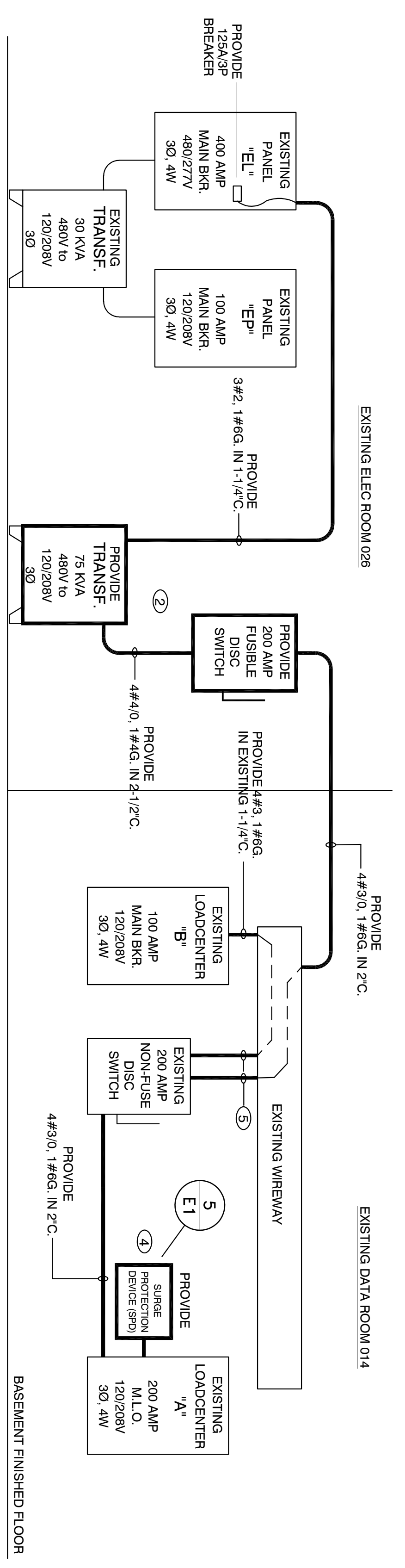
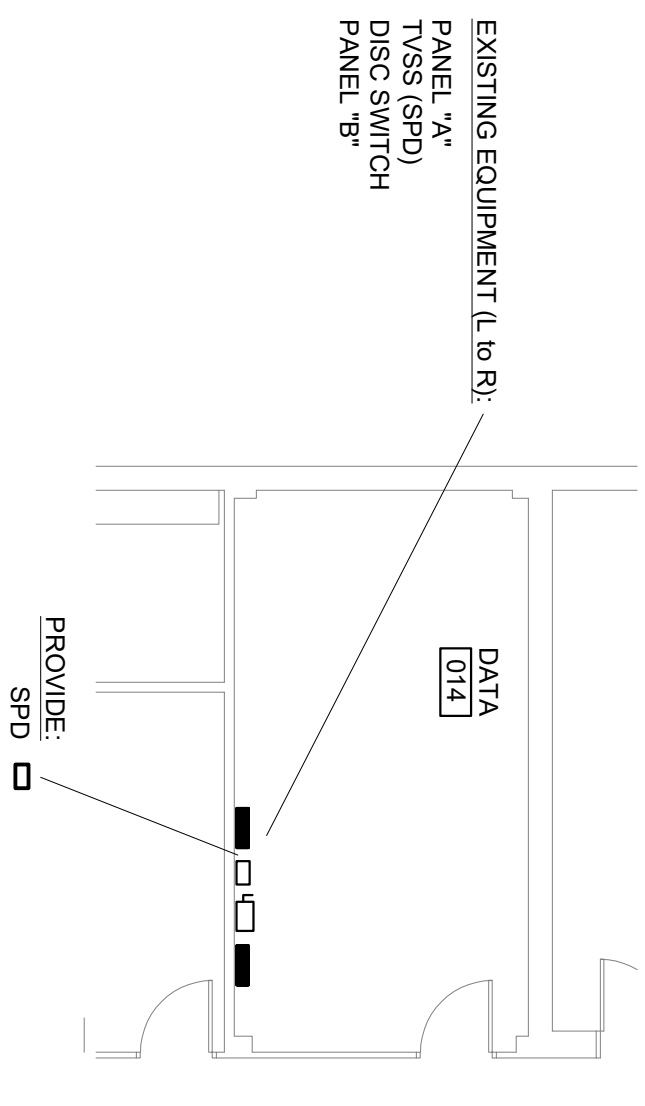


