

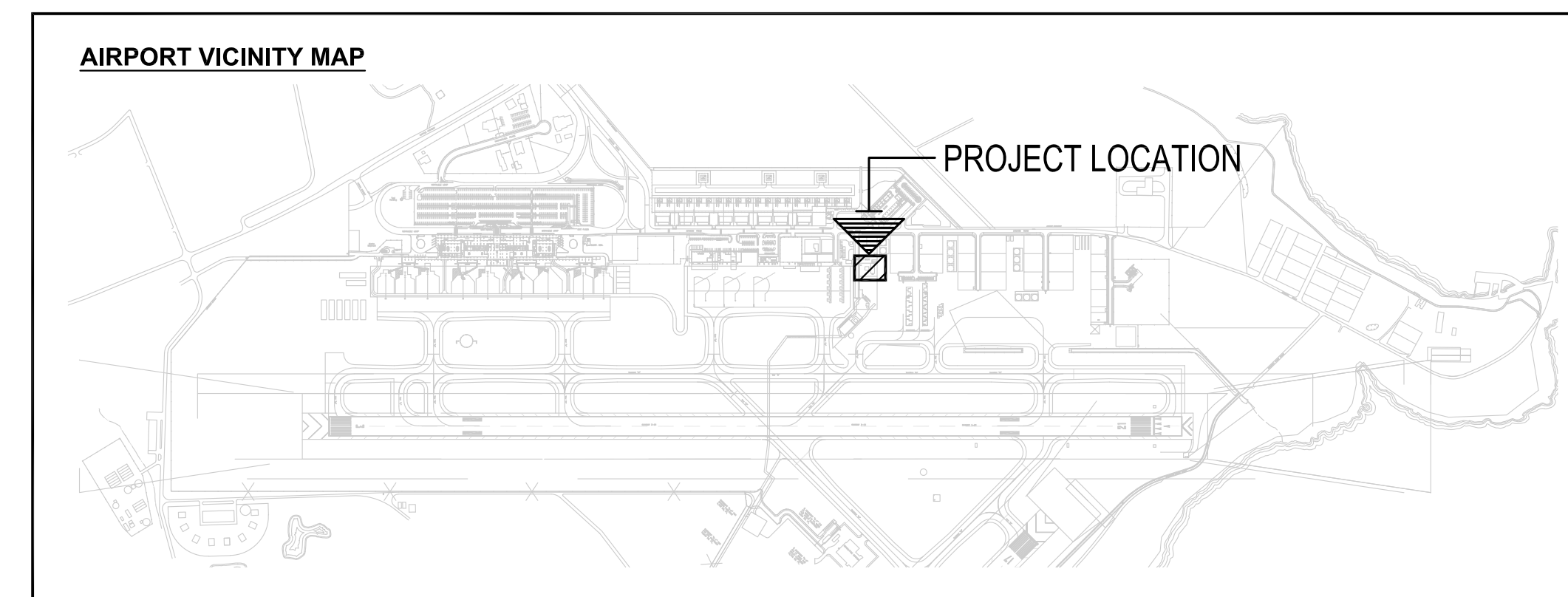
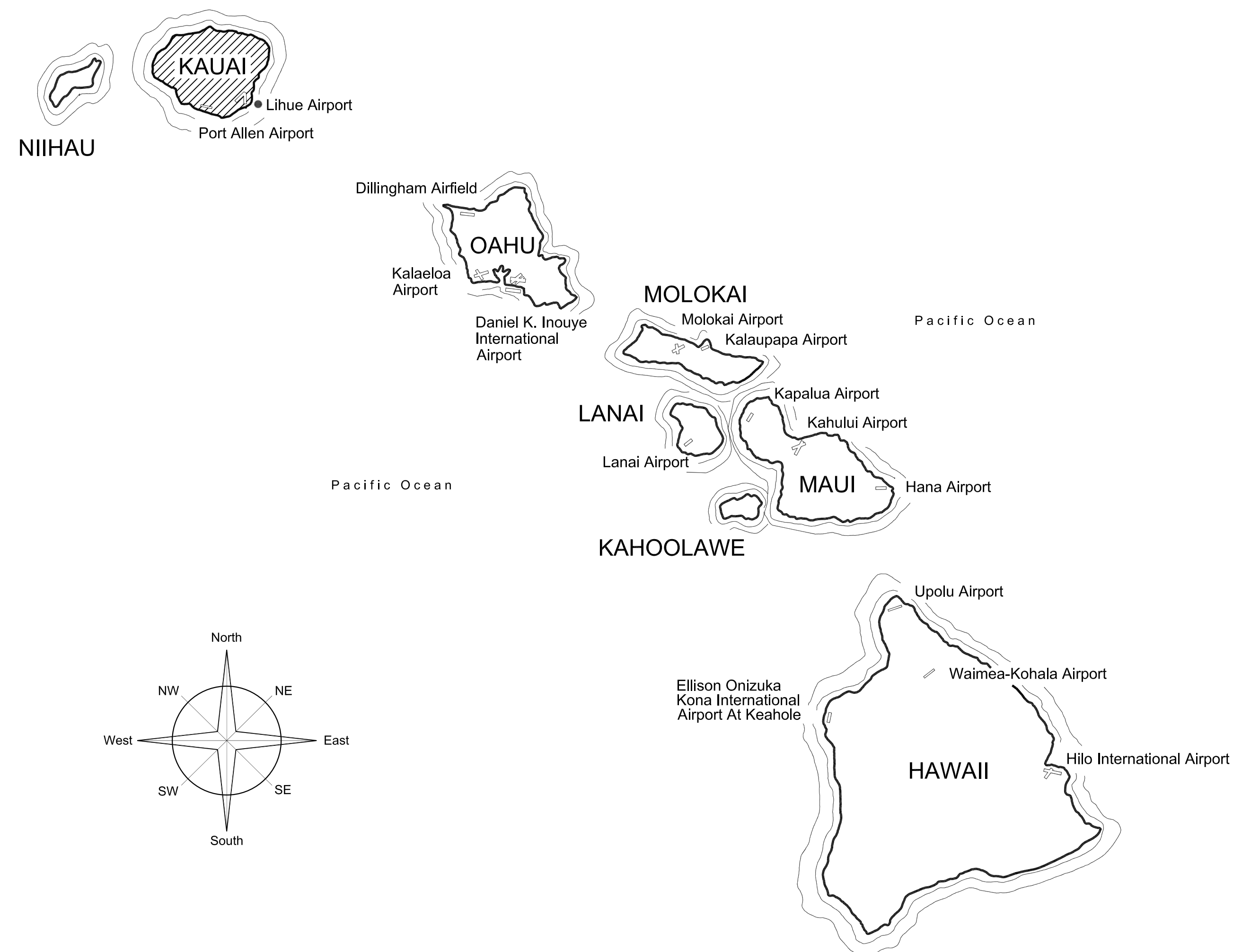
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS

PLANS FOR

# REPLACE AUTOMATIC TRANSFER SWITCHES

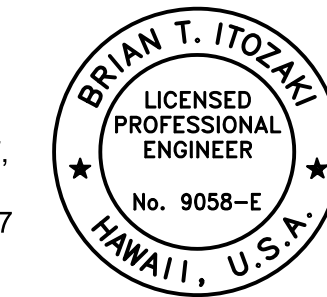
AT

## LIHUE AIRPORT LIHUE, KAUAI, HAWAII CK1422-33

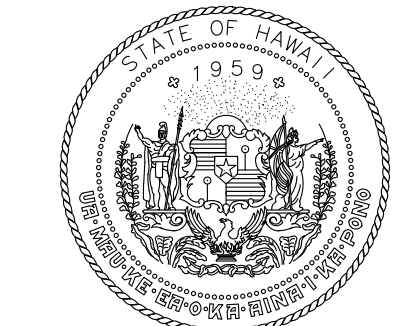


**PROJECT TEAM**

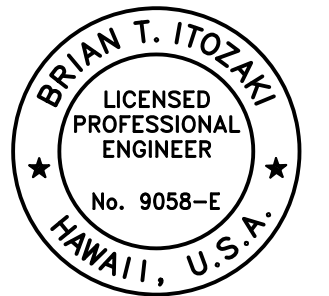
ELECTRICAL:  
BOWERS + KUBOTA  
1650 LILIHA STREET,  
SUITE #205  
HONOLULU, HI 96817  
(808) 955-5911



*Brian T. Itozaki*  
BRIAN T. ITOZAKI  
ELECTRICAL ENGINEER



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



*Brian T. Itozaki*  
04/30/2026  
Licensed Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
AA	AA	SM	BI

NO.	DATE	REVISIONS

**CONSTRUCTION  
DOCUMENTS**  
MARCH 5, 2024  
DATE

PROJECT TITLE :

**REPLACE AUTOMATIC  
TRANSFER SWITCHES**

AT  
LIHUE AIRPORT  
LIHUE, KAUAI, HAWAII

PROJECT NO.:

**CK1422-33**

SHEET TITLE:

**COVER SHEET,  
VICINITY MAP,  
PROJECT TEAM**

DEPARTMENT OF TRANSPORTATION STATE OF HAWAII	
APPROVED:	DATE:
<i>Nathan Kaneshige for</i>	05/08/2024
for DIRECTOR OF TRANSPORTATION	DATE

