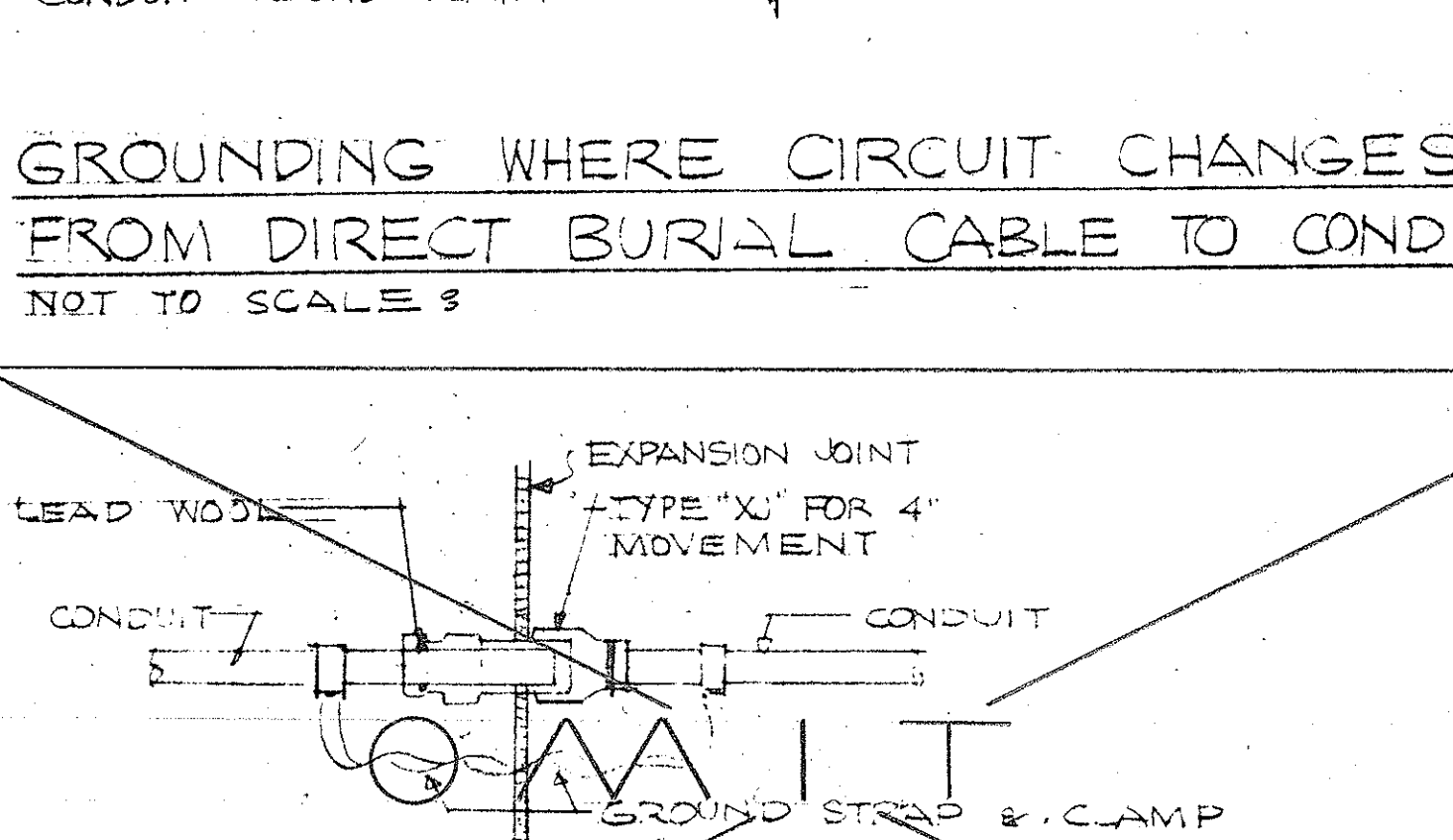
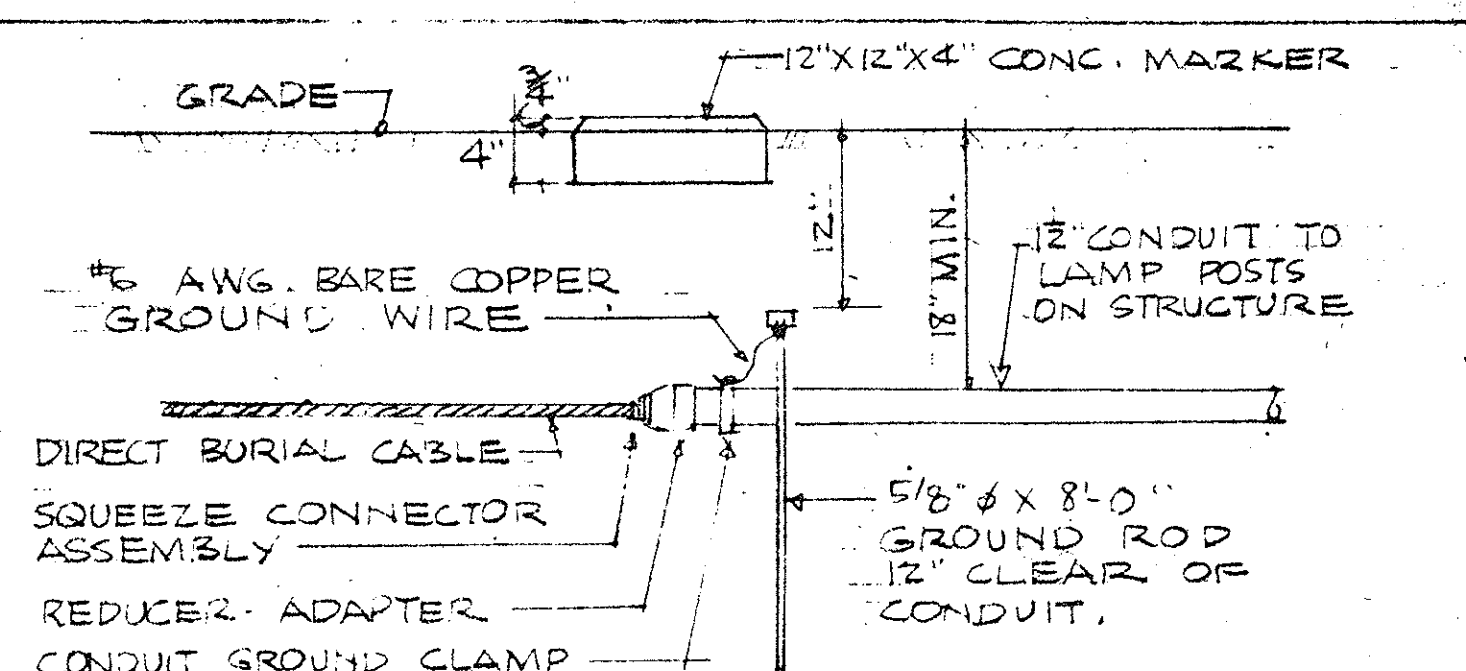
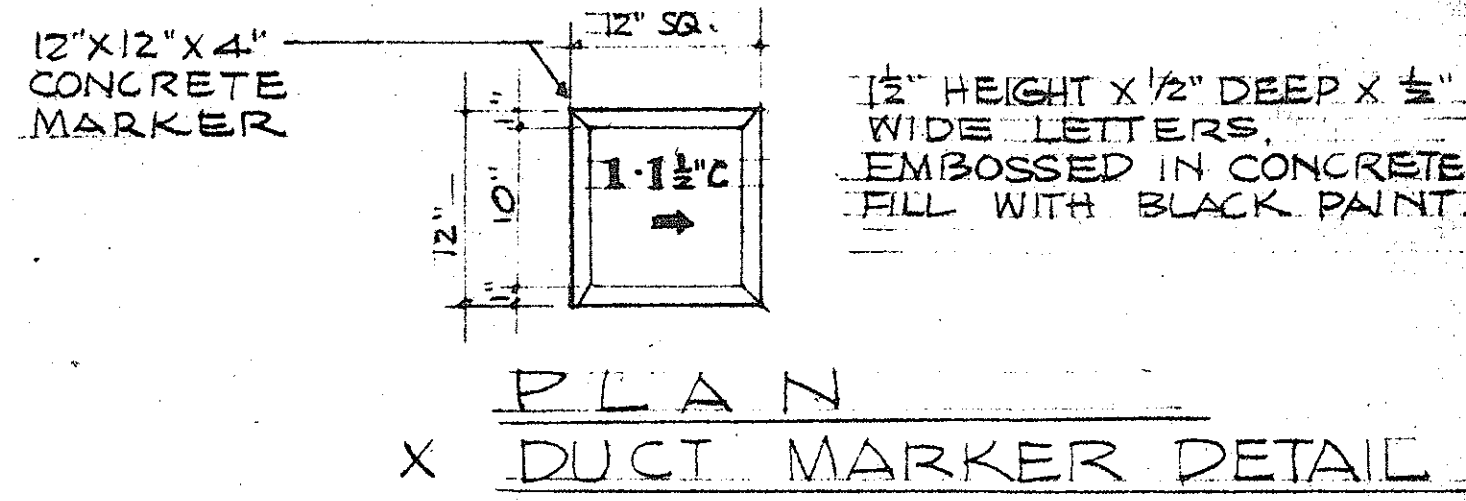
CIRCUIT DIAGRAM
REVISIONS TO VINEYARD BOULEVARD CIRCUITS

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INTERSTATE HIGHWAY (LUNALILO FRWY)
F.A.I. PROJ. NO. I-HI-1(24)
HIGHWAY LIGHTING

SHEET No. E4 OF 8 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(24)	1965	22	64

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INTERSTATE HIGHWAY (LUNALILO FRWY)

F.A.I. PROJ. NO. 1-HI-1(24)

HIGHWAY LIGHTING

SHEET No. E 5 OF 8 SHEETS

DATE: _____

DESIGNED BY: _____

CHECKED BY: _____

NOTED BY: _____

APPROVED BY: _____

This work was prepared by me or under my supervision.

