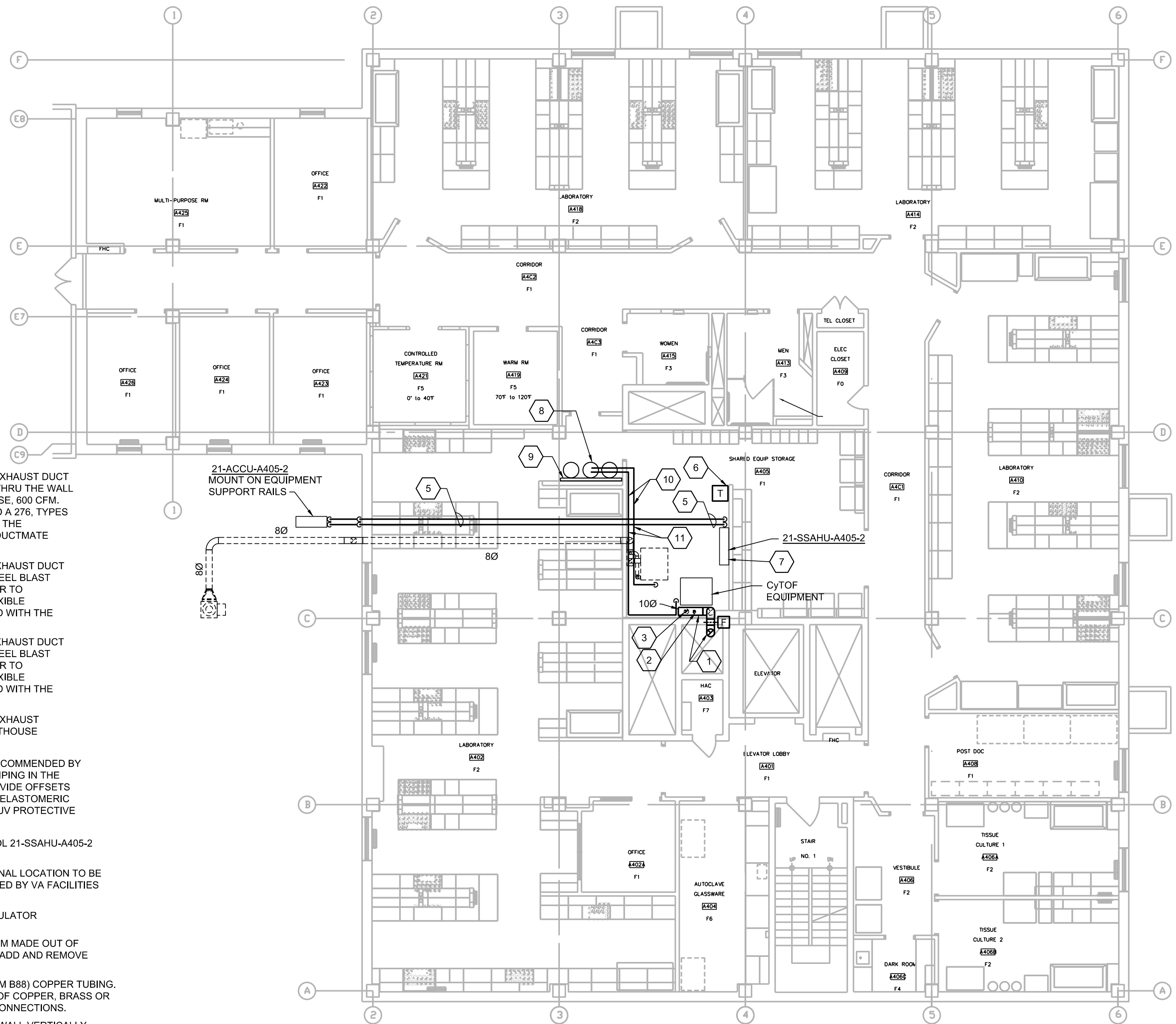


1 FIFTH FLOOR PLAN
0 4' 8' 16'
SCALE: 1/8" = 1'-0"

- KEYNOTE:**
- 100 TOTALLY WELDED STAINLESS STEEL EXHAUST DUCT EXPOSED IN ROOM. EXTEND DUCTWORK THRU THE WALL INTO SHAFT AND EXTEND UP TO PENTHOUSE. 600 CFM. THE DUCTWORK SHALL BE ASTM A 480 AND A 276, TYPES 304L OR 316L 18 GAUGE STAINLESS STEEL. THE DUCTWORK WITHIN THE SHAFT WILL USE DUCTMATE SPIRALMATE WITH SEAL CLASS 'X'.
 - 40 TOTALLY WELDED STAINLESS STEEL EXHAUST DUCT CONNECTION COLLAR WITH STAINLESS STEEL BLAST GATE DAMPER, BALANCE TO 150 CFM PRIOR TO CONNECTING TO CYTOF EQUIPMENT. FLEXIBLE CONNECTION DUCTWORK TO BE PROVIDED WITH THE EQUIPMENT.
 - 60 TOTALLY WELDED STAINLESS STEEL EXHAUST DUCT CONNECTION COLLAR WITH STAINLESS STEEL BLAST GATE DAMPER, BALANCE TO 450 CFM PRIOR TO CONNECTING TO CYTOF EQUIPMENT. FLEXIBLE CONNECTION DUCTWORK TO BE PROVIDED WITH THE EQUIPMENT.
 - 100 TOTALLY WELDED STAINLESS STEEL EXHAUST DUCTWORK FROM BELOW AND UP TO PENTHOUSE 600 CFM
 - PROVIDE REFRIGERANT PIPING SIZE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURE. ROUTE PIPING IN THE MOST DIRECT ROUTING AS POSSIBLE. PROVIDE OFFSETS AS NECESSARY. PROVIDE 1-1/2" FLEXIBLE ELASTOMERIC INSULATION WITH VAPOR RETARDER AND UV PROTECTIVE COATING.
 - WALL MOUNTED THERMOSTAT TO CONTROL 21-SSAHU-A405-2
 - 21-SSAHU-A405-2, WALL MOUNTED UNIT. FINAL LOCATION TO BE DETERMINED IN THE FIELD AND AS DIRECTED BY VA FACILITIES ENGINEERING GROUP.
 - (3) 20" DIAMETER ARGON TANKS AND REGULATOR PROVIDED BY VA.
 - PROVIDE WALL MOUNTED BRACKET SYSTEM MADE OUT OF UNISTRUT AND CHAIN. PROVIDE CLIPS TO ADD AND REMOVE TANKS WITHOUT THE USE OF TOOLS.
 - PROVIDE 1/4" SEAMLESS TYPE K OR L (ASTM B88) COPPER TUBING. FITTINGS USED FOR ASSEMBLY SHALL BE OF COPPER, BRASS OR BRONZE SUITABLE FOR MAKING BRAZED CONNECTIONS.
 - ROUTE 1/4" ARGON LINES RACKED ALONG WALL VERTICALLY. PROVIDE FINAL CONNECTION TO EQUIPMENT.



2 FOURTH FLOOR PLAN
0 4' 8' 16'
SCALE: 1/8" = 1'-0"

AIR COOLED CONDENSING UNIT SCHEDULE							
SYMBOL	CONDENSOR FAN ECM			COMPRESSOR			BASIS OF DESIGN
	QTY	FLA EACH	TOTAL CFM	QTY	TYPE	ELECT CHAR	
21-EF-A405-2	1	0.75	1940	1	HERMETIC	12 17.5 1-60-208V	21-SSAHU-A405-2
							163
							163

- NOTES:**
1. CAPACITIES BASED ON 86°F AMBIENT TEMPERATURE.
 2. CAPACITIES BASED ON R-410A REFRIGERANT.
 3. PROVIDE LOW AMBIENT WIND BAFFLES ON CONDENSING UNIT FOR 0° F DB OPERATION.

SPLIT SYSTEM AIR HANDLING UNIT SCHEDULE					
SYMBOL	NOMINAL CFM	COOLING CAPACITY BTUH	FAN ECM FLA	ELECT CHAR	BASIS OF DESIGN
21-SSAHU-A405-2	920	34,200	0.57	1-60-208V	21-SSAHU-A405-2
					163
					163

- NOTES:**
1. PROVIDE CONDENSATE PUMP WITH UNIT.
 2. PROVIDE DRAIN PAN LEVEL SENSOR FOR UNIT SHUT OFF TO PREVENT DRAIN PAN OVERFLOW.

INDOOR UNIT SEQUENCE OF OPERATIONS:

- ON/OFF CONTROL
- THE INDOOR UNITS CAN BE COMMANDED ON/OFF BY ITS INTERNAL CONTROLLER.
 - IF THE INDOOR UNIT IS OFF, THE OUTDOOR UNIT SHALL TURN OFF.

- SPACE TEMPERATURE CONTROL
- THE INDOOR UNIT SHALL MODULATE ITS INTERNAL LINEAR EXPANSION VALVE (LEV) TO MAINTAIN THE TEMPERATURE SET POINT VIA THE INDOOR UNIT'S INTERNAL CONTROLS.

- HEATING MODE
- N/A
- COOLING MODE
- THE INDOOR UNIT SHALL MODULATE ITS LINEAR EXPANSION VALVE (LEV) TO MAINTAIN TEMPERATURE SET POINT.

- FAN CONTROL
- FAN SPEED SHALL BE ADJUSTABLE BY THE USER AT THE UNITS CONTROLLER.

SINGLE ROOM SPLIT AIR CONDITIONING SYSTEM SEQUENCE OF OPERATION
NO SCALE

EXHAUST FAN SCHEDULE											
SYMBOL	LOCATION	SERVES	SYSTEM CFM	MINIMUM CFM	NOZZLE OV	EFFECTIVE STACK HEIGHT FEET	RPM	STATIC PRESSURE	DRIVE	BHP	ELECT CHAR
21-EF-A405-2	ROOF	CYTOF	600	600	4286	18.34	3754	2.9	BELT	1.46	2
											3/60/480

- NOTES:**
1. PROVIDE GALVANIZED, 12" HIGH ROOF CURB FOR FAN SUPPORT, NO ROOF PENETRATION.
 2. PROVIDE AIR PLENUM WITH SIDE INLET FLANGE.
 3. COATED WITH LABCOAT, CONCRETE GRAY-RAL 7023, ENTIRE UNIT.
 4. PROVIDE NEMA 3R DISCONNECT FOR OUTDOOR USE, MOUNTED AND WIRED.
 5. 21-EF-A405-2 SHALL OPERATE WHENEVER THE ASSOCIATED CYTOF MACHINE IS IN USE. THE CONTROL SEQUENCE SHALL BE THE SAME AS THE EXISTING CYTOF MACHINES EXHAUST SYSTEM SEQUENCE.

Revisions	Date

H.F. LENZ COMPANY
1407 Scalp Avenue
Phone: 814-269-9300
cadd@hflenz.com
Engineering
Johnstown, PA 15904
PAX: 814-269-8301
www.hflenz.com

Drawing Title FOURTH & FIFTH FLOOR PLANS	Project Title 4TH FLOOR IMAGING SYSTEM	Date 04/26/2018
Approved: Division Chief	Building Number 21	Checked TME
Approved: Service Director	Location VAMC Philadelphia, Pennsylvania	Drawn NJB
		Project No. 642-17-300
		DRAWING NO. M101
		Dwg. 1 Of 2

Veterans Administration