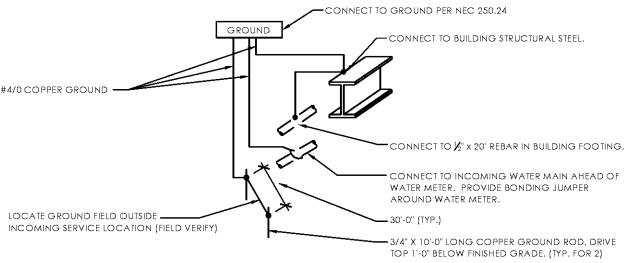


ELECTRICAL LOAD SUMMARY				
LOAD DESCRIPTION	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND (KVA)	CODE SECTION
LIGHTING	23.902	1.25	29.878	N.E.C. 215.2
RECEPTACLES	33.520	10+ (50% REMAINING)	21.740	N.E.C. 220.44
MOTOR	94.919	1+ (25% LARGEST MOTOR)	100.494	N.E.C. 220.50
HEATING	4.805	1.0	4.805	N.E.C. 220.51
REFRIGERATION	130.250	1.0	130.250	N.E.C. 440
TOTAL LOAD (KVA)	287.396		287.187	
AMPS	797.73		797.15	

NOTES:
 PE - FURNISH WITH HANDLE LOCK.
 CC - ROUTE THROUGH CPC CONTACTOR ENCLOSURE. REFER TO DETAIL D1/E-102.
 IG - CONNECT CIRCUIT GROUND CONDUCTOR TO ISOLATED GROUND BUS.
 ** - PROVIDE GFP TYPE CIRCUIT BREAKER RATING AS INDICATED



C3 Service Entrance Grounding Detail
 SCALE: None

Refrigeration Scope of Work:

E.C. SHALL PERFORM THE WIRING OF ALL REFRIGERATION EQUIPMENT FROM THE REFRIGERATION DRAWINGS. REFRIGERATION DRAWINGS WILL BE PROVIDED BY THE REFRIGERATION CONTRACTOR UNDER SEPARATE COVER. FOR THE PURPOSES OF BIDDING, THE ELECTRICAL CONTRACTOR SHALL INCLUDE ALL MATERIALS AND LABOR FOR THE FOLLOWING TASKS:

1. INSTALLATION OF ALL LIGHT FIXTURES WITH COOLER AND FREEZER.
2. WIRING OF ALL FRAME HEATERS AND DOOR LIGHTS.
3. WIRING OF AN HEATERS AND THRESHOLD HEATER.
4. ALL WIRING ASSOCIATED WITH REFRIGERATION RACK.
5. WIRING FOR MODULE SALES AREA.
6. WIRING OF ALL REFRIGERATION EQUIPMENT AND REMOTE PANELS.

OF THE VAC SYSTEM COMPONENTS.

***NOTE: THIS IS NOT AN EXHAUSTIVE LIST. THE REFRIGERATION CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE REFRIGERATION DRAWINGS AND PERFORMING ALL WORK NECESSARY FOR THE SYSTEM TO FUNCTION PROPERLY.