3 EXISTING POWER SINGLE LINE DIAGRAM  
NOT TO SCALE

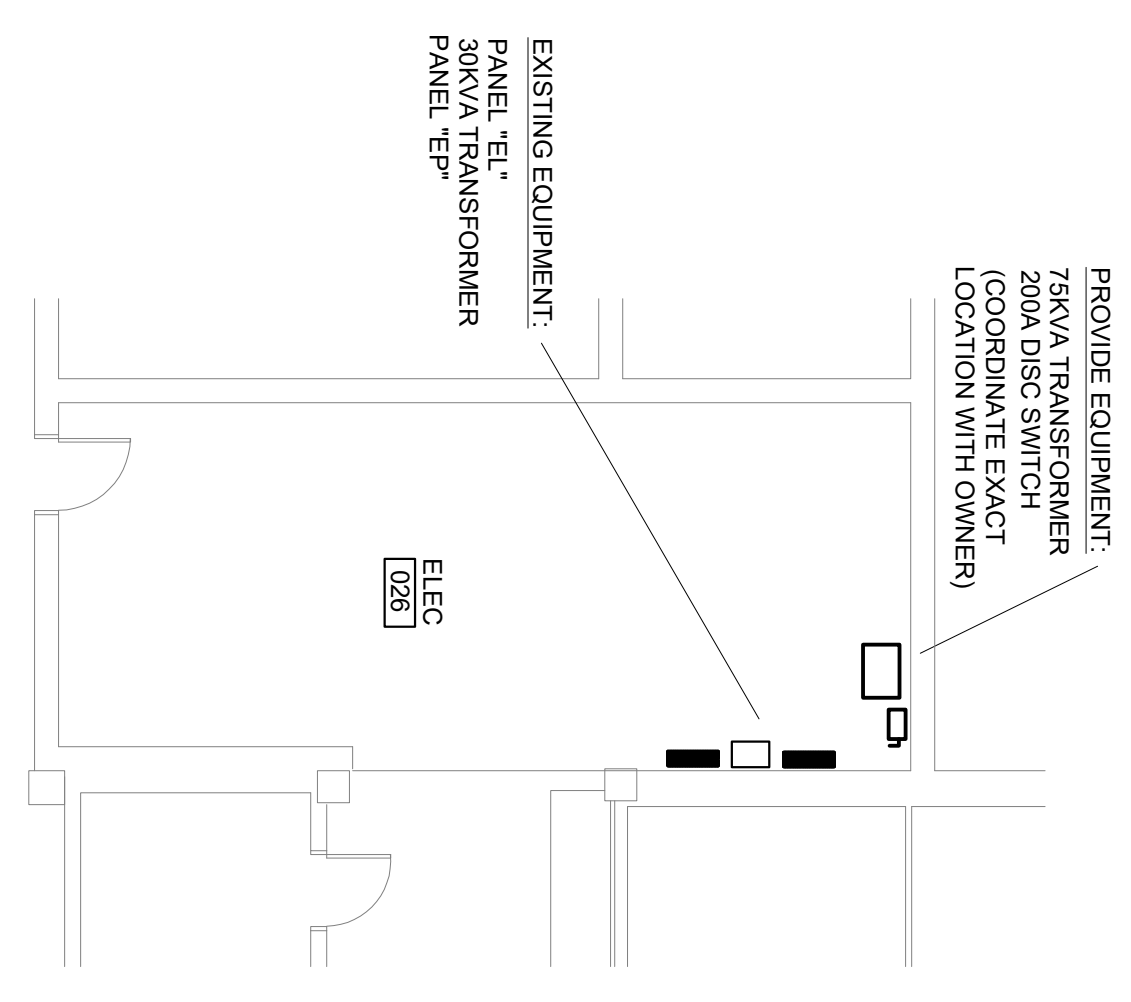


4 RENOVATED POWER SINGLE LINE DIAGRAM  
NOT TO SCALE

1 DATA ROOM 014 PLAN  
SCALE: 1/8" = 1'-0"



2 ELECTRICAL ROOM 026 PLAN  
SCALE: 1/8" = 1'-0"



- ELECTRICAL NOTES**
- REMOVE EXISTING FEEDER FROM EXISTING PANEL "EP" TO DATA ROOM WIREWAY. STAGE EQUIPMENT AND COORDINATE POWER OUTAGE WITH USC ADVISING 7 DAY ADVANCE NOTICE.
  - PROVIDE 75KVA TRANSFORMER AND 200 AMP DISCONNECT SWITCH WITH ASSOCIATED FEEDERS AS INDICATED IN RENOVATED POWER SINGLE LINE DIAGRAM. PROVIDE 125 AMP 3POLE BREAKER IN EXISTING GENERATOR-BACKED SWITCHBOARD.
  - REMOVE EXISTING JOSLYN AC PROTECTOR AND FEEDER RUNNING INTO AND OUT OF. PROVIDE FEEDER BETWEEN EXISTING DISCONNECT SWITCH AND EXISTING 200 AMP LOADCENTER.
  - PROVIDE SURGE PROTECTIVE DEVICE (SPD) FOR EXISTING LOADCENTER "A". MOUNT SPD DIRECTLY ADJACENT TO LOADCENTER WITH CONDUCTOR LENGTH TO BE AS SHORT AS POSSIBLE AND STRAIGHT INTO BREAKER LUGS.
  - PROVIDE ADDITIONAL 2" NIPPLE BETWEEN EXISTING WIREWAY AND EXISTING DISCONNECT SWITCH TO SEPARATE TWO SETS OF CONDUCTORS.

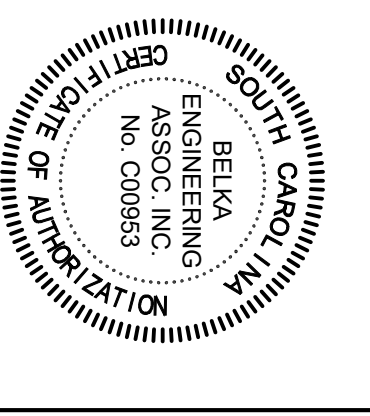
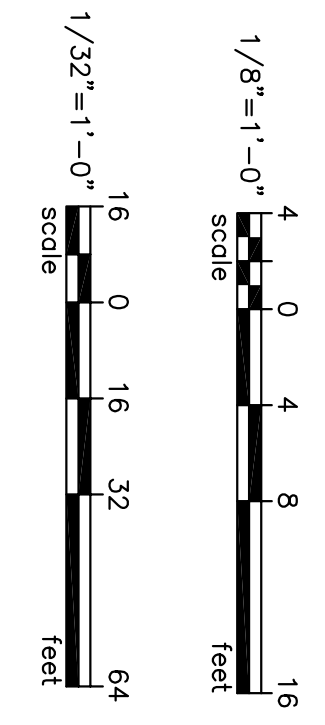
**ELECTRICAL WORK STAGING**

DUE TO ESSENTIAL CRITICAL DATA EQUIPMENT OPERATION, POWER TO THE DATA ROOM WILL BE MAINTAINED THROUGHOUT THE PROJECT. COORDINATE WITH THE OWNER AND THE DATA CENTER OPERATIONS TO STAGE THE DATA CENTER EQUIPMENT. ALL EXISTING EQUIPMENT SHALL BE COORDINATELY DISCONNECTED FROM THE DATA ROOM WIREWAY AND FEEDERS SHALL NOT BE DISCONNECTED WITHOUT COORDINATION WITH USC-UTS. PORTABLE GENERATOR AND TEMPORARY CONSTRUCTION LOADCENTER SHALL BE REQUIRED TO MAINTAIN POWER TO CRITICAL DATA EQUIPMENT WHILE RENOVATION TO ELECTRICAL EQUIPMENT IS PERFORMED.



**ELECTRICAL DRAWING INDEX**

E1	ELECTRICAL PLAN - COKER LIFE SCIENCE
E2	ELECTRICAL PLAN - CURRELL ANNEX
E3	ELECTRICAL PLAN - HUMANITIES CLASSROOM BUILDING



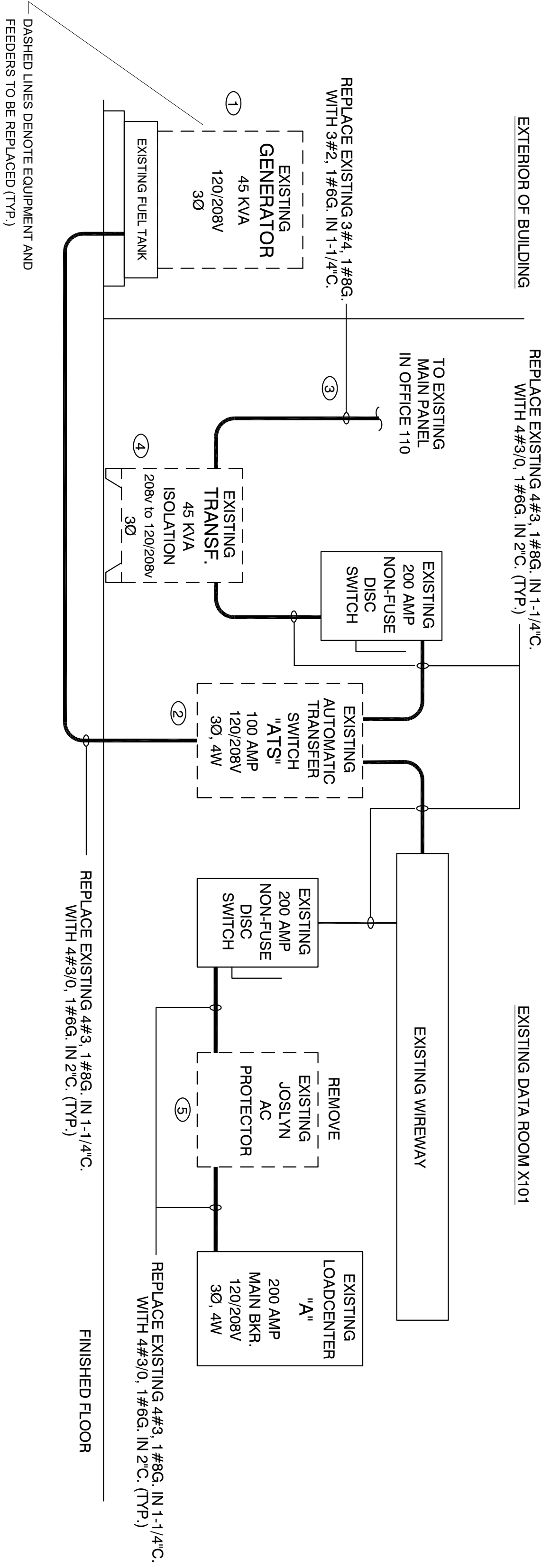
**BELKA**  
ENGINEERING ASSOCIATES  
7 GUSTERS COURT, SUITE 201 | COLUMBIA, SC  
(803) 731-0650 Office | (803) 960-8443 Cell  
CONTACT: CHERI STRINGFIELD  
CSTRINGFIELD@BEKACONSULTING.COM

PROJECT TITLE: <b>UTS MOD CLOSET ELECTRICAL UPGRADES COKER LIFE SCIENCES</b>	BUILDING: 100	DRAWING: FPO0000233	DATE: 15 JUL 19	DRAWN BY: CES	CHECKED BY: JLA	SEAL: 
SHEET: <b>E1</b>	REV.	DESCRIPTION	DATE	DATE	ORIG. BY	DRAWN BY
1 OF 3						
1 OF 3						

EXTERIOR OF BUILDING

REPLACE EXISTING 4#3, 1#6G, IN 1-1/4" C. WITH 4#3/0, 1#6G, IN 2" C. (TYP.)

EXISTING DATA ROOM X101



2 EXISTING POWER SINGLE LINE DIAGRAM  
NOT TO SCALE

ELECTRICAL NOTES

- ① REPLACE EXISTING 45KV GENERATOR WITH 65KV GENERATOR (DIESEL FUEL). LOCATE IN SAME LOCATION AS EXISTING. DISCONNECT EXISTING AND RECONNECT NATURAL GAS CONNECTION TO GENERATOR. RECONNECT BLOCK HEATER AND BATTERY CHARGER CIRCUITS. PROVIDE ALL CONTROL WIRING IN CONDUIT AS REQUIRED. PROVIDE WEATHERPROOF HOUSING AND REUSE EXISTING SKID MOUNTED FUEL TANK.
- ② REPLACE EXISTING 100 AMP AUTOMATIC TRANSFER SWITCH (ATS) WITH 225 AMP UNIT. PROVIDE NEW FEEDERS BETWEEN GENERATOR AND ATS. AND BETWEEN ATS AND DISCONNECT SWITCH AS INDICATED IN SINGLE LINE DIAGRAM. COORDINATE POWER OUTAGE WITH USC GIVING 7 DAY ADVANCE NOTICE.
- ③ REPLACE EXISTING 70 AMP 3 POLE BREAKER IN EXISTING MAIN PANEL WITH 100 AMP 3 POLE BREAKER.
- ④ REPLACE EXISTING 45KV/A TRANSFORMER WITH 75KV/A UNIT (480V TO 120/208V, 3 PHASE). PROVIDE NEW FEEDERS AS INDICATED IN SINGLE LINE DIAGRAM.
- ⑤ REMOVE EXISTING 10SL VLN AC PROTECTOR AND FEEDER RUNNING IN CONDUIT OF PREVIOUS FEEDER BETWEEN EXISTING DISCONNECT SWITCH AND EXISTING 200 AMP LOADCENTER.
- ⑥ PROVIDE SURGE PROTECTIVE DEVICE (SPD) FOR EXISTING LOADCENTER "A". MOUNT SPD DIRECTLY ADJACENT TO LOADCENTER WITH CONDUIT LENGTH TO BE AS SHORT AS POSSIBLE AND STRAIGHT INTO BREAKER BUS.

