

**KEYNOTES:**

1. REPRESENTATIVE OF EXISTING PROGRAMMABLE I/O POINTS IN THE PANEL OR A GENERAL SYSTEM TROUBLE/ALARM CONTACT CONNECTED TO THE SYSTEM.
2. REFER TO SPECIFICATION FOR REQUIREMENTS OF EACH INITIATION LOOP AND WIRING STYLE. REFER TO FLOOR PLANS FOR DEVICES AND THEIR LOCATIONS.
3. REFER TO SPECIFICATION FOR REQUIREMENTS OF EACH NOTIFICATION APPLIANCE CIRCUIT AND WIRING STYLE. REFER TO FLOOR PLANS FOR DEVICES AND THEIR LOCATIONS.
4. PROVIDE NOTIFICATION APPLIANCE EXTENDER PANELS AS REQUIRED. DETERMINATION OF NEED TO BE MADE BY FIRE ALARM VENDOR. REFER TO SPECIFICATIONS FOR REQUIREMENTS.

**1 FIRE ALARM RISER**

NO SCALE

SEQUENCE OF OPERATION		SYSTEM INPUTS					
PANEL/ANNUNCIATOR ALARM INDICATION	PANEL/ANNUNCIATOR SUPERVISORY INDICATION	PANEL/ANNUNCIATOR TROUBLE INDICATION	AUDIBLE ALARMS SEQUENCE	VISUAL ALARMS SEQUENCE	AHU & MECHANICAL FAN SHUTDOWN SEQUENCE		
X	X	X	X	X	X	X	X
SMOKE DETECTOR FOR HVAC CONTROL							

**2 FIRE ALARM OPERATION MATRIX**

NO SCALE

ELECTRICAL SYMBOL LIST			
SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
	EPO	26 09 16 26 32 13	EMERGENCY STOP / POWER OFF (N.C. AND N.O CONTACT)
	PANEL ###	26 24 16	PANELBOARD - SURFACE MOUNT
	GANN-#	26 32 13	GENERATOR ANNUNCIATOR PANEL

ELECTRICAL EQUIPMENT TAGS		
TAG:	DESCRIPTION:	RELATED SPECIFICATION
ATS-#	AUTOMATIC TRANSFER SWITCH, REFER TO TRANSFER SWITCH SCHEDULE	26 36 00
DP-#	DISTRIBUTION PANEL	26 24 16
GCC-#	TEMP. GENERATOR/LOAD BANK CONNECTION CABINET	26 36 00
GEN-#	GENERATOR	26 32 13
HH-#	HANDHOLE	26 05 33
UPS-#	UNINTERRUPTIBLE POWER SUPPLY	26 33 53

ELECTRICAL ABBREVIATION KEY	
ABBR:	DESCRIPTION:
C	CONDUIT (BRANCH CIRCUIT OR FEEDER CONTEXT)
EG	EQUIPMENT GROUND
EGC	EQUIPMENT GROUNDING CONDUCTOR
EPO	EMERGENCY POWER OFF
GCC	GENERATOR CONNECTION CABINET
NEMA #	NEMA RATING

CONTRACTOR ABBREVIATION KEY	
ABBR:	DESCRIPTION:
E.C.	ELECTRICAL CONTRACTOR
G.C.	GENERAL CONTRACTOR

ELECTRICAL SYMBOL LIST			
SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
COMMON AND SEQUENCE OF OPERATION SUBSCRIPTS			SUBSCRIPTS: TYPE / PROGRAMMING W = WEATHERPROOF # = 15, 30, 75, 110, 177 CANDELA RATING
	FA-122	28 31 00	FIRE ALARM DUCT SMOKE DETECTOR # = EQUIP OR SYSTEM
	FA-211	28 31 00	COMBINATION AUDIO HORN AND VISUAL ALARM DEVICE, CEILING OR WALL MOUNTED # = CANDELA RATING
	FA-242	28 31 00	FIRE ALARM REMOTE INDICATOR W/ TEST SWITCH
	FA-161	28 31 00	FIRE ALARM ADDRESSABLE CONTROL MODULE

**CONDUIT INSTALLATION SCHEDULE**

THE FOLLOWING SCHEDULE SHALL BE ADHERED TO UNLESS THEY CONSTITUTE A VIOLATION OF APPLICABLE CODES OR ARE NOTED OTHERWISE ON THE DRAWINGS. THE INSTALLATION OF RMC CONDUIT WILL BE PERMITTED IN PLACE OF ALL CONDUIT SPECIFIED IN THIS SCHEDULE. REFER TO CONDUIT AND BOXES SPECIFICATION 26 05 33 FOR ADDITIONAL INFORMATION.

INSTALLATION TYPE	RMC	IMC	EMT	PVC	PVC CONCRETE ENCASED	RTRC	PVC COATED RMC	HDPE
FEEDERS: GENERATOR, ATS, DISTRIBUTION PANEL, GENERATOR CONNECTION CABINET, ETC.		X	X					
INTERIOR LOCATIONS WITH FINISHED CEILING AND WALLS: CONCEALED IN WALLS AND ABOVE FINISHED CEILINGS			X					
INTERIOR LOCATIONS WITHOUT FINISHED CEILINGS: CONCEALED IN WALL, EXPOSED ABOVE CEILINGS		X	X					
EXISTING INTERIOR LOCATIONS WITH FINISHED CEILINGS AND WALLS: CONCEALED IN WALLS AND ABOVE FINISHED CEILING UNLESS OTHERWISE NOTED			X					
UNDERGROUND SITE CONDUITS:								
WITHIN 5' FROM THE PERIMETER OF A BUILDING FOUNDATION	X				X	X		
5' OR GREATER FROM THE PERIMETER OF A BUILDING FOUNDATION	X			X		X		
DUCTBANKS (REFER TO DUCTBANK DETAILS WHEN APPLICABLE)								
REINFORCING SHALL CONSIST OF ONE-HALF INCH DEFORMED BARS SPACED 12 INCHES ON CENTER, PARALLELING THE DUCTS ON BOTTOM, WITH ONE-HALF INCH DEFORMED TIE BARS SPACED TWELVE INCHES ON CENTERS.					X	X		
PROVIDE MINIMUM 3" CONCRETE COVER ON ALL SIDES OF REINFORCING.					X	X		
ENTIRE DUCTBANK SHALL BE INSTALLED ON PRECAST CONCRETE PAVERS ON 3' CENTERS.					X	X		
DEFINITIONS:								
CONCRETE ENCASEMENT: CONDUIT WITH A MINIMUM OF 3" THICKNESS BETWEEN THE SURFACE OF THE CONCRETE AND THE NEAREST CONDUIT. CONCRETE TO BE DOWELED INTO THE FOUNDATION.								

**ELECTRICAL INSTALLATION NOTES:**

- THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2010 (LATEST PUBLISHED) ADA STANDARDS FOR ACCESSIBLE DESIGN.
- OPTIONAL STANDBY BRANCH WIRING FOR FEEDERS SHALL BE ROUTED IN SEPARATE RACEWAY, JUNCTION BOXES, PULL BOXES, AND CABINETS. WIRING FOR EACH BRANCH SHALL BE INDEPENDENT FROM OTHER BRANCHES, INCLUDING THE NORMAL BRANCH.
- INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
- EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO THE WALLS, FLOORS, AND CEILINGS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
- ELECTRICAL IDENTIFICATION. REFER TO SPECIFICATION SECTION 26 05 53 FOR COLOR/LABEL REQUIREMENTS FOR CONDUIT, BOX, CABLEWIRE, AND EQUIPMENT.

**ELECTRICAL RENOVATION NOTES:**

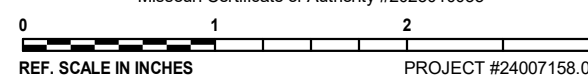
THESE NOTES APPLY TO ALL ELECTRICAL SHEETS.

- EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS. CONTRACTOR SHALL REVIEW EXISTING CONDITIONS AND REPORT CONFLICTS.
- NOT ALL EXISTING EQUIPMENT AND CONDUIT ARE SHOWN. CONTRACTOR SHALL REVIEW EXISTING CONDITIONS AND REPORT CONFLICTS.
- ELECTRICAL CONTRACTOR SHALL REVIEW EXISTING CONDITIONS TO VERIFY ACCESSIBILITY TO THE AREAS OF THEIR WORK INCLUDING WALLS, FLOOR, CEILINGS, AND CEILING TILES/GRID. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CUTTING, REMOVAL, PATCHING, AND REINSTALLATION OF AFFECTED AREAS ASSOCIATED WITH THEIR WORK BY COORDINATING WITH THE GENERAL CONTRACTOR OR QUALIFIED CONTRACTOR.
- WHERE EXISTING ELECTRICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT TO BE INSTALLED, THIS CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT AND CONDUIT IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING ELECTRICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND CONDUIT.

ELECTRICAL SHEET INDEX	
E000	ELECTRICAL COVERSHEET
E100	FIRST FLOOR PLAN - POWER DEMOLITION
E101	FIRST FLOOR PLAN - SYSTEMS DEMOLITION
E200	FIRST FLOOR PLAN - POWER
E201	FIRST FLOOR PLAN - SYSTEMS
E500	ELECTRICAL DIAGRAMS
E600	ELECTRICAL DETAILS SCHEDULES
GRAND TOTAL: 7	

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Issue	DESIGN DEVELOPMENT
Date	03/17/2025
Project #	24007158.00
Drawn	ROBMUR
Checked	MASRYA
Approved	MASRYA



