

# SAMUEL MAHELONA MEMORIAL HOSPITAL

## ELECTRICAL UPGRADES PHASE 2

### KAPAA, KAUAI, HAWAII

### TAX MAP KEY: (4) 4-6-014: 113

REVISIONS	BY

This work was prepared by me or under my supervision and construction of this project will be under my observation.

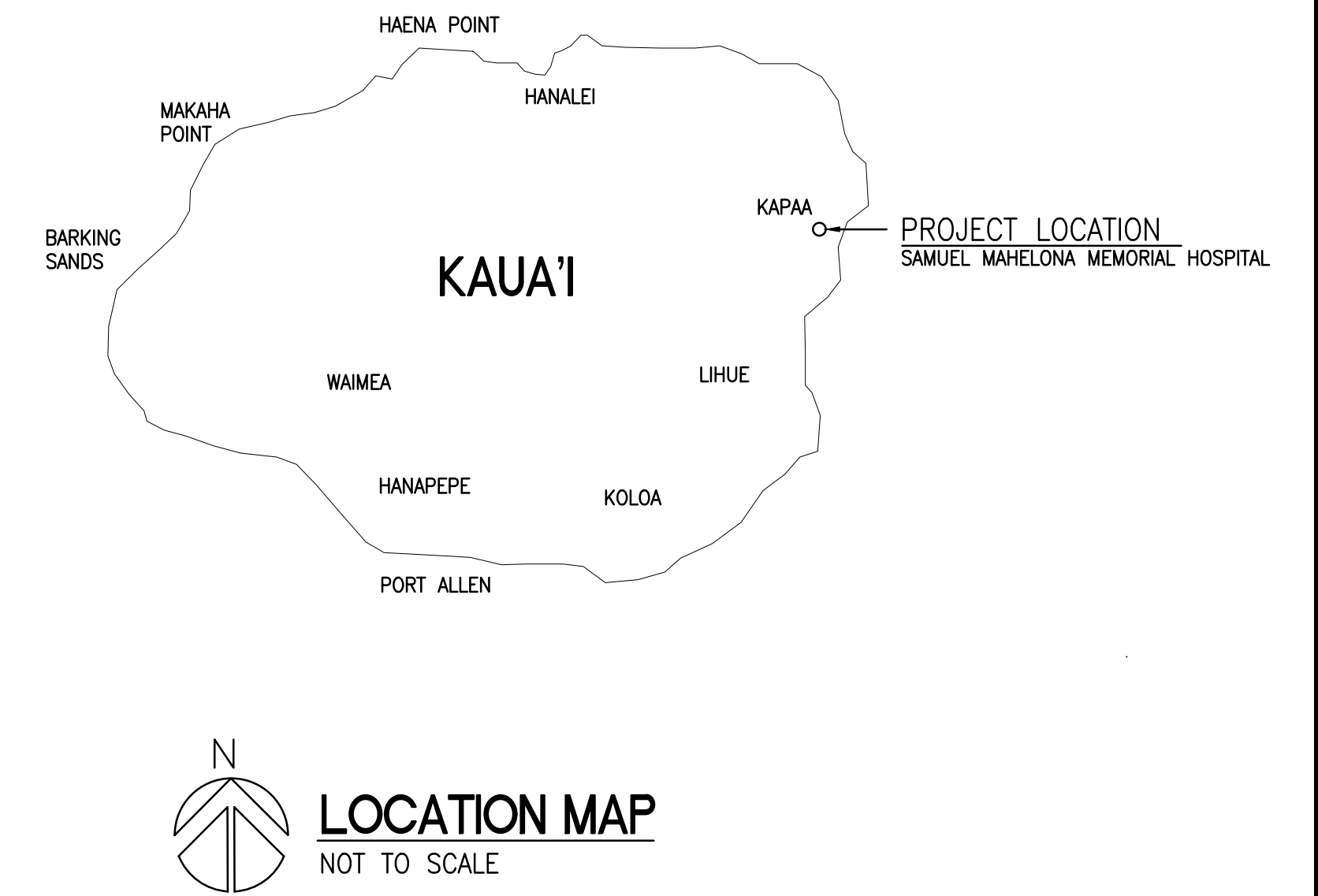
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### LOCATION MAP



### SITE MAP



N  
**SITE MAP**  
 NOT TO SCALE

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**SAMUEL MAHELONA MEMORIAL HOSPITAL**  
**ELECTRICAL UPGRADES PHASE 2**  
 KAPAA, KAUAI, HAWAII  
**TITLE SHEET**

Designed	IK
Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039
Sheet	<b>T-1</b>
1 of xx Sheets	

ELECTRICAL GENERAL NOTES:

1. ALL WORK SHOWN ON THE ELECTRICAL DRAWINGS IS NEW UNLESS OTHERWISE NOTED. ALL MATERIALS SHALL BE NEW AND "LISTED" OR "LABELED" AS DEFINED BY THE NATIONAL ELECTRIC CODE (NEC). WORK INCLUDES INSTALLATION OF ALL ELECTRICAL SYSTEMS COMPLETE AND OPERATIONAL AS LIMITED BY THE INTENT OF THE CONTRACT DOCUMENTS.
2. ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE (NEC), NATIONAL ELECTRIC SAFETY CODE AND BUILDING ORDINANCES OF THE COUNTY OF KAUAI. CONSTRUCTION PRACTICES SHALL CONFORM TO THE LATEST EDITION OF AMERICAN ELECTRICIANS' HANDBOOK BY CROFT, AND APPLICABLE INSTRUCTIONS OF MANUFACTURERS OF EQUIPMENT AND MATERIAL SUPPLIED FOR THIS PROJECT.
3. OBTAIN AND PAY FOR BUILDING / ELECTRICAL PERMIT, ARRANGE FOR PERIODIC INSPECTION BY LOCAL AUTHORITIES, AND DELIVER CERTIFICATE OF FINAL INSPECTION THE THE OWNER.
4. SEC. 18-5.2 RETENTION OF PLANS: ONE SET OF APPROVED PLANS, SPECIFICATIONS, AND COMPUTATIONS SHALL BE RETAINED BY THE BUILDING OFFICIAL FOR A PERIOD OF NOT LESS THAN 90 DAYS FROM DATE OF COMPLETION OF THE WORK COVERED THEREIN, AND ONE SET OF APPROVED PLANS SHALL BE RETURNED TO THE APPLICANT, AND SAID SET SHALL BE KEPT ON THE SITE OF THE BUILDING OR WORK AT ALL TIMES DURING WHICH THE WORK AUTHORIZED THEREBY IS IN PROGRESS. (SEC. 18-5.2 R.0 1978 (1983 ED.); AM. ORD. 93-59).
5. STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND NFPA 1 2012, AS AMENDED.
6. FIRE SAFETY DURING ALTERATION :
  - a. 16.4.4.1 WHERE THE BUILDING IS PROTECTED BY FIRE PROTECTION SYSTEMS, SUCH SYSTEMS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES DURING ALTERATION.
  - b. 16.4.4.2 WHERE ALTERATION REQUIRES MODIFICATION OF A PORTION OF THE FIRE PROTECTION SYSTEM, THE REMAINDER OF THE SYSTEM SHALL BE KEPT IN SERVICE AND THE FIRE DEPARTMENT SHALL BE NOTIFIED.
  - c. 16.4.4.3 WHEN IT IS NECESSARY TO SHUT DOWN THE SYSTEM, THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE ALTERNATE MEASURES OF PROTECTION UNTIL THE SYSTEM IS RETURNED TO SERVICE.
  - d. 10.8.1.1 AS NECESSARY DURING EMERGENCIES, MAINTENANCE, DRILLS, PRESCRIBED TESTING, ALTERATIONS, OR RENOVATIONS, PORTABLE OR FIXED FIRE-EXTINGUISHING SYSTEMS OR DEVICES OR ANY FIRE-WARNING SYSTEM SHALL BE PERMITTED TO BE MADE INOPERATIVE OR INACCESSIBLE. A FIRE WATCH SHALL BE REQUIRED AS SPECIFIED IN SECTIONS 13.3.3.6.5.2(4)(b), 13.7.1.4.4, 16.5.4, 34.6.3.3, 41.2.2.6, 41.2.2.7, 41.2.4, 41.3.5, 41.4.1, 34.5.4.3, AND 25.1.8 AT NO COST TO THE AHJ. NFPA 1 2012, AS AMENDED.
7. THE DRAWINGS DO NOT REFLECT ALL THE EXISTING CONDITIONS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. VISIT THE PROJECT SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS, THE EXTENT OF ANY DEMOLITION, RELOCATION, RECONNECTION, AND THE NEW WORK PRIOR TO THE START OF ON-SITE CONSTRUCTION ACTIVITIES. REPORT ANY DISCREPANCIES AND/OR DIFFERENCES BETWEEN THE EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS TO THE ARCHITECT. RESOLVE ALL DISCREPANCIES AND QUESTIONS PRIOR TO THE START OF WORK. BID SUBMISSION SHALL BE CONSIDERED AS EVIDENCE THAT THE CONTRACTOR HAS VISITED THE SITE AND RESOLVED ALL DISCREPANCIES AND QUESTIONS AND NO EXTRA PAYMENT WILL BE AUTHORIZED FOR WORK REQUIRED BY THE CONTRACTOR'S FAILURE TO DO SO.
8. COORDINATE ALL ELECTRICAL WORK WITH THE WORK OF THE OTHER TRADES AND SCHEDULE WORK TO MINIMIZE THE NUMBER AND DURATION OF ELECTRICAL OUTAGES AND IMPACT TO THE OPERATIONS IN OR ADJACENT TO THE PROJECT AREA. COORDINATE ACCESS TO THE PROJECT AREA AND SCHEDULE ALL REQUIRED SYSTEM OUTAGES WITH THE OWNER.
9. VERIFY AND COORDINATE ALL PENETRATIONS WITH THE STRUCTURAL AND ARCHITECTURAL DRAWINGS PRIOR TO THE START OF CONSTRUCTION. OBTAIN APPROVAL BEFORE MAKING ANY PENETRATIONS THROUGH STRUCTURAL MEMBERS OR FIRE RATED WALLS AND CEILINGS.
10. SCAN (E.G. X-RAY, ELECTROMAGNETIC, ETC.) ALL CONCRETE WALLS OR FLOOR STRUCTURES PRIOR TO COMMENCING WITH CORING/DRILLING WORK FOR PENETRATIONS TO AVOID DAMAGING THE EXISTING REINFORCING STEEL.
11. COORDINATE AND PROVIDE ACCESS PANELS FOR ALL CONCEALED ELECTRICAL EQUIPMENT, DEVICES, BOXES AND CONDUIT BODIES SO THAT THEY ARE ACCESSIBLE.
12. EXISTING DEVICE AND EQUIPMENT LOCATIONS, CIRCUIT ASSIGNMENTS, WIRING CONNECTIONS, AND CONDUIT RUNS INDICATED WERE DERIVED FROM AVAILABLE REFERENCE DOCUMENTS AND LIMITED FIELD INVESTIGATION. FIELD VERIFY ALL EXISTING CONDITIONS AND MAKE ANY NECESSARY ADJUSTMENTS TO SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
13. RE-ROUTE ALL EXISTING CONDUIT, WIRING AND CABLING TO REMAIN WITHIN THE PROJECT AREA AS NECESSARY TO FACILITATE THE REMOVAL OF EXISTING EQUIPMENT AS WELL AS THE INSTALLATION OF ALL NEW EQUIPMENT. REMOVE AND RE-INSTALL ELECTRICAL EQUIPMENT, INCLUDING LIGHTS, TO REMAIN AS REQUIRED.
14. WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT, ALTHOUGH NOT SPECIFICALLY REFERRED TO IN THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND PERFORMED BY THE COONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT. AN EXAMPLE OF SUCH INCIDENTAL WORK ARE JUNCTION BOXES AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT. ALL INCIDENTAL WORK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
15. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL CONDUIT AND WIRING FOR THE POWER CONNECTION TO ALL EQUIPMENT AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS. ALL INCIDENTAL CONDUIT AND WIRING REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM MAY NOT BE SHOWN IN THE DRAWINGS OR SPECIFICATIONS. CONTRACTOR SHALL COORDINATE INCIDENTAL CONDUIT AND WIRING REQUIREMENTS BETWEEN ALL TRADES TO ENSURE THE INCIDENTAL CONDUIT AND WIRING IS PROVIDED AND THE AFFECTED SYSTEMS OPERATE AS INTENDED.
16. THE LOCATION OF THE ELECTRICAL APPARATUS AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND BEFORE INSTALLING, STUDY THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DETAILS AND MAKE INSTALLATION IN THE MOST LOGICAL MANNER. CIRCUIT ROUTING IS TYPICAL AND MAY BE VARIED IN ANY MANNER. ANY PIECE OF EQUIPMENT/DEVICE MAY BE RELOCATED WITHIN 10' BEFORE INSTALLATION AT THE DIRECTION OF THE ARCHITECT WITHOUT ADDITIONAL CHARGE TO THE PROJECT.
17. SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF THE PROJECT'S WORK, THE CONTRACTOR SHALL MARK SUCH CHANGES ON THE AS-BUILT DRAWINGS. IF THESE CHANGES REQUIRE AN ALTERNATE METHOD TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS TO REFLECT THE PROPOSED ALTERNATE METHODS TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION SHALL NOT BE CONSIDERED AN ITEM FOR EXTRA COST.
18. DISCONNECT AND REMOVE ALL ELECTRICAL APPARATUS, LIGHT FIXTURES, WIRING DEVICES, JUNCTION BOXES, AND ASSOCIATED FEEDER AND BRANCH CIRCUIT WIRING IN THE PROJECT AREA, UNLESS OTHERWISE NOTED. THE DEMOLITION DRAWINGS ARE INTENDED TO SHOW THE GENERAL LIMITS OF THE SCOPE OF WORK AND MAY NOT SHOW ALL THE EXISTING DEVICES, CONDUIT RUNS, ETC. FEEDER AND BRANCH CIRCUIT WIRING TO BE REMOVED SHALL BE DISCONNECTED FROM ITS SOURCE. REMOVE ALL CONDUCTORS AND CONDUIT AND CONDUIT SUPPORT STRUCTURES WHERE ACCESSIBLE. PATCH/REPAIR WALL, FLOOR AND CEILING DAMAGES AS A RESULT OF THE REMOVAL WORK.
19. THE EXISTING ELECTRICAL, TELECOM, FIRE ALARM, AND OTHER ELECTRICALLY-RELATED SYSTEMS IN AREAS ADJACENT TO, OUTSIDE OF, AND/OR OTHERWISE PASSING THROUGH THE PROJECT LIMITS, MUST REMAIN OPERATIONAL DURING THE CONSTRUCTION PERIOD AND POST-CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE DUE CARE AND CAUTION WHEN WORKING NEAR ANY EXISTING EQUIPMENT, DEVICES, OR CABLING/CIRCUITING. PROVIDE NEW JUNCTION BOXES, CONDUITS & WIRING, AND THE LABOR REQUIRED TO FACILITATE THE REQUIRED OPERATIONAL CONTINUITY. BOXES, CONDUITS AND WIRING SHALL BE IN ACCORDANCE WITH THE NEC. ANY DAMAGE TO THE EXISTING EQUIPMENT, DEVICES OR CABLING/CIRCUITING RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY REPAIRED OR OTHERWISE RESTORED TO ITS ORIGINAL WORKING CONDITION AT NO ADDITIONAL COST TO THE PROJECT.
20. THE ELECTRICAL DRAWINGS ARE BASED ON PROPOSED EQUIPMENT. VERIFY ALL SYSTEM REQUIREMENTS (ELECTRICAL, MECHANICAL, FIRE ALARM, SPECIALTY SYSTEMS, ETC.) WITH THE SELECTED SYSTEM'S MANUFACTURER OR AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WITH ANY WORK. COORDINATE RATINGS OF OVERCURRENT PROTECTION DEVICES, DISCONNECT SWITCHES, CONDUIT & WIRING TO MATCH THE ACTUAL EQUIPMENT SUPPLIED FOR THE PROJECT. CORRECT ALL DISCREPANCIES SO AS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. RECORD CHANGES ON THE AS-BUILT DRAWINGS.
21. ALL EQUIPMENT AND APPARATUS SHALL BE CAPABLE OF FITTING IN THE SPACES SHOWN WHILE MEETING THE MANUFACTURER'S RECOMMENDED ACCESS REQUIREMENTS AND APPLICABLE CODE REQUIREMENTS. REVIEW ALL SPACES WHERE EQUIPMENT IS TO BE INSTALLED PRIOR TO ORDERING OF EQUIPMENT AND NOTIFY THE ARCHITECT OF ANY INADEQUATE CLEARANCES OR CONDITIONS THAT WILL PREVENT THE PROPER INSTALLATION, MAINTENANCE, AND OPERATION OF THE EQUIPMENT.
22. CONCEAL ALL CONDUIT; EXPOSED CONDUITS ARE PERMITTED ONLY WHERE SPECIFICALLY SHOWN ON THE DRAWINGS. ALL EXPOSED CONDUITS IN FINISHED AREAS SHALL BE INSTALLED IN THE LEAST VISIBLE LOCATIONS. CARE SHALL BE TAKEN TO INSTALL CONDUIT IN THE MOST AESTHETICALLY PLEASING MANNER.

