

August 28, 2026

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Fargo, ND 58102

RE: Jimmy Johns
Devils Lake, ND
Addendum No. 1 – Electrical Items
MBN Project No. 26-155

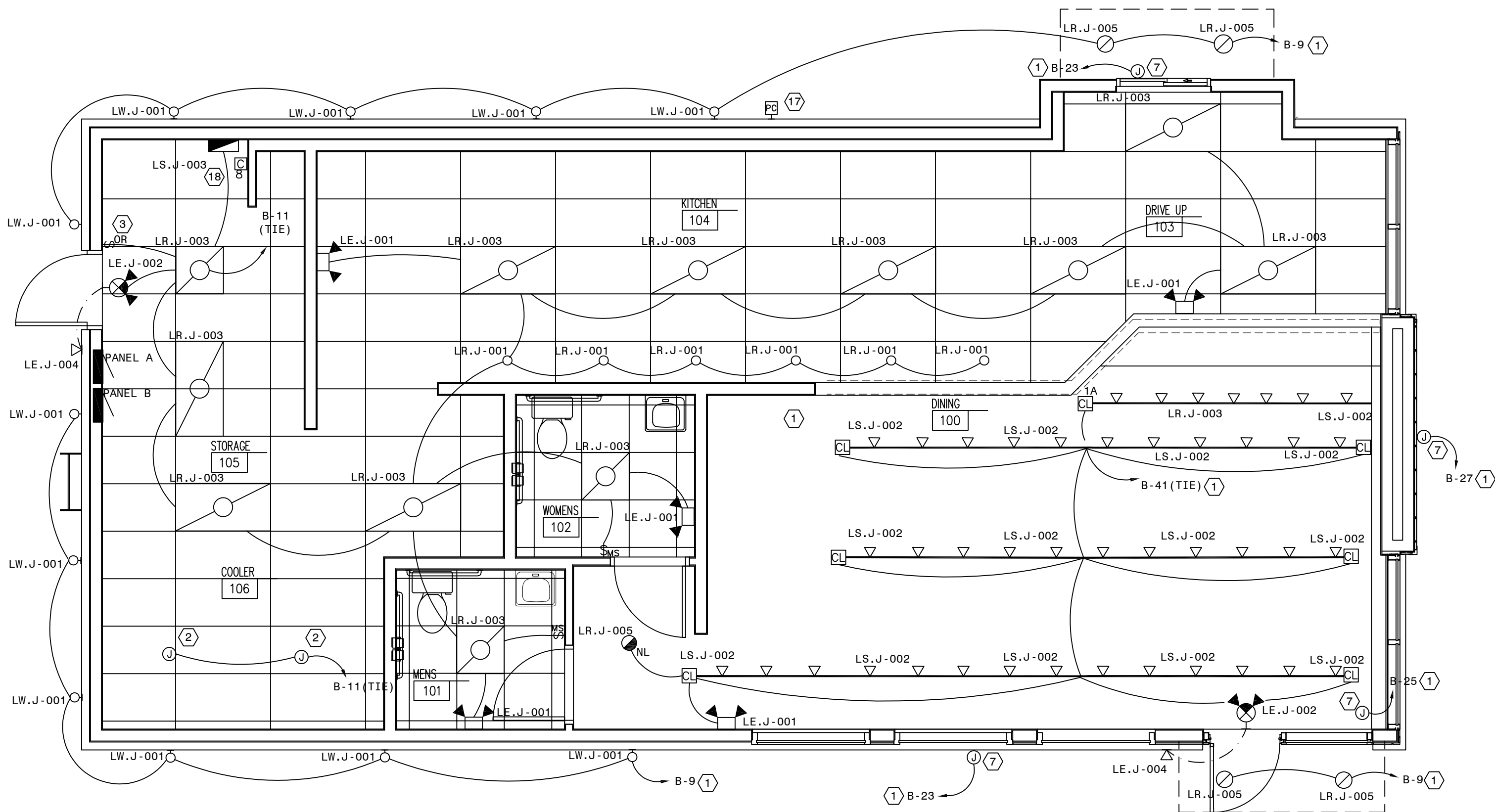
Terry

Please include the following items in the next addendum issued for the project:

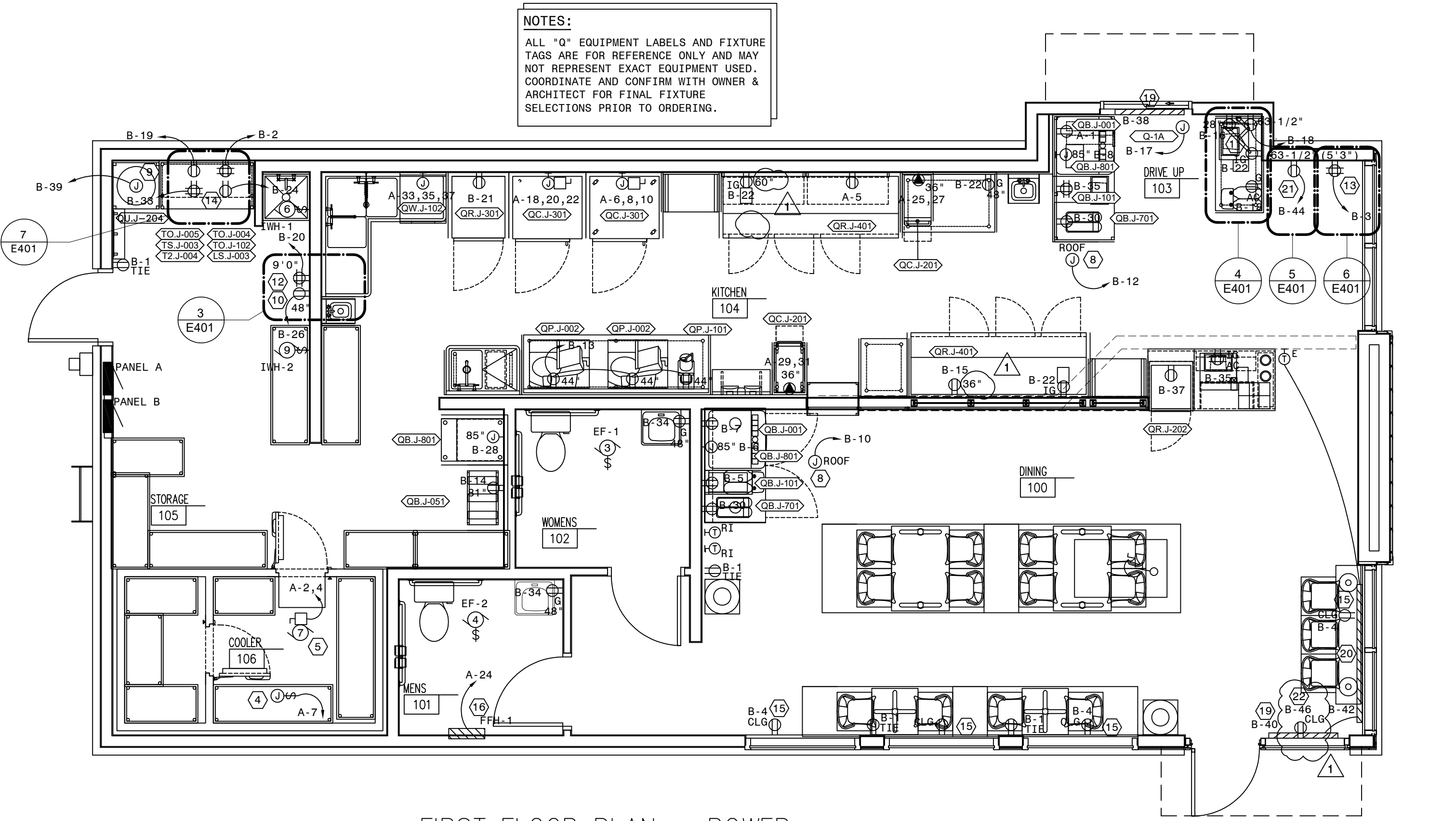
Changes to the Drawings:

E201 First Floor Plan - Power: See the attached revised sheet with clouded changes.
E501 Electrical Schedules & Details - See the attached revised sheet with clouded changes.

Prabha Kavasseri
MBN Engineering



FIRST FLOOR PLAN - LIGHTING
SCALE: 1/4"=1'-0"



FIRST FLOOR PLAN - POWER
SCALE: 1/4"=1'-0"

