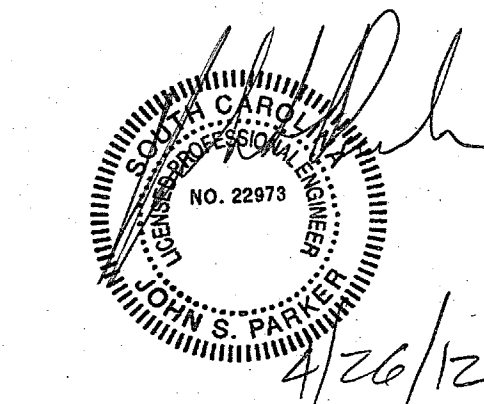


NOTE: THIS DOCUMENT MAY HAVE BEEN ELECTRONICALLY TRANSMITTED. IF UNSIGNED, IT CANNOT BE FILED FOR PUBLIC RECORD. PUBLIC RECORD FILINGS REQUIRE SIGNED AND SEALED DOCUMENTS.

Harris Teeter
Your Neighborhood Food Market



HARRIS TEETER #149
NORTHWOOD SQUARE
ROCK HILL, SC

PROJECT MANAGER
Kane Slacy
JOB NO.
15-0149-02
JOB BY
MVF / CDB

REVISIONS
No. Date
No. Date
No. Date
No. Date
No. Date
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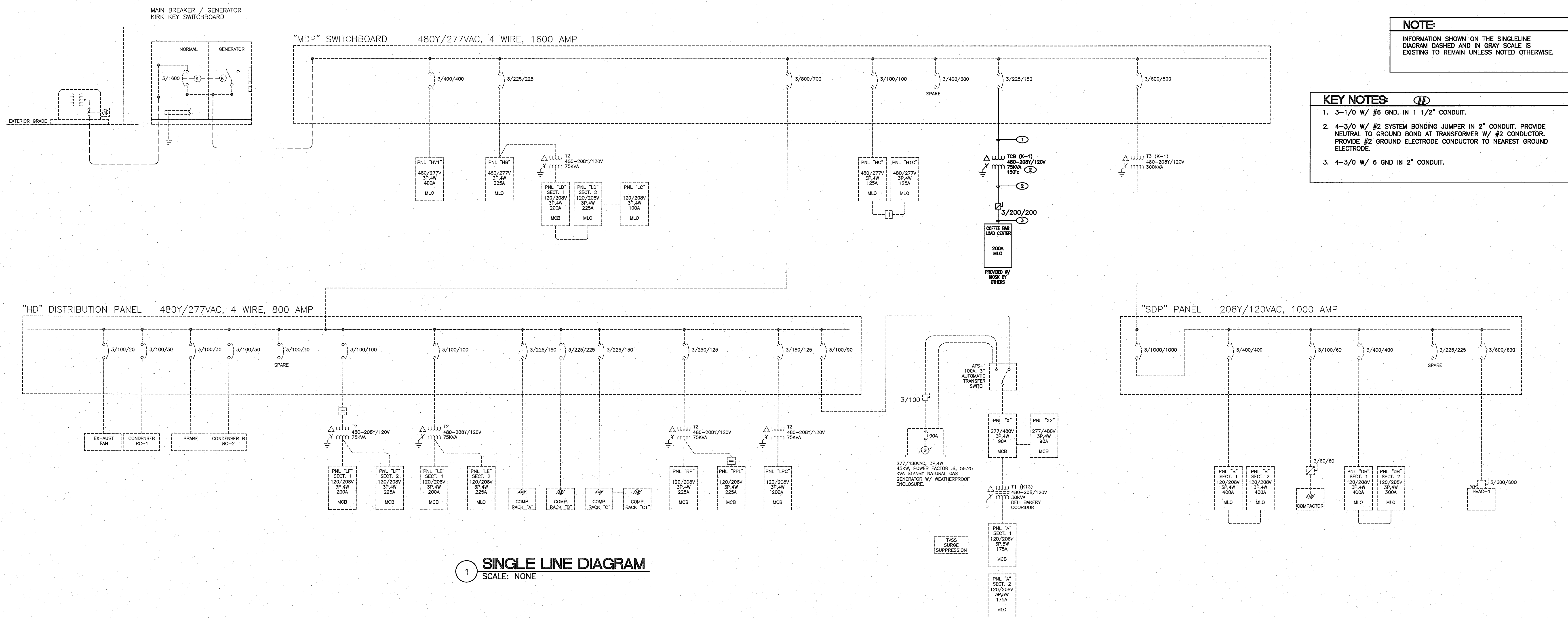
DRAWING NAME
**SINGLE LINE DIAGRAM
LOAD ANALYSIS
AND NOTES**

SHEET NO.
E11
ISSUE DATE
04/27/22

NOTE:
INFORMATION SHOWN ON THE SINGLELINE DIAGRAM DASHED AND IN GRAY SCALE IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

KEY NOTES:

- 3-1/0 W/ #6 GND. IN 1 1/2" CONDUIT.
- 4-3/0 W/ #2 SYSTEM BONDING JUMPER IN 2" CONDUIT. PROVIDE NEUTRAL TO GROUND BOND AT TRANSFORMER W/ #2 CONDUCTOR. PROVIDE #2 GROUND ELECTRODE CONDUCTOR TO NEAREST GROUND ELECTRODE.
- 4-3/0 W/ #6 GND IN 2" CONDUIT.



1 SINGLE LINE DIAGRAM
SCALE: NONE

CONDUIT ROUTING INFORMATION
THE ELECTRICAL CONTRACTOR SHALL INSTALL CONDUITS UTILIZING THE FOLLOWING METHODS:

- OUTDOOR, UNDERGROUND: SCHEDULE 40 PVC, TYPE RNC.
- INDOOR EXPOSED: ELECTRICAL METALLIC TUBING, TYPE EMT.
- INDOOR CONCEALED: ELECTRICAL METALLIC TUBING, TYPE EMT OR TYPE MC CABLE.
- OUTDOOR EXPOSED: RIGID METAL CONDUIT, TYPE RMC.
- OUTDOOR CONNECTION TO HVAC EQUIPMENT AND REFRIGERATION CONDENSING UNITS: LIQUID TIGHT FLEXIBLE METAL CONDUIT, TYPE LFMC.
- INDOOR, BENEATH SLAB GRAVEL: SCHEDULE 40 PVC, TYPE RNC.

DEMOLITION - DISPOSAL OF MATERIALS COMPLIANCE
THE ELECTRICAL CONTRACTOR SHALL DISPOSE OF ALL ELECTRICAL DEMOLITION WASTE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS AND GUIDELINES. THIS INCLUDES BUT IS NOT LIMITED TO LAMPS BALLAST, FIXTURES, TRANSFORMERS, PANELS, BREAKERS CONDUIT, WIRING, BATTERIES AND OTHER ELECTRICAL EQUIPMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A LETTER INDICATING ANY SUCH MATERIALS HAVE BEEN DISPOSED OF IN COMPLIANCE WITH FEDERAL STATE AND LOCAL LAWS.

ATTENTION:
THE HARRIS TEETER PROJECT MANAGER MAY PROVIDE BID NOTES WITH INFORMATION REGARDING THE BIDDING OF THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE HE HAS THIS INFORMATION PRIOR TO SUBMITTING BID.

CONTACTOR SCHEDULE NOTES:

- ALL CONTROL WIRING SHALL BE #12 AWG IN CONDUIT UNLESS OTHERWISE NOTED.
- TIME SCHEDULE FOR LIGHTING CONTROL FOR EACH CONTROL POINT SHALL BE STAGGERED BY AT LEAST 5 SECONDS TO AVOID HIGH INRUSH CURRENTS.
- CONTACTORS USED FOR LIGHTING CONTROL SHALL BE U.L. LISTED AND RATED FOR USE WITH H.I.D. LIGHTING AS SPECIFIED IN THE CONTACTOR SCHEDULE. NO SUBSTITUTIONS ALLOWED.
- CONTROL RELAYS SHALL BE 120V / 10A CUBE TYPE RELAYS. ABB CR-M120A22 OR EQUAL.
- CONTACTORS SHALL BE LABELED AS INDICATED IN THE SCHEDULE.
- CONTACTOR CABINETS, CONTACTORS, RELAYS, WIRING, AND OTHER ANLLARY MATERIALS REQUIRED TO BUILD THE CONTACTOR CABINETS OR INSTALLED CONTACTORS IN EXISTING ENCLOSURES SHALL BE PROVIDED, CONSTRUCTED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- PROVIDE A CONTROL RELAY FOR EACH NEW CONTROL POINT. CONTACTORS SHOULD NOT BE DIRECT POWERED VIA THE RELAY ON THE EMS BOARD. MOUNT CONTROL RELAYS IN AVAILABLE SPACE WITHIN CONTACTOR ENCLOSURES.
- MOUNT NEW CONTACTORS IN ENCLOSURES AT THE LOCATIONS SPECIFIED IN THE SCHEDULE. ENCLOSURES SHOULD BE OF SUFFICIENT SIZE TO HOLD ALL OF SPECIFIED CONTACTORS.
- THE E.C. SHALL REVIEW THE EMS DRAWINGS FOR ADDITIONAL WIRING RESPONSIBILITIES.
- THE E.C. SHALL REMOVE ALL UNUSED LIGHTING CONTROL WIRING ENCOUNTERED.

GENERAL PROJECT NOTES

- THE E.C SHALL VERIFY FIELD CONDITIONS PRIOR TO SUBMITTING BID.
- EXISTING CONDITIONS ON THESE DOCUMENTS ARE BASED ON EXISTING DRAWINGS AND FIELD OBSERVATIONS. THE E.C SHALL FIELD VERIFY EXISTING CONDITIONS, CIRCUIT NUMBERS AND DIMENSIONS PRIOR TO BEGINNING ANY WORK. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR DISPOSITION. ELECTRICAL EQUIPMENT AND WIRING IN AREAS UNAFFECTED BY THE RENOVATION MAY NOT BE SHOWN.
- THE E.C SHALL REMOVE ANY UNUSED CONDUIT AND WIRING, INCLUDING LOW VOLTAGE COMMUNICATION AND EMS WIRING RESULTING FROM THE RENOVATION OR ENCOUNTERED DURING THE RENOVATION OF THE STORE.
- THE E.C. SHALL FULLY COORDINATE WORK WITH ALL OTHER APPLICABLE TRADES.
- THE E.C. SHALL PRESERVE DEMOLISHED FIXTURES AND EQUIPMENT FOR REUSE WITHIN OTHER AREAS OF THE RENOVATION. DISPOSE OF UNUSED FIXTURES, EQUIPMENT AND TRASH AS DIRECTED BY THE OWNER.
- THE E.C. SHALL MAINTAIN ALL EMERGENCY LIGHTING, FIRE ALARM SYSTEMS AND POWER TO ALLOW FOR UNINTERRUPTED TRADING OF GOODS DURING THE COURSE OF THE RENOVATION. PROVIDE TEMPORARY POWER AND WIRING AS REQUIRED DURING THE RENOVATION.
- COORDINATE CUTTING AND PATCHING OF THE FLOORS WERE REQUIRED WITH THE GC, AND OTHER APPLICABLE TRADES.
- WHERE WALL FINISHES ARE BEING RENOVATED OR REPLACED, THE E.C SHALL REMOVE COVERPLATES, PROVIDE BOX EXTENSIONS, REMOVE AND REPLACE ELECTRICAL DEVICES, DISCONNECTS AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED. COORDINATE WITH ARCHITECTURAL PLANS.
- AS PART OF THIS RENOVATION THE E.C. SHALL VERIFY THE CIRCUIT IDENTIFICATION OF ALL BREAKERS IN ALL BRANCH PANELBOARDS AND SWITCHBOARDS AND PROVIDE NEW TYPE WRITTEN PANELBOARD SCHEDULES IN EACH PANEL. CIRCUIT DESCRIPTIONS FOR MECHANICAL EQUIPMENT (I.E. RTU'S, HP'S, REFRIG. EQUIPMENT, WATER HEATERS, ETC.) SHALL BE CONSISTENT WITH THE MECHANICAL PLANS AND LABELS ON THE EQUIPMENT.
- THE E.C. MAY REUSE EXISTING CONDUIT AND WIRING IN PLACE, RESULTING FROM THE DEMOLITION FOR NEW CIRCUITS PROVIDED IT IS IN GOOD CONDITION AND MEETS THE REQUIREMENTS FOR THE NEW CIRCUIT AS INDICATED ON THE PANEL SCHEDULE.
- THE E.C SHALL THOROUGHLY REVIEW THE ARCH, MECHANICAL, PLUMBING, REFRIGERATION, EMS, AND ANY OTHER PLAN WITHIN THE CONTRACT DOCUMENTS TO COORDINATE AND DETERMINE ANY AFFECT THESE PLANS MAY HAVE ON WORK. DO NOT BID FROM A PARTIAL SET. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR FAILURE TO REVIEW AND COORDINATE WITH ALL PLANS.