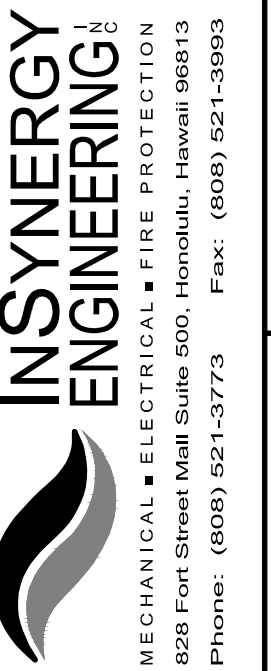
23. PROVIDE NYLON PULLSTRINGS IN ALL EMPTY CONDUITS UNLESS OTHERWISE INDICATED.
24. WIRING DEVICES AND CONDUITS SHALL BE FLUSH MOUNTED, WHEREVER REASONABLY POSSIBLE.
25. PROVIDE TYPEWRITTEN CIRCUIT DIRECTORIES FOR ALL PANELS, NEW OR MODIFIED, REFLECTING THE CIRCUIT ARRANGEMENTS AS THEY WERE ACTUALLY INSTALLED.
26. AN ADHESIVE VINYL NAMEPLATE SHALL BE PROVIDED FOR ALL SWITCHES, RECEPTACLES, DISCONNECT SWITCHES, MOTOR STARTERS, AND MISCELLANEOUS DEVICES REQUIRING POWER. THE NAMEPLATE SHALL INDICATE THE PANELBOARD SERVING THE DEVICE AND THE CORRESPONDING CIRCUIT ASSIGNMENT. LETTERING SHALL BE A MINIMUM OF 1/4" HIGH. UTILIZE BROTHER "P-TOUCH" LABEL MAKER OR APPROVED SUBSTITUTE.
27. A GREEN, EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH THE NEC ARTICLE 250 SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS WHETHER INDICATED ON CONTRACT DRAWINGS OR NOT. INSTALL THIS CONDUCTOR IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LEGS AND ATTACH TO THE DEVICES, LUMINAIRE, OR EQUIPMENT USING A SUITABLE GROUNDING LUG.
28. DO NOT USE A COMMON NEUTRAL FOR MULTIPLE BRANCH CIRCUITS INSTALLED IN A COMMON CONDUIT. PROVIDE A DEDICATED NEUTRAL FOR EACH INDIVIDUAL CIRCUIT. WHERE MULTIPLE DEDICATED NEUTRALS ARE INSTALLED IN A COMMON CONDUIT, PROVIDE COLOR CODING OF THE DIFFERENT NEUTRAL CONDUCTORS IN ACCORDANCE WITH NEC 2014 ARTICLE 200.6 (WHITE, GRAY, THREE CONTINUOUS WHITE OR GRAY STRIPES, ETC.).
29. ALL SURFACE MOUNTED DEVICES SHALL BE INSTALLED UTILIZING FACTORY PAINTED SURFACE MOUNTING ACCESSORIES AND MATCHING DEVICE BOXES FOR THE MOST AESTHETICALLY PLEASING INSTALLATION.
30. PROVIDE KNOCK-OUT PLUGS FOR ALL UNUSED CONDUIT PENETRATIONS IN BOXES AND ENCLOSURES DUE TO CONDUIT REMOVAL.
31. PENETRATIONS THROUGH FIRE-RATED WALLS, CEILINGS AND FLOORS SHALL BE SEALED TO MAINTAIN FIRE RATINGS. UTILIZE 3M CP25, PUTTY 303 OR OTHER SUITABLE UL-LISTED SEALING SYSTEM.
32. PATCH, REFINISH, AND PAINT ALL PENETRATIONS THROUGH WALLS AND SLABS TO MATCH FINISH OF ADJACENT SURFACES.
33. RESTORE/REPAIR ANY DAMAGE TO EXISTING SURFACES RESULTING FROM THE INSTALLATION OF NEW ELECTRICAL ITEMS. THE AREAS REPAIRED SHALL MATCH THE ADJACENT SURFACES IN TEXTURE, FINISH AND COLOR.
34. PAINTING OF ELECTRICAL EQUIPMENT: PRIME AND PAINT ALL EXPOSED CONDUITS, BOXES, FITTINGS, SUPPORT CHANNELS, MOUNTING HARDWARE AND ACCESSORIES WITH TWO FINISH COATS TO MATCH THE SURFACE ON WHICH THEY ARE MOUNTED OR TO MATCH THE FINISH OF THE ADJACENT SURFACES. EQUIPMENT SURFACES/COMPONENTS WITH A FACTORY-APPLIED PAINT FINISH NEED NOT BE PAINTED.

DEMOLITION NOTES:

1. FIELD VERIFY OTHER ELECTRICAL SERVICES THAT MAY BE ENCOUNTERED DURING DEMOLITION AND REMOVE OR REROUTE THESE ITEMS AS REQUIRED. MAINTAIN ELECTRICAL CONTINUITY TO ELECTRICAL DEVICES, EQUIPMENT AND OUTLETS WHICH REMAIN.
2. REMOVE ALL UNUSED WIRING BACK TO SOURCE FROM DEMOLITION AREA, INCLUDING WIRING DISCONNECTED AND NOT RE-USED UNDER THIS CONTRACT AND WIRING UNCOVERED BY DEMOLITION UNLESS OTHERWISE NOTED.
3. REMOVE ALL UNUSED RACEWAY BACK TO SOURCE FROM DEMOLITION AREA NOT CONCEALED IN CONCRETE OR PLASTER, INCLUDING RACEWAY DISCONNECTED AND NOT RE-USED UNDER THIS CONTRACT AND RACEWAY UNCOVERED BY DEMOLITION.
4. ALL REMAINING JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE AS PER NATIONAL ELECTRICAL CODE (N.E.C.). THE CONTRACTOR SHALL MOVE EXISTING BOXES, ETC. REQUIRED BY NEW CONSTRUCTION.
5. REMOVE AND OR RELOCATE EXISTING ITEMS IN WAY OF NEW CONSTRUCTION.
6. PATCH ANY OPENINGS CREATED BY DEMOLITION WORK THAT WILL NOT BE USED FOR NEW WORK.

REVISIONS BY

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SAMUEL MAHELONA  
MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ELECTRICAL GENERAL NOTES

Designed	IK
Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039
Sheet	<b>E-001</b>
2 of xx Sheets	

## ELECTRICAL SYMBOL LIST / MOUNTING HEIGHT SCHEDULE

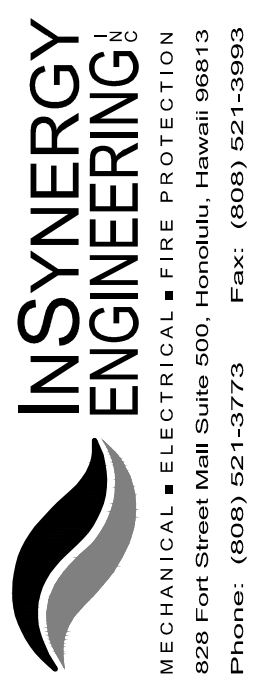
MOUNTING HEIGHT FROM FLOOR TO TOP	CL	(SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN)		DESCRIPTION
		SYMBOL		
		EXISTING	NEW	
				JUNCTION BOX, LARGE, WALL MOUNTED
				JUNCTION BOX, LARGE, HORIZONTALLY MOUNTED
				JUNCTION BOX, HORIZONTALLY MOUNTED
18"				JUNCTION BOX, WALL MOUNTED
				ENCLOSED CIRCUIT BREAKER
46"				DISCONNECT SWITCH, FLUSH WALL MOUNTED, 1P20A, 120/277V, 1HP MAX.
				TRANSFORMER, PAD OR FLOOR MOUNTED
				PANELBOARD
				HOMERUN ARROW TO PANELBOARD. LETTER INDICATES PANELBOARD, NUMBERS INDICATES CIRCUITS.
				INTERIOR WORK: CONCEALED CONDUIT IN FINISHED FLOOR OR BELOW GRADE (NO HASHMARKS INDICATE 2 CURRENT CARRYING CONDUCTORS AND 1 GROUND CONDUCTOR WITHIN, ALL OTHERS SIMILAR).
				EXTERIOR WORK: CONCRETE ENCASED UNDERGROUND DUCT LINE, SEE DUCT SECTION INDICATOR AND SCHEDULE.
				CONCEALED CONDUIT IN FINISHED FLOOR OR BELOW GRADE (NO HASHMARKS INDICATE 2-WIRES WITHIN).
				CONCEALED CONDUIT IN CEILING OR WALLS, (HASHMARKS INDICATE 3-WIRES WITHIN, ALL OTHERS SIMILAR).
				EXPOSED RACEWAY, PROVIDE STRAP 8'-0" ON CENTER MAXIMUM
				LIQUID-TIGHT FLEXIBLE CONDUIT
				CONDUIT STUB, 3/4" MINIMUM CONDUIT UNLESS OTHERWISE NOTED
				POWER TRANSFORMER
				GROUND
				CIRCUIT BREAKER
				NON-FUSED DISCONNECT SWITCH
				FUSED DISCONNECT SWITCH
				POTENTIAL TRANSFORMER
				CURRENT TRANSFORMER
				METER SOCKET AND KILOWATT HOUR METER WITH DEMAND REGISTER
				DENOTES DEMOLITION/REMOVAL
				NOTE INDICATOR
				ELECTRICAL/SIGNAL DUCTLINE & DESIGNATOR

## ELECTRICAL ABBREVIATIONS

AA	AIR-TO-AIR	MH	MANHOLE
AIC	AMPERE-INTERRUPTING CAPACITY	MIN	MINIMUM
AMP, A	AMPERE	MLO	MAIN LUGS ONLY
ADDL	ADDITIONAL	MTD	MOUNT OR MOUNTED
AFF	ABOVE FINISHED FLOOR	MTG	MOUNTING
ATC	AIR TERMINAL CHAMBER	MM	MULTI-MODE
BC	BARE COPPER	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
BKR	BREAKER	NEC	NATIONAL ELECTRICAL CODE
BKBD	BACKBOARD	NO, #	NUMBER
BLDG	BUILDING	O.A.	OUTSIDE AIR
BTR	BUILDING TELECOMMUNICATIONS ROOM	O.C.	ON CENTER
C	CONDUIT, CONDUCTOR	OCPPD	OVER CURRENT PROTECTION DEVICE
CKT	CIRCUIT	PNL	PANEL
D	DEPTH	PVC	POLYVINYL CHLORIDE
DISC	DISCONNECT	RM	ROOM
DIST	DISTRIBUTION	SN	SOLID NEUTRAL
E, EM	EMERGENCY	SURF	SURFACE
EHD	ELECTRIC HANDHOLE	SW	SWITCH
EPB	ELECTRIC PULLBOX	S/S	316 STAINLESS STEEL
ENCL	ENCLOSURE	THK	THICK
EXIST	EXISTING	TP	TWISTED PAIR
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
FA	FORCED AIR	U/G	UNDERGROUND
FLA	FULL LOAD AMPERE	UON	UNLESS OTHERWISE NOTED
FO	FIBER OPTIC	V	VOLTS
GRD	GROUND	VCB	VACUUM CIRCUIT BREAKER
GRS	GALVANIZED RIGID STEEL	W	WIRE, WIDE, WATTS
H	HIGH	WP	WEATHERPROOF, NEMA 4X, 316 S/S
HH	HANDHOLE	XFMR	TRANSFORMER
HECO	HAWAIIAN ELECTRIC COMPANY	Ø	PHASE
HP	HORSEPOWER	'	FOOT, FEET
HT	HEIGHT	"	INCH, INCHES
JB	JUNCTION BOX	&	AND
KVA	KILO-VOLT AMPERE	Ω	OHM
KV	KILO-VOLT		
KW	KILOWATT		

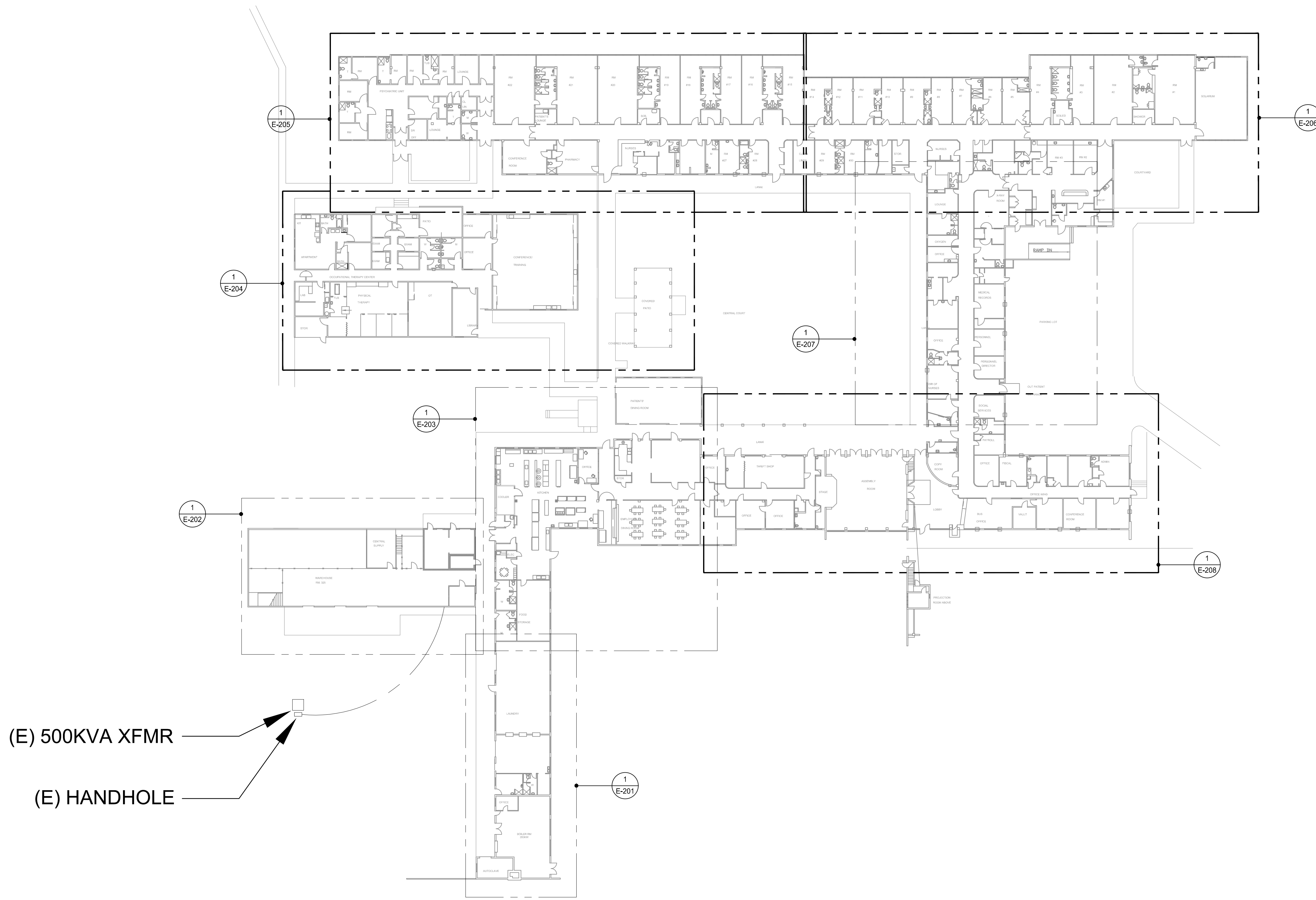
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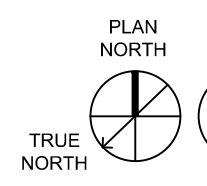


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ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ELECTRICAL SYMBOLS AND ABBREVIATIONS

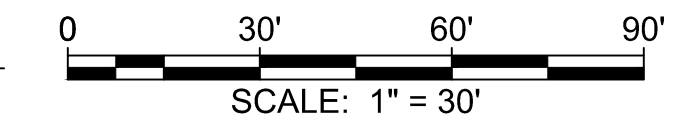
Designed: IK  
 Drawn: CAD  
 Checked: RT  
 Date: 02/18/2022  
 Job No.: 21039  
 Sheet: E-002



(E) 500KVA XFMR  
 (E) HANDHOLE

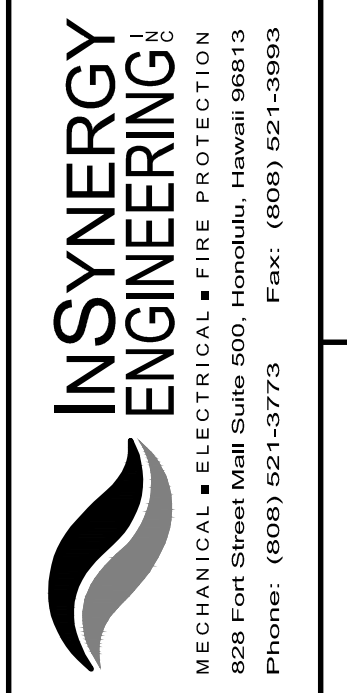


**1** ELECTRICAL SITE PLAN  
 SCALE: 1" = 30'-0"



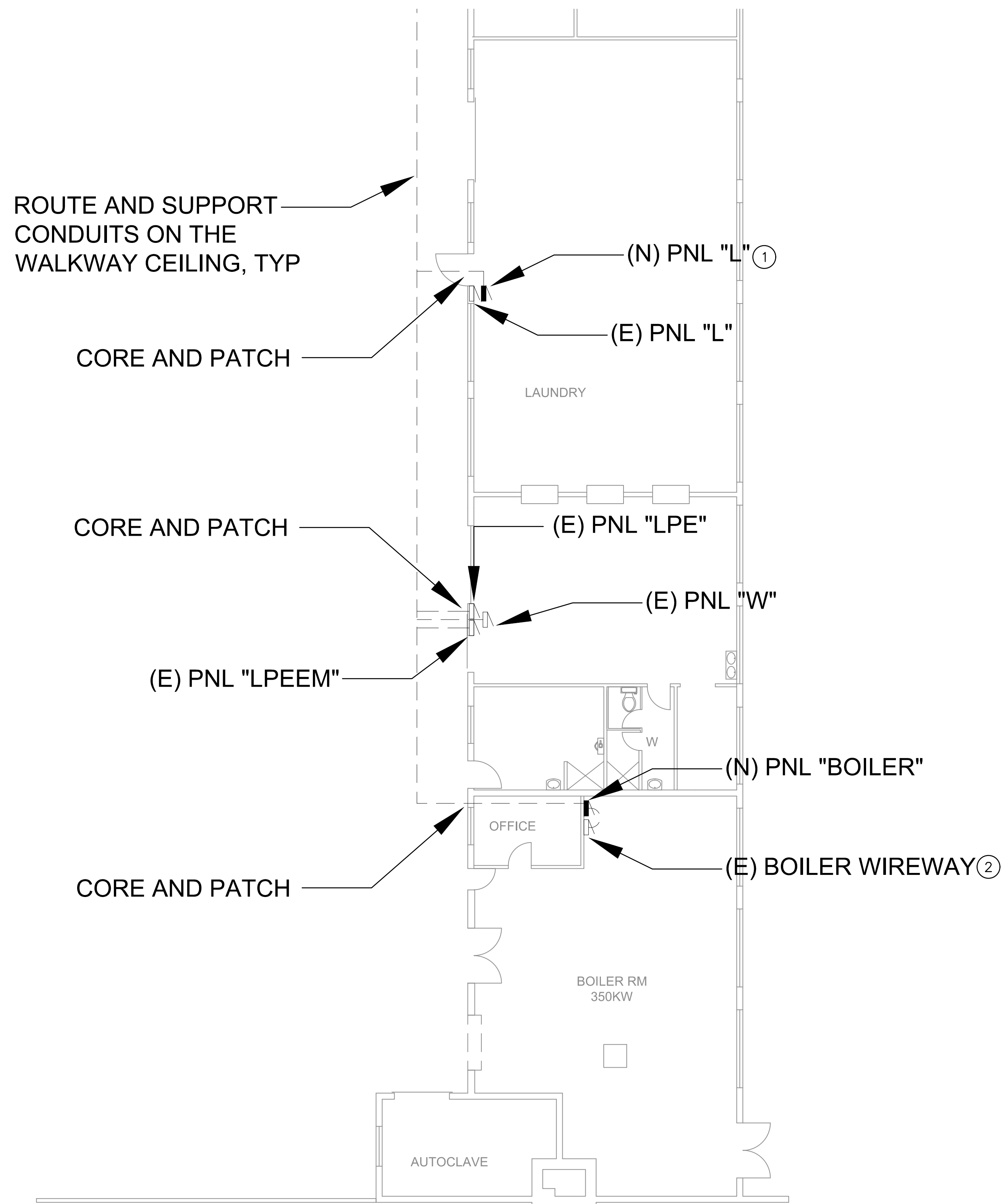
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 KAPAA, KAUAI, HAWAII**  
 ELECTRICAL SITE PLAN

Designed	IK
Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039
Sheet	<b>E-101</b>



- SHEET NOTES:
1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
  - ① INSTALL NEW PANEL AT THE EXIST PANEL'S LOCATION.
  - ② EXTEND EXIST CIRCUITS TO NEW PANEL.

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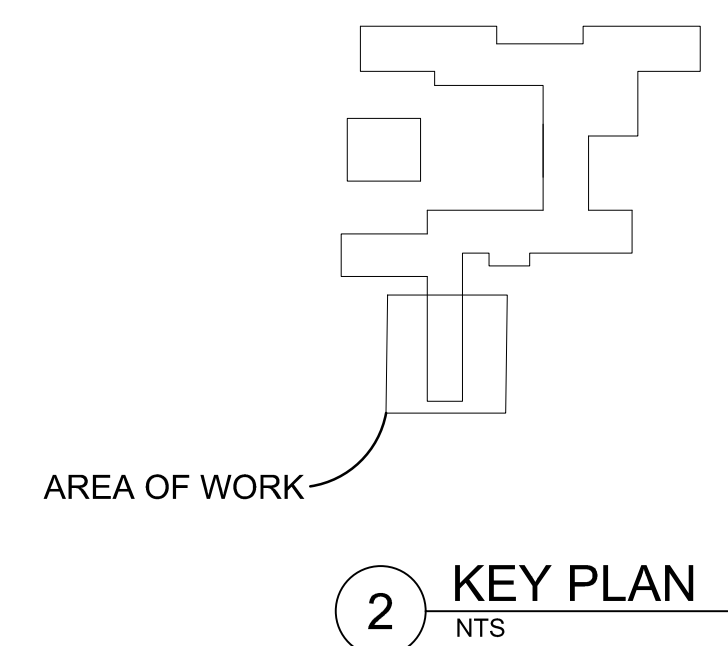
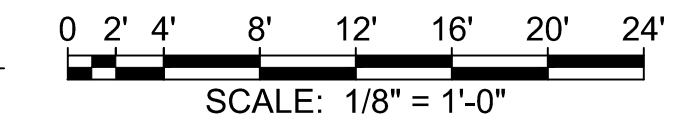
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 KAPAA, KAUAI, HAWAII  
 ENLARGED ELECTRICAL PLAN 1

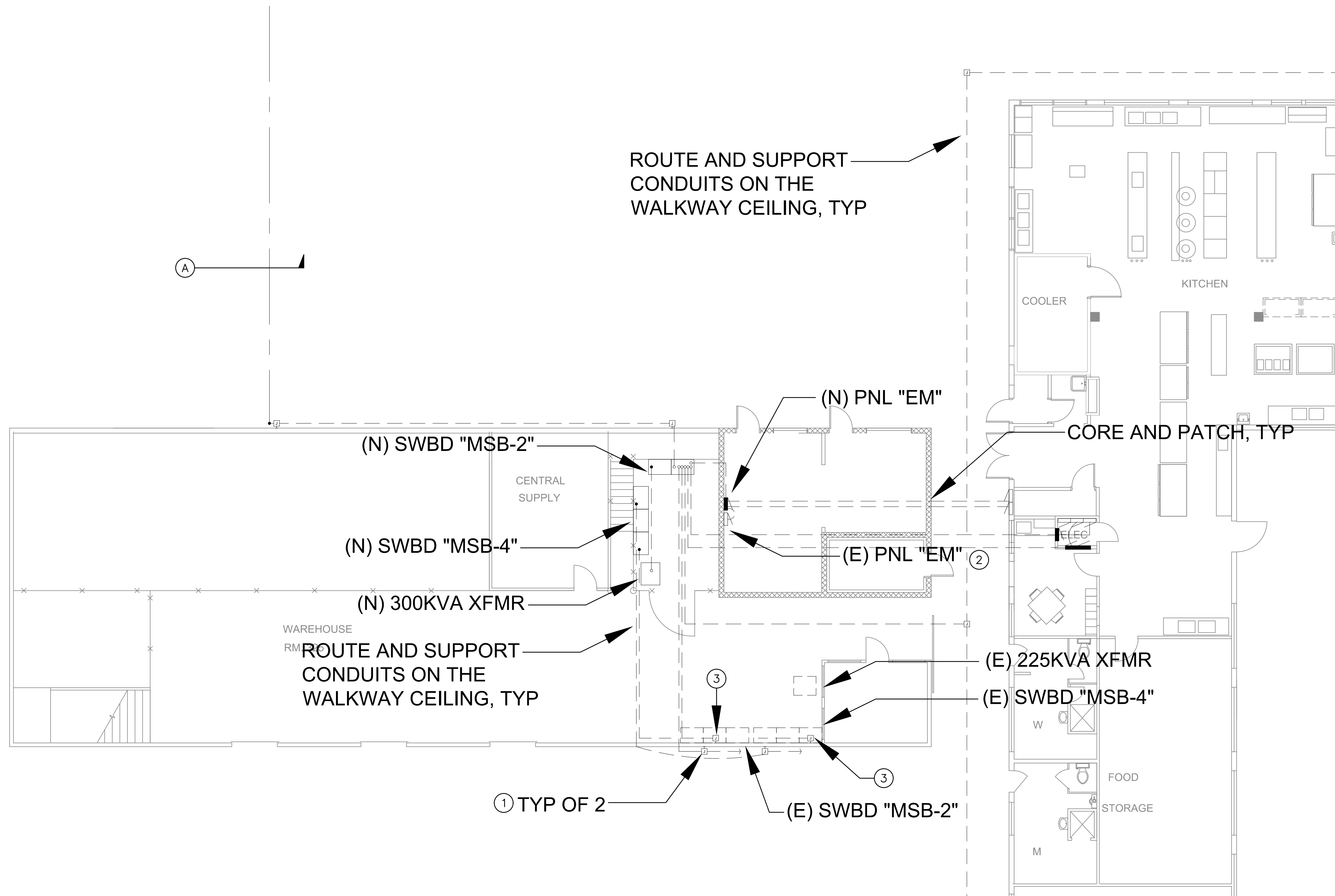
Designed	IK
Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039

Sheet  
**E-201**  
 5 of xx Sheets

PLAN NORTH  
 TRUE NORTH  
 1 ENLARGED ELECTRICAL PLAN 1  
 SCALE: 1/8" = 1'-0"



SEE SHEET E-204 FOR CONTINUATION



SHEET NOTES:

1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
- ① INTERCEPT EXIST CONDUITS WITH JB AND EXTEND FEEDERS FOR EXIST LOADS TO NEW SWBD MSB-4 OR SWBD MSB-2.
- ② EXIST PANEL CONVERTED INTO JB. EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.
- ③ INTERCEPT EXIST CIRCUITS WITH JB AND EXTEND FEEDERS FOR EXIST LOADS TO NEW SWBD MSB-4 OR SWBD MSB-2.

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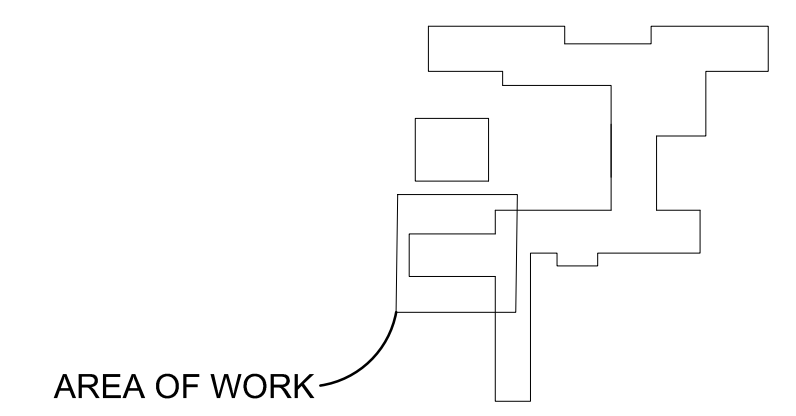
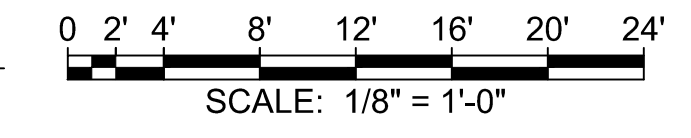
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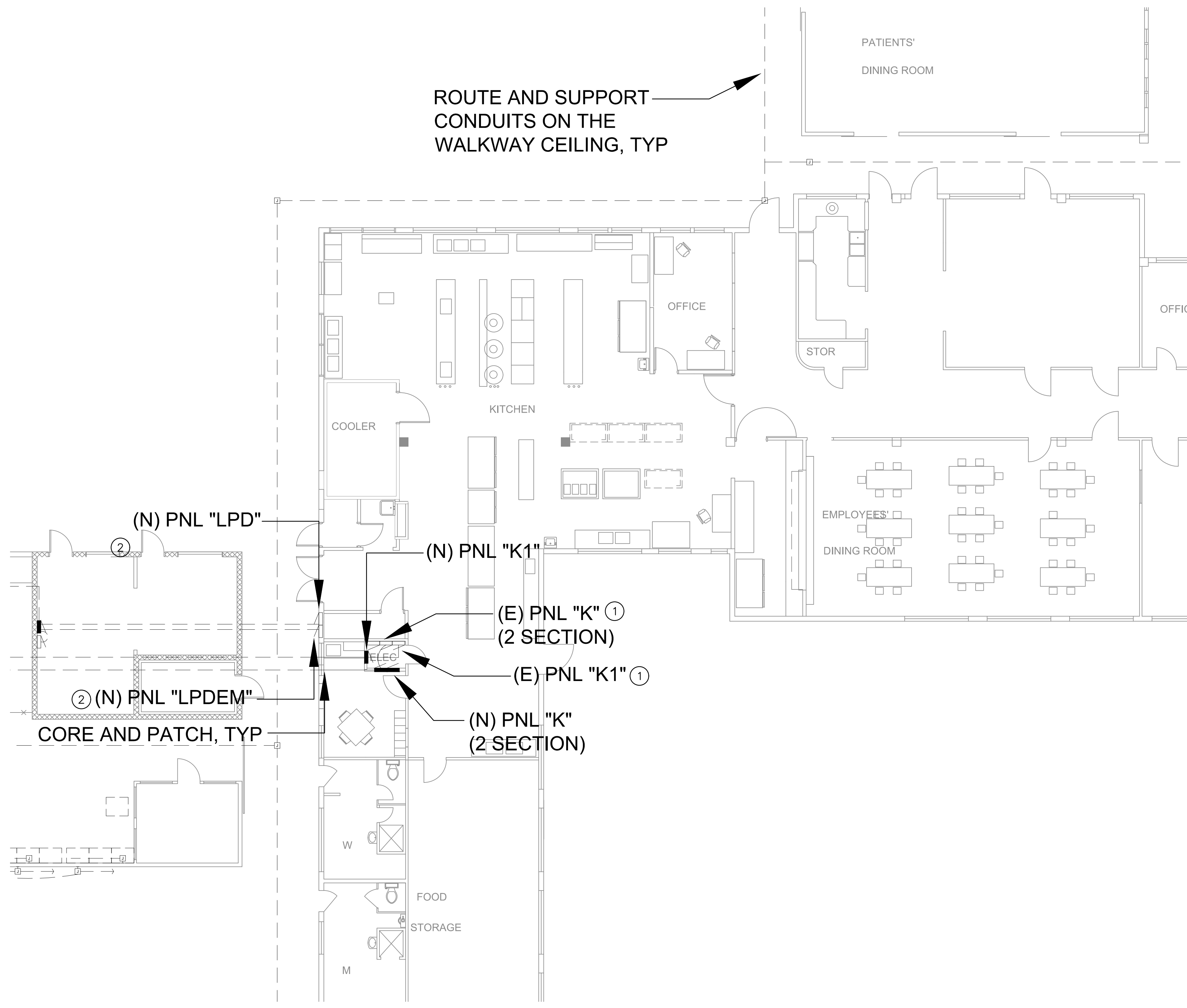
SAMUEL MAHELELONA  
 MEMORIAL HOSPITAL  
 ELECTRICAL UPGRADES PHASE 2  
 KAPAA, KAUAI, HAWAII  
 ENLARGED ELECTRICAL PLAN 2

