

J:\PROJECTS\2013\1701010567\_C001\_STRYKER\_170607\_CADSHOTS\10\_BLDG\_MECHANICAL\_PACKAGE\ELECTRICAL\_COVERSHEET.DWG

PROJECT GENERAL NOTES

- 1. ALL WORK SHALL COMPLY WITH CURRENT FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES AS WELL AS THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL REPORT ANY CONFLICTS TO THE ENGINEER AS SOON AS THEY ARE DISCOVERED.
2. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE A.D.A.A.G. (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES).
3. THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS PRIOR TO BIDDING JOB AND DURING CONSTRUCTION. EXCEPT AS OTHERWISE NOTED, THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND LABOR FOR A COMPLETE PROJECT AS SHOWN IN THE DRAWINGS AND SPECIFICATIONS. DRAWINGS AND SPECIFICATIONS CARRY FULL IMPORTANCE AND ITEMS LISTED IN EITHER SHALL BE FURNISHED AS IF LISTED IN BOTH. ALSO REVIEW DETAILS AND RISER DIAGRAMS FOR ADDITIONAL ITEMS/INSTRUCTIONS WHETHER SPECIFICALLY REFERRED TO ON PLANS OR NOT.
4. THE CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING SITE CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL, INCLUDING THE EXTENT OF DEMOLITION AND CONFLICTS WITH PLANS.
5. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND SHOW THE GENERAL INSTALLATION OF EQUIPMENT AND MATERIALS IN RELATIONSHIP TO STRUCTURE AND OTHER TRADES. THEY MAY NOT SHOW EVERY REQUIRED OFFSET, FITTING, ETC. CONTRACTOR SHALL FIELD VERIFY ACTUAL JOB CONDITIONS AND COORDINATE WORK WITH OTHER TRADES PRIOR TO BIDDING JOB AND PRIOR TO ORDERING EQUIPMENT, FABRICATION OF MATERIALS, OR STARTING WORK. CONTRACTOR SHALL NOT SCALE THE DRAWINGS.
6. REFER TO ALL PLANS/SPECIFICATIONS FOR A DETAILED DESCRIPTION OF ALL ALTERNATES.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL ITEMS THAT AFFECT OTHER DISCIPLINES WITH THE CORRESPONDING CONTRACTOR AND THE GENERAL CONTRACTOR IF EQUIPMENT, MATERIALS, ETC. OTHER THAN THOSE SCHEDULED AND SPECIFIED (PENDING PRE-APPROVAL) ARE FURNISHED.
8. CHANGE ORDERS WILL NOT BE GRANTED DUE TO LACK OF COORDINATION WITH JOB CONDITIONS AND/OR OTHER CONTRACTORS.
9. EXISTING EQUIPMENT, FIXTURES, DEVICES, AND CIRCUITS ARE SHOWN FOR REFERENCE ONLY. ADJUST EXACT INSTALLATION AND CONNECTION OF NEW ITEMS ACCORDING TO ACTUAL CONDITIONS.
10. G.C. SHALL CUT AND PATCH FLOOR, WALLS, AND ROOF AS REQUIRED FOR INSTALLATION/DEMOLITION OF ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORAGE OF RELOCATED EQUIPMENT AND MATERIALS DURING CONSTRUCTION. ITEMS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
11. UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS TO THE OWNER, ARCHITECT, AND ENGINEER SHOWING EQUIPMENT, FIXTURES, DEVICES, CIRCUITS, ETC. THAT DIFFERS FROM CONSTRUCTION DOCUMENTS AS THEY ARE ACTUALLY INSTALLED.
12. THE RESPONSIBILITY OF EACH CONTRACTOR IS NOT LIMITED TO THEIR SPECIFIC DISCIPLINE'S DRAWING SHEETS. REFER TO OTHER DISCIPLINE'S DRAWING SHEETS AS REQUIRED FOR ADDITIONAL INFORMATION/INSTRUCTIONS.
13. FIRE STOP ALL PENETRATIONS THROUGH RATED WALLS. SLEEVE IN ENTIRETY WITH APPROPRIATE SLEEVE MATERIAL.

ELECTRICAL GENERAL NOTES

- A. GENERAL
1. THE BUILDING SECURITY SYSTEM IS PART OF THE WORK. RACEWAYS ARE PART OF THE WORK.
2. TELEPHONE AND DATA SYSTEM AND WIRING IS PART OF THE WORK. NOTED RACEWAYS ARE PART OF THE WORK.
B. COORDINATION WITH OTHER TRADES:
1. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS AND REVISED SHOP DRAWINGS PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION.
2. ELECTRICAL CONTRACTOR SHALL VERIFY TOTAL CONNECT LOAD/HP WITH MECHANICAL AND ALL OTHER CONTRACTORS PRIOR TO WIRING OF ALL EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES OR FEED SIZE PER THE NATIONAL ELECTRICAL CODE, APPLICABLE VERSION.
3. ALL TEMPERATURE CONTROL WIRING SHALL BE FURNISHED AND INSTALLED BY OTHERS. INSTALL CONDUIT FOR CABLE IN EXPOSED AREAS. REFER TO MECHANICAL PLANS AND SPECIFICATIONS AND THE TEMPERATURE CONTROLS CONTRACTOR FOR EXACT LOCATION OF MECHANICAL EQUIPMENT AND THERMOSTAT LOCATIONS.
C. CONDUIT AND WIRE:
1. ALL POWER WIRING OF ALL SYSTEMS SHALL BE COPPER WITH INSULATED GROUND WIRE IN STEEL CONDUIT AND STEEL BOXES UNLESS SPECIFICALLY NOTED OTHERWISE.
2. RACEWAYS SHALL BE ROUTED OVERHEAD UNLESS OTHERWISE NOTED ON THE DRAWINGS. UNDERSLAB RACEWAYS ARE ALLOWED FOR PANEL FEEDERS ONLY UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL PANELBOARD BRANCH CIRCUITS SHALL BE ROUTED OVERHEAD WHERE POSSIBLE.
3. ALL CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATIONS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, NOT LESS THAN 1/2" IN LENGTH, NOR GREATER THAN 36" IN LENGTH.
4. ALL CABLES INSTALLED IN AIR HANDLING PLenums SHALL BE PLENUM RATED CABLE.
5. MULTIPLE CIRCUITS ON THE SAME PHASE SHALL NOT BE COMBINED IN A SINGLE RACEWAY UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOME RUNS MAY BE COMBINED AT THE CONTRACTOR'S DISCRETION NOT GREATER THAN THREE CIRCUITS CONSISTING OF (X) PHASE CONDUCTORS, (Y) NEUTRAL CONDUCTORS, AND GROUNDING CONDUCTOR.
6. THE MINIMUM WIRE SIZE SHALL BE #12 FOR ALL POWER CIRCUITS. EACH CIRCUIT SHALL HAVE A SEPARATE AND DEDICATED NEUTRAL FROM THE PANEL. SEE BRANCH CIRCUIT VOLTAGE DROP TABLE FOR SIZING OF CONDUCTORS.
7. THE MINIMUM CONDUIT SIZE IS 0.75".
8. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF BUILDING EXPANSION JOINTS. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL BE INSTALLED WITH EXPANSION FITTINGS, UNLESS THE CONDUIT IS BELOW SLAB IN THE DENSE GRADE AGGREGATE. EXPANSION FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC, AND MANUFACTURER'S WRITTEN RECOMMENDATIONS.
9. ALL EXPOSED CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR, AND SHALL BE RIGID GALVANIZED UNLESS OTHERWISE NOTED.
10. EXTERIOR EXPOSED CONDUIT RUNS WILL NOT BE PERMITTED. (EXCEPT FOR NEW SERVICE ENTRANCES FOR POWER OR TELEPHONE, OR NOTED OTHERWISE ON PLAN.)
11. UNDER-SLAB CONDUIT SHALL NOT BE IN THE SLAB, BUT BELOW IT IN THE DENSE GRADE AGGREGATE, AND PARALLEL TO THE SLAB.
12. ALL CONDUIT UNDER GROUND SHALL BE A MINIMUM OF 1". THIS APPLIES FOR BOTH LINE VOLTAGE AND DATA/COMMUNICATIONS. ALL BENDS UNDERGROUND, HORIZONTAL OR VERTICAL, SHALL BE RIGID GALVANIZED STEEL. NO EXCEPTION.
13. EACH DATA, TELEPHONE, AND CABLE TV OUTLET REQUIRES 0.75" CONDUIT, WITH PULL ROPE (LABELED AT EACH END FOR LOCATION AND PURPOSE) STUBBED 8" ABOVE NEAREST ACCESSIBLE CEILING UNLESS OTHERWISE NOTED ON PLANS. CONDUITS STUBBED UP ABOVE CEILING SHALL BE TURNED OUT 90°. PROVIDE INSULATED BUSHINGS ON ALL CONDUIT. LABEL CONDUIT TO IDENTIFY ITS INTENDED USE (IE: TELEPHONE, DATA, ETC.). EACH DATA/PHONE BOX SHALL BE A 4" SQUARE BOX WITH SINGLE GANG MID RING. MAINTAIN MAXIMUM SPACE BETWEEN LOW VOLTAGE CABLES WITH METAL CONDUCTORS AND SOURCES OF INTERFERENCE INCLUDING: POWER WIRING, ALL LIGHT FIXTURES, AND ESPECIALLY MOTORS AND TRANSFORMERS. ELECTRICAL INTERFERENCE IS REDUCED BY DISTANCE FROM SOURCES.
14. WEATHERPROOF WHILE IN USE RECEPTACLE COVERS SHALL BE METAL, AND PAINTABLE UNLESS OTHERWISE NOTED.
D. DEVICES AND BOXES:
1. WHERE SEVERAL DEVICES ARE GANGED TOGETHER, THE COVERPLATE SHALL BE OF THE GANGED STYLE FOR THE NUMBER OF DEVICES USED.
2. RECEPTACLES SHALL NOT BE WIRED TO THE LOAD SIDE OF A GFCI RECEPTACLE.
3. REFER TO THE ARCHITECTURAL DETAILS AND ELEVATIONS FOR MOUNTING HEIGHTS OF SWITCHES, RECEPTACLES, COUNTER TOP DEVICES, TELEPHONE OUTLETS, AND TELEVISION OUTLETS, ETC. ARCHITECTURAL DETAILS OVERRIDE ELECTRICAL SYMBOLS LIST.
4. WEATHERPROOF WHILE IN USE RECEPTACLE COVERS SHALL BE METAL, AND PAINTABLE UNLESS OTHERWISE NOTED.
E. ELECTRICAL-OTHER:
1. ALL PANELS SHALL BE PANELBOARD CONSTRUCTION WITH BOLT ON BREAKERS. TANDEM BREAKERS SHALL NOT BE USED.

ABBREVIATIONS

Table with 4 columns: SYMBOL, DESCRIPTION, KW, DESCRIPTION. Includes entries for AMPERES, AREA DRAIN, ABOVE FINISHED FLOOR, etc.

ABBREVIATION SCHEDULE NOTES

- 1. SOME MAY NOT BE USED IN THIS SET OF PLANS.
2. ABBREVIATIONS MAY BE WITH OR WITHOUT PERIODS.

