

ELECTRICAL SYSTEM AND EQUIPMENT		
METHOD OF COMPLIANCE		
PREScriptive	PERFORMANCE	ENERGY COST BUDGET
PROVIDE A STANDARD RISER DIAGRAM WHICH INDICATES DESIGNATED POINTS FOR CHECK METERING. PROVIDE A STANDARD PANEL SCHEDULE DESCRIPTION WHICH IDENTIFIES DIFFERENT ENDUSE LOADS.		
<b>LIGHTING SCHEDULE</b> LAMP TYPE REQUIRED IN FIXTURE SEE SCHEDULE ON DRAWINGS NUMBER OF LAMPS IN FIXTURE SEE SCHEDULE ON DRAWINGS BALLAST TYPE USED IN FIXTURE SEE SCHEDULE ON DRAWINGS NUMBER OF BALLASTS IN FIXTURE SEE SCHEDULE ON DRAWINGS TOTAL WATTAGE PER FIXTURE SEE SCHEDULE ON DRAWINGS TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED 50,280 VS 54,610 (RENOVATED AREAS) TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED N/A		
<b>EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)</b> MOTOR HORSEPOWER N/A NUMBER OF PHASES N/A MINIMUM EFFICIENCY N/A MOTOR TYPE N/A NUMBER OF POLES N/A		
<b>DESIGNER STATEMENT:</b> TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA ENERGY CODE 2012, CHAPTER 5. SIGNED: _____ NAME: TODD W. CAREY, P.E. TITLE: NORTH CAROLINA PROFESSIONAL ENGINEER #9079		

NOTE: THIS IS A REHAB OF AN EXISTING BUILDING WHICH HAS AN EXISTING SERVICE AND DISTRIBUTION EQUIPMENT. ALTERATIONS TO EXISTING BUILDING BEING OF SUCH NATURE THAT ALL FACETS OF THE WORK ARE IMPOSSIBLE TO DETAIL AND SPECIFY. IT IS THEREFORE SPECIFICALLY THE RESPONSIBILITY OF THE CONTRACTOR TO CAREFULLY EXAMINE THE EXISTING BUILDING AND FAMILIARIZE HIMSELF WITH THE CONDITIONS AND RELATE THESE CONDITIONS TO THE SCOPE OF THE PROPOSED NEW WORK. ALL BIDS ARE EXPECTED TO ENCOMPASS THE TOTAL WORK SCOPE NEEDED TO PLACE THE COMPLETED ELECTRICAL SYSTEMS IN WORKING CONDITION TO THE EXTENT OF THE PLANS.

ELECTRICAL SYMBOLS LEGEND			
SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	DUPLEX RECEPTACLE, MTD. +18" AFF		TRANSFORMER - SIZE AS NOTED
	240 VOLT RECEPTACLE (HT. AS REQ.)		PANEL - SIZE AS NOTED
	QUADRUPLEX RECEPTACLE, MTD. +18"		MOMENTARY CONTACT PUSH BUTTON
	COUNTERTOP HT. RECEPTACLE +42"		F-FAN, M-MOTOR, P-PUMP
	SINGLE POLE SWITCH, MTD +47"		SPECIAL OUTLET - AS REQUIRED
	THREE-WAY SWITCH, MTD +47"		EXIT SIGN, ONE SIDED, OR TWO SIDED
	MANUAL STARTER SWITCH		EMERGENCY LIGHTING
	DIMMER SWITCH, MTD +47"		RECESSED MOUNTED LIGHTING FIXTURE
	SWITCH W/ ILLUM WHEN ON MTD +47"		DESIGNATES FIXTURE TYPE
	THREE-WAY SWITCH W/ OCCU SENSOR		OVERHEAD OCCUPANCY SENSOR
	SWITCH W/ OCCU SENSOR		HIGH BAY HID LIGHTING FIXTURE
	JUNCTION BOX, FLUSH IF POSSIBLE		DESIGNATES FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18"		FLUORESCENT LIGHTING FIXTURE
	DED. COMPUTER TERM. OUTLET +18"		FLUORESCENT STRIP LIGHTING FIXTURE
	DISCONNECT SWITCH W/ STARTER		DESIGNATES FIXTURE TYPE
	DISCONNECT SWITCH		ISOLATED GROUND
	WEATHER-PROOF		BELOW COUNTER
	FLR. MTD. FLUSH DUPLEX RECEPTACLE		TIME CLOCK - 24 HOUR
	FLR. MTD. FLUSH QUAD. RECEPTACLE		GROUND FAULT INTERRUPTER
	FLR. MTD. FLUSH PHONE/DATA OUTLET		ABOVE FINISHED FLOOR
	FLR. MTD. FLUSH COMPUTER OUTLET		ELECTRIC WATER COOLER
	AREA SMOKE DETECTOR		ABOVE SHOW WINDOW
	HEAT DETECTOR		BELOW SHOW WINDOW
	DUCT SMOKE DETECTOR		FIRE ALARM MAN. PULL STATION +47"
	FIRE ALARM MAN. PULL STATION +47"		FIRE ALARM ANNUNCIATOR PANEL
	HORN WITH STROBE LIGHT, MTD. +80" # RESERVE DEVICE IS CANNOLA RATING		
	STROBE LIGHT ONLY, MTD. +80" # RESERVE DEVICE IS CANNOLA RATING		

LIGHTING FIXTURE SCHEDULE									
SYMBOL	DESCRIPTION	LAMP NO.	WATT	VOLT	MANUFACTURER	MODEL	MOUNTING	FINISH	REMARKS
A	2'x4' LED	71	LED	120	METALUX	24SR-LD1-64-C	CEILING GRID	WHITE	6420 LUMENS, 90 EFFICACY
A2	2'x4' LED (EM)	71	LED	120	METALUX	24SR-LD1-64-C	CEILING GRID	WHITE	6420 LUMENS, 90 EFFICACY W/ EL14 EMERGENCY BATTERY
B	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	VALANCE SURFACE	WHITE
B1	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	CABLE / CORD	WHITE
B2	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	TO OF CASE SURFACE	WHITE
C	LED FLOOD	175	LED	120			SURFACE	VERIFY	VERIFY MOUNTING HEIGHT. VERIFY MODEL WITH SUPPLIER
D	PENDENT	1	210	MH	120	WDELITE	CABLE / CORD	GRAY	SEE LFS NOTE 6
D1S	PENDANT	17	LED	120	BOCK	RLM	RIGID	RED	6"-8" MOUNTING HEIGHT TO BOTTOM OF SHADE.
D1S	PENDANT	17	LED	120	BOCK	RLM	RIGID	SILVER	6"-8" MOUNTING HEIGHT TO BOTTOM OF SHADE.
D2	PENDANT	1	60	I	120	HUBBELL NOSTALOGIC	CABLE / CORD	VERIFY	COORDINATE MOUNTING W/ SUPPLIER. PROVIDE NOSTALOGIC FABRIC. VERIFY TYPE W/ DECOR FABRICATOR
E2	4' FLUOR STRIP	1	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	VALANCE SURFACE	WHITE
F	VERTICAL CYLINDER	96	LED	120	LIGHTOLIER	LL4RWH1H12 H3/LLAV12RF	RECESSED	WHITE	FIXTURES SHINE UP
G	2'x4' TROFFER	3	30	F	120	LIGHTOLIER	K120VA332 TROFFER	CEILING	WHITE
G1	2'x4' TROFFER	3	17	F	120	LIGHTOLIER	X120VA317 TROFFER	CEILING	WHITE
G-EM	2'x4' TROFFER	3	30	F	120	LIGHTOLIER	X120VA332 TROFFER	CEILING	WHITE
H	FLOOD	30	LED	120	LUMARK	XR0R3A-P01-KTORFLD	GROUND	WHITE	COORDINATE W/ ARCHITECT FOR EXACT LOCATION AND AIMING
J	6' BLADE	104	LED	120	GE	EL-C06-P-A3-X-WHITE	SURFACE	WHITE	COORDINATE MOUNTING W/ SUPPLIER
J-EM	4' LINEAR	40	LED	120	DAY-BRITE	ULAG	SURFACE	WHITE	PROVIDE INVERTER. COORDINATE MOUNTING W/ SUPPLIER
K	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	CEILING RECESSED	WHITE	ALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER
K-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	CEILING RECESSED	WHITE	ALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER
L	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	CEILING RECESSED	WHITE	ALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER. SEE NOTE 7 AND 10.
L-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	CEILING RECESSED	WHITE	ALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER. SEE NOTE 7 AND 10.
M	8' VAPORTIGHT FLUOR STRIP	4	30	F	120	LIGHTOLIER	ST8W232UNVGH	CEILING SURFACE	GRAY
M1	4' VAPORTIGHT FLUOR STRIP	2	30	F	120	LIGHTOLIER	ST4W232UNVGH	CEILING SURFACE	GRAY
P	2' LINEAR	28	LED	120	EFFICIENT LIGHTS	262-8CM-120	SURFACE	---	SEE LFS NOTE 14
R	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	PROVIDE FRESNEL LENS. PROVIDE FRAME KIT AND DRIVER
R-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	---	PROVIDE FRESNEL LENS. PROVIDE FRAME KIT AND DRIVER. SEE LFS NOTE 7
R2	CAN	12	LED	120	LIGHTOLIER	LYTECASTER 1100K	RECESSED	---	VERIFY EXACT MODEL WITH SUPPLIER. INSULATION CONTACT RATED
R3	WALL WASH CAN	40	LED	120	LIGHTOLIER	DL15200W35K MCL/CBL20N2	RECESSED	WHITE	PROVIDE FRESNEL LENS. PROVIDE FRAME KIT AND DRIVER
S	SCONCE	11	LED	120	PROGRESS	P6003-20	SURFACE	---	VERIFY MOUNTING HEIGHT
S2	SCONCE	17	LED	120	BOCK	RLM	SURFACE	---	VERIFY MOUNTING HEIGHT
T1	TRACK HEAD SPOT/FLOOD	12	LED	120	LIGHTOLIER	8201	TRACK	WHITE	SEE LFS NOTE 11
T2	TRACK HEAD 4' LINEAR	54	TSHO	120	LIGHTOLIER	37254WH	TRACK	WHITE	SEE LFS NOTE 11
T3	TRACK HEAD	34	LED	120	---	---	TRACK	WHITE	SEE LFS NOTE 11. VERIFY EXACT MANUF & MODEL W/ SUPPLIER
V	TRACK HEAD	34	LED	120	---	---	MONOPOINT	WHITE	SEE LFS NOTE 16. VERIFY EXACT MANUF & MODEL W/ SUPPLIER
W	GLOBE	1	150	MH	120	---	CABLE / CORD	WHITE	VERIFY EXACT MANUFACTURE & MODEL WITH SUPPLIER
W	MONOPOINT	228	LED	120	LIGHTOLIER	6190	SURFACE	WHITE	VERIFY COLOR & LOCATIONS. SEE LFS NOTE 16
Y3	SCONCE	1	100	I	120	KICHLER	459850Z	SURFACE	VERIFY MOUNTING HEIGHT
X1	FROZEN FOODS	11	LED	120	BOCK	W215-41-G BLUE GLASS	SURFACE	---	VERIFY MOUNTING HEIGHT
Z	CHECKOUT	11	LED	120	---	---	SURFACE	---	VERIFY MOUNTING HEIGHT & MANUF & MODEL WITH SUPPLIER
LEM	TWO HEAD EMERGENCY LIGHT W/ MFD BRACKET	2	35	MR16	LIGHTOLIER	20859/ LLEF2RKB	SURFACE	VERIFY	SEE LFS NOTE 4
BEM	BATTERY BACKUP SYSTEM WITH MOUNTING SHLF	---	---	---	LIGHTOLIER	ES2150LSD2 WTD/28M8B	SURFACE	WHITE	SEE LFS NOTE 4
EX	EXIT SIGN	11	LED	120	LIGHTOLIER	LLNURW	WALL OR CLG SURFACE	WHITE	PROVIDE BATTERY BACKUP. SEE LFS NOTE 7
EX1	EXIT SIGN	11	LED	120	LIGHTOLIER	LLNURW2	WALL OR CLG SURFACE	WHITE	PROVIDE BATTERY BACKUP AND REMOTE (2) HEAD EXTERIOR LIGHT
EM	EMERG EGRESS	2	I	120	LIGHTOLIER	E112L7BW	WALL @ 8'4" MINIMUM	WHITE	PROVIDE BATTERY BACKUP. SEE LFS NOTE 7



