PANEL SCHEDULE

PANEL NUMBER: LP
LOCATION: STOCKROOM

DIRECTORY	CKT.NO	AMPS/POLES	kW	A	B	C	kW	AMPS/POLES	CKT.NO	DIRECTORY
LTG, TOILETS / EF-1	1	20/1	0.20	•			0.30	20/1	2	EXIT SIGNS / NITE LIGHTS / EMG. LIGHTS*
LTG, SALES / INVERTER (LVL 1)	3	20/1	0.65		•		1.30	20/1	4	LTG, SALES AREA (LVL 2)
LTG, SALES AREA (LVL 4)	5	20/1	0.36			•	1.15	20/1	6	LTG, SALES AREA (LVL 2)
LTG, STOCKROOM (LVL 5)	7	20/1	0.36	•			0.00	20/1	8	SPARE
LGT, SALES AREA (LVL1)	9	20/1	1.19		•		0.00	20/1	10	SPARE
SPARE	11	20/1	0.00			•	0.00	20/1	12	SPARE
SPARE	13	20/1	0.00	•			0.00	20/1	14	SPARE
SPARE	15	20/1	0.00		•		0.00	20/1	16	SPARE
SPARE	17	20/1	0.00			•	0.00	20/1	18	SPARE
RTU-1 (HACR)	19		10.30	•			0.00	20/1	20	SPARE
	21	110/3	10.30		•		0.00	20/1	22	SPARE
	23		10.30			•	0.00	20/1	24	SPARE
RTU-2 (HACR)	25		10.30	•			9.71		26	RTU-4 (HACR)
	27	110/3	10.30		•		9.71	110/3	28	
	29		10.30			•	9.71		30	
RTU-3 (HACR)	31		10.30	•			7.78		32	PANEL 'CF'
	33	110/3	10.30		•		5.96	100/3	34	
	35		10.30			•	7.06		36	
* ENERGY MANAGEMENT SYSTEM (E.M.S.)	37		0.10	•			5.88		38	PANEL 'RP'
	39	20/3	0.10		•		5.98	100/3	40	
	41		0.10			•	8.42		42	

MAIN BREAKER:	600A	kW PHASE "A"	55.23
MAIN BUS:	600A	kW PHASE "B"	55.79
VOLTAGE:	208Y120	kW PHASE "C"	57.70
AIC:	22,000	TOTAL kW	168.72
MOUNTING:	SURFACE		

NOTES:
R = RECEPTACLE LOAD
PANEL AND CIRCUIT BREAKERS ARE PROVIDED BY TENANT FOR TENANT CONTRACTOR'S INSTALLATION.

LOAD SUMMARY	Connected kW	Demand Factor	Demand kW
LIGHTING	6.72	1.25	8.40
HVAC	121.83	1.00	121.83
RECEPTACLES	16.18	1.00	16.18
WATER HEATER	2.00	1.00	2.00
COOLER/FREEZER	20.80	1.00	20.80
	167.53		169.21

