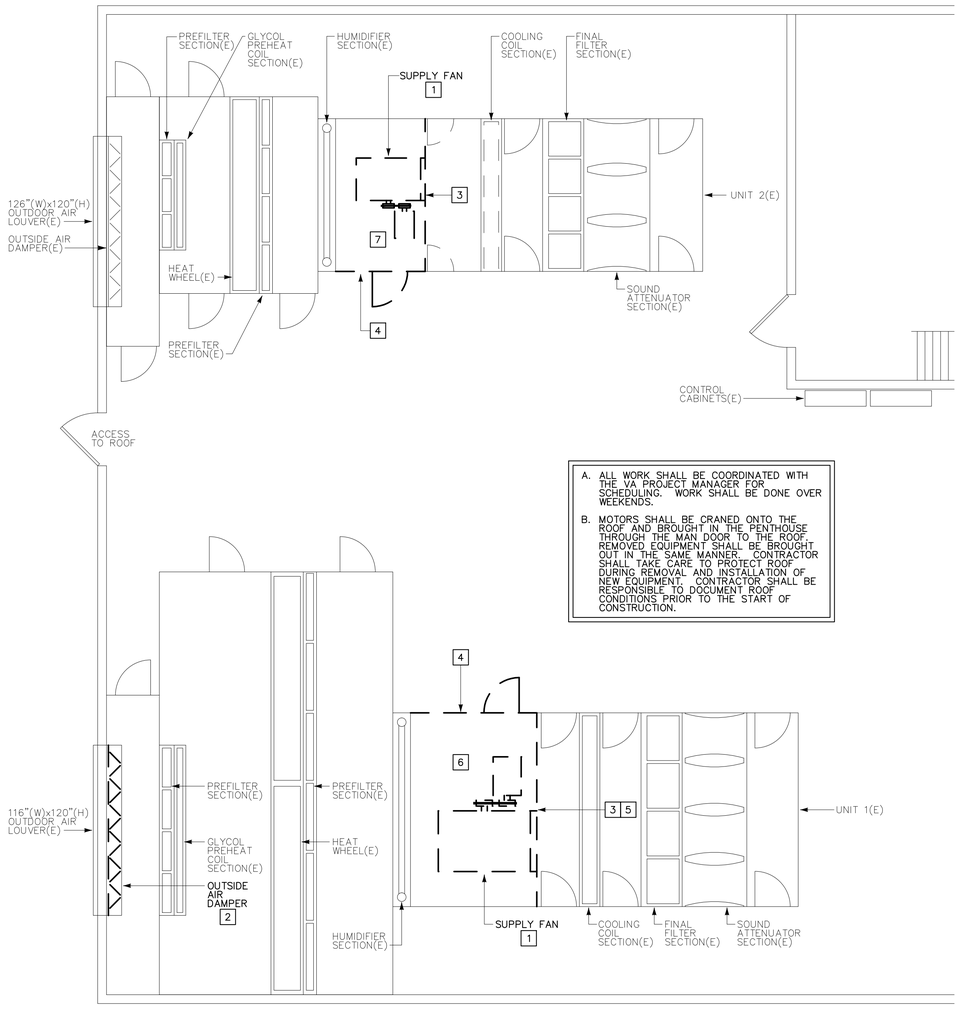


E-WING MECHANICAL PENTHOUSE - REMOVAL 1

?" = 1'-0"

A. ALL WORK SHALL BE COORDINATED WITH THE VA PROJECT MANAGER FOR SCHEDULING. WORK SHALL BE DONE OVER WEEKENDS.

B. MOTORS SHALL BE CRANED ONTO THE ROOF AND BROUGHT IN THE PENTHOUSE THROUGH THE MAN DOOR TO THE ROOF. REMOVED EQUIPMENT SHALL BE BROUGHT OUT IN THE SAME MANNER. CONTRACTOR SHALL TAKE CARE TO PROTECT ROOF DURING REMOVAL AND INSTALLATION OF NEW EQUIPMENT. CONTRACTOR SHALL BE RESPONSIBLE TO DOCUMENT ROOF CONDITIONS PRIOR TO THE START OF CONSTRUCTION.

