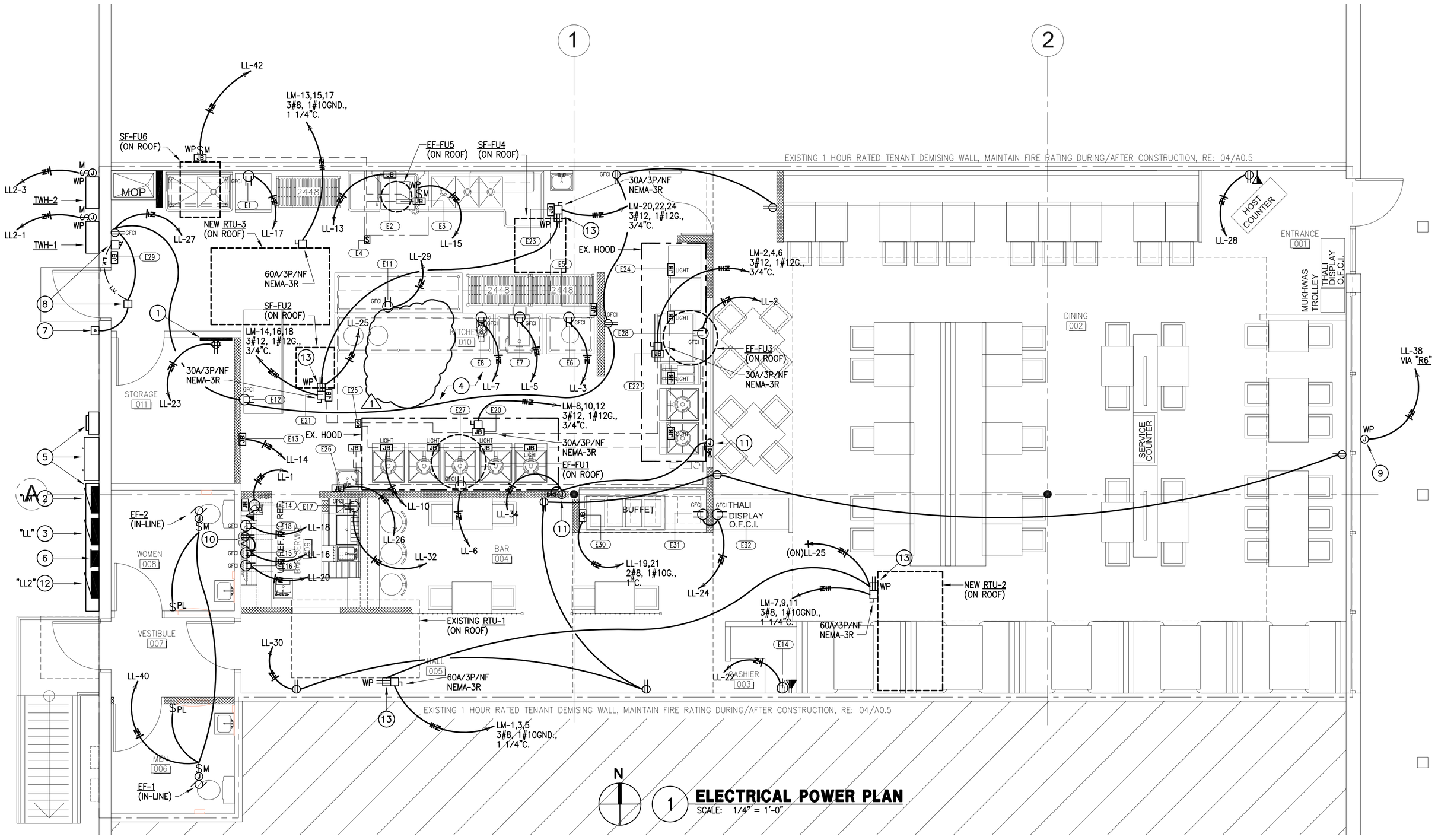


1 **ELECTRICAL POWER PLAN**
SCALE: 1/4" = 1'-0"

ELECTRICAL GENERAL NOTES:

(FOR SHEET E2.1)