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Checked	RT
Date	02/18/2022
Job No.	21039
Sheet	E-202

PLAN NORTH  
  
**1** ENLARGED ELECTRICAL PLAN 2  
 SCALE: 1/8" = 1'-0"



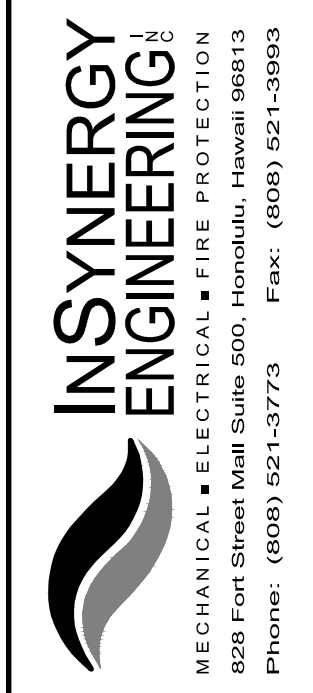
**2** KEY PLAN  
 NTS



- SHEET NOTES:
1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
  - 1 EXIST PANEL CONVERTED INTO JB. EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.
  - 2 INSTALL NEW PANEL AT THE EXIST PANEL'S LOCATION.

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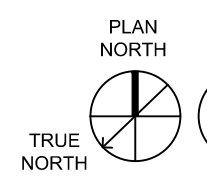
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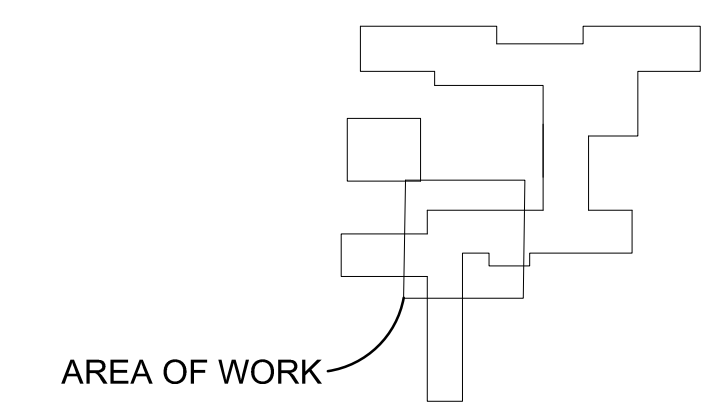
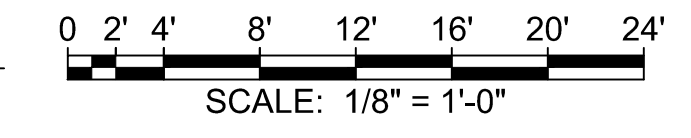
SAMUEL MAHELONA  
MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ENLARGED ELECTRICAL PLAN 3

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Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039
Sheet	E-203

6 of xx Sheets



1 ENLARGED ELECTRICAL PLAN 3  
SCALE: 1/8" = 1'-0"



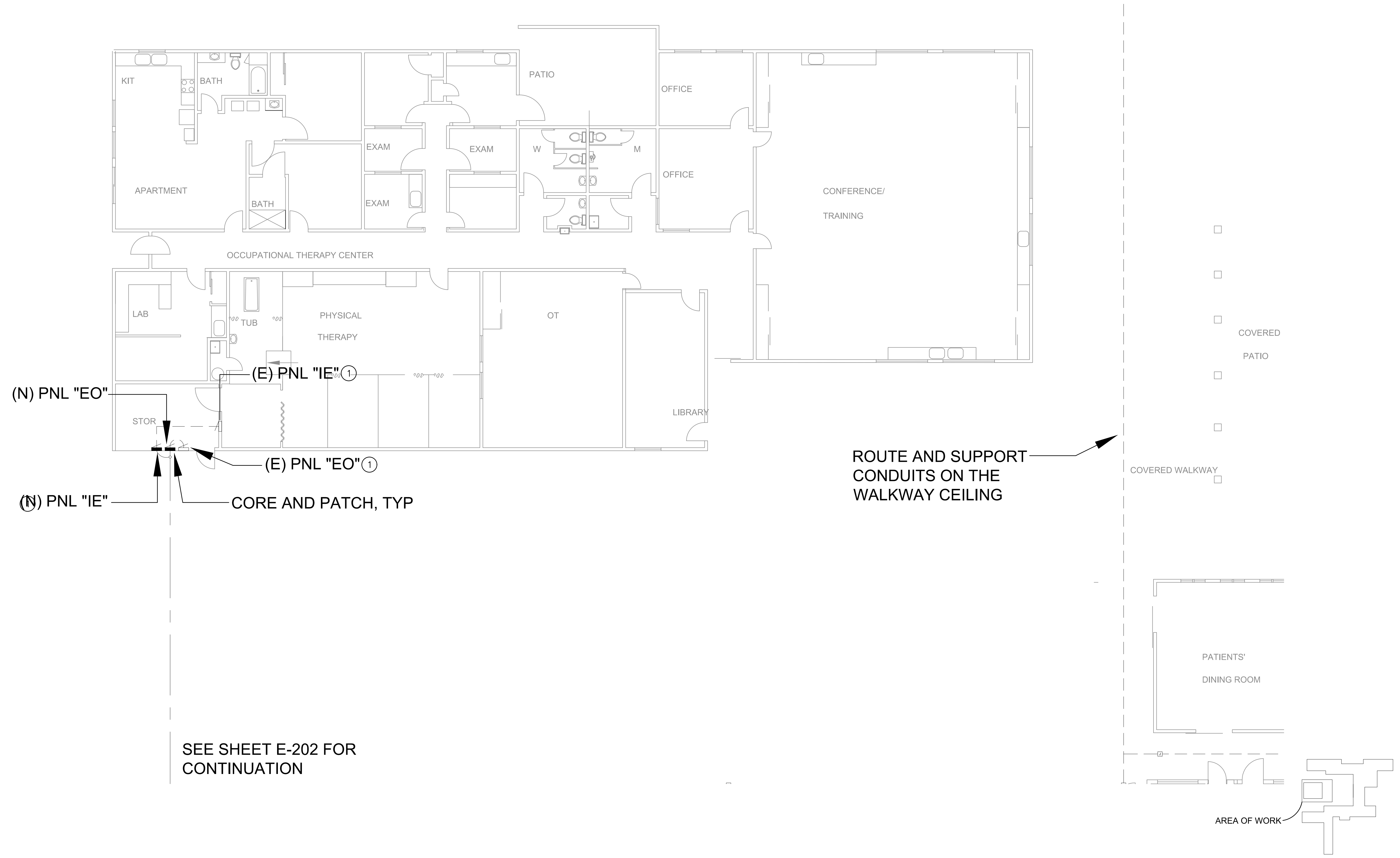
2 KEY PLAN  
NTS

SHEET NOTES:

1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
- 1 EXIST PANEL CONVERTED INTO JB. EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.

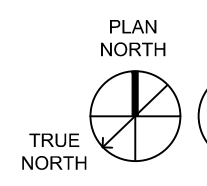
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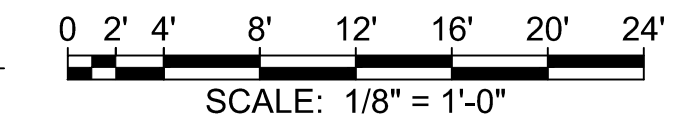


SEE SHEET E-202 FOR CONTINUATION

ROUTE AND SUPPORT CONDUITS ON THE WALKWAY CEILING



1 ENLARGED ELECTRICAL PLAN 4  
SCALE: 1/8" = 1'-0"



2 KEY PLAN  
NTS



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ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ENLARGED ELECTRICAL PLAN 4

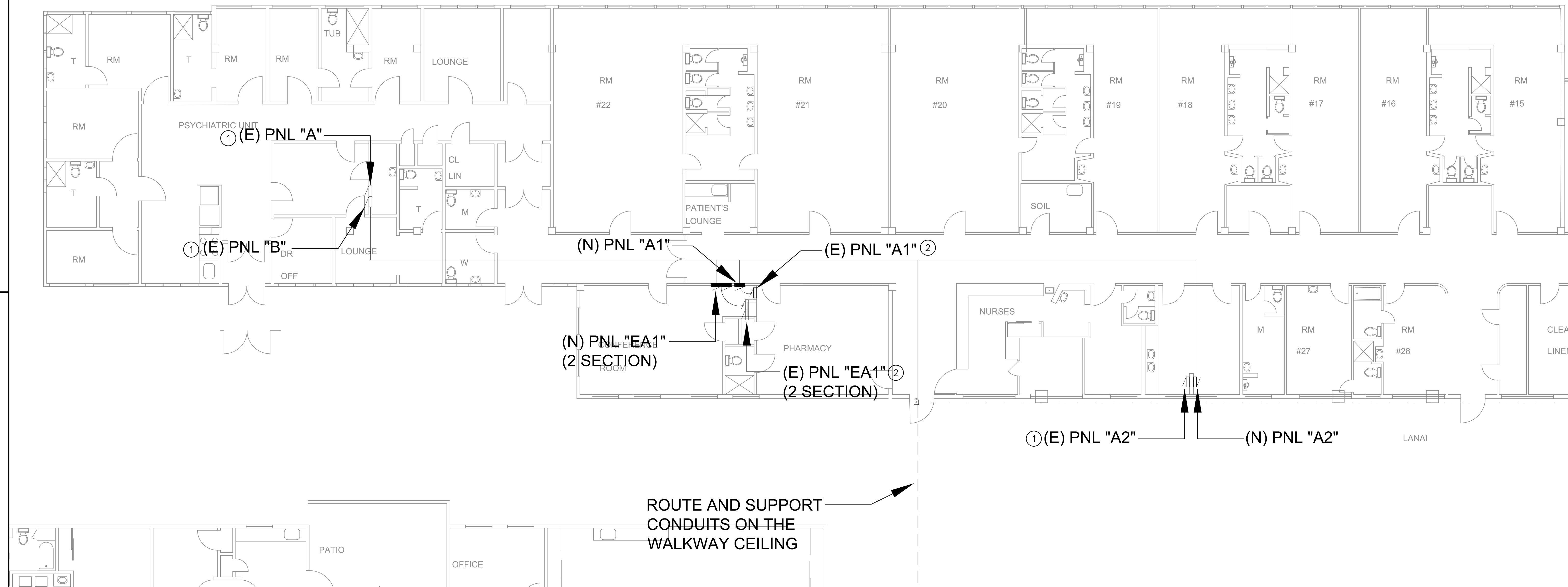
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Date	02/18/2022
Job No.	21039
Sheet	E-204



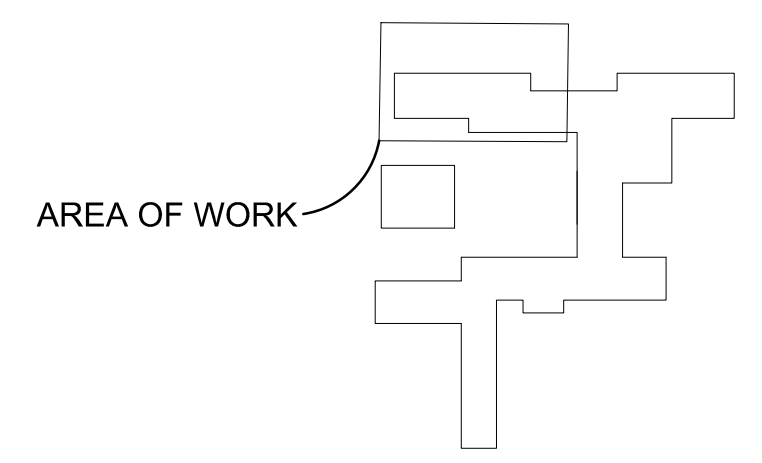
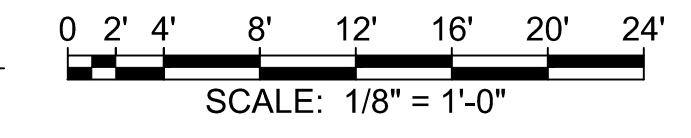
- SHEET NOTES:
1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
  - 1 INSTALL NEW FEEDERS INTO THE EXIST PANEL'S LOCATION.
  - 2 CONVERT EXIST PANEL INTO JB. EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.

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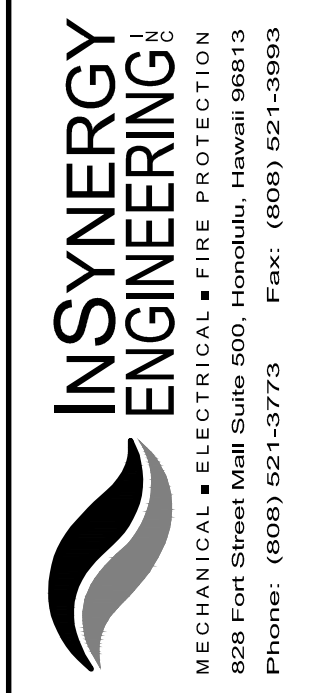
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PLAN NORTH  
 1 ENLARGED ELECTRICAL PLAN 5  
 SCALE: 1/8" = 1'-0"



2 KEY PLAN  
 NTS



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 MEMORIAL HOSPITAL  
 ELECTRICAL UPGRADES PHASE 2  
 KAPAA, KAUAI, HAWAII  
 ENLARGED ELECTRICAL PLAN 5

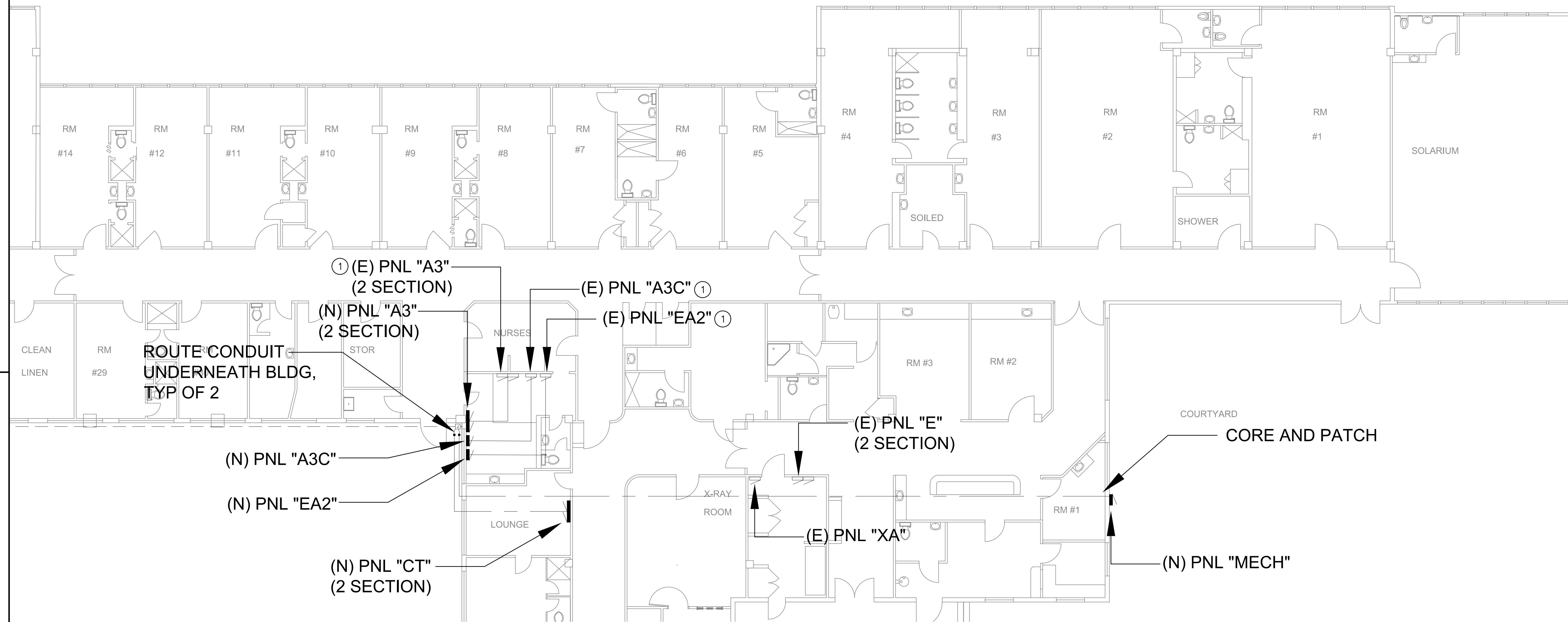
Designed	IK
Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039

SHEET NOTES:

1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
- ① CONVERT EXIST PANEL INTO JB. EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.

REVISIONS	BY

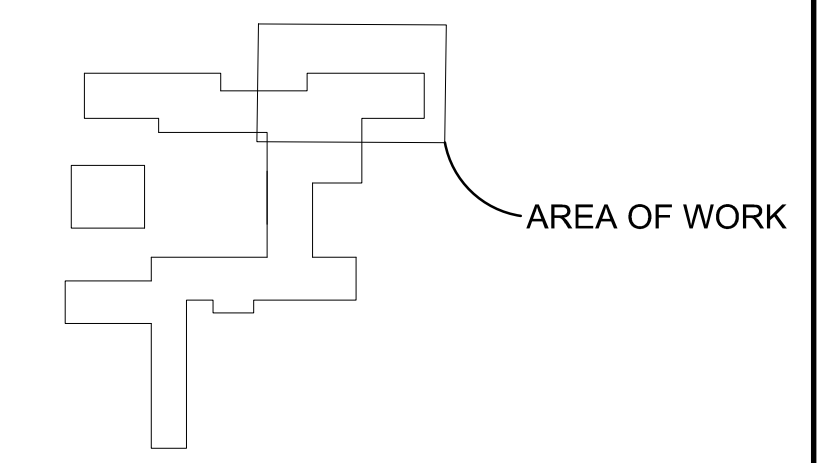
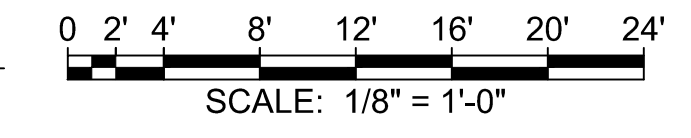
This work was prepared by me or under my supervision and construction of this project will be under my observation.



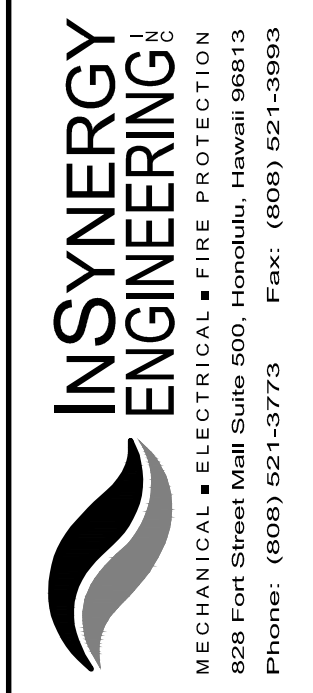
ROUTE CONDUIT UNDERNEATH BLDG, TYP OF 2

COURTYARD CORE AND PATCH

1 ENLARGED ELECTRICAL PLAN 6  
SCALE: 1/8" = 1'-0"

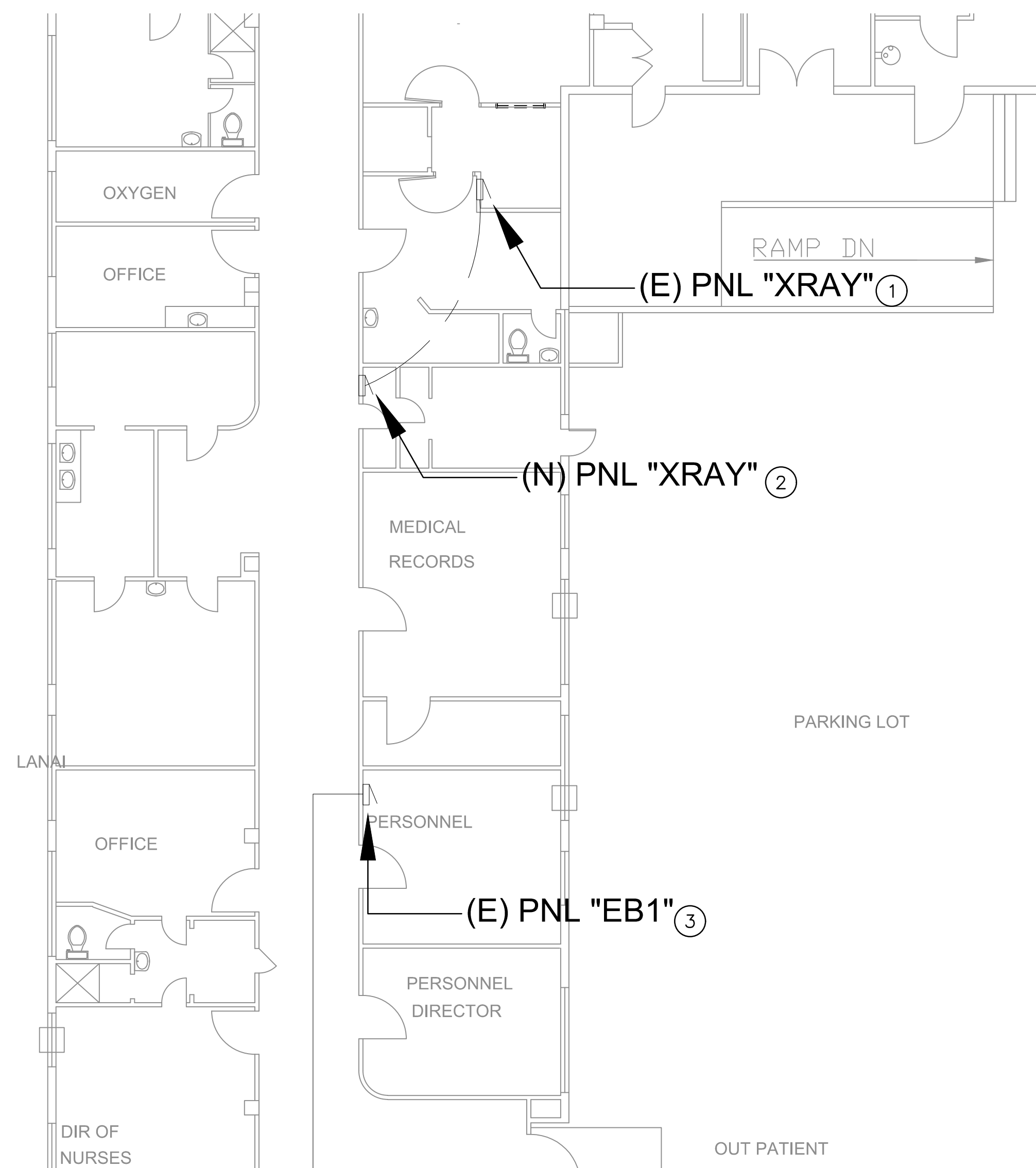


2 KEY PLAN  
NTS



SAMUEL MAHELOA  
MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ENLARGED ELECTRICAL PLAN 6

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Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039
Sheet	E-206



SHEET NOTES:

1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
- ① INTERCEPT EXIST FEEDER CONDUIT WITH JB UNDERNEATH THE FLOOR AND EXTEND CONDUIT FEEDERS FOR EXIST PANEL TO RELOCATED LOCATION.
- ② RELOCATED LOCATION OF EXISTING PANEL.
- ③ INSTALL NEW CONDUIT AND FEEDERS TO THE EXIST PANEL'S LOCATION.

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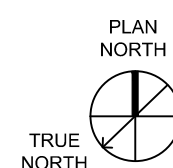
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 ELECTRICAL UPGRADES PHASE 2  
 KAPAA, KAUAI, HAWAII  
 ENLARGED ELECTRICAL PLAN 7

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 Date 02/18/2022  
 Job No. 21039

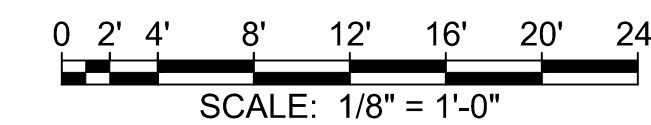
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10 of xx Sheets

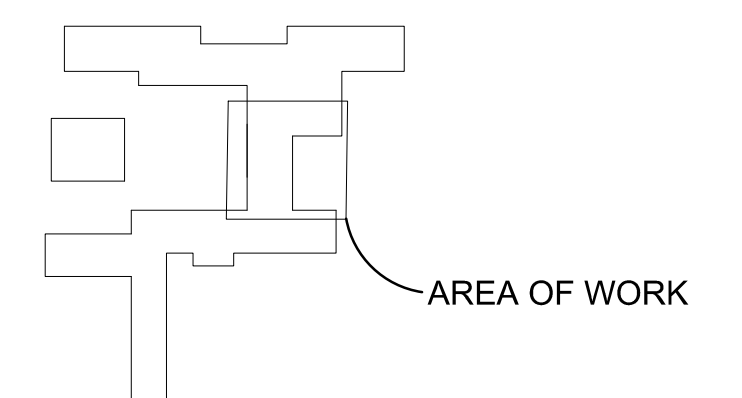


**1 ENLARGED ELECTRICAL PLAN 7**

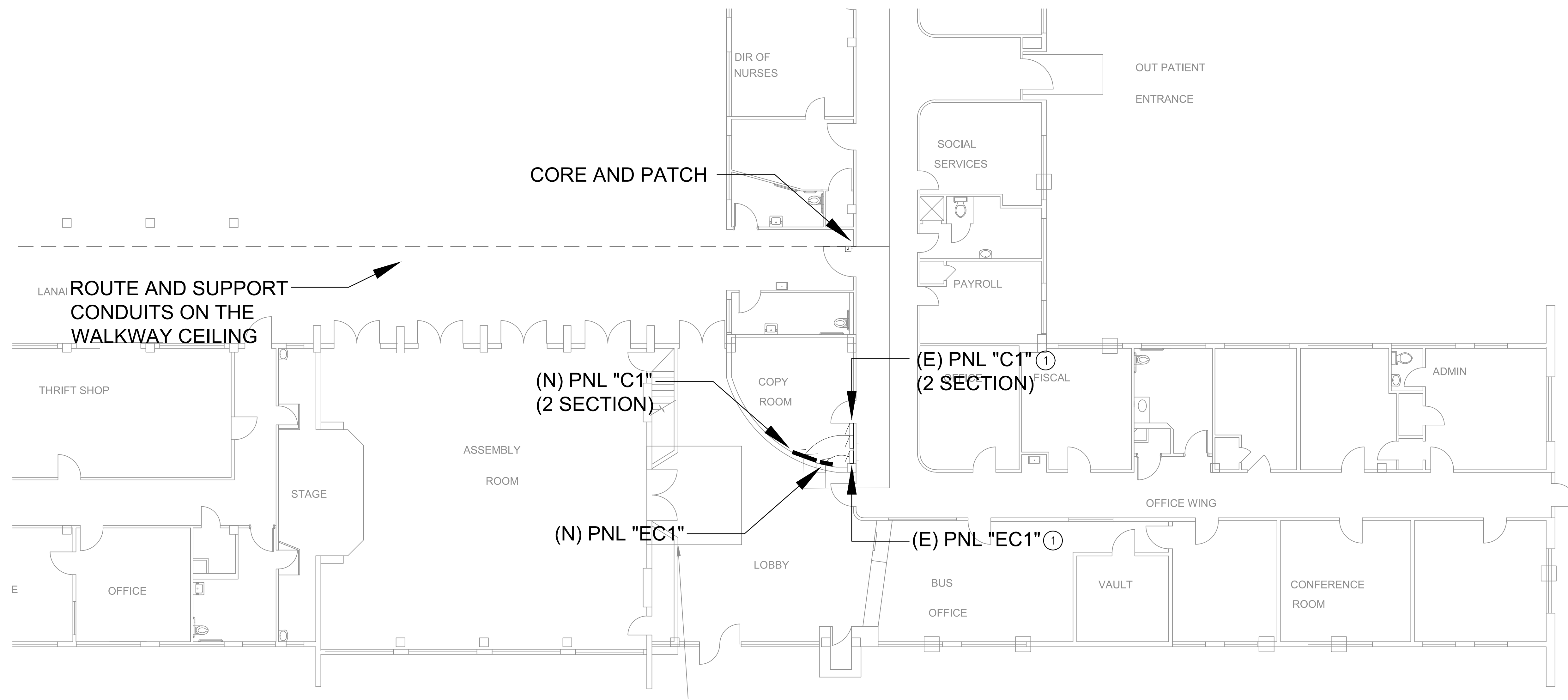
SCALE: 1/8" = 1'-0"



SCALE: 1/8" = 1'-0"



**2 KEY PLAN**  
NTS



- SHEET NOTES:
1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
  - ① CONVERT EXIST PANEL INTO JB. EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.