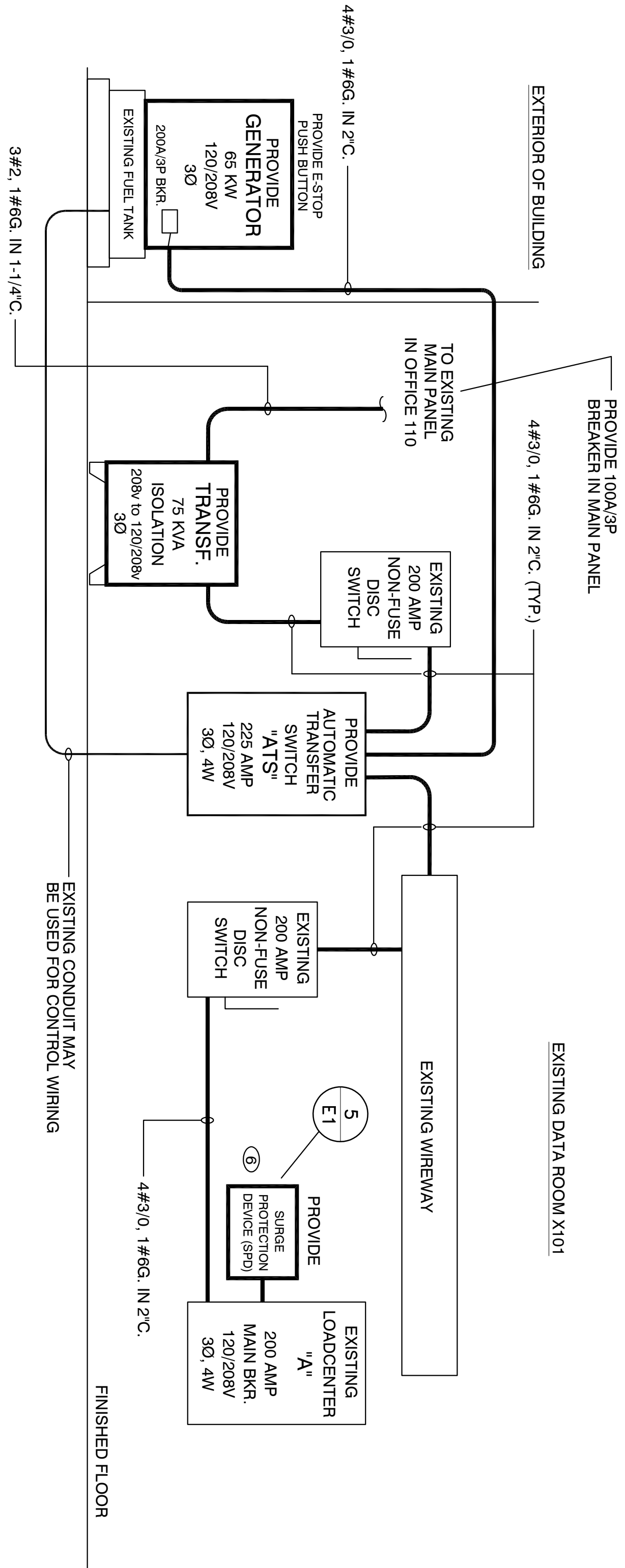
ELECTRICAL WORK STAGING

DUO TO ESSENTIAL CRITICAL DATA EQUIPMENT OPERATION, POWER OUTAGE SHALL BE MINIMIZED TO A MAXIMUM OF 30 MINUTES. COORDINATE WITH USC-IT'S, THOUGH EXISTING UPS UNITS ARE USED IN DATA EQUIPMENT RACKS. POWER SHALL NOT BE DISCONNECTED WITHOUT COORDINATION WITH USC-IT'S. PORTABLE GENERATOR AND TEMPORARY CONSTRUCTION LOADCENTER SHALL BE REQUIRED TO MAINTAIN POWER TO CRITICAL DATA EQUIPMENT WHILE RENOVATION TO ELECTRICAL EQUIPMENT IS PERFORMED.

