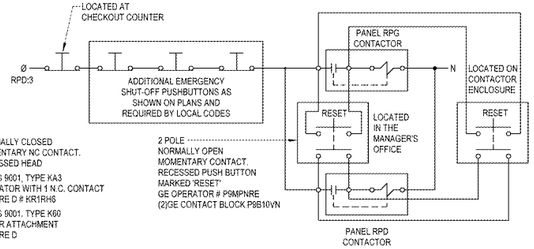
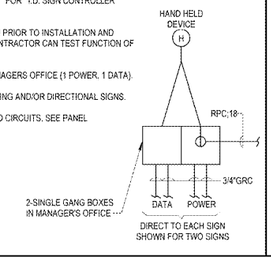


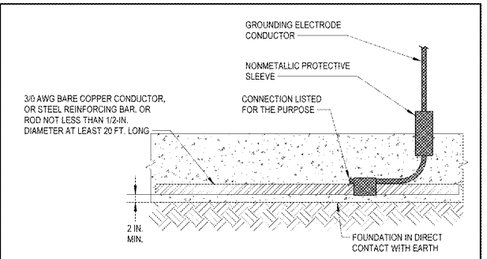
1 EMERGENCY SHUT-OFF (CHECKOUT /CANOPY COLUMN/KIOSK)
E8 NOT TO SCALE

PRICE CHANGING SIGN WIRING REQUIREMENTS:

1. DEDICATED, 20 AMP CIRCUIT (MAX. CURRENT DRAW IS 350MA @ 120 VAC.)
2. PROVIDE SIMPLEX OUTLET IN MANAGER'S OFFICE FOR CONTROLLER LABELED "FOR I.D. SIGN CONTROLLER ONLY" (1) DEDICATED CIRCUIT AND OUTLET.
3. G.C. ELECTRICIAN TO RUN CONDUIT AND WIRES FOR WIRES TO SIGN LOCATION PRIOR TO INSTALLATION AND MAKE FINAL CONNECTION TO SIGN AT THE TIME OF INSTALLATION SO SIGN CONTRACTOR CAN TEST FUNCTION OF SIGN AND REMOTE PRICE CHANGER.
4. INSTALL TWO 3/4"GRC TO EACH PRICE SIGN FROM SINGLE GANG BOXES IN MANAGERS OFFICE (1 POWER, 1 DATA).
5. SITE LIGHTING CIRCUITS SHALL NOT BE UTILIZED TO POWER PRICE SIGN LIGHTING AND/OR DIRECTIONAL SIGNS.
6. WAWA PRICE SIGN LIGHTING AND DIRECTIONAL SIGNS SHALL BE ON DEDICATED CIRCUITS. SEE PANEL SCHEDULES SHEET E5, PANEL LPA.



