

CORRECT DEFICIENCIES IN BASEMENT PHARMACY HVAC

LOUIS A. JOHNSON VA MEDICAL CENTER
1 MEDICAL CENTER DRIVE
CLARKSBURG, WV 26301

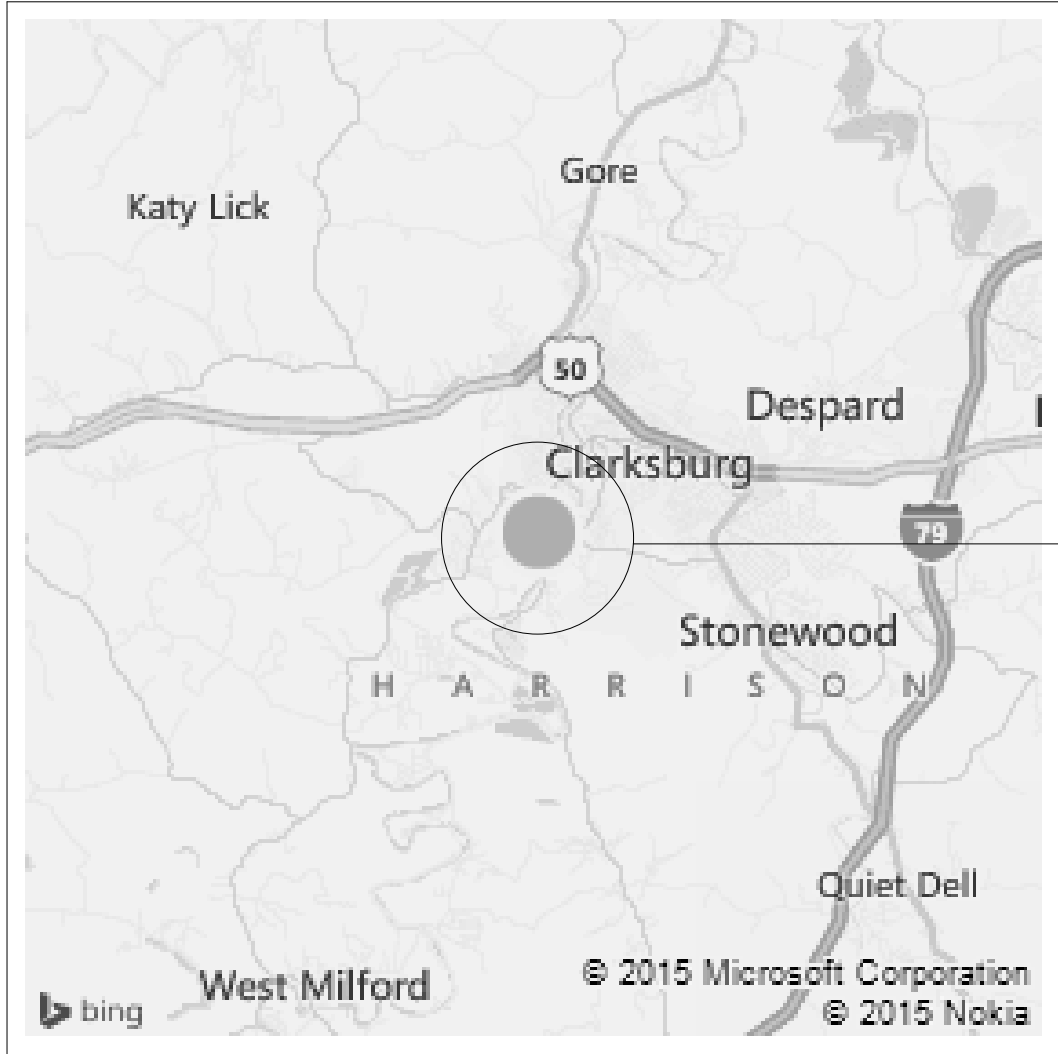


PROJECT DIRECTORY

OWNER:	ARCHITECT/ENGINEER:
DEPARTMENT OF VETERANS AFFAIRS LOUIS A. JOHNSON, VAMC 1 MEDICAL CENTER DRIVE CLARKSBURG, WV 26301-4199 (304) 623-3461	AE WORKS, LTD 6587 HAMILTON AVENUE PITTSBURGH, PA 15206 (412) 287-7333 CONTACT: TIFFANY HAILE (PM)
CONTACT: GLENN HEUERMAN (COR)	

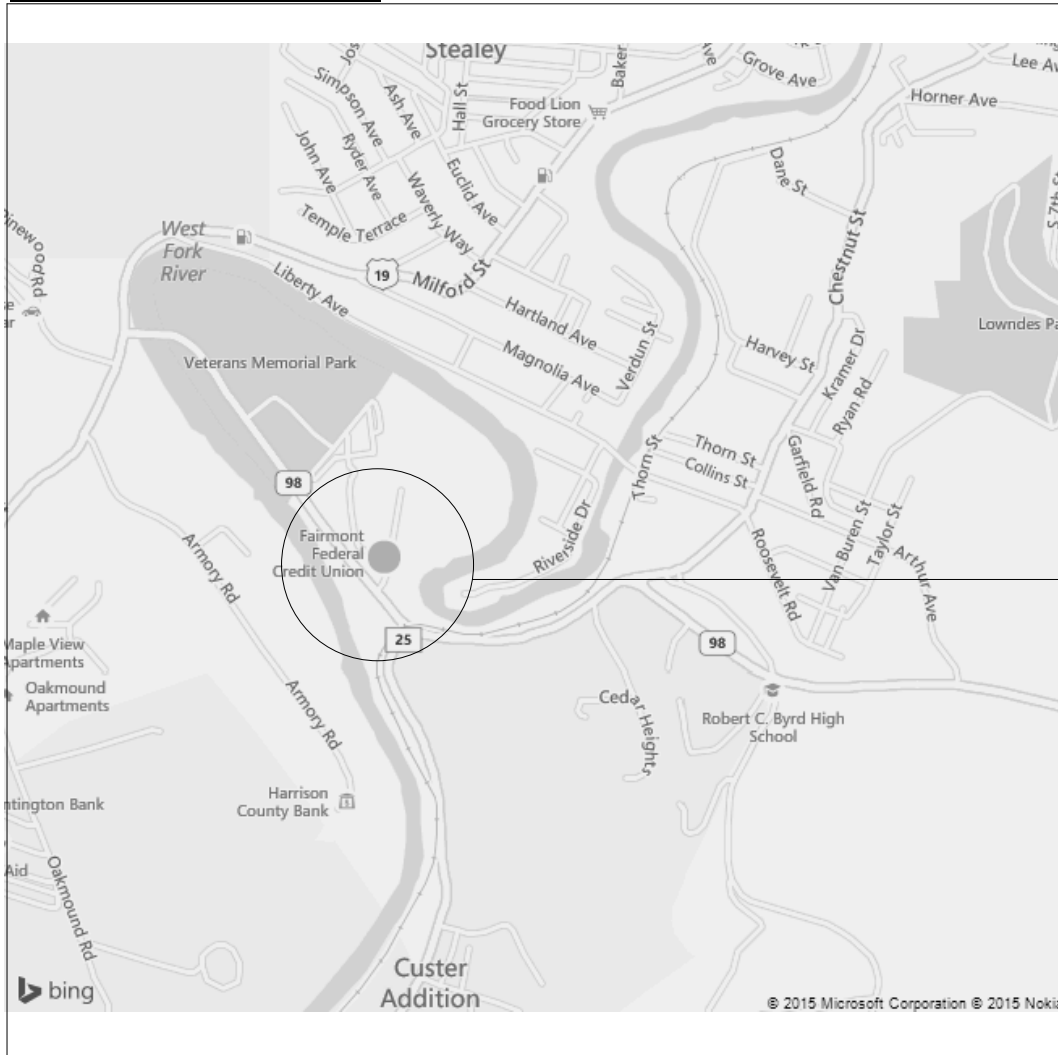
DRAWING INDEX	
SHEET #	SHEET NAME
GENERAL	
G001	COVER SHEET
MECHANICAL	
H001	HVAC SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
H101	HVAC PARTIAL BASEMENT PLAN
H201	HVAC DETAILS AND CONTROL DIAGRAM

VICINITY MAP



SITE

LOCATION MAP



SITE



FULLY SPRINKLERED
100% Construction Documents

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ABBREVIATION LEGEND

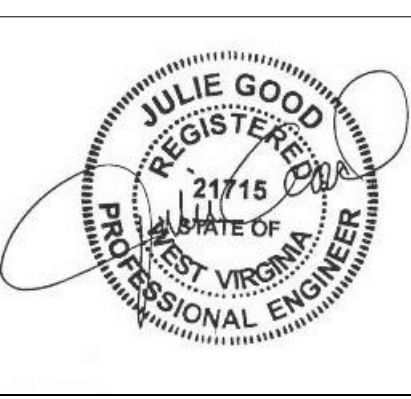
& AND	
A AIR (CLINICAL)	
AAP ALARM ANNUNCIATOR PANEL	
AV AUTOMATIC AIR VENT	
AB ANCHOR BOLT	
ABV ABOVE	
ACC OR	
ACL ACCESS	
ACOUS ACOUSTICAL	
ACT ACOUSTICAL CEILING TILE	
AD AREA DRAIN	
ADA AMERICAN DISABILITIES ACT	
ADD ADDENDUM	
ADDX ADDITIONAL	
ADJ ADJUSTABLE	
ADM ADMINISTRATION	
AFF ABOVE FINISH FLOOR	
AFG ABOVE FINISHED GRADE	
AFM AIR FLOW MEASURING DEVICE	
AHU AIR HANDLING UNIT	
AL ALIGN	
ALT ALTERNATE	
ALUM ALUMINUM	
AMP AMPERE	
AP ACCESS PANEL	
APC ARCHITECTURAL PRECAST CONCRETE	
APPROX APPROXIMATE	
ARCH ARCHITECTURAL	
ASY ASYMMETRIC	
ATC AUTOMATIC TEMPERATURE CONTROL	
ATS AUTOMATIC TRANSFER SWITCH	
AUTO AUTOMATIC	
AWT AVERAGE WATER TEMPERATURE	
BAT BATTERY	
BC BALANCING COCK OR BARE COPPER	
BDD BACKDRAFT DAMPER	
BFC BELOW FINISH CEILING	
BFE BOTTOM FOOTING ELEVATION	
BFG BELOW FINISHED GRADE	
BG BUMPER GUARD	
BLDG BUILDING	
BLKG BLOCKING	
BLT BURNED LIGHT	
BLW BELOW	
BM BEAM	
BO BY OWNER	
BOF BY OWNER FUTURE	
BOT BOTTOM	
BR BRICK	
BRG BEARING	
BRKR BREAKER	
BSMT BASEMENT	
BTWN BETWEEN	
BUR BUILT UP ROOFING	
C CONDUIT	
CAB CABINET	
CANTL CANTILEVER	
CAP CAPACITY	
CATV CABLE TELEVISION	
CCT CUBIC CURTAIN TRACK	
CCTV CLOSED CIRCUIT TELEVISION	
CFH CUBIC FEET / HOUR	
CFM CUBIC FEET / MINUTE	
CH CHANNEL	
CHKV CHECK VALVE	
CHWR CHILLED WATER RETURN	
CHWS CHILLED WATER SUPPLY	
CHWSR CHILLED WATER SUPPLY AND RETURN	
CJ CONTROL JOINT	
CKT CIRCUIT	
CKT BRKR CIRCUIT BREAKER	
CL CENTERLINE	
CLG CEILING	
CLG MTD CEILING MOUNTED	
CLR CLEAR	
CMU CONCRETE MASONRY UNIT	
CO CLEAN OUT	
COL COLUMN	
COMM COMMUNICATION	
CONC CONCRETE	
CONN CONNECTION	
CONST CONSTRUCTION	
CONT CONTINUE / CONTINUOUS	
CONTR CONTRACTOR	
CONV CONVECTOR	
COORD COORDINATE	
CORR CORROSION	
CPT CARPET OR CONTROL POWER TRANSFORMER	
CTR CENTER	
CU COPPER	
CV CONTROL VALVE	
CW COLD WATER	
D DEPTH OR DEEP	
DB DRY BULB	
DB DECIBEL	
DCW DOMESTIC COLD WATER	
DEMO DEMOLITION	
DEPT DEPARTMENT	
DET DETAILS	
DF DRINKING FOUNTAIN	
DHW DOMESTIC HOT WATER	
DIA DIAMETER	
DIAG DIAGONAL OR DIAGRAM	
DIFF DIFFUSER	
DM DIMENSION	
DISC DISCONNECT	
DISCH DISCHARGE	
DISP DISPENSER	
DIST DISTRIBUTION	
DIV DIVISION	
DL DOWN LIGHT	
DN DOWN	
DP DISTRIBUTION PANEL	
DRP DAMPER	
DRN DRAIN	
DS DOWNSPOUT	
DWGS DRAWING	
DX DIRECT EXPANSION	
EA EXHAUST AIR	
EAT ENTERING AIR TEMPERATURE	
EC ELECTRICAL CONTRACTOR	
EDB ENTERING DRY BULB	
EF EXHAUST FAN	
EFS EXTERIOR FINISHING SYSTEM	
EJ EXPANSION JOINT	
EL ELEVATION	
ELC ELECTRICAL	

