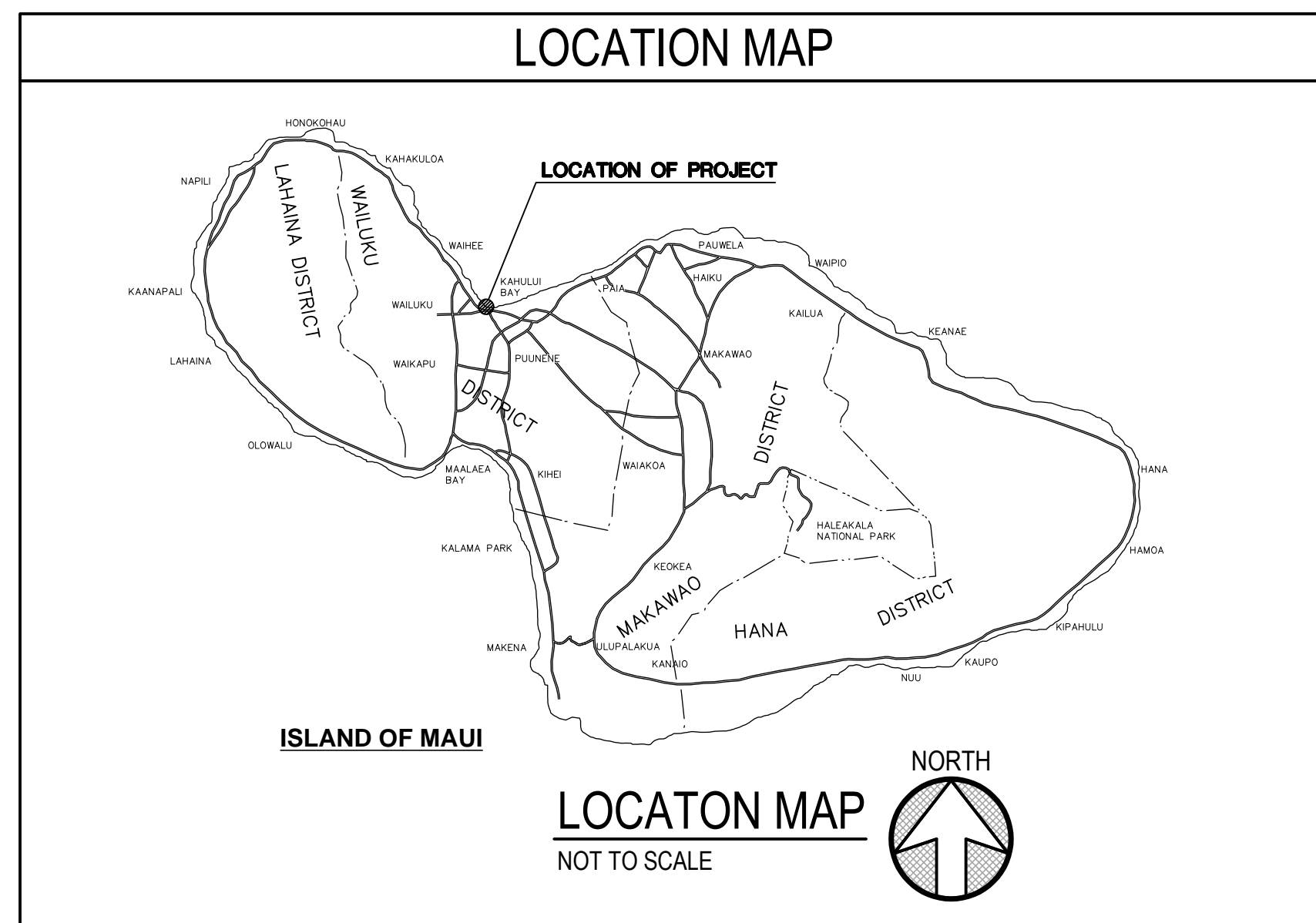


KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION

KAHULUI HARBOR, MAUI, HAWAII

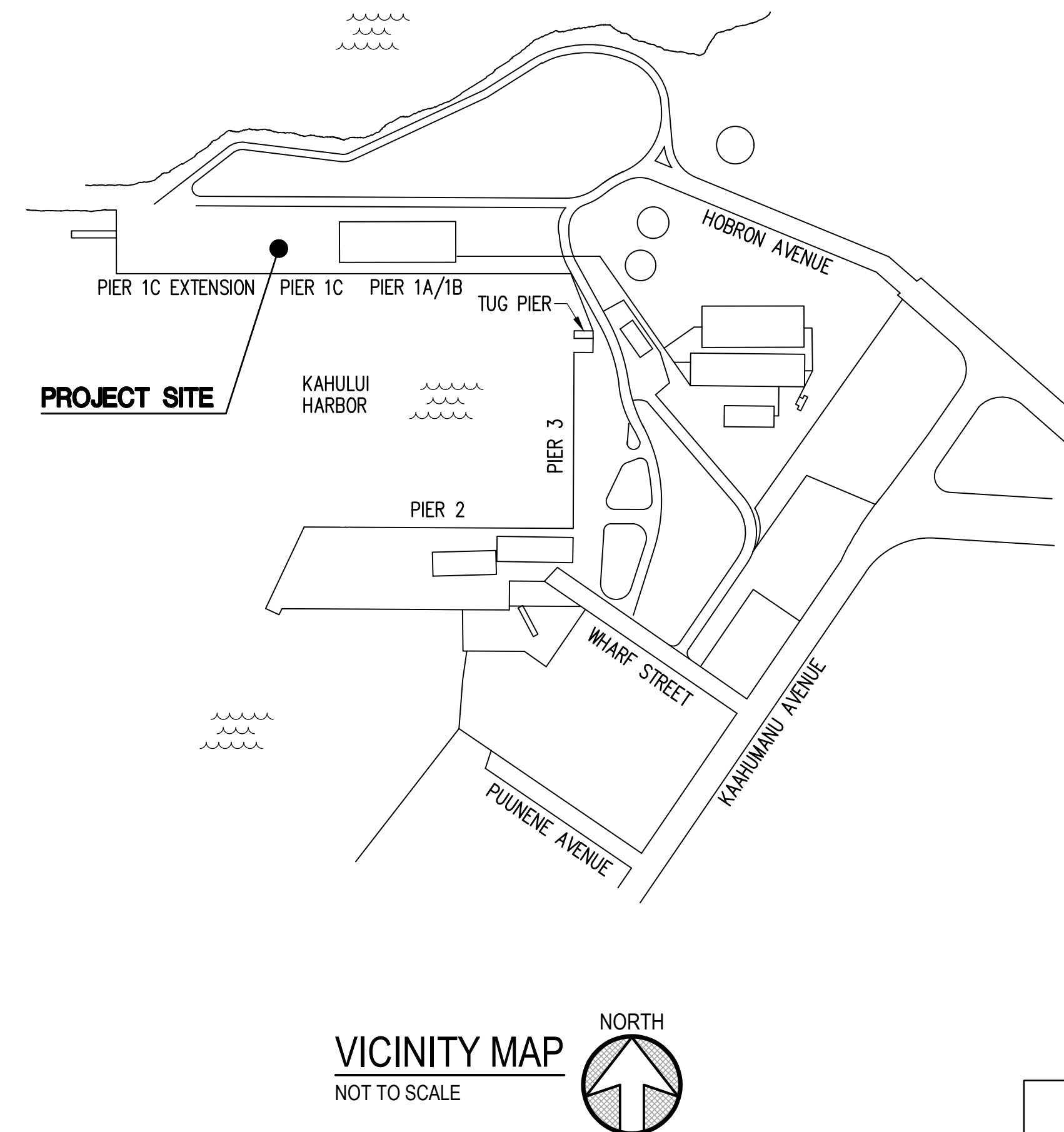
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB NO. P30253



CONSULTANTS
ELECTRICAL ENGINEER:
WSP
1001 BISHOP STREET, SUITE 2400
HONOLULU, HI 96813
P (808) 536-1737
www.wsp.com

SHEET INDEX		TITLE
DWG	SHEET	
1	T-1	PROJECT TITLE SHEET
2	E-001	ELECTRICAL NOTES AND LEGEND
3	E-100	ELECTRICAL OVERALL SITE PLAN
4	E-101	ELECTRICAL ENLARGED SITE PLAN 1
5	E-102	ELECTRICAL ENLARGED SITE PLAN 2
6	E-103	ELECTRICAL ENLARGED SITE PLAN 3
7	ED-301	ELECTRICAL EQUIPMENT ELEVATIONS - DEMO
8	E-301	ELECTRICAL EQUIPMENT ELEVATIONS
9	E-401	ELECTRICAL DETAILS
10	E-501	ELECTRICAL SCHEDULES 1
11	E-502	ELECTRICAL SCHEDULES 2
12	ED-601	ELECTRICAL ONE-LINE DIAGRAM - DEMO
13	E-601	ELECTRICAL ONE-LINE DIAGRAM



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS	
DIRECTOR OF TRANSPORTATION <i>[Signature]</i>	for 05/28/2026 DATE
SHEET T-1 1 OF 13 SHTS	

ELECTRICAL GENERAL NOTES

- A. REFER TO COMPLETE CONTRACT DOCUMENTS AND SPECIFICATIONS FOR OTHER DETAILS AND REQUIREMENTS.
- B. CONFORM TO THE BUILDING, FIRE, AND ELECTRICAL CODES OF MAUI COUNTY, LAWS AND REGULATIONS OF MAUI COUNTY AND THE STATE OF HAWAII.
- C. OBTAIN AND PAY FOR REQUIRED PERMITS, LICENSES, FEES, AND OTHER CHARGES. DELIVER CERTIFICATES OF COMPLETION AND INSPECTION TO THE OWNER. SUBCONTRACTORS SHALL BE LICENSED FOR THE WORK THEY PERFORM.
- D. EXISTING CONDITIONS ARE SHOWN IN AN APPROXIMATE WAY AND HAVE NOT BEEN VERIFIED BY THE OWNER OR THEIR REPRESENTATIVE. ENGINEER DESIGN IS BASED ON LIMITED SITE OBSERVATION CAPABILITIES WITHOUT ANY AVAILABLE AS-BUILT DRAWINGS. CONTRACTOR SHALL VISIT THE JOB SITE AND CONFIRM EXISTING CONDITIONS PRIOR TO WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A NEW COMPLETE ELECTRICAL SYSTEM WITH CONNECTION AND FUNCTIONALITY TO MATCH EXISTING SYSTEM AND SERVE ALL CURRENTLY SERVED LOADS.
- E. PROVIDE ALL COMPONENTS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.
- F. DRAWINGS ARE OF SMALL SCALE AND ARE SCHEMATIC. LOCATIONS OF EQUIPMENT AND SYSTEM ELEMENTS ARE APPROXIMATE.
- G. INSTALL RACEWAY PARALLEL WITH OR AT RIGHT ANGLES TO CEILINGS, WALLS, AND STRUCTURAL MEMBERS.
- H. PROVIDE AND INSTALL ALL JUNCTION BOXES AND PULL BOXES REQUIRED FOR INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZING OF BOXES SHALL BE PER NEC.
- I. LABEL ALL JUNCTION BOXES AND PULL BOXES INDICATION PANEL NAME AND CIRCUIT NUMBERS OF ALL BRANCH CIRCUIT CONDUCTORS CONTAINED WITHIN THE BOX.
- J. PROVIDE UPDATED TYPED PANEL SCHEDULES AT THE CONCLUSION OF THE PROJECT.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
DIST PNL	DISTRIBUTION PANEL
DS	DISCONNECT SWITCH
ECB	ENCLOSED CIRCUIT BREAKER
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EXST/(E)	EXISTING
GND	GROUND
IAW	IN ACCORDANCE WITH
HH	HANDHOLE
MECO	MAUI ELECTRIC COMPANY
MH	MANHOLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION AGENCY
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
PB	PULLBOX
PNL	PANEL
PV	PHOTOVOLTAIC
UFC	UNIFORM FIRE CODE
UL	UNDERWRITER'S LABORATORIES, INC.
TYP	TYPICAL
WP	WEATHERPROOF
XFMR	TRANSFORMER

WIRING SCHEDULE - COPPER CONDUCTORS (0-600V)

CIRCUIT RATING	CONDUIT SIZE (INCHES)			CONDUCTOR SIZE	
	G	N	NG	PHASE/NEUTRAL	GND
15	0.75	0.75	0.75	12	12
20	0.75	0.75	0.75	12	12
30	0.75	0.75	0.75	10	10
40	0.75	0.75	1	8	10
50	1	1	1.25	6	10
60	1.25	1.25	1.25	4	10
70	1.25	1.25	1.25	4	8
80	1.25	1.25	1.25	3	8
90	1.25	1.25	1.5	2	8
100	1.5	1.5	2	1	8
110	1.5	1.5	2	1	6
125	1.5	1.5	2	1	6
150	2	2	2	1/0	6
175	2	2	2	2/0	6
200	2	2	2.5	3/0	6
225	2.5	2.5	2.5	4/0	4
250	2.5	2.5	3	250	4
300	3	3	3.5	350	4
350	4	4	4	500	2
400	4	4	4	500	2
450	2@2.5	2@2.5	2@2.5	4/0	2
500	2@2.5	2@2.5	2@3	250	1
600	2@3	2@3	2@3.5	350	1
700	2@4	2@4	2@4	500	1/0
800	2@4	2@4	2@4	500	1/0
1000	3@3	3@3	3@3.5	400	2/0
1200	3@4	3@4	3@4	600	3/0
1600	4@4	4@4	4@4	600	4/0
2000	5@4	5@4	5@4	600	250
2500	7@4	7@4	7@4	600	350
3000	8@4	8@4	8@4	500	500
3200	8@4	8@4	8@4	600	500
3500	8@4	8@4	8@4	500	500
4000	8@4	8@4	8@4	600	500