PANEL L		LOCATION: BACK ROOM		DISTRIBUTION: 208Y/120V											
MOUNTING: SURFACE		FRAME SIZE: 225		PHASE: 3											
MAIN SIZE: 225 AMP MLO		FED FROM: PANEL DP		WIRE: 4											
				FAULT CURRENT RATING (KAC): 65											
BRANCH CIRCUIT DESCRIPTION	KVA	WIRE SIZE	GND SIZE	CB	P	NOTE	CIRCUIT NO.	CB	P	NOTE	WIRE SIZE	GND SIZE	KVA	BRANCH CIRCUIT DESCRIPTION	
NIGHT LIGHTING & SALES AREA EXITS	0.774	10	10	20	1	HL 1	1	2	20	1	12	12	0.100	CPC (TO PANEL & SIEMENS TERM.)	
SALES AREA LIGHTING (PRODUCE)	0.892	10	10	20	1	CC 3	3	4	20	1	12	12	0.445	LIGHTS OFFICE, BREAKROOM, TOILETS	
SALES AREA LIGHTING (REAR AISLE)	1.247	10	10	20	1	CC 5	5	6	20	1	10	10	0.616	LIGHTS BACKROOM	
SALES AREA LIGHTING (AISLE 6)	0.480	10	10	20	1	CC 7	7	8	20	1	CC	10	10	0.433	ENTRY AREA LIGHTS
SALES AREA LIGHTING (AISLE 8)	0.944	10	10	20	1	CC 9	9	10	20	1	CC	ETR	ETR	0.420	CANOPY TOWER SIGN
SALES AREA LIGHTING (AISLE 6)	1.212	10	10	20	1	CC 11	11	12	20	1	CC	ETR	ETR	0.420	CANOPY TOWER SIGN
SALES AREA LIGHTING (AISLE 3)	0.927	10	10	20	1	CC 13	13	14	20	1	ETR	ETR	1.000	PYLON SIGN	
SALES AREA LIGHTING (AISLE 2)	1.284	10	10	20	1	CC 15	15	16	20	1	CC	10	10	1.241	SALES AREA LIGHTING (AISLE 1)
DISCONNECT REFRIGERATION	0.000	10	10	20	1		17	18	20	1		12	12	0.600	CHECKOUT CONVEYORS
DISCONNECT CONVEYORS	1.200	10	10	20	1		19	20	20	1		12	12	0.600	CHECKOUT CONVEYORS
DISCONNECT CONVEYORS	1.200	10	10	20	1		21	22	20	1		12	12	0.800	CHECKOUT P.O.S. SYSTEM
DISCONNECT PUSHPALD	1.200	10	10	20	1		23	24	20	1		12	12	0.800	CHECKOUT P.O.S. SYSTEM
DISCONNECT PUSHPALD	0.895	10	10	20	1		25	26	20	1		12	12	0.800	CHECKOUT P.O.S. SYSTEM
DISCONNECT PUSHPALD	0.900	10	10	20	1		27	28	20	1		12	12	0.800	CHECKOUT P.O.S. SYSTEM
DISCONNECT PUSHPALD	0.600	10	10	20	1		29	30	20	1		12	12	0.800	CHECKOUT P.O.S. SYSTEM
LIFT CHARGER	1.200	10	10	20	1		31	32	20	1		12	12	0.800	CHECKOUT P.O.S. SYSTEM (FUTURE)
DISCONNECT REFRIGERATION	0.000	10	10	20	1		33	34	20	1					
DISCONNECT CONVEYORS	0.950	10	10	20	1		35	36	20	1					
DISCONNECT CONVEYORS	0.900	10	10	20	1		37	38	20	1		10	10	0.800	EXHAUST FAN (TYP)
DISCONNECT CONVEYORS	0.800	10	10	20	1		39	40	20	1		12	12	0.430	FREEZER COOLER INTERIOR LIGHTS
DISCONNECT CONVEYORS	0.800	10	10	20	1		41	42	20	1		12	12	0.430	FREEZER COOLER INTERIOR LIGHTS
DISCONNECT CONVEYORS	0.800	10	10	20	1		43	44	20	1	CC	10	10	0.760	SALES AREA LIGHTING (FRONT AISLE)
DISCONNECT CONVEYORS	0.200	10	10	20	1		45	46	20	1		12	12	0.430	SALES AREA LIGHTING (FRONT AISLE)
LIFT CHARGER	1.200	10	10	20	1		47	48	20	1		12	12	0.800	SALES AREA LIGHTING (FRONT AISLE)
DISCONNECT REFRIGERATION	1.000	10	10	20	1		49	50	20	1		12	12	0.370	SALES AREA LIGHTING (FRONT AISLE)
DISCONNECT REFRIGERATION	0.950	10	10	20	1		51	52	20	1		10	10	1.200	LIFT CHARGER
DISCONNECT REFRIGERATION	0.900	10	10	20	1		53	54	20	1		10	10	1.200	LIFT CHARGER
DISCONNECT REFRIGERATION	0.260	10	10	20	1	CC**	55	56	20	1		10	10	0.800	SPOT MERCHANDISER LIGHTS
DISCONNECT REFRIGERATION	1.400	10	10	20	1		57	58	20	1		10	10	0.760	SALES AREA LIGHTING (CHECKOUT)
DISCONNECT REFRIGERATION	0.800	12	12	20	1		59	60	20	1		10	10	0.847	SALES AREA LIGHTING (CHECKOUT)
TOTAL CONN. LOAD:	51.115 KVA												14.78 KVA		
CONNECTED AMPS:	141.80 AMPS												18.91 KVA		
DEMAND AMPS:	141.80 AMPS												17.43 KVA		

