

STATE PROJECT NUMBER: 22 - 103106

1250 14TH STREET DENVER, CO 80202

NOVEMBER 22, 2021

**ELECTRICAL
ENGINEER:** BG BUILDINGWORKS, INC
1626 COLE BOULEVARD, SUITE 300,
LAKEWOOD, CO 80401
303-278-3820

CONTACT: MICHAEL REED

| | |
|--------|-----------------------------|
| E-000 | ELECTRICAL COVER SHEET |
| ED-101 | ELECTRICAL DEMO PLANS |
| E-101 | ELECTRICAL POWER PLAN |
| E-102 | ELECTRICAL LIGHTING PLAN |
| E-201 | ELECTRICAL ONE-LINE DIAGRAM |
| E-202 | ELECTRICAL SCHEDULES |

OWNER SCOPE ITEMS INCLUDE:

- FABRICATION OF STEEL FRAME
- PROVIDE TO CONTRACTOR HSS COLUMNS FOR GC TO INSTALL
- INSTALLATION OF STEEL BRACKETS, PLATES, THREADED RODS AND OTHER STEEL ACCESSORIES
- INSTALLATION AND FABRICATION OF BENCH SUPPORTS AND BENCH TO STEEL FRAME
- INSTALLATION AND FABRICATION OF COUNTERTOP
- INSTALLATION OF WOOD TO STEEL FRAME
- FASTENING WOOD TO WOOD CONNECTIONS
- SUPPLYING AND INSTALLING CASEWORK
- ALL PAINTING

An aerial photograph of a city street intersection. A black dot is placed on a building located at the intersection of a major road and a side street. The surrounding area includes various buildings, parking lots, and green spaces.

COVER SHEET & PROJECT INFORMATION

G-001

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SYMBOLS

| | |
|--|--|
| | COLUMN GRID |
| | DETAIL NUMBER DETAIL 1 ON SHEET A9.1 |
| | EXTERIOR ELEVATION DRAWING 3 ON SHEET A4.1 |
| | WALL SECTION DETAIL 1 ON SHEET A5.3 |
| | BUILDING SECTION DETAIL 2 ON SHEET A5.1 |
| | DETAIL BUBBLE DETAIL 8 ON SHEET A6.2 |
| | INTERIOR ELEVATION DRAWING 1 ON SHEET A7.1 |
| | DRAWING TITLE AND NUMBER |
| | NORTH ARROW |
| | ROOM NAME AND NUMBER |
| | ELEVATION MARKER |
| | WALL TYPE NUMBER |
| | DOOR NUMBER |
| | WINDOW TYPE |
| | CENTER LINE |
| | HIDDEN LINE/OBJECTS ABOVE SOFFITS, CABINETS, HIGH WINDOWS |

LIFE SAFETY NOTES:

- THE FOLLOWING NOTES SHALL BE CONTRACTUALLY BINDING AND APPLY TO ALL DISCIPLINES. IT IS THE CONTRACTORS OBLIGATION TO ENSURE ALL WORK AND ALL SUB CONTRACTORS WORK BE PERFORMED IN COMPLIANCE WITH THE FOLLOWING NOTES IN ADDITION TO THE CONSTRUCTION DOCUMENTS AND PROJECT SPECIFICATIONS.
- HOT WORK DURING CONSTRUCTION:
THE CONTRACTOR SHALL ENSURE THAT ANY HOT WORK ACTIVITIES DURING CONSTRUCTION, E.G., USING HEAT GUNS, SOLDERING, BRAZING, WELDING, GRINDING, POWDER DRIVEN STUDS, METAL CUTTING USING POWER TOOLS OR OTHER ACTIVITIES INVOLVING FLAMES OR SPARKS ARE PRECEDED BY OBTAINING AN APPROVED HOT WORK PERMIT.
- ACCESS AND EGRESS OBSTRUCTIONS:
THE CONTRACTOR SHALL CONFIRM THAT THE PROJECT STAGING AREA AND CONSTRUCTION ACTIVITIES DO NOT CAUSE THE OBSTRUCTION OF PATHS OF EGRESS INSIDE THE BUILDING, BLOCK EXIT DISCHARGE FROM THE BUILDING OR IMPEDE EMERGENCY VEHICLE ACCESS TO THE AREA.
- DUST/FUME GENERATION:
IF THE CONSTRUCTION ACTIVITIES GENERATE DUST OR FUMES INSIDE THE BUILDING, NECESSARY MEASURES ARE TO BE TAKEN TO PREVENT THE NUISANCE ACTUATION OF ANY NEARBY SMOKE OR DUCT DETECTORS. THE CONTRACTOR SHALL CONTACT THE FIRE SYSTEMS GROUP TO TAKE NECESSARY ACTIONS.
- PENETRATIONS THROUGH FIRE RATED ASSEMBLIES:
THE CONTRACTOR SHALL ENSURE THAT ANY PENETRATIONS THROUGH FIRE RATED ASSEMBLIES (FLOORS, PARTITIONS, WALLS, ETC.) ARE FIRESTOPPED.
- PEDESTRIAN PROTECTION:
THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ANY NECESSARY PEDESTRIAN PROTECTION MEASURES DURING CONSTRUCTION.

PROJECT SCOPE OUTLINE:

THE CONTRACTOR IS RESPONSIBLE FOR THE NECESSARY DEMOLITION AND RELOCATION OF EXISTING ELECTRICAL ITEMS NOTED ON THE DRAWINGS AND RE-FINISHING OF WALLS AND FLOORS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR INSTALLING THE STRUCTURAL STEEL POSTS INTO THE EXISTING CONDITIONS AND SECURELY FASTENING THE PREFABRICATED STEEL FRAME (OWNER PROVIDED) TO THE STRUCTURAL STEEL STEEL POSTS PER CONSTRUCTION DOCUMENTS.

CONTRACTOR SCOPE ITEMS INCLUDE:

- EXISTING DESK IS TO REMAIN IN PLACE AND OPERATIONAL FOR AS LONG AS POSSIBLE DURING INSTALLATION OF NEW DESK FRAME, COORDINATE WITH OWNER. GC RESPONSIBLE FOR DEMOLITION & DISPOSAL OF THE EXISTING DESK, CASEWORK AND ASSOCIATED ITEMS
- INSTALLING NEW TILE IN LOCATIONS NOTED
- ATTACHING OWNER SUPPLIED HSS POSTS INTO EXISTING STRUCTURE, FLOOR & CEILING.
- PROVIDING & INSTALL STEEL ANGLES, ETC. FOR CONNECTING PREFABRICATED STEEL FRAME TO OWNER SUPPLIED HSS POSTS AT CONNECTION POINTS AS PER DRAWINGS
- COORDINATING AND RELOCATING THE EXISTING ELECTRICAL ITEMS NOTED ON THE DRAWINGS AND NEW ELECTRICAL ITEMS
- PATCHING / REPAIRING / RE-FINISHING WALLS AND OR CEILINGS AS NOTED AFTER COMPLETION OF NEW WORK

OWNER SCOPE ITEMS INCLUDE:

- FABRICATION OF STEEL FRAME
- PROVIDE TO CONTRACTOR HSS COLUMNS FOR GC TO INSTALL.
- INSTALLATION OF STEEL BRACKETS, PLATES, THREADED RODS, AND OTHER STEEL ACCESSORIES
- INSTALLATION AND FABRICATION OF BENCH SUPPORTS AND BENCH TO STEEL FRAME
- INSTALLATION AND FABRICATION OF COUNTERTOP
- INSTALLATION OF WOOD TO STEEL FRAME
- FASTENING WOOD TO WOOD CONNECTIONS
- SUPPLYING AND INSTALLING CASEWORK
- ALL PAINTING

GENERAL CONTRACTOR NOTES:

- THE FLOOR PLANS CONTAIN DEMOLITION REQUIREMENTS AS WELL AS NEW WORK FOR ALL ASPECTS OF THE PROJECT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DEMOLITION WITH NEW WORK REQUIREMENTS.
- EXISTING LIGHT FIXTURES TO REMAIN.
- SITE EXAMINATION:
GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VISIT AND EXAMINE THE SITE AND BUILDING IN EVERY DETAIL AS IT PERTAINS TO THE PROJECT PRIOR TO SUBMITTING A BID PROPOSAL.
- DISCREPANCIES:
ANY DISCREPANCIES DISCOVERED BY THE GENERAL CONTRACTOR OR BY THE SUBCONTRACTORS, BETWEEN DIMENSIONS, OR CONFLICTS UNFORESEEN PREVIOUSLY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT OR CU PROJECT MANAGER FOR CLARIFICATION.
- LONG LEAD ITEMS:
THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR BEING FAMILIAR WITH THE PROJECT SCHEDULE AND DEADLINES, AND FOR ADVISING THE ARCHITECT FOR ALL LONG LEAD ITEMS. ORDER CONFIRMATION SHALL BE SUBMITTED WITH DELIVERY DATES. PROVIDE LEAD TIME ESTIMATES WITH ANY BID PROPOSALS. IT SHALL BE AT THE GENERAL CONTRACTORS EXPENSE IF ANY LONG LEAD ITEMS ARE DISCOVERED AFTER THE PROJECT BEGINS.
- SCHEDULING:
THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COORDINATION OF THE SCHEDULE WITH THE BUILDING SCHEDULE AND BUILDING EVENTS. THE CONTRACTOR SHALL BE IN CONSTANT CONTACT WITH THE PROJECT MANAGER TO BE AWARE OF ANY POSSIBLE SCHEDULE CHANGES AND COORDINATE ANY POSSIBLE CONSTRUCTION AND BUILDING USAGE CONFLICTS.
- GENERAL CONTRACTOR (G.C.) IS RESPONSIBLE TO COORDINATE WITH THE UNIVERSITY PROJECT MANAGER FOR HOURS OF OPERATION, ALLOWABLE CONSTRUCTION TIMES AND CONSTRUCTION ACTIVITIES. THE G.C. SHALL ASSUME ALL RESPONSIBILITY FOR ALL SUB-CONTRACTORS. THE G.C. SHALL BE RESPONSIBLE TO OBTAIN SECURITY KEY CARDS FOR ACCESS TO THE BUILDING AND TO THE FLOOR.
- OCCUPIED BUILDING:
THE BUILDING WILL BE OCCUPIED AND IN USE DURING THE CONSTRUCTION OF THE PROJECT. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE A SAFE AND CLEAN ENVIRONMENT. THE CONTRACTOR SHALL BE AWARE OF OCCUPIED SPACES AND WORK IN A FASHION AS TO MAINTAIN REASONABLE WORKING CONDITIONS FOR THE OCCUPANTS.
- CLEAN UP:
CLEANING OF EQUIPMENT SHALL BE LIMITED TO AREAS DESIGNATED BY THE BUILDING MANAGER. TRASH SHALL BE REMOVED AND SWEEPING/VACUUMING SHALL BE PROVIDED ON A CONTINUING BASIS THROUGHOUT THE CONSTRUCTION PROCESS. FINAL CLEANING SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDE WINDOWS, SILLS, WINDOW COVERINGS (BLINDS), CABINETS, LIGHT FIXTURES, SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLS.
- PROTECTION OF EXISTING ITEMS:
THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL EXISTING CONSTRUCTION ON AND OFF SITE, AND SHALL BE HELD RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE CAUSED BY GENERAL CONTRACTOR OR ANY OF ITS SUBCONTRACTORS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE DUMPSTER. THE G.C. SHALL COORDINATE WITH THE UNIVERSITY PROJECT MANAGER FOR LOCATION AND ALLOWABLE SIZE. THE G.C. IS RESPONSIBLE TO OBTAIN ALL REQUIRED PERMITS. CONTRACTOR SHALL DISPOSE OF ALL DEBRIS LAWFULLY.