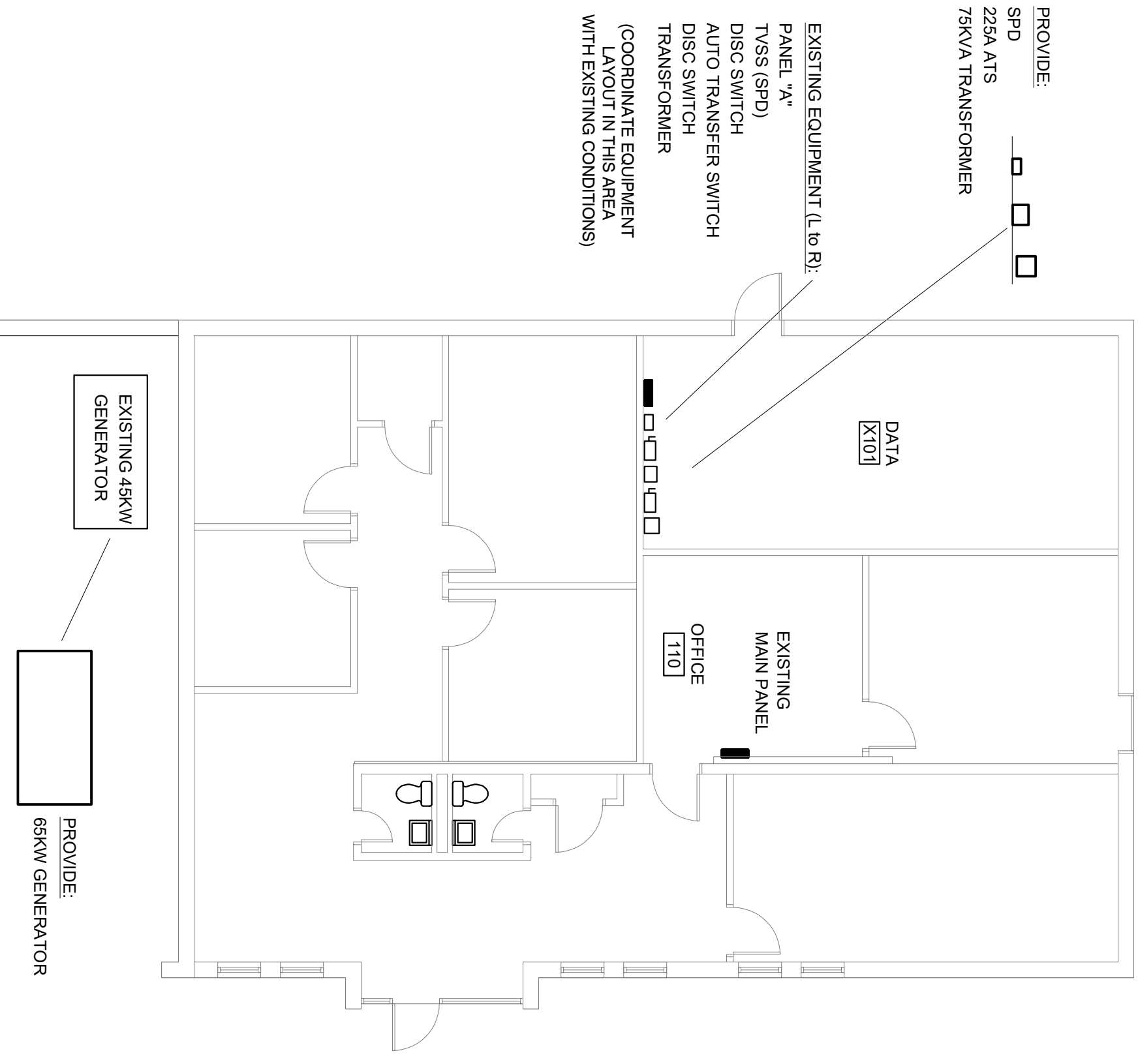
EXTERIOR OF BUILDING

PROVIDE 100KA/3P BREAKER IN MAIN PANEL

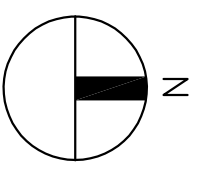
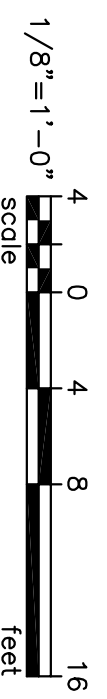
EXISTING DATA ROOM X101



3 RENOVATED POWER SINGLE LINE DIAGRAM  
NOT TO SCALE



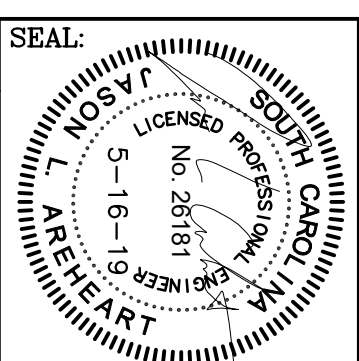
1 FIRST FLOOR ELECTRICAL PLAN  
SCALE: 1/8" = 1'-0"



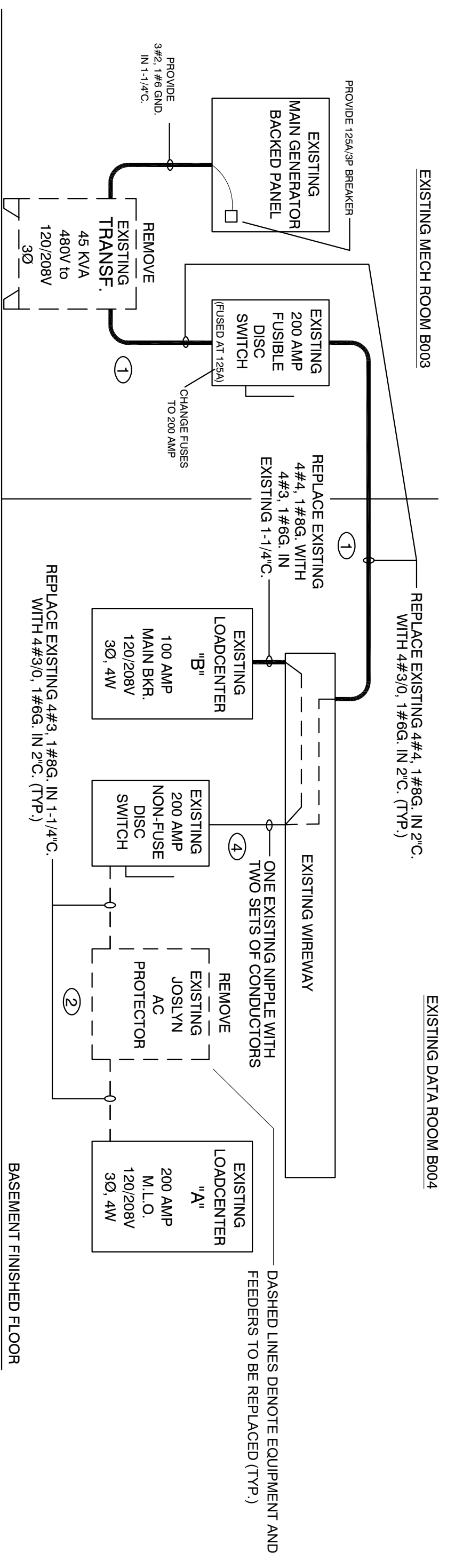
- PROVIDE:  
SPD  
225A ATS  
75KV/A TRANSFORMER
- EXISTING EQUIPMENT (L to R):  
PANEL "A"  
TVSS (SPD)  
DISC SWITCH  
AUTO TRANSFER SWITCH  
DISC SWITCH  
TRANSFORMER  
  
(COORDINATE EQUIPMENT WITH EXISTING CONDITIONS)