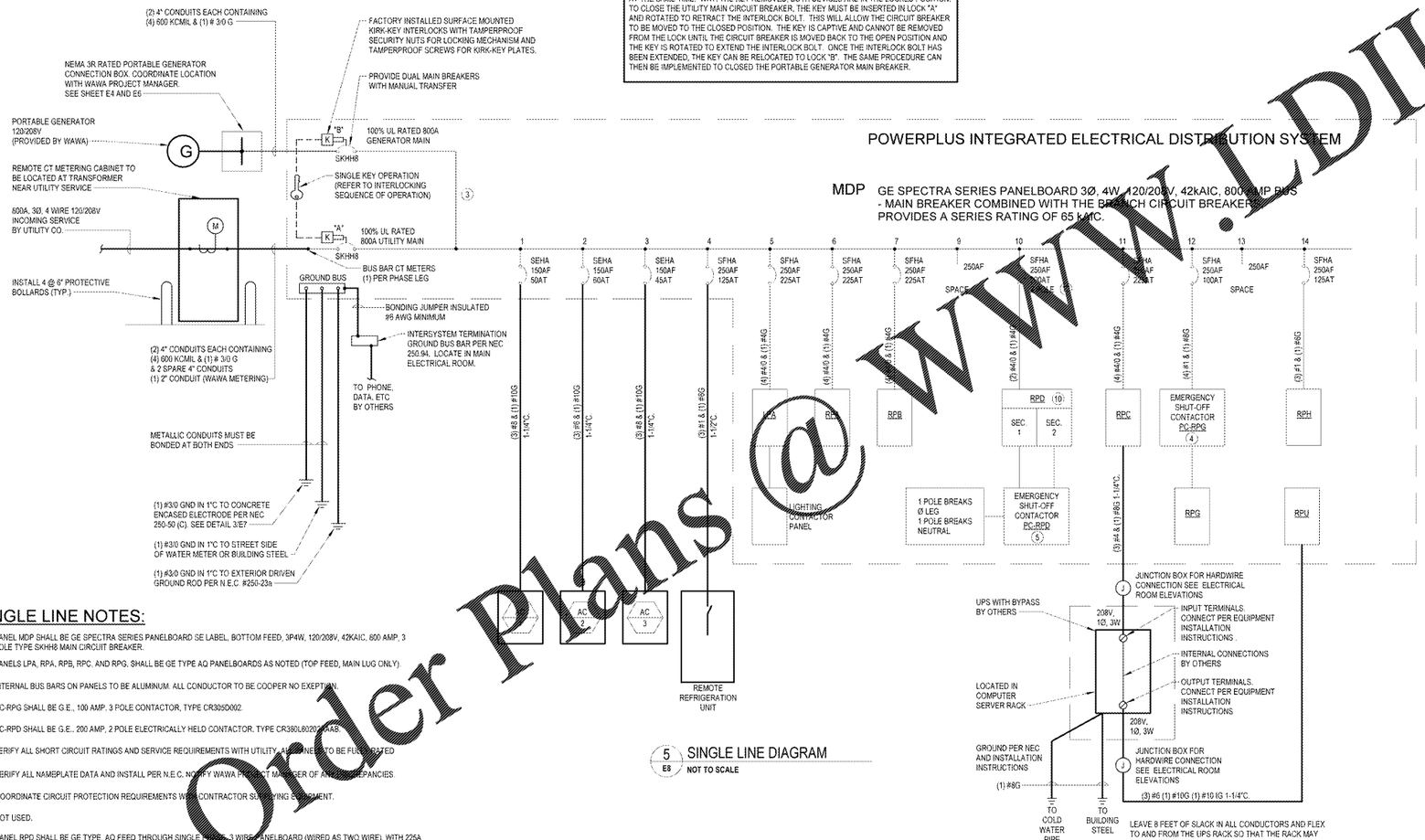
2 PRICE CHANGING SIGN
E8 NOT TO SCALE



3 CONCRETE ENCASED ELECTRODE DETAIL
E8 NOT TO SCALE

KIRK-KEY INTERLOCKING SEQUENCE OF OPERATION

SINGLE KEY OPERATION PROHIBITS THE TWO LOCKING DEVICES FROM BEING DISENGAGED AT THE SAME TIME. WITH THE KEY REMOVED, BOTH DEVICES ARE IN THE LOCKED POSITION. TO CLOSE THE UTILITY MAIN CIRCUIT BREAKER, THE KEY MUST BE INSERTED IN LOCK "A" AND ROTATED TO RETRACT THE INTERLOCK BOLT. THIS WILL ALLOW THE CIRCUIT BREAKER TO BE MOVED TO THE CLOSED POSITION. THE KEY IS CAPTIVE AND CANNOT BE REMOVED FROM THE LOCK UNTIL THE CIRCUIT BREAKER IS MOVED BACK TO THE OPEN POSITION AND THE KEY IS ROTATED TO EXTEND THE INTERLOCK BOLT. ONCE THE INTERLOCK BOLT HAS BEEN EXTENDED, THE KEY CAN BE RELOCATED TO LOCK "B". THE SAME PROCEDURE CAN THEN BE IMPLEMENTED TO CLOSED THE PORTABLE GENERATOR MAIN BREAKER.