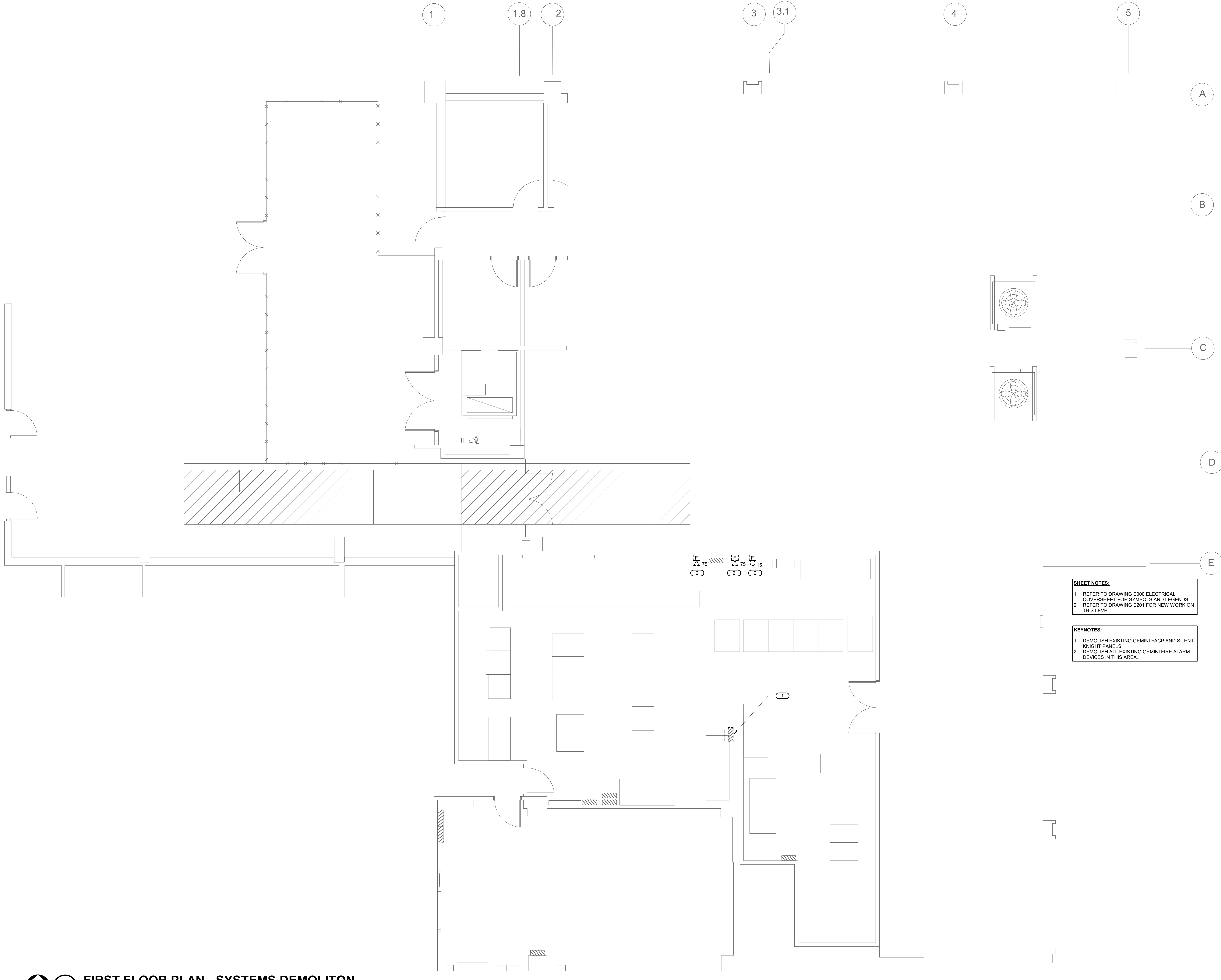
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1

FIRST FLOOR PLAN - SYSTEMS DEMOLITON

1/4" = 1'-0"



**SHEET NOTES:**  
1. REFER TO DRAWING E000 ELECTRICAL COVERSHEET FOR SYMBOLS AND LEGENDS.  
2. REFER TO DRAWING E201 FOR NEW WORK ON THIS LEVEL.

**KEYNOTES:**  
1. DEMOLISH EXISTING GEMINI FACP AND SILENT KNIGHT PANELS.  
2. DEMOLISH ALL EXISTING GEMINI FIRE ALARM DEVICES IN THIS AREA.

PROFESSIONAL SEAL

CONSULTANT

KEY PLAN

AGENCY APPROVAL

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REVISIONS

No. Date Revision / Issue

SHEET INFORMATION

Issue **DESIGN DEVELOPMENT**  
Date **03/17/2025**  
Project # **24007158.00**  
Drawn **ROBMUR**  
Checked **MASRYA**  
Approved **MASRYA**

SHEET TITLE

**FIRST FLOOR PLAN - SYSTEMS  
DEMOLITION**

SCALE

Scale: **1/4" = 1'-0"**

SHEET NUMBER

**E101**

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		REVISIONS
No.	Date	Revision / Issues

FIG.	LEADS	FIGURED LEADS
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SHEET INFORMATION

## DESIGN DEVELOPMENT

03/17/2025

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Project #	24007158.00
	PERMITS