PARTIAL EMS CONTACTOR SCHEDULE - (EXISTING IN ITALICS)

CONTROL POINT	EMS I/O POINT	CONTROL CIRCUIT	CONTACTOR DESIGNATIONS	CONTACTOR TYPE	CIRCUITS CONTROLLED	DESCRIPTION	COMMENTS
Q	MF168-BD7-04	DB-52	Q-1	<i>DEFINITE PURPOSE 20A / 3P</i>	DB-37,39,41,38,40,42	DELI / BAKERY EXHAUST HOOD	EXISTING CONTACTOR
			Q-2	<i>DEFINITE PURPOSE 20A / 3P</i>	DB-6,10,19,23	DELI / BAKERY COOKING HOOD EQUIPMENT	EXISTING CONTACTOR
			Q-3	ABB-A16-40-00-84	LPC-5,7,39	PIZZA HEAT LAMPS AND HOOD	PROVIDE NEW CONTACTOR. MOUNT IN AVAILABLE SPACE ABOVE OR ADJACENT TO PANEL.
			Q-4	ABB-A40-30-10-84	LPC-6,8,10	PIZZA OVEN	PROVIDE NEW CONTACTOR. MOUNT IN AVAILABLE SPACE ABOVE OR ADJACENT TO PANEL.
			Q-5	ABB-A40-30-10-84	LPC-6,8,10	PIZZA OVEN	PROVIDE NEW CONTACTOR. MOUNT IN AVAILABLE SPACE ABOVE OR ADJACENT TO PANEL.
M	MF168-BD7-06	DB-52	M-1	ABB-A40-30-10-84	DB-73,75,77	MARKET HALL EQUIP. (HOT / COLD ISLAND HOT SIDE)	PROVIDE NEW CONTACTOR. MOUNT IN AVAILABLE SPACE ABOVE OR ADJACENT TO PANEL.
			M-2	ABB-A16-40-00-84	LPC-38,40,42	MARKET HALL EQUIP. (SALAD BAR SOUP)	PROVIDE NEW CONTACTOR. MOUNT IN AVAILABLE SPACE ABOVE OR ADJACENT TO PANEL.
T	8RO-BD6-08	LD-76	T-1	ABB-A16-40-00-84	FIELD VERIFY CIRCUIT.	COFFEE BAR L/TS	MOUNT CONTACTOR IN ENCLOSURE ADJACENT TO LOAD CENTER WITHIN COFFEE BAR. ROUTE ALL LIGHTING CIRCUITS THRU CONTACTOR.
L2	8RO-BD4-02	LF-34	L2-1,1,2-2	ABB-A16-40-00-84	LF-XXXXXXXXXXXXXX, FIELD VERIFY CIRCUITS NUMBERS REF. CIRCUITS, C6, C7 AND C8	BEER REF. CASELTS	PROVIDE NEW CONTACTOR. MOUNT IN AVAILABLE SPACE ABOVE OR ADJACENT TO PANEL.

LOAD ANALYSIS
LARGEST EXISTING PEAK DEMAND OVER LAST 12 MONTH PERIOD PROVIDED BY THE UTILITY IS 461 KW.
EXISTING PEAK DEMAND 461 KW x 1.25 ÷ .85 PF = 678 KVA

NET CHANGES IN LOADS

LIGHTING	+ 8.9 KVA
HVAC	+ 19.7 KVA
KITCHEN	+ 18.4 KVA
REC.	+ 1.0 KVA
REC.	+ 5 KVA
CONTINUOUS LOADS	+ 49.1 KVA
NON CONTINUOUS LOADS	736.2 KVA
TOTAL	885.4 AMPS