



ELECTRICAL LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
LIGHTING		SWITCHES	
	RECESSED LED LIGHT FIXTURE		SINGLE POLE SWITCH
	SURFACE OR PENDANT MOUNT LED LIGHT FIXTURE (CIRCLE INDICATES RECESSED OR CONCEALED JUNCTION BOX)		LOW VOLTAGE SWITCH
	WALL MOUNT LED LIGHT FIXTURE		COMBINATION SWITCH / OCCUPANCY/ VACANCY SENSOR
	WALL MOUNT COMPACT LED LIGHT FIXTURE		SINGLE POLE SWITCH WITH PILOT LIGHT (LIT WHEN OFF).
	SURFACE OR RECESSED LED LIGHT FIXTURE		PUSH BUTTON EMERGENCY SHUTOFF SWITCH
	SURFACE OR RECESSED LED LIGHT FIXTURE		PHOTOCELL CONTROL
	SURFACE OR PENDANT MOUNT STRIP LIGHT (CIRCLE INDICATES RECESSED OR CONCEALED JUNCTION BOX)		WALL MOUNTED OCCUPANCY SENSOR (LIGHTING CONTROL)
	FIXTURE WITH EMERGENCY ENERGY SOURCE. PROVIDE UNSWITCHED HOT LEG. SEE PLANS FOR MORE INFORMATION.		CEILING MOUNTED OCCUPANCY SENSOR (LIGHTING CONTROL)
	EXIT LIGHT FIXTURE (PROVIDE DIRECTION ARROWS AS INDICATED) PROVIDE UNSWITCHED HOT LEG.		CEILING MOUNTED VACANCY SENSOR (LIGHTING CONTROL)
	WALL MOUNTED EXIT LIGHT FIXTURE (PROVIDE DIRECTION ARROWS AS INDICATED) PROVIDE UNSWITCHED HOT LEG.	EQUIPMENT AND WIRING	
	POLE LIGHT FIXTURE (ARROW INDICATES DIRECTION OF AIMING FOR OPTICS)		CONDUIT STUB OUT (PROVIDE CONCRETE MARKER ON EXTERIOR)
RECEPTACLES			DEDICATED CONDUIT HOMERUN TO PANEL & CIRCUIT NUMBERS AS INDICATED ON PLANS
	TAMPER RESISTANT DUPLEX RECEPTACLE (E INDICATES EXISTING TO BE REPLACED)		RACEWAY CONCEALED IN WALL OR CEILING
	TAMPER RESISTANT DUPLEX RECEPTACLE (G INDICATES GROUND FAULT CIRCUIT INTERRUPTER)		RACEWAY CONCEALED UNDERGROUND OR UNDER FLOOR SLAB
	TAMPER RESISTANT DUPLEX RECEPTACLE (S INDICATES CONTROLLED RECEPTACLE, U INDICATES USB CHARGING)		GROUNDING SYSTEM PER CODE
	TAMPER RESISTANT DUPLEX RECEPTACLE (C INDICATES ABOVE COUNTER)		JUNCTION BOX - SIZE PER CODE (F INDICATES FIRE ALARM SYSTEM)
	TAMPER RESISTANT FOURPLEX RECEPTACLE		MOTOR CONNECTION
NETWORK INFRASTRUCTURE			DISCONNECT SWITCH
	TELECOMMUNICATIONS OUTLET - WALL MOUNT WITH (2) ACTIVE DATA PORTS AND (2) CAT6 CABLES (4/S BOX WITH SINGLE-GANG MUDRING AND COVER PLATE) WITH ONE (1) 1" CONDUIT TO ACCESSIBLE CEILING SPACE, MOUNT AT +18" AFF UNLESS NOTED OTHERWISE. ("C" INDICATES ABOVE COUNTER, # INDICATES QUANTITY OF DATA PORTS AND CABLES, IF DIFFERENT THAN 2, SOLID FILL INDICATES EXISTING TELEPHONE OUTLET FOR REFERENCE ONLY). REVIEW THE SITE PLANS, FLOOR PLANS, DETAIL SHEETS AND RISER DIAGRAMS FOR ADDITIONAL INFORMATION.		FUSED DISCONNECT SWITCH
	WIRELESS ACCESS POINT (WAP) TELECOMMUNICATIONS OUTLET - CEILING MOUNT. PROVIDE (1) CAT6A CABLES TO THE JUNCTION BOX ABOVE ACCESSIBLE CEILING. SEE THE TELECOMMUNICATIONS/SYSTEMS DETAILS FOR ADDITIONAL REQUIREMENTS.		COMBINATION DISCONNECT / MAGNETIC MOTOR STARTER
	IDF 127D WALL-MOUNTED EQUIPMENT. PROVIDE (1) WALL-MOUNTED FIBER LIU, (2) WALL BRACKETS CHATSWORTH # 11754-X19 (OR APPROVED EQUAL) AND NEW PATCH PANELS AS REQUIRED. . COORDINATE WITH OWNER FOR INSTALLATION LOCATIONS PRIOR TO ROUGH IN.		277/480 VOLT PANELBOARD
INTERCOM			120/208 VOLT PANELBOARD (OR AT RATED VOLTAGE AS NOTED)
	ANALOG 12" CLOCK - WALL MOUNT AT +7"-10" UNLESS NOTED OTHERWISE. PROVIDE SIMPLEX # 2975#### SEMI-FLUSH-MOUNT BACKBOX WITH (1) 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE. PROVIDE CLOCK TO MATCH EXISTING SYSTEM, SIMPLEX MODEL # 6310-9231. WIRE TO EXISTING CLOCK CIRCUIT.		EXISTING PANELBOARD TO BE RETAINED
	INTERCOM LOUDSPEAKER ASSEMBLY - WALL MOUNT AT +7"-10" AFF UNLESS NOTED OTHERWISE. PROVIDE 4S BACKBOX WITH (1) 3/4" C. TO ACCESSIBLE CEILING SPACE. PROVIDE SPEAKER TO MATCH EXISTING. "W" INDICATES WEATHERPROOF.		MAIN SWITCHBOARD
	INTERCOM LOUDSPEAKER ASSEMBLY - CEILING MOUNT. PROVIDE SPEAKER TO MATCH EXISTING.		TRANSFORMER
EQUIPMENT AND WIRING			ENCLOSED CIRCUIT BREAKER, AMPERES AS INDICATED
	RACEWAY CONCEALED IN WALL OR CEILING		METER
	RACEWAY CONCEALED UNDERGROUND OR UNDER FLOOR SLAB		HANDHOLE
	GROUNDING SYSTEM PER CODE	ACCESS CONTROL SYSTEM	
	JUNCTION BOX - SIZE PER CODE (F INDICATES FIRE ALARM SYSTEM)		CARD READER - ROUGH-IN ONLY. PROVIDE SINGLE-GANG BACKBOX MOUNTED FLUSH TO WALL AND BLANK WEATHERPROOF COVER. MOUNT AT STANDARD ADA HEIGHT. "M" INDICATES MULLION MOUNTED - PROVIDE CONDUIT PATHWAY TO STOREFRONT. NO BACKBOX REQUIRED. SEE DETAILS 8 AND 10 ON SHEET E7.02 FOR ADDITIONAL INFORMATION.
	LADDER STYLE CABLE TRAY. SIZE AS SHOWN ON SHEET E4.01.		DOOR POSITION SWITCH - ROUGH-IN ONLY. SEE DETAILS 8 AND 10 ON SHEET E7.02 FOR ADDITIONAL INFORMATION.
AUDIO VISUAL SYSTEMS			REQUEST TO EXIT MOTION SENSOR - ROUGH-IN ONLY. SEE DETAILS 8 AND 10 ON SHEET E7.02 FOR ADDITIONAL INFORMATION.
	CLASSROOM A/V SYSTEM OFCI SHORT-THROW PROJECTOR MOUNT. MOUNT AT +8'-3" AFF TO CENTER. COORDINATE WITH ARCHITECT FOR EXACT LOCATION PRIOR TO INSTALLATION. PROVIDE BACKING AS REQUIRED. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.	CCTV SYSTEM	
			INTERIOR CAMERA ROUGH-IN LOCATION. PROVIDE RECESSED SINGLE-GANG BACKBOX WHERE SHOWN ON PLANS WITH BLANK COVER PLATE AND (1) 1" C. TO NEAREST ACCESSIBLE CEILING. CABLING AND CAMERA BY OWNER.
			EXTERIOR CAMERA ROUGH-IN LOCATION. PROVIDE RECESSED SINGLE-GANG BACKBOX WHERE SHOWN ON PLANS WITH WEATHERPROOF BLANK COVER PLATE AND (1) 1" C. TO NEAREST ACCESSIBLE CEILING. CABLING AND CAMERA BY OWNER.
		MISCELLANEOUS	
			DOOR NUMBER
			CONSTRUCTION NOTES
			DEMOLITION NOTES
			FLAG NOTE
			W INDICATES WEATHERPROOF FOR ALL DEVICES, PROVIDE LOCKING COVER ON RECEPTACLES.
			WG INDICATES WIRE GUARD
			ALL DEVICES WITH LIGHT LINE WEIGHT INDICATES EXISTING TO BE RETAINED
			ALL DEVICES WITH DASH LINE INDICATES EXISTING TO BE REMOVED
			DETAIL CALL OUT - A INDICATES DETAIL IDENTIFICATION, E2 INDICATES SHEET TAKEN FROM, E3 INDICATES SHEET DRAWN ON
			MECHANICAL EQUIPMENT CONNECTION

ABBREVIATIONS		ABBREVIATIONS CONTINUED	
AFF	ABOVE FINISHED FLOOR	LIU	LIGHT INTERFACE UNIT (INCLUDES FIBER SPLICE TRAY AND PATCH PANEL)
C	MOUNT ABOVE COUNTER	MDF	MAIN DISTRIBUTION FRAME (ER/EF)
C.	CONDUIT	MM	MULTI MODE (FOC)
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	OFCI	OWNER-FURNISHED CONTRACTOR-INSTALLED
CO	CONDUIT ONLY	REQ'D	REQUIRED
CU	COPPER	SM	SINGLE MODE (FOC)
DDC	DIRECT DIGITAL CONTROL	TGB	TELECOMMUNICATIONS GROUNDING BUS BAR
EC	ELECTRICAL CONTRACTOR	TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR
FOC	FIBER OPTIC CABLE	W	WEATHERPROOF (PROVIDE WEATHERPROOF COVER/DEVICE WHERE SHOWN ON PLANS)
G	GROUND FAULT	WAP	WIRELESS ACCESS POINT
GC	GENERAL CONTRACTOR		
IDF	INTERMEDIATE DISTRIBUTION FRAME (TR/TE)		

GENERAL NOTES FOR ALL SHEETS

- SEE EACH SHEET FOR ADDITIONAL GENERAL NOTES THAT ARE SPECIFIC TO AN AREA OR SHEET.
- THE CONTRACTOR/INSTALLING VENDOR IS RESPONSIBLE TO VERIFY ALL CMU/CONCRETE WALLS, BRICK WALLS, CABLE ROUTING AND ALL WORK REQUIRED TO FACILITATE A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
- THE CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR BRACE FRAMED OR SHEAR WALLS. CONTRACTOR SHALL MOUNT DEVICES AND ROUTE CONDUIT SO AS NOT TO INTERFERE WITH THE STRUCTURAL INTEGRITY OF THE WALL.
- ALL CONDUITS MUST BE A MINIMUM OF 6'-6" ABOVE ALL MECHANICAL EQUIPMENT AND MECHANICAL CLEARANCE SPACES. E.C. WILL BE RESPONSIBLE TO MOVE ANY CONDUITS WHICH DO NOT COMPLY.
- CONDUITS ARE NOT ALLOWED TO BE ROUTED IN ANY CONCRETE SLAB. CONDUITS MAY BE ROUTED UNDER THE SLAB ONLY.
- CONDUIT SHALL NOT BE SURFACE MOUNTED IN ANY FINISHED AREAS WITHOUT SPECIAL PERMISSION FROM THE ENGINEER. CONTRACTOR SHALL TAKE SPECIAL CARE AND COORDINATE WITH OTHER DISCIPLINES TO INSURE CONDUIT IS HIDDEN.
- NO CONDUITS ARE ALLOWED TO BE ROUTED ON TOP OF THE ROOF.
- REVIEW ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF AREAS WITH ACCESSIBLE CEILING TILES, GWB, AND OPEN CEILINGS. PROVIDE MANUFACTURER APPROVED BACK BOXES IN AREAS WITH CEILINGS THAT ARE OPEN TO STRUCTURE. ROUTE CONDUIT ON TOP OF ROOF DECK UNDER INSULATION TO CONCEAL. UTILIZE RIGID GALVANIZED STEEL CONDUIT.
- ALL OUTLETS, SWITCHES AND DEVICES MOUNTED BACK TO BACK IN A WALL, MUST BE SPACED A MINIMUM OF 24" APART OR FURNISHED WITH SOUND ATTENUATING MASTIC AROUND BOX TO MEET ACOUSTICAL REQUIREMENTS.ALL OUTLETS, SWITCHES AND DEVICES MOUNTED BACK TO BACK IN A WALL, MUST LOCATED IN SEPARATE STUD BAYS, OR FURNISHED WITH SOUND ATTENUATING MATERIAL AROUND THE BOX TO MEET ACOUSTICAL REQUIREMENTS.
- PANEL DESIGNATIONS AND CIRCUIT NUMBERS ARE ONLY INDICATED ON THE DRAWINGS FOR REFERENCE BY THE ELECTRICAL CONTRACTOR. THE E.C. IS RESPONSIBLE TO PROVIDE ALL CONDUIT, WIRING, JUNCTION BOXES AND MISCELLANEOUS ACCESSORIES TO ACCOMMODATE INSTALLATION AND CONNECTION OF ALL DEVICES INDICATED ON THE CONTRACT DOCUMENTS. ALL WIRING HOMERUNS SHALL BE IN HARD CONDUIT BACK TO THE DESIGNATED PANELBOARD. ALL JUNCTION BOXES SHALL BE LABELED IDENTIFYING THE PANELBOARD AND CIRCUIT CONTAINED WITHIN. THERE SHALL BE NO MORE THAN (3) CIRCUITS PER HOMERUN. MULTI-WIRE CIRCUITS ARE NOT ALLOWED. EACH CIRCUIT SHALL CONTAIN A DEDICATED NEUTRAL UNLESS SPECIFICALLY ALLOWED BY THE ENGINEER. ALL WIRING SHALL BE SIZED ACCORDING TO THE AMPACITY OF THE CIRCUIT BREAKER INDICATED ON THE PANEL SCHEDULE. ALL CONDUITS SHALL BE SIZED PER NEC CODE BASED ON THE CONDUCTOR SIZE, TYPE, QUANTITY AND MINIMUM FILL REQUIREMENTS. CIRCUITS OVER 120' FOR 120V AND 250' FOR 277V SHALL BE UPSIZED ONE WIRE SIZE TO ACCOUNT FOR VOLTAGE DROP. E.C. IS RESPONSIBLE TO SHOW ALL JUNCTION BOX LOCATIONS, CONDUIT ROUTING AND HOMERUNS ON A SET OF AS-BUILT DRAWINGS.
- FEED THROUGH GFCI RECEPTACLES SHALL NOT BE USED.
- PROVIDE DEDICATED NEUTRALS FOR ALL COMPUTER RECEPTACLE CIRCUITS.
- CIRCUIT BREAKER HANDLE TIES SERVING MULTI-WIRE BRANCH CIRCUITS IS NOT ALLOWED. PROVIDE DEDICATED NEUTRALS FOR EACH CIRCUIT CIRCUITING SHALL BE PROVIDED AS REQUIRED TO MEET THE NEC. ALL SINGLE POLE CIRCUITS SHALL BE PROVIDED WITH DEDICATED NEUTRALS.
- WHERE OPEN CABLING IS PERMITTED BY CODE, EACH LOW VOLTAGE SYSTEM SHALL HAVE THEIR CABLES SUSPENDED SEPARATE FROM OTHER LOW VOLTAGE SYSTEMS (I.E. FIRE ALARM CABLES IN ONE J-HOOK, INTERCOM IN ANOTHER J-HOOK, AND SO ON).
- PROVIDE CONDUIT FOR ALL LOW VOLTAGE CABLING IN EXPOSED AND UNACCESSIBLE AREAS. PROVIDE CONDUIT SLEEVES THROUGH ALL WALLS AS REQUIRED TO ACCOMMODATE RECOMMENDED CABLE ROUTING BY COMMUNICATIONS CONTRACTOR.
- ALL SPARE CONDUITS (FOR FUTURE USE) SHALL BE LABELED "SPARE/FUTURE CONDUIT" AT EACH END OF THE CONDUIT WITH 1/2" TALL LETTERS, USING A PERMANENT MARKER.
- ALL TYPICAL DEVICES SHALL BE MOUNTED AT CONSISTENT LOCATIONS AND HEIGHTS THROUGHOUT THIS PROJECT, UNLESS NOTED OTHERWISE.
- SEE ALL DETAIL SHEETS AND RISER DIAGRAMS FOR ADDITIONAL WORK. ALL DETAILS AND RISERS ARE APPLICABLE TO THIS PROJECT WHETHER REFERENCED OR NOT.
- IN THE MDF, IDF, AND OTHER DESIGNATED LOCATIONS, COORDINATE THE EXACT LOCATIONS OF EQUIPMENT WITH THE ARCHITECT, MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR AND ALL OTHER TRADES, PRIOR TO ROUGH IN.
- GROUNDING SHALL CONFORM TO NEC 250.
- TELECOMMUNICATIONS GROUNDING SHALL CONFORM TO TIA-607-B.
- CAMERAS SHALL BE LOCATED AS SUCH TO AVOID RESTRICTING THE CAMERAS FIELD OF VIEW FROM EXIT SIGNS, LIGHTING, DOOR HEADERS, AND OTHER BUILDING FEATURES. COORDINATE WITH ALL TRADES PRIOR TO ROUGH-IN.
- EACH LOW VOLTAGE LIGHTING CONTROL HOMERUN SHALL BE PROVIDED WITH THE REQUIRED NUMBER OF CONDUCTORS FOR EACH SWITCH LEG THAT IT SERVES.
- REVIEW ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF AREAS WITH ACCESSIBLE CEILING SPACES, HARD LID CEILINGS, AND AREAS WITH CEILINGS THAT ARE OPEN TO STRUCTURE. PROVIDE SURFACE-MOUNTED DEVICES AND THEIR RELATED SURFACE MOUNT BACK BOXES IN AREAS WITH CEILINGS THAT ARE OPEN TO STRUCTURE. PAINT EACH BACKBOX TO MATCH THE ADJACENT SURFACE.
- FIRE WALLS SHOWN ARE FOR REFERENCE ONLY. REFER TO FINAL ARCHITECTURAL DRAWINGS FOR RATED WALLS, AND PROVIDE FIRE RATED MECHANICAL PENETRATIONS (STIEZ-PATH OR EQUAL) FOR ALL CABLES TRANSITIONING THROUGH RATED WALLS. PROVIDE CORE DRILL FOR ALL PENETRATIONS THROUGH EXISTING WALLS WHETHER SPECIFICALLY SHOWN ON PLANS OR NOT. EC SHALL FIRE SEAL AROUND ALL CONDUITS PENETRATING THROUGH FLOORS, ROOF, AND FIRE RATED WALLS.
- ALL TELECOMMUNICATIONS OUTLETS HORIZONTAL CABLING SHALL BE ROUTED TO THE CLOSEST TELECOMMUNICATIONS ROOM AS REQUIRED BY SECTION 272000.
- REVIEW ALL EXTERIOR MOUNTED EQUIPMENT FOR AIR BARRIER PENETRATIONS. SEE ARCHITECTURAL DETAILS FOR REQUIREMENTS ON MAINTAINING THE BUILDING'S ENVELOPE.
- SEE ALL DETAIL SHEETS AND RISER DIAGRAMS FOR ADDITIONAL WORK REQUIRED BY SECTION 272000.
- COORDINATE WITH OWNER IN ADVANCE OF ANY EQUIPMENT OR SYSTEM SHUTDOWNS.
- SEE THE SITE PLANS FOR ADDITIONAL WORK.
- ALL LOW VOLTAGE CABLING SHALL BE RISER RATED.



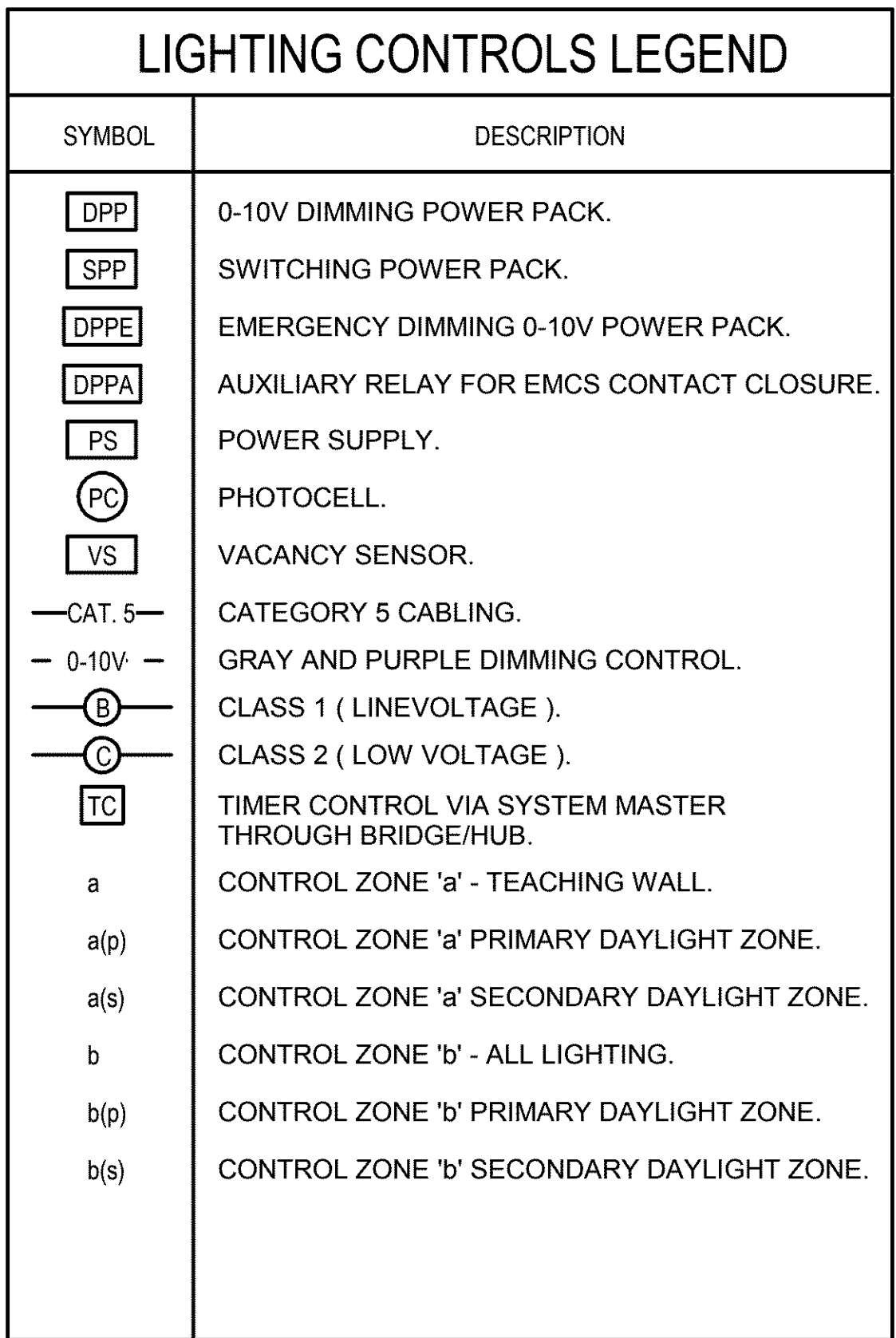
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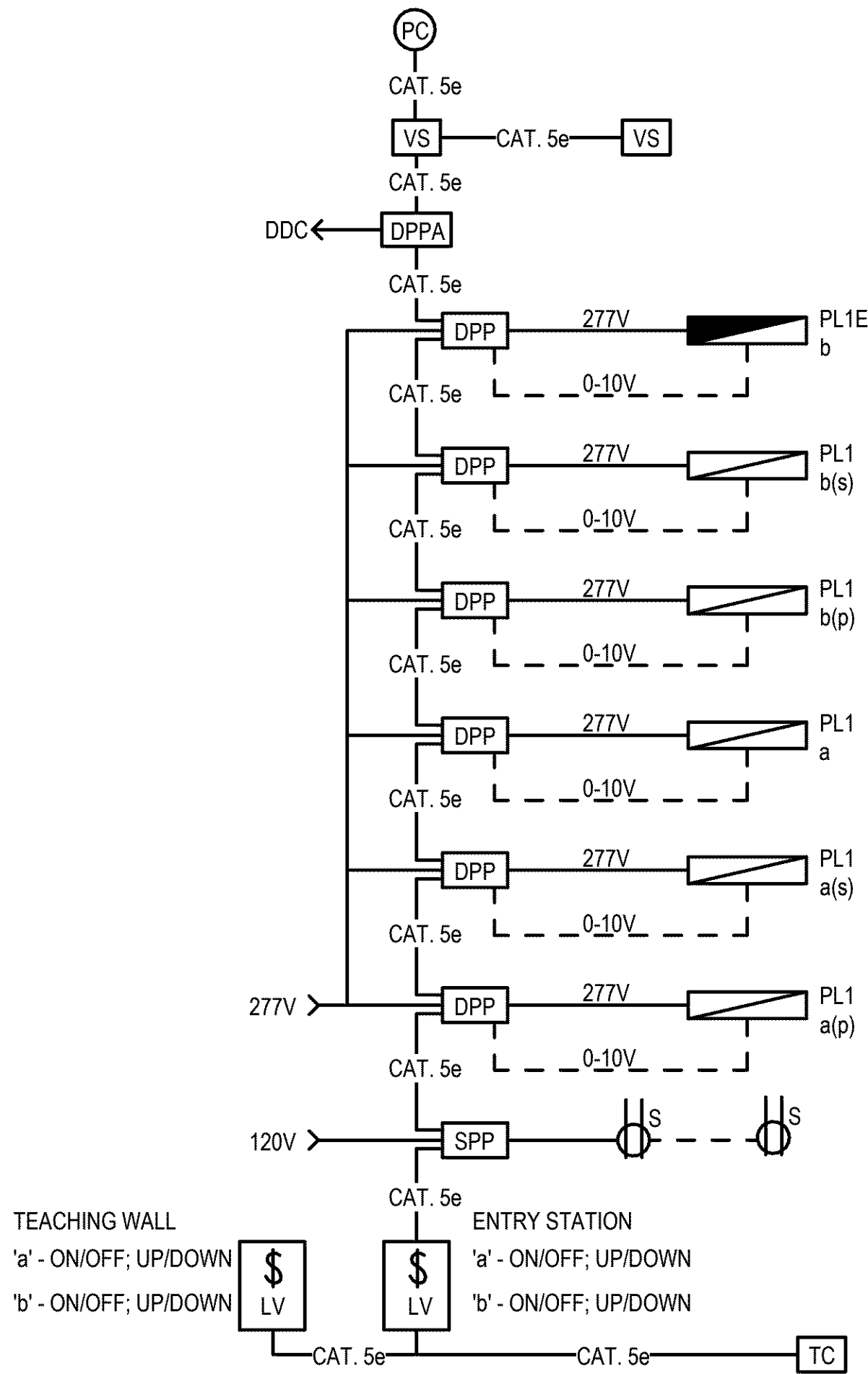




NOTE: DIAGRAMS SHOWN ARE NOT SHOP DRAWINGS AND ARE TO BE USED TO GENERALLY DESCRIBE SPECIFIED LIGHTING CONTROL. NOT ALL DEVICES ARE SHOWN, PROVIDE AND INSTALL ALL DEVICES ON APPROVED SHOP DRAWINGS FOR A COMPLETE AND COMISSIONED CONTROL SYSTEM.