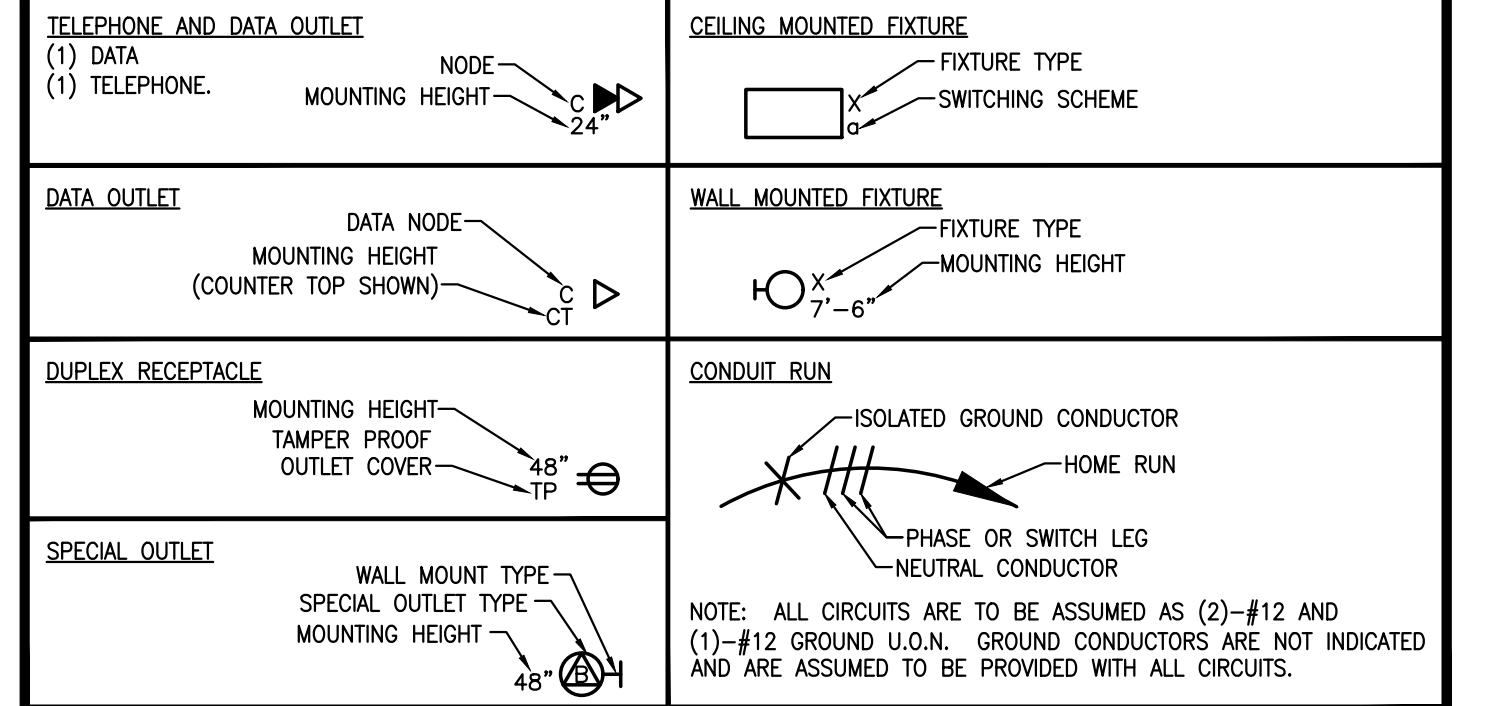
ELECTRICAL SYMBOL LIST

Table with 3 columns: SYMBOL, DESCRIPTION, MOUNTING OR AS INDICATED. Lists symbols for LIGHT FIXTURE, DATA OUTLET, DUPLEX RECEPTACLE, SPECIAL OUTLET, WORKING DEVICES, and POWER DISTRIBUTION.

LINETYPES LEGEND

- EXISTING/REFERENCE
--- WORK TO BE DONE
- - - - - EXISTING TO BE DEMOLISHED

CIRCUITING LEGEND



BRANCH VOLT DROP TABLE

Table for Branch Volt Drop Table showing Maximum Distance, Phase and Neutral Size, and Equipment Ground Size for copper single phase 3% voltage drop.

- VOLTAGE DROP TABLE NOTES:
1. DISTANCE GIVEN IS THE MAXIMUM FOR THE LONGEST RUN FOR ANY BRANCH, PANEL TO LOAD.
2. THE DISTANCES ARE FOR THE ENTIRE RUN IN THE GIVEN WIRE SIZE.
3. WIRE REDUCTIONS (WHERE REQUIRED BY DEVICE CONSTRUCTION) SHALL BE MADE WITHIN 3 FEET OF THE SOURCE OR LOAD, AND SHALL BE ONLY DOWN TO THE LARGEST WIRE SIZE THE DEVICE ALLOWS.
4. OTHER NEC DERATING FACTORS ARE NOT INCLUDED IN THE WIRE SIZES IN THIS TABLE.

ELECTRICAL CONTACTS

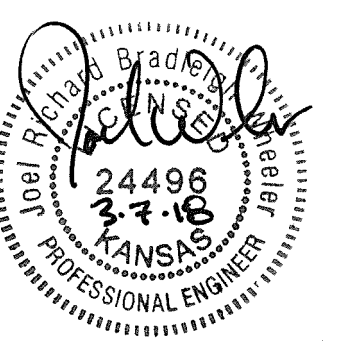
Table for Electrical Contacts listing electrical and utility contacts with names and phone numbers.

CODE INFORMATION

ELECTRICAL: 2014 NATIONAL ELECTRICAL CODE

ELECTRICAL SHEET INDEX

Table for Electrical Sheet Index listing sheet numbers and descriptions like SE1.0 ELECTRICAL COVERSHEET, SE2.0 POWER/SYSTEMS DEMOLITION PLAN, etc.



INTERIOR REMODEL
STRYKER SPORTS
WICHITA, KANSAS

©2018 MKEC Engineering All Rights Reserved www.mkec.com
These drawings and their contents, including but not limited to, all concepts, designs, & other work are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

ELECTRICAL COVERSHEET

Table with project details: PROJECT NO. 1701010567, DATE 03-07-18, SCALE AS NOTED, DESIGNED DRAWN CHECKED CNG CV JRBW

Table for issue tracking: NO. REVISION DATE

SHEET NO. SE1.0





SYMB.	DESCRIPTION
▽	<b>VOICE/DATA OUTLET:</b> EACH MULTIPLE VOICE/DATA OUTLET LOCATION WILL REQUIRE (1) 4" SQUARE DEEP BOX WITH SINGLE GANG MUD RING AND 1" CONDUIT TO ABOVE ACCESSIBLE FINISHED CEILING WITH INSULATED BUSHING. INSTALL PULL CORD FROM BOX TO ACCESSIBLE CEILING FOR PULLING OF CABLE, CABLING, DEVICES, AND TERMINATION BY OTHERS.
▽	<b>DATA OUTLET:</b> EACH DATA OUTLET LOCATION WILL REQUIRE (1) 4" SQUARE DEEP BOX WITH SINGLE GANG MUD RING AND 1" CONDUIT TO ABOVE ACCESSIBLE FINISHED CEILING WITH INSULATED BUSHING. INSTALL PULL CORD FROM BOX TO ACCESSIBLE CEILING FOR PULLING OF CABLE, CABLING, DEVICES, AND TERMINATION BY OTHERS.
⊕	<b>SPEAKER:</b> PROVIDE AND INSTALL SPEAKER XXXXX PER SPECIFICATIONS FOR ANNOUNCEMENTS AND MASS NOTIFICATION.

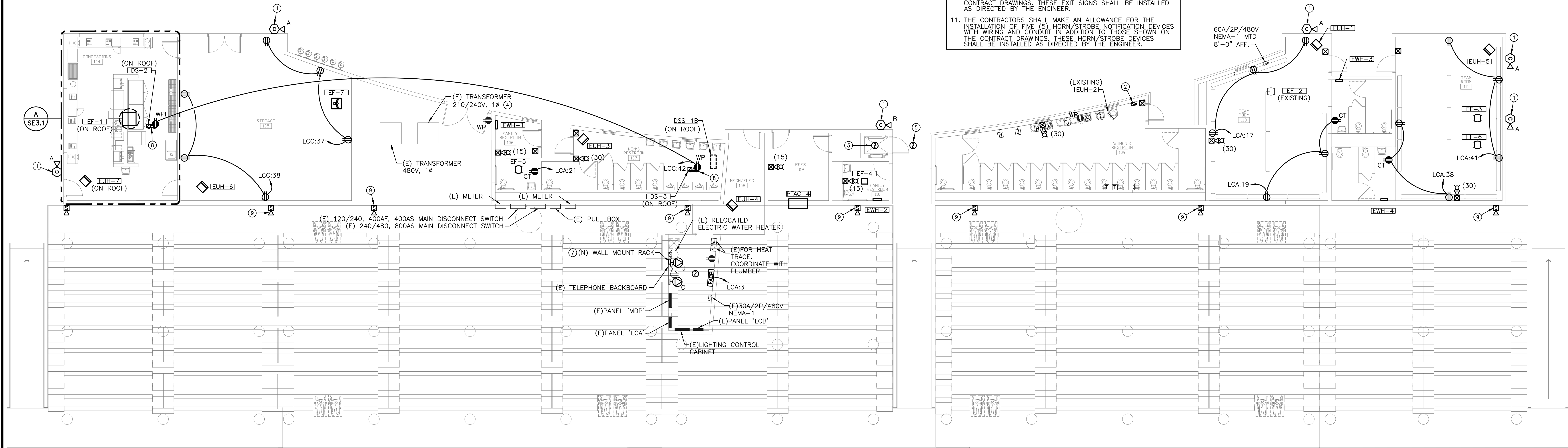
SYMB.	DESCRIPTION
⊕	FIRE ALARM CONTROL PANEL WITH DACT
⊕	FIRE ALARM REMOTE ANNUNCIATOR
⊕	FIRE SMOKE DAMPER
⊕	MANUAL PULL STATION
⊕	PHOTOELECTRIC (P.E.) SMOKE DETECTOR
⊕	STROBE ONLY (CANDELA)
⊕	SPEAKER/STROBE (CANDELA)
⊕	FIRE ALARM SPEAKER
⊕	FIRE ALARM SPEAKER
⊕	SPRINKLER ALARM BELL (FIRE BELL)
⊕	RTU DUCT SMOKE DETECTOR
⊕	REMOTE ALARM/TEST STATION
⊕	FIRE ALARM RELAY

SYMB.	DESCRIPTION
⊕	AXIS P1428-E SECURITY CAMERA: PROVIDE AND INSTALL AXIS CAMERA #P1428-E OR APPROVED EQUAL AT HEIGHT AND LOCATION SHOWN ON PLAN. CONNECT TO PATCH PANEL IN MAIN ELECTRICAL ROOM PER SPECIFICATIONS. AIMING AND VIEW RANGE TO BE SET BY OWNER. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND DETAIL.
⊕	AXIS P1435-LE SECURITY CAMERA: PROVIDE AND INSTALL AXIS CAMERA #P1435-LE OR APPROVED EQUAL AT HEIGHT AND LOCATION SHOWN ON PLAN. CONNECT TO PATCH PANEL IN MAIN ELECTRICAL ROOM PER SPECIFICATIONS. AIMING AND VIEW RANGE TO BE SET BY OWNER. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND DETAIL.
⊕	P1435-LE SECURITY CAMERA: PROVIDE AND INSTALL AXIS INDOOR CAMERA SURFACE MOUNT TO BOTTOM OF STRUCTURE OR CEILING. LOCATION SHOWN ON PLAN. CONNECT TO PATCH PANEL IN MAIN ELECTRICAL ROOM PER SPECIFICATIONS. AIMING AND VIEW RANGE TO BE SET BY OWNER. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND DETAIL.