SUBSCRIPT KEY

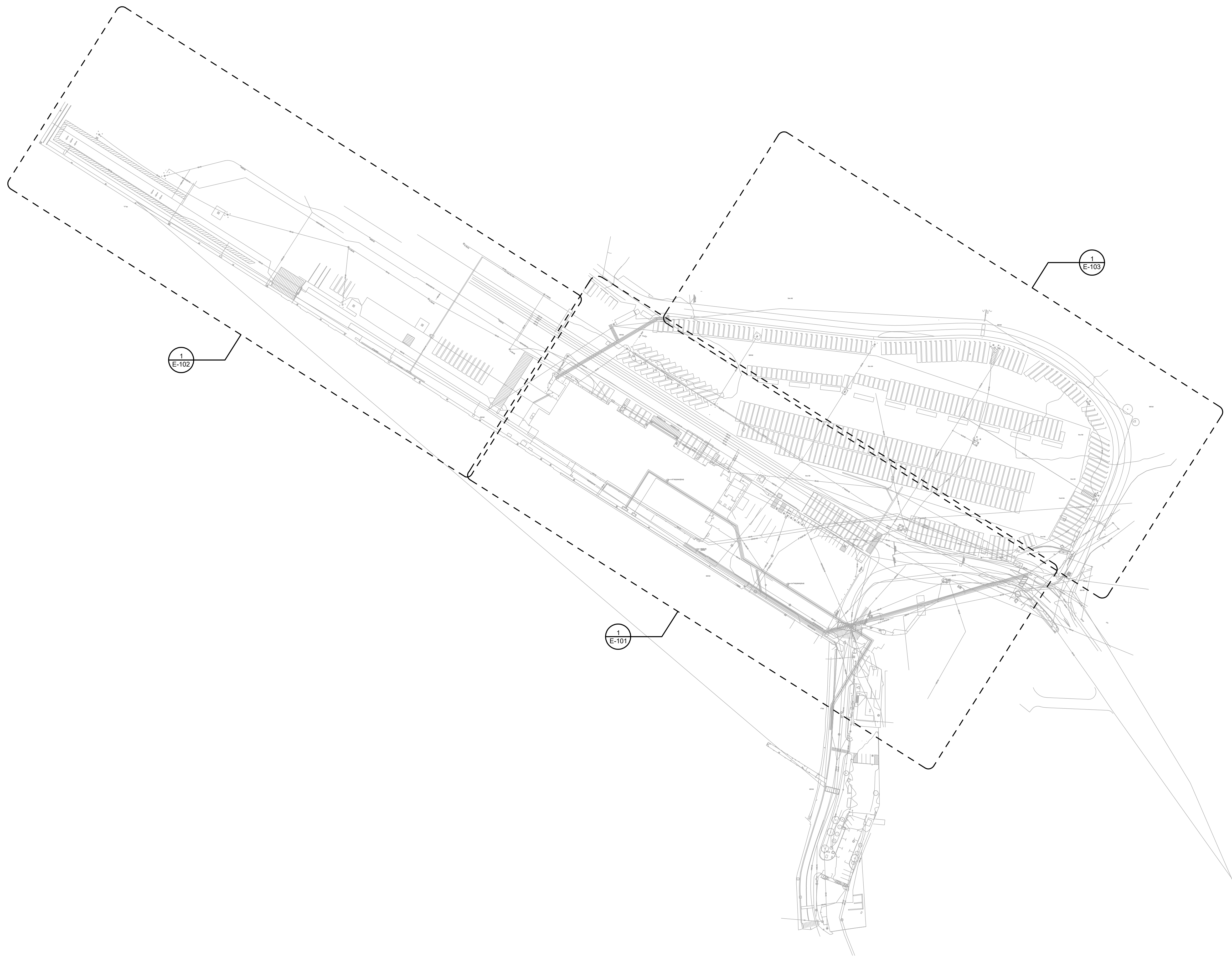
SUBSCRIPT	CONDUCTORS PER CONDUIT
NONE	3 PHASE CONDUCTORS, CONDUIT GROUND
G	3 PHASE CONDUCTORS, 1 GROUNDING CONDUCTOR
N	3 PHASE CONDUCTORS, 1 NEUTRAL CONDUCTOR, CONDUIT GROUND
NG	3 PHASE CONDUCTORS, 1 NEUTRAL CONDUCTOR, 1 GROUNDING CONDUCTOR

NOTES:
 ** PARALLEL CONDUCTORS ARE NOT PERMITTED UNDER 1/0.
 1. SCHEDULE IS BASED ON 3 CURRENT CARRYING CONDUCTORS IN RACEWAY, CABLE OR EARTH AT AMBIENT AIR TEMPERATURE OF 30°C (86°F).
 2. MODIFY IF USE OF 600 MCM OR LARGER CONDUCTORS IS DESIRED. CONFIRM LUG SIZES ARE AVAILABLE.

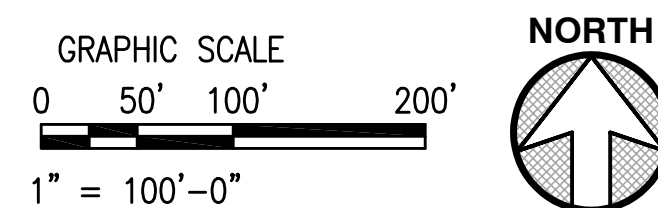
ELECTRICAL LEGEND

NEW	EXISTING TO REMAIN	EXISTING TO BE DEMOLISHED	DESCRIPTION
			POLE WITH ARM MOUNTED LUMINAIRE
			DUPLEX RECEPTACLE, +18" UNLESS OTHERWISE NOTED
			DUPLEX RECEPTACLE, GFCI TYPE, +18" UNLESS OTHERWISE NOTED
			DUPLEX RECEPTACLE, GFCI TYPE, WITH WEATHERPROOF COVER +18" UNLESS OTHERWISE NOTED
			EQUIPMENT CONNECTION
			CEILING MOUNTED JUNCTION BOX, 4-11/16" SQUARE
			WALL MOUNTED JUNCTION BOX, 4-11/16" SQUARE
			JUNCTION BOX, SIZE AS NOTED
			PANELBOARD
			LIGHTING CONTROL PANEL OR CONTROL STATION
			DRY TYPE TRANSFORMER, SIZE AND RATING AS INDICATED
			DISCONNECT SWITCH, SIZE AND RATING AS NOTED
			RACEWAY AND CONDUCTORS BELOW GRADE
			RACEWAY AND CONDUCTORS ABOVE GRADE
			CONDUIT STUB OUT
			LUMINAIRE, ONE-LINE DIAGRAM
			SHEET NOTE, SEE SAME SHEET
			EQUIPMENT ID NUMBER, SEE EQUIPMENT SCHEDULE, SAME SHEET
			REVISION DELTA
			DUCT SECTION INDICATOR, RE: DUCT SCHEDULE, SAME SHEET

REVISION NO.	SYM	DESCRIPTION	SHT OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS					
KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION					
KAHULUI HARBOR			MAUI, HAWAII		
ELECTRICAL NOTES AND LEGEND					
DESIGNED BY: NKS		CHECKED BY: DL		JOB NO. P30253	DRAWING NO.
DRAWN BY: WSP HI		APPROVED BY: DL		DATE 05/26/2026	SHEET E-001 2 OF 13 SHETS
SCALE: AS NOTED					
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION					
License Expiration Date: 4/30/2028					

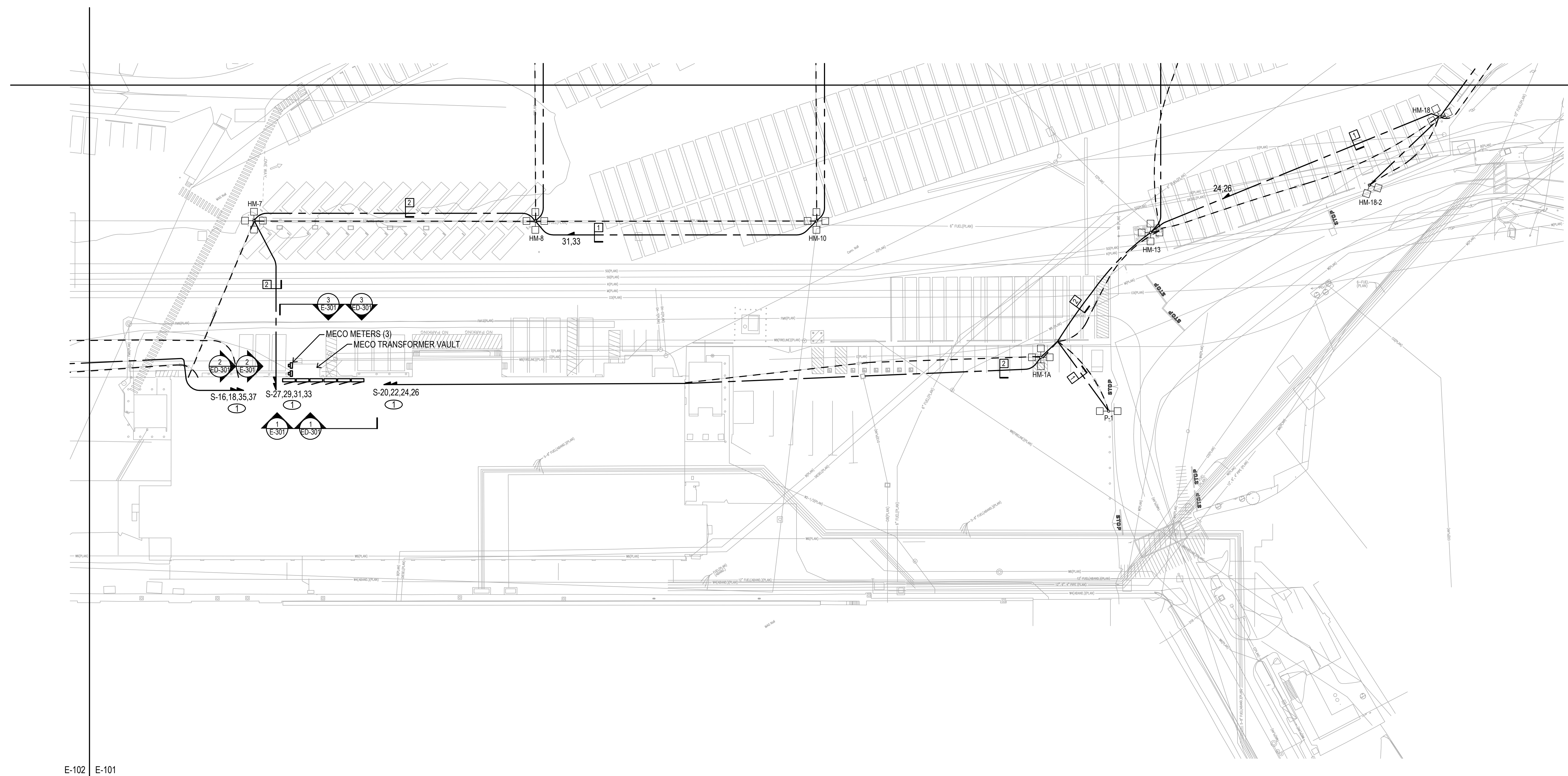


1 ELECTRICAL OVERALL SITE PLAN
 1" = 100'-0"



REVISION NO.	SYM	DESCRIPTION	SHEET OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR

		STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS	
		KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION	
KAHULUI HARBOR		MAUI, HAWAII	
ELECTRICAL OVERALL SITE PLAN			
DESIGNED BY: NKS	CHECKED BY: DL	JOB NO. P30253	DRAWING NO.
DRAWN BY: WSP HI	APPROVED BY: DL	DATE 05/26/2026	SHEET E-100 3 OF 13 SHEETS
License Expiration Date: 4/30/2028		SCALE: AS NOTED	



E-102 E-101

GENERAL NOTES:

- A. REPLACE EXISTING FEEDERS TO LIGHT POLES AS SHOWN. ROUTING SHOWN IS DIAGRAMMATIC, COORDINATE EXACT TRENCHING PATH AND ANY OBSTACLES WITH OWNER PRIOR TO WORK.
- B. TONE EXISTING WIRING TO VERIFY WHICH ANGLE CONDUIT ENTERS LIGHT POLE BASE. INSTALL NEW CONDUIT TO FOLLOW SIMILAR ROUTE AS EXISTING TO MINIMIZE TRENCHING, AND INTERCEPT EXISTING CONDUIT AS CLOSE AS POSSIBLE TO LIGHT POLE BASE. PULL NEW WIRING THROUGH NEW RACEWAY.
- C. REMOVE EXISTING WIRING ONLY AFTER NEW CONDUIT AND WIRING ARE INSTALLED AND ARE READY TO INTERCEPT EXISTING CONDUIT NEAR POLE BASE. EXISTING CONDUIT MAY BE SUBMERGED OR IN OTHERWISE DAMAGED CONDITION. FOLLOWING REMOVAL OF EXISTING WIRE, ABANDON EXISTING CONDUIT. MINIMIZE DOWNTIME AS MUCH AS POSSIBLE AND COORDINATE OUTAGES WITH CONSTRUCTION MANAGER AND OWNER.

