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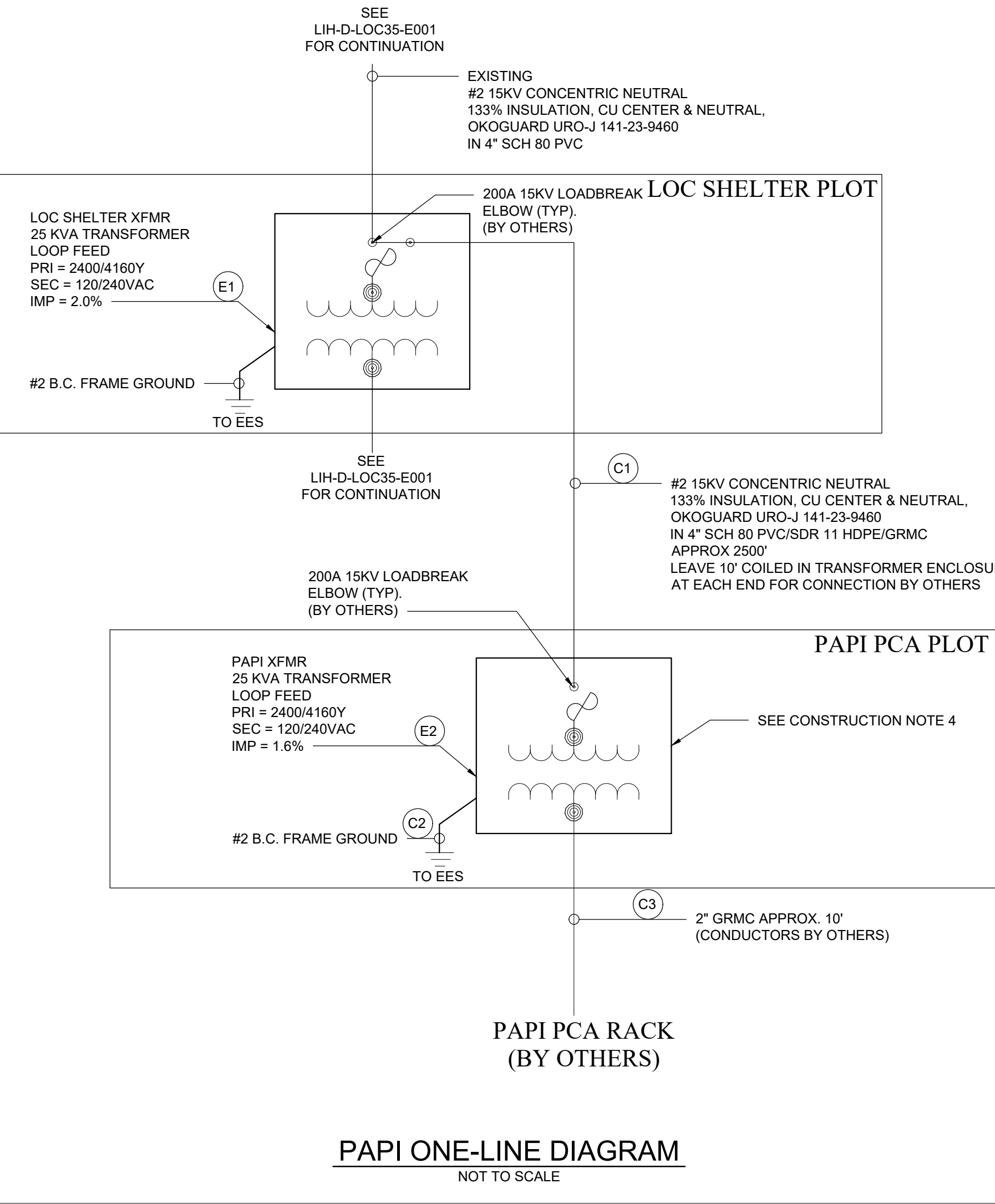
E

