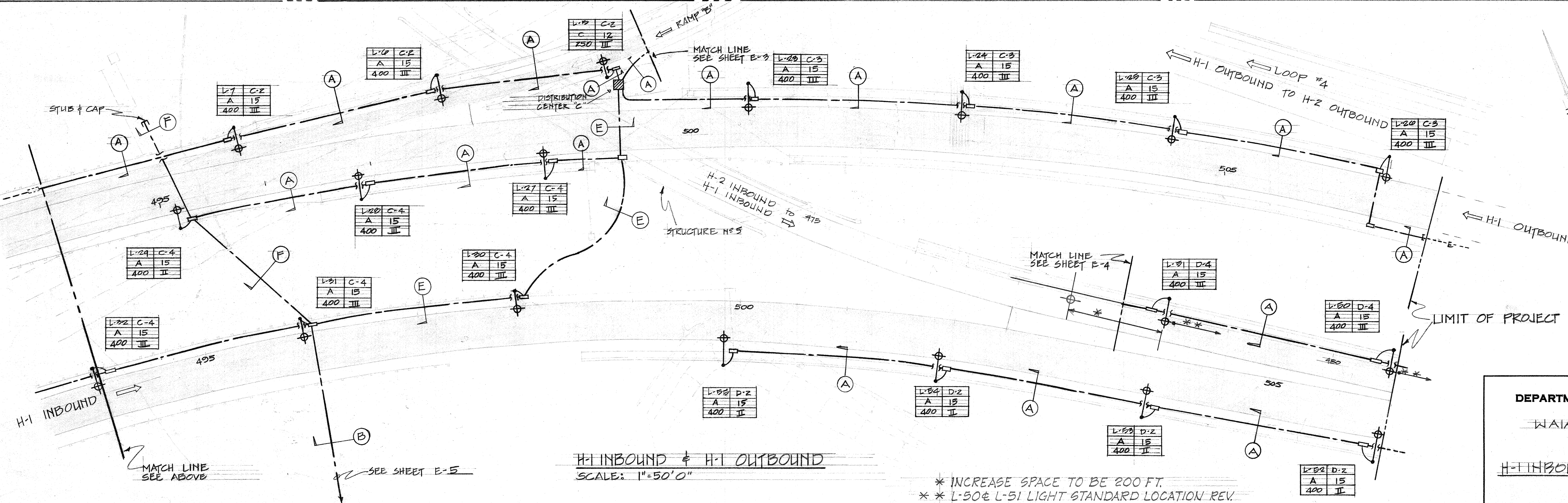
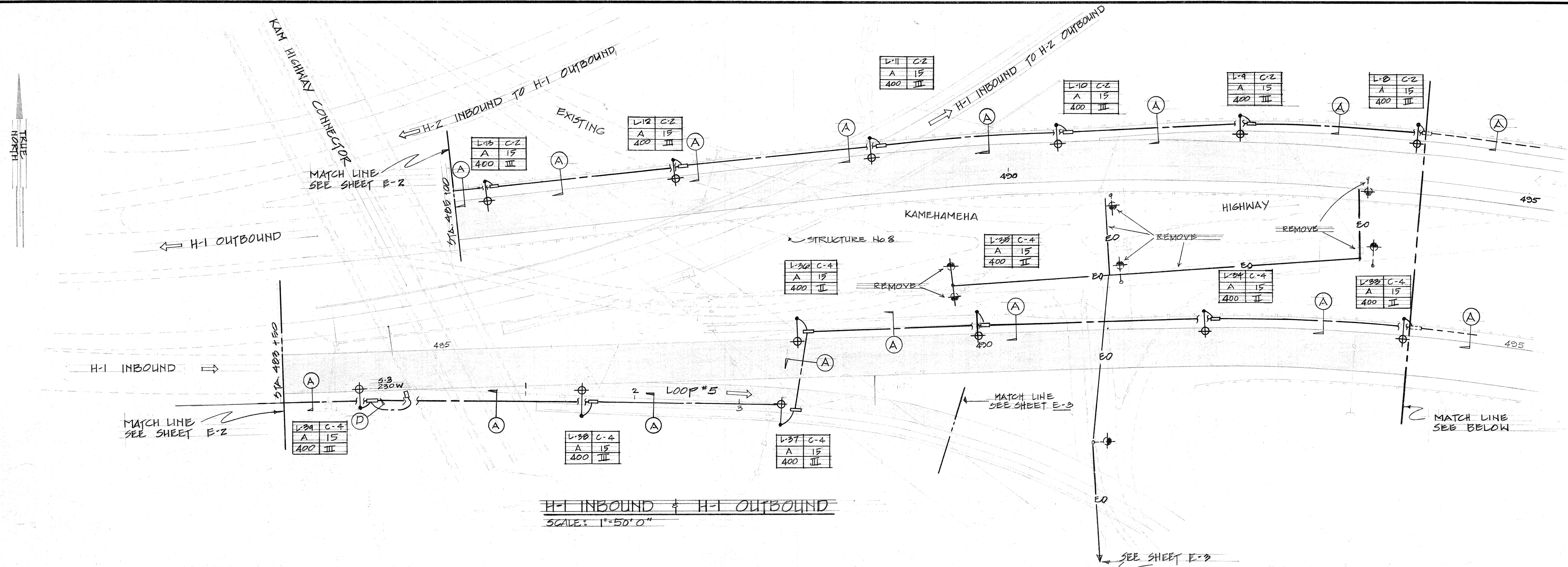


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(69)	1968	60	144



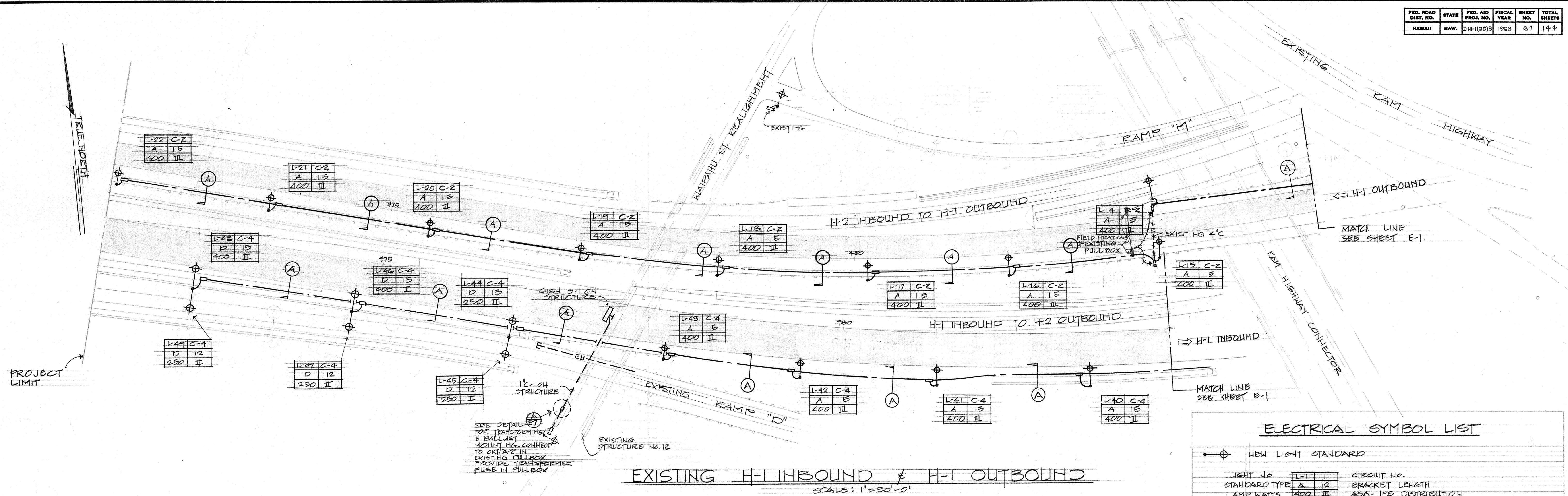
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAIAWA INTERCHANGE

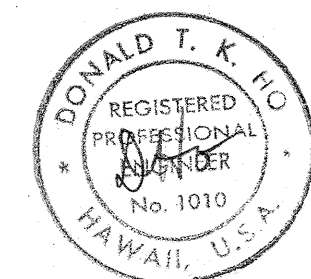
H-1 INBOUND & H-1 OUTBOUND

F.A.I. Proj. No. I-H-1(69): D
Scale As shown Date: OCT. 1968
SHEET No. 61 OF 11 SHEETS

* INCREASE SPACE TO BE 200 FT.
** L-50 & L-51 LIGHT STANDARD LOCATION REV.



ELECTRICAL SYMBOL LIST			
NEW LIGHT STANDARD			
	LIGHT NO.	L-1	CIRCUIT NO.
	STANDARD TYPE	A 12	BRACKET LENGTH
	LAMP WATTS	400 II	ASA-1ES DISTRIBUTION
	LIGHTED EXPRESSWAY SIG. SI INDICATES SIG SI		
	UNDERPASS LIGHT		
	UNDERPASS LIGHT ON TIME CLOCK CONTROL		
	JUNCTION BOX IN STRUCTURE		
	STREET LIGHT PULLBOX		
	DISTRIBUTION CENTER		
	EXISTING HANDHOLE		
	EXISTING HIGHWAY LIGHT ON WOOD POLES TO BE REMOVED		
	CONDUIT OR DUCTLINE		
	CONDUIT EXPOSED ON STRUCTURE		
	CONDUIT CONCEALED IN STRUCTURE. HASH MARKS INDICATES NO. OF WIRES		
	EXISTING DUCTLINE		
	EXISTING OVERHEAD ELECTRIC CIRCUIT, TO BE REMOVED		
	EXPANSION COUPLING		
	DUCTLINE INDICATOR. SEE DUCT SECTIONS		
	TRANSFORMER NO. T-1. SEE SHEET E-7 FOR SCHEDULE		
	EXISTING LIGHT STANDARD		

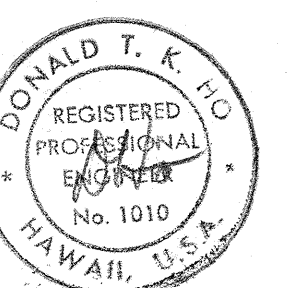
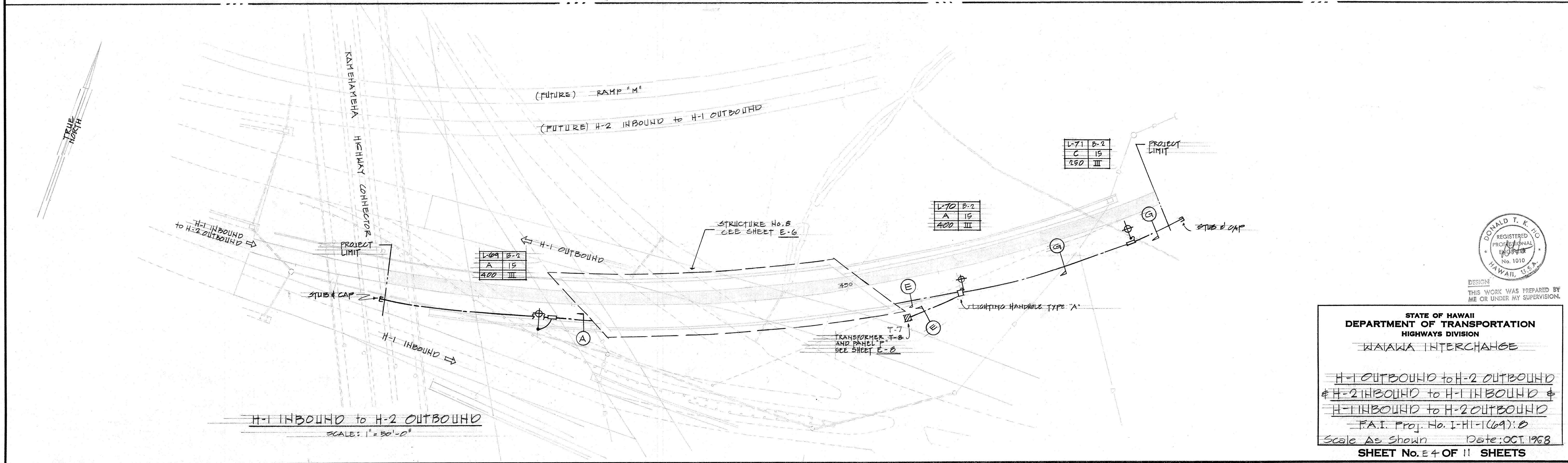
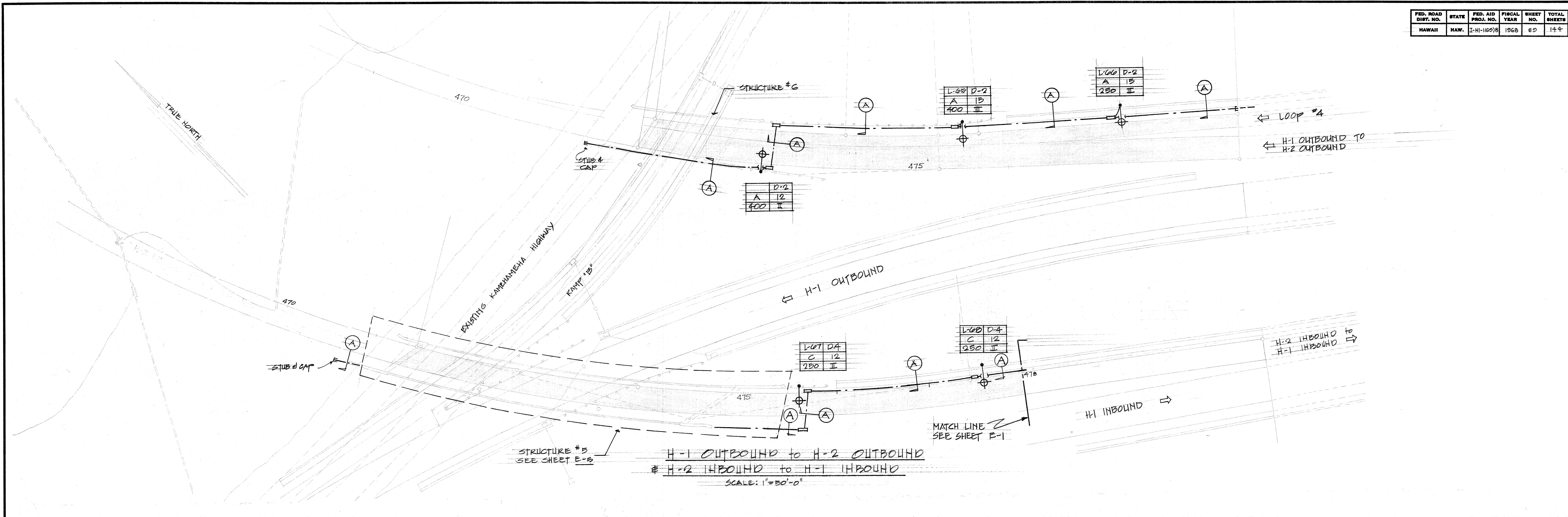