Drawn \_\_\_\_\_ ROBMUR  
MASTEN

Checked \_\_\_\_\_ MASRYA

Approved \_\_\_\_\_ MASRYA

SHEET TITLE

SHEET TITLE

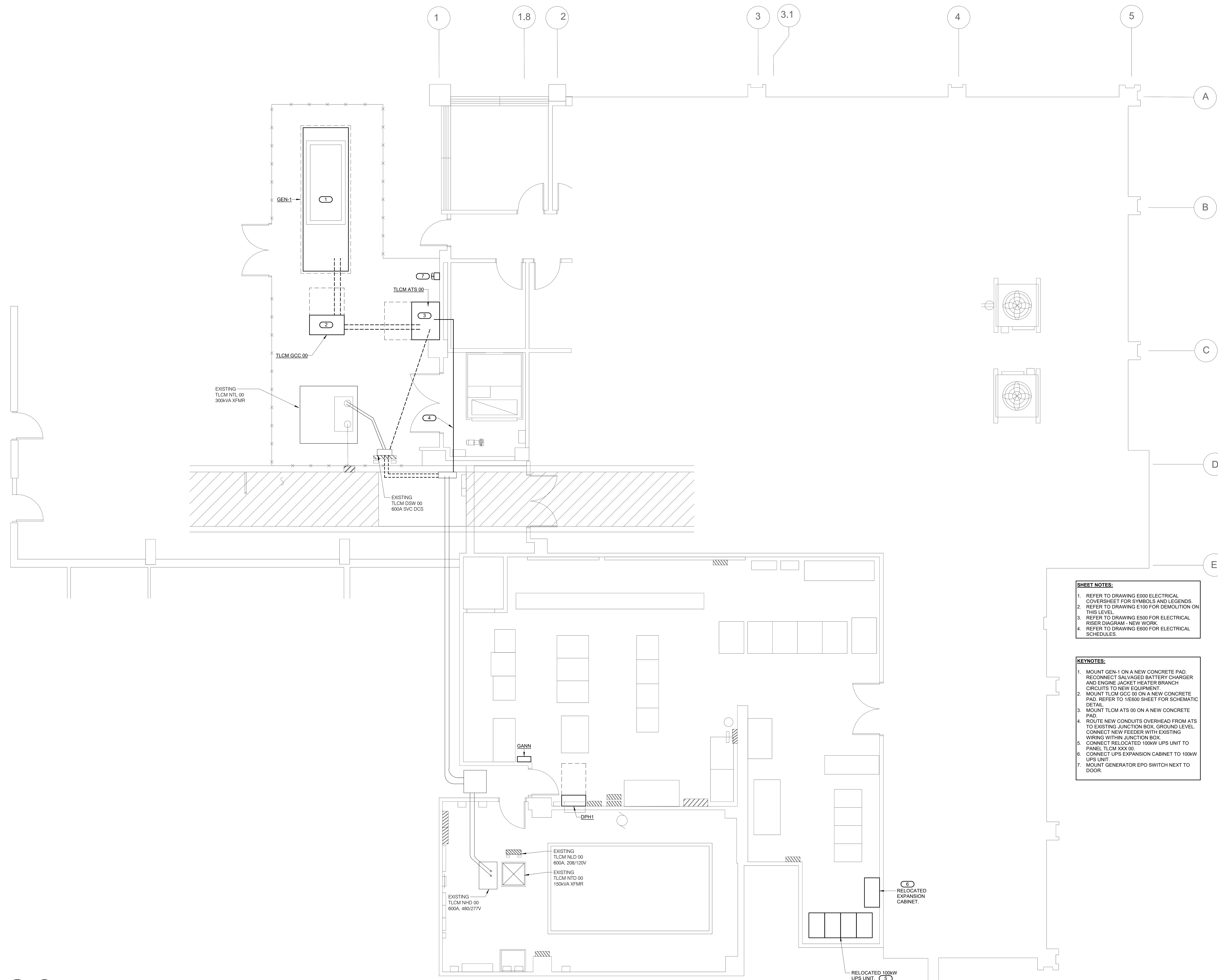
**FIRST FLOOR PLAN - POWER**

SCALE

Scale:  $1/4" = 1'-0"$

SHEET NUMBER

## E200



 **1** **FIRST FLOOR PLAN - ELECTRICAL**  
1/4" = 1'-0"

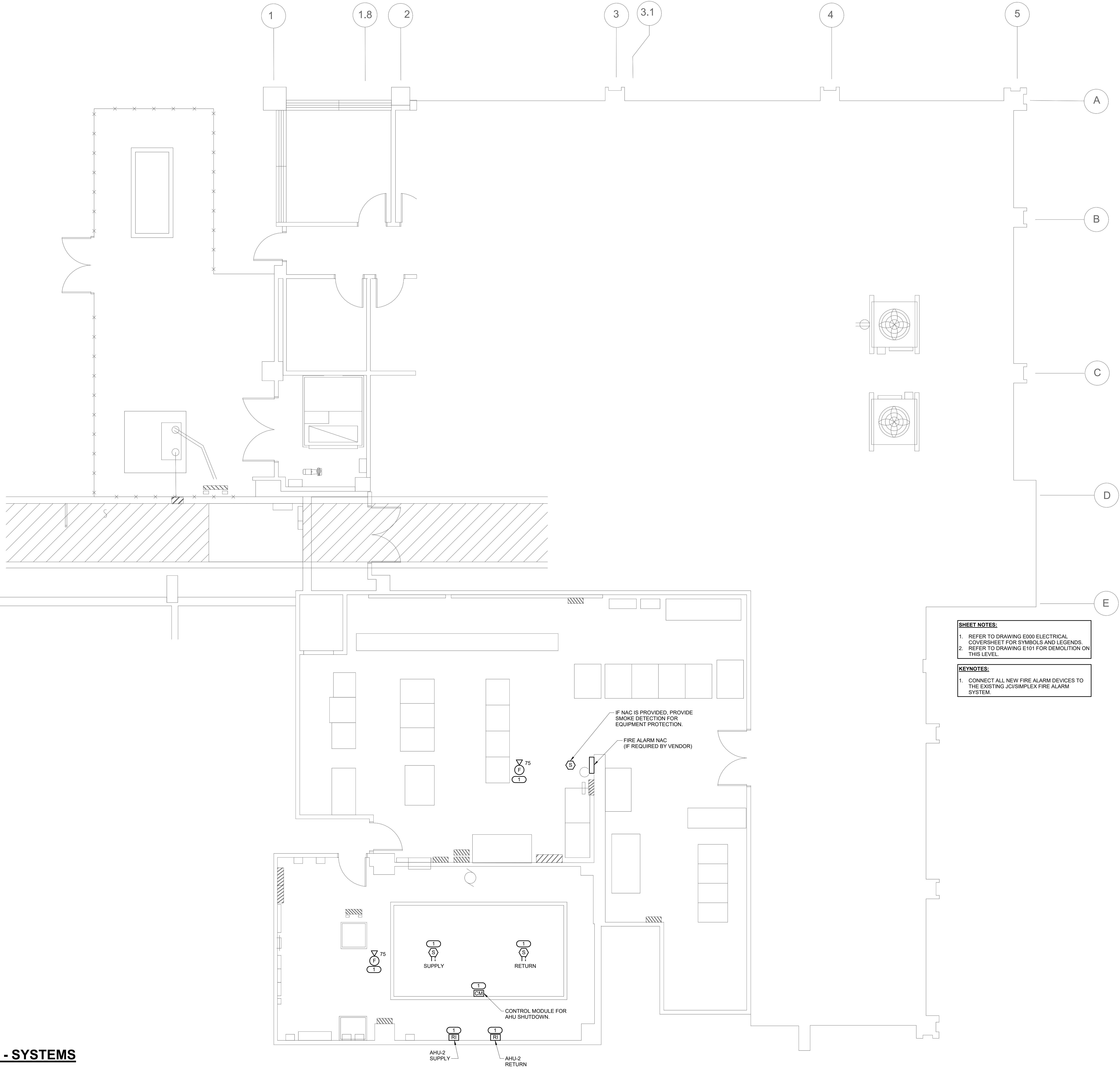
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1

FIRST FLOOR PLAN - SYSTEMS

1/4" = 1'-0"



**SHEET NOTES:**  
1. REFER TO DRAWING E000 ELECTRICAL COVERSHEET FOR SYMBOLS AND LEGENDS.  
2. REFER TO DRAWING E101 FOR DEMOLITION ON THIS LEVEL.

**KEYNOTES:**  
1. CONNECT ALL NEW FIRE ALARM DEVICES TO THE EXISTING JCI/SIMPLEX FIRE ALARM SYSTEM.

PROFESSIONAL SEAL

CONSULTANT

KEY PLAN

AGENCY APPROVAL

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Date **03/17/2025**  
Project # **24007158.00**  
Drawn **ROBMUR**  
Checked **MASRYA**  
Approved **MASRYA**

SHEET TITLE

**FIRST FLOOR PLAN - SYSTEMS**

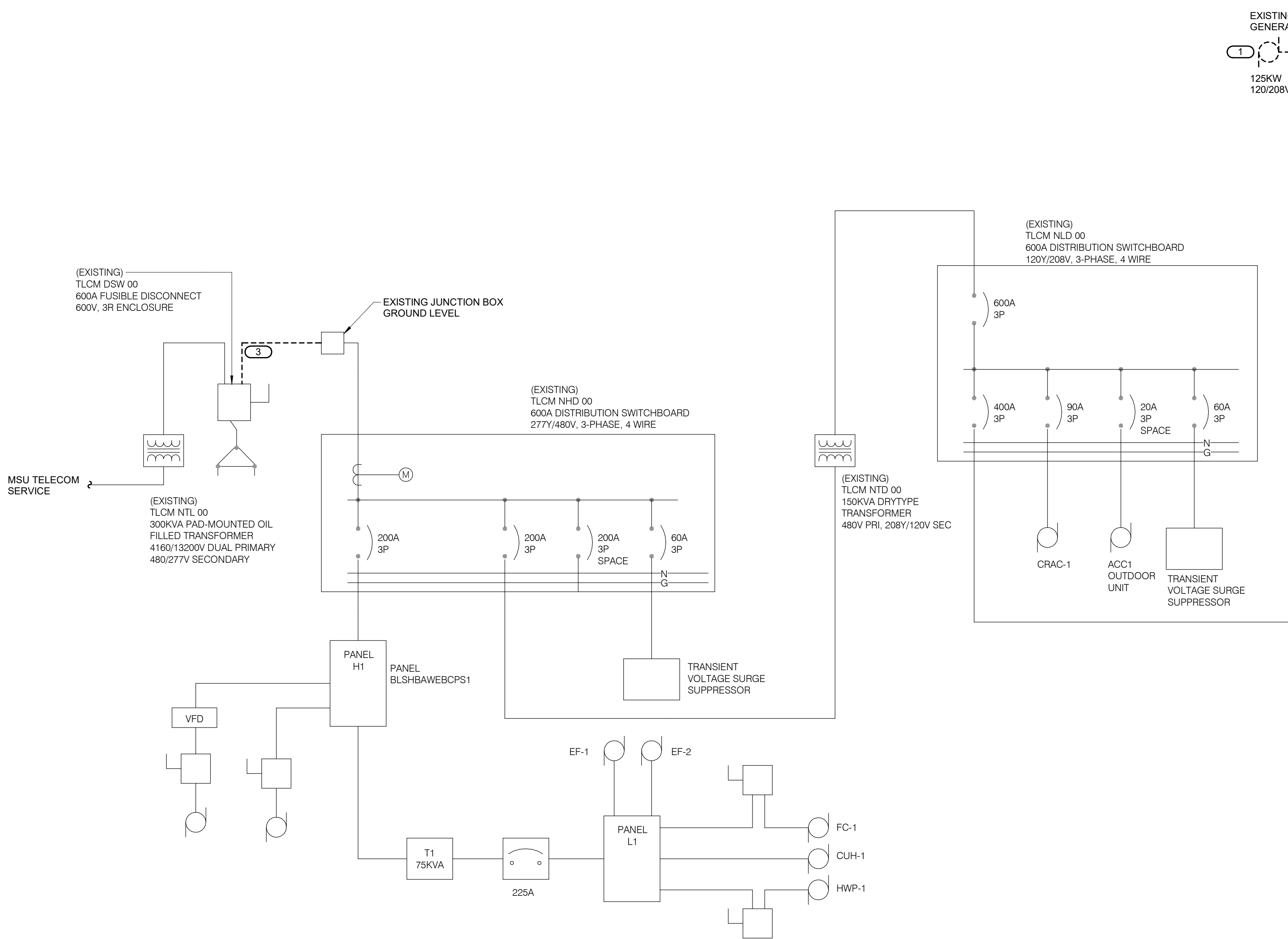
SCALE

Scale: **1/4" = 1'-0"**

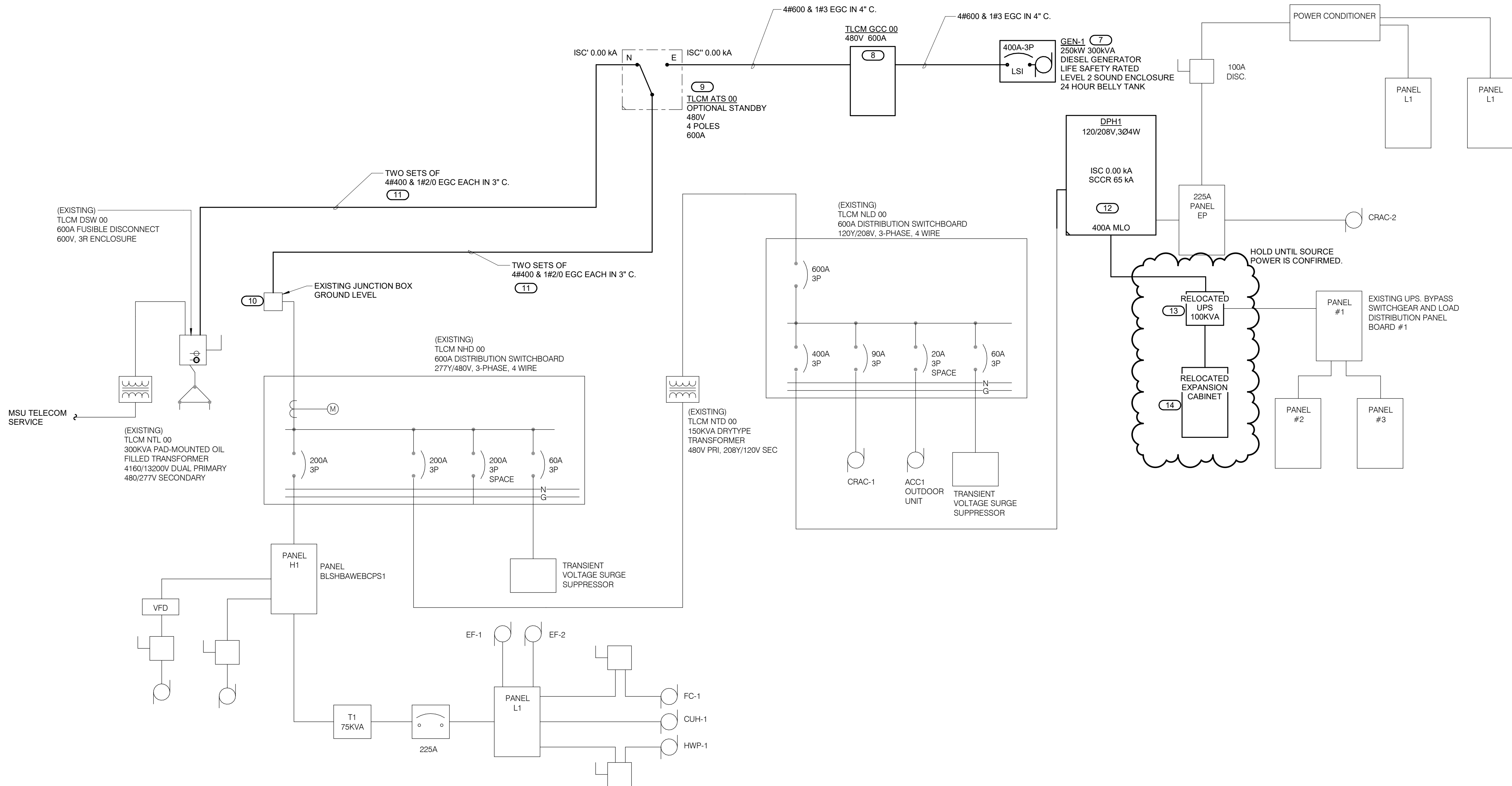
SHEET NUMBER

**E201**





1 RISER DIAGRAM - DEMOLITION  
NO SCALE



2 RISER DIAGRAM - NEW WORK  
NO SCALE

**SHEET NOTES:**

1. REFER TO DRAWING E000 ELECTRICAL COVERSHEET FOR SYMBOLS AND LEGENDS.
2. REFER TO DRAWING E100 FOR DEMOLITION WORK.
3. REFER TO DRAWING E200 FOR NEW WORK.
4. REFER TO DRAWING E600 FOR ELECTRICAL SCHEDULES.

**KEYNOTES:**

1. DEMOLISH EXISTING GENERATOR. SALVAGE BATTERY CHARGER AND JACKET HEATER BRANCH CIRCUITS FOR REUSE.
2. DEMOLISH EXISTING FEEDER. REMOVE ALL CONDUIT AND WIRE.
3. THESE CONDUITS CAN BE DEMOLISHED OR LEFT EMPTY IN PLACE. REMOVE ALL WIRING.
4. DEMOLISH EXISTING 400A ATS.
5. DEMOLISH EXISTING UPS UNIT. SALVAGE FOR OWNER'S STOCK. REMOVE ALL CONDUIT AND WIRE BACK TO SOURCE.
6. DEMOLISH EXISTING UPS BATTERY CABINET. SALVAGE FOR OWNER'S STOCK. REMOVE ALL CONDUIT AND WIRE BACK TO SOURCE.
7. MOUNT GEN-1 ON A NEW CONCRETE PAD. RECONNECT SALVAGED BATTERY CHARGER AND ENGINE JACKET HEATER BRANCH CIRCUITS TO NEW EQUIPMENT.
8. MOUNT TLM ATS 00 ON A NEW CONCRETE PAD.
9. MOUNT TLM ATS 00 ON A NEW CONCRETE PAD.
10. THESE CONDUITS CAN BE DEMOLISHED OR LEFT EMPTY IN PLACE. MARK CONDUITS AS "SPARE" IF LEFT IN PLACE.
11. ROUTE NEW CONDUITS OVERHEAD FROM ATS TO EXISTING JUNCTION BOX. GROUND LEVEL. CONNECT NEW FEEDER WITH EXISTING WIRING WITHIN JUNCTION BOX.
12. PATCH/REPAIR WALL FOR NEW DISTRIBUTION PANEL INSTALL.
13. CONNECT RELOCATED 100kW UPS UNIT TO PANEL TLM XXX 00.
14. CONNECT UPS EXPANSION CABINET TO 100kW UPS UNIT.