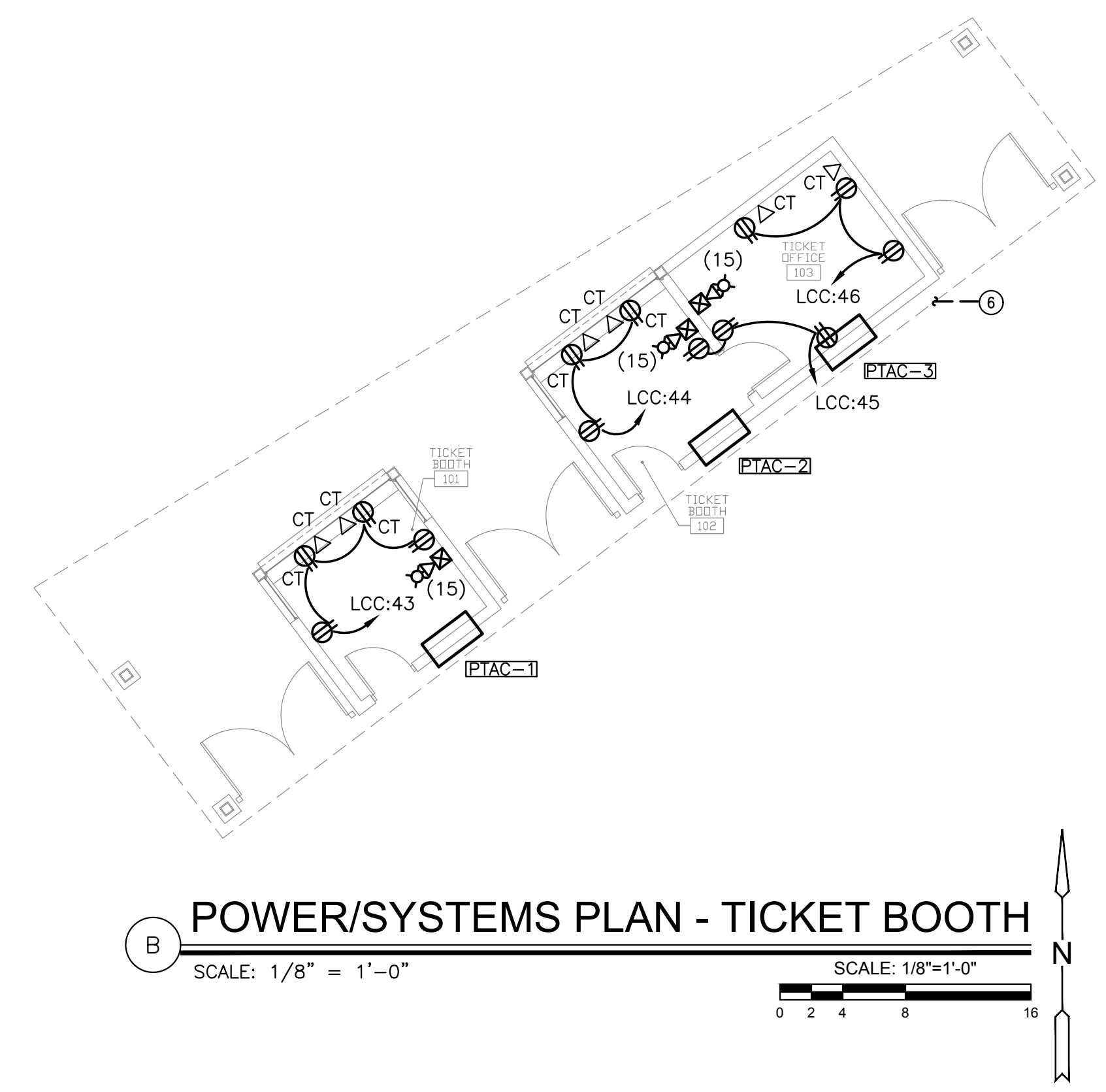
SYMB.	DESCRIPTION
⊕	<b>GROUND BUS:</b> LISTED TO UL467 1/4"x4"x20" COPPER BUS WITH 88 HOLES WITH BRACKETS -INSULATORS -44 EACH 3/8"-16X1 STAINLESS HEX HEAD CAP SCREWS, LOCK WASHERS AND NUTS. -TUBE OF ANTI-OXIDANT FOR COPPER. KIT HARGER #GB14420MKT
⊕	<b>DATA RACK OUTLET:</b> PROVIDE AND INSTALL HUBBELL L1-30 TWISTLOCK RECEPTACLE #HBL2710. PROVIDE WITH (2)-#10 & (1)-#10 GND. IN 0.75" MOUNT AT RACK AND MAKE FINAL CONNECTION TO RACK OUTLET STRIP AND UPS. COORDINATE RECEPTACLE TYPE WITH SERVER PLUG AND OWNER PRIOR TO PURCHASE.

- ### GENERAL NOTES
- EXISTING CONDITIONS SHOWN ON THE DRAWINGS WERE TAKEN FROM ORIGINAL DOCUMENTS AND FIELD OBSERVATIONS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS. E.G. SHALL VISIT THE JOBSITE PRIOR TO BID AND VERIFY ALL EXISTING CONDITIONS.
  - REPAIR ALL WALL & FLOOR PENETRATIONS TO MAINTAIN THE REQUIRED FIRE/SMOKE RATING. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE/SMOKE RATINGS AND LOCATIONS.
  - UPON COMPLETION OF PROJECT, E.C. SHALL PROVIDE A FULL TYPED AND UPDATED PANEL DIRECTORY FOR EACH PANELBOARD AFFECTED BY THE SCOPE OF THIS PROJECT.
  - REFER TO ARCHITECTURAL PLANS FOR PROJECT PHASING INFORMATION.
  - REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT MOUNTING HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES. IF DISCREPANCY OCCURS BETWEEN THE ARCHITECTURAL ELEVATIONS AND THESE DRAWINGS, CONTACT ENGINEER AND ARCHITECT TO CLARIFY PRIOR TO INSTALLATION OF DEVICE.
  - FEEDER ROUTING INDICATED ON THE DRAWINGS DOES NOT INDICATE NEC CODE REQUIRED PULL BOXES. E.C. SHALL BE RESPONSIBLE FOR LOCATING AND INSTALLING REQUIRED PULL BOXES FOR EACH FEEDER.
  - ALL CONDUIT, HANGERS, SUPPORTS, AND ACCESSORIES SHALL BE INSTALLED AS HIGH AS POSSIBLE TO MAINTAIN MAXIMUM CLEARANCE ABOVE THE CEILING.
  - E.C. SHALL COORDINATE WITH ARCHITECT AND G.C. FOR ANY TRENCHING REQUIRED FOR FLOOR OUTLETS AND REPAIR FLOOR AFTER INSTALLATION.
  - THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF FIVE (5) DEDICATED RECEPTACLES WITH 75'-0" OF BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE RECEPTACLES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
  - THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF FIVE (5) EXIT SIGNS WITH BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE EXIT SIGNS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
  - THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF FIVE (5) HORN/STROBE NOTIFICATION DEVICES WITH BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE HORN/STROBE DEVICES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.

- ### KEYED NOTES
- MOUNT CAMERA TO EXTERIOR WALL 15'-0" ABOVE FINISHED GRADE. COORDINATE VIEW ANGLE OF CAMERA WITH OWNER.
  - RELOCATED EXISTING DISCONNECT SWITCH.
  - MOUNT SMOKE DETECTOR IN THE BOTTOM OF ELEVATOR SHAFT FOR ELEVATOR RECALL.
  - EXISTING TRANSFORMER WILL BE REPLACED BY WESTAR. EC SHALL COORDINATE WITH WESTAR FOR REMOVAL OF TRANSFORMER. PROVIDE AND INSTALL NEW PAD AND REWORK SECONDARY CONDUIT AS REQUIRED TO ROUTE INTO NEW TRANSFORMER. SEE DETAIL 3/355.0 FOR PAD INFORMATION. SEE ONE-LINE DIAGRAM FOR ADDITIONAL WORK.
  - MOUNT SMOKE DETECTOR WITHIN 5'-0" FROM ELEVATOR FOR ELEVATOR RECALL.
  - STUB UP CONDUITS FROM PANEL 'LCC' AS REQUIRED TO SERVE LOADS FOR TICKET BOOTH.
  - PROVIDE AND INSTALL WALL MOUNT RACK PER SPECIFICATIONS.
  - PROVIDE WEATHERPROOF STRUT STAND ON ROOF TO MOUNT DISCONNECT AND WEATHERPROOF RECEPTACLE.
  - MOUNT FIRE ALARM SPEAKER ON BLEACHERS, 20'-6" ABOVE FINISHED GRADE.



**A POWER/SYSTEMS PLAN**  
SCALE: 1/8" = 1'-0"  
SCALE: 1/8"=1'-0"



**B POWER/SYSTEMS PLAN - TICKET BOOTH**  
SCALE: 1/8" = 1'-0"  
SCALE: 1/8"=1'-0"

©2018 MKEC Engineering All Rights Reserved www.mkec.com  
These drawings and their contents, including, but not limited to, all concepts, designs, & data are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

**POWER/SYSTEMS PLAN**

PROJECT NO.	1701010567	
DATE	03-07-18	
SCALE	AS NOTED	
DESIGNED	DRAWN	CHECKED
CNG	CV	JRBW

NO.	REVISION	DATE

SHEET NO. SE3.0

J:\PROJECTS\2017\1701010567\COM\_STRYKER\_SPORTS\170607\_CADSHOTS\BLDG\_MEP\STADIUM\_PACKAGE\ELECTRICAL\POWER & SYSTEMS PLAN.DWG

**GENERAL NOTES**

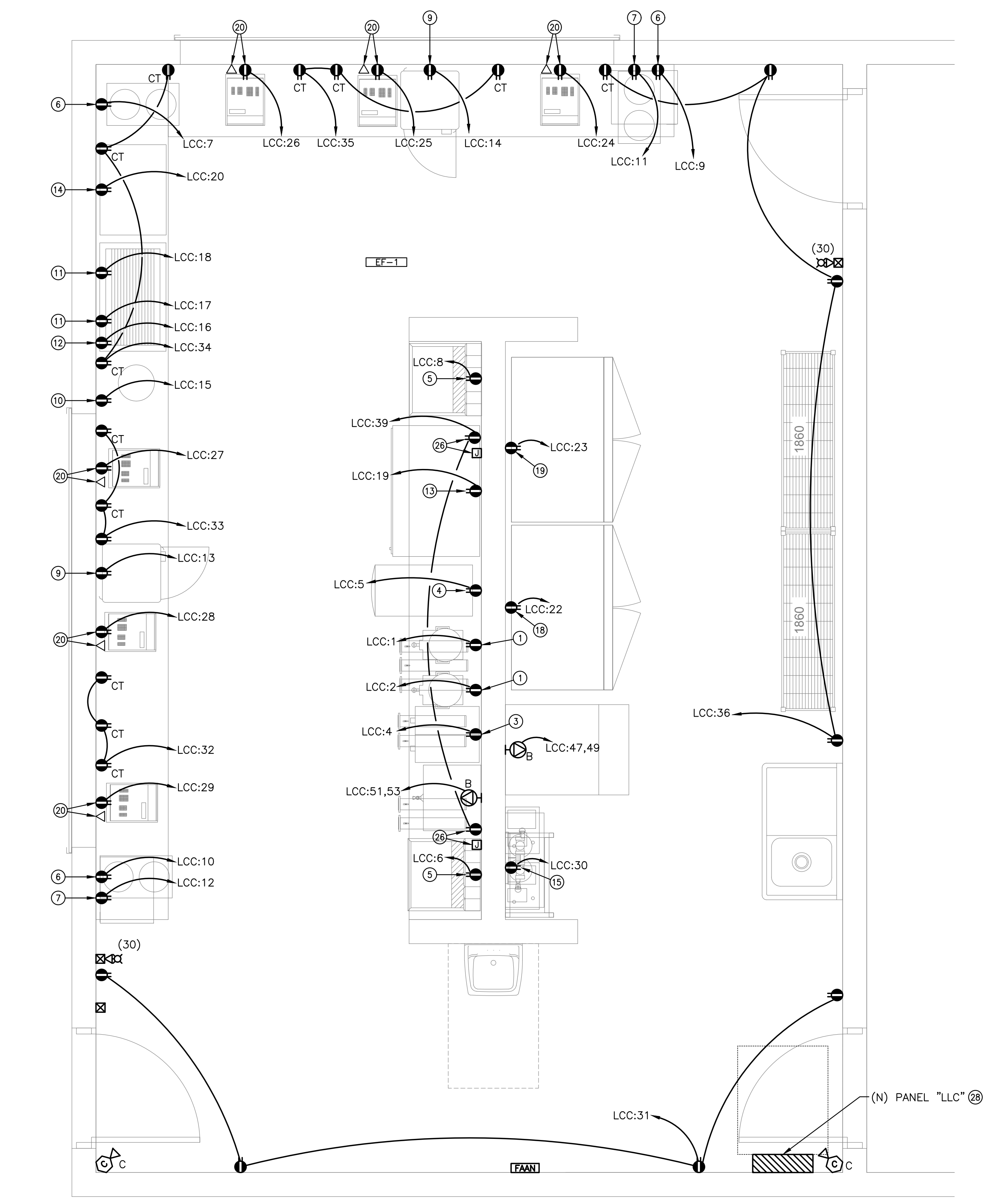
- EXISTING CONDITIONS SHOWN ON THE DRAWINGS WERE TAKEN FROM ORIGINAL DOCUMENTS AND FIELD OBSERVATIONS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS. E.C. SHALL VISIT THE JOBSITE PRIOR TO BID AND VERIFY ALL EXISTING CONDITIONS.
- REPAIR ALL WALL & FLOOR PENETRATIONS TO MAINTAIN THE REQUIRED FIRE/SMOKE RATINGS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE/SMOKE RATINGS AND LOCATIONS.
- UPON COMPLETION OF PROJECT, E.C. SHALL PROVIDE A FULL TYPED AND UPDATED PANEL DIRECTORY FOR EACH PANELBOARD AFFECTED BY THE SCOPE OF THIS PROJECT.
- REFER TO PROJECT MANUAL FOR PROJECT PHASING INFORMATION.
- REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT MOUNTING HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES. IF DISCREPANCY OCCURS BETWEEN THE ARCHITECTURAL ELEVATIONS AND THESE DRAWINGS, CONTACT ENGINEER AND ARCHITECT TO CLARIFY PRIOR TO INSTALLATION OF DEVICE.
- FEEDER ROUTING INDICATED ON THE DRAWINGS DOES NOT INDICATE NEC CODE REQUIRED PULL BOXES. E.C. SHALL BE RESPONSIBLE FOR LOCATING AND INSTALLING REQUIRED PULL BOXES FOR EACH FEEDER.
- ALL CONDUIT, HANGERS, SUPPORTS, AND ACCESSORIES SHALL BE INSTALLED AS HIGH AS POSSIBLE TO MAINTAIN MAXIMUM CLEARANCE ABOVE THE CEILING.
- E.C. SHALL COORDINATE WITH ARCHITECT AND G.C. FOR ANY TRENCHING REQUIRED FOR FLOOR OUTLETS AND REPAIR FLOOR AFTER INSTALLATION.
- THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF TWO (2) DEDICATED RECEPTACLES WITH 75'-0" OF BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE RECEPTACLES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
- THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF ONE (1) EXIT SIGN WITH BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THIS EXIT SIGN SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
- THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF ONE (1) HORN/STROBE NOTIFICATION DEVICE WITH WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THIS HORN/STROBE DEVICE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.

**KEYED NOTES**

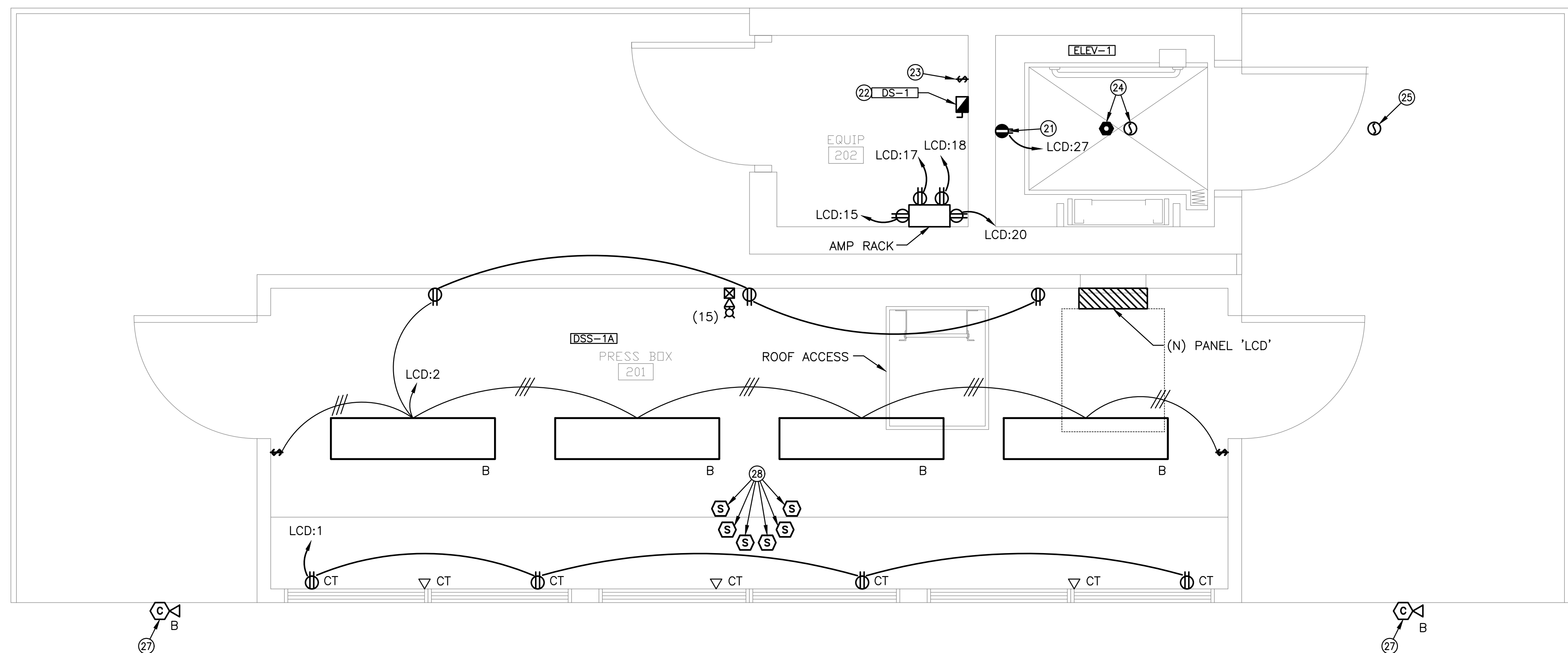
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR BLENDER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- NOT USED.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR TEA BREWER & DISPENSER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL DEDICATED RECEPTACLE FOR FROZEN BEVERAGE MACHINE. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR SODA DISPENSER PROVIDED BY SODA VENDOR. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR HOT FOOD WELL. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR MICROWAVE. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- NOT USED.
- PROVIDE AND INSTALL NEMA 5-20P RECEPTACLE FOR HOT FOOD MERCHANDISER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR CHEESE WARMER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR HOT DOG GRILL. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR BUN WARMER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR REFRIGERATOR, MERCHANDISER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-20P RECEPTACLE FOR POPCORN MACHINE. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL DEDICATED RECEPTACLE FOR SODA RACK AND PUMPS. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL DEDICATED RECEPTACLE FOR DISPLAY WARMER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- NOT USED.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR REACH-IN REFRIGERATOR. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL NEMA 5-15P RECEPTACLE FOR REACH-IN FREEZER. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL DEDICATED RECEPTACLE AND DATA DROP FOR POS. COORDINATE FINAL LOCATION AND HEIGHT WITH KITCHEN SUPPLIER.
- PROVIDE AND INSTALL RECEPTACLE INSIDE ELEVATOR PIT FOR MAINTENANCE.
- PROVIDE AND INSTALL ELEVATOR SHUNT TRIP DISCONNECT. COORDINATE SIZE WITH ELEVATOR MANUFACTURER FOR ELEVATOR PROVIDED.
- PROVIDE AND INSTALL SWITCH WITH LOCK IN OFF POSITION FOR ELEVATOR CAB LIGHTS AND EXHAUST FAN. COORDINATE LOCATION WITH ELEVATOR INSTALLER.
- PROVIDE AND INSTALL SMOKE DETECTOR AND HEAT DETECTOR IN TOP OF ELEVATOR SHAFT.
- PROVIDE SMOKE DETECTOR FOR ELEVATOR RECALL.
- PROVIDE AND INSTALL DEDICATED RECEPTACLE 72" AFF FOR MENU BOARD. PROVIDE 4" SQUARE BOX AT 72" AFF. FOR LOW VOLTAGE CABLING. ROUTE 1.25" FROM BOX TO ABOVE ACCESSIBLE CEILING TURN UP AND ROUTE TO CONCESSIONS MANAGER OFFICE. STUB CONDUIT AT END.
- MOUNT CAMERA TO EXTERIOR WALL OF PRESSBOX 25'-0" ABOVE FINISHED GRADE. COORDINATE VIEW ANGLE OF CAMERA WITH OWNER.
- ROUTE CONDUIT UNDERGROUND TO TICKET BOOTH TO SERVE LOADS IN TICKET BOOTH.
- MOUNT SPEAKER ON TOP OF PRESSBOX PER SPECIFICATIONS.
- PROVIDE AND INSTALL AMP RACK PER SPECIFICATIONS.

**SPECIAL OUTLET SCHEDULE**

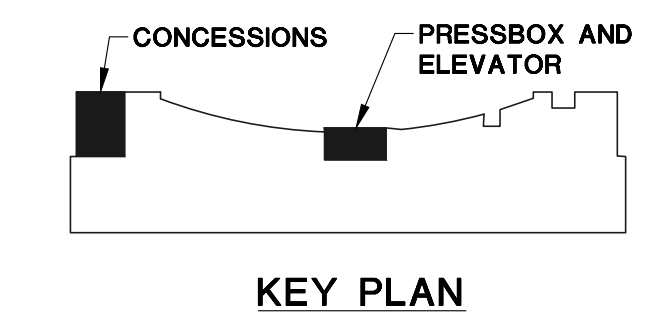
SYMB.	DESCRIPTION
ⓐ	COFFEE BREWER RECEPTACLE: PROVIDE AND INSTALL A 208V, 10, 30A TWISTLOCK RECEPTACLE FOR COFFEE BREWER. ROUTE CIRCUIT WITH (3)-#8 & (1)-#10 GND. IN 0.75" C. COORDINATE RECEPTACLE TYPE WITH PLUG ON COFFEE BREWER AND OWNER PRIOR TO PURCHASE. COORDINATE MOUNTING HEIGHT AND LOCATION WITH OWNER.
ⓑ	ICE FLAKER RECEPTACLE: PROVIDE AND INSTALL A 208V, 10, 20A TWISTLOCK RECEPTACLE FOR ICE FLAKER. ROUTE CIRCUIT WITH (3)-#12 & (1)-#12 GND. IN 0.75" C. COORDINATE RECEPTACLE TYPE WITH PLUG ON ICE FLAKER AND OWNER PRIOR TO PURCHASE. COORDINATE MOUNTING HEIGHT AND LOCATION WITH OWNER.