**1 FLOOR PLAN - LIGHTING SCHEME 'A'**  
 SCALE: 3/32"=1'-0"  
 NOTE - ALL EXIT SIGNS ARE EXISTING TO REMAIN.

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<b>EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)</b> MOTOR HORSEPOWER N/A NUMBER OF PHASES N/A MINIMUM EFFICIENCY N/A MOTOR TYPE N/A NUMBER OF POLES N/A		
<b>DESIGNER STATEMENT:</b> TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA ENERGY CODE 2012, CHAPTER 5.		
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	QUADRUPLEX RECEPTACLE, MTD. +18"		MOMENTARY CONTACT PUSH BUTTON
	COUNTERTOP HT. RECEPTACLE +42"		F-FAN, M-MOTOR, P-PUMP
	SINGLE POLE SWITCH, MTD +47"		SPECIAL OUTLET - AS REQUIRED
	THREE-WAY SWITCH, MTD +47"		EXIT SIGN, ONE SIDED, OR TWO SIDED
	MANUAL STARTER SWITCH		EMERGENCY LIGHTING
	DIMMER SWITCH, MTD +47"		RECESSED MOUNTED LIGHTING FIXTURE
	SWITCH W/ ILLUM WHEN ON MTD +47"		DESIGNATES FIXTURE TYPE
	THREE-WAY SWITCH W/ OCCU SENSOR		OVERHEAD OCCUPANCY SENSOR
	SWITCH W/ OCCU SENSOR		HIGH BAY LIGHTING FIXTURE
	JUNCTION BOX, FLUSH IF POSSIBLE		DESIGNATES FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18"		FLUORESCENT LIGHTING FIXTURE
	DED. COMPUTER TERM. OUTLET +18"		FLUORESCENT STRIP LIGHTING FIXTURE
	DISCONNECT SWITCH W/ STARTER		ISOLATED GROUND
	DISCONNECT SWITCH		WEATHER-PROOF
	FLR. MTD. FLUSH DUPLEX RECEPTACLE		BELOW COUNTER
	FLR. MTD. FLUSH QUAD. RECEPTACLE		TIME CLOCK - 24 HOUR
	FLR. MTD. FLUSH PHONE/DATA OUTLET		GROUND FAULT INTERRUPTER
	FLR. MTD. FLUSH COMPUTER OUTLET		ABOVE FINISHED FLOOR
	AREA SMOKE DETECTOR		ELECTRIC WATER COOLER
	HEAT DETECTOR		ABOVE SHOW WINDOW
	DUCT SMOKE DETECTOR		BELOW SHOW WINDOW
	FIRE ALARM MAN. PULL STATION +47"		FIRE ALARM CONTROL PANEL
	HORN WITH STROBO LIGHT, MTD. +80"		FIRE ALARM ANNUNCIATOR PANEL
	# RESEAL DEVICE IS CANNOLA RATING		
	STROBO LIGHT ONLY, MTD. +80"		
	# RESEAL DEVICE IS CANNOLA RATING		