REVISIONS	BY

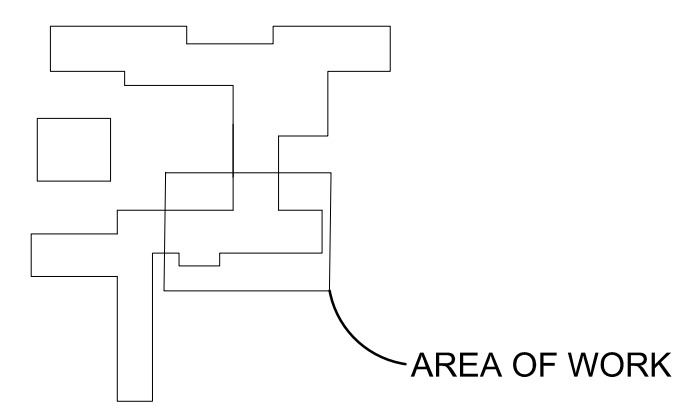
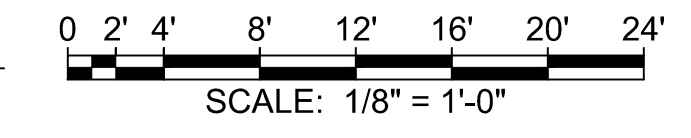
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 ELECTRICAL UPGRADES PHASE 2  
 KAPAA, KAUAI, HAWAII  
 ENLARGED ELECTRICAL PLAN 8

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Sheet	E-208

PLAN NORTH  
 TRUE NORTH  
 ① ENLARGED ELECTRICAL PLAN 8  
 SCALE: 1/8" = 1'-0"



② KEY PLAN  
 NTS

**FEEDER SCHEDULE: (UNLESS OTHERWISE NOTED)**

- 50/N/G = 1", 3#8, 1#8 NEUTRAL & 1#8 GND
- 60/-/G = 1", 3#6 & 1#8 GND
- 70/N/- = 1 1/4"C, 3#4 & 1#4 NEUTRAL
- 70/N/G = 1 1/4"C, 3#4, 1#4 NEUTRAL & 1#6 GND
- 100/N/G = 1.25", 3#2, 1#2 NEUTRAL & 1#8 GND
- 125/-/G = 1.5", 3#1, 1#6 GND
- 125/N/G = 1.5", 3#1, 1#1 NEUTRAL & 1#6 GND
- 150/N/G = 1.5", 3#1/0, 1#1/0 NEUTRAL & 1#6 GND
- 175/N/- = 2", 3#2/0 & 1#2/0 NEUTRAL
- 175/N/G = 2", 3#2/0, 1#2/0 NEUTRAL & 1#4 GND
- 200/N/G = 2.5", 3#3/0, 1#3/0 NEUTRAL & 1#6 GND
- 225/-/G = 2.5", 3#4/0 & 1#4 GND
- 225/N/G = 2.5", 3#4/0, 1#4/0 NEUTRAL & 1#4 GND
- 250/N/G = 3", 3#250, 1#250 NEUTRAL & 1#2 GND
- 300/N/G = 3", 3#350, 1#350 NEUTRAL & 1#4 GND
- 350/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
- 400/-/G = 4", 3#500 & 1#1/0 GND
- 400/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
- 500/-/G = 2 SETS 3", 3#250 & 1#2 GND
- 500/N/G = 2 SETS 3", 3#250, 1#250 NEUTRAL & 1#2 GND
- 600/-/G = 2 SETS 4", 3#350 & 1#2/0 GND
- 600/N/G = 2 SETS 4", 3#350, 1#350 NEUTRAL & 1#2/0 GND
- 800/N/G = 2 SETS 4", 3#500, 1#500 NEUTRAL & 1#2/0 GND
- 1000/N/G = 3 SETS 4", 3#500, 1#500 NEUTRAL & 1#3/0 GND
- 1200/N/G = 4 SETS 4", 3#350, 1#350 NEUTRAL & 1#3/0 GND

- SHEET NOTES:**
1. DEMOLISH EQUIPMENT AFTER NEW EQUIPMENT HAS BEEN INSTALLED TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
  - ① CUT CONDUIT AND EXTEND FEEDERS FOR EXIST LOAD TO NEW PANEL VIA NEW JB.

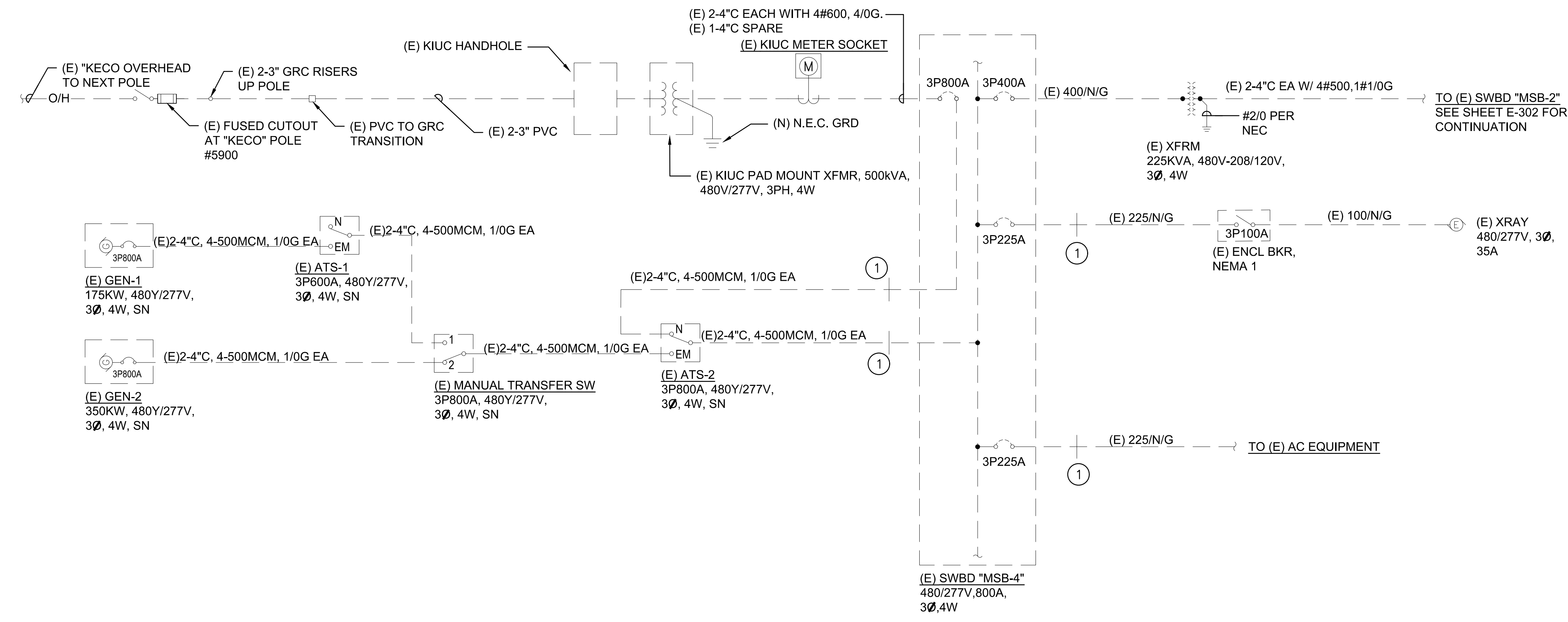
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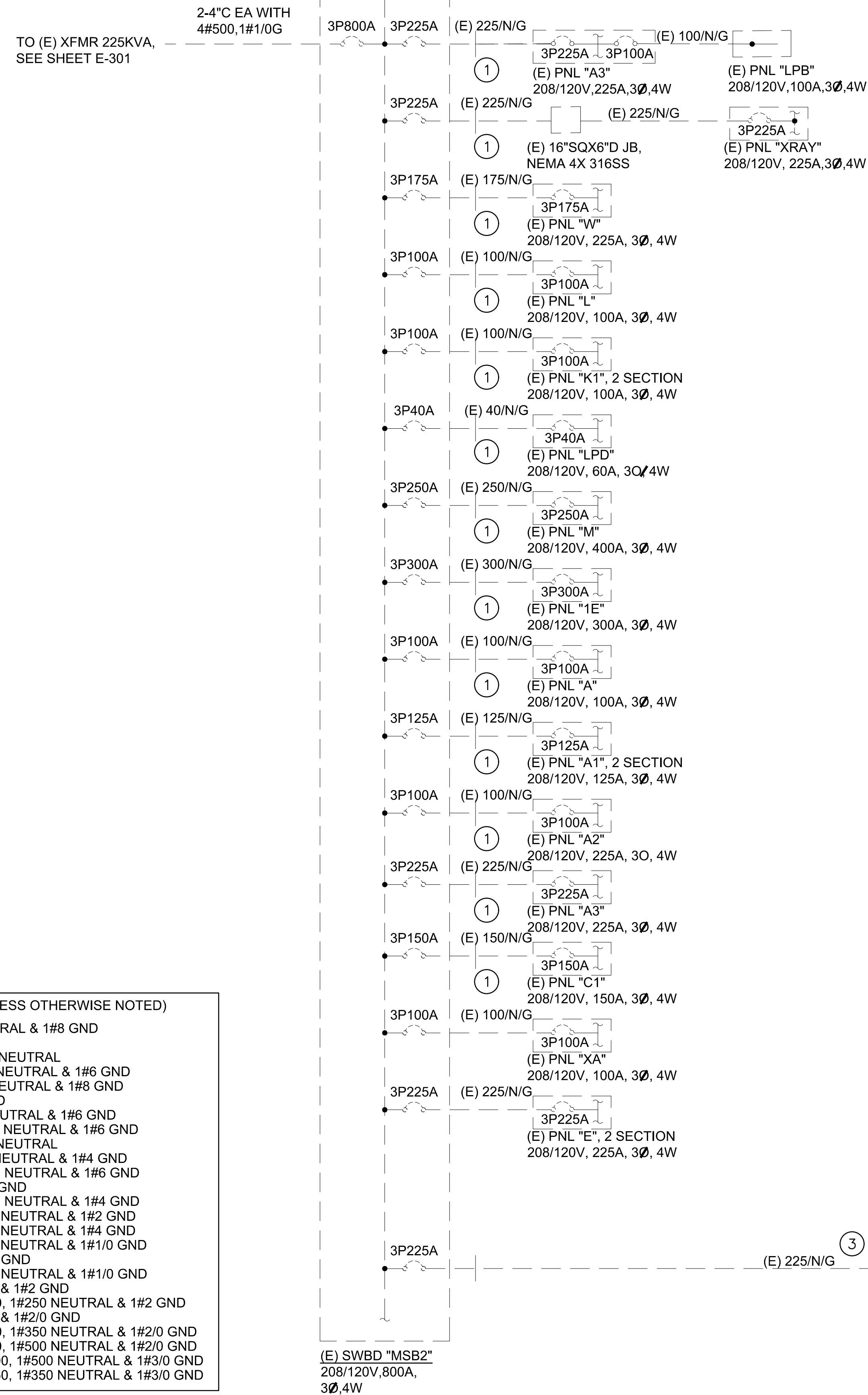


SAMUEL MAHELOA  
MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ELECTRICAL DEMOLITION ONE-LINE DIAGRAM 1

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Date	02/18/2022
Job No.	21039
Sheet	E-301



① ELECTRICAL DEMOLITION ONE-LINE DIAGRAM 1  
NOT TO SCALE



**FEEDER SCHEDULE: (UNLESS OTHERWISE NOTED)**

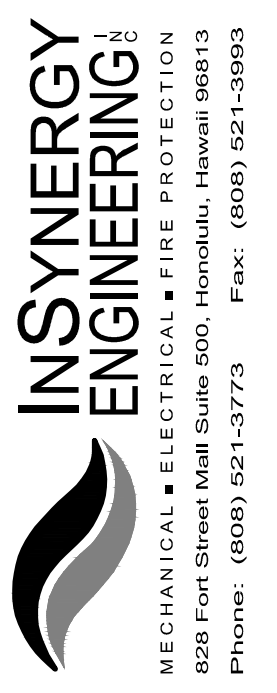
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60/-G = 1", 3#6 & 1#8 GND
70/N/- = 1 1/4"C, 3#4 & 1#4 NEUTRAL
70/N/G = 1 1/4"C, 3#4, 1#4 NEUTRAL & 1#6 GND
100/N/G = 1.25", 3#2, 1#2 NEUTRAL & 1#8 GND
125/-G = 1.5", 3#1, 1#6 GND
125/N/G = 1.5", 3#1, 1#1 NEUTRAL & 1#6 GND
150/N/G = 1.5", 3#1/0, 1#1/0 NEUTRAL & 1#6 GND
175/N/- = 2", 3#2/0 & 1#2/0 NEUTRAL
175/N/G = 2", 3#2/0, 1#2/0 NEUTRAL & 1#4 GND
200/N/G = 2.5", 3#3/0, 1#3/0 NEUTRAL & 1#6 GND
225/-G = 2.5", 3#4/0 & 1#4 GND
225/N/G = 2.5", 3#4/0, 1#4/0 NEUTRAL & 1#4 GND
250/N/G = 3", 3#250, 1#250 NEUTRAL & 1#2 GND
300/N/G = 3", 3#350, 1#350 NEUTRAL & 1#4 GND
350/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
400/-G = 4", 3#500 & 1#1/0 GND
400/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
500/-G = 2 SETS 3", 3#250 & 1#2 GND
500/N/G = 2 SETS 3", 3#250, 1#250 NEUTRAL & 1#2 GND
600/-G = 2 SETS 4", 3#350 & 1#2/0 GND
600/N/G = 2 SETS 4", 3#350, 1#350 NEUTRAL & 1#2/0 GND
800/N/G = 2 SETS 4", 3#500, 1#500 NEUTRAL & 1#2/0 GND
1000/N/G = 3 SETS 4", 3#500, 1#500 NEUTRAL & 1#3/0 GND
1200/N/G = 4 SETS 4", 3#350, 1#350 NEUTRAL & 1#3/0 GND

1 ELECTRICAL DEMOLITION ONE-LINE DIAGRAM 2  
NOT TO SCALE

- SHEET NOTES:
- DEMOLISH EQUIPMENT AFTER NEW EQUIPMENT HAS BEEN INSTALLED TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
  - CUT CONDUIT AND EXTEND FEEDERS FOR EXIST LOAD TO NEW PANEL VIA NEW JB.
  - CONVERT EXIST PANEL INTO JB AND EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.
  - REMOVE EXIST EXPOSED CONDUITS UPON CONNECTION OF EXIST LOAD WITH NEW CONDUIT.

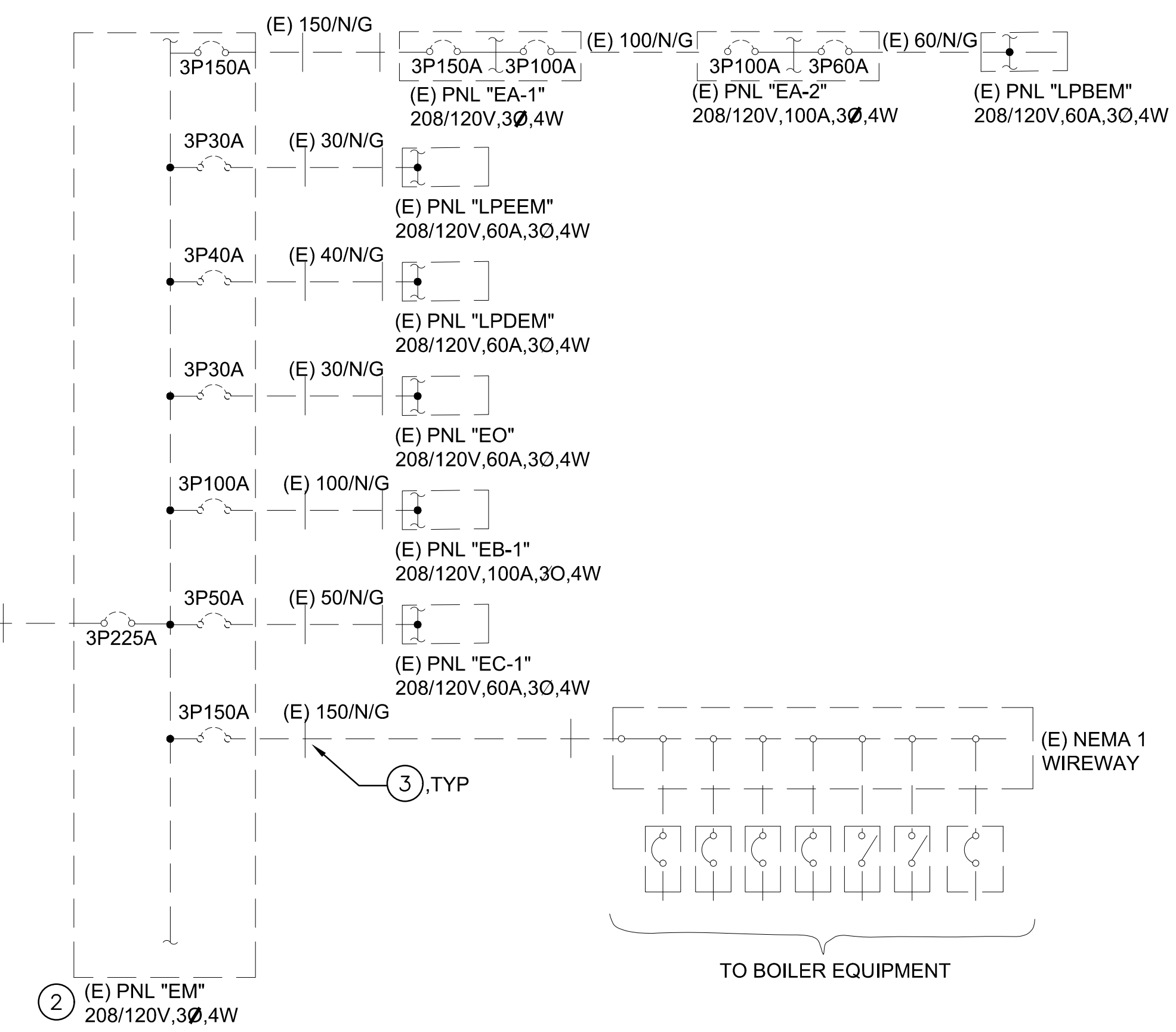
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MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ELECTRICAL DEMOLITION ONE-LINE DIAGRAM 2

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Date	02/18/2022
Job No.	21039
Sheet	E-302



**FEEDER SCHEDULE: (UNLESS OTHERWISE NOTED)**

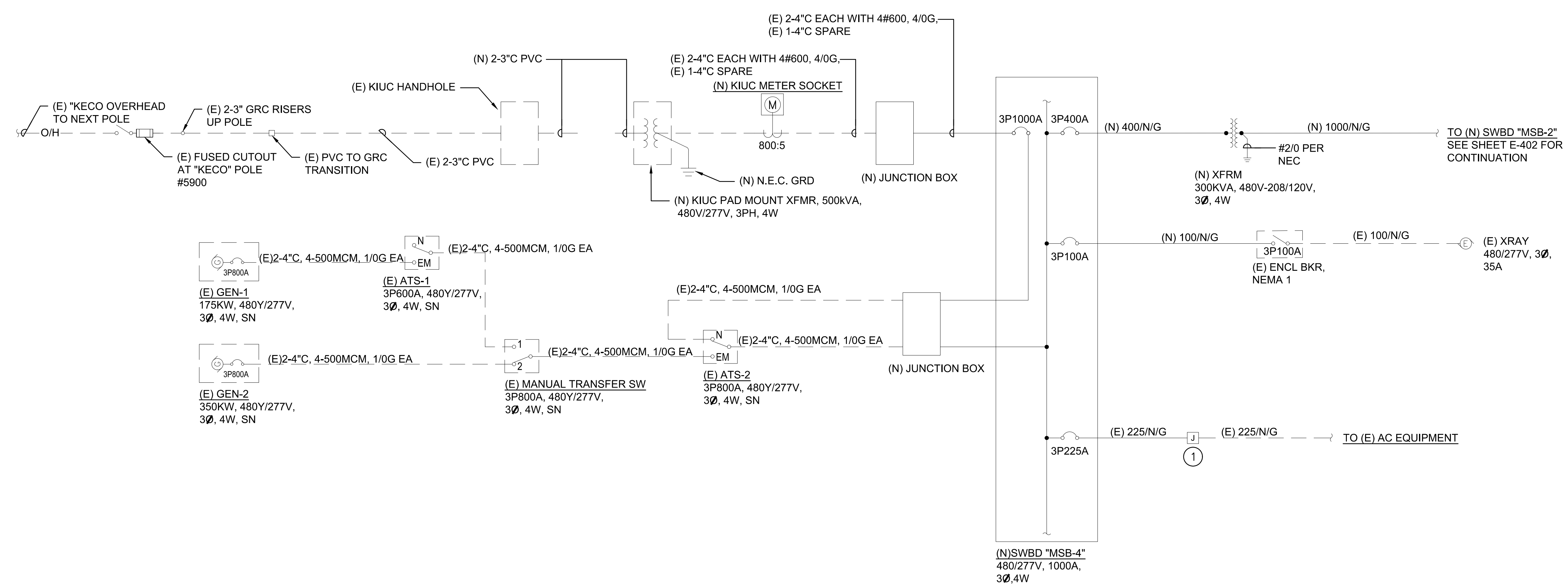
- 50/N/G = 1", 3#8, 1#8 NEUTRAL & 1#8 GND
- 60/-/G = 1", 3#6 & 1#8 GND
- 70/N/- = 1 1/4"C, 3#4, 1#4 NEUTRAL
- 70/N/G = 1 1/4"C, 3#4, 1#4 NEUTRAL & 1#6 GND
- 100/N/G = 1.25", 3#2, 1#2 NEUTRAL & 1#8 GND
- 125/-/G = 1.5", 3#1, 1#6 GND
- 125/N/G = 1.5", 3#1, 1#1 NEUTRAL & 1#6 GND
- 150/N/G = 1.5", 3#1/0, 1#1/0 NEUTRAL & 1#6 GND
- 175/N/- = 2", 3#2/0 & 1#2/0 NEUTRAL
- 175/N/G = 2", 3#2/0, 1#2/0 NEUTRAL & 1#4 GND
- 200/N/G = 2.5", 3#3/0, 1#3/0 NEUTRAL & 1#6 GND
- 225/-/G = 2.5", 3#4/0 & 1#4 GND
- 225/N/G = 2.5", 3#4/0, 1#4/0 NEUTRAL & 1#4 GND
- 250/N/G = 3", 3#250, 1#250 NEUTRAL & 1#2 GND
- 300/N/G = 3", 3#350, 1#350 NEUTRAL & 1#4 GND
- 350/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
- 400/-/G = 4", 3#500 & 1#1/0 GND
- 400/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
- 500/-/G = 2 SETS 3", 3#250 & 1#2 GND
- 500/N/G = 2 SETS 3", 3#250, 1#250 NEUTRAL & 1#2 GND
- 600/-/G = 2 SETS 4", 3#350 & 1#2/0 GND
- 600/N/G = 2 SETS 4", 3#350, 1#350 NEUTRAL & 1#2/0 GND
- 800/N/G = 2 SETS 4", 3#500, 1#500 NEUTRAL & 1#2/0 GND
- 1000/N/G = 3 SETS 4", 3#500, 1#500 NEUTRAL & 1#3/0 GND
- 1200/N/G = 4 SETS 4", 3#350, 1#350 NEUTRAL & 1#3/0 GND

**SHEET NOTES:**

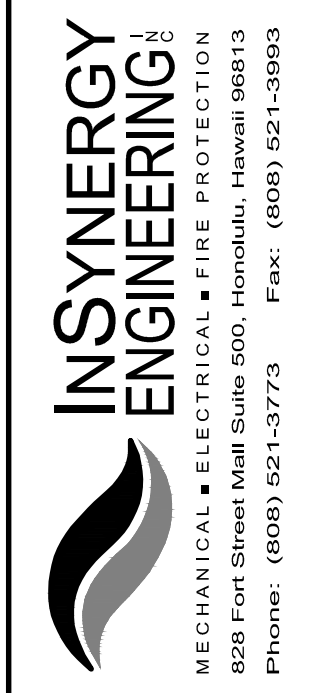
1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
- ① INTERCEPT EXIST CONDUIT WITH JB AND EXTEND FEEDERS FOR EXIST LOAD TO NEW PANEL.

REVISIONS	BY

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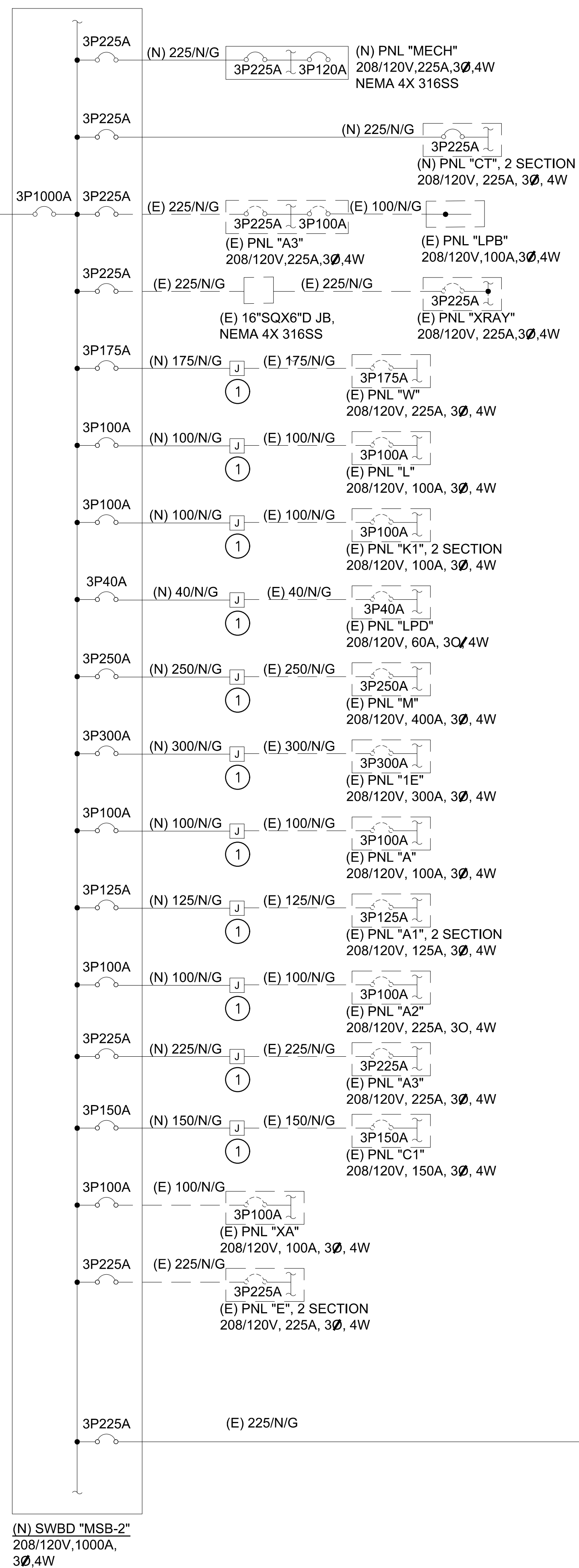
① **ELECTRICAL ONE-LINE DIAGRAM 1**  
NOT TO SCALE



**SAMUEL MAHELELONA  
MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII**  
ELECTRICAL ONE-LINE DIAGRAM 1

Designed	IK
Drawn	CAD
Checked	RT
Date	02/18/2022
Job No.	21039

TO (E) XFMR 225KVA,  
SEE SHEET E-301



**FEEDER SCHEDULE: (UNLESS OTHERWISE NOTED)**

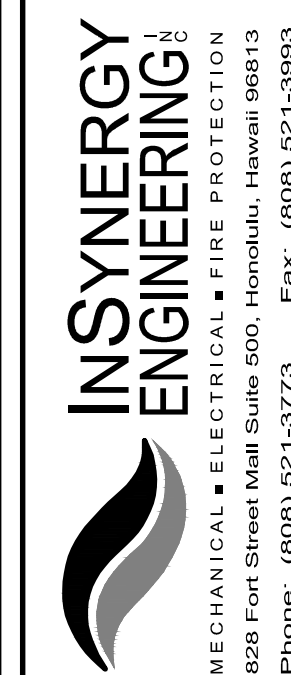
50/N/G = 1", 3#8, 1#8 NEUTRAL & 1#8 GND
60/-G = 1", 3#6 & 1#8 GND
70/N/- = 1 1/4"C, 3#4 & 1#4 NEUTRAL
70/N/G = 1 1/4"C, 3#4, 1#4 NEUTRAL & 1#6 GND
100/N/G = 1.25", 3#2, 1#2 NEUTRAL & 1#8 GND
125/-G = 1.5", 3#1, 1#6 GND
125/N/G = 1.5", 3#1, 1#1 NEUTRAL & 1#6 GND
150/N/G = 1.5", 3#1/0, 1#1/0 NEUTRAL & 1#6 GND
175/N/- = 2", 3#2/0 & 1#2/0 NEUTRAL
175/N/G = 2", 3#2/0, 1#2/0 NEUTRAL & 1#4 GND
200/N/G = 2.5", 3#3/0, 1#3/0 NEUTRAL & 1#6 GND
225/-G = 2.5", 3#4/0 & 1#4 GND
225/N/G = 2.5", 3#4/0, 1#4/0 NEUTRAL & 1#4 GND
250/N/G = 3", 3#250, 1#250 NEUTRAL & 1#2 GND
300/N/G = 3", 3#350, 1#350 NEUTRAL & 1#4 GND
350/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
400/-G = 4", 3#500 & 1#1/0 GND
400/N/G = 4", 3#500, 1#500 NEUTRAL & 1#1/0 GND
500/-G = 2 SETS 3", 3#250 & 1#2 GND
500/N/G = 2 SETS 3", 3#250, 1#250 NEUTRAL & 1#2 GND
600/-G = 2 SETS 4", 3#350 & 1#2/0 GND
600/N/G = 2 SETS 4", 3#350, 1#350 NEUTRAL & 1#2/0 GND
800/N/G = 2 SETS 4", 3#500, 1#500 NEUTRAL & 1#2/0 GND
1000/N/G = 3 SETS 4", 3#500, 1#500 NEUTRAL & 1#3/0 GND
1200/N/G = 4 SETS 4", 3#350, 1#350 NEUTRAL & 1#3/0 GND

(N) SWBD "MSB-2"  
208/120V, 1000A,  
3Ø, 4W

**SHEET NOTES:**

1. INSTALL NEW EQUIPMENT BEFORE THE DISCONNECTION AND REMOVAL OF THE EXIST EQUIPMENT TO MINIMIZE THE DOWNTIME OF THE FACILITY AND LOADS.
- 1 INTERCEPT EXIST CONDUIT WITH JB AND EXTEND FEEDERS FOR EXIST LOAD TO NEW PANEL.
- 2 EXIST PANEL CONVERTED INTO JB. EXTEND EXIST CIRCUITS TO NEW REPLACEMENT PANEL.

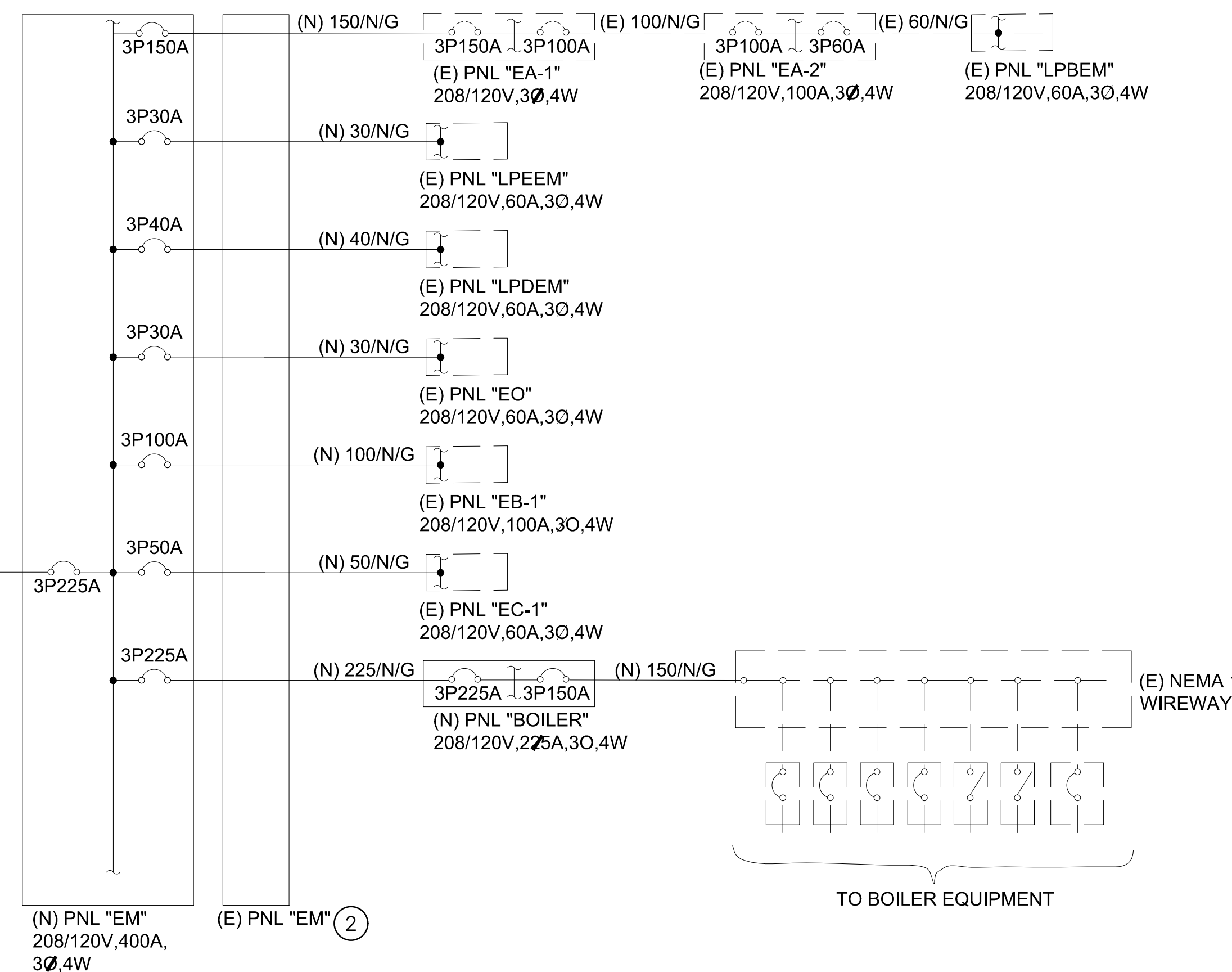
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SAMUEL MAHELONA  
MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ELECTRICAL ONE-LINE DIAGRAM 2

Designed	IK
Drawn	CAD
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Date	02/18/2022
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Sheet	E-402

1 ELECTRICAL ONE-LINE DIAGRAM 2  
NOT TO SCALE



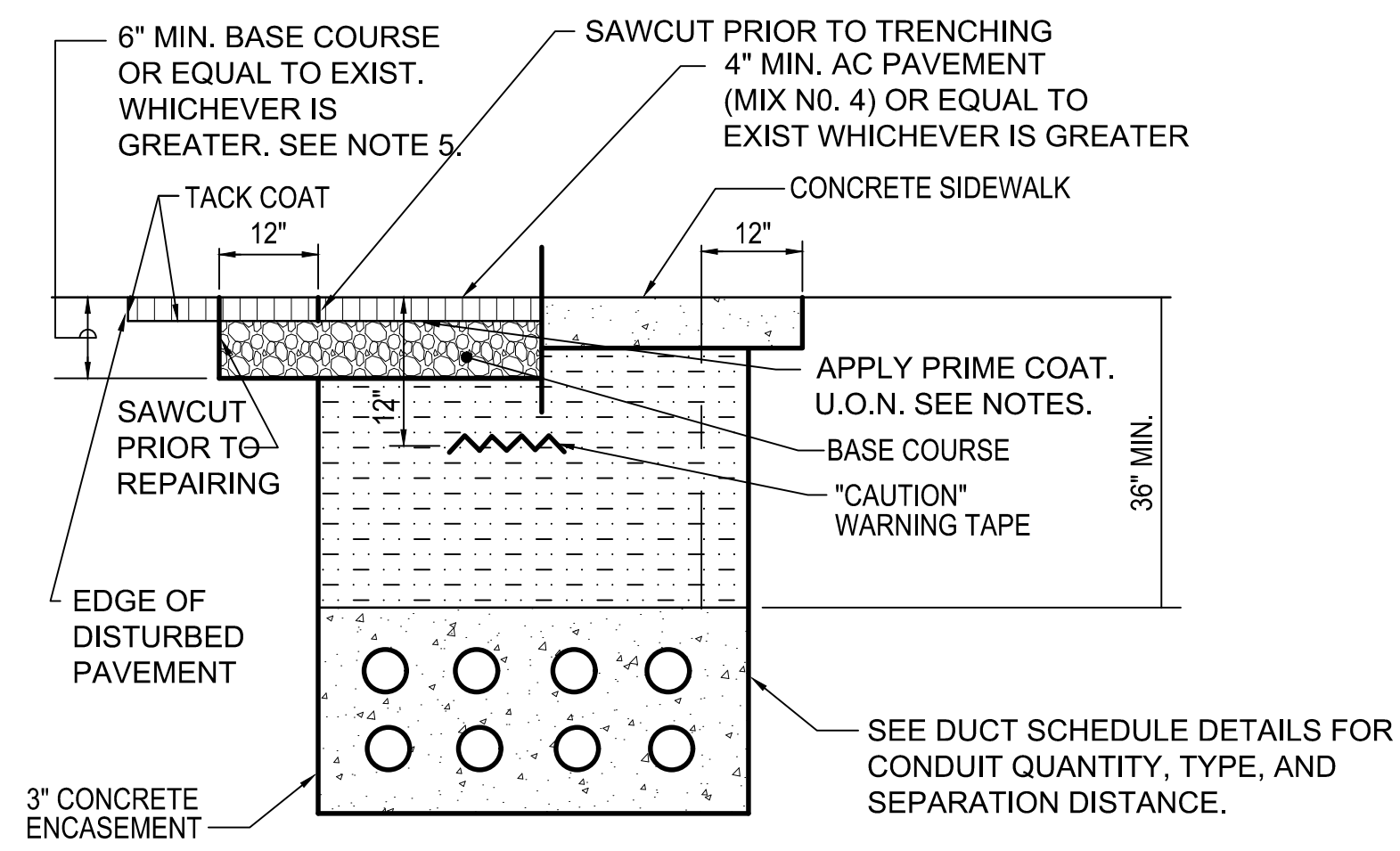
(N) PNL "EM"  
208/120V, 400A,  
3Ø, 4W

(E) PNL "EM" 2

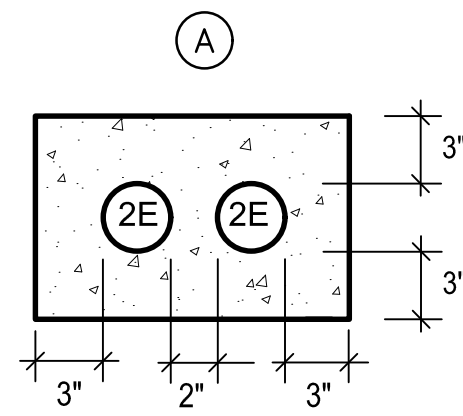
TO BOILER EQUIPMENT

(E) NEMA 1  
WIREFWAY





TYPICAL DUCT DETAIL - CONCRETE ENCASED



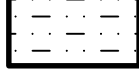


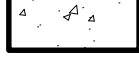
DUCT SCHEDULE	
2E	SCH. 40 PVC, 2" C POWER
4E	SCH. 40 PVC, 4" C POWER

1 DUCT SECTION DETAILS  
NOT TO SCALE

DUCT SECTION NOTES:

1. MAINTAIN 3" MINIMUM SPACING BETWEEN UNDERGROUND DUCTLINES OF DIFFERENT SYSTEMS. MAINTAIN 2" MINIMUM SPACING BETWEEN UNDERGROUND DUCTLINES OF SIMILAR SYSTEMS.
2. ALL UNDERGROUND CONCRETE ENCASED DUCTS SHALL BE PVC SCHEDULE 40, UNLESS OTHERWISE NOTED.
3. ELECTRICAL DUCTLINES SHALL CONTAIN A 200LB TENSILE STRENGTH NYLON CORD.

BACKFILL NOTES:

-  TYPE "A" BACKFILL - EARTH & GRAVEL. ROCK SIZE TO BE 1" MAX & THE MIXTURE TO CONTAIN NOT MORE THAN 50% BY VOLUME OF ROCK PARTICLES. 95% COMPACTION.
-  TYPE "B" BACKFILL - EARTH & GRAVEL. MIXTURE MUST PASS A 1/2" MESH SCREEN & CONTAIN NOT MORE THAN 20% BY VOLUME OF ROCK PARTICLES. 95% COMPACTION.
-  NOTE - IF NORMAL MATERIAL AT BOTTOM OF TRENCH IS NOT TYPE "B", AN ADDITIONAL 3" SHALL BE EXCAVATED & TYPE "B" BACKFILL PROVIDED.
-  CONCRETE - 3" ENCASEMENT, 2500 PSI COMPRESSIVE STRENGTH @ 28 DAYS.

REVISIONS BY

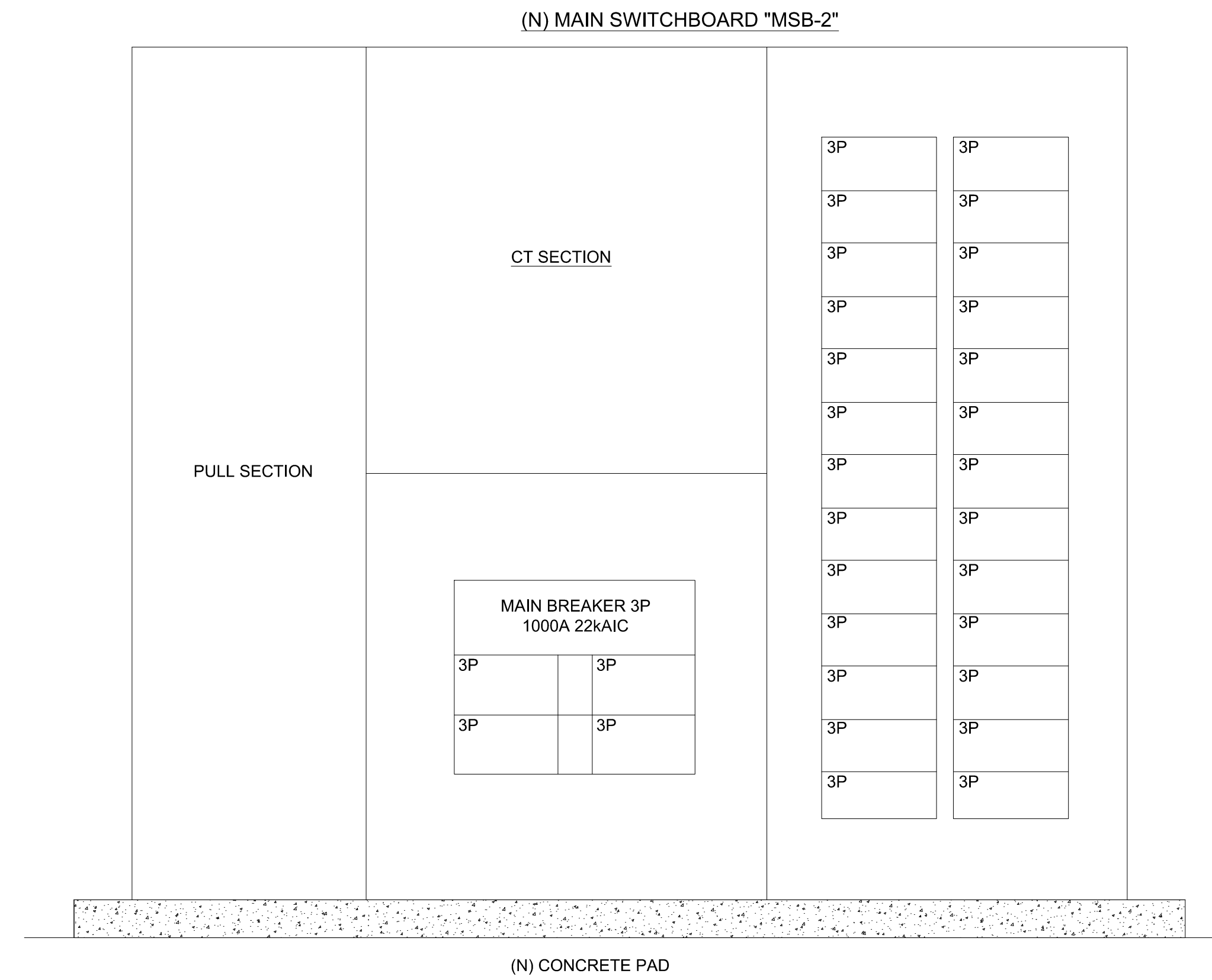
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**INSYNERGY ENGINEERING**  
MECHANICAL • ELECTRICAL • FIRE PROTECTION  
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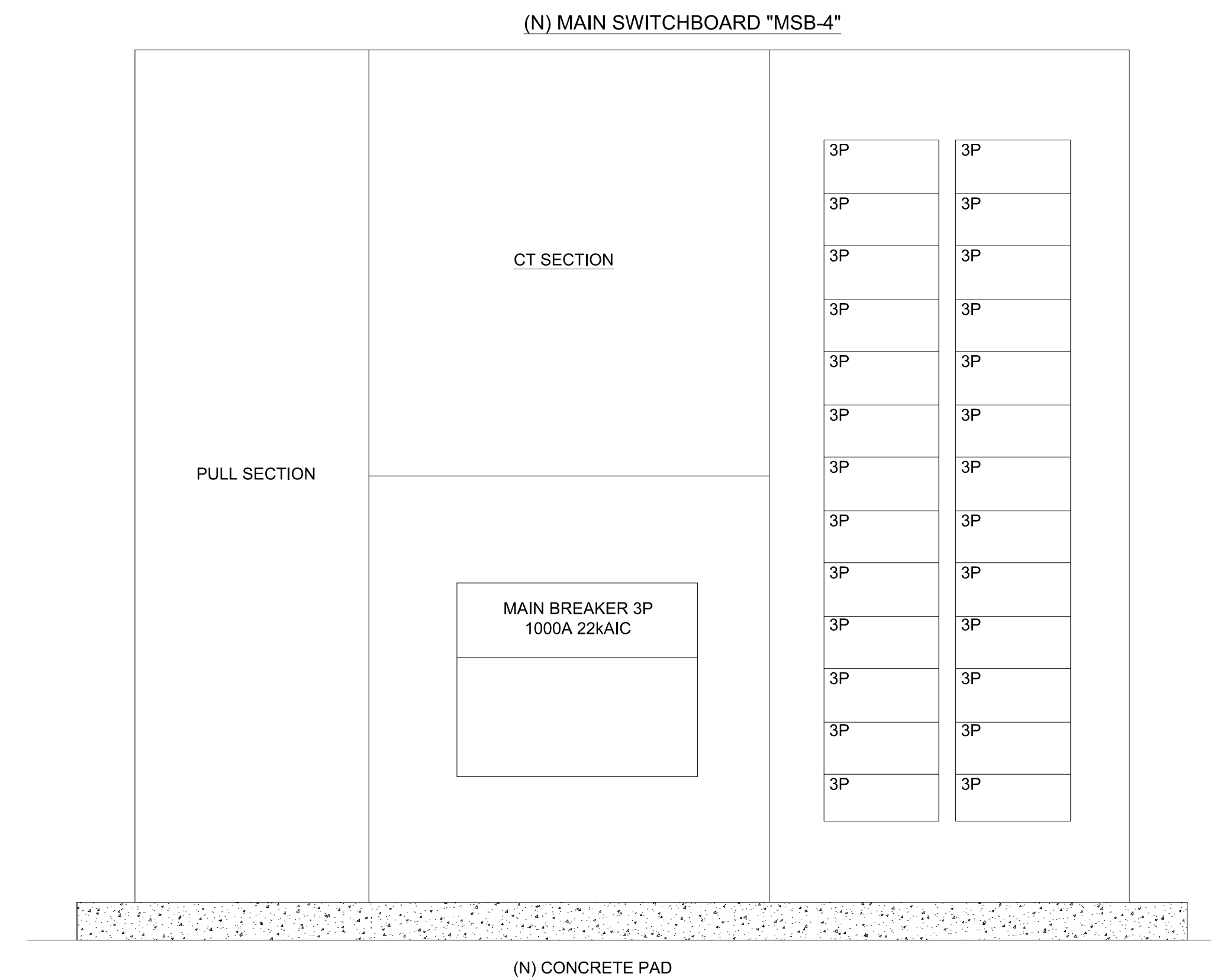
SAMUEL MAHELONA  
MEMORIAL HOSPITAL  
ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
DUCT SECTION DETAILS

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Checked RT  
Date 02/18/2022  
Job No. 21039  
Sheet

E-501



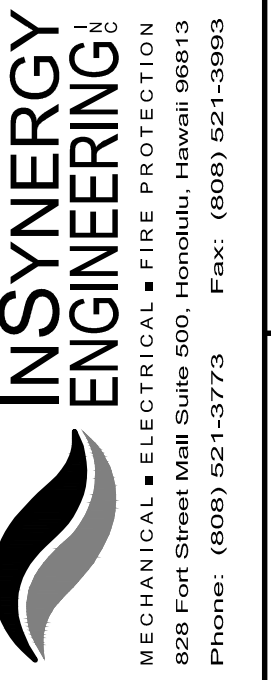
2 MAIN SWITCHBOARD "MSB-2" ELEVATION  
NOT TO SCALE



1 MAIN SWITCHBOARD "MSB-4" ELEVATION  
NOT TO SCALE

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ELECTRICAL UPGRADES PHASE 2  
KAPAA, KAUAI, HAWAII  
ELEVATIONS

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Sheet E-502