ELECTRICAL NOTES

A. CONFORM TO THE BUILDING AND ELECTRICAL CODES, LAWS AND REGULATIONS OF THE CITY & COUNTY OF HONOLULU AND STATE OF HAWAII.
B. APPROVED SHOP DRAWINGS ARE A PART OF THE CONTRACT DOCUMENT BY REFERENCE AND SUPERSEDE OTHER DRAWINGS AND REQUIREMENTS.
C. VISIT THE JOB SITE AND BECOME AWARE OF EXISTING CONDITIONS. SURVEY FIELD CONDITIONS AND VERIFY THAT WORK IS FEASIBLE AS INDICATED. VERIFY LOCATION OF ELECTRICAL ELEMENTS IN RELATION TO STRUCTURAL AND OTHER ELEMENTS. NOTIFY THE ENGINEER IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
D. SUBCONTRACTORS SHALL BE LICENSED FOR THE WORK THEY PERFORM.
E. MAINTAIN A SET OF CONTRACT DRAWINGS AT THE JOB SITE MARKING THEM TO SHOW VARIATIONS BETWEEN CONSTRUCTION ACTUALLY PROVIDED AND THAT INDICATED ON CONTRACT DOCUMENTS. PRIOR TO FINAL INSPECTION, TRANSFER THIS DATA AND SUBMIT 2 SETS OF CLEAN RECORD DRAWINGS TO THE ENGINEER.
F. EXISTING CONDITIONS ARE SHOWN IN AN APPROXIMATE WAY AND HAVE NOT BEEN VERIFIED BY IT'S REPRESENTATIVE. CONTRACTOR SHALL DETERMINE THE EXACT CONDITION OF EXISTING WIRING BEFORE COMMENCING WORK, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE CONDITIONS.
G. DRAWINGS ARE OF SMALL SCALE AND ARE SCHEMATIC. LOCATIONS OF EQUIPMENT AND SYSTEM ELEMENTS ARE APPROXIMATE. RELOCATE ANY DEVICE WITHIN 10 FEET PRIOR TO INSTALLATION, WITHOUT ADDITIONAL COST, AT THE DIRECTION OF THE DEPARTMENT OF EDUCATION.
H. INSTALLATION AND WORKMANSHIP:
  - H.A. WORK WILL BE IN AN EXISTING BUILDING THAT IS PARTIALLY FURNISHED. RELOCATE MOVABLE FURNITURE AS REQUIRED TO PERFORM THE WORK, PROTECT THE FURNITURE, AND REPLACE THE FURNITURE TO ITS ORIGINAL LOCATION UPON COMPLETION OF THE WORK. LEAVE ATTACHED EQUIPMENT IN PLACE, AND PROTECT THEM AGAINST DAMAGE, OR TEMPORARILY DISCONNECT, RELOCATE, PROTECT AND REINSTALL THEM AT THE COMPLETION OF THE WORK.
  - H.B. INSTALLATION SHALL CONFORM TO SEISMIC DESIGN REQUIREMENTS OF SECTION 1630 OF THE 1997 UNIFORM BUILDING CODE. PROVIDE SEISMIC BRACING FOR WALL MOUNTED ENCLOSURES, LUMINAIRES AND OTHER ELECTRICAL EQUIPMENT.
  - H.C. COORDINATE OUTAGES ON ELECTRICAL SYSTEM AND ACCESS TO NONWORK SPACES IN WRITING WITH 7 CALENDAR DAYS BEFORE DESIRED OUTAGE DATE. OUTAGES AND ACCESS TO NONWORK SPACES SHALL BE KEPT TO A MINIMUM IN DURATION AND QUANTITY. OUTAGES AND ACCESS TO NONWORK SPACES WILL BE GRANTED AT THE SOLE CONVENIENCE.
  - H.D. WORK SHALL BE NEATLY EXECUTED, WORKMANLIKE IN APPEARANCE, SYMMETRICAL, PLUMB, UNIFORM, PROPERLY ALIGNED AND SECURED IN PLACE.
  - H.E. LAY OUT WORK IN ADVANCE AND OBTAIN ENGINEER'S APPROVAL PRIOR TO ROUGH-IN WORK. EXERCISE CARE WHERE CUTTING, CHANNELING, CHASING OR DRILLING FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. REPAIR DAMAGE TO BUILDINGS, PIPING AND EQUIPMENT USING SKILLED CRAFTSMEN OF TRADES INVOLVED. CUTTING, REPAIRS AND REFINISHING SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
  - H.F. WIRING METHOD:
    - H.A.A. USE ELECTRICAL METALLIC TUBING IN INTERIOR LOCATIONS AND GALVANIZED RIGID STEEL AT EXTERIOR EXPOSED LOCATIONS. INSTALL RACEWAY PARALLEL WITH OR AT RIGHT ANGLES TO CEILINGS, WALLS AND STRUCTURAL MEMBERS.
    - H.A.B. FASTEN TO CONCRETE WITH EXPANSION BOLTS OR CONCRETE INSERTS; TO WOOD WITH WOOD SCREWS; AND TO LIGHT STEEL CONSTRUCTION WITH SHEET METAL SCREWS.
  - H.G. PENETRATIONS THROUGH FIRE RATED PARTITIONS, WALLS, FLOOR/CEILING ASSEMBLY, AND ROOF/CEILING ASSEMBLY SHALL BE FIRE STOPPED WITH UL APPROVED FIRE RATED CAULKING SYSTEM TO MAINTAIN FIRE RESISTIVE INTEGRITY. PENETRATIONS RESULTING FROM NEW WORK OR DEMOLITION THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED WITH UL APPROVED FIRE-CAULKING SYSTEM. PENETRATIONS THROUGH NON-FIRE RATED PARTITIONS, RESULTING FROM NEW WORK OR DEMOLITION SHALL BE PATCHED, CAULKED, AND SEALED. IF EXISTING PENETRATIONS OR OPENINGS ARE USED, SEAL AS IF NEW PENETRATION.
  - H.H. COORDINATE ELECTRICAL WORK WITH OTHER TRADES.
I. PERFORM AN OPERATIONAL TEST AFTER COMPLETING THE INSTALLATION TO ASSURE PROPER OPERATION OF ITEMS OF THE WORK.
J. CLEAN UP DEBRIS AT END OF EACH DAYS WORK. REMOVE MARKINGS FROM ELECTRICAL EQUIPMENT AND DEVICES.
K. PROVIDE TEMPORARY SAFE PEDESTRIAN PASSAGEWAY AROUND CONSTRUCTION SITE IN ACCORDANCE WITH ADAAG SECTIONS 201.3 AND 206.1.