BUILDING CODE SUMMARY:

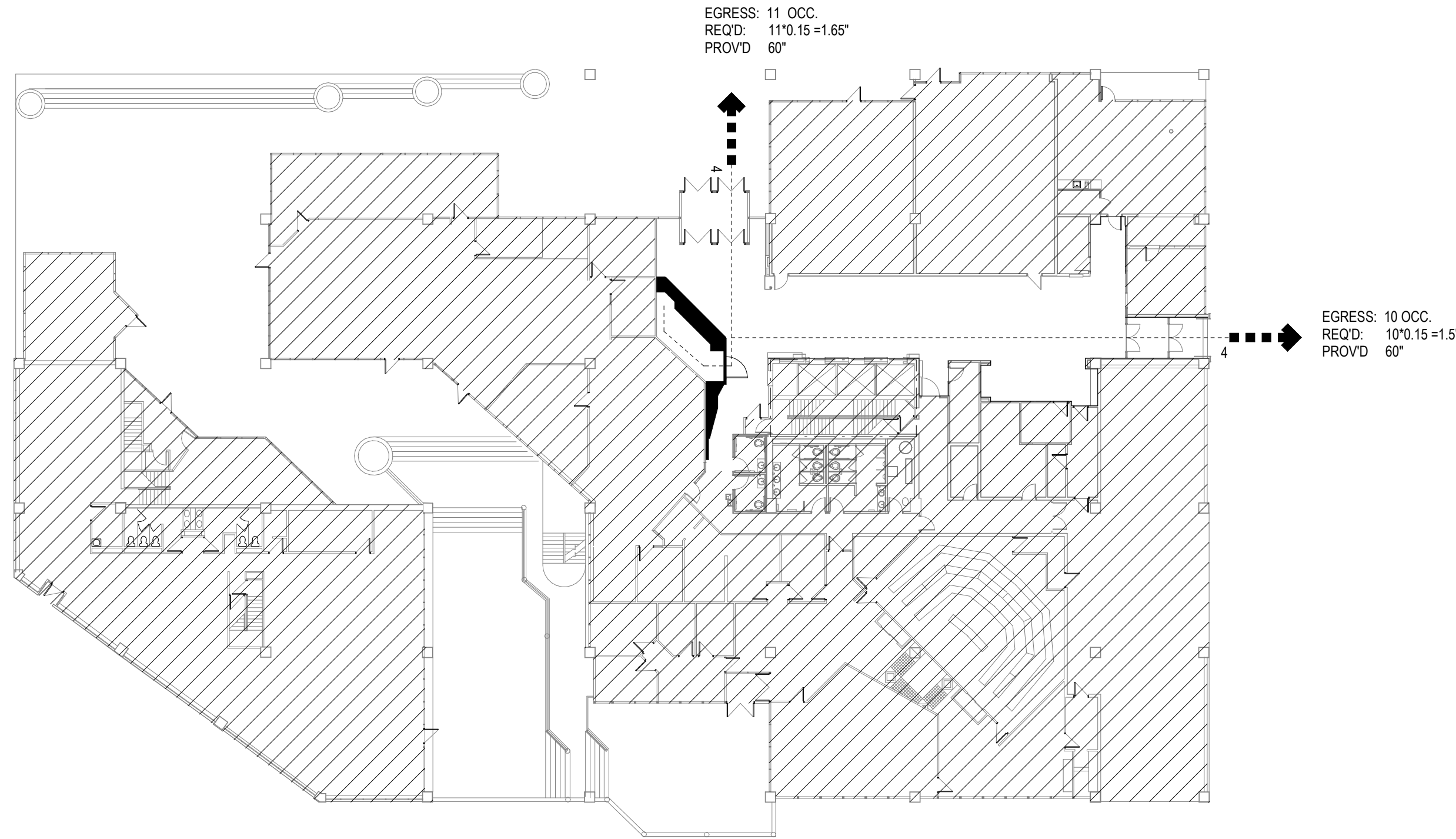
| | |
|---|---|
| APPLICABLE BUILDING CODES: | 2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL FUEL GAS CODE 2018 INTERNATIONAL MECHANICAL CODE 2018 INTERNATIONAL PLUMBING CODE 2018 INTERNATIONAL ENERGY CONSERVATION CODE 2020 ELECTRICAL CODE ICC A117.1-2009 & IBC 2018 ACCESSIBILITY |
| TYPE OF CONSTRUCTION: | II-A (NO CHANGE FROM EXISTING) |
| OCCUPANCY GROUP: | B (NO CHANGE FROM EXISTING) |
| FIRE PROTECTION: | FULLY SPRINKLERED |
| BUILDING ADDRESS: | 1250 14TH STREET DENVER, CO |
| CONSTRUCTION AREA: | 3,086 S.F. (LOBBY) |
| TOTAL FLOOR AREA: | 23,220 S.F. (1ST FLOOR) |
| OCCUPANT LOAD: | 21 PEOPLE (B = 1/150) |
| TWO MEANS OF EGRESS PROVIDED - AS PER IBC CH. 10 | |
| EXISTING BUILDING AREA | |
| BUILDING HEIGHT (# OF STORIES): | 8 STORIES + 1 BASEMENT LEVEL |
| TOTAL FLOOR AREA: | 23,220 SF (1ST FLOOR) |
| ALLOWABLE BUILDING HEIGHT AND AREA | |
| BUILDING HEIGHT (# OF STORIES): | 8 STORIES |
| BUILDING HEIGHT ALLOWED: | 12 STORIES |
| FLOOR AREA ALLOWED PER STORY: | 39,900 SF |
| DESCRIPTION: | THE UNIVERSITY IS DESIGNING AND CONSTRUCTING A NEW RECEPTION DESK. |
| NOTE: | THE UPGRADED SPACE IS NOT UNDERGOING ANY CHANGE IN USE, OCCUPANCY TYPE OR OCCUPANCY NUMBERS. ALL EXISTING CIRCULATION AND PATHS OF CIRCULATION AND EGRESS REMAIN THE SAME. |
| 1007.3 - AREA OF REFUGE NOT REQUIRED AS PER SECTION 1007.3 EXCEPTION #3 - FULLY SPRINKLERED BUILDING. | |
| 1018.1 - 1-HOUR CORRIDOR NOT REQUIRED PER TABLE 1018.1 - FULLY SPRINKLERED BUILDING. | |



CU DEN BLDG UPGRADE SECURITY DESK

1250 14TH STREET DENVER, CO 80202

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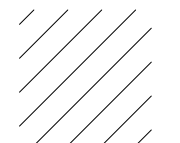
EGRESS PLAN

1" = 300'-0"

EGRESS PLAN LEGEND:



PATH OF EGRESS WITH OCCUPANT
COUNT



AREA OF NO WORK



INTERIOR EXIT STAIRWAY ENCLOSURE,
1-HR FIRE BARRIER.



| DATE | DESCRIPTION |
|------------|-----------------------------|
| 11/22/2021 | 100% CONSTRUCTION DOCUMENTS |
| | |
| | |
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| | |
| | |

DRAWN BY: ZEAP CHECKED BY: MB
PROJECT NO.: 2135cur INITIAL DATE: 08/19/2021

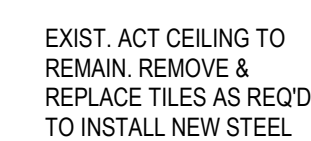
LIFE SAFETY PLAN, GENERAL NOTES,
& DIVISION OF SCOPE

G-002



STATE PROJECT NUMBER: 22 - 103106

1. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN. ANY DISCREPANCIES IN DRAWINGS AND/OR EXISTING CONDITIONS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
2. THE ARCHITECT DISCLAIMS ANY RESPONSIBILITIES AND/OR KNOWLEDGE OF ASBESTOS. THE OWNER ACCEPTS ALL RESPONSIBILITY FOR REMOVAL AND DISPOSAL OF ASBESTOS IF DISCOVERED.
3. NEW CONSTRUCTION MUST ALIGN WITH EXISTING WALLS AND/OR ELEMENTS. WALL AND CEILING TEXTURES MUST MATCH AND BE BLENDED TO MEET OWNERS AND ARCHITECTS APPROVAL.
4. ALL DIMENSIONS ARE FROM FACE OF STUD FOR NEW WALLS AND FACE OF FINISHED WALLS FOR EXISTING WALLS OR CENTERLINE OF GRID UNLESS NOTED OTHERWISE.
5. SEE ELECTRICAL DRAWINGS FOR ALL ELECTRICAL NOTES, SCHEDULES, AND FIRE SAFETY REQUIREMENTS.
6. ALL ROUGH AND FINISH CONSTRUCTION SHALL BE IN COMPLIANCE WITH GOVERNING CODES AND REGULATIONS AS A MINIMUM STANDARD.
7. PATCH AND REPAIR DEMO AREAS AT EXISTING WALL. MATCH EXISTING.
8. REFER TO G-002 FOR DIVISION OF SCOPE BETWEEN CONTRACTOR AND OWNER.



