

\*\*\* NOTES FOR CONDUCTOR DERATING \*\*\*

CONDUCTOR TYPE & SIZE: #10 THIN CU.  
MAX. AMPS PER TABLE 310.16: 40 AMPS AT 90°C  
BRANCH CIRCUIT OCPD = 20 AMPS.  
AMBIENT TEMPERATURE: < 30°C  
TERMINATE AT 30A MAX. (60°C) PER 110.14(C)(1)(a)

TOTAL CURRENT CARRYING CONDUCTORS ("CCC") IN SAME RACEWAY: 10.  
MULTIPLYING FACTOR: 10 TO 20 CCC'S IN SAME RACEWAY: 0.5.  
40 AMPS x 0.5 = 20 AMPS DERATED VALUE.  
MAXIMUM OCPD = 20 AMPS.

\*\*\* NOTES FOR RACEWAY SIZING \*\*\*

CONDUCTOR TYPE & SIZE: #10 THIN CU.  
RACEWAY TYPE AND SIZE: 1" EMT.  
TOTAL CONDUCTORS PER RACEWAY: 11.

MINIMUM AREA REQUIRED: 0.232 SQ. IN.  
TOTAL AREA FOR 1" EMT: 0.864 SQ. IN.  
40% FILL AREA; MORE THAN (2) CONDUCTORS: 0.346 SQ. IN.  
MINIMUM AREA REQUIRED < 40% FILL AREA?: YES.  
RACEWAY SIZE -VS- CONDUCTOR FILL IS COMPLIANT, PER CHAPTER 9 TABLES.

TYPICAL OF (3): MH-2,46  
MH-8,10,12  
MH-7,9,11

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BRANCH CIRCUIT OCPD = 20 AMPS.  
AMBIENT TEMPERATURE: < 30°C  
TERMINATE AT 30A MAX. (60°C) PER 110.14(C)(1)(a)