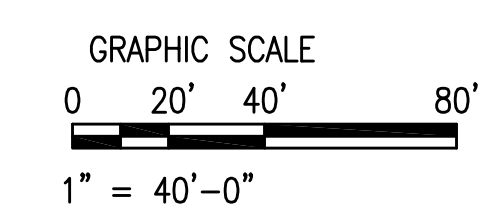
SHEET NOTES:

- 1. HIGH MAST POLE LIGHTS SERVED FROM EXISTING 480V 1PH 2P30A CIRCUITS FROM EXISTING PANEL 'S'. CIRCUIT TO NEW PANEL 'S' AS INDICATED.

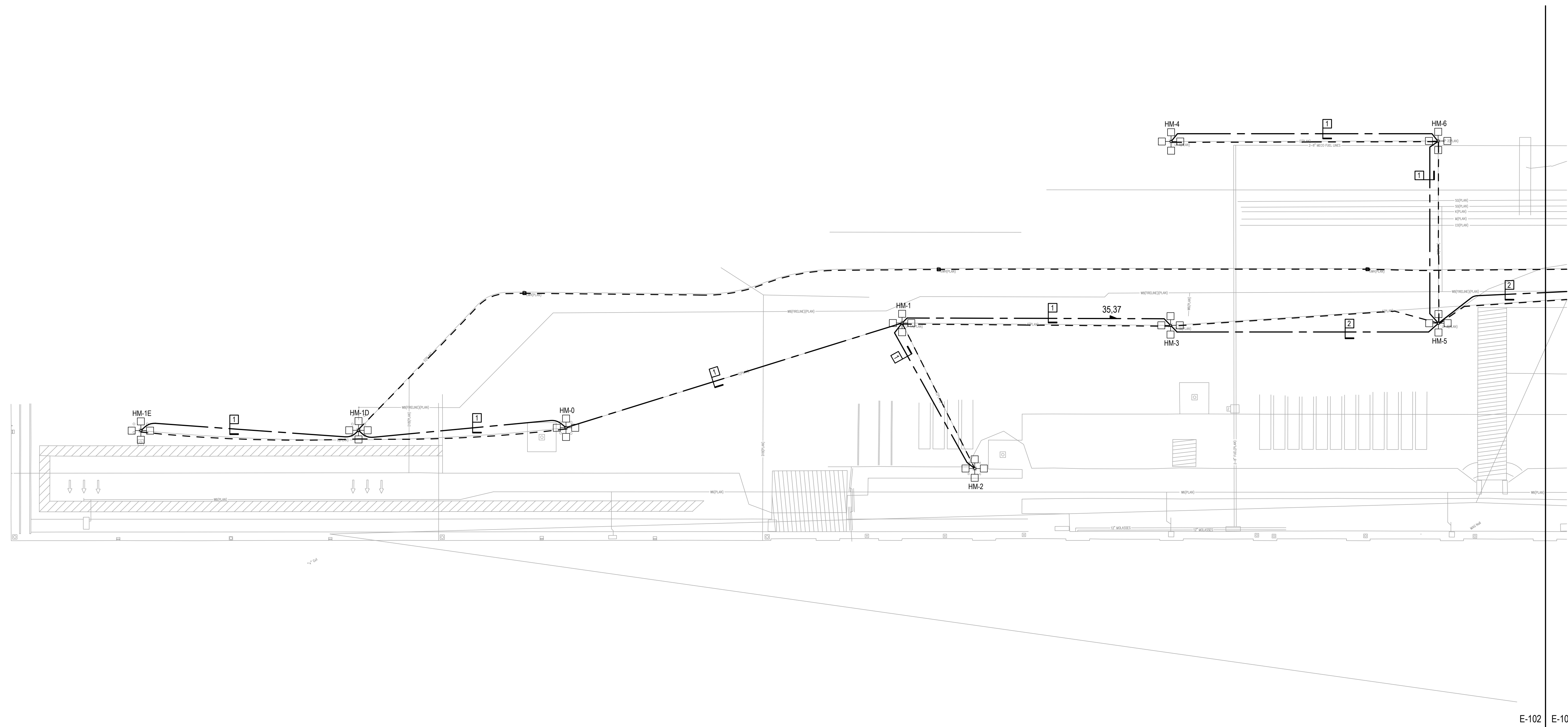
DUCT SCHEDULE:

- 1 (2-#6, 1-#6G) 1-1/2" PVC SCHEDULE 40, CONCRETE ENCASED REFER TO E-401, DUCT DETAIL TYPE 1 FOR ADDITIONAL REQUIREMENTS.
- 2 (2-#6, 1-#6G) 1-1/2" PVC SCHEDULE 40, CONCRETE ENCASED REFER TO E-401, DUCT DETAIL TYPE 2 FOR ADDITIONAL REQUIREMENTS.

1 ELECTRICAL ENLARGED SITE PLAN 1
1" = 40'-0"



REVISION NO.	SYM	DESCRIPTION	SHT. OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR		
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS KAHALUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION KAHALUI HARBOR MAUI, HAWAII ELECTRICAL ENLARGED SITE PLAN 1							
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION 		JOB NO. P30253	DRAWING NO.		
		DESIGNED BY: NKS	CHECKED BY: DL	DATE 05/26/2026		SHEET E-101 4 OF 13 SHOTS	
DRAWN BY: WSP HI		APPROVED BY: DL		SCALE: AS NOTED			
License Expiration Date: 4/30/2028				FILE _____ DRAWER _____ FOLDER _____			



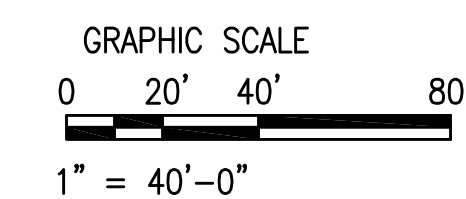
GENERAL NOTES:

- A. REPLACE EXISTING FEEDERS TO LIGHT POLES AS SHOWN. ROUTING SHOWN IS DIAGRAMMATIC, COORDINATE EXACT TRENCHING PATH AND ANY OBSTACLES WITH OWNER PRIOR TO WORK.
- B. TONE EXISTING WIRING TO VERIFY WHICH ANGLE CONDUIT ENTERS LIGHT POLE BASE. INSTALL NEW CONDUIT TO FOLLOW SIMILAR ROUTE AS EXISTING TO MINIMIZE TRENCHING, AND INTERCEPT EXISTING CONDUIT AS CLOSE AS POSSIBLE TO LIGHT POLE BASE. PULL NEW WIRING THROUGH NEW RACEWAY.
- C. REMOVE EXISTING WIRING ONLY AFTER NEW CONDUIT AND WIRING ARE INSTALLED AND ARE READY TO INTERCEPT EXISTING CONDUIT NEAR POLE BASE. EXISTING CONDUIT MAY BE SUBMERGED OR IN OTHERWISE DAMAGED CONDITION. FOLLOWING REMOVAL OF EXISTING WIRE, ABANDON EXISTING CONDUIT. MINIMIZE DOWNTIME AS MUCH AS POSSIBLE AND COORDINATE OUTAGES WITH CONSTRUCTION MANAGER AND OWNER.

DUCT SCHEDULE:

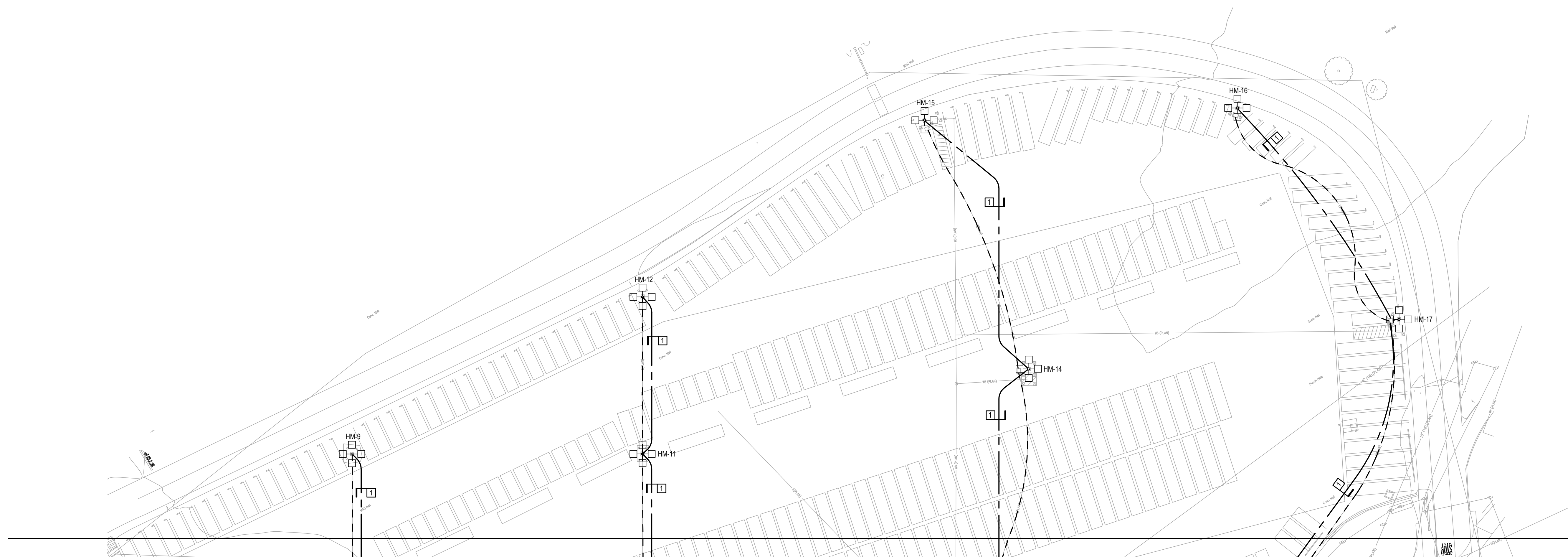
- 1** (2-#6, 1-#6G) 1-1/2" PVC SCHEDULE 40, CONCRETE ENCASED
REFER TO E-401, DUCT DETAIL TYPE 1 FOR ADDITIONAL REQUIREMENTS.
- 2** 2 [(2-#6, 1-#6G) 1-1/2" PVC SCHEDULE 40], CONCRETE ENCASED
REFER TO E-401, DUCT DETAIL TYPE 2 FOR ADDITIONAL REQUIREMENTS.

1 ELECTRICAL ENLARGED SITE PLAN 2
1" = 40'-0"



REVISION NO.	SYM.	DESCRIPTION	SHEET OF	DATE	APPROVED, PUBLIC WORKS ADMINISTRATOR

		STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS	
KAHULUI HARBOR		MAUI, HAWAII	
ELECTRICAL ENLARGED SITE PLAN 2			
DESIGNED BY: NKS	CHECKED BY: DL	JOB NO. P30253	DRAWING NO.
DRAWN BY: WSP HI	APPROVED BY: DL	DATE 05/26/2026	SHEET E-102
License Expiration Date: 4/30/2028		SCALE: AS NOTED	5 OF 13 SHEETS



E-103
E-101

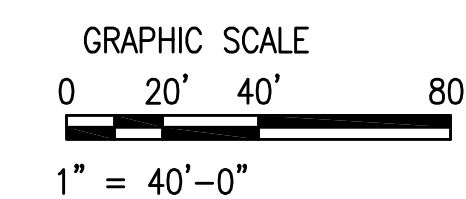
GENERAL NOTES:

- A. REPLACE EXISTING FEEDERS TO LIGHT POLES AS SHOWN. ROUTING SHOWN IS DIAGRAMMATIC, COORDINATE EXACT TRENCHING PATH AND ANY OBSTACLES WITH OWNER PRIOR TO WORK.
- B. TONE EXISTING WIRING TO VERIFY WHICH ANGLE CONDUIT ENTERS LIGHT POLE BASE. INSTALL NEW CONDUIT TO FOLLOW SIMILAR ROUTE AS EXISTING TO MINIMIZE TRENCHING, AND INTERCEPT EXISTING CONDUIT AS CLOSE AS POSSIBLE TO LIGHT POLE BASE. PULL NEW WIRING THROUGH NEW RACEWAY.
- C. REMOVE EXISTING WIRING ONLY AFTER NEW CONDUIT AND WIRING ARE INSTALLED AND ARE READY TO INTERCEPT EXISTING CONDUIT NEAR POLE BASE. EXISTING CONDUIT MAY BE SUBMERGED OR IN OTHERWISE DAMAGED CONDITION. FOLLOWING REMOVAL OF EXISTING WIRE, ABANDON EXISTING CONDUIT. MINIMIZE DOWNTIME AS MUCH AS POSSIBLE AND COORDINATE OUTAGES WITH CONSTRUCTION MANAGER AND OWNER.