KEY NOTES

- WIRE CIRCUIT THRU TIME CLOCK "LS.J-003" AND CONTACTOR. PROVIDE SEPARATE RELAYS WHERE MULTIPLE AREAS ARE INDICATED TO UTILIZE THE SAME BRANCH CIRCUIT INDICATED WITH (TIE). WIRE EMERGENCY/ EXIT / LOCALLY CONTROLLED AREAS AHEAD OF CONTROL.
- JUNCTION BOX FOR COOLER AND FREEZER LIGHT CONNECTION. CONTRACTOR MUST FIELD VERIFY CONNECTION REQUIREMENTS. FIXTURE IS PROVIDED WITH COOLER/FREEZER AND WIRED BY ELECTRICAL CONTRACTOR.
- PROVIDE OVERRIDE SWITCH FOR SWITCHING LIGHTS OFF HOURS.
- DISCONNECT FOR COOLER EVAPORATOR FAN CONNECTION. COORDINATE EXACT LOCATION WITH EQUIPMENT INSTALLATION.
- DISCONNECT FOR FREEZER EVAPORATOR FAN CONNECTION. COORDINATE EXACT LOCATION WITH EQUIPMENT INSTALLATION.
- DISCONNECT FOR COOLER/FREEZER CONDENSER ON ROOF. COORDINATE EXACT LOCATION WITH EQUIPMENT INSTALLATION.
- JUNCTION BOX FOR ELECTRICAL CONNECTION TO BUILDING SIGNAGE. BRANCH PANEL CIRCUIT BREAKER WITH LOCKABLE CLIP SHALL SERVE AS DISCONNECTING MEANS FOR BUILDING SIGNAGE PER NEC ARTICLE 600.6(A)(3)(3). COORDINATE EXACT LOCATION WITH SIGNAGE PACKAGE AND CONNECT FOR OPERATION.
- ELECTRICAL CONNECTION TO REMOTE ICE CHILLER ON ROOF. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT VENDOR PRIOR TO ROUGH IN AND CONNECT FOR OPERATION.
- ELECTRICAL CONNECTION TO CO2 TANK AND MONITORING SYSTEM. COORDINATE EXACT REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- ELECTRICAL CONNECTION FOR IRRIGATION CONTROLLER. COORDINATE EXACT REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- ELECTRICAL CONNECTIONS FOR DRIVE THRU TIMER. SEE DETAIL 4/E401 FOR DEVICE LAYOUT. COORDINATE EXACT LOCATION AND REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- ELECTRICAL CONNECTIONS FOR COMMUNICATIONS PANEL. SEE DETAIL 3/E401 FOR DEVICE LAYOUT. COORDINATE EXACT LOCATION / REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- ELECTRICAL CONNECTIONS FOR PHONE BANK. SEE DETAIL 6/E401 FOR DEVICE LAYOUT. COORDINATE EXACT REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- ELECTRICAL CONNECTION FOR NETWORK CABINET. SEE DETAIL 7/E401 FOR DEVICE LAYOUT. COORDINATE EXACT REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- PROVIDE SHOW WINDOW DUPLEX RECEPTACLE AT NO MORE THAN 18" ABOVE WINDOW AS REQUIRED TO MEET THE NEC SHOW WINDOW REQUIREMENTS.
- PROVIDE 1.5KW FAN FORCED HEATER EQUAL TO OMARK AWH3150F, 120V, SINGLE PHASE WITH INTEGRAL THERMOSTAT AND DISCONNECT. CONNECT TO 20A/1P BREAKER IN PANEL AS NOTED ON PLANS. VERIFY EXACT LOCATION WITH ARCHITECT. PROVIDE SEMI RECESSED KIT. VERIFY LOCATION WITH ARCHITECT.
- PROVIDE PHOTOCELL FOR CONTROLLING EXTERIOR LIGHTS. SEE DETAIL 3/E101.
- PROVIDE TIME CLOCK BY INTERMATIC TS-101 AND CONTACTOR. SEE DETAIL ON SHEET 3/E101. ALL CONNECTIONS BY EC.
- PROVIDE 3-FOOT COMMERCIAL BASEBOARD HEATER EQUAL TO OMARK (2513W) 750 WATTS, 120V, SINGLE PHASE, WITH INTEGRAL THERMOSTAT AND DISCONNECT. (BASEBOARD HEATER LOCATED NEAR RESTAURANT ENTRANCE TO HAVE LOW VOLTAGE RELAY CONTROL TO DAISY CHAIN WITH 6-FOOTER FOR SINGLE THERMOSTAT CONTROL AS STATED IN NOTE #20.)
- PROVIDE 6 FOOTER BASEBOARD HEATER EQUAL TO BKOC SERIES 2510W, 1.5KW, 120V, SINGLE PHASE WITH LOW VOLTAGE RELAY CONTROL (208/24V TRANSFORMER RELAY). BASEBOARD HEATER TO HAVE INTEGRAL DOUBLE POLE POWER ON/OFF SWITCH. ENTRANCE BASEBOARD HEATERS 3-FOOTER AND 6 FOOTER TO BE ON THE SAME THERMOSTAT. PROVIDE SINGLE THERMOSTAT NEAR BACK WALL WITH LOW VOLTAGE RELAY CONTROL. COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN.
- ELECTRICAL CONNECTIONS FOR DRIVER'S DISPATCH. SEE DETAIL 5/E401 FOR DEVICE LAYOUT. COORDINATE EXACT REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- PROVIDE RECEPTACLE AND 120V CONNECTION TO SMELL WINDOW SIGNAGE. MATCH HIGHT WITH RECEPTACLES AS PLAN NOTE#15. COORDINATE AND VERIFY MOUNTING HEIGHT AND LOCATION WITH OWNER.