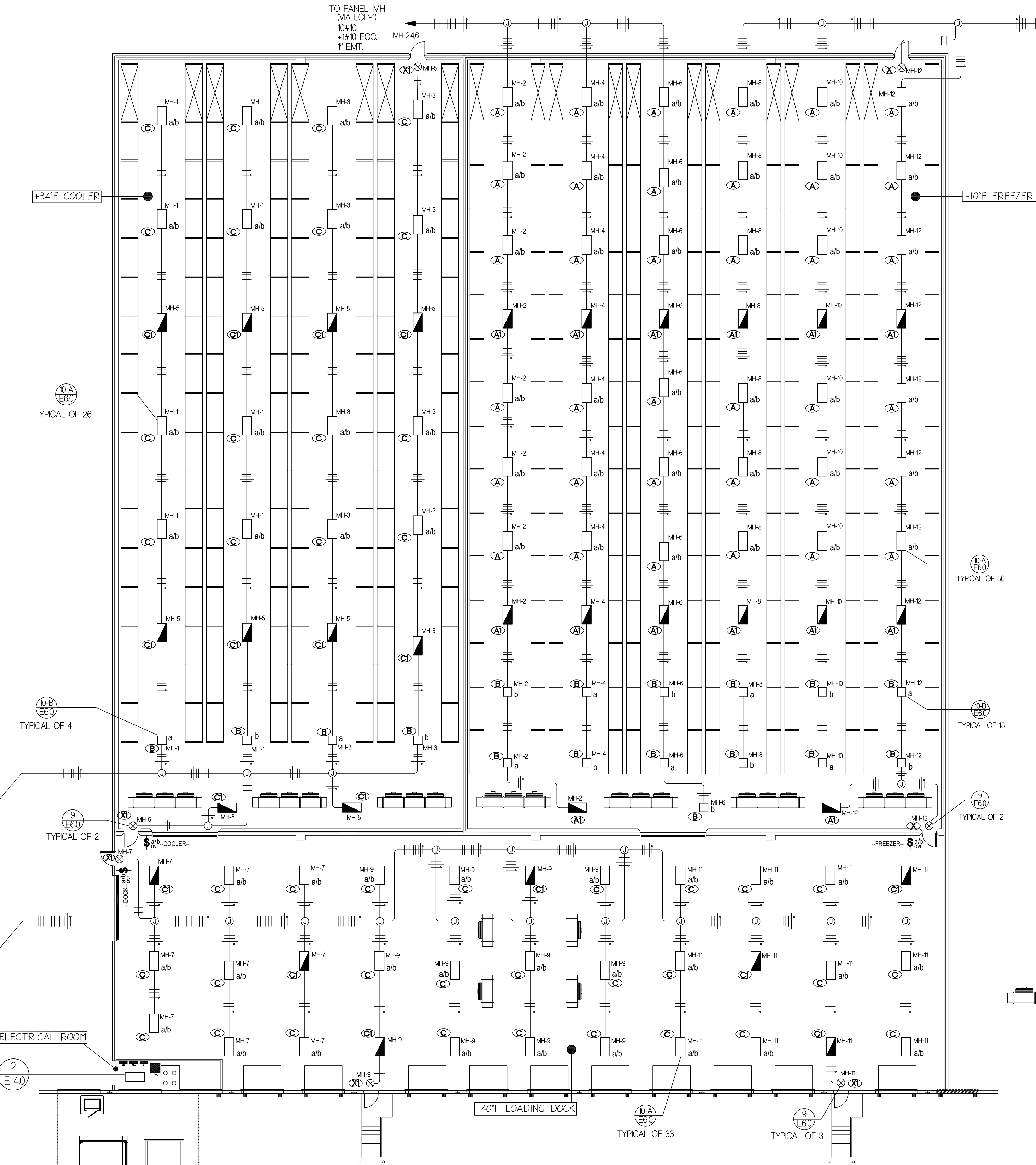
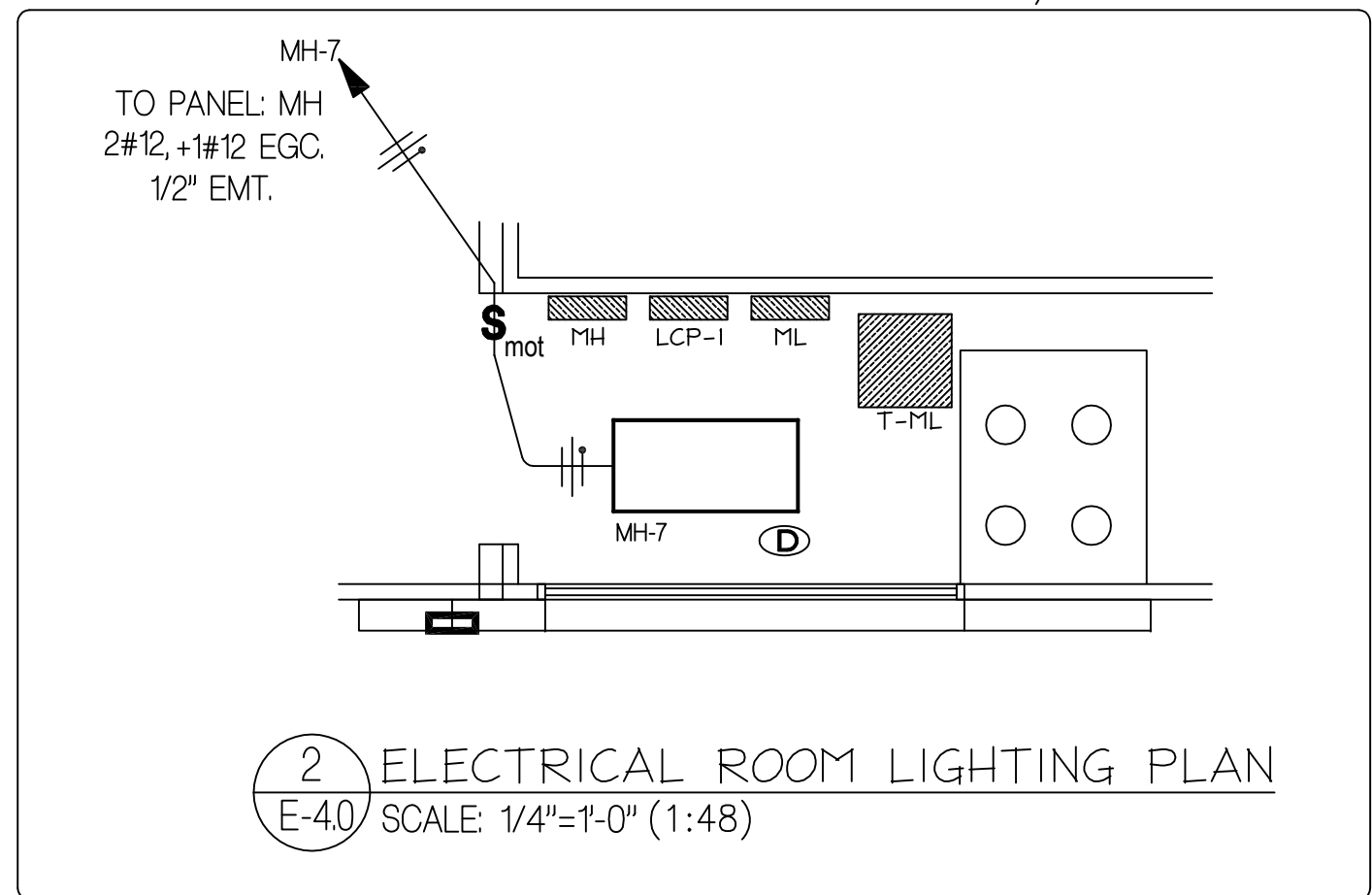
TOTAL CURRENT CARRYING CONDUCTORS ("CCC") IN SAME RACEWAY: 6.  
MULTIPLYING FACTOR: 4 TO 6 CCC'S IN SAME RACEWAY: 0.8.  
40 AMPS x 0.8 = 32 AMPS DERATED VALUE.  
MAXIMUM OCPD = 30 AMPS.