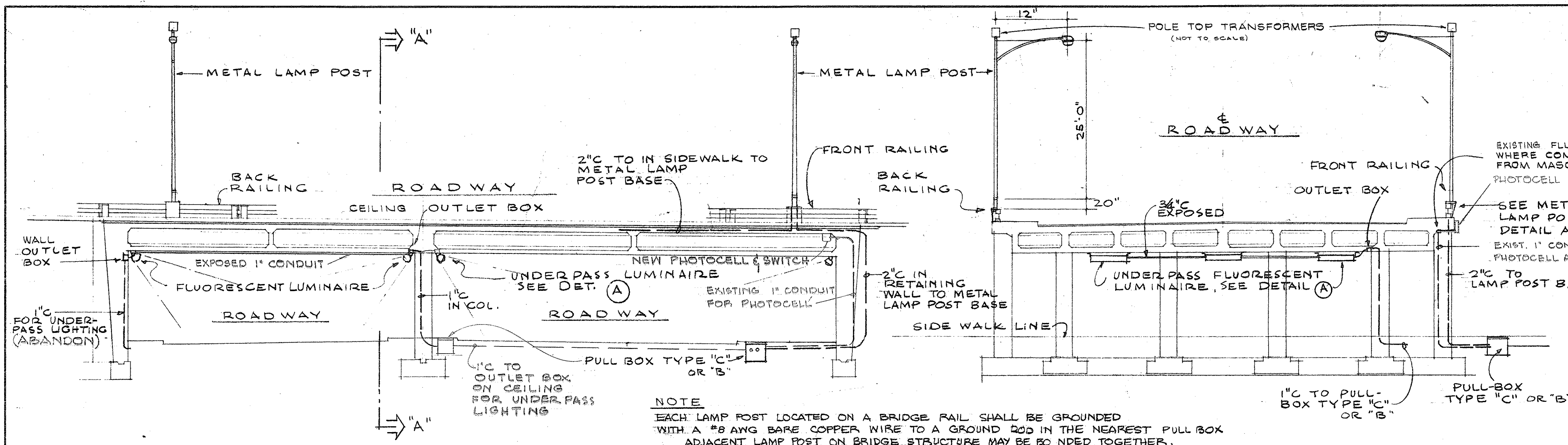
James J. Oberholser

REGISTERED PROFESSIONAL ENGINEER

No. 664

HAWAII

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEET
HAWAII	HAW	1-HI-1(24)	1965	30	64



NOTE

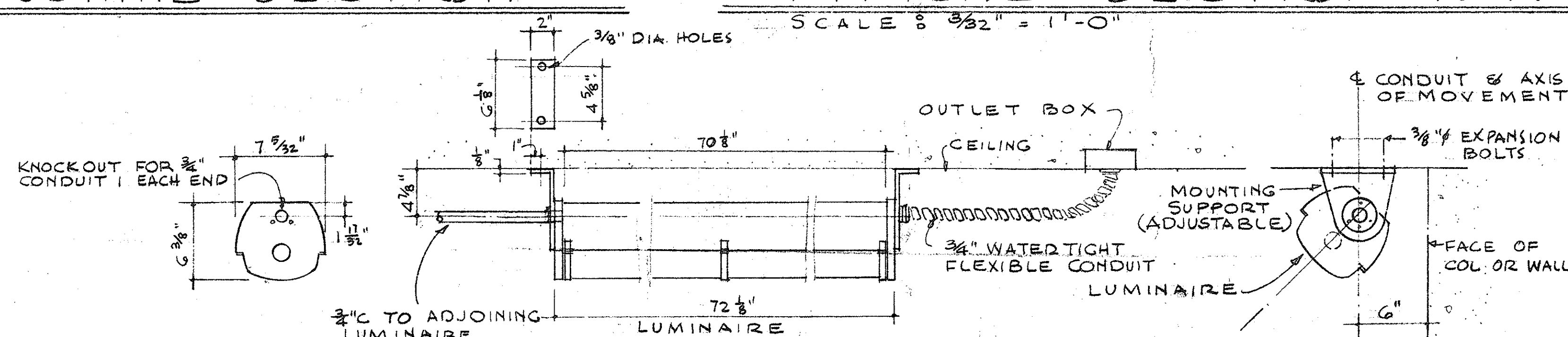
THESE DETAILS ARE TYPICAL FOR ALL STRUCTURES. FOR ACTUAL CONDUIT REQUIREMENTS AT EACH, SEE LIGHTING LAYOUT PLANS.

TYPICAL LONGITUDINAL SECTION

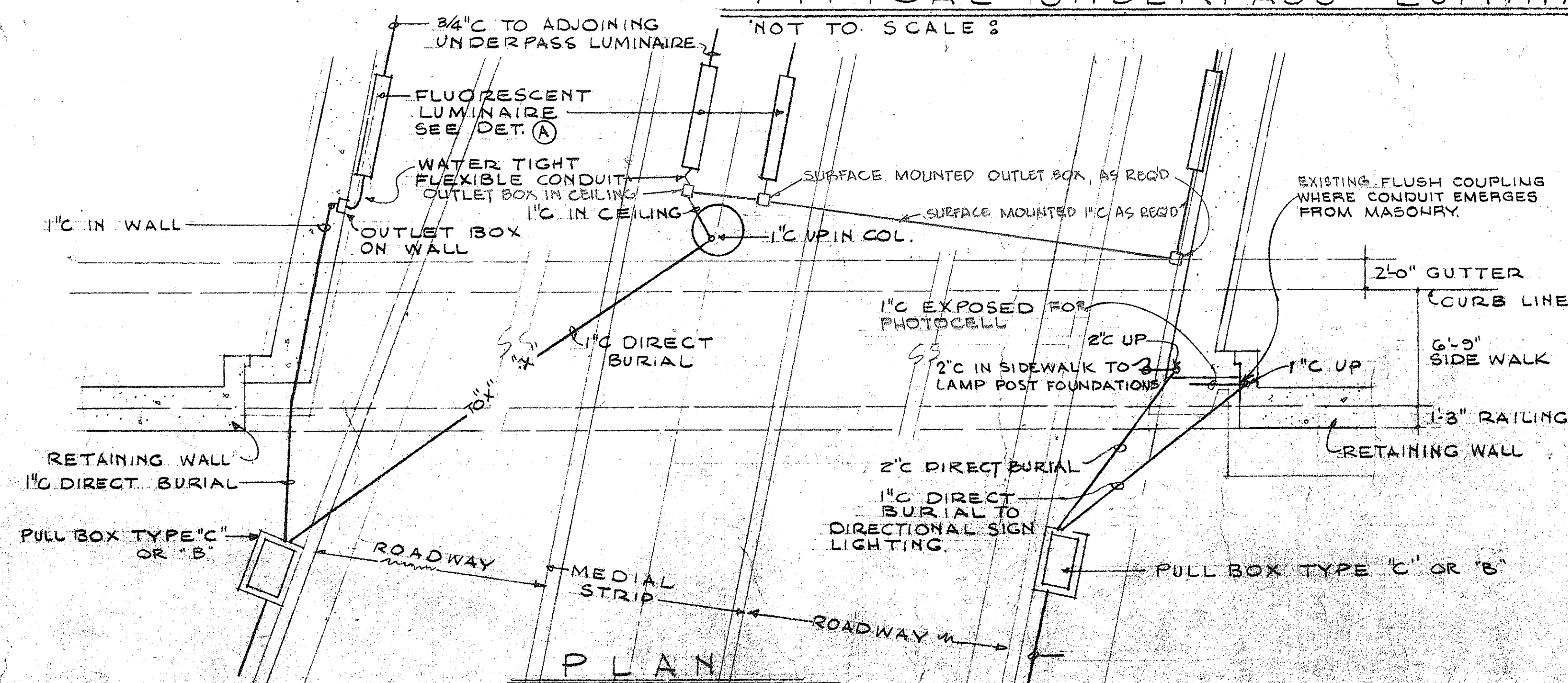
SCALE: $\frac{3}{32}'' = 1'-0''$

TYPICAL SECTION "A-A"