**ENLARGE POWER/SYSTEMS PLAN**  
SCALE: 1/2" = 1'-0"  
SCALE: 1/2" = 1'-0"



**PRESSBOX POWER/SYSTEMS/LIGHTING PLAN**  
SCALE: 1/2" = 1'-0"  
SCALE: 1/2" = 1'-0"



©2018 MKEC Engineering All Rights Reserved. These drawings and their contents, including, but not limited to, all concepts, designs, & data are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

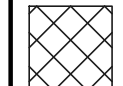
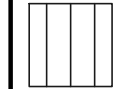
**ENLARGED POWER/SYSTEMS/LIGHTING PLAN**

PROJECT NO.	1701010567	
DATE	03-07-18	
SCALE	AS NOTED	
DESIGNED	DRAWN	CHECKED
CNG	CV	JRBW

NO.	REVISION	DATE
0	ISSUE FOR CONSTRUCTION	03-07-18

SHEET NO. SE3.1

**HATCH LEGEND**

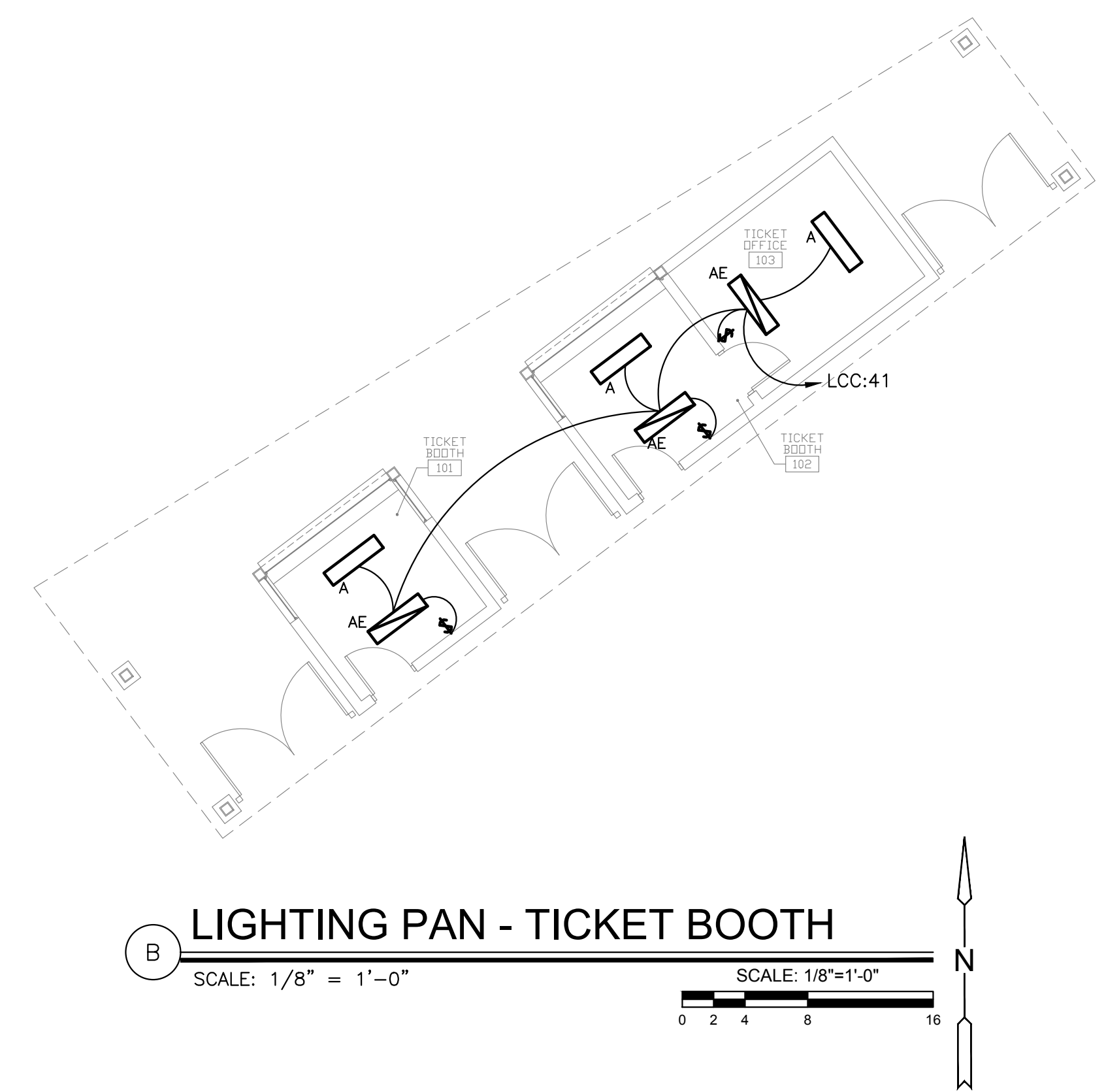
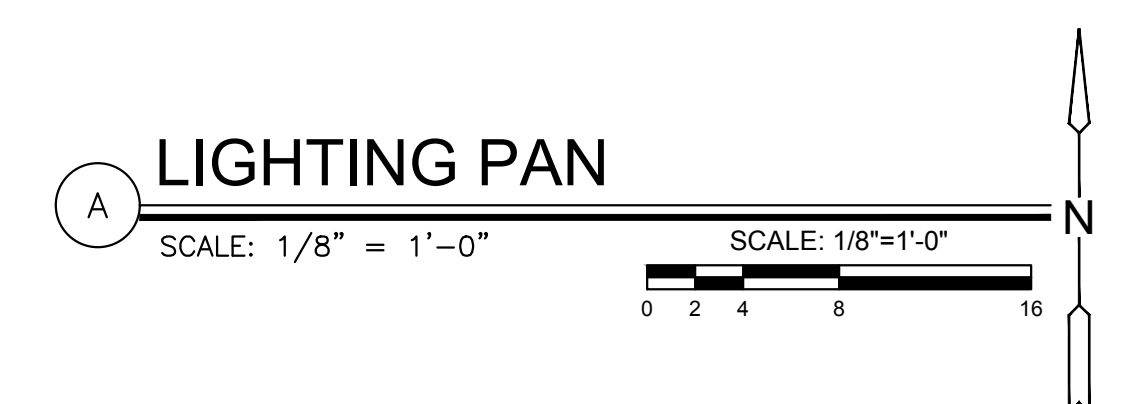
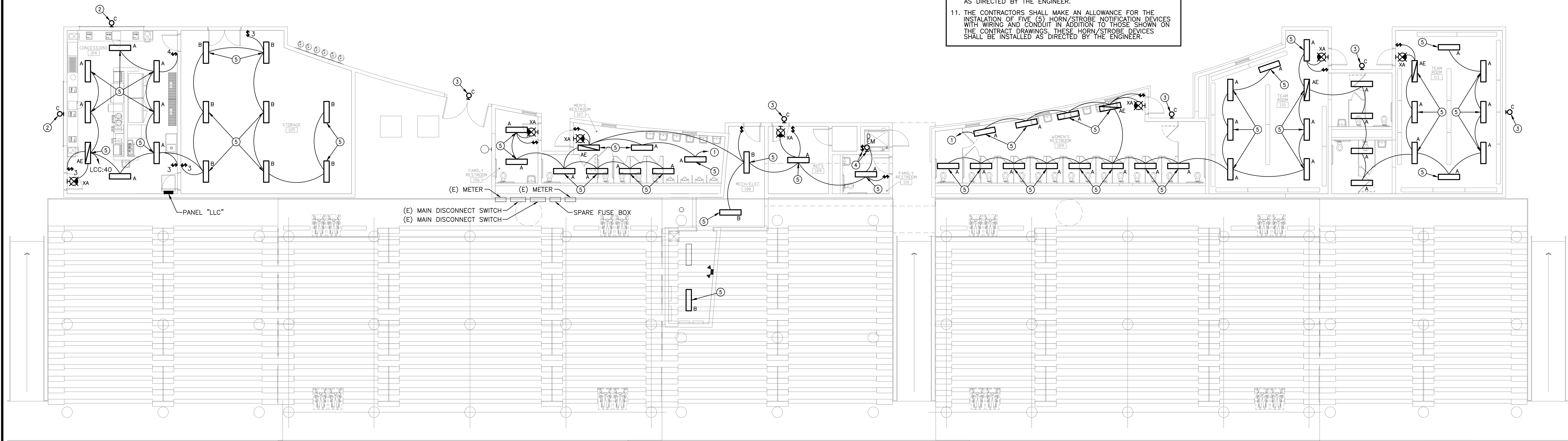
-  E.C. SHALL REMOVE ANY EXISTING ELECTRICAL DEVICES IN WALLS BEING DEMOLISHED OR DEVICES SURFACE MOUNTED ON WALLS. EXISTING DEVICES SHALL BE DE-ENERGIZED AND PREPARED FOR REMOVAL. REMOVE ALL CONDUCTORS BACK TO SOURCE OR NEAREST JUNCTION BOX. REMOVE ALL ACCESSIBLE RACEWAY. COORDINATE DEMOLITION WORK WITH G.C.
-  IN EXISTING CEILINGS AND WALL BEING DEMOLISHED, E.C. SHALL REMOVE EXISTING LIGHTING FIXTURES AND ASSOCIATED SWITCHES. RETAIN EXISTING CIRCUIT FOR CONNECTION TO NEW FIXTURES. SEE IMPROVEMENT LIGHTING PLAN FOR MORE INFORMATION. COORDINATE DEMOLITION WORK WITH G.C.

**GENERAL NOTES**

1. EXISTING CONDITIONS SHOWN ON THE DRAWINGS WERE TAKEN FROM ORIGINAL DOCUMENTS AND FIELD OBSERVATIONS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS. E.C. SHALL VISIT THE JOBSITE PRIOR TO BID AND VERIFY ALL EXISTING CONDITIONS.
2. REPAIR ALL WALL & FLOOR PENETRATIONS TO MAINTAIN THE REQUIRED FIRE/SMOKE RATINGS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE/SMOKE RATINGS AND LOCATIONS.
3. UPON COMPLETION OF PROJECT, E.C. SHALL PROVIDE A FULL TYPED AND UPDATED PANEL DIRECTORY FOR EACH PANEBOARD AFFECTED BY THE SCOPE OF THIS PROJECT.
4. REFER TO ARCHITECTURAL PANS FOR PROJECT PHASING INFORMATION.
5. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT MOUNTING HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES. IF DISCREPANCY OCCURS BETWEEN THE ARCHITECTURAL ELEVATIONS AND THESE DRAWINGS, CONTACT ENGINEER AND ARCHITECT TO CLARIFY PRIOR TO INSTALLATION OF DEVICE.
6. FEEDER ROUTING INDICATED ON THE DRAWINGS DOES NOT INDICATE NEC CODE REQUIRED PULL BOXES. E.C. SHALL BE RESPONSIBLE FOR LOCATING AND INSTALLING REQUIRED PULL BOXES FOR EACH FEEDER.
7. ALL CONDUIT, HANGERS, SUPPORTS, AND ACCESSORIES SHALL BE INSTALLED AS HIGH AS POSSIBLE TO MAINTAIN MAXIMUM CLEARANCE ABOVE THE CEILING.
8. E.C. SHALL COORDINATE WITH ARCHITECT AND G.C. FOR ANY TRENCHING REQUIRED FOR FLOOR OUTLETS AND REPAIR FLOOR AFTER INSTALLATION.
9. THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF FIVE (5) DEDICATED RECEPTACLES WITH 75'-0" OF BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE RECEPTACLES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF FIVE (5) EXIT SIGNS WITH BRANCH CIRCUIT WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE EXIT SIGNS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTORS SHALL MAKE AN ALLOWANCE FOR THE INSTALLATION OF FIVE (5) HORN/STROBE NOTIFICATION DEVICES WITH WIRING AND CONDUIT IN ADDITION TO THOSE SHOWN ON THE CONTRACT DRAWINGS. THESE HORN/STROBE DEVICES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.