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL OUTLETS.
2. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
3. NO MORE THAN THREE SINGLE PHASE CIRCUITS AND NO MORE THAN SIX CURRENT CARRYING CONDUCTORS SHALL BE INSTALLED IN A SINGLE RACEWAY. WHEN FOUR, FIVE, OR SIX CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY, THEIR CURRENT CARRYING AMPACITIES SHALL BE DERATED AS REQUIRED BY THE NEC FOR NON-DIVERSIFIED LOADS. THE INSTALLED WIRE SIZE SHALL HAVE A NOMINAL AMPACITY RATING OF 125% OF THAT REQUIRED OR SPECIFIED WHEN FOUR OR MORE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY. NEUTRAL CONDUCTORS SHALL BE CONSIDERED A CURRENT CARRYING CONDUCTOR IN ALL NON-LINEAR LOADED CIRCUITS AS REQUIRED BY THE NEC.
4. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
5. ALL RECEPTACLE, AND EQUIPMENT BRANCH CIRCUIT CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
6. ELECTRICIAN OF RECORD, & BONDED PER DIVISION 0-"CONTRACT" SPECIFICATIONS, AND BE FAMILIAR & EXPERIENCED WITH SUCH WORK INDICATED HEREIN, & QUALIFIED BY MOST RECENT OSHA CERTIFICATION TO WORK ON ENERGIZED EQUIPMENT. REFER TO & COMPLY WITH OSHA 29CFR.1910 & 1926 ELECTRICAL SAFETY PORTIONS. CONSTRUCTION METHOD AND MEANS AND THEIR REQUIREMENTS. CONTRACTOR SHALL PROVIDE WORK WITHIN STANDARD OF CARE FOR PROFESSION.
7. MOUNT ALL RECEPTACLES AT +18" A.F.F. UNLESS OTHERWISE NOTED.
8. REFER TO SHEET E4.1 FOR SYMBOL LEGEND.
9. ALL ELECTRICAL WORK INCLUDED IN THIS PROJECT SHALL MEET THE REQUIREMENTS OF THE 2008 NATIONAL ELECTRICAL CODE (N.E.C.).
10. TEMPORARY POWER & HEAT ARE PROVIDED BY OTHERS.

ELECTRICAL KEYED NOTES:

(FOR SHEET E2.1)

1. 2' x 4' x 3/4" THICK PLYWOOD TELEPHONE BACKBOARD. EXTEND (1) 2"C. FROM BUILDING TELEPHONE NETWORK DEMARCATION POINT. FIELD VERIFY EXACT LOCATION OF TELEPHONE COMPANY CABINET. TENANT OR HIS/HER TELEPHONE VENDOR IS RESPONSIBLE FOR ALL WIRING ASSOCIATED WITH TELEPHONE/DATA SYSTEMS.
2. 120/240V., 3ø, 4W PANELBOARD LM. REFER TO SHEET E3.1 FOR PANEL SCHEDULE INFORMATION.
3. 120/240V., 1ø, 3W PANELBOARD LL. REFER TO SHEET E3.1 FOR PANEL SCHEDULE INFORMATION.
4. ALL 15A/1P AND 20A/1P RECEPTACLES WITHIN KITCHEN AND SERVING AREAS SHALL BE GFCI PROTECTED PER NEC.
5. NEW TENANT METER, C.T., & SERVICE GUTTER. REFER TO RISER DIAGRAM ON SHEET E3.1 FOR MORE INFORMATION.
6. PROVIDE LEVITON #R08BD-108 Z-MAX RELAY CABINET. REFER TO DETAIL #2 ON SHEET E1.1 FOR MORE INFORMATION.
7. PROVIDE EDWARDS LOW VOLTAGE WP PUSH BUTTON #603-L MOUNTED AT +48" A.F.G.
8. PROVIDE EDWARDS ADAPTABUZZER "340A SERIES" WITH 24V LOW VOLTAGE TRANSFORMER.
9. FILED VERIFY EXACT LOCATION AND ACCESS FOR TENANT SIGNAGE.
10. MOUNTED AT +84" FOR TELEVISION.
11. JUNCTION BOX FOR GAS SOLENOID VALVE SHUT-OFF. VERIFY EXACT LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
12. 120/240V., 1ø, 3W PANELBOARD LL2. REFER TO SHEET E3.1 FOR PANEL SCHEDULE INFORMATION.
13. ROOF MOUNTED WEATHERPROOF SERVICE RECEPTACLE.