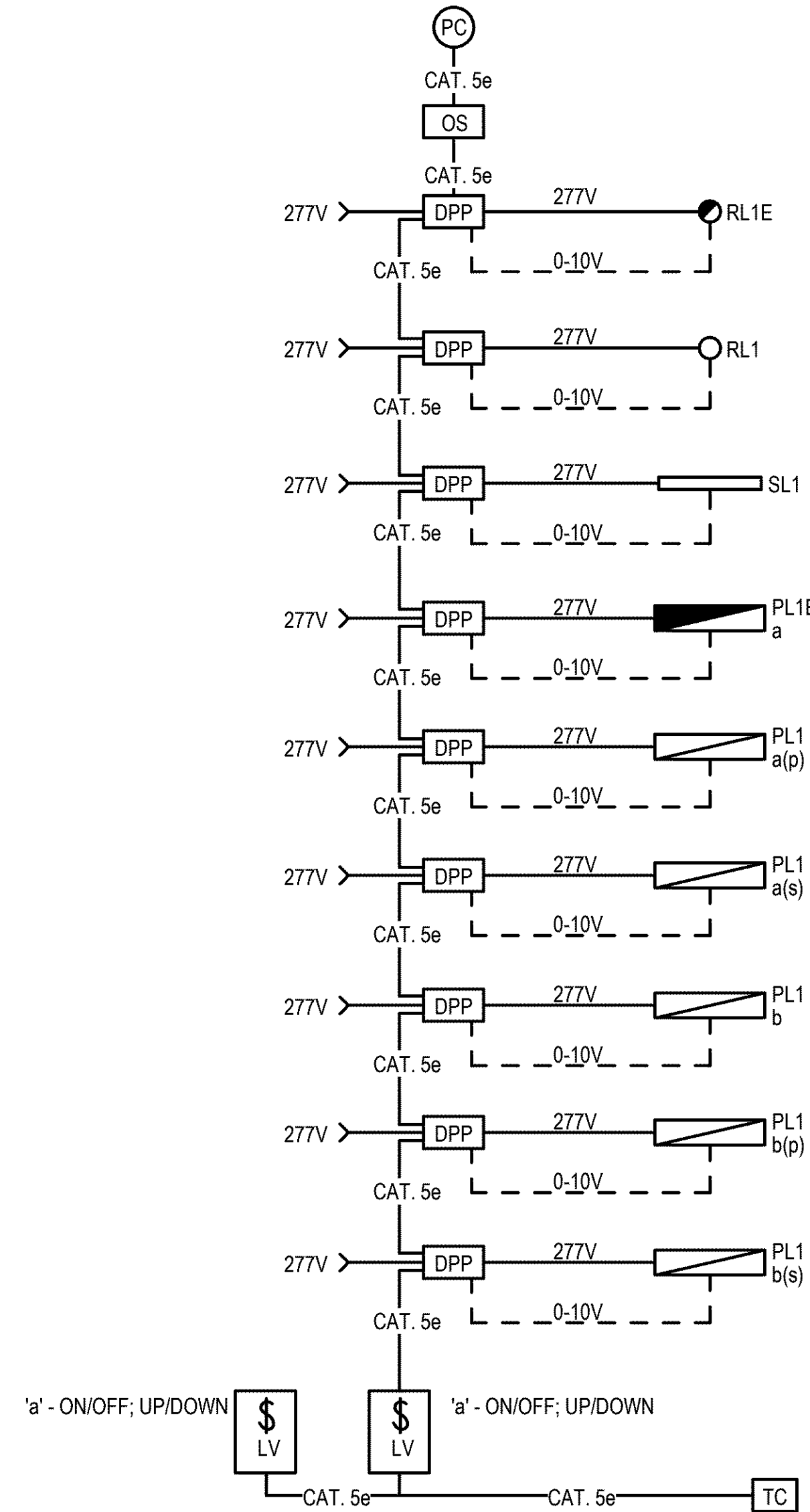
## 1 LIGHTING CONTROLS LEGEND

DIAGRAMMATIC



## 2 CLASSROOM LIGHTING

DIAGRAMMATIC



## 4 CORRIDOR/BATHROOM/CO-OP

DIAGRAMMATIC

## 3 BREAKOUT/CONFERENCE

DIAGRAMMATIC

2017 WASHINTON STATE ENERGY CODE COMPLIANCE REFERENCES					
CODE REFERENCE	DESCRIPTION	TOTAL SQ. FT. OF EGRESS PATH	FIXTURE TYPE	TOTAL WATTAGE	W/SQ. FT.
C405.2.5 - ITEM 7	MEANS OF EGRESS LIGHTING - 1st FLOOR	3090	PL1E	85	0.03
CODE REFERENCE	DESCRIPTION	LOCATION OF MASTER SWITCH	MAX. AMPACITY PER LIGHTING CIRCUIT	MAX WATTAGE PER LIGHTING CIRCUIT	COMPLIANCE METHOD
C405.2.5	AREA CONTROLS - MASTER CONTROL SWITCHES AND CIRCUIT POWER LIMIT		16	1920 WATTS	SWITCH CONTROLS ALL CORRIDOR LIGHTING - THERE ARE INDIVIDUAL SWITCHES ALSO AT CORRIDORS FOR INDEPENDENT CONTROL

## LIGHTING/RECEPTACLE CONTROL SEQUENCE FOR COMMISSIONING

### GENERAL REQUIREMENTS

- VACANCY/OCCUPANCY SENSORS SHALL BE CONNECTED TOGETHER FOR CONTROL OF ALL LIGHTS IN THE ROOM. SET UP SENSORS AS INDICATED ( I.E. OCCUPANCY OR VACANCY) MODE.
- VACANCY MODE - MANUAL ON, AUTO OFF VIA SENSOR, SET AT 30 MIN.
- OCCUPANCY MODE - AUTOMATIC ON TO 50%, AUTO OFF VIA SENSOR, SET AT 30 MIN.
- ALL OCCUPANCY/VACANCY SENSORS SHALL BE DUAL TECHNOLOGY (I.E. INFRARED AND ULTRASONIC).
- PHOTOCELLS TO BE INSTALLED AS RECOMMENDED BY THE MANUFACTURERS. TRIGGER 1 OF PHOTOCELL TO CONTROL LIGHTS IN PRIMARY DAYLIGHT ZONES (DZ1), TRIGGER 2 OF PHOTOCELL TO CONTROL LIGHTS IN SECONDARY DAYLIGHT ZONES (DZ2). PHOTOCELLS SHALL BE CONFIGURED AND ADJUSTABLE FROM THE FLOOR.
- ALL PHOTOCELLS SHALL HAVE CAPABILITY TO COMPLETELY SHUT OFF LIGHTS WITH SUFFICIENT NATURAL LIGHT.
- PROGRAMMING SHALL BE PROVIDED FOR ADJUSTMENT OF LIGHTS.
- ALL LIGHTS WHERE INDICATED SHALL BE CONTROLLED VIA 0-10V DIMMING.
- EMERGENCY LIGHTING RELAY REQUIRED FOR CONNECTION TO ANY DESIGNATED EMERGENCY LIGHT FIXTURES WITHIN EACH SPACE FOR AUTOMATIC OVERRIDE ON UPON A POWER FAILURE.

### CLASSROOM (TYPICAL) LIGHTING CONTROLS

- AUTOMATIC DAYLIGHT HARVESTING CONTROL
  - LIGHTS IN DZ1 a(p) or b(p) - AUTO DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 1.
  - LIGHTS IN DZ2 a(s) or b(s) - AUTO DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 2.
- MANUAL SWITCHING AND DIMMING CONTROL
  - "FRONT" CONTROL ZONE a(p) or a(s) - PL1 LIGHTING FIXTURES.
  - "TEACHING WALL" CONTROL ZONE b(p) or b(s) - PL1 LIGHTING FIXTURES.
- OCCUPANCY/VACANCY SENSORS SET TO VACANCY MODE - MANUAL ON ALL, PHOTOCELL ENABLED. ALL LIGHTS AUTO OFF.
- DESIGNATED RECEPTACLES SHALL BE AUTOMATICALLY SWITCHED ON/OFF VIA TIME SCHEDULE
  - SET SWITCHED RECEPTACLES TO ON MONDAY THROUGH FRIDAY 6:00am TO 10:00pm. SWITCH TO OFF AT ALL OTHER TIMES.
  - DURING TIMES WHEN RECEPTACLES ARE SWITCHED OFF, THE LIGHTING CONTROL ON/OFF BUTTON SHALL AUTOMATICALLY OVERRIDE THE TIME SCHEDULE AND TURN ON THE RECEPTACLES FOR TWO HOURS. AUTOMATICALLY RETURN TO TIME SCHEDULE AFTER TWO HOURS HAS ELAPSED.
- DIMMER SWITCH AT ENTRY DOOR CONTROL STATION:
  - BUTTON 1 -
    - LABEL: ALL ON/OFF
    - FUNCTION: ON/OFF - ALL LIGHTS ON FULL LEVEL, PHOTOCELLS ENABLED, OVERRIDE TIME SCHEDULE FOR SWITCHED RECEPTACLES.
  - BUTTON 2 -
    - LABEL: UP/DOWN
    - FUNCTION: MANUAL DIM OR RAISE ALL LIGHTS TOGETHER.
  - BUTTON 3 -
    - LABEL: WB ON/OFF
    - FUNCTION: ON/OFF CONTROL OF TEACHING WALL/WHITE BOARD CONTROL ZONE, PHOTOCELL ENABLED.
  - BUTTON 4 -
    - LABEL: UP/DOWN
    - FUNCTION: MANUAL DIM OR RAISE ALL TEACHING WALL/WHITE BOARD LIGHTS TOGETHER.
- DIMMER SWITCH AT TEACHING WALL:
  - BUTTON 1 -
    - LABEL: ALL ON/OFF
    - FUNCTION: ON/OFF - ALL LIGHTS ON FULL LEVEL, PHOTOCELLS ENABLED, OVERRIDE TIME SCHEDULE FOR SWITCHED RECEPTACLES.
  - BUTTON 2 -
    - LABEL: UP/DOWN
    - FUNCTION: MANUAL DIM OR RAISE ALL LIGHTS TOGETHER.
  - BUTTON 3 -
    - LABEL: WB ON/OFF
    - FUNCTION: ON/OFF CONTROL OF TEACHING WALL/WHITE BOARD CONTROL ZONE, PHOTOCELL ENABLED.
  - BUTTON 4 -
    - LABEL: UP/DOWN
    - FUNCTION: MANUAL DIM OR RAISE ALL TEACHING WALL/WHITE BOARD LIGHTS TOGETHER.

### CORRIDORS/BATHROOM/CO-OP

- ALL LIGHTS CONTROLLED BY TIME SCHEDULE
  - SET TIME ON MONDAY THROUGH FRIDAY 6:00am TO 6:00pm. SWITCH TO OFF AT ALL OTHER TIMES, OVERRIDE BY OCCUPANCY SENSOR.
- OCCUPANCY/VACANCY SENSORS SET TO OCCUPANCY MODE - AUTOMATICALLY TURN ON LIGHTS TO 100%.
  - SET OCCUPANCY SENSOR TO TURN OFF LIGHTS AFTER 30 MIN OF NOT DETECTING MOTION.
  - OCCUPANCY SENSORS DISABLED WHEN LIGHTS ARE SCHEDULED TO BE ON.

### ELECTRICAL ROOM/MECHANICAL

- ROOMS CONTROLS SHALL BE STAND ALONE AND NOT TIED TO THE BUILDING LIGHTING CONTROL SYSTEM.
- LIGHTS CONTROLLED WITH STANDARD ON/OFF TOGGLE SWITCH.

### BREAKOUT/CONFERENCE ROOM

- MANUAL SWITCHING AND DIMMING CONTROL AT ENTRY DOOR.
- OCCUPANCY/VACANCY SENSORS SET TO VACANCY MODE - MANUAL ON ALL, PHOTOCELL ENABLED. ALL LIGHTS AUTO OFF.
- DESIGNATED RECEPTACLES SHALL BE AUTOMATICALLY SWITCHED ON/OFF VIA TIME SCHEDULE
  - SET SWITCHED RECEPTACLES TO ON MONDAY THROUGH FRIDAY 6:00am TO 10:00pm. SWITCH TO OFF AT ALL OTHER TIMES.
  - DURING TIMES WHEN RECEPTACLES ARE SWITCHED OFF, THE LIGHTING CONTROL ON/OFF BUTTON SHALL AUTOMATICALLY OVERRIDE THE TIME SCHEDULE AND TURN ON THE RECEPTACLES FOR TWO HOURS. AUTOMATICALLY RETURN TO TIME SCHEDULE AFTER TWO HOURS HAS ELAPSED.
- DIMMER SWITCH AT ENTRY DOOR CONTROL STATION:
  - BUTTON 1 -
    - LABEL: ALL ON/OFF
    - FUNCTION: ON/OFF - ALL LIGHTS ON FULL LEVEL, PHOTOCELLS ENABLED, OVERRIDE TIME SCHEDULE FOR SWITCHED RECEPTACLES.
  - BUTTON 2 -
    - LABEL: UP/DOWN
    - FUNCTION: MANUAL DIM OR RAISE ALL LIGHTS TOGETHER.

### EXTERIOR/BUILDING MOUNTED

- ALL LIGHTING SCHEDULES SHALL RESIDE IN THE EXTERIOR LIGHTING CONTROL SYSTEM.
- ALL EXTERIOR LIGHTS ARE TO BE OFF DURING DAYLIGHT HOURS.
- ALL NEW EXTERIOR/BUILDING MOUNTED LIGHTING IS TOO BE CONTROLLED WITH FIXTURES WITHIN THE VICINITY.

## COMMISSIONING REQUIREMENTS FOR THE LIGHTING CONTROL SYSTEM

TESTING SHALL ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN MANUFACTURER'S INSTALLATION INSTRUCTIONS. WRITTEN PROCEDURES WHICH CLEARLY DESCRIBE THE INDIVIDUAL SYSTEMATIC TEST PROCEDURES, THE EXPECTED SYSTEMS' RESPONSE OR ACCEPTANCE CRITERIA FOR EACH PROCEDURE, THE ACTUAL RESPONSE OR FINDINGS, AND ANY PERTINENT DISCUSSION SHALL BE FOLLOWED. AT A MINIMUM, TESTING SHALL AFFIRM OPERATION DURING NORMALLY OCCUPIED DAYLIGHT DONDITIONS. THE CONSTRUCTION DOCUMENTS SHALL STATE THE PARTY WHO WILL CONDUCT THE REQUIRED FUNCTIONAL TESTING.

- FOR OCCUPANT SENSORS, TIME SWITCHES, PROGRAMMABLE SCHEDULE CONTROLS, PHOTO-SENSORS OR DAY-LIGHTING CONTROLS ARE INSTALLED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED.
- CONFIRM THAT THE PLACEMENT AND SENSITIVITY AND TIME OUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE.
  - CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULES CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.
  - CONFIRM THAT THE PLACEMENT AND SENSITIVITY ADJUSTMENTS FOR PHOTO-SENSOR CONTROLS REDUCE ELECTRIC LIGHT BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE AS SPECIFIED.

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### ELECTRICAL ENGINEER

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### COST CONSULTANT

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ONE INCH  
AT FULL SIZE



REVISIONS DATE

Vancouver School District

## FRANKLIN ELEMENTARY SCHOOL ADDITION

1698, 5206 NW Franklin St.  
Vancouver, WA 98663

JOB NO: 1806  
ISSUE DATE: 08/19/2019

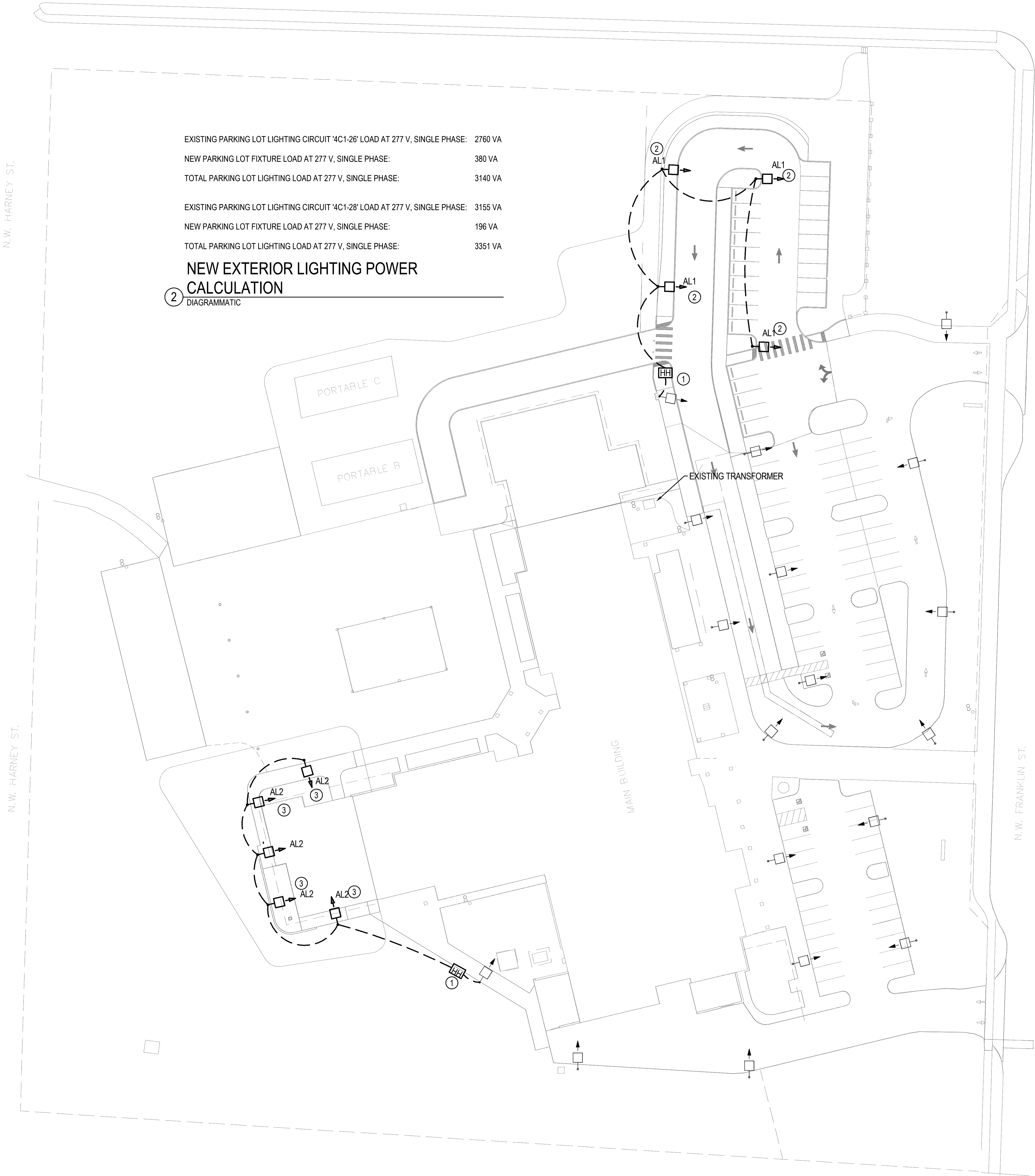
Jurisdiction Stamp Area

## LIGHTING CONTROL DIAGRAMS



8/15/2019 1:25:13 PM

1 ELECTRICAL SITE PLAN  
1" = 30'-0"



EXISTING PARKING LOT LIGHTING CIRCUIT '4C1-28' LOAD AT 277 V, SINGLE PHASE: 2760 VA  
NEW PARKING LOT FIXTURE LOAD AT 277 V, SINGLE PHASE: 380 VA  
TOTAL PARKING LOT LIGHTING LOAD AT 277 V, SINGLE PHASE: 3140 VA

EXISTING PARKING LOT LIGHTING CIRCUIT '4C1-28' LOAD AT 277 V, SINGLE PHASE: 3155 VA  
NEW PARKING LOT FIXTURE LOAD AT 277 V, SINGLE PHASE: 196 VA  
TOTAL PARKING LOT LIGHTING LOAD AT 277 V, SINGLE PHASE: 3351 VA

NEW EXTERIOR LIGHTING POWER  
CALCULATION  
2 DIAGRAMMATIC

GENERAL NOTES

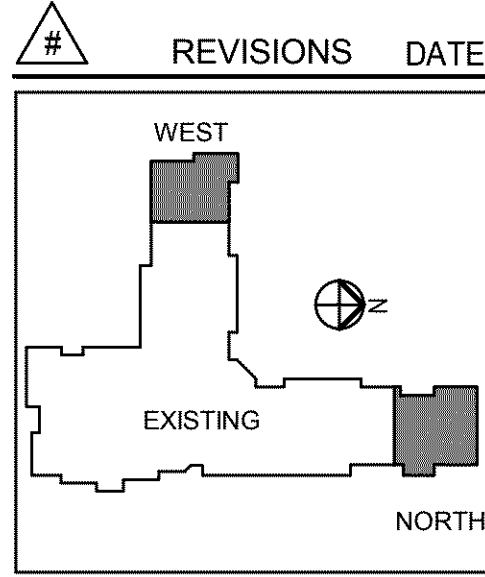
- PANEL DESIGNATIONS AND CIRCUIT NUMBERS ARE ONLY INDICATED ON THE DRAWINGS FOR REFERENCE BY THE ELECTRICAL CONTRACTOR. THE E.C. IS RESPONSIBLE TO PROVIDE ALL CONDUIT, WIRING, JUNCTION BOXES, AND MISCELLANEOUS ACCESSORIES TO ACCOMMODATE INSTALLATION AND CONNECTION OF ALL DEVICES INDICATED ON THE CONTRACT DOCUMENTS. ALL WIRING HOMERUNS SHALL BE IN HARD CONDUIT BACK TO THE DESIGNATED PANELBOARD. ALL JUNCTION BOXES SHALL BE LABELED IDENTIFYING THE PANELBOARD AND CIRCUIT CONTAINED WITHIN. THERE SHALL BE NO MORE THAN (3) CIRCUITS PER HOMERUN. MULTI-WIRE CIRCUITS ARE NOT ALLOWED. EACH CIRCUIT SHALL CONTAIN A DEDICATED NEUTRAL UNLESS SPECIFICALLY ALLOWED BY THE ENGINEER. ALL WIRING SHALL BE SIZED ACCORDING TO THE AMPACITY OF THE CIRCUIT BREAKER INDICATED ON THE PANEL SCHEDULE. ALL CONDUITS SHALL BE SIZED PER NEC CODE BASED ON THE CONDUCTOR SIZE, TYPE, QUANTITY, AND MINIMUM FILL REQUIREMENTS. CIRCUITS OVER 120' FOR 120V SHALL BE UPSIZED ONE WIRE SIZE TO ACCOUNT FOR VOLTAGE DROP. E.C. IS RESPONSIBLE TO SHOW ALL JUNCTION BOX LOCATIONS, CONDUIT ROUTING, AND HOMERUNS ON A SET OF AS-BUILT DRAWINGS.
- PROVIDE MINIMUM OF 3/4" C, #10 WIRING, TRENCHING AND BACKFILL FOR ALL EXTERIOR LIGHTING AND DEVICE CIRCUITS.
- SEE POLE BASE DETAILS ON E7.01.
- SEE ONE-LINE DIAGRAM ON E5.01 FOR ALL FEEDER QUANTITIES, SIZES AND OTHER INFORMATION.
- COORDINATE EXACT LOCATION AND INSTALLATION REQUIREMENTS FOR ALL SITE LIGHTING AND ELECTRICAL DEVICES WITH CIVIL AND LANDSCAPE.
- SEE TRENCHING DETAILS ON E7.01.
- PROVIDE PULL STRING IN ALL SPARE OR EMPTY CONDUITS.

CONSTRUCTION NOTES

- PROVIDE FOGTITE J-11 TYPE 2 WITH H20 TRAFFIC RATED LID FOR NEW SITE LIGHTS TO BE CONTROLLED WITH THE EXISTING SITE LIGHTS.
- CIRCUIT NEW PARKING LOT LIGHTING FIXTURES TO EXISTING SITE LIGHTING CIRCUIT '4C1-28'. SPLICE INTERCEPT AND EXTEND CIRCUIT '4C1-28' AS REQUIRED.
- CIRCUIT NEW PEDESTRIAN SCALE LIGHTING FIXTURES TO EXISTING SITE LIGHTING CIRCUIT '4C1-28'. SPLICE INTERCEPT AND EXTEND CIRCUIT '4C1-28' AS REQUIRED.