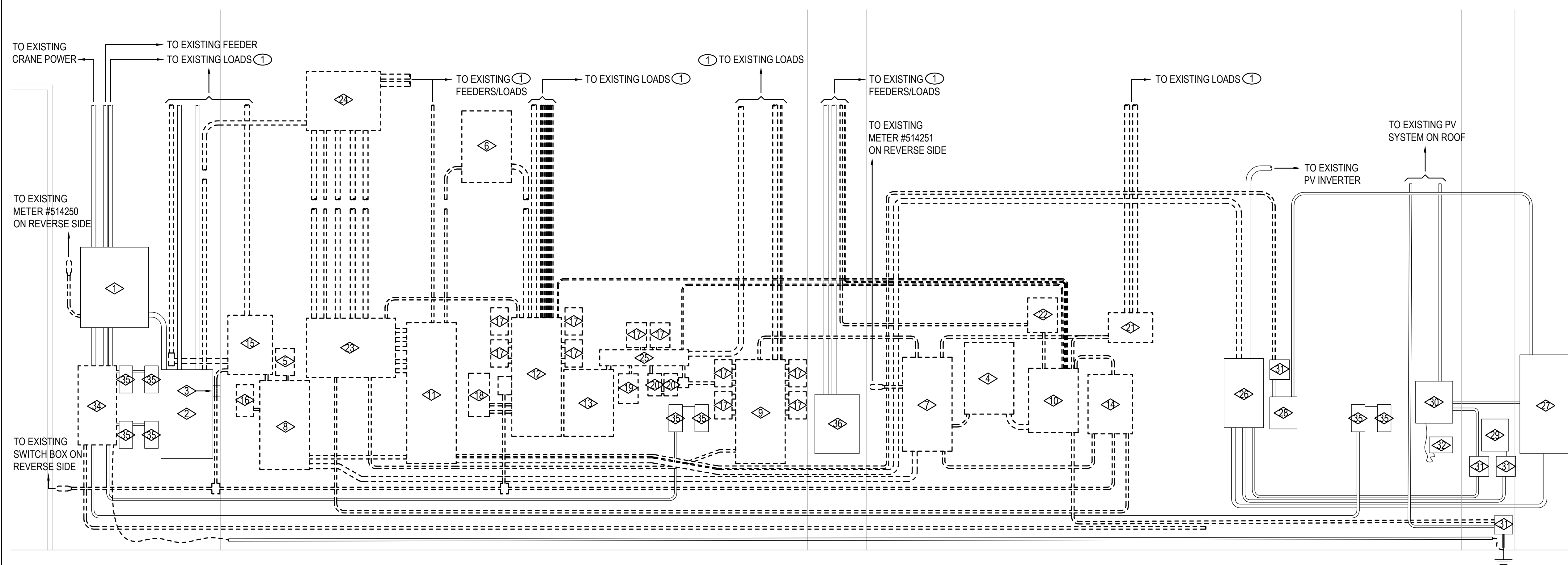
DUCT SCHEDULE:

1 (2-#6,1-#6G) 1-1/2" PVC SCHEDULE 40, CONCRETE ENCASED
REFER TO E-401, DUCT DETAIL TYPE 1 FOR ADDITIONAL REQUIREMENTS.

1 ELECTRICAL ENLARGED SITE PLAN 3
1" = 40'-0"



REVISION NO.		SYM	DESCRIPTION	SHEET OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION KAHULUI HARBOR MAUI, HAWAII ELECTRICAL ENLARGED SITE PLAN 3						
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION License Expiration Date: 4/30/2028		DESIGNED BY: NKS	CHECKED BY: DL	JOB NO. P30253	DRAWING NO.	
		DRAWN BY: WSP HI	APPROVED BY: DL	DATE 05/26/2026	SHEET E-103 6 OF 13 SHEETS	
SCALE: AS NOTED						



EQUIPMENT SCHEDULE			
ID	EQUIPMENT NAME/DESCRIPTION	WIDTH	HEIGHT
1	TRANSFORMER T-X1	27.5	32.5
2	PANEL X	21.0	36.0
3	SUBMETER X	-	-
4	TRANSFORMER T-S1	20.0	29.0
5	TRANSFORMER T-S2	-	-
6	TRANSFORMER T-P1	-	-
7	PANEL S	20.0	36.0
8	PANEL NC	20.0	36.0
9	PANEL L	20.0	42.0
10	PANEL 2S	20.0	26.0
11	PANEL P	20.0	57.0
12	PANEL A	20.0	48.0
13	PANEL 1A	20.0	27.0
14	RELAY CONTROL 1	18.0	24.0
15	RELAY CONTROL 2	18.0	24.0
16	RELAY MAIN	7.0	13.0
17	RELAY BOX (TYPICAL)	7.0	11.0
18	ENCLOSED CIRCUIT BREAKER	8.5	17.5
19	TIMECLOCK 1	5.5	12.0
20	TIMECLOCK 2 (TYPICAL)	8.0	9.0
21	PULLBOX 1	18.0	12.0
22	PULLBOX 2	12.0	14.0
23	PULLBOX 3	36.0	24.0
24	PULLBOX 4	-	-
25	GUTTER	36.0	6.5
26	PV AC DISCONNECT	16.0	28.0
27	PV LOADCENTER	21.0	40.0
28	PV POWER GUIDE	11.0	13.0
29	PV SOLARGUARD	11.0	13.0
30	PV DECK MONITOR	15.0	17.0
31	PV PULLBOX (TYPICAL)	8.0	8.0
32	PV ROUTER	9.5	6.5
33	(NOT USED)	-	-
34	PANEL REEFER	15.5	32.5
35	REEFER PLUG (TYPICAL)	5.5	11.0
36	HAWAIIAN TEL CABINET	18.0	24.0

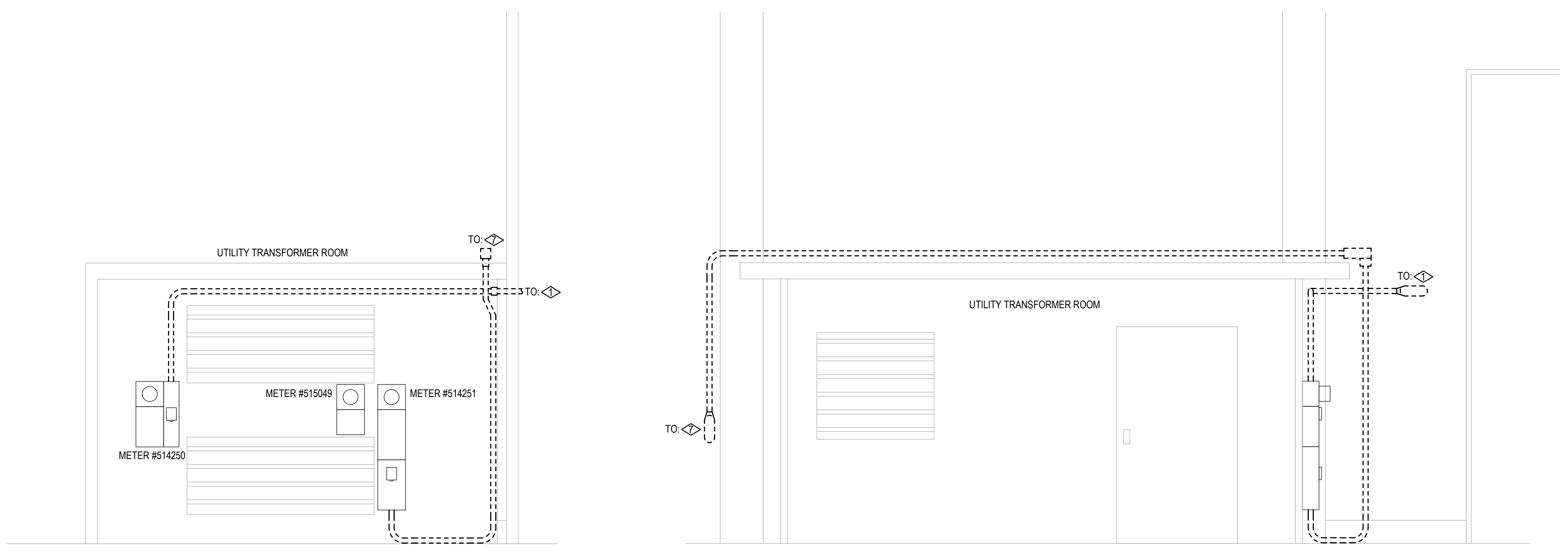
GENERAL NOTES:

A. EXISTING ELECTRICAL SHOWN IS BASED ON VISUAL OBSERVATION ONLY. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND ON SITE.

SHEET NOTES:

1. TRACE EXISTING FEEDERS AND LOADS, AND VERIFY EXISTING CONDUIT AND CONDUCTOR SIZES. CUT AND STUB EXISTING CONDUIT AND WIRING. REMOVE ABANDONED CONDUIT AND WIRING FOR ANY LOADS NO LONGER IN USE.

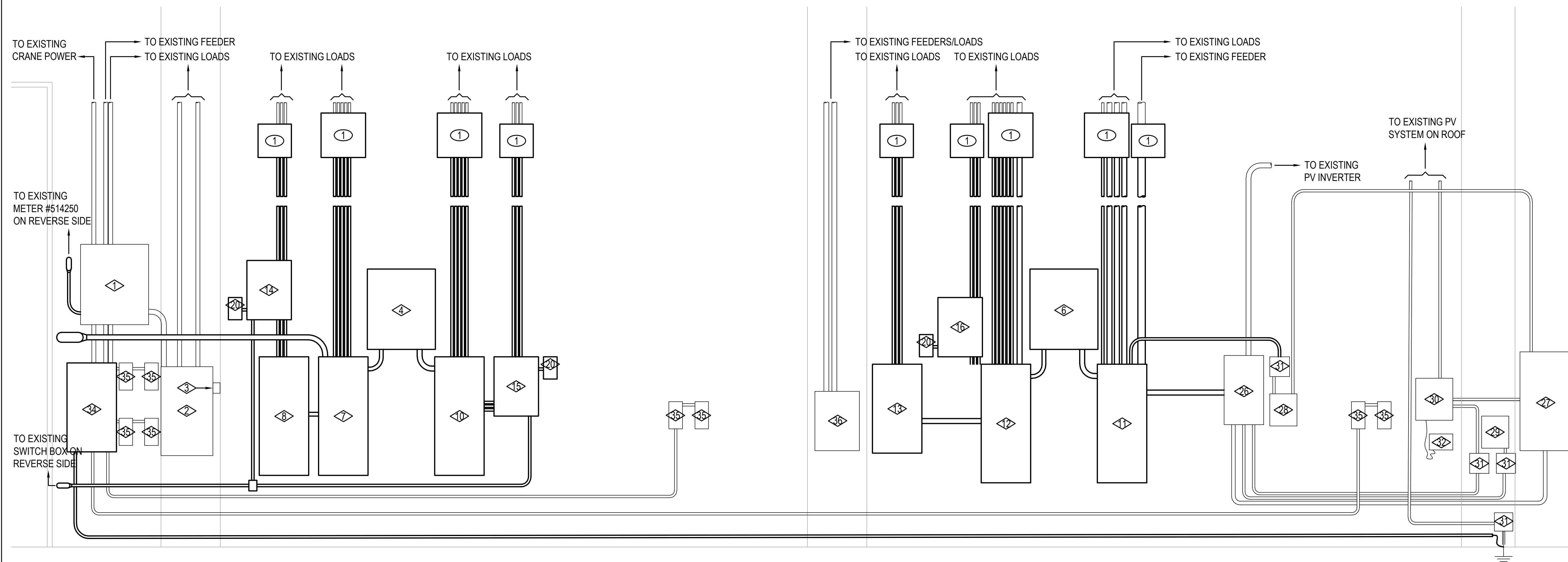
1 ELECTRICAL EQUIPMENT ELEVATION - DEMO
NOT TO SCALE



2 ELECTRICAL EQUIPMENT ELEVATION - DEMO
NOT TO SCALE

3 ELECTRICAL EQUIPMENT ELEVATION - DEMO
NOT TO SCALE

REVISION NO.	SYM	DESCRIPTION	SHEET OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
<p>STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS</p> <p>KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION</p> <p>KAHULUI HARBOR MAUI, HAWAII</p> <p>ELECTRICAL EQUIPMENT ELEVATIONS - DEMO</p>					
		<p>DESIGNED BY: NKS DRAWN BY: WSP HI</p>		<p>CHECKED BY: DL APPROVED BY: DL</p>	
<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</p> <p>License Expiration Date: 4/30/2028</p>		<p>JOB NO. P30253</p> <p>DATE 05/26/2026</p> <p>SCALE AS NOTED</p>		<p>DRAWING NO.</p> <p>SHEET ED-301</p> <p>7 OF 13 SHEETS</p>	