EXISTING TILE

EXISTING WALLS

DOOR

WINDOW

EXISTING LIGHT

ITEM TO BE DEM

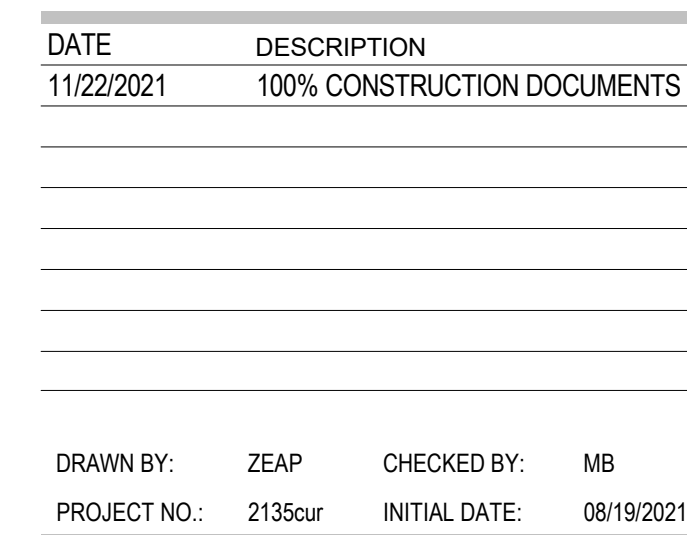
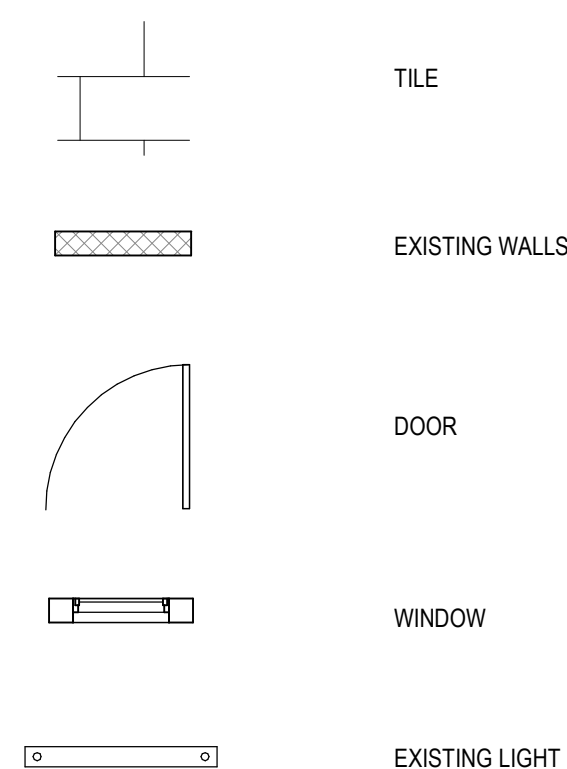
DEMO FLOOR PLAN & CEILING PLAN

AD-101



STATE PROJECT NUMBER: 22 - 103106

1. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN. ANY DISCREPANCIES IN DRAWINGS AND/OR EXISTING CONDITIONS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
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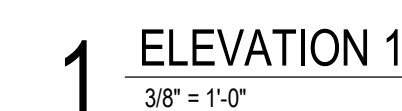
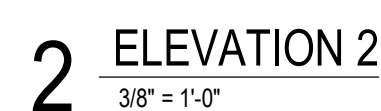
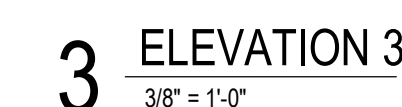
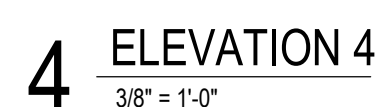


A-101



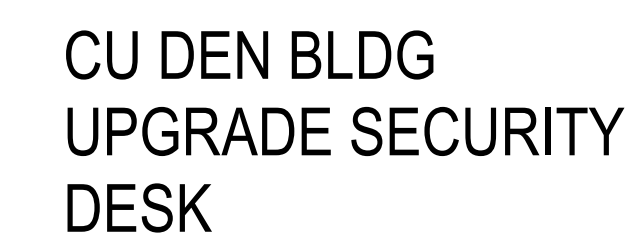


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ELEVATIONS

A-201

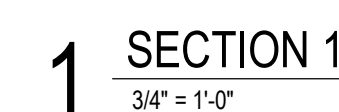
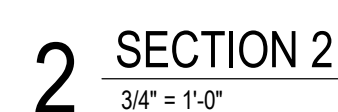


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SECTIONS

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STATE PROJECT NUMBER: 22 - 103106



DETAILS

A-501



STATE PROJECT NUMBER: 22 - 103106



DETAILS

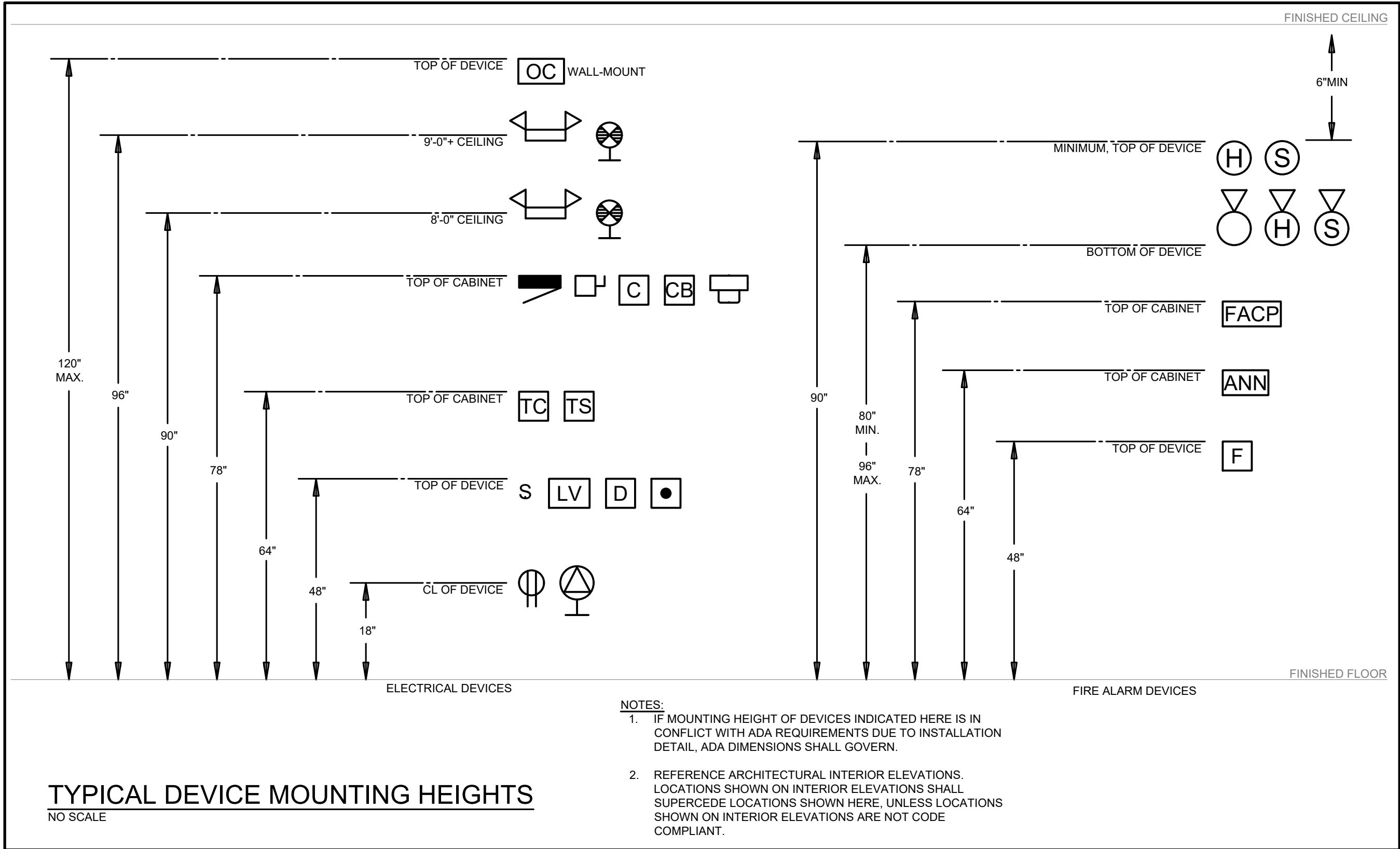
A-502



| ELECTRICAL SHEET INDEX | | ISSUE LOG | |
|--|-----------------------------|------------------------|--|
| # | TITLE | CONSTRUCTION DOCUMENTS | |
| E-000 | ELECTRICAL COVER SHEET | ✓ | |
| ED-101 | ELECTRICAL DEMOLITION PLANS | ✓ | |
| E-101 | ELECTRICAL POWER PLAN | ✓ | |
| E-102 | ELECTRICAL LIGHTING PLAN | ✓ | |
| E-201 | ELECTRICAL ONE-LINE DIAGRAM | ✓ | |
| E-202 | ELECTRICAL SCHEDULES | ✓ | |
| ISSUE LOG KEY: "✓" ISSUED AS PART OF A SET "•" NOT PART OF SET "••" ISSUED FOR INFORMATION ONLY | | DATE | |
| | | 11/22/2021 | |

- THESE DRAWING NOTES ACCOMPANY THE CONSTRUCTION DOCUMENT SPECIFICATIONS.
- DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
- VISIT SITE PRIOR TO BID AND VERIFY THAT CONDITIONS ARE AS INDICATED. CONTRACTOR SHALL INCLUDE IN HIS BID COSTS REQUIRED TO MAKE HIS WORK MEET EXISTING CONDITIONS.
- REVIEW ARCHITECTURAL, MECHANICAL, AND OTHER DRAWINGS PRIOR TO BID.
- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.
- WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE OF COLORADO, NATIONAL AND LIFE SAFETY CODE.
- SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION. LIGHTS, SWITCHES, RECEPTACLES, MOTORS, ETC. SHALL BE CONNECTED AND OPERABLE.
- PANEL DIRECTORIES SHALL BE REMOVABLE. SUBMIT PROPOSED SCHEDULE OF DIRECTORIES TO OWNER FOR APPROVAL. ROOM NAMES AND NUMBERS SHALL BE AS DIRECTED BY OWNER. DIRECTORIES SHALL BE TYPED AND INSTALLED UNDER CLEAR PLASTIC COVERS.
- PROVIDE DYMO-TAPE TAG INSIDE COVER OF EACH FUSIBLE SWITCH, INDICATING SIZE AND TYPE OF FUSES PROVIDED.
- CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.