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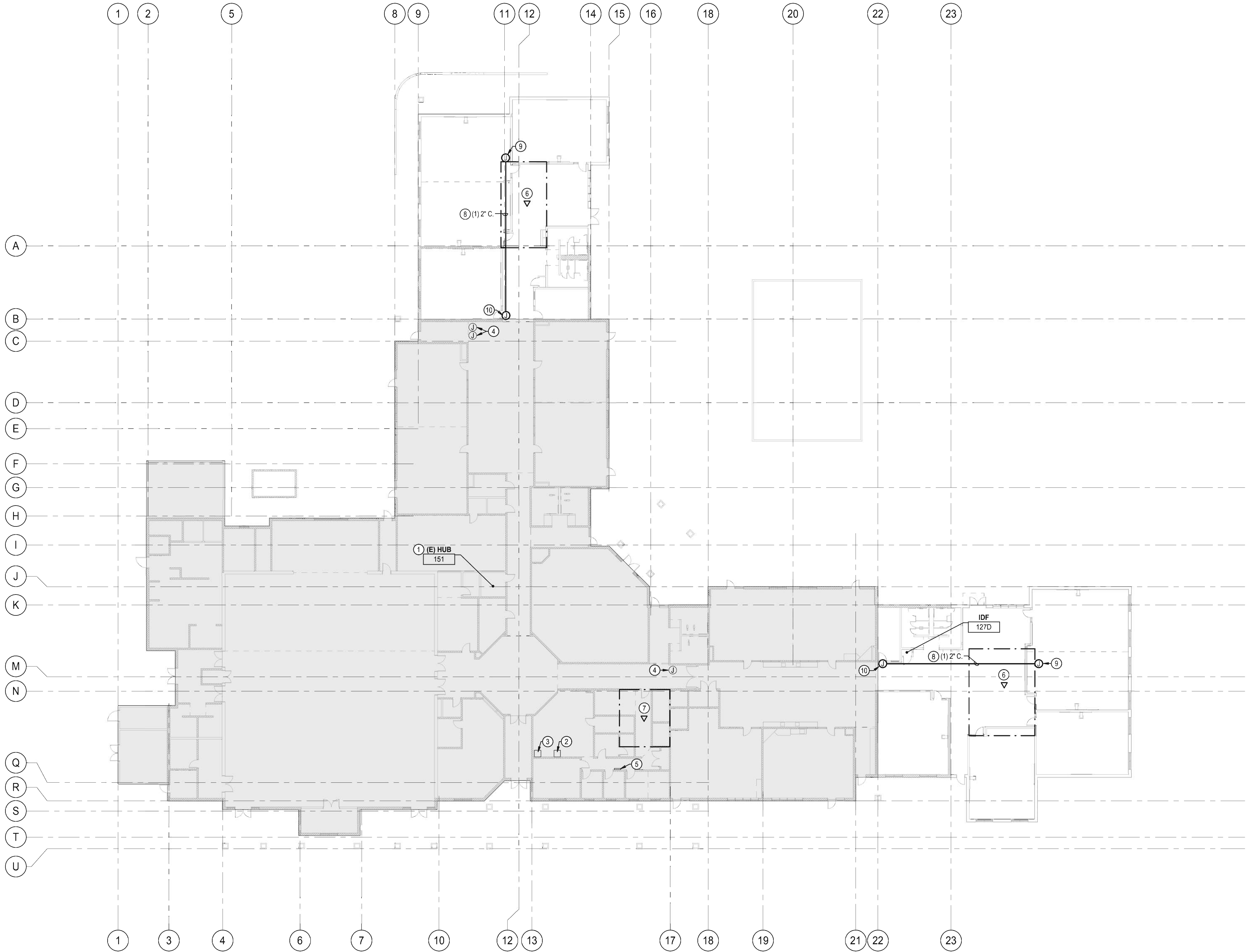
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**ELECTRICAL  
SITE PLAN**



8/15/2019 1:25:14 PM

1 LEVEL 1 - OVERALL SYSTEMS PLAN  
1/16" = 1'-0"

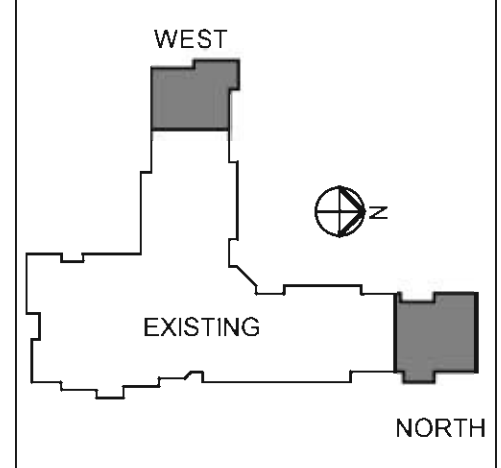


CONSTRUCTION NOTES

- EXISTING HUB 151 (MDF) ROOM. LOCATION OF EXISTING FIRE ALARM CONTROL PANEL AND AMAG ACCESS CONTROL PANEL.
- EXISTING PAGING SYSTEM HEADEND.
- EXISTING CCTV SYSTEM NETWORK VIDEO RECORDER (FOR REFERENCE ONLY).
- EXISTING JUNCTION BOXES IN CEILING/ATTIC FOR INTERCOM SPEAKER CABLE RUNS (FOR REFERENCE ONLY).
- EXISTING CLOCK AND BELL HEAD END, RAULAND-BORG # 2490.
- PROVIDE (1) WALL-MOUNTED DATA OUTLET IN MECHANICAL MEZZANINE SPACE ABOVE FOR DDC. COORDINATE WITH CONTROLS CONTRACTOR FOR LOCATION PRIOR TO ROUGH IN. CABLE TO HUB 151.
- PROVIDE (1) WALL-MOUNTED DATA OUTLET IN BOILER ROOM ABOVE FOR DDC. COORDINATE WITH CONTROLS CONTRACTOR FOR LOCATION PRIOR TO ROUGH IN. CABLE TO HUB 151.
- PROVIDE (1) 2" C. FOR EMERGENCY RADIO COVERAGE ENHANCEMENT SYSTEM (ERCES, OTHERWISE KNOWN AS DAS).
- PROVIDE (1) 12"x12"x6" JUNCTION BOX WITH COVER FLUSH-MOUNTED IN CLASSROOM HARD LID CEILING TO INTERCEPT ERCES CONDUIT. PROVIDE BLANK COVER. PAINT TO MATCH.
- PROVIDE (1) 12"x12"x6" JUNCTION BOX WITH COVER SURFACE MOUNTED TO EXTERIOR OF EXISTING BUILDING TO INTERCEPT ERCES CONDUIT.



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**SYSTEMS  
OVERALL  
FLOORPLAN**

**E1.02**

BID SET

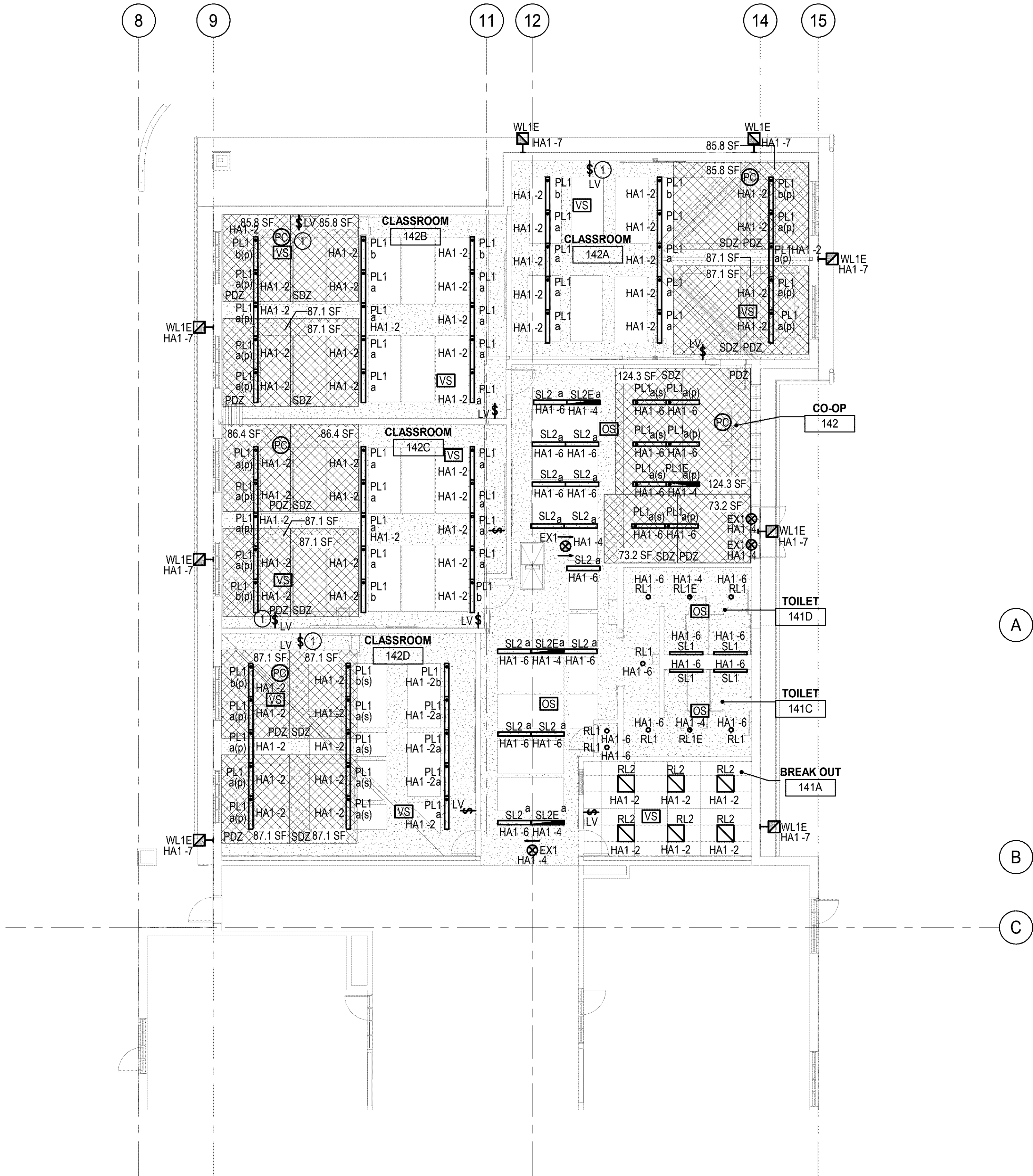


**GENERAL NOTES**

- ALL EXPOSED CONDUITS AND BACKBOXES SHALL BE PAINTED TO MATCH STRUCTURE.
- ANY EXPOSED CONDUIT ROUTING MUST BE EVALUATED AND APPROVED BY THE ARCHITECT.
- SEE SHEETS E0.02 & E0.03 FOR LIGHTING CONTROL INFORMATION.
- COORDINATE EXTERIOR BUILDING MOUNTED LIGHTING WITH ARCHITECT. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.

**CONSTRUCTION NOTES**

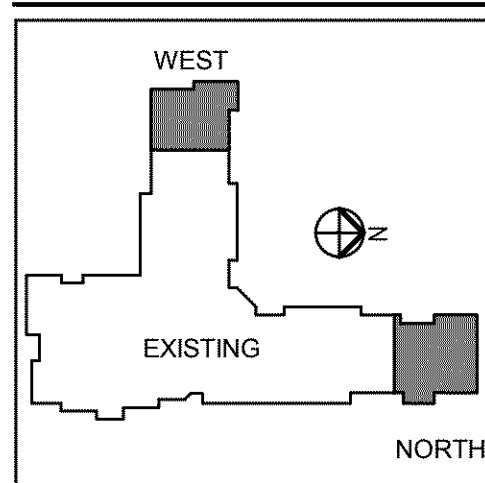
- TEACHING WALL LIGHTING SWITCH.







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LIGHTING  
REFLECTED  
ATTIC CEILING  
PLANS

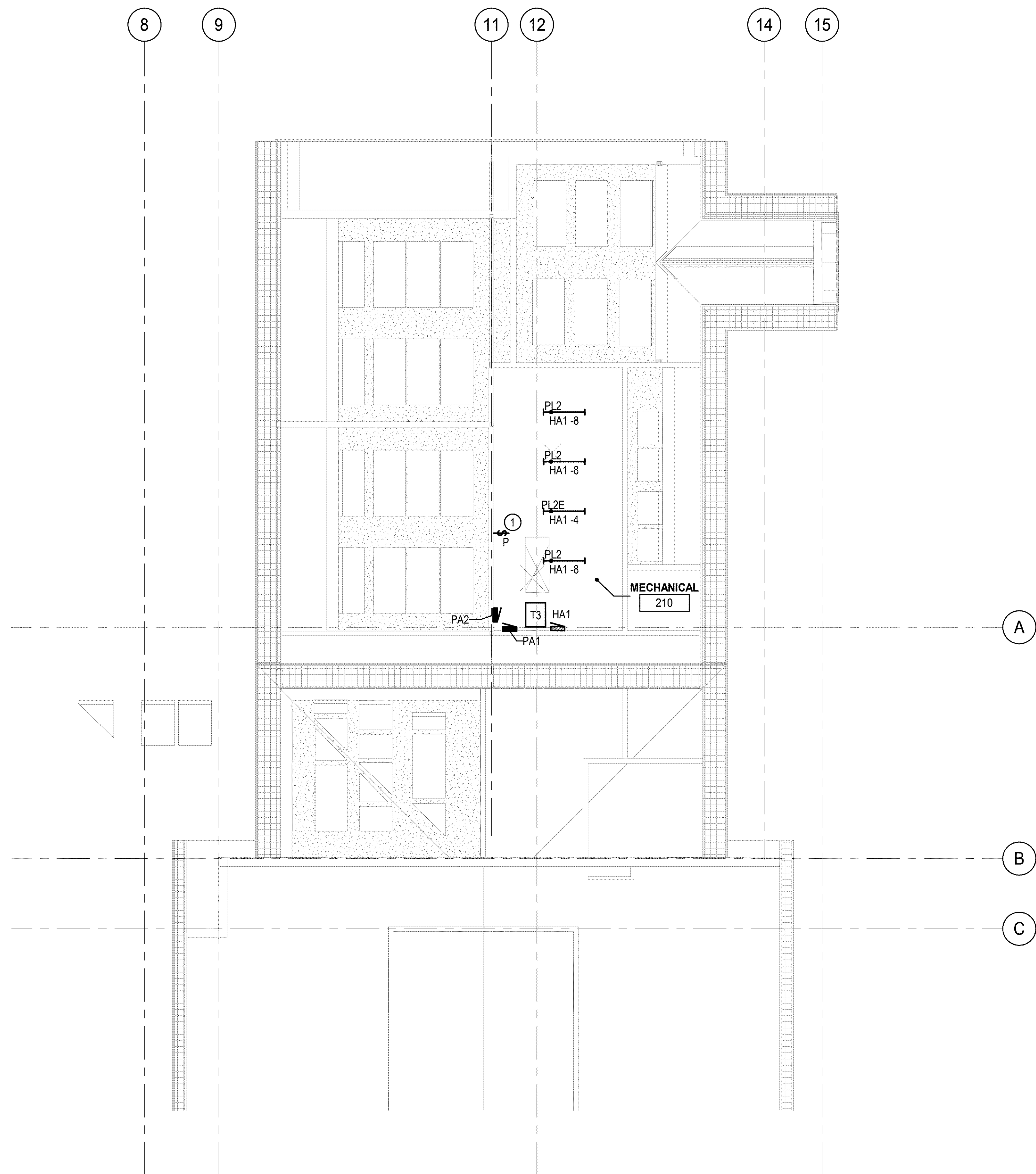
E2.11

GENERAL NOTES

- SEE SHEETS E0.02 & E0.03 FOR LIGHTING CONTROL INFORMATION.
- COORDINATE WITH OTHER TRADES FOR PENDANT MOUNTING ALL LIGHTS IN ORDER TO AVOID PIPING AND DUCTWORK. PROVIDE UNISTRUT TO SPAN PIPING AND DUCT AS REQUIRED. FIELD ADJUST LIGHT LOCATIONS TO ADEQUATELY ILLUMINATE ACCESS TO AND AROUND MECHANICAL EQUIPMENT.

CONSTRUCTION NOTES

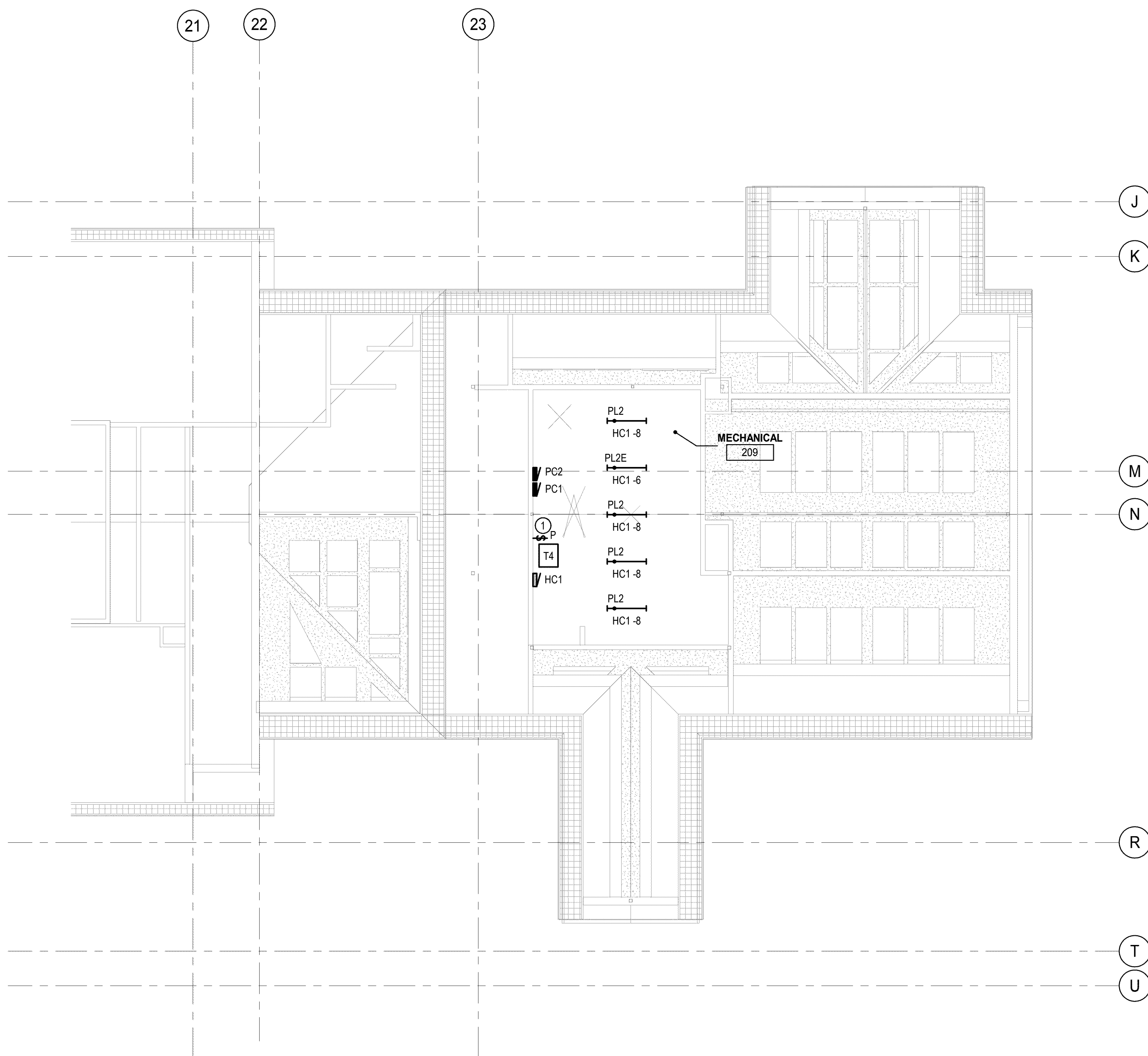
- MOUNT ADJACENT TO ACCESS HATCH.



1 ATTIC - LIGHTING REFLECTED CEILING PLAN - WEST

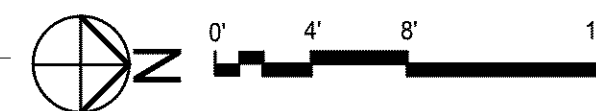
1/8" = 1'-0"

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2 ATTIC - LIGHTING REFLECTED CEILING PLAN - NORTH

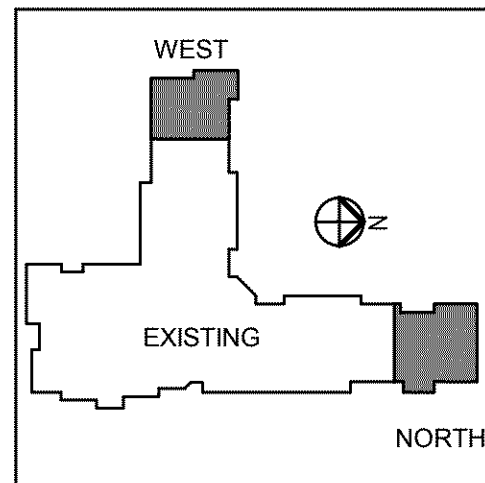
1/8" = 1'-0"







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**POWER FLOOR  
PLANS**

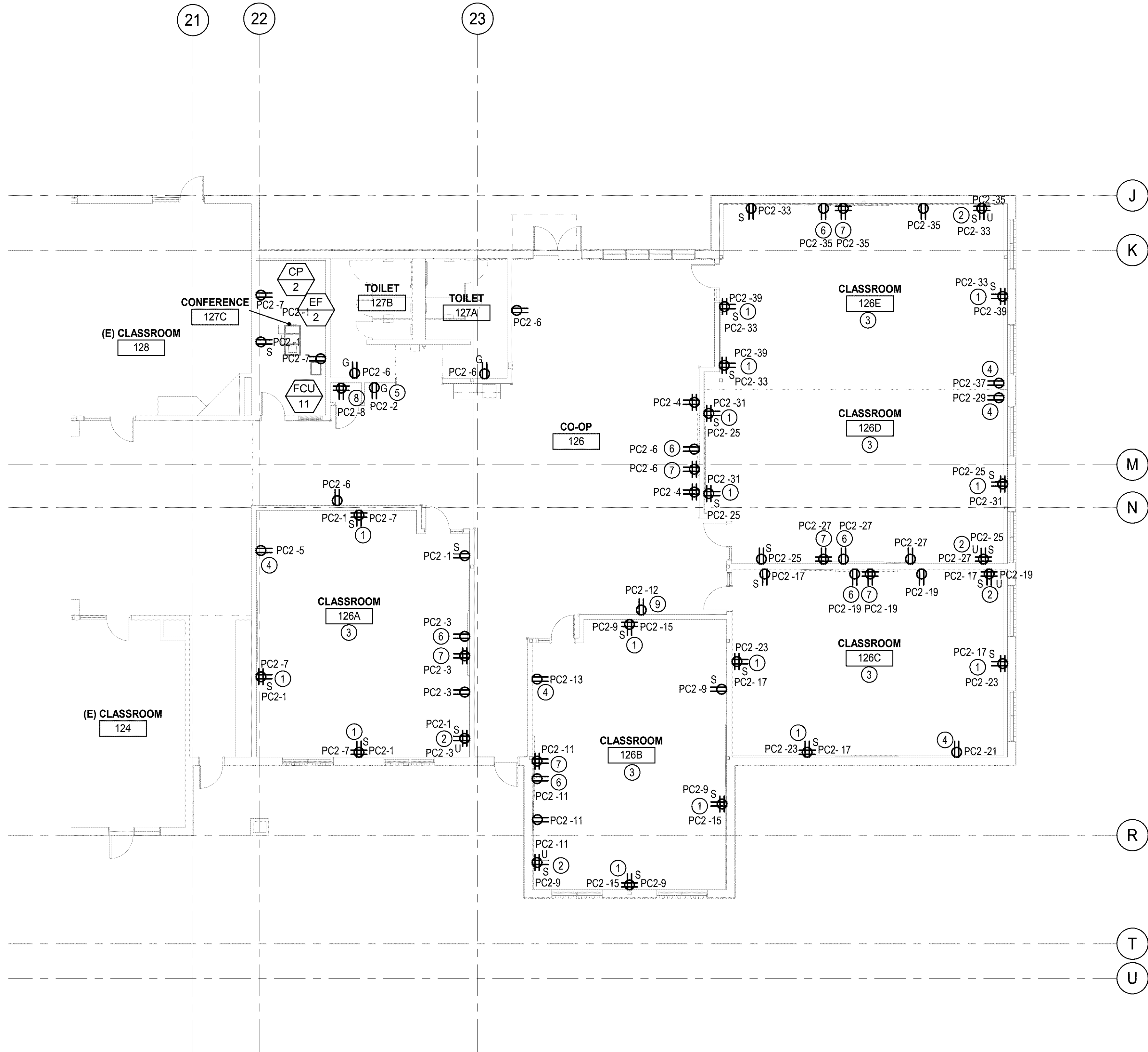
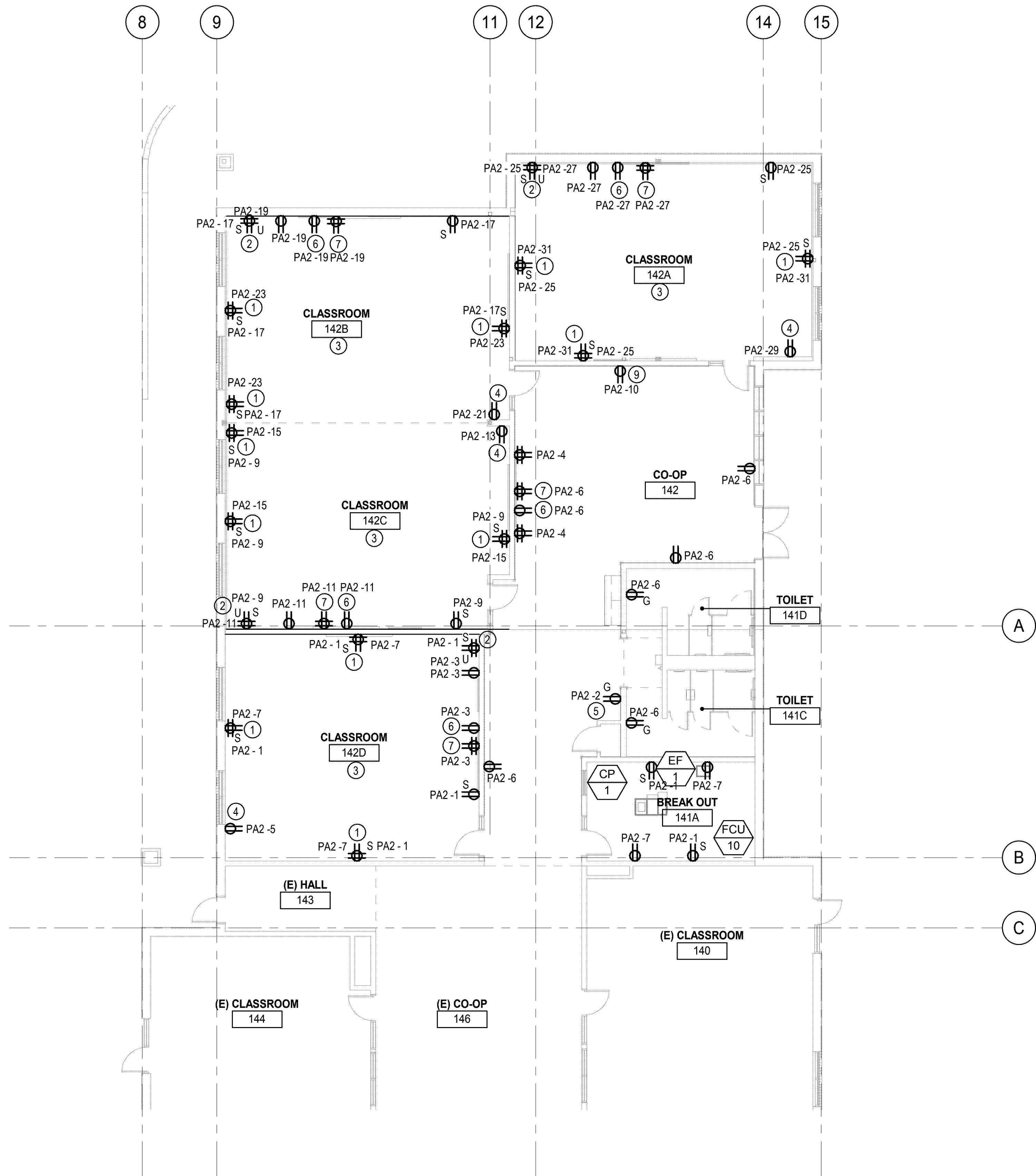
**E3.01**

**GENERAL NOTES**

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- TAMPER RESISTANT RECEPTACLES ARE NOT REQUIRED IN UNFINISHED AND NORMALLY UNOCCUPIED SPACES.
- CONTROLLED/SWITCHED RECEPTACLES THROUGHOUT THE BUILDING ARE TO BE CONNECTED TO AND CONTROLLED VIA TIME SCHEDULE WHICH RESIDES AS PART OF THE LIGHTING CONTROL SYSTEM.

**CONSTRUCTION NOTES**

- (1) SWITCHED DUPLEX RECEPTACLE AND (1) STANDARD DUPLEX RECEPTACLE INSTALLED TOGETHER IN SAME BOX.
- (1) SWITCHED DUPLEX RECEPTACLE AND (1) USB CHARGING RECEPTACLE INSTALLED TOGETHER IN SAME BOX.
- ALL DATA/TELEPHONE OUTLET CONDUITS SHALL ROUTE IN FLOOR SLAB TO PULL BOX AT CLASSROOM SMART CENTER. PROVIDE (2) 2" C., FROM PULL BOX TO ACCESSIBLE CEILING SPACE.
- PROVIDE DEDICATED 120V POWER CONNECTION FOR FUTURE LAPTOP COMPUTER CHARGING STATION.
- PROVIDE DEDICATED 120V POWER CONNECTION FOR BOTTLE FILLERS/DRINKING FOUNTAIN.
- MOUNT IN WALL MOUNTED ENCLOSURE. SEE SYSTEMS SHEETS FOR MORE INFORMATION. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH IN.
- MOUNT AT 8'-3" TO CENTER OF BOX COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH IN.
- PROVIDE 120V POWER CONNECTION FOR IDF ENCLOSURE. MOUNT AT +4'-0" AFF. SEE DETAIL #4 ON SHEET E4.01.
- PROVIDE DEDICATED DUPLEX RECEPTACLE FOR PRINTER.



**1 LEVEL 1 - POWER PLAN - WEST**

1/8" = 1'-0"

**2 LEVEL 1 - POWER PLAN - NORTH**

1/8" = 1'-0"



GENERAL NOTES

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- CONTROLLED/SWITCHED RECEPTACLES THROUGHOUT THE BUILDING ARE TO BE CONNECTED TO AND CONTROLLED VIA TIME SCHEDULE WHICH RESIDES AS PART OF THE LIGHTING CONTROL SYSTEM.

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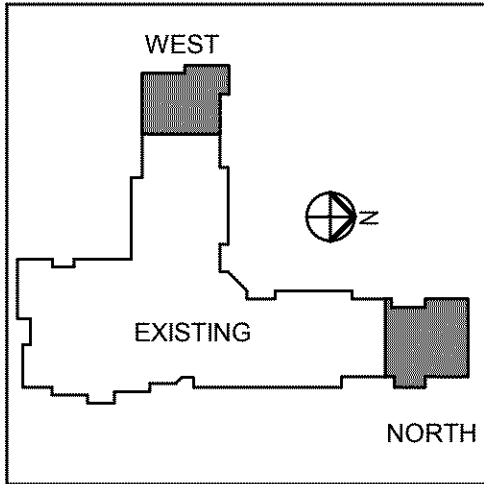
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ONE INCH  
AT FULL SIZE



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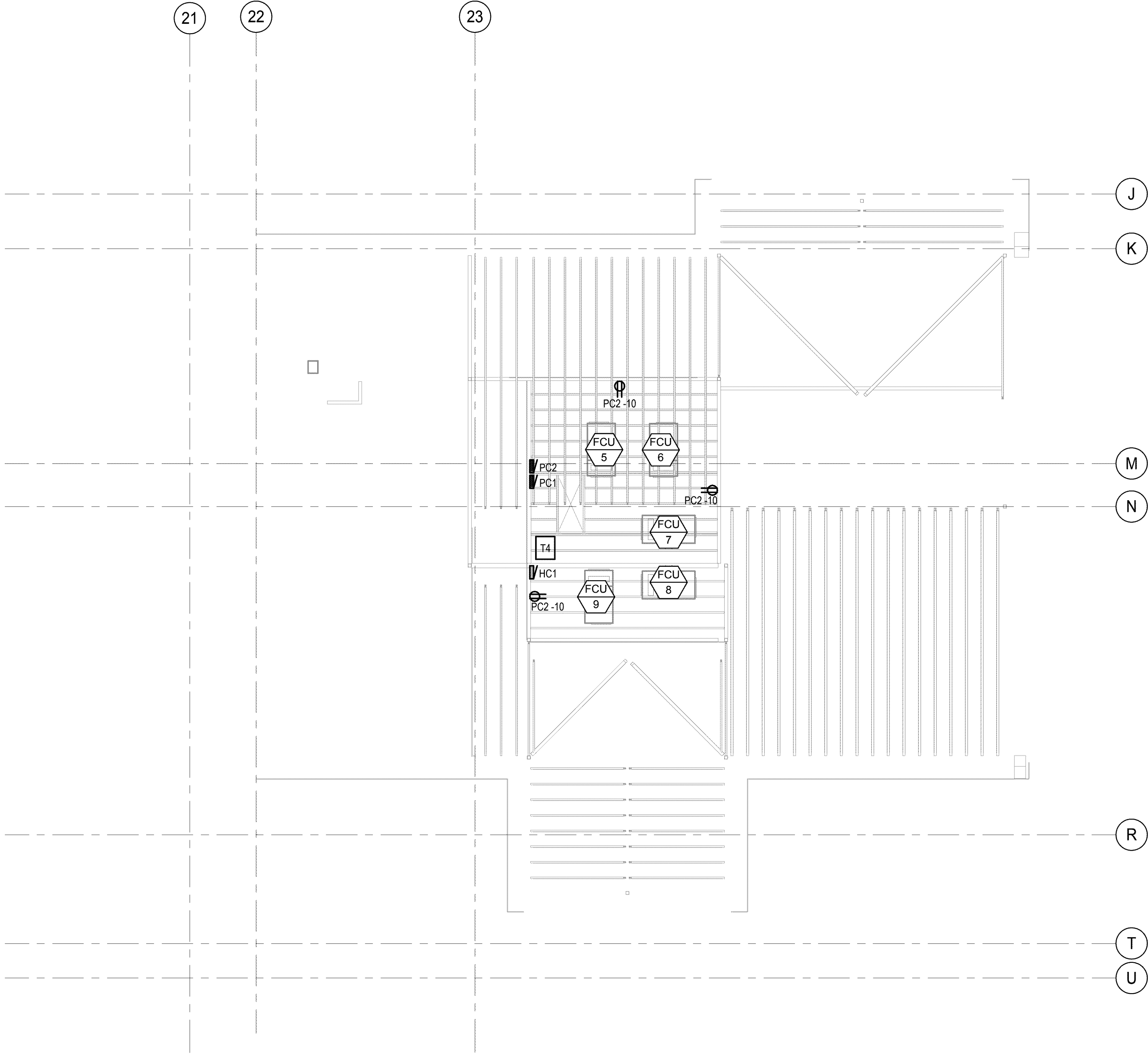
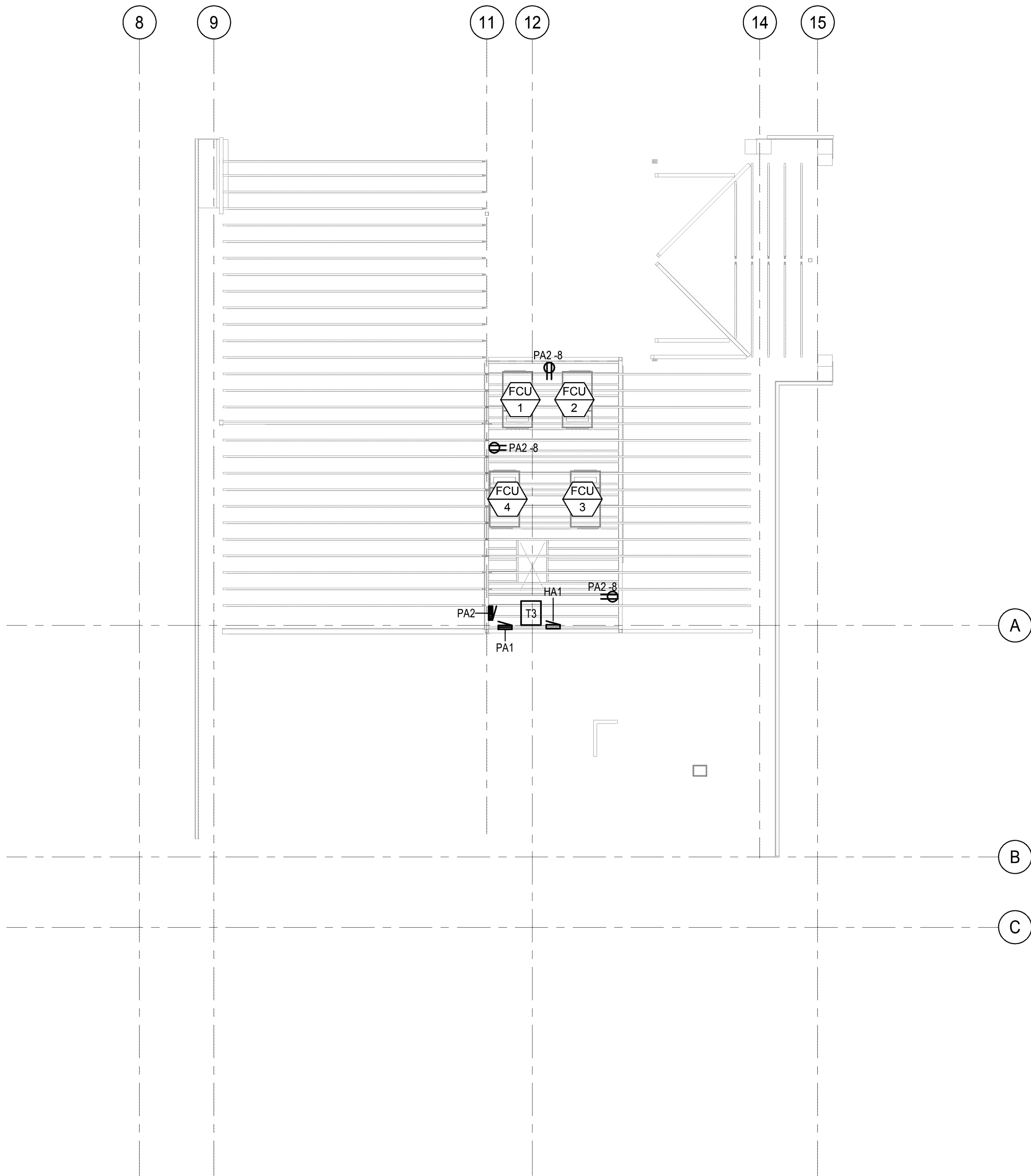
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**POWER FLOOR  
MEZZANINE  
PLANS**

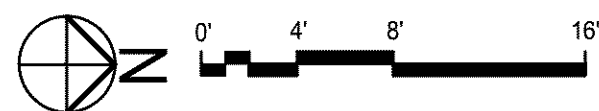
**E3.11**

BID SET



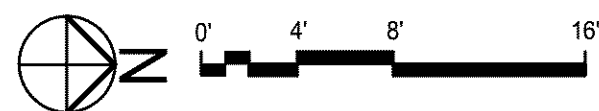
**1 ATTIC - POWER PLAN - WEST**

1/8" = 1'-0"



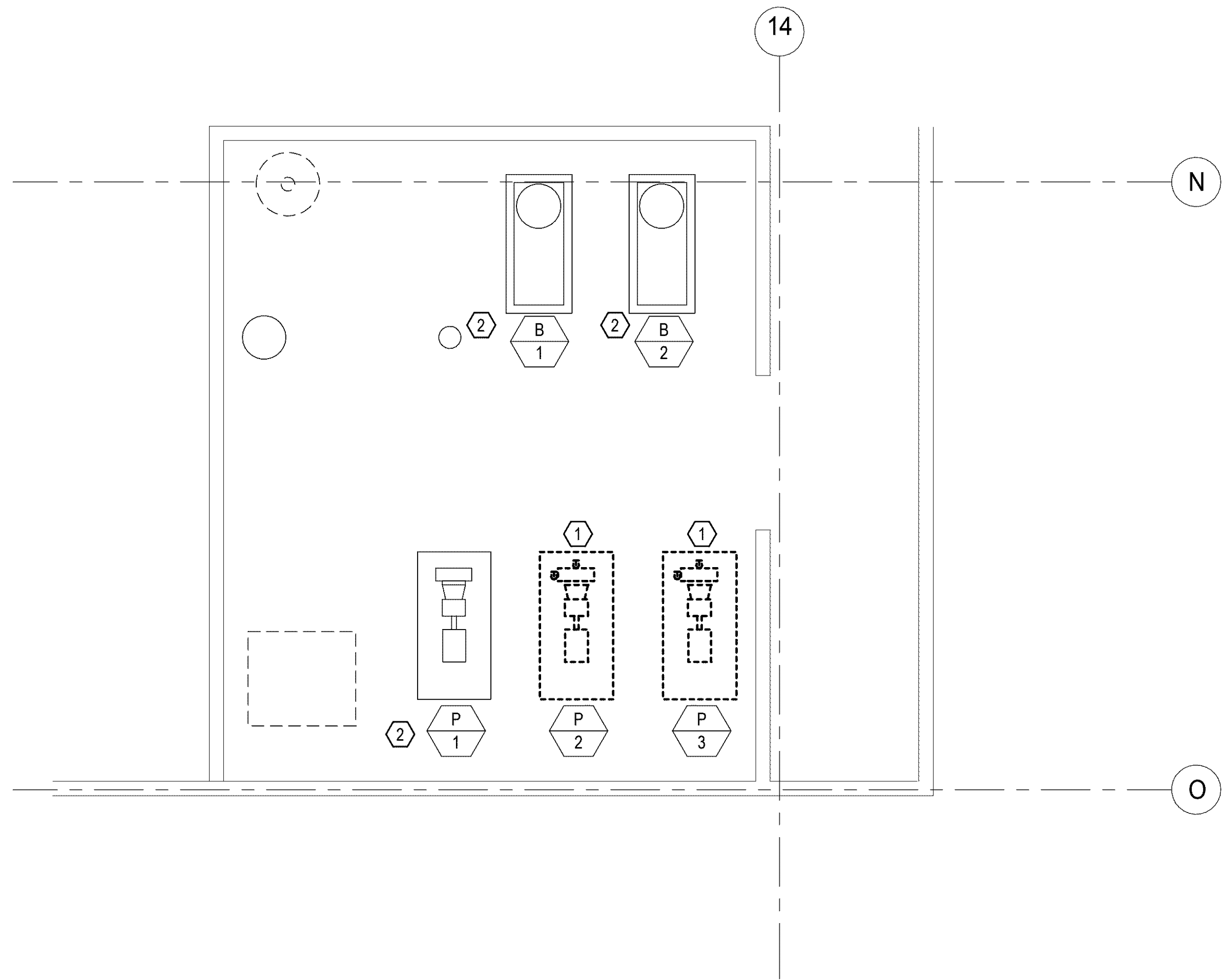
**2 ATTIC - POWER PLAN - NORTH**

1/8" = 1'-0"

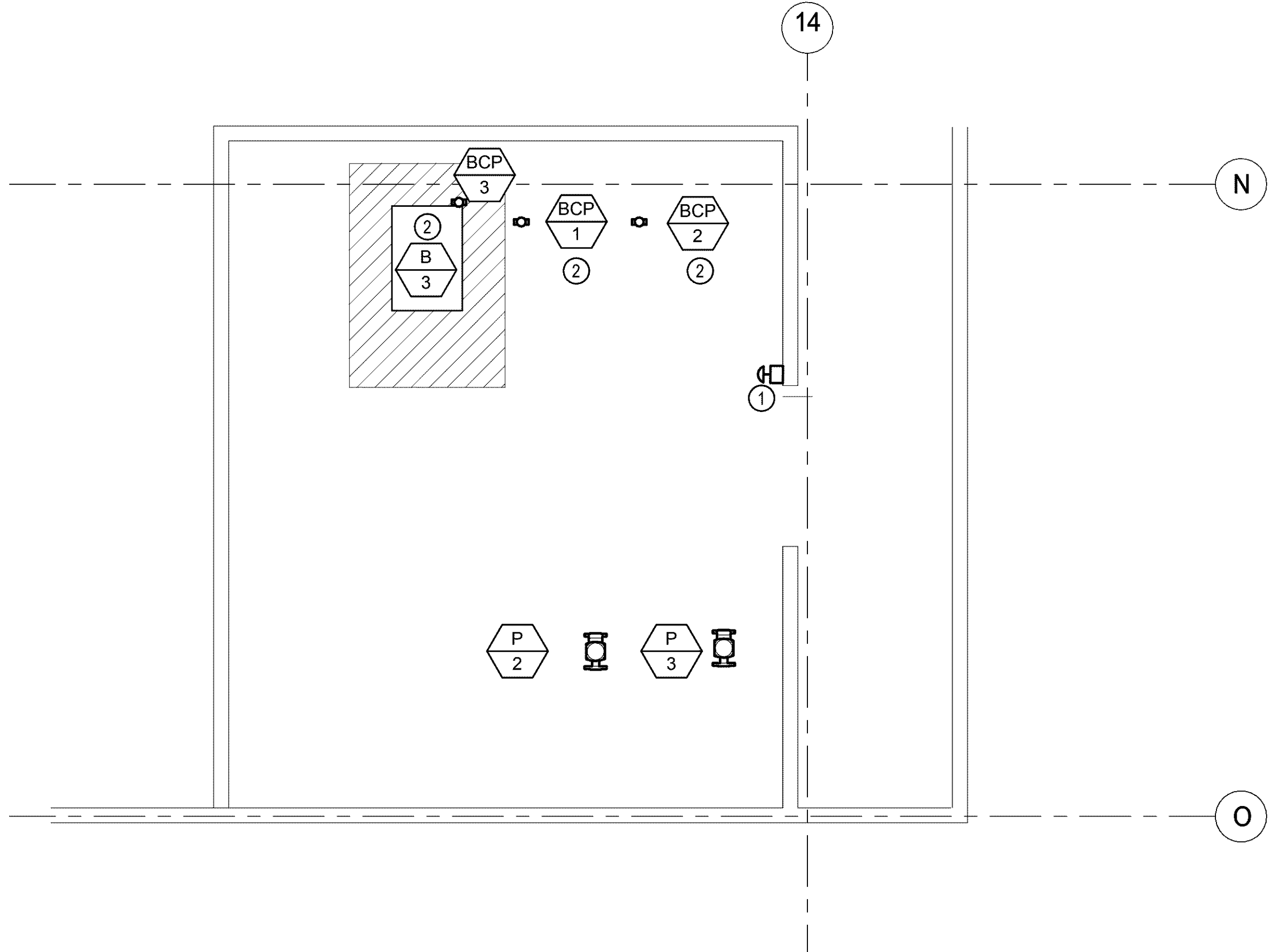


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1 POWER DEMOLITION PLAN - BOILER ROOM  
1/4" = 1'-0"



2 POWER PLAN - BOILER ROOM  
1/4" = 1'-0"

#### DEMOLITION NOTES

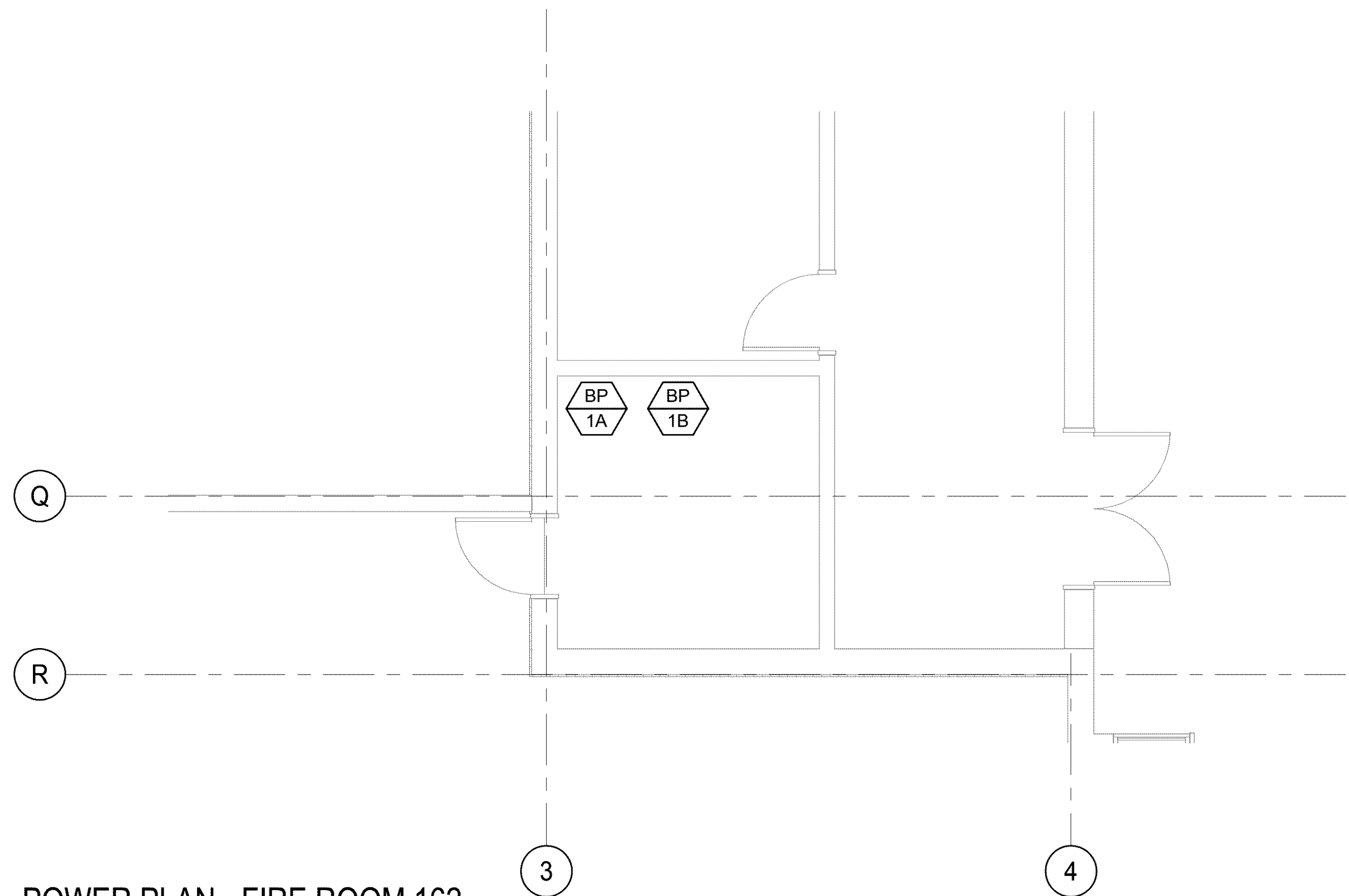
- 1 DISCONNECT AND REMOVE ELECTRICAL CONNECTION TO PUMP.
- 2 EXISTING TO REMAIN.

#### CONSTRUCTION NOTES

- 1 PROVIDE EMERGENCY BOILER SHUT OFF BUTTON WITH CLEAR LEXAN COVER. PROVIDE RED LABEL STATING 'EMERGENCY BOILER SHUT OFF'. SEE DETAIL ON SHEET E7.01.
- 2 ROUTE BOILER CIRCUIT THROUGH EMERGENCY BOILER SHUT-OFF PUSH-BUTTON.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE												
EQUIP.	VOLT/PH	LOAD			CIRCUIT		CONDUIT/WIRE SIZE	MANUAL STARTER (NOTE 1)	DISCONNECT BY (NOTE 1)	FUSED DISC. (NOTE 1)	MIN. A.I.C. (AMPS)	REMARKS
		VA	FLA	HP	PANEL	BKR						
B- 3	120/1	660	5.5	-	4C1	34	3/4" C., (2)#12 CU. & (1) #12 CU. GRD.	EC	EC		10,000	
BCP- 1	208/3	1435	-	1	4C1	19,21,23	3/4" C., (4)#12 CU. & (1) #12 CU. GRD.	EC	EC	EC	10,000	
BCP- 2	208/3	1435	-	1	4C1	19,21,23	3/4" C., (4)#12 CU. & (1) #12 CU. GRD.	EC	EC		10,000	
BCP- 3	208/3	800	-	1/2	4C1	19,21,23	3/4" C., (4)#12 CU. & (1) #12 CU. GRD.	EC	EC		10,000	
BP-1A/1B	208/3	5292	-	2	2M2	16,18,20	3/4" C., (3)#10 CU. & (1) #12 CU. GRD.	EC	EC		10,000	
P- 2	208/3	11155	-	10	4C1	1,3,5	1" C., (4) #8 CU. & (1) #12 CU. GRD.	EC	EC		10,000	
P- 3	208/3	11155	-	11	4C1	7,9,11	1" C., (4) #8 CU. & (1) #12 CU. GRD.	EC	EC		10,000	

NOTE: 1. CONTRACTOR LISTED SHALL FURNISH AND INSTALL THE LISTED DEVICE.  
2. DUCT SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR.



3 POWER PLAN - FIRE ROOM 162  
1/4" = 1'-0"

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ENLARGED  
ELECTRICAL  
PLANS

E3.12

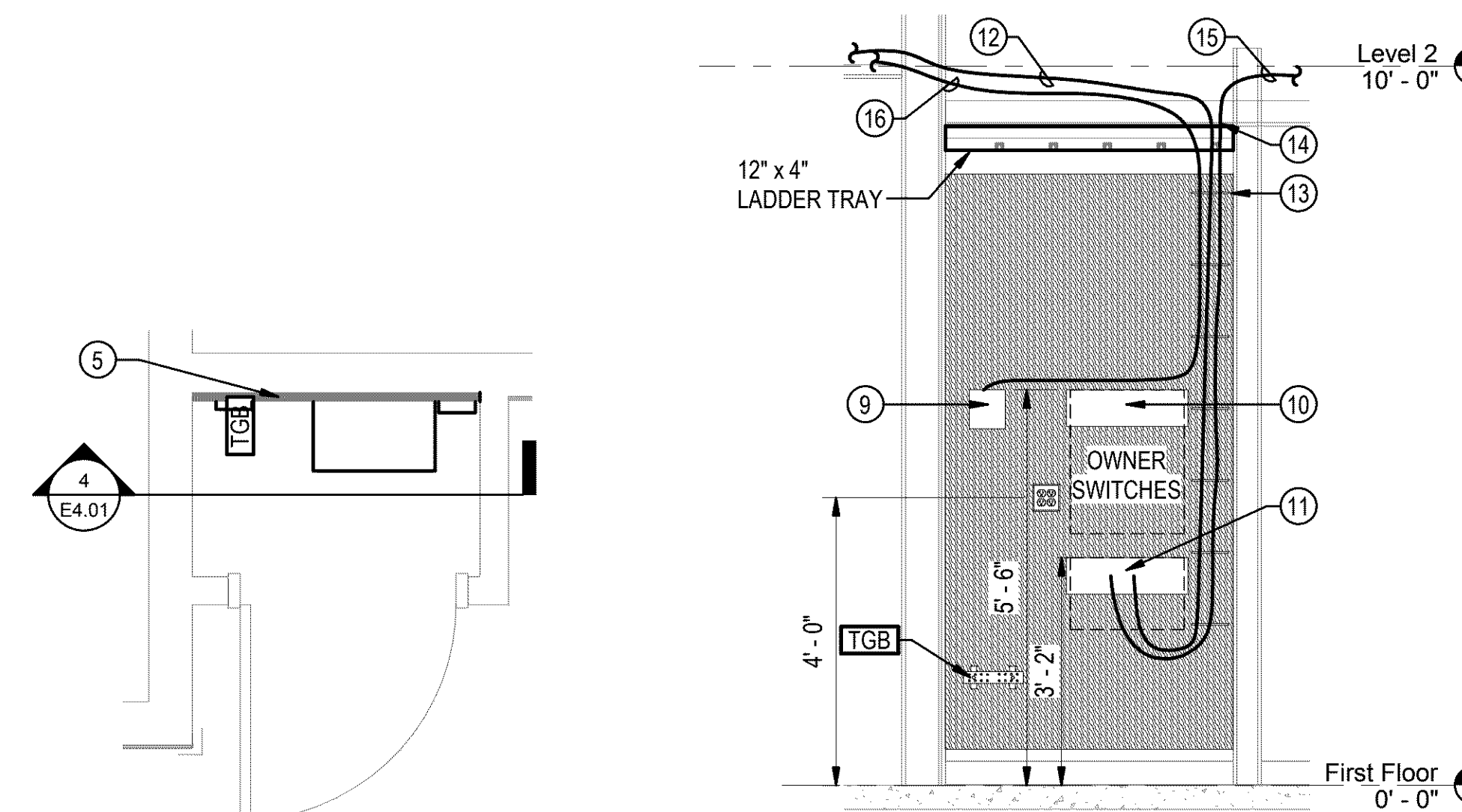


## GENERAL NOTES

1. SEE SHEET E1.02 FOR ADDITIONAL TELECOM REQUIREMENTS AND INFORMATION.
2. ROUTE CONDUIT FROM DEVICE BACKBOXES TO ATTIC SPACE.