EXISTING SERVICES NOTE

THIS IS AN EXISTING RESTAURANT TO BE REMODELLED TO OWNER SPECIFICATIONS. IT IS THE OWNER'S INTENT TO REUSE EXISTING UTILITIES WHEREVER POSSIBLE. SOME NEW UTILITIES WILL BE REQUIRED. CONNECTIONS INFORMATION IS AS NEEDED FOR EQUIPMENT TO BE SUPPLIED BY THE KITCHEN EQUIPMENT CONTRACTOR AND/OR THE OWNER. PLEASE VERIFY THE LOCATIONS AND SUITABILITY OF THE EXISTING SERVICES ON SITE AND CONFIRM WITH THE OWNER THE ACTUAL EQUIPMENT TO BE SUPPLED. CORRECT AND CODE COMPLIANT CONNECTIONS AND NEW SERVICES REQUIRED ARE THE RESPONSIBILITY OF THE APPROPRIATE MECHANICAL CONTRACTOR.

ELECTRICAL ROUGH-IN SCHEDULE

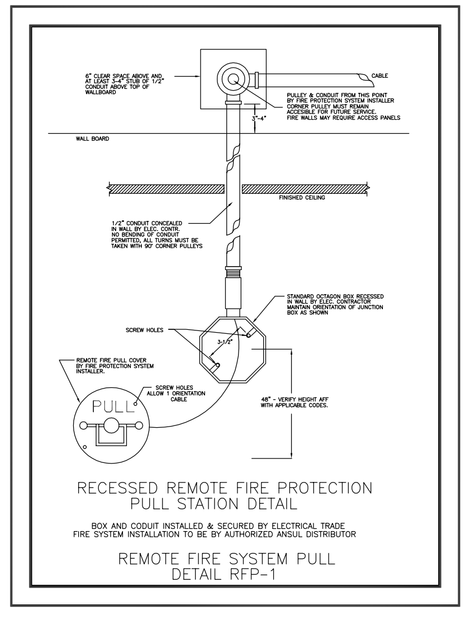
CONN NO	ITEM NO.	ITEM DESCRIPTION	VOLTAGE/PH	LOAD [S]	TYPE	LOCATION AFF	COMMENTS
E1	005	FREEZER	120/1	7.2 AMP	DR	12'	
E2	009	DISHWASHER	120/1	11.4 AMP	DR	12'	VERIFY WITH SUPPLIER
E3	010	DW HOOD - EXH FAN [FU5]	120/1	4.1 AMP	HW	ROOF	THRU SWITCH [E4], SEE SHEETS K-4x
E4	010	DW HOOD - FAN SWITCH		CONTROL	SW	DFA	HOOD MOUNTED, SUPPLIED AND INSTALLED BY EC
E5		SERVICE DROP	120/1	SEE BELOW	JB	12'	MULTIPLE CIRCUITS - SERVICES TO E6 THRU E11
E6	024	JUICER	120/1	6.0 AMP	DR	TABLE	SERVICE FROM [E5]
E7	022	GRINDER	120/1	8.4 AMP	DR	TABLE	SERVICE FROM [E5]
E8	020	PROCESSOR	120/1	7.0 AMP	DR	TABLE	SERVICE FROM [E5]
NOT USED							
NOT USED							
E11		CONVENIENCE OUTLET	120/1	SEE NOTES	DR	TABLE	SERVICE FROM [E5]
E12	025	REFRIGERATOR	120/1	12.1 AMP	DR	12'	
E13	026	ICE MACHINE	120/1	12.7 AMP	HW	72'	
E14	041	REGISTERS/POS TERMINALS	120/1	20 AMP	SR/JB	VERIFY	MULTIPLE LOCATIONS, DEDICATED IG, SEE NOTE
E15		CONVENIENCE OUTLET	120/1	SEE NOTES	DR	48'	
E16	036	REFRIGERATOR	120/1	7.0 AMP	DR	12'	
E17		OPEN NUMBER					
E18	036	REFRIGERATOR	120/1	7.0 AMP	DR	12'	
E19		OPEN NUMBER					
E20	027	HOOD - EXHAUST FAN- FU1	208/3	3.3 AMP	HW	ROOF	THRU [E25], SEE SHEETS K-4x
E21	027	HOOD - SUPPLY FAN -FU2	208/3	3.3 AMP	HW	ROOF	THRU [E25], SEE SHEETS K-4x
E22	027	HOOD - EXHAUST FAN- FU3	208/3	4.7 AMP	HW	ROOF	THRU [E25], SEE SHEETS K-4x
E23	027	HOOD - SUPPLY FAN -FU4	208/3	3.3 AMP	HW	ROOF	THRU [E25], SEE SHEETS K-4x
E24	027	HOODS - LIGHTS [8]	120/1	800 WATT	HW	120'	THRU [E25], SEE SHEETS K-4x
E25	027	HOODS - FANS/LIGHTS		CONTROL	HW	120'	MFGR SUPPLIED CNTRLS, HOOD MT., SEE K- 4x
E26	028	FIRE SUPPRESSION SYSTEM	120/1	CONTROL	HW	120'	SEE FIRE SYS NOTE, SHEETS K-4x
E27		CONVENIENCE OUTLET	120/1	SEE NOTES	DR	12'	SHUTOFF THRU [E26]
E28		CONVENIENCE OUTLET	120/1	SEE NOTES	DR	12'	SHUTOFF THRU [E26]
E29	028	FIRE SYS - REMOTE PULL		CABLE	JB	54'	SEE DETAIL, VERIFY LOCATION W/INSTALLER
E30	034	BAIN MARIE HOT WELLS	208/1	30.8 AMP	HW	12'	
E31		CONVENIENCE OUTLET	120/1	SEE NOTES	DR	12'	
E32		CONVENIENCE OUTLET	120/1	SEE NOTES	DR	42'	