\*\*\* NOTES FOR RACEWAY SIZING \*\*\*

CONDUCTOR TYPE & SIZE: #10 THIN CU.  
RACEWAY TYPE AND SIZE: 3/4" EMT.  
TOTAL CONDUCTORS PER RACEWAY: 7.

MINIMUM AREA REQUIRED: 0.148 SQ. IN.  
TOTAL AREA FOR 3/4" EMT: 0.533 SQ. IN.  
40% FILL AREA; MORE THAN (2) CONDUCTORS: 0.213 SQ. IN.  
MINIMUM AREA REQUIRED < 40% FILL AREA?: YES.  
RACEWAY SIZE -VS- CONDUCTOR FILL IS COMPLIANT, PER CHAPTER 9 TABLES.

TYPICAL OF (1): MH-1,3,5



\*\*\* NOTES FOR TYPE "A" AND TYPE "C" FIXTURES \*\*\*

EACH FIXTURE WITH DESIGNATION a/b  
TO HAVE BI-LEVEL "a/b" SWITCHING CONTROL AS FOLLOWS:  
A: BALLAST #1 FOR OUTER LAMPS, CONNECT TO SWITCHLEG FOR "a".  
B: BALLAST #2 FOR INNER LAMPS, CONNECT TO SWITCHLEG FOR "b".