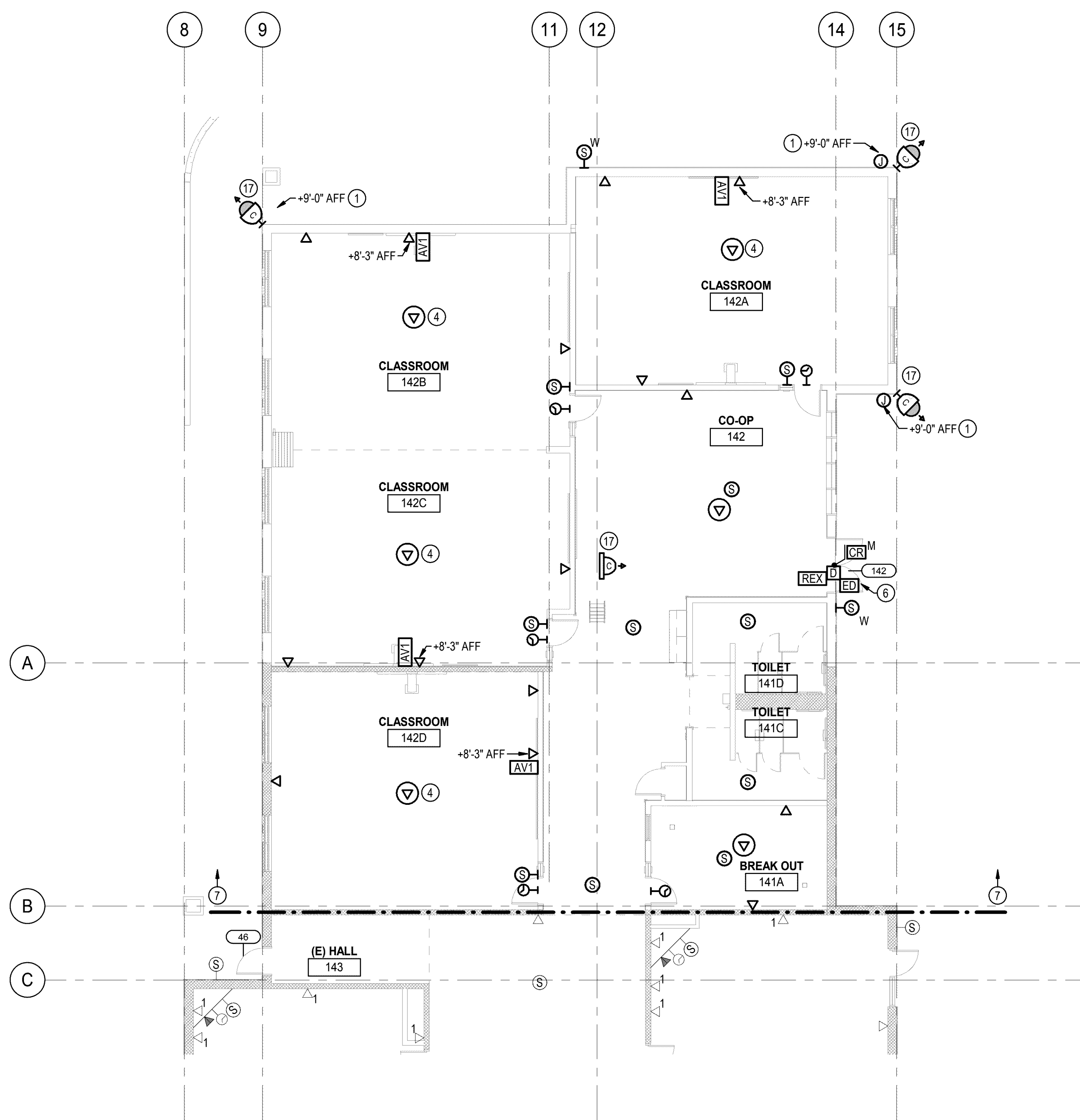
## CONSTRUCTION NOTES

- ① MOUNT SINGLE GANG JUNCTION BOX FOR CAMERA ROUGH-IN LOCATION INSTALLED AS TIGHT TO CORNER AS POSSIBLE. FLUSH TO VENEER. COORDINATE WITH ARCHITECT AND STRUCTURAL AS REQUIRED. PROVIDE WEATHERPROOF COVER PLATE.
- ② MOUNT JUNCTION BOX FOR CAMERA NORTH OF AND ADJACENT TO STRUCTURAL BEAM.
- ③ MOUNT JUNCTION BOX FOR CAMERA EAST OF AND ADJACENT TO STRUCTURAL BEAM.
- ④ MOUNT BACKBOX IN GWB CEILING. ROUTE CONDUIT TO ATTIC SPACE.
- ⑤ PROVIDE PLYWOOD BACKBOARD AS SPECIFIED.
- ⑥ PROVIDE ACCESS CONTROL DEVICE ROUGH-IN AT THIS DOOR. SEE DETAIL 8 ON SHEET E7.02 FOR ADDITIONAL INFORMATION.
- ⑦ CABLE TELECOMMUNICATIONS OUTLETS IN WEST WING TO EXISTING HUB ROOM 151.
- ⑧ CABLE TELECOMMUNICATIONS OUTLETS IN NORTH WING TO NEW HUB ROOM RACK IDENTIFIED BY NOTE 9.
- ⑨ PROVIDE (1) LEVITON 5 WMMT-1C WALL-MOUNT FIBER ENCLOSURE. PROVIDE (1) LEVITON 5F100-2LC SINGLE MODE FIBER ADAPTER PLATE.
- ⑩ PROVIDE (1) CHATSWORTH # 11754-119 VERTICAL WALL-MOUNT BRACKET FOR OFOI SWITCHES.
- ⑪ PROVIDE (1) CHATSWORTH # 11754-119 VERTICAL WALL-MOUNT BRACKET FOR CFCl PATCH PANELS.
- ⑫ CAT 6 CABLES FROM HUB ROOM 151. SEE SHEET E7.02 DETAIL # 9 FOR ADDITIONAL INFORMATION.
- ⑬ WIRE RINGS PER SPECIFICATIONS, TYPICAL.
- ⑭ PROVIDE CONDUIT PENETRATIONS WITH 40% MAXIMUM FILL CAPACITY AS REQUIRED.
- ⑮ HORIZONTAL CABLING, SEE FLOOR PLANS FOR LOCATIONS.
- ⑯ FIBER FROM HUB ROOM 151. SEE SHEET E7.02 DETAIL # 9 FOR ADDITIONAL INFORMATION.
- ⑰ CAMERA SHOWN FOR REFERENCE ONLY. PROVIDE ROUGH-IN ONLY.

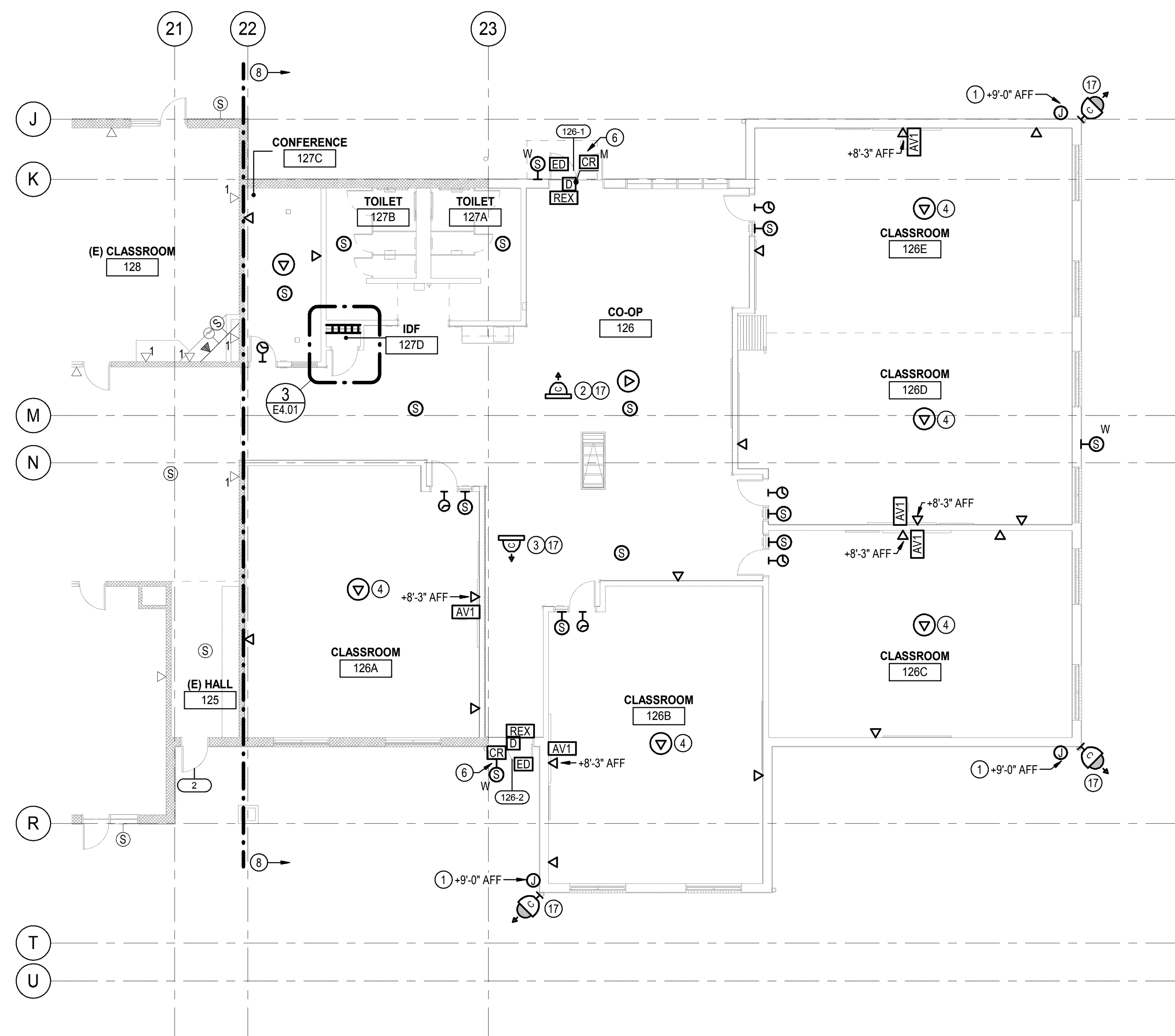


3 IDF 127D ENLARGED  
1/2" = 1'-0"

4 IDF 127D ELEVATION  
1/2" = 1'-0"



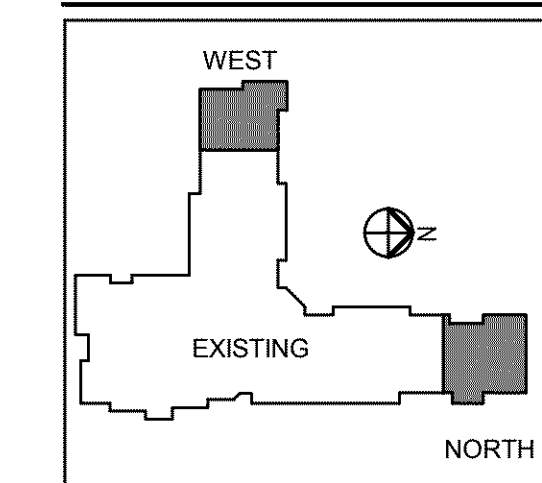
2 FIRST FLOOR SYSTEMS PLAN - WEST  
1/8" = 1'-0"



1 FIRST FLOOR SYSTEMS PLAN - NORTH  
1/8" = 1'-0"



	REVISIONS	DATE
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Vancouver School District

FRANKLIN  
ELEMENTARY  
SCHOOL  
ADDITION

1698, 5206 NW Franklin St,  
Vancouver, WA 98663

JOB NO: 1806

ISSUE DATE: 08/19/2019

---

Jurisdiction Stamp Area

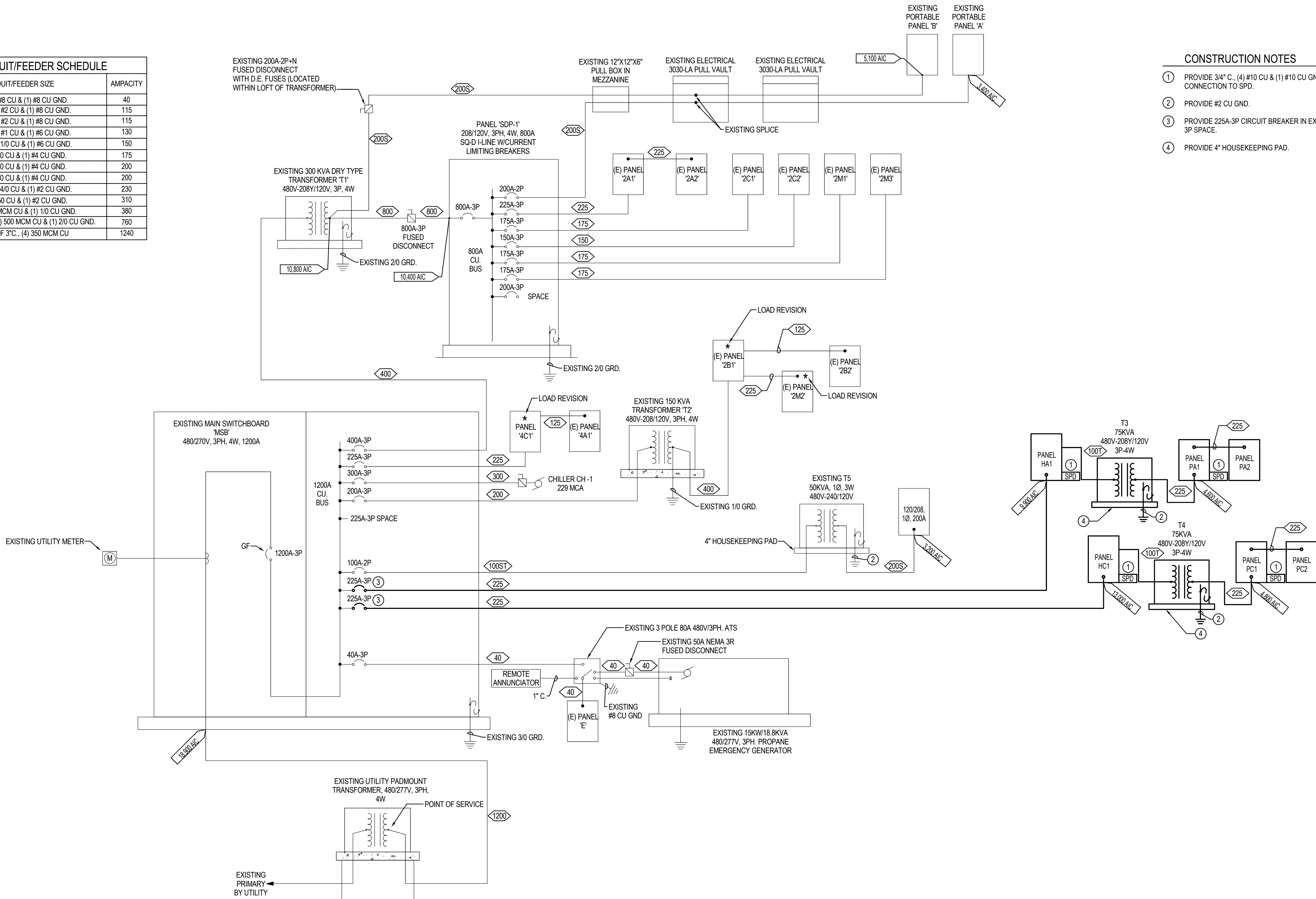
## SYSTEMS FLOOR PLANS

E4.01



8/15/2019 1:25:24 PM

COPPER CONDUIT/FEEDER SCHEDULE		
FEEDER NUMBER	CONDUIT/FEEDER SIZE	AMPACITY
40	3/4"C., (4) #8 CU & (1) #8 CU GND.	40
100ST	1-1/2"C., (2) #2 CU & (1) #8 CU GND.	115
100T	1-1/2"C., (3) #2 CU & (1) #8 CU GND.	115
125	1-1/2"C., (4) #1 CU & (1) #6 CU GND.	130
150	1-1/2"C., (3) 1/0 CU & (1) #6 CU GND.	150
175	2"C., (4) 2/0 CU & (1) #4 CU GND.	175
200	2"C., (3) 3/0 CU & (1) #4 CU GND.	200
200S	2"C., (3) 3/0 CU & (1) #4 CU GND.	200
225	2-1/2"C., (4) 4/0 CU & (1) #2 CU GND.	230
300	3"C., (4) 350 CU & (1) #2 CU GND.	310
400	4"C., (4) 500 MCM CU & (1) 1/0 CU GND.	380
800	(2) SETS OF 4"C., (4) 500 MCM CU & (1) 2/0 CU GND.	760
1200	(4) SETS OF 3"C., (4) 350 MCM CU	1240



1 ELECTRICAL ONE-LINE DIAGRAM  
1/8" = 1'-0"

GENERAL NOTES

- ALL CONDUCTOR SIZES ARE BASED ON COPPER.
- SEE PANEL SCHEDULES FOR SPECIFIC PANEL INFORMATION.
- SEE SITE PLAN E1.01 FOR ADDITIONAL INFORMATION.
- SEE UNDERGROUND RACEWAY DETAILS ON E7.01.
- THE SYSTEM SHALL BE FULLY RATED FOR THE AVAILABLE FAULT CURRENT. SERIES RATINGS ARE NOT ACCEPTABLE.

CONSTRUCTION NOTES

- PROVIDE 3/4" C., (4) #10 CU & (1) #10 CU GND. CONNECTION TO SPD.
- PROVIDE #2 CU GND.
- PROVIDE 225A-3P CIRCUIT BREAKER IN EXISTING 225-3P SPACE.
- PROVIDE 4" HOUSEKEEPING PAD.

**bassetti**  
architects

71 Columbia Street, Suite 500  
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MacKay Spósito  
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Rider Levett Bucknall (RLB)  
Brewery Block 2  
1120 NW Couch Street, Suite 730  
Portland, OR 97209  
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ONE INCH  
AT FULL SIZE



#	REVISIONS	DATE

Vancouver School District  
**FRANKLIN  
ELEMENTARY  
SCHOOL  
ADDITION**

1698, 5206 NW Franklin St.  
Vancouver, WA 98663

JOB NO: 1806  
ISSUE DATE: 08/19/2019

Jurisdiction Stamp Area

**ELECTRICAL  
ONE-LINE  
DIAGRAM**

E5.01

BID SET



PANEL: HA1			PHASE: 3		VOLTAGE: 480Y/277V			FEED TYPE: Bottom			400 A MLO	
MOUNT: Surface			MOUNT: Surface		WIRE: 4			SCHEDULE: 4			BUS	
Type: Type 1			POLES: 42		SF MAINS: No						AIC...	
LC	#	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	#	LC
Other:			225	3	7881 VA	1164 VA			1	20	1	L
--	3	PA1 VA T3	--	--					1	20	1	L
--	5	--	--	--					1	20	1	L
--	6	--	--	--					1	20	1	L
--	7	L EXTERIOR BLDG MOUNTED - WEST	20	1	297 VA	63 VA			1	20	1	M
--	9	SPARE	225	3		0 VA	0 VA		1	20	SPARE	10
--	11	--	--	--					1	20	SPARE	12
--	13	--	--	--					1	20	SPARE	14
--	15	SPARE	20	1	0 VA	0 VA			1	20	SPARE	16
--	17	SPARE	20	1		0 VA	0 VA		1	20	SPARE	18
--	19	SPARE	20	1	0 VA	0 VA			1	20	SPARE	20
--	21	SPACE	--	--		0 VA	0 VA		--	--	SPACE	22
--	23	SPACE	--	--					--	--	SPACE	24
--	25	SPACE	--	--		0 VA	0 VA		--	--	SPACE	26
--	27	SPACE	--	--					--	--	SPACE	28
--	29	SPACE	--	--		0 VA	0 VA		--	--	SPACE	30
--	31	SPACE	--	--		0 VA	0 VA		--	--	SPACE	32
--	33	SPACE	--	--					--	--	SPACE	34
--	35	SPACE	--	--					--	--	SPACE	36
--	37	SPACE	--	--		0 VA	0 VA		--	--	SPACE	38
--	39	SPACE	--	--					3	30	SPD	40
--	41	SPACE	--	--		0 VA	0 VA		--	--		42
Total Connected Load (VA):					9405 VA		6912 VA		6788 VA			
Total Connected Current (A):					34		25		25			
											Panel Totals	
L (125%) = 3028 VA											Total Conn. Load: 23106 VA	
R=10000 (50%) = 1480 VA											Total Conn. Current: 28 A	
RECEPTS TOTAL = 11480 VA											Total Demand Load: 22592 VA	
AW (ESTIMATED DEMAND) =											Total Demand Current: 27 A	
AW (DEMAND FACTOR) =												
H (100%) =												
Motor-LARGE (100%) = 1801 VA												
Motor-OTHER (100%) = 4823 VA												
MOTOR TOTAL = 6624 VA												
RW (ESTIMATED DEMAND) =												
RW (DEMAND FACTOR) =												
WH (100%) =												
K (65%) =												
A (100%) =												
E (100%) = 900 VA												
D (80%) =												
Notes: L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP., A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP., AW = ARC WELDER, RW = RESISTIVE WELDER												

PANEL: PA1

LOCATION: MECHANICAL 210

TYPE: Type 1,...

PHASE: 3

MOUNT: Surface

POLES: 48

VOLTAGE: 208Y/120V

WIRE: 4

SF MAINS: Yes

FEED TYPE: Bottom

BUS

AIC...

225 A MCB

BUS

48

LC	#	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	#	LC	
Motor	1	EF-1	20	3	500 VA	480 VA		3	20	FCU-1	2	Motor	
Motor	5	FCU-2	20	3		480 VA	480 VA		--	--	4	--	
	6	--	--	--	--	--	480 VA	480 VA	--	--	6	--	
	7	--	--	--	480 VA	480 VA		3	20	FCU-3	8	Motor	
Motor	9	FCU-4	20	3		480 VA	480 VA	--	--	--	10	--	
	11	--	--	--	--	--	480 VA	480 VA	--	--	12	--	
	13	--	--	--	480 VA	60 VA		1	20	CP-1	14	Other	
Other	15	FCU-10	20	1		500 VA	0 VA	1	20	SPARE	16	--	
--	17	SPARE	20	1			0 VA	0 VA	1	20	SPARE	18	--
--	19	SPARE	20	1	0 VA	0 VA		1	20	SPARE	20	--	
--	21	SPARE	20	1		0 VA	0 VA	1	20	SPARE	22	--	
--	23	SPARE	20	1			0 VA	0 VA	1	20	SPARE	24	--
--	25	SPARE	20	1	0 VA	0 VA		1	20	SPARE	26	--	
--	27	SPARE	20	1		0 VA	0 VA	--	--	SPACE	28	--	
--	29	SPARE	20	1			0 VA	0 VA	--	SPACE	30	--	
--	31	SPARE	20	1	0 VA	0 VA		--	--	SPACE	32	--	
--	33	SPACE	--	--	--	0 VA	0 VA	--	--	SPACE	34	--	
--	35	SPACE	--	--	--	--	0 VA	0 VA	--	SPACE	36	--	
--	37	SPACE	--	--	0 VA	0 VA		3	30	SPD	38	--	
--	39	SPACE	--	--	--	0 VA	0 VA	--	--	--	40	--	
--	41	SPACE	--	--	--	--	0 VA	0 VA	--	--	42	--	
--	43	SPACE	--	--	0 VA	5400 VA		3	1	PA2	44	R; D	
--	45	SPACE	--	--	--	0 VA	4320 VA	--	--	--	46	--	
--	47	SPACE	--	--	--	--	0 VA	4140 VA	--	--	48	--	
Total Connected Load (VA):					7881 VA	6741 VA	6061 VA						
Total Connected Current (A):					67	57	51						

L (125%) =

R>10000 (100%) = 10000 VA

R<10000 (50%) = 1480 VA

RECEPTS TOTAL = 11480 VA

AW (ESTIMATED DEMAND) =

AW (DEMAND FACTOR) =

H (100%) =

Motor-LARGE (125%) = 1801 VA

Motor-OTHER (100%) = 4823 VA

MOTOR TOTAL = 6624 VA

RW (ESTIMATED DEMAND) =

RW (DEMAND FACTOR) =

WH (100%) =

K (65%) =

A (100%) =

D (100%) = 900 VA

E (80%) =

Panel Totals

Total Conn. Load: 20684 VA

Total Conn. Current: 57 A

Total Demand Load: 19564 VA

Total Demand Current: 54 A

Notes: L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP, A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP, AW = ARC WELDER, RW = RESISTIVE WELDER

PANEL: PA2

LOCATION: MECHANICAL 210

TYPE: Type 1

PHASE: 3

MOUNT: Surface

POLES: 42

VOLTAGE: 208Y/120V

WIRE: 4

SF MAINS: No

FEED TYPE: Bottom

225 A MLO

BUS

AIC...

LC	#	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	#	LC		
R	1	R CLASSROOM 64	20	1	1280 VA	180 VA			1	20	R CO-OP 66	4	R	
R	3	R CLASSROOM 64	20	1			900 VA		1	20	R CO-OP 66	4	R	
D	5	D CLASSROOM 64	20	1				180 VA	1440 VA	1	20	R CO-OP 66	6	R
R	7	R CLASSROOM 64	20	1	900 VA	540 VA			1	20	R LVEIL TWO WEST MEZZANINE	8	R	
R	9	R CLASSROOM 65	20	1			900 VA	180 VA		1	20	D CO-OP 142	10	D
R	11	R CLASSROOM 65	20	1			900 VA	0 VA	1	20	SPARE	12	--	
D	13	D CLASSROOM 65	20	1	180 VA	0 VA			1	20	SPARE	14	--	
R	15	R CLASSROOM 65	20	1		540 VA	0 VA		1	20	SPARE	16	--	
R	17	R CLASSROOM 67	20	1			900 VA	0 VA	1	20	SPARE	18	--	
R	19	R CLASSROOM 67	20	1	900 VA	0 VA			--	--	SPACE	20	--	
D	21	D CLASSROOM 67	20	1		180 VA	0 VA		--	--	SPACE	22	--	
R	23	R CLASSROOM 67	20	1			540 VA	0 VA	--	--	SPACE	24	--	
R	25	R CLASSROOM 68	20	1	900 VA	0 VA			--	--	SPACE	26	--	
R	27	R CLASSROOM 68	20	1		900 VA	0 VA		--	--	SPACE	28	--	
D	29	D CLASSROOM 68	20	1			180 VA	0 VA	--	--	SPACE	30	--	
R	31	R CLASSROOM 68	20	1	540 VA	0 VA			--	--	SPACE	32	--	
--	33	SPARE	20	1		0 VA	0 VA		--	--	SPACE	34	--	
--	35	SPARE	20	1			0 VA	0 VA	--	--	SPACE	36	--	
--	37	SPARE	20	1	0 VA	0 VA			--	--	SPACE	38	--	
--	39	SPARE	20	1		0 VA	0 VA		--	--	SPACE	40	--	
--	41	SPARE	20	1			0 VA	0 VA	--	--	SPACE	42	--	
Total Connected Load (VA):					5400 VA	4320 VA	4140 VA							
Total Connected Current (A):					45	36	35							

L (125%) =  
R<10,000 (100%) = 10000 VA  
R>10,000 (50%) = 1480 VA  
RECEPT TOTAL = 11480 VA  
AW (ESTIMATED DEMAND) =  
AW DEMAND FACTOR =

H (100%) =  
Motor-LARGE (125%) = 0 VA  
Motor-OTHER (100%) = 0 VA  
MOTOR TOTAL =  
RW (ESTIMATED DEMAND) =  
RW DEMAND FACTOR =

Wh (100%) =  
K (65%) =  
D (100%) =  
D (800%) = 900 VA  
E (80%) =

Panel Totals

Total Conn. Load: 13860 VA

Total Conn. Current: 38 A

Total Demand Load: 12300 VA

Total Demand Current: 34 A

Notes:

L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP, A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP.  
AW = ARC WELDER, RW = RESISTIVE WELDER

PANEL: HC1

LOCATION: MECHANICAL 209

TYPE: Type 1

PHASE: 3

MOUNT: Surface

POLES: 42

VOLTAGE: 480Y/277V

WIRE: 4

SF MAINS: No

FEED TYPE: Bottom

400 A MCB

BUS

AIC...

LC	#	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	#	LC	
Other:													
1	PC1 VIA T4		225	3	8802 VA	1073 VA		1	20	L COOP 126	4	L	
3			--	--		8582 VA	1436 VA	1	20	L CLASSROOM 12	4	L	
5			--	--				1	20	L STORAGE 71	6	L	
7	L EXTERIOR BLDG MOUNTED - NORTH		20	1	330 VA	84 VA		1	20	L MECHANICAL 209	8	L	
9	SPARE		225	3		0 VA	0 VA	1	20	SPARE	10	--	
11			--	--				1	20	SPARE	12	--	
13			--	--	0 VA	0 VA		1	20	SPARE	14	--	
15	SPACE		--	--		0 VA	0 VA	1	20	SPARE	16	--	
17	SPACE		--	--				1	20	SPARE	18	--	
19	SPACE		--	--	0 VA	0 VA		--	--	SPACE	20	--	
21	SPACE		--	--		0 VA	0 VA	--	--	SPACE	22	--	
23	SPACE		--	--				0 VA	0 VA	--	SPACE	24	--
25	SPACE		--	--	0 VA	0 VA		--	--	SPACE	26	--	
27	SPACE		--	--		0 VA	0 VA	--	--	SPACE	28	--	
29	SPACE		--	--				0 VA	0 VA	--	SPACE	30	--
31	SPACE		--	--	0 VA	0 VA		--	--	SPACE	32	--	
33	SPACE		--	--		0 VA	0 VA	--	--	SPACE	34	--	
35	SPACE		--	--				0 VA	0 VA	--	SPACE	36	--
37	SPACE		--	--	0 VA	0 VA				--	SPACE	38	--
39	SPACE		--	--		0 VA	0 VA	3	30	SPD	40	--	
41	SPACE		--	--				0 VA	0 VA	--	--	--	
Total Connected Load (VA):					10289 VA	10018 VA	8182 VA						
Total Connected Current (A):					38	37	30						
<div><div><div>L (125%) = 3954 VA</div><div>R&lt;10,000 (100%) = 10000 VA</div><div>R&gt;10,000 (50%) = 2740 VA</div><div>RECEPTS TOTAL = 12740 VA</div><div>AW (ESTIMATED DEMAND) =</div><div>AW (DEMAND FACTOR) =</div></div><div><div>H (100%) =</div><div>Motor-LARGE (125%) = 1801 VA</div><div>Motor-OTHER (100%) = 6764 VA</div><div>MOTOR TOTAL = 6855 VA</div><div>RW (ESTIMATED DEMAND) =</div><div>RW (DEMAND FACTOR) =</div></div><div><div>WH (100%) =</div><div>K (65%) =</div><div>A (100%) =</div><div>D (100%) = 1080 VA</div><div>E (86%) =</div></div></div>													
										Panel Totals			
										Total Conn. Load: 29468 VA			
										Total Conn. Current: 34 A			
										Total Demand Load: 28960 VA			
										Total Demand Current: 32 A			

Notes:

L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP., A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP., AW = ARC WELDER, RW = RESISTIVE WELDER

PANEL: PC1			PHASE: 3		VOLTAGE: 208Y/120V			FEED TYPE: Bottom			225 A MCB	
LOCATION: MECHANICAL 209			MOUNT: Surface		WIRE: 4			BUS			AIC=	
TYPE: Type 1, Feed-thru-lugs			POLES: 48		SF MAINS: Yes							
LC	#	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	#	LC
Motor	1	EF-2	20	1	500 VA	480 VA		3	20	FCU-5	2	Motor
Motor	3	FCU-6	20	3		480 VA	480 VA		--	--	4	--
	5	--	--	--	--	--	480 VA	480 VA	--	--	6	--
	7	--	--	--	480 VA	480 VA		3	20	FCU-7	8	Motor
Motor	9	FCU-8	20	3		480 VA	480 VA		--	--	10	--
	11	--	--	--	--	--	480 VA	480 VA	--	--	12	--
	13	--	--	--	480 VA	480 VA		3	20	FCU-9	14	Motor
Other	15	CP-2	20	1		60 VA	480 VA		--	--	16	--
Other	17	FCU-11	20	1			500 VA	480 VA	--	--	18	--
	19	SPARE	20	3	0 VA	0 VA		3	20	SPARE	20	--
	21	--	--	--	--	0 VA	0 VA	--	--	--	22	--
	23	--	--	--	--	--	0 VA	0 VA	--	--	24	--
Motor	25	EF-3	20	1	500 VA	0 VA		1	20	SPARE	26	--
	27	SPACE	--	--	--	0 VA	0 VA	--	--	SPACE	28	--
	29	SPACE	--	--	--	--	0 VA	0 VA	--	SPACE	30	--
	31	SPACE	--	--	0 VA	0 VA		--	--	SPACE	32	--
	33	SPACE	--	--	--	0 VA	0 VA	--	--	SPACE	34	--
	35	SPACE	--	--	--	--	0 VA	0 VA	--	SPACE	36	--
	37	SPACE	--	--	0 VA	0 VA		3	30	SPD	38	--
	39	SPACE	--	--	--	0 VA	0 VA	--	--	--	40	--
	41	SPACE	--	--	--	--	0 VA	0 VA	--	--	42	--
	43	SPACE	--	--	0 VA	5400 VA		3	1	PC2	44	R; D
	45	SPACE	--	--	--	0 VA	6120 VA	--	--	--	46	--
	47	SPACE	--	--	--	--	0 VA	5040 VA	--	--	48	--
Total Connected Load (VA):					8802 VA	8582 VA	7942 VA					
Total Connected Current (A):					74	72	66					
										Panel Totals		
L (125%) =										H (100%) =		
R>10,000 (100%) = 10000 VA										K (65%) =		
R>10,000 (50%) = 2740 VA										A (100%) =		
RECEPTS TOTAL = 12740 VA										D (100%) = 1080 VA		
AW (ESTIMATED DEMAND) =										E (80%) =		
AW (DEMAND FACTOR) =												
<b>Notes:</b> L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP., A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP., AW = ARC WELDER, RW = RESISTIVE WELDER												

PANEL: PC2		PHASE: 3		VOLTAGE: 208Y/120V		FEED TYPE: Bottom		225 A MLO						
LOCATION: MECHANICAL 209		MOUNT: Surface		WIRE: 4				BUS						
TYPE: Type 1		POLES: 42		SF MAINS: No				AIC...						
LC	#	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	#	LC		
R	3	R CLASSROOM 69	20	1	1280 VA	180 VA		1	20	R CO-OP 74	2	R		
R	3	R CLASSROOM 69	20	1		900 VA	720 VA	1	20	R CO-OP 74	4	R		
D	5	D CLASSROOM 69	20	1			180 VA	1260 VA	1	20	R CO-OP 74	6	R	
R	7	R CLASSROOM 69	20	1	900 VA	360 VA		1	20	R CO-OP 74	8	R		
R	9	R CLASSROOM 70	20	1		900 VA	540 VA	1	20	R LEVEL TWO NORTH MEZZANINE	10	R		
R	11	R CLASSROOM 70	20	1			900 VA	180 VA	1	20	D CO-OP 1 126-1	12	D	
D	13	D CLASSROOM 70	20	1	180 VA	0 VA			1	20	SPARE	14	--	
R	15	R CLASSROOM 70	20	1		540 VA	0 VA		1	20	SPARE	16	--	
R	17	R CLASSROOM 126C	20	1			900 VA	0 VA	1	20	SPARE	18	--	
R	19	R CLASSROOM 126C	20	1	900 VA	0 VA			1	20	SPARE	20	--	
D	21	D CLASSROOM 126C	20	1		180 VA	0 VA		1	20	SPARE	22	--	
R	23	R CLASSROOM 126C	20	1			540 VA	0 VA	1	20	SPARE	24	--	
R	25	R CLASSROOM 11	20	1	900 VA	0 VA			--	--	SPACE	26	--	
R	27	R CLASSROOM 11	20	1		900 VA	0 VA		--	--	SPACE	28	--	
D	29	D CLASSROOM 11	20	1			180 VA	0 VA	--	--	SPACE	30	--	
R	31	R CLASSROOM 11	20	1	540 VA	0 VA			--	--	SPACE	32	--	
R	33	R CLASSROOM 12	20	1		900 VA	0 VA		--	--	SPACE	34	--	
R	35	R CLASSROOM 12	20	1			900 VA	0 VA	--	--	SPACE	36	--	
D	37	D CLASSROOM 12	20	1	180 VA	0 VA			--	--	SPACE	38	--	
R	39	R CLASSROOM 12	20	1		540 VA	0 VA		--	--	SPACE	40	--	
--	41	SPARE	20	1				0 VA	0 VA	--	--	SPACE	42	--
Total Connected Load (VA):					5400 VA	6120 VA	5040 VA							
Total Connected Current (A):					45	51	42							

L (125%) =  
R<10,000 (100%) = 10000 VA  
R<10,000 (50%) = 2740 VA  
RECEPT TOTAL = 12740 VA

AW (ESTIMATED DEMAND) =  
AW (DEMAND FACTOR) =

H (100%) =  
Motor-LARGE (125%) = 0 VA  
Motor-OTHER (100%) = 0 VA  
MOTOR TOTAL =  
RW (ESTIMATED DEMAND) =  
RW (DEMAND FACTOR) =

WH (100%) =  
K (85%) =  
A (100%) =  
D (100%) = 1080 VA  
E (80%) =

Panel Totals	
Total Conn. Load:	18560 VA
Total Conn. Current:	46 A
Total Demand Load:	13620 VA
Total Demand Current:	38 A

**Notes:** L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP., A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP., AW = ARC WELDER, RW = RESISTIVE WELDER



	REVISIONS	DATE







PANEL: 2M2 EXISTING		3 PH		4 WIRE		VOLTAGE: 208Y/120V		225A MCB						
LOC: ART SUPPLY 157		MOUNT: SURFACE		FEED: BOTTOM										
TYPE: NEMA 1		POLES: 42		SF MAINS: NO				225A AIC MINIMUM						
LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR. P	BRKR AMP	A	B	C	CIR. P	BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
MO	1320	IRRIG. PUMP (3 HP)	1	3		2712			1	20	2	EF - 16,17	1392	MO
MO	1320	-	3				2256		3		4	EF - 18	936	MO
MO	1320	-	5		25			2256			6	-	936	MO
MO	5110	FC-22	7	3		6046				20	8	-	936	MO
MO	5110	-	9				5974		1	20	10	EF - 19	864	MO
MO	5110	-	11		60			5190	1	20	12	EF - 22	80	MO
ML	5243	FC-21	13	3		7871			1	45	14	MUA - 1	2628	H
ML	5243	-	15				5243		1	20	16	SPARE		
ML	5243	-	17		60			5243	1	20	18	SPARE		
WH	600	WH-2	19	1	20	600			1	20	20	SPARE		
D	500	IRRIG. HEATER	21	1	20		500		1	20	22	SPARE		
H	2000	UH-1	23	1	30			2000	1	20	24	SPARE		
H	1000	UH-2	25	1	20	1000			1	20	26	SPARE		
H	1000	UH-3	27	1	20		1000		1	20	28	SPARE		
H	800	F-1	29	1	20			800	1	20	30	SPARE		
WH	2250	WH-3	31	2		2250					32	SPACE		
WH	2250	-	33		30		2250				34	SPACE		
		SPARE	35	1	20						36	SPACE		
		SPARE	37	1	20						38	SPACE		
		SPARE	39	1	20						40	SPACE		
		SPARE	41	1	20						42	SPACE		
	45419	TOTAL	THIS PANEL->			20479	17223	15489				TOTAL	7772	
						20479	17223	15489						
LIGHTING(125%) = 0.00 RECEPTS<=10000(100%) = 0.00 RECEPTS<=10000(50%) = 0.00 RECEPTS TOTAL = 0.00 ELECTRIC HEAT(100%) = 7428.00 LARGEST MOTOR(125%) = 0.00 OTHER MOTORS(100%) = 40163.00 MOTOR TOTAL = 40163.00 WATER HEATERS(100%) = 5100.00 KITCHEN LOADS(65%) = 0.00 APPLIANCES(100%) = 0.00 DEDICATED(100%) = 500.00 MISC(100%) = 0.00 TOTAL CONNECTED LOAD (VA): 53,191.00 TOTAL CONNECTED CURRENT (A): 147.64 TOTAL DEMAND LOAD (VA): 53,191.00 TOTAL DEMAND CURRENT (A) 147.64														
NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED														

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PANEL: 2M2 REVISED			3 PH		4 WIRE		VOLTAGE: 208Y/120V				225A MCB			
LOC: ART SUPPLY 157			MOUNT: SURFACE				FEED: BOTTOM							
TYPE: NEMA 1			POLES: 42				SF MAINS: NO				225A AIC MINIMUM			
LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR. P	BRKR AMP	A	B	C	CIR. P	BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
MO	1320	IRRIG. PUMP (3 HP)	1	3		2712			1	20	2	EF - 16,17	1392	MO
MO	1320	-	3				2256		3		4	EF - 18	936	MO
MO	1320	-	5		25			2256			6	-	936	MO
MO	5110	FC-22	7	3		6046				20	8	-	936	MO
MO	5110	-	9				5974		1	20	10	EF - 19	864	MO
MO	5110	-	11		60			5190	1	20	12	EF - 22	80	MO
ML	5243	FC-21	13	3		7871			1	45	14	MUA - 1	2628	H
ML	5243	-	15				7007		3		16	BP-1A, BP-1B	1764	MO
ML	5243	-	17		60			7007			18	-	1764	MO
WH	600	WH-2	19	1	20	2364				20	20	-	1764	MO
D	500	IRRIG. HEATER	21	1	20		500		1	20	22	SPARE		
H	2000	UH-1	23	1	30			2000	1	20	24	SPARE		
H	1000	UH-2	25	1	20	1000			1	20	26	SPARE		
H	1000	UH-3	27	1	20		1000		1	20	28	SPARE		
H	800	F-1	29	1	20			800	1	20	30	SPARE		
WH	2250	WH-3	31	2		2250					32	SPACE		
WH	2250	-	33		30		2250				34	SPACE		
		SPARE	35	1	20						36	SPACE		
		SPARE	37	1	20						38	SPACE		
		SPARE	39	1	20						40	SPACE		
		SPARE	41	1	20						42	SPACE		
	45419	TOTAL	THIS PANEL->			22243	18987	17253				TOTAL	13064	
						22243	18987	17253				TOTAL CONNECTED LOAD (VA): 58,483.00		
												TOTAL CONNECTED CURRENT (A): 162.33		
												TOTAL DEMAND LOAD (VA): 58,483.00		
												TOTAL DEMAND CURRENT (A) 162.33		
NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED														

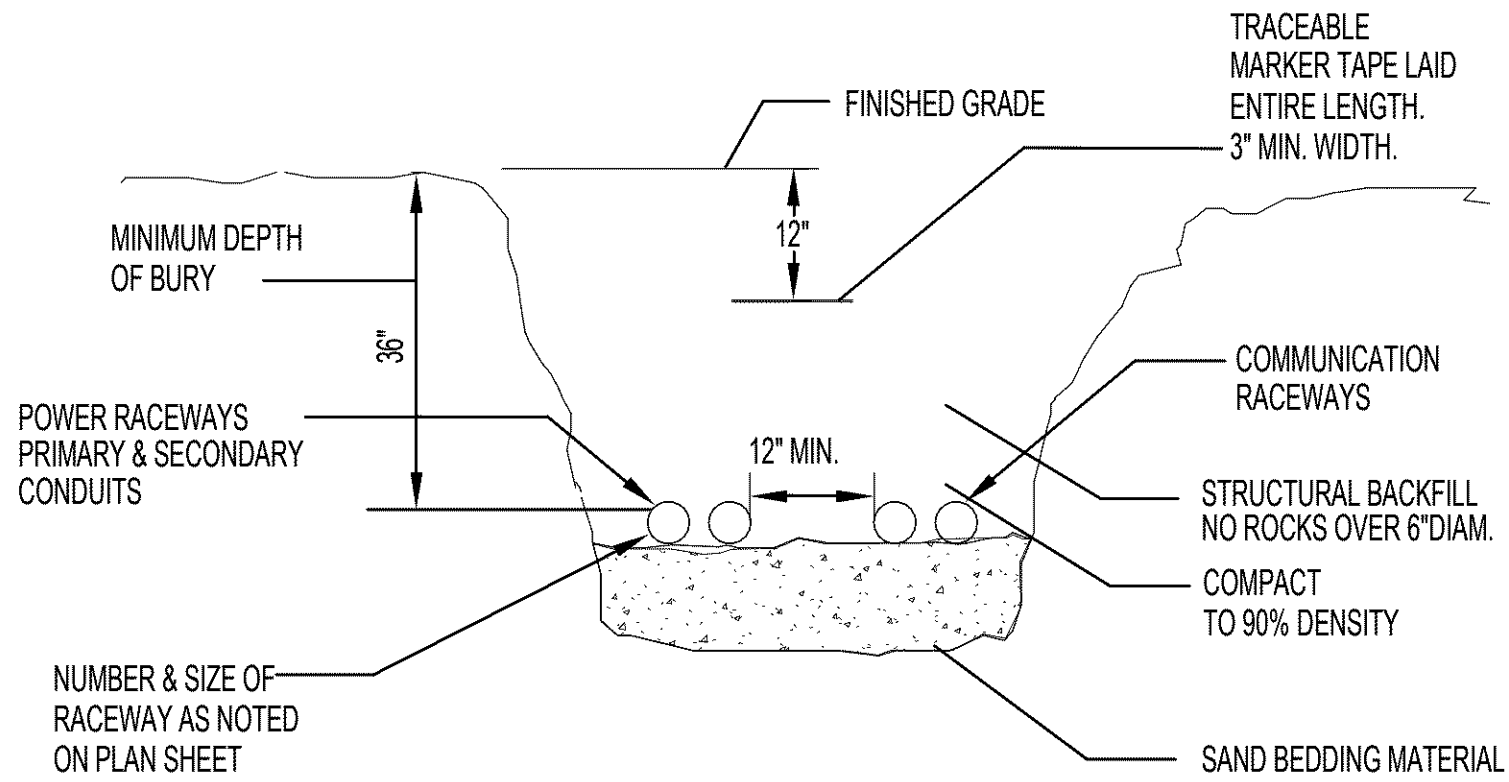
PANEL: 4C1 EXISTING		3 PH		4 WIRE		VOLTAGE: 480Y/277V						225A MLO		
LOC: ATTIC SECTOR @		MOUNT: SURFACE				FEED: BOTTOM								
TYPE: NEMA 1		POLES: 42				SF MAINS: NO						225A AIC MINIMUM		
LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR. P	BRKR AMP	A	B	C	CIR. P	BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
MO	3873	P-2	1	3		4451			1	20	2	EXT BUILDING LIGHT	578	L
MO	3873	-	3				7392		1	20	4	LIGHTING	3519	L
MO	3873	-	5		30			5605	1	20	6	LIGHTING	1732	L
MO	3071	P-3	7	3		4178			1	20	8	LIGHTING	1107	L
MO	3071	-	9				5019		1	20	10	LIGHTING	1948	L
MO	3071	-	11		30			6047	1	20	12	LIGHTING	2976	L
MO	3071	P-1	13	3		6047			1	20	14	LIGHTING	2976	L
MO	3071	-	15				4950		1	20	16	LIGHTING	1879	L
MO	3071	-	17		30			3071	1	20	18	SPARE		
		SPARE	19	1	20	882			1	20	20	EXT BUILDING LIGHT	882	L
			21	1	20		504		1	20	22	EXT BUILDING LIGHT	504	L
		SPARE	23	1	20			1674	1	20	24	EXT BUILDING LIGHT	1674	L
		SPACE	25			2760			1	20	26	LIGHTING - SITE	2760	L
		SPACE	27				3155		1	20	28	LIGHTING - SITE	3155	L
		SPACE	29					1638	1	20	30	EXT BUILDING LIGHT	1638	L
		SPACE	31						1	20	32	SPARE		
		SPACE	33						1	20	34	SPARE		
		SPACE	35						1	20	36	SPARE		
X	17618	4A1	37	3		17618					38	SPACE		
X	21716	-	39				21716				40	SPACE		
X	23676	-	41		125			23676			42	SPACE		
	93055	TOTAL	THIS PANEL->			35936	42736	41711	TOTAL			27328		
LIGHTING(125%) = 68308.75						35936	42736	41711	TOTAL CONNECTED LOAD (VA): 120,383.00					
RECEPTS<=10000(100%) = 0.00						LARGEST MOTOR(125%) = 14523.75			KITCHEN LOADS(65%) = 0.00			TOTAL CONNECTED CURRENT (A): 144.80		
RECEPTS>10000(50%) = 0.00						OTHER MOTORS(100%) = 54117.00			APPLIANCES(100%) = 0.00					
RECEPTS TOTAL = 0.00						MOTOR TOTAL = 68640.75			DEDICATED(100%) = 0.00			TOTAL DEMAND LOAD (VA): 136,949.50		
ELECTRIC HEAT(100%) = 0.00						WATER HEATERS(100%) = 0.00			MISC(100%) = 0.00			TOTAL DEMAND CURRENT (A) 164.72		
NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED														

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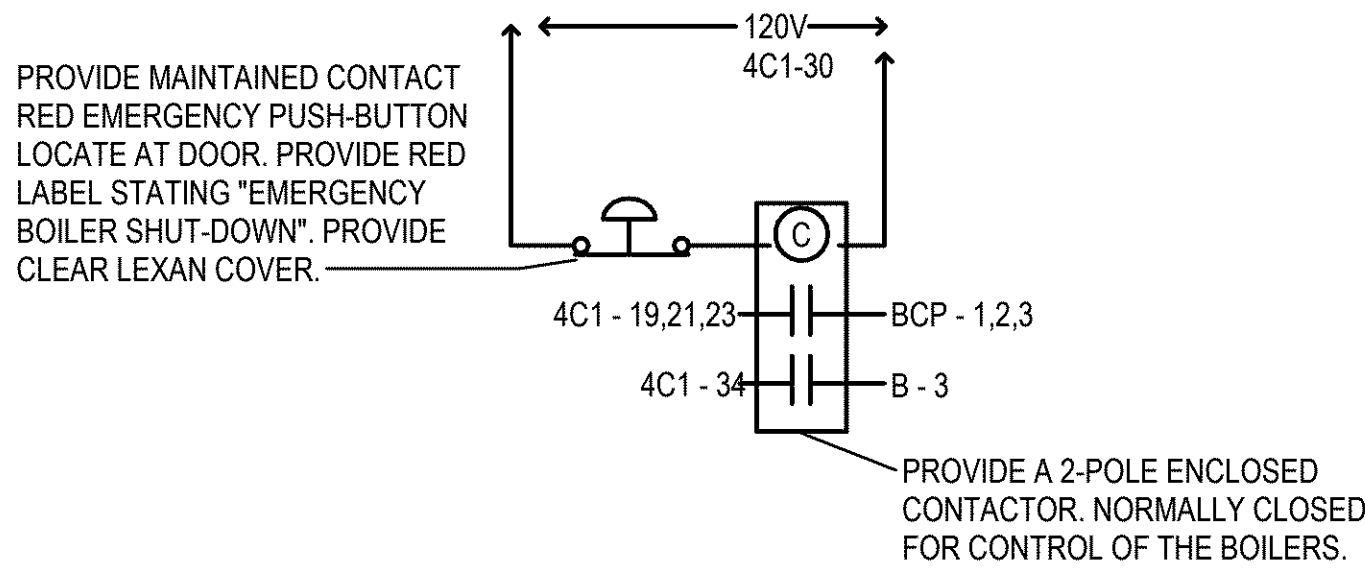
LOAD TYPE	PANEL: 4C1 REVISED		3 PH		4 WIRE		VOLTAGE: 480Y/277V		225A MLO		LOAD TYPE				
	LOC:		MOUNT: SURFACE		FEED: BOTTOM		SF MAINS: NO		AIC MINIMUM						
	TYPE: NEMA 1		POLES: 42												
LOAD	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR. P	BRKR AMP	A	B	C	CIR. P	BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE	
MO	3718	P-2	1	3	40	4296			1	20	2	EXT BUILDING LIGHT	578	L	
MO	3718	-	3				7237			1	20	4	LIGHTING	3519	L
MO	3719	-	5					5451		1	20	6	LIGHTING	1732	L
MO	3718	P-3	7	3	40	4825			1	20	8	LIGHTING	1107	L	
MO	3718	-	9				5666			1	20	10	LIGHTING	1948	L
MO	3719	-	11					6695		1	20	12	LIGHTING	2976	L
MO	3071	P-1	13	3	30	6047			1	20	14	LIGHTING	2976	L	
MO	3071	-	15				4950			1	20	16	LIGHTING	1879	L
MO	3071	-	17					3071		1	20	18	SPARE		
MO	1223	BCP-1, 2, 3	19	3	20	2105			1	20	20	EXT BUILDING LIGHT	882	L	
MO	1223	-	21				1727			1	20	22	EXT BUILDING LIGHT	504	L
MO	1224	-	23					2898		1	20	24	EXT BUILDING LIGHT	1674	L
		SPACE	25			2760			1	20	26	LIGHTING - SITE	2760	L	
		SPACE	27				3155		1	20	28	LIGHTING - SITE	3155	L	
		SPACE	29				1638		1	20	30	EXT BUILDING LIGHT	1638	L	
		SPACE	31			120			1	20	32	CP-1,2	120	MO	
		SPACE	33				660		1	20	34	B-3	660	MO	
		SPACE	35						1	20	36	SPARE			
X	17618	4A1	37	3	125	17618					38	SPACE			
X	21716	-	39				21716					40	SPACE		
X	23676	-	41					23676				42	SPACE		
	98203	TOTAL	THIS PANEL->			37771	45111	43429				TOTAL	28108		
						37771	45111	43429							
LIGHTING(125%) = 68308.75						LARGEST MOTOR(125%) = 14523.75			KITCHEN LOADS(65%) = 0.00						
RECEPTS<=10000(100%) = 0.00						OTHER MOTORS(100%) = 60045.00			APPLIANCES(100%) = 0.00						
RECEPTS>10000(50%) = 0.00						MOTOR TOTAL = 74568.75			DEDICATED(100%) = 0.00						
RECEPTS TOTAL = 0.00						WATER HEATERS(100%) = 0.00			TOTAL CONNECTED LOAD (VA): 126,311.00						
ELECTRIC HEAT(100%) = 0.00									TOTAL DEMAND LOAD (VA): 142,877.50						
									TOTAL DEMAND CURRENT (A) 171.85						
NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED															