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HIGHWAYS DIVISION
WAIKAWA INTERCHANGE

ELECTRICAL SYMBOL LIST,
ELECTRICAL PLAN - H-1 INBOUND
AND H-1 OUTBOUND
P.A.I. Proj. No. I-H-1-(69):B
Scale As Shown Date: OCT. 1968
SHEET No. E-2 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-11629B	1968	69	144

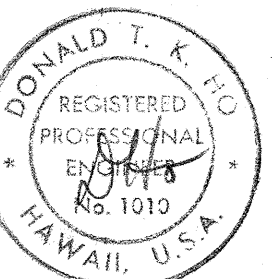
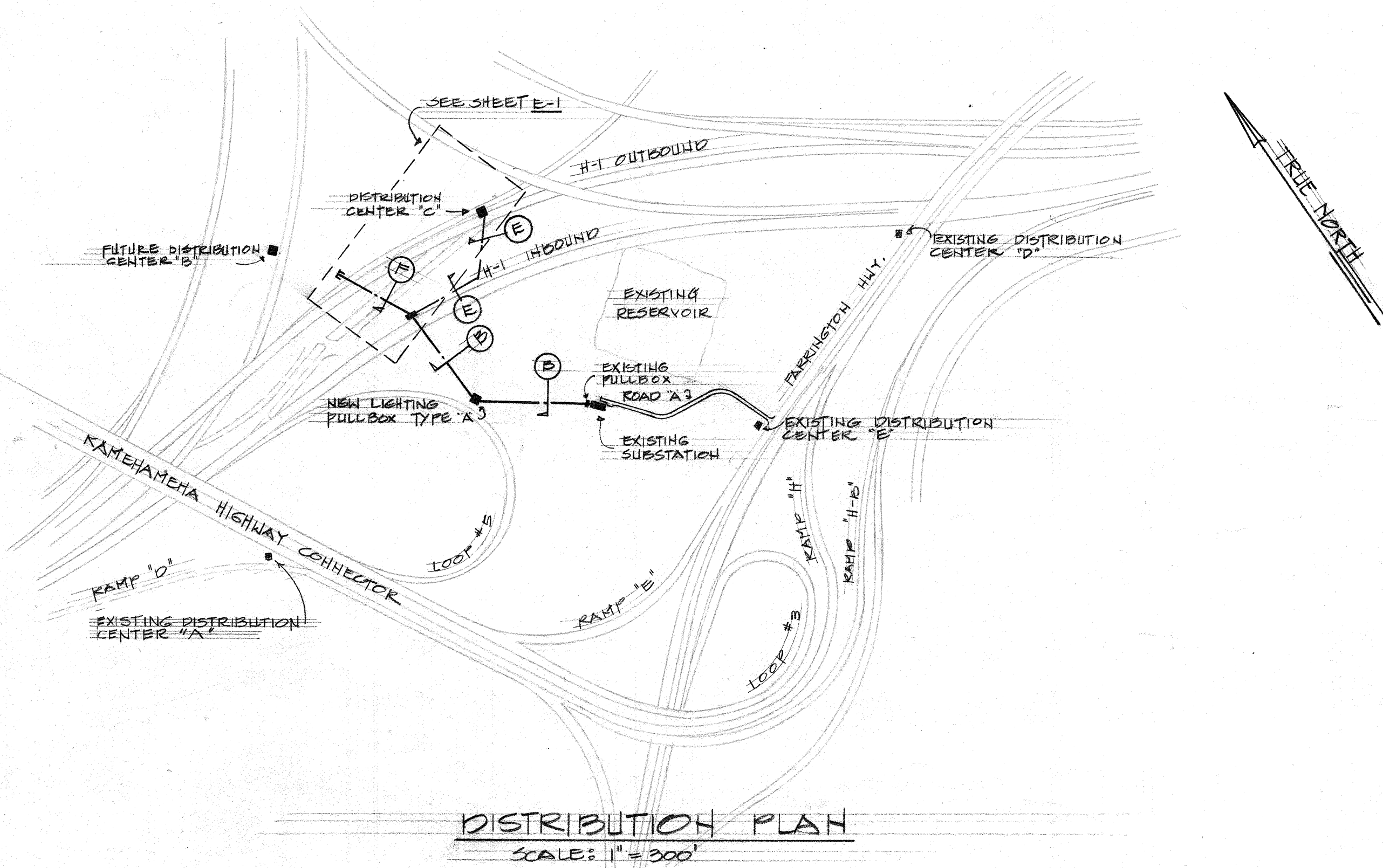
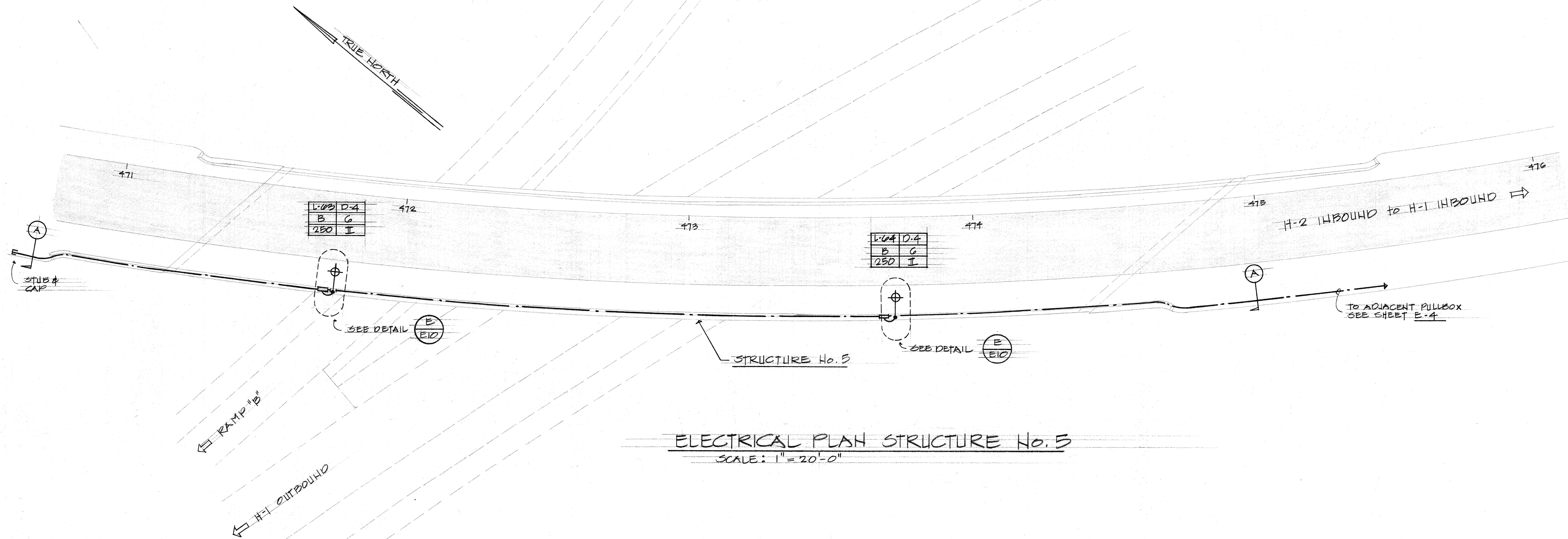


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STATE OF HAWAII
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HIGHWAYS DIVISION
WAIAWA INTERCHANGE

H-1 OUTBOUND to H-2 OUTBOUND
H-2 INBOUND to H-1 INBOUND
H-1 INBOUND to H-2 OUTBOUND
F.A.I. Proj. No. I-HI-11629B
Scale As Shown Date: OCT. 1968
SHEET No. E4 OF 11 SHEETS