ELEC CAB ELECTRICAL CABINET	
ELEV ELEVATOR	
EMER EMERGENCY	
ENCL ENCLOSURE	
ENTR ENTRANCE	
EQ ELECTRICAL OUTLET	
EQ EQUAL	
EQUIP EQUIPMENT	
ETR EXISTING TO REMAIN	
EWB ENTERING WET BULB	
EWL ELECTRIC WATER COOLER	
EWT ENTERING WATER TEMPERATURE	
EX EXHAUST AIR	
EXH EXHAUST	
EXIST EXISTING	
EXP EXPANSION	
EXT EXTERIOR	
XP EXPLOSION PROOF	
FS FIRE / SMOKE DAMPER	
FAL FIRE ALARM	
FAFP FIRE ALARM ANNUNCIATOR PANEL	
FACP FIRE ALARM CONTROL PANEL	
FAT FINAL AIR TEMPERATURE	
FBI FIRE BLANKET	
FC FLEXIBLE CONNECTION OR FOOTCANDLE	
FD FLOOR DRAIN OR FIRE DAMPER	
FND FOUNDATION	
FDV FIRE DEPARTMENT VALVE	
FE FIRE EXTINGUISHER	
FEC FIRE EXTINGUISHER CABINET	
FH FIRE HOSE	
FHC FIRE HOSE CABINET	
FHP FULL HEIGHT PARTITION	
FHW FIRE HOSE VALVE	
FIN FINISH	
FIX FUTURE	
FL FLOOR LINE	
FLL FULL LOAD AMPERES	
FLASH FLASHING	
FLE FLEXIBLE	
FLO FLANGE	
FLG C FLANGE CONNECTION	
FLR FLOOR	
FLUOR FLUORESCENT	
FR FIRE PROOFING	
FRMG FRAMING	
FS FLOOR SINK	
FST FIRESTOPPING	
FT FOOT / FEET	
FT HD FEET OF HEAD	
FTC FOOTCANDLES	
FTG FOOTING	
FUR FURRING	
G GAS OR ELECTRICAL GROUND	
GA GAUGE	
GAL GALLONS	
GALV GALVANIZED	
GR CABINET	
GC GENERAL CONTRACTOR	
GEN GENERATOR	
GENL GENERAL	
GFCI GROUND FAULT CIRCUIT INTERRUPTOR	
GL GLASS	
GLV GLOBE VALVE	
GND GROUND	
GPM GALLONS PER MINUTE	
GR GRADE	
GRAV GRAVITY	
GRD BM GRADE BEAM	
GV GATE VALVE	
GWB GYPSUM BOARD	
H HIGH	
HB HOSE BIB	
HC HEATING CONTRACTOR	
HDCP HANDICAP	
HDR HEADER	
HDW HARDWARE	
HD HIGH INTENSITY DISCHARGE	
HJ HOLLOW METAL	
HORIZ HORIZONTAL	
HP HORSE POWER	
HPD HIGH PRESSURE DRIP	
HPF HIGH POWER FACTOR	
HR HANGER	
HSPK HOUSEKEEPING	
HT HEIGHT	
HTG HEATING	
HTX HEATER	
HV HIGH VELOCITY	
HVAC HEATING, VENTILATING, AIR CONDITIONING	
HW HOT WATER	
HWD HARD WOOD	
HWR HOT WATER RETURN	
HWS HOT WATER SUPPLY	
HWS&R HOT WATER SUPPLY AND RETURN	
HZ HERTZ	
ID INSIDE DIAMETER	
IER INVERTED ECCENTRIC REDUCER	
IG ISOLATED GROUND	
IME INSULATED METAL ENCLOSURE	
IN INCH	
INCAND INCANDESCENT	
INCL INCLUDED	
INSUL INSULATION	
INT INTERIOR	
INTERL INTERLOCK	
INV INVERT	
ISO ISOLATION	
ISV ISOLATED VALVE STATION	
J-BOX JUNCTION BOX	
JST JOIST	
JT JOINT	
KN KNOCK OUT	
KVA KILOVOLT AMPERE	
KVAR KILOWATT (REACTANCE)	
KW KILOWATT	
KWH KILOWATT HOUR METER	
LAT LEAVING AIR TEMPERATURE	
LAV LAVATORY	
LB POUND	
LDB LEAVING DRY BULB	
LED LIGHT EMITTING DIODE	
LF LINEAR FEET	
LIN LINEAR	
LOC LOCATION OR LOCATE	
LPT LOW POINT	
LSDC LINEAR SUPPLY DIFFUSER CEILING	
LT LIGHT	

CONSULTANTS:

#	Revision	Date

SEAL



ARCHITECTS/ENGINEERS:

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AE Works Project Number: 15018

PIPELINE ABBREVIATIONS	
SYMBOLS	DESCRIPTION
CD	CONDENSATE DRAIN LINE
CTD	COOLING TOWER DRAIN LINE
DTS	DUAL TEMPERATURE WATER SUPPLY
DTR	DUAL TEMPERATURE WATER RETURN
DWS	CONDENSER WATER SUPPLY
DWR	CONDENSER WATER RETURN
HWS	HOT WATER HEATING SUPPLY
HWR	HOT WATER HEATING RETURN
LPS	LOW PRESSURE STEAM SUPPLY
LPCR	LOW PRESSURE CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM SUPPLY
MPCR	MEDIUM PRESSURE CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
HPCR	HIGH PRESSURE CONDENSATE RETURN
PC	PUMPED CONDENSATE
HRS	ENERGY (HEAT) RECOVERY SUPPLY
HRR	ENERGY (HEAT) RECOVERY RETURN
RL	REFRIGERANT LINE
RS	REFRIGERANT SUCTION
NAME	PIPE TO BE REMOVED
NAME	EXISTING PIPING TO REMAIN

PIPELINE SYMBOLS	
	BALL VALVE
	GATE VALVE
	BUTTERFLY VALVE
	GLOBE VALVE
	PLUG VALVE
	RELIEF VALVE
	ECCENTRIC REDUCER
	INVERTED ECCENTRIC REDUCER
	STRAINER
	UNION
	THERMOMETER
	PRESSURE GAUGE
	WATER FLOW MEASURING DEVICE (VENTURI FLOW STATION) BALANCING COCK
	PRESSURE TAP
	PRESSURE REDUCING VALVE
	THREE-WAY MODULATING CONTROL VALVE
	SAFETY VALVE OR PRESSURE RELIEF
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	TWO-WAY CONTROL VALVE (TWO POSITION TYPE)
	MOTORIZED VALVE
	AQUASTAT
	FUNNEL DRAIN
	PIPING TURNED UP
	PIPING TURNED DOWN
	TEE - OUTLET UP
	TEE - OUTLET
	SIDE CONNECTION
	CAPPED OUTLET
	DIRECTION OF FLOW
	PIPE BREAK (SINGLE LINE)
	FLEXIBLE CONNECTION
	BACKFLOW PREVENTION DEVICE