SCALE : $\frac{3}{32}'' = 1' - 0''$

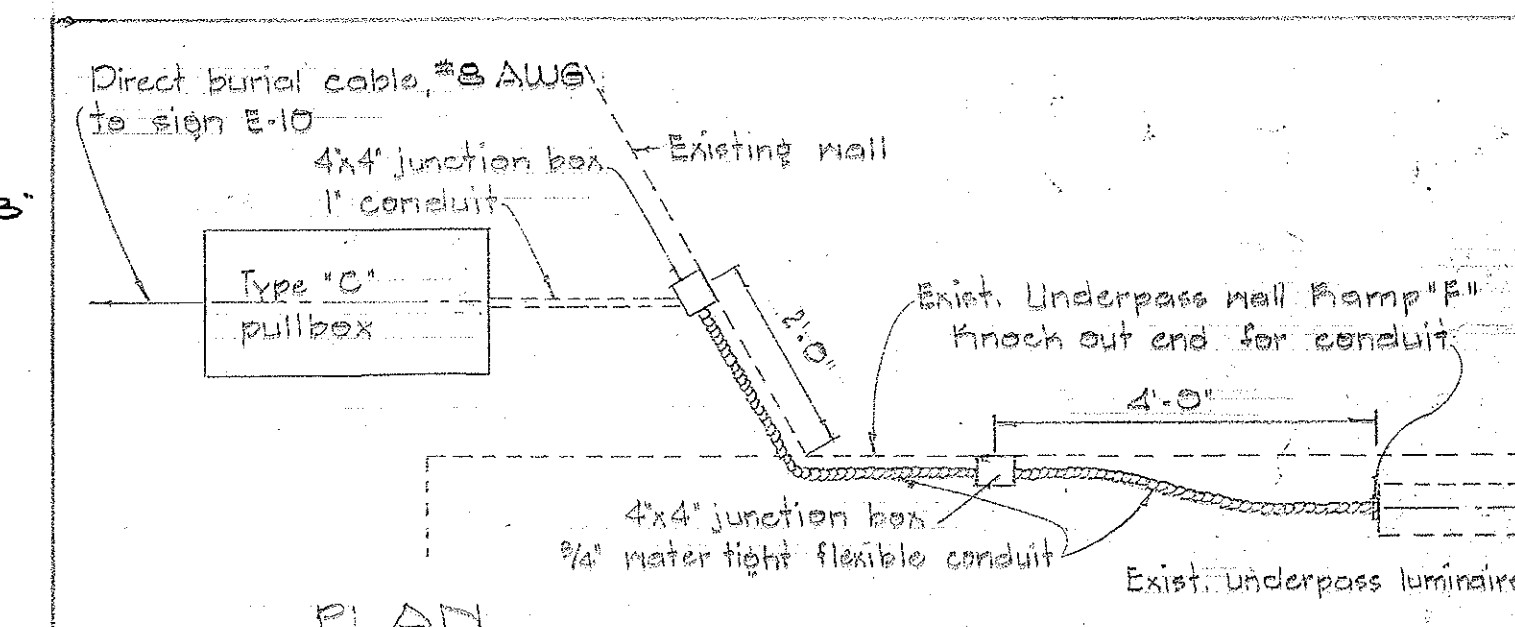


TYPICAL UNDERPASS LUMINARE INSTALLATION DET. (A)

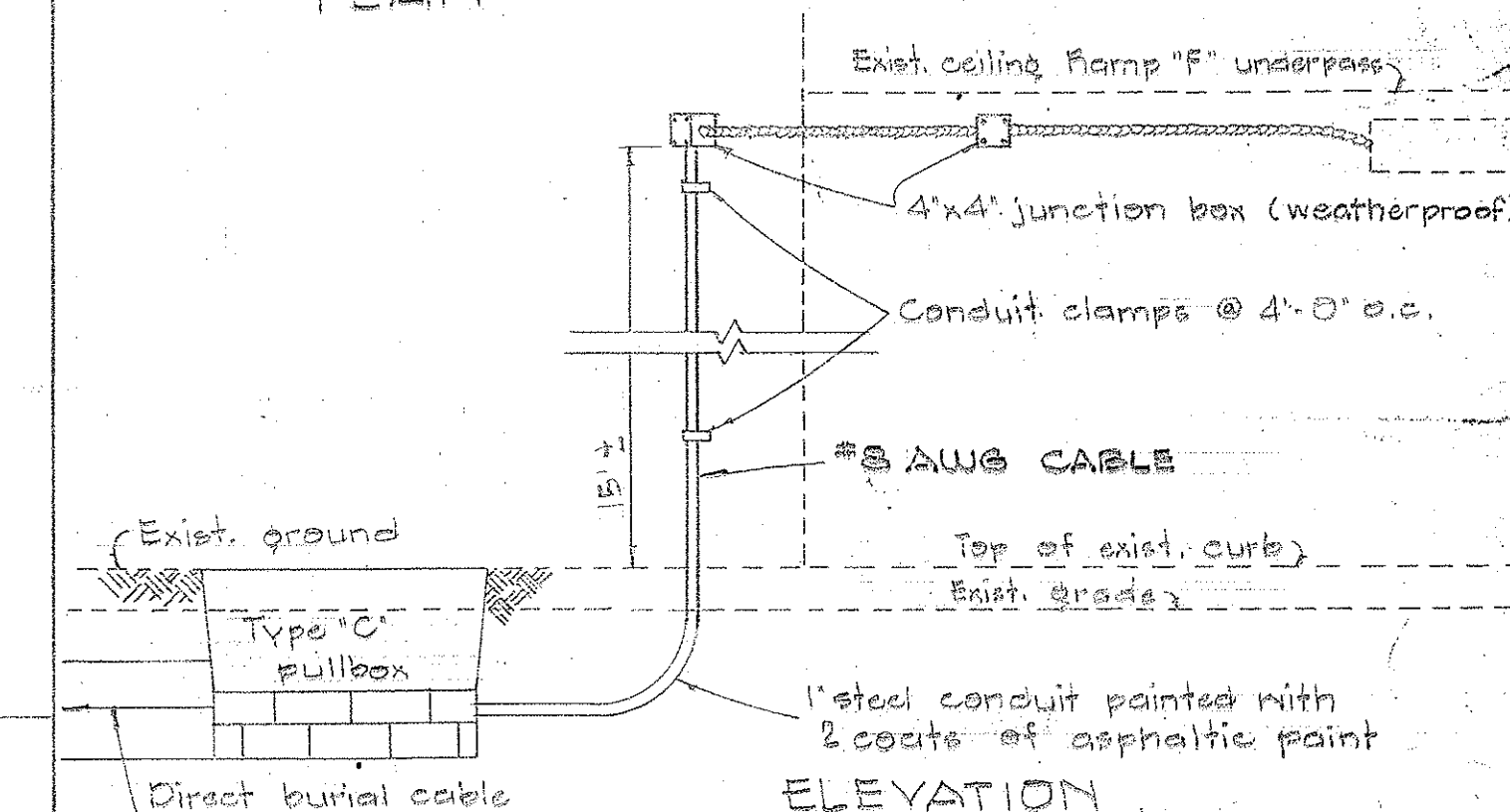


TYPICAL LIGHTING & CONDUIT INSTALLATION AT
BRIDGE & UNDER PASS

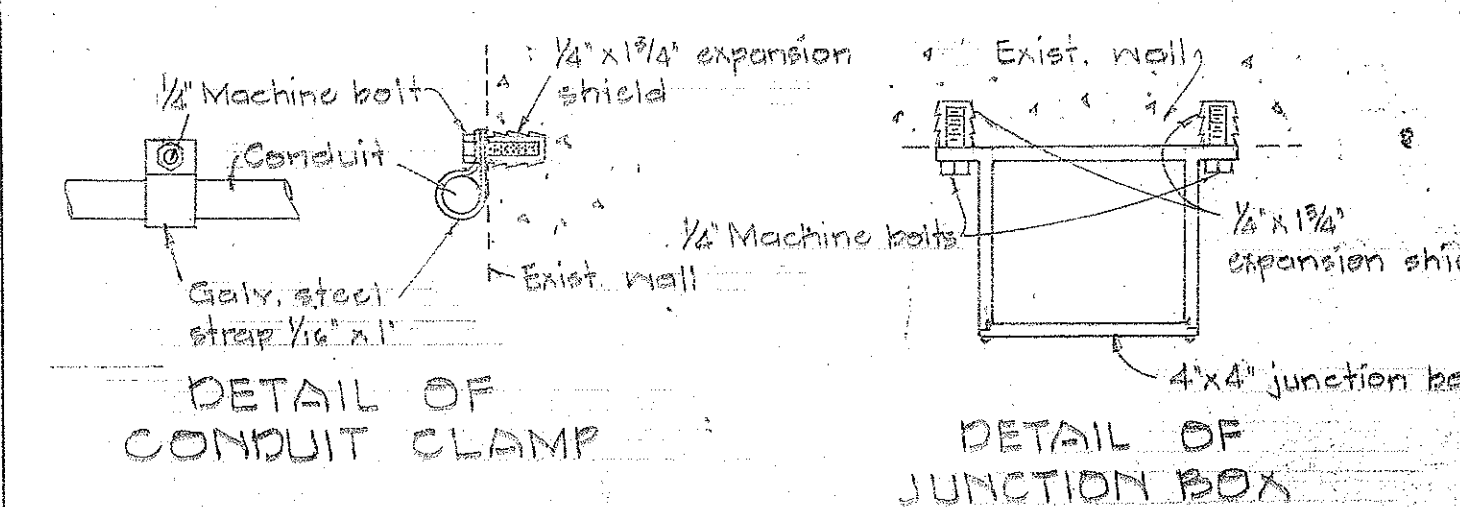
SCALE: $3/16" = 1' - 0"$



PLAN



ELEVATION



DETAIL OF
CONDUIT CLAMP

DETAIL OF
JUNCTION BOX

DETAIL OF CONNECTION
OF SIGN E-10 TO MULTIPLE
CIRCUIT AT RAMP "F"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INTERSTATE HIGHWAY (LUNALILO FRWY)