GENERAL NOTES KITCHEN

- ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS SHALL HAVE GROUND FAULT PROTECTION PER NEC ARTICLE 210.8(B). PROVIDE GROUND FAULT PROTECTION AT CIRCUIT BREAKER FOR RECEPTACLES WITHIN KITCHEN/NET AREA.
- REFER TO ELECTRICAL POINT OF CONNECTION SCHEDULE ON THIS SHEET FOR SPECIFICATIONS OF ALL KITCHEN EQUIPMENT ON THIS SHEET.
- REFER TO ELECTRICAL CONNECTIONS DRAWINGS AND EQUIPMENT CUT SHEETS PREPARED BY FOOD SERVICE EQUIPMENT VENDOR FOR ADDITIONAL INFORMATION REGARDING ELECTRICAL CONNECTION REQUIREMENTS AND PLACEMENT.
- ALL KITCHEN EQUIPMENT ELECTRICAL CIRCUITRY REFLECTED ON THE CONSTRUCTION DOCUMENTS WAS COORDINATED WITH ONLY CUT SHEETS PROVIDED TO PROMUS 04/15/25 AND WITHOUT THE BENEFIT OF POINT-OF-CONNECTION DRAWINGS FROM THE KITCHEN EQUIPMENT VENDOR. IT IS STRONGLY RECOMMENDED THAT ALL EQUIPMENT CIRCUITRY, MOUNTING HEIGHT, CONNECTION REQUIREMENTS, ETC. SHALL BE COORDINATED WITH THE OWNER/KITCHEN CONSULTANT PRIOR TO ROUGH IN.
- COORDINATE EXACT LOCATION AND FURTHER REQUIREMENTS IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.
- ALL KITCHEN EQUIPMENT AND RECEPTACLES TO BE GFCI PROTECTED AS PER NEC.

KITCHEN EQUIPMENT - ELECTRICAL SCHEDULE

TAG	DESCRIPTION	VOLTAGE	NUMBER OF POLES	POWER	DISCONNECT/RCPT TYPE	BRANCH CIRCUIT	NOTES
Q-1A	DRIVE-THRU WINDOW	120	1	0.8 kVA	20A-1P	B-17	
QB-J-001	SODA DISPENSER	120	1	0.4 kVA	5-15R	A-1	3
QB-J-001	SODA DISPENSER	120	1	0.4 kVA	5-15R	B-7	3
QB-J-101	TEA BREWER	120	1	1.7 kVA	5-15R	B-5	3
QB-J-801	ICE MAKER	120	1	0.5 kVA	20A-1P	B-6	1,2
QB-J-801	ICE MAKER	120	1	0.5 kVA	20A-1P	B-8	1,2
QB-J-802	FOOD PROCESSOR	120	1	0.1 kVA	5-15R	B-14	
QB-J-803	FOOD PROCESSOR	120	1	0.1 kVA	5-15R	B-26	
QB-J-804	FOOD PROCESSOR	120	1	0.1 kVA	5-15R	B-19	
QB-J-805	FOOD PROCESSOR	120	1	0.1 kVA	5-15R	B-24	
QC-J-201	HIGH SPEED OVEN	208	2	6.0 kVA	NEMA L6-30P	A-28,31	
QC-J-201	HIGH SPEED OVEN	208	2	6.0 kVA	NEMA L6-30P	A-25,27	
QC-J-301	4 DECK PROOFER OVEN	208	3	9.8 kVA	60A-3P	A-6,8,10	
QC-J-301	4 DECK PROOFER OVEN	208	3	9.8 kVA	60A-3P	A-18,20,22	
QP-J-002	FOOD SLICER	120	1	0.2 kVA	5-15R	B-13	
QP-J-101	FOOD PROCESSOR	120	1	0.1 kVA	5-15R	B-13	
QR-J-202	FRIDGE	120	1	0.8 kVA	5-15R	B-37	
QR-J-301	FRIDGE, REACH IN	120	1	1.2 kVA	5-15R	B-21	
QR-J-401	REFRIGERATED PREP TABLE	120	1	0.8 kVA	5-15R	A-5	
QR-J-401	REFRIGERATED PREP TABLE	120	1	0.8 kVA	5-15R	B-15	
QW-J-102	DISHWASHER	208	3	8.5 kVA	60A-3P	A-33,35,37	

NOTES:

- COORDINATE EXACT LOCATION OF ELECTRICAL CONNECTION TO ALL EQUIPMENT WITH INSTALLATION PRIOR TO ROUGH-IN.
- WIRE CIRCUIT FROM BREAKER TO CONDENSING UNIT DISCONNECT ON ROOF. WIRE ASSOCIATED ICE MAKER FROM CONDENSING UNIT TERMINAL BLOCK. COORDINATE WITH MECHANICAL EQUIPMENT.
 - PROVIDE HARDWIRED ELECTRICAL CONNECTION TO UNIT AS REQUIRED. CIRCUIT BREAKER FEEDING UNIT SHALL BE PROVIDED WITH LOCK OUT DEVICE IN ACCORDANCE WITH NEC AND AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.
 - ELECTRICAL CONNECTION TO DEVICE LOCATED IN MILLWORK. COORDINATE EXACT LOCATION IN FIELD WITH EQUIPMENT INSTALLATION PRIOR TO ROUGH-IN.

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REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. STROH
ELECTRICAL
DATE 08-21-25
NORTH DAKOTA

Project:
JIMMY JOHN'S SANDWICHES
New Facility
For:
212 US-2 WEST
DEVILS LAKE,
NORTH DAKOTA 58301

Location:
212 US-2 WEST
DEVILS LAKE, ND 58301

Drawn By:

Date:
AUGUST 21, 2026

Revision Date:

Δ	08/28/26	ADDENDUM 1

Job Number:
2025.04

Sheet Name:
LIGHTING AND
POWER PLANS

Sheet Number:

E201

BRANCH CIRCUIT WIRING AND VOLTAGE DROP CHART

OVER-CURRENT CIRCUIT PROTECTION	SINGLE POLE CIRCUIT											
	WITH NEUTRAL (Ø,N,G)			TWO POLE CIRCUITS			THREE POLE CIRCUITS			MAXIMUM CONDUCTOR DISTANCE		
				WITH NEUTRAL (Ø,N,G)	WITHOUT NEUTRAL (Ø,G)	WITH NEUTRAL (Ø,N,G)	WITHOUT NEUTRAL (Ø,G)	CONDUIT	120V, 1Ø	2Ø8V, 1Ø	2Ø8V, 3Ø	
15A	(1)#12, (1)#12, (1)#12	(2)#12, (1)#12, (1)#12	(2)#12, (1)#12	(3)#12, (1)#12, (1)#12	(3)#12, (1)#12	(3)#12, (1)#12, (1)#12	(3)#12, (1)#12	3/4"	60'	105'	121'	
	(1)#10, (1)#10, (1)#10	(2)#10, (1)#10, (1)#10	(2)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	3/4"	96'	167'	193'	
	(1)#8, (1)#8, (1)#10	(2)#10, (1)#10, (1)#10	(2)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	3/4"	153'	266'	307'	
20A	(1)#12, (1)#12, (1)#12	(2)#12, (1)#12, (1)#12	(2)#12, (1)#12	(3)#12, (1)#12, (1)#12	(3)#12, (1)#12	(3)#12, (1)#12, (1)#12	(3)#12, (1)#12	3/4"	45'	78'	91'	
	(1)#10, (1)#10, (1)#10	(2)#10, (1)#10, (1)#10	(2)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	3/4"	72'	125'	144'	
	(1)#8, (1)#8, (1)#8	(2)#10, (1)#10, (1)#10	(2)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	3/4"	115'	199'	230'	
30A	(1)#6, (1)#6, (1)#6	(2)#6, (1)#6, (1)#6	(2)#6, (1)#6	(3)#6, (1)#6, (1)#6	(3)#6, (1)#6	(3)#6, (1)#6, (1)#6	(3)#6, (1)#6	1"	183'	317'	366'	
	(1)#10, (1)#10, (1)#10	(2)#10, (1)#10, (1)#10	(2)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	(3)#10, (1)#10, (1)#10	(3)#10, (1)#10	3/4"	48'	83'	96'	
	(1)#8, (1)#8, (1)#8	(2)#8, (1)#8, (1)#8	(2)#8, (1)#8	(3)#8, (1)#8, (1)#8	(3)#8, (1)#8	(3)#8, (1)#8, (1)#8	(3)#8, (1)#8	3/4"	76'	133'	153'	
40A	(1)#6, (1)#6, (1)#6	(2)#6, (1)#6, (1)#6	(2)#6, (1)#6	(3)#6, (1)#6, (1)#6	(3)#6, (1)#6	(3)#6, (1)#6, (1)#6	(3)#6, (1)#6	1"	122'	211'	244'	
	-	(2)#4, (1)#4, (1)#4	(2)#4, (1)#4	(3)#4, (1)#4, (1)#4	(3)#4, (1)#4	(3)#4, (1)#4, (1)#4	(3)#4, (1)#4	1-1/4"	-	336'	388'	
	-	(2)#8, (1)#8, (1)#10	(2)#8, (1)#8	(3)#8, (1)#8, (1)#10	(3)#8, (1)#8	(3)#8, (1)#8, (1)#10	(3)#8, (1)#8	3/4"	-	99'	115'	
50A	-	(2)#6, (1)#6, (1)#8	(2)#6, (1)#8	(3)#6, (1)#6, (1)#8	(3)#6, (1)#8	(3)#6, (1)#6, (1)#8	(3)#6, (1)#8	1"	-	158'	183'	
	-	(2)#4, (1)#4, (1)#4	(2)#4, (1)#4	(3)#4, (1)#4, (1)#4	(3)#4, (1)#4	(3)#4, (1)#4, (1)#4	(3)#4, (1)#4	1-1/4"	-	252'	281'	
	-	(2)#3, (1)#3, (1)#4	(2)#3, (1)#4	(3)#3, (1)#3, (1)#4	(3)#3, (1)#4	(3)#3, (1)#3, (1)#4	(3)#3, (1)#4	1-1/4"	-	318'	367'	
60A	-	(2)#6, (1)#6, (1)#10	(2)#6, (1)#10	(3)#6, (1)#6, (1)#10	(3)#6, (1)#10	(3)#6, (1)#6, (1)#10	(3)#6, (1)#10	1"	-	126'	146'	
	-	(2)#4, (1)#4, (1)#6	(2)#4, (1)#6	(3)#4, (1)#4, (1)#6	(3)#4, (1)#6	(3)#4, (1)#4, (1)#6	(3)#4, (1)#6	1-1/4"	-	201'	233'	
	-	(2)#3, (1)#3, (1)#6	(2)#3, (1)#6	(3)#3, (1)#3, (1)#6	(3)#3, (1)#6	(3)#3, (1)#3, (1)#6	(3)#3, (1)#6	1-1/4"	-	254'	293'	
70A	-	(2)#2, (1)#2, (1)#4	(2)#2, (1)#4	(3)#2, (1)#2, (1)#4	(3)#2, (1)#4	(3)#2, (1)#2, (1)#4	(3)#2, (1)#4	1-1/2"	-	320'	370'	
	-	(2)#6, (1)#6, (1)#10	(2)#6, (1)#10	(3)#6, (1)#6, (1)#10	(3)#6, (1)#10	(3)#6, (1)#6, (1)#10	(3)#6, (1)#10	1"	-	105'	122'	
	-	(2)#4, (1)#4, (1)#6	(2)#4, (1)#6	(3)#4, (1)#4, (1)#6	(3)#4, (1)#6	(3)#4, (1)#4, (1)#6	(3)#4, (1)#6	1-1/4"	-	168'	194'	
80A	-	(2)#3, (1)#3, (1)#6	(2)#3, (1)#6	(3)#3, (1)#3, (1)#6	(3)#3, (1)#6	(3)#3, (1)#3, (1)#6	(3)#3, (1)#6	1-1/4"	-	212'	244'	
	-	(2)#2, (1)#2, (1)#4	(2)#2, (1)#4	(3)#2, (1)#2, (1)#4	(3)#2, (1)#4	(3)#2, (1)#2, (1)#4	(3)#2, (1)#4	1-1/2"	-	267'	308'	
	-	(2)#4, (1)#4, (1)#8	(2)#4, (1)#8	(3)#4, (1)#4, (1)#8	(3)#4, (1)#8	(3)#4, (1)#4, (1)#8	(3)#4, (1)#8	1-1/4"	-	144'	166'	
90A	-	(2)#3, (1)#3, (1)#6	(2)#3, (1)#6	(3)#3, (1)#3, (1)#6	(3)#3, (1)#6	(3)#3, (1)#3, (1)#6	(3)#3, (1)#6	1-1/4"	-	181'	209'	
	-	(2)#2, (1)#2, (1)#4	(2)#2, (1)#4	(3)#2, (1)#2, (1)#4	(3)#2, (1)#4	(3)#2, (1)#2, (1)#4	(3)#2, (1)#4	1-1/2"	-	229'	264'	
	-	(2)#1, (1)#1, (1)#4	(2)#1, (1)#4	(3)#1, (1)#1, (1)#4	(3)#1, (1)#4	(3)#1, (1)#1, (1)#4	(3)#1, (1)#4	1-1/2"	-	298'	333'	
100A	-	(2)#4, (1)#4, (1)#8	(2)#4, (1)#8	(3)#4, (1)#4, (1)#8	(3)#4, (1)#8	(3)#4, (1)#4, (1)#8	(3)#4, (1)#8	1-1/4"	-	125'	144'	
	-	(2)#3, (1)#3, (1)#8	(2)#3, (1)#8	(3)#3, (1)#3, (1)#8	(3)#3, (1)#8	(3)#3, (1)#3, (1)#8	(3)#3, (1)#8	1-1/4"	-	159'	183'	
	-	(2)#2, (1)#2, (1)#6	(2)#2, (1)#6	(3)#2, (1)#2, (1)#6	(3)#2, (1)#6	(3)#2, (1)#2, (1)#6	(3)#2, (1)#6	1-1/2"	-	200'	231'	
100A	-	(2)#1, (1)#1, (1)#4	(2)#1, (1)#4	(3)#1, (1)#1, (1)#4	(3)#1, (1)#4	(3)#1, (1)#1, (1)#4	(3)#1, (1)#4	1-1/2"	-	253'	292'	
	-	(2)#1/0, (1)#1/0, (1)#4	(2)#1/0, (1)#4	(3)#1/0, (1)#1/0, (1)#4	(3)#1/0, (1)#4	(3)#1/0, (1)#1/0, (1)#4	(3)#1/0, (1)#4	2"	-	319'	368'	
	-	(2)#3, (1)#3, (1)#8	(2)#3, (1)#8	(3)#3, (1)#3, (1)#8	(3)#3, (1)#8	(3)#3, (1)#3, (1)#8	(3)#3, (1)#8	1-1/4"	-	138'	160'	
100A	-	(2)#2, (1)#2, (1)#8	(2)#2, (1)#8	(3)#2, (1)#2, (1)#8	(3)#2, (1)#8	(3)#2, (1)#2, (1)#8	(3)#2, (1)#8	1-1/2"	-	178'	205'	
	-	(2)#1, (1)#1, (1)#6	(2)#1, (1)#6	(3)#1, (1)#1, (1)#6	(3)#1, (1)#6	(3)#1, (1)#1, (1)#6	(3)#1, (1)#6	1-1/2"	-	224'	259'	
	-	(2)#1/0, (1)#1/0, (1)#4	(2)#1/0, (1)#4	(3)#1/0, (1)#1/0, (1)#4	(3)#1/0, (1)#4	(3)#1/0, (1)#1/0, (1)#4	(3)#1/0, (1)#4	2"	-	283'	327'	
100A	-	(2)#2/0, (1)#2/0, (1)#4	(2)#2/0, (1)#4	(3)#2/0, (1)#2/0, (1)#4	(3)#2/0, (1)#4	(3)#2/0, (1)#2/0, (1)#4	(3)#2/0, (1)#4	2"	-	357'	413'	
	-	(2)#3, (1)#3, (1)#8	(2)#3, (1)#8	(3)#3, (1)#3, (1)#8	(3)#3, (1)#8	(3)#3, (1)#3, (1)#8	(3)#3, (1)#8	1-1/4"	-	125'	145'	
	-	(2)#2, (1)#2, (1)#8	(2)#2, (1)#8	(3)#2, (1)#2, (1)#8	(3)#2, (1)#8	(3)#2, (1)#2, (1)#8	(3)#2, (1)#8	1-1/2"	-	160'	185'	
100A	-	(2)#1, (1)#1, (1)#6	(2)#1, (1)#6	(3)#1, (1)#1, (1)#6	(3)#1, (1)#6	(3)#1, (1)#1, (1)#6	(3)#1, (1)#6	1-1/2"	-	202'	233'	
	-	(2)#1/0, (1)#1/0, (1)#4	(2)#1/0, (1)#4	(3)#1/0, (1)#1/0, (1)#4	(3)#1/0, (1)#4	(3)#1/0, (1)#1/0, (1)#4	(3)#1/0, (1)#4	2"	-	255'	294'	
	-	(2)#2/0, (1)#2/0, (1)#4	(2)#2/0, (1)#4	(3)#2/0, (1)#2/0, (1)#4	(3)#2/0, (1)#4	(3)#2/0, (1)#2/0, (1)#4	(3)#2/0, (1)#4	2"	-	321'	371'	