FIRE SYSTEM NOTE

INSTALLATION OF THE FIRE PROTECTION SYSTEMS REQUIRES THAT ALL POWER TO UNDERHOOD APPLIANCES AND/OR CONVENIENCE SERVICE AUTOMATICALLY SHUTOFF IN EVENT OF SYSTEM ACTUATION. THE SYSTEMS ARE PROVIDED WITH A SWITCH FOR THIS PURPOSE. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS INCLUDING SHUNT BREAKERS, CONTACTORS, INTERCONNECTING WIRING ETC. TO INSURE PROPER SYSTEM OPERATIONS.

ELECTRICAL/MECHANICAL NOTES

1. ALL OUTLETS AND CONNECTIONS SHOWN RELATE TO FOODSERVICE FIXTURES AND EQUIPMENT ONLY. RECOMMENDED CONVENIENCE OUTLET LOCATIONS ARE SHOWN AND MAY BE GROUPED FOR LOADING PURPOSES BASED ON A NOMINAL LOAD OF 8 AMPS PER OUTLET. SEE ARCHITECTURAL/ENGINEERING PLANS FOR ADDITIONAL ELECTRICAL REQUIREMENTS.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ROUGH-IN AND FINAL CONNECTION TO THE FOODSERVICE EQUIPMENT, INCLUDING LABOR AND MATERIALS.
3. THE ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL THE FOLLOWING:
   A. ALL JUNCTION/HANDY BOXES, METAL CONDUIT, WIRING AS REQUIRED; CONVENIENCE OUTLETS WITH COVERS, SWITCHES, CONNECTORS, CONTROLS AND OTHER ACCESSORIES THAT ARE NOT AN INTREGAL PART OF THE FOODSERVICE EQUIPMENT AS REQUIRED TO MAKE FINAL CONNECTIONS TO THE FOODSERVICE EQUIPMENT FOR A COMPLETE AND FUNCTIONAL OPERATION MEETING ALL APPLICABLE CODES AND ORDINANCES.
   B. ALL PLUGS AND CORDS AS REQUIRED FOR THE FOODSERVICE EQUIPMENT OR AS NOTED ON SCHEDULE. ALL CORDS SHALL BE N.E.M.A. RATED AND U.L. APPROVED FOR MANUFACTURED AND/OR FABRICATED EQUIPMENT.
   C. SHUNT TRIP BREAKERS OR DISCONNECTS FOR THE FIRE PROTECTION SHUT OFF OF ALL UNDERHOOD EQUIPMENT AND/OR OUTLETS.
   D. DISCONNECTS AND OTHER DEVICES AS REQUIRED BY LOCAL AND ESTABLISHED CODES.
   E. WALL SWITCH FOR HOOD LIGHTS WIRED THROUGH THE EXHAUST AND SUPPLY FAN(S) STARTERS.
   F. ALL REQUIRED STARTERS AND/OR CONTROLS FOR THE KITCHEN EXHAUST AND SUPPLY FAN(S).
   G. EXTERIOR SERVICE AS REQUIRED, INCLUDING DISCONNECTS, FOR THE VENTILATION EQUIPMENT AND COOLER AND FREEZER , AND ICE MACHINE CONDENSING UNITS AS WELL AS NEEDED CONTROL WIRING BETWEEN INTERNAL AND EXTERNAL COMPONENTS.
   H. DEDICATED ISOLATED GROUND CIRCUITS AND INTERCONNECTED WIRING AND BOXES IN LOCATIONS AS NEEDED FOR THE REGISTER AND PRINTER POINT-OF-SALE SYSTEMS AS FURNISHED BY THE OWNER. CONFIRM SYSTEM REQUIREMENTS WITH THE SUPPLIER.