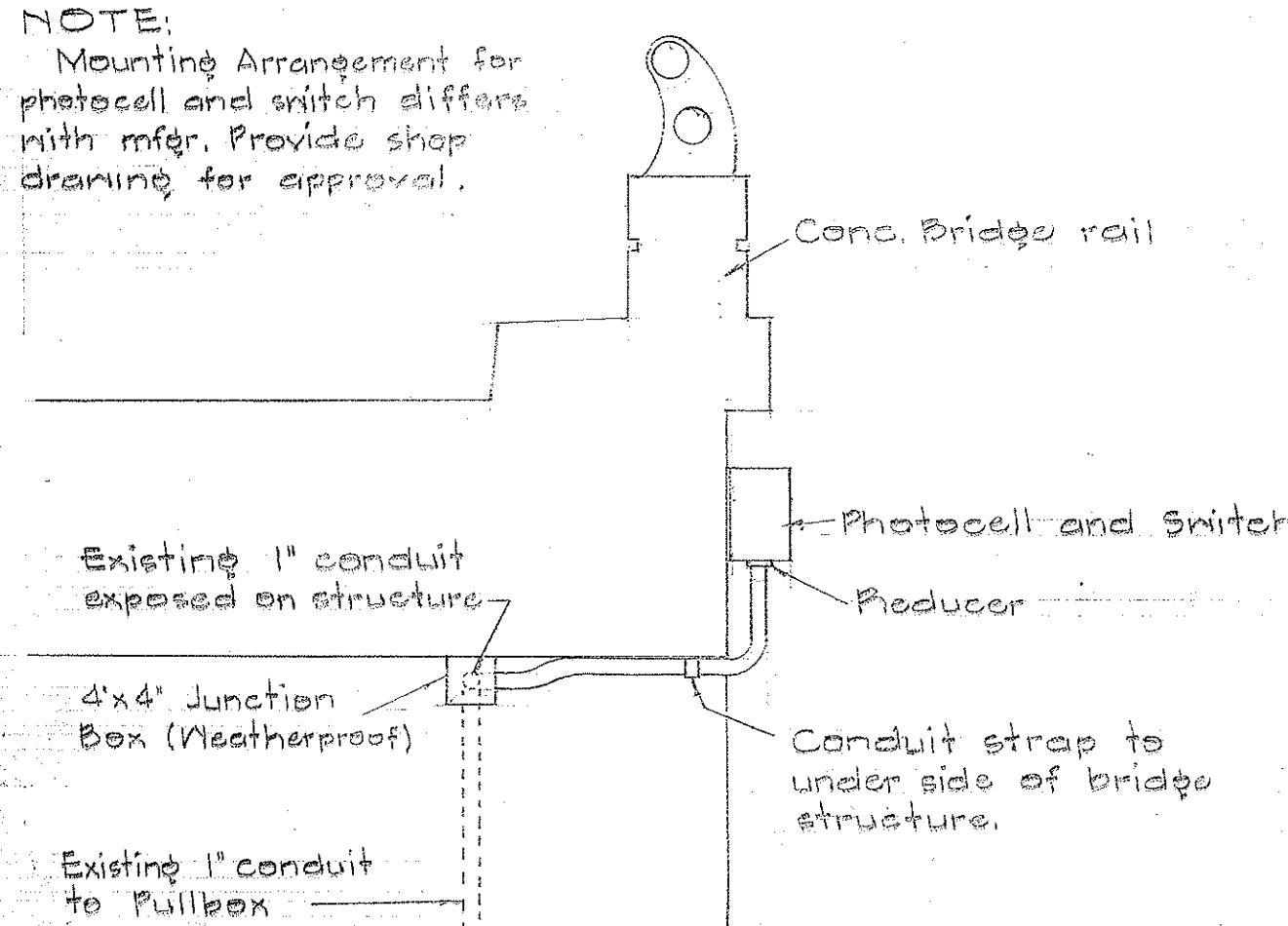
F.A.I. PROJ. NO. I-HI-1(24)

HIGHWAY LIGHTING

SHEET No. E 6 of 8 SHEETS

LAW & WILSON • TUBES • TOWE
REGISTERED • ENGINEERS • SURVEYORS
James L. Wilson No. 664
REGISTERED ENGINEER
 DATE *7-2-57*

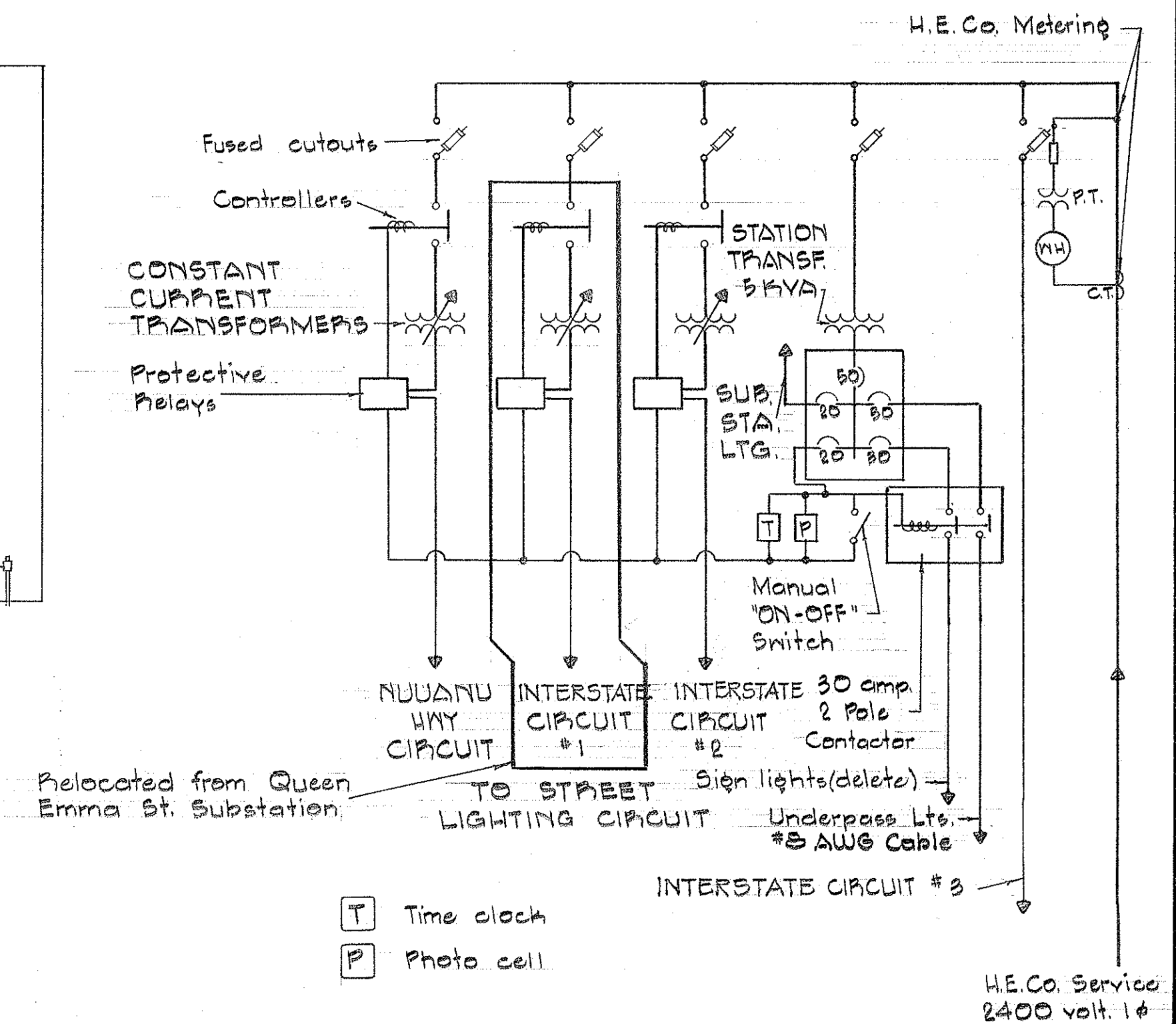
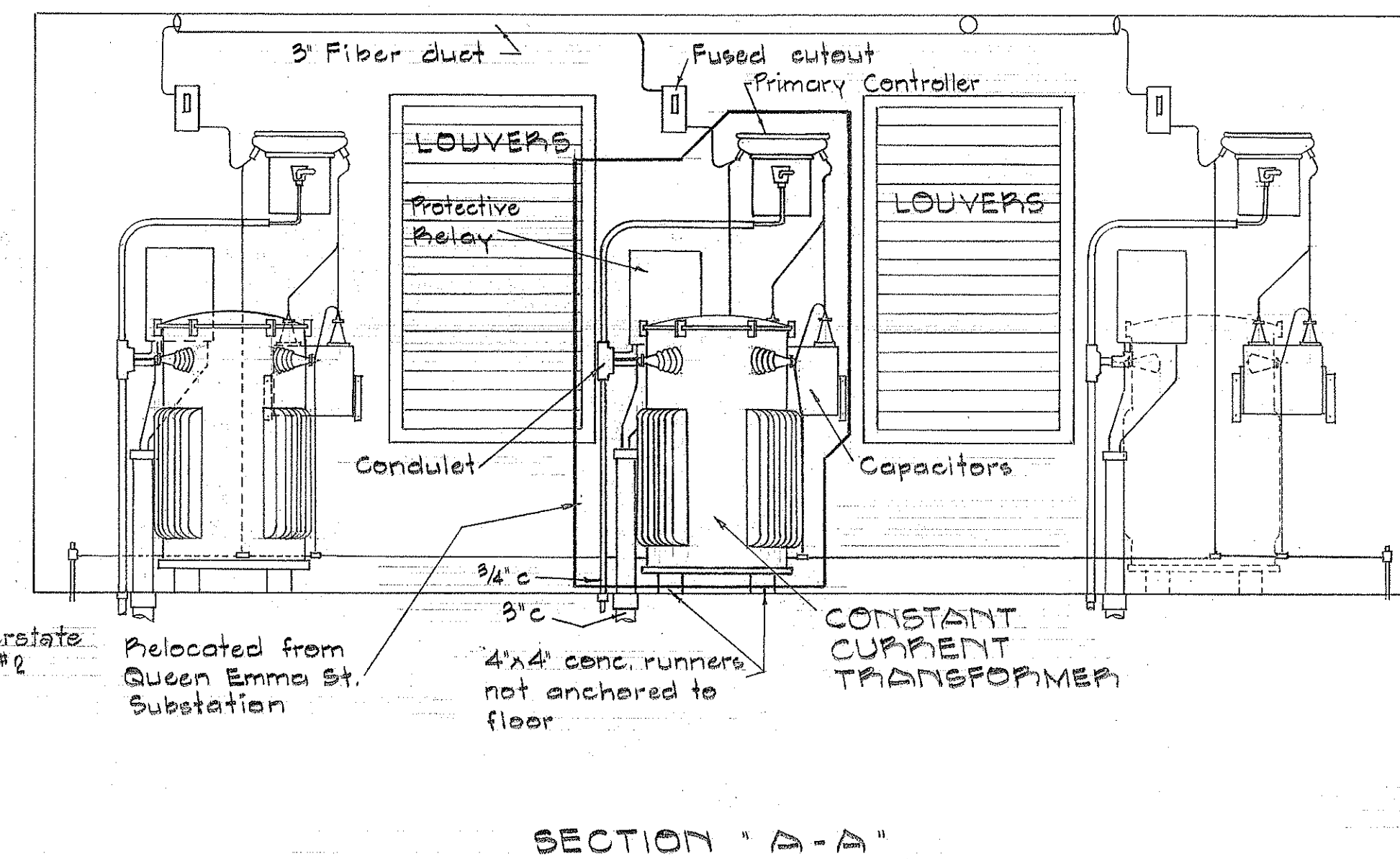
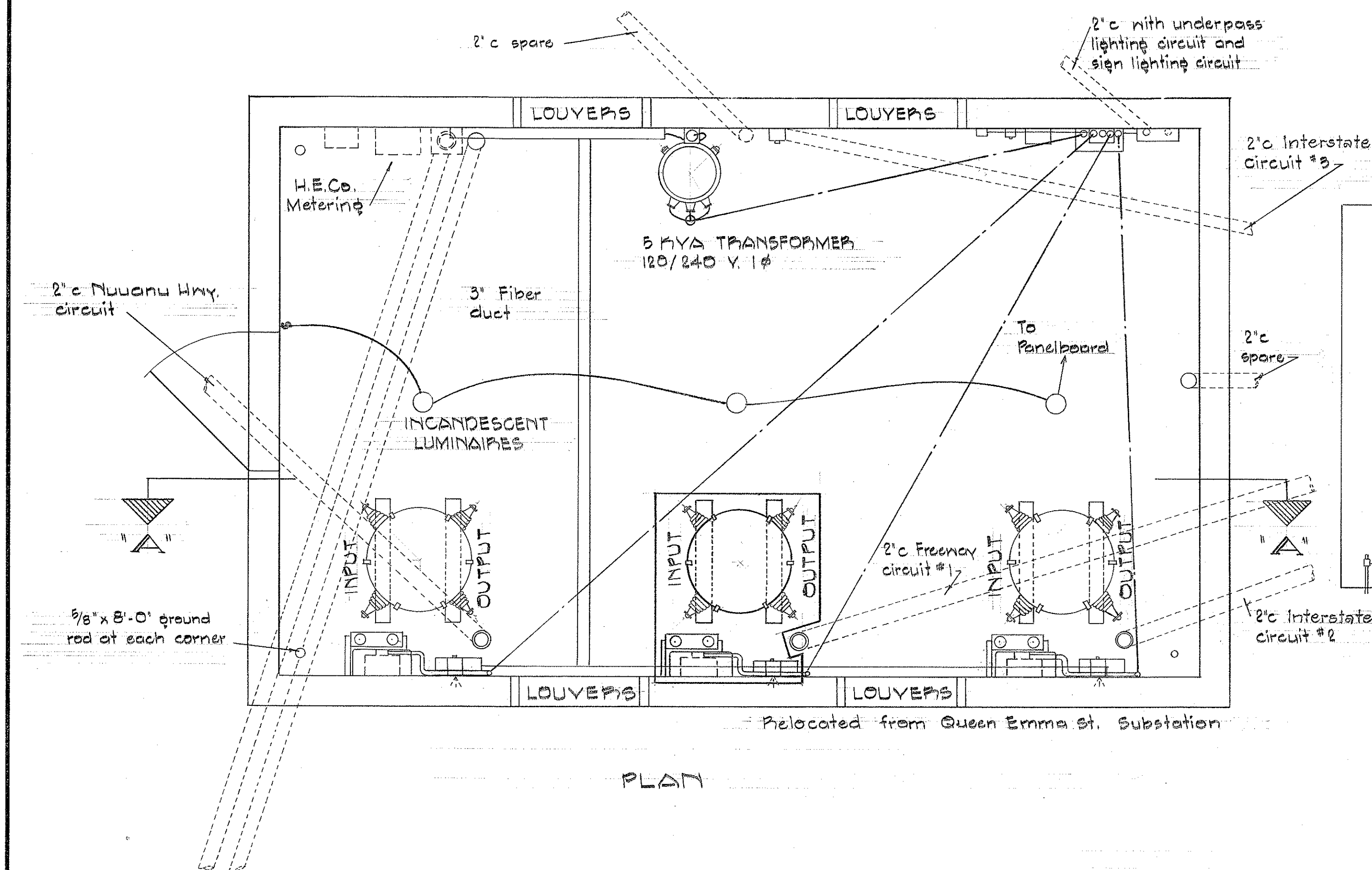
NOTE:
Mounting Arrangement for
photocell and switch differs
with mfr. Provide shop
drawing for approval.