GENERAL NOTES:

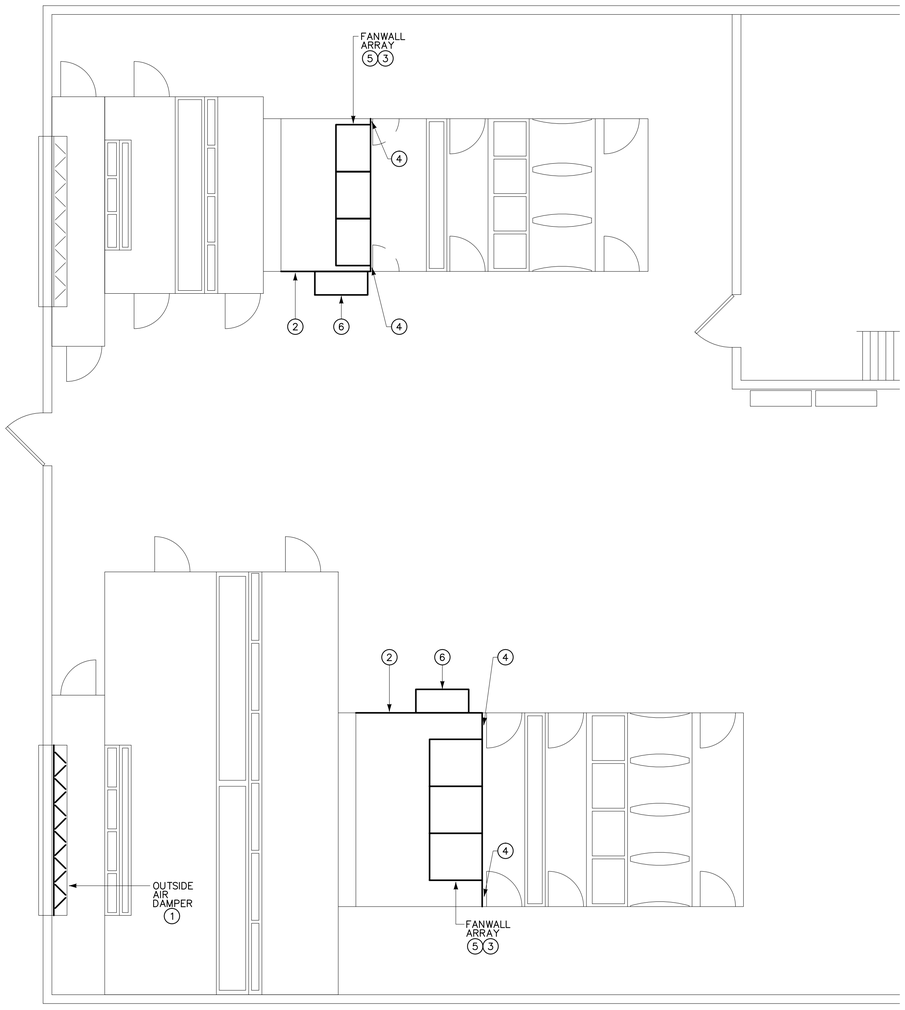
A. IT IS RECOMMENDED THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS WITHIN THE BUILDING PRIOR TO COMMENCEMENT OF ALL DEMOLITION AND NEW WORK. CONTRACTOR IS REQUIRED TO MAKE A MINIMUM OF ONE (1) SITE VISIT PRIOR TO BIDDING TO VERIFY FIELD CONDITIONS, REPORT ANY DISCREPANCIES TO THE ENGINEER.

B. DEMOLITION DRAWINGS SHOW IN GENERAL MAJOR EQUIPMENT, PIPING AND DUCTWORK REMOVALS. THE INTENT IS NOT TO IDENTIFY ALL MISCELLANEOUS PIPING, PIPING ACCESSORIES, DUCTWORK ACCESSORIES, SUPPORTS, CONTROLS, CONTROL ACCESSORIES, CONTROL WIRING AND CONDUIT, AND PNEUMATIC CONTROL TUBING AND ACCESSORIES TO BE DISCONNECTED AND REMOVED BUT IS THE REQUIREMENT UNDER THIS CONTRACT. NO EQUIPMENT, PIPING OR DUCTWORK SHALL BE ABANDONED IN PLACE, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

C. EXISTING PIPING, DUCTWORK AND OTHER UTILITIES HAVE NOT BEEN SHOWN FOR CLARITY.

REMOVAL NOTES:

1. REMOVE SUPPLY FAN AS SHOWN IN ITS ENTIRETY. REMOVE ALL ASSOCIATED MOUNTING HARDWARE AND SUPPORT COMPONENTS IN THEIR ENTIRETY. PROPERLY DISPOSE OF ALL REMOVED EQUIPMENT.
2. REMOVE 116" x 120" OUTSIDE AIR DAMPER AND ACTUATOR IN THEIR ENTIRETY.
3. REMOVE SECTION OF UNIT CASING BETWEEN FAN SECTION AND ACCESS SECTION.
4. REMOVE SECTION OF UNIT CASING AND ACCESS DOOR AS SHOWN.
5. CONTRACTOR SHALL PRE-TEST THE AIR FLOW OF THE EXISTING AIR HANDLING UNIT BY PERFORMING A TRAVERSE OF THE SUPPLY MAIN, AND REPORT THE FINDINGS TO THE ENGINEER OF RECORD AND THE VA PROJECT MANAGER.
6. FOR REFERENCE INTERIOR DIMENSIONS OF FAN SECTION 132"Lx112"Hx142"D.
7. FOR REFERENCE INTERIOR DIMENSIONS OF FAN SECTION 105"Lx66"Hx102"D.

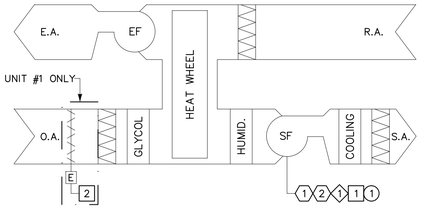


E-WING MECHANICAL PENTHOUSE - NEW WORK 2

?" = 1'-0"

DRAWING NOTES:

1. PROVIDE 116" (W) x 120" (H) OUTSIDE AIR DAMPER AS SHOWN. PROVIDE DAMPER ACTUATOR. RECONNECT EXISTING POWER.
2. PROVIDE UNIT CASING REPLACEMENT AS SHOWN AFTER INSTALLATION OF REPLACEMENT SUPPLY FANS. CASING SHALL BE MINIMUM 18 GAUGE PER THE SPECIFICATION. INSTALL CASING AIR TIGHT.
3. CONTRACTOR SHALL BALANCE THE FAN ARRAY TO MATCH THE AIRFLOW MEASURED DURING THE PRE-TEST OF THE EXISTING SYSTEM.
4. PROVIDE 16 GAUGE BLANK OFF SECTION ABOVE, BELOW, AND ON EACH SIDE OF THE FANWALL ARRAY. SECURE BLANK OFF PANELS TO UNIT CASING AND TO FANWALL ARRAY FRAME.
5. PROVIDE FANWALL ARRAY WITHIN UNIT CABINET AS SHOWN. INSTALL PER THE MANUFACTURER'S RECOMMENDATIONS.
6. INSTALL ELECTRIC PANEL FURNISHED BY THE FANWALL ARRAY MANUFACTURER AS SHOWN. FASTEN SECURELY TO THE AHU CASING.



INPUTS (ANALOG)

1. SUPPLY FAN VFD FEEDBACK

INPUTS (BINARY)

1. SUPPLY FAN STATUS (TYP. PER FAN CELL)
2. SUPPLY FAN VFD ALARM

OUTPUTS (ANALOG)

1. SUPPLY FAN SPEED CONTROL (TYP. PER FAN CELL)
2. OUTSIDE AIR DAMPER

OUTPUTS (BINARY)

1. SUPPLY FAN ENABLE/DISABLE (TYP. PER FAN CELL)

AIR HANDLING UNIT SCHEMATIC 3

NO SCALE

NOTES:

1. POINTS NOT INDICATED ON THE DIAGRAM ARE TO BE EXISTING TO REMAIN. ONLY POINTS ASSOCIATED WITH THE FAN REPLACEMENT SHALL BE MODIFIED.
2. NEW CONTROL POINTS SHALL BE AN EXTENSION OF THE EXISTING ANDOVER BUILDING CONTROL SYSTEM. CONTACT DAN PAUL AT U&S SERVICES AT (716) 693-4490. U&S SERVICES SHALL PROVIDE CONTROL DIAGRAMS AS PART OF THE SUBMITTAL PROCESS.
3. THE PROVIDED SEQUENCE OF OPERATION BELOW IS NOT INTENDED TO SUPERCEDE THE EXISTING OPERATION OF THE ENTIRE AIR HANDLING SYSTEM. SEQUENCE BELOW ONLY MODIFIES THE INTENDED SEQUENCE OF OPERATION OF THE SUPPLY FAN SECTION OF EACH AHU. REMAINING SEQUENCES OF THE UNIT SHALL REMAIN UNCHANGED.

SEQUENCE OF OPERATION:

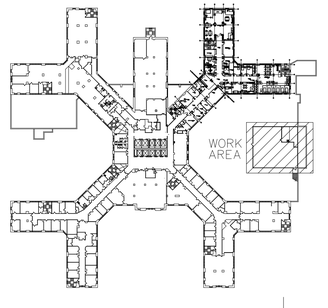
1. SUPPLY FAN OPERATION: THE SUPPLY FAN ARRAY SHALL OPERATE AT A CONSTANT AIRFLOW RATE AS SET BY THE BALANCER AT THE VFDS.
2. A CURRENT SWITCH IS INSTALLED IN THE SUPPLY FAN ARRAY STARTER. THE DDC SYSTEM USES THIS SWITCH TO CONFIRM THE FANS(S) ARE IN THE DESIRED STATE (IE ON OR OFF) AND GENERATED AN ALARM IF STATUS DEVIATES FROM DDC START/STOP CONTROL.
3. INTERLOCK THE VFD ENABLE TO CIRCUIT TO THE OUTSIDE AIR DAMPER END SWITCH. COMPLETION OF THE DAMPER ENDSWITCH SHALL ALLOW THE FAN ARRAY TO ENABLE.

REPLACEMENT FAN ARRAY

A/H TAG	SERVICE	CFM	FANWALL ARRAY						CELL DIMENSIONS		ELECTRICAL			
			QUANTITY	FAN HP	FAN HP	VFD HP	ESP	RPM	WIDTH	HEIGHT	VOLT	PH	FLA	STARTER
UNIT 1	VENTILATION	39,250	9	10	90	100	9.7	3554	32"	357"	460	3	100.8	VFD
UNIT 2	VENTILATION	15,000	6	5	30	30	6.8	4329	32"	285"	460	3	34.2	VFD

NOTES:

1. EACH FAN ARRAY SHALL BE PROVIDED WITH AN ELECTRICAL PANEL WHICH CONTAINS A SINGLE DISCONNECT SWITCH FOR EACH FAN CELL AND A VFD FOR EACH FAN ARRAY FROM THE MANUFACTURER. FAN ARRAY SHALL BE MODULATED FROM A SINGLE VFD.



KEYPLAN

NO SCALE

ISSUE FOR BID	11/06/13
Revisions	Date

VA WESTERN NEW YORK HEALTHCARE SYSTEM
3495 BAILEY AVENUE
BUFFALO, NEW YORK 14215

IBC ENGINEERING, P.C.
2495 MAIN STREET, SUITE 318
BUFFALO, NEW YORK 14214

CLINICAL ENGINEERING	DATE	ENGINEERING MANAGER	DATE
INFECTION CONTROL	DATE	CARELINE MANAGER	DATE
SAFETY OFFICER	DATE	CHIEF OF STAFF	DATE

MEDICAL CENTER DIRECTOR DATE

ASSOCIATE MEDICAL CENTER DIRECTOR DATE

Drawing Title: E-WING MECHANICAL PENTHOUSE PLAN - REMOVAL & NEW WORK

Project Title: E-WING FANWALL INSTALLATION

Building Number: 1 | Checked: JWM | Drawn: JWM

Location: V.A.M.C. BUFFALO, NEW YORK

Date: SEPTEMBER 27, 2013

Station No.: 528

14-S04-H100

Office of Facilities

Department of Veterans Affairs

12/19/2013 11:06:22 AM