*PROVIDE CIRCUIT BREAKER WITH A MEANS OF BEING LOCKED

PANEL SCHEDULE

PANEL NUMBER: RP
LOCATION: STOCKROOM

DIRECTORY	CKT.NO	AMPS/POLES	kW	A	B	C	kW	AMPS/POLES	CKT.NO	DIRECTORY
*R - REGISTER (ISOLATED)	1	20/1	0.36	•			0.72	20/1	2	R - SALES AREA
R - REGISTER	3	20/1	0.36		•		0.72	20/1	4	R - SALES AREA
R - REGISTER	5	20/1	0.36			•	0.90	20/1	6	R - SALES AREA / HALLWAY
*R - REGISTER (ISOLATED)	7	20/1	0.36	•			0.90	20/1	8	R - STOCKROOM
R - REGISTER	9	20/1	0.36		•		0.36	20/1	10	QUAD @ TELEPHONE BACKBOARD *
*R - REGISTER (ISOLATED)	11	20/1	0.36			•	0.18	20/1	12	R - OFFICE (ISOLATED)*
SPARE	13	20/1	0.00	•			0.54	20/1	14	R - STOREFRONT
SPARE	15	20/1	0.00		•		0.72	20/1	16	R - ON ROOF
PLUGMOLD IN OFFICE	17	20/1	0.54			•	1.20	20/1	18	*HAND DRYER - MEN'S TOILET
PLUGMOLD IN OFFICE	19	20/1	0.54	•			1.20	20/1	20	*HAND DRYER - WOMEN'S TOILET
R - EMPLOYEE BREAK	21	20/1	1.50		•		0.20	20/1	22	CHIME TRANSFORMER
R - EMPLOYEE BREAK	23	20/1	1.50			•	0.18	20/1	24	R - OFFICE (ISOLATED)*
EMPLOYEE DESK AREA	25	20/1	0.90	•			0.36	20/1	26	R - OFFICE (ISOLATED)*
* ENERGY MANAGEMENT SYSTEM (E.M.S.)	27	20/1	0.20		•		0.36	20/1	28	R - SECURITY SYSTEM*
SPARE	29	20/1	0.00			•	2.00	30/1	30	WATER HEATER*
SPARE	31	20/1	0.00	•			0.00	20/1	32	SPARE
SPARE	33	20/1	0.00		•		0.00	20/1	34	SPARE
SPARE	35	20/1	0.00			•	0.00	20/1	36	SPARE
SPARE	37	20/1	0.00	•			0.00	20/1	38	SPARE
SPARE	39	20/1	0.00		•		1.20	20/1	40	SIGNAGE (LVL 3)
SPARE	41	20/1	0.00			•	1.20	20/1	42	PYLON SIGN ON SITE

MAIN BREAKER:	M.L.O.	kW PHASE "A"	5.88
MAIN BUS:	100A	kW PHASE "B"	5.98
VOLTAGE:	208Y120	kW PHASE "C"	8.42
AIC:	22,000	TOTAL kW	20.28
MOUNTING:	SURFACE		

NOTES:
R = RECEPTACLE LOAD
PANEL AND CIRCUIT BREAKERS ARE PROVIDED BY TENANT FOR TENANT CONTRACTOR'S INSTALLATION.

LOAD SUMMARY	Connected kW	Demand Factor	Demand kW
LIGHTING	2.40	1.25	3.00
HVAC	0.00	1.00	0.00
RECEPTACLES	15.88	1.00	15.88
WATER HEATER	2.00	1.00	2.00
COOLER/FREEZER	0.00	1.00	0.00
	20.28		20.88

*PROVIDE CIRCUIT BREAKER WITH A MEANS OF BEING LOCKED

ON EACH ELECTRICAL PANEL, CIRCUITS DENOTED WITH "(LVL#)" ARE CONTROLLED VIA LIGHTING CONTROL PANEL LCP WHICH IS PART OF THE E.M.S. (ENERGY MANAGEMENT SYSTEM). PER THE FOLLOWING, THE "LVL#" INDICATES THE CONTACTOR(S) THAT WILL SWITCH THE ASSOCIATED CIRCUI

PANEL SCHEDULE

PANEL NUMBER: CF
LOCATION: STOCKROOM

DIRECTORY	CKT.NO	AMPS/POLES	kW	A	B	C	kW	AMPS/POLES	CKT.NO	DIRECTORY
REACH-IN COOLER (C1)	1	15/2	0.90	•			0.00	20/1	2	SPARE
	3		0.90		•		0.00	20/1	4	SPARE
WALK-IN COOLER (C2)	5	20/1	1.36			•	0.00	20/1	6	SPARE
REACH-IN FREEZER (F1)	7	25/2	2.27	•			0.00	20/1	8	SPARE
	9		2.27		•		0.00	20/1	10	SPARE
REACH-IN FREEZER (F2)	11	40/2	2.91			•	0.00	20/1	12	SPARE
	13		2.91	•			0.00	20/1	14	SPARE
WALK-IN FREEZER (F3)	15	20/2	1.59		•		0.00	20/1	16	SPARE
	17		1.59			•	0.00	20/1	18	SPARE
COOLER/FREEZER LIGHTS (CF)	19	15/1	0.50	•			0.00	20/1	20	SPARE
SNACK ZONE COOLER	21	20/1	1.20		•		0.00	20/1	22	SPARE
SNACK ZONE COOLER	23	20/1	1.20			•	0.00	20/1	24	SPARE
SNACK ZONE ICE CREAM FREEZER	25	20/1	1.20	•			0.00	20/1	26	SPARE
SPARE	27	20/1	0.00		•		0.00	20/1	28	SPARE
SPARE	29	20/1	0.00			•	0.00	20/1	30	SPARE
SPARE	31	20/1	0.00	•			0.00	20/1	32	SPARE
SPARE	33	20/1	0.00		•		0.00	20/1	34	SPARE
SPARE	35	20/1	0.00			•	0.00	20/1	36	SPARE
SPARE	37	20/1	0.00	•			0.00	20/1	38	SPARE
SPARE	39	20/1	0.00		•		0.00	20/1	40	SPARE
SPARE	41	20/1	0.00			•	0.00	20/1	42	SPARE

MAIN BREAKER:	M.L.O.	kW PHASE "A"	7.78
MAIN BUS:	100A	kW PHASE "B"	5.96
VOLTAGE:	208Y120	kW PHASE "C"	7.06
AIC:	22,000	TOTAL kW	20.80
MOUNTING:	SURFACE		

NOTES:
R = RECEPTACLE LOAD
PANEL AND CIRCUIT BREAKERS ARE PROVIDED BY TENANT FOR TENANT CONTRACTOR'S INSTALLATION.

LOAD SUMMARY	Connected kW	Demand Factor	Demand kW
LIGHTING	0.00	1.25	0.00
HVAC	0.00	1.00	0.00
RECEPTACLES	0.00	1.00	0.00
WATER HEATER	0.00	1.00	0.00
COOLER/FREEZER	20.80	1.00	20.80
	20.80		20.80

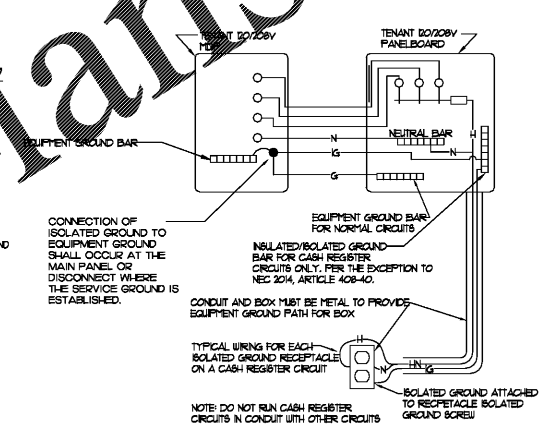
*PROVIDE CIRCUIT BREAKER WITH A MEANS OF BEING LOCKED

GENERAL NOTES:

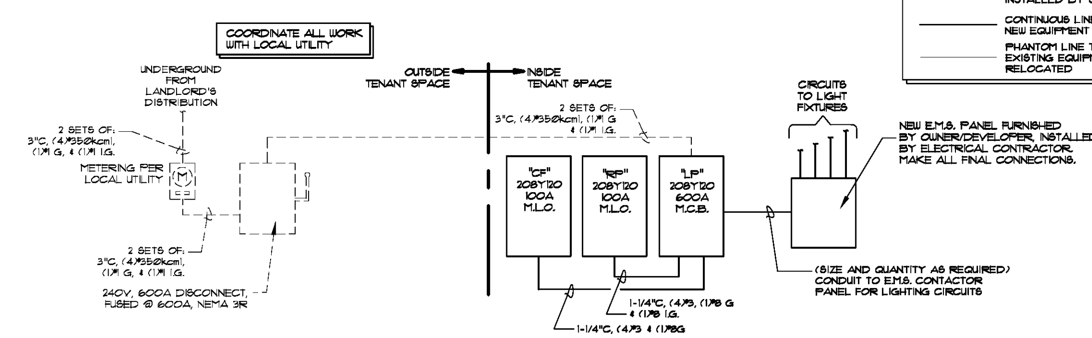
1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE. ALL ITEMS ARE ON AN OR EQUAL BASIS.
2. ALL SINGLE PHASE BRANCH CIRCUITS (RECEPTACLES, LIGHTING, ETC.) ARE 1/2" CONDUIT OR EMT WITH (3)#12 OR MC CABLE TO THE EXTENT ALLOWED BY NEC AND THE LOCAL AUTHORITIES. ALL CONDUCTORS TO BE THHN, 90°C WIRING. ALL OTHER CONDUIT AND WIRING SHALL BE AS INDICATED ON THE PLANS. ACTUAL ROUTING AND HOMERUN GROUPINGS ARE TO BE DETERMINED IN THE FIELD.
3. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC EXCEPT FOR DETAILS AND ELEVATIONS. DO NOT SCALE FROM DIAGRAMMATIC DRAWINGS. EXACT LOCATIONS OF DEVICES AND PANELS ARE TO BE DETERMINED AND ROUGHED-IN DURING CONSTRUCTION TO AVOID INTERFERENCE, TO MEET USER REQUIREMENTS, TO PROVIDE ADEQUATE MOUNTING, AND TO MEET NEC LINEAR ACCESS AND CLEARANCE REQUIREMENTS.
4. CIRCUIT BREAKER FOR WATER HEATERS TO BE PROVIDED WITH THE MEANS TO BE LOCKED IN THE OPEN POSITION.
5. VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
6. FINAL CONNECTIONS TO ALL AIR-HANDLERS, CONDENSING UNITS, EXHAUST FANS, AND OTHER EQUIPMENT DEVICES WHICH VIBRATE, SHALL BE MADE WITH FLEXIBLE SEALTITE AND APPROPRIATE WIRING.
7. THE GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE SIGN VENDOR FOR ANY ADDITIONAL EXTERIOR SIGNAGE AND THE ASSOCIATED ELECTRICAL REQUIREMENTS. AFTER THE ELECTRICAL DESIGN IS COMPLETE, IT MAY BE DETERMINED THAT CERTAIN SITES REQUIRE SIDE OR REAR SIGNAGE.
8. BACK TO BACK MOUNTING OF RECEPTACLES IS NOT PERMITTED.
9. IN ADDITION TO THE NEC REQUIREMENTS FOR GFCI RATED RECEPTACLES, THE FOLLOWING RECEPTACLES SHALL ALSO BE GFCI RATED: (1)-ALL RECEPTACLES LOCATED WITHIN 6 FEET OF A SINK. (2)-ALL RECEPTACLES WHICH ARE PROVIDED FOR CONVENIENCE IN SERVICING HVAC EQUIPMENT REGARDLESS OF LOCATION. EITHER INDIVIDUAL GFCI DEVICES OR GFCI CIRCUIT BREAKERS ARE ACCEPTABLE BUT RECEPTACLES PROVIDED BY CIRCUIT BREAKERS OR OTHER GFCI DEVICES SHALL BE CLEARLY MARKED AS GFCI AND THE SOURCE OF PROTECTION SHOWN.
10. PROVIDE A LAMICOID NAMEPLATE (WHITE LETTERS ON BLACK BACKGROUND) ON EACH PANELBOARD, MOTOR STARTER, CONTRACTOR, TRANSFORMER, DISCONNECT SWITCH, ETC. LETTERS SHALL BE 0.75 INCH MINIMUM.
11. CIRCUIT BREAKERS FOR HVAC EQUIPMENT SHALL BE HACR RATED.
12. MINIMUM HORIZONTAL SEPARATION BETWEEN BOXES ON OPPOSITE WALLS OF FIRE RATED WALL SHALL BE 24 INCHES.
13. VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL BEFORE ROUGHING IN LIGHT SWITCHES.
14. TRADE NAMES ARE GIVEN TO CLARIFY TYPE OF PRODUCT AND QUALITY DESIRED.
15. CONTRACTOR SHALL CUT AS REQUIRED TO INSTALL ELECTRICAL EQUIPMENT. REPAIR OF FLOOR OR WALLS SHALL BE COORDINATED WITH GENERAL CONTRACTOR. CONTRACTOR SHALL ALSO REPAIR ALL OPENINGS LEFT DUE TO EQUIPMENT REMOVAL.
16. CONDUCTORS ARE AWG#12 COPPER UNLESS OTHERWISE SHOWN. ALL CONDUCTORS LARGER THAN #10 SHALL BE STRANDED. RUNS IN EXCESS OF 90'-0" (ONE WAY) SHALL BE SIZED PER THE NATIONAL ELECTRICAL CODE MAXIMUM 2% VOLTAGE DROP.
17. PANELBOARDS SHALL CONTAIN A TYPEWRITTEN DIRECTORY WITH A PLASTIC COVER AFFIXED TO THE INSIDE DOOR.
18. ALL FIXTURES, DEVICES, CONDUIT, AND EQUIPMENT SHALL BE SECURED WITH APPROVED HANGERS AND ANCHORS AND IN ACCORDANCE WITH APPROVED STANDARDS OF INSTALLATION.
19. ALL BREAKERS SHOWN IN THE PANELBOARD SCHEDULE SHALL BE RATED AS SHOWN FOR BOTH CIRCUIT CAPACITY AND FAULT CURRENT INTERRUPTING CAPACITY.
20. CONDUIT FOR TELEPHONE OUTLETS TO BE 3/4" EMT. PROVIDE PULL STRING TO TELEPHONE BACKBOARD VIA CONDUITS AND CABLE TRAY WHERE FEASIBLE.
21. ALL PANELBOARDS, DISCONNECT SWITCHES, MOTOR STARTERS, AND CONTACTORS SHALL BE NEMA 1, UNLESS OTHERWISE NOTED.
22. IN ACCORDANCE WITH ARTICLE 250.50 NEC, BOND GROUNDING ELECTRODE SYSTEM TO ALL OF THE FOLLOWING IF AVAILABLE:
(1) - BUILDING STEEL
(2) - FOUNDATION REBAR
(3) - BUILDING COUNTERPOISE
(4) - UNDERGROUND METAL COLD WATER PIPE