ELECTRICAL ABBREVIATIONS

CCTV	CLOSED CIRCUIT T.V.
CKT	CIRCUIT
CLG	CEILING
DISC SW	DISCONNECT SWITCH
DN	DOWN
DT	DRY TYPE
ELEC	ELECTRICAL
EM	EMERGENCY
ENCL	ENCLOSED
EWC	ELECTRIC WATER COOLER
EXT	EXTERIOR
FA	FIRE ALARM
FACU	FIRE ALARM CONTROL UNIT
FF&E	FURNITURE, FIXTURES, AND EQUIPMENT
FL	FLOOR
FU	FUSE, FUSED
GBB	GROUND BUS BAR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTOR
GFPE	GROUND FAULT PROTECTION OF EQUIPMENT
GND	GROUND (EQUIPMENT)
HH	HANDHOLE
HP	HORSEPOWER
HT	HEIGHT
IBC	INTERNATIONAL BUILDING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IG	ISOLATED GROUND
INT	INTERIOR
JB	JUNCTION BOX
LTG	LIGHTING
LTS	LIGHTS
LV	LOW VOLTAGE
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MH	MAINTENANCE HOLE
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MSB	MAIN SWITCHBOARD
MTD	MOUNT OR MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N/A	NOT APPLICABLE
NC (N.C.)	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO (N.O.)	NORMALLY OPEN
NTS	NOT TO SCALE
PB	PULL BOX
PFB	PROVISION FOR BREAKER
PNL	PANEL
R	RELOCATED DEVICE
RECEPT	RECEPTACLE(S)
REF	REFRIGERATOR
SP	SPARE
SPD	SURGE SUPPRESSION DEVICE
SS OR S/S	STAINLESS STEEL
ST (S.T.)	SHUNT TRIP
TEL	TELEPHONE
TR	TAMPER RESISTANT
TV	TELEVISION
TYP	TYPICAL
U/G	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
V	VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE OR WATT
W/	WITH
WH	WATER HEATER
WP	WEATHER PROOF
WT	WATER TIGHT
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

GENERAL NOTATIONS AND MOUNTING HEIGHTS

NOTE 1: MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE, UNLESS OTHERWISE INDICATED.
A)48" AFF INDICATES TO TOP OF DEVICE;
B)15" AFF INDICATES TO BOTTOM OF DEVICE;
C)80" AFF INDICATES TO BOTTOM OF DEVICE;
D) 72" AFF INDICATES TO TOP OF ENCLOSURE;
E) 90" AFF INDICATES TO TOP OF ENCLOSURE, EXCEPT SHALL BE ADJUSTED LOWER AS NEEDED SO THAT FOR ALL OCPD, CENTER OF GRIP IN HIGHEST POSITION DOES NOT EXCEED 6'-7".

NOTE 2: CONFIRM BACKBOX SIZE WITH VENDOR SHOP DRAWINGS PRIOR TO ELECTRICAL ROUGH-IN.

(1) — SHEET NOTE: DENOTES "SEE LEGEND NOTE NO. 1".

1/E501 — EXAMPLE DENOTES REFERENCE TO DETAIL 1 ON DRAWING (SHEET) E501.

(2 / E401) — EXAMPLE DENOTES REFERENCE TO ENLARGED PLAN 2 ON DRAWING (SHEET) E401.

(A / 1) — EQUIPMENT CALLOUT: REFERS TO A-1 ON EQUIPMENT SCHEDULE. SEE EQUIPMENT SCHEDULE SHEETS FOR ADDITIONAL DETAILS.

A1 — LIGHT FIXTURE TYPE CALLOUT: REFERS TO LUMINAIRE TAG A1 ON LIGHT FIXTURE SCHEDULE. SEE LIGHTING SCHEDULE SHEETS FOR ADDITIONAL DETAILS.

1 — REVISION DELTA

a — DUCT SECTION MARKER. SEE CORRESPONDING DUCT SECTION DETAIL WITH SAME LETTER DESIGNATION.

(1 / E301) — SECTION MARKER. EXAMPLE DENOTES REFERENCE TO DETAIL 1 ON SHEET E301.

PANELBOARD NAMING KEY

#A#

VOLTAGE AND TYPE
2 = 208Y/120V PANELBOARD
4 = 480Y/277V PANELBOARD

SEQUENCE/COUNT
A# = 1ST PANEL OF TYPE LOCATED ON LEVEL # _

*EXCEPTIONS: N/A

EXAMPLE: PANEL '2A2' IS THE SECOND 208Y/120V PANEL LOCATED ON LEVEL 1

CITY AND COUNTY OF HONOLULU
REVISED ORDINANCES OF HONOLULU 2021
CHAPTER 16B

To the best of my knowledge, this project's design substantially conforms to the Building Energy Conservation Code for:

_____ Building Component Systems
__X__ Electrical Component Systems
_____ Mechanical Component Systems

DENNIS J. LI — LICENSED PROFESSIONAL ENGINEER — No. 14597-E — HAWAII, U.S.A.

Signature: _____ Date: 8/22/2025
Name: DENNIS J. LI
Title: ELECTRICAL ENGINEER
License No: 14597-E

BUILDING ENERGY EFFICIENCY STANDARDS

EXTERIOR LIGHTING POWER ALLOWANCE N/A INSTALLED N/A

INTERIOR LIGHTING POWER ALLOWANCE N/A INSTALLED N/A

METHOD USED: (CHECK ONE) PRESCRIPTIVE_____ SYSTEM PERFORMANCE_____

CALCULATIONS: SEPARATE_____ ON DRAWINGS_____

ELECTRICAL LEGEND

NEW	EXISTING	DESCRIPTION
		PANELBOARD
MV	MV	MOTOR CONNECTION
		DISCONNECT SWITCH, SIZE AND RATING AS NOTED
		2'x2' LIGHT FIXTURE
		2'x4' LIGHT FIXTURE
		1'x4' LIGHT FIXTURE
$^{W}	$^{W}	TOGGLE SWITCH, HP RATED, 2P20A, UL LISTED FOR SURROUNDING ENVIRONMENT
		DUPLEX RECEPTACLE, GFCI TYPE, +18" UNLESS OTHERWISE NOTED
		FLEX CONNECTION, WHEN REQUIRED - WATERPROOF, EQUIPPED WITH WATER TIGHT FITTINGS
		RACEWAY AND CONDUCTORS CONCEALED OR EXPOSED
		HOMERUN

EXISTING CONDUITS, CABLES, AND EQUIPMENT TO REMAIN.
EXISTING CONDUITS, CABLES, AND EQUIPMENT TO BE REMOVED.
EXISTING CONDUITS WITH NEW CABLES.
NEW CONDUITS, CABLES, AND EQUIPMENT.