DATE :	DWG. NO.
03/05/2024	<b>G-001</b>
SHEET :	
1 OF 5 SHEETS	

**GENERAL ELECTRICAL NOTES:**

- ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO BIDDING. BID SUBMISSION SHALL BE CONSIDERED AS CONFIRMATION THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS RESOLVED ALL DISCREPANCIES AND QUESTIONS REGARDING THE WORK. NO EXTRA PAYMENT WILL BE GIVEN FOR WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO VISIT THE SITE.
- ALL RACEWAYS AND OUTLETS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
- CONDUIT SIZES INDICATED ON THE DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND MAY BE PURPOSELY OVERSIZED FOR FUTURE CONDUCTORS OR TO AVOID CONDUIT HEATING. CONDUIT SIZES NOT CALLED OUT ON THE DRAWINGS SHALL BE SIZED BY THE CONTRACTOR, BASED ON THE ACTUAL NUMBER OF CONDUCTORS TO BE INSTALLED. USING THE NATIONAL ELECTRICAL CODE AS A GUIDE. IN NO CASE SHALL CONDUIT SIZES BE SMALLER THAN 3/4" DIAMETER.
- ALL WIRING SHALL INCLUDE AN INSULATED GREEN GROUNDING CONDUCTOR SIZED PER TABLE 250.122 OF THE NATIONAL ELECTRICAL CODE. THIS CONDUCTOR SHALL BE CARRIED IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LEGS AND SHALL BE ATTACHED TO THE DEVICE, LIGHT FIXTURE, OR EQUIPMENT HOUSING USING A SUITABLE GROUNDING LUG.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZING OF THESE BOXES SHALL BE PER THE NATIONAL ELECTRICAL CODE.
- ALL PENETRATIONS THROUGH FIRE RATED WALLS AND SLABS SHALL BE SEALED TO MAINTAIN THE INTEGRITY OF THE FIRE RATING USING A U.L. LISTED FIRE STOPPING SYSTEM.
- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER BEFORE MAKING ANY PENETRATIONS THROUGH STRUCTURAL MEMBERS OR FIRE RATED WALLS AND SLABS.
- PROJECT CONDITIONS MAY REQUIRE REARRANGEMENT OF ELECTRICAL WORK. THE CONTRACTOR SHALL INDICATE SUCH CHANGES ON THE AS-BUILT DRAWINGS. WHERE CHANGES REQUIRE ALTERNATE METHODS TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE PROPOSED METHOD FOR APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION BETWEEN TRADES SHALL NOT BE CONSIDERED A REASON FOR EXTRA COST.
- EXISTING CONDITION SHOWN ON DRAWINGS ARE TAKEN FROM PAST DESIGN DRAWINGS AND VISUAL FIELD INVESTIGATION. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS SHOWN. DEVIATIONS SHALL BE SHOWN ON AS-BUILT DRAWINGS.
- THE CONTRACTOR SHALL PAINT ALL NEW EXPOSED RACEWAYS (INCLUDING SURFACE METAL RACEWAYS) AND BOXES TO MATCH SURROUNDING FINISH.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.
- REFINISH AND PATCH TO MATCH ALL EXISTING WALL AND CEILING SURFACES DAMAGED OR SCRATCHED BY ELECTRICAL REMOVAL AND INSTALLATION WORK. NEW TOUCH-UP PAINT WORK SHALL BLEND INTO AND MATCH EXISTING FINISH.
- ALL NEW WIRES SHALL BE # 12 AWG, UNLESS OTHERWISE NOTED.
- ALL MATERIAL, EQUIPMENT, AND WIRING LOCATED OUTDOORS SHALL BE RATED FOR WET LOCATIONS.
- AVOID CORING OR DRILLING THROUGH RE-BARS WHEN PENETRATING THROUGH EXISTING CONCRETE WALL, CEILING OR FLOOR. ALL EXTERIOR WALL PENETRATIONS SHALL BE WATERTIGHT.
- EXPOSED RACEWAYS SHALL NOT CROSS OVER EACH OTHER AT LOW POINT ON WALL. CROSSOVERS, WHEN REQUIRED, SHALL BE DONE HIGH ON WALL NEAR JUNCTION BOXES.
- THE CONTRACTOR SHALL SEAL ALL KNOCKOUTS OF EXISTING JUNCTION BOXES AND ENCLOSURES AFTER RACEWAYS ARE REMOVED. MATERIAL USED SHALL MATCH EXISTING JUNCTION BOX OR ENCLOSURE.
- CONTRACTOR SHALL VERIFY MECHANICAL EQUIPMENT RATINGS WITH MECHANICAL CONTRACTOR PRIOR TO ORDERING ELECTRICAL EQUIPMENT. CONTRACTOR SHALL RESIZE CIRCUIT BREAKERS ACCORDING TO EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND RESIZE WIRES AT NO ADDITIONAL COST TO THE STATE. ALL CHANGES SHALL BE SHOWN ON "AS-BUILT" DRAWINGS.
- ALL MULTIWIRE BRANCH CIRCUITS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 210.4. ALL CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS.
- THE TERM "WIRING" SHALL INCLUDE RACEWAY, CONDUCTORS, EQUIPMENT, AND WIRING.
- THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
- ALL EXTERIOR RACEWAYS SHALL BE GALVANIZED RIGID STEEL..
- FLEXIBLE RACEWAYS SHALL BE LIQUID-TIGHT TYPE.
- ALL NEW EXTERIOR SURFACE OUTLET BOXES SHALL BE CAST METAL TYPE WITH GASKETED COVERS. PRESSED STEEL BOXES SHALL NOT BE USED.
- ALL CONCRETE OR CMU WALLS SHALL BE ASSUMED TO BE FIRE RATED. FOR GYPBOARD WALLS, CONTRACTOR SHALL USE THE RATING OF THE DOOR(S) IN THE WALL TO DETERMINE IF THE WALL IS FIRE RATED. ALL FIRE RATED DOORS SHOULD HAVE A FIRE RATING LABEL. SINGLE LAYER WOOD WALLS ARE NOT FIRE RATED.
- THE CONTRACTOR SHALL DISPOSE OF REMOVED MATERIAL AT AN APPROPRIATE SITE OUTSIDE OF THE PROJECT LIMITS.
- CONTRACTOR SHALL EXERCISE CAUTION WHEN DRILLING INTO PAINTED SURFACES. MEASURES SHALL BE TAKEN TO CONTAIN ANY DUST GENERATED.