LIGHTING FIXTURE SCHEDULE							NOTE - NOT ALL FIXTURES MAY BE USED ON PROJECT		
SYMBOL	DESCRIPTION	LAMP NO.	WATT	VOLT	MANUFACTURER	MODEL	MOUNTING	FINISH	REMARKS
A	2'x4' LED	71	LED	120	METALUX	24SR-LD1-64-C	CEILING GRID	WHITE	6420 LUMENS, 90 EFFICACY
A2	2'x4' LED (EM)	71	LED	120	METALUX	24SR-LD1-64-C	CEILING GRID	WHITE	6420 LUMENS, 90 EFFICACY W/ EL14 EMERGENCY BATTERY
B	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	VALANCE SURFACE	WHITE
B1	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	CABLE / CORD	WHITE
B2	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	TO OF CASE SURFACE	WHITE
C	LED FLOOD	175	LED	120			SURFACE	VERIFY	FIXTURES SHINE UP
D	PENDENT	1	210	MH	120	WDELITE	CABLE / CORD	GRAY	SEE LFS NOTE 6
D1S	PENDANT	17	LED	120	BOCK	RLM	RIGID	RED	6"-8" MOUNTING HEIGHT TO BOTTOM OF SHADE.
D1S	PENDANT	17	LED	120	BOCK	RLM	RIGID	SILVER	6"-8" MOUNTING HEIGHT TO BOTTOM OF SHADE.
D2	PENDANT	1	60	I	120	HUBBELL NOSTALOGIC	CABLE / CORD	VERIFY	COORDINATE MOUNTING W/ SUPPLIER TYPE W/ DECOR FABRICATOR
E2	4' FLUOR STRIP	1	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	VALANCE SURFACE	WHITE
F	VERTICAL CYLINDER	96	LED	120	LIGHTOLIER	LL4RWH112 H3/LA/LAV12RF	RECESSED	WHITE	FIXTURES SHINE UP
G	2'x4' TROFFER	3	30	F	120	LIGHTOLIER	K120VA332 UNVGH	CEILING	WHITE
G1	2'x4' TROFFER	3	17	F	120	LIGHTOLIER	X120VA317 T20UR	CEILING	WHITE
G-H	2'x4' TROFFER	3	30	F	120	LIGHTOLIER	X120VA332 UNVGH	CEILING	WHITE
H	FLOOD	30	LED	120	LUMARK	XR0R3A-101-KTORFLD	GROUND	WHITE	COORDINATE W/ ARCHITECT FOR EXACT LOCATION AND AIMING
J	6' BLADE	104	LED	120	GE	EL-C06-3-A3-X-WHITE	SURFACE	WHITE	COORDINATE MOUNTING W/ SUPPLIER
J-EM	4' LINEAR	40	LED	120	DAY-BRITE	1F4R31941 ULAG	SURFACE	WHITE	PROVIDE INVERTER COORDINATE MOUNTING W/ SUPPLIER
K	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	WALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER.
K-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	WALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER.
L	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	ULL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER.
L-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2/LM250S2	RECESSED	WHITE	ULL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER. SEE NOTE 7 AND 10.
M	8" VAPORTIGHT FLUOR STRIP	4	30	F	120	LIGHTOLIER	ST8W232UNVGH	CEILING SURFACE	GRAY
M1	4" VAPORTIGHT FLUOR STRIP	2	30	F	120	LIGHTOLIER	ST4W232UNVGH	SURFACE	GRAY
P	2' LINEAR	28	LED	120	EFFICIENT LIGHTS	262-RCM-120	SURFACE	---	SEE LFS NOTE 14
R	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	PROVIDE FRESNEL LENS FRAME KIT AND DRIVER.
R-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2/LM250S2	RECESSED	---	PROVIDE FRESNEL LENS, DRIVER FRAME KIT & INVERTER. SEE LFS NOTE 7
R2	CAN	12	LED	120	LIGHTOLIER	LYTECASTER 1104K	RECESSED	---	VERIFY EXACT MODEL WITH SUPPLIER INSULATION CONTACT RATED.
R3	WALL WASH CAN	40	LED	120	LIGHTOLIER	DL15200W35K MCL/CBL20N2	RECESSED	WHITE	PROVIDE FRESNEL LENS FRAME KIT AND DRIVER.
S	SCONCE	11	LED	120	PROGRESS	P6003-20	SURFACE	---	VERIFY MOUNTING HEIGHT
S2	SCONCE	17	LED	120	BOCK	RLM	SURFACE	---	VERIFY MOUNTING HEIGHT
T1	TRACK HEAD SPOT/FLOOD	12	LED	120	LIGHTOLIER	8201	TRACK	WHITE	SEE LFS NOTE 11
T2	TRACK HEAD 4' LINEAR	2	54	TSH0	LIGHTOLIER	37254WH	TRACK	WHITE	SEE LFS NOTE 11
T3	TRACK HEAD	34	LED	120	---	---	TRACK	WHITE	SEE LFS NOTE 11. VERIFY EXACT MANUF & MODEL W/ SUPPLIER
T4	TRACK HEAD	34	LED	120	---	---	MONOPONT	WHITE	SEE LFS NOTE 16. VERIFY EXACT MANUF & MODEL W/ SUPPLIER
V	GODO	1	150	MH	120	---	CABLE / CORD	WHITE	VERIFY EXACT MANUFACTURE & MODEL WITH SUPPLIER
W	MONOPONT	228	LED	120	LIGHTOLIER	6190	SURFACE	WHITE	VERIFY COLOR & LOCATIONS. SEE LFS NOTE 16
Y3	SCONCE	1	100	I	120	KICHLER	459650Z	SURFACE	VERIFY MOUNTING HEIGHT
X1	FROZEN FOODS	11	LED	120	BOCK	W215-41-G BLUE GLASS	SURFACE	---	VERIFY MOUNTING HEIGHT
Z	CHECKOUT	11	LED	120	---	---	SURFACE	---	VERIFY MOUNTING HEIGHT & MANUF & MODEL WITH SUPPLIER
LEM	TWO HEAD EMERGENCY LIGHT W/ MFD BRACKET	2	35	MR16	LIGHTOLIER	20859/LF22RKB	SURFACE	VERIFY	SEE LFS NOTE 4
BEM	BATTERY SYSTEM WITH MOUNTING SHELF	---	---	---	LIGHTOLIER	ES2150LS02 WTD/28MM8B	SURFACE	---	SEE LFS NOTE 4
EX	EXIT SIGN	11	LED	120	LIGHTOLIER	LLNURW	WALL OR CLG SURFACE	WHITE	PROVIDE BATTERY BACKUP SEE LFS NOTE 7
EM1	EXIT SIGN	11	LED	120	LIGHTOLIER	LLNURW2	WALL OR CLG SURFACE	WHITE	PROVIDE BATTERY BACKUP AND REMOTE (2) HEAD EXTERIOR LIGHT
EX1	EMERG EGRESS	2	6	I	120	LIGHTOLIER	E112L7W	WALL @ 8'4" MINIMUM	PROVIDE BATTERY BACKUP SEE LFS NOTE 7



**1 FLOOR PLAN - LIGHTING SCHEME 'B'**  
 SCALE: 3/32"=1'-0"  
 NOTE - ALL EXIT SIGNS ARE EXISTING TO REMAIN.

ELECTRICAL SYSTEM AND EQUIPMENT		
METHOD OF COMPLIANCE		
PRESCRIPTIVE	<input checked="" type="checkbox"/>	PERFORMANCE <input type="checkbox"/> ENERGY COST BUDGET <input type="checkbox"/>
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<b>EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)</b> MOTOR HORSEPOWER N/A NUMBER OF PHASES N/A MINIMUM EFFICIENCY N/A MOTOR TYPE N/A NUMBER OF POLES N/A		
<b>DESIGNER STATEMENT:</b> TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA ENERGY CODE 2012, CHAPTER 5.		
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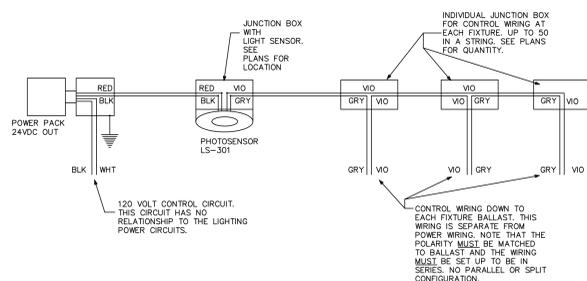
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	DUPLEX RECEPTACLE, MTD. +18" AFF		TRANSFORMER - SIZE AS NOTED
	240 VOLT RECEPTACLE (HT. AS REQ.)		PANEL - SIZE AS NOTED
	QUADRUPLEX RECEPTACLE, MTD. +18"		MOMENTARY CONTACT PUSH BUTTON
	COUNTERTOP HT. RECEPTACLE +42"		F-FAN, M-MOTOR, P-PUMP
	SINGLE POLE SWITCH, MTD +47"		SPECIAL OUTLET - AS REQUIRED
	THREE-WAY SWITCH, MTD +47"		EXIT SIGN: ONE SIDED, OR TWO SIDED
	MANUAL STARTER SWITCH		EMERGENCY LIGHTING
	DIMMER SWITCH, MTD +47"		RECESSED MOUNTED LIGHTING FIXTURE
	SWITCH W/ ILLUM WHEN ON MTD +47"		DESIGNATES FIXTURE TYPE
	THREE-WAY SWITCH W/ OCCU SENSOR		OVERHEAD OCCUPANCY SENSOR
	SWITCH W/ OCCU SENSOR		HIGH BAY LIGHT FIXTURE
	JUNCTION BOX, FLUSH IF POSSIBLE		DESIGNATES FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18"		FLUORESCENT LIGHTING FIXTURE
	DED. COMPUTER TERM. OUTLET +18"		FLUORESCENT STRIP LIGHTING FIXTURE
	DISCONNECT SWITCH W/ STARTER		DESIGNATES FIXTURE TYPE
	DISCONNECT SWITCH		ISOLATED GROUND
	DISCONNECT SWITCH		WEATHER-PROOF
	FLR. MTD. FLUSH DUPLEX RECEPTACLE		BELOW COUNTER
	FLR. MTD. FLUSH QUAD. RECEPTACLE		TIME CLOCK - 24 HOUR
	FLR. MTD. FLUSH PHONE/DATA OUTLET		GROUND FAULT INTERRUPTER
	FLR. MTD. FLUSH COMPUTER OUTLET		ABOVE FINISHED FLOOR
	AREA SMOKE DETECTOR		ELECTRIC WATER COOLER
	HEAT DETECTOR		ABOVE SHOW WINDOW
	DUCT SMOKE DETECTOR		BELOW SHOW WINDOW
	FIRE ALARM MAN. PULL STATION +47"		FIRE ALARM CONTROL PANEL
	HORN WITH STROBO LIGHT, MTD. +80" # RESIDE. DEVICE IS CANNON/UL LISTING		FIRE ALARM ANNUNCIATOR PANEL
	STROBO LIGHT ONLY, MTD. +80" # RESIDE. DEVICE IS CANNON/UL LISTING		