### ELECTRICAL - RISER DIAGRAM NOTES:

1. THE RISER DIAGRAM IS INTENDED TO CONVEY THE COMPONENTS OF THE ELECTRICAL DISTRIBUTION SYSTEM. REFER TO ELECTRICAL DRAWINGS, DETAILS, DISTRIBUTION / PANEL / EQUIPMENT / EQUIPMENT CONNECTION SCHEDULES, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. SHORT CIRCUIT CURRENT RATINGS (SCCR) FOR EQUIPMENT ARE MINIMUM REQUIREMENTS FOR BUSS BRACING AND DEVICE RATING. ALL EQUIPMENT SHALL BE FULLY RATED UNLESS SPECIFICALLY NOTED AS SERIES RATED.
3. TRANSFER SWITCHES (SCCR) RATINGS ARE INTENDED AS WITHSTAND AND CLOSE RATINGS (WCR).
4. THE BASIS OF DESIGN: THE CONTRACTOR SHALL BE RESPONSIBLE FOR DERATING AND SIZING CONDUCTORS AND CONDUITS TO EQUAL OR EXCEED AMPACITY OF THE BASIS OF DESIGN CIRCUITS WHEN ALTERNATIVE METHODS OR MATERIALS OTHER THAN THE BASIS OF DESIGN ARE APPLIED.
  - a. RACEWAY: EMT UNLESS OTHERWISE NOTED
  - b. FEEDER CHARACTERISTICS: ALL CURRENT CARRYING CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE. CONDUCTOR SIZES ARE BASED ON AMERICAN WIRE GAUGE AWG AND KCMIL THOUSANDS OF CIRCULAR MIL. REFER TO SPECIFICATION SECTION 25 05 13 WIRE AND CABLE FOR ADDITIONAL INFORMATION
  - c. GROUNDING AND BONDING CONDUCTORS SHALL BE COPPER
  - d. CONDUCTORS (MOTORS): COPPER
  - e. CONDUCTOR LENGTHS LISTED IN RISER DIAGRAMS AND SCHEDULES ARE FOR ENGINEERING CALCULATIONS AND SHALL NOT BE USED FOR BIDDING PURPOSES.
  - f. BLANK OR CU INDICATES COPPER CONDUCTOR
  - g. CI INDICATES CIRCUIT INTEGRITY CIRCUIT. FEEDER ROUTED OUTSIDE BUILDING OR 2 HOUR FIRE RATED
5. SEPARATELY DERIVED SYSTEMS. PROVIDE GROUNDING ELECTRODE CONDUCTOR FOR SEPARATELY DERIVED SYSTEM. ROUTE TO STRUCTURAL BUILDING STEEL WHEN AVAILABLE. OTHERWISE ROUTE TO MAIN GROUNDING ELECTRODE SYSTEM.
6. PROVIDE O.Z. GEDNEY OR EQUAL GROUND BUSHING FOR ALL SERVICE AND FEEDER RACEWAYS BONDED TO GROUND BUS WITH CONDUCTOR SIZED TO MAXIMUM FEEDER GROUND CAPACITY.
7. CONDUCTORS AND GROUND SIZES ON THE LINE AND LOAD SIDES OF ALL DISCONNECT SWITCHES SHALL BE IDENTICAL UNLESS NOTED OTHERWISE.
8. REFER TO COVER SHEET FOR ADDITIONAL EQUIPMENT TAG INFORMATION (SPD-#, M-#, ETC).
9. REFER TO GROUNDING ELECTRODE SYSTEM AND BONDING DETAILS
  - a. EGC - EQUIPMENT GROUNDING CONDUCTOR
10. CIRCUIT BREAKER CHARACTERISTICS AND ACCESSORIES:
  - a. CB INDICATES CIRCUIT BREAKER
  - b. MLO INDICATES MAIN LUG ONLY
  - c. MCB INDICATES MAIN CIRCUIT BREAKER
  - d. 100% RATED INDICATES INSULATED CASE BREAKER RATED FOR FULL CONTINUOUS CAPACITY OF CIRCUIT BREAKER NAMEPLATE

### ELECTRICAL DISTRIBUTION AND PANEL SCHEDULE NOTES:

1. BRANCH PANEL KEY:
  - a. \*NB = NEW BREAKER
  - b. \*RB = REPLACE EXISTING BREAKER WITH NEW BREAKER
  - c. \*EB = EXISTING BREAKER