5 SINGLE LINE DIAGRAM
E8 NOT TO SCALE

SINGLE LINE NOTES:

1. PANEL MDP SHALL BE GE SPECTRA SERIES PANELBOARD SE LABEL, BOTTOM FEED, 3P4W, 120/208V, 42KAIC, 600 AMP, 3 POLE TYPE SKHH8 MAIN CIRCUIT BREAKER.
2. PANELS LPA, RPA, RPB, RPC, AND RPG, SHALL BE GE TYPE AQ PANELBOARDS AS NOTED (TOP FEED, MAIN LUG ONLY).
3. INTERNAL BUS BARS ON PANELS TO BE ALUMINUM. ALL CONDUCTOR TO BE COOPER NO EXCEPTION.
4. PC-RPG SHALL BE G.E., 100 AMP, 3 POLE CONTACTOR, TYPE CR305D002.
5. PC-RPD SHALL BE G.E., 200 AMP, 2 POLE ELECTRICALLY HELD CONTACTOR, TYPE CR360L8020 OR EAB.
6. VERIFY ALL SHORT CIRCUIT RATINGS AND SERVICE REQUIREMENTS WITH UTILITY. ALL PANELS TO BE FULLY RATED.
7. VERIFY ALL NAMEPLATE DATA AND INSTALL PER N.E.C. NOTIFY WAWA PROJECT MANAGER OF ANY DISCREPANCIES.
8. COORDINATE CIRCUIT PROTECTION REQUIREMENTS WITH CONTRACTOR SUPPLYING EQUIPMENT.
9. NOT USED.
10. PANEL RPD SHALL BE GE TYPE, AQ FEED THROUGH SINGLE PHASE, 3 WIRE PANELBOARD (WIRED AS TWO WIRE), WITH 225A DUAL MAIN LUGS (TOP FEED) AS NOTED. ELECTRICAL CONTRACTOR SHALL INSTALL A JUMPER BETWEEN BOTH PHASE BUSES. PROVIDE SINGLE PHASE AND NEUTRAL FEEDER FROM MAIN DISTRIBUTION PANEL. ELECTRICAL CONTRACTOR SHALL PROVIDE LAMINATED NAME PLATE INDICATING:
"GASOLINE DISPENSING EQUIPMENT ONLY. DO NOT INSTALL ANY ADDITIONAL CIRCUITS"
11. ALL CONDUCTORS TO BE COPPER
12. 200 AMP, 2 POLE BREAKER INSTALLED. ONLY 1 POLE OF THE 2 POLE BREAKER REQUIRED TO BE WIRED. SEE PANEL SCHEDULE SHEET E5 FOR WIRING CONFIGURATION OF PANEL RPD.

ELECTRICAL CONTRACTOR SHALL PURCHASE POWERPLUS INTEGRATED ELECTRICAL DISTRIBUTION SYSTEM AND GENERATOR CONNECTION BOX FROM HILL PHOENIX. CONTACT OTIS SMITH @ 800-518-6630 X3232 FAX #770-285-3252 FOR PRICING, DELIVERY AND INSTALLATION REQUIREMENTS.

LEGEND
- PRE-WIRED BY HILL PHOENIX
- INSTALLED BY ELECTRICAL CONTRACTOR

ELECTRICAL GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL FURNISH ALL LICENSES, PERMITS, ETC. REQUIRED TO PERFORM THE WORK. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE LANDLORD, LOCAL AUTHORITIES, THE UTILITY COMPANY, THE NATIONAL ELECTRICAL CODE AND ALL OTHER AUTHORITIES HAVING JURISDICTION.

   UPON COMPLETION OF WORK, ELECTRICAL CONTRACTOR SHALL FURNISH TO OWNER A CERTIFICATE OF APPROVAL ISSUED BY LOCAL AUTHORITIES OR BY AN ELECTRICAL INSPECTION AGENCY LICENSED BY LOCAL AUTHORITIES TO PERFORM SUCH INSPECTIONS.

   ALL ELECTRICAL WORK FURNISHED AND/OR INSTALLED BY ELECTRICAL CONTRACTOR SHALL BE UNCONDITIONALLY GUARANTEED FOR BOTH PARTS AND LABOR FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER. LIGHT BULBS AND LAMPS SHALL BE EXEMPT FROM THIS GUARANTEE; HOWEVER, ON THE DATE OF FINAL ACCEPTANCE BY OWNER, ALL LIGHT BULBS AND LAMPS SHALL BE IN WORKING ORDER. WHERE AN ITEM HAS BEEN FURNISHED BY OTHERS AND INSTALLED BY ELECTRICAL CONTRACTOR, ONLY THE INSTALLATION AND WIRING SHALL BE GUARANTEED BY ELECTRICAL CONTRACTOR; GUARANTEE ON THE ITEM SHALL BE PROVIDED BY THE PARTY FURNISHING THE ITEM.

2. GENERALLY, ALL WIRING SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT). SET SCREW FITTINGS MAY BEUSED IS AREAS NOT SUBJECT TO MOISTURE; USE WEATHERPROOF COMPRESSION FITTINGS IN ALL LOCATIONS SUBJECT TO MOISTURE. FINAL CONNECTIONS TO RECESSED LIGHTING FIXTURES, VIBRATING EQUIPMENT, ETC. SHALL BE MADE WITH FLEXIBLE METALLIC CONDUIT ("GREENFIELD") IN LENGTHS NOT TO EXCEED 5 FEET; WHERE SUCH CONNECTIONS ARE MADE IN LOCATIONS SUBJECT TO MOISTURE, USE WEATHERPROOF FLEXIBLE METALLIC CONDUIT ("SEALTITE") IN LENGTHS NOT TO EXCEED 5 FEET.

   IF PERMITTED BY LANDLORD AND LOCAL AUTHORITIES, CONCEALED BRANCH CIRCUIT WIRING MAY BE INSTALLED IN METALLIC CABLE ("MC").

   MC CABLE SHALL BE INSTALLED IN A WORKMANLIKE MANNER. NO SUCH CABLE SHALL BE INSTALLED IN FRONT OF WALL OR PARTITION FROM CEILING SPACE DOWN INTO PANEL. SUCH CABLES SHALL BE INSTALLED WITHIN WALL OR PARTITION IF POSSIBLE.

   IF SUCH CABLES ARE INSTALLED IN FRONT OF WALL OR PARTITION, USE CONDUIT SLEEVES OR ENTER CABLES INTO A JUNCTION BOX INSTALLED ABOVE CEILING AND SPLICE ONTO WIRING INSTALLED IN CONDUIT DOWN INTO PANEL. IF LATTER METHOD IS USED, INSTALLATION MUST BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE AMPACITY TABLES NOTE 8(A). FOR THIS PURPOSE, #12 AWG TYPE THHN WIRE SHALL BE RATED AT NOT MORE THAN 25 AMPERES.

   ALL EXPOSED WIRING, PANEL FEEDERS, HVAC EQUIPMENT FEEDERS, ETC. SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT). NO EXPOSED NON-METTALIC CABLE SHALL BE PERMITTED. ALL WIRE SHALL BE COPPER REGARDLESS OF WIRING METHOD.

3. WIRING IN EARTH OR CONCRETE SHALL BE INSTALLED IN GRC CONDUIT, IMC CONDUIT OR PVC CONDUIT (SCHEDULE 40). EACH CONDUIT RUNNING OUT TO OR THRU THE GAS CANOPY OR TANKS AREA SHALL BE GRC FOR THE ENTIRE RUN OF CONDUIT. WHERE PVC CONDUIT IS USED, AN ADDITIONAL GROUND WIRE SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. THERE SHALL BE NO EXPOSED PVC CONDUITS. ALL STUB UPS, EXTENSIONS ABOVE GRADE, ETC. SHALL BE IN METAL RACEWAY. USE GRC CONDUIT, IMC CONDUIT OR EMT. (THERE SHALL BE NO EMT INSTALLED IN CONTACT WITH EARTH OR CONCRETE.)

   ALL UNDERGROUND CABLE SHALL BE INSTALLED IN RACEWAY. NO DIRECT BURIAL CABLE OF ANY KIND SHALL BE USED UNLESS SPECIFICALLY NOTED.

   ALL UNDERGROUND WIRING SHALL BE INSTALLED AT DEPTHS AS PRESCRIBED BY THE NATIONAL ELECTRICAL CODE. WHERE REQUIRED BY THE N.E.C., INSTALL A CONCRETE ENVELOPE AROUND CONDUITS.