D

C

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A



EQUIPMENT SCHEDULE

NO.	DESCRIPTION OF ELECTRICAL EQUIPMENT	LOCATION	MODEL NUMBER (SQUARE D, U.O.N.)	QUANTITY	REMARKS
E1	TRANSFORMER	LOC SHELTER PLOT	JERRY'S ELECTRIC, S/N 11419-1	EXISTING	25KVA, 4160GY/2400-120/240VAC, 60HZ, AL WINDINGS, IMP-2.0%, FR-3 FLUID, 5-TAP, 4-HOLE SECONDARY PADDLES, 200A/15KV LOAD BREAK ELBOWS ON PRIMARY, LOOP FEED, BAYONET FUSE IN SERIES W/ CURRENT LIMITING FUSE
E2	TRANFORMER	PAPI PCA PLOT	JERRY'S ELECTRIC, S/N 11419-9	EXISTING SEE CONSTRUCTION NOTE 4	25KVA, 4160GY/2400-120/240VAC, 60HZ, AL WINDINGS, IMP-2.0%, FR-3 FLUID, 5-TAP, 4-HOLE SECONDARY PADDLES, 200A/15KV LOAD BREAK ELBOWS ON PRIMARY, LOOP FEED, BAYONET FUSE IN SERIES W/ CURRENT LIMITING FUSE
E3					
E4					
E5					
E6					
E7					
E8					
E9					

NOTES:

- ONLY CIRCUITS DIRECTLY APPLICABLE TO EQUIPMENT ARE SHOWN IN THE ONE-LINE DIAGRAM, SEE PANEL SCHEDULE FOR COMPLETE INFORMATION.
- ALL ELECTRICAL WORK MUST COMPLY WITH FAA-STD-1217G, FAA-C-1391D, AND CURRENT NEC CODE. WHERE REQUIREMENTS CONFLICT, THE MORE STRINGENT SHALL GOVERN.
- ALL GROUNDING AND BONDING MUST COMPLY WITH FAA-STD-19F.
- ALL METALLIC NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT MUST BE GROUNDED WITH AN EQUIPMENT GROUNDING CONDUCTOR WHETHER OR NOT SHOWN ON THIS DRAWING. EQUIPMENT GROUNDING CONDUCTORS ARE SIZED AS SHOWN OR PER NEC TABLE 250.122, WHICHEVER IS LARGER.
- AN INSULATED GROUNDING BUSHING MUST BE INSTALLED AT BOTH ENDS OF GRMC AND EMT CONDUIT. ATTACH A #6 BONDING JUMPER FROM THE BUSHING TO THE EQUIPMENT GROUND PER FAA-STD-019F.
- UNLESS OTHERWISE INDICATED MINIMUM WIRE SIZE FOR SPD IS #2. AND THE LENGTH OF CONDUCTOR MUST BE MINIMIZED AND SHALL NOT EXCEED 12" WITHOUT PRIOR APPROVAL OF THE RESIDENT ENGINEER.
- WIRE METHODS (INSULATED CONDUCTORS ARE COPPER WITH THERMOPLASTIC):
 - EACH OVERCURRENT DEVICE HAS ITS OWN NEUTRAL, AND EQUIPMENT GROUNDING CONDUCTOR.
 - POWER CONDUCTORS ARE ROUTED SEPARATELY FROM CONTROL CIRCUIT OR SIGNAL CIRCUIT.
 - INSULATED CONDUCTORS: UNLESS OTHERWISE INDICATED ARE TYPE XHHW-2 600V. MINIMUM BRANCH CIRCUIT IS #12.
 - UNLESS OTHERWISE NOTED CONDUCTORS #10 AWG OR SMALLER ARE SOLID. CONDUCTORS #8 AWG OR LARGER ARE STRANDED.
 - MINIMUM CONTROL WIRE SIZE IS #14 AWG UNLESS NOTED OTHERWISE.
 - STRANDED CONDUCTOR SMALLER THAN #10 AWG ALLOWED IN APPLICATIONS WHERE VIBRATION AND FLEXING MAY BE ENCOUNTERED.
- CONDUIT (MINIMUM SIZE IS 3/4"):
 - ELECTRICAL METALLIC TUBING (EMT)**
 - EMT MAY BE USED ONLY IN DRY LOCATIONS OR INDOORS (USE IN FRANGIBLE COUPLINGS IS EXCEPTED FROM THIS REQUIREMENT). FITTINGS USED WITH EMT MUST BE STANDARD COMPRESSION-TYPE FITTINGS. SET SCREW TYPE FITTINGS ARE NOT ALLOWED. ALSO SEE FAA-STD-1217G.