LIGHTING FIXTURE SCHEDULE										
SYMBOL	DESCRIPTION	LAMP NO.	WATT	VOLT	MANUFACTURER	MODEL	MOUNTING	FINISH	REMARKS	
A	2'x4' LED	71	LED	120	METALUX	24SR-LD1-64-C	CEILING GRID	WHITE	6420 LUMENS, 90 EFFICACY MODEL WITH SUPPLIER	
A2	2'x4' LED (EM)	71	LED	120	METALUX	24SR-LD1-64-C	CEILING GRID	WHITE	6420 LUMENS, 90 EFFICACY W/ EL14 EMERGENCY BATTERY	
B	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	VALANCE SURFACE	WHITE	
B1	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	CABLE / CORD	WHITE	
B2	8' FLUOR STRIP	2	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	TO OF CASE SURFACE	WHITE	
C	LED FLOOD	175	LED	120			SURFACE	VERIFY	FIXTURES SHINE UP	
D	PENDENT	1	210	MH	120	WDELITE	CABLE / CORD	GRAY	VERIFY MOUNTING HEIGHT. VERIFY MODEL WITH SUPPLIER	
D1S	PENDANT	17	LED	120	BOCK	RLM	RIGID STEM	RED	6"-8" MOUNTING HEIGHT TO BOTTOM OF SHADE.	
D1R	PENDANT	17	LED	120	BOCK	RLM	RIGID STEM	SILVER	6"-8" MOUNTING HEIGHT TO BOTTOM OF SHADE.	
D2	PENDANT	1	60	I	120	HUBBELL NOSTALOGIC	CABLE / CORD	VERIFY	COORDINATE MOUNTING W/ SUPPLIER. PROVIDE NOSTALOGIC FABRIC. VERIFY TYPE W/ DECOR FABRICATOR	
E2	4' FLUOR STRIP	1	30	F	120	LIGHTOLIER	SN81132RPF UNVGH	VALANCE SURFACE	WHITE	
F	VERTICAL CYLINDER	96	LED	120	LIGHTOLIER	HL4RWH112 H3/LLAV12RF	RECESSED	WHITE	FIXTURES SHINE UP	
G	2'x4' TROFFER	3	30	F	120	LIGHTOLIER	X120VA332 UNVGH-EM	CEILING	WHITE	
G1	2'x2' TROFFER	3	17	F	120	LIGHTOLIER	X120VA317 T20UR	CEILING	WHITE	
G-H	2'x4' TROFFER	3	30	F	120	LIGHTOLIER	X120VA332 UNVGH-EM	CEILING	WHITE	
H	FLOOD	30	LED	120	LUMARK	XR0R3A-P01-KTORFLD	GROUND	WHITE	COORDINATE W/ ARCHITECT FOR EXACT LOCATION AND AIMING	
J	6' BLADE	104	LED	120	GE	EL-006-03-A3-X-WHITE	SURFACE	WHITE	COORDINATE MOUNTING W/ SUPPLIER	
J-EM	4' LINEAR	40	LED	120	DAY-BRITE	LF48R340 ULAG	SURFACE	WHITE	PROVIDE INVERTER. COORDINATE MOUNTING W/ SUPPLIER	
K	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	CEILING RECESSED	WHITE	WALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER	
K-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	CEILING RECESSED	WHITE	WALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER	
L	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	WALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER	
L-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2/LM2502	RECESSED	WHITE	WALL WET LOCATION LISTED. PROVIDE FRAME KIT AND DRIVER. SEE NOTE 7 AND 10.	
M	8" VAPORTIGHT FLUOR STRIP	4	30	F	120	LIGHTOLIER	ST8W232UNVGH	CEILING SURFACE	GRAY	
M1	4" VAPORTIGHT FLUOR STRIP	2	30	F	120	LIGHTOLIER	ST4W232UNVGH	SURFACE	GRAY	
P	2' LINEAR	28	LED	120	EFFICIENT LIGHTS	262-RCM-120	SURFACE	WHITE	SEE LFS NOTE 14	
R	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	PROVIDE FRESNEL LENS. PROVIDE FRAME KIT AND DRIVER	
R-EM	CAN	40	LED	120	LIGHTOLIER	DL15200L35K MCL/CBL20N2	RECESSED	WHITE	PROVIDE FRESNEL LENS. PROVIDE FRAME KIT AND DRIVER. SEE LFS NOTE 7	
R2	CAN	12	LED	120	LIGHTOLIER	LYTECASTER 1104CX	RECESSED	WHITE	VERIFY EXACT MODEL WITH SUPPLIER. INSULATION CONTACT RATED	
R3	WALL WASH CAN	40	LED	120	LIGHTOLIER	DL15200W35K MCL/CBL20N2	RECESSED	WHITE	PROVIDE FRESNEL LENS. PROVIDE FRAME KIT AND DRIVER	
S	SCONCE	11	LED	120	PROGRESS	P6003-20	SURFACE	WHITE	VERIFY MOUNTING HEIGHT	
S2	SCONCE	17	LED	120	BOCK	RLM	SURFACE	WHITE	VERIFY MOUNTING HEIGHT	
T1	TRACK HEAD SPOT/FLOOD	12	LED	120	LIGHTOLIER	8201	TRACK	WHITE	SEE LFS NOTE 11	
T2	TRACK HEAD 4' LINEAR	2	54	TSH0	120	LIGHTOLIER	37254WH	TRACK	WHITE	
T3	TRACK HEAD	34	LED	120			TRACK	WHITE	SEE LFS NOTE 11. VERIFY EXACT MANUF & MODEL W/ SUPPLIER	
V	TRACK HEAD	34	LED	120			MONOPOINT SURFACE	WHITE	SEE LFS NOTE 16. VERIFY EXACT MANUF & MODEL W/ SUPPLIER	
W	GLOBE	1	150	MH	120		CABLE / CORD	WHITE	VERIFY EXACT MANUFACTURE & MODEL WITH SUPPLIER	
X	MONOPOINT	228	LED	120	LIGHTOLIER	6190	SURFACE	WHITE	VERIFY COLOR & LOCATIONS. SEE LFS NOTE 16	
Y3	SCONCE	1	100	I	120	KICHLER	459650Z	SURFACE	WHITE	VERIFY MOUNTING HEIGHT
Z	FROZEN FOODS	11	LED	120	BOCK	W215-41-G BLUE GLASS	SURFACE	WHITE	VERIFY MOUNTING HEIGHT	
2	CHECKOUT	11	LED	120			SURFACE POLE	WHITE	VERIFY MOUNTING HEIGHT & MANUF & MODEL WITH SUPPLIER	
LEM	TWO HEAD EMERGENCY LIGHT W/ MFD BRACKET	2	35	MR16	LIGHTOLIER	20859/LF22R8K	SURFACE	VERIFY	SEE LFS NOTE 4	
BEM	BATTERY SYSTEM WITH MOUNTING SHELF		LED	120	LIGHTOLIER	ES2150LSD2 WTD/2SAM8B	SURFACE	WHITE	SEE LFS NOTE 4	
EX	EXIT SIGN	11	LED	120	LIGHTOLIER	LLNURW	WALL OR CLG SURFACE	WHITE	PROVIDE BATTERY BACKUP. SEE LFS NOTE 7	
EX1	EXIT SIGN	11	LED	120	LIGHTOLIER	LLNURW2	WALL OR CLG SURFACE	WHITE	PROVIDE BATTERY BACKUP AND REMOTE (2) HEAD EXTERIOR LIGHT	
EM	EMERG EGRESS	2	I	120	LIGHTOLIER	E112L76W	WALL @ 8'4" MINIMUM	WHITE	PROVIDE BATTERY BACKUP. SEE LFS NOTE 7	



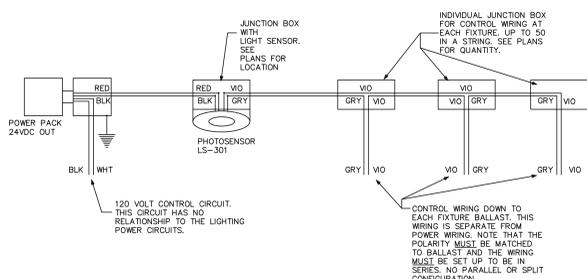
**1 FLOOR PLAN - NIGHT / EMERGENCY LTG SCHEME 'B'**  
 SCALE: 3/32"=1'-0"  
 NOTE - ALL EXIT SIGNS ARE EXISTING TO REMAIN.



**2 LIGHT FIXTURE TYPE 'J' CONTROL WIRING DETAIL**  
 NO SCALE

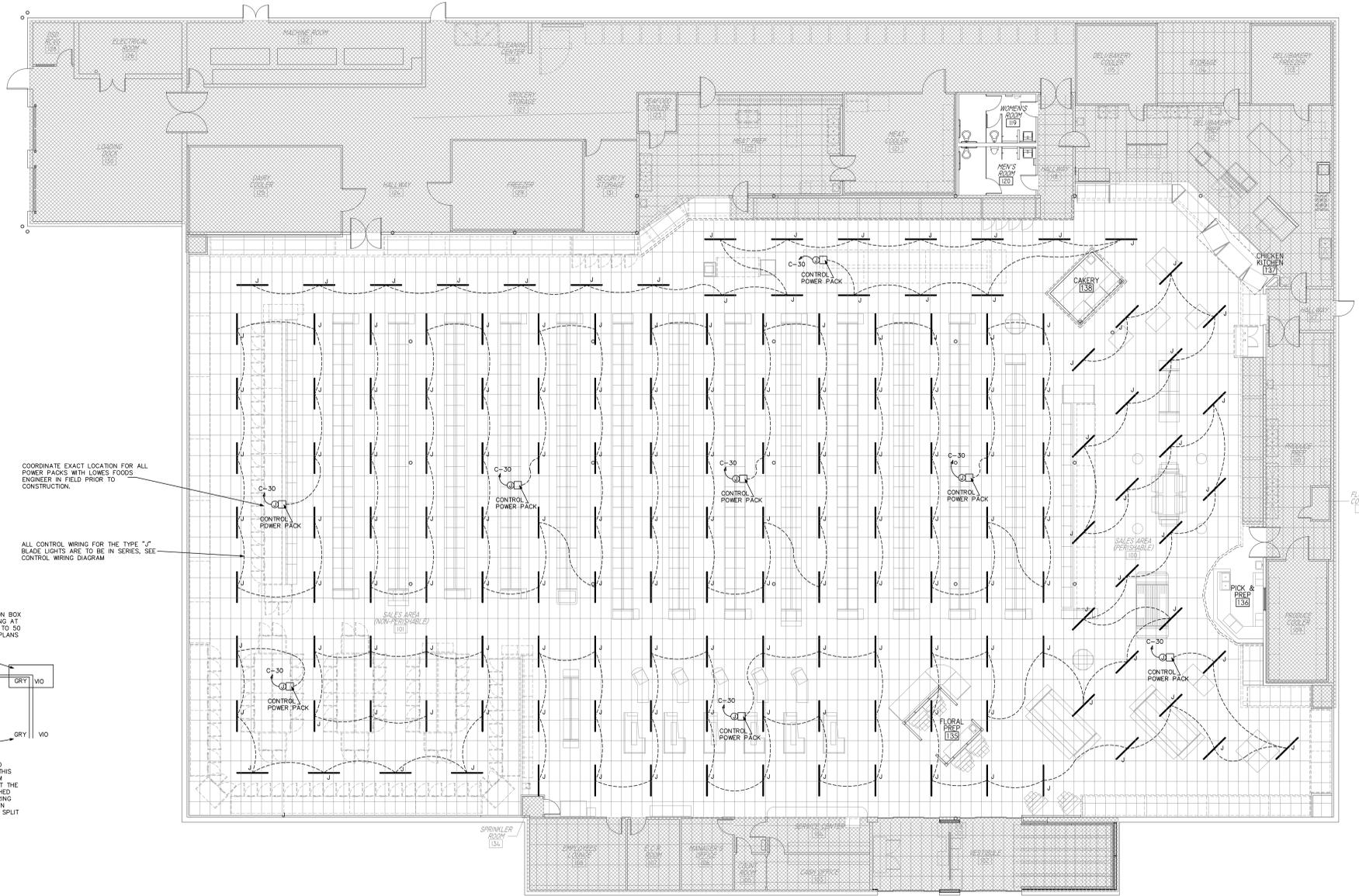
NOTE - THIS CONTROL WIRING IS SEPARATE FROM THE 120 VOLT POWER WIRING TO THE BALLAST. IT CAN AND WILL SPAN BETWEEN VARIOUS CIRCUITS AND FEEDERS.

**1 FLOOR PLAN - LIGHT FIXTURE DIMMING CONTROL WIRING SCHEME 'A'**  
 SCALE: 3/32"=1'-0"

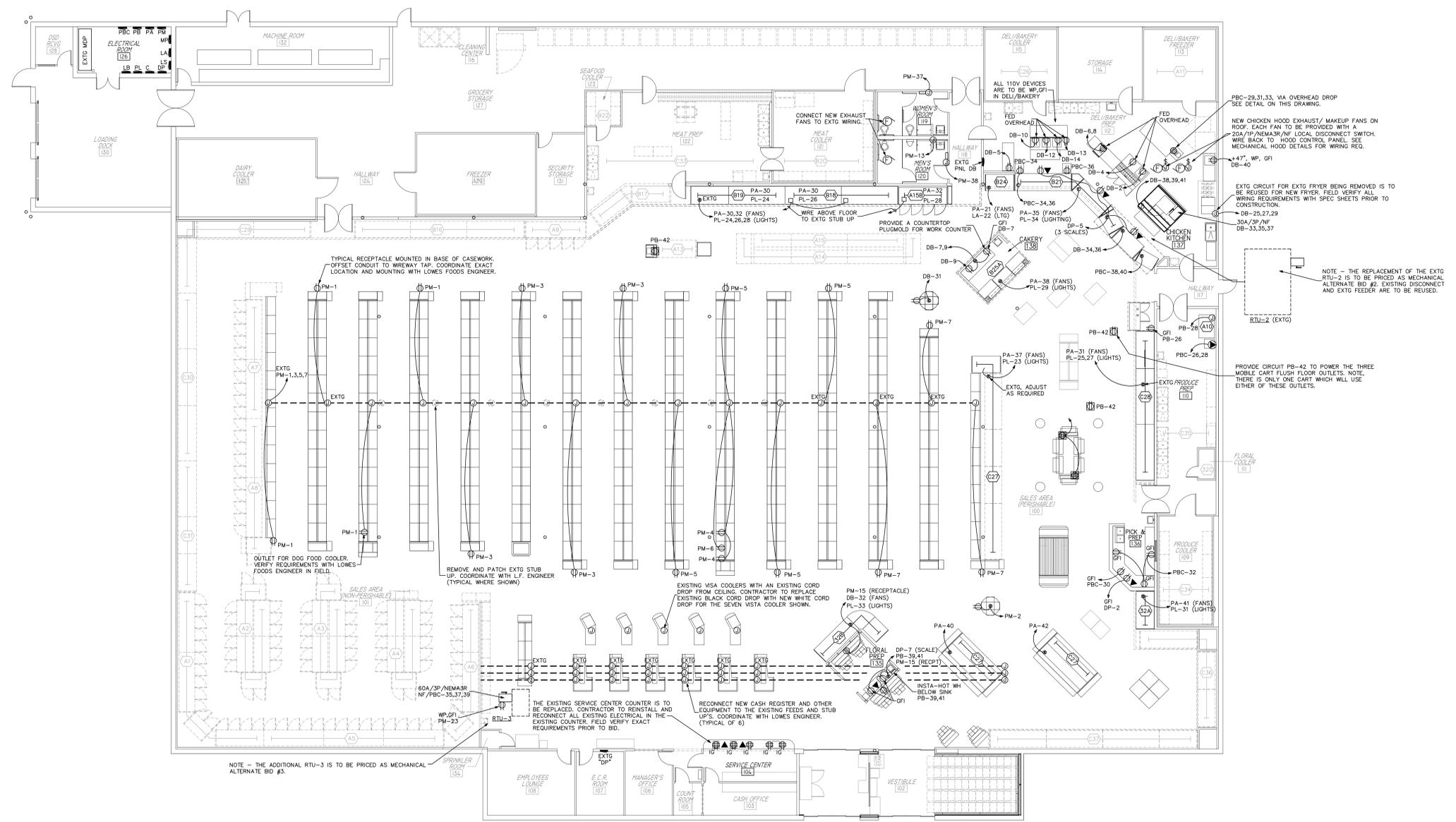
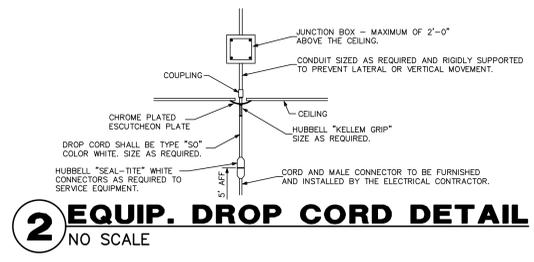


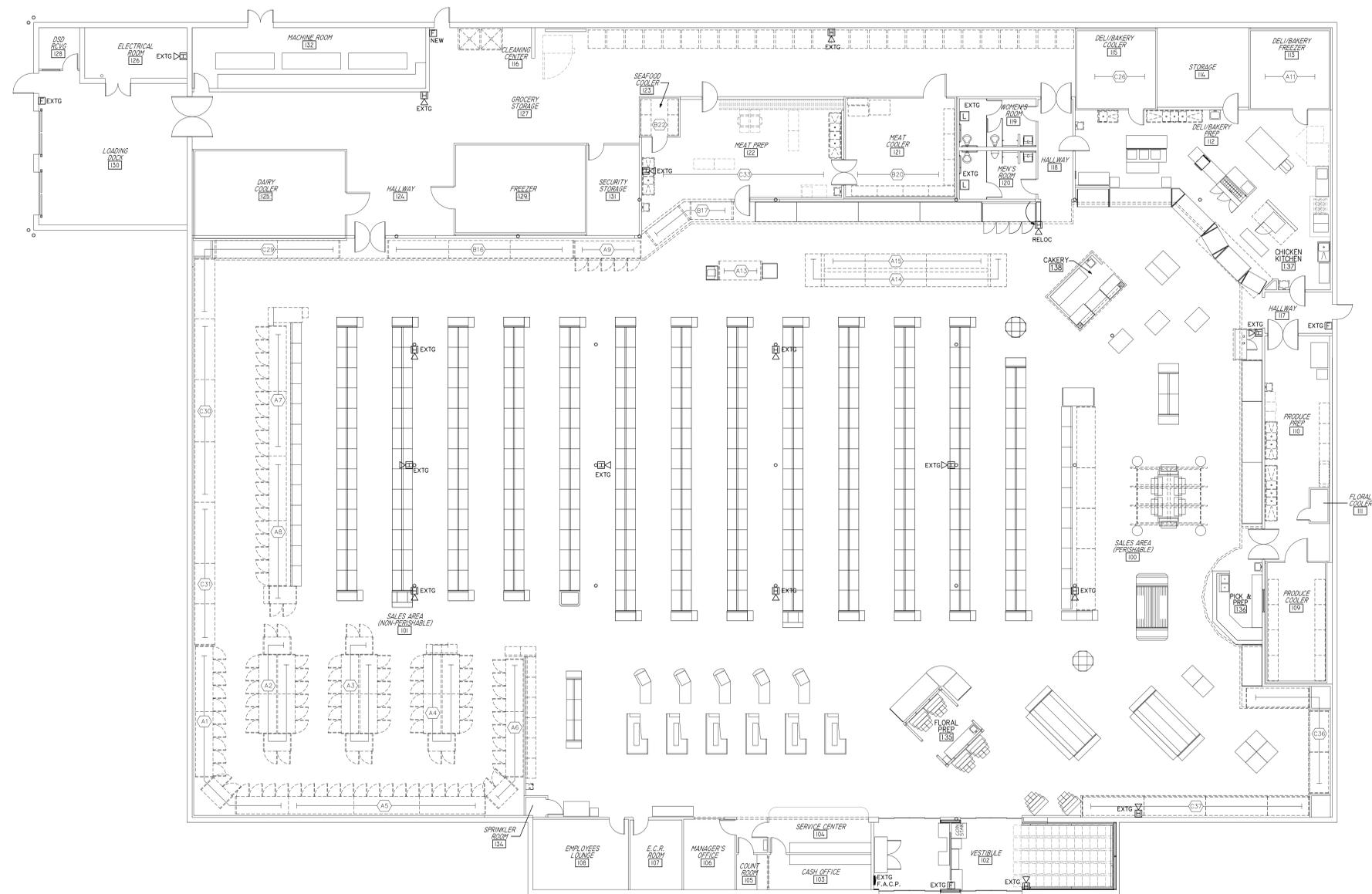
**2 LIGHT FIXTURE TYPE 'J' CONTROL WIRING DETAIL**  
 NO SCALE

NOTE - THIS CONTROL WIRING IS SEPARATE FROM THE 120 VOLT POWER WIRING TO THE BALLAST. IT CAN AND WILL SPAN BETWEEN VARIOUS CIRCUITS AND FEEDERS.