- LABEL COVER OF EACH DEVICE WITH SOURCE PANEL AND BRANCH CIRCUIT NUMBER WITH DYMO MARKER.
- FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS.
- ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A NYLON PULLSTRING OR EQUAL, AND SHALL BE IDENTIFIED AT ALL JUNCTION, PULL AND TERMINATION POINTS, USING PERMANENT METALLIC TAGS. TAG SHALL INDICATE INTENDED USE OF CONDUIT, ORIGINATION, AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
- INSTALL ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION PRIOR TO INSTALLATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
- WIRE TERMINATION PROVISIONS FOR PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED AS SUITABLE FOR 75 DEGREE CELSIUS.
- WIRING DEVICES SHALL BE SPECIFICATION GRADE AND RATED AT 20 AMPERES FOR LIGHT SWITCHES, AND 20 AMPERES FOR DUPLEX RECEPTACLES. WHITE IN COLOR.
- PULLBOXES, CABINETS, ETC. MOUNTED ON THE EXTERIOR AT GRADE LEVEL, SHALL BE WEATHERPROOF TYPE WITH HINGED LOCKABLE COVERS.
- ALL FLUORESCENT LAMPS SHALL BE RECYCLED WITH DOCUMENTATION OF THIS RECYCLING EFFORT PROVIDED TO THE UCD PROJECT MANAGER.
- ELECTRICAL CONTRACTOR SHALL PROPERLY SUPPORT ALL EXISTING LOW VOLTAGE CABLING ENCOUNTER IN REMODEL AREA.
- ELECTRICAL CONTRACTOR SHALL REMOVE ALL ABANDONED LOW VOLTAGE CABLING ENCOUNTERED IN REMODEL AREA.



ELECTRICAL SYSTEMS LEGEND

VOICE/DATA SYMBOLS

| | |
|-----|--|
| ▶ | TELEPHONE WALL OUTLET |
| ▶▶ | DOUBLE TELEPHONE WALL OUTLET |
| ▶ | TELEPHONE FLOOR OUTLET |
| ▶▶ | DATA WALL OUTLET |
| ▶▶ | DATA WALL OUTLET |
| ▶ | DATA FLOOR OUTLET |
| ▶▶ | COMBO PHONE/DATA OUTLET |
| ▶▶ | DOUBLE COMBO PHONE/DATA OUTLET |
| ▶▶ | COMBO PHONE/DATA FLOOR OUTLET |
| OF | VOICE/DATA/FIBER OUTLET |
| POS | POINT OF SALE (POS) OUTLET |
| ATM | AUTOMATED TELLER MACHINE (ATM) STATION |
| PP | PUBLIC PAYPHONE OUTLET |
| E | ELEVATOR PHONE OUTLET |
| F | FAX/COPIER OUTLET |
| EM | EMERGENCY SERVICES PHONE OUTLET |
| ■ | POWER/TELECOM POLE |
| ● | WIRELESS LAN (WI-FI) ACCESS POINT OUTLET |
| ■ | MULTI-OUTLET WIREWAY |

LIGHTING FIXTURE SYMBOLS

| | |
|---|--|
| ○ | RECESSED LIGHTING FIXTURE |
| ○ | DIRECTIONAL/ADJUSTABLE RECESSED LIGHTING FIXTURE |
| ○ | SURFACE MOUNTED LIGHT |
| ○ | PENDANT MOUNTED LIGHT |
| ○ | WALL MOUNTED LIGHT |
| ○ | WALL MOUNTED UP-LIGHT |
| ○ | MONO-POINT LIGHTING FIXTURE |
| ○ | RECESSED STEP LIGHT |
| ○ | FLUORESCENT STRIP LIGHT |
| ○ | WALL MOUNTED LINEAR FLUORESCENT LIGHT |
| ○ | RECESSED OR SURFACE MOUNTED FLUORESCENT TROFFER |
| ○ | FIXTURE WITH EMERGENCY BACKUP OR ON EM CIRCUIT |
| ○ | CEILING MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN |
| ○ | WALL MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN |
| ○ | EMERGENCY LIGHTS |
| ○ | EXTERIOR POLE MOUNTED LIGHT |
| ○ | EXTERIOR POST (BOLLARD) MOUNTED LIGHT |

LIGHTING CONTROL SYMBOLS

| | |
|----------------|----------------------------------|
| S | SWITCH |
| S ³ | THREE-WAY SWITCH |
| S ⁴ | FOUR-WAY SWITCH |
| D | DIMMER |
| D ³ | THREE-WAY DIMMER |
| LV | LOW VOLTAGE WALL CONTROLLER |
| S ^O | WALL OCCUPANCY SENSOR/SWITCH |
| LM | LUMINAIRE CONTROL MODULE |
| AL | AREA LIGHTING CONTROL MODULE |
| PC | EMERGENCY POWER CONTROLLER |
| DL | DAYLIGHT PHOTO SENSOR |
| PS | PHOTOELECTRICAL SENSOR |
| OS | CEILING MOUNTED OCCUPANCY SENSOR |

FIRE ALARM SYMBOLS

| | |
|------|--------------------------------------|
| FACP | FIRE ALARM CONTROL PANEL |
| RAM | REMOTE ANNUNCIATOR PANEL |
| IMM | INDIVIDUAL ADDRESSABLE MODULE |
| MRS | MONITORED RELAY |
| PIV | POST-INDICATOR VALVE |
| RTS | REMOTE TESTER SWITCH |
| CO | CARBON MONOXIDE DETECTOR |
| ① | SMOKE DETECTOR |
| ① | HEAT DETECTOR |
| ① | DUCT DETECTOR |
| ① | COMBO SMOKE/HEAT DETECTOR |
| SB | SMOKE DETECTOR SOUND BARRIER |
| CO | SMOKE DETECTOR W/ CARBON MONOXIDE |
| BD | BEAM TYPE SMOKE DETECTOR TRANSMITTER |
| BD | BEAM TYPE SMOKE DETECTOR RECEIVER |
| F | FIRE ALARM PULL STATION |
| CH | FIRE ALARM CHIME |
| CH | FIRE ALARM CHIME/STOBE |
| H | FIRE ALARM HORN |
| SD | FIRE ALARM STROBE |
| SD | FIRE ALARM COMBO HORN/STROBE |
| S | FIRE ALARM SPEAKER |
| SD | FIRE ALARM COMBO SPEAKER/STROBE |
| F | FIREMAN'S PHONE JACK |
| FF | SPRINKLER SYSTEM FLOW SWITCH |
| FT | SPRINKLER SYSTEM TAMPER SWITCH |
| SD | FIRE/SMOKE DAMPER |
| LS | CEILING MOUNTED LIFE SAFETY SPEAKER |

POWER SYMBOLS

| | |
|----------------|--|
| ○ | SINGLE RECEPTACLE |
| ○ | DUPLEX RECEPTACLE |
| ○ | DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER |
| ○ | DOUBLE DUPLEX RECEPTACLE |
| ○ | GFCI DUPLEX RECEPTACLE |
| ○ | DUPLEX RECEPTACLE, HALF SWITCHED |
| ○ | ISOLATED GROUND DUPLEX RECEPTACLE |
| ○ | MULTI-OUTLET PLUG STRIP |
| ○ | FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE |
| ○ | FLUSH FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE |
| ○ | FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE, HALF SWITCHED |
| ○ | FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE AND TELECOM |
| ○ | WALL MOUNTED SPECIAL OUTLET AS NOTED |
| ○ | SPECIAL OUTLET AS NOTED |
| ○ | JUNCTION BOX |
| ○ | WALL MOUNTED JUNCTION BOX |
| ○ | FLOOR MOUNTED JUNCTION BOX |
| ○ | DIVISION 15 EQUIPMENT POWER CONNECTION |
| TS | TIMER SWITCH |
| ○ | FUSED DISCONNECT |
| ○ | NON FUSED DISCONNECT |
| MS | MOTOR STARTER |
| EB | ENCLOSED CIRCUIT BREAKER |
| PB | PULL BOX |
| PB | PUSH BUTTON |
| TC | TIME CLOCK |
| PC | PHOTO-CELL |
| TF | TRANSFORMER |
| PL | PANELBOARD OR LOADCENTER |
| CT | CONTACTOR |
| ○ | ELECTRIC MOTOR |
| ○ | METER |
| ○ | THERMOSTAT |
| ATS | AUTOMATIC TRANSFER SWITCH |
| → | CIRCUIT HOMERUN |
| — | CONDUIT RUN |
| --- | CONDUIT RUN BELOW GRADE |
| → | CONDUIT UP |
| → | CONDUIT DOWN |
| S | SWITCH |
| S ^T | THERMAL OVERLOAD SWITCH |
| S ^V | VARIABLE SPEED SWITCH |
| S ^K | KEY SWITCH |

ONE-LINE DIAGRAM SYMBOLS

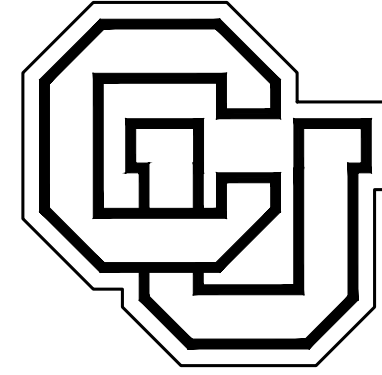
| | |
|----|----------------------------------|
| — | DISCONNECT SWITCH |
| ○ | FUSE |
| ○ | CIRCUIT BREAKER |
| ○ | CURRENT TRANSFORMER |
| ○ | POTENTIAL TRANSFORMER |
| ○ | METER |
| ○ | VOLT-METER |
| ○ | AMP-METER |
| SS | SURGE SUPPRESSION DEVICE |
| ○ | SELECTOR SWITCH |
| ○ | GROUND FAULT PROTECTION |
| ○ | SHUNT TRIP |
| ○ | NORMALLY OPEN CONTACT |
| ○ | NORMALLY CLOSED CONTACT |
| ○ | GROUND |
| ○ | COLD WATER GROUND CONNECTION |
| ○ | BUILDING STEEL GROUND CONNECTION |