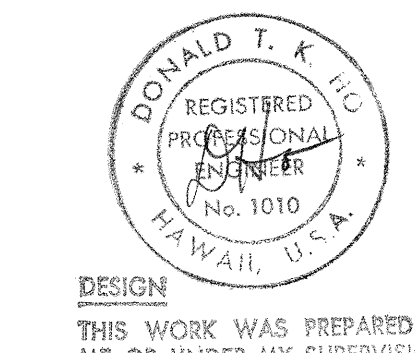
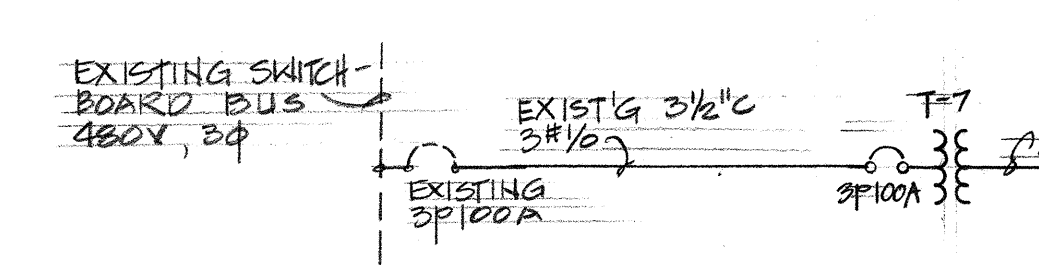
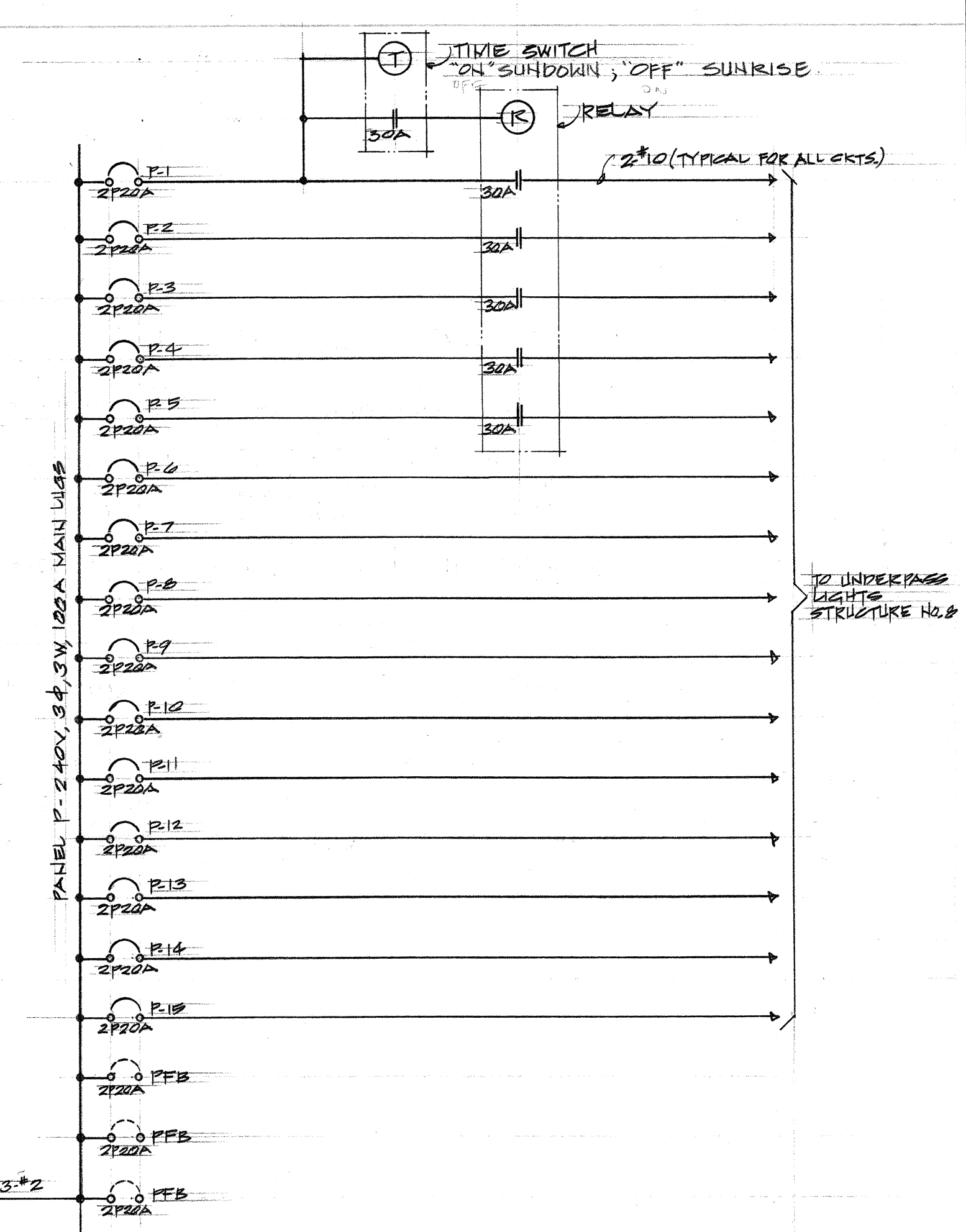
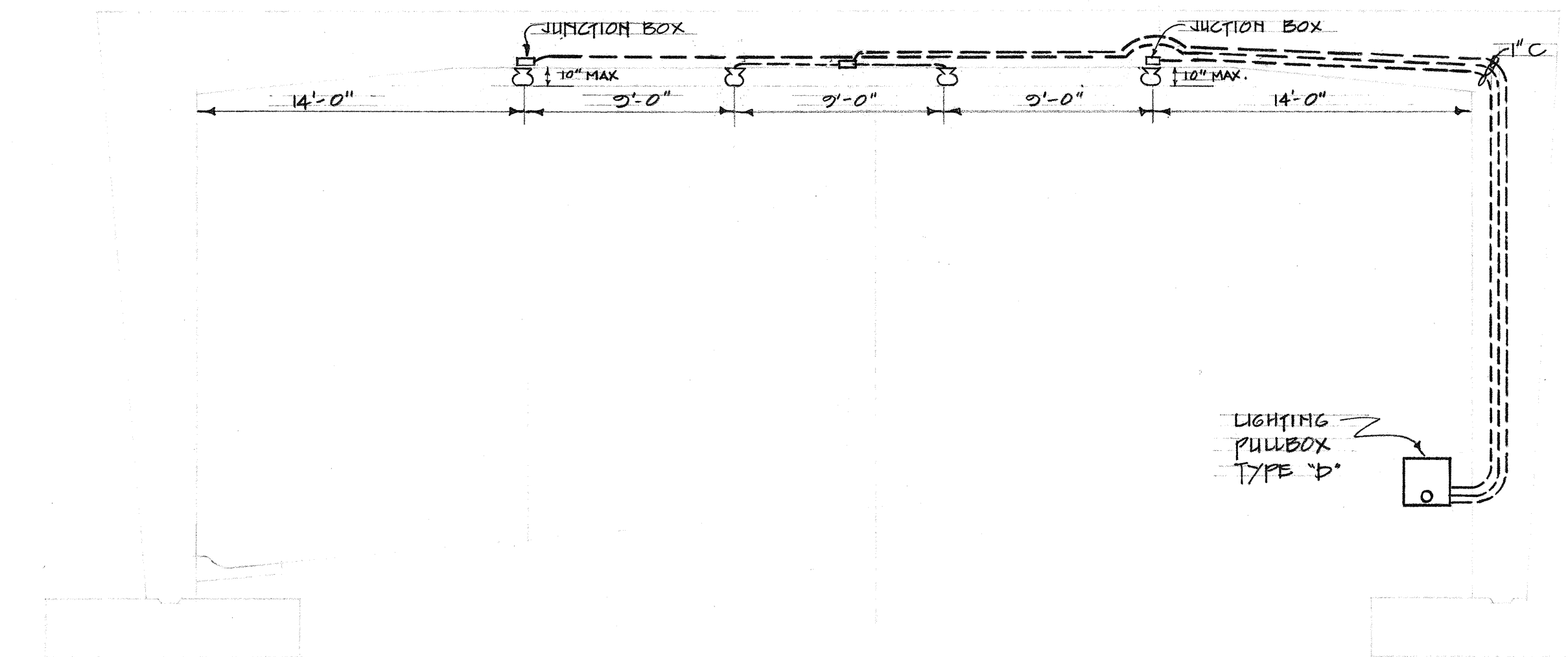
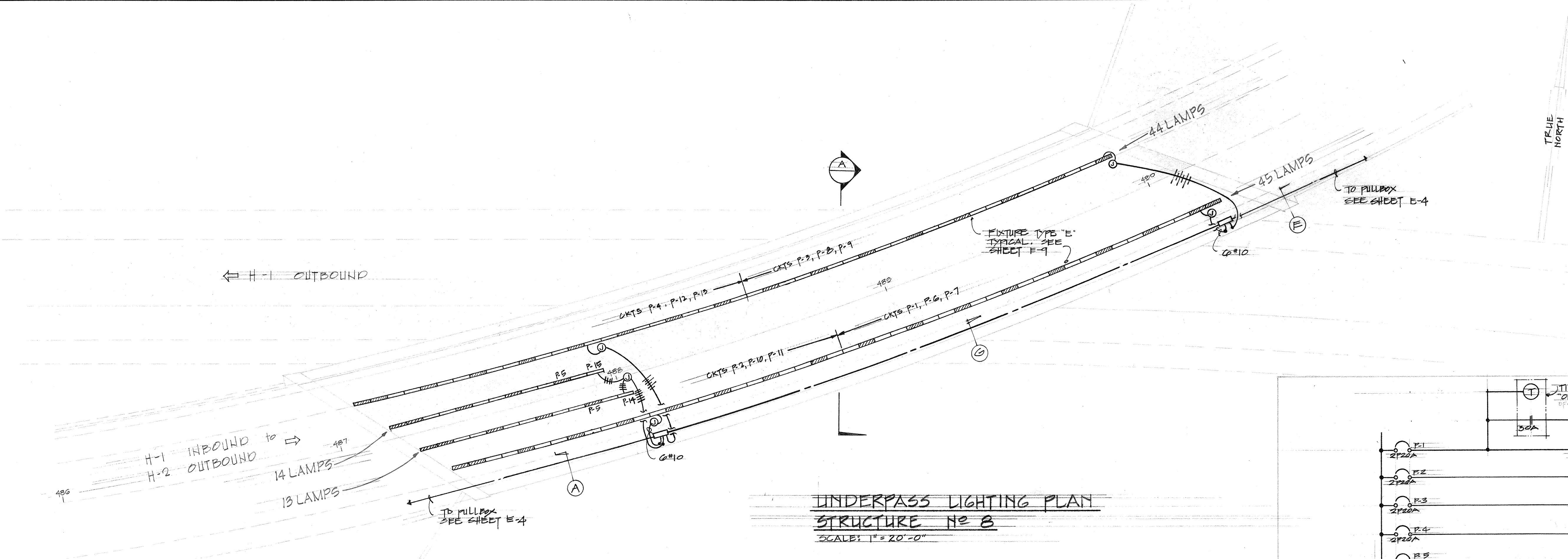
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1698	1968	70	144



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STATE OF HAWAII	
DEPARTMENT OF TRANSPORTATION	
HIGHWAYS DIVISION	
WAIANA INTERCHANGE	
ELECTRICAL DISTRIBUTION	
PLAN & ELECTRICAL PLAN	
STRUCTURE No. 5	
P.A.I. Proj. No. I-H-1698	
Scale As shown	Date: OCT. 1968
SHEET No. 53 OF 11 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(63)B	1968	71	144



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WAI'AWA INTERCHANGE

STRUCTURE NO. 8 LIGHTING
& PANEL "P" ONE LINE DIAGRAM

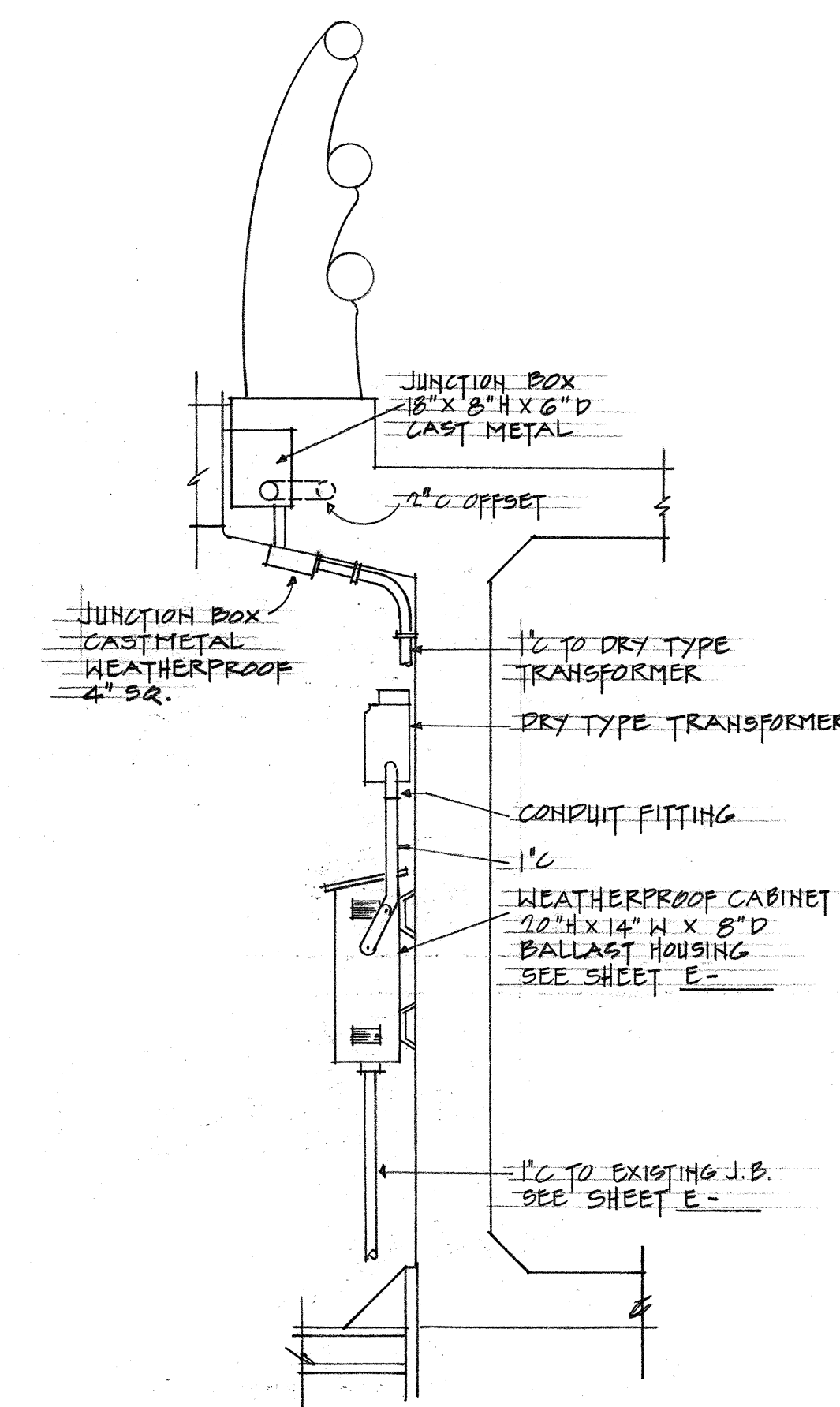
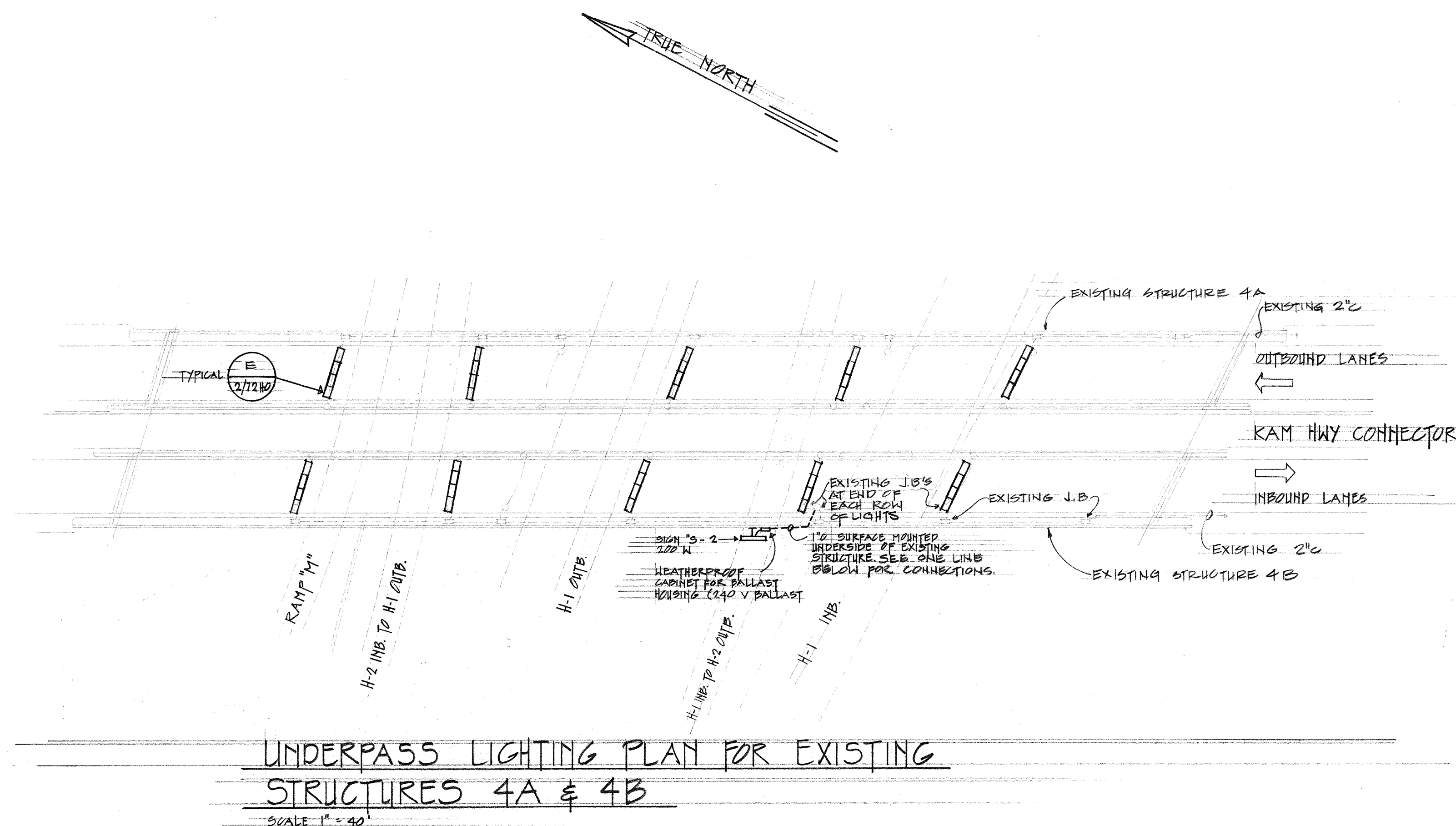
P.A.I. Proj. No. I-HI-1(64):B
Scale As Shown Date: OCT. 1968
SHEET No. 60 OF 11 SHEETS