PANEL L1		LOCATION: BACK ROOM		DISTRIBUTION: 208Y/120V											
MOUNTING: SURFACE		FRAME SIZE: 225		PHASE: 3											
MAIN SIZE: 225 AMP MLO		FED FROM: PANEL DP		WIRE: 4											
				FAULT CURRENT RATING (KAC): 65											
BRANCH CIRCUIT DESCRIPTION	KVA	WIRE SIZE	GND SIZE	CB	P	NOTE	CIRCUIT NO.	CB	P	NOTE	WIRE SIZE	GND SIZE	KVA	BRANCH CIRCUIT DESCRIPTION	
RELOCATED DOOR LIGHTS	0.924	12	12	20	1	CC 1	1	2	25	2	10	10	2.000	ROOFTOP UNIT (RTU-2)	
LED DOOR LIGHTS	0.588	12	12	20	1	CC 3	3	4	25	-	10	10	2.000	ROOFTOP UNIT (RTU-2)	
AUTO DOOR	0.600	10	10	20	1		5	6	15	2	12	12	1.300	SPLIT SYSTEM (HP-1/FCU-1)	
AUTO DOOR	0.600	10	10	20	1		7	8	15	-	12	12	1.300	SPLIT SYSTEM (HP-1/FCU-1)	
EXHAUST FAN (TYP-2)	0.733	12	12	20	1	CC 9	9	10	20	3	10	10	1.933	CONDENSATE VACUUM SYSTEM	
EXHAUST FAN (TYP-1)	0.117	12	12	20	1		11	12	20	-	10	10	1.933	CONDENSATE VACUUM SYSTEM	
AUTO DOOR	0.117	12	12	20	1		13	14	20	-	10	10	1.933	CONDENSATE VACUUM SYSTEM	
EXHAUST FAN (TYP-4)	0.117	12	12	20	1		15	16	20	1	12	12	0.540	SALES AREA DESTRAIT FAN	
FREEZER THRESHOLD HEATER	0.805	12	12	20	1		17	18	20	1	12	12	0.900	VESTIBULE GFI AND SALES AREA RCFT	
FREEZER ROLL SEAL DOOR	0.936	12	12	20	2		19	20	20	1	**	12	12	0.430	SPOT MERCHANDISER
FREEZER ROLL SEAL DOOR	0.936	12	12	20	2		21	22	20	1	**	12	12	0.430	SPOT MERCHANDISER
FREEZER ROLL SEAL DOOR	1.200	12	12	20	1		23	24	20	1	**	12	12	0.430	SPOT MERCHANDISER
AUTO DOOR	0.600	10	10	20	1		25	26	20	1	**	12	12	0.430	SPOT MERCHANDISER
REAR ROOM IV	0.180	12	12	20	1		27	28	20	1	**	12	12	0.430	SPOT MERCHANDISER
WATER COOLERS/BOTTLE FILLER	1.200	12	12	20	1		29	30	20	1		10	10	0.760	SPARE
TOTAL CONN. LOAD:	26.042 KVA												9.47 KVA		
CONNECTED AMPS:	72.29 AMPS												8.09 KVA		
DEMAND AMPS:	72.29 AMPS												8.49 KVA		