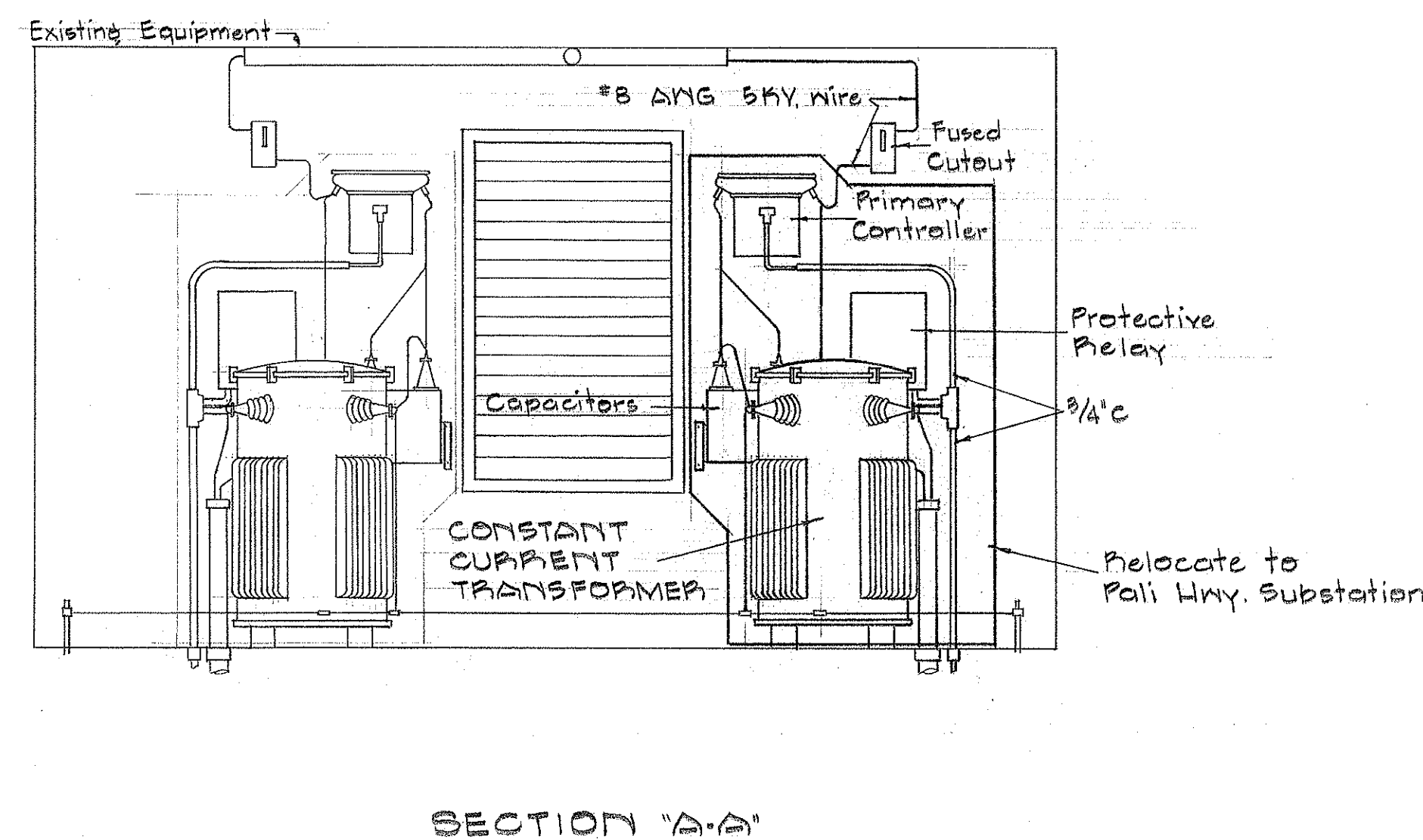
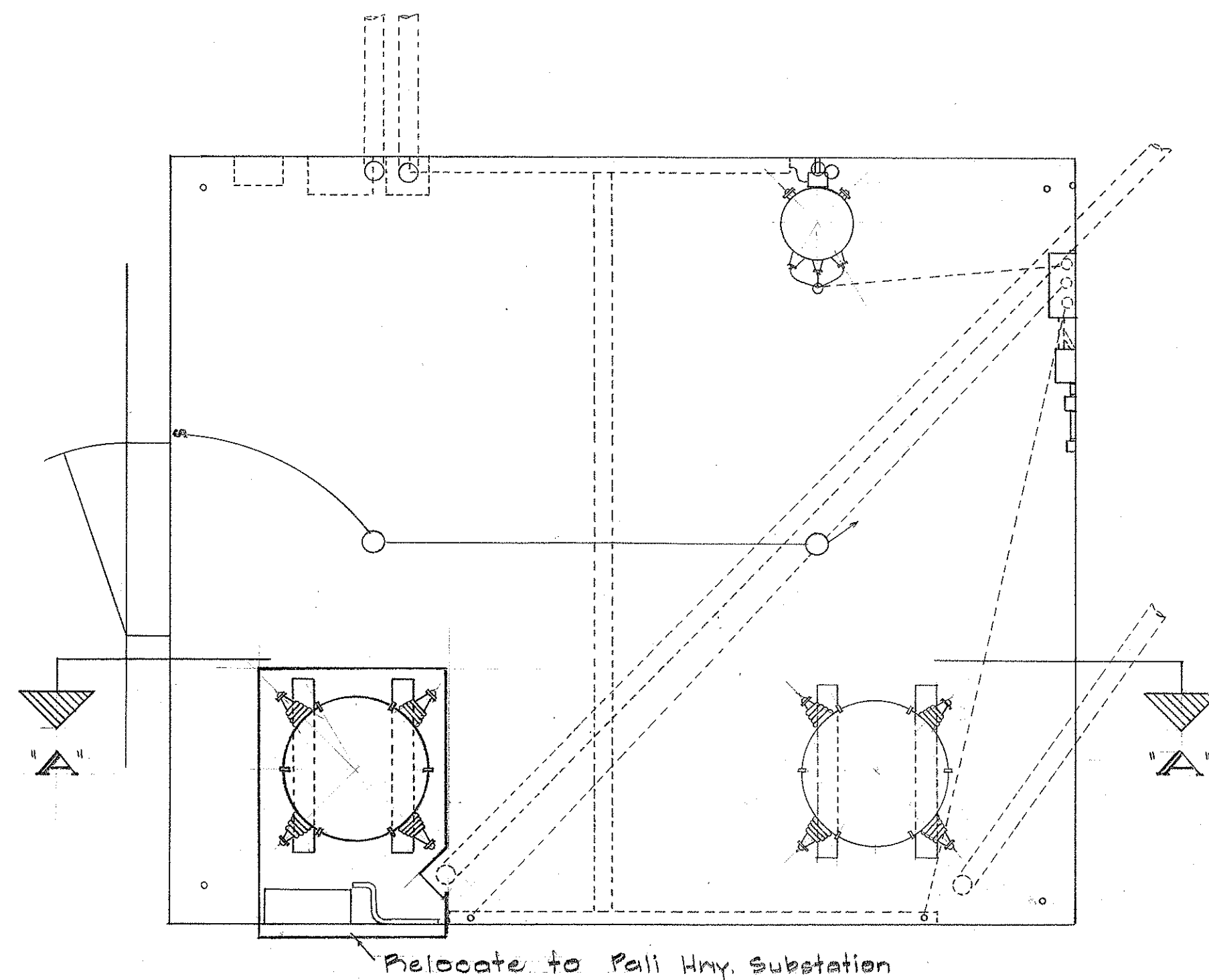
DETAIL OF PHOTOCELL AND
SWITCH FOR UNDERPASS LIGHTING
NOT TO SCALE

