

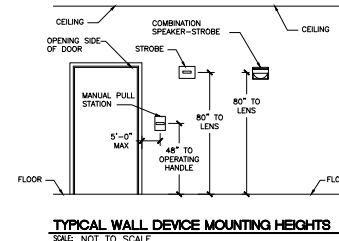
A  
THREE INCHES = ONE FOOT  
 B  
ONE AND ONE-HALF INCHES = ONE FOOT  
 C  
ONE INCH = ONE FOOT  
 D  
THREE-QUARTERS INCH = ONE FOOT  
 E  
ONE-HALF INCH = ONE FOOT  
 F  
THREE-FOURTHS INCH = ONE FOOT  
 G  
ONE-QUARTER INCH = ONE FOOT  
 H  
ONE-EIGHTH INCH = ONE FOOT

FIRE ALARM SEQUENCE OF EVENTS MATRIX																
● INDICATES ACTION WILL CAUSE SPECIFIC RESULTS																
○ INDICATES ACTION WILL NOT CAUSE SPECIFIC RESULTS																
ACTIONS			DEVICE ACTIVATION													
			A	B	C	D	E	F	G	H	I	J	K	L	M	
ACTIVATION OF ANY MANUAL PULL STATION (IN ZONE OF ALARM)			●	●	●	●	●	●	●	●	●	●	●	●	●	
ACTIVATION OF ANY AREA SMOKE SENSOR (IN ZONE OF ALARM)			●	●	●	●	●	●	●	●	●	●	●	●	●	
ACTIVATION OF FIRE SPRINKLER VALVE TAMPER SWITCH (IN ZONE OF ALARM)			●	●	●	●	●	●	●	●	●	●	●	●	●	
POWER SUPPLY PROBLEMS (TRIP, TRIP AND STANDBY)			●	●	●	●	●	●	●	●	●	●	●	●	●	
T OPEN WIRE OR GROUND IN ANY SUPERVISED CIRCUIT			●	●	●	●	●	●	●	●	●	●	●	●	●	
ACTIVATION OF AUDIO/VISUAL BYPASS SWITCH			●	●	●	●	●	●	●	●	●	●	●	●	●	
ACTIVATION OF SHUTDOWN BYPASS SWITCH			●	●	●	●	●	●	●	●	●	●	●	●	●	
LOSS OF PRIMARY POWER			●	●	●	●	●	●	●	●	●	●	●	●	●	
ACTIVATION OF ALARM SILENCE SWITCH			●	●	●	●	●	●	●	●	●	●	●	●	●	
SYSTEM RESPONSE			A	B	C	D	E	F	G	H	I	J	K	L	M	
1	ACTIVATE ZONE COMBINATION SPEAKER <sup>2</sup> /STROBES & STROBES <sup>2A,3</sup>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1
2	DE-ENERGIZE DOOR HOLD OPEN DEVICES	●	●	●	●	●	●	●	●	●	●	●	●	●	2	
3	SHUTDOWN ASSOCIATED MECHANICAL UNIT / DAMPERS	●	●	●	●	●	●	●	●	●	●	●	●	●	3	
4	ACTIVATE SYSTEM TROUBLE	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
5	RECORD EVENTS IN THE SYSTEM MEMORY	●	●	●	●	●	●	●	●	●	●	●	●	●	5	
6	REPORT ALARM SIGNAL TO MONITORING SERVICE	●	●	●	●	●	●	●	●	●	●	●	●	●	6	
7	REPORT TROUBLE SIGNAL TO MONITORING SERVICE	●	●	●	●	●	●	●	●	●	●	●	●	●	7	
8	REPORT SUPERVISORY SIGNAL TO MONITORING SERVICE	●	●	●	●	●	●	●	●	●	●	●	●	●	8	
9	DISABLE AUDIO/VISUAL APPLIANCES	●	●	●	●	●	●	●	●	●	●	●	●	●	9	
10	DISABLE AHU SHUTDOWN MODULES	●	●	●	●	●	●	●	●	●	●	●	●	●	10	
11		●	●	●	●	●	●	●	●	●	●	●	●	●	11	
12	SYSTEM RESPONSE	●	●	●	●	●	●	●	●	●	●	●	●	●	12	