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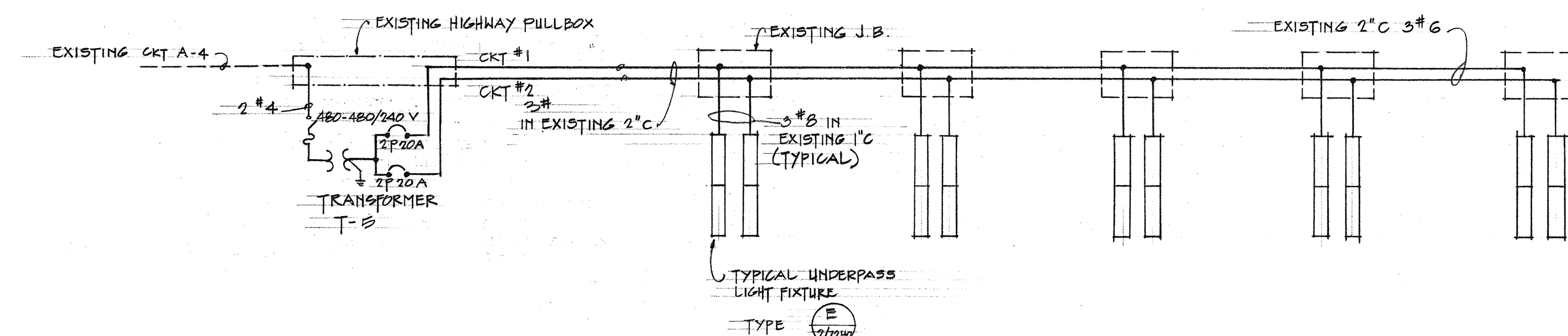
DESIGNED BY	DATE
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

DRY TYPE TRANSFORMER SETTING (ALL TRANSFORMERS, 480V PRIMARY)						
NO.	KVA	NO OF PHASES	SEC. VOLTS	TAPS	FUSE SIZE	TAP SETTING
T-1	1.0	1	120	2-5%	5 A	+5%
T-2	0.5	1	120	2-5%	2 A	-
T-3	0.5	1	120	2-5%	2 A	-
T-4	1.0	1	120	2-5%	5 A	+5%
T-5	7.5	1	240/480	4-2 1/2%	20 A	+2 1/2%
T-6	7.5	1	240/480	4-2 1/2%	30 A	+2 1/2%
T-7	45.0	3	240	4-2 1/2%	OKT. BKR 100 A	+5%

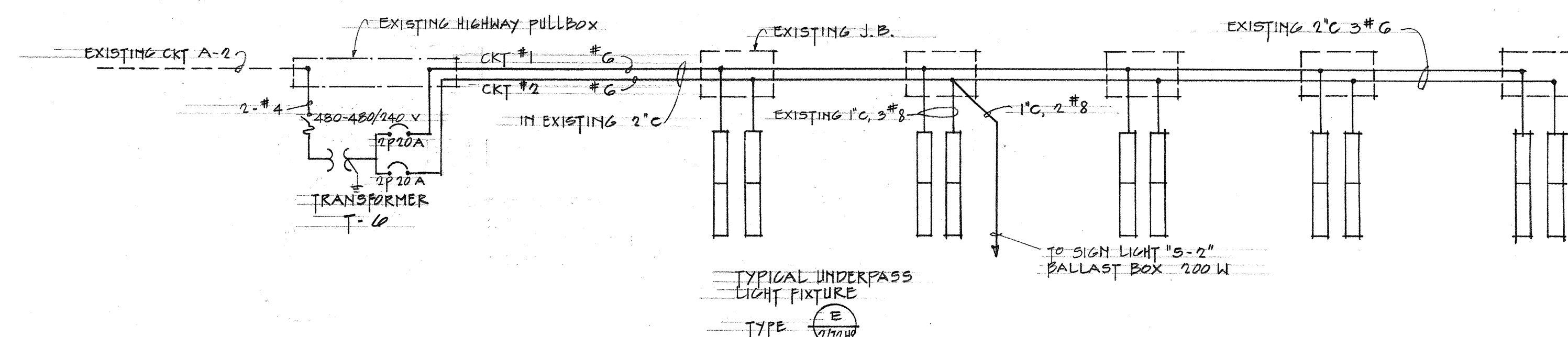
NOTE: ALL TAPS BELOW 480 VOLTS



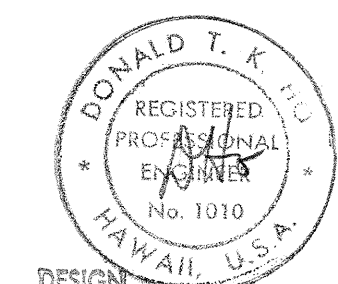
**DETAIL SIGN LIGHT
CONN ON STRUCTURE**
NOT TO SCALE



ONE LINE DIAGRAM - UNDERPASS LIGHTING FOR STRUCTURE 4A
NOT TO SCALE



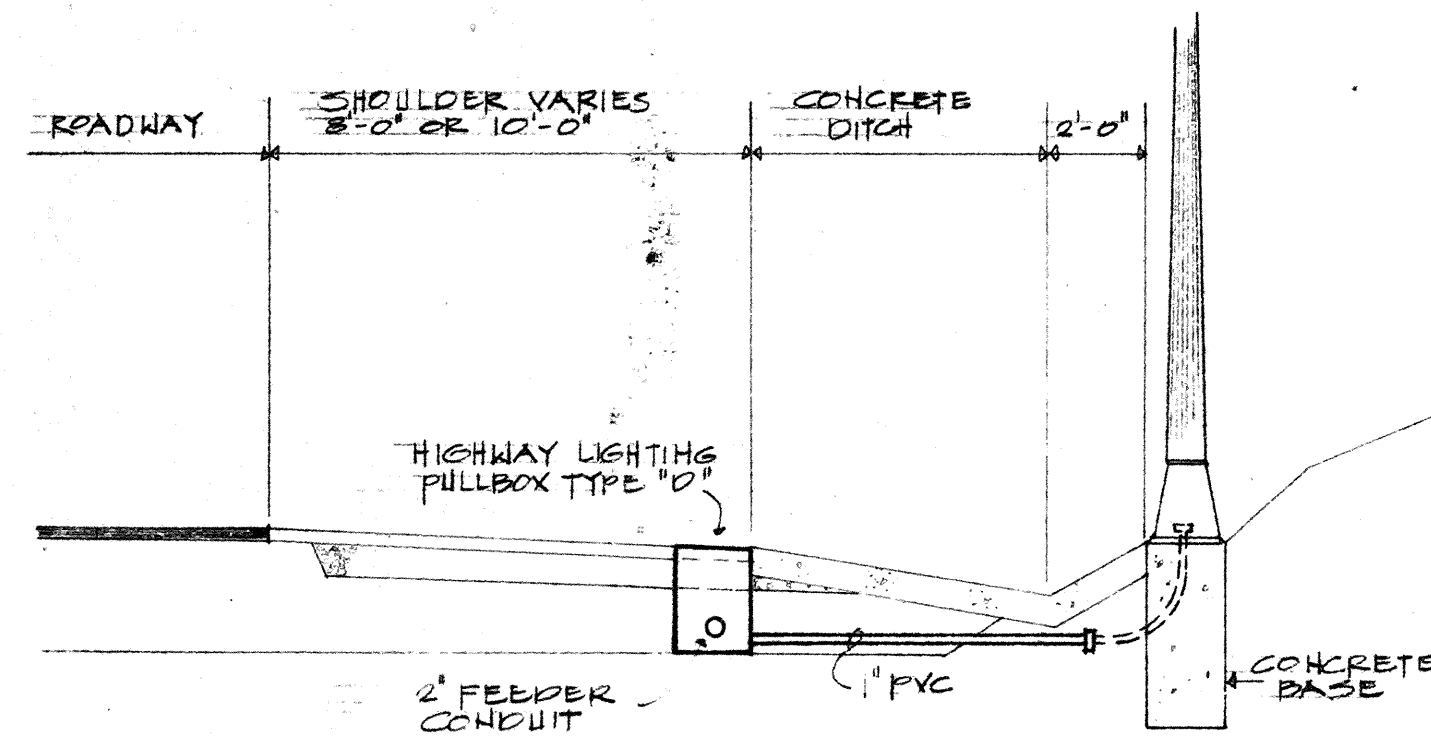
ONE LINE DIAGRAM - UNDERPASS LIGHTING FOR STRUCTURE 4B
NOT TO SCALE



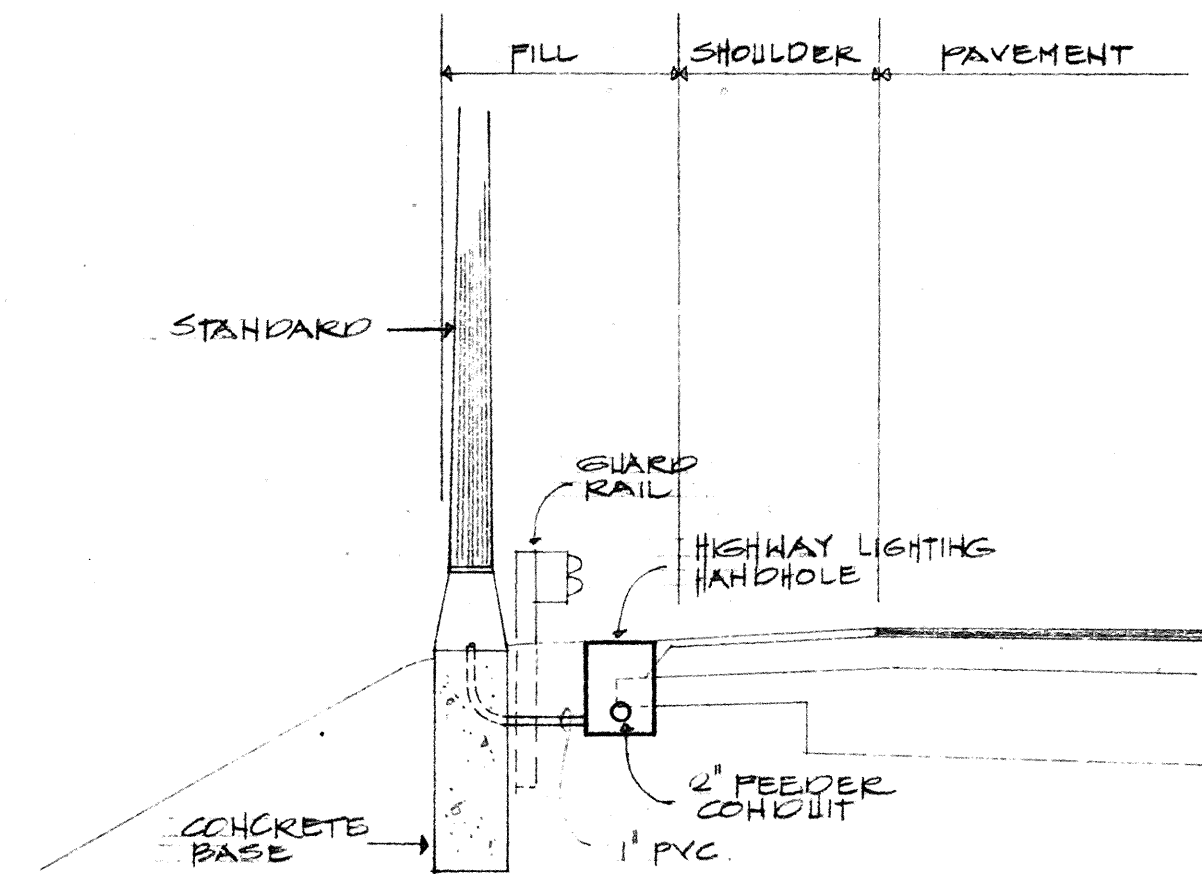
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAIANA INTERCHANGE
LIGHTING PLAN STRUCTURES 4A & 4B
ONE LINE DIAGRAM
KAMEHAMEHA HIGHWAY CONNECTOR
P.A.I. Proj. No. I-HI-16(9)B
Scale: As shown Date: OCT. 1968
SHEET No. 72 OF 11 SHEETS

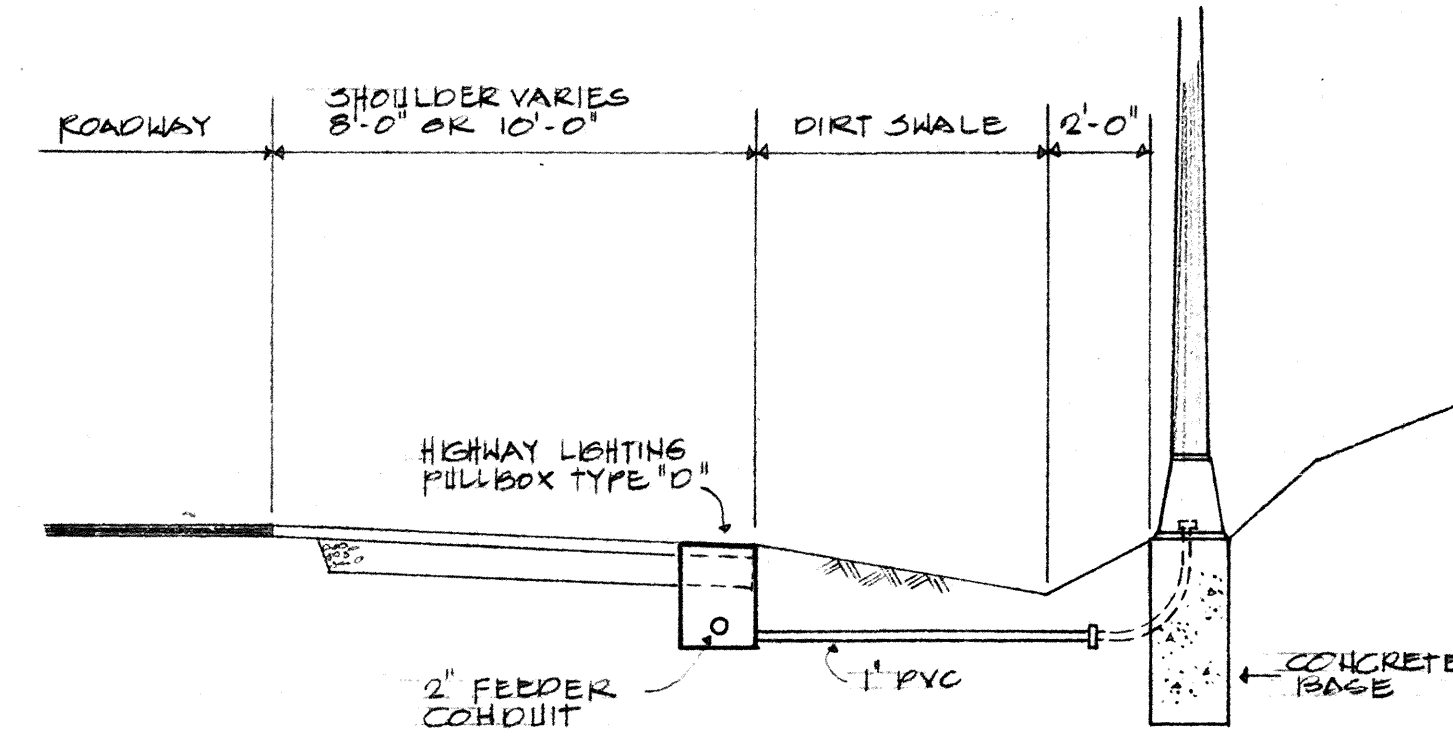
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-162(8)	1968	73	144



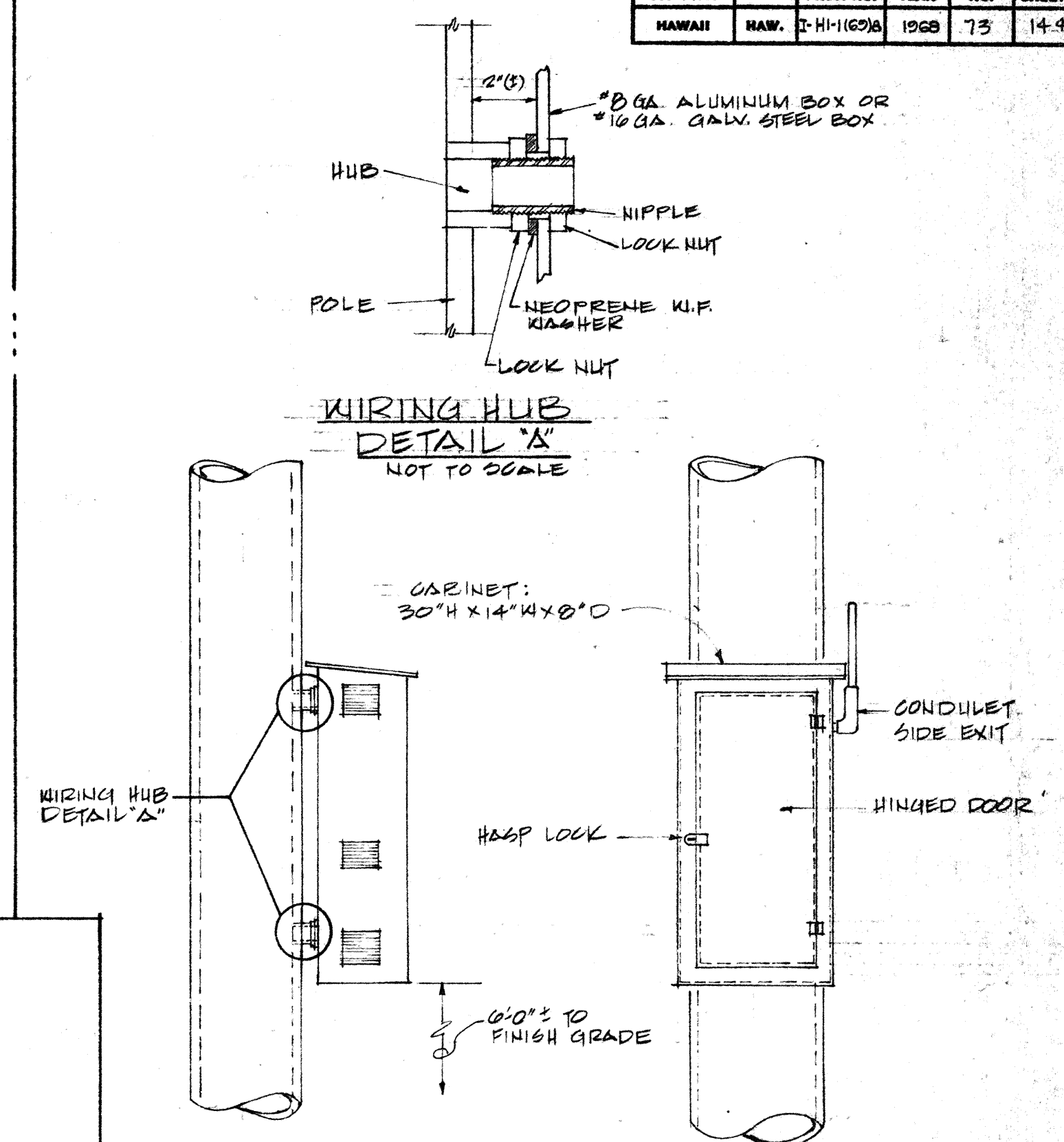
A
E-8 TYPICAL LIGHT STANDARD
LOCATION BEHIND CONCRETE
DITCH
SCALE: 1/4" = 1'-0"



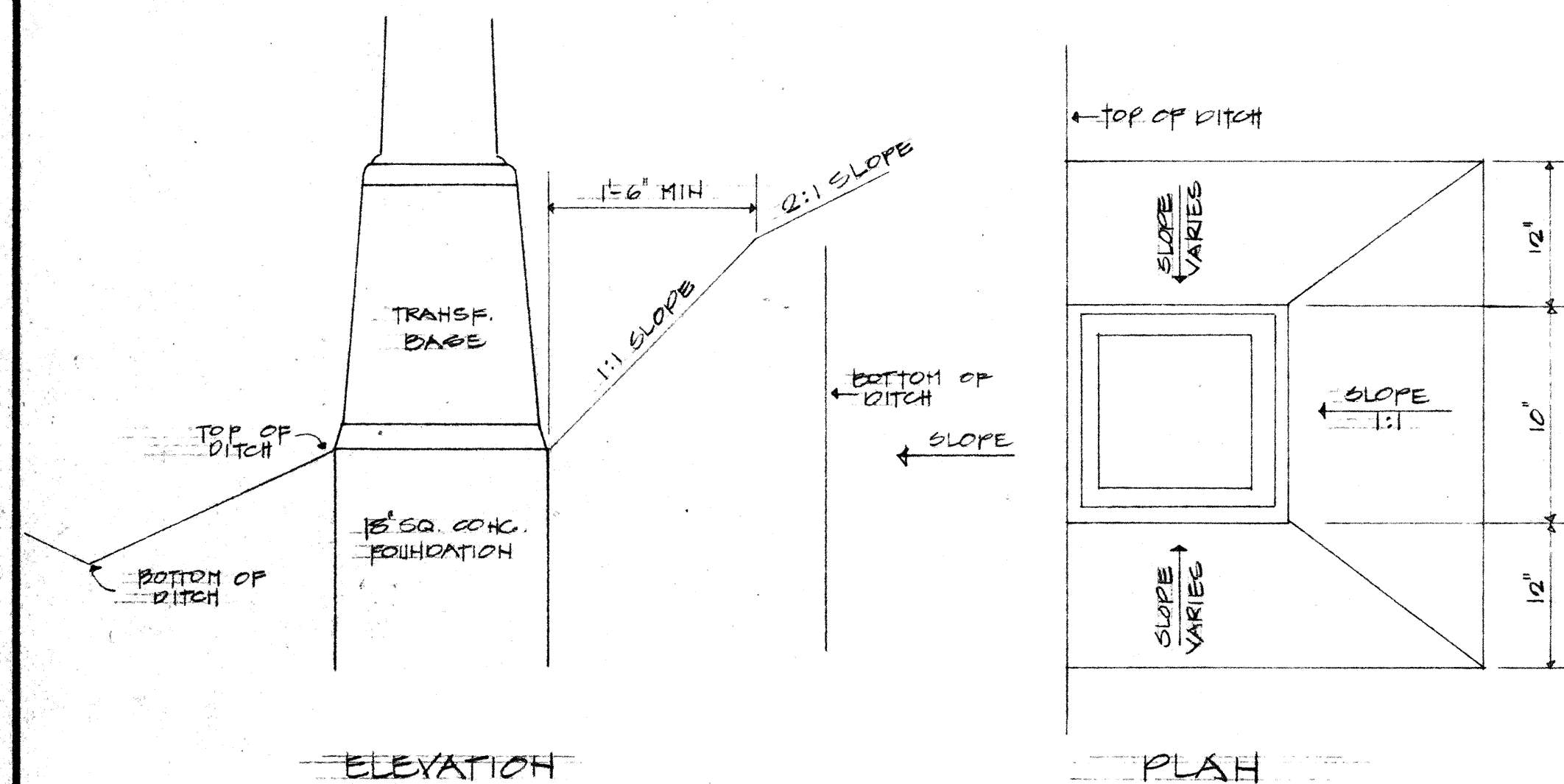
B
E-8 TYPICAL LIGHT STANDARD
LOCATION BEHIND GUARD
RAIL
SCALE: 1/4" = 1'-0"