**INDEX TO DRAWINGS**

SHEET NUMBER	DRAWING NUMBER	SHEET TITLE
1	G-001	COVER SHEET, VICINITY MAP, PROJECT TEAM
2	G-002	GENERAL ELECTRICAL NOTES, INDEX TO DRAWINGS, ELECTRICAL SYMBOL LIST, BUILDING CODE & ZONING INFORMATION
3	E-001	SITE PLAN
4	E-101	ELECTRICAL PLANS
5	E-201	ONE LINE DIAGRAMS

**ELECTRICAL SYMBOL LIST**

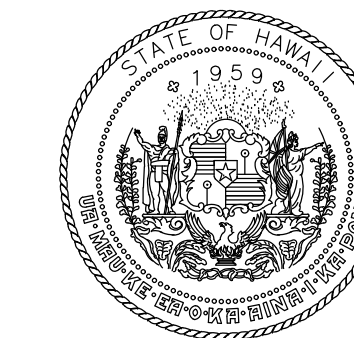
EXISTING	NEW	DESCRIPTION
		EQUIPMENT DISCONNECT SWITCH, HORSEPOWER RATED.
		ELECTRIC PANEL.
		CABINET.
		ELECTRICAL NOTE INDICATOR.
		DETAIL INDICATOR
		UPPER HALF: DETAIL NUMBER LOWER HALF: SHEET NUMBER, DETAIL LOCATION.

**BUILDING CODE INFORMATION**

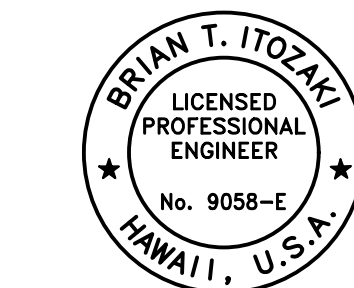
BUILDING CODE:	2018 INTERNATIONAL BUILDING CODE (IBC) NOTE: KAUAI COUNTY USES 2012 IBC W/ AMENDMENTS OUTLINE IN REVISED ORDINANCE OF THE KAUAI CHAPTER 12 - BUILDING CODE
ADMAC:	2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
ADTAG:	2010 AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADMG) FOR BUILDINGS AND FACILITIES
ELECTRICAL CODE:	2020 NFPA 70 NATIONAL ELECTRICAL CODE
OCCUPANCY GROUPS:	AUTOMATIC TRANSFER SWITCH U - UTILITY
TYPE OF CONSTRUCTION:	TYPE III - A
FLOOR LEVEL OF WORK:	GROUND LEVEL
FLOOR AREA:	EXISTING (NO CHANGE)

**ZONING INFORMATION**

TAX MAP KEY:	3 - 5 - 001:006 & 3 - 5 - 001:008
ADDRESS:	STATE OF HAWAII LIHUE AIRPORT 3901 MOKULELE LOOP, #6 LIHUE, KAUAI, HAWAII 96766
TAX CLASSIFICATION:	INDUSTRIAL
LAND AREA:	720.9740 ACRES (31,405,627 SF)
ZONING CODE	LAND USE ORDINANCE
ZONING CLASSIFICATION:	AG - AGRICULTURE GENERAL INDUSTRIAL/SPECIAL TREATMENT PLANNING (STP)
NEIGHBORHOOD CODE:	A002-4
FLOOD DESIGNATION ON PARCEL:	AE, VE, X
SPECIAL DISTRICT:	NONE
HISTORIC SITE REGISTER:	NONE
SMA/SHORELINE:	TBD
PARKING REQUIRED:	NO CHANGE
LOADING REQUIRED:	NO CHANGE



