

**GENERAL NOTES**

- A. SITE VISIT BEFORE SUBMITTING THE BID PROPOSAL. THE CONTRACTOR SHALL VISIT THE JOB SITE AND FULLY ACCQUANT HIMSELF WITH THE JOB CONDITIONS. VERIFY SERVICE INDICATIONS, INCLUDING ALL NECESSARY PULLBOXES, SIZE & NUMBER OF CONDUITS AND CONDUITORS, SWITCHGEAR, METERING, CABLE CHARGES, ETC. WHETHER SHOWN ON DRAWINGS OR NOT BUT REQUIRED BY SERVING UTILITY COMPANY. TO MAKE A COMPLETE AND OPERATING ELECTRICAL SERVICE WITHOUT ADDITIONAL COST TO THE OWNER. VERIFY SERVICES AND CHARGES WITH POWER AND TELEPHONE COMPANIES.
- B. COORDINATION COORDINATE WORK WITH THAT OF ALL OTHER TRADES.
- C. LIGHTING INSTALLATION INSTALL LIGHTS SYMMETRICALLY WITH AISLE AND/OR DIMENSIONS AND COORDINATE FIXTURE PLACEMENT WITH OTHER EQUIPMENT INSTALLATIONS.
- D. INSTRUCTIONS PRIOR TO FINISH OF AFFECTED WORK CONTRACTOR SHALL INSTRUCT THE OWNER AND/OR MANAGER ON THE USE AND MAINTENANCE OF ELECTRICAL SYSTEM.
- E. MECHANICAL COORDINATION VERIFY ALL REQUIREMENTS OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS AND SPECIFICATIONS, AND PROVIDE ALL ITEMS REQUIRED BY MC FOR COMPLETE INSTALLATION.
- F. FAN LOCATION EXHAUST FAN(S): VERIFY EXACT LOCATION WITH MECHANICAL DRAWINGS AND CONNECT AS SHOWN.
- G. DISCONNECTING MEANS DISCONNECT SWITCHES SHALL BE RATED FOR THE MOTOR HORSEPOWER CONNECTED.
- H. COMPLIANCE ELECTRICAL WORK AND MATERIALS SHALL COMPLY WITH CURRENTLY ADOPTED VERSION OF THE NEC AND ALL LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT AMONG REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY.
- I. WEATHERPROOF ELECTRICAL DEVICES FOR USE OUTSIDE THE BUILDING SHALL BE WEATHERPROOF WHILE IN USE.
- J. FUSES SHALL BE AS MANUFACTURED BY BUSMANN CO. UNO AND SHALL REDUCE THE AVAILABLE FAULT BELOW THE RATING OF EQUIPMENT.
- K. GROUNDING GROUND ELECTRICAL EQUIPMENT PER THE NEC AND LOCAL CODE REQUIREMENTS.
- L. COLUMNS THE ONLY CONDUIT PERMITTED ON BUILDING COLUMNS IN THE SALES AREA WILL BE FED FROM ABOVE FOR COLUMN MOUNTED POWER DEVICES AND FOR FEEDING POWER AND DATA UNDERFLOOR TO SERVICE DESKS, ETC. WHERE CONDUIT IS TO BE ROUTED ON COLUMNS, IT IS TO BE ROUTED ON THE BACK SIDE OF THE COLUMN. IF POSSIBLE, ALL DATA AND LV MOUNTED ON SALES AREA COLUMNS SHALL BE SURFACE MOUNTED BOXES W/ WIRING RUN THROUGH COLUMNS. (TYPICAL FOR ALL) SEE SHEET E104 FOR COLUMN MOUNTED AP AND LV DEVICE REQUIREMENTS.
- M. FRONT WALL NO CONDUIT, DISCONNECTS, ETC. SHALL BE ROUTED ACROSS, OR MOUNTED ON FRONT WALL. CONDUITS SHALL BE ROUTED IN SLAB OR WITHIN WALL OR CHASE. IF MOUNTING CONDUIT, DISCONNECTS, ETC. ON FRONT WALL IS UNAVOIDABLE, COORDINATE LOCATIONS AND PARTING WITH GC AND TRU DPM.
- N. CONDUCTORS ALL CONDUCTORS SHALL BE #12 AWG CU THINWALL, MINIMUM FOR RUNS OVER 100' FOR 120-V CIRCUITS OR OVER 200' FOR 277-V CIRCUITS, THE MINIMUM SIZE SHALL BE #10.
- O. CONDUIT MINIMUM CONDUIT SIZE SHALL BE 1/2" TRADE SIZE, ALL CONDUIT FOR WALL MOUNTED ELECTRICAL, TELEPHONE, DATA, SECURITY AND LOW VOLTAGE DEVICES SHALL BE RUN CONCEALED IN CMU WALLS OR DRYWALL PARTITIONS, UNO.
- P. KNOX BOX CONDUIT PROVIDE A CONDUIT FROM THE KNOX BOX LOCATION INTO THE BUILDING NEAR THE ROOF DECK. COORDINATE LOCATIONS AND PAINTING WITH GC AND TRU DPM.
- Q. CONDUIT AND CABLE ROUTING WHERE POSSIBLE, ALL CONDUIT AND CABLE SHALL BE RUN UNDER THE TOP CORN OF THE JOISTS. UNDER NO CIRCUMSTANCE SHALL CONDUIT BE RUN WITHIN 1-1/2" OF THE ROOF DECK.
- R. LED CIRCUIT EACH CIRCUIT FOR LED LIGHTING SHALL HAVE A DEDICATED NEUTRAL. LED DRIVERS WILL FAIL IF NEUTRALS ARE SHARED.
- S. DEVICE COLORS WIRING DEVICE COLORS TO BE AS FOLLOWS:
  - S.A. ON WALLS EVERYWHERE BUT THE MOTHERS' ROOM - BLACK DEVICES WITH BRUSHED STAINLESS STEEL COVER PLATES
  - S.B. ON WALLS IN THE MOTHERS' ROOM - WHITE DEVICES WITH WHITE NYLON COVER PLATES
  - S.C. ON MAIN GONDOLAS - WHITE WITH WHITE OVERSIZED NYLON COVER PLATES
  - S.D. COMPUTER RECEPTACLES CIRCUITED TO PANEL L1-1 - GRAY DEVICES WITH COVER PLATES PER THE PREVIOUSLY DESCRIBED SITUATIONS.
- T. DEMOLITION OF CABLING IT IS A CODE VIOLATION TO ABANDON LOW VOLTAGE CABLING. COORDINATE WORK WITH LOW VOLTAGE CONTRACTOR.
- T.A. EXISTING TO REMAIN ALL CABLING FEEDING EXISTING EQUIPMENT OR OTHER TENANTS SHALL BE PROTECTED DURING DEMOLITION AND MAINTAINED.
- T.B. EXISTING FOR FUTURE ALL CABLING TO BE USED IN THE FUTURE AND FED FROM AN ACTIVE DEVICE TO BE LABELED AND COILED.
- T.C. DEMOLISHED CABLING ALL CABLING NOT TERMINATED ON EITHER END SHALL BE DEMOLISHED.

- KEY NOTES**
1. MECHANICAL EQUIPMENT, EXISTING TO REMAIN.
  2. LOBBY KIOSK POWER TRENCH FLOOR AND PROVIDE 1" C. WITH 1" MINIMUM COVER FROM EXISTING COLUMN TO RECEPTACLES. MAKE FINAL CONNECTION WITH FLEXIBLE CONDUIT. PATCH FLOOR TO MATCH EXISTING SURROUNDING SURFACE.
  3. LOBBY KIOSK DATA TRENCH FLOOR AND PROVIDE 1-1/2" C. WITH 1" MINIMUM COVER FROM EXISTING COLUMN TO DATA OUTLETS. MAKE FINAL CONNECTION WITH FLEXIBLE CONDUIT. PATCH FLOOR TO MATCH EXISTING SURROUNDING SURFACE.
  4. AVOID MAIN AISLE KEEP MAIN CONDUIT RUNS AT LEAST 6" FROM MAIN AISLE. "RACEWAY" MAIN CONDUIT RUNS ACROSS AISLES SHALL BE RUN PERPENDICULAR AND SHALL NOT RUN PARALLEL DOWN AISLE.
  5. EXTERIOR SIGN: PROVIDE WEATHERPROOF J-BOXES. EXTEND CIRCUIT AND CONNECT. VERIFY EXACT LOCATION AND REQUIREMENTS WITH SIGN MANUFACTURER AND CONSTRUCTION MANAGER. CONTRACTOR TO PROVIDE AND COORDINATE ACCESS FOR POWER TO SIGN.
  6. EXISTING SIGN: TO REMAIN IN-PLACE AND CONNECTED.
  7. DOOR ALARM PROVIDE RECEPTACLE AT 6'-0" TO BOTTOM FOR DELAYED EGRESS DOOR ALARM. SEE DETAIL 4E202.
  8. HELLO SIGN: PROVIDE WEATHERPROOF J-BOXES AND CONNECT TO CIRCUIT SHOWN.
  9. EF-1 CIRCUIT EF-1 VIA MOTOR STARTER.
  10. BRU TELEPHONE EQUIPMENT BOARD, TELEPHONE SERVICE CABLE BY TRU COMMUNICATION VENDOR FROM MAIN TELEPHONE SERVICE BOARD TO THIS LOCATION.
  11. NEW RTU: EC TO CONNECT NEW RTU TO EXISTING NOVAR EMS AS REQUIRED. COORDINATE WORK AND CONTROLS WITH OWNER'S NOVAR VENDOR. SEE "RTU CONNECTION TO EXISTING NOVAR" ON THIS SHEET.