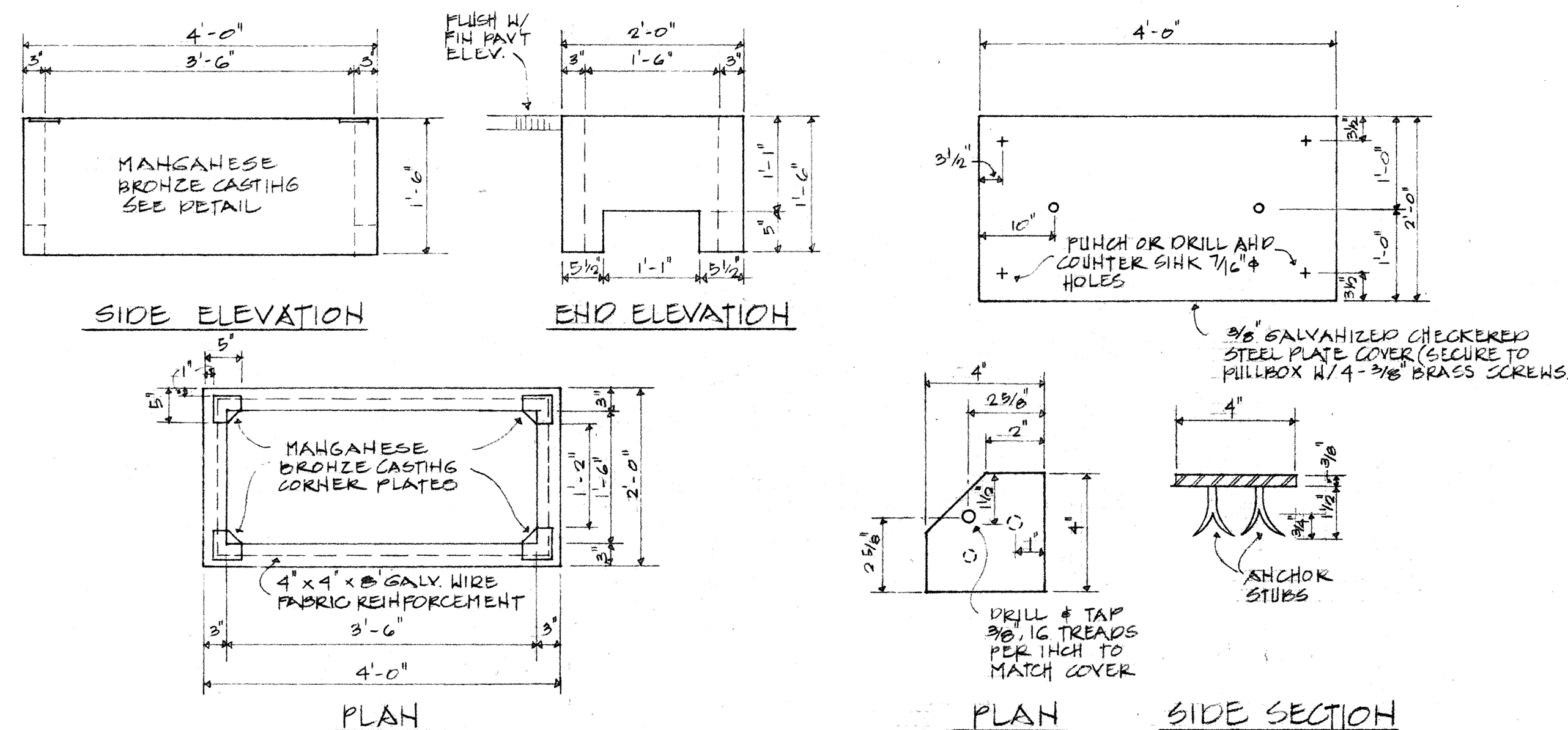
C
E-8 TYPICAL LIGHT STANDARD
LOCATION BEHIND SWALE



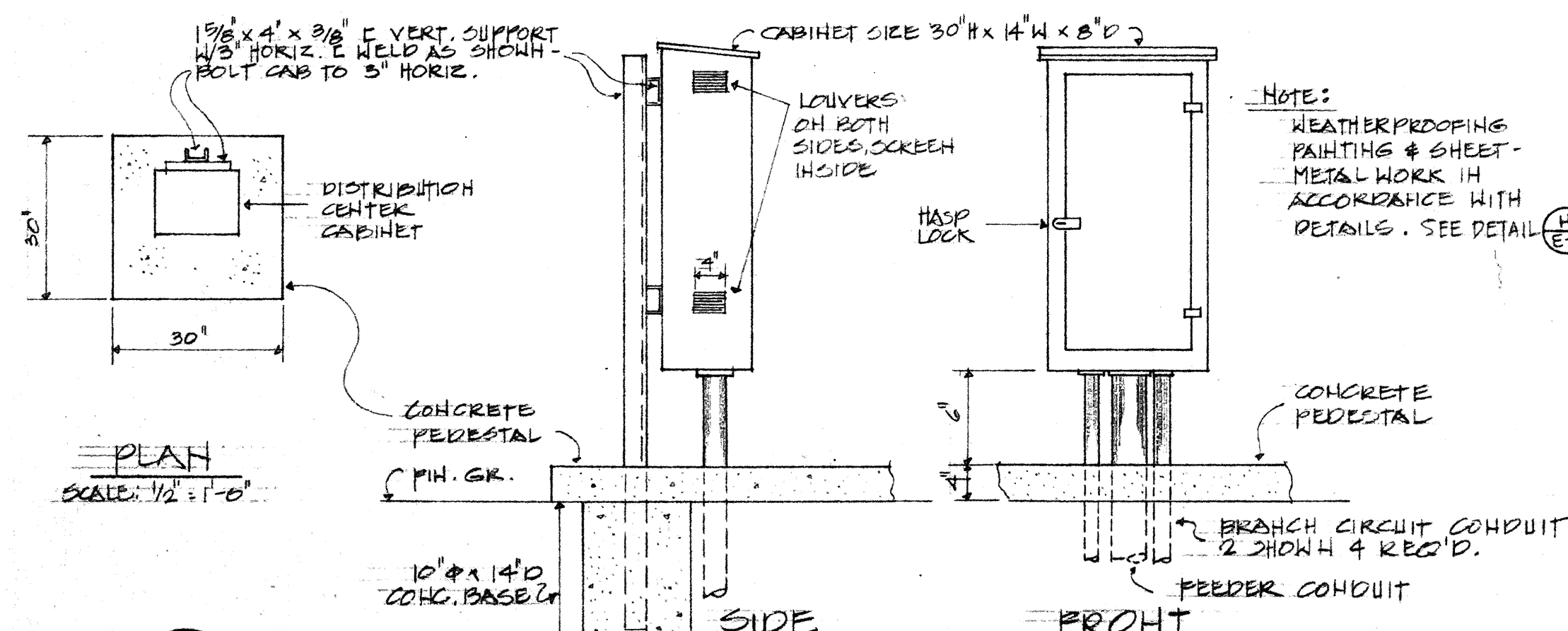
H
E-8 SIDE VIEW FRONT VIEW
AT TYPE "D" SIGN SUPPORT 60' 1" = 1'-0"
DETAIL - WEATHER-PROOF CABINET
FOR BALLAST & STEPDOWN TRANSFORMER



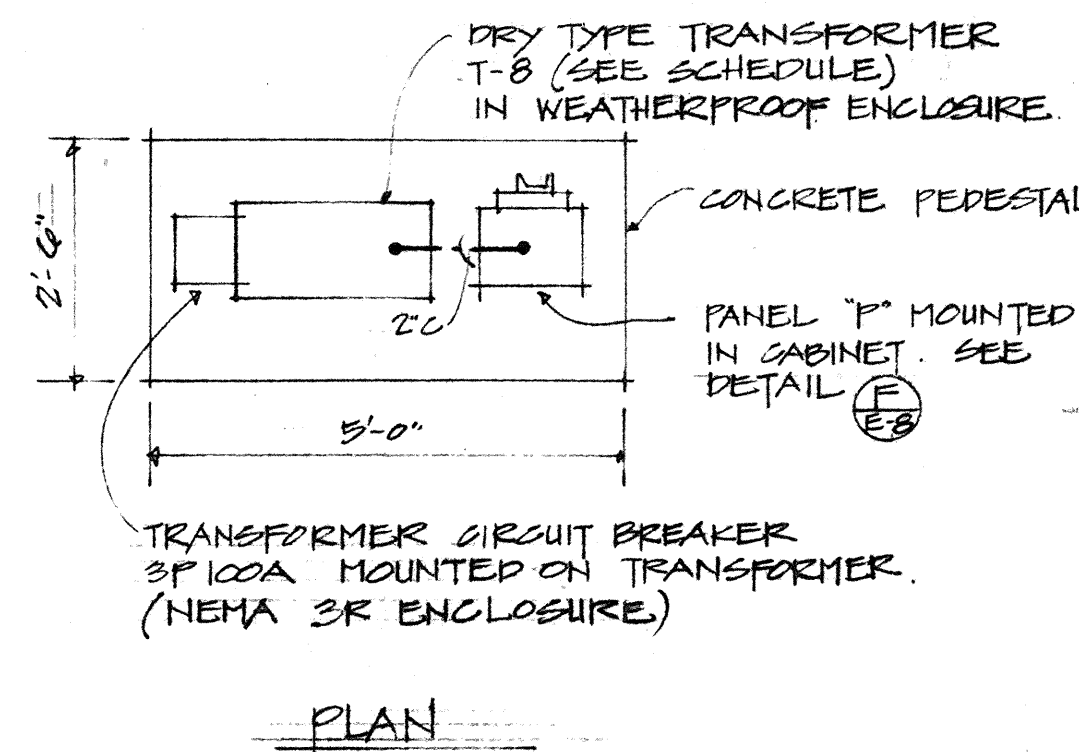
D
E-8 DETAIL TYPICAL LIGHT
STANDARD INSTALLATION
NOT TO SCALE



E
E-8 TYPICAL HIGHWAY LIGHTING HANDHOLE - TYPE "D"
NOT TO SCALE

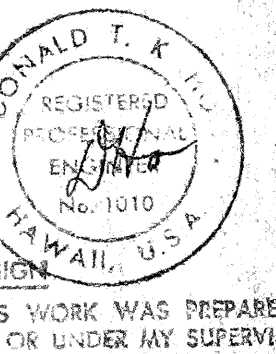


F
E-8 DETAILS - DISTRIBUTION CENTER MOUNTING
SCALE: 1" = 1'-0"



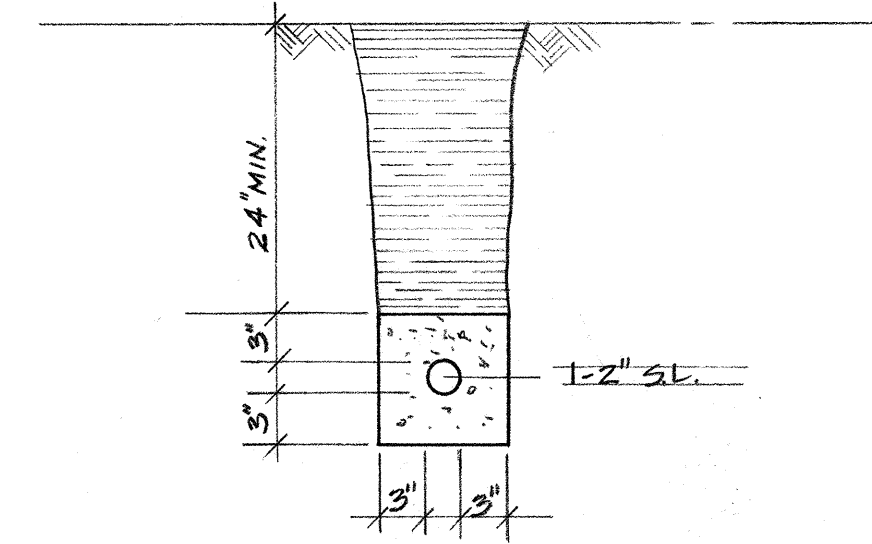
G
E-8 DETAIL - PANEL "P" & TRANSFORMER T-8
NOT TO SCALE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAIKANA INTERCHANGE
LIGHT STANDARDS
LOCATIONS, PULLBOX
TYPE D
F.A.I. Proj. No. I-HI-162(8)
Scale: AS SHOWN Date: OCT. 1968
SHEET No. 73 OF 11 SHEETS

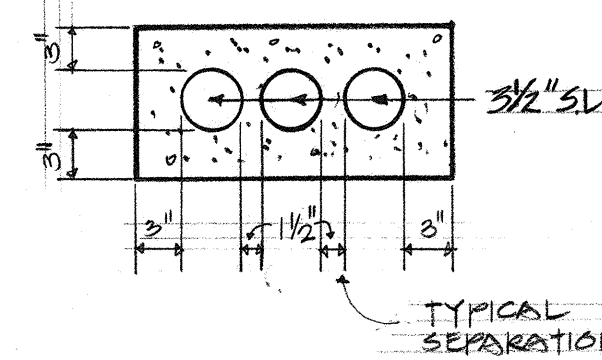


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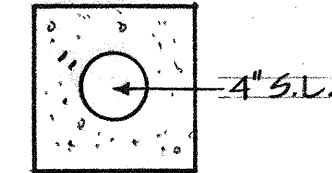
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(69)B	1968	74	144



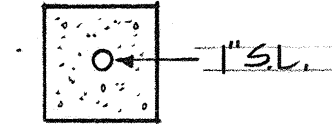
DUCT SECTION "A"



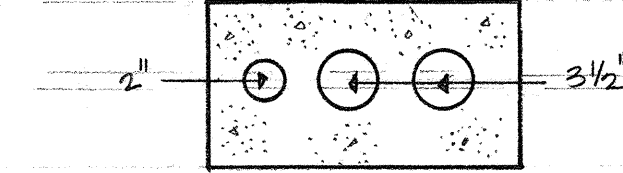
DUCT SECTION "B"



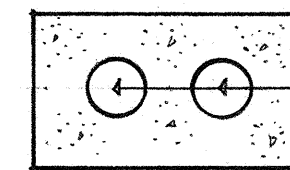
DUCT SECTION "C"



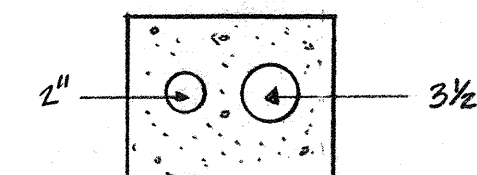
DUCT SECTION "D"