EQUIPMENT SCHEDULE			
ID	EQUIPMENT NAME/DESCRIPTION	WIDTH	HEIGHT
1	TRANSFORMER T-X1	27.5	32.5
2	PANEL X	21.0	36.0
3	SUBMETER X	-	-
4	TRANSFORMER T-S1	20.0	29.0
5	-	-	-
6	TRANSFORMER T-P1	-	-
7	PANEL S	20.0	36.0
8	PANEL NC	20.0	36.0
9	-	-	-
10	PANEL 2S	20.0	26.0
11	PANEL P	20.0	57.0
12	PANEL A	20.0	48.0
13	PANEL 1A	20.0	27.0
14	RELAY CONTROL S1	18.0	24.0
15	RELAY CONTROL S2	18.0	24.0
16	RELAY CONTROL P1	7.0	13.0
17	-	-	-
18	-	-	-
19	-	-	-
20	TIMELOCK (TYPICAL)	8.0	9.0
21	-	-	-
22	-	-	-
23	-	-	-
24	-	-	-
25	-	36.0	6.5
26	PV AC DISCONNECT	16.0	28.0
27	PV LOADCENTER	21.0	40.0
28	PV POWER GUIDE	11.0	13.0
29	PV SOLARGUARD	11.0	13.0
30	PV DECK MONITOR	15.0	17.0
31	PV PULLBOX (TYPICAL)	8.0	8.0
32	PV ROUTER	9.5	6.5
33	(NOT USED)	-	-
34	PANEL REEFER	15.5	32.5
35	REEFER PLUG (TYPICAL)	5.5	11.0
36	HAWAIIAN TEL CABINET	18.0	24.0

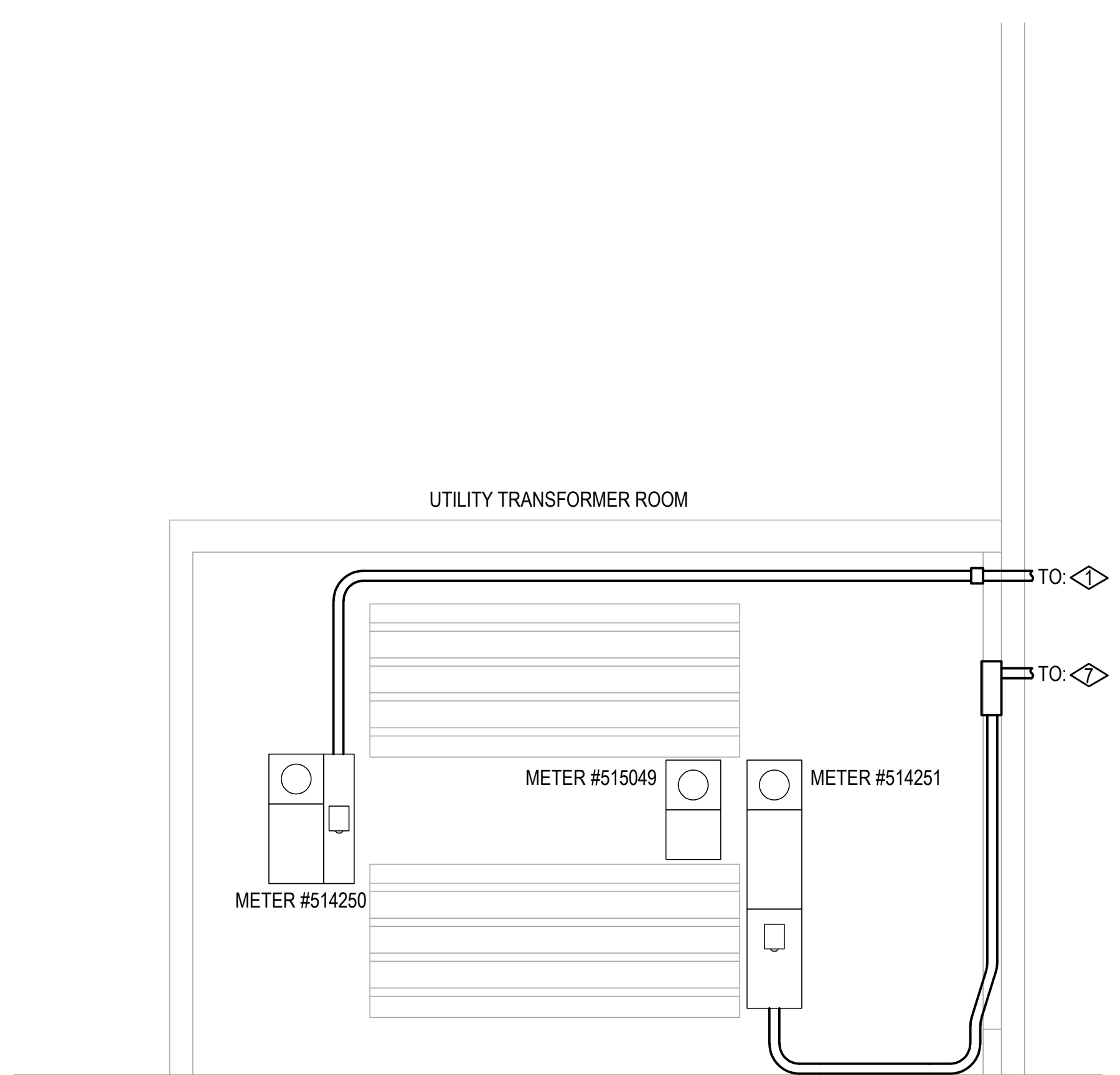
GENERAL NOTES:

A. EXISTING ELECTRICAL SHOWN IS BASED ON VISUAL OBSERVATION ONLY. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND ON SITE.

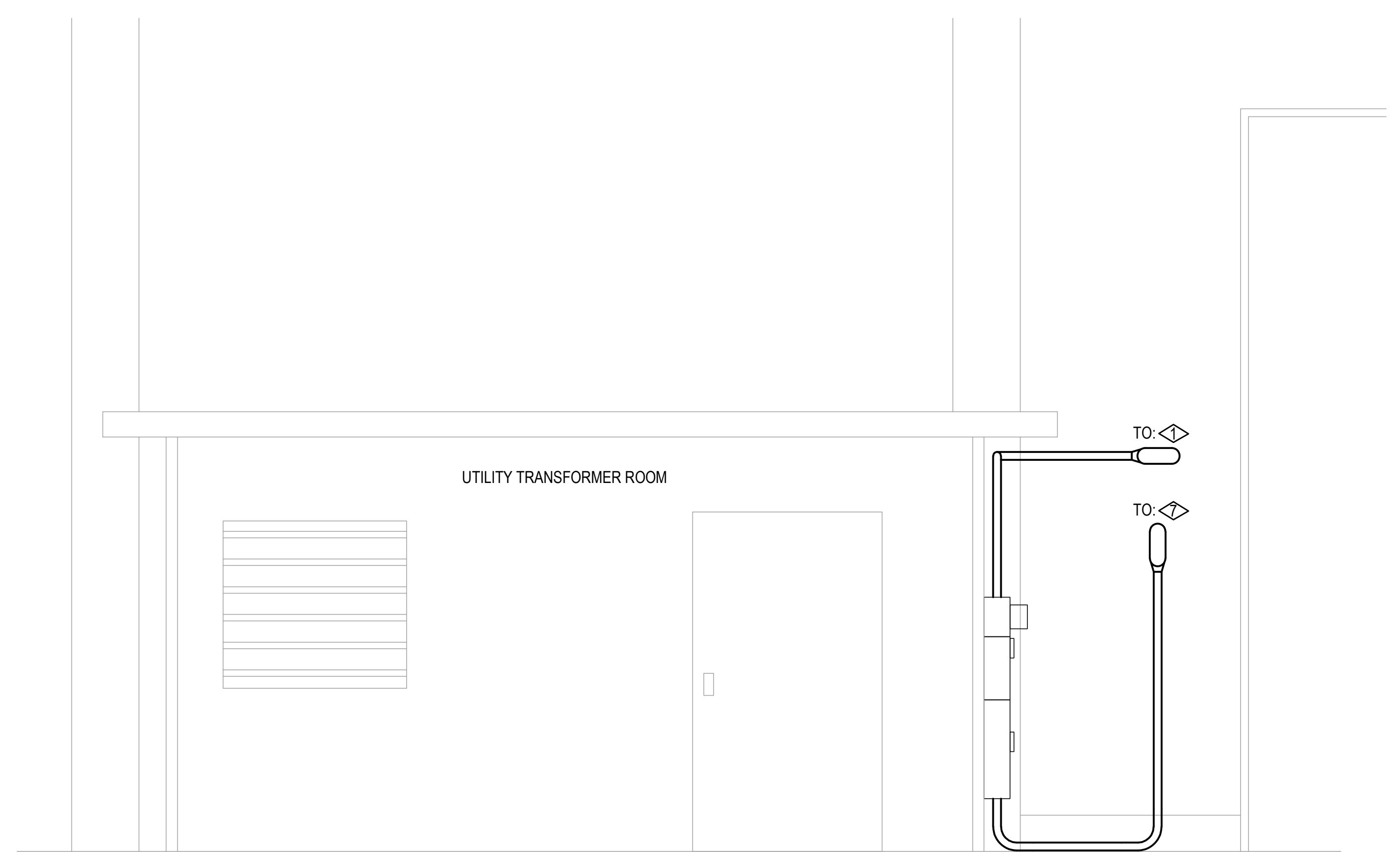
SHEET NOTES:

1. INTERCEPT EXISTING CONDUITS AND WIRING REMAINING FROM DEMOLITION WITH PULLBOX AND CONNECT EXISTING TO NEW CONDUITS AND WIRING.