**1 FLOOR PLAN - LIGHT FIXTURE DIMMING CONTROL WIRING SCHEME 'B'**  
 SCALE: 3/32"=1'-0"



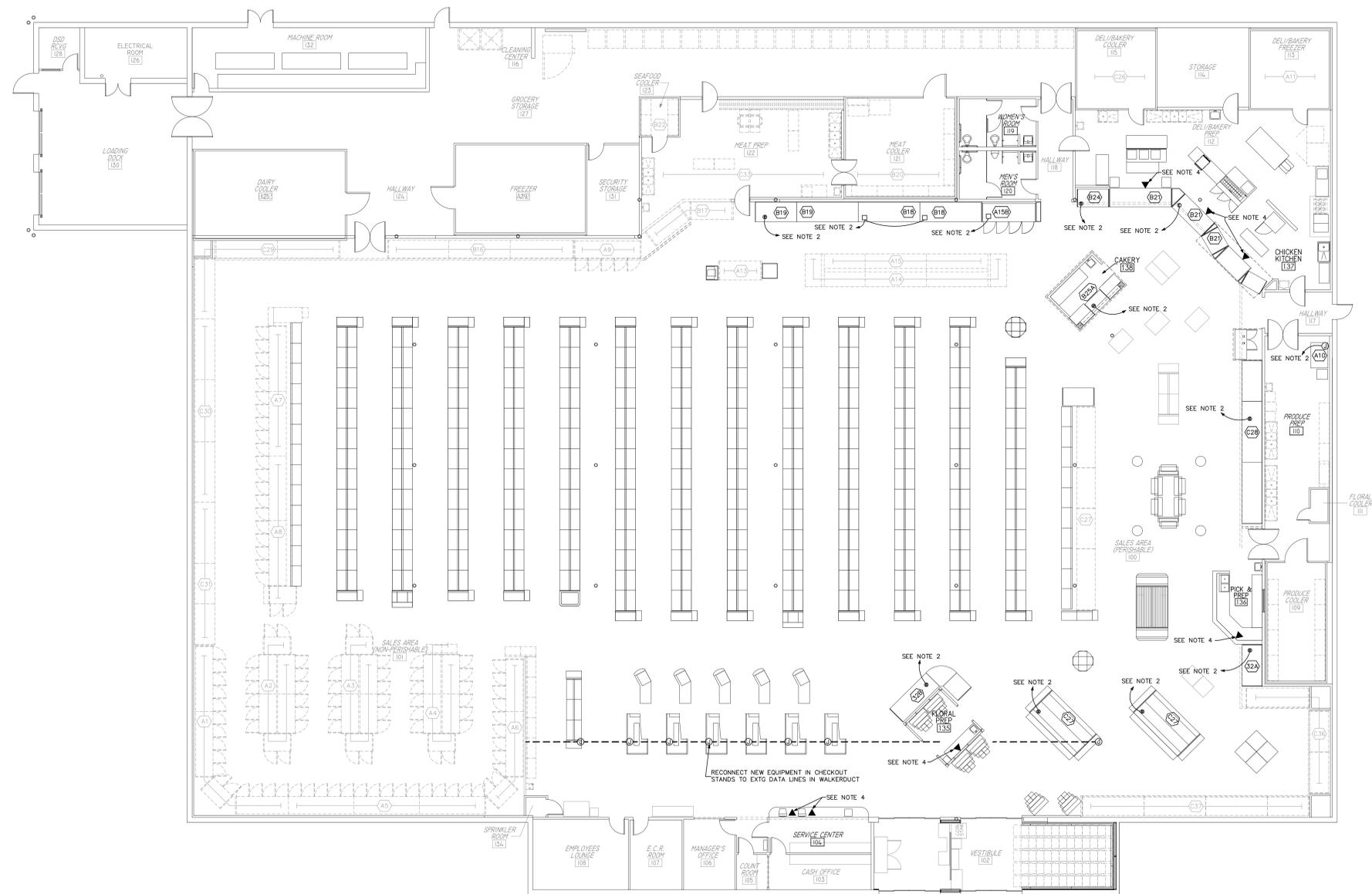


NOTE: THIS IS AN REHAB OF AN EXISTING BUILDING WHICH HAS AN EXISTING FIRE ALARM SERVICE AND DEVICES. THE EXISTING PANEL IS TO BE CAREFULLY INSPECTED TO INSURE PROPER OPERATION AND CAPABILITY TO BE MODIFIED AND EXPANDED TO COVER THE NEW LAYOUT REQUIREMENTS. IT IS SPECIFICALLY THE RESPONSIBILITY OF THE CONTRACTOR TO CAREFULLY EXAMINE THE EXISTING ALARM SYSTEM AND FAMILIARIZE HIMSELF WITH THE CONDITIONS AND RELATE THESE CONDITIONS TO THE SCOPE OF THE NECESSARY WORK. ALL BIDS ARE EXPECTED TO ENCOMPASS THE TOTAL WORK SCOPE NEEDED TO PLACE THE COMPLETED ELECTRICAL SYSTEMS IN WORKING CONDITION AND TO SATISFY ALL REQUIREMENTS OF THE LOCAL AUTHORITIES.

**1 FLOOR PLAN - FIRE ALARM**  
 SCALE: 3/32"=1'-0"

NOTE - THERE IS AN EXISTING FIRE ALARM SYSTEM IN THIS FACILITY. IT IS TO BE MODIFIED AND EXPANDED TO PROVIDE FULL COVERAGE AS PER THESE PLANS, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. CONTRACTOR TO COORDINATE ALL REQUIREMENTS WITH THE LOCAL AUTHORITY. ALL DETECTORS SHALL BE TIED TO THE FIRE ALARM SYSTEM AND SOUND A GENERAL ALARM AS WELL AS ALL FIRE SUPPRESSION SYSTEMS WHICH SHALL ALSO SOUND A GENERAL ALARM. CONTRACTOR TO RELOCATE ANY EXISTING DEVICES WHICH IS ON A BULKHEAD SCHEDULED FOR REMOVAL. COORDINATE WITH EXISTING FIELD CONDITIONS AND ARCHITECTURAL PLANS.

- NOTES:
1. TELEPHONE/DATA OUTLET, CONDUIT SHALL BE ROUTED BACK TO TELEPHONE BOARD AND FULL STRING INSTALLED FOR FUTURE USE..
  2. TWO PAIR SHIELDED CABLES IN A 3/4" C. TO REFRIGERATION RACK.
  3. COORDINATE WITH LOWES FOODS ENGINEER ON EXACT MOUNTING LOCATION AND CONDUIT ROUTING.
  4. 3/4" E.C. ROUTED UNDERSLAB FOR SCALE COMMUNICATION WIRING.
  5. ROUTE CONDUIT FROM OVERHEAD TO UNDERSLAB IN WALL
  6. NOT USED
  7. NOT USED
  8. NOT USED
  9. NOT USED
  10. NOT USED
  11. NOT USED

