COMMUNITY COLLEGE OF ALLEGHENY COUNTY
PURCHASING DEPARTMENT
800 ALLEGHENY AVENUE, PITTSBURGH, PA 15233

ADDENDUM 3
BID PROPOSAL NO. 1148
BIOLOGY LAB RENOVATIONS – BOYCE CAMPUS
GENERAL, ELECTRICAL, HVAC, AND PLUMBING
MAY 13, 2026

The following additional information is hereby made a part of this bid:
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The bid due date has been further extended to Monday, May 18, 2026, at 2:00 p.m.

See the accompanying spreadsheet with various questions and answers.

Also attached are standard CCAC Telecom Specifications.

Updated drawings are attached: E001, ED101, ED103, E101, E201, E501, E602, FA101

End of Addendum 3

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Sign addendum and return to the College with your response.

_____ _____

Company Name Bidder's Signature

CCAC Telecom Specs

Data Drop Placement

- Unless otherwise noted, 18" AFF.
- Data Drop in Ceiling (WAP): (2) cables, 10’ coil in ceiling each.
- Data Drop in Ceiling (Surveillance Camera): 10’ coil in ceiling.
- Data Drop in Ceiling (Other): 10’ coil in ceiling.
- Data Drop in Wall (Phone Only): 39.5” AFF.
- All others (digital signage, etc.) are non-standard and would need to be discussed for placement.

Specifications

1. All cabling and connectivity solutions shall be made of solid copper cable, minimum gauge 23 AWG, minimum 500 MHz rated, plenum-rated (and/or outdoor rated when the cable is in exterior location), category 6 (or category 6A, *depending on location).*
    a. The cabling manufacturer and model must be one of the following below or an approved alternate via submittal if it is not on the list.
        i. Hubbell – NextSpeed
        ii. General – GenSPEED
        iii. Panduit – Pan-Net
        iv. Commscope- Netconnect
        v. Berk-tek-LANmark
        vi. BlackBox- GigaTrue
        vii. Vertical Cable
        viii. Paige – GameChanger Cable

CCAC Cable Color Standards

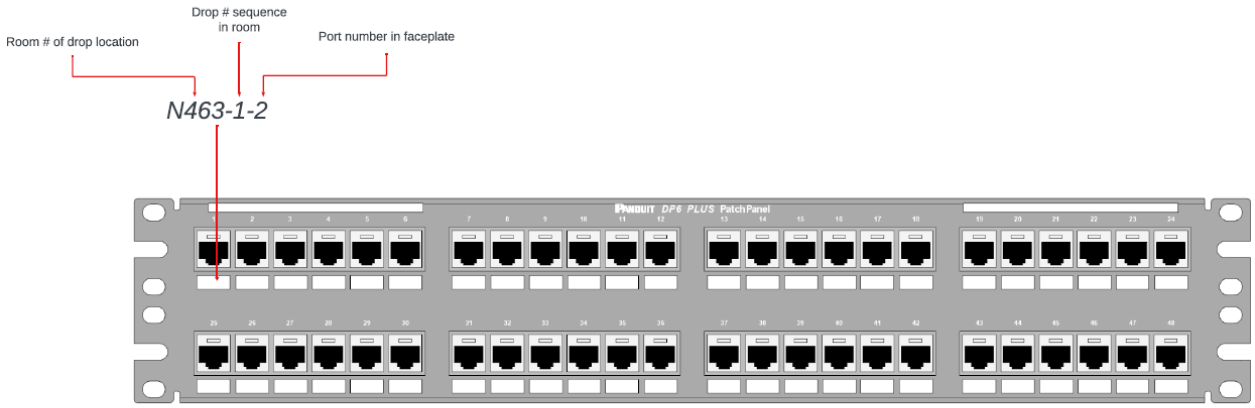
- Blue for data and VoIP
- Black for surveillance
- White for analog dial tone
- Yellow for Access Control

    b. No drop length shall exceed 90 meters (295 ft.) from the patch panel to the faceplate. If a cable run is required to be over 90 meters, then written approval must be obtained from the CCAC ITS Department, and the use of Paige GameChanger Cable is required.
    c. Cabling shall be run in a continuous manner with no splices. (The only exception would be an Ethernet surge protector for outdoor runs, where specified)
    d. The cable manufacturer’s bend radius is to be strictly followed.
    e. Cable pathways shall maintain the following clearances from sources of EMI:
        i. Forty-six (46 in.) from motors and transformers.
        ii. One foot (1 ft.) from conduits and cables used for electrical power.
        iii. Three inches (3 in.) from fluorescent lighting.
    f. Cat6 cable shall not be pulled in excess of 25 lbs.

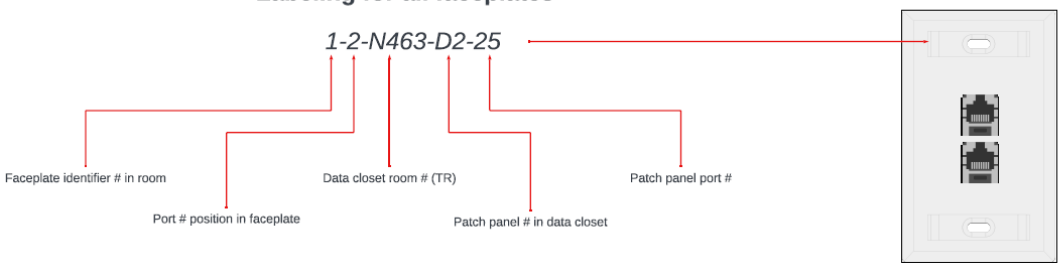
g. The use of exposed surface raceways will not be permitted. Where building construction must be cut to conceal new conduit and wiring, the contractor shall patch and finish disturbed areas to match adjacent surfaces
h. Direct runs (diagonal) are not acceptable.
i. If existing cabling needs to be replaced, all old cabling must be fully removed properly.
j. Any old cables approved by CCAC to be left need to be clearly marked dead on both ends with machine-printed labels.
k. Terminations should be completed in accordance with the T-568B standard.

2. Jacks: Jacks at faceplates to match cable color (Blue for data and VoIP; white for analog voice, and black for cameras).
3. Patch Panels: Keystone compliant with the corresponding manufacturer's inserts for terminations
4. Faceplates: Keystone compliant with corresponding manufacturer inserts for terminations. Field coordinated for color to match the decor.
5. Male RJ-45 terminations are only allowed for surveillance cameras, Enlighted gateways, and inside CCAC approved IoT devices or cabinets.
6. All exterior connections must use dielectric grease and proper weather sealing per the manufacturer's specifications and instructions.
7. Racks: Hubbell NextFrame Rack w/6" Z Channels Vertical Managers (CS1976).
8. Modular Patch Cords: Two cords are provided for every drop installed. One 1-foot cable and 1 10ft cable matching installed category cabling in both color and specification.
9. All cabling shall be installed and supported as follows
    a. Support cat6 cables w/ appropriately sized j-hooks, located on 48" on center
    b. Hooks shall support no more than 50 cables
    c. Cables shall not be attached to the suspended ceiling systems or duct work. All exposed cable shall be run in conduit, existing cable tray, or secured to cable tray utilizing j-hooks.
    d. Velcro is the only acceptable cable tie-wrap
10. All cabling is to be certified with a currently calibrated Fluke CableAnalyzer or equivalent testing unit to verify compliance. Contractor shall provide the owner's representative with complete test results and a 20-year cable warranty.
11. All national, state, and local codes shall be strictly adhered to. Where more than one code applies, the most stringent shall be adhered to. All conduit sleeves and penetrations through fire-rated partitions shall be fire-stopped.
12. All patch panels, terminations, shelves, and enclosures will be labeled in a professional manner in accordance with the following CCAC Label Schema. Labels must be preprinted and match the existing design within the data closets. All patch panel manufacturer labels must be visible and not covered.

Labeling for all patch panels



Labeling for all faceplates



ELECTRICAL SYMBOLS LEGEND

	BRANCH CIRCUITS TO DEVICES OR EQUIPMENT - SHORT TICKS INDICATE HOTS - LONG TICK INDICATES NEUTRAL - NO TICK MARKS INDICATES ONE HOT AND ONE NEUTRAL INCLUDE A GROUND CONDUCTOR IN ALL CONDUITS AND RACEWAYS PER NEC REQUIREMENTS. GROUND CONDUCTORS ARE NOT INDICATED WITH TICK MARKS. REFER TO PANEL SCHEDULES FOR WIRE AND CONDUIT SIZES AND QUANTITIES.		HOME RUN TO INDICATED PANEL AND CIRCUIT NUMBER(S) - SHORT TICKS INDICATE HOTS - LONG TICK INDICATES NEUTRAL - NO TICK MARKS INDICATES ONE HOT AND ONE NEUTRAL INCLUDE A GROUND CONDUCTOR IN ALL CONDUITS AND RACEWAYS PER NEC REQUIREMENTS. GROUND CONDUCTORS ARE NOT INDICATED WITH TICK MARKS. REFER TO PANEL SCHEDULES FOR WIRE AND CONDUIT SIZES AND QUANTITIES.		DASHED GRAY LINES AROUND EQUIPMENT INDICATE NEC REQUIRED CLEARANCES
	SOLID HATCHING OVER LIGHTING FIXTURES INDICATES FIXTURE SHALL BE POWERED VIA LIFE SAFETY CIRCUIT AND RELAYED VIA UL924 LISTED DEVICE FOR FULL BRIGHTNESS DURING FIRE ALARM OR NORMAL POWER LOSS. REFER TO LIGHTING FIXTURE SCHEDULE FOR ASSOCIATED SYMBOL FOR EACH FIXTURE TYPE.		DASHED SYMBOLS INDICATE ELEMENT TO BE DEMOLISHED GRAY SYMBOLS INDICATE ELEMENT EXISTING TO REMAIN WALL MOUNTED JUNCTION BOX, CEILING MOUNTED JUNCTION BOX		KEYED NOTE REFER TO KEYNOTE SCHEDULE ON DRAWING EXIT SIGN, WALL MOUNTED CHEVRONS AS INDICATED ON DRAWINGS EXIT SIGN, FLAG MOUNTED FACES AND CHEVRONS AS INDICATED ON DRAWINGS EXIT SIGN, CEILING MOUNTED FACES, CHEVRONS, AND ORIENTATION AS INDICATED ON DRAWINGS
	PANELBOARD REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION		POKE THROUGH FLOOR JUNCTION BOX		SINGLE POLE SWITCH
3P-30AF/NF	SAFETY DISCONNECT SWITCH (NON-FUSED) NUMBER OF POLES AND FRAME SIZE AS INDICATED		PULL BOX DIMENSIONS AS INDICATED ON DRAWINGS		TWO POLE, SINGLE POLE SWITCH
	1-PHASE MOTOR EQUIPMENT TAG AS INDICATED	3P-30AF/30	SAFETY DISCONNECT SWITCH (FUSED) NUMBER OF POLES, FRAME SIZE, AND FUSE SIZE AS INDICATED		3-WAY SWITCH
	DUPLEX WALL RECEPTACLE NEMA 5-20R UNLESS NOTED OTHERWISE		3-PHASE MOTOR EQUIPMENT TAG AS INDICATED		4-WAY SWITCH
S	DUPLEX WALL RECEPTACLE, ALL OUTLETS SWITCHED VIA LOCAL OCCUPANCY SENSING NEMA 5-20R UNLESS NOTED OTHERWISE		QUADRAPLEX WALL RECEPTACLE NEMA 5-20R UNLESS NOTED OTHERWISE	K	KEYED SWITCH
	DUPLEX WALL RECEPTACLE WITH ISOLATED GROUND NEMA 5-20R UNLESS NOTED OTHERWISE	S	QUADRAPLEX WALL RECEPTACLE, ALL OUTLETS SWITCHED VIA LOCAL OCCUPANCY SENSING NEMA 5-20R UNLESS NOTED OTHERWISE	T	TIMER SWITCH
	DUPLEX WALL RECEPTACLE ON EMERGENCY CIRCUIT NEMA 5-20R UNLESS NOTED OTHERWISE		QUADRAPLEX WALL RECEPTACLE WITH ISOLATED GROUND NEMA 5-20R UNLESS NOTED OTHERWISE	D	DIMMER SWITCH
	DUPLEX FLOOR RECEPTACLE NEMA 5-20R UNLESS NOTED OTHERWISE		QUADRAPLEX WALL RECEPTACLE ON EMERGENCY CIRCUIT NEMA 5-20R UNLESS NOTED OTHERWISE	MC	MOMENTARY CONTACT SWITCH
S	DUPLEX FLOOR RECEPTACLE, ALL OUTLETS SWITCHED VIA LOCAL OCCUPANCY SENSING NEMA 5-20R UNLESS NOTED OTHERWISE		QUADRAPLEX FLOOR RECEPTACLE NEMA 5-20R UNLESS NOTED OTHERWISE	OS	OCCUPANCY SENSING SWITCH (AUTOMATIC-ON, AUTOMATIC-OFF)
	DUPLEX FLOOR RECEPTACLE WITH ISOLATED GROUND NEMA 5-20R UNLESS NOTED OTHERWISE	S	QUADRAPLEX FLOOR RECEPTACLE, ALL OUTLETS SWITCHED VIA LOCAL OCCUPANCY SENSING NEMA 5-20R UNLESS NOTED OTHERWISE	VS	VACANCY SENSING SWITCH (MANUAL-ON, AUTOMATIC-OFF)
	NON-TYPICAL NEMA WALL RECEPTACLE CONFIGURATION AS NOTED ON DRAWINGS		QUADRAPLEX FLOOR RECEPTACLE WITH ISOLATED GROUND NEMA 5-20R UNLESS NOTED OTHERWISE	OD	OCCUPANCY SENSING SWITCH WITH DIMMING CONTROL (AUTOMATIC-ON, AUTOMATIC-OFF)
	NON-TYPICAL NEMA FLOOR RECEPTACLE CONFIGURATION AS NOTED ON DRAWINGS		SIMPLEX WALL RECEPTACLE NEMA 5-20R UNLESS NOTED OTHERWISE	VD	VACANCY SENSING SWITCH WITH DIMMING CONTROL (MANUAL-ON, AUTOMATIC-OFF)
	RECEPTACLE ON CORD REEL (DUPLEX SHOWN)		SIMPLEX FLOOR RECEPTACLE NEMA 5-20R UNLESS NOTED OTHERWISE	V	VACANCY SENSING SWITCH WITH DIMMING CONTROL AND AUTOMATIC DAYLIGHTING (MANUAL-ON, AUTOMATIC-OFF)
	WALL DATA OUTLET ROUGH-IN (18" AFF UNLESS OTHERWISE NOTED) TYPE AND CONFIGURATION AS NOTED ON DRAWINGS		RECEPTACLE ON DROP CORD (DUPLEX SHOWN)	OS OS	OCCUPANCY SENSOR (AUTOMATIC-ON, AUTOMATIC-OFF)
	POWER MULTI-OUTLET ASSEMBLY SYMBOLS INDICATE RECEPTACLE LOCATIONS IN ASSEMBLY		DATA MULTI-OUTLET ASSEMBLY SYMBOLS INDICATE RECEPTACLE LOCATIONS IN ASSEMBLY	VS VS	VACANCY SENSOR (MANUAL-ON, AUTOMATIC-OFF)
				LS LS	LIGHT LEVEL SENSOR
F	FIRE ALARM MANUAL PULL STATION		WIRELESS ACCESS POINT	F S F S	FIRE ALARM SPEAKER STROBE - WALL, CEILING
F F	FIRE ALARM STROBE - WALL, CEILING	F F	FIRE ALARM HORN STROBE - WALL, CEILING	2	FIRE ALARM DETECTOR SMOKE DUCT
	FIRE ALARM DETECTOR HEAT	2	FIRE ALARM DETECTOR SMOKE - CEILING		FIRE ALARM DETECTOR HEAT
S FA	FIRE ALARM SPEAKER		DOOR HOLD OPEN		FIRE ALARM FLOW SWITCH
KK	KIRK KEY INTERLOCK		FIRE ALARM TAMPER SWITCH	CR	CARD READER
DC	DOOR CONTACT	WM	WIRE MOLD ASSEMBLY		CAMERA
ES	ELECTRIC STRIKE	RX	REQUEST TO EXIT	S	2X2 TILE CEILING MOUNTED SPEAKER

ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)	DISC	DISCONNECT	J-BOX	JUNCTION BOX	PWR	POWER
A	AMPERE	DIST	DISTRIBUTION	KV	KILOVOLT	QTY., QUAN	QUANTITY
AC	ABOVE COUNTER, AIR CONDITIONER	DN	DOWN	KVA	KILOVOLT-AMPERE	RCPT	RECEPTACLE
ACLG	ABOVE CEILING	DOHS	DIVISION OF OCCUPATIONAL HEALTH AND SAFETY	KVAR	KILOVOLT-AMPERE REACTIVE	REQD	REQUIRED
ADO	AUTOMATIC DOOR OPENER	DPR	DAMPER	KW	KILOWATT	RM	ROOM
AF	AMP FRAME	DPSM	DIVISION OF PHYSICAL SECURITY MANAGEMENT	KWH	KILOWATT-HOUR	RSC	RIGID STEEL CONDUIT
A.F.F.	ABOVE FINISHED FLOOR	DRS	DIVISION OF RADIATION SAFETY	LOC	LOCATE, LOCATION	RTU	ROOF TOP UNIT
A.F.G.	ABOVE FINISHED GRADE	DS	SAFETY DISCONNECT SWITCH	LT	LIGHT	SC	SURFACE CONDUIT
AFI	ARC FAULT CIRCUIT INTERRUPTER	DT	DOUBLE THROW	LTG	LIGHTING	SEC	SECONDARY
AHU	AIR HANDLING UNIT	DTR	DIVISION OF TECHNICAL RESOURCES	LTNG	LIGHTNING	SHT	SHEET
AL	ALUMINUM	DWG, DWGS	DRAWING, DRAWING(S)	LV	LOW VOLTAGE	SIM	SIMILAR
ALT	ALTERNATE	EC	ELECTRICAL CONTRACTOR	MAX	MAXIMUM	S/N	SOLID NEUTRAL
AMP	AMPERE	ELEC	ELECTRIC, ELECTRICAL	MAG.S	MAGNETIC STARTER	SPEC	SPECIFICATION
AMPL	AMPLIFIER	ELEV	ELEVATOR	MC	MOMENTARY CONTACT	SPKR	SPEAKER
ANNUN	ANNUNCIATOR	EM	EMERGENCY	MC	MECHANICAL CONTRACTOR	SP	SPARE
APPROX	APPROXIMATELY	EMS	ENERGY MANAGEMENT SYSTEM	MCB	MAIN CIRCUIT BREAKER	SR	SURFACE RACEWAY
AQ-STAT	AQUASTAT	EMT	ELECTRICAL METALLIC TUBING	MCC	MOTOR CONTROL CENTER	SS	STAINLESS STEEL
ARCH	ARCHITECT, ARCHITECTURAL	EP	ELECTRIC-PNEUMATIC	MDC	MAIN DISTRIBUTION CENTER	SSW	SELECTOR SWITCH
AS	AMP SWITCH	EQUIP	EQUIPMENT	MDP	MAIN DISTRIBUTION PANEL	S/S	STOP/START PUSHBUTTONS
AT	AMP TRIP	ETR	EXISTING TO REMAIN	MFR	MANUFACTURER	STA	STATION
ATS	AUTOMATIC TRANSFER SWITCH	EWC	ELECTRIC WATER COOLER	MFS	MAIN FUSED DISCONNECT SWITCH	STD	STANDARD
AUTO	AUTOMATIC	EXIST	EXISTING	MH	MANHOLE	SURF	SURFACE MOUNTED
AUX	AUXILIARY	EXH	EXHAUST	MIC	MICROPHONE	SW	SWITCH
AV	AUDIO VISUAL	EXP	EXPLOSION PROOF	MIN	MINIMUM	SWBD	SWITCHBOARD
AWG	AMERICAN WIRE GAUGE	FA	FIRE ALARM	MISC	MISCELLANEOUS	SYM	SYMMETRICAL
BATT	BATTERY	FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL	MLO	MAIN LUGS ONLY	SYS	SYSTEM
BD	BOARD	FACNET	FACILITIES NETWORK SYSTEM	MMS	MANUAL MOTOR STARTER	TEL	TELEPHONE
BLDG	BUILDING	FACP	FIRE ALARM CONTROL PANEL	MOA	MULTIOUTLET ASSEMBLY	TERM	TERMINAL
BMS	BUILDING MANAGEMENT SYSTEM	FCU	FAN COIL UNIT	MSP	MOTOR STARTER PANELBOARD	TL	TWIST LOCK
C	CONDUIT, CENTER LINE	FXT	FIXTURE	MSBD	MAIN SWITCHBOARD	TR	TAMPER RESISTANT
CAB	CABINET	FLR	FLOOR	MT	MOUNT	T-STAT	THERMOSTAT
CAT	CATALOG	FLUOR	FLUORESCENT	MT.C	EMPTY CONDUIT	TTC	TELEPHONE TERMINAL CABINET
CATV	CABLE TELEVISION	FT	FEET	MTS	MANUAL TRANSFER SWITCH	TV	TELEVISION
CB	CIRCUIT BREAKER	FU	FUSE	MTR	MOTOR, MOTORIZED	TVTC	TELEVISION TERMINAL CABINET
CCOFM	CLINICAL CENTER OFFICE OF FACILITY MANAGEMENT	FSS	FUSED SAFETY SWITCH	N.C.	NORMALLY CLOSED	TYP.	TYPICAL
CCTV	CLOSED CIRCUIT TELEVISION	GA	GAUGE	NEC	NATIONAL ELECTRICAL CODE	UC	UNDER COUNTER
CIT	CENTER FOR INFORMATION TECHNOLOGY	GAL	GALLON	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	U/C	USB-C
CKT	CIRCUIT	GALV	GALVANIZED	NFSS	NON-FUSED SAFETY SWITCH	UE	UNDERGROUND ELECTRICAL
CLG/CLNG	CEILING	GC	GENERAL CONTRACTOR	NIC	NOT IN CONTRACT	UEB	UTILITIES ENGINEERING BRANCH
COMB	COMBINATION	GEN	GENERATOR	NIH	NATIONAL INSTITUTES OF HEALTH	UG	UNDERGROUND
CMPR	COMPRESSOR	GFCI, GFI	GROUND FAULT CIRCUIT INTERRUPTER	NL	NIGHT LIGHT	UH	UNIT HEATER
CONN	CONNECTION	GFP	GROUND FAULT PROTECTOR	N.O.	NORMALLY OPEN	U.N.O.	UNLESS NOTED OTHERWISE
CONST	CONSTRUCTION	GND	GROUND	NPF	NORMAL POWER FACTOR	UT	UNDERGROUND TELEPHONE
CONT	CONTINUATION OR CONTINUOUS	GRS	GALVANIZED RIGID STEEL (CONDUIT)	NTS	NOT TO SCALE	UTIL	UTILITY
CONTR	CONTRACTOR	GYP BD	GYPSUM BOARD	OC	ON COUNTER	UV	UNIT VENTILATOR OR ULTRAVIOLET
CONV	CONVECTOR	HOA	HAND-OFF-AUTOMATIC	OH	OVERHEAD	V	VOLT(S)
CP	CIRCULATING PUMP	HORIZ	HORIZONTAL	OHPE	OFFICE OF HOSPITAL PHYSICAL ENVIRONMENT	VA	VOLT-AMPERE(S)
CRT	CATHODE-RAY TUBE	HP	HORSEPOWER	OL	OVERLOADS	VDT	VIDEO DISPLAY TERMINAL
CT	CURRENT TRANSFORMER	HPF	HIGH POWER FACTOR	PA	PUBLIC ADDRESS	VERT	VERTICAL
CTR	CENTER	HT	HEIGHT	PB	PULL BOX, PUSH BUTTON	VFD	VARIABLE FREQUENCY DRIVE
CU	COPPER	HTG	HEATING	PE	PNEUMATIC ELECTRIC	VOL	VOLUME
DCP	DOMESTIC WATER CIRCULATING PUMP	HTR	HEATER	PED	PEDESTAL	W	WATT(S)
DDCM	DIVISION OF DESIGN AND CONSTRUCTION MANAGEMENT	HV	HIGH VOLTAGE	PF	POWER FACTOR	W/	WITH
DEPT	DEPARTMENT	HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	PH	PHASE	WAO	WORK AREA OUTLET
DET	DETAIL	HWP	HYDRONIC WATER PUMP	PIV	POST INDICATING VALVE	WG	WIRE GUARD
DEP	DIVISION OF ENVIRONMENTAL PROTECTION	IC	INTERRUPTING CAPACITY	PNL	PANEL	WH	WATER HEATER
DFOM	DIVISION OF FACILITIES OPERATIONS AND MAINTENANCE	IG	ISOLATED GROUND	PO	PROJECT OFFICER	W/O	WITHOUT
DFM	DIVISION OF THE FIRE MARSHAL	IMC	INTERMEDIATE METAL CONDUIT	PP	POWER POLE	WP	WEATHERPROOF
DFP	DIVISION OF FACILITIES PLANNING	IN	INCHES	PR	PAIR	XFMR	TRANSFORMER
DFS	DIVISION OF FACILITIES STEWARDSHIP	INCAND	INCANDESCENT	PRI	PRIMARY	XFR	TRANSFER
DIA	DIAMETER	IR	INFRARED	PROJ	PROJECTION	@	AT
		I/W	INTERLOCK WITH	PRV	POWER ROOF VENTILATOR	'	FEET
				PT	POTENTIAL TRANSFORMER	"	INCHES
				PVC	POLYVINYL CHLORIDE (CONDUIT)	#	NUMBER
						Ø, φ	PHASE

FIRE ALARM GENERAL NOTES

1. THE FOLLOWING GENERAL NOTES AS LISTED BELOW SHALL APPLY TO ALL FIRE ALARM SYSTEM SCOPES OF WORK AS INDICATED ON THE E SERIES DRAWINGS.
2. ALL EQUIPMENT SYMBOLS ARE SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE TO THEIR INTENDED LOCATION. CONTRACTOR SHALL COORDINATE IN THE FIELD THE PROPER INSTALLATION OF ALL EQUIPMENT, DEVICES, CONTROLS AND CABLING. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
3. DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS ACCESS PANELS, CONDUITS, CABINET SIZES, PENETRATION SLEEVES, PULL BOXES, BACKBOXES AND JUNCTION BOXES MAY NOT BE SHOWN. INCLUDE ALL ITEMS WHERE REQUIRED BY CODE, MANUFACTURER AND RELATED SPECIFICATION SECTIONS FOR THE PROPER INSTALLATION OF ALL WORK.
4. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 760 OF THE 2017 NATIONAL ELECTRIC CODE. ALL FIRE ALARM CABLE MUST BE MARKED TYPE FPL (NON PLENUM) OR FPLP (PLENUM) AND PROVIDED IN ACCORDANCE WITH THE CABLING REQUIREMENTS SPECIFIED BY THE CONTRACT DOCUMENTS.
5. FIRE ALARM DEVICE MOUNTING HEIGHTS SHALL COMPLY WITH ALL ANSI 117, NFPA 72, AND IBC REQUIREMENTS AT THE MINIMUM. INSTALL ALL DEVICES AS SHOWN ON THE MOUNTING DETAIL ON THIS SHEET.
6. COORDINATE WITH ALL TRADES ALL CONDITIONS RELATED TO THE INSTALLATION OF ALL DEVICES. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE TRADE ALL INSTALLATION REQUIREMENTS IMPACTING THE PLACEMENT OF ALL SYSTEM COMPONENTS TO THE SATISFACTION OF ALL CONCERNED TRADES.
7. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NFPA 70 REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
8. COORDINATE EXACT LOCATION(S) OF ALL CEILING MOUNTED CABLE, CONDUITS, EQUIPMENT AND/OR DEVICES WITH ALL ARCHITECTURAL PLANS, REFLECTED CEILING PLANS AND AFFECTED TRADES PRIOR TO INSTALLATION.
9. ALL SMOKE AND HEAT DETECTORS SHALL BE MOUNTED TO FINISHED CEILING AND/OR DECKING, UNLESS NOTED OTHERWISE. DETECTORS SHALL NOT BE INSTALLED ON BOTTOM OF OPEN WEB JOISTS OR ON BEAMS EXCEEDING 12 INCHES DEPTH FROM FINISHED CEILING OR DECK. REFER TO NFPA 72 FOR ALL INITIATING DEVICE INSTALLATION REQUIREMENTS. PROVIDE DETECTORS IN SUFFICIENT QUANTITY TO COMPLY WITH ALL NFPA 72 REQUIREMENTS BASED ON CEILING CONDITIONS AND PROTECTED SPACE REQUIREMENTS.
10. PROTECTIVE ANTI-DUST COVERS SHALL BE INSTALLED AND MAINTAINED ON ALL SYSTEM SMOKE DETECTORS UNTIL FINAL ACCEPTANCE BY THE AUTHORITIES HAVING JURISDICTION.
11. SMOKE DETECTORS SHALL NOT BE INSTALLED LESS THAN 3 FEET FROM ANY HVAC SUPPLY OR RETURN AIR REGISTER AND A MINIMUM OF 1 FOOT AWAY FROM ALL LIGHTING FIXTURES.
12. WHERE EQUIPMENT AND/OR JUNCTION BOXES ARE INSTALLED ABOVE FINISHED CEILINGS, THE CONTRACTOR SHALL PROVIDE ACCESS HATCHES LISTED FOR THE INTENDED APPLICATION. ACCESS HATCHES SHALL BE LOCATED SO THAT SERVICE ACCESS TO THE EQUIPMENT AND/OR JUNCTION BOXES IS UNIMPEDED.
13. THE FIRE ALARM SYSTEM CABLING SHALL BE INSTALLED IN DEDICATED CONDUITS. ALL CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 AND THE CONTRACT DOCUMENTS. ALL CONDUITS SHALL BE SIZED IN ACCORDANCE WITH NFPA 70 AND SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.

FIRE ALARM GENERAL NOTES

14. ALL CONDUITS/RACEWAYS SHALL BE INSTALLED IN A MANNER THAT PREVENTS TAMPERING OR REMOVAL WHEN INSTALLED IN AREAS EXPOSED TO THE GENERAL POPULATION. PROVIDE TAMPER-RESISTANT INSTALLATION UTILIZING "TORX WITH PEG" SECURITY-FASTENING DEVICES FOR ALL CONDUITS/RACEWAYS, EQUIPMENT, DEVICES AND APPURTENANCES IN ALL AREAS ACCESSIBLE TO THE GENERAL POPULATION AND/OR AREAS SUBJECTED TO TAMPERING OR VANDALISM. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.
15. PROVIDE APPROVED EARTH GROUND AT FIRE ALARM CONTROL PANEL CHASSIS. A CONDUIT GROUNDING TO BUILDING STEEL SHALL NOT BE CONSIDERED AN ACCEPTABLE METHODOLOGY FOR GROUNDING OF FIRE ALARM CONTROL PANEL.
16. ALL SYSTEM WIRING AND EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA, NEC, AND MANUFACTURER'S REQUIREMENTS. WIRING SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES. ALL WIRING SHALL TEST FREE FROM ALL GROUNDS, SHORTS AND EMI.
17. NO A.C. CARRYING CONDUCTORS ARE PERMITTED TO SHARE RACEWAYS WITH ANY FIRE ALARM INITIATING AND/OR NOTIFICATION CIRCUITS.
18. ALL A.C. ELECTRICAL CIRCUITS FEEDING THE FIRE ALARM CONTROL EQUIPMENT SHALL BE EQUIPPED WITH DEDICATED CIRCUIT BREAKER LOCKOUT DEVICE IN ACCORDANCE WITH NFPA 72.
19. THE CONTRACTOR SHALL METER ALL WIRES AND CIRCUITS TO ENSURE THEY ARE FREE OF ANY GROUNDS AND SHORTS PRIOR TO COMMISSIONING OF THE SYSTEM.
20. ALL AUXILIARY ALARM RELAYS MUST BE INSTALLED WITHIN 3 FEET OF THE EQUIPMENT TO BE CONTROLLED IN ACCORDANCE WITH ALL NFPA 72 REQUIREMENTS.
21. ALL FIRE ALARM DEVICES AND EQUIPMENT SHALL BE LABELED WITH A UNIQUE IDENTIFICATION NUMBER. ALL NUMBERS SHALL CORRESPOND WITH NUMBERING SEQUENCE AS SUBMITTED ON THE PROJECT SHOP DRAWINGS. LABELS TO BE SIMILAR TO "BROTHER P-TOUCH" BLACK LETTERING ON WHITE BACKGROUND SELF-ADHESIVE TAPE. ALL DEVICE LABELS SHALL BE INSTALLED PRIOR TO SYSTEM CHECKOUT.
22. ALL PENETRATIONS OF WALLS AND FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRE-STOPS SHALL BE PERFORMED BY AN APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
23. REFER TO ALL RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.
24. ALL EQUIPMENT ENCLOSURES LOCATED OUTSIDE OR IN ALL AREAS WITH HIGH MOISTURE OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL BE NEMA 4X ENCLOSURES AND RATED FOR THAT APPLICATION.
25. ALL EQUIPMENT EXPOSED TO THE ENVIRONMENT OR INSTALLED IN PROXIMITY TO AREAS WITH HIGH MOISTURE, OR A RELATIVE HUMIDITY OF 75% OR GREATER, SHALL BE PROVIDED WITH ENCLOSURES AND OR BACKBOXES RATED FOR THE ENVIRONMENTAL CONDITIONS.
26. THE STROBE INTENSITY OF ALL VISUAL NOTIFICATION APPLIANCES SHALL BE IN ACCORDANCE WITH NFPA 72 AND UL 1971. STROBE CANDELA RATINGS SHALL BE PROVIDED IN ACCORDANCE WITH DEVICE LOCATIONS AND SHALL CONFORM TO ALL ICC/ANSI 117 AND NFPA 72 INSTALLATION REQUIREMENTS. CONTRACTOR SHALL PROVIDE THE REQUIRED CANDELA POWER AND LOCATE ALL VISUAL NOTIFICATION APPLIANCES AS REQUIRED TO MEET THE REQUIREMENTS OF ALL REFERENCED CODES AND STANDARDS.

ELECTRICAL GENERAL NOTES

1. THE FOLLOWING GENERAL NOTES AS LISTED BELOW SHALL APPLY TO ALL ELECTRICAL REQUIREMENTS AS INDICATED ON ALL E SERIES CONTRACT DRAWINGS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE ENTIRE DOCUMENT SET. I.E. IF WORK IS SHOWN ON OTHER DRAWINGS AS "BY CONTRACTOR," THE CONTRACTOR IS RESPONSIBLE FOR THAT WORK.
3. DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS ACCESS PANELS, CONDUITS, CABINET SIZES, PENETRATION SLEEVES, PULL BOXES, BACKBOXES AND JUNCTION BOXES MAY NOT BE SHOWN. INCLUDE ALL ITEMS WHERE REQUIRED BY CODE, MANUFACTURER AND RELATED SPECIFICATION SECTIONS FOR THE PROPER INSTALLATION OF ALL WORK.
4. DUE TO SCALE OF THE DRAWINGS, ALL ELECTRICAL DEVICE SYMBOLS ARE SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE TO THEIR INTENDED LOCATION. CONTRACTOR SHALL COORDINATE IN THE FIELD THE PROPER INSTALLATION OF ALL EQUIPMENT, DEVICES, CONTROLS AND CONDUITS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
5. COORDINATE WITH ALL TRADES AND SYSTEM INTEGRATORS ANY CONDITIONS RELATED TO THE INSTALLATION OF ALL SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE TRADE ALL INSTALLATION REQUIREMENTS IMPACTING THE PLACEMENT OF ALL SYSTEM COMPONENTS TO THE SATISFACTION OF ALL CONCERNED TRADES.
6. COORDINATE EXACT LOCATION(S) OF ALL DATA AND TELEPHONE OUTLETS, ELECTRICAL RECEPTACLES WITH THE ARCHITECTURAL PLANS, FURNITURE PLANS AND ALL AFFECTED TRADES PRIOR TO INSTALLATION.
7. ALL CONDUITS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH NFPA 70 AND PROJECT SPECIFICATIONS. ALL CONDUITS SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED.
8. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
9. WHERE EQUIPMENT AND/OR JUNCTION BOXES ARE INSTALLED ABOVE FINISHED CEILINGS, THE CONTRACTOR SHALL PROVIDE ACCESS HATCHES LISTED FOR THE INTENDED APPLICATION. ACCESS HATCHES SHALL BE LOCATED SO THAT SERVICE ACCESS TO THE EQUIPMENT AND/OR JUNCTION BOXES IS UNIMPEDED.
10. ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRE-STOPS SHALL BE PERFORMED BY APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
11. ALL EQUIPMENT ENCLOSURES LOCATED OUTSIDE OR IN ALL AREAS WITH HIGH MOISTURE OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL BE NEMA 4X STAINLESS STEEL AND RATED FOR THAT APPLICATION.
12. ALL INTERIOR AND/OR EXTERIOR COMPONENTS, DEVICES OR SYSTEMS EQUIPMENT EXPOSED TO THE GENERAL POPULATION SHALL BE INSTALLED IN SECURED EQUIPMENT ENCLOSURES WITH TAMPER SWITCHES AND INSTALLED IN SUCH A MANNER THAT RESISTS TAMPERING AND/OR REMOVAL WITHOUT THE USE OF SPECIALIZED TOOLS.
13. FOR EQUIPMENT INSTALLATIONS REQUIRING COORDINATION WITH OTHER TRADES, THE CONTRACTOR SHALL PROVIDE ALL TEMPLATES, BACKBOXES AND EQUIPMENT ANCHOR BOLTS FOR MOUNTING OR FLUSH MOUNTING PREPARATION (E.G. PEDESTALS OR OTHER DEVICES REQUIRING MOUNTING ON WALLS, CONCRETE PADS OR OTHER MATERIALS). COORDINATE DELIVERY OF TEMPLATES AND EQUIPMENT WITH ALL AFFECTED CONTRACTORS.
14. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (LATEST VERSION BEING ENFORCED) AND ALL OTHER APPLICABLE CODES AND STANDARDS BEING ENFORCED BY THE AUTHORITY HAVING JURISDICTION
15. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS OR INSTRUCTIONS FOR CONSTRUCTION SAFETY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY WORKMAN'S OR TRANSIENTS SAFETY, OR FOR THE ADEQUACY OF EQUIPMENT, BUILDING COMPONENTS, WORK AIDS, OR ANY NECESSITY TO WORK ON ENERGIZED ELECTRICAL COMPONENTS. FURTHER, NO SUPERINTENDENCE IS INCLUDED OR IMPLIED.
16. ALL SYSTEMS AND EQUIPMENT SHALL BE INSTALLED AND WIRED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
17. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE TESTED AND LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
18. THE CONTRACTOR SHALL COORDINATE CONDUIT ROUTING (PLAN AND ELEVATION) WITH THE LIGHTING (NEW AND EXISTING), CEILING ELEVATION, STRUCTURE, DUCTWORK, PIPING, ETC. REQUIRED FOR THE COMPLETION OF THE PROJECT, PRIOR TO INSTALLATION.
19. THE CONTRACTOR SHALL SECURE AND PROTECT THE BUILDING AND/OR WORK AREA WITH FIRE RETARDANT TEMPORARY PLYWOOD PARTITIONS (WITH LOCKING DOORS), ETC. CLOSE ALL EXISTING OPENINGS AS REQUIRED. COORDINATE THIS WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING. IF TEMPORARY PARTITIONS IMPEDE THE FLOW OF EGRESS TO REQUIRED EGRESS DOORS AND STAIRS, THE CONTRACTOR SHALL PROVIDE EXIT SIGNS, AND SIGNAGE INDICATING SUCH.
20. THE CONTRACTOR SHALL CAULK ALL JOINTS BETWEEN METAL FRAMES AND EXISTING CONDITIONS. THIS APPLIES TO BOTH INTERIOR AND EXTERIOR INSTALLATIONS.
21. THE DIMENSIONS SHOWN ON THE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO PERFORMING ANY WORK.
22. THE CONTRACTOR SHALL IN

GENERAL NOTES - UNDERFLOOR WORK

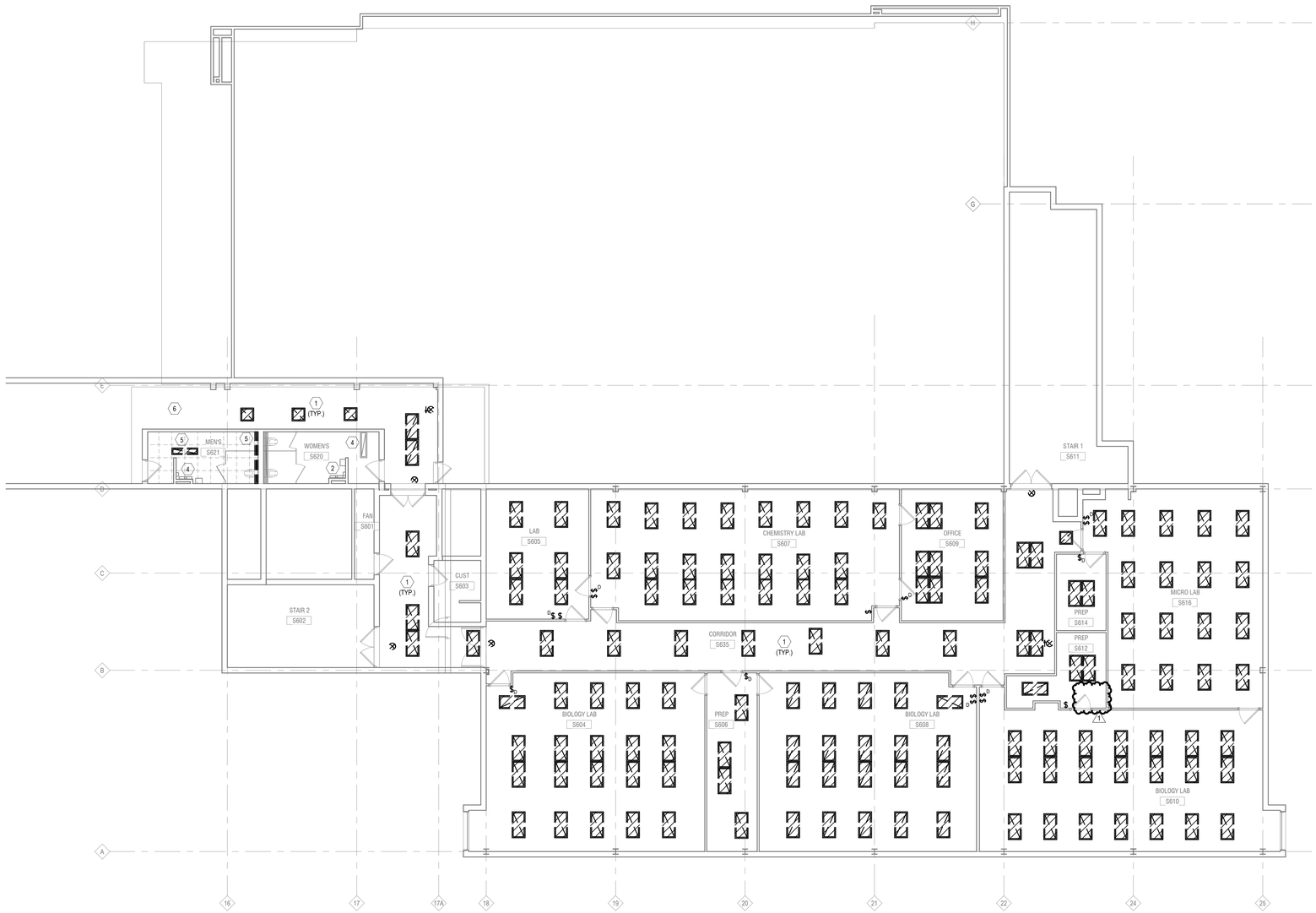
1. CONTRACTOR SHALL PROVIDE A PHASING PLAN OF ALL WORK AREAS FOR REVIEW BY THE OWNER PRIOR TO CEILING REMOVAL. OBTAIN WRITTEN APPROVAL FROM OWNER PRIOR TO START OF WORK.
2. CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
3. COORDINATE WORK WITH ALL PRIME CONTRACTORS TO OCCUR OVER SUMMER AND HOLIDAY BREAKS AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.

ELECTRICAL DEMOLITION GENERAL NOTES

1. UNLESS NOTED OTHERWISE, REMOVE ALL ELECTRICAL DEVICES FROM WITHIN THE AREA OF DEMOLITION WORK IDENTIFIED. THE DEVICES TO BE REMOVED SHALL INCLUDE BUT ARE NOT LIMITED TO: RECEPTACLES, FIRE ALARM DEVICES AND TERMINAL CABINETS, SWITCHES, JUNCTION BOXES, LIGHTS, LIGHTING CONTROLS, PANELBOARDS AND FLOOR BOXES. REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE UPSTREAM DISTRIBUTION DEVICE. THE INTENT IS FOR ALL DEVICES TO BE REMOVED TO ALLOW THE RENOVATION AND INSTALLATION OF ALL NEW DEVICES AS SHOWN ON THE NEW WORK DOCUMENTS. EXISTING DEVICES SHOWN ARE DIAGRAMMATIC AND BASED ON FIELD SURVEYS AND/OR RECORD DRAWINGS PROVIDED BY THE OWNER AND DO NOT REPRESENT THE FULL SCOPE OF DEMOLITION WORK. THE ACTUAL CONDITIONS MAY VARY. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE PLANS ARE INTENDED TO SHOW THE LOCATIONS OF EXISTING DEVICES AND IN NO WAY RELIEVE THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION NECESSARY TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND OBTAIN CLARIFICATIONS FROM ARCHITECT/ENGINEER IF NECESSARY. COMPONTENTS RELATED TO THE EXISTING BUILDING-WIDE LIGHTING CONTROL SYSTEM SHALL BE RETAINED AND REUSED WHERE FEASIBLE WITH NEW LIGHTING AND CONTROL DEVICES.
2. CONTRACTOR SHALL PROVIDE A MINIMUM TWO WEEKS WRITTEN NOTICE PRIOR TO ANY SHUT DOWN. NOTICE IS TO INCLUDE BUT IS NOT LIMITED TO THE LOCATION, PANELS AND DURATION OF SHUT DOWN.
3. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL TO ANY EQUIPMENT, DEVICES, LUMINAIRES, ETC. DEMOLISHED FROM RENOVATION AREA PRIOR TO DISPOSAL.
4. MAINTAIN CONTINUITY OF SERVICE TO AREAS OUTSIDE THE PROJECT BOUNDARY. PATCH AND REPAIR ALL CIRCUITS CUT OFF DURING DEMOLITION BY WIRING METHODS COMPATIBLE WITH THE EXISTING INSTALLATION.
5. THE ELECTRICAL CONTRACTOR SHALL REVIEW THE DRAWINGS OF ALL OTHER TRADES IN THIS CONTRACT. THE REMOVAL OF ELECTRICAL SERVICE TO ALL EQUIPMENT IDENTIFIED ON OTHER TRADE DRAWINGS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
6. EXERCISE EXTREME CAUTION WHEN REMOVING/ RELOCATING WIRING AND EQUIPMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT OTHER WIRING DEVICES, EQUIPMENT AND LIGHT FIXTURES THAT MAY BE CONNECTED TO THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.
7. CONTRACTOR SHALL EXAMINE CONDITIONS AND TEST FUNCTIONALITIES OF ALL EXISTING ELECTRICAL EQUIPMENT IDENTIFIED TO BE REUSED AND/OR RELOCATED. PROVIDE REPORT TO ENGINEER AND OWNER PRIOR TO DEMOLITION.
8. NOT APPLICABLE.
9. NOT APPLICABLE.
10. NOT APPLICABLE.

ELECTRICAL DEMOLITION KEYNOTES

1. UNLESS OTHERWISE NOTED, ALL EXISTING LIGHT FIXTURES, EXISTING SIGNS, AND LIGHTING CONTROLS ARE TO BE REMOVED,AND REPLACED WITH NEW. ALL ASSOCIATED WIRING AND CONDUIT SHALL BE DEMOLISHED BACK TO SOURCE.
2. EXISTING LIGHT FIXTURE IS EXISTING TO REMAIN.
3. NOT USED.
4. EXISTING LIGHT FIXTURE IS EXISTING TO REMAIN.
5. DEMOLISH FIXTURE AND RETURN TO OWNER. EXISTING BRANCH CIRCUITING TO REMAIN FOR CONNECTION TO NEW LIGHT FIXTURES.
6. EXISTING LIGHT FIXTURES IN THIS AREA ARE EXISTING TO REMAIN.



1 **PARTIAL SIXTH FLOOR LIGHTING DEMOLITION PLAN**
1/8" = 1'-0"

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NO	DATE	REVISION
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PROFESSIONAL:

PROJECT NAME:
CCAC BIOLOGY LAB RENOVATIONS BOYCE CAMPUS

595 Beatty RD, Monroeville PA 15146

DRAWING TITLE:
PARTIAL SIXTH FLOOR LIGHTING DEMOLITION PLAN

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CHECKED BY: DF
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO: **ED101**

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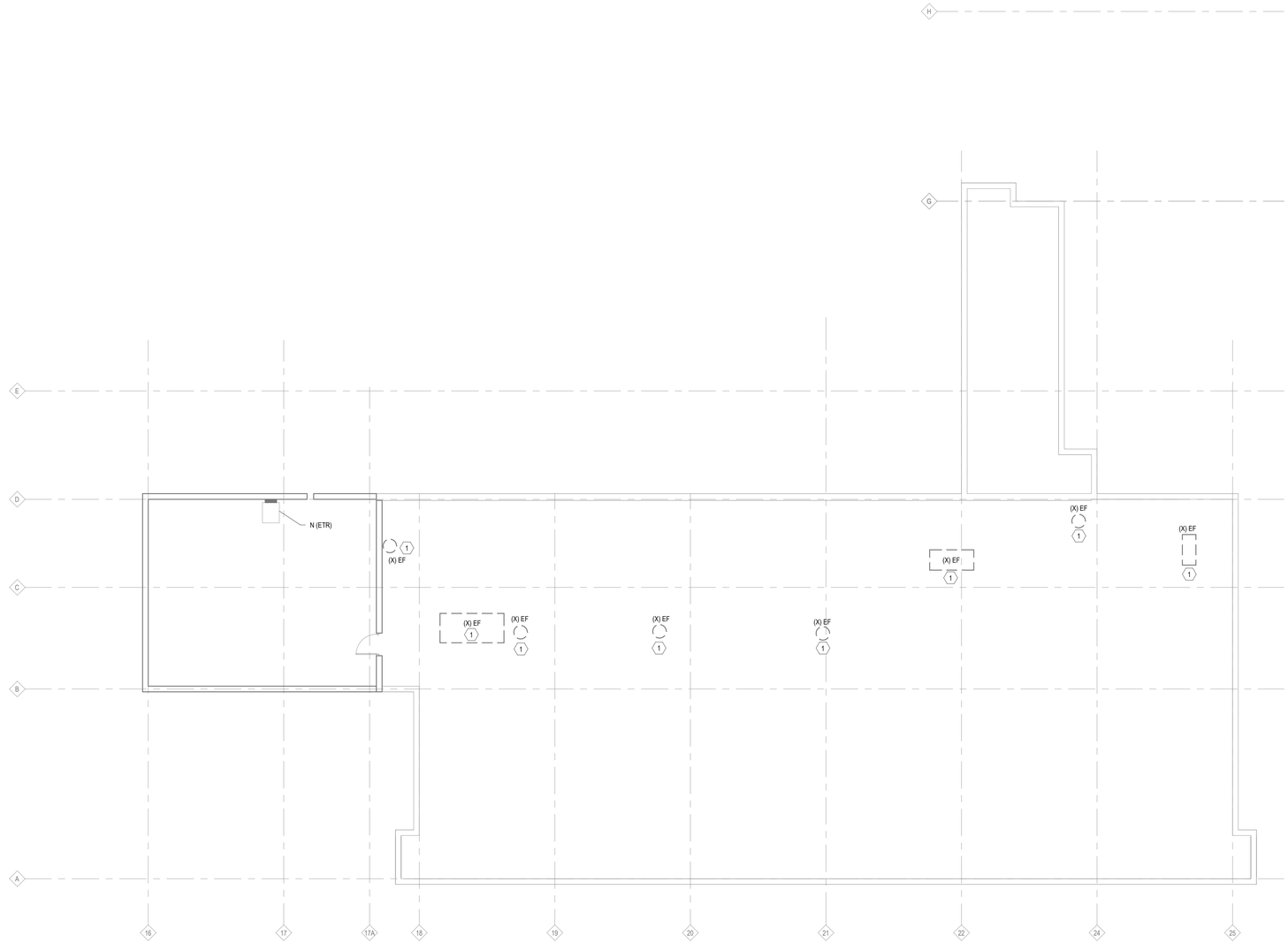
ELECTRICAL DEMOLITION GENERAL NOTES

1. UNLESS NOTED OTHERWISE, REMOVE ALL ELECTRICAL DEVICES FROM WITHIN THE AREA OF DEMOLITION WORK IDENTIFIED. THE DEVICES TO BE REMOVED SHALL INCLUDE BUT ARE NOT LIMITED TO: RECEPTACLES, FIRE ALARM DEVICES AND TERMINAL CABINETS, SWITCHES, JUNCTION BOXES, LIGHTS, LIGHTING CONTROLS, PANELBOARDS AND FLOOR BOXES. REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE UPSTREAM DISTRIBUTION DEVICE. THE INTENT IS FOR ALL DEVICES TO BE REMOVED TO ALLOW THE RENOVATION AND INSTALLATION OF ALL NEW DEVICES AS SHOWN ON THE NEW WORK DOCUMENTS. EXISTING DEVICES SHOWN ARE DIAGRAMMATIC AND BASED ON FIELD SURVEYS AND/OR RECORD DRAWINGS PROVIDED BY THE OWNER AND DO NOT REPRESENT THE FULL SCOPE OF DEMOLITION WORK. THE ACTUAL CONDITIONS MAY VARY. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE PLANS ARE INTENDED TO SHOW THE LOCATIONS OF EXISTING DEVICES AND IN NO WAY RELIEVE THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION NECESSARY TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND OBTAIN CLARIFICATIONS FROM ARCHITECT/ENGINEER IF NECESSARY. COMPONTENTS RELATED TO THE EXISTING BUILDING-WIDE LIGHTING CONTROL SYSTEM SHALL BE RETAINED AND REUSED WHERE FEASIBLE WITH NEW LIGHTING AND CONTROL DEVICES.
2. CONTRACTOR SHALL PROVIDE A MINIMUM TWO WEEKS WRITTEN NOTICE PRIOR TO ANY SHUT DOWN. NOTICE IS TO INCLUDE BUT IS NOT LIMITED TO THE LOCATION, PANELS AND DURATION OF SHUT DOWN.
3. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL TO ANY EQUIPMENT, DEVICES, LUMINAIRES, ETC. DEMOLISHED FROM RENOVATION AREA PRIOR TO DISPOSAL.
4. MAINTAIN CONTINUITY OF SERVICE TO AREAS OUTSIDE THE PROJECT BOUNDARY. PATCH AND REPAIR ALL CIRCUITS CUT OFF DURING DEMOLITION BY WIRING METHODS COMPATIBLE WITH THE EXISTING INSTALLATION.
5. THE ELECTRICAL CONTRACTOR SHALL REVIEW THE DRAWINGS OF ALL OTHER TRADES IN THIS CONTRACT. THE REMOVAL OF ELECTRICAL SERVICE TO ALL EQUIPMENT IDENTIFIED ON OTHER TRADE DRAWINGS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
6. EXERCISE EXTREME CAUTION WHEN REMOVING/ RELOCATING WIRING AND EQUIPMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT OTHER WIRING DEVICES, EQUIPMENT AND LIGHT FIXTURES THAT MAY BE CONNECTED TO THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.
7. CONTRACTOR SHALL EXAMINE CONDITIONS AND TEST FUNCTIONALITIES OF ALL EXISTING ELECTRICAL EQUIPMENT IDENTIFIED TO BE REUSED AND/OR RELOCATED. PROVIDE REPORT TO ENGINEER AND OWNER PRIOR TO DEMOLITION.
8. NOT APPLICABLE.
9. NOT APPLICABLE.
10. NOT APPLICABLE.

ELECTRICAL DEMOLITION KEYNOTES

1. ALL WIRES, CONDUITS, AND DISCONNECTS ASSOCIATED WITH DEMOLISHED MECHANICAL EQUIPMENT SHALL BE REMOVED BACK TO THEIR SOURCE.



1 **ELECTRICAL ROOF DEMOLITION PLAN**
1/8" = 1'-0"

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595 Beatty RD, Monroeville PA 15146

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LIGHTING CONTROL SEQUENCE OF OPERATION

SPACE TYPE	NORMAL BUSINESS HOURS OPERATION				AFTER HOURS OPERATION				EMERGENCY LIGHTING CONTROL	MANUAL CONTROL METHOD	BAS DRY CONTACT	UPON FIRE ALARM	COLOR TUNABLE	REMARKS
	OCCUPPIED		VACANCY		OCCUPPIED		VACANCY							
	ON ENTRY	MIN MANUAL	ACTION	DELAY	ON ENTRY	MIN MANUAL	ACTION	DELAY						
CORRIDORS (NORMAL LIGHTING)	FULL ON	NA	25%	5 MIN	FULL ON	NA	OFF	20 MIN	ALWAYS ON	NA	NO	FULL ON	NO	EXTEND BUSINESS HOURS WHEN ANY OCCUPANCY IS DETECTED IN BUILDING.
LAB	50%	5FC	OFF	20 MIN	50%	5FC	OFF	20 MIN	CONTROLLED	DIMMER	YES	FULL ON	NO	EXTEND BUSINESS HOURS WHEN ANY OCCUPANCY IS DETECTED IN BUILDING.
SINGLE OCCUPANT TOILET / WASHROOM	FULL ON	NA	OFF	10 MIN	FULL ON	NA	OFF	10 MIN	NA	SWITCH	NO	NA	NO	
PREP	50%	5FC	OFF	20 MIN	50%	NA	OFF	20 MIN	ALWAYS ON	DIMMER	YES	NA	NO	
OFFICE	50%	NA	OFF	20 MIN	50%	NA	OFF	20 MIN	CONTROLLED	DIMMER	NO	FULL ON	NO	
STUDENT LOUNGE	50%	5FC	OFF	10 MIN	50%	5FC	OFF	10 MIN	ALWAYS ON	DIMMER	NO	NA	NO	

LIGHTING PLAN GENERAL NOTES

1. ALL EXIT SIGNS SHALL BE POWERED FROM THE CIRCUIT INDICATED AND UNSWITCHED.
2. EMERGENCY BATTERY BALLASTS AND EMERGENCY BATTERY PACK UNITS SHALL BE CIRCUITED FROM THE ASSOCIATED LOCAL LIGHTING CIRCUIT.
3. ALL EMERGENCY LIGHTING FIXTURES SHALL BE PROVIDED WITH A UL924 LISTED AUTOMATIC LOAD CONTROL RELAY TO PERMIT LOCAL CONTROL WITH ADJACENT FIXTURES AND BY-PASS OF LOCAL CONTROL (INCLUDING BUT NOT LIMITED TO SWITCHES, OCCUPANCY SENSORS AND DIMMERS) IN THE ABSENCE OF NORMAL POWER. UPON LOSS OF NORMAL POWER, THE LIGHTING CONTROL SHALL BE BY-PASSED, AND DIMMED FIXTURES SHALL COME TO FULL ILLUMINATION AND SHALL NOT BE ALLOWED TO TURN OFF. REFER TO TYPICAL DETAIL.
4. COORDINATE FINAL LOCATIONS OF FIXTURES WITH THE REFLECTED CEILING PLAN. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
5. COORDINATE ALL MOUNTING HEIGHTS WITH THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
6. WHERE MORE THAN ONE SWITCH OCCURS IN THE SAME LOCATION, THEY SHALL BE INSTALLED IN GANG TYPE BOX UNDER THE COVERPLATE. MINIMUM CONDUIT SIZE IS 3/4", AND MINIMUM WIRE SIZE SHALL BE #12 AWG. ALL WIRE TO BE STRANDED COPPER.
7. THE OCCUPANCY SENSORS INDICATED ON THE DRAWINGS ARE SHOWN FOR DESIGN INTENT ONLY. THE EXACT QUANTITY OF SENSORS SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLING SENSORS BASED ON THE MANUFACTURERS RECOMMENDATION. PROVIDE 100% COVERAGE OF EACH INDIVIDUAL ROOM/SPACE SHOWN ON THE DRAWINGS. DO NOT INSTALL SENSORS PRIOR TO SUBMITTING COVERAGE LAYOUTS FOR EACH INDIVIDUAL ROOM/SPACE TO THE ENGINEER FOR APPROVAL. DO NOT INSTALL SENSORS SUCH THAT THEY CAN POTENTIALLY "SEE" THROUGH OPEN DOORWAYS. INSTALL ALL LOW VOLTAGE POWER PACKS DIRECTLY ABOVE LOCAL WALL SWITCHES IN THE AREA. DO NOT INSTALL ULTRASONIC OR DUAL TECHNOLOGY SENSORS WITHIN 24" OF SUPPLY DIFFUSERS.
8. ALL EMERGENCY EGRESS ILLUMINATION SHALL BE AVERAGE 1FC AND A MINIMUM OF 0.1FC FOR PATH OF EGRESS.
9. PROVIDE CONDUIT AND WIRING AS REQUIRED TO MEET CIRCUITING SHOWN TO CONFORM TO NEC REQUIREMENTS. PROVIDE EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS. REFER TO PANELBOARD SCHEDULES.
10. ROUTE CONDUIT HIGH AGAINST STRUCTURE AND OFFSET UP BETWEEN JOISTS WHERE NECESSARY TO AVOID DUCT WORK AND HVAC SYSTEM.

LIGHTING PLAN KEYNOTES

#	
1	NOT USED.
2	NOT USED.
3	NOT USED.
4	NOT USED.
5	TIE EM AND CHP FIXTURE INTO EXISTING NON-EMERGENCY LIGHTING CIRCUIT SERVING THE MEN'S RESTROOM.
6	CEILING MOUNTED OCCUPANCY SENSORS WITHIN LABS SHALL BE TIED INTO BUILDING BMS SYSTEM TO ALSO CONTROL LAB AIR CHANGE RATES.
7	EXISTING LIGHTING IN THIS AREA IS EXISTING TO REMAIN.
8	ALL LIGHT FIXTURES AND ASSOCIATED LIGHTING CONTROL DEVICES IN THIS SPACE TO BE CONNECTED TO EXISTING WATTSTOPPER PLUS NETWORK LIGHTING CONTROL SYSTEM EXISTING IN THE BUILDING. PROVIDE SENSORS, CONTROL DEVICES AND LED DRIVERS COMPATIBLE WITH THIS SYSTEM, INCLUDING ADDITIONAL COMPONENTS SUCH AS LIGHTING CONTROLLERS, LUMINAIRE CONTROL MODULES, SENSOR INTERFACE MODULES, ETC TO MEET CONTROL INTENT INDICATED ON PLANS WHILE ALSO INTERFACING WITH EXISTING BUILDING-WIDE SYSTEM. PROVIDE CONTROL WIRING BETWEEN FIXTURES, DEVICES, CONTROLLERS AND CENTRAL SYSTEM PER MANUFACTURER REQUIREMENTS (I.E. DO NOT UTILIZE WIRELESS SENSORS OR DEVICES). CONFIRM WITH MANUFACTURER WHETHER ANY ADDITIONAL EXPANSION UNITS ARE NEEDED WITH THE EXISTING BUILDING SYSTEM TO ENABLE ADDITION OF THESE SPACES AND CONTROL POINTS, INCLUDING ADDITIONAL SYSTEM SUPPORT UNITS AND ETHERNET SWITCHES. INSTALLED SYSTEM TO BE PROGRAMMED TO PROVIDE LIGHTING CONTROL INTENT INDICATED ON ELECTRICAL DRAWINGS.
9. PROVIDE AREA LIGHTING CONTROLLER PER WATTSTOPPER PLUS RISER ON SHEET E602 FOR CONNECTION DETAILS.

1 PARTIAL SIXTH FLOOR LIGHTING PLAN

1/8" = 1'-0"

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1	5/13/2026	ADDENDUM 3

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PARTIAL SIXTH FLOOR LIGHTING PLAN

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GENERAL NOTES - UNDERFLOOR WORK

1 CONTRACTOR SHALL PROVIDE A PHASING PLAN OF ALL WORK AREAS FOR REVIEW BY THE OWNER PRIOR TO CEILING REMOVAL. OBTAIN WRITTEN APPROVAL FROM OWNER PRIOR TO START OF WORK.
2 CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
3 COORDINATE WORK WITH ALL PRIME CONTRACTORS TO OCCUR OVER SUMMER AND HOLIDAY BREAKS AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.

ADD ALTERNATE

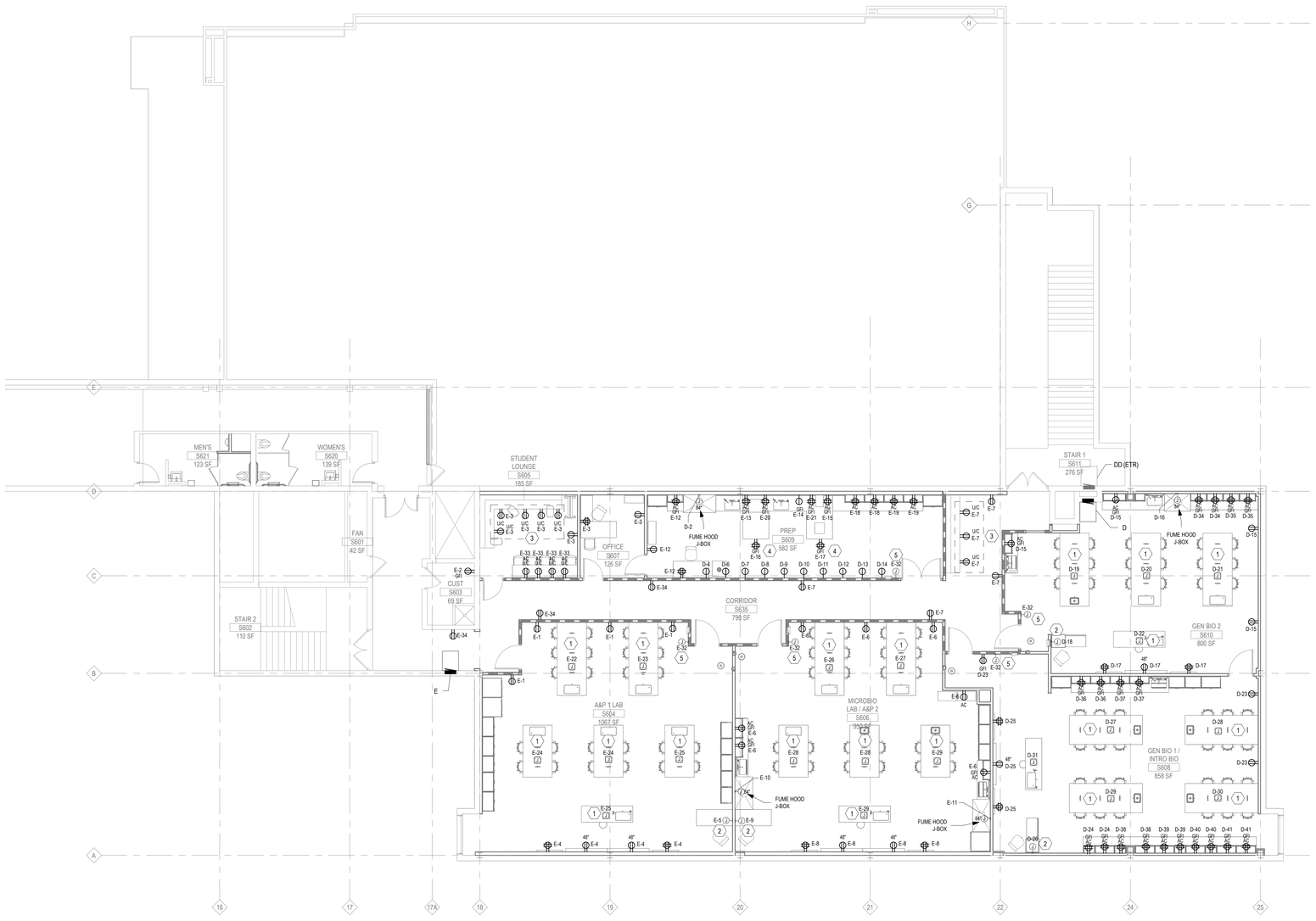
PROVIDE WALL MOUNTED KEY SWITCH ADJACENT TO THE ROOM LIGHTING CONTROL IN ALL LAB SPACES. THE KEY SWITCH IS TO ALLOW MANUAL (ON/OFF) CONTROL OF RECEPTACLE POWER IN THAT SPACE. CONTRACTOR IS TO PROVIDE A SHUNT-TRIP BREAKER FOR EACH RECEPTACLE CIRCUIT AT THE BRANCH PANELBOARD.

POWER PLAN GENERAL NOTES

1 FINAL LOCATION OF ALL EQUIPMENT SHALL BE DETERMINED IN THE FIELD AND SHALL BE INSTALLED AS DIRECTED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CORE DRILL WALLS AND FLOORS AS REQUIRED TO PERMIT PASSAGE OF CONDUITS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A MARKED-UP PLAN WITH LOCATION PENETRATIONS FOR REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER BEFORE ROUGH-IN BEGINS.
2 [redacted]
3 DURING THE BIDDING PROCESS, THE ELECTRICAL CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS OF ALL OTHER TRADES (ARCHITECTURAL, SITE/LANDSCAPING, HVAC, PLUMBING AND SPECIALTY TRADES). ALL ITEMS REQUIRING POWER INDICATED ON THESE DRAWINGS BUT NOT INDICATED ON THE ELECTRICAL DRAWINGS SHALL BE CONSIDERED A PART OF THE ELECTRICAL CONTRACTOR'S WORK. THIS WORK SHALL BE INSTALLED AS PER NEC REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
4 THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAKE ALL FEEDER RUNS CONTINUOUS (NO CABLE BREAKS). IF SPLICING CABLES IN BOXES BECOMES NECESSARY, USE O.Z.G. TYPE "XW" CABLE TAPS, OR APPROVED EQUAL, AND TAPE EACH TAP IN APPROVED MANNER.
5 THE MECHANICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES, VFD'S, OR COMBINATION STARTERS FOR ALL OF THEIR UNITS. THE ELECTRICAL CONTRACTOR SHALL RECEIVE THESE ITEMS FROM THE MECHANICAL CONTRACTOR FOR INSTALLATION BY THE ELECTRICAL CONTRACTOR.
6 THE ELECTRICAL CONTRACTOR SHALL COORDINATE CONDUIT PENETRATIONS FOR ROOFTOP EQUIPMENT WITH MECHANICAL AND ROOFING CONTRACTORS. IF PROVISIONS ARE NOT IN PLACE FOR THESE PENETRATIONS THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING OWN PENETRATIONS AND CONTRACTING THE ROOF CONTRACTOR FOR SEALING THE ROOF PENETRATIONS.
7 REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.
8 PROVIDE CONDUIT AND WIRING AS REQUIRED TO MEET CIRCUITING SHOWN TO CONFORM TO NEC REQUIREMENTS.
9 PROVIDE EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS. REFER TO PANELBOARD SCHEDULES.
10 REFER TO EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND CIRCUIT DESIGNATIONS.
11 ROUTE CONDUIT HIGH AGAINST STRUCTURE AND OFFSET UP BETWEEN JOISTS WHERE NECESSARY TO AVOID DUCT WORK AND HVAC SYSTEM.
12 VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.
13 CONTRACTOR SHALL LABEL ALL RECEPTACLES ON DEDICATED CIRCUITS AS "DEDICATED FOR EQUIPMENT".

(#) POWER PLAN KEYNOTES

1 JUNCTION BOXES IN FLOOR SHALL CONNECT TO MANUFACTURER POWER CONNECTION POINT IN LAB BENCHES. JUNCTION BOXES SHALL INCLUDE POKE THROUGH TO SUPPORT 3/4" CONDUIT AND NOT CONTAIN ANY RECEPTACLES. CONDUITS SHALL BE RUN IN CEILING OF THE FLOOR BELOW.
2 JUNCTION BOX SHALL BE UTILIZED FOR POWER PULL TO PRESENTER DESK.
3 RECEPTACLES SHALL BE MOUNTED IN BASE OF SEATING.
4 RECEPTACLES SHALL BE MOUNTED IN CASEWORK.
5 JUNCTION BOX FOR EMERGENCY GAS SHUTDOWN VALVE. COORDINATE EXACT LOCATION WITH PLUMBING DRAWINGS.



1 **PARTIAL SIXTH FLOOR POWER PLAN**
1/8" = 1'-0"

AE WORKS
418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION
1	5/13/2026	ADDENDUM 3

PROFESSIONAL:

PROJECT NAME:
CCAC BIOLOGY LAB RENOVATIONS BOYCE CAMPUS

595 Beatty RD, Monroeville PA 15146

DRAWING TITLE:
PARTIAL SIXTH FLOOR POWER PLAN

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO: **E201**

Autodesk Docs://CCAC-006 Boyce Bio Lab/CCAC-006_MEP_24.rvt
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EXISTING PANEL DD

RATINGS: 208Y/120 **MAINS TYPE:** MLO **LOCATION:** STAIR 611
BUS RATING: 100 AMPS **FED FROM:** D
A.I.C. RATING 10,000 AMPS SYMMETRICAL **MOUNTING:** RECESSED

CKT NO	CIRCUIT DESCRIPTION	BREAKER P	BREAKER TRIP	LOAD (KVA) A		LOAD (KVA) B		LOAD (KVA) C		BREAKER TRIP	BREAKER P	CIRCUIT DESCRIPTION	CKT NO
1	EXISTING	1	20.0 A	0.00	0.00					20.0 A	1	EXISTING	2
3	EXISTING	1	20.0 A			0.00	0.00			20.0 A	1	EXISTING	4
5	EXISTING	1	20.0 A					0.00	0.00	20.0 A	1	EXISTING	6
7	EXISTING	1	20.0 A	0.00	0.00					20.0 A	1	EXISTING	8
9	EXISTING	1	20.0 A			0.00	0.00			20.0 A	1	EXISTING	10
11	SPARE (ETR)	1	20.0 A					0.00	0.00	20.0 A	1	SPARE (ETR)	12
13	SPARE (ETR)	1	20.0 A	0.00	0.00					20.0 A	1	SPARE (ETR)	14
15	SPARE (ETR)	1	20.0 A			0.00	0.00			20.0 A	1	SPARE (ETR)	16
17	SPARE (ETR)	1	20.0 A					0.00	0.00	20.0 A	1	SPARE (ETR)	18
				0.0		0.0		0.0		:CONNECTED LOAD/PHASE (KVA)			
				0.0		0.0		0.0		:CONNECTED LOAD/PHASE (A)			
										0.0	:TOTAL CONNECTED LOAD (KVA)		
										0.0	:TOTAL CONNECTED LOAD (A)		
										100.00%	:TOTAL DEMAND FACTOR		
										0.0	:TOTAL DEMAND LOAD (KVA)		
										0.0	:TOTAL DEMAND LOAD (A)		

NOTES:
PANEL IS EXISTING TO REMAIN. REMOVE FROM PANEL D WHILE IT IS REPLACED AND RECONNECT VIA 3 POLE BREAKER AS SHOWN ON PANEL SCHEDULE.

EXISTING PANEL N

RATINGS: 208Y/120 **MAINS TYPE:** MCB **LOCATION:** PENTHOUSE
BUS RATING: 125 AMPS **MCB RATING:** 125.0 A **FED FROM:** DIST. PANEL #2
A.I.C. RATING 22,000 AMPS SYMMETRICAL **MOUNTING:** SURFACE

CKT NO	CIRCUIT DESCRIPTION	BREAKER P	BREAKER TRIP	LOAD (KVA) A		LOAD (KVA) B		LOAD (KVA) C		BREAKER TRIP	BREAKER P	CIRCUIT DESCRIPTION	CKT NO
1	LIGHTS IN FAN ROOMS (ETR)	1	20.0 A	0.00	0.00					20.0 A	1	EXHAUST FAN (ETR)	2
3	LIGHTS IN PENTHOUSE (ETR)	1	20.0 A			0.00	0.00			20.0 A	1	EXHAUST FAN (ETR)	4
5	ICE MACHINE (ETR)	1	20.0 A					0.00	0.00	20.0 A	1	CONTROL-GLYCOL (ETR)	6
7	JOHNSON CONTROL PANEL (ETR)	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	8
9	DSC PANEL (ETR)	1	20.0 A			0.00	0.00			20.0 A	1	MINN. - HONEYWELL CONTROL PANEL (ETR)	10
11	SPACE	1	--					--	--	--	1	SPACE	12
13	BATHROOM DOOR OPENER (ETR)	1	20.0 A	0.00	0.00								14
15	BATHROOM GFI (ETR)	1	20.0 A			0.00	0.00			20.0 A	3	DISP. WATER (ETR)	16
17	BATHROOM LIGHTS (ETR)	1	20.0 A					0.00	0.00				18
19	BATHROOM EXHAUST FAN (ETR)	1	20.0 A	0.00	1.27								20
21	EXISTING (1)	2	30.0 A			0.00	1.27			**20.0 A**	**3**	**EF-2 (2)**	22
23								0.00	1.27				24
25				0.00	1.13								26
27	EXISTING	3	30.0 A			0.00	1.13			**20.0 A**	**3**	**EF-1 (2)**	28
29								0.00	1.13				30
				2.4		2.4		2.4		:CONNECTED LOAD/PHASE (KVA)			
				20.0		20.0		20.0		:CONNECTED LOAD/PHASE (A)			
										7.2	:TOTAL CONNECTED LOAD (KVA)		
										20.0	:TOTAL CONNECTED LOAD (A)		
										100.00%	:TOTAL DEMAND FACTOR		
										7.2	:TOTAL DEMAND LOAD (KVA)		
										20.0	:TOTAL DEMAND LOAD (A)		

NOTES:
1 - RELOCATED FROM CIRCUITS 22 & 24.
2 - NEW BREAKER IN EXISTING PANEL.

PANEL E

RATINGS: 208Y/120 **MAINS TYPE:** MCB **LOCATION:** CORRIDOR 635
BUS RATING: 150 AMPS **MCB RATING:** 150.0 A **FED FROM:** DIST. PANEL #2
A.I.C. RATING 22,000 AMPS SYMMETRICAL **MOUNTING:** RECESSED

CKT NO	CIRCUIT DESCRIPTION	BREAKER P	BREAKER TRIP	LOAD (KVA) A		LOAD (KVA) B		LOAD (KVA) C		BREAKER TRIP	BREAKER P	CIRCUIT DESCRIPTION	CKT NO
1	RCPT ROOM 604	1	20.0 A	0.72	0.18					20.0 A	1	RCPT ROOM 603 DI WATER	2
3	RCPT ROOM 605 & ROOM 607	1	20.0 A			1.44	0.72			20.0 A	1	RCPT ROOM 604 MEDIA WALL	4
5	PRESENTER DESK ROOM 604	1	20.0 A					1.00	1.26	20.0 A	1	RCPT ROOM 606	6
7	RCPT CORRIDOR 635	1	20.0 A	1.26	0.72					20.0 A	1	RCPT ROOM 606 MEDIA WALL	8
9	PRESENTER DESK ROOM 606	1	20.0 A			1.00	1.20			20.0 A	1	FUME HOOD 1 ROOM 606	10
11	FUME HOOD 2 ROOM 606	1	20.0 A					1.20	0.53	20.0 A	1	RCPT PREP 609	12
13	DEDICATED RCPT PREP 609	1	20.0 A	1.50	1.20					20.0 A	1	DEDICATED RCPT PREP 609	14
15	DEDICATED RCPT PREP 609	1	20.0 A			1.50	1.50			20.0 A	1	DEDICATED RCPT PREP 609	16
17	DEDICATED RCPT PREP 609	1	20.0 A					1.50	0.36	20.0 A	1	RCPT PREP 609	18
19	RCPT PREP 609	1	20.0 A	0.36	1.50					20.0 A	1	RCPT PREP 606	20
21	DEDICATED RCPT PREP 609	1	20.0 A			1.50	1.08			20.0 A	1	FLOOR BOX 1 ROOM 604	22
23	FLOOR BOX 2 ROOM 604	1	20.0 A					1.08	1.44	20.0 A	1	FLOOR BOX 3 & 4 ROOM 604	24
25	FLOOR BOX 5 & 6 ROOM 604	1	20.0 A	0.90	1.08					20.0 A	1	FLOOR BOX 1 ROOM 606	26
27	FLOOR BOX 2 ROOM 606	1	20.0 A			1.08	1.44			20.0 A	1	FLOOR BOX 3 & 4 ROOM 606	28
29	FLOOR BOX 5 & 6 ROOM 606	1	20.0 A					0.90	0.72	20.0 A	1	LIGHTS COOR. 635, ROOMS 605 & 607	30
31	LIGHTS ROOMS 604 & 606	1	20.0 A	1.41	0.50					20.0 A	1	EMERGENCY GAS SHUTDOWN	32
33	RCPT STUDENT LOUNGE 608	1	20.0 A			0.00	0.54			20.0 A	1	RCPT CORRIDOR 605	34
35	WATER COOLER WIRED MA WATER	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	36
37	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	38
39	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	40
41	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	42
				11.1		12.8		9.8		:CONNECTED LOAD/PHASE (KVA)			
				93.7		108.1		82.0		:CONNECTED LOAD/PHASE (A)			
										33.6	:TOTAL CONNECTED LOAD (KVA)		
										93.4	:TOTAL CONNECTED LOAD (A)		
										76.79%	:TOTAL DEMAND FACTOR		
										25.8	:TOTAL DEMAND LOAD (KVA)		
										71.7	:TOTAL DEMAND LOAD (A)		

ADD ALTERNATE: PROVIDE SHUNT-TRIP BREAKER FOR ALL RECEPTACLE CICRUITS SERVING LAB S604, AND S606.