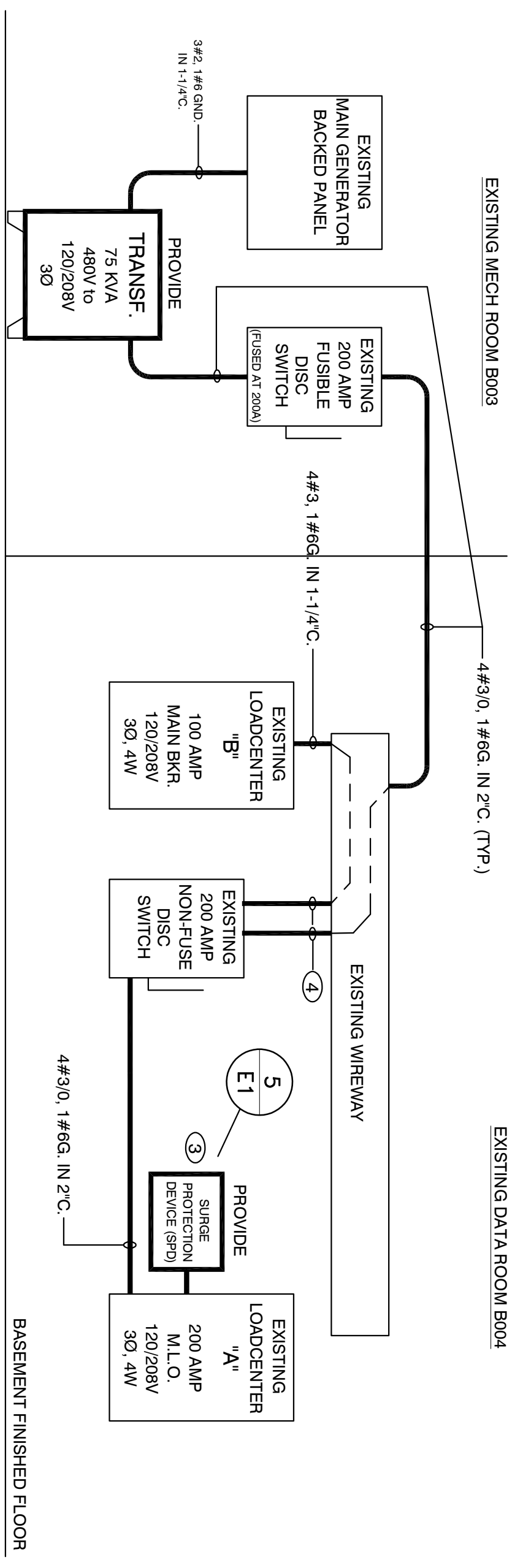
BUILDING: 068	DRAWING: FPO0000233	DATE: 15JUL19	DRAWN BY: CES	CHECKED BY: JLA
REV.	DESCRIPTION	DATE	ORIG. BY	DRAWN BY



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BELKA ENGINEERING ASSOCIATES  
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CONTACT: CHIEF STRINGFIELD  
CSTRINGFIELD@BEKA-COMPUTING.COM