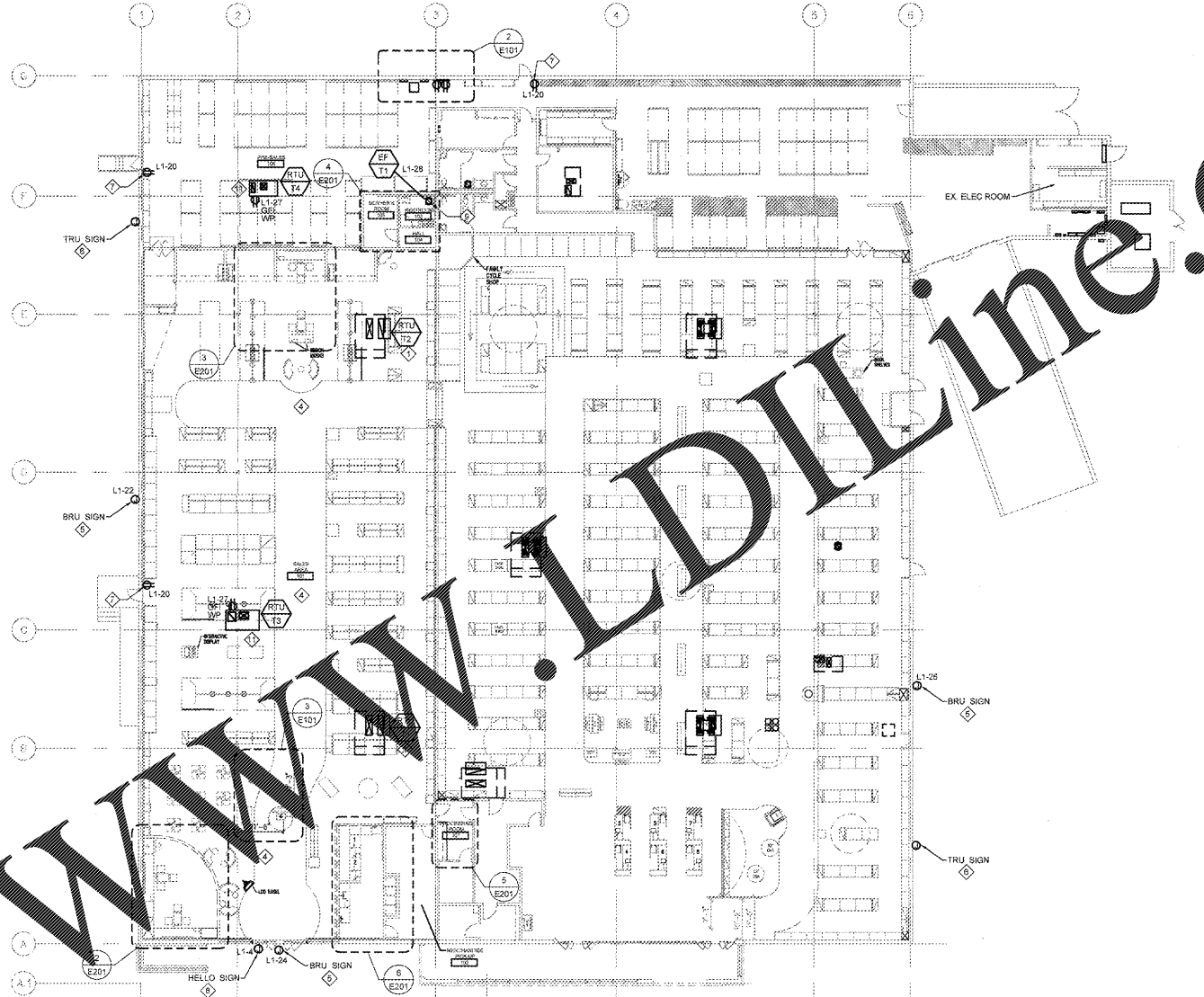
**ELECTRICAL LEGEND:**

- D-23 LIGHTING FIXTURE (SYMBOL VARIES) - UPPER CASE LETTER(S) INDICATES FIXTURE TYPE, NUMBER INDICATES CIRCUIT NUMBER
- 6'-0" LINEAR FLUORESCENT LIGHT WITH EMERGENCY BALLAST
- 4'-0" LINEAR FLUORESCENT LIGHT WITH EMERGENCY BALLAST
- 6'-0" LINEAR FLUORESCENT LIGHT
- 4'-0" LINEAR FLUORESCENT LIGHT
- 2X4 FLUORESCENT LIGHT WITH EMERGENCY BALLAST
- 2X4 FLUORESCENT LIGHT
- CERAMIC METAL HALIDE PENDANT FIXTURE
- COMPACT FLUORESCENT RECESSED DOWNLIGHT
- LINEAR FLUORESCENT STAGGERED STRIP LIGHT COVE FIXTURES (LENGTHS VARY, TYPE '10E' HAS EMERGENCY BALLAST)
- EXTERIOR WALL MOUNTED FIXTURE
- EXIT SIGN
- KEY NOTES
- PANEL
- DISCONNECT SWITCH (NON-FUSED EXCEPT AS NOTED)
- 120V FUSED DISCONNECT SWITCH, BUSMANN TYPE S5Y OR EQUAL
- PUSH BUTTON EDWARDS #692 MOUNTED AT 44" AFF
- BUZZER EDWARDS #340A-GS
- CEILING OCCUPANCY SENSOR, SELF-CONTAINED, 277V, 30 MINUTE DELAYED 'OFF', #ODS10-1DI (LEVITON), BY EC.
- POWER POLE (REFERENCE E103 FOR TYPES)
- PRICE CHECKER LOCATIONS
- CUSTOMER CENTER W/ INTEGRAL PRICE CHECKER
- SINGLE POLE SWITCH - BLACK W/ SS COVER PLATE, MTD 48" AFF SEE SPECIFICATIONS
- WALL MOUNT OCCUPANCY SWITCH 48" AFF, 30 MINUTE DELAYED 'OFF', #ODS10-1DI (LEVITON), BY EC.
- JUNCTION BOX MTD. IN JOIST AREA FOR CONNECTION TO RACKING. CONDUITS CONNECTED BETWEEN SUCH BOXES SHALL BE ROUTED IN JOIST AREA
- JUNCTION BOX
- DUPLEX RECEPTACLE - MTD 18" AFF TO CENTER, UNO SEE SPECIFICATIONS FOR TYPE, COLOR, AND PLATE
- QUAD RECEPTACLE - MTD 18" AFF TO CENTER, UNO SEE SPECIFICATIONS FOR TYPE, COLOR, AND PLATE
- DUPLEX RECEPTACLE GF-BLACK, MTD 18" AFF TO CENTER, UNO SEE SPECIFICATIONS FOR TYPE, COLOR, AND PLATE
- WEATHER PROOF QUAD RECEPTACLE GF, MTD 18" AFF TO CENTER, UNO SEE SPECIFICATIONS FOR TYPE, COLOR, AND PLATE
- DUPLEX TAMPER RESISTANT RECEPTACLE - MTD 18" AFF TO CENTER, UNO COLOR OF RECEPTACLE AND COVER PLATE TO BE WHITE (HUBBELL BR220WTR OR EQUAL)
- EXIT DISCHARGE LIGHTING
- MOTORS
- TRANSFORMER
- (1) 3'-4" SECTION OF PLUGMOLD, WIREMOLD #2000GB SERIES WITH RECEPT. 6" OC, WHITE, BY EC.
- (2) 3'-0" SECTIONS OF PLUGMOLD MOUNTED BACK TO BACK, WIREMOLD #2000GB SERIES WITH RECEPT. 6" OC, WHITE, BY EC.
- REVISION DELTA