SURVEY PLOTTED BY _____ DATE
DRAWN BY _____
TRACED BY _____
DESIGNED BY _____
QUANTITIES BY _____
CHECKED BY _____

ORIGINAL PLAN
NOTE BOOK
No. _____

DATE	REVISION

DENNIS J. LI — LICENSED PROFESSIONAL ENGINEER — No. 14597-E — HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation. (Observation of construction as defined in Chapter 16-115 Subchapter 1 Definitions of the Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors, and Landscape Architects.")

signature 4/30/2026 My license renewal date is the last day of the month

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT TITLE :
DOT-2023-077 Warehouse AC Repair
670 Auahi St, Honolulu, HI 96813
PROJECT NO.: 2025US444508

SHEET TITLE:
ELECTRICAL GENERAL NOTES AND LEGEND

DATE : 08/22/2025
DWG. NO. E001

ELECTRICAL SPECIFICATION

PART 1 - GENERAL

A. REFER TO COMPLETE CONTRACT DOCUMENTS FOR OTHER DETAILS AND REQUIREMENTS.
B. CONFORM TO THE BUILDING, FIRE, AND ELECTRICAL CODES OF THE CITY AND COUNTY OF HONOLULU, LAWS AND REGULATIONS OF THE CITY AND COUNTY OF HONOLULU AND STATE OF HAWAII.
C. SUBCONTRACTORS SHALL BE LICENSED FOR THE WORK THEY PERFORM.
D. PROVIDE 4 COPIES OF DATA ON LUMINAIRES, ELECTRICAL EQUIPMENT, AND WIRING DEVICES THAT HAVE BEEN CHECKED BY THE CONTRACTOR FOR OWNERS REVIEW AND APPROVAL. ALLOW TEN WORKING DAYS FOR REVIEW PROCESS. (IF SUBSTITUTE PRODUCTS ARE PROPOSED FOR USE, THE BIDDER SHALL, PRIOR TO BID OPENING, SUBMIT 4 COPIES OF SHOP DRAWINGS OR CATALOG CUTS FOR APPROVAL. SUBSTITUTIONS AFTER RECEIPT OF APPROVED SUBMITTALS SHALL NOT BE PERMITTED UNLESS APPROVED IN WRITING BY THE OWNER.)
E. FIRE ALARM, TELECOMMUNICATIONS, CABLE TELEVISION, AND FURNITURE SYSTEMS SHOP DRAWINGS (OBTAIN DRAWINGS FROM OWNER CONTRACTED VENDORS) ARE A PART OF THE CONTRACT DOCUMENTS AND SUPERSEDE OTHER DRAWINGS AND REQUIREMENTS.
F. MAINTAIN A SET OF CONTRACT DRAWINGS AT THE JOB SITE MARKING THEM TO SHOW VARIATIONS BETWEEN CONSTRUCTION ACTUALLY PROVIDED AND THAT INDICATED ON CONTRACT DOCUMENTS. PRIOR TO FINAL INSPECTION, TRANSFER THESE DATA AND SUBMIT 1 SET OF CLEAN RECORD DRAWINGS TO THE OWNER.
G. WORK WILL BE IN AN EXISTING BUILDING THAT IS FURNISHED AND OPERATIONAL. RELOCATE MOVABLE FURNITURE AS REQUIRED TO PERFORM THE WORK. PROTECT AND REPLACE FURNITURE TO ITS ORIGINAL LOCATION UPON COMPLETION OF WORK. LEAVE ATTACHED EQUIPMENT IN PLACE AND PROTECT AGAINST DAMAGE OR TEMPORARILY DISCONNECT, RELOCATE, PROTECT, AND REINSTALL AT COMPLETION OF WORK.
H. EXISTING CONDITIONS ARE SHOWN IN AN APPROXIMATE WAY AND HAVE NOT BEEN VERIFIED BY THE OWNER OR HIS REPRESENTATIVE. VISIT THE JOB SITE AND BECOME AWARE OF EXISTING CONDITIONS. CONTRACTOR SHALL DETERMINE THE EXACT CONDITION OF EXISTING WIRING BEFORE COMMENCING WORK, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE CONDITIONS.
I. THE ELECTRICAL INSTALLATION SHALL BE GUARANTEED FOR ONE YEAR AFTER ACCEPTANCE BY THE OWNER. WHEN NOTIFIED BY THE OWNER OF FAILURE OF ANY PART OF THE INSTALLATION DURING THE GUARANTEE PERIOD, THE CONTRACTOR SHALL REPAIR OR REPLACE THE DEFECTIVE PART AT HIS OWN EXPENSE TO THE SATISFACTION OF THE OWNER.
J. PROVIDE ALL COMPONENTS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.
K. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY ON THE JOBSITE.
L. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT FOR TEMPORARY CONSTRUCTION POWER AS REQUIRED.