ABBREVIATIONS

| | |
|------|---|
| AFC | - ABOVE FINISHED CEILING |
| AFF | - ABOVE FINISHED FLOOR |
| AFG | - ABOVE FINISHED GRADE |
| AHJ | - AUTHORITY HAVING JURISDICTION |
| AL | - ALUMINUM |
| AP | - ACCESS POINT |
| AWG | - AMERICAN WIRE GAUGE |
| BAS | - BUILDING AUTOMATION SYSTEM |
| BFG | - BELOW FINISH GRADE |
| BMS | - BUILDING MANAGEMENT SYSTEM |
| C | - CONDUIT |
| CATV | - COMMUNITY (CABLE) ANTENNA TELEVISION SYSTEM |
| CCTV | - CLOSED CIRCUIT TELEVISION |
| CKT | - CIRCUIT |
| CPU | - CENTRAL PROCESSING UNIT |
| CT | - CURRENT TRANSFORMER |
| DISP | - GARBAGE DISPOSAL |
| DW | - DISHWASHER |
| (E) | - EXISTING |
| EM | - EMERGENCY |
| EWC | - ELECTRIC WATER COOLER |
| FA | - FIRE ALARM |
| FACP | - FIRE ALARM CONTROL PANEL |
| FBO | - FURNISHED BY OTHERS |
| GC | - GENERAL CONTRACTOR |
| GFI | - GROUND FAULT CIRCUIT INTERRUPTER |
| GRD | - GROUND |
| IAW | - IN ACCORDANCE WITH |
| IC | - INTERMEDIATE CROSS-CONNECT |
| IDF | - INTERMEDIATE DISTRIBUTION FRAME |
| IG | - ISOLATED GROUND |
| IR | - INFRARED |
| LAN | - LOCAL AREA NETWORK |
| MDF | - MAIN DISTRIBUTION FRAME |
| (N) | - NEW |
| NIC | - NOT IN CONTRACT |
| NL | - NIGHT LIGHT |
| NTS | - NOT TO SCALE |
| OC | - ON CENTER |
| PA | - PUBLIC ADDRESS |
| REF | - REFRIGERATOR |
| TTB | - TELECOMMUNICATIONS TERMINAL BOARD |
| TVSS | - TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| TVTB | - TELEVISION TERMINAL BOARD |
| UG | - UNDERGROUND |
| UNO | - UNLESS NOTED OTHERWISE |
| V | - VOLT |
| W | - WATT |
| WAN | - WIDE AREA NETWORK |
| WAP | - WIRELESS ACCESS POINT |
| WLAN | - WIRELESS LOCAL AREA NETWORK |
| WP | - WEATHERPROOF |
| XP | - EXPLOSIONPROOF |
| +18" | - MOUNTING HEIGHT TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR (VERIFY W/ ARCH ELEVS) |

NOTES:

- LIGHT LINEWEIGHT INDICATES EXISTING.
- HATCHED AREAS INDICATE DEMOLITION.
- 'C' ADJACENT TO A DEVICE INDICATES MOUNTING ABOVE COUNTERTOP.



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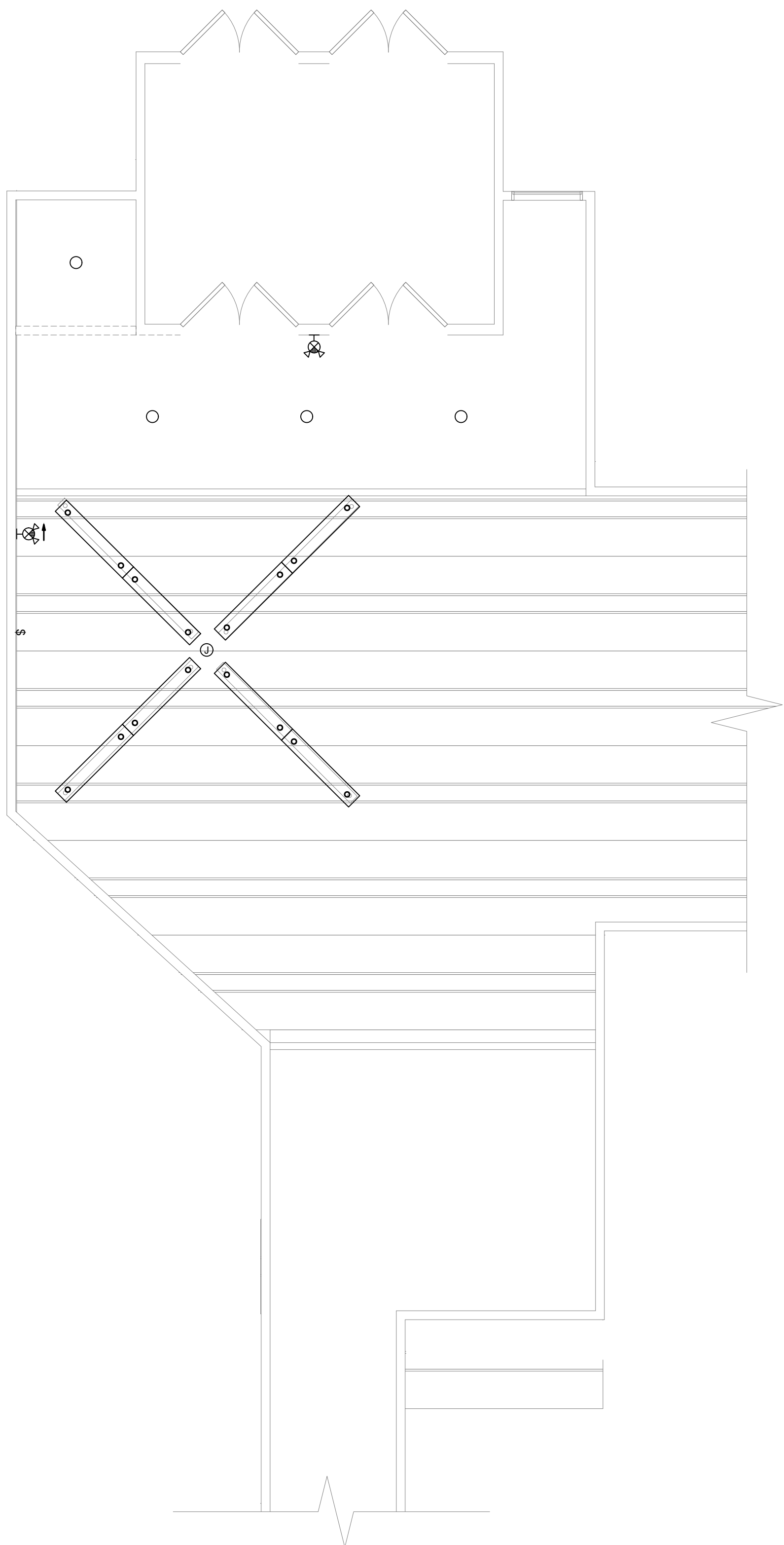
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| PROJECT NO.: 2135cur | INITIAL DATE: 08/19/2021 |

ELECTRICAL COVER SHEET

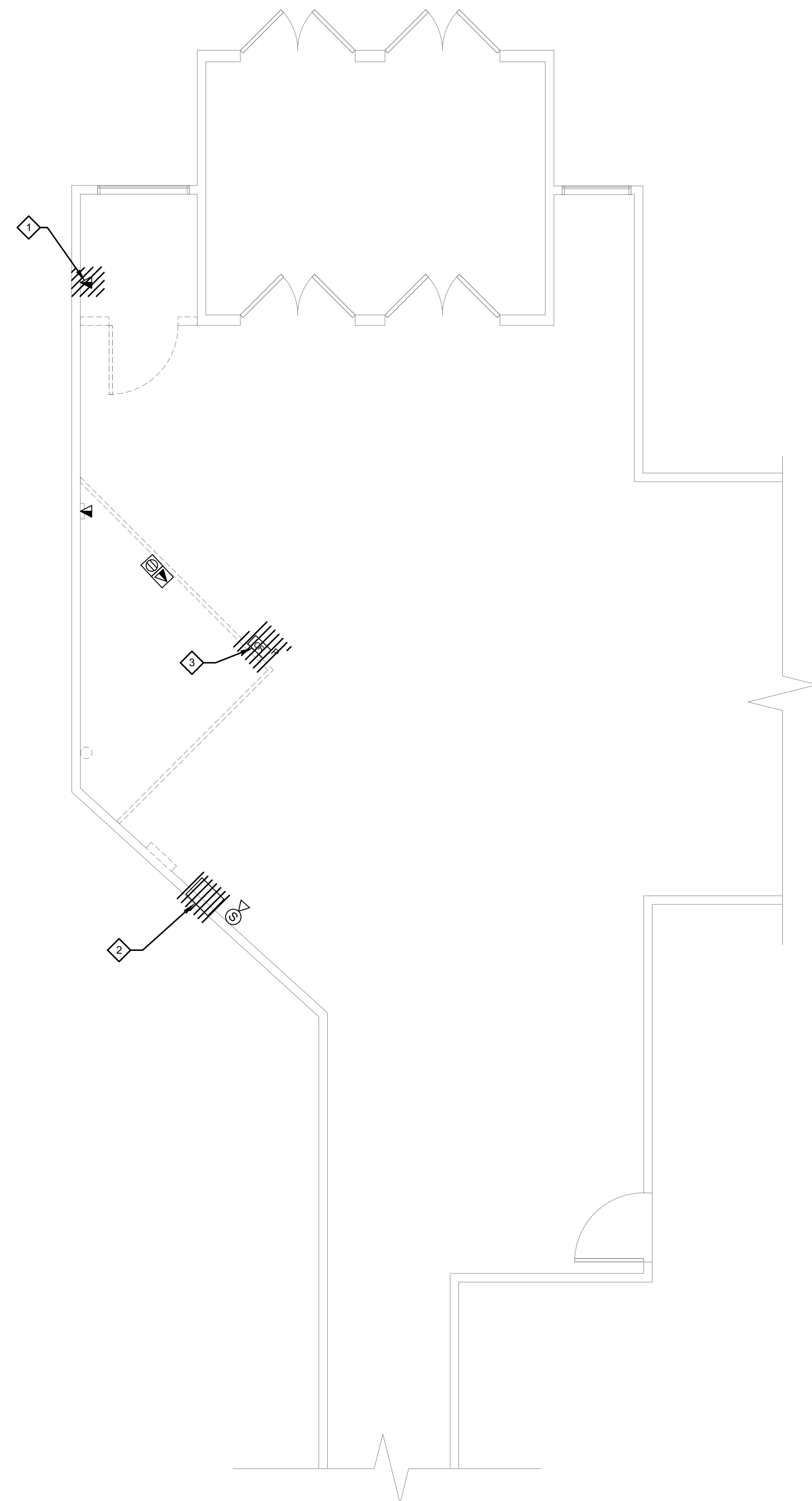
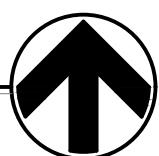
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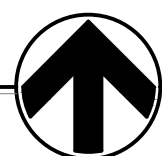
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2 LIGHTING DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



1 POWER DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

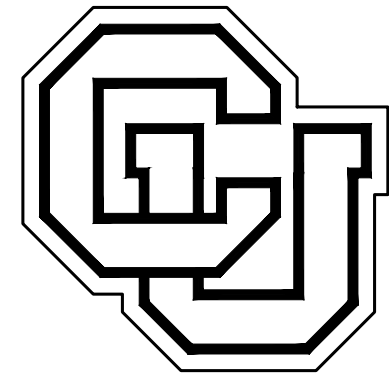


DEMOLITION NOTES:

1. DEMOLITION PLAN INDICATES A DESIRED SCOPE OF WORK; THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IN FIELD PRIOR TO START OF WORK.
2. CONDITIONS MAY EXIST WHERE (E) CABLING AND/OR EQUIPMENT IS INSTALLED WITHIN AN AREA OF DEMOLITION THAT IS INTENDED TO REMAIN IN ORDER TO KEEP SYSTEMS OUTSIDE OF THE AREA OF DEMOLITION IN OPERABLE CONDITION. CONTRACTOR SHALL PROVIDE APPROPRIATE PROTECTION AND EXERCISE CARE WHEN PERFORMING DEMOLITION AROUND SUCH CABLING AND EQUIPMENT.
3. ALL SYSTEMS LOCATED OUTSIDE THE AREA OF DEMOLITION ARE INTENDED TO REMAIN OPERABLE.
4. FOR ALL ITEMS TO BE DEMOLISHED REMOVE CIRCUIT BACK TO POINT OF CONNECTION. MAKE BRANCH CIRCUIT WITH REMAINING DEVICES CONTINUOUS.
5. ELECTRICAL CONTRACTOR SHALL REMOVE ALL DEMOLISHED ITEMS FROM SITE UNLESS OWNER WISHES TO RETAIN. ITEMS REMOVED FROM SITE SHALL BE DISPOSED OF IN A LEGAL MANNER.
6. EVERY ATTEMPT WAS MADE TO LOCATE ALL ITEMS TO BE INCLUDED IN THE DEMOLITION SCOPE IN THIS OCCUPIED SPACE. ELECTRICAL CONTRACTOR SHALL PROVIDE A REASONABLE ALLOWANCE TO INCLUDE THE REMOVAL OF ITEMS NOT INDICATED ON THE ELECTRICAL DEMOLITION PLAN.

DEMO FLAG NOTES:

1. DISCONNECT AND REMOVE WALL MOUNTED COMMUNICATION JACK FOR REMOVED ATM. REMOVE LOW VOLTAGE CABLING AND CONDUIT BACK TO POINT OF CONNECTION.
2. DISCONNECT AND REMOVE EMERGENCY DEFIBRILLATOR, ALARM BEACON AND ASSOCIATED EMERGENCY COMMUNICATION LINE. PROTECT AND STORE DEFIBRILLATOR AND ALARM BEACON FOR RELOCATION TO NEW LOCATION. PROTECT EMERGENCY COMMUNICATION LINE FOR EXTENSION TO NEW DEFIBRILLATOR LOCATION.
3. DISCONNECT AND REMOVE ACCESS CONTROL PROXIMITY CARD READER. PROTECT AND STORE ACCESS CONTROL PROXIMITY CARD READER FOR RELOCATION TO NEW LOCATION. PROTECT ACCESS CONTROL COMMUNICATION CABLE FOR RELOCATION TO NEW LOCATION.



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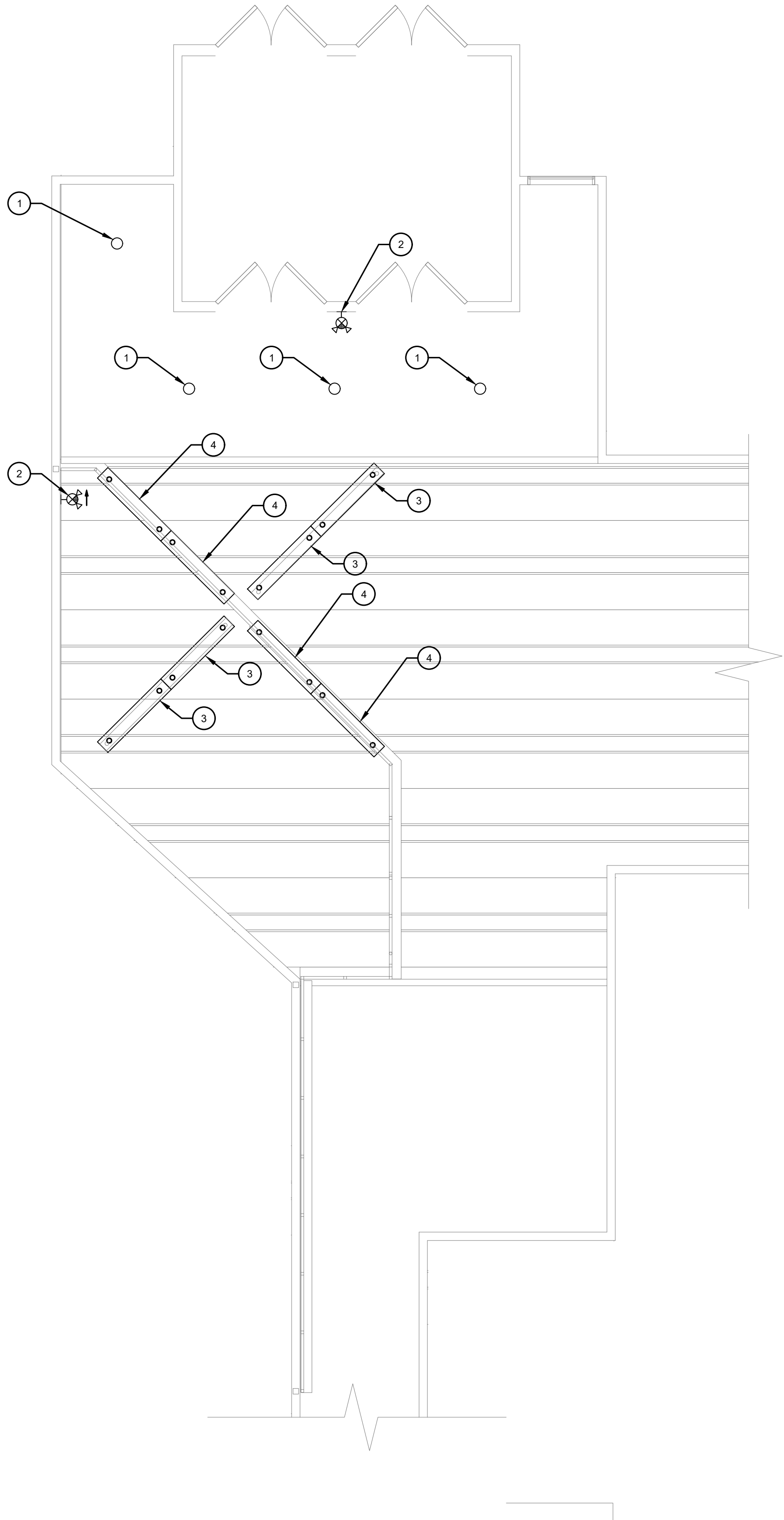
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ELECTRICAL DEMOLITION
PLANS

ED-101

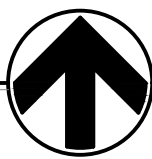


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1 ELECTRICAL LIGHTING PLAN

SCALE: 1/4" = 1'-0"

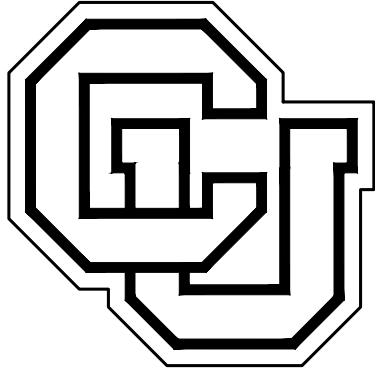


NOTES:

1. REFER TO ARCHITECTURAL PLANS AND INTERIOR ELEVATIONS FOR FINAL RECEPTACLE AND DEVICE PLACEMENT. COORDINATE ALL RECEPTACLE MOUNTING LOCATIONS WITH FIXTURES, APPLIANCES, FURNITURE, CABINETS, AND OTHER EQUIPMENT PRIOR TO ROUGH-IN.
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD COORDINATING THE LOCATION OF ELECTRICAL EQUIPMENT, JUNCTION BOXES, DISCONNECTS, ETC. EC SHALL BE RESPONSIBLE FOR COORDINATION AND THE ROUTING OF FEEDERS, AND BRANCH CIRCUITS.
3. COORDINATE POWER CONNECTIONS FOR OWNER PROVIDED EQUIPMENT AND APPLIANCES, AND ALL OTHER EQUIPMENT PROVIDED BY OTHER DIVISIONS WITH SUBMITTAL DATA CUT SHEETS, WIRING DIAGRAMS, AND MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. FIELD COORDINATE FINAL LOCATIONS OF EQUIPMENT AND POWER CONNECTIONS WITH GENERAL CONTRACTOR AND OTHER DIVISIONS/CONTRACTORS PRIOR TO ROUGH-IN.
4. FOR EACH COMMUNICATION DEVICE PROVIDE A 4"x4" RECESSED JUNCTION WITH A SINGLE GANG MUD RING. FROM JUNCTION BOX ROUTE 3/4" EMT CONDUIT TO ABOVE ACCESSIBLE CEILING AND PROVIDE BUSHING ON EXPOSED END OF CONDUIT.
5. THE NUMBERS NEXT TO ELECTRICAL ITEMS INDICATE THE CIRCUIT NUMBER THAT BRANCH CIRCUIT SHALL OCCUPY IN PANEL "LP1" UNLESS NOTED OTHERWISE.

FLAG NOTES:

1. EXISTING COMPACT FLUORESCENT DOWNLIGHT TO REMAIN.
2. EXISTING EXIT SIGN WITH INTEGRAL "FROG-EYES" TO REMAIN.
3. EXISTING FLUORESCENT SUSPENDED LIGHT FIXTURE TO REMAIN.
4. EXISTING FLUORESCENT SUSPENDED LIGHT FIXTURE BE RAISED AS REQUIRED TO BE A MINIMUM OF 12" ABOVE NEW SECURITY DESK. RAISING OF FLUORESCENT FIXTURE WILL REQUIRE THE ADJUSTMENT OF THE EXISTING FIXTURE AIRCRAFT CABLE SUSPENSION SYSTEM.



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ELECTRICAL LIGHTING
PLAN

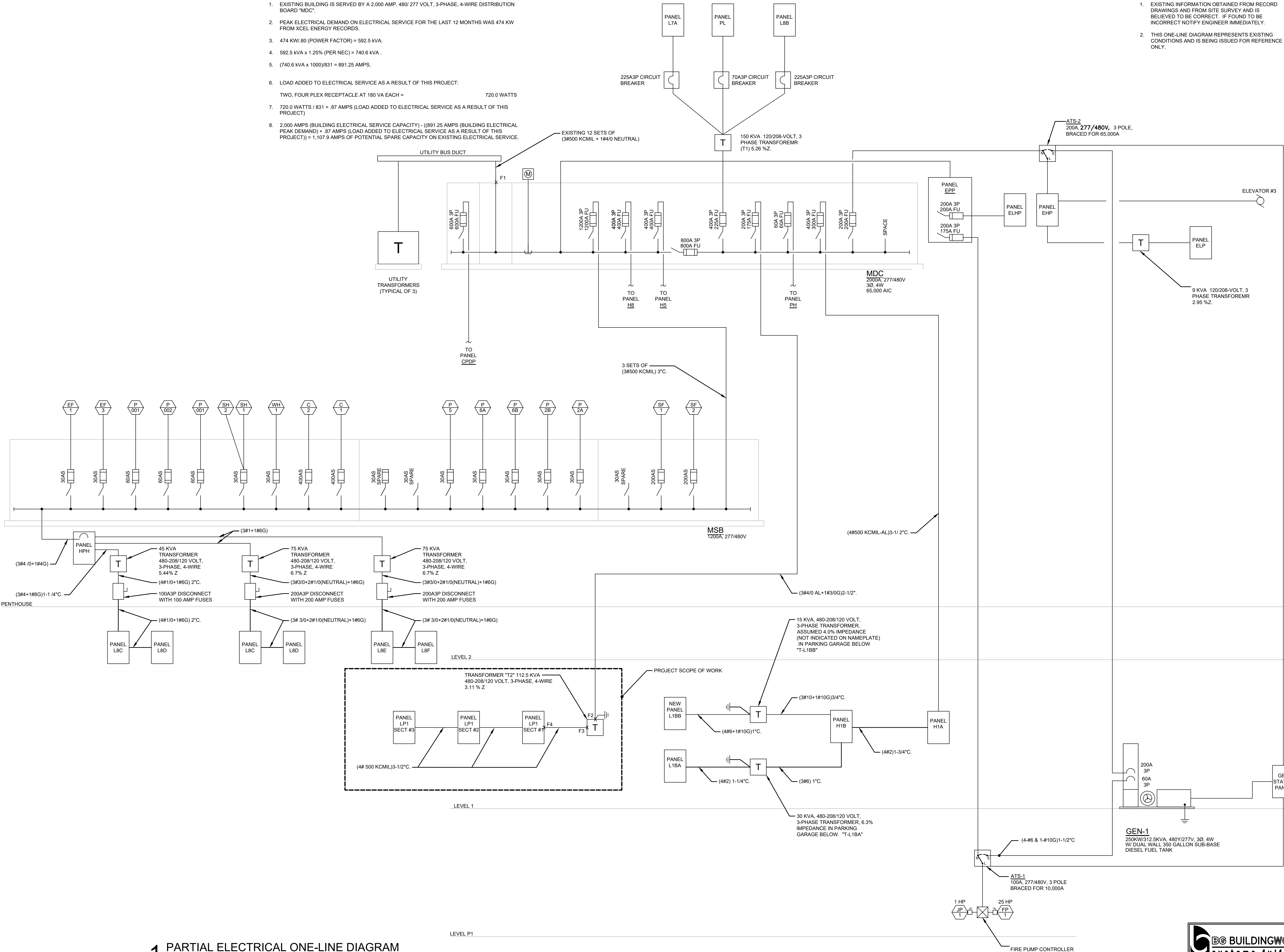
E-102



NEC BUILDING LOAD SUMMARY - "MDC"

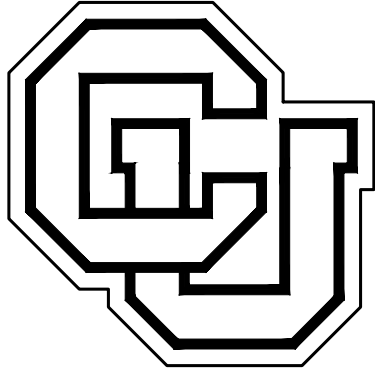
1. EXISTING BUILDING IS SERVED BY A 2,000 AMP, 480/ 277 VOLT, 3-PHASE, 4-WIRE DISTRIBUTION BOARD "MDC".
2. PEAK ELECTRICAL DEMAND ON ELECTRICAL SERVICE FOR THE LAST 12 MONTHS WAS 474 KW FROM XCEL ENERGY RECORDS.
3. 474 KW/80 (POWER FACTOR) = 592.5 kVA.
4. 592.5 kVA x 1.25% (PER NEC) = 740.6 kVA .
5. (740.6 kVA x 1000)/831 = 891.25 AMPS,

6. LOAD ADDED TO ELECTRICAL SERVICE AS A RESULT OF THIS PROJECT:
TWO, FOUR PLEX RECEPTACLE AT 180 VA EACH = 720.0 WATTS
7. 720.0 WATTS / 831 = .87 AMPS (LOAD ADDED TO ELECTRICAL SERVICE AS A RESULT OF THIS PROJECT)
8. 2,000 AMPS (BUILDING ELECTRICAL SERVICE CAPACITY) - ((891.25 AMPS (BUILDING ELECTRICAL PEAK DEMAND) + .87 AMPS (LOAD ADDED TO ELECTRICAL SERVICE AS A RESULT OF THIS PROJECT))) = 1,107.9 AMPS OF POTENTIAL SPARE CAPACITY ON EXISTING ELECTRICAL SERVICE.



NOTES:

1. EXISTING INFORMATION OBTAINED FROM RECORD DRAWINGS AND FROM SITE SURVEY AND IS BELIEVED TO BE CORRECT. IF FOUND TO BE INCORRECT NOTIFY ENGINEER IMMEDIATELY.
2. THIS ONE-LINE DIAGRAM REPRESENTS EXISTING CONDITIONS AND IS BEING ISSUED FOR REFERENCE ONLY.



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| PROJECT NO.: | 2135cur | INITIAL DATE: | 08/19/2021 |

ELECTRICAL ONE-LINE
DIAGRAM

E-201



| | | | | | | | | | | | | | | | |
|-----------|--|--------------------|--|--|--|--|--|--|--|--|--|----------------|--|-------------------|--|
| PANEL: | | (E) LP1 SECTION #1 | | | | | | | | | | VOLTAGE: | | 120/208V, 3PH, 4W | |
| LOCATION: | | 1ST FLOOR ELECT RM | | | | | | | | | | MINIMUM BUS: | | 400 | |
| MOUNTING: | | SURFACE | | | | | | | | | | MAIN: | | 400/3 CB | |
| | | | | | | | | | | | | MINIMUM AIR C: | | 10,000 | |

| NO. | LOAD | | | TYPE | LOAD DESCRIPTION | BREAKER | | BUS | | BREAKER | | TYPE | LOAD DESCRIPTION | LOAD | | | NO. |
|-----|------|---|-----|-------|------------------------------|---------|------|-----|---|---------|------|------|-------------------------------|------|------|------|-----|
| | A | B | C | | | POLE | TRIP | A | B | C | TRIP | | | POLE | A | B | |
| 1 | 500 | | | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | | | | | SPARE | | | | 2 |
| 3 | 500 | | | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | | | | | SPARE | | | | 4 |
| 5 | 500 | | 500 | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | | + | 20 | | SPARE | | | | 6 |
| 7 | 500 | | | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | | | R | (E) GUARD DESK RECEPTACLE (1) | 360 | | | 8 |
| 9 | 500 | | | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | | 20 | R | (E) GUARD DESK RECEPTACLE (1) | | 360 | | 10 |
| 11 | 500 | | 500 | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | 20 | | R | (E) GUARD DESK RECEPTACLE (1) | | | 360 | 12 |
| 13 | 500 | | | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | | 20 | R | (E) OFFICE #1120 RECEPT (1) | 360 | | | 14 |
| 15 | 500 | | 500 | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | 20 | | R | (E) OFFICE #1120 RECEPT (1) | | 540 | | 16 |
| 17 | 500 | | 500 | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | 20 | | A | (E) REFRIGERATOR (1) | | | 720 | 18 |
| 19 | 500 | | | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | 20 | | A | (E) COFFEE (1) | 1200 | | | 20 |
| 21 | 500 | | | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | 20 | | A | (E) DISHWASHER (1) | | 1000 | | 22 |
| 23 | 500 | | 500 | E | (E) RECEPTACLE ROOM 104 (3) | 1 | 20 | | + | 20 | | A | (E) RECEPTACLE RECEPTACLE (1) | | | 1200 | 24 |
| 25 | 1000 | | | E | (E) DATA ROOM RECEPTACLE (3) | 1 | 20 | | + | 20 | | R | (E) COUNTERS RECEPT (1) | 720 | | | 26 |
| 27 | 1000 | | | E | (E) DATA ROOM RECEPTACLE (3) | 1 | 20 | | + | 20 | | R | (E) WATER HEATER (1) | | 1500 | | 28 |
| 29 | 900 | | | R | (E) LOBBY RECEPTABLES (1) | 1 | 20 | | + | 20 | | | SPARE | | | | 30 |
| 31 | 1500 | | | L | (E) TRACK LIGHTING (3) | 1 | 20 | | + | 20 | | | SPARE | | | | 32 |
| 33 | 1500 | | | L | (E) TRACK LIGHTING (3) | 1 | 20 | | + | 20 | | | SPARE | | | | 34 |
| 35 | 1500 | | | L | (E) TRACK LIGHTING (3) | 1 | 20 | | + | 20 | | | SPARE | | | | 36 |
| 37 | 720 | | | R | (N) SECURITY DESK REC (2) | 1 | 20 | | + | | | | SPACE | | | | 38 |
| 39 | | | | SPARE | | 1 | 20 | | + | | | | SPACE | | | | 40 |
| 41 | | | | SPARE | | 1 | 20 | | + | | | | SPACE | | | | 42 |

| LOAD TYPE | PANEL TOTAL | FEDD THRU TOTAL | SECTION #2 | FEDDER SUBTOTAL | DEMAND | FEDDER TOTAL |
|------------------|-------------|-----------------|------------|-----------------|---------|--------------|
| (A) LIGHTING | 4500 | 0 | 0 | 4500 | 72% | 3240 |
| (B) RECEPTACLES | 4200 | 0 | 3600 | 7000 | NEC 220 | 7600 |
| (C) LUMINAIRES | 0 | 0 | 4500 | 4500 | 25% | 1125 |
| (D) MOTORS (ALL) | 0 | 0 | 4500 | 4500 | 100% | 4500 |
| (E) EQUIPMENT | 9000 | 0 | 21000 | 21000 | 100% | 21000 |
| (F) APPLIANCES | 4120 | 0 | 0 | 4 | 0 | 4 |

| GENERAL NOTES: | |
|----------------|-----------------------------|
| A | EXISTING SIEMENS PANELBOARD |
| B | |
| C | |
| D | |
| E | |

| SPECIFIC NOTES: | |
|-----------------|---|
| 1 | LOAD FROM RECORD DRAWINGS AND FROM SITE SURVEY |
| 2 | TERMINATE BRANCH CIRCUIT ONTO EXISTING BRANCH CIRCUIT |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | LOAD DATA INFORMATION FROM RECORD DRAWINGS AND FROM SITE SURVEY WITH ANTICIPATED LOAD SERVED. |

| | | |
|--------------------|--|------|
| PANEL TOTAL (KVA): | | 58.4 |
| PANEL TOTAL (A): | | 162 |

| | | | | | | | | | | | | | | | |
|------------------|--|--|--|-----------------------------|--|--|--|---------------------|--|--|--|--------------------------|--|--|--|
| PANEL: | | | | (E) LP1 - SECTION #2 | | | | VOLTAGE: | | | | 120/208V, 3PH, 4W | | | |
| LOCATION: | | | | 1ST FLOOR ELECT RM | | | | MINIMUM BUS: | | | | 400 | | | |
| MOUNTING: | | | | SURFACE | | | | MAIN: | | | | MLO | | | |
| | | | | | | | | MINIMUM ALC: | | | | 10,000 | | | |

| NO. | LOAD | | | TYPE | LOAD DESCRIPTION | BREAKER | | BUS | | | BREAKER | | TYPE | LOAD DESCRIPTION | LOAD | | | NO. |
|-----|------|------|------|------|-----------------------------------|---------|------|-----|---|---|---------|------|------|-----------------------------|------|------|------|-----|
| | A | B | C | | | POLE | TRIP | A | B | C | POLE | TRIP | | | A | B | C | |
| 43 | 1000 | | | E | (E) RECEPTACLES 130A,B IT RM (2) | 1 | 20 | + | + | + | 20 | 1 | E | (E) RECEPTACLE ROOM 174 (2) | 1000 | | | 44 |
| 45 | | 1000 | | E | (E) RECEPTACLE 151 IT ROOM (1) | 1 | 20 | + | + | + | 20 | 1 | E | SPARE | | | | 46 |
| 47 | | | 900 | R | (E) LOBBY TELEVISION (2) | 1 | 20 | | | | 20 | 1 | E | SPARE | | | | 48 |
| 49 | | | | E | SPARE | 1 | 20 | + | + | + | 20 | 1 | E | SPARE | | | | 50 |
| 51 | | | | E | SPARE | 1 | 20 | | | | 20 | 1 | E | (E) UNKNOWN LOAD (2) | | 1900 | | 52 |
| 53 | | | | E | SPARE | 1 | 20 | | | | 20 | 1 | E | (E) UNKNOWN LOAD (2) | | | 1920 | 54 |
| 55 | | | | E | SPARE | 1 | 20 | + | + | + | 20 | 2 | E | (E) UNKNOWN LOAD (2) | | | | 56 |
| 57 | | | | E | SPARE | 1 | 20 | | | | 20 | 2 | E | SPARE | | 1900 | | 58 |
| 59 | | | | E | SPARE | 1 | 20 | | | | 30 | 2 | E | SPARE | | | | 60 |
| 61 | | | | E | SPARE | 1 | 20 | + | + | + | 30 | 2 | E | SPARE | | | | 62 |
| 63 | | 900 | | E | (E) ROOM 170, 171 RECEPTACLES (2) | 1 | 20 | | | | 30 | 2 | E | SPARE | | | | 64 |
| 65 | | | 900 | E | (E) ROOM 158, 174 RECEPTACLES (2) | 1 | 20 | | | | 30 | 2 | E | SPARE | | | | 66 |
| 67 | | | | E | SPARE | 1 | 20 | | | | 30 | 2 | E | SPARE | | | | 68 |
| 69 | | | | E | SPARE | 1 | 20 | | + | + | 30 | 2 | E | SPARE | | | | 70 |
| 71 | | | | E | SPARE | 1 | 20 | | | | 30 | 2 | E | SPACE | | | | 72 |
| 73 | | 1900 | | E | (E) UNKNOWN LOAD (2) | | | | | | 20 | 2 | E | (E) UNKNOWN LOAD (2) | | 1900 | | 74 |
| 75 | | | 1900 | C | --- | | | | | | 20 | 2 | E | SPARE | | 1900 | | 76 |
| 77 | | | 1900 | E | --- | | | | | | 20 | 1 | E | SPARE | | | | 78 |

| LOAD TYPE | PANEL TOTAL | FEED THRU TOTAL | SECTION #5 | FEEDER SUBTOTAL | DEMAND | FEEDER TOTAL |
|--------------------|-------------|-----------------|------------|-----------------|---------|--------------|
| (L) LIGHTING | 0 | | | 0 | 125% | |
| (R) RECEPTACLES | 900 | | | 2700 | NEC 220 | 3500 |
| (LM) LARGEST MOTOR | 0 | | 4800 | 4800 | 25% | 1200 |
| (M) MOTORS (ALL) | 0 | | 4800 | 4800 | 100% | 4800 |
| (E) EQUIPMENT | 21900 | | 1400 | 20000 | 100% | 20000 |
| (A) APPLIANCES | 0 | | 0 | 0 | | 0 |

| | | |
|---------------------------|--|-------------|
| PANEL TOTAL (KVA): | | 39.0 |
| PANEL TOTAL (A): | | 108 |

| GENERAL NOTES: | |
|-----------------------|-------------------------|
| A. | EXISTING ITE PANELBOARD |
| B. | |
| C. | |
| D. | |
| E. | |

| SPECIFIC NOTES: | |
|------------------------|--|
| (1) | LOAD FROM RECORD DRAWINGS AND FROM SITE SURVEY. |
| (2) | LOAD TYPE INFORMATION FROM RECORD DRAWINGS AND FROM SITE SURVEY WITH ANTICIPATED LOAD SERVICE. |

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| SHORT CIRCUIT CALCULATIONS SUMMARY | | | | | | | | | | | |
|---|----------------------|--------|------|-----------|--------------------|---------|-------------------|--------------|--------------------|----------------------|---------------|
| POINT | EQUIP. | LENGTH | VOLT | WIRE SIZE | CONDUCTOR MATERIAL | CONDUIT | VOLTAGE CLASS (V) | PHASE (or T) | # OF PARALLEL RUNS | % AVAILABLE UPSTREAM | ISC (FAULT) * |
| F1 | MDC | 30 | 480 | 500 | C | S | 600 | S | 12 | 57,510 | 55,196 |
| F2 | TRANS "T2" PRIMARY | 100 | 480 | 4X C | C | S | 600 | S | 1 | 48,240 | 22,394 |
| F3 | TRANS "T2" SECONDARY | | | | | | | | | | 8,415 |
| F4 | PANEL LP1 | 10 | 208 | 500 | C | S | 600 | S | 1 | 8,415 | 7,962 |
| AUTOMATICALLY CALCULATED | | | | | | | | | | | |
| UTILITY TRANSFORMER SIZE: | | | | | | | 3 x 750 KVA | | | | |
| MAXIMUM AVAILABLE (SYMMETRICAL) FAULT AT THE SWITCHBOARD: | | | | | | | 57510 AMPS | | | | |



CU DENVER
RECEPTION

1250 14TH STREET DENVER, CO 80202



3-17-22



aw
ARCHITECTURAL WORKSHOP : DENVER, COLORADO

[illegible]

ELECTRICAL SCHEDULES

E-202