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



*Brian T. Itozaki*  
04/30/2026  
Licensed Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
AA	AA	SM	BI

NO.	DATE	REVISIONS

**CONSTRUCTION DOCUMENTS**

MARCH 5, 2024  
DATE

PROJECT TITLE :

**REPLACE AUTOMATIC TRANSFER SWITCHES**

AT  
LIHUE AIRPORT  
LIHUE, KAUAI, HAWAII

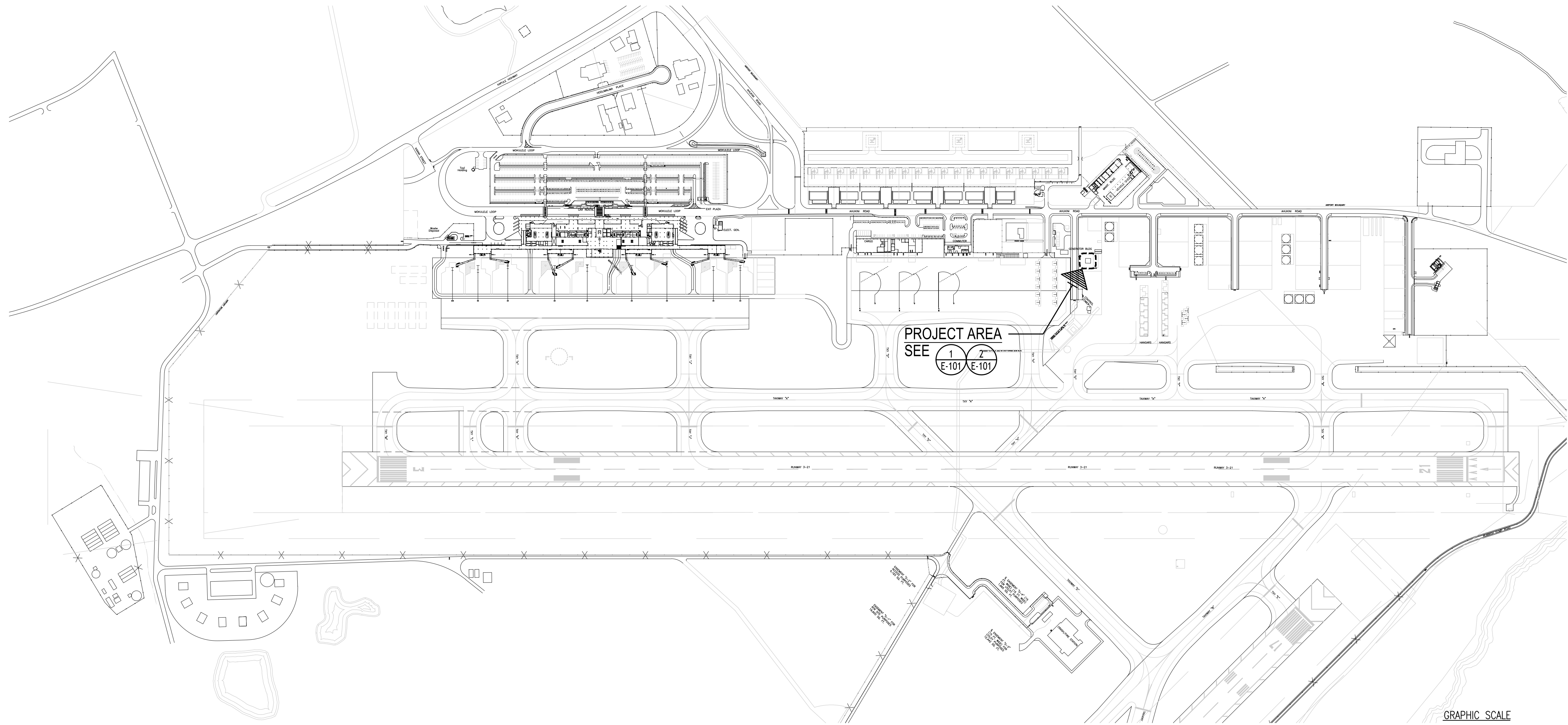
PROJECT NO.:

**CK1422-33**

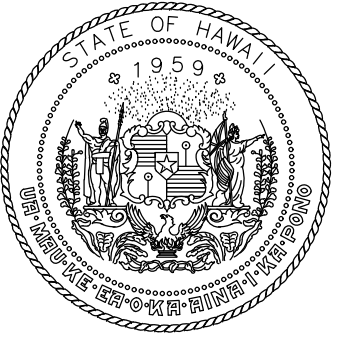
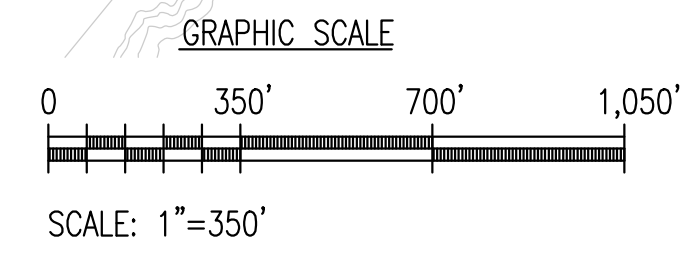
SHEET TITLE:

**GENERAL ELECTRICAL NOTES, INDEX TO DRAWINGS, ELECTRICAL SYMBOL LIST, BUILDING CODE & ZONING INFORMATION**

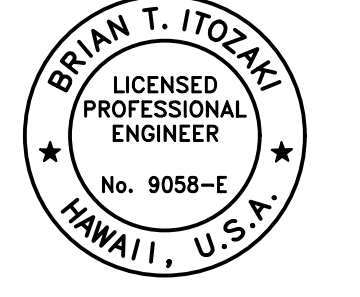
DATE :	03/05/2024	DWG. NO.	<b>G-002</b>
SHEET :	2 OF 5 SHEETS		



**1 SITE PLAN**  
SCALE: 1" = 350'



STATE OF HAWAII  
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**REPLACE AUTOMATIC TRANSFER SWITCHES**

AT  
LIHUE AIRPORT  
LIHUE, KAUAI, HAWAII

PROJECT NO.:

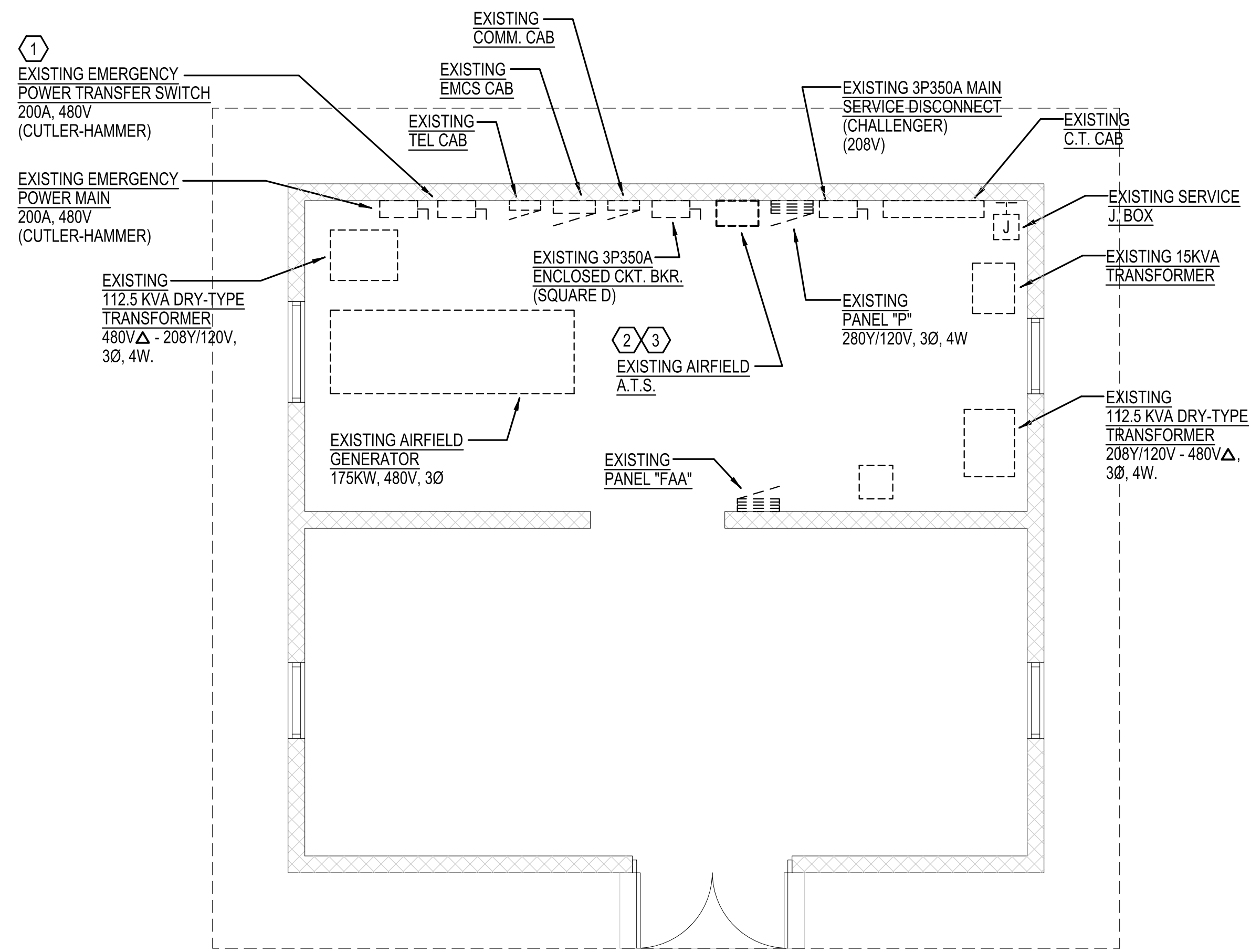
**CK1422-33**

SHEET TITLE:

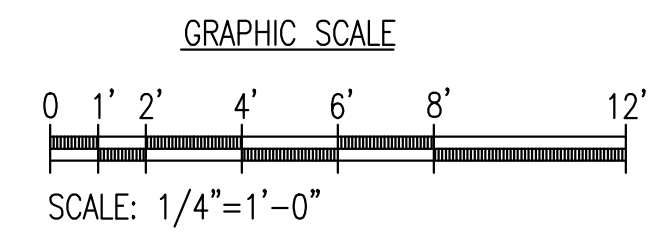
**SITE PLAN**

DATE :	DWG. NO.
<b>03/05/2024</b>	<b>E-001</b>
SHEET :	
3 OF 5 SHEETS	

C:\PROJECT FILES\AIRPORTS\232A0080 GEN ENG SRVCS KAUAI DIST AIRPORTS11 WORK DWGS\7 ELEC\DO 044 REPAIR GENERATOR TRANSFER SWITCHES\CK1422-33 E-001.DWG