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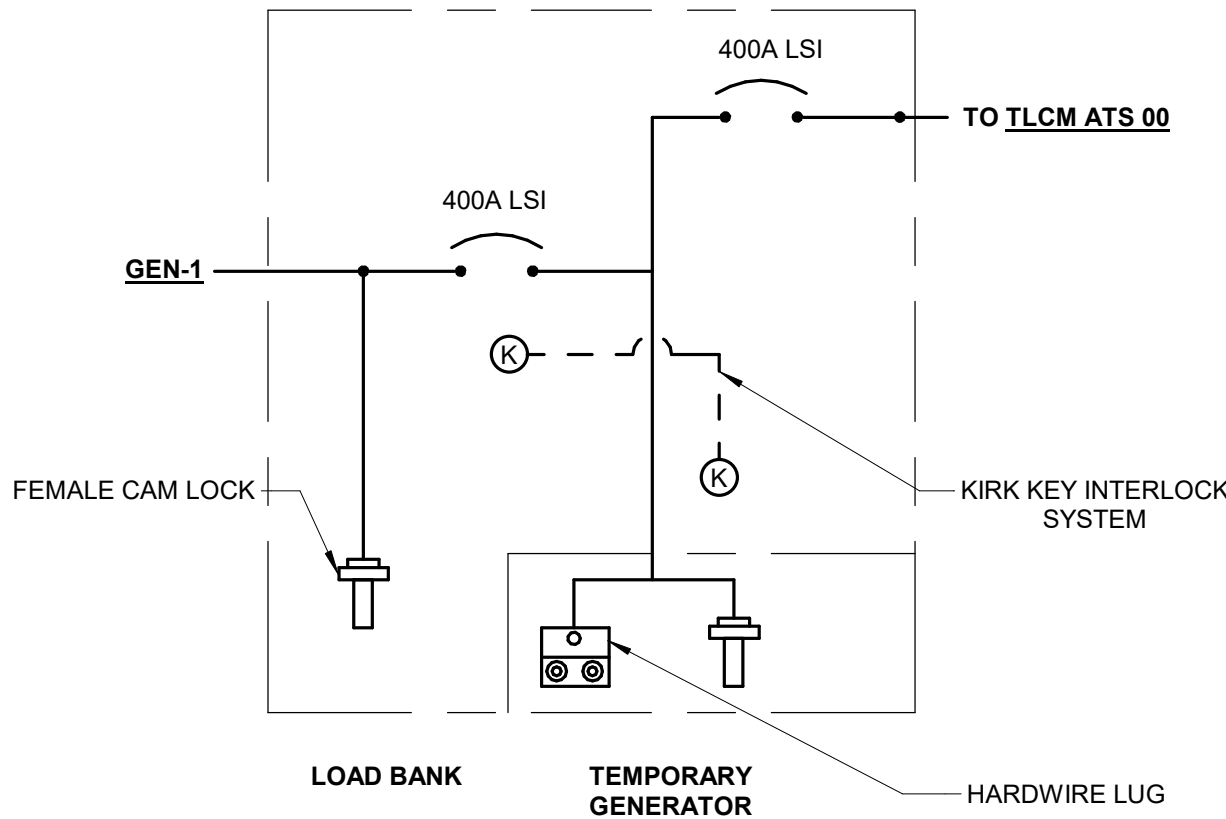
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No.	Date	Revision / Issue
1	Date 1	Revision 1

Issue	DESIGN DEVELOPMENT
Date	03/17/2025
Project #	24007158.00
Drawn	ROBMUR
Checked	MASRYA
Approved	MASRYA

### ELECTRICAL DIAGRAMS

Scale: 12" = 1'-0"



1 GENERATOR CONNECTION CABINET SCHEMATIC  
NO SCALE

**Switchboard: DPH1**

Location:  
Supply From:  
Mounting: SURFACE  
Enclosure: NEMA 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: 65 kA  
Mains Type: MLO  
Mains Rating: 400  
MCB Rating: 400

Notes:

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	EXISTING PANEL EP	3	250	225	61 kVA	
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
Total Conn. Load:					61 kVA	
Total Amps:					169.3	

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Power	61 kVA	100.00%	61 kVA	
				Total Conn. Load: 61 kVA
				Total Est. Demand: 61 kVA
				Total Conn. Current: 169.3
				Total Est. Demand Current: 169.3

Notes:

TRANSFER SWITCH SCHEDULE										
<u>SWITCH TYPE:</u>						<u>ACCESSORIES &amp; OPTIONS</u>				
AUTO - AUTOMATIC						EE - ENGINE EXERCISER				
B/I - AUTOMATIC WITH BYPASS ISOLATION						IM - IN-PHASE MONITOR				
MAN - MANUAL OPERATION						SH - STRIP HEATER WITH THERMOSTAT				
PGLB - PORTABLE GENERATOR & LOAD BANK CABINET						RM - REMOTE ANNUNCIATOR				
STAT - STATIC SOLID STATE						RC - REMOTE CONTROL CIRCUITS				
<u>SWITCH CONFIGURATION (CONFIG):</u>						EL - ELEVATOR EMERGENCY TO NORMAL PRESIGNAL				
CT - CLOSED TRANSITION						SP - SERIAL COMMUNICATIONS PORT				
DT - DELAYED TRANSITION - CENTER OFF						RTC - REMOTE TRANSFER CONTROL FROM FIRE COMMAND CENTER				
30 - 30 CYCLE WITHSTAND RATING						RMC - REMOTE ANNUNCIATION AT FIRE COMMAND CENTER				
SE - SERVICE ENTRANCE LISTED						TI - TRANSFER INHIBIT				
SN - SWITCHED NEUTRAL						LS - LOAD SHED (PROVIDE DELAYED TRANSITION - CENTER OFF CONFIGURATION)				
ON - OVERLAPPING SWITCHED NEUTRAL						DEM - DIGITAL ENERGY METER (REFER TO SPECIFICATION 26 09 13)				
DN - SOLID NEUTRAL						DPM - DIGITAL POWER METER W/ QUALITY ANALYSIS (REFER TO SPECIFICATION 2...				

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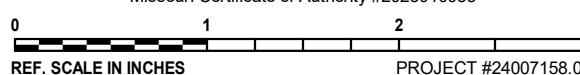
KEY PLAN

AGENCY APPROVAL

PRELIMINARY  
NOT FOR  
CONSTRUCTION

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REVISIONS

No. Date Revision / Issue

SHEET INFORMATION

Issue **DESIGN DEVELOPMENT**  
Date **03/17/2025**  
Project # **24007158.00**  
Drawn **ROBMUR**  
Checked **MASRYA**  
Approved **MASRYA**

SHEET TITLE

ELECTRICAL DETAILS SCHEDULES

SCALE

Scale: **12" = 1'-0"**

SHEET NUMBER

E600