1 ELECTRICAL EQUIPMENT ELEVATION
NOT TO SCALE

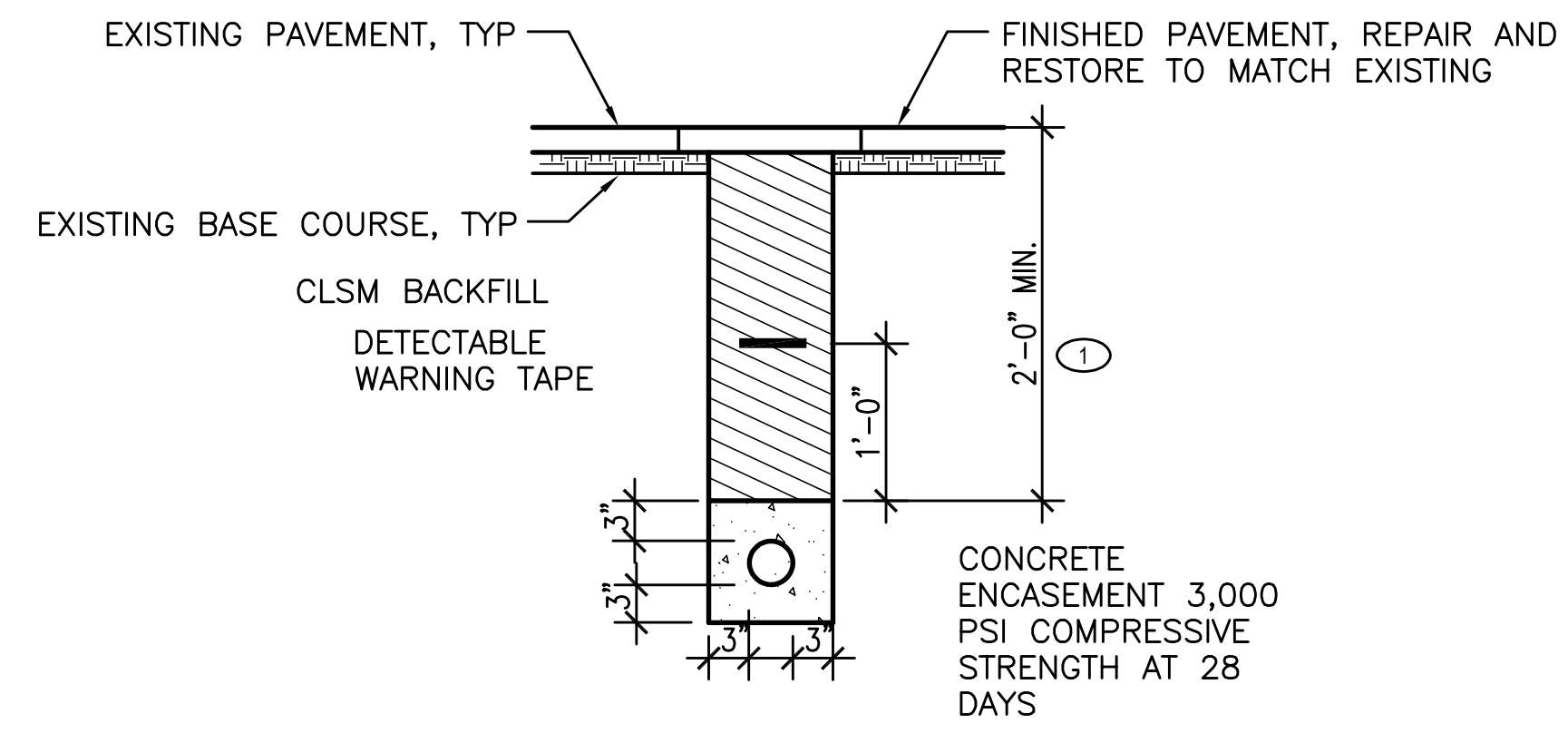


2 ELECTRICAL EQUIPMENT ELEVATION
NOT TO SCALE



3 ELECTRICAL EQUIPMENT ELEVATION
NOT TO SCALE

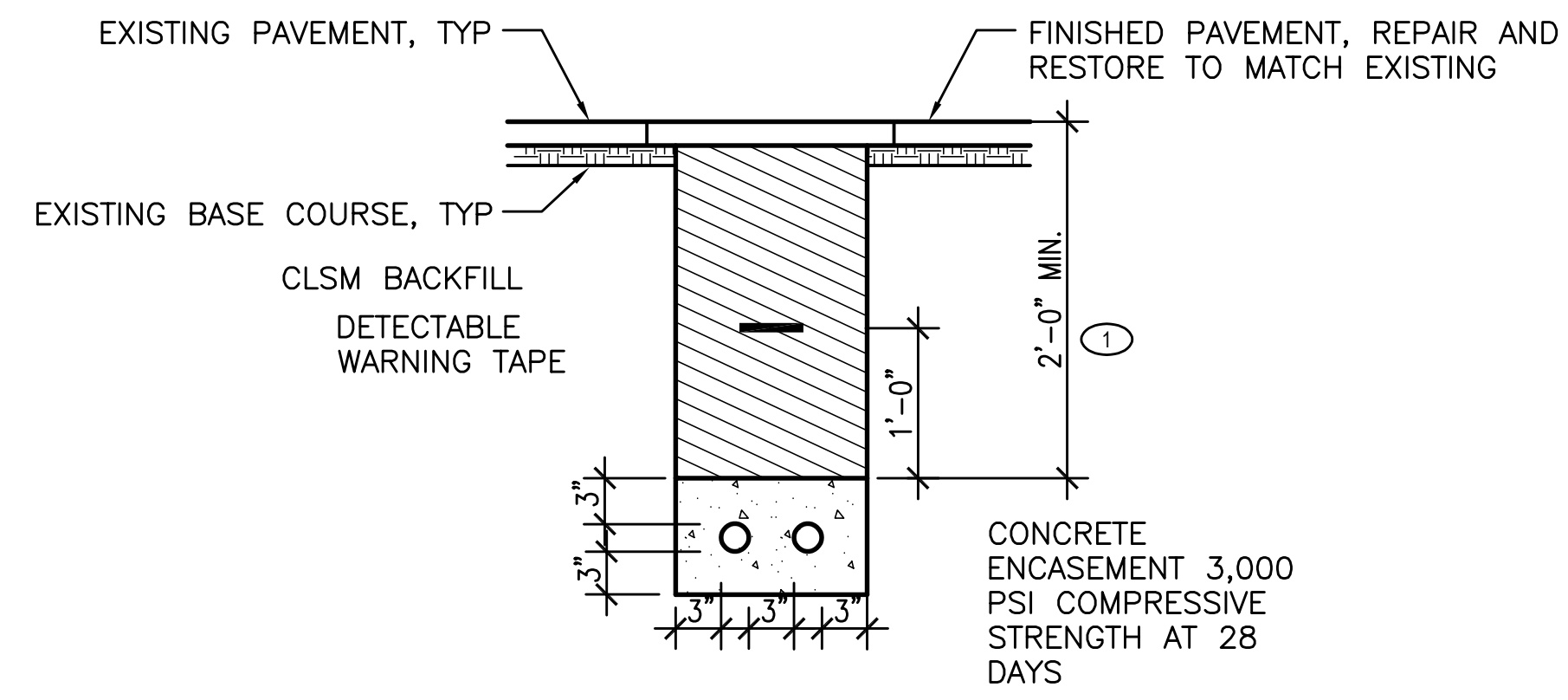
REVISION NO.	SYM	DESCRIPTION	SIT. OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS					
KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION					
KAHULUI HARBOR			MAUI, HAWAII		
ELECTRICAL EQUIPMENT ELEVATIONS					
DESIGNED BY: NKS		CHECKED BY: DL		JOB NO. P30253	DRAWING NO.
DRAWN BY: WSP HI		APPROVED BY: DL		DATE 05/26/2026	SHEET E-301 8 OF 13 SHTS
SCALE AS NOTED		LICENSE EXPIRATION DATE: 4/30/2028			



SHEET NOTES:

1. MINIMUM BURIAL DEPTH CAN BE REDUCED TO 18" WHEN CONNECTING TO EXISTING CONDUIT OR HANDHOLE.

1 DUCT DETAIL TYPE 1
NOT TO SCALE



SHEET NOTES:

1. MINIMUM BURIAL DEPTH CAN BE REDUCED TO 18" WHEN CONNECTING TO EXISTING CONDUIT OR HANDHOLE.

2 DUCT DETAIL TYPE 2
NOT TO SCALE

REVISION NO.	SYM	DESCRIPTION	SIT OF	DATE	APPROVED, PUBLIC WORKS ADMINISTRATOR
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION MAUI, HAWAII					
ELECTRICAL DETAILS					
LICENSED PROFESSIONAL ENGINEER No. 14597-E HAWAII, U.S.A.		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION 		JOB NO. P30253 DRAWING NO.	
DESIGNED BY: NKS DRAWN BY: WSP HI		CHECKED BY: DL APPROVED BY: DL		DATE: 05/26/2026 SCALE: AS NOTED	
License Expiration Date: 4/30/2028				SHEET E-401 9 OF 13 SHTS	

EXISTING PANEL 'X'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W:		208/120-3-4		MCB: MAIN LUGS ONLY	
LOCATION:		HANGAR		BUS AMPS:		100A			
MOUNTING:		SURFACE		SHORT CKT RATING:		10 KAIC			
				BREAKERS:		BOLT-ON			
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 MAIN GATE HOUSE	4.00	EXST	2P70A	A	3P70A	EXST	4.50	PANEL 2A - MCCABE OFFICE	2
3-	4.00	EXST	-	B	-	EXST	4.50	-	4
5 PFB				C	-	EXST	4.50	-	6
7 PFB				A	2P100A	EXST	7.00	PASHA TRAILER	8
9 PFB				B	-	EXST	7.00	-	10
11 PFB				C	-			PFB	12
13 PFB				A	-			PFB	14
15 PFB				B	-			PFB	16
17 PFB				C	-			PFB	18
CONNECTED LOAD:		PHASE A: 15.5 KVA				TOTAL LOAD: 35.5 KVA			
CONNECTED LOAD:		PHASE B: 15.5 KVA				ESTIMATED DEMAND 35.5 KVA			
CONNECTED LOAD:		PHASE C: 4.5 KVA				TOTAL CALCULATED LOAD: 98.5 A			

EXISTING PANEL 'S'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W:		480/277-3-4		MCB: MAIN LUGS ONLY	
LOCATION:		HANGAR		BUS AMPS:		250A			
MOUNTING:		SURFACE		SHORT CKT RATING:		22 KAIC			
				BREAKERS:		BOLT-ON			
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 PANEL 'NC' MAIN	13.00	EXST	3P70A	A	3P70A	EXST	20.00	PANEL 'L' MAIN	2
3-	13.00	EXST	-	B	-	EXST	17.00	-	4
5-	12.00	EXST	-	C	-	EXST	16.00	-	6
7 NEW POLE '1C'	3.00	EXST	2P30A	A	3P25A	EXST	5.00	TRANSFORMER T-S1	8
9-	3.00	EXST	-	B	-	EXST	5.00	-	10
11 LC-S2 NIGHT LIGHT	3.00	EXST	2P30A	C	-	EXST	5.00	-	12
13-	3.00	EXST	-	A	2P20A	EXST	1.00	LC-S1 WORK LIGHT	14
15 EXST. LOAD S.1	1.00	EXST	2P20A	B	-	EXST	1.00	-	16
17-	1.00	EXST	-	C	2P20A	EXST	1.00	EXST. LOAD S.4	18
19 EXST. LOAD S.2	1.00	EXST	2P20A	A	-	EXST	1.00	-	20
21-	1.00	EXST	-	B	-			PFB	22
23 EXST. LOAD S.3	1.00	EXST	2P20A	C	-			PFB	24
25-	1.00	EXST	-	A	-			PFB	26
27 PFB				B	-			PFB	28
29 PFB				C	-			PFB	30
CONNECTED LOAD:		PHASE A: 48.0 KVA				TOTAL LOAD: 128.0 KVA			
CONNECTED LOAD:		PHASE B: 41.0 KVA				ESTIMATED DEMAND 128.0 KVA			
CONNECTED LOAD:		PHASE C: 39.0 KVA				TOTAL CALCULATED LOAD: 154.0 A			

EXISTING PANEL 'P'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W:		480/277-3-3		MCB: 3P350A	
LOCATION:		HANGAR		BUS AMPS:		350A			
MOUNTING:		SURFACE		SHORT CKT RATING:		22 KAIC			
				BREAKERS:		BOLT-ON			
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 TRANSFORMER T-P1	15.00	EXST	3P70A	A	2P50A			SPARE	2
3-	15.00	EXST	-	B	-			-	4
5-	15.00	EXST	-	C	2P70A	EXST	12.00	SHED 1B	6
7 PANEL '4H2'	25.00	EXST	3P150A	A	-	EXST	12.00	-	8
9-	25.00	EXST	-	B	3P70A	EXST	14.00	PANEL 4H PASSENGER CRUISE TER	10
11-	25.00	EXST	-	C	-	EXST	14.00	-	12
13 SPARE			2P30A	A	-	EXST	14.00	-	14
15-			-	B	3P30A	EXST	5.50	LIFT STATION	16
17 PFB				C	-	EXST	5.50	-	18
19 PFB				A	-	EXST	5.50	-	20
21 SPARE			3P50A	B	3P125A	EXST		EXST. LOAD	22
23-			-	C	-	EXST		-	24
25-			-	A	-	EXST		-	26
CONNECTED LOAD:		PHASE A: 71.5 KVA				TOTAL LOAD: 202.5 KVA			
CONNECTED LOAD:		PHASE B: 59.5 KVA				ESTIMATED DEMAND 202.5 KVA			
CONNECTED LOAD:		PHASE C: 71.5 KVA				TOTAL CALCULATED LOAD: 243.6 A			

EXISTING PANEL '1A'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W:		208/120-3-4		MCB: MAIN LUGS ONLY	
LOCATION:		HANGAR		BUS AMPS:		100A			
MOUNTING:		SURFACE		SHORT CKT RATING:		10 KAIC			
				BREAKERS:		BOLT-ON			
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 ROLL UP DOOR 5/6/7/8 (OCEAN SIDE)	0.50	EXST	3P20A	A	3P20A	EXST	0.50	ROLL UP DOOR 4 (OCEAN SIDE)	2
3-	0.50	EXST	-	B	-	EXST	0.50	-	4
5-	0.50	EXST	-	C	-	EXST	0.50	-	6
7 S/O CORD	0.50	EXST	3P20A	A	3P20A	EXST	0.50	ROLL UP DOOR 9	8
9-	0.50	EXST	-	B	-	EXST	0.50	-	10
11-	0.50	EXST	-	C	-	EXST	0.50	-	12
13 ROLL UP DOORS 10 & 11	0.50	EXST	3P20A	A	2P30A	EXST	1.00	BASE DOCK LIGHTS	14
15-	0.50	EXST	-	B	-	EXST	1.00	-	16
17-	0.50	EXST	-	C	2P30A			SPARE	18
19 FRONT LIGHTS	1.00	EXST	1P20A	A	-			-	20
21 BACK LIGHTS	1.00	EXST	1P20A	B	-			PFB	22
23 PIER 1	1.00	EXST	1P20A	C	-			PFB	24
CONNECTED LOAD:		PHASE A: 4.5 KVA				TOTAL LOAD: 12.5 KVA			
CONNECTED LOAD:		PHASE B: 4.5 KVA				ESTIMATED DEMAND 12.5 KVA			
CONNECTED LOAD:		PHASE C: 3.5 KVA				TOTAL CALCULATED LOAD: 34.7 A			

EXISTING PANEL 'REEFER'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W:		208/120-3-4		MCB: MAIN LUGS ONLY	
LOCATION:		HANGAR		BUS AMPS:		400A			
MOUNTING:		SURFACE		SHORT CKT RATING:		22 KAIC			
				BREAKERS:		BOLT-ON			
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 REEFER 'A'	3.00	EXST	3P50A	A	3P50A	EXST	3.00	REEFER 'E'	2
3-	3.00	EXST	-	B	-	EXST	3.00	-	4
5-	3.00	EXST	-	C	-	EXST	3.00	-	6
7 REEFER 'B'	3.00	EXST	3P50A	A	3P50A	EXST	3.00	REEFER 'F'	8
9-	3.00	EXST	-	B	-	EXST	3.00	-	10
11-	3.00	EXST	-	C	-	EXST	3.00	-	12
13 REEFER 'C'	3.00	EXST	3P50A	A	3P50A	EXST	3.00	REEFER 'H'	14
15-	3.00	EXST	-	B	-	EXST	3.00	-	16
17-	3.00	EXST	-	C	-	EXST	3.00	-	18
19 REEFER 'D'	3.00	EXST	3P50A	A	3P50A	EXST	3.00	REEFER 'G'	20
21-	3.00	EXST	-	B	-	EXST	3.00	-	22
23-	3.00	EXST	-	C	-	EXST	3.00	-	24
25 CRANE POWER	8.00	EXST	3P100A	A	2P30A	EXST	1.50	EXST. LOAD R.1	26
27-	8.00	EXST	-	B	-	EXST	1.50	-	28
29-	8.00	EXST	-	C	-			PFB	30
31 PFB				A	-			PFB	32
CONNECTED LOAD:		PHASE A: 33.5 KVA				TOTAL LOAD: 99.0 KVA			
CONNECTED LOAD:		PHASE B: 33.5 KVA				ESTIMATED DEMAND 99.0 KVA			
CONNECTED LOAD:		PHASE C: 32.0 KVA				TOTAL CALCULATED LOAD: 274.8 A			