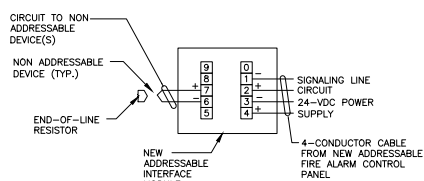
**FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX**  
SCALE: NOT TO SCALE

**NOTES:**

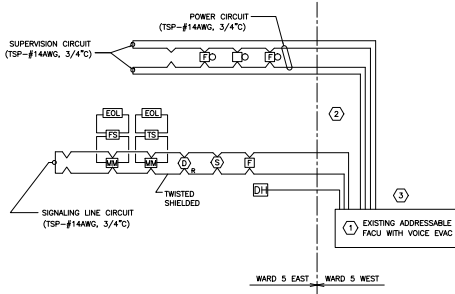
- FIRE ALARM SYSTEM IS TO BE ADDED TO A RECENTLY INSTALLED ADDRESSABLE FIRE ALARM CONTROL UNIT THAT IS PART OF A COMPREHENSIVE BUILDING UPGRADE. REFER TO FIRE ALARM GENERAL NOTE 1. FIRE ALARM FUNCTIONS SHALL MEET THE REQUIREMENTS OF THE BUILDING UPGRADE, BUT AT MINIMUM THE FUNCTIONS IDENTIFIED IN THE MATRIX.
- UPON THE OPERATION OF THE FIRE ALARM INITIATING DEVICE, THE FIRE ALARM SYSTEM WILL, IN THE ZONE OF ALARM ORIGIN ONLY:
  - NOTIFY STAFF/OCCUPANTS BY ACTIVATING A TEMPORAL THREE ALARM SIGNAL. THE SIGNAL IS TO BE DESIGNED TO THE PRIVATE OPERATING MODE REQUIREMENTS OF NFPA 72, AND,
  - ACTIVATE THE VISIBLE STROBE APPLIANCES.
- IN ADDITION AND SIMULTANEOUSLY TO NOTE 2 ABOVE, THE FIRE ALARM SYSTEM WILL SEND A VOICE MESSAGE TO THE REST OF THE BUILDING AND OTHER BUILDINGS AS NECESSARY TO NOTIFY ENOUGH STAFF TO RESPOND TO THE ZONE OF ALARM ORIGIN. NO VISIBLE APPLIANCES WILL BE ACTIVATED OUTSIDE THE ZONE OF ALARM ORIGIN.
- SUBSEQUENT ACTIVATIONS OF INITIATING DEVICES IN THE SAME ZONE OF ALARM ORIGIN WILL NOT INITIATE ANY NEW ALARM OUTPUTS, BUT WILL APPEAR AT THE FIRE ALARM CONTROL UNIT AND PRINTER. SUBSEQUENT TO THE ORIGINAL ALARM, ACTIVATION OF INITIATING DEVICES IN A DIFFERENT ZONE WILL INITIATE THE TEMPORAL THREE SIGNAL AND VISIBLE APPLIANCES IN THE NEW ZONE AND WILL INITIATE A NEW VOICE MESSAGE TO THE LOCATIONS AS DETERMINED ABOVE, TO IDENTIFY THE NEW LOCATION OF ALARM.
- BOTH AUDIBLE AND VISIBLE SIGNALS ARE TO BE PROGRAMMED TO CONTINUE TO OPERATE FOR FIVE MINUTES OR UNTIL THE SYSTEM IS ACKNOWLEDGED AND TURNED OFF/SILENCED BY AN OPERATOR. STROBES ARE ONLY TO BE ACTIVATED IN THE ZONE OF ALARM ORIGIN AND NOT IN THE ZONES WHERE THE VOICE MESSAGE IS USED.
- THE VOICE MESSAGE IS TO BE PRECEDED BY A TONE ALERT. NO LESS THAN THREE ROUNDS OF A VOICE MESSAGE TO BRING STAFF TO THE ZONE OF ALARM ORIGIN IS REQUIRED TO BE ANNOUNCED.
- MANUAL OPERATION OF THE VOICE SYSTEM WILL OVERRIDE ALL AUTOMATIC VOICE MESSAGES IN THE SYSTEM.
- THE FIRE ALARM SYSTEM SHALL NOT BE COMBINED WITH ANY OTHER BUILDING SYSTEM, SUCH AS BUT NOT LIMITED TO, AUTOMATION, ENERGY, SECURITY, ETC.
- MOUNT TEST SWITCH FOR DUCT SMOKE DETECTOR BELOW CEILING IN AN ACCESSIBLE SPACE.