HVAC SYMBOLS	
DOUBLE LINE SHEETMETAL	
SYMBOLS	DESCRIPTION
	RECTANGULAR SUPPLY, RETURN OR RELIEF DUCT WIDTH (SHOWN)XDEPTH
	OVAL SUPPLY, RETURN OR RELIEF DUCT WIDTH (SHOWN)XDEPTH
	ROUND SUPPLY, RETURN OR DUCT TURNINGS VANES (DUCT WIDTH OVER 18")
	STAINLESS STEEL DUCTWORK
	DUCT W TURNING VANES
	DUCT W TURNING VANES
	RADIUS ELBOW (DUCT WIDTH 17" AND LOWER)
	LOW LOSS TAKE OFF (ARROW INDICATES DIRECTION OF AIR FLOW)
	CONICAL SPIN-IN FITTING
	BOOT CONNECTION WITH MANUAL VD (ARROW INDICATES AIR FLOW DIRECTION)
	RETURN AIR DUCT UP
	SUPPLY DUCT UP
	EXHAUST AIR DUCT UP
	RETURN AIR DUCT DN
	SUPPLY DUCT DN
	EXHAUST AIR DUCT DN
	MANUAL VOLUME CONTROL DAMPER (VD)
	RISE/STOP IN DUCTWORK (ARROW SHOWS DIRECTION OF DROP)
	DUCT/SPACE STATIC PRESSURE SENSOR
	WALL SWITCH
	DUCT/WALL TEMPERATURE SENSOR, ELECTRIC
	DUCT/WALL TEMPERATURE SENSOR, ELECTRIC
	DUCT MOUNTED SMOKE DETECTOR PROVIDED BY EC, INSTALLED BY HC
	MOTORIZED DAMPER
	BACKDRAFT DAMPER
	FIRE DAMPER AT FIRE WALL (PROVIDE ACCESS PANEL IN DUCT AND CEILING)
	SMOKE DAMPER/DETECTOR DETECTOR BY E.C. DAMPER BY H.C.
	COMBINATION FIRE/SMOKE DAMPER
	FIRE DAMPER IN VERTICAL DUCT THRU FLOOR OR HORIZONTAL DUCT ABOVE CEILING PROVIDE ACCESS PANEL ON DUCT AND WALL OR CEILING)
	ACCESS DOOR ON SIDE OF DUCT (HINGED & GASKETED)
	ACCESS DOOR ON BOTTOM OF DUCT (HINGED & GASKETED)
	SUPPLY AIR DIFFUSER
	THERMAL VAN DIFFUSER
	RETURN AIR REGISTER
	EXHAUST REGISTER
	EXHAUST/RETURN AIR REGISTER (DUCT OR WALL)
	SUPPLY AIR REGISTER (DUCT OR WALL)
SINGLE LINE - SHEET METAL	
SYMBOLS	DESCRIPTION
	DUCT SIZE (WIDTH X DEPTH)
	ROUND DUCT SIZE (DIAMETER)
	FLEXIBLE DUCT (DIAMETER SIZE)
	SUPPLY DUCT CROSS SECTION UP
	SUPPLY DUCT CROSS SECTION DN
	RETURN CROSS SECTION UP
	RETURN CROSS SECTION DN
	EXHAUST CROSS SECTION UP
	SQUARE ELBOW WITH TURNING VANES
	RADIUS TURN ELBOW
	DUCT END CAP

HVAC GENERAL NOTES

- NOT ALL SYMBOLS ARE NECESSARILY USED.
- WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCTS OF A SINGLE MANUFACTURER SHALL BE USED.
- DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR TO FIELD VERIFY DUCT AND PIPE ROUTING AND COORDINATE INTERFERENCE BETWEEN TRADES PRIOR TO INSTALLATION.
- DUCTWORK TO BE INSTALLED TIGHT TO UNDERSIDE OF STRUCTURE ABOVE UNLESS NOTED OTHERWISE.
- PROVIDE ALL MATERIALS, EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS REQUIRED BY CODE.
- CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. CONTRACTOR SHALL BE RESPONSIBLE TO FIELD SURVEY ACTUAL SITE CONDITIONS AND ACCOMMODATE ACTUAL SITE CONDITIONS AS PART OF SCOPE OF WORK AT NO COST TO OWNER.
- INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, APPLICABLE BUILDING, STATE, AND LOCAL CODES, SEISMIC REQUIREMENTS, ENERGY CODES, AND INSURANCE UNDERWRITER REQUIREMENTS.
- ALL TESTS SHALL BE COMPLETED AND ACCEPTED BY THE COR BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
- LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH A STRAIGHT SECTION OF PIPE OR DUCT UPSTREAM AND DOWNSTREAM, AS RECOMMENDED BY THE MANUFACTURER FOR ACCURACY.
- TESTING ADJUSTING AND BALANCING (TAB) AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCING COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TAB FIRM SHALL HAVE A MINIMUM OF 5 YEARS EXPERIENCE ON SIMILAR PROJECTS. PERFORM TAB IN ACCORDANCE WITH THE REQUIREMENTS OF THE TAB PROCEDURAL STANDARD RECOMMENDED BY THE TAB TRADE ASSOCIATION THAT APPROVED THE TAB FIRM'S QUALIFICATIONS.
- COORDINATE ALL FINAL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCTWORK AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCTWORK AND PIPING DIMENSIONS BEFORE FABRICATION.
- ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE, ALL LOCAL CODES, AND OWNER'S INSURANCE UNDERWRITER REQUIREMENTS.
- THE LOCATIONS AND SIZES OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS AND SIZES NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS SHALL BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- PLAN DRAWINGS AND SECTION CUTS WHICH SPECIFICALLY IDENTIFY SERVICE ROUTE OFFSETS, ELEVATION CHANGES, OBSTRUCTIONS, ACCESS DOORS, BALANCING DEVICES, ETC. ARE SHOWN FOR CLARITY WHERE SPECIFIC KNOWN CONDITIONS EXIST. MECHANICAL CONTRACTOR SHALL COORDINATE EQUIPMENT, DUCTWORK AND PIPING ROUTINGS WITH ALL OTHER TRADES. REQUIREMENTS NOT SPECIFICALLY IDENTIFIED SHALL BE INTERPRETED AS EXCLUSION FROM CONTRACTORS SCOPE OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL SITE CONDITIONS AND SHALL INCLUDE SUCH CONDITIONS IN SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
- ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND SUPPORT OF MECHANICAL WORK AS SHOWN IN DETAILS FOR PIPING, DUCTWORK AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- ALL OPENINGS IN FIRE RATED WALLS AND SMOKE PARTITIONS DUE TO DUCTWORK, PIPING, CONDUIT, ETC., SHALL BE FIRE STOPPED WITH APPROVED FIRESTOPPING MATERIALS.
- ALL EQUIPMENT SUBMITTALS AND SHOP DRAWINGS REQUIRED BY THE SPECIFICATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO PURCHASE, FABRICATION, AND INSTALLATION.

EQUIPMENT TAG ABBREVIATIONS

ACC	AIR COOLED CHILLER	GRV	GRAVITY INTAKE VENTILATOR
ACCU	AIR COOLED CONDENSING UNIT	GVR	GRAVITY ROOF VENTILATOR
ACUM	ACCUMULATOR	H	HUMIDIFIER
AHU	AIR HANDLING UNIT	HC	HOT WATER HEATING COIL
ASHP	AIR SOURCE HEAT PUMP	HU	HORIZONTAL UNIT HEATER
B	BOILER	P	PUMP
BB	BASEBOARD HEATER	PTAC	PACKAGED TERMINAL AIR CONDITIONING UNIT
BD	BAROMETRIC DAMPER	RG	RETURN GRILLE
BDD	BACK DRAFT DAMPER	RR	RETURN REGISTER
CC	CHILLED WATER COOLING COIL	RAG	RETURN AIR GRILLE
CD	CONDENSATE DRAIN	RCP	RADIANT CEILING PANEL
CIRC	CIRCULATOR	RTU	ROOF TOP UNIT
CMFR	COMPRESSOR	SF	SUPPLY FAN
CONV	CONVECTOR	SSAC	SPILT SYSTEM AIR CONDITIONING UNIT
CP	CONDENSATE PUMP	SSDC	SECURITY SUPPLY DIFFUSER CEILING
CUH	CABINET UNIT HEATER	SSSF	SECURITY SMOKE EXHAUST FAN
DC	DRY COOLER	SSGW	SECURITY SUPPLY SUPPLY GRILLE WALL
EF	EXHAUST FANS	SV	SUPPLY VENT
ER	EXHAUST REGISTER	UV	UNIT HEATER
ET	EXHAUST REGISTER WALL	UV	UNIT VENTILATOR
EQUH	ELECTRIC CABINET UNIT HEATER	UCD	UNDER CUT DOOR
EUH	ELECTRIC UNIT HEATER	VAV	VARIABLE AIR VOLUME
EVH	ELECTRIC WALL HEATER		
EVAP	EVAPORATOR		
FT	FINNED TUBE RADIATION		
FOU	FAN COIL UNIT		
FPB	FAN POWERED BOX		
FU	FURNACE		

DRAWING SYMBOLS

	POWERED EQUIPMENT EQUIPMENT NUMBER		CONNECT TO EXISTING AT THIS POINT
	NON-POWERED EQUIPMENT EQUIPMENT NUMBER		DEMO/REMOVE TO THIS POINT
	DETAIL NUMBER DRAWING NUMBER WHERE DRAWN		DIFFUSER/GRILLE SYSTEM TYPE
	SECTION LETTER DRAWING NUMBER WHERE DRAWN		AIRFLOW QUANTITY
			DRAWING KEYNOTE - DEMOLITION
			DRAWING KEYNOTE - PLAN / ELEVATION NEW WORK

HVAC DEMOLITION NOTES

- THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE SITE PRIOR TO SUBMITTING THEIR BID. DUE TO THE NATURE OF THIS PROJECT AND THE STATE OF THE EXISTING BUILDING, IT IS IMPOSSIBLE TO COMPLETELY RELATE THE SCOPE OF THE DEMOLITION REQUIRED TO THE CONTRACTOR THROUGH THE CONTRACT DOCUMENTS. FAILURE TO VISIT THE SITE WILL NOT RELIEVE THE CONTRACTOR OF THEIR DEMOLITION RESPONSIBILITIES UNDER THIS CONTRACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION NECESSARY TO PROVIDE A RENOVATED AND UPGRADED SPACE AND TO FACILITATE NEW WORK.
- INFORMATION REGARDING THE EXISTING CONDITIONS WAS GATHERED FROM AVAILABLE EXISTING DRAWINGS, SURVEY, AND CORRESPONDENCE WITH UTILITY STAFF, AND FACILITIES PERSONNEL. THERE ARE NO GUARANTEES AS TO THE ACCURACY OF THIS INFORMATION AND IT IS OFFERED FOR INFORMATION ONLY.
- VERIFY EXISTING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING AND SYSTEM COMPONENTS PRIOR TO DEMOLITION. IF EXISTING CONDITIONS ARE DIFFERENT THAN WHAT IS INDICATED ON THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE COR AND ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- MINIMIZE DISTURBANCE AND / OR DAMAGE TO EXISTING FINISHED SURFACES AND FINISHES. WHERE DEMOLITION OF MECHANICAL SYSTEM COMPONENTS DAMAGES EXISTING SURFACES TO REMAIN, RESTORE THOSE SURFACES TO THE SAME CONDITION AS THE ADJACENT SURFACES. RESTORATION MUST BE PERFORMED BY WORKMEN SKILLED IN PERFORMING SUCH WORK. ALL FIRE



THE INTENT OF THIS PROJECT IS CORRECT SPACE PRESSURIZATION AND HOOD EXHAUST AIRFLOW ISSUES WITHIN THE BASEMENT PHARMACY CLEAN ROOM.

WITHIN THIS PROJECT, THE SCOPE SHALL INCLUDE, BUT IS NOT LIMITED TO, THE REPAIR AND MODIFICATIONS TO MALFUNCTIONING CONTROLS, IMPROVEMENTS TO EXISTING CONTROL SEQUENCES, INSTALLATION OF NEW VENTURI AIR FLOW VALVES, INSTALLATION OF NEW FILTER RACKS, REBALANCE OF SUPPLY AIRFLOWS, REBALANCE OF EXHAUST AIRFLOWS, AND VERIFICATION OF ROOM PRESSURIZATION, CONTROLS SEQUENCES, AND HOOD EXHAUST IN ORDER TO PROVE COMPLIANCE WITH VA GUIDELINES AND WITH THE PROVISIONS OF USP <80>. THE PROJECT SHALL NOT BE ACCEPTED AS COMPLETE BY THE VA UNLESS THESE VERIFICATIONS AND PROOF OF COMPLIANCE,

THE NEW EXHAUST AIR FLOW VENTURI AIR FLOW VALVES SHALL BE ESTABLISHED AS CONSTANT VOLUME CONTROL TO MAINTAIN THE AIRFLOW INDICATED ON PLAN. THE SUPPLY AIR VALVES SHALL BE ESTABLISHED AS VARIABLE AIR VOLUME AND SHALL UTILIZE ACTIVE PRESSURIZATION CONTROL. NEW TSI 6882 SUPERFLOW CONTROLLERS SHALL BE PROVIDED. REFER TO PLANS FOR MORE INFORMATION.

FOR SAFETY OF PHARMACY STAFF, GREEN LED LIGHTS SHALL BE ADDED IN THE ANTE ROOM AND NEAR THE EXHAUST HOODS TO INDICATE THAT THE EXHAUST IS WORKING. SEE PLANS FOR MORE INFORMATION.

THE PHARMACY IS A CRITICAL COMPONENT FOR THE OPERATION OF THE MEDICAL FACILITY. AS SUCH, IT CANNOT BE TAKEN OUT OF SERVICE DURING THE BUSINESS WEEK. OVER A WEEKEND, THE THE PHARMACY CANNOT BE OFFLINE FOR MORE THAN THREE CONSECUTIVE DAYS.

FOR THE CONSTRUCTION WORK ON THIS PROJECT, THE VA SHALL COORDINATE TWO CONSECUTIVE THREE-DAY WEEKENDS WHERE THE PHARMACY IS AVAILABLE TO THE CONTRACTORS.

THE CONTRACTORS SHALL BE PREPARED TO DO ALL SCOPE, INCLUDING EQUIPMENT INSTALLATION, DUCTING, CONTROLS, TESTING, BALANCING, COMMISSIONING AND VERIFICATIONS, WITHIN THESE TWO THREE-DAY WEEKEND TIME FRAMES. EACH THREE-DAY WEEKEND SHALL BEGIN ON A THURSDAY AT 5 P AND SHALL CEASE AT 7 AM ON MONDAY.

AT THE END OF THE FIRST WEEKEND, THE PHARMACY MUST BE ABLE TO BE REOPENED TO PHARMACY STAFF. THE PHARMACY SHALL BE IN OPERATING CONDITION AND ABLE TO PERFORM NORMAL FUNCTIONS THROUGH THE WORK WEEK.

THE CONTRACTORS SHALL HAVE ACCESS TO MECHANICAL ROOM B241 AND MECHANICAL ROOM B215C PRIOR TO COMMENCING WORK FOR STAGING, STORAGE, AND SET-UP. THESE ROOMS SHALL BE AVAILABLE THROUGH THE DURATION OF CONSTRUCTION.

MARK	INLET (N)	MIN FLOW (CFM)	MAX FLOW (CFM)	PRESS DROP (FULL OPEN)	ELECTRICAL POWER		SISFC DESIGN		COMMENTS
					MANUFACTURER	MODEL			
EAV-1	12	90 CFM	1218 CFM	0.60 in-wg	120 V	TSI	CV 12	AIR VALVES TO BE COMPATIBLE WITH TSI CONTROLLERS AND TSI SYSTEM	
EAV-2	12	90 CFM	1218 CFM	0.60 in-wg	120 V	TSI	CV 12	AIR VALVES TO BE COMPATIBLE WITH TSI CONTROLLERS AND TSI SYSTEM	
EAV-3	12	80 CFM	810 CFM	0.60 in-wg	120 V	TSI	CV 12	AIR VALVES TO BE COMPATIBLE WITH TSI CONTROLLERS AND TSI SYSTEM	
EAV-4	10	90 CFM	526 CFM	0.60 in-wg	120 V	TSI	CV 10	AIR VALVES TO BE COMPATIBLE WITH TSI CONTROLLERS AND TSI SYSTEM	

NOTES:

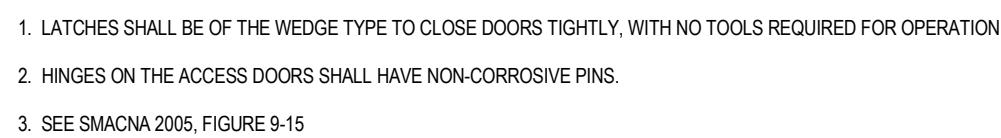
1. REPLACE EXISTING VALVES WITH NEW MEDIUM PRESSURE VALVES.
2. FACTORY CALIBRATE TO CFM INDICATED.
3. AIR VALVES TO BE CONSTANT AIRFLOW.
4. CALIBRATE ALL SENSORS, ACTUATORS, AIRFLOW MONITORS, AND REBALANCE AIRFLOW TO ENSURE ALL AIR VALVES ARE DISPLAYING THE CORRECT READING ON ANY CONTROL PANELS AND THE ECC.
5. REPLACE ALL SENSORS THAT CANNOT BE CALIBRATED.

MARK	INLET (N)	MIN FLOW (CFM)	MAX FLOW (CFM)	MAX PRESS DROP (FULL OPEN)	ELECTRICAL POWER	BASIS OF DESIGN		COMMENTS
						MANUFACTURER	MODEL	
SAV-1	12	0 CFM	1160 CFM	0.60 in-wg	120 V	TSJ	VT112	EXISTING TO REMAIN - CALIBRATE IN FIELD
SAV-2	12	0 CFM	760 CFM	0.60 in-wg	120 V	TSJ	VT112	EXISTING TO REMAIN - CALIBRATE IN FIELD
SAV-3	12	0 CFM	720 CFM	0.60 in-wg	120 V	TSJ	VT112	EXISTING TO REMAIN - CALIBRATE IN FIELD
SAV-4	12	0 CFM	375 CFM	0.60 in-wg	120 V	TSJ	VT110	EXISTING TO REMAIN - CALIBRATE IN FIELD
SAV-5	8	0 CFM	150 CFM	0.60 in-wg	120 V	TSJ	VT108	EXISTING TO REMAIN - CALIBRATE IN FIELD
SAV-6	12	0 CFM	760 CFM	0.60 in-wg	120 V	TSJ	VT112	EXISTING TO REMAIN - CALIBRATE IN FIELD

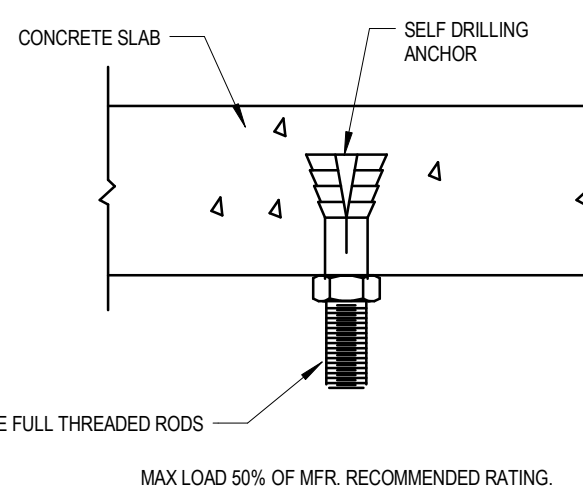
NOTES:

1. AIRFLOW INDICATED IS APPROXIMATE. ROOM PRESSURE WILL DETERMINE FINAL AIRFLOW. AIR VALVES TO MODULATE TO MAINTAIN ROOM PRESSURE.
2. AIR VALVES TO BE VARIABLE AIRFLOW.
3. CALIBRATE ALL SENSORS, ACTUATORS, AIRFLOW MONITORS, AND REBALANCE AIRFLOW TO ENSURE ALL AIR VALVES ARE DISPLAYING THE CORRECT READING ON ANY CONTROL PANELS AND THE ECC.
4. REPLACE ANY SENSORS THAT CANNOT BE CALIBRATED.

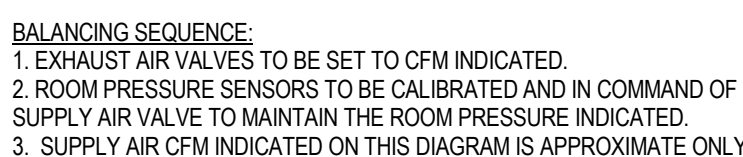
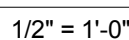
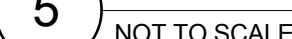
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