101-10 SCALE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI(24)	1965	31	64



PALI HIGHWAY SUBSTATION



QUEEN EMMA ST. SUBSTATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

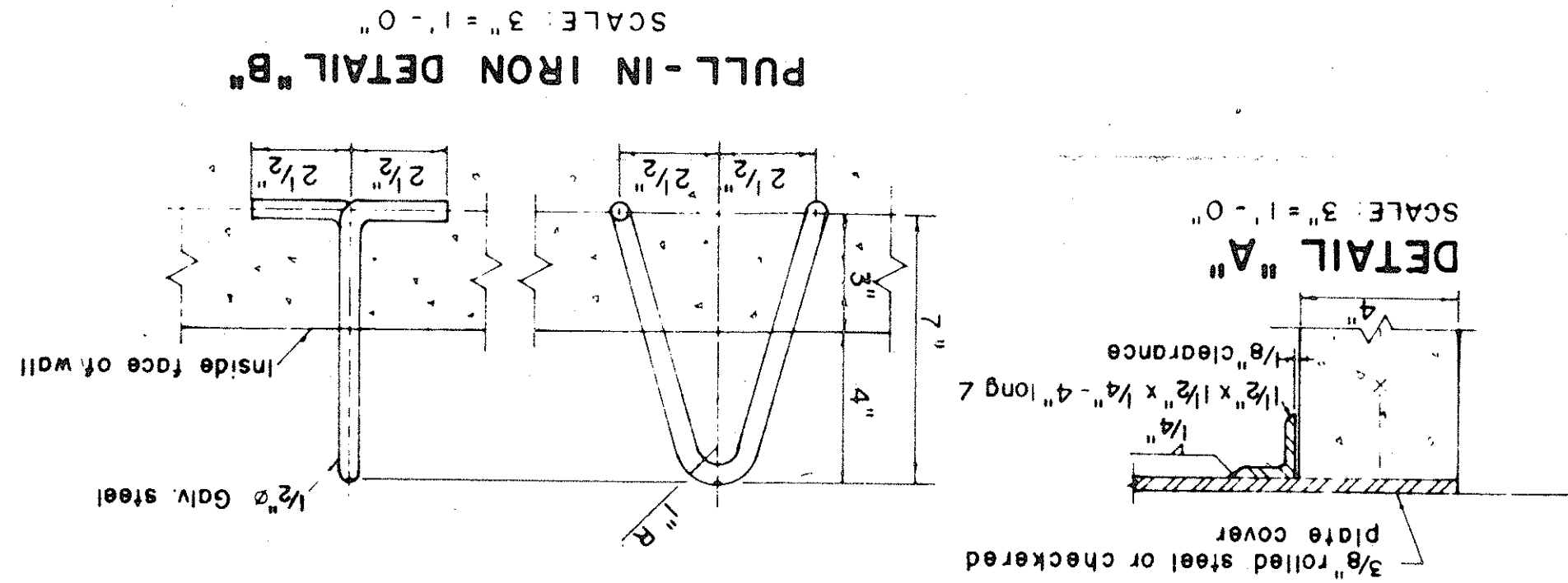
INTERSTATE HIGHWAY (LUNALILO FRWY)

F.A.I. PROJ. NO. I-HI-1(24)