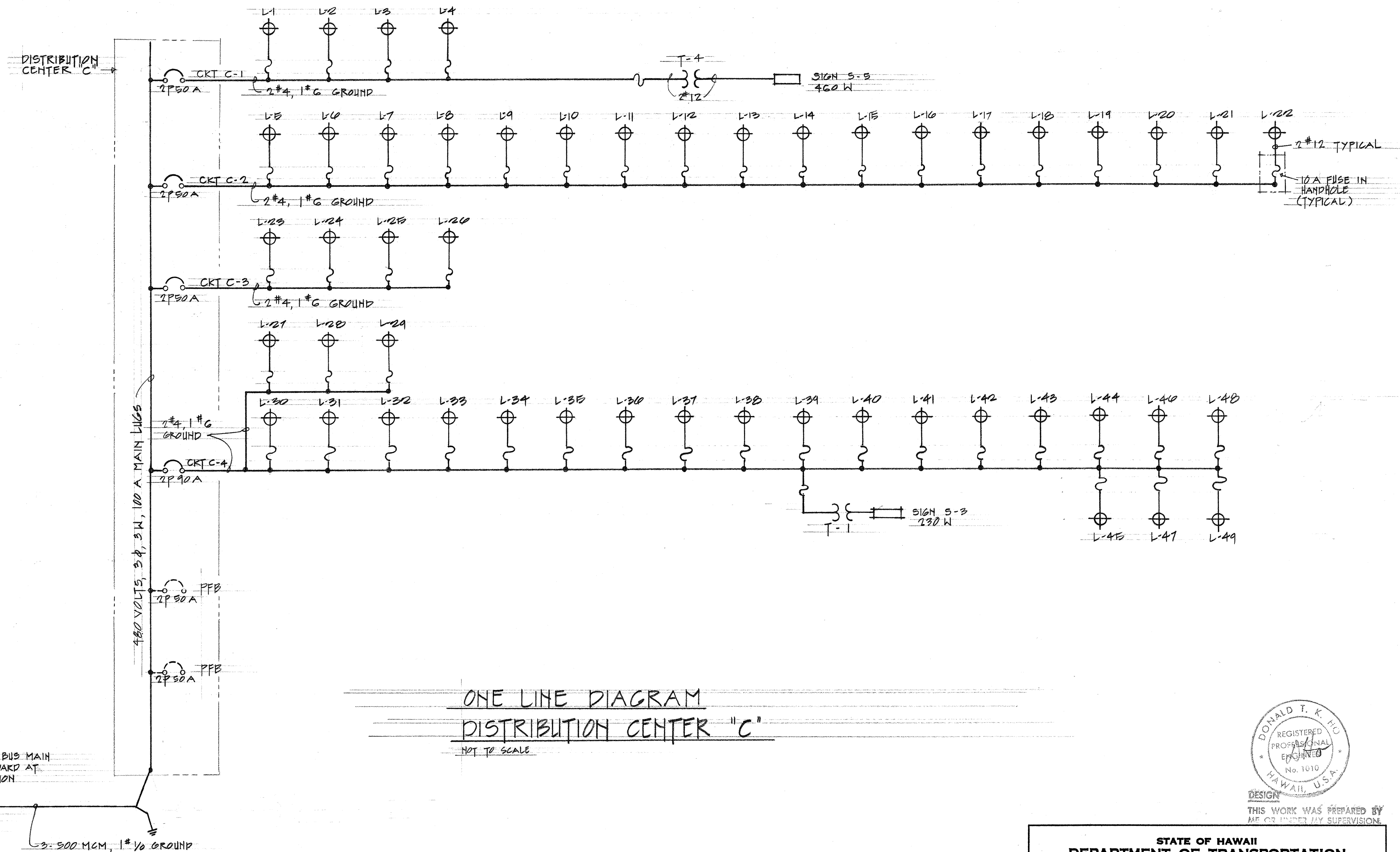
DUCT SECTION "E"



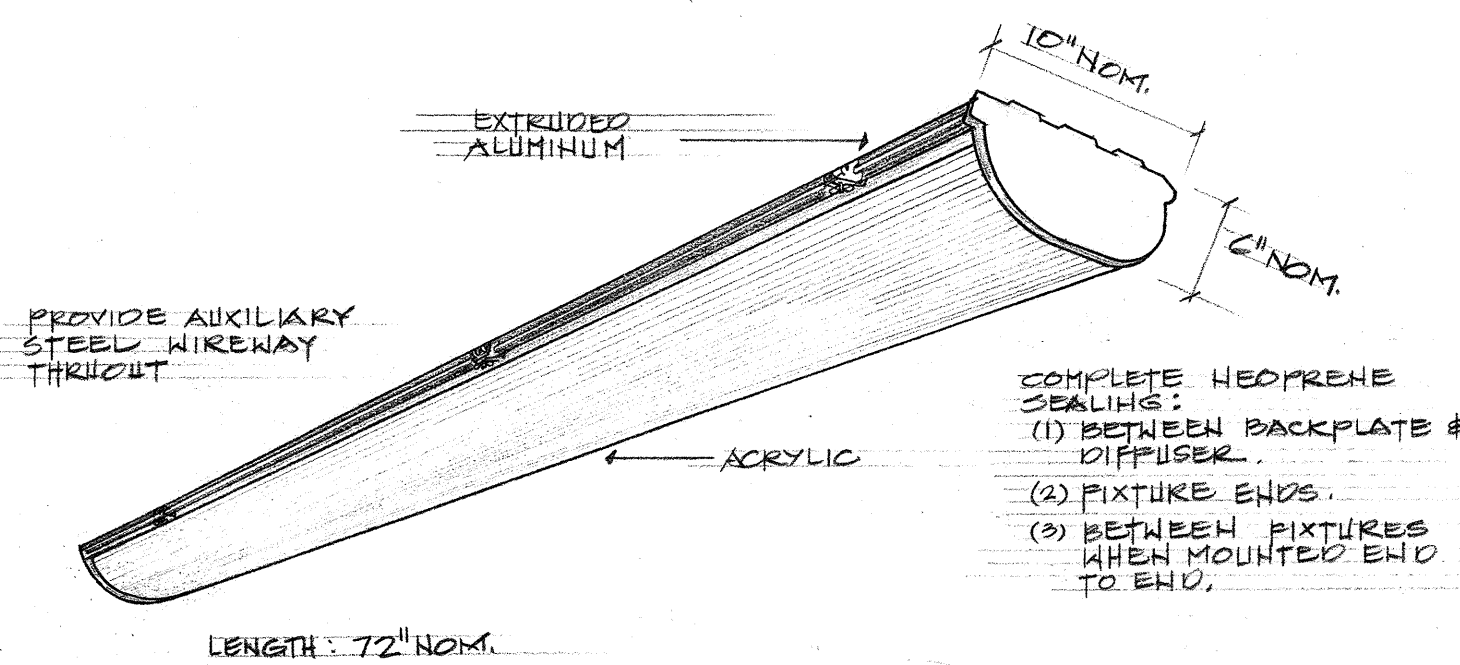
DUCT SECTION "F"



DUCT SECTION "G"

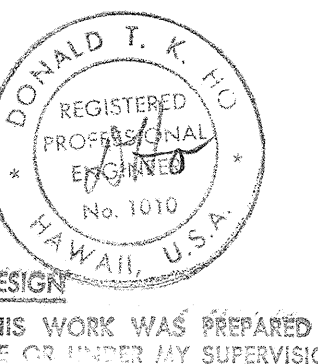


ONE LINE DIAGRAM
DISTRIBUTION CENTER "C"
NOT TO SCALE



LAMPS: 2 - 72" H0, COOL WHITE
BALLAST: 240 VOLTS

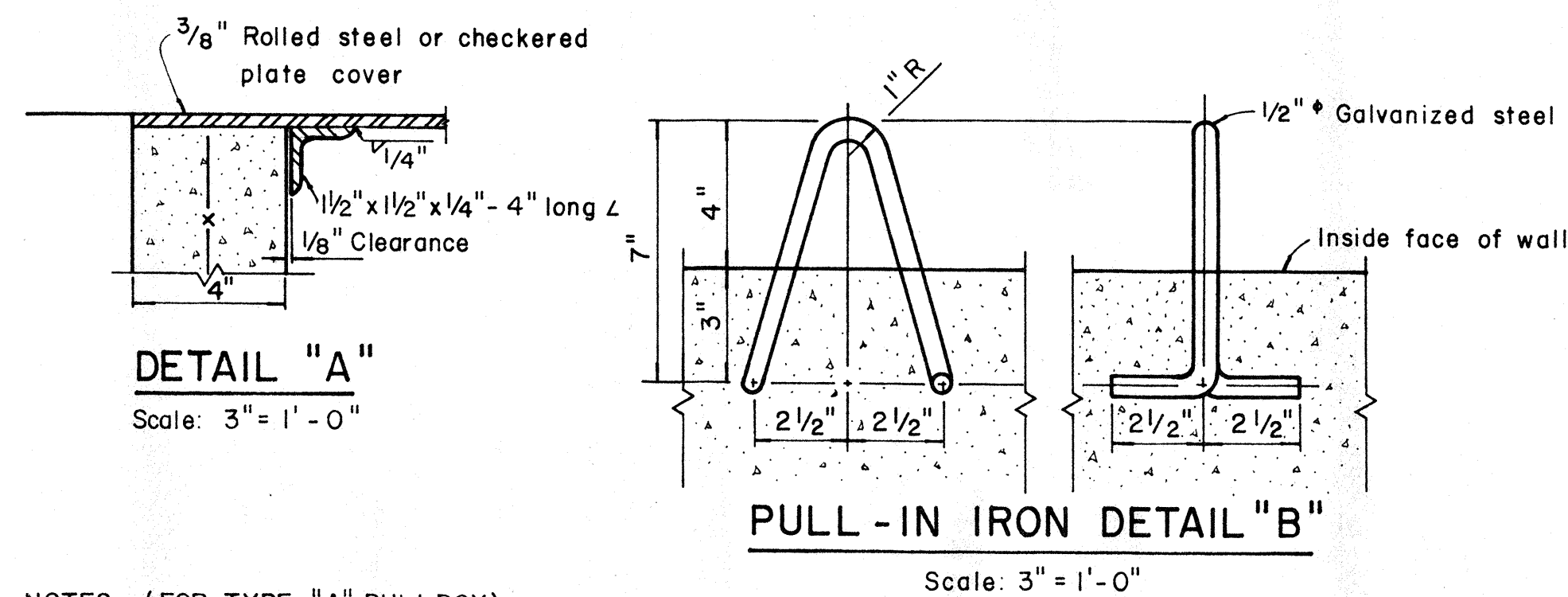
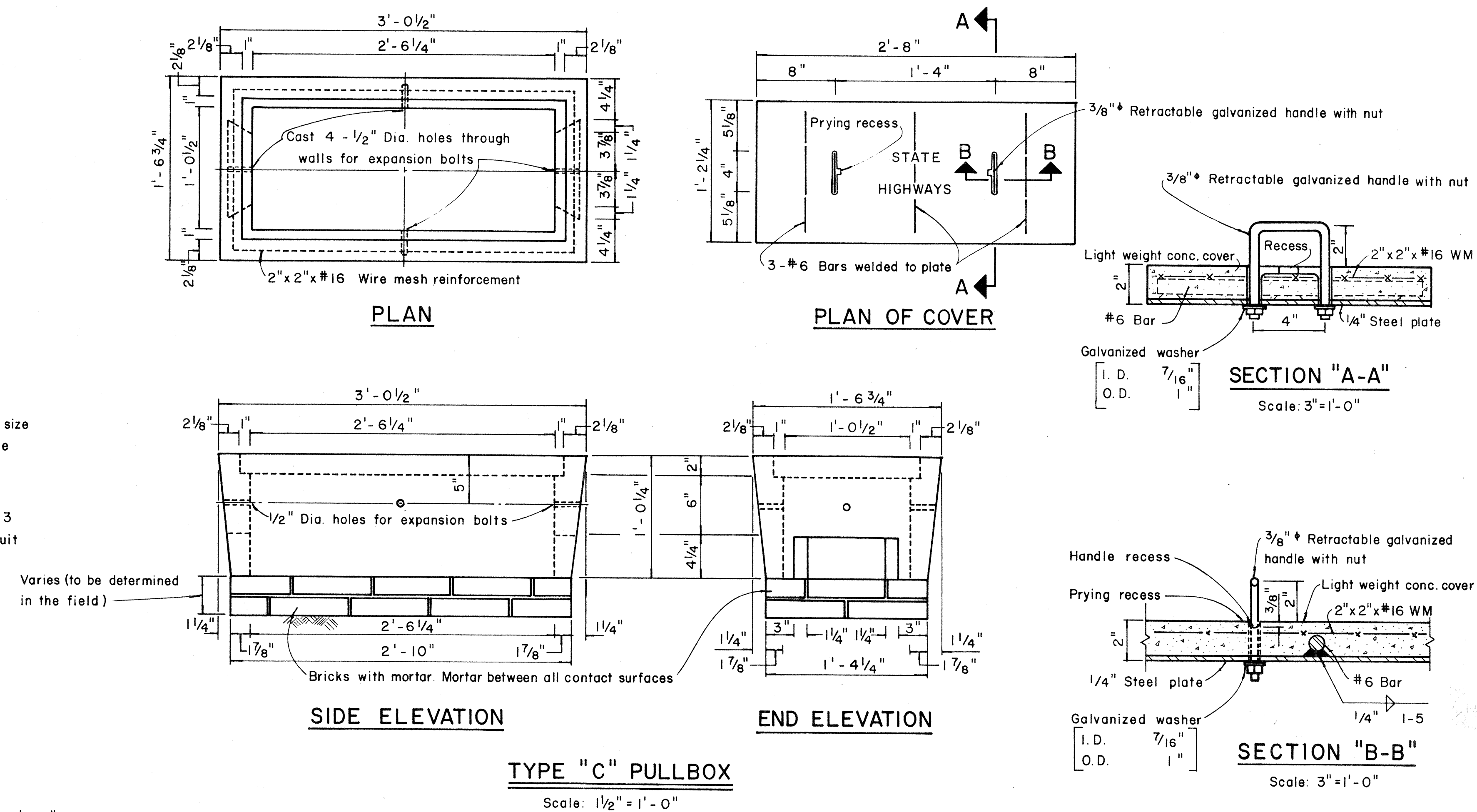
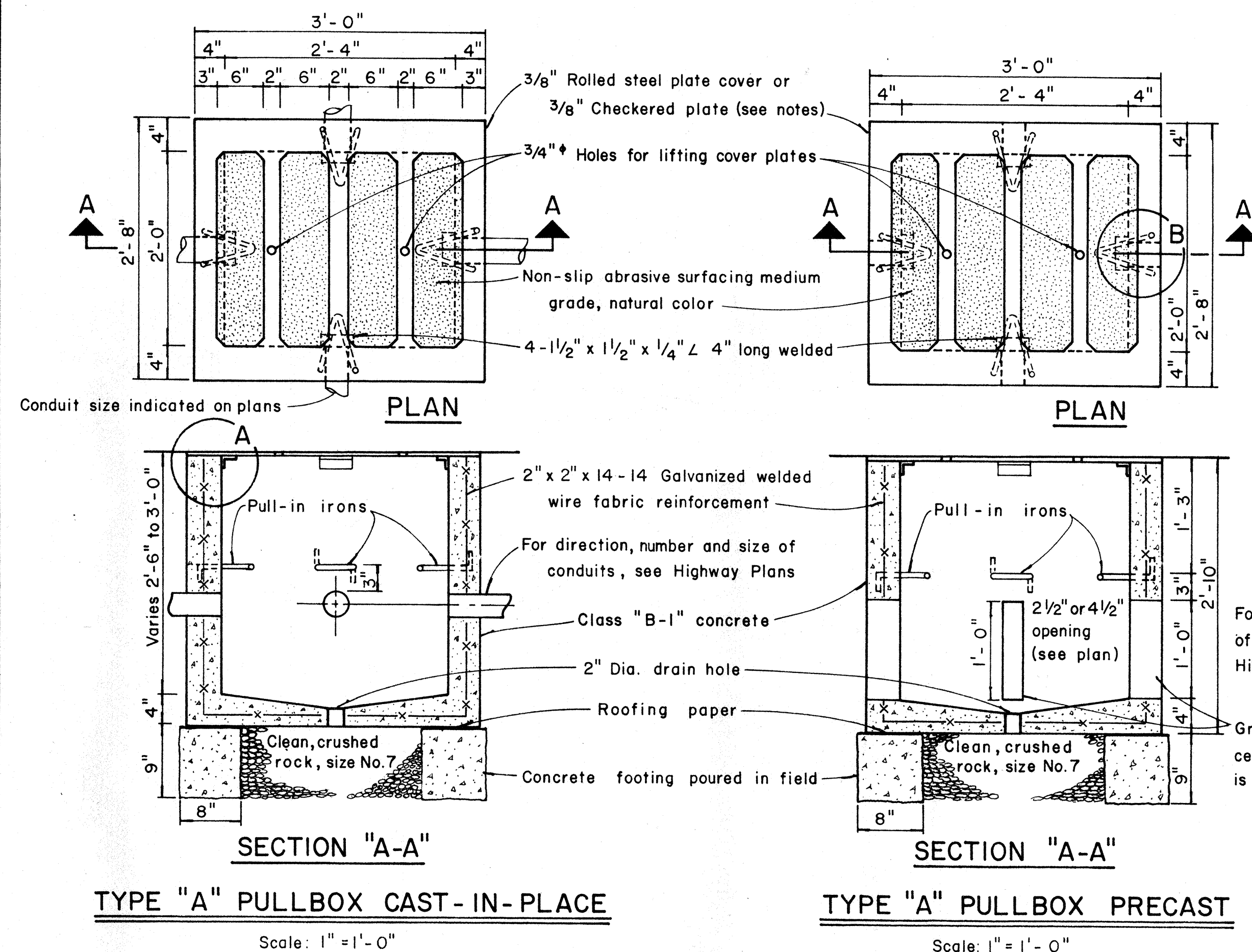
UNDERPASS LIGHT FIXTURE TYPE "E"