PART 2 - PRODUCTS

A. NO PRODUCTS CONTAINING ASBESTOS SHALL BE USED ON THIS PROJECT.
B. MATERIALS AND EQUIPMENT SHALL MEET THE REQUIREMENTS OF UNDERWRITER'S LABORATORIES, INC. (UL) WHERE UL STANDARDS HAVE BEEN ESTABLISHED FOR THOSE ITEMS. ALL ITEMS SHALL BE NEW UNLESS INDICATED OTHERWISE.
1. CONDUCTORS: MINIMUM SIZE NO. 12 AWG, COPPER, 600 VOLTS, TYPE THWN OR XHHW. CONDUCTORS NO. 8 AND LARGER SHALL BE STRANDED. CONDUCTORS NO. 10 AND SMALLER SHALL BE SOLID, EXCEPT THAT CONDUCTORS FOR REMOTE-CONTROL AND SIGNAL CIRCUITS, CLASSES 1, 2, AND 3, MAY BE STRANDED. COLOR CODE OF UNGROUNDED CONDUCTORS:
   a. 208/120 VOLT, 3-PHASE: PHASE A - BLACK, PHASE B - RED, PHASE C - BLUE.
   b. 480/277 VOLT, 3-PHASE: PHASE A - BROWN, PHASE B - ORANGE, PHASE C - YELLOW,
   c. 120/240 VOLT, SINGLE-PHASE: RED AND BLACK.
2. RACEWAYS: ELECTRICAL METAL TUBING (EMT), 3/4" INCH MINIMUM UNLESS OTHERWISE NOTED, AND GALVANIZED RIGID CONDUIT, 3/4" NCH MINIMUM UNLESS OTHERWISE NOTED. LIQUID TIGHT FLEX FOR CONNECTION TO TRANSFORMERS AND MOTORS.
3. SURFACE METAL RACEWAY AND FITTINGS: TWO-PIECE PAINTED STEEL, TOTALLY ENCLOSED, SNAP COVER TYPE.
4. DEVICE PLATES: SMOOTH ONE PIECE TO SUIT DEVICES INSTALLED, UREA OR PHENOLIC, WHITE. GROUPED DEVICES SHALL BE GANGED UNDER A SINGLE PLATE.
5. WIRING DEVICES:
   a. TOGGLE SWITCHES: SPECIFICATION GRADE, WHITE, 120/277 VOLTS, 20 AMPERE, QUIET TYPE, AC ONLY.
   b. DIMMER SWITCHES: TYPE AND RATING TO BE COMPATIBLE WITH LOAD CONTROLLED.
   c. RECEPTACLES: SPECIFICATION GRADE, NEMA 5-20R, DUPLEX, WHITE.
   d. GROUND-FAULT CIRCUIT-INTERRUPTER RECEPTACLE: SPECIFICATION GRADE, NEMA 5-20R, DUPLEX, WHITE. LISTED WEATHER-RESISTANT TYPE FOR WET LOCATIONS WHERE INDICATED.
   e. OCCUPANCY SENSOR:
   i. WALL MOUNT: WATTSTOPPER DW-100-W OR EQUIVALENT.
   ii. CEILING MOUNT WITH COMPATIBLE POWER PACK: WATTSTOPPER DT-305 SENSOR BZ-50 POWER PACK, OR EQUIVALENT.
   iii. LOW VOLTAGE MOMENTARY TOGGLE SWITCH: WHITE, 24 VOLTS, WITH PILOT LIGHT, COMPATIBLE WITH OCCUPANCY SENSORS ON SAME SWITCH ZONE, WATTSTOPPER DCC2 OR EQUIVALENT.
6. LUMINAIRES: PER FIXTURE SCHEDULE ON PLANS. INCLUDE ALL HANGERS, SUPPORTS, BALLASTS AND LAMPS AS REQUIRED.
7. DRY TRANSFORMERS: FLOOR OR TRAPEZE MOUNTING, 150 DEGREE C TEMPERATURE RISE, RATING AS INDICATED WITH 6 TAPS (2 FCAN, 4 FCBN).
8. PANEL:
   a. MODIFY EXISTING PANELS AS INDICATED, COMPLEMENTS TO BE COMPATIBLE WITH EXISTING PANEL.
   b. BOLT-ON BREAKERS, TYPE AND RATING AS INDICATED.
   c. UPDATE AND TYPE DIRECTORY TO INDICATE LOAD SERVED BY EACH CIRCUIT.
9. TELEPHONE, DATA, OR TELEVISION OUTLET PROVISION: 4" SQUARE BOX WITH SINGLE DEVICE RING AND 1" EMT STUB OUT INTO ACCESSIBLE CEILING SPACE.
10. TELEPHONE BOARD: INTERIOR GRADE PLYWOOD CHEMICALLY TREATED FOR TERMITE PROTECTION, 3/4"-THICK, PAINTED WITH WHITE FIRE-RESISTANT PAINT.
11. GROUND BAR: 1/4" THICK X 2" X 15" COPPER GROUND BAR WITH STAND-OFF INSULATORS AND BRACKETS. ERICO EGBA14215JJ OR EQUIVALENT.
12. FIRE ALARM AND DETECTION DEVICES: NEW EQUIPMENT SHALL BE COMPATIBLE WITH AND SHALL OPERATE ACCURATELY AND RELIABLY WITH THE EXISTING VENDOR SYSTEM AND SHALL NOT IMPAIR RELIABILITY OR OPERATIONAL FUNCTIONS OF EXISTING SYSTEM.
13. NAMEPLATES: LAMINATED MELAMINE PLASTIC, 1/8"-THICK, WHITE WITH BLACK CENTER CORE. SURFACE SHALL BE MATTE FINISH. ENGRAVE 1/4"-HIGH NORMAL BLOCK STYLE LETTERING INTO CORE. MINIMUM SIZE OF NAMEPLATE SHALL BE 1" X 2-1/2".
14. SUBMIT DRAWINGS OR CATALOG CUTS FOR THE FOLLOWING EQUIPMENT AND RESUBMIT UNTIL APPROVAL IS RECEIVED. EACH SUBMITTAL SHALL BE CLEARLY MARKED AS TO ITS INTENDED USE AND LOCATION.
   a. SWITCHBOARDS
   b. PANELBOARDS
   c. TRANSFORMERS
   d. LUMINAIRES
   e. OCCUPANCY SENSORS
   f. LIGHTING CONTROL PANELS

PART 3 - EXECUTION

A. DRAWINGS ARE OF SMALL SCALE AND ARE SCHEMATIC. LOCATIONS OF EQUIPMENT AND SYSTEM ELEMENTS ARE APPROXIMATE. RELOCATE ANY DEVICE WITHIN 10 FEET PRIOR TO INSTALLATION, WITHOUT ADDITIONAL COST, AT THE DIRECTION OF THE OWNER.
B. CONSULT THE MECHANICAL DRAWINGS FOR DETAILS NOT SHOWN ON THE ELECTRICAL DRAWINGS. ANY CONFLICTS IN LOCATING EQUIPMENT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL MAKE REASONABLE MODIFICATION TO THE LAYOUT OF EQUIPMENT TO PREVENT CONFLICT WITH OTHER TRADES OR FOR THE PROPER EXECUTION OF THE WORK AT NO EXTRA COST.
C. INSTALLATION AND WORKMANSHIP:
1. INSTALLATION SHALL CONFORM TO SEISMIC DESIGN REQUIREMENTS OF CHAPTER 16 OF THE 2021 INTERNATIONAL BUILDING CODE. PROVIDE SEISMIC BRACING FOR WALL MOUNTED ENCLOSURES, LUMINAIRES, AND OTHER ELECTRICAL EQUIPMENT.
2. COORDINATE OUTAGES ON ELECTRICAL SYSTEM IN WRITING WITH BUILDING MANAGEMENT 14 DAYS BEFORE DESIRED OUTAGE DATE. OUTAGES SHALL BE KEPT TO A MINIMUM IN DURATION AND QUANTITY. OUTAGES WILL BE GRANTED AT THE SOLE CONVENIENCE OF BUILDING MANAGEMENT.
3. WORK SHALL BE NEATLY EXECUTED, WORKMANLIKE IN APPEARANCE, SYMMETRICAL, PLUMB, UNIFORM, PROPERLY ALIGNED AND SECURED IN PLACE.
4. LAY OUT WORK IN ADVANCE. EXERCISE CARE WHERE CUTTING, CHANNELING, CHASING OR DRILLING FLOORS, WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES. FLOOR PENETRATIONS SHALL BE ACCOMPLISHED BY A LICENSED CORING CONTRACTOR. CONCRETE FLOOR SLABS SHALL BE X-RAYED BEFORE ANY CORING. REPAIR DAMAGE TO BUILDINGS, PIPING, AND EQUIPMENT USING SKILLED CRAFTSMEN OF TRADES INVOLVED. CUTTING, REPAIRS AND REFINISHING SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER.
5. FASTEN TO CONCRETE WITH EXPANSION BOLTS OR CONCRETE INSERTS; TO WOOD WITH WOOD SCREWS; AND TO LIGHT STEEL CONSTRUCTION WITH SHEET METAL SCREWS.
6. VERIFY LOCATIONS OF FLOOR PENETRATIONS, IF ANY REQUIRED, AND OUTLET LOCATIONS IN RELATION TO STRUCTURAL AND OTHER ELEMENTS. NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH ANY WORK.