EXISTING PANEL '2S'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W:		208/120-3-4		MCB: 3P50A	
LOCATION:		HANGAR		BUS AMPS:		100A			
MOUNTING:		SURFACE		SHORT CKT RATING:		10 KAIC			
				BREAKERS:		BOLT-ON			
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 DOCK LIGHTS 1	1.00	EXST	2P20A	A	2P20A	EXST	1.00	DOCK LIGHTS 3	2
3-	1.00	EXST	-	B	-	EXST	1.00	-	4
5 DOCK LIGHTS 2	1.00	EXST	2P20A	A	1P20A	EXST	1.00	CONTROL POWER	6
7-	1.00	EXST	-	B	1P20A	EXST	1.00	LC 2S1	8
9 CONTROL POWER-PHOTO CELL	0.10	EXST	1P20A	B	1P20A	EXST	1.00	LC 2S1	10
11 POLE PLUGS	1.00	EXST	1P30A	C	1P30A	EXST	1.50	POLE PLUGS	12
13 PFB				A	1P20A	EXST	1.00	SECURITY POWER SUPPLY	14
15 PFB				B	-	EXST		PFB	16
17 PFB				C	1P20A	EXST	1.00	EXST. LOAD 2S.1	18
19 PFB				A	1P20A	EXST	1.00	EXST. LOAD 2S.2	20
21 PFB				B	1P20A	EXST	0.50	GFCI/RECEPT	22
23 PFB				C	1P20A	EXST	1.00	SOLARGUARD MONITORING DEVICE	24
25 MAIN BREAKER			EXST	3P50A	A			-	26
27-			EXST	-	B			-	28
29-			EXST	-	C			-	30
CONNECTED LOAD:		PHASE A: 6.0 KVA				TOTAL LOAD: 16.1 KVA			
CONNECTED LOAD:		PHASE B: 3.6 KVA				ESTIMATED DEMAND 16.1 KVA			
CONNECTED LOAD:		PHASE C: 6.5 KVA				TOTAL CALCULATED LOAD: 44.7 A			

EXISTING PANEL 'A'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W:		208/120-3-4		MCB: 3P150A	
LOCATION:		HANGAR		BUS AMPS:		225			
MOUNTING:		SURFACE		SHORT CKT RATING:		10 KAIC			
				BREAKERS:		BOLT-ON			
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 LTS: ROWS 1 & 2 (EAST)	0.50	EXST	2P20A	A	2P20A	EXST	0.50	LTS: ROWS 5 & 6	2
3-	0.50	EXST	-	B	-	EXST	0.50	-	4
5 LTS: ROWS 3 & 4	0.50	EXST	2P20A	C	2P20A	EXST	0.50	LTS: ROWS 7 & 8	6
7-	0.50	EXST	-	A	-	EXST	0.50	-	8
9 LTS: ROWS 9 & 10	0.50	EXST	2P20A	B	2P20A	EXST	0.50	LTS: ROWS 13 & 14	10
11-	0.50	EXST	-	C	-	EXST	0.50	-	12
13 LTS: ROWS 11 & 12	0.50	EXST	2P20A	A	2P20A	EXST	0.50	LTS: ROWS 15 & 16	14
15-	0.50	EXST	-	B	-	EXST	0.50	-	16
17 SPARE			2P20A	C	2P20A			SPARE	18
19-			-	A	-			-	20
21 CONTRACTOR CONTROL	0.50	EXST	1P20A	B	1P20A	EXST	0.50	UPPER ROW SPARE	22
23 CURFEW LTS, UPPER ROW WORK LT	0.50	EXST	1P20A	C	1P20A	EXST	0.50	PLUGS: CENTER COLS.	24
25 PLUGS: CENTER COLS.	0.50</								

NEW PANEL 'S'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W: 480/277-3-4		MCB: 3P200A			
LOCATION:		HANGAR		BUS AMPS: 250A					
MOUNTING:		SURFACE		SHORT CKT RATING: 22 KAIC					
				BREAKERS: BOLT-ON					
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 PANEL 'NC'	12.00		3P100A	A	3P25A		5.00	TRANSFORMER T-S1	2
3 -	12.00		-	B	-		5.00	TO PANEL 2S	4
5 -	12.00		-	C	-		5.00	-	6
7 NEW POLE '1C'	3.00		2P30A	A	2P20A		1.00	LC-S1 WORK LIGHT	8
9 -	3.00		-	B	-		1.00	-	10
11 LC-S2 NIGHT LIGHT	3.00		2P30A	A	2P20A		1.00	EXST. LOAD S.4	12
13 -	3.00		-	A	-		1.00	-	14
15 EXST. LOAD S.1	1.00		2P20A	B	2P30A		4.00	LIGHT POLE HM-3,4,5,6	16
17 -	1.00		-	C	-		4.00	-	18
19 EXST. LOAD S.2	1.00		2P20A	A	2P30A		4.50	LIGHT POLE HM-1A,13,14,15,P-1	20
21 -	1.00		-	B	-		4.50	-	22
23 EXST. LOAD S.3	1.00		2P20A	A	2P30A		3.50	LIGHT POLE HM-16,17,18,18-2	24
25 -	1.00		-	A	-		3.50	-	26
27 LIGHT POLE HM-7,8,9	3.00		2P30A	B	2P20A		1.00	EXST. LOAD L.1	28
29 -	3.00		-	C	-		1.00	-	30
31 LIGHT POLE HM-10,11,12	3.00		2P30A	A	3P15A		1.00	ROLL-UP DOORS	32
33 -	3.00		-	B	-		1.00	-	34
35 LIGHT POLE HM-0,1D,1E,1,2	5.00		2P30A	A	-		1.00	-	36
37 -	5.00		-	A	-		3.00	CAMERA 2 STREET LIGHTS	38
39 NIGHT LIGHTS	3.00		2P30A	B	-		3.00	-	40
41 -	3.00		-	C	-		-	PFB	42
CONNECTED LOAD:		PHASE A: 47.0 KVA				TOTAL LOAD: 136.0 KVA			
CONNECTED LOAD:		PHASE B: 45.5 KVA				ESTIMATED DEMAND 147.5 KVA			
CONNECTED LOAD:		PHASE C: 43.5 KVA				TOTAL CALCULATED LOAD: 177.4 A			

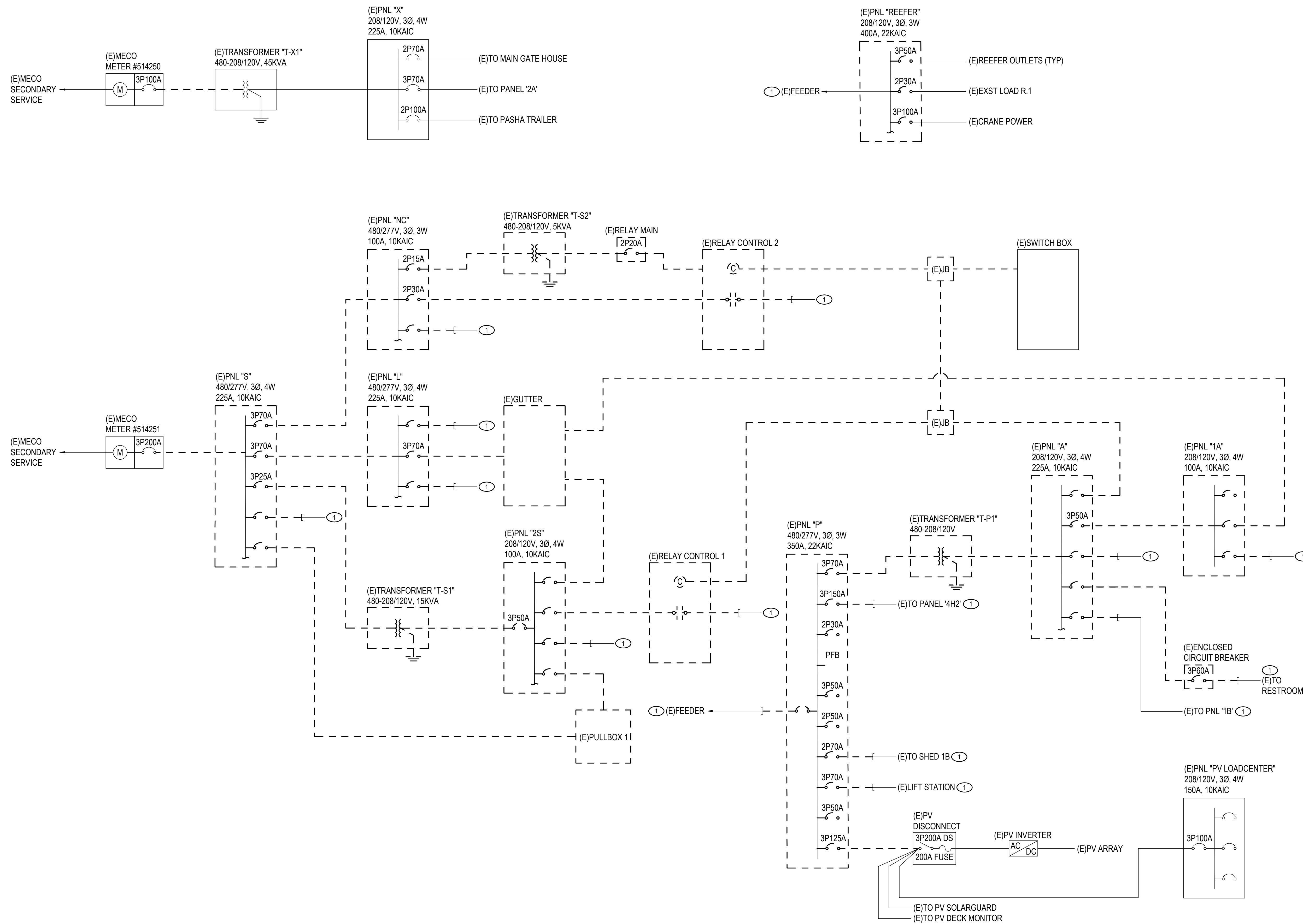
NEW PANEL 'P'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W: 480/277-3-3		MCB: 3P350A			
LOCATION:		HANGAR		BUS AMPS: 350A					
MOUNTING:		SURFACE		SHORT CKT RATING: 22 KAIC					
				BREAKERS: BOLT-ON					
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 TRANSFORMER T-P1	17.00		3P100A	A	2P70A		12.00	SHED 1B	2
3 TO PANEL A	17.00		-	B	-		12.00	-	4
5 -	17.00		-	C	-		14.00	PANEL 4H PASSENGER CRUISE TER	6
7 PANEL '4H2'	25.00		3P150A	A	-		14.00	-	8
9 -	25.00		-	B	-		14.00	-	10
11 -	25.00		-	C	-		5.00	LIFT STATION	12
13 PFB			-	A	-		5.00	-	14
15 PFB			-	B	-		5.00	-	16
17 PFB			-	C	-		-	PFB	18
19 PFB			-	A	-		-	PFB	20
21 PFB			-	B	-		-	PFB	22
23 PFB			-	C	-		-	PFB	24
25 PFB			-	A	-		-	PFB	26
27 PFB			-	B	-		-	PFB	28
29 PFB			-	C	-		-	PFB	30
31 PFB			-	A	-		-	PFB	32
33 PFB			-	B	-		-	PFB	34
35 PFB			-	C	-		-	PFB	36
37 PFB			-	A	-		-	PV INTERCONNECTION	38
39 PFB			-	B	-		-	-	40
41 PFB			-	C	-		-	-	42
CONNECTED LOAD:		PHASE A: 73.0 KVA				TOTAL LOAD: 207.0 KVA			
CONNECTED LOAD:		PHASE B: 73.0 KVA				ESTIMATED DEMAND 207.0 KVA			
CONNECTED LOAD:		PHASE C: 61.0 KVA				TOTAL CALCULATED LOAD: 249.0 A			