Issued:	Date:
A Client Review Set	01/21/21
B Permit Set	02/03/21
C Bid Set	02/12/21
D	
Revisions:	Date:
1	
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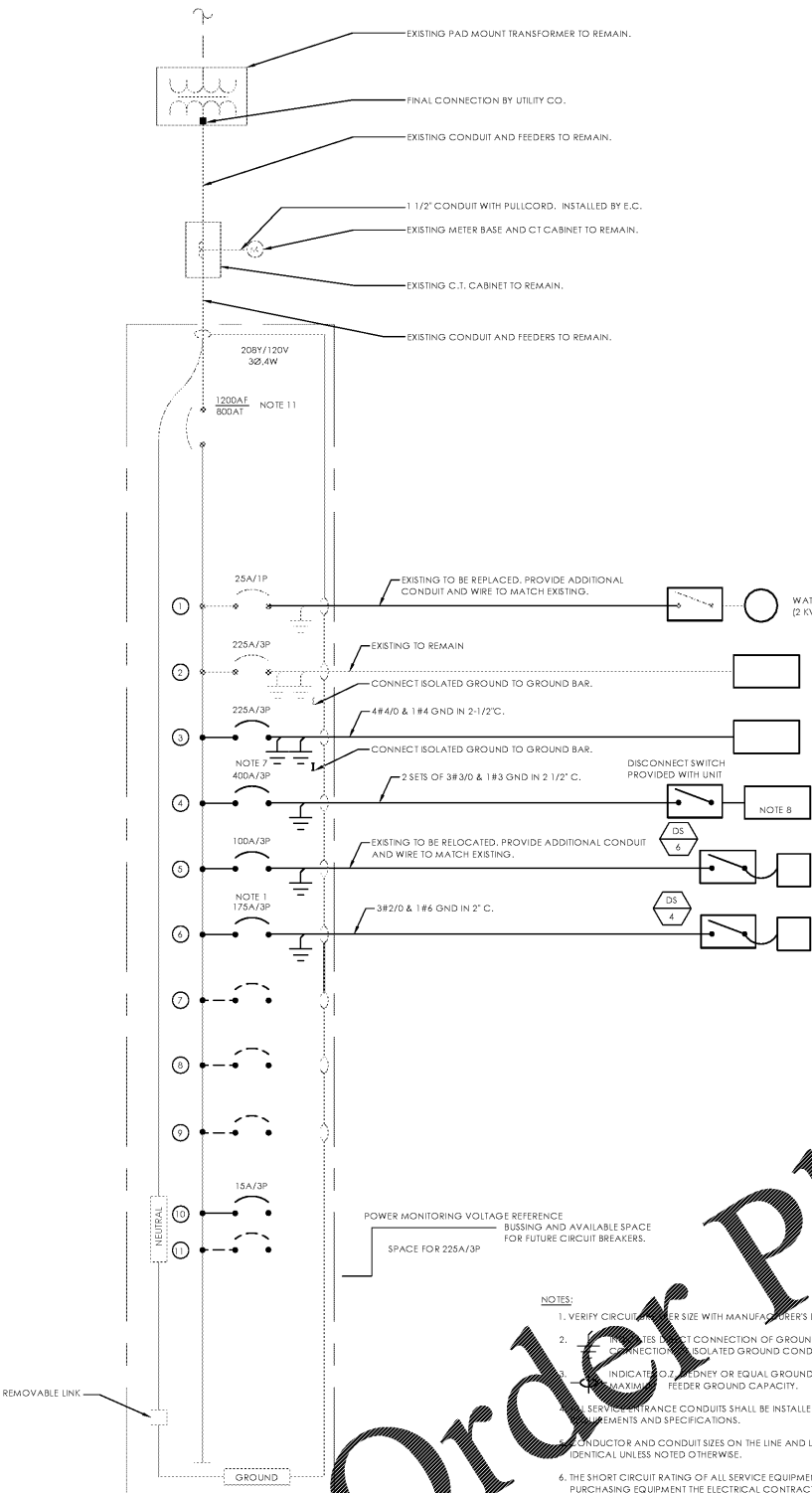
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 Prototype Rls. 06/03/20
 Project No. 40452-30
 Type 100x154 FMR
 Scale: As Noted
 Drawing No. E-401



- NOTES:
1. VERIFY CIRCUIT BREAKER SIZE WITH MANUFACTURER'S DATA RECOMMENDATIONS. BREAKER SHALL BE HACR RATED.
 2. VERIFY DIRECT CONNECTION OF GROUND CONDUCTOR TO GROUND BUS. SUBSCRIPT 'T' INDICATES DIRECT CONNECTION OF ISOLATED GROUND CONDUCTOR TO ISOLATED GROUND BUS.
 3. INDICATE 20%裕 OR EQUAL GROUND BUSHING BONDED TO GROUND BUS WITH CONDUCTOR SIZED TO FEEDER GROUND CAPACITY.
 4. SERVICE ENTRANCE CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS, NEC REQUIREMENTS AND SPECIFICATIONS.
 5. CONDUCTOR AND CONDUIT SIZES ON THE LINE AND LOAD SIDES OF ALL NON-FUSIBLE DISCONNECT SWITCHES SHALL BE IDENTICAL UNLESS NOTED OTHERWISE.
 6. THE SHORT CIRCUIT RATING OF ALL SERVICE EQUIPMENT AND PANEL BOARDS SHALL BE NOT LESS THAN 65,000 AIC. BEFORE PURCHASING EQUIPMENT THE ELECTRICAL CONTRACTOR SHALL CONTACT THE POWER CO. AND OBTAIN IN WRITING THE MAXIMUM SHORT CIRCUIT CURRENT AVAILABLE AT THE POINT OF SERVICE. ALL EQUIPMENT SHALL BE RATED AND COORDINATED TO NO LESS THAN THIS VALUE.
 7. VERIFY REFRIGERATION EQUIPMENT RATING WITH REFRIGERATION CONTRACTOR; MODIFY ASSOCIATED CIRCUIT BREAKER RATING AND EQUIPMENT BRANCH CIRCUIT AS REQUIRED.
 8. ELECTRICAL CONTRACTOR ONLY FURNISHES, INSTALLS, AND TERMINATES THE FEEDER FROM DP/1 TO DISCONNECT SWITCH. CONNECTION FROM DISCONNECT SWITCH TO REFRIGERATION EQUIPMENT BY REFRIGERATION INSTALLER. ALL BRANCH WIRING FROM REFRIGERATION BACK TO BE FURNISHED AND INSTALLED BY REFRIGERATION INSTALLER. REFRIGERATION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A SEPARATE PERMIT FOR ALL REFRIGERATION ELECTRICAL WORK PERFORMED.
 9. SERVICE ENTRANCE FEEDER REQUIREMENTS SHOWN ARE MINIMUM REQUIREMENTS. E.C. SHALL FULLY COORDINATE SERVICE ENTRANCE ROUTING AND CONDUIT REQUIREMENTS WITH UTILITY COMPANY PRIOR TO BID.
 10. E.C. SHALL COORDINATE AND APPLY FOR ALL SERVICE REQUESTS FROM UTILITY COMPANY AS EARLY AS POSSIBLE TO AVOID DELAYS IN OBTAINING SERVICE.
 11. ELECTRICAL SERVICE ENTRANCE BREAKER SHALL COMPLY WITH NEC 240.87 FOR ARC ENERGY REDUCTION.
 12. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.

D1 One-Line Diagram
 SCALE: None