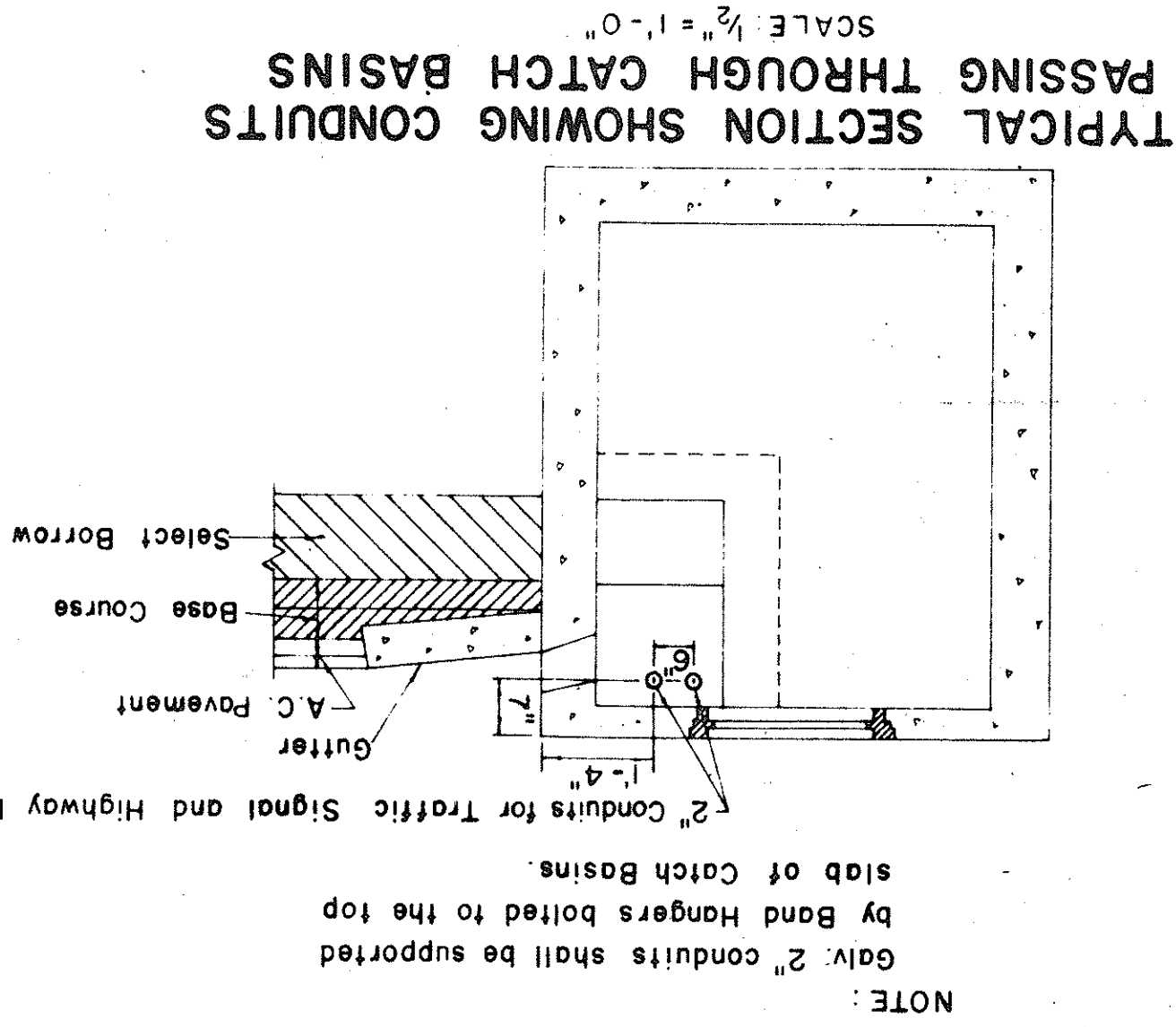
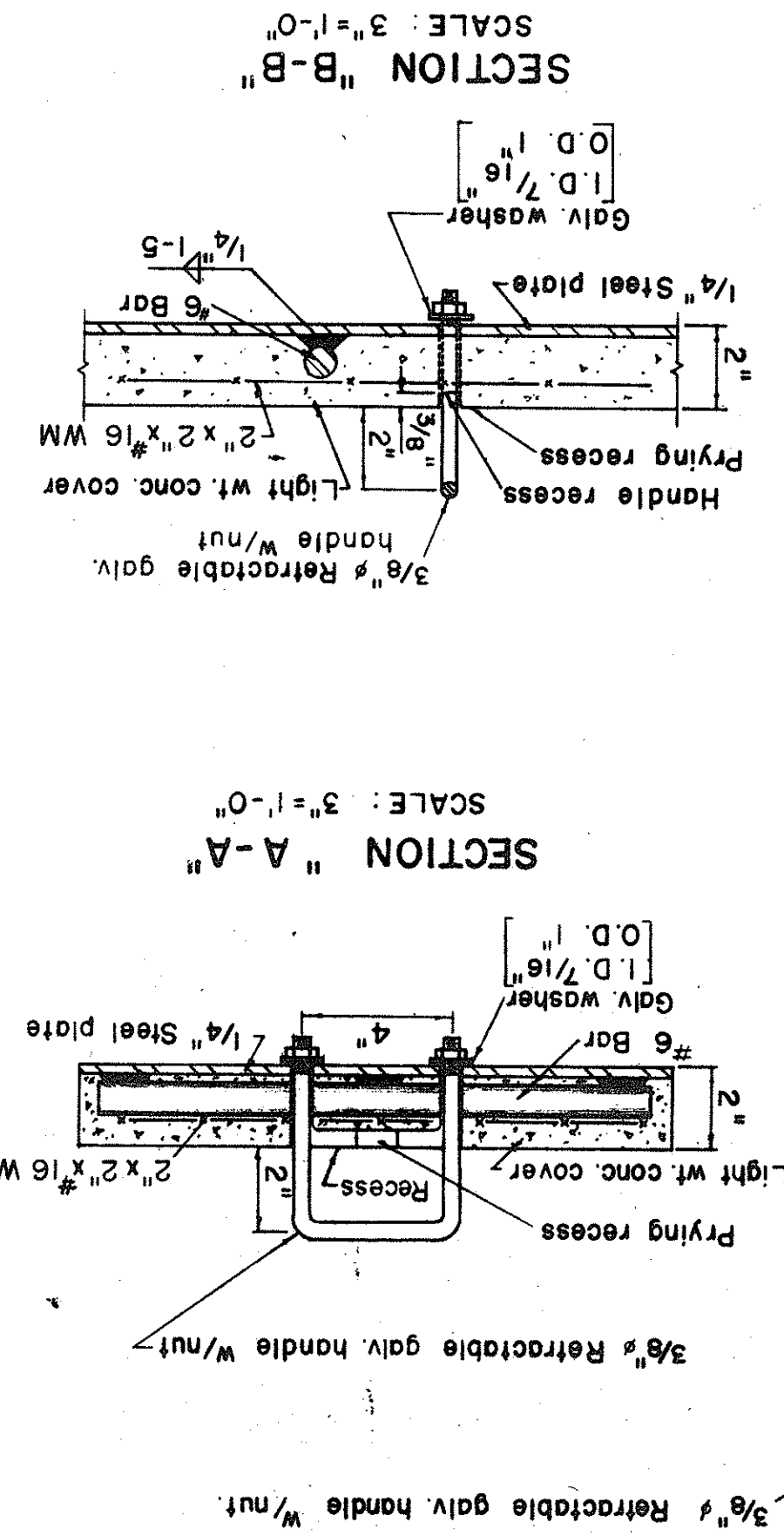
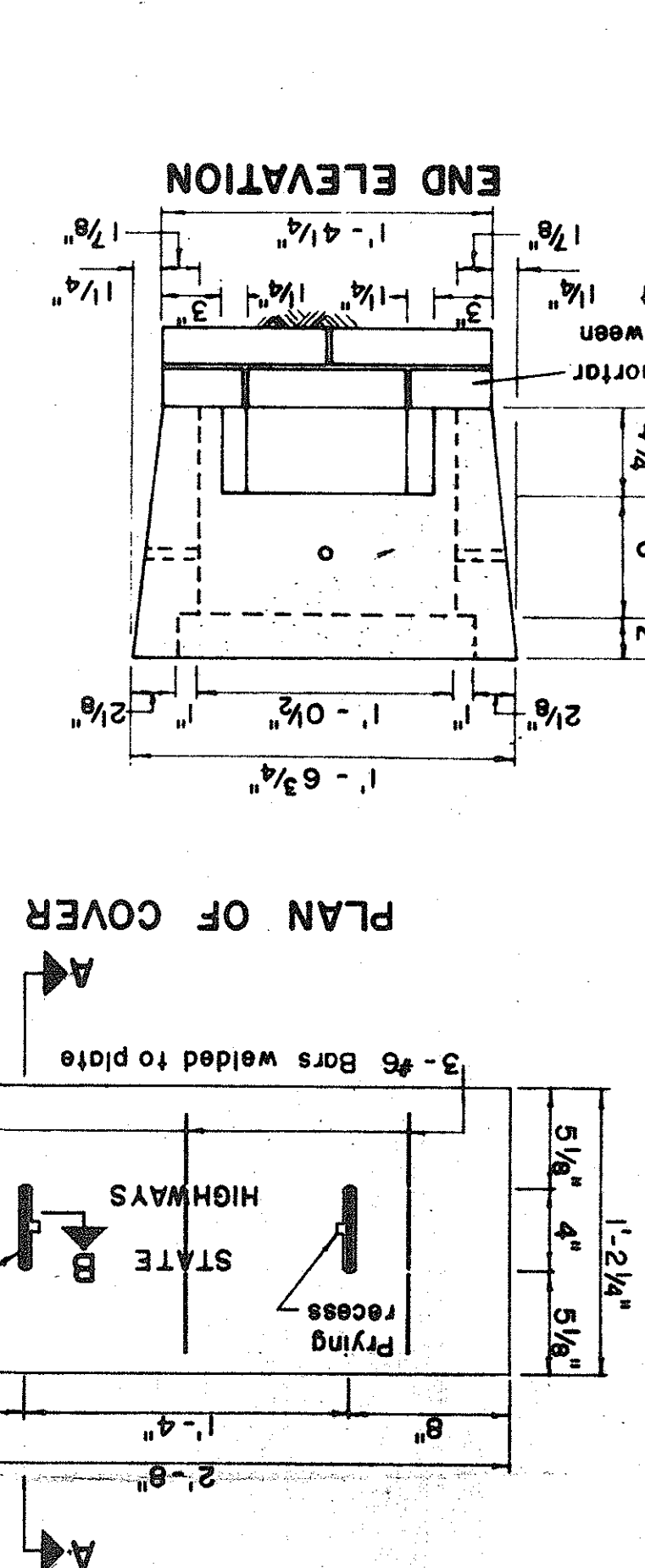
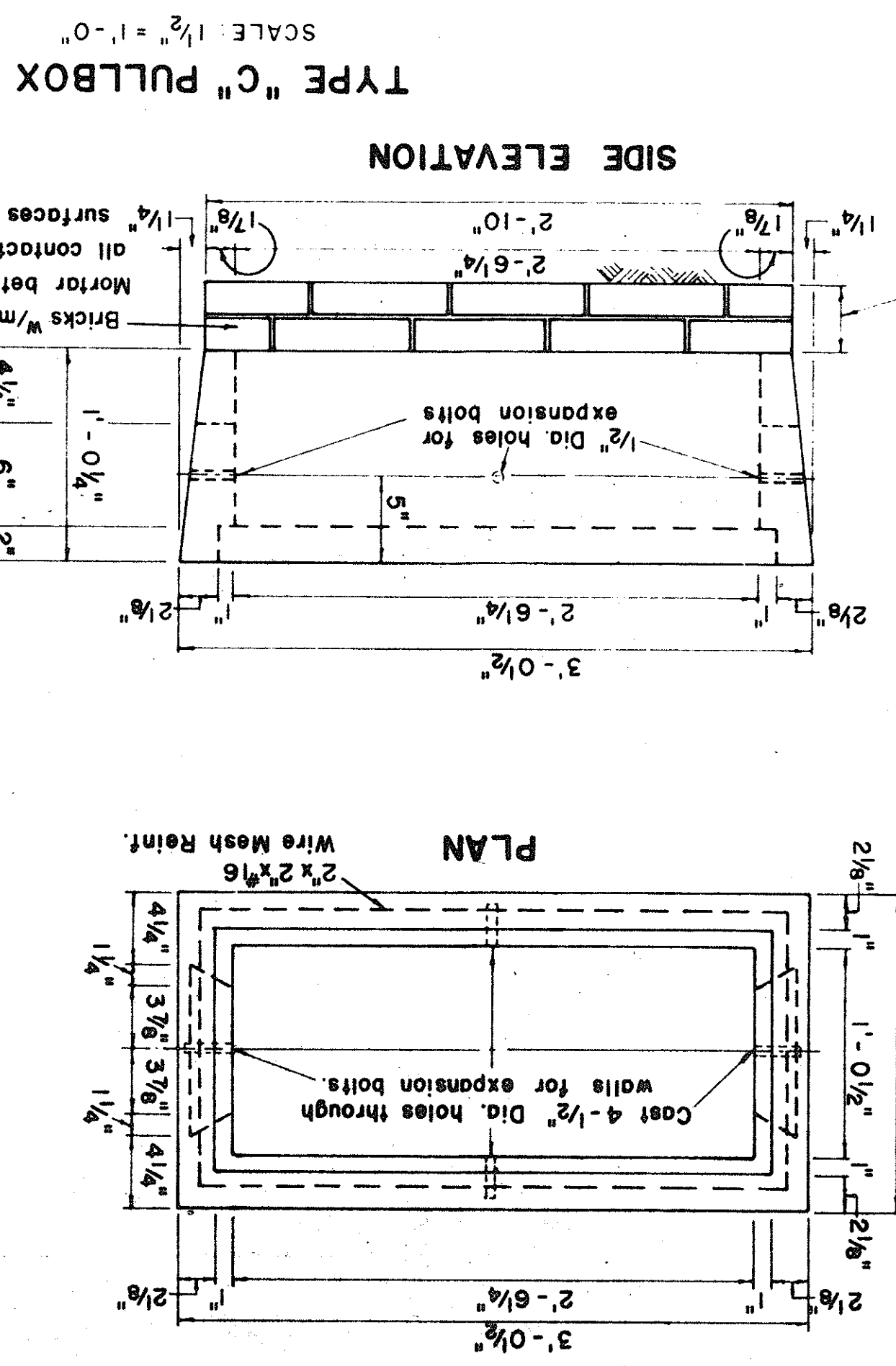
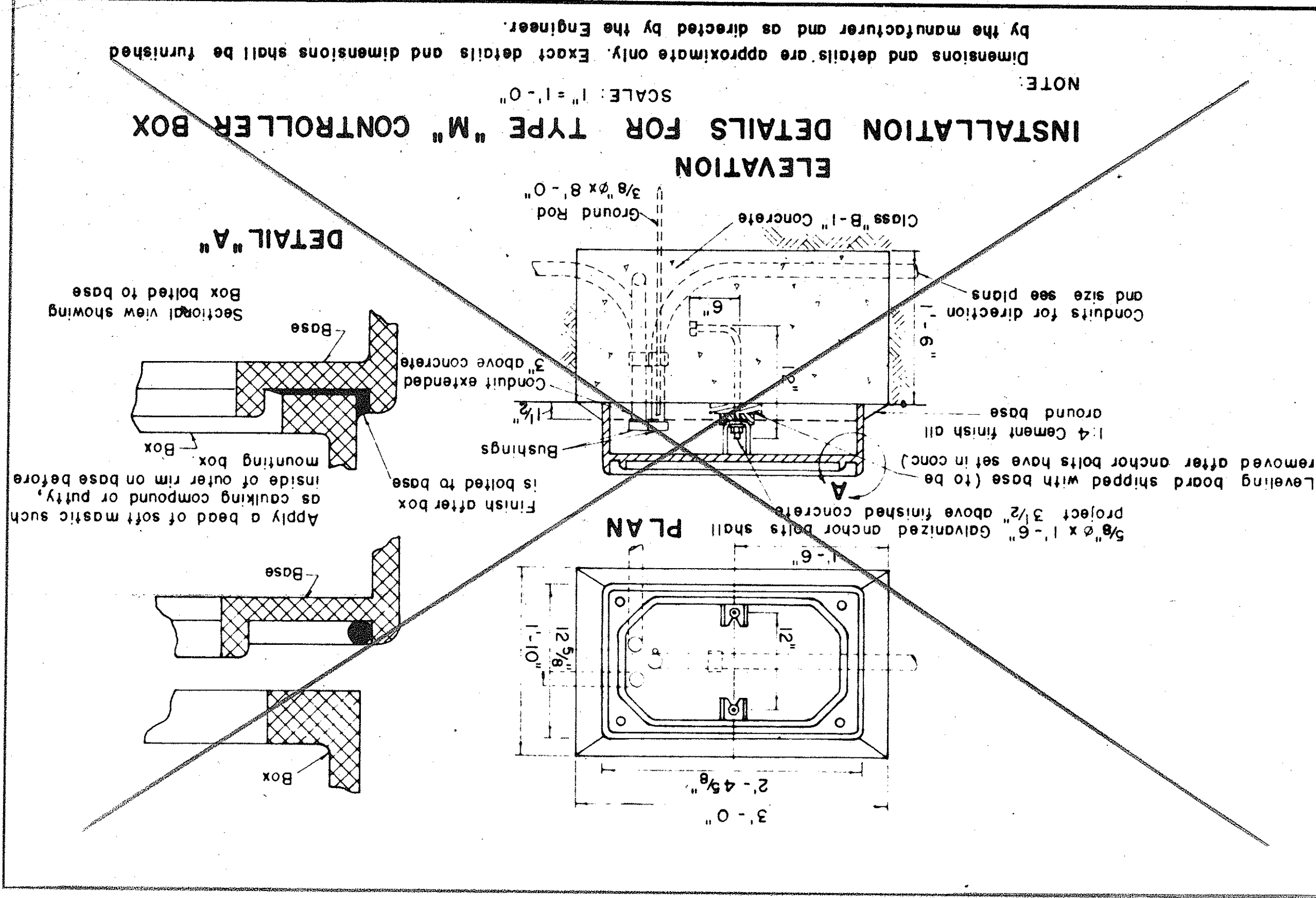
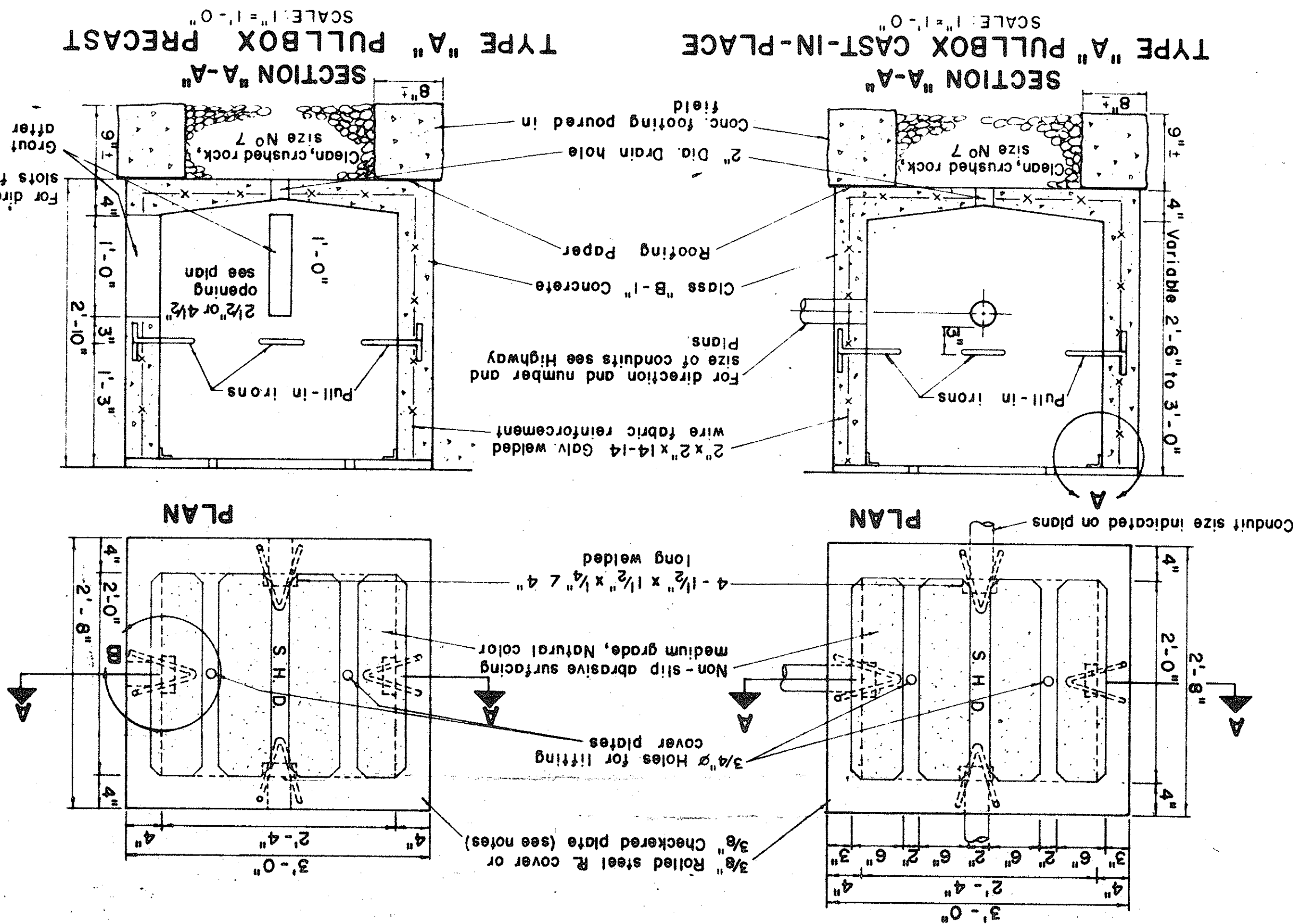
HIGHWAY LIGHTING

SHEET No. E7 OF 8 SHEETS

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____



- NOTE: (FOR TYPE "A" PULLBOX)
1. 3/8" Rolled steel plate cover with non-slip abrasive surfacing medium grade, natural color shall be used on all pullboxes located on sidewalk areas where pedestrians are walking.
 2. 3/8" Checkered plate cover shall be used on all pullboxes located in median areas and other locations where there are no pedestrians walking
 3. Pull irons shall be placed opposite each conduit slot.
 4. Covers on all pullboxes located in sidewalk areas shall be set flush with the concrete sidewalk.
 5. Each pullbox shall have a pair of pull irons opposite each other for lifting purposes.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MISCELLANEOUS DETAILS
PULLBOXES, TYPE "M" CONTROLLER
BOX & CONDUITS
SCALE AS NOTED

PED. ROAD	DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII		HAW.	70-111-17(2)	1966	28	47