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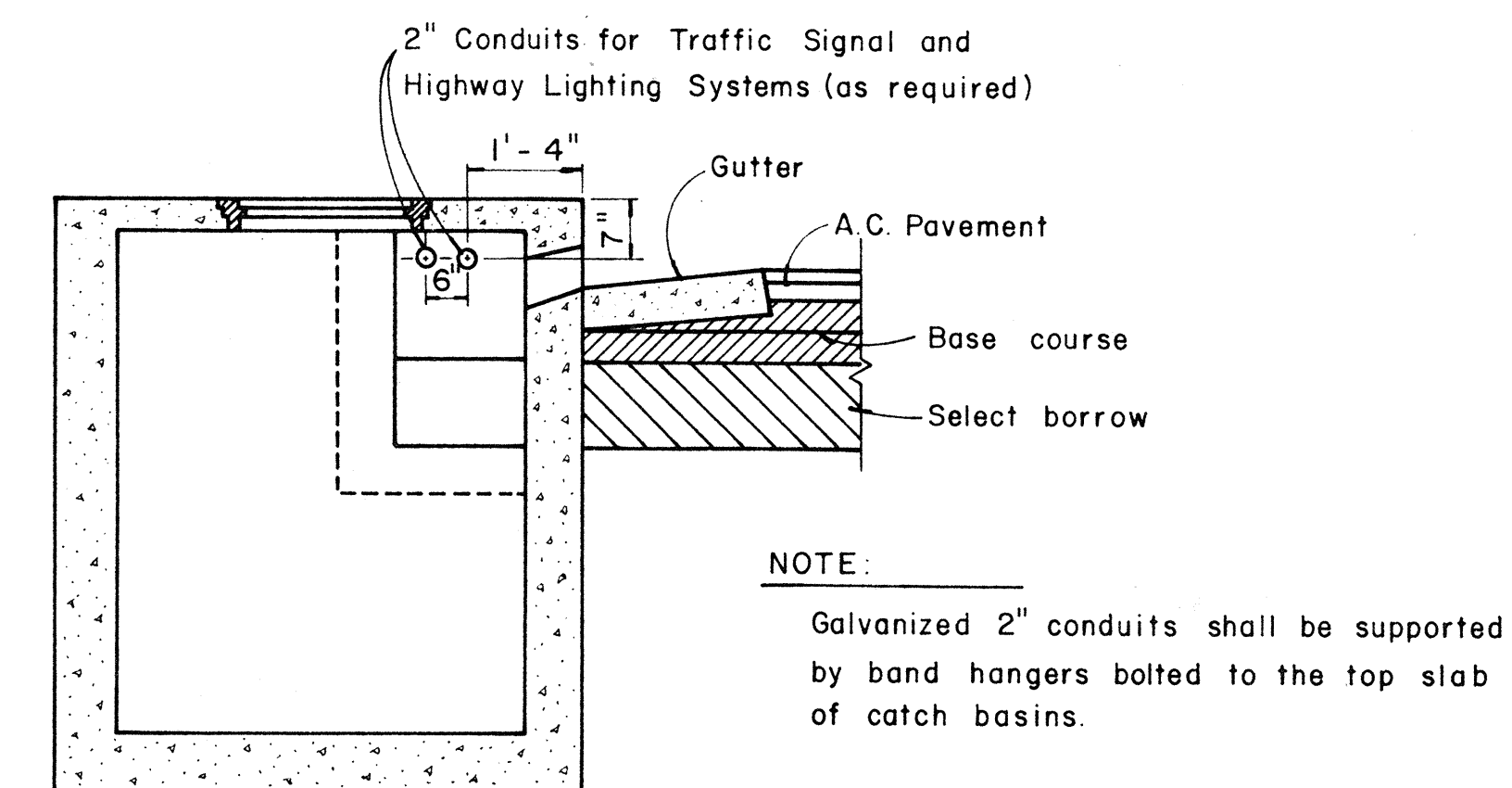
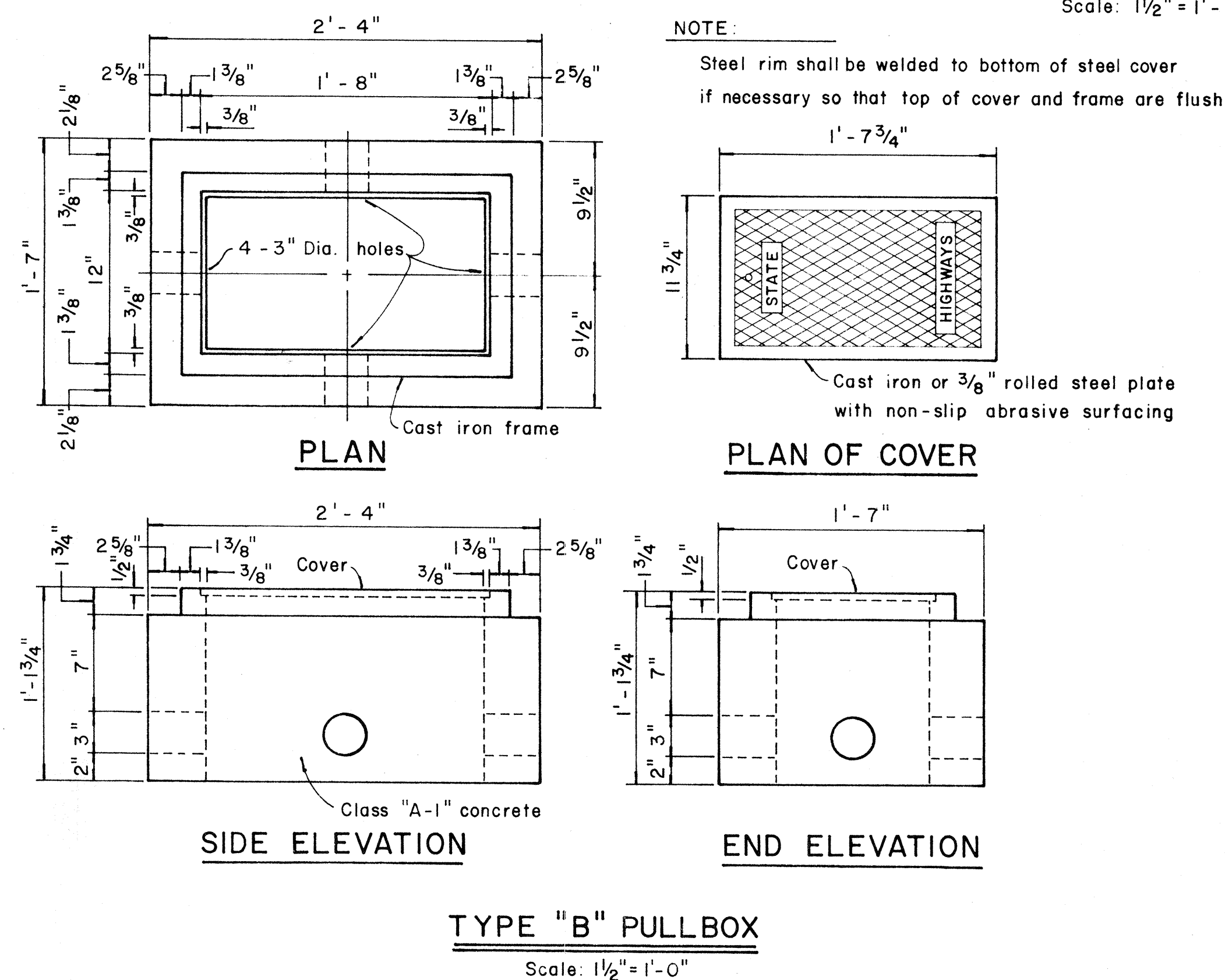
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAIKAWA INTERCHANGE

DUCT SECTIONS
LIGHT FIXTURE TYPE "E"
ONE LINE DIAGRAM - DISTRIBUTION CENTER "C"
F.A.I. Proj. No. I-HI-1(69):B
Scales AS Shown Date: OCT. 1968
SHEET No. E1 OF 11 SHEETS



- NOTES: (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.



NOTE:

Galvanized 2" conduits shall be supported by band hangers bolted to the top slab of catch basins.

TYPICAL SECTION SHOWING CONDUITS
PASSING THROUGH CATCH BASINS

Scale: $\frac{1}{2}'' = 1' - 0''$

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

PULLBOXES

TYPES A, B & C

Scale as noted Date OCT. 1968

SHEET No. 5 OF 11 SHEETS