NEW PANEL 'A'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W: 208/120-3-4		MCB: 3P200A			
LOCATION:		HANGAR		BUS AMPS: 225					
MOUNTING:		SURFACE		SHORT CKT RATING: 10 KAIC					
				BREAKERS: BOLT-ON					
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 LTS: ROWS 1 & 2 (EAST)	0.50		2P20A	A	2P20A		0.50	LTS: ROWS 5 & 6	2
3 -	0.50		-	B	-		0.50	-	4
5 LTS: ROWS 3 & 4	0.50		2P20A	A	2P20A		0.50	LTS: ROWS 7 & 8	6
7 -	0.50		-	B	-		0.50	-	8
9 LTS: ROWS 9 & 10	0.50		2P20A	A	2P20A		0.50	LTS: ROWS 13 & 14	10
11 -	0.50		-	B	-		0.50	-	12
13 LTS: ROWS 11 & 12	0.50		2P20A	A	2P20A		0.50	LTS: ROWS 15 & 16	14
15 -	0.50		-	B	-		0.50	-	16
17 CONTRACTOR CONTROL	0.50		1P20A	A	1P20A		0.50	UPPER ROW SPARE	18
19 CURFEW LTS, UPPER ROW WORK LT	0.50		1P20A	A	1P20A		0.50	PLUGS: CENTER COLS.	20
21 PLUGS: CENTER COLS.	0.50		1P20A	B	3P50A		4.00	PANEL '1B'	22
23 EXT. LTS: SHED 1B	1.00		1P30A	A	-		4.00	-	24
25 PANEL '1A'	4.00		3P50A	A	-		4.00	-	26
27 -	4.00		-	B	-		4.00	RESTROOM DISCONNECT	28
29 -	4.00		-	C	-		4.00	-	30
31 OFFICE TRAILER	2.00		2P30A	A	-		4.00	-	32
33 -	2.00		-	B	-		-	PFB	34
35 PFB			-	C	-		-	PFB	36
37 PFB			-	A	-		-	PFB	38
39 PFB			-	B	-		-	PFB	40
41 PFB			-	C	-		-	PFB	42
CONNECTED LOAD:		PHASE A: 18.0 KVA				TOTAL LOAD: 51.5 KVA			
CONNECTED LOAD:		PHASE B: 17.5 KVA				ESTIMATED DEMAND 51.5 KVA			
CONNECTED LOAD:		PHASE C: 16.0 KVA				TOTAL CALCULATED LOAD: 142.9 A			

NEW PANEL 'NC'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W: 480/277-3-4		MCB: MAIN LUGS ONLY			
LOCATION:		HANGAR		BUS AMPS: 100A					
MOUNTING:		SURFACE		SHORT CKT RATING: 22 KAIC					
				BREAKERS: BOLT-ON					
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 WK 4,5,6	3.00		2P30A	A	2P30A		3.00	WK 1,2,3	2
3 -	3.00		-	B	-		3.00	-	4
5 SEC LTS. 7,8,9	3.00		2P30A	A	2P30A		3.00	WK 7,8,9	6
7 -	3.00		-	B	-		3.00	-	8
9 SEC LTS. 1,2,3	3.00		2P30A	B	2P30A		3.00	SEC LTS. 4,5,6	10
11 -	3.00		-	C	-		3.00	-	12
13 PFB			-	A	-		-	PFB	14
15 PFB			-	B	-		-	PFB	16
17 PFB			-	C	-		-	PFB	18
19 PFB			-	A	-		-	PFB	20
21 PFB			-	B	-		-	PFB	22
23 PFB			-	C	-		-	PFB	24
CONNECTED LOAD:		PHASE A: 12.0 KVA				TOTAL LOAD: 36.0 KVA			
CONNECTED LOAD:		PHASE B: 12.0 KVA				ESTIMATED DEMAND 36.0 KVA			
CONNECTED LOAD:		PHASE C: 12.0 KVA				TOTAL CALCULATED LOAD: 43.3 A			

NEW PANEL '1A'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W: 208/120-3-4		MCB: MAIN LUGS ONLY			
LOCATION:		HANGAR		BUS AMPS: 100A					
MOUNTING:		SURFACE		SHORT CKT RATING: 10 KAIC					
				BREAKERS: BOLT-ON					
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 ROLL UP DOOR 5/6/7/8 (OCEAN SIDE)	0.50		3P20A	A	3P20A		0.50	ROLL UP DOOR 4 (OCEAN SIDE)	2
3 -	0.50		-	B	-		0.50	-	4
5 -	0.50		-	C	-		0.50	-	6
7 S/O CORD	0.50		3P20A	A	3P20A		0.50	ROLL UP DOOR 9	8
9 -	0.50		-	B	-		0.50	-	10
11 -	0.50		-	C	-		0.50	-	12
13 ROLL UP DOORS 10 & 11	0.50		3P20A	A	2P30A		1.00	BASE DOCK LIGHTS	14
15 -	0.50		-	B	-		1.00	-	16
17 -	0.50		-	C	-		-	PFB	18
19 FRONT LIGHTS	1.00		1P20A	A	-		-	PFB	20
21 BACK LIGHTS	1.00		1P20A	B	-		-	PFB	22
23 PIER 1	1.00		1P20A	C	-		-	PFB	24
25 PFB			-	A	-		-	PFB	26
27 PFB			-	B	-		-	PFB	28
29 PFB			-	C	-		-	PFB	30
CONNECTED LOAD:		PHASE A: 4.5 KVA				TOTAL LOAD: 12.5 KVA			
CONNECTED LOAD:		PHASE B: 4.5 KVA				ESTIMATED DEMAND 12.5 KVA			
CONNECTED LOAD:		PHASE C: 3.5 KVA				TOTAL CALCULATED LOAD: 34.7 A			

NEW PANEL 'REEFER'									
PROJECT:		DOT-H KAHULUI HARBOR PIER 1		VOLTS-PHASE-W: 208/120-3-4		MCB: 3P300A			
LOCATION:		HANGAR		BUS AMPS: 400A					
MOUNTING:		SURFACE		SHORT CKT RATING: 22 KAIC					
				BREAKERS: BOLT-ON					
DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1 REEFER 'A'	3.00		3P50A	A	3P50A		3.00	REEFER 'E'	2
3 -	3.00		-	B	-		3.00	-	4
5 -	3.00		-	C	-		3.00	-	6
7 REEFER 'B'	3.00		3P50A	A	3P50A		3.00	REEFER 'F'	8
9 -	3.00		-	B	-		3.00	-	10
11 -	3.00		-	C	-		3.00	-	12
13 REEFER 'C'	3.00		3P50A	A	3P50A		3.00	REEFER 'H'	14
15 -	3.00		-	B	-		3.00	-	16
17 -	3.00		-	C	-		3.00	-	18
19 REEFER 'D'	3.00		3P50A	A	3P50A		3.00	REEFER 'G'	20
21 -	3.00		-	B	-		3.00	-	22
23 -	3.00		-	C	-		3.00	-	24
25 CRANE POWER	8.00		3P100A	A	2P30A		1.50	EXST. LOAD R.1	26
27 -	8.00		-	B	-		1.50	-	28
29 -</									



GENERAL NOTES:

- A. EXISTING ELECTRICAL SHOWN IS BASED ON VISUAL OBSERVATION ONLY. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND ON SITE.

SHEET NOTES:

- 1. TRACE EXISTING FEEDERS AND LOADS, AND VERIFY EXISTING CONDUIT AND CONDUCTOR SIZES. CUT AND STUB EXISTING CONDUIT AND WIRING. REMOVE ABANDONED CONDUIT AND WIRING FOR ANY LOADS NO LONGER IN USE.

1 ELECTRICAL ONE-LINE DIAGRAM - DEMO
NOT TO SCALE

REVISION NO.	SYM	DESCRIPTION	SIT OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR

DESIGNED BY: NKS
DRAWN BY: WSP HI
SCALE: AS NOTED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

**KAHULUI, PIER 1, ELECTRICAL
UPGRADE AND STANDARDIZATION**

KAHULUI HARBOR MAUI, HAWAII

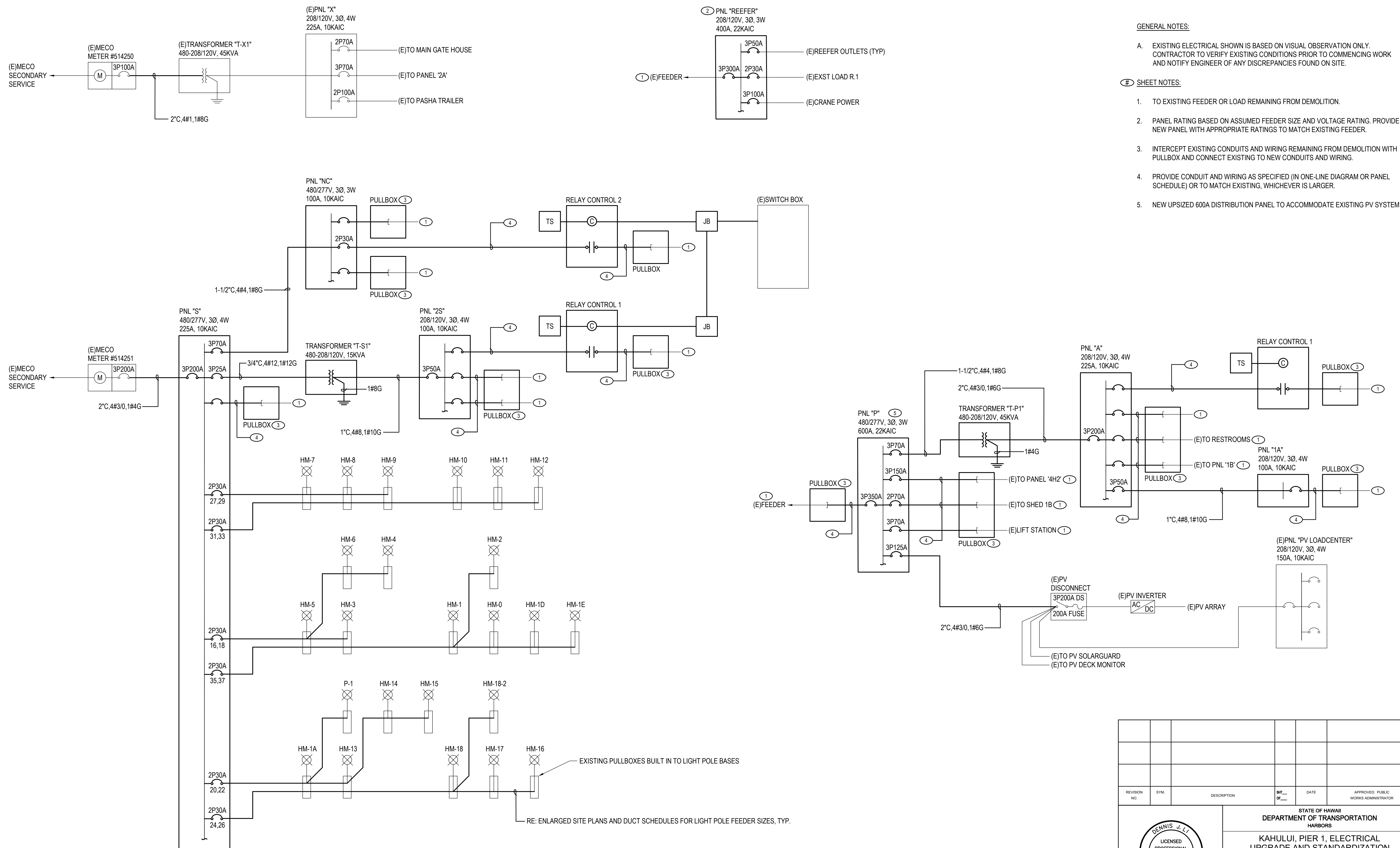
ELECTRICAL ONE-LINE DIAGRAM - DEMO

JOB NO. P30253
DRAWING NO. ED-601
SHEET 12 OF 13 SHITS

DATE: 05/26/2026

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

License Expiration Date: 4/30/2028



- GENERAL NOTES:**
- EXISTING ELECTRICAL SHOWN IS BASED ON VISUAL OBSERVATION ONLY. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND ON SITE.
- SHEET NOTES:**
- TO EXISTING FEEDER OR LOAD REMAINING FROM DEMOLITION.
 - PANEL RATING BASED ON ASSUMED FEEDER SIZE AND VOLTAGE RATING. PROVIDE NEW PANEL WITH APPROPRIATE RATINGS TO MATCH EXISTING FEEDER.
 - INTERCEPT EXISTING CONDUITS AND WIRING REMAINING FROM DEMOLITION WITH PULLBOX AND CONNECT EXISTING TO NEW CONDUITS AND WIRING.
 - PROVIDE CONDUIT AND WIRING AS SPECIFIED (IN ONE-LINE DIAGRAM OR PANEL SCHEDULE) OR TO MATCH EXISTING, WHICHEVER IS LARGER.
 - NEW UPSIZED 600A DISTRIBUTION PANEL TO ACCOMMODATE EXISTING PV SYSTEM.

1 ELECTRICAL ONE-LINE DIAGRAM
NOT TO SCALE

REVISION NO.	SYM	DESCRIPTION	SHEET OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS KAHULUI, PIER 1, ELECTRICAL UPGRADE AND STANDARDIZATION KAHULUI HARBOR MAUI, HAWAII					
ELECTRICAL ONE-LINE DIAGRAM					
DESIGNED BY: NKS	CHECKED BY: DL	JOB NO. P30253	DRAWING NO.		
DRAWN BY: WSP HI	APPROVED BY: DL	DATE 05/26/2026	SHEET E-601 13 OF 13 SHEETS		
SCALE: AS NOTED		License Expiration Date: 4/30/2028			