**KEYED NOTES**

1. CONNECT TO EXISTING 120V CIRCUIT SERVING LIGHTING PREVIOUSLY REMOVED.
2. MOUNT FIXTURE 6" ABOVE WINDOW.
3. MOUNT FIXTURE 10'-0" ABOVE FINISHED GRADE.
4. WALL MOUNT FIXTURE IN ELEVATOR PIT NEXT TO LADDER. MOUNT SWITCH AT TOP OF LADDER.
5. SUSPEND FIXTURE 9'-0" AFF.



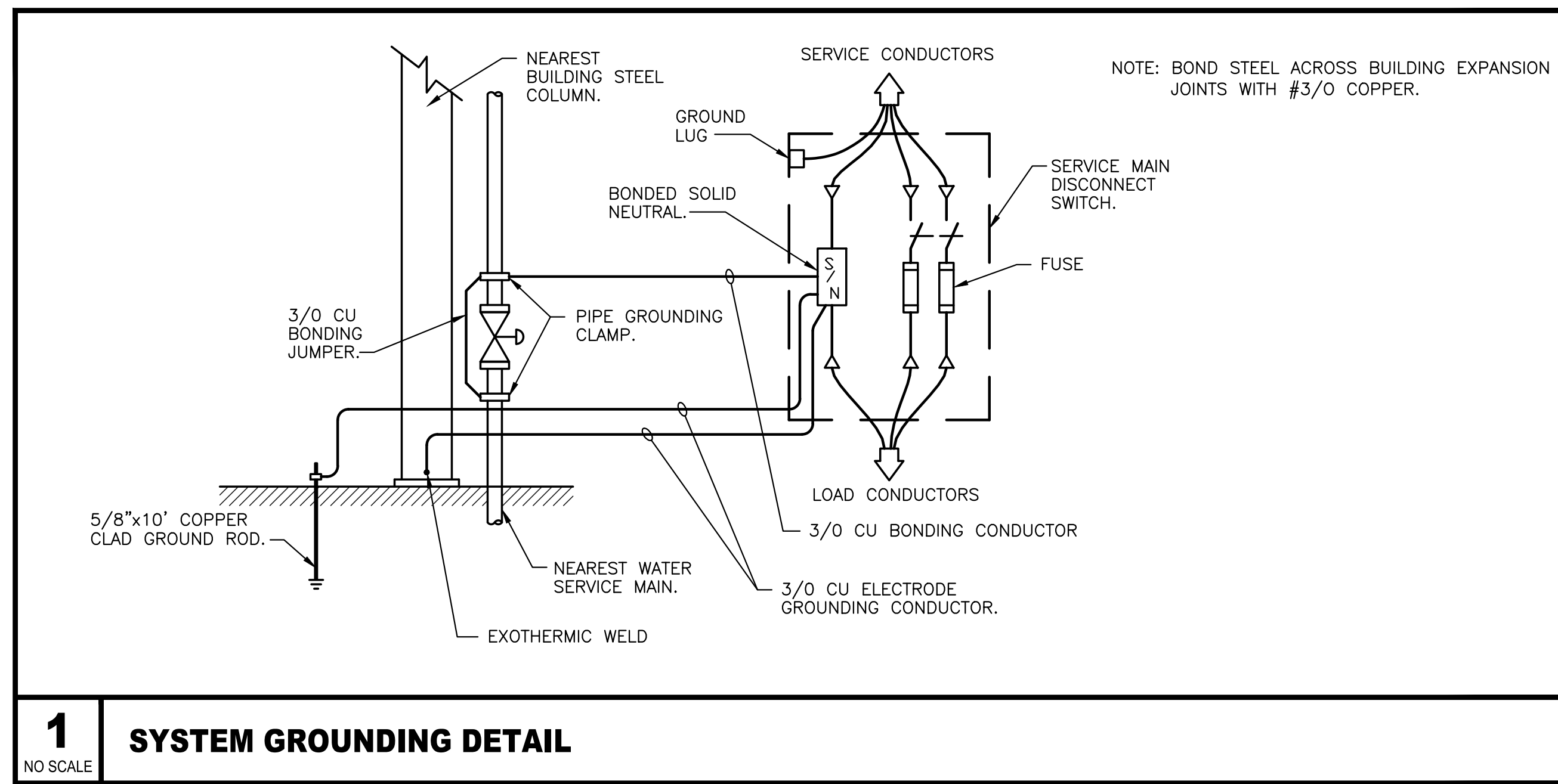
**LIGHTING PLAN**

PROJECT NO.	1701010567
DATE	03-07-18
SCALE	AS NOTED
DESIGNED	CNG
DRAWN	CV
CHECKED	JRBW

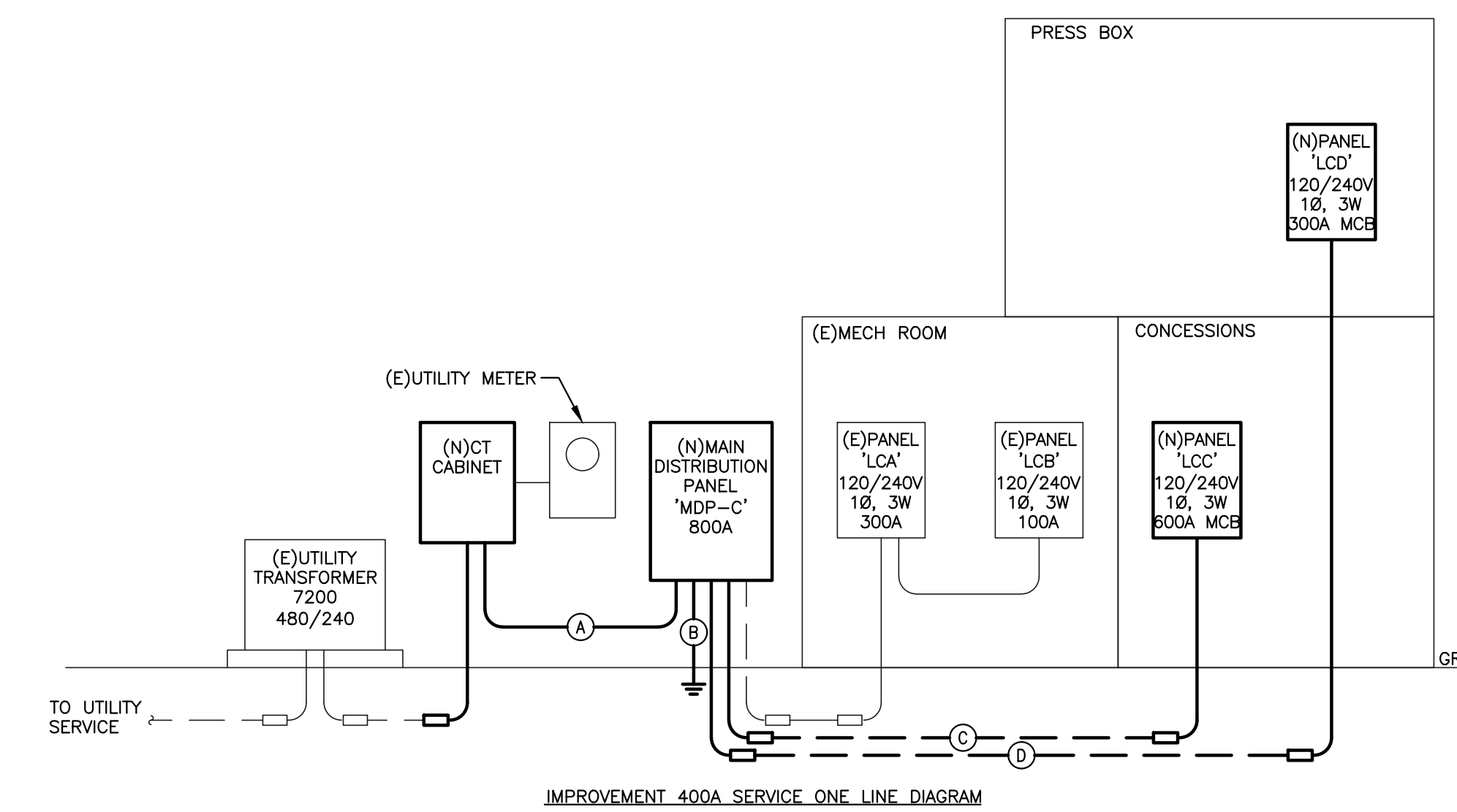
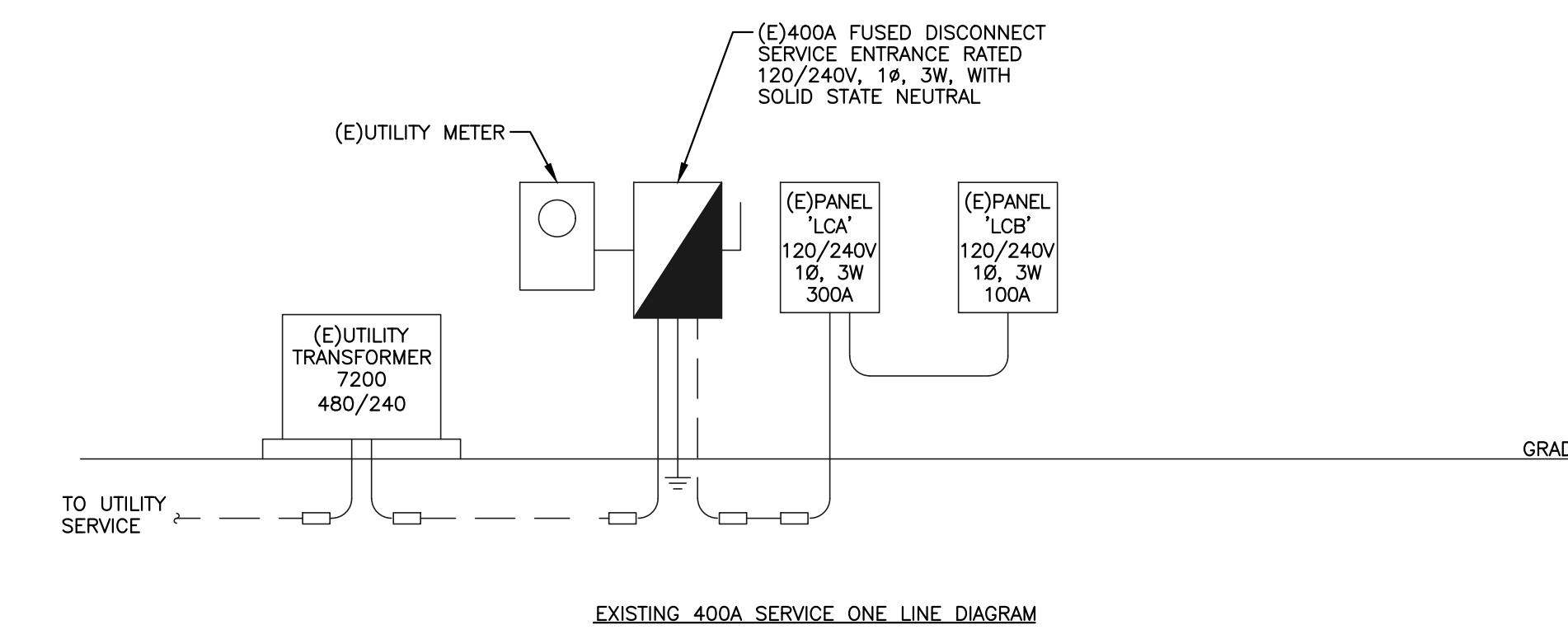
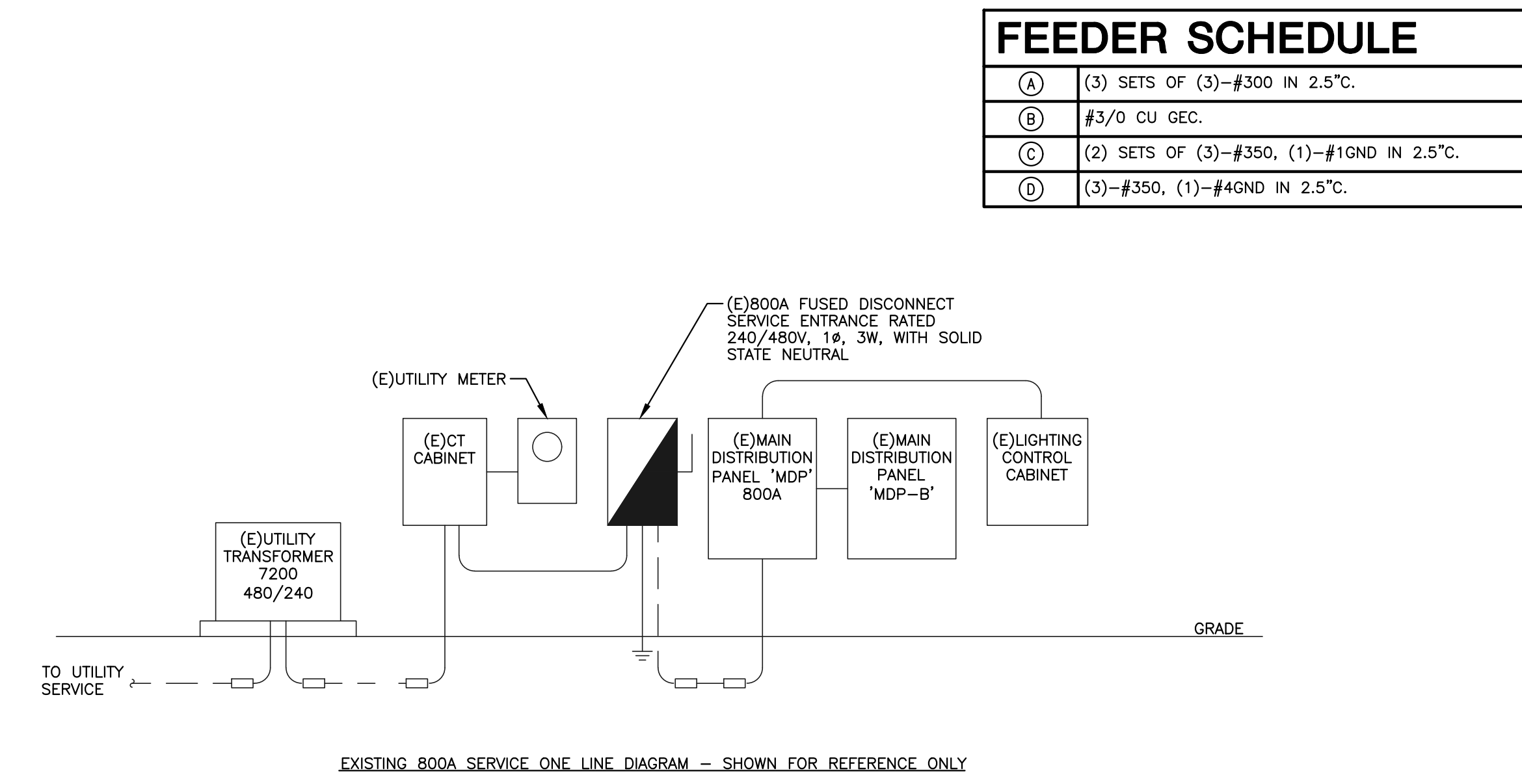
NO.	REVISION	DATE

J:\PROJECTS\2017\1701010567\_COW\_STRYKER\_17067\_CASHIERS\01\_BLDG\_MEP\STADIUM\_PACKAGE\ELEC\SE4.0\_LIGHTING\_PLAN.DWG  
 PLOTTED: Wednesday, March 27, 2018 @ 10:30AM

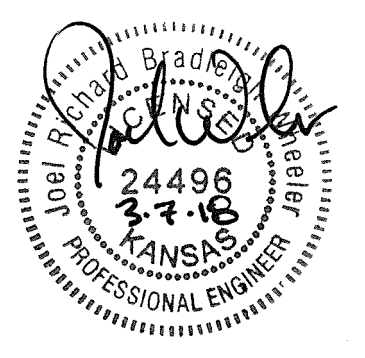
COURTESY: MCKENNA, MEMBER OF THE MCKENNA GROUP



**1** SYSTEM GROUNDING DETAIL  
NO SCALE



**2** ONE-LINE DIAGRAMS  
NO SCALE



©2018 MKEC Engineering All Rights Reserved www.mkec.com  
 These drawings and their contents, including but not limited to, all concepts, designs, & ideas are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

**ELECTRICAL DETAILS**

PROJECT NO.	1701010567	
DATE	03-07-18	
SCALE	AS NOTED	
DESIGNED	DRAWN	CHECKED
CNG	CV	JRBW

NO.	REVISION	DATE
0	ISSUE FOR CONSTRUCTION	03-07-18

SHEET NO. SE5.0

J:\PROJECTS\2017\1701010567\_COW\_STRYKER\_17067\_CADSHOTS\01\_BLDG\_MEP\STADIUM\_PACKAGE\ELECTRICAL\DETAILS.DWG

**EQUIPMENT CONNECTION SCHEDULE**

MARK	DESCRIPTION	UNIT VOLTAGE	PHASE	FULL LOAD AMPS	MOCP	CIRCUIT NUMBER	DISCONNECT			STARTER			FEEDER			CONTROLLER	REMARKS		
							TYPE	ENCL. RATING (NEMA)	FUSE SIZE (AMPS)	TYPE	ENCL. RATING (NEMA)	NEMA SIZE	WIRE AND CONDUIT	WIRE AND CONDUIT	WIRE AND CONDUIT				
DSS-1A	DUCTLESS SPLIT SYSTEM-1A	240	1	1.0	30	LCC-64,66	2	T-20A	1	--	--	1	(2) - #10, (1) - #10 GND IN 0.5" C.	1	1	1	THERMOSTAT		
DSS-1B	DUCTLESS SPLIT SYSTEM-1B	240	1	1.10	30	LCC-64,66	2	S-30A	3R	--	--	1	(3) - #10, (1) - #10 GND IN 0.5" C.	1	1	1	THERMOSTAT		
EF-1	EXHAUST FAN-1	120	1	20.0	30	LCC55	1	S-30A	3R	--	--	1	(2) - #10, (1) - #10 GND IN 0.5" C.	1	1	1	E/M CONTROLS	3	
EF-2	EXHAUST FAN-2	120	1	5.8	15	LCD4	1	T-15A	1	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	SWITCH W/ LIGHTS	3	
EF-3	EXHAUST FAN-3	120	1	0.6	15	LCD12	1	T-15A	1	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	SWITCH W/ LIGHTS	3	
EF-4	EXHAUST FAN-4	120	1	0.6	15	LCC59	1	T-15A	1	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	SWITCH W/ LIGHTS	3	
EF-5	EXHAUST FAN-5	120	1	5.8	15	LCC6	1	T-15A	1	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	SWITCH W/ LIGHTS	3	
EF-6	EXHAUST FAN-6	120	1	5.8	15	LCC6	1	T-15A	1	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	SWITCH W/ LIGHTS	3	
EF-7	EXHAUST FAN-7	120	1	9.8	20	LCC57	1	T-20A	1	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	THERMOSTAT	3	
ELEV-1	ELEVATOR-1	240	1	20.2	30	LCC23,25	2	S-30A	1	25A	--	--	1	(2) - #10, (1) - #10 GND IN 0.5" C.	1	1	1	E/M CONTROLS	3
EUH-1	ELECTRIC UNIT HEATER-1	240	1	64.1	80	LCC11,13	2	PWE	--	--	--	--	1	(2) - #8, (1) - #8 GND IN 1" C.	1	1	1	THERMOSTAT	
EUH-2	ELECTRIC UNIT HEATER-2	240	1	64.1	80	LCC61,63	2	PWE	--	--	--	--	1	(2) - #8, (1) - #8 GND IN 1" C.	1	1	1	THERMOSTAT	
EUH-3	ELECTRIC UNIT HEATER-3	240	1	64.1	80	LCC61,63	2	PWE	--	--	--	--	1	(2) - #8, (1) - #8 GND IN 1" C.	1	1	1	THERMOSTAT	
EUH-4	ELECTRIC UNIT HEATER-4	240	1	64.1	80	LCC61,63	2	PWE	--	--	--	--	1	(2) - #8, (1) - #8 GND IN 1" C.	1	1	1	THERMOSTAT	
EUH-5	ELECTRIC UNIT HEATER-5	240	1	64.1	80	LCC65,67	2	PWE	--	--	--	--	1	(2) - #8, (1) - #8 GND IN 1" C.	1	1	1	THERMOSTAT	
EUH-6	ELECTRIC UNIT HEATER-6	240	1	64.1	80	LCC65,67	2	PWE	--	--	--	--	1	(2) - #8, (1) - #8 GND IN 1" C.	1	1	1	THERMOSTAT	
EUH-7	ELECTRIC UNIT HEATER-7	240	1	64.1	80	LCC65,67	2	PWE	--	--	--	--	1	(2) - #8, (1) - #8 GND IN 1" C.	1	1	1	THERMOSTAT	
EWH-1	ELECTRIC WALL HEATER-1	240	1	8.3	15	LCC-60,62	2	PWE	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	THERMOSTAT	
EWH-2	ELECTRIC WALL HEATER-2	240	1	8.3	15	LCC-60,62	2	PWE	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	THERMOSTAT	
EWH-3	ELECTRIC WALL HEATER-3	240	1	8.3	15	LCC3,5	2	PWE	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	THERMOSTAT	
EWH-4	ELECTRIC WALL HEATER-4	240	1	8.3	15	LCC3,5	2	PWE	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	THERMOSTAT	
PTAC-1	PACKAGED TERMINAL AIR CONDITIONER-1	240	1	8.5	15	LCC-48,50	2	P	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 1" C.	1	1	1	THERMOSTAT	1
PTAC-2	PACKAGED TERMINAL AIR CONDITIONER-2	240	1	8.5	15	LCC52,54	2	P	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 1" C.	1	1	1	THERMOSTAT	1
PTAC-3	PACKAGED TERMINAL AIR CONDITIONER-3	240	1	8.5	15	LCC56,58	2	P	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 1" C.	1	1	1	THERMOSTAT	1
PTAC-4	PACKAGED TERMINAL AIR CONDITIONER-4	240	1	8.5	15	LCC14,16	2	P	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 1" C.	1	1	1	THERMOSTAT	1
PTAC-5	PACKAGED TERMINAL AIR CONDITIONER-5	240	1	15.2	20	LCC26,30	2	P	--	--	--	--	1	(2) - #12, (1) - #12 GND IN 0.5" C.	1	1	1	THERMOSTAT	2

**REMARKS AND TABLE ABBREVIATIONS:**

<b>GENERAL</b>	<b>STARTERS</b>	<b>DISCONNECTS</b>	<b>CONTROLLERS</b>
<b>ENCLOSURE</b>	<b>MAGNETIC OR SOLID STATE</b>	<b>S - SAFETY SWITCH</b>	<b>I - INTERLOCK</b>
<b>PROV. WITH EQUIP. WIRING</b>	<b>2 - SPEED, ADDED TO PREVIOUS</b>	<b>T - TOGGLE TYPE</b>	<b>BOB - BUILDING CONTROL SYSTEM</b>
<b>CONNECTIONS BY EC</b>	<b>VARIABLE FREQUENCY DRIVE</b>	<b>P - CORD AND PLUG</b>	<b>EM - EQUIPMENT MANUFACTURER CONTROLS</b>
<b>PROV. BY OTHERS</b>	<b>C - COMBINATION STYLE</b>	<b>CBM - COMBINATION STYLE</b>	<b>C - COMBINATION STYLE</b>
<b>SEE SPECIFICATIONS FOR TYPE</b>	<b>INTERPOSING RELAY</b>	<b>CB - CIRCUIT BREAKER</b>	
	<b>MANUAL - SEE DISCONNECT FOR T.</b>		

- REMARKS**
- PROVIDE AND INSTALL 240V, 20A 2P RECEPTACLE. COORDINATE PLUG TYPE WITH EQUIPMENT.
  - PROVIDE AND INSTALL 240V, 15A 2P RECEPTACLE. COORDINATE PLUG TYPE WITH EQUIPMENT.
  - INTERLOCK WITH ASSOCIATED LOUVERS. SEE LOUVER AND FAN SCHEDULE ON MECHANICAL PLANS.