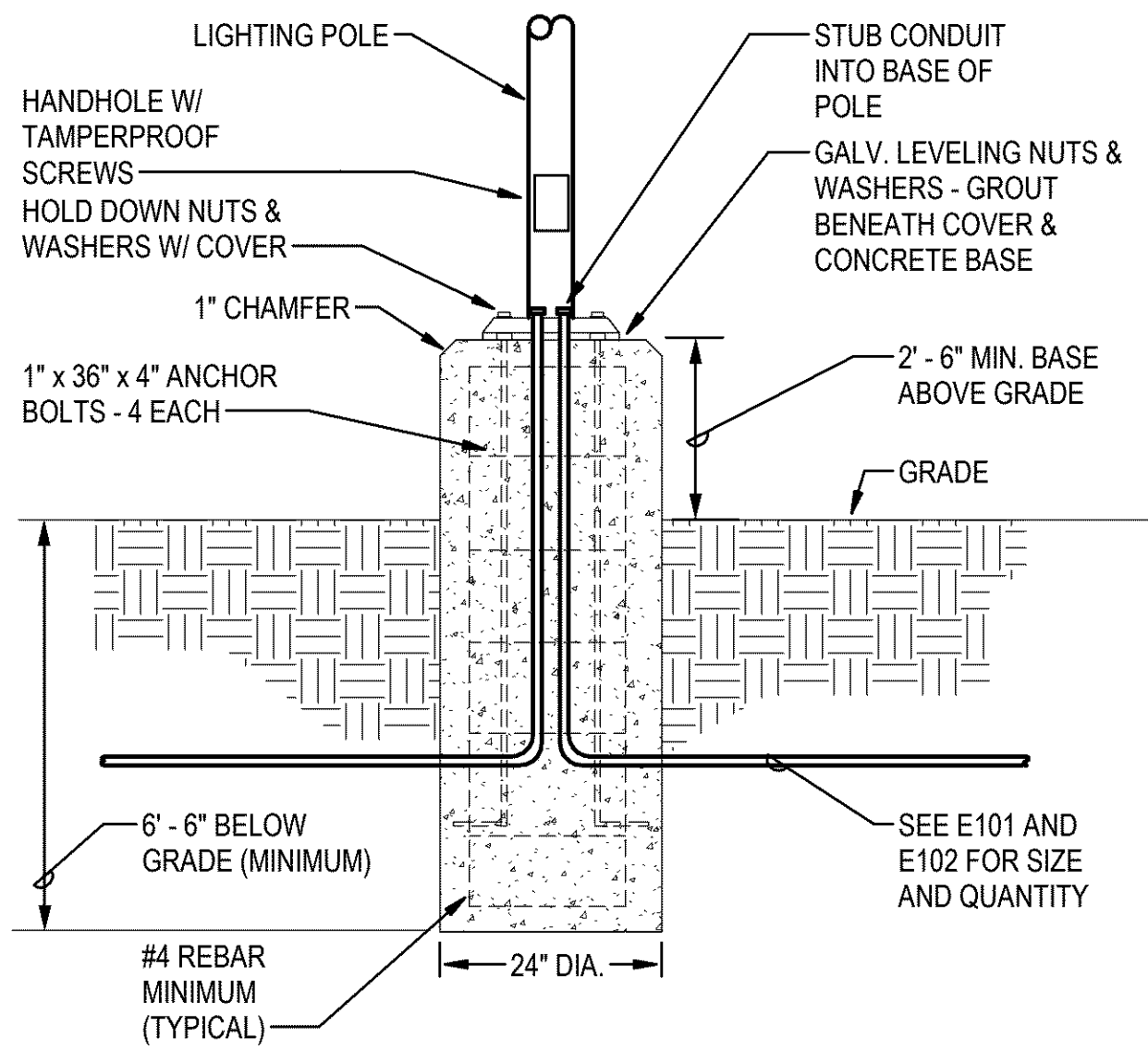
1 DIRECT BURIAL MULTI-RACEWAY DETAIL  
DIAGRAMMATIC



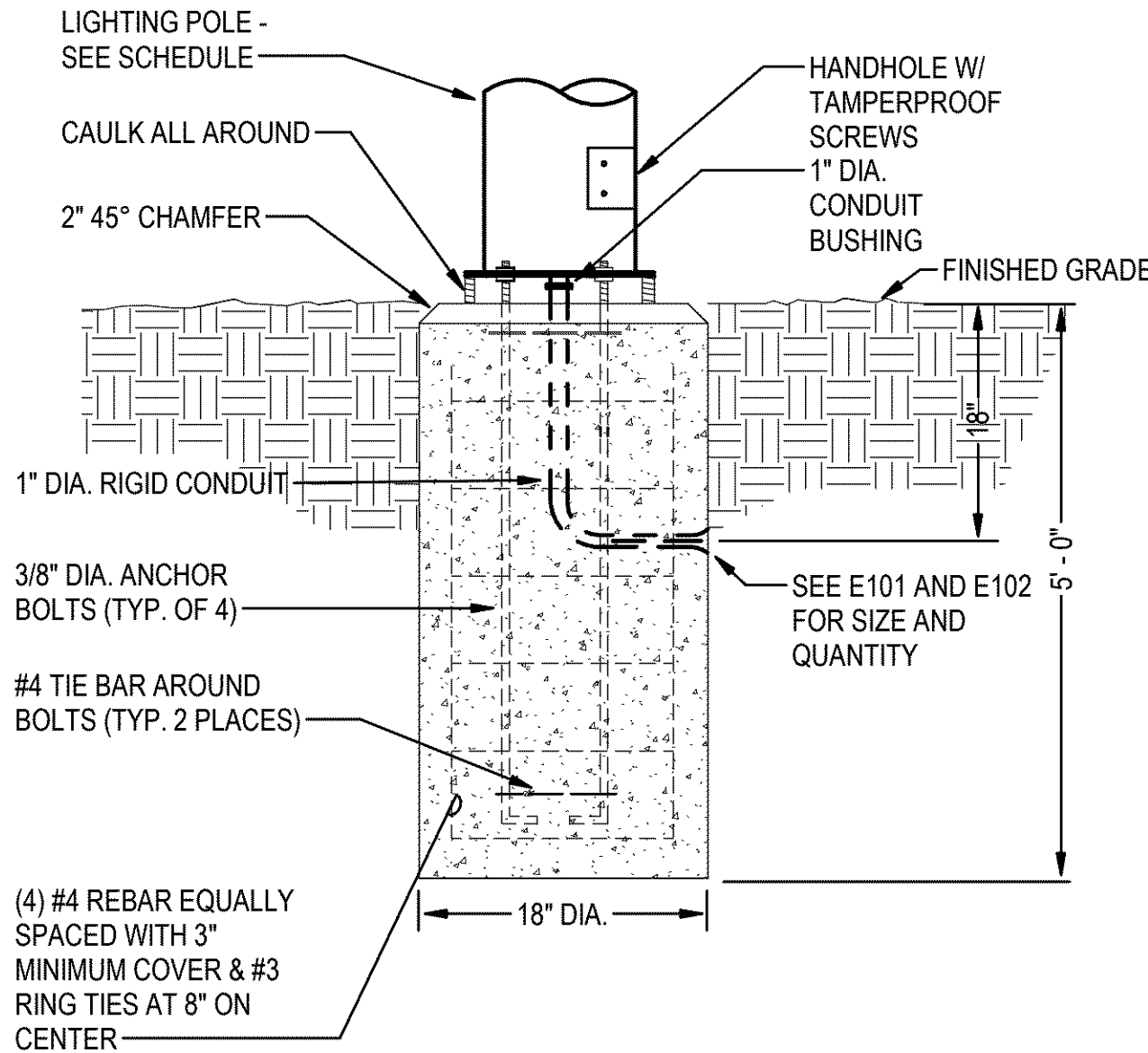
2 BOILER SHUT OFF DIAGRAM  
DIAGRAMMATIC



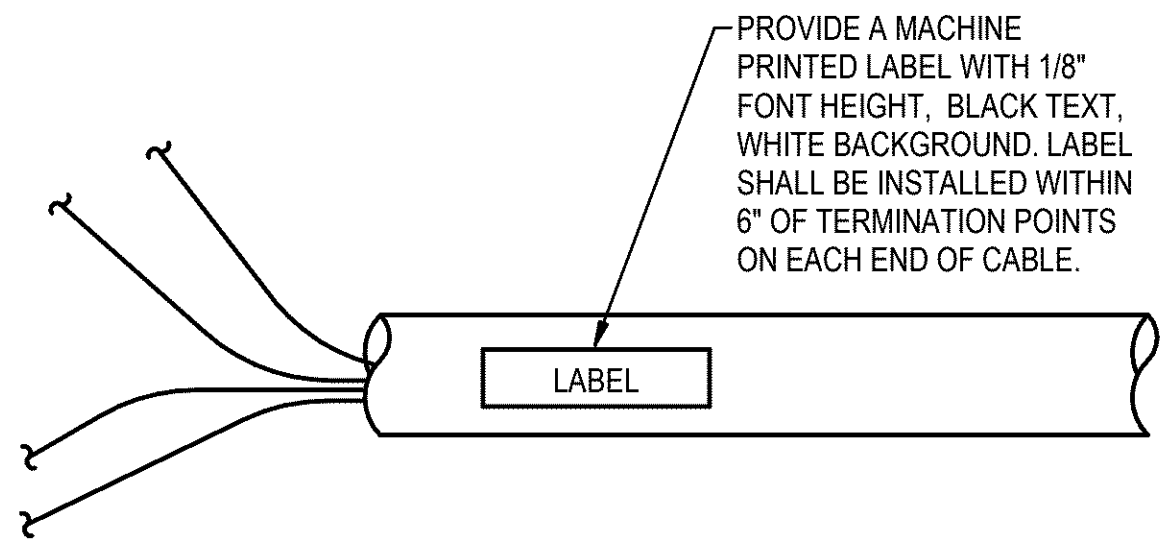
3 POLE BASE DETAIL - AL1  
DIAGRAMMATIC



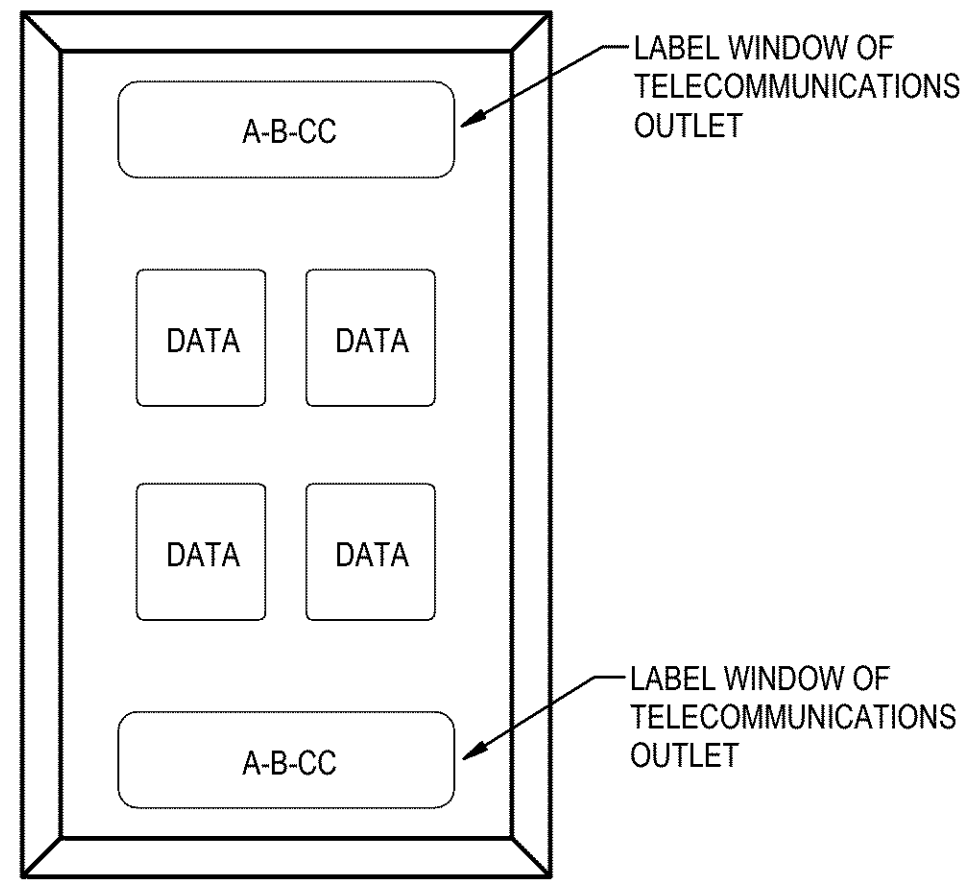
4 FLUSH CONCRETE POLE BASE - AL2  
DIAGRAMMATIC



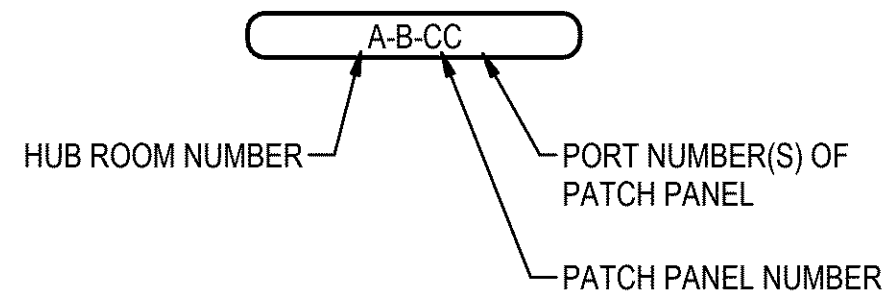




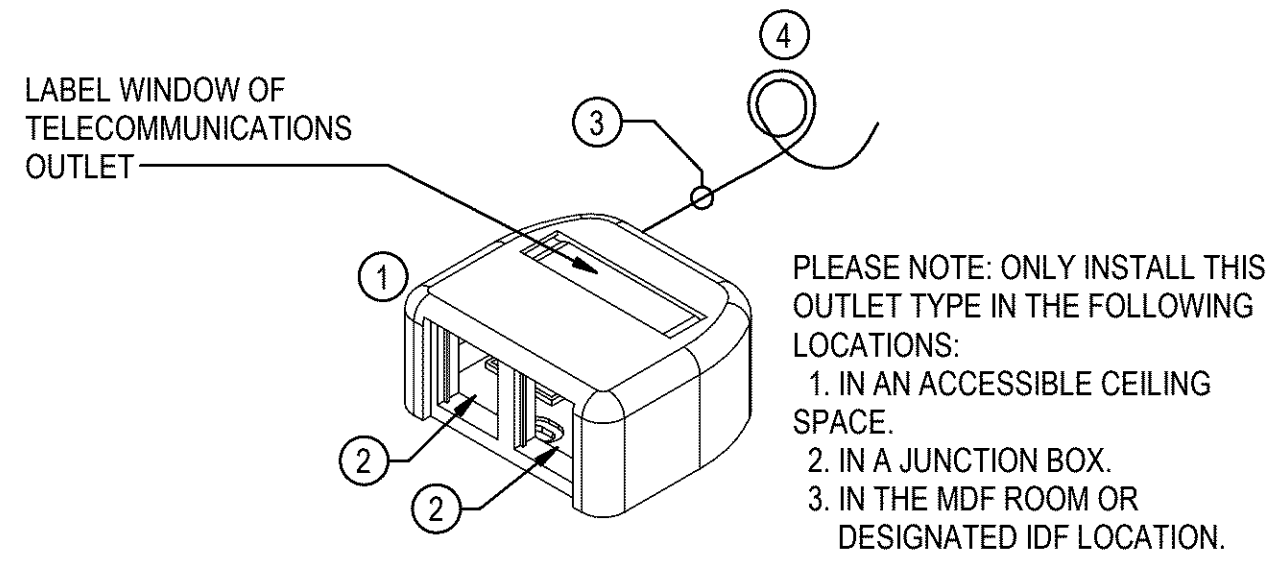
1 TYPICAL HORIZONTAL CABLE LABELING  
NTS



2 TYPICAL TELECOMM OUTLET LABELING  
NTS



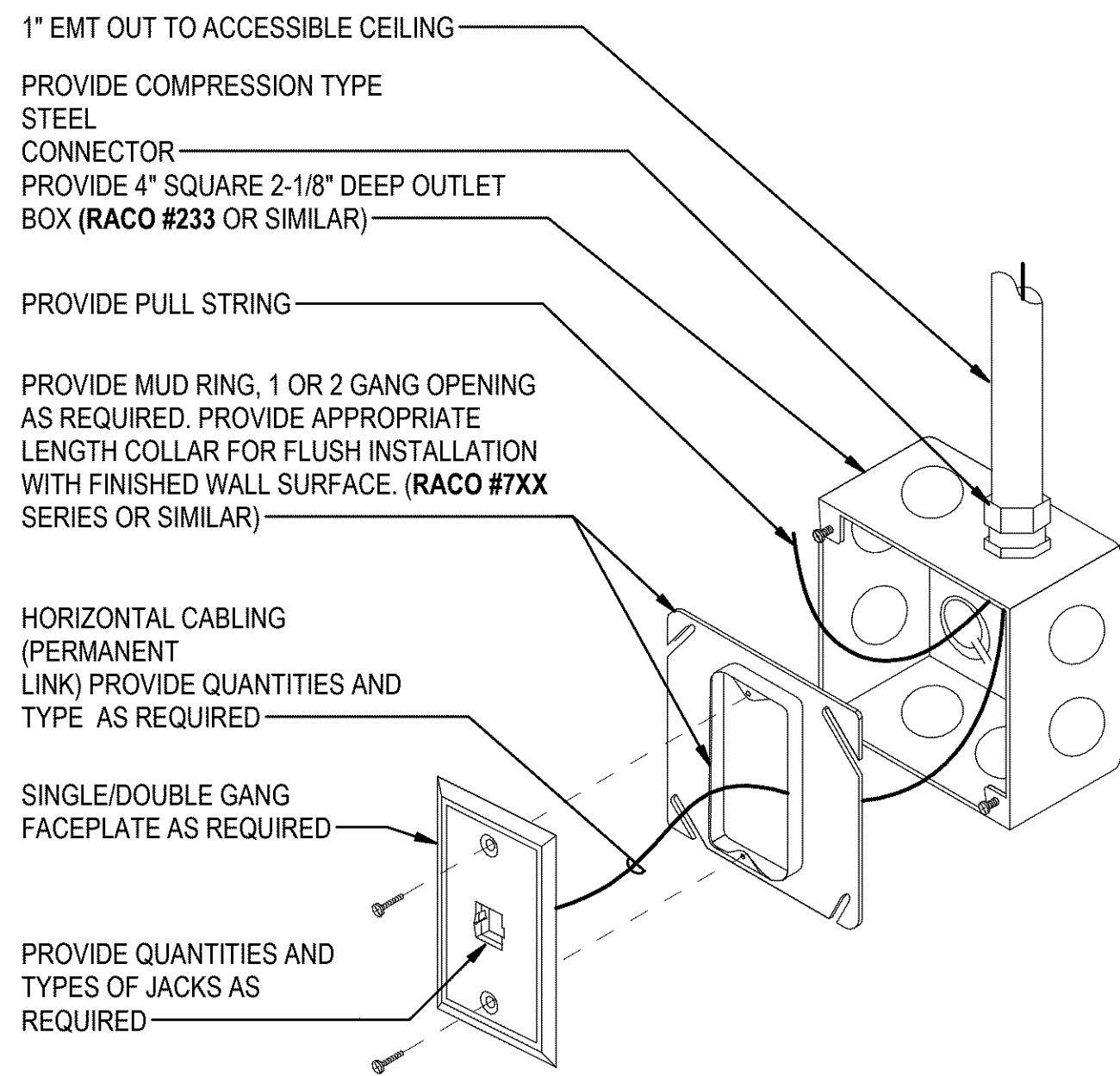
3 TELECOMMUNICATIONS OUTLET LABEL IDENTIFICATION FORMAT  
NTS



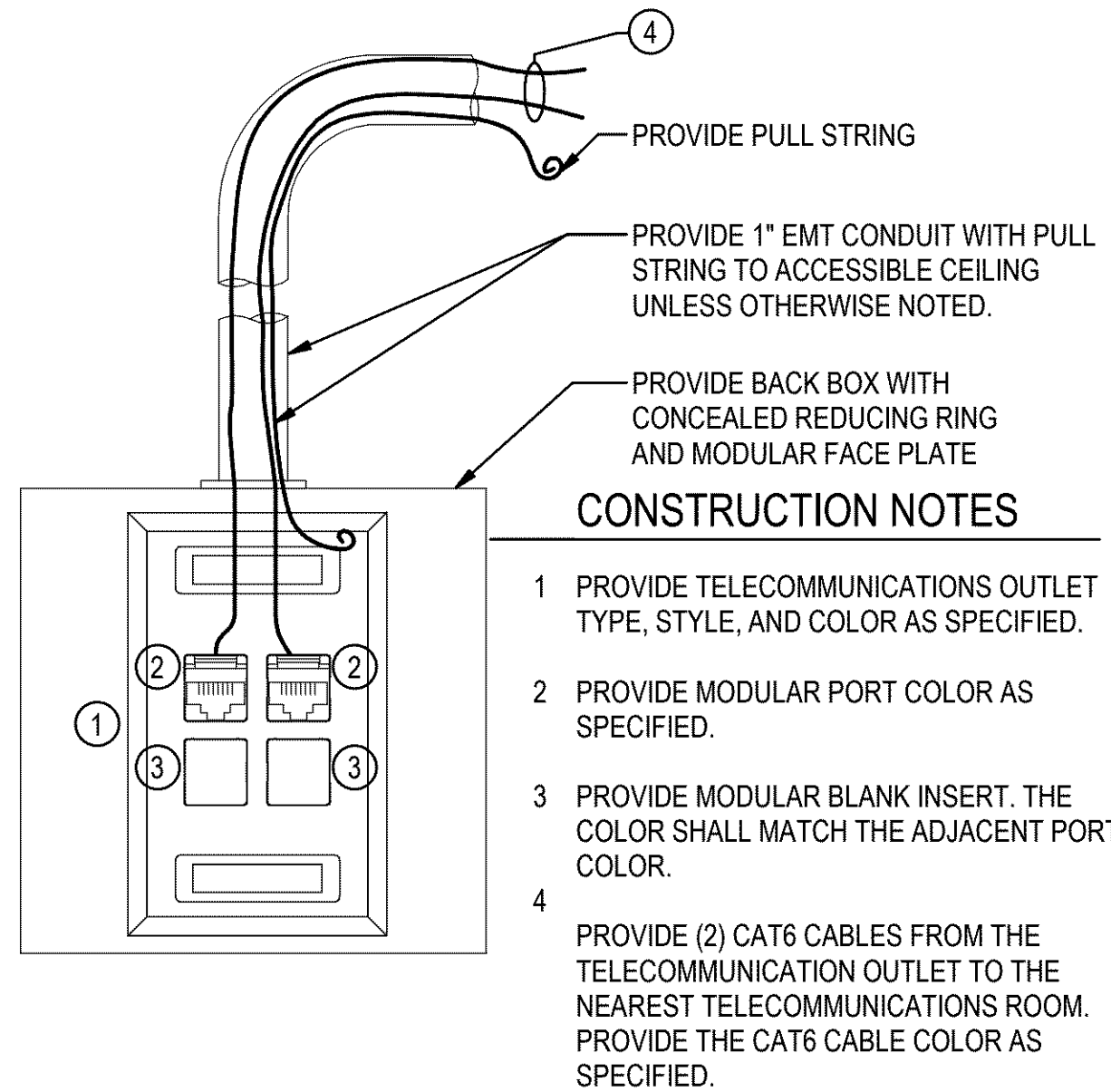
CONSTRUCTION NOTES

1. PROVIDE TELECOMMUNICATIONS OUTLET TYPE, STYLE, AND COLOR AS SPECIFIED.
2. PROVIDE MODULAR PORT COLOR AS SPECIFIED.
3. PROVIDE (2) CAT6A CABLES FROM THE TELECOMMUNICATION OUTLET TO THE NEAREST TELECOMMUNICATIONS ROOM. PROVIDE THE CAT6 CABLE COLOR AS SPECIFIED.
4. PROVIDE A 25 FOOT SERVICE LOOP IN THE ACCESSIBLE CEILING SPACE, UNLESS OTHERWISE NOTED.