LIGHTING FIXTURE SCHEDULE									
TYPE	MANUFACTURER	CATALOG NUMBER	MOUNTING SURFACE RECESS	VOLTAGE	NUMBER LAMPS	TOTAL WATTS	LAMP TYPE AND COLOR	FIXTURE DESCRIPTION AND REMARKS	
A	METALUX	MH-45415-277-EBT2	X	277	6	324	F54T5HD 5800K	2X 6 LAMP FLUORESCENT SURFACE MOUNTED HIGHBAY FIXTURE W/ (2) ELECTRONIC BALLASTS. ARTIC. BAY SERIES. SEALED AND GASKETED DOOR. UL LISTED. RATED FOR -20°F.	0-0-36
AI	METALUX	MH-45415-277-EL-EBT2	X	277	6	324	F54T5HD 5800K	2X 6 LAMP FLUORESCENT SURFACE MOUNTED HIGHBAY FIXTURE W/ (2) ELECTRONIC BALLASTS. ARTIC. BAY SERIES. SEALED AND GASKETED DOOR. UL LISTED. RATED FOR -20°F. INCLUDES EMERGENCY BACK-UP BALLAST (CENTER LAMPS). LOCATIONS USED: -10°F FREEZER.	0-0-14
B	METALUX	MH-45415-277-EL-EBT2	X	277	1	320	PSMH ANSI M132	22" SQUARE SURFACE MOUNT HID CANOPY FIXTURE. PULSE START METAL HALIDE, WITH HPF BALLAST. CLO/S SERIES. SEALED AND GASKETED DOOR. UL LISTED. RATED FOR -20°F. INCLUDES EMERGENCY BACK-UP BALLAST (CENTER LAMPS). LOCATIONS USED: -10°F FREEZER, +34°F COOLER.	4-0-13
C	METALUX	MH-45415-277-EL-EBT2	X	277	6	324	F54T5HD 5800K	2X 6 LAMP FLUORESCENT SURFACE MOUNTED HIGHBAY FIXTURE W/ (2) ELECTRONIC BALLASTS. ARTIC. BAY SERIES. SEALED AND GASKETED DOOR. UL LISTED. RATED FOR -20°F. INCLUDES EMERGENCY BACK-UP BALLAST (CENTER LAMPS). LOCATIONS USED: COOLER, LOADING DOCK.	16-26-0
D	METALUX	MH-45415-277-EL-EBT2	X	277	6	324	F54T5HD 5800K	2X 6 LAMP FLUORESCENT SURFACE MOUNTED HIGHBAY FIXTURE W/ (2) ELECTRONIC BALLASTS. ARTIC. BAY SERIES. SEALED AND GASKETED DOOR. UL LISTED. RATED FOR -20°F. INCLUDES EMERGENCY BACK-UP BALLAST (CENTER LAMPS). LOCATIONS USED: COOLER, LOADING DOCK.	10-7-0
X	LITHONIA	UV-5-1-G-128/277-EL-N-4X	X	277	4	216	F54T5HD 5800K	2X 4 LAMP FLUORESCENT SURFACE MOUNTED HIGHBAY FIXTURE W/ (2) ELECTRONIC BALLASTS. ARTIC. BAY SERIES. SEALED AND GASKETED DOOR. UL LISTED. RATED FOR -20°F. INCLUDES EMERGENCY BACK-UP BALLAST (CENTER LAMPS). LOCATIONS USED: ELECTRICAL ROOM.	0-0-0
XI	LITHONIA	UV-5-1-G-128/277-EL-N-4X	X	277	4	216	F54T5HD 5800K	2X 4 LAMP FLUORESCENT SURFACE MOUNTED HIGHBAY FIXTURE W/ (2) ELECTRONIC BALLASTS. ARTIC. BAY SERIES. SEALED AND GASKETED DOOR. UL LISTED. RATED FOR -20°F. INCLUDES EMERGENCY BACK-UP BALLAST (CENTER LAMPS). LOCATIONS USED: ELECTRICAL ROOM.	0-0-2

1 LIGHTING FIXTURE SCHEDULE  
SCALE: NOT TO SCALE

REFER TO SHEET "E-12" FOR LIGHTING CONTROL SCHEMATIC, SWITCH OUTLET DETAILS, AND SWITCH LOOP COMBUS DETAILS.

\*\*\* NOTE: WHERE CABLES / CONDUCTORS ARE INSTALLED INSIDE COOLERS, AND / OR FREEZERS, INSULATION SHALL BE RATED FOR TEMPERATURES BELOW 34°F:  
1: CONDUCTOR INSULATION SHALL BE TYPE XHHW, OR EQUAL  
2: CABLE JACKETS SHALL BE TYPE F.E.P., OR EQUAL

AIC / KAIC: AMPERES INRUSH CAPACITY / KILO AMPERES INRUSH CAPACITY  
CCC: CURRENT CARRYING CONDUCTOR  
EGC: EQUIPMENT GROUNDING CONDUCTOR  
EMT: ELECTRICAL METALLIC TUBING  
EXIST.: EXISTING  
GFPD: GROUND FAULT PROTECTION FOR EQUIPMENT  
HID: HIGH INTENSITY DISCHARGE LIGHTING  
LFMC: LIQUIDTITE FLEXIBLE METAL CONDUIT (SEALTITE)  
LCPH: LIGHTING CONTROL PANEL #1 (NEW)  
OCPD: OVERCURRENT PROTECTION DEVICE  
OVR: 2-HOUR MANUAL OVER RIDE SWITCH  
PIR: PASSIVE INFRARED  
PSMH: PULSE START METAL HALIDE  
TSHO: FLUORESCENT TUBULAR LAMP - 5/8" DIAMETER, HIGH OUTPUT (800 MA)

3 ABBREVIATIONS  
SCALE: NOT TO SCALE

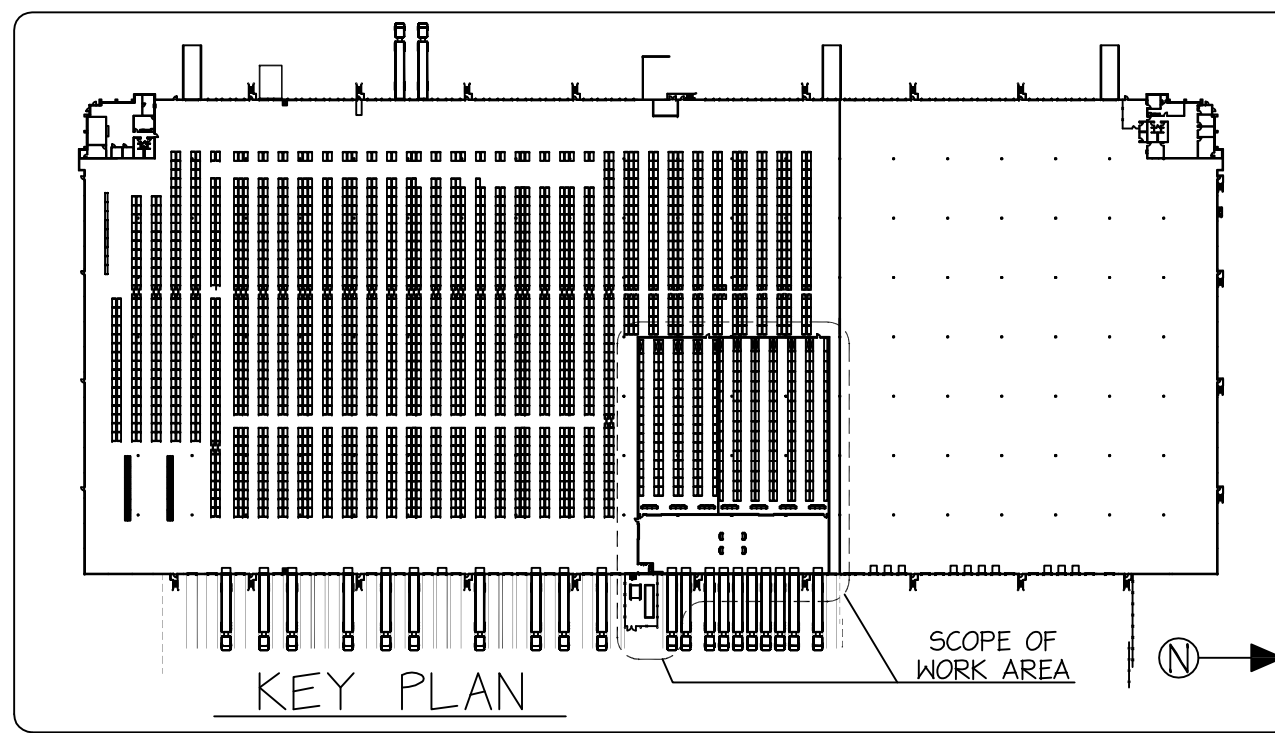
LIGHTING SYMBOLS LEGEND

- FLUORESCENT SURFACE MOUNT FIXTURE: (6) TSHO LAMPS.
- FLUORESCENT SURFACE MOUNT FIXTURE: (6) TSHO LAMPS. NIGHT LIGHT WITH EMERGENCY BALLAST (EM BALLAST CONNECTED TO INSIDE LAMPS).
- HID (PSMH) SURFACE MOUNT CANOPY FIXTURE.
- LOW VOLTAGE SWITCH LOCATION: "a/b" BI-LEVEL + OVERRIDE. (INSTALL WITH NEMA 4X COVER) CHLSEA DIGITAL SWITCH MODEL NO.: CH-3
- PIR WALL MOUNT MOTION DETECTOR SWITCH. 20 AMP, 120/277V 1 GANG.
- LIGHTED EXIT SIGN.
- JUNCTION BOX.
- UNGROUND "HOT" CONDUCTOR.
- GROUND "NEUTRAL" CONDUCTOR.
- EQUIPMENT GROUNDING CONDUCTOR.