**ABBREVIATIONS**

A	AMP	FP	FIRE PROTECTION CONTRACTOR	PM	PLUGMOLD OR PROJECT MANAGER
AFF	ABOVE FINISHED FLOOR	GC	GENERAL CONTRACTOR	RGC	RIGID GALVANIZED CONDUIT
AHJ	AUTHORITY HAVING JURISDICTION	GI	GROUNDING CONTRACTOR	RMC	RIGID METAL CONDUIT
AHU	AIR HANDLING UNIT	GRD	GROUND	RTU	ROOF TOP UNIT
AWG	AMERICAN WIRE GAUGE	GP	GENERAL PURPOSE	TR	TOYS 'R' US
BRU	BABIES 'R' US	IB	INTERNATIONAL BUILDING CODE	TRU	TYPICAL
C	CAMERA OR CONDUIT OR CONTACTOR	IM	INTERMEDIATE METAL CONDUIT	UH	UNIT HEATER
CFL	COMPACT FLUORESCENT	JB	JUNCTION BOX	UL	UNDERWRITERS LABORATORIES
CNT	CIRCUIT	KVA	KILOWATT	UNO	UNLESS NOTED OTHERWISE
CPM	CONSTRUCTION PROJECT MANAGER	KW	KILOWATT	V	VOLT
DPM	DESIGN PROJECT MANAGER	LED	LIGHT EMITTING DIODE	VA	VOLT-AMP
EC	ELECTRICAL CONTRACTOR	LE	LEAD	WATT	WATT
EF	EXHAUST FAN	MEC	MECHANICAL CONTRACTOR	WP	WEATHER PROOF
EM	EMERGENCY	MJ	MECHANICAL JOIST	WTR	WITH
EMM	EMERGENCY MANAGEMENT SYSTEM	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	XFMR	TRANSFORMER
EMT	ELECTRICAL METAL TUBING	NL	NIGHT LIGHT		
EMC	ELECTRICAL METAL CONDUIT	NTIC	NOT IN CONTRACT		
ELEC	ELECTRICAL	OC	ON CENTER		
FIRE ALARM	FIRE ALARM	OSI	OWNER SUPPLIED ITEM		
FIRE ALARM CONTROL PANEL	FIRE ALARM CONTROL PANEL	PC	PLUMBING CONTRACTOR		