D. WIRING METHOD:
1. USE ELECTRICAL METALLIC TUBING IN CONCEALED LOCATIONS AND SURFACE METAL RACEWAY IN EXPOSED LOCATIONS AS INSTRUCTED BY THE ENGINEER. INSTALL RACEWAY PARALLEL WITH OR AT RIGHT ANGLES TO CEILINGS, WALLS, AND STRUCTURAL MEMBERS.
2. PROVIDE FLEXIBLE CONNECTION FOR EQUIPMENT SUBJECT TO VIBRATION AND LUMINAIRES MOUNTED ON ACCESSIBLE CEILING PANELS OR GRID.
3. FIRE ALARM WIRING WILL BE IN CONDUIT SYSTEM. JUNCTION BOXES SHALL BE SPRAYED RED AND LABELED "FIRE ALARM".
4. CONDUCTORS FOR 20 AMPERE BRANCH CIRCUITS OF 120 VOLTS MORE THAN 100 FEET LONG AND OF 277 VOLTS MORE THAN 230 FEET LONG FROM PANEL TO CENTER OF LOAD SHALL NOT BE SMALLER THAN NO. 10.
5. MULTI-WIRE BRANCH CIRCUITS: COMBINE UP TO THREE (3) 20A, 1 POLE BRANCH CIRCUITS IN A SINGLE CONDUIT HOMERUN. SHARED NEUTRALS ARE NOT ALLOWED.
6. TELEPHONE AND DATA RACEWAY INSTALLATION SHALL BE IN ACCORDANCE WITH EIA/TIA 569.
7. BONDING. ALL METAL COMPONENTS SHALL BE BONDED TO PROVIDE A CONTINUOUS CONDUCTING PATH BACK TO THE SERVICE GROUND OR DERIVED SYSTEM GROUND.
8. A GREEN EQUIPMENT GROUND CONDUCTOR, SIZED PER NEC TABLE 250-122, SHALL BE RUN WITH THE CONDUCTORS FOR EACH FEEDER AND BRANCH CIRCUIT. CONDUIT ALONE AS EQUIPMENT GROUND CONDUCTOR IS NOT ACCEPTABLE.
9. EQUIPMENT GROUND CONDUCTOR FOR ISOLATED GROUND CIRCUITS SHALL BE GREEN WITH A YELLOW STRIPE. EACH ISOLATED EQUIPMENT GROUND CONDUCTOR SHALL BE CONTINUOUS BACK TO THE SERVICE OR DERIVED SYSTEM GROUND POINT.
10. 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.
11. LABEL ALL JUNCTION BOXES AND PULL BOXES INDICATION PANEL NAME AND CIRCUIT NUMBERS OF ALL BRANCH CIRCUIT CONDUCTORS CONTAINED WITHIN THE BOX.

E. INSTALL PULLSTRING (PLASTIC HAVING MINIMUM 200 POUND TENSILE STRENGTH) IN EMPTY CONDUITS IN WHICH WIRE IS TO BE INSTALLED BY OTHERS.
F. SEAL OPENINGS AROUND NEW ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANCE-RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS TO MAINTAIN FIRE RESISTIVE INTEGRITY. WHERE AN EXISTING PENETRATION IS USED, SEAL PENETRATION AFTER WORK IS COMPLETED.
G. COORDINATE ELECTRICAL WORK WITH OTHER TRADES AND WITH OWNER.
H. FASTEN NAMEPLATES TO THE DEVICE WITH A MINIMUM OF TWO SHEETMETAL SCREWS OR TWO RIVETS.
I. PERFORM AN OPERATIONAL TEST AFTER COMPLETING THE INSTALLATION TO ASSURE PROPER OPERATION OF ITEMS OF THE WORK.
CLEAN UP DEBRIS AT END OF EACH DAYS WORK. REMOVE MARKINGS FROM ELECTRICAL EQUIPMENT AND DEVICES.

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____

ORIGINAL PLAN
NOTE BOOK
No. ____

DATE	REVISION

DENNIS J. LI
LICENSED PROFESSIONAL ENGINEER
No. 14597-E
HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation. (Observation of construction as defined in Chapter 16-115 Subchapter 1 Definitions of the Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors, and Landscape Architects.")

signature 4/30/2026 expiration date of the license

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT TITLE :

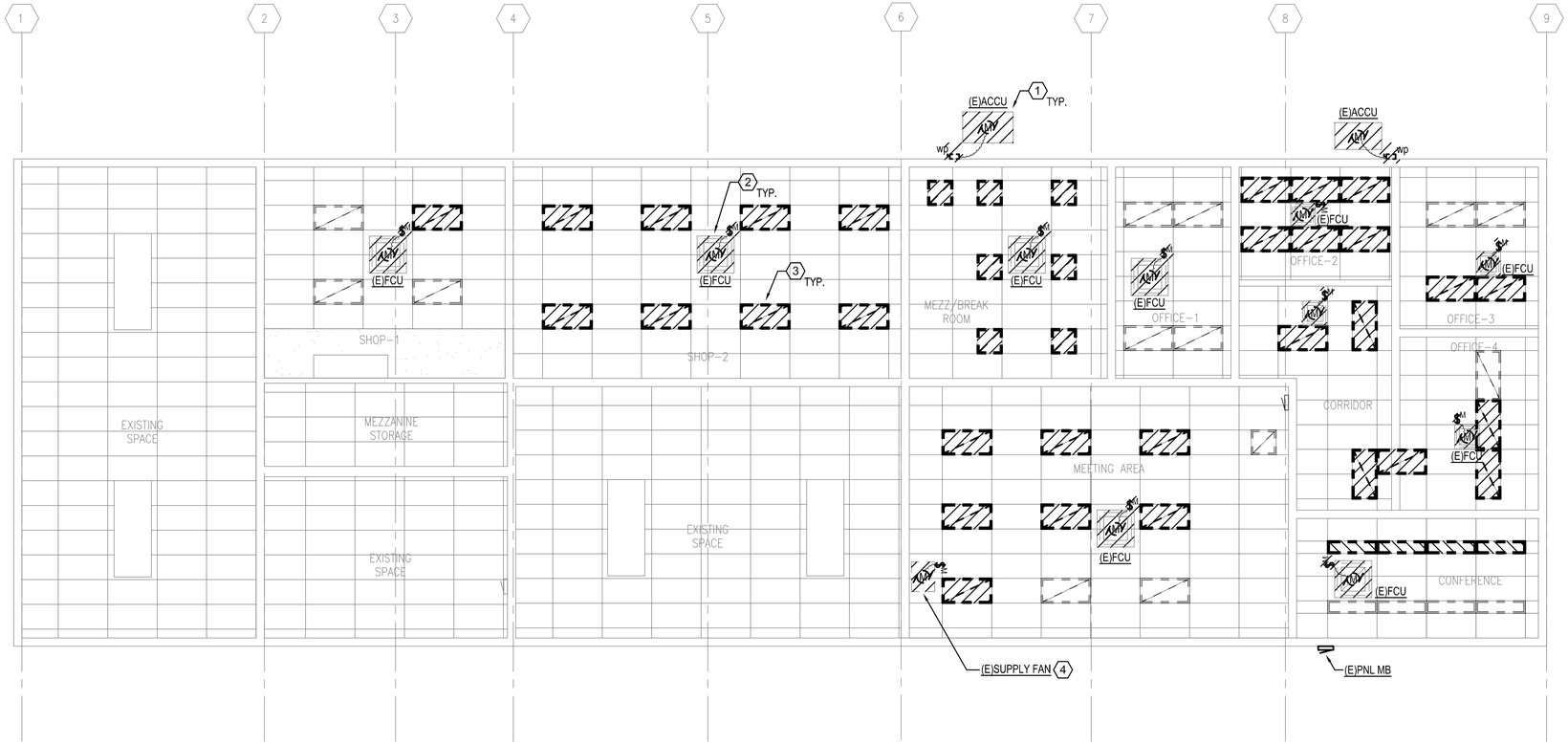
DOT-2023-077 Warehouse AC Repair
670 Auahi St, Honolulu, HI 96813
PROJECT NO.: 2025US444508

SHEET TITLE:

ELECTRICAL SPECIFICATIONS

DATE : 08/22/2025

DWG. NO. E002



KEY NOTES:

1. ACCU TO BE DEMOLISHED BY MECH. REMOVE ASSOCIATED DISCONNECTING MEANS AND CIRCUIT BACK TO ITS SOURCE.
2. FCU TO BE DEMOLISHED BY MECH. REMOVE ASSOCIATED DISCONNECTING MEANS AND CIRCUIT BACK TO ITS SOURCE.
3. TEMPORARILY DISCONNECT, REMOVE, AND STORE LIGHT FIXTURE TO ALLOW INSTALLATION OF MECHANICAL EQUIPMENT. UPON COMPLETION OF MECHANICAL WORK REINSTALL LIGHT FIXTURE MAINTAINING ORIGINAL CONNECTIONS.
4. SUPPLY FAN TO BE DEMOLISHED BY MECH. REMOVE ASSOCIATED DISCONNECTING MEANS AND CIRCUIT BACK TO ITS SOURCE.

GENERAL NOTES:

1. COORDINATE THE REMOVAL OF EXACT LIGHT FIXTURES WITH MECHANICAL CONTRACTOR AND ON-SITE CONDITIONS.
2. TELECOM EQUIPMENT LOCATED WITHIN THE DISRUPTED AREAS SHALL BE REMOVED BY OWNER'S IT PERSONNEL. COORDINATE DEMO WORK WITH OWNER.
3. SEAL OPENINGS WITH APPROVED LISTED MATERIAL AT EXTERIOR WALLS DUE TO REMOVAL OF EXISTING CONDUIT.

1 ELECTRICAL DEMOLITION PLAN

3/16" = 1'-0"

GRAPHIC SCALE
0 6' 12'
3/16" = 1'-0"

NORTH

DATE	REVISION

DENNIS J. LI
LICENSED PROFESSIONAL ENGINEER
No. 14597-E
HAWAII, U.S.A.

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signature 4/30/2026 expiration date of the license

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT TITLE :

DOT-2023-077 Warehouse AC Repair
670 Auahi St, Honolulu, HI 96813
PROJECT NO.: 2025US444508

SHEET TITLE:

ELECTRICAL DEMOLITION PLAN

DATE : 08/22/2025

DWG. NO. E100

SHEET No. 10 OF 13 SHEETS

ORIGINAL PLAN
NOTE-BOOK No.
SURVEY PLOTTED BY
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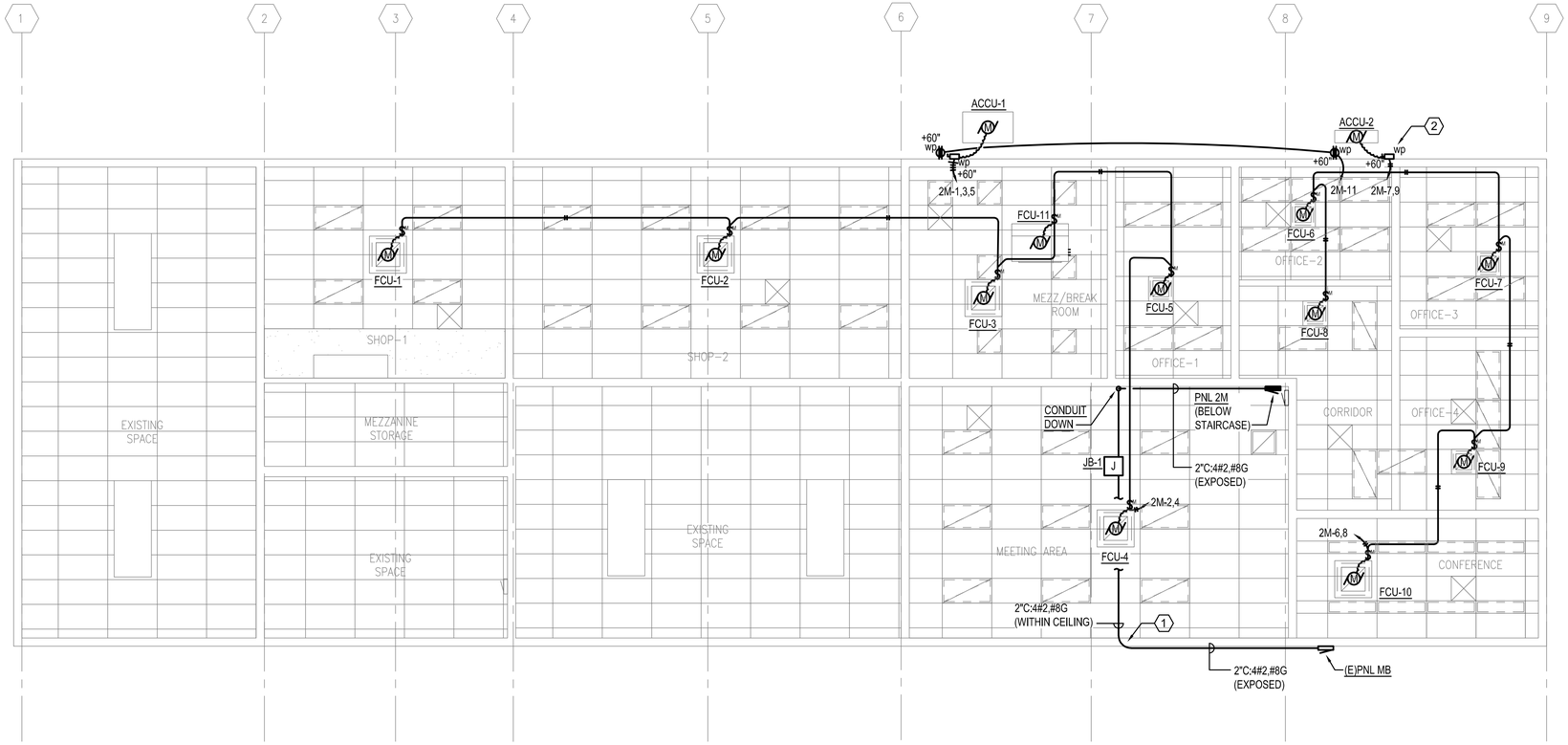
DATE



KEY NOTES:

1. EXTERIOR WALL PENETRATION SHALL ENTER THE BUILDING WITHIN THE MEETING AREA CEILING.
2. RELOCATE EXISTING CONDUIT SERVING EXTERIOR LIGHTS TO ALLOW INSTALLATION OF NEW DISCONNECT SWITCH. MAINTAIN ORIGINAL CONNECTIONS.