**2**  
EXISTING POWER SINGLE LINE DIAGRAM  
NOT TO SCALE

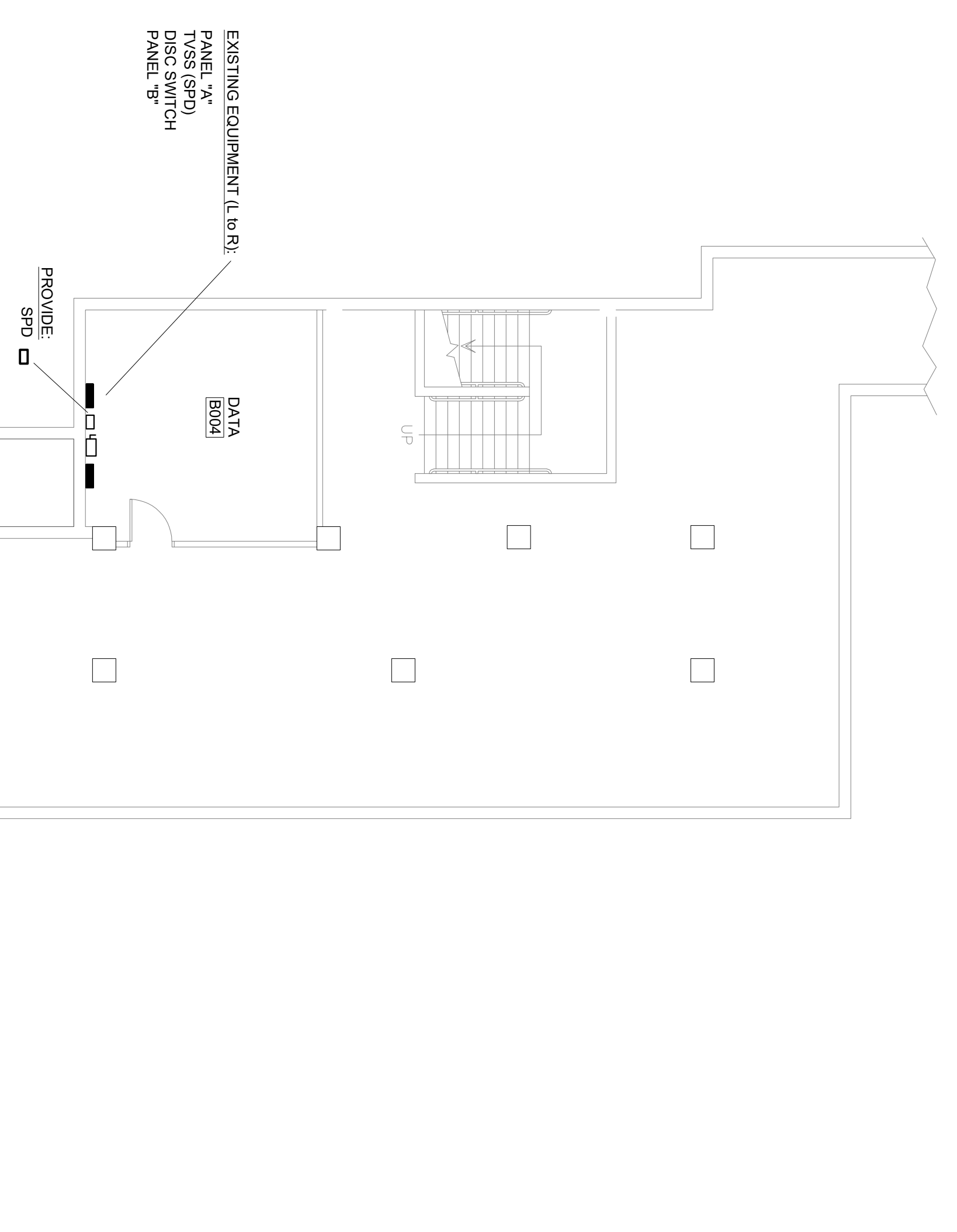


**3**  
RENOVATED POWER SINGLE LINE DIAGRAM  
NOT TO SCALE

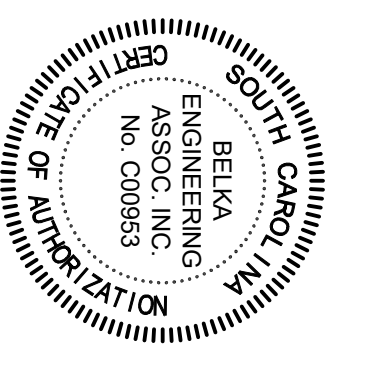
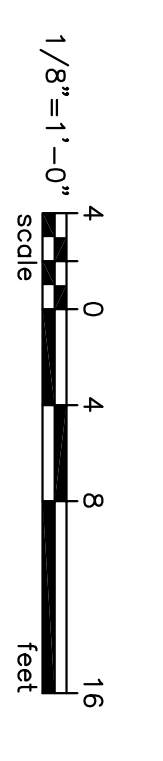
- ELECTRICAL NOTES**
- ① REPLACE EXISTING FEEDERS/CONDUCTORS AND CONDUIT FROM EXISTING 7.5KVA TRANSFORMER AND DISCONNECT SWITCHES AS INDICATED IN POWER SINGLE LINE DIAGRAM. COORDINATE POWER OUTAGE WITH USC GIVING 7 DAY ADVANCE NOTICE.
  - ② REMOVE EXISTING JOSLYN AC PROTECTOR AND FEEDER RUNNING IN MIDDLE OF FEEDER AND FEEDER DISCONNECT SWITCH AND EXISTING 200 AMP LOADCENTER.
  - ③ PROVIDE SURGE PROTECTIVE DEVICE (SPD) FOR EXISTING LOADCENTER "A". MOUNT SPD DIRECTLY ADJACENT TO LOADCENTER WITH CONDUCTOR LENGTH TO BE AS SHORT AS POSSIBLE AND STRAIGHT INTO BREAKER LUGS.
  - ④ PROVIDE ADDITIONAL 2" NIPPLE BETWEEN EXISTING WIREWAY AND EXISTING DISCONNECT SWITCH TO SEPARATE TWO SETS OF CONDUCTORS.

**ELECTRICAL WORK STAGING**

DUE TO ESSENTIAL CRITICAL DATA EQUIPMENT OPERATION POWER OUTAGES DURING THIS RENOVATION SHALL BE CAREFULLY COORDINATED WITH USC-UTS. THOUGH EXISTING UPS UNITS ARE USED IN DATA EQUIPMENT RACKS, POWER SHALL NOT BE DISCONNECTED WITHOUT COORDINATION WITH USC-UTS. PORTABLE GENERATOR AND TEMPORARY CONSTRUCTION LOADCENTER SHALL BE REQUIRED TO MAINTAIN POWER TO CRITICAL DATA EQUIPMENT WHILE RENOVATION TO ELECTRICAL EQUIPMENT IS PERFORMED.

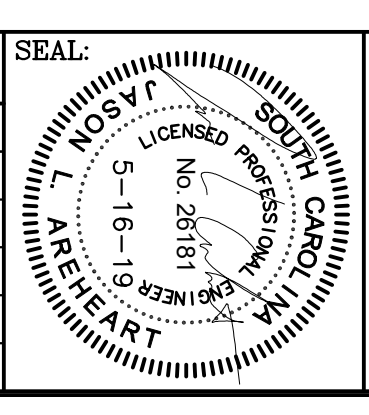


**1**  
ELECTRICAL PLAN - BASEMENT  
SCALE: 1/8" = 1'-0"



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BUILDING: 055	DRAWING: FP00000233	DATE: 15 JUL 19	DRAWN BY: CES	CHECKED BY: JLA
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