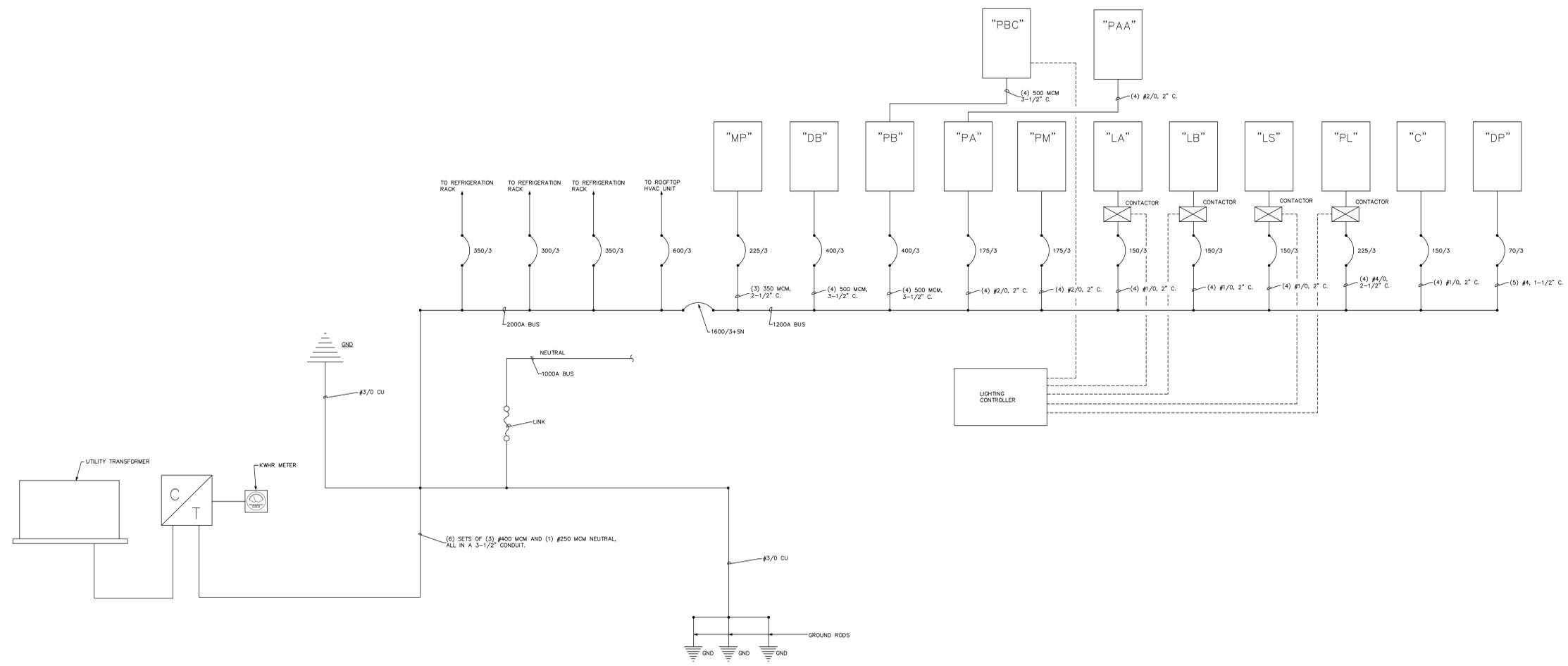


**1 FLOOR PLAN - LOW VOLTAGE / COMMUNICATIONS**  
 SCALE: 3/32" = 1'-0"



**ELECTRICAL NOTES:**

- GENERAL: ALL WORK SHALL CONFORM TO THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL JURISDICTIONAL CODES. THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM, AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORRECTIVE ACTION TO BE TAKEN. THE CONTRACTOR SHALL COORDINATE THE PROPOSED LOCATIONS OF ALL ELECTRICAL MATERIALS AND EQUIPMENT WITH THE REPRESENTATIVES OF THE OTHER TRADES INVOLVED BEFORE STARTING INSTALLATION OF THOSE ITEMS. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES, CONDUIT, AND SLEEVES TO BE SET IN CAST-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED. UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL SPECS ARE NOT INTENDED TO BE PROPRIETARY. SUBSTITUTIONS WILL BE ACCEPTABLE FOR EQUAL RATED AND LISTED UNITS.
- SCOPE: EXCEPT WHERE OTHERWISE SPECIFICALLY INDICATED ON THE DRAWINGS BY "FUTURE," "BY OTHERS," OR BY A SIMILAR NOTATION, IT IS THE INTENT THAT THE CONTRACTOR FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS NECESSARY TO PROVIDE ALL SYSTEMS IN COMPLETE AND OPERATING CONDITION.
- EXCAVATE AS NECESSARY FOR THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT. VERIFY THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES OR STRUCTURES BEFORE EXCAVATING AND EXERCISE CARE TO AVOID DAMAGE TO SUCH ITEMS DURING EXCAVATION. BACKFILL WITH EARTH FREE OF LARGE CLODS, LARGE STONES AND FOREIGN DEBRIS, DEPOSITED IN 4" LAYERS AND COMPACTED TO A DENSITY OF NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- MATERIALS: THE MATERIALS AND EQUIPMENT FURNISHED SHALL BE AS INDICATED ON THE DRAWINGS. SUBSTITUTIONS SHALL NOT BE MADE EXCEPT WHERE EXPRESSLY APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO STARTING INSTALLATION OF THE ITEMS. THE ELECTRICAL MATERIALS AND EQUIPMENT FURNISHED SHALL BE LISTED OR LABELED BY UNDERWRITERS LABORATORIES OR OTHER RECOGNIZED TESTING ORGANIZATION, AND SHALL BE ACCEPTABLE TO THE LOCAL BUILDING AUTHORITY.
- GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250, NEC.
- SHARED NEUTRAL CONDUCTORS SHALL NOT BE ALLOWED UNLESS INSTALLED IN ACCORDANCE WITH NEC-210.4
- CONDUITS: PROVIDE CONDUITS WHERE CALLED FOR ON PANEL SCHEDULES. ELECTRICAL METALLIC TUBING (EMT) SHALL BE INSTALLED ONLY IN DRY LOCATIONS, IN CONCRETE ABOVE GRADE, AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE. CONDUITS INSTALLED UNDERGROUND SHALL BE POLYVINYLCHLORIDE (PVC) AND SHALL NOT BE SMALLER THAN 3/4" TRADE SIZE. WHERE PVC CONDUIT IS INSTALLED UNDERGROUND, ELBOWS TURNING UP AND CONDUIT EMERGING ABOVE GRADE SHALL BE RSC. THE TOPS OF CONDUITS SHALL NOT BE LESS THAN 24" BELOW FINISHED GRADE. PVC CONDUIT INSTALLED ABOVE GRADE OR DIRECT-BURIED IN EARTH SHALL BE NEMA 122 TYPE EPC-40-PVC (SCHEDULE 40) EXCEPT THAT WHERE UNDER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFIC, IT SHALL BE NEMA 122 TYPE EPC-80-PVC (SCHEDULE 80). ALL ARMOR CLAD CABLE (AC CABLE) WIRING SHALL MEET OR EXCEED ALL NEC, OSHA AND HUD STANDARDS.
- CONDUCTORS: CONDUCTORS SHALL BE AS SCHEDULED ON PANEL SCHEDULES. ALL POWER CONDUCTORS SHALL NOT BE SMALLER THAN #14 AWG (CU), OR #12 AWG (AL). CONTROL CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN #18 AWG CU. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET WITHOUT SPLICES EXCEPT WITHIN WIREWAY OR JUNCTION BOXES. MARK CONDUCTORS IN PANELS, PULL BOXES OR WIREWAYS AND TERMINAL STRIP TERMINALS FOR IDENTIFICATION OF CIRCUITS. CONDUCTORS SHALL BE JOINED USING COMPRESSION SPLICES, EXCEPT THAT CONDUCTORS #10 AND SMALLER MAY BE JOINED USING WIRE NUT TYPE CONNECTORS. CONDUCTORS SHALL BE TERMINATED USING COMPRESSION OR PRESSURE TYPE TERMINAL LUGS, OR IN PRESSURE TERMINALS. COMPRESSION SPLICES USED ON CONDUCTORS #10 AWG AND SMALLER, SHALL BE THE SELF-INSULATED TYPE; OTHER SPLICES SHALL BE INSULATED USING 3M #34+ OR #08 PLASTIC TAPE. SPLICES IN WET LOCATIONS SHALL BE INSULATED WITH ELECTRICAL TAPE AND ENCAPSULATED WITH SCOTCHCAST OR EQUAL POTTING COMPOUND.
- PROVIDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE, TAP OFF, OR REDIRECT MULTIPLE CONDUIT RUNS, OF SIZE INDICATED OR AS REQUIRED BY NEC. WHERE FEEDER SPLICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.
- LIGHTING FIXTURES: LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS, AND SHALL BE INSTALLED COMPLETE WITH LAMPS. FIXTURES WITH ADJUSTMENTS AFFECTING LIGHT DISTRIBUTION SHALL BE SET TO PROVIDE THE REQUIRED LIGHT PATTERNS PRIOR TO THE FINAL DEMONSTRATION TEST.
- TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS. THE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE.
- TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 75° C. OPERATION.



**1 ELECTRICAL SERVICE RISER (EXISTING)**  
 NO SCALE NOTE - THIS SERVICE IS EXISTING WITH NO CHANGES ANTICIPATED BY THIS WORK SCOPE. IT IS SHOWN FOR REFERENCE ONLY.

**PANEL C DIVERSIFICATION CALCULATIONS**

RECEPTACLES (5) - 900 VA TOTAL  
 FIRST 10 KW AT 125% - 900  
 LIGHTING - 1680 X 125% - 2100  
 MOTOR LOADS AT 100% - 2480  
 PLUS 25% OF THE LARGEST MOTOR - 174  
 MISC. NON-CONTINUOUS LOADS AT 100% - 8640  
 TOTAL DIVERSIFIED PANEL LOAD - 33444  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 32.36

**PANEL DB DIVERSIFICATION CALCULATIONS**

RECEPTACLES (23) - 4140 VA TOTAL  
 FIRST 10 KW AT 125% - 4140  
 LIGHTING - 100 X 125% - 125  
 MOTOR LOADS AT 100% - 2780  
 PLUS 25% OF THE LARGEST MOTOR - 315  
 MISC. NON-CONTINUOUS LOADS AT 100% - 8480  
 KITCHEN EQUIPMENT (3) - 62633  
 97908 X 0.65 - 63633  
 TOTAL DIVERSIFIED PANEL LOAD - 79413  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 223.64

**PANEL DP DIVERSIFICATION CALCULATIONS**

RECEPTACLES (1) - 180 VA TOTAL  
 FIRST 10 KW AT 125% - 180  
 MISC. NON-CONTINUOUS LOADS AT 100% - 7380  
 TOTAL DIVERSIFIED PANEL LOAD - 7480  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 36.04

**PANEL LA-A DIVERSIFICATION CALCULATIONS**

LIGHTING - 11340 X 125% - 14175  
 MISC. CONTINUOUS LOADS AT 125% - 7380  
 300 X 1.25 - 375  
 TOTAL DIVERSIFIED PANEL LOAD - 14550  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 40.44

**PANEL LA-B DIVERSIFICATION CALCULATIONS**

RECEPTACLES (1) - 180 VA TOTAL  
 FIRST 10 KW AT 125% - 180  
 MISC. NON-CONTINUOUS LOADS AT 100% - 45180  
 TOTAL DIVERSIFIED PANEL LOAD - 45360  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 126.04

**PANEL LB-A DIVERSIFICATION CALCULATIONS**

LIGHTING - 10370 X 125% - 12963  
 TOTAL DIVERSIFIED PANEL LOAD - 12963  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 36.04

**PANEL LB-B DIVERSIFICATION CALCULATIONS**

LIGHTING - 12494 X 125% - 15618  
 TOTAL DIVERSIFIED PANEL LOAD - 15505  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 43.14

**PANEL PA DIVERSIFICATION CALCULATIONS**

RECEPTACLES (1) - 180 VA TOTAL  
 FIRST 10 KW AT 125% - 180  
 MISC. NON-CONTINUOUS LOADS AT 100% - 45180  
 TOTAL DIVERSIFIED PANEL LOAD - 45360  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 126.04

SUMMARY INCLUDES FEED THRU LUG LOADS

**PANEL PAA DIVERSIFICATION CALCULATIONS**

MISC. NON-CONTINUOUS LOADS AT 100% - 15660  
 TOTAL DIVERSIFIED PANEL LOAD - 15660  
 LOAD AT 120/208V/3-PHASE/4-WIRE - 43.34

**PANEL SCHEDULE DP**  
 100 AMP, 120/208 VOLT, SINGLE PHASE, THREE WIRE, M.L.D., 20000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE

#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	WIRE AND CONDUIT				BKR.
		COND.	NEUTRAL	GND	C.		COND.	NEUTRAL	GND.	C.	
1	20/1	#10	#10	#10	1/2	CHAL. CASH REGISTER 4 (I.G.) *	500	500			2
3	20/1	#10	#10	#10	1/2	CHAL. CASH REGISTER 1 (I.G.) *	500	500			4
5	20/1	#10	#10	#10	1/2	CHAL. (3) BELI/BAKERY SCALES *	800	800			6
7	20/1	#10	#10	#10	1/2	CHAL. FLORAL SCALE *	500	500			8
9	20/1	#10	#10	#10	1/2	CHAL. CASH REGISTER 7 (I.G.) *	500	500			10
11	20/1	#10	#10	#10	1/2	CHAL. CASH REGISTER 2 (I.G.) *	500	500			12
13	20/1	#10	#10	#10	1/2	CHAL. CASH REGISTER 6 (I.G.) *	500	500			14
15						SPACE	0	0			16
17	20/1	#10	#10	#10	1/2	CHAL. CASH REGISTER 5 (I.G.) *	500	500			18

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 C-CU WIRE H-THWN A-EMT L-78-86 Deg. F.

PEAK PHASE (A) UNBALANCED NEUTRAL LOAD AMPS = 35.8 AMPS  
 NON DIVERSIFIED LOAD AT 208 VOLT, THREE PHASE = 36. AMPS

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PANEL NOTES:  
 \* - REUSE EXTG BREAKER AND FEEDER TO FEED NEW / RELOCATED LOADS

**PANEL SCHEDULE DB**  
 400 AMP, 120/208 VOLT, THREE PHASE, FOUR WIRE, M.L.D., 20000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE

#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	WIRE AND CONDUIT				BKR.
		COND.	NEUTRAL	GND	C.		COND.	NEUTRAL	GND.	C.	
1	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			2
3	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			4
5	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			6
7	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			8
9	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			10
11	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			12
13	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			14
15	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			16
17						SPACE	0	0			18
19	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			20
21	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			22
23	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			24
25	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			26
27	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			28
29	20/1	#10	#10	#10	1/2	CHAL. RECEPTACLES	540	540			30

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 C-CU WIRE H-THWN A-EMT L-78-86 Deg. F.

PEAK PHASE (A) UNBALANCED NEUTRAL LOAD AMPS = 50.7 AMPS  
 NON DIVERSIFIED LOAD AT 208 VOLT, THREE PHASE = 314.9 AMPS

PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001  
 REGISTERED TO - TODD W. CAREY AND ASSOCIATES

PANEL NOTES:  
 \* - REUSE EXTG BREAKER, MODIFY EXTG FEEDER AS NECESSARY TO FEED NEW LOAD(S)  
 \*\* - PROVIDE NEW BREAKER AND FEEDER FOR NEW LOAD(S)

**PANEL SCHEDULE C**  
 100 AMP, 120/208 VOLT, THREE PHASE, FOUR WIRE, M.L.D., 10000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE

#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	WIRE AND CONDUIT				BKR.
		COND.	NEUTRAL	GND	C.		COND.	NEUTRAL	GND.	C.	
1	20/1	#10	#10	#10	1/2	CHAL. EXTG OFFICE LIGHTING	960	960			2
3	20/1	#10	#10	#10	1/2	CHAL. EXTG OFFICE LIGHTING	960	960			4
5	20/1	#10	#10	#10	1/2	CHAL. EXTG OFFICE LIGHTING	960	960			6
7	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			8
9	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			10
11	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			12
13	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			14
15	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			16
17	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			18
19	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			20
21	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			22
23	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			24
25	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			26
27	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			28
29	20/1	#10	#10	#10	1/2	CHAL. EXTG REAR LIGHTING	1000	1000			30

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 C-CU WIRE H-THWN A-EMT L-78-86 Deg. F.

PEAK PHASE (B) UNBALANCED NEUTRAL LOAD AMPS = 86.3 AMPS  
 NON DIVERSIFIED LOAD AT 208 VOLT, THREE PHASE = 80.8 AMPS

PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001  
 REGISTERED TO - TODD W. CAREY AND ASSOCIATES

PANEL NOTES:  
 \* - REUSE EXTG BREAKER AND FEEDER TO FEED NEW / RELOCATED LOADS  
 \*\* - PROVIDE NEW BREAKER AND FEEDER FOR NEW LOADS

**PANEL SCHEDULE LB-A**  
 225 AMP, 120/208 VOLT, THREE PHASE, FOUR WIRE, M.L.D., 20000 AMPS MINIMUM A.I.C. BRACING, SURFACE MOUNTED, TYPE NEMA 1 ENCLOSURE

#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	WIRE AND CONDUIT				BKR.
		COND.	NEUTRAL	GND	C.		COND.	NEUTRAL	GND.	C.	
1	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			2
3	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			4
5	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			6
7	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			8
9	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			10
11	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			12
13	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			14
15	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			16
17	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	180	180			18
19						SPACE	0	0			20
21						SPACE	0	0			22
23						SPACE	0	0			24
25						SPACE	0	0			26
27						SPACE	0	0			28
29						SPACE	0	0			30

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 C-CU WIRE H-THWN A-EMT L-78-86 Deg. F.

PEAK PHASE (C) UNBALANCED NEUTRAL LOAD AMPS = 31.2 AMPS  
 NON DIVERSIFIED LOAD AT 208 VOLT, THREE PHASE = 28.8 AMPS

PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001  
 REGISTERED TO - TODD W. CAREY AND ASSOCIATES

PANEL NOTES:  
 \* - REUSE EXTG BREAKER AND FEEDER TO FEED NEW / RELOCATED LOADS

**PANEL SCHEDULE LA-B**  
 225 AMP, 120/208 VOLT, THREE PHASE, FOUR WIRE, M.L.D., 20000 AMPS MINIMUM A.I.C. BRACING, SURFACE MOUNTED, TYPE NEMA 1 ENCLOSURE

#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	WIRE AND CONDUIT				BKR.
		COND.	NEUTRAL	GND	C.		COND.	NEUTRAL	GND.	C.	
1	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			2
3	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			4
5	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			6
7	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			8
9	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			10
11	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			12
13	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			14
15	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			16
17	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			18
19						SPACE	0	0			20
21						SPACE	0	0			22
23						SPACE	0	0			24
25						SPACE	0	0			26
27						SPACE	0	0			28
29						SPACE	0	0			30

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 C-CU WIRE H-THWN A-EMT L-78-86 Deg. F.

PEAK PHASE (A) UNBALANCED NEUTRAL LOAD AMPS = 36.4 AMPS  
 NON DIVERSIFIED LOAD AT 208 VOLT, THREE PHASE = 31.7 AMPS

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PANEL NOTES:  
 \* - REUSE EXTG BREAKER AND FEEDER TO FEED NEW / RELOCATED LOADS

**PANEL SCHEDULE LB-B**  
 225 AMP, 120/208 VOLT, THREE PHASE, FOUR WIRE, M.L.D., 20000 AMPS MINIMUM A.I.C. BRACING, SURFACE MOUNTED, TYPE NEMA 1 ENCLOSURE

#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	WIRE AND CONDUIT				BKR.
		COND.	NEUTRAL	GND	C.		COND.	NEUTRAL	GND.	C.	
1	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			2
3	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			4
5	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			6
7	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			8
9	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			10
11	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			12
13	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			14
15	20/1	#10	#10	#10	1/2	CHAL. NEW TRACK/ACCENT LIGHTS *	216	216			16
17	20										