NOTES:
DEDICATED RECEPTACLES ARE INTENDED FOR LAB EQUIPMENT. CONFIRM FINAL LOCATION OF RECEPTACLES WITH OWNER PRIOR TO INSTALL. ENSURE RECEPTACLES CALLED "DEDICATED" ARE ON THEIR OWN CIRCUIT.

PANEL D

RATINGS: 208Y/120 **MAINS TYPE:** MCB **LOCATION:** CORRIDOR 610
BUS RATING: 200 AMPS **MCB RATING:** 200.0 A **FED FROM:** DIST. PANEL #2
A.I.C. RATING 22,000 AMPS SYMMETRICAL **MOUNTING:** RECESSED

CKT NO	CIRCUIT DESCRIPTION	BREAKER P	BREAKER TRIP	LOAD (KVA) A		LOAD (KVA) B		LOAD (KVA) C		BREAKER TRIP	BREAKER P	CIRCUIT DESCRIPTION	CKT NO
1										20.0 A	1	FUME HOOD ROOM 609	2
3	DD (EXISTING TO REMAIN, RECONNECT TO NEW PANEL VIA NEW BREAKER)	3	100.0 A							20.0 A	1	DEDICATED RCPT PREP 609	4
5										20.0 A	1	DEDICATED RCPT PREP 609	6
7	DEDICATED RCPT PREP 609	1	20.0 A							20.0 A	1	DEDICATED RCPT PREP 609	8
9	DEDICATED RCPT PREP 609	1	20.0 A							20.0 A	1	DEDICATED RCPT PREP 609	10
11	DEDICATED RCPT PREP 609	1	20.0 A							20.0 A	1	DEDICATED RCPT PREP 609	12
13	DEDICATED RCPT PREP 609	1	20.0 A							20.0 A	1	DEDICATED RCPT PREP 609	14
15	RCPT ROOM 610	1	20.0 A							20.0 A	1	FUME HOOD ROOM 610	16
17	RCPT ROOM 610 MEDIA WALL	1	20.0 A							20.0 A	1	PRESENTER DESK ROOM 610	18
19	FLOOR BOX 1 ROOM 610	1	20.0 A							20.0 A	1	FLOOR BOX 2 ROOM 610	20
21	FLOOR BOX 3 ROOM 610	1	20.0 A							20.0 A	1	FLOOR BOX 4 ROOM 610	22
23	RCPT ROOM 608	1	20.0 A							20.0 A	1	RCPT ROOM 608	24
25	RCPT ROOM 608 MEDIA WALL	1	20.0 A							20.0 A	1	PRESENTER DESK ROOM 608	26
27	FLOOR BOX 1 ROOM 608	1	20.0 A							20.0 A	1	FLOOR BOX 2 ROOM 608	28
29	FLOOR BOX 3 ROOM 608	1	20.0 A							20.0 A	1	FLOOR BOX 4 ROOM 608	30
31	FLOOR BOX 5 ROOM 608	1	20.0 A							20.0 A	1	LIGHTS ROOMS 608 & 610	32
33	LIGHTS CORR. 635, ROOM 609	1	20.0 A							20.0 A	1	DEDICATED RCPTS ROOM 610	34
35	DEDICATED RCPTS ROOM 610	1	20.0 A							20.0 A	1	DEDICATED RCPTS ROOM 608	36
37	DEDICATED RCPTS ROOM 608	1	20.0 A							20.0 A	1	DEDICATED RCPTS ROOM 608	38
39	DEDICATED RCPTS ROOM 608	1	20.0 A							20.0 A	1	DEDICATED RCPTS ROOM 608	40
41	DEDICATED RCPTS ROOM 608	1	20.0 A							20.0 A	1	SPARE	42
				12.8		11.3		9.9		:CONNECTED LOAD/PHASE (KVA)			
				108.8		96.2		82.7		:CONNECTED LOAD/PHASE (A)			
										34.1	:TOTAL CONNECTED LOAD (KVA)		
										94.6	:TOTAL CONNECTED LOAD (A)		
										75.41%	:TOTAL DEMAND FACTOR		
										25.7	:TOTAL DEMAND LOAD (KVA)		
										71.4	:TOTAL DEMAND LOAD (A)		

ADD ALTERNATE: PROVIDE SHUNT-TRIP BREAKER FOR ALL RECEPTACLE CICRUITS SERVING LAB S608, AND S610.

NOTES:
DEDICATED RECEPTACLES ARE INTENDED FOR LAB EQUIPMENT. EXACT LOCATION AND LOADS ARE NOT KNOWN. ENSURE RECEPTACLES CALLED "DEDICATED" ARE CIRCUITED AS SHOWN AS DRAWINGS.

EXISTING PANEL DIST. PANEL #2

RATINGS: 208Y/120 **MAINS TYPE:** MLO **LOCATION:** ROOM 416
BUS RATING: 1200 AMPS **FED FROM:** MAIN SWBD SOUTH
A.I.C. RATING 65,000 AMPS SYMMETRICAL **MOUNTING:** SURFACE

CKT NO	CIRCUIT DESCRIPTION	BREAKER P	BREAKER TRIP	LOAD (KVA) A		LOAD (KVA) B		LOAD (KVA) C		BREAKER TRIP	BREAKER P	CIRCUIT DESCRIPTION	CKT NO
1				2.40	11.05								2
3	PANEL N (ETR)	3	125.0 A			2.40	12.78			**150.0 A**	**3**	**PANEL E (1)**	4
5								2.40	9.84				6
7				0.00	0.00								8
9	PANEL C (ETR)	3	150.0 A			0.00	0.00			150.0 A	3	PANEL B (ETR)	10
11								0.00	0.00				12
13				0.00	12.84								14
15	PANEL O AND PANEL A (ETR)	3	150.0 A			0.00	11.33			200.0 A	3	**PANEL D (1)**	16
17								0.00	9.92				18
19				0.00	0.00								20
21	PANEL C-1 (ETR)	3	150.0 A			0.00	0.00			200.0 A	3	PANEL M (ETR)	22
23								0.00	0.00				24
25				0.00	0.00								26
27	XFMR T-20 "EAST FAN" (ETR)	3	300.0 A			0.00	0.00			125.0 A	3	CHILLED WATER PUMP (ETR)	28
29								0.00	0.00				30
				26.2		26.5		22.1		:CONNECTED LOAD/PHASE (KVA)			
				224.1		225.8		183.9		:CONNECTED LOAD/PHASE (A)			
										74.7	:TOTAL CONNECTED LOAD (KVA)		
										207.5	:TOTAL CONNECTED LOAD (A)		
										71.77%	:TOTAL DEMAND FACTOR		
										53.6	:TOTAL DEMAND LOAD (KVA)		
										148.9	:TOTAL DEMAND LOAD (A)		

NOTES:
(1) - PANEL 'E' AND 'D' ARE TO BE REPLACED AS NOTED ON FLOOR PLANS. MAINTAIN EXISTING CONDUIT BUT RUN NEW FEEDERS TO BOTH PANELS. PANEL E BREAKER IS NEW AND PANEL D BREAKER IS ETR.

EXISTING PANEL DIST. PANEL #3

RATINGS: 208Y/120 **MAINS TYPE:** MLO **LOCATION:** ROOM 549
BUS RATING: 600 AMPS **FED FROM:** MAIN SWBD SOUTH
A.I.C. RATING 65,000 AMPS SYMMETRICAL **MOUNTING:** SURFACE

CKT NO	CIRCUIT DESCRIPTION	BREAKER P	BREAKER TRIP	LOAD (KVA) A		LOAD (KVA) B		LOAD (KVA) C		BREAKER TRIP	BREAKER P	CIRCUIT DESCRIPTION	CKT NO
1				--	--								2
3	SPACE	3	--			--	--			--	3	SPACE	4
5								--	--				6
7				--	--								8
9	SPACE	3	--			--	--			--	3	SPACE	10
11								--	--				12
13				--	--								14
15	SPACE	3	--			--	--			--	3	SPACE	16
17								--	--				18
19				6.63	--								20
21	**DOAS-1**	**3**	**70.0 A**			6.63	--			--	3	SPACE	22
23								6.63	--				24
25				0.00	0.00								26
27	ICE MELT PANEL (ETR)	3	150.0 A			0.00	0.00			150.0 A	3	PANEL AA (ETR)	28
29								0.00	0.00				30
31				0.00	0.00								32
33	XFMR T-19 (ETR - DE-ENERGIZED)	3	150.0 A			0.00	0.00			125.0 A	3	PANEL HH (ETR)	34
35								0.00	0.00				36
				6.6		6.6		6.6		:CONNECTED LOAD/PHASE (KVA)			
				55.2		55.2		55.2		:CONNECTED LOAD/PHASE (A)			
										19.9	:TOTAL CONNECTED LOAD (KVA)		
										55.2	:TOTAL CONNECTED LOAD (A)		
										100.00%	:TOTAL DEMAND FACTOR		
										19.9	:TOTAL DEMAND LOAD (KVA)		
										55.2	:TOTAL DEMAND LOAD (A)		

NOTES:
XMFR T-19 IS DE-ENERGIZED. THIS BREAKER SHALL NOT BE TURNED BACK ON TO ENSURE THE PANEL IS NOT OVERLOADED. THE MAIN FEEDER TO DIST. PANEL #3 IS TAPPED IN ROOM 418 TO FEED 100A PANEL CA.

LIGHTING POWER DENSITY SCHEDULE

NUMBER	NAME	SPACE TYPE	AREA	ALLOWED LPD	ACTUAL LPD
605	STUDENT LOUNGE	MULTIPURPOSE ROOM	191.7 SF	1.07 W/ft²	0.67 W/ft²
606	MICROBIO LAB / A&P 2	LABORATORY	1272.6 SF	1.20 W/ft²	3.30 W/ft²
607	OFFICE	OFFICE	153.4 SF	0.93 W/ft²	0.42 W/ft²
608	GEN BIO 1 / INTRO BIO	LABORATORY	1200.7 SF	1.20 W/ft²	1.53 W/ft²
609	PREP	LABORATORY	553.5 SF	1.20 W/ft²	2.93 W/ft²
610	CORRIDOR	LABORATORY	971.5 SF	1.20 W/ft²	3.03 W/ft²
621	MEN'S	LABORATORY	1304.9 SF	1.20 W/ft²	1.38 W/ft²
635	CORRIDOR	CORRIDOR	1069.1 SF	0.66 W/ft²	0.65 W/ft²

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	MANUFACTURER	MODEL NUMBER	LAMP	VOLT	VA	NOTE
						120 V		
D1	2" SQUARE RECESSED DOWNLIGHT, 4 SLOT LED ARRAY, ACT MOUNTED	RECESSED	AXIS LIGHTING	PIMLR-2X2-500-D55-GR-80-40-W-120-DP-1-TB9	LED	120 V	5 VA	
E1	EXIT LIGHT, RED LETTERING ON MIRRORED BACKGROUND	UNIVERSAL	COMPASS	CELUNA	LED	120 V	5 VA	
R1	2X4 LED FIXTURE	RECESSED	COLUMBIA	NTB-24-49-L048-G-A12125F-ED1-U	LED	120 V	35 VA	
R1E	2X4 LED FIXTURE WITH INTEGRAL BATTERY	RECESSED	COLUMBIA	NTB-24-49-L048-G-A12125F-ED1-U-ELL14-DTS	LED	120 V	35 VA	

EQUIPMENT CONNECTION SCHEDULE

IDENTIFICATION	FLA / MCA	VOLTAGE / PH / LOAD	CKT. BKR	PANEL	CKT. #	DISCONNECT	FEEDER SIZE	CONDUIT SIZE
EF-2	10.6 /	208 V/3-3819 VA	20A	N	20,22,24	3P-30AF/INF	(3) #12 + (1) #12G	3/4"
EF-1	9.38 /	208 V/3-3379 VA	20A	N	26,28,30	3P-30AF/INF	(3) #12 + (1) #12G	3/4"
DOAS-1	55.2 / 62.3	208 V/3-19887 VA	70A	DIST. PANEL #3	19,21,23	3P-100AF/INF	(3) #3 + (1) #8G	1 1/4"

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418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION
1	5/13/2026	ADDENDUM 3

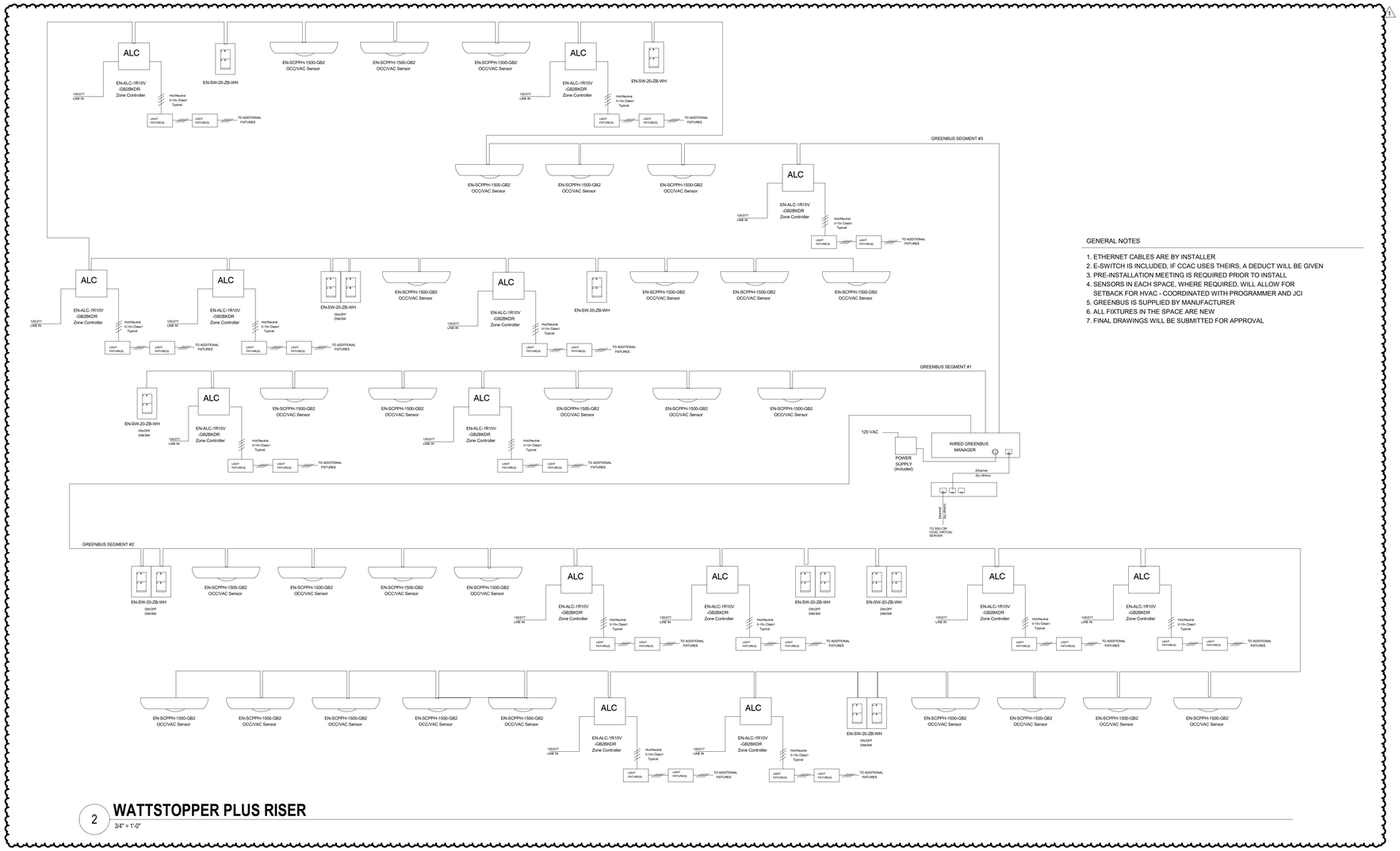
PROFESSIONAL:

PROJECT NAME:
CCAC BIOLOGY LAB RENOVATIONS BOYCE CAMPUS

595 Beatty RD, Monroeville PA 15146

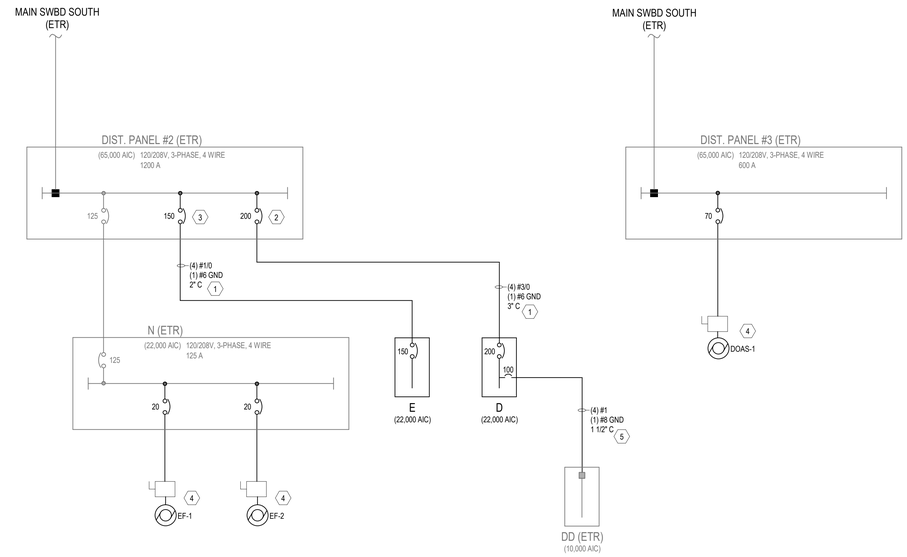
DRAWING TITLE:
ELECTRICAL SCHEDULES

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO: **E501**



2 WATTSTOPPER PLUS RISER

3/4" = 1'-0"



1 PARTIAL ONE-LINE DIAGRAM

NOT TO SCALE

GENERAL NOTES

1. ETHERNET CABLES ARE BY INSTALLER
2. E-SWITCH IS INCLUDED, IF CCAC USES THEIRS, A DEDUCT WILL BE GIVEN
3. PRE-INSTALLATION MEETING IS REQUIRED PRIOR TO INSTALL
4. SENSORS IN EACH SPACE, WHERE REQUIRED, WILL ALLOW FOR SETBACK FOR HVAC - COORDINATED WITH PROGRAMMER AND JCI
5. GREENBUS IS SUPPLIED BY MANUFACTURER
6. ALL FIXTURES IN THE SPACE ARE NEW
7. FINAL DRAWINGS WILL BE SUBMITTED FOR APPROVAL

ONE-LINE DIAGRAM KEYNOTES

1 EXISITNG CONDUIT SHALL BE REUSED TO THE EXTENT POSSIBLE. FEEDERS TO PANELS E AND D SHALL BE NEW.

2 BREAKER IS EXISTING TO REMAIN AND TO BE RE-USED.

3 BREAKER IS NEW AND TO BE INSTALLED IN EXISTING PANEL.

4 SEE EQUIPMENT CONNECTION SCHEDULE FOR MECHANICAL EQUIPMENT FEEDER AND DISCONNECT SIZES.

5 PANEL DD IS EXISTING TO REMAIN BUT A NEW FEEDER SHALL BE PULLED FROM PANEL D TO FEED IT.

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SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION
1	5/13/2026	ADDENDUM 3

PROFESSIONAL:

PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
PARTIAL ONE-LINE
DIAGRAM

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO: **E602**

Autodesk Docs://CCAC-006 Boyce Bio Lab/CCAC-006_MEP_24.rvt
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E

D

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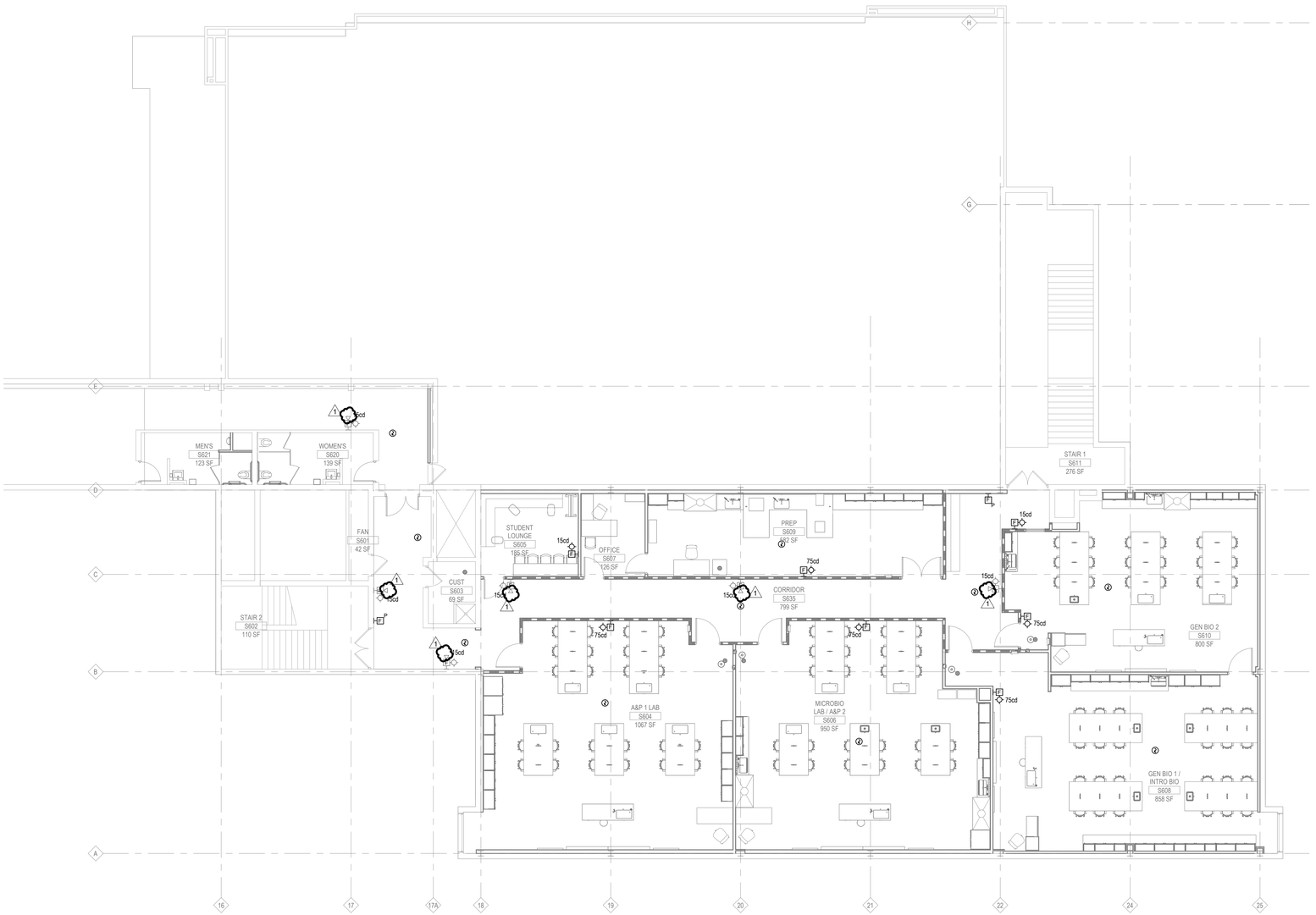
A

FIRE ALARM PLAN GENERAL NOTES

1 ALL FIRE ALARM WIRING & DEVICES SHALL BE IN ACCORDANCE WITH THE EXISTING FACILITY FIRE ALARM SYSTEM MANUFACTURER VENDOR'S POINT BY POINT WIRING DIAGRAM. THE FLOOR PLAN SHOWS THE PROPOSED QUANTITY OF FIRE ALARM SYSTEM COMPONENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL DEVICES AND MODULES AS REQUIRED TO PROVIDE A FULLY FUNCTIONAL AND LOCAL/NATIONAL CODE COMPLIANT SYSTEM.

2 CONTRACTOR / VENDOR SHALL PREPARE PENNSYLVANIA LICENSED P.E. WORKING FIRE ALARM SYSTEM DRAWINGS INCORPORATING THE FIRE ALARM CRITERIA DESIGN AND CONFORMING TO AHJ REQUIREMENTS. CONTRACTOR SHALL PROVIDE ALL MATERIAL REQUIRED PER AHJ DESIGN CRITERIA FOR A FULLY FUNCTIONING FIRE ALARM SYSTEM. SUBMIT SIGNED AND SEALED DOCUMENTS TO THE DESIGN PROFESSIONAL AS A SHOP DRAWING FOR REVIEW.

3 THE INTENT IS FOR THE CONTRACTOR TO INSTALL ALL REQUIRED COMPONENTS FOR A FULLY FUNCTIONING FIRE ALARM SYSTEM AS AN EXTENSION TO THE EXISTING FIRE ALARM SYSTEM IN THE FACILITY.



1 **PARTIAL SIXTH FLOOR FIRE ALARM PLAN**
1/8" = 1'-0"

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PROFESSIONAL:

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DRAWING TITLE:
PARTIAL SIXTH FLOOR FIRE ALARM PLAN

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO: **FA101**

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