GENERAL NOTES:

1. DISCONNECTING MEANS FOR MECHANICAL EQUIPMENT TO BE FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL. SEE ELECTRICAL EQUIPMENT CONNECTION SCHEDULE FOR MORE INFORMATION. COORDINATE MOUNTING LOCATIONS WITH MECHANICAL CONTRACTOR.
2. CONVENIENCE RECEPTACLE SHALL BE ACCESSIBLE AND INSTALLED WITHIN 25-FEET OF ACCU'S.
3. SEAL ANY EXCESS OPENINGS FROM EXTERIOR WALL PENETRATIONS WITH APPROVED LISTED MATERIAL.

1 ELECTRICAL PLAN
3/16" = 1'-0"

GRAPHIC SCALE
0 6' 12'
3/16" = 1'-0"

NORTH

DATE	REVISION

DATE
SURVEY PLOTTED BY
DRAWN BY
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ORIGINAL PLAN
NOTE-BOOK
No.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT TITLE :
DOT-2023-077 Warehouse AC Repair
670 Auahi St, Honolulu, HI 96813
PROJECT NO.: 2025US444508

SHEET TITLE:
ELECTRICAL PLAN

DATE : 08/22/2025
DWG. NO. E101

EXISTING PANEL MB

PROJECT:	DOT-2023-077 WAREHOUSE AC REPAIR				VOLTS-PHASE-W:	208Y/120V-3PH-4W	MCB: 3P500A			
LOCATION:	MAINTANANCE BLDG EXTERIOR				BUS AMPS:	600A				
MOUNTING:	SURFACE				SHORT CKT RATING:	22 KAIC				
FED FROM:	DISTRIBUTION PANEL MDP (ADMIN BLDG)				BREAKERS:	BOLT-ON				

	DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1	PANEL I	5.80	#250	3P250A	A	3P100A	#2	9.45	**PANEL 2M**	2
3	---	5.80	#250	-	B	-	#2	9.15	**--**	4
5	---	5.80	#250	-	C	-	#2	5.91	**---**	6
7	PANEL G & H	6.14	#4/0	3P225A	A	3P225A	#4/0	38.70	PANEL J	8
9	---	6.14	#4/0	-	B	-	#4/0	38.60	---	10
11	---	6.14	#4/0	-	C	-	#4/0	38.40	---	12
13	PFB				A	2P30A	#10	0.50	EXISTING LOAD	14
15	PFB				B	-	#10	0.50	---	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: 60.6 KVA	TOTAL LOAD:	177.0 KVA
CONNECTED LOAD:	PHASE B: 60.2 KVA	ESTIMATED DEMAND	77.9 KVA
CONNECTED LOAD:	PHASE C: 56.3 KVA	TOTAL CALCULATED LOAD:	216.2 A

PANEL 2M

PROJECT:	DOT-2023-077 WAREHOUSE AC REPAIR				VOLTS-PHASE-W:	208Y/120V-3PH-4W	MCB: 3P100A			
LOCATION:	MEETING AREA				BUS AMPS:	100A				
MOUNTING:	SURFACE				SHORT CKT RATING:	10 KAIC				
FED FROM:	PANEL MB (ADMIN BLDG)				BREAKERS:	BOLT-ON				

	DESCRIPTION	KVA	WIRE	BKR	PHASE	BKR	WIRE	KVA	DESCRIPTION	
1	ACCU-1	4.20	#4	3P70A	A	2P15A	#12	0.33	FCU-1 THRU FCU-5, FCU-11	2
3	---	4.20	#4	-	B	-	#12	0.33	---	4
5	---	4.20	#4	-	C	2P15A	#12	0.13	FCU-6 THRU FCU-10	6
7	ACCU-2	3.70	#2	2P80A	A	-	#12	0.13	---	8
9	---	3.70	#2	-	B				PFB	10
11	CONVENIENCE RECEPTACLE	0.36	#12	1P20A	C				PFB	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: 8.4 KVA	TOTAL LOAD:	21.3 KVA
CONNECTED LOAD:	PHASE B: 8.2 KVA	ESTIMATED DEMAND	24.4 KVA
CONNECTED LOAD:	PHASE C: 4.7 KVA	TOTAL CALCULATED LOAD:	67.8 A

ELECTRICAL EQUIPMENT CONNECTION SCHEDULE

TAG	DESCRIPTION	VOLTAGE	PHASE	POWER	FLA	MCA	MOCP	DISC SW TYPE	DISC SW MIN RATING (A)	ENCLOSURE	REMARKS
ACCU-1	OUTDOOR AIR COOLED CONDENSING UNIT	208V	3Ø	12,681 VA	35.20	44	70	NF DISC SW	100A	NEMA 3RSS	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
ACCU-2	OUTDOOR AIR COOLED CONDENSING UNIT	208V	1Ø	7,488 VA	36.00	45	80	NF DISC SW	100A	NEMA 3RSS	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-1	INDOOR FAN COIL UNITS	208V	1Ø	65 VA	0.31	0.39	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-2	INDOOR FAN COIL UNITS	208V	1Ø	90 VA	0.43	0.54	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-3	INDOOR FAN COIL UNITS	208V	1Ø	65 VA	0.31	0.39	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-4	INDOOR FAN COIL UNITS	208V	1Ø	90 VA	0.43	0.54	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-5	INDOOR FAN COIL UNITS	208V	1Ø	50 VA	0.29	0.36	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-6	INDOOR FAN COIL UNITS	208V	1Ø	50 VA	0.29	0.36	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-7	INDOOR FAN COIL UNITS	208V	1Ø	50 VA	0.29	0.36	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-8	INDOOR FAN COIL UNITS	208V	1Ø	50 VA	0.29	0.36	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-9	INDOOR FAN COIL UNITS	208V	1Ø	50 VA	0.29	0.36	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-10	INDOOR FAN COIL UNITS	208V	1Ø	50 VA	0.29	0.36	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL
FCU-11	INDOOR FAN COIL UNITS	208V	1Ø	300 VA	2.50	3.13	15	TOGGLE SWITCH, HP RATED	20A	NEMA 1	DISCONNECT FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL

ELECTRICAL EQUIPMENT CONNECTION SCHEDULE NOTES:

1. CONFIRM MECHANICAL EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO START OF WORK.
2. PROVIDE ELECTRICAL CONNECTIONS TO MECHANICAL EQUIPMENT PER MANUFACTURERS SPECIFICATIONS.