**TYPICAL WALL DEVICE MOUNTING HEIGHTS**  
SCALE: NOT TO SCALE



**TYPICAL ADDRESSABLE INTERFACE MODULE WIRING DIAGRAM**  
SCALE: NOT TO SCALE



**FIRE ALARM RISER DIAGRAM**  
SCALE: NOT TO SCALE

100% SUBMITTAL  
BID SET -  
CONSTRUCTION  
DOCUMENTS  
DATE: DECEMBER, 2012

**FIRE ALARM GENERAL NOTES**

- ALL EXISTING FIRE ALARM SYSTEM DETECTION AND NOTIFICATION COMPONENTS TO BE DEMOLISHED. THE EXISTING SYSTEM IN THIS SCOPE OF WORK AREA AT THE TIME OF THIS WORK SCOPE IS ANTICIPATED TO HAVE BEEN RECENTLY REPLACED WITH A NEW SYSTEM AS PART OF THE BUILDING'S COMPREHENSIVE FIRE ALARM SYSTEM UPGRADE. ALTHOUGH NEW FIRE ALARM SYSTEM DEVICE AND APPLIANCE COMPONENTS HAVE BEEN RECENTLY PROVIDED, ALL COMPONENTS SHALL BE REMOVED AND RETURNED TO THE VA. RE-USE OF REMOVED SYSTEM COMPONENTS IS PROHIBITED. ONLY NEW DEVICES, APPLIANCES AND COMPONENTS SHALL BE PROVIDED. REFER TO PLAN DRAWINGS FOR EQUIPMENT LOCATIONS.
- REFER TO FIRE ALARM SYSTEM SPECIFICATION 28.31.00 FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- PROVIDE ONE ANNUNCIATED ZONE IN SMOKE ZONE.
- STROBE FOR AUDIO/VISUAL DEVICES SHALL HAVE WHITE/CLEAR LENS AND BE LABELED "FIRE".
- ALL NOTIFICATION APPLIANCE CIRCUITS SHALL BE CLASS "A" AS DEFINED BY NFPA 72 AND THE NEC.
- PROVIDE QUANTITY OF POWER SUPPLY PANELS NECESSARY FOR CONTROL AND OPERATION OF ALL NOTIFICATION APPLIANCES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH FIRE ALARM VENDOR FOR SYSTEM OPERATING INSTRUCTIONS AND WIRING DIAGRAMS.
- FIRE ALARM FLOOR PLAN AND RISER DIAGRAM ARE DIAGRAMMATIC. CONDUIT RUNS AND MANNER OF CONNECTION SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE FIRE ALARM SYSTEM MANUFACTURER RECOMMENDATIONS, NFPA 70. PENETRATION SHALL BE COORDINATED WITH VA ASHEVILLE ENGINEERING DEPARTMENT.
- REFER TO FLOOR PLAN DRAWINGS FOR QUANTITY AND LOCATIONS OF FIRE ALARM INITIATING DEVICES, NOTIFICATION APPLIANCES, AND APPURTENANCES.
- INSTALL SMOKE DETECTORS NO CLOSER THAN 3'-0" TO HVAC AIR SUPPLY DIFFUSERS.
- LOCATE CONTROL MODULE WITHIN 3'-0" OF CONTROLLED DEVICE.
- FIRE ALARM SIGNALS SHALL TAKE PRECEDENCE OVER ALL OTHER SIGNALS, SUCH AS BUT NOT LIMITED TO, PUBLIC ADDRESS SYSTEMS, EXCEPT MASS NOTIFICATION SYSTEMS.
- DUCT SMOKE DETECTORS SHALL BE PROVIDED IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY OF 2,000-CFM AND SUPPLY AIR SYSTEM. PROVIDE A REMOTE TEST SWITCH FOR DUCT SMOKE SENSOR BELOW CEILING IN ACCESSIBLE AND APPROVED LOCATION.

