

CITY OF WARWICK FIRE ALARM UPGRADES PHASE IV - COOPER BUILDING



MAINTENANCE SHOP

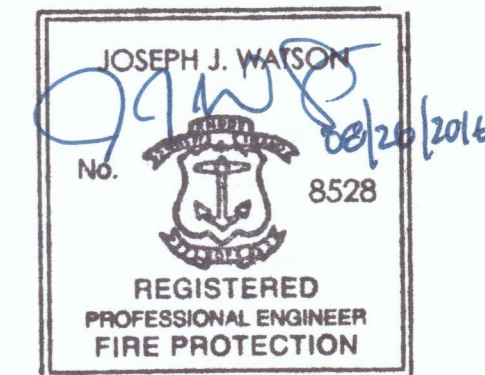
COOPER BUILDING

LIST OF DRAWINGS:

- | | |
|--------|--|
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**COOPER BUILDING & MAINTENANCE SHOP
885 SANDY LANE
WARWICK, RI 02889**

JENSEN HUGHES
Advancing the Science of Safety
117 METRO CENTER BOULEVARD | SUITE 1002
WARWICK | RHODE ISLAND | 02886
P 401.736.8992 | F 401.736.8929
www.jensenhughes.com



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KEY PLAN



NO.	REVISION	DATE

PROJECT
**FIRE ALARM UPGRADES
PHASE IV -
COOPER BUILDING**

ADDRESS
885 SANDY LANE
WARWICK, RI

PROJECT NO
1JJW00218.001

DATE
AUGUST 26, 2016

DESIGN
EBJ

DRAWN BY
EBJ

CHECKED BY
JJW

SCALE 0 4' 8' 16'
1/8"=1'-0"

NOTE: IF DRAWING IS LESS THAN 24" X 36"
REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE

COVER

NUMBER
COVER

SHEET 1 of 5

GENERAL NOTES

1. THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE RHODE ISLAND FIRE SAFETY CODE (NFPA 1-2012 EDITION, AS AMENDED, AND NFPA 101-2012 EDITION, AS AMENDED), NFPA 72-2010 EDITION AND THE MASTER TECHNICAL SPECIFICATION PREPARED BY JENSEN HUGHES.
2. THE SCOPE OF WORK INCLUDES THE PROGRAMMING OF THE FIRE ALARM CONTROL UNIT AND THE HONEYWELL ENTERPRISE BUILDING INTEGRATOR. INCLUDED IN THE SCOPE IS THE PURCHASE OF HONEYWELL ENTERPRISE BUILDING INTEGRATOR LICENSE AGREEMENT FOR AN ADDITIONAL 250 POINTS FOR THE CITY OF WARWICK. THE POINTS UNDER THIS CONTRACT ARE TO BE ADDED TO THE CITY OF WARWICK'S TOTAL LICENSED ADDRESSABLE POINTS. ADDITIONAL POINTS WERE ADDED UNDER A PREVIOUS CONTRACT. UNUSED LICENSED POINTS TO BE USED IN CITY OF WARWICK FIRE ALARM UPGRADES PHASE V AND PHASE VI.
3. THE SCOPE OF WORK INCLUDES FURNISHING ALL SERVICES, EQUIPMENT, PERMITS, TESTING, ETC. THAT ARE REQUIRED TO INSTALL A NEW ADDRESSABLE FIRE ALARM SYSTEM IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS AND AS INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS.
4. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT ALL PRODUCT DATA SHEETS, BATTERY CALCULATIONS, POINT-TO-POINT WIRING DIAGRAMS AND A SEQUENCE OF OPERATIONS TO THE OWNER FOR APPROVAL. REFER TO THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL SUBMITTAL REQUIREMENTS.
5. ALL NEW SIGNALING LINE CIRCUITS (SLC) SHALL BE INSTALLED CLASS A AND ALL NEW NOTIFICATION APPLIANCE CIRCUITS (NAC) SHALL BE INSTALLED CLASS A.
6. ALL WIRING SHALL BE INSTALLED IN METAL RACEWAY OR APPROVED MC CABLE. MC CABLE SHALL ONLY BE INSTALLED ABOVE ACCESSIBLE CEILINGS. ALL WIRING SHALL BE INSTALLED FOLLOWING THE COLOR CODE OF RILSC SECTION 9.6.9.8.
7. THE FIRE ALARM SYSTEM CONTRACTOR SHALL DETERMINE THE NUMBER OF ADDITIONAL REMOTE POWER SUPPLIES, IF NEEDED, TO SUPPORT ALL NOTIFICATION APPLIANCES SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD LOCATE THE ADDITIONAL REMOTE POWER SUPPLIES AND PROVIDE A PHOTOELECTRIC SMOKE DETECTOR IN THE IMMEDIATE VICINITY OF EACH REMOTE POWER SUPPLY. THE LOCATION OF EACH REMOTE POWER SUPPLY SHALL BE APPROVED BY THE OWNER AND ENGINEER. ALL REMOTE POWER SUPPLIES ARE REQUIRED TO BE TRIPPED VIA ADDRESSABLE CONTROL MODULE ON THE SIGNALING LINE CIRCUIT. ADDRESSABLE CONTROL MODULE SHALL BE SEPARATED FROM REST OF THE SLC WITH ISOLATION MODULES.
8. ALL WALL-MOUNTED VISIBLE NOTIFICATION APPLIANCES AND COMBINATION AUDIBLE/VISIBLE NOTIFICATION APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80 INCHES AND NOT GREATER THAN 96 INCHES ABOVE THE FINISHED FLOOR. ALL WALL-MOUNTED AUDIBLE NOTIFICATION APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOORS AT HEIGHTS OF NOT LESS THAN 90 INCHES AND BELOW THE FINISHED CEILING AT DISTANCES NOT LESS THAN 6 INCHES.
9. UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL SUBMIT CLOSEOUT DOCUMENTATION INCLUDING UPDATED ACCURATE AS-BUILT DRAWINGS TO THE OWNER, AS DESCRIBED IN THE TECHNICAL SPECIFICATION. THE AS-BUILT DRAWINGS SHALL INDICATE THE EXACT LOCATION OF ALL CONTROL EQUIPMENT, DEVICES AND APPLIANCES ZONE DIAGRAMS, THE EXACT LOCATION OF ALL INSTALLED WIRING AND RACEWAY, INCLUDING THE NUMBER OF CONDUCTORS IN EACH PORTION OF THE CIRCUIT AND THE LOCATION OF JUNCTION BOXES AND TERMINAL CABINETS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH OTHER TRADES. BID SHALL INCLUDE ALL PERSONNEL NECESSARY TO COMPLETE INTEGRATION BETWEEN FIRE ALARM AND OTHER TRADES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PAINTING AND PATCHING TO THE ORIGINAL STATE AND TO THE SATISFACTION OF THE OWNER.
12. THE CONTRACTOR SHALL REMOVE, PROTECT, AND RE-INSTALL ALL EXISTING LAY-IN ACOUSTICAL TILE CEILINGS WHERE WORK IS REQUIRED ABOVE THE LAY-IN ACOUSTICAL CEILING. ANY TILES BROKEN SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING OF ALL RACEWAY IN PUBLIC AREAS TO THE SATISFACTION OF THE OWNER.
14. TRANSIENT VOLTAGE SUPPRESSION SHALL BE PROVIDED FOR ANY CIRCUIT THAT LEAVES THE BUILDING.

FIRE ALARM OPERATIONS MATRIX	REQUIRED SYSTEM OUTPUTS										
	ANNUNCIATION AND INDICATION					OFF PREMISES SIGNAL TRANSMISSION			ANCILLARY FUNCTIONS		
SYSTEM INPUTS	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE ADDRESSABLE FIRE ALARM SUPERVISORY INDICATOR AT FACU	ACTIVATE ADDRESSABLE SUPERVISORY INDICATOR AT FACU	ACTIVATE ADDRESSABLE TROUBLE INDICATOR AT FACU	PROVIDE DEVICE CIRCUIT INDICATION	TRANSMIT GENERAL ALARM SIGNAL TO WARWICK FIRE DEPARTMENT VIA NEW RADIO MASTERBOX	TRANSMIT CONDITION TO CITY OF WARWICK VIA HONEYWELL FIRE NETWORK ADAPTER	TRANSFER FIRE ALARM SYSTEM TO SECONDARY POWER	SHUT DOWN ALL SUPPLY AIR-HANDLING UNITS GREATER THAN 2,000 CFM	SHUT DOWN SPECIFIC HVAC UNIT OR DUCT	RELEASE MAGNETIC DOOR HOLD-OPEN DEVICES
ALARM SIGNALS											
MANUAL FIRE ALARM BOX	●	●						●		●	
AUTOMATIC DETECTION DEVICE (HEAT OR SMOKE DETECTOR) INITIATION	●	●						●		●	
SUPERVISