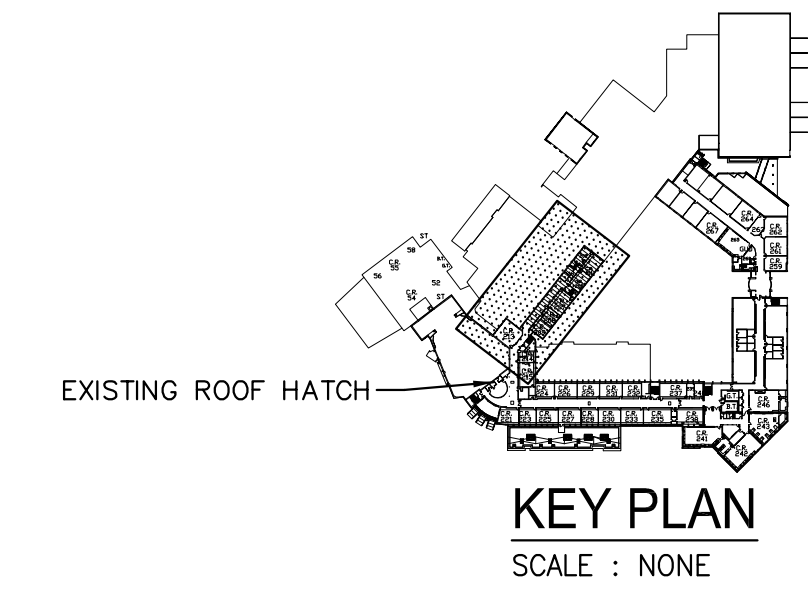


ROOF PLAN - POWER - NEW WORK
SCALE: 1/8" = 1'-0"

- NEW WORK NOTES:**
- PROVIDE NEW DUCT SMOKE DETECTOR IN WEATHERPROOF ENCLOSURE AND CONNECT TO THE EXISTING SIEMENS FIRE FINDER FIRE ALARM CONTROL PANEL LOCATED IN THE SCHOOL ADMIN OFFICE. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. CONNECT SO THAT FACP IS PLACED IN ALARM CONDITION AND UNIT IS SHUT DOWN ON DETECTION OF SMOKE. PROVIDE #18AWG CONDUCTORS FOR FIRE ALARM DUCT SMOKE DETECTOR SIGNAL CIRCUIT. APPROXIMATE LENGTH OF RUN IS 600' FROM OAU#1.
 - PROVIDE A WEATHERPROOF DISCONNECT FOR CONNECTIONS TO HEAT TRACE AT MECHANICAL PIPING FROM OAU UNIT THROUGH ROOF. CONNECT TO NEW GFCI CIRCUIT BREAKER IN PANEL "L21" AS INDICATED. COORDINATE EXACT ROUGHIN LOCATION WITH MECHANICAL CONTRACTOR.
 - PROVIDE A NEW WP GFCI RECEPTACLE, CONNECT TO NEW PANEL "L21" ON SECOND FLOOR.
 - PROVIDE NEW PANEL "HR" LOCATED ON ROOFTOP, IN A NEMA-3R GASKETED ENCLOSURE. PROVIDE UNISTRUT SUPPORT BRACKETS FOR SECURING NEW PANEL TO EXISTING WALL. PROVIDE A NEW PITCH POCKET FOR NEW CONDUIT PENETRATIONS ENTERING AND LEAVING THE PANEL FROM BELOW. DO NOT RUN FEEDERS TO NEW ROOFTOP HVAC EQUIPMENT EXPOSED ON ROOFTOP. RUN NEW FEEDERS IN CEILING OF FLOOR BELOW ROOF AND COME UP IN NEW PITCH POCKETS AT THE NEW HVAC EQUIPMENT.



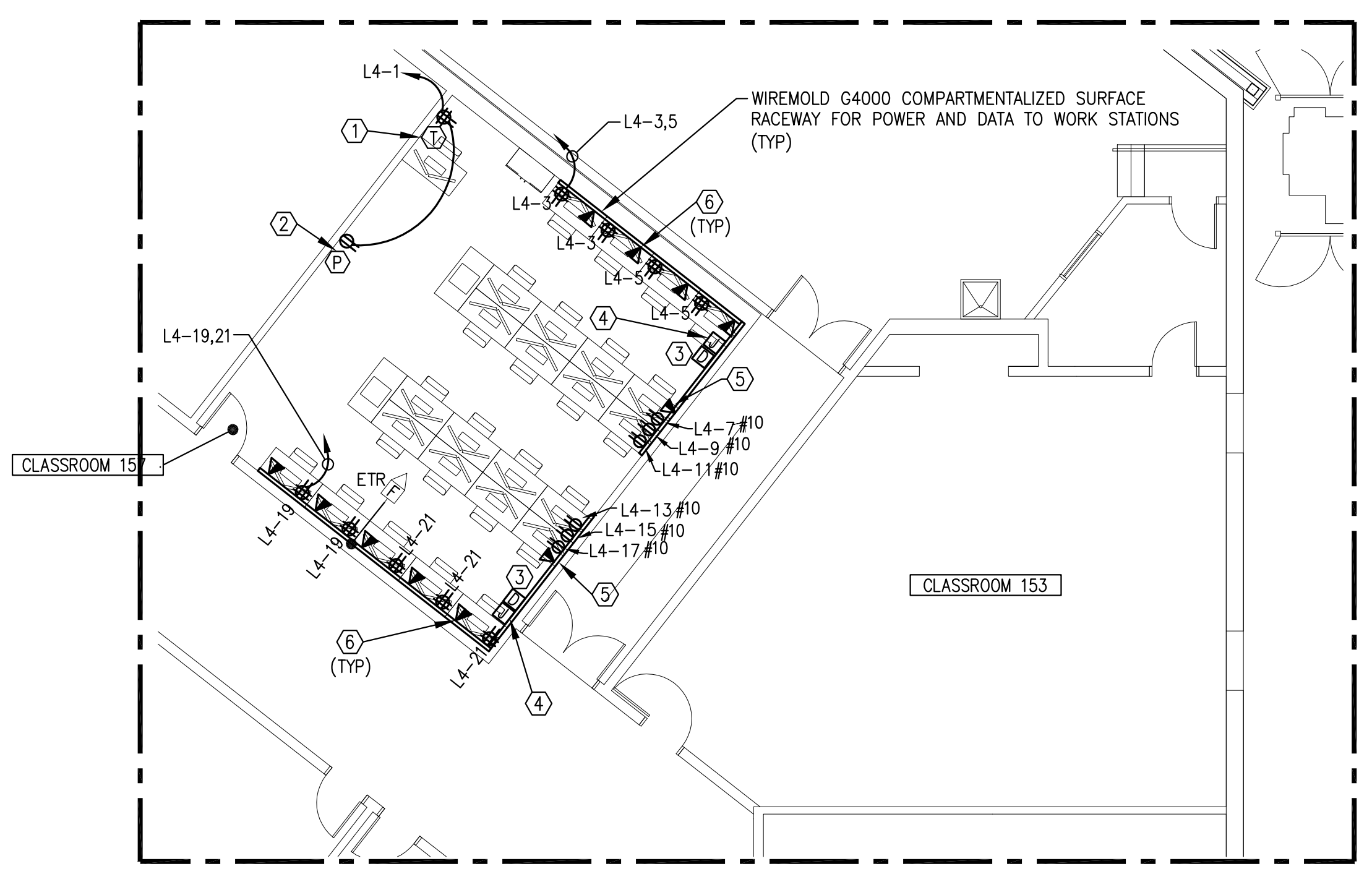
NEW PANELBOARD "HR" SCHEDULE
400A, 480Y/277V, 3Ø, 4W, SN, GND BUS, SURFACE MOUNTED, NEMA-3R GASKETED OUTDOOR ENCLOSURE
400A MAIN BREAKER, 35KAIC FULLY RATED

LOAD SERVED	LOAD			WIRE SIZE	BKR TRIP	POLE	OCT NO	PHASE			OCT NO	POLE	BKR TRIP	WIRE SIZE	LOAD		
	A	B	C					A	B	C					A	B	C
VRF-OU-1	10.6			8	50	3	1				2	1	20	X	X		SPACE
		10.6					3				4	1	20	X		X	SPACE
			10.6				5				6	1	20	X		X	SPACE
VRF-OU-2	7.86			8	35	3	7				8	1	20	X	X		SPACE
		7.86					9				10	1	20	X		X	SPACE
			7.86				12				14	1	20	X		X	SPACE
OAU #1	11.1			8	50	3	13				14	1	20	X	X		SPACE
		11.1					15				16	1	20	X		X	SPACE
			11.1				17				18	1	20	X		X	SPACE
TRANSFORMER "TL21" SERVES PANEL "L21" ON SECOND FLOOR	25.0			SEE ONE			19				20	1	20	X	X		SPACE
	25.0			25.0			21				22	1	20	X		X	SPACE
							23				24	1	20	X		X	SPACE
WATER HTR. "A"-ROOM 200	4.15			12	20	1	25				26	1	20	X	X		SPACE
WATER HTR. "B"-ROOM 200	4.15			12	20	1	27				28	1	20	X		X	SPACE
WATER HTR. "C"-ROOM 200	4.15			12	20	1	29				30	1	20	X		X	SPACE
SPARE	X			X	20	1	31				32	1	20	X		X	SPACE
SPARE	X			X	20	1	33				34	1	20	X		X	SPACE
SPARE	X			X	20	1	35				36	1	20	X		X	SPACE
SPARE	X			X	20	1	37				38	1	20	X		X	SPACE
SPARE	X			X	20	1	39				40	1	20	X		X	SPACE
SPARE	X			X	20	1	41				42	1	20	X		X	SPACE

NOTES: 1. PROVIDE A NEW 400A/3P BREAKER IN EXISTING SQUARE-D 2000A, 480/277-VOLT, 3Ø, 4-WIRE SWITCHBOARD "S1" LOCATED IN FIRST FLOOR MAIN ELECTRICAL ROOM, USING THE AVAILABLE SPACES #9 AND #10 IN THE EXISTING SWITCHBOARD, TO FEED NEW PANEL "HR" TO BE LOCATED ON ROOF. NEW BREAKER SHALL MATCH THE EXISTING SWITCHBOARD'S FRAME TYPE AND KAIC RATING.

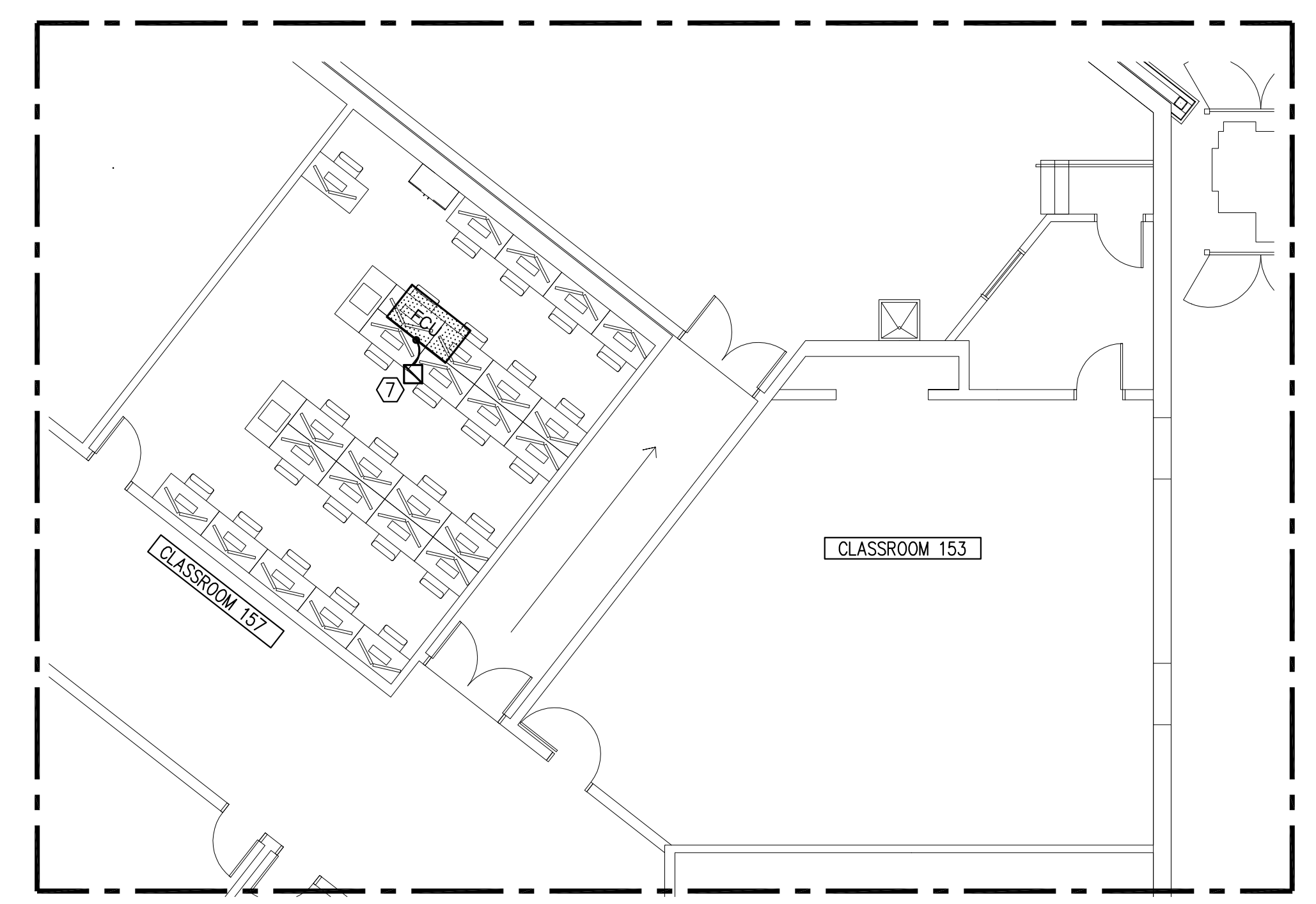
TOTAL CONNECTED KVA = 176.1KVA X 1000/480 X 1.73 = 212.2 AMPS

AØ = 58.7KVA
BØ = 58.7KVA
CØ = 58.7KVA

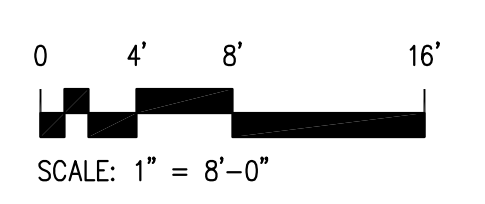
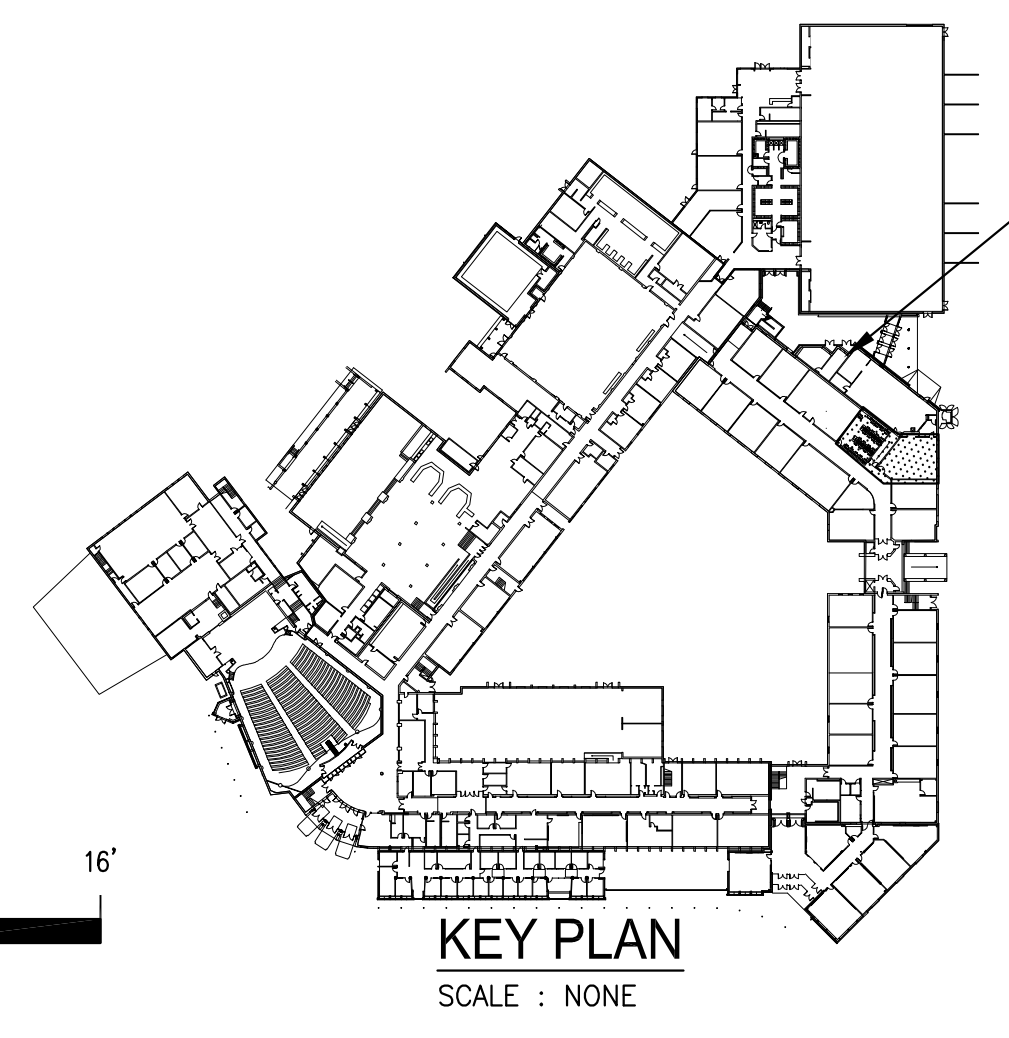
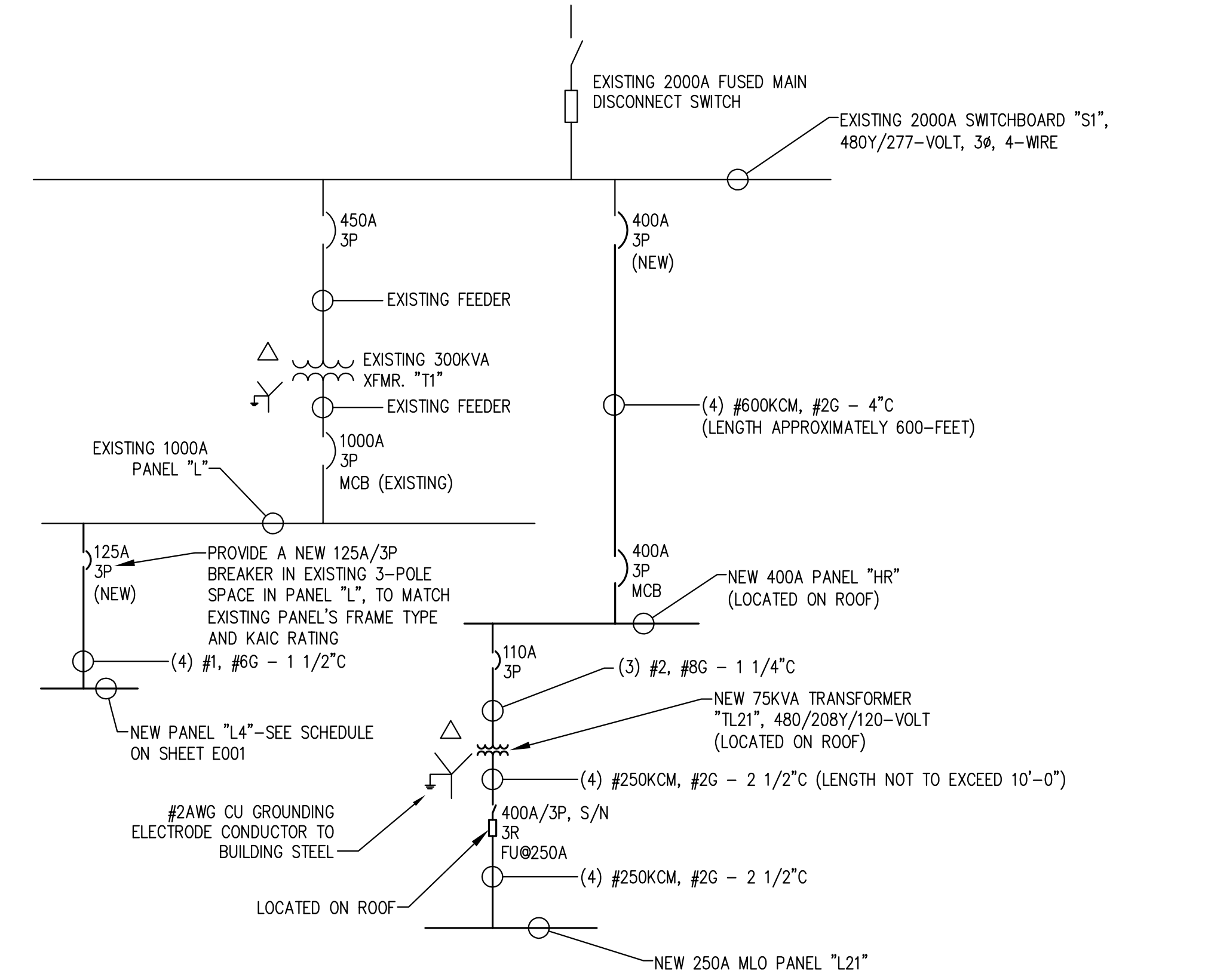


ADD ALTERNATE #2
FIRST FLOOR PLAN CAD LAB - POWER - NEW WORK
SCALE: 1/8" = 1'-0"

- POWER AND HVAC POWER PLAN NOTES-CAD LAB 157**
- REFER TO POWER AND COMMUNICATIONS OUTLETS AT TEACHER'S DESK DETAIL ON SHEET E001, TYPICAL.
 - REFER TO POWER AND COMMUNICATIONS OUTLETS AT PROJECTOR/SMARTBOARD LOCATION ON SHEET E001, TYPICAL. PROJECTOR POWERED FROM SAME CIRCUIT WITH TEACHER'S STATION QUAD RECEPTACLE.
 - PROVIDE A DATA JUNCTION BOX ABOVE CEILING WITH A 2" RUN TO TERMINATE ABOVE CORRIDOR CEILING. WIREMOLD G4000 SURFACE RACEWAY RUN VERTICALLY UP WALL SHALL BE STUBBED OUT 6" ABOVE EXISTING ACCESSIBLE CEILING, WITH APPROPRIATE CABLE ENTRY FITTINGS.
 - TRANSITION TO CONDUIT ABOVE CEILING AND RUN BACK TO PANEL FOR POWER WIRING.
 - PROVIDE TWO SINGLE GANG DATA PLATES WITH TOTAL OF 9 DATA OUTLETS. RUN NINE CAT6 BACK TO IDF AND TERMINATE.
 - PROVIDE ONE SINGLE GANG DATA PLATE WITH ONE DATA OUTLET AT EACH WORKSTATION. RUN CAT6 BACK TP IDF AND TERMINATE.
 - PROVIDE A NEW MANUAL STARTER DISCONNECT ABOVE ACCESSIBLE CEILING FOR NEW FCU, CONNECT TO EXISTING 120-VOLT CIRCUIT WHICH FED EXISTING FCU WHICH WAS DEMOLISHED.



ADD ALTERNATE #2
FIRST FLOOR PLAN CAD LAB - HVAC POWER - NEW WORK
SCALE: 1/8" = 1'-0"



AHS
MODERNIZATION/
HVAC UPGRADE

ALBEMARLE COUNTY
PUBLIC SCHOOLS

2775 HYDRAULIC ROAD
CHARLOTTESVILLE, VA
22901

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2016.40

PROJECT MANAGER:
TAR

DRAWN BY:
CMD

ISSUE DATE:
3/24/2017

BID DOCUMENTS

REVISIONS:



SHEET TITLE:
FIRST FLOOR CAD LAB AND
ROOF PLAN - POWER - NEW WORK

SHEET NUMBER:
E203