ORIGINAL PLAN | NOTE BOOK | No. _____ | DATE _____ | SURVEY PLOTTED BY _____ | DRAWN BY _____ | TRACED BY _____ | DESIGNED BY _____ | QUANTITIES BY _____ | CHECKED BY _____

DENNIS J. L.
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signature 4/30/2026 expiration date of the license

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT TITLE :

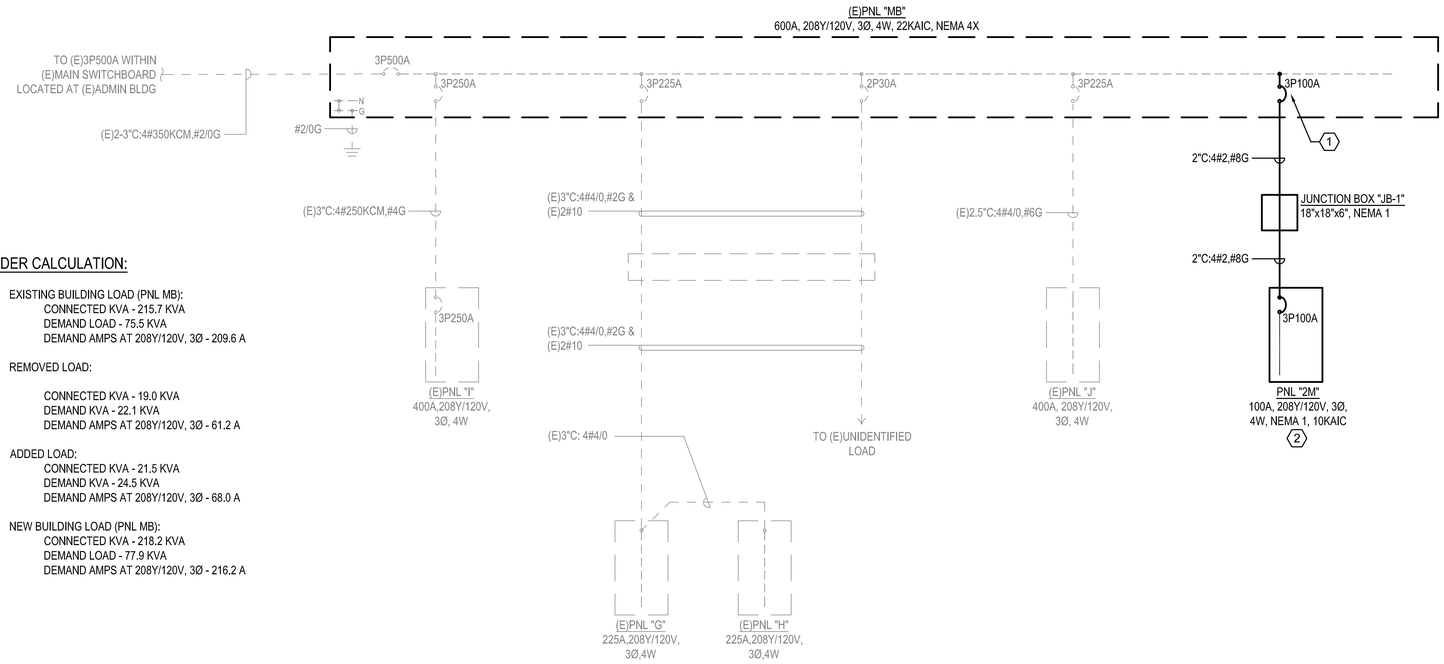
DOT-2023-077 Warehouse AC Repair
670 Auahi St, Honolulu, HI 96813
PROJECT NO.: 2025US444508

SHEET TITLE:

ELECTRICAL SCHEDULES

DATE : 08/22/2025

DWG. NO. E201



1 ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE

FEEDER CALCULATION:

EXISTING BUILDING LOAD (PNL MB):
- CONNECTED KVA - 215.7 KVA
- DEMAND LOAD - 75.5 KVA
- DEMAND AMPS AT 208Y/120V, 3Ø - 209.6 A

REMOVED LOAD:
- CONNECTED KVA - 19.0 KVA
- DEMAND KVA - 22.1 KVA
- DEMAND AMPS AT 208Y/120V, 3Ø - 61.2 A

ADDED LOAD:
- CONNECTED KVA - 21.5 KVA
- DEMAND KVA - 24.5 KVA
- DEMAND AMPS AT 208Y/120V, 3Ø - 68.0 A

NEW BUILDING LOAD (PNL MB):
- CONNECTED KVA - 218.2 KVA
- DEMAND LOAD - 77.9 KVA
- DEMAND AMPS AT 208Y/120V, 3Ø - 216.2 A

ONE-LINE DIAGRAM KEY NOTES:

1. PROVIDE NEW BREAKER WITHIN EXISTING PFB SPACE.
2. PROVIDE ELECTRICAL PANEL LABEL. SEE DETAIL E301/2 FOR MORE INFORMATION.

GENERAL NOTES:

1. ENSURE NEW CIRCUIT DIRECTORY IS NOT HANDWRITTEN AND LEGIBLE. REPLACE MODIFIED CIRCUIT DIRECTORY WITH NEW AS REQUIRED.

PANEL 2M

2 ELECTRICAL PANEL LABEL

NOT TO SCALE

NEC LABEL REQUIREMENTS:

110.10 ARC-FLASH HAZARD WARNING

ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS, THAT IS IN OTHER THAN DWELLING UNITS, AND IS LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED, SHALL BE FIELD OR FACTORY MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKINGS SHALL MEET THE REQUIREMENTS IN 110.21(B) AND SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

110.21 (B) FIELD-APPLIED HAZARD MARKINGS

WHERE CAUTION, WARNING, OR DANGER, SIGNS OR LABELS ARE REQUIRED BY THIS CODE, THE LABELS SHALL MEET THE FOLLOWING REQUIREMENTS:

(1) THE MARKING SHALL WARN OF THE HAZARDS USING EFFECTIVE WORDS, COLORS, SYMBOLS, OR ANY COMBINATION THEREOF. INFORMATIONAL NOTE: ANSI Z535.-4-2011, PRODUCT SAFETY SIGNS AND LABELS, PROVIDES GUIDELINES FOR SUITABLE FONT, SIZES, WORDS, COLORS, SYMBOLS, AND LOCATION REQUIREMENTS FOR LABELS.

(2) THE LABEL SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT OR WIRING METHOD AND SHALL NOT BE HANDWRITTEN.

(3) THE LABEL SHALL BE SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.

DATE	REVISION

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SHEET TITLE:

ELECTRICAL DIAGRAMS

DATE : 08/22/2025

DWG. NO. E301

SHEET No. 13 OF 13 SHEETS

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ORIGINAL PLAN
NOTE BOOK
No.