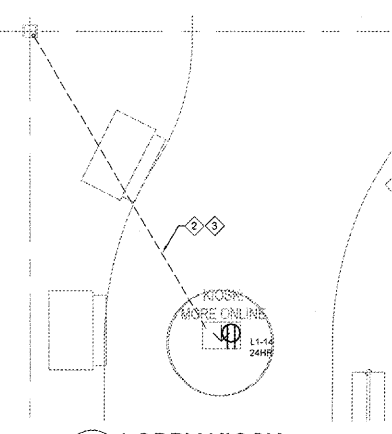
- RTU CONNECTION TO EXISTING NOVAR:**
1. WIRE SPLICES ARE NOT ACCEPTABLE. THE COMMUNICATIONS TRUNK WILL BE TERMINATED AT THE MODULES.
  2. ALL LOW VOLTAGE CABLE IS TO BE SUPPORTED SECURELY ACCORDING TO THE APPLICABLE ELECTRICAL CODE. TAPE IS NOT ACCEPTABLE.
  3. ALL LOW VOLTAGE CABLE IS TO BE RUN NEATLY AND CONCEALED WITHIN THE BUILDING STRUCTURE.
  4. ALL LOW VOLTAGE CABLE IS TO BE SLEEVED IN CONDUIT UP TO THE CEILING OR BAR JOISTS.
  5. THE EC (EXCEPT AS NOTED) SHALL PROVIDE ALL CONDUITS AND LOW VOLTAGE CABLE. EC SHALL INSTALL ALL EMS CONTROL CABLE IN 1/2" CONDUIT IF CABLE IS INSIDE BAR JOISTS OR INSIDE WALLS AS REQUIRED BY CODE.
  6. THE EC (EXCEPT AS NOTED) SHALL INSTALL THE NOVAR SUPPLIED FIELD DEVICES AND CONNECT TO CONTACTORS. EC SHALL PROVIDE ALL INTERCONNECTIONS AS SHOWN.
  7. THE EC SHALL MAKE ALL FINAL TERMINATIONS FROM CONTROL BOARDS TO ALL REMOTE EQUIPMENT.
  8. NOVAR SHALL PROGRAM AND PERFORM FINAL SYSTEM CHECKOUT.
  9. ZONE TEMPERATURE SENSORS SHALL BE FURNISHED WITH ROOFTOP UNITS. SENSORS ARE TO BE MOUNTED BY THE EC AND SHALL BE WIRED FROM THE ROOFTOP UNIT TERMINAL STRIP TO THE SENSOR LOCATION BY THE EC.
  10. ALL CONNECTIONS BETWEEN THE ENERGY MANAGEMENT SYSTEM (EMS) AND INDIVIDUAL RTU'S SHALL BE FIELD INSTALLED BY THE EC.
  11. ALL LOW VOLTAGE CABLE SHALL BE PROVIDED AND INSTALLED BY EC AND PER WIRE SCHEDULE, AS SHOWN.
  12. ALL INQUIRIES AND/OR QUESTIONS PERTAINING TO THE ENERGY MANAGEMENT AND CONTROL SYSTEM AND OR SCHEDULING SHALL BE DIRECTED TO: NOVAR CONTROLS PROJECT MANAGEMENT GROUP, 8080 ROCKSIDE WOODS BLVD, CLEVELAND, OH 44131, (216) 882-1600.
  13. ETHERNET CONNECTION (PROVIDED BY OWNER) MUST BE DEMONSTRATED AS OPERATIONAL PRIOR TO SCHEDULING SITE VISIT WITH NOVAR CONTROLS. OWNER'S I.T. REPRESENTATIVE MUST SUPPLY A STATIC IP ADDRESS PRIOR TO START UP.
  14. A NOVAR REPRESENTATIVE WILL BE SCHEDULED ON SITE ONE (1) DAY TO PERFORM THE SYSTEM DOWNLOAD AND START-UP IN ACCORDANCE WITH THE NATIONAL AGREEMENT BETWEEN CSUSA AND TRU. THIS TRIP IS SCHEDULED BY CSUSA FOR THE WEEK FOLLOWING THE STORES FUTURE/TURNOVER DATE. NOTE: TECHNICIANS REPRESENTING THE ELECTRICAL AND MECHANICAL TRADES MUST BE ON SITE DURING SYSTEM DOWNLOAD AND START-UP TO ASSIST IN RESOLVING ANY ISSUES THAT MAY BE DISCOVERED AT THAT TIME. IF THE NOVAR REPRESENTATIVE CANNOT COMPLETE THEIR WORK DUE TO THE ELECTRICAL AND/OR MECHANICAL CONTRACTORS WORK NOT BEING COMPLETE, NOVAR WILL INVOICE TRU FOR AN ADDITIONAL TRIP, OR TIME ON THE JOB.



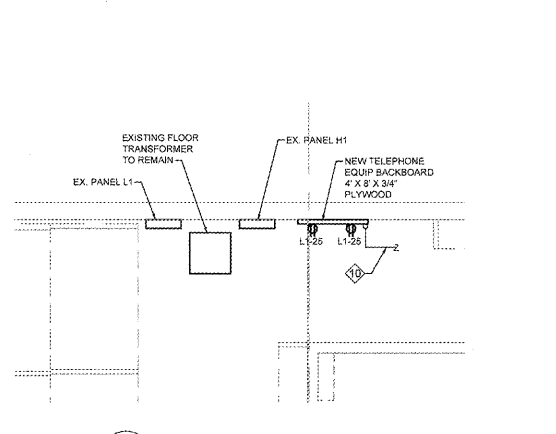
**1 ELECTRICAL POWER PLAN**  
E101 SCALE = 1/16" = 1'-0"



SENSITIVE ELECTRONIC EQUIPMENT (PANEL L1) ALL EQUIPMENT CIRCUITED TO PANEL L1 SHALL HAVE DEDICATED NEUTRAL AND GROUND CONDUCTORS PER CIRCUIT. DO NOT SHARE NEUTRALS OR GROUND CONDUCTORS BETWEEN CIRCUITS.



**3 LOBBY KIOSK**  
E101 SCALE = 1/4" = 1'-0"



**2 UTILITY KEY PLAN**  
E101 SCALE = 1/4" = 1'-0"

**REVISIONS**

No.	Date	Description
1	11/22/18	30% OWNER REVIEW
2	11/29/18	ISSUED FOR PERMIT #10

**NO SUBSTITUTIONS SHALL BE ALLOWED UNLESS OTHERWISE NOTED (REFER TO SPECIFICATIONS)**

DESIGNED FOR: FLORIDA BUILDING CODE, 6TH EDITION (2017).

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Drawing Title  
**ELECTRICAL POWER PLAN**

Scale AS NOTED Date 1/29/18

Sheet No. **E101**

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