4. DIMENSIONS SHOWN ARE FROM FINISHED FLOOR AND FINISHED WALL TO THE CENTERLINE OF OUTLET.
5. RECEPTACLE SHALL BE MOUNTED VERTICALLY UNLESS OTHERWISE SPECIFIED.
6. WHEN APPLICABLE, THE ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND WIRING, INSTALL ELECTRICAL COMPONENTS (AS PROVIDED BY K.E.C.) AND INTERWIRE BETWEEN THE FOLLOWING:
   A. CONTROL PANELS TO WATER TYPE VENTILATORS AND EXHAUST/SUPPLY FANS PER MANUFACTURER INSTRUCTIONS.
   B. KITCHEN EXHAUST SYSTEM TO FIRE CONTROL SYSTEM AND SHUT-OFFS.
   C. DISPOSER CONTROL TO TIME DELAY/RELAY, MAGNETIC STARTER, MOTOR, AND SOLENOID VALVE.
   D. LOW TEMPERATURE COMPRESSORS AND COOLER/FREEZER COILS FOR FAN MOTORS AND DEFROST ELEMENT POWER SOURCE.
7. DIMENSIONS SHOWN ARE TO BE VERIFIED BY CONTRACTOR AND ADJUSTED AS REQUIRED BY FOODSERVICE EQUIPMENT AND/OR FIELD CONDITONS.
8. REFER TO ARCHITECTURAL/ENGINEERING DRAWINGS FOR CLOCKS, TIME CLOCKS, AND COMMUNICATIONS SYSTEMS WITHIN THE FOODSERVICE AREAS.
9. VERIFY ALL ELECTRICAL CHARACTERISTICS SHOWN WITH THE ARCHITECTURAL ENGINEERING DRAWINGS.
10. THE OWNER OR FOOD PURVEYOR WILL SUPPLY SOME OF THE EQUIPMENT SHOWN. THE ELECTRICAL CONTRACTOR SHALL CONFIRM ALL EQUIPMENT TO BE SUPPLIED WITH THE KITCHEN EQUIPMENT CONTRACTOR, THE OWNER, OR OTHER SOURCE AND SHALL BE RESPONSIBLE FOR ANY SERVICE MODIFICATIONS REQUIRED.
11. ALL WORK TO BE DONE IN COMPLIANCE WITH ESTABLISHED NATIONAL, STATE, AND CITY CODES, AS APPLICABLE.



RECESSED REMOTE FIRE PROTECTION PULL STATION DETAIL

BOX AND CODUIT INSTALLED & SECURED BY ELECTRICAL TRADE
FIRE SYSTEM INSTALLATION TO BE BY AUTHORIZED ANSUL DISTRIBUTOR

REMOTE FIRE SYSTEM PULL DETAIL RFP-1

KEY

SYMBOLS

- DUPLEX RECEPTACLE - 120V
- SINGLE RECEPTACLE
- JB JUNCTION BOX - HARD WIRED
- S SWITCH

ABBREVIATIONS

VOLT	- VOLTAGE
PH	- PHASE
HW	- HARD WIRE
JB	- JUNCTION BOX
DR	- DUPLEX RECEPTACLE
SR	- SINGLE RECEPTACLE
AFF	- ABOVE FINISHED FLOOR
DFA	- DROP FROM ABOVE
EC	- ELECTRICAL CONTRACTOR
KEC	- KITCHEN EQUIPMENT CONTRACTOR
GC	- GENERAL CONTRACTOR

RANDY J. HOLSTE 95561 REGISTERED PROFESSIONAL ENGINEER ELECTRICAL
02/23/12

ISSUE	
01/25/12	ISSUED FOR PERMIT
02/16/12	ISSUE FOR BID
02/23/12	1 CITY COMMENTS

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SHEET NAME

ELECTRICAL POWER PLAN

SHEET NUMBER

E2.1