**LIGHT FIXTURE SCHEDULE**

FXLT. LTR.	MANUFACTURER	CATALOG NUMBER	#	LAMP TYPE	#	BALLAST TYPE	FITTING VOLTAGE	FINISH	MOUNTING	FIXTURE VA	REMARKS/DESCRIPTION	SPECIFIC NOTES
A	WILLIAMS	LX40-4-L12-830-S-A-EM-10W-DRV-UNV	--	LED	4	DRIVER	120	STANDARD	SUSPENDED	52	4' CONTINUOUS LED STRIP	
AE	WILLIAMS	LX40-4-L12-830-S-A-EM-10W-DRV-UNV	--	LED	4	DRIVER	120	STANDARD	SUSPENDED	52	4' EMERGENCY CONTINUOUS LED STRIP	
B	WILLIAMS	76-4-L32/830-DRV-UNV	--	LED	1	DRIVER	120	STANDARD	SURFACE	23	4' LED STRIP	
C	COOPER	KTOR6B	--	LED	--	DRIVER	120	STANDARD	SURFACE	58	LED WALL PACK	
D	LUMENFORM	VPB-LD12-LV	--	LED	--	DRIVER	120	STANDARD	SURFACE	12	EXCITED JELLY JAR FIXTURE	
XA	SURE LITE	LPX7	--	LED	--	DRIVER	277	STANDARD	SURFACE	1	LED EXIT SIGN	

**GENERAL NOTES (APPLY TO ALL LIGHTING):**

- ALL LIGHTING FIXTURES SHALL BE RATED FOR LIGHTING POWER CIRCUIT VOLTAGE. CONTRACTOR MUST VERIFY ALL LOCATIONS.
- ELECTRICAL CONTRACTOR SHALL CHECK AND COORDINATE ALL LIGHTING FIXTURE CATALOG NUMBERS WITH THE INTENT OF FIXTURE DESCRIPTIONS, LISTED ACCESSORIES AND TYPE OF INSTALLATION.
- ELECTRICAL CONTRACTOR SHALL PROVIDE EACH LIGHTING FIXTURE COMPLETE WITH PLASTER FRAMES AND ALL OTHER INSTALLATION AND HANGING HARDWARE AS REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION AT EACH FIXTURE LOCATION.
- ALL FIXTURES SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) AND LABELED. ALL LIGHTING FIXTURES EXPOSED TO WEATHER, MOISTURE, OR OTHER ENVIRONMENTS SHALL BEAR THE APPLICABLE ENVIRONMENTAL OR APPLICATION LABEL.
- ALL EXIT/DIRECTIONAL SIGNS SHALL BE INSTALLED COMPLETE WITH ALL INSTALLATION AND HANGING ACCESSORIES TO PROVIDE AN UNOBSTRUCTED VIEW OF EACH SIGN FACE. SIGNS WILL BE ADJUSTED AS NECESSARY WITHOUT ADDITIONAL COST TO THE OWNER.
- SIGNS TO READ "EXIT" SIGNS WILL BE SINGLE OR DOUBLE FACE, WITH OR WITHOUT DIRECTIONAL ARROWS, AS SHOWN ON PLANS. SIGNS IN GENERAL WILL BE CEILING MOUNTED, LOCATED AND ADJUSTED FOR BEST VIEW. PENDANTS SHALL NOT BE USED UNLESS SPECIFICALLY INDICATED ON PLANS. SHATED PORTION OF EXIT SYMBOL DENOTES ILLUMINATION FACE.
- REFER TO APPLICABLE SECTIONS OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LIGHTING FIXTURES.
- VERIFY ALL LIGHTING FIXTURE LOCATIONS, FINISHES, AND CEILING TYPES WITH ARCHITECT PRIOR TO INSTALLING.
- ELECTRICAL CONTRACTOR SHALL PROVIDE PHOTO-METRIC INFORMATION TO MKEE ENGINEERING CONSULTANTS, INC., 411 N. WEBB ROAD, WICHITA, KS, 67206, FAX TO DETERMINE TIME AND DATE.
- INSTALLATION ELEVATION SHOWN IS FROM AFF OR AFO AS OBVIOUSLY APPLICABLE, TO CENTER OF OUTLET BOX, UNLESS OTHERWISE NOTED.
- FIXTURE SUBSTITUTIONS: SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL, 7 BUSINESS DAYS PRIOR TO BID. SUBMIT CUT SHEETS OF SPECIFIED ITEM ALONG WITH A CUT SHEET OF THE DESIRED SUBSTITUTION, WITH ALL DIFFERENCES NOTED. WALL OR BELIEVER CUT SHEETS INCLUDING PHOTO-METRIC INFORMATION TO MKEE ENGINEERING CONSULTANTS, INC., 411 N. WEBB ROAD, WICHITA, KS, 67206, FAX. TRANSMISSIONS ARE NOT ACCEPTABLE. SUBSTITUTIONS NOT SUBMITTED AS PER THIS PROCEDURE, WILL NOT BE CONSIDERED. THE ENGINEER'S DECISION OF APPROVAL OR DISAPPROVAL OF A PROPOSED SUBSTITUTE SHALL BE FINAL.
- SHOP DRAWINGS: DIFFERENCES SHALL BE SPECIFICALLY NOTED ON THE "SHOP DRAWINGS," THIS INCLUDES BUT IS NOT LIMITED TO: FIXTURE SUBSTITUTIONS, LAMPS, VOLTAGE, MOUNTING, PHYSICAL DIMENSIONS AND FINISHES. FAILURE TO COMPLY DOES NOT RELIEVE THE CONTRACTOR OF DESIGN DOCUMENT INTENTION AND WILL NOT BE REASON FOR ADDITIONAL REIMBURSEMENT. ADDITIONAL REQUIREMENTS MAY BE FOUND ELSEWHERE IN THE DRAWINGS OR SPECIFICATIONS.
- SUBMIT LIST OF LAMPS FOR ENGINEER'S REVIEW WITH TYPE OF LAMP AND MANUFACTURER TO BE USED FOR EACH FIXTURE LISTED PRIOR TO ORDERING. LAMPS SHALL BE MATCHED WITH EACH LIGHTING FIXTURE.

**SPECIFIC NOTES (AS REFERRED TO IN SCHEDULE)**

**DISCONNECT SWITCH SCHEDULE**

MARK	EQUIPMENT SERVED	VOLTAGE	SWITCH AMPS	POLES	FUSE AMPS	TYPE	ENCLOSURE	ACCESSORIES
DS-1	ELEVATOR MOTOR	240	30	2	25	RKT	1	
DS-2	EF-1	120	30	2	--	--	3R	
DS-3	DSS-1B	240	30	2	--	--	3R	

**ACCESSORIES**

- AX - AUXILIARY CONTACTS

**"MDP-C" CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE**

CIRCUIT NO.	LOAD DESCRIPTION	FRAME (AMPS/POLE)	TRIP (AMPS)	CIRCUIT BREAKER TYPE	MOUNTING HEIGHT
1	PANEL "LCA"	300			
2	PANEL "LCC"	600			
3	PANEL "LCD"	300			
<b>TOTALS</b>					<b>0</b>

- NOTES:**
- PROVIDE PANEL WITH HINGED TRIM WITH DOOR.
  - PROVIDE PANEL WITH BLANK FILLERS AS REQUIRED FOR UNUSED SPACE.

**PANEL "LCA" BRANCH PANELBOARD - NORMAL POWER**

CKT	LOAD DESCRIPTION	TRIP	POLE	TYPE	PHASE	A	PHASE	B	TYPE	POLE	TRIP	LOAD DESCRIPTION	CKT
1	WOMENS R.R./HAND DRYER	20	1	Mi	1800	300			L	1	20	STATUE LIGHTING	2
3	WOMENS R.R./HAND DRYER	20	1	Mi	1800	800			R	1	20	OFFICE RECEIPT	6
5	WOMENS R.R./HAND DRYER	20	1	Mi	1800	800			R	1	20	MECH. RM RECEIPT	8
7	WOMENS R.R./HAND DRYER	20	1	Mi	1800	400			R	1	20	TELEPHONE BACKBOARD RCPT	10
9	WOMENS AND MENS RCPTS	20	1	R	600	400			R	1	20	EMERGENCY LIGHTING	12
11	MENS R.R./HAND DRYER	20	1	Mi	1800	700			L	1	20	EXT SECURITY LIGHTS	14
13	MENS R.R./HAND DRYER	20	1	Mi	1800	700			L	1	20	EXTERIOR LIGHTS	16
15	MENS R.R./HAND DRYER	20	1	Mi	1800	1000			L	1	20	EXTERIOR LIGHTS	18
17	SPARE	20	1	Mi					L	1	20	SPARE	38
19	CONCESSION	20	1	R	500	600			R	1	20	WOMENS R.R. LIGHTS	20
21	CONCESSION	20	1	R	500	600			R	1	20	MENS R.R. LIGHTS	22
23	CONCESSION	20	1	R	500	600			R	1	20	CONCESSION STOR. LTG	24
25	ICE MAKER	20	1	Mi	1000	600			L	1	20	STOR. OFFICE MECH LTG	26
27	REFRIGERATOR	20	1	Mi	700	200			L	1	20	ELEVATOR RECEIPT	28
29	EXTERIOR RECEPTICAL	20	1	R	200	200			R	1	20	ELEVATOR LIGHT	30
31	CONCESSION RECEIPT	20	1	R	500	800			R	1	20	UPPER LEVEL RECEIPTS	32
33	CONCESSION RECEIPT	20	1	R	500	400			R	1	20	UPPER LEVEL EXT LIGHTS	34
35	CONCESSION RECEIPT	20	1	R	500	120			R	1	20	UPPER LEVEL INT LIGHTS	36
37	ELEVATOR	30	2	Mi	2500	640			R	1	20	SPARE	38
39	ELEVATOR	30	2	Mi	2500	640			R	1	20	SPARE	38
41	SPARE	20	1	Mi					L	1	20	PANEL "LCB"	40
<b>TOTAL LOAD (KVA)</b>						23.63					27.74		
<b>TOTAL AMPS/PHASE</b>						188.58					231.17		

LOAD TYPES	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND (KVA)	PANEL TOTALS
LIGHTS	6.5	1.25 Continuous	8.2	
RECEPTACLES	7.2	Per NEC Table 220	7.2	TOTAL CONN. LOAD (KVA) 50.4
MOTORS	0.0	Per NEC 220	0.0	TOTAL DEMAND LOAD (KVA) 52.0
HOSPITAL	0.0	Per NEC Table 220	0.0	TOTAL CONN. CURRENT 209.9
KITCHEN	0.0	Per NEC Table 220	0.0	TOTAL DEMAND CURRENT 216.7
HEAT	0.0	Per NEC 220	0.0	
MISC	36.6	1.00	36.6	

**PANEL "LCA" BR**