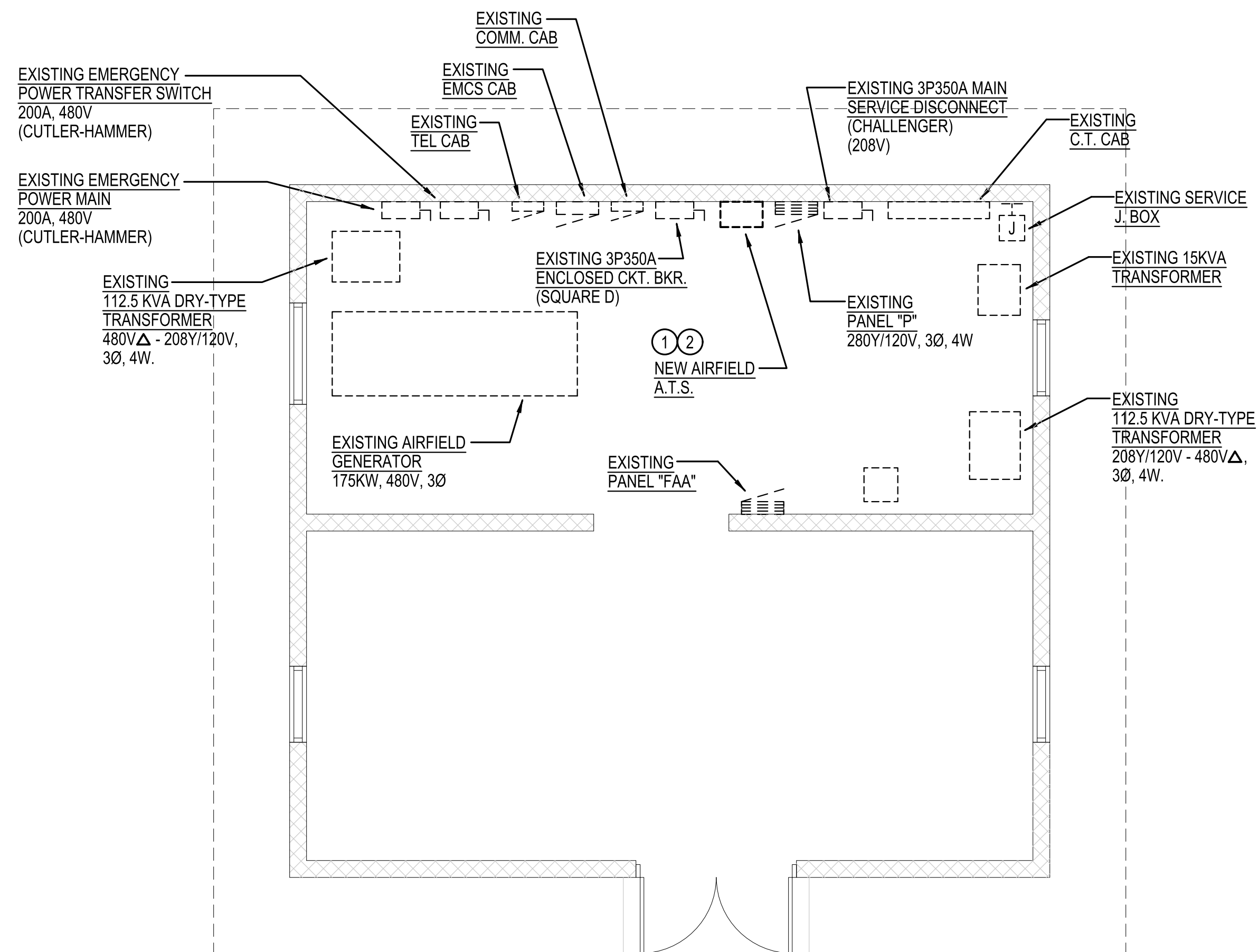


**1 ELECTRICAL PLAN - EXISTING/REMOVAL WORK**  
SCALE: 1/4" = 1'-0"

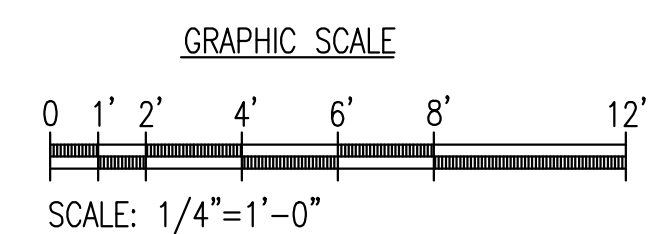


**ELECTRICAL NOTES: EXISTING/REMOVAL WORK**

- ① SWITCH EXISTING MANUAL TRANSFER SWITCH TO MAINTENANCE GENERATOR PRIOR TO START OF CONSTRUCTION. ONCE NEW ATS IS INSTALLED AND TESTED, EXISTING TRANSFER SWITCH SHALL BE SWITCHED BACK TO AIRFIELD GENERATOR.
- ② DISCONNECT AND REMOVE EXISTING AUTOMATIC TRANSFER SWITCH.
- ③ REMOVE EXISTING RACEWAY CONNECTION TO ATS. EXISTING WIRES TO REMAIN.



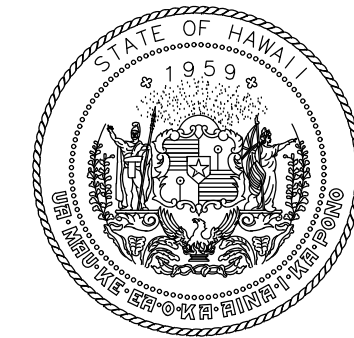
**2 ELECTRICAL PLAN - EXISTING/NEW WORK**  
SCALE: 1/4" = 1'-0"



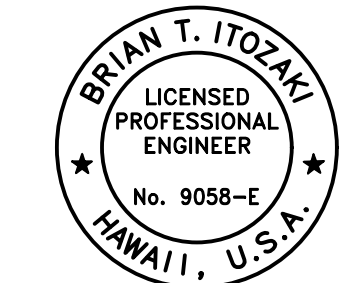
**ELECTRICAL NOTES: EXISTING/NEW WORK**

- ① PROVIDE NEW 600A AUTOMATIC TRANSFER SWITCH WITH ISOLATION BYPASS SWITCH.
- ② CONNECT EXISTING RACEWAY TO NEW ATS. PULL IN EXISTING WIRES AND CONNECT TO NEW ATS. CONNECTIONS.

**NOTE:**  
NEW AUTOMATIC TRANSFER & BYPASS-ISOLATION SWITCH (ATS/BPS) SHALL FIT IN EXISTING LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IF ATS/BPS DOES NOT FIT IN EXISTING LOCATION.



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
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**CONSTRUCTION DOCUMENTS**  
MARCH 5, 2024  
DATE

**PROJECT TITLE :**

**REPLACE AUTOMATIC TRANSFER SWITCHES**

AT  
LIHUE AIRPORT  
LIHUE, KAUAI, HAWAII

**PROJECT NO.:**

**CK1422-33**

**SHEET TITLE:**

**ELECTRICAL PLANS**

DATE :	DWG. NO.
03/05/2024	<b>E-101</b>
SHEET :	
4 OF 5 SHEETS	

C:\PROJECT FILES\AIRPORTS\22A089A\_GEN\_ENG\_SRVCS\KAUAI\_DIST\_AIRPORTS11\_WORK\DWGS\7\_ELEC\DOA\_R44\_REPAIR\_GENERATOR\_TRANSFER\_SWITCHES\CK1422-33\_E-101.DWG