CASH REGISTER GROUNDING DIAGRAM NOTES

1. CASH REGISTER AND COMPUTER WIRING:
FURNISH AND INSTALL AN INSULATED, ISOLATED GROUND BAR IN PANEL. INSTALL AN INSULATED "ISOLATED" GROUND WIRE IN EACH BRANCH CIRCUIT 'HOMERUN' TO PANELBOARD. CONNECT GROUND WIRE FOR CASH REGISTER AND COMPUTER CIRCUITS TO ISOLATED GROUND BAR IN PANELBOARD AND DIRECTLY TO ISOLATED GROUND LUG/SCREW ON ISOLATED GROUND RECEPTACLES.
DO NOT CONNECT "ISOLATED" GROUND WIRE TO RACEWAY OR BOX. CONDUIT AND BOX SHALL BE METAL AND METAL-TO-METAL CONNECTORS SHALL BE USED (NO FLEX CONDUIT) TO ESTABLISH GROUND PATH FOR BOX AND RACEWAY. DO NOT RUN ANY CIRCUITS WITH CASH REGISTER OR COMPUTER (IG) CIRCUITS.
CASH REGISTER DATA SYSTEM CABLE SHALL BE FURNISHED AND INSTALLED BY OTHERS. FURNISH AND INSTALL JUNCTION BOX IN OFFICE AND 2" CONDUIT WITH PULL WIRE TO SALES AREA CEILING CAVITY.



1/E-3 CASH REGISTER GROUNDING DIAGRAM
SCALE: NONE



2/E-3 RISER DIAGRAM
SCALE: NONE

RISER LEGEND

- DASH DOT LINE TYPE INDICATES EXISTING EQUIPMENT TO REMAIN
- HIDDEN LINE TYPE INDICATES EQUIPMENT FURNISHED AND INSTALLED BY OWNER/DEVELOPER
- CONTINUOUS LINE TYPE INDICATES NEW EQUIPMENT TO BE INSTALLED
- PHANTOM LINE TYPE INDICATES EXISTING EQUIPMENT TO BE RELOCATED

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mark	date	by	description

revisions

date	12/21/2018
project	612218
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FORMER HARVEY'S
FORT VALLEY, GEORGIA

drawing: SCHEDULES, NOTES, & DETAILS

sheet: **E-3**