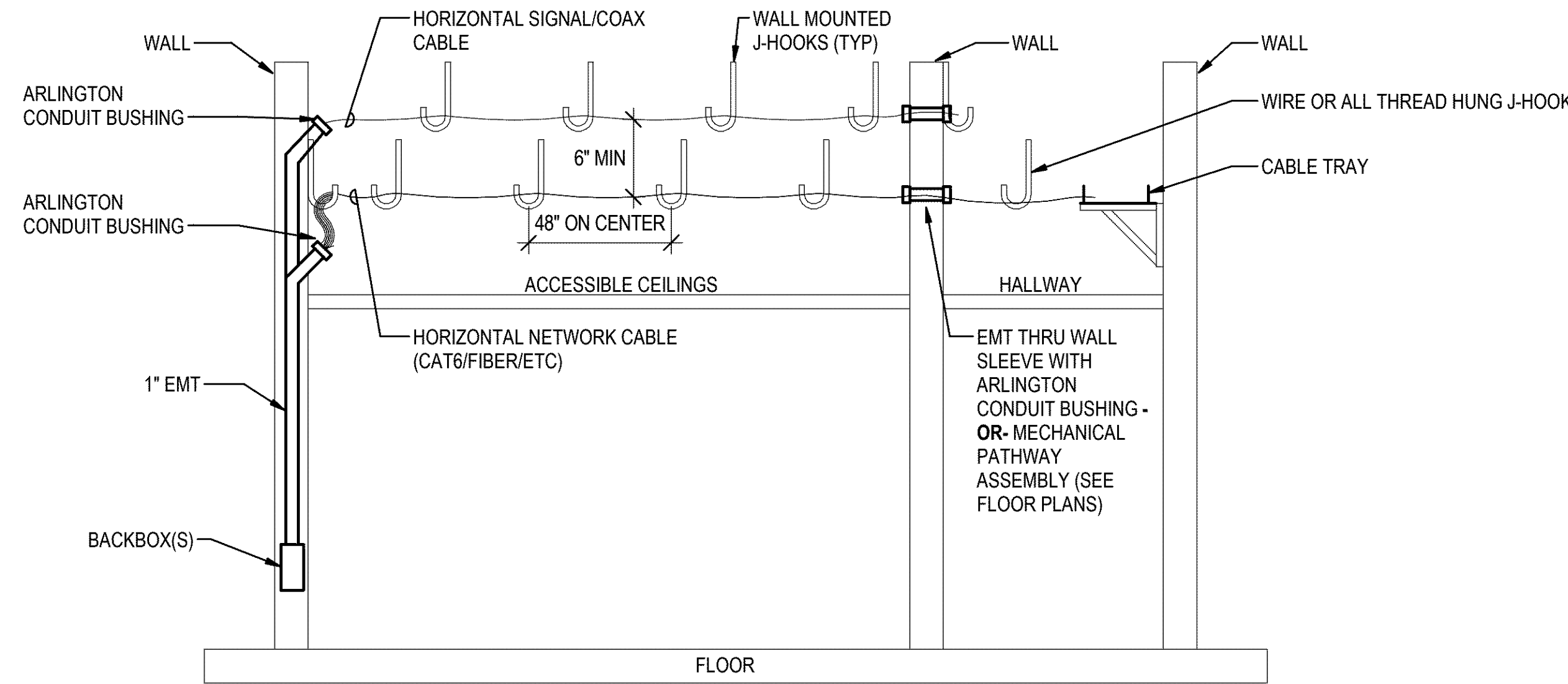
4 TYPICAL TELECOMMUNICATIONS OUTLET (ACCESSIBLE CEILING SPACE)  
NTS



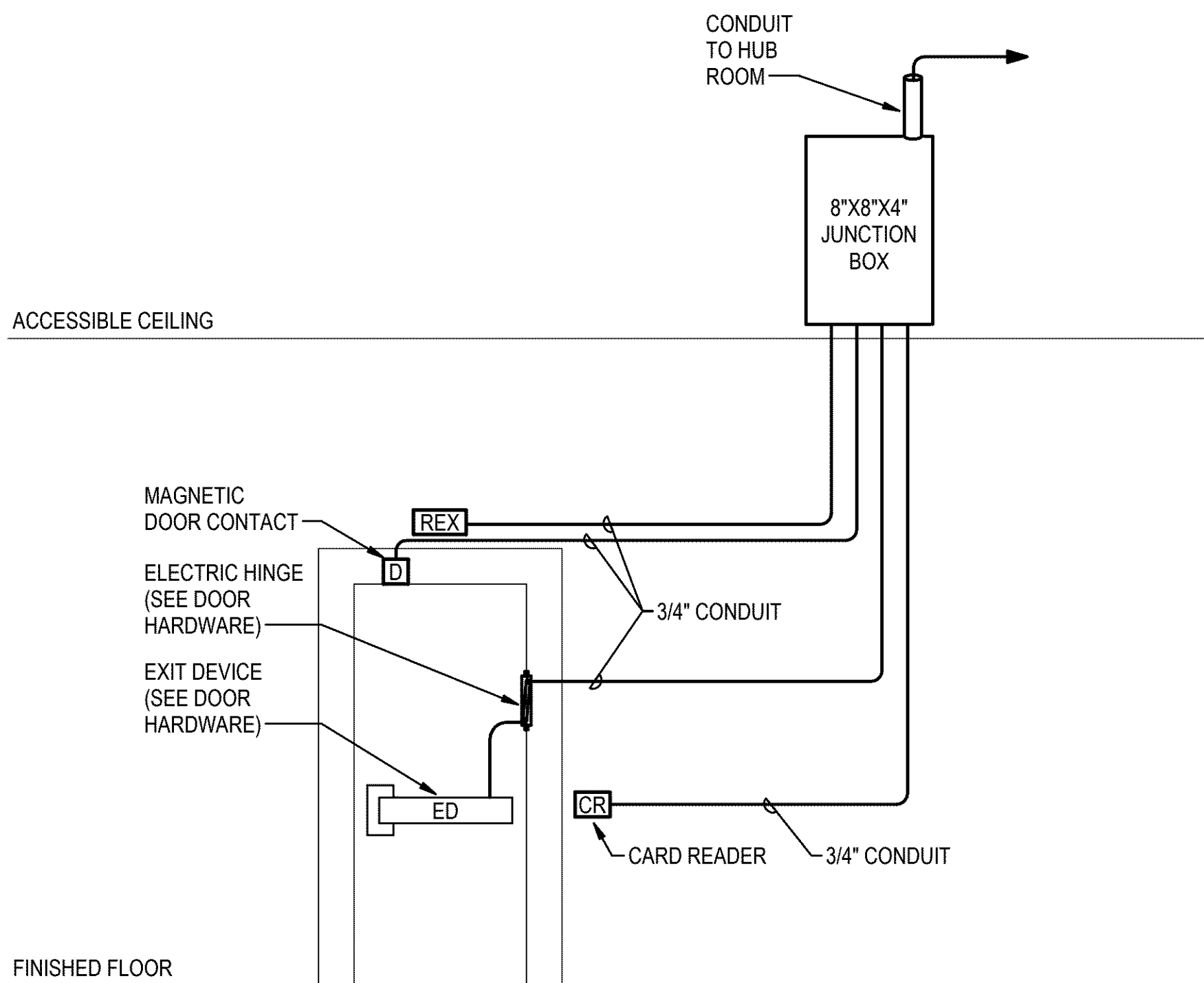
5 TELECOMMUNICATIONS OUTLET INSTALLATION DETAIL (4/S")  
NTS



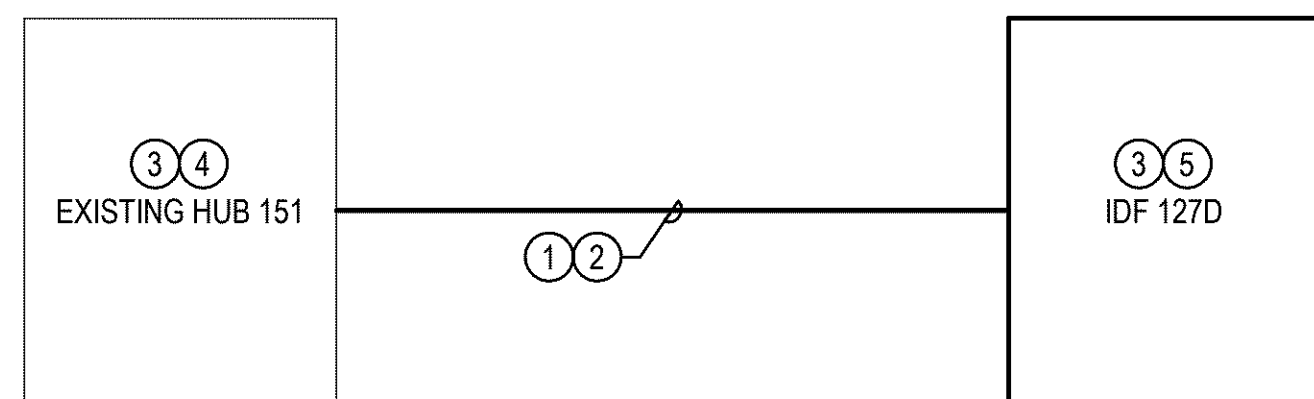
6 TYPICAL TELECOMMUNICATIONS OUTLET (2-PORT)  
NTS



7 J-HOOK AND CABLE TRAY SECTION DETAIL  
NTS



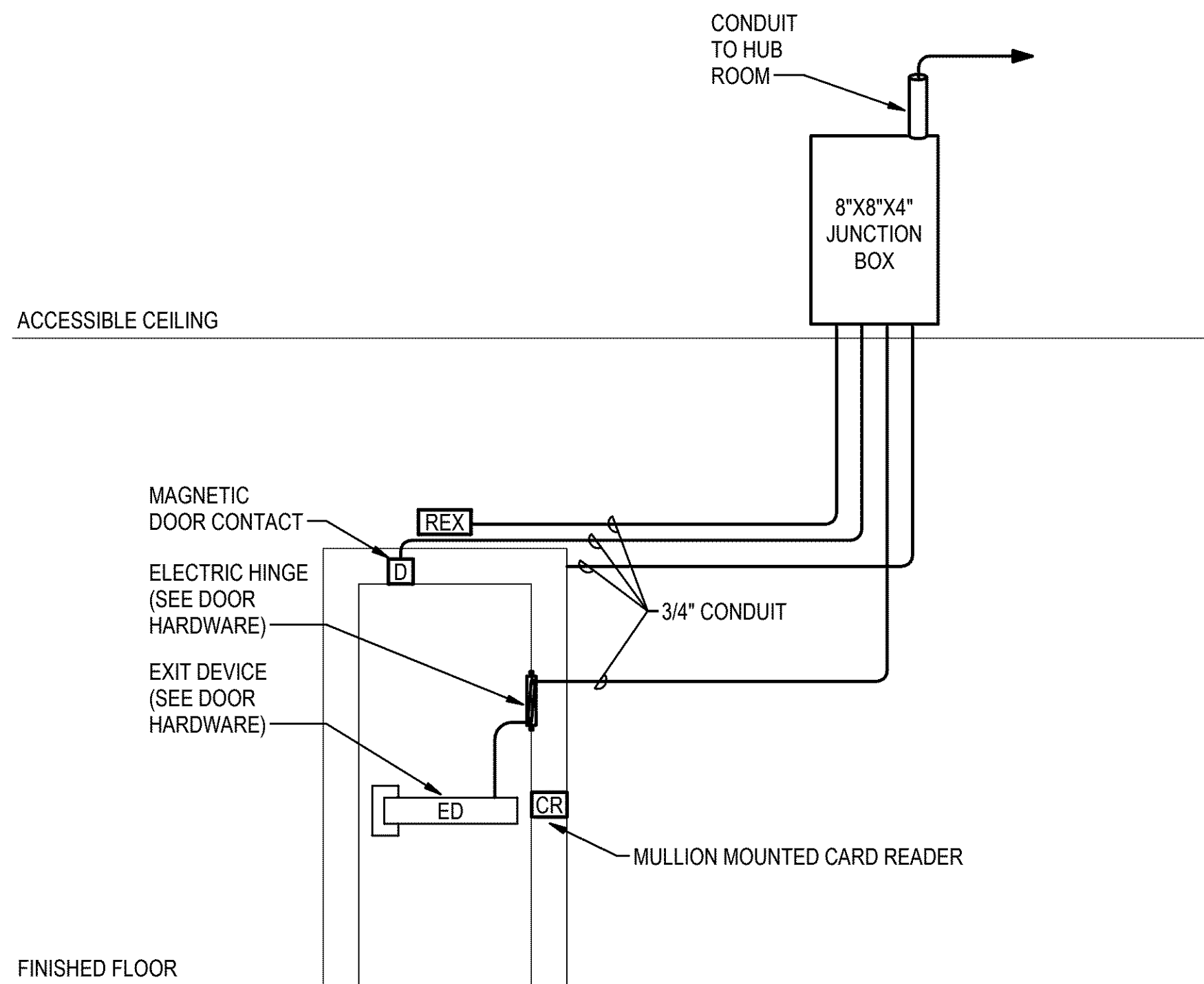
8 ACCESS CONTROL DOOR HARDWARE FOR ROUGH IN  
NTS



RISER DIAGRAM CONSTRUCTION NOTES

1. PROVIDE (1) 6-STRAND OS1 SINGLE MODE FOC. TERMINATE BOTH ENDS WITH LC STYLE CONNECTORS.
2. PROVIDE (3) CAT 6 CABLES FOR ANALOG PHONES. TERMINATE (1) PAIR PER PATCH PANEL PORT IN HUB ROOM 151 AND IDF 127D.
3. PROVIDE NEW PATCH PANELS.
4. PROVIDE NEW RACK-MOUNT 1RU FIBER LIU FOR NEW FOC.
5. PROVIDE NEW WALL-MOUNT FIBER LIU. SEE E4.01 DETAIL # 5 FOR ADDITIONAL INFORMATION.

9 TELECOMMUNICATIONS RISER DIAGRAM  
NTS



10 ACCESS CONTROL DOOR HARDWARE FOR ROUGH IN - STOREFRONT MULLION  
NTS



GENERAL NOTES

1. THESE PLANS DELINEATE THE BASIC SCOPE OF WORK FOR THE REMOVAL OF EXISTING MATERIAL. THE DEMOLITION DRAWINGS AND NOTES ARE PROVIDED WITH THE INTENT TO GENERALLY DESCRIBE AREAS AND LIMITS OF WORK. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SITE AND CONDITIONS THERE ON; AND SHALL NOT RELY SOLELY ON REVIEW OF THE BIDDING DOCUMENTS IN DETERMINING THE EXTENT OF DEMOLITION WORK REQUIRED. COORDINATION OF THESE DRAWINGS WITH REQUIREMENTS FOR CONTRACT WORK IS THE RESPONSIBILITY OF THE CONTRACTOR. DISCREPANCIES BETWEEN OR WITHIN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL PROVIDE CLARITY SKETCHES, DIAGRAMS, AND FIELD DIMENSIONS OF EXISTING CONDITIONS AT THE REQUEST OF THE ENGINEER IF/WHEN CONFLICTS ARE IDENTIFIED.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH NECESSARY DEMOLITION TO ALLOW NEW CONSTRUCTION SHOWN IN CONTRACT DOCUMENTS. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE ALL EXISTING RECEPTACLES, LIGHTING FIXTURES, DEVICES, ABANDONED RACEWAYS, CONDUCTORS, TOGETHER WITH ANY AUXILIARY ITEMS TO ALLOW NEW CONSTRUCTION AND FINISH TO OCCUR AS COMPLEMENTED BY THE CONTRACT DOCUMENTS. DASHED LINES INDICATE EXISTING DEVICES AND EQUIPMENT TO BE REMOVED.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR FOR ALL CUTTING, PATCHING AND FINISH WORK.
4. ELECTRICAL CONTRACTOR SHALL REMOVE ELECTRICAL CONNECTIONS TO ALL MECHANICAL EQUIPMENT TO BE DEMOLISHED. ELECTRICAL CONTRACTOR SHALL CHECK MECHANICAL DEMOLITION PLANS FOR UNIT LOCATIONS. ALL CONDUIT THROUGH ROOF AND ACCESSIBLE CONDUIT SHALL BE REMOVED.
5. FOR THIS SHEET ONLY, UNLESS NOTED OTHERWISE DISCONNECT AND REMOVE ALL DEVICES INDICATED. MAINTAIN CONTINUITY OF ALL REMAINING DEVICES & EQUIPMENT. PROVIDE JUNCTION BOXES, CONDUIT AND WIRE TO EXTEND EXISTING CIRCUITS AS REQUIRED.
6. ALL EXISTING SECURITY SYSTEM DEVICES MUST BE KEPT INTACT AND OPERATIONAL. ALL DEVICES THAT REQUIRE RELOCATION TO FACILITATE NEW WORK MUST BE RE-ROUTED AND RECONNECTED TO MAINTAIN OPERATION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MOVE, STORE AND PROTECT ALL EQUIPMENT THAT IS TO BE RETAINED.
8. SEE SHEET E1.01 AND E6.01 FOR MORE INFORMATION.

DEMOLITION NOTES

- ① COMPLETELY DEMOLISH ALL EXISTING LIGHTING FIXTURES WITHIN THIS SPACE.
- ② EXISTING LIGHTING FIXTURES TO REMAIN.

**bassetti**  
*architects*

71 Columbia Street, Suite 500  
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CIVIL ENGINEER  
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STRUCTURAL ENGINEER  
PCS Structural Solutions  
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101 SW Main Street, Suite 280  
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MECHANICAL ENGINEER  
BCE Engineers  
6021 12th St E, Suite 200  
Fife, WA 98424  
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ELECTRICAL ENGINEER  
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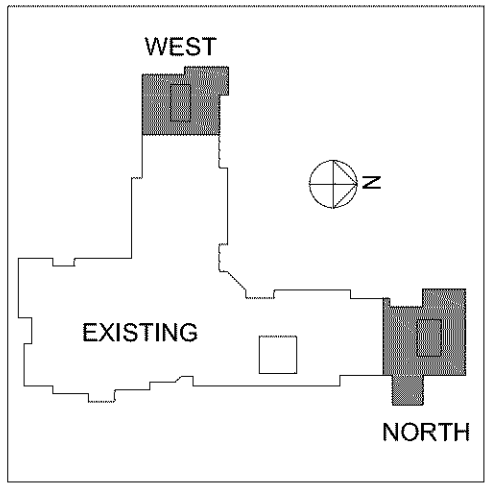
ACOUSTIC  
Stantec  
4100 194th St., SW, Ste. 400  
Lynnwood, WA 98036  
T (206) 667 0555

COST CONSULTANT  
Rider Levett Bucknall (RLB)  
Brewery Block 2  
1120 NW Couch Street, Suite 730  
Portland, OR 97209  
T (503) 226 2730

ONE INCH  
AT FULL SIZE



#	REVISIONS	DATE
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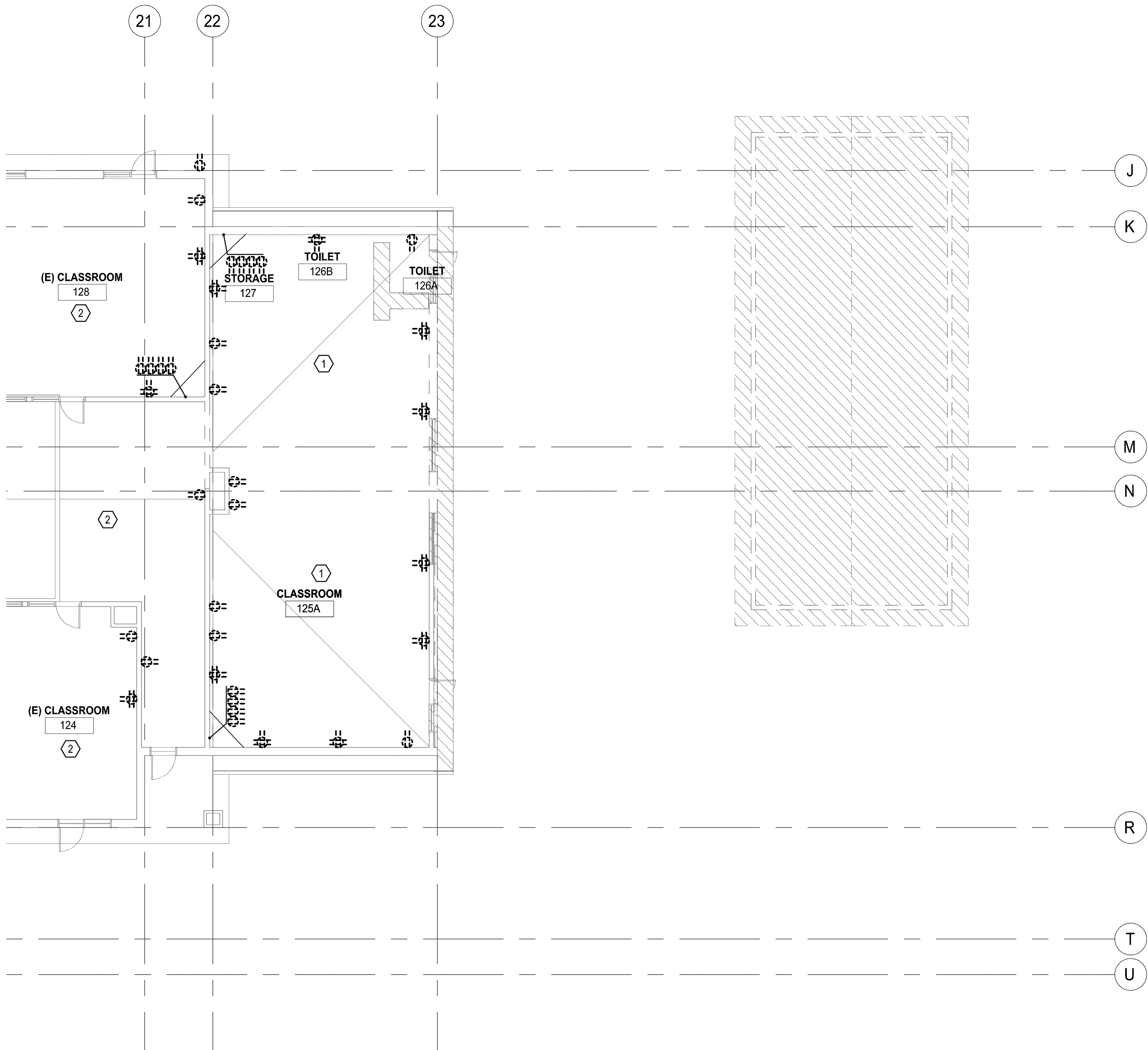
Vancouver School District  
**FRANKLIN  
ELEMENTARY  
SCHOOL**

1698, 5206 NW Franklin St,  
Vancouver, WA 98663  
JOB NO: 1806  
ISSUE DATE: 8/19/2019  
Stamp Area

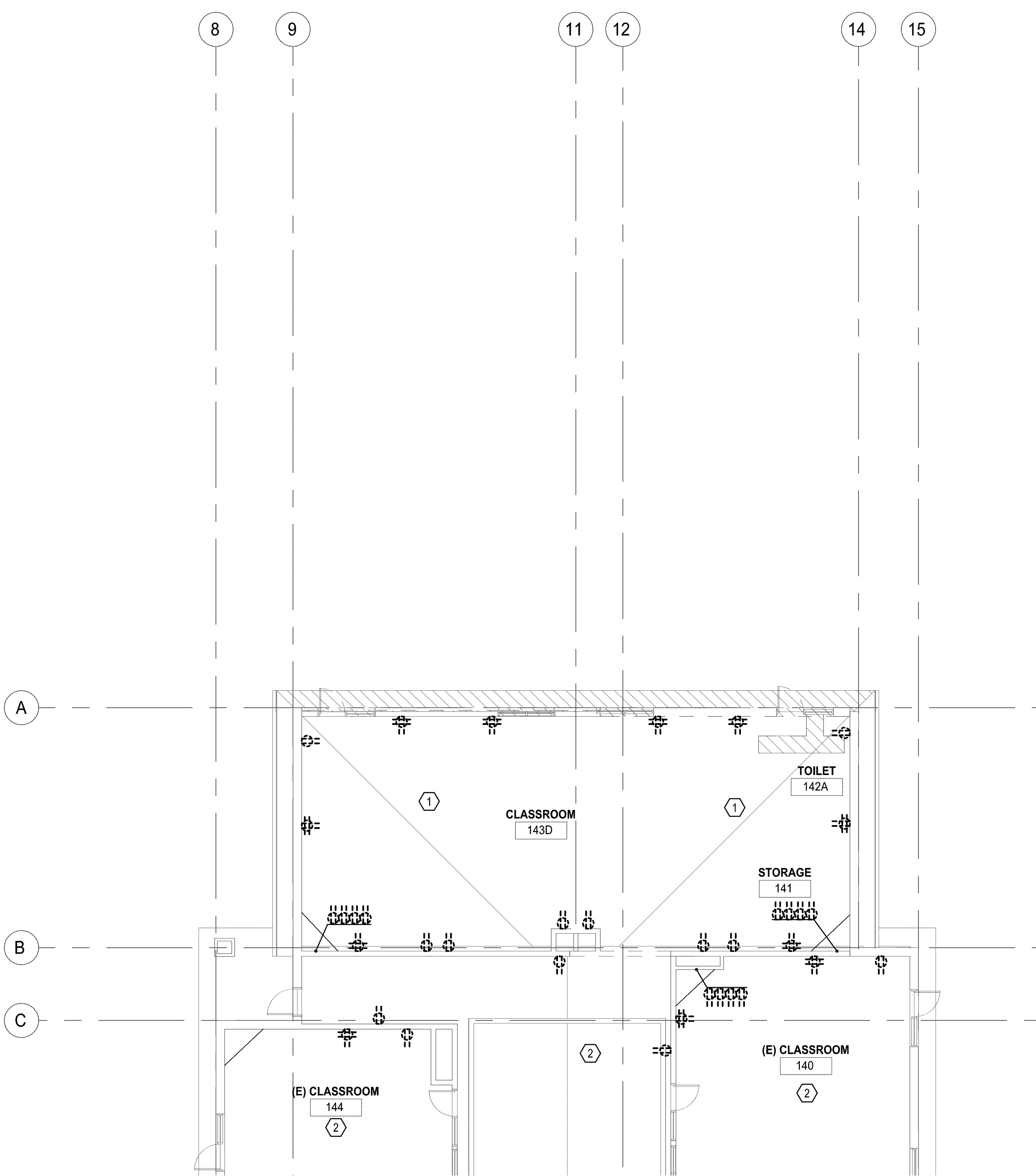
**POWER  
DEMOLITION  
FLOOR PLANS**

**ED3.01**

BID SET



① FIRST FLOOR POWER DEMOLITION PLAN - NORTH  
1/8" = 1'-0"



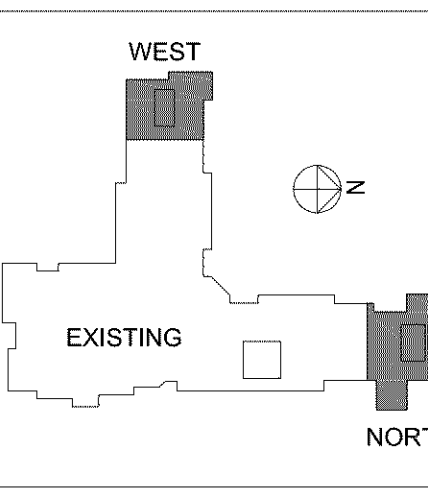
② FIRST FLOOR POWER DEMOLITION PLAN - WEST  
1/8" = 1'-0"

2/11/2019 9:42:59 AM





#	REVISIONS	DATE
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Vancouver School District  
**FRANKLIN  
ELEMENTARY  
SCHOOL**

1698, 5206 NW Franklin St,  
Vancouver, WA 98663

JOB NO: 1806  
ISSUE DATE: 8/19/2019

Stamp Area

**SYSTEMS  
DEMOLITION  
FLOOR PLANS**

**ED4.01**

BID SET