GENERAL NOTES:

- CONDUCTORS AND CONDUIT INDICATED FOR BRANCH CIRCUITS PER CIRCUIT BREAKER RATING INDICATED IN PANEL SCHEDULE(S).
- CONDUCTORS BASED ON COPPER WIRE, 75°C TEMPERATURE RATING, 1.0 POWER FACTOR, 3% MAXIMUM VOLTAGE DROP, 6 OR LESS CURRENT CARRYING CONDUCTORS.
- CONDUIT SIZES BASED ON EMT CONDUIT WITH THHW/THHN CONDUCTORS. INCREASE CONDUIT SIZE AS REQUIRED PER NEC CONDUIT FILL TABLES FOR ALL OTHER CONDUIT TYPES OR CONDUCTORS.
- CONDUCTORS DO NOT CONSIDER NEC ALLOWED AMPACITY OR DERATING.
- DISTANCE INDICATED IS THE TOTAL WIRE LENGTH FROM THE CIRCUIT BREAKER TO THE END DEVICE ON THE BRANCH CIRCUIT.
- EQUIPMENT GROUNDING CONDUCTOR SIZE INCREASE IN PROPORTION TO UNGROUNDED CONDUCTORS PER NEC 250.122(B).
- WHERE THE WIRE SIZE IS LARGER THAN THE MAXIMUM WIRE SIZE TERMINAL OF THE EQUIPMENT, PROVIDE A JUNCTION BOX AND SPLICE DOWN TO THE LARGEST WIRE SIZE POSSIBLE. THE BOX SHALL BE LOCATED AS CLOSE TO THE TERMINATION AS POSSIBLE, BUT NO FARTHER THAN 15 FEET.
- IN THE EVENT CONDUCTORS EXCEED LENGTHS INDICATED IN SCHEDULE, CONTACT THE ENGINEER FOR FURTHER DIRECTION.

PANELBOARD SCHEDULE											
PANEL NAME	FED FROM	CONNECTED LOAD	DEMAND LOAD	BUSS RATING	MAINS TYPE	MCB RATING	PHASES	WIRES	ISCA	SC RATING	ENCLOSURE
A	UTILITY			400 A	MCB	400 A	3	4		35KAIC	NEMA 1
B	A			100 A	MLO	100 A	3	4		35KAIC	NEMA 1

FEEDER SCHEDULE

TAG	SETS	CONDUIT	PHASE CONDUCTORS	NEUTRAL CONDUCTORS	GROUNDING CONDUCTOR
Y0410SE	(2)	3"	(3) 250KCM(AL)	(1) 250KCM(AL)	N/A
Y0100	(1)	1-1/2"	(3) #1(AL)	(1) #1(AL)	(1) #8
GENERAL NOTES: - CONDUIT AND CONDUCTOR SIZES ARE BASED ON THHN/THWN 75C INSULATED CONDUCTORS AND 40% FILL IN EMT CONDUIT. CONTRACTOR SHALL ADJUST AS REQUIRED PER NEC FOR ALL OTHER CONDUIT TYPES. - FEEDERS WITH MULTIPLE CONDUITS INDICATED SHALL BE PARALLELED. - PROVIDE ALUMINUM CONDUCTORS WHERE INDICATED BY (AL).					