 - GALVANIZED RIGID STEEL CONDUIT (GRMC)**
 - SHALL BE USED FOR UNDERGROUND SERVICE CIRCUIT OR OUTDOORS.
 - ALL GRMC IS PVC COATED EXTERIOR AND POLYURETHANE COATED INTERIOR. THIS INCLUDES GRMC ENCASED IN CONCRETE. ALL GRMC FITTINGS ARE ALSO COATED.
 - FLEXIBLE METALLIC CONDUIT (LIQUIDTIGHT/FLEX)**
 - FLEXIBLE METAL CONDUIT MUST BE USED FOR TERMINAL CONNECTIONS TO EG OR MOTOR, AND SHALL NOT EXCEED 6' IN LENGTH. INSTALL A GROUNDING BUSHING AND BOND WITH A #6 GROUND WIRE AT BOTH ENDS OF FLEX.
 - POLYVINYLCHLORIDE (PVC) CONDUIT**
 - UNLESS OTHERWISE INDICATED, ALL PVC CONDUITS ARE SCHEDULE 80 AND ALL SWEEPS ARE LONG RADIUS (24" MIN RADIUS FOR 2" PVC).
- COLOR CODE: (SEE 1217G SECTION 4.6.5.2.2).
 - FOR 120V/240V 1PH-3W, CONDUCTORS COLOR CODED AS FOLLOWS:
LINE 1 (HOT) - BLACK,
LINE 2 (HOT) - RED,
NEUTRAL - WHITE,
EQUIPMENT GROUNDING - GREEN.
- ALL FEEDER AND BRANCH CIRCUITS, INCLUDING NEUTRAL CONDUCTORS, IDENTIFIED AT BOTH ENDS OF CONDUCTOR WITH PANEL AND CIRCUIT NUMBER INDICATED. USE HEAT SHRINK EMBOSSED LABELS ONLY.
- IDENTIFY EACH WIRE THAT TERMINATES BY THE TERMINAL ON WHICH IT LANDS AND BY THE DESCRIPTION GIVEN IN THESE PLANS. THIS METHOD OF LABELING IS REQUIRED FOR ALL CONDUCTORS, POWER AND CONTROL.
- FOR #4 AWG AND LARGER CONDUCTORS, WHERE APPROPRIATE INSULATION COLOR IS NOT AVAILABLE, USE COLOR CODED TAPE, HALF LAPPED FOR A MINIMUM LENGTH OF 3 INCHES EVERY 3 FEET WHERE ACCESSIBLE (MINIMUM TWO PLACES IN EACH ACCESSIBLE LOCATION).
- WHITE, GRAY AND GREEN INSULATED CONDUCTORS SHALL NOT BE RE-IDENTIFIED.
- PANELBOARDS, DISCONNECTS, TRANSFORMERS, AND OTHER SWITCHGEAR SHALL BE LABELED WITH ENGRAVED PHENOLIC BLACK LABELS WITH WHITE LETTERINGS FOR 120/240V SYSTEMS.
 - NAME PLATES ARE MIN 2"x4" PHENOLIC WITH BLACK COLOR BACKGROUND AND 3/8" WHITE CHARACTERS.
- ABSOLUTELY NO SPLICES EXCEPT WHERE APPROVED BY THE FAA PROJECT ENGINEER. SEE FAA-C-1391D FOR SPLICE REQUIREMENTS.

CONSTRUCTION NOTES

- LENGTHS GIVEN ARE APPROXIMATE AND SHALL BE CONSIDERED ACCURATE ±15%.
- INDICATES ELECTRICAL EQUIPMENT/SWITCHGEAR, SEE TABLE, FOR ADDITIONAL INFORMATION.
- INDICATES NEW CONDUIT/CONDUCTORS TO BE INSTALLED UNDER THIS CONTRACT.
- REMOVE, RELOCATE AND REINSTALL EXISTING EQUIPMENT AS INDICATED.

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO - TECHNICAL OPERATIONS WESTERN SERVICE AREA					
PAPI RUNWAY 21 ONE-LINE DIAGRAM					
LIHUE LIHUE AIRPORT HI					
REVIEWED BY	SUBMITTED BY	APPROVED BY			
	PROJECT ENGINEER, AJW-2W14B	PLATFORM MANAGER, AJW-2W14B			
	ADAM	ISSUED BY	DATE	JCN	1798073
	DRAWN	NAVAIDS	DRAWING NO		
	CHECKED	ENGINEERING SERVICES	LIH-D-PAP121-E001	REV	