   FOR UNDERGROUND WIRING IN EXCESS OF 600 VOLTS, A CONTINUOUS WARNING RIBBON SHALL BE INSTALLED 24" ABOVE CONDUITS STATING "CAUTION BURIED HIGH VOLTAGE LINE BELOW". RIBBON SHALL BE DETECTABLE TYPE AND SHALL BE LEM PRODUCTS #DET-609 OR EQUAL.

   ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING OF FINISHED SURFACES. EXCAVATION, CONCRETE ENVELOPES. TAMPING, BACKFIELD. ETC. REQUIRED FOR INSTALLATION OF UNDERGROUND WIRING.

   IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO DETERMINE THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, FACILITIES, ETC. PRIOR TO STARTING ANY EXCAVATION. ELECTRICAL CONTRACTOR SHALL HAVE TOTAL RESPONSIBILITY FOR ANY DAMAGE DONE TO ANY EXISTING UNDERGROUND UTILITIES OR OTHER FACILITIES BY HIS WORK.

   COLORS AND FINISHES OF ALL SWITCHES. RECEPTACLES, DIMMERS. COVER PLATES, ETC. WILL BE SELECTED BY ARCHITECT. VERIFY ALL SUCH COLORS AND FINISHES PRIOR TO INSTALLING ANY WIRING DEVICES.

4. SWITCHES AND RECEPTACLES SHALL BE SPECIFICATION GRADE (NOT "COMPETITIVE GRADE"). ALL WIRING DEVICES SHALL BE RATED AT 20 AMPS AT THE VOLTAGE AT WHICH THEY WILL BE USED. WIRING DEVICES SHALL UTILIZE CLAMP TYPE TERMINALS; BACK WIRED "PRESSURE TYPE" INSERT TERMINALS ARE NOT ACCEPTABLE. SINGLE POLE SWITCHES SHALL BE HUBBELL #1221 SERIES (OR EQUAL), 3 WAY SWITCHES SHALL BE HUBBELL #1223SERIES (OR EQUAL). FOUR WAY SWITCHES SHALL BE HUBBELL # 1224 SERIES (OR EQUAL). DUPLEX RECEPTACLES SHALL BE HUBBELL #5362 SERIES (OR EQUAL). DIMMERS SHALL BE AS SPECIFIED ON DRAWINGS.

   WHERE SWITCHES AND DIMMERS ARE SHOWN ADJACENT TO EACH OTHER, DO NOT INSTALL IN COMMON "GANG BOXES". SWITCHES MAY BE IN COMMON BOXES AND DIMMERS MAY BE IN COMMON BOXES, HOWEVER. IF SWITCHES AND DIMMERS ARE INSTALLED IN SAME COMMON BOX, COVER PLATES WILL NOT ALIGN PROPERLY. ALLOW 1" SPACE BETWEEN SWITCH BOXES AND DIMMER BOXES.

   CAUTION: USE SEPARATE NEUTRALS FOR EACH DIMMER CIRCUIT. USE OF A COMMON NEUTRAL MAY CAUSE DIMMERS TO MALFUNCTION

   WHERE SWITCHES ARE SHOWN GANGED TOGETHER, LOCATIONS ARE DIAGRAMMATIC ONLY. ARRANGE SWITCHES IN ROWS AS FIELD CONDITIONS DICTATE.

5. ALL WIRING FOR THIS PROJECT SHALL BE COPPER. EACH CONDUIT RUNNING OUT TO OR THRU/UNDER THE GAS CANOPY OR TANKS AREA SHALL BE GRC FOR THE ENTIRE RUN OF CONDUIT.

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PROJECT NAME: W50FB-VA 2018.01-MA
STORE #8658-SUD
10691 DAVIDSON PLACE
MANASSAS, VA 20109

SHEET TITLE: ELECTRICAL SINGLE LINE DIAGRAM

Revision Schedule		
No.	Description	Date
	PERMIT SET	01/04/2019
1	PERMIT COMMENTS	03/15/2019
	BID SET	06/27/2019

PROJECT NO. 2170584
DATE 01/04/2019
DRAWN MLB
CHECKED JPM

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