- DETAIL REFERENCE / CALLOUT ("a" = DRAWING #9, "E6.0" = SHEET E-6.0)
- EVAPORATOR: +34°F COOLER / -10°F FREEZER
- EVAPORATOR: +40°F LOADING DOCK

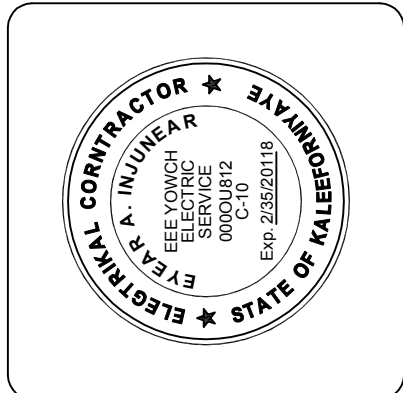
2 SYMBOLS LEGEND  
SCALE: NOT TO SCALE

\*\*\* FIXTURE MOUNTING + INSULATED PANEL PENETRATION DETAILS \*\*\*

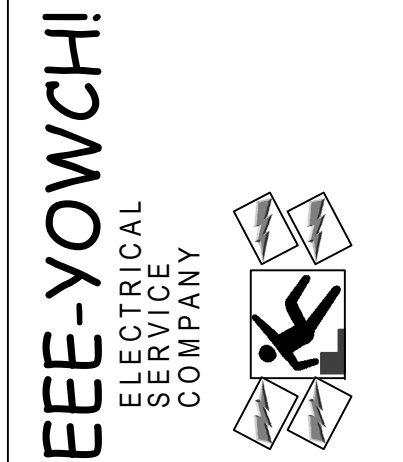
- EXIT SIGNS  
SEE SHEET "E-6.0", DRAWING #9
- FLUORESCENT HIBAY FIXTURES  
SEE SHEET "E-6.0", DRAWING #10-A
- HID (PSMH) CANOPY MOUNT FIXTURES  
SEE SHEET "E-6.0", DRAWING #10-B



REV.	DESCRIPTION	DATE
1	BY DATE	10/22/200
2	BY DATE	10/22/200
3	BY DATE	10/22/200
4	BY DATE	10/22/200
5	BY DATE	10/22/200
6	BY DATE	10/22/200
7	BY DATE	10/22/200
8	BY DATE	10/22/200
9	BY DATE	10/22/200
10	BY DATE	10/22/200



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HEERINTHASTATOF, KALEEFORNIAYE. 987654-3210  
Phone: (800) 555-1212 Fax: (000) 867-5309  
State of Kaleeforniya Contractors License CPO-000 ou812 Expiry Date: 02/28/2018



PROJECT:  
LARRY, MOE AND CURLEY COLD STORAGE  
TRIPLESTOOGEE DISTRIBUTION CENTER  
00086 THOYTEE-THOYED AVE  
TRIPLESTOOGEE, CA 987654-0123  
PLANCHCK SUBMIT SET 00/00/20XX

DATE: 00/00/20XX  
SCALE: 3/32"=1'-0"  
DRAWN: S.E.T.  
REVISED:  
JOB No: LMCCS-ZB000  
CAD ID: LMCCS-ZB000-E4.0  
SHEET

E-4.0