**FIRE ALARM LEGEND:**

- ADDRESSABLE MANUAL ALARM BOX DEVICE
- FIRE SPRINKLER WATER FLOW SWITCH
- FIRE SPRINKLER VALVE TAMPER SWITCH
- STROBE APPLIANCE (WITH CANDELA RATING)
- COMBINATION SPEAKER/STROBE APPLIANCE
- MONITOR MODULE
- ADDRESSABLE SMOKE DETECTOR - PHOTOELECTRIC
- DUCT SMOKE DETECTOR (RETURN) - PHOTOELECTRIC
- ELECTROMAGNETIC DOOR HOLDER OPEN DEVICE

**SUBSCRIPTS:**

- CD CANDELA RATING

**KEY NOTES:**

- NEW SYSTEM DEVICES, APPLIANCES AND COMPONENTS FOR WARD 5 EAST SCOPE OF WORK SHALL BE ADDED (INTERFACED) TO THE PREVIOUSLY INSTALLED SIMPLEX 4100U PANEL LOCATED IN THE WARD 5 WEST ZONE, AND SHALL BE COMPATIBLE.
- COORDINATE THE EXTENT OF WORK REQUIRED OUTSIDE OF AREA OF WORK SCOPE WITH FIELD CONDITIONS AND FACILITY STAFF TO MINIMIZE DISRUPTIONS TO OPERATIONS. ALL WORK OUTSIDE THE AREA OF WORK SCOPE, AND ASSOCIATED COORDINATION, SHALL BE INCLUDED TO PROVIDE A COMPLETE AND CODE COMPLIANT INSTALLATION.
- COORDINATE INTERFACING, ROUTING(S), PROGRAMMING, ETC., AS REQUIRED FOR A COMPLETE AND CODE COMPLIANT INSTALLATION.

BID SET - 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

BY	REVISIONS	DATE



**CONFIDENTIAL** THESE DRAWINGS MUST BE RETURNED TO FACILITIES MANAGEMENT SERVICE, PROJECT SECTION, UPON COMPLETION, OR FINAL USE BY THE CONTRACTOR FOR RECORD PURPOSES.

**ASBESTOS WARNING:** ASBESTOS CONTAINING BUILDING MATERIALS (ACBM) ARE PRESENT THROUGHOUT THE FACILITY. IF CONTRACTORS FIND ACBM, OR SUSPECT FINDING ACBM, THEY SHALL IMMEDIATELY STOP WORK AND CONTACT THE PROJECT CTR.

**SCALING NOTES:** FULL SIZE V.A. "T" SHEETS (SCALE AS INDICATED) AND HALF SIZE V.A. "D" SHEETS (8 THE SCALE INDICATED LETTER SIZE DRAWINGS ARE NOT TO SCALE.

**GENERAL NOTE:** CONTRACTORS AND ARCHITECT/ENGINEERING FIRMS ARE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING CONDITIONS.

Project Title  
**RENOVATE  
WARD 5 EAST**

Drawing Title  
**FIFTH FLOOR - WARD EAST  
FIRE ALARM  
NOTES AND DETAILS**

Building Number  
47

Checked  
CLB

Drawn  
MSMS

Location  
ASHEVILLE, NC

Date  
12/21/12

Project No.  
637-11-119

DRAWING NO.  
FA103

Dwg 75 Of 78

Office of Facilities  
Management & Information Systems