RISER DIAGRAM KEY NOTES

- UTILITY PRIMARY UG CONDUITS. PROVIDE IN ACCORDANCE WITH UTILITY DESIGN STANDARDS, COORDINATE REQUIREMENTS PRIOR TO BID.
- UTILITY METERING. PROVIDE 320A METERING SOCKET PER UTILITY COMPANY REQUIREMENTS. PROVIDE IN ACCORDANCE WITH UTILITY DESIGN STANDARDS, COORDINATE EXACT REQUIREMENTS PRIOR TO BID.
- EXOTHERMIC CONNECTION. ELECTRICALLY CONTINUOUS STEEL REINFORCING BAR, 20 FEET AT MINIMUM, IN BUILDING FOUNDATION IN DIRECT CONTACT WITH EARTH.
- PROVIDE 10 FOOT BY 3/4" DIAMETER COPPER GROUND ROD, TYPICAL.
- EXOTHERMIC CONNECTION, TYPICAL.
- CONNECTION TO METALLIC COLD WATER PIPE WITHIN 5' OF POINT OF ENTRANCE, BEFORE FIRST VALVE WITH HEAVY DUTY BRONZE GROUND CLAMP SUITABLE FOR THIS INSTALLATION.
- PROVIDE BONDING JUMPER, SIZED AS INDICATED AROUND FIRST VALVE.
- PROVIDE GROUNDING ELECTRODE CONDUCTOR IN SCHEDULE 40 PVC, SIZED AS INDICATED.
- PROVIDE GROUNDING CONDUCTOR IN SCHEDULE 40 PVC CONDUIT, SIZED AS INDICATED, TO FIRE SPRINKLER PIPING. PROVIDE LISTED AND APPROVED BONDING AND GROUNDING CONNECTIONS AS REQUIRED.
- PROVIDE SURGE PROTECTION DEVICE (SPD) WITH 200KA SURGE CURRENT RATING IN A NEMA 1 ENCLOSURE, SURFACE MOUNTED. SPD SHALL BE UL 1449, 4TH EDITION LISTED.
- PROVIDE INTERMATIC "I101" SERIES TIME CLOCK "L.S.-J-003" IN A NEMA ONE ENCLOSURE AND LIGHTING CONTACTOR. PROVIDE INTERMATIC "K4200" SERIES PHOTOCCELL. CONTROL TO BE WIRED FOR PHOTOCCELL ON, TIME CLOCK OFF.

RISER DIAGRAM- ELECTRICAL

NO SCALE

PANELBOARD LOAD SCHEDULE																	
PANEL: PANEL A			MAIN: MCB			400A			ENCLOSURE: NEMA 1			LOCATION: 106					
RATING: 400			VOLTS: 208Y/120, 3 PH., 4W.			AIC RATING: 35,000			MOUNTING: RECESSED			FED FROM: UTILITY					
CKT #	TRIP AMPS	POLE	LOAD IN VOLT-AMPERES				LOAD DESCRIPTION	PH	LOAD DESCRIPTION	LOAD IN VOLT-AMPERES				TRIP AMPS	POLE	CKT #	
			LIGHTING	RECPT	MTRS&EQUIP	KITCHEN				HEAT/AC	HEAT/AC	KITCHEN	MTRS&EQUIP				RECPT
1	*20	1				400	QB-J-001 DRINK DISPENSER	A	FREEZER EVAPORATOR			2288			30		2
3	20	1					SPARE	B				2288				2	4
5	*20	1				800	QR-J-401 REF PREP TABLE	C	QC-J-301 OVEN WITH PROOFER		3300				*50		6
7	*20	1				1000	COOLER EVAPORATOR	A			3300						8
9	30					1100	COOLER CONDENSER	B			3300					3	10
11		2				1100		C	RTU-2						45		12
13	20	1					MENU BOARD	A									14
15	20	1					CONTACTOR	B								3	16
17	20	1					SPARE	C	QC-J-301 OVEN WITH PROOFER		3300				*50		18
19	35					3000	RTU-1	A			3300						20
21						3000					3300						22
23		3				3000		B	FFH-1	1500					20	1	24
25	*30					3000	QC-J-201 HIGH SPEED OVEN	A	RCF-1			100			20	1	26
27		2				3000		B	SITE LIGHTING					700	20	1	28
29	*30					3000	QC-J-201 HIGH SPEED OVEN	C	PYLON SIGN			500			20	1	30
31		2				3000		A	SPD						30		32
33	*30					2800		B	DISHWASHER								34
35						2800		C								3	36
37		3				2800		A	PANEL B		3800		3000	0	100		38
39	30					2288	FREEZER CONDENSER	B			3000	200	2800	500			40
41		2				2288		C			4400	200	2300	3400		3	42
43	20	1					SPARE	A	SPARE						20	1	44
45	20	1					SPARE	B	SPARE						20	1	46
47	20	1					SPARE	C	SPARE						20	1	48
49	*20	1					SPARE	A	SPARE						20	1	50
51	*20	1					SPARE	B	SPARE						*20	1	52
53	20	1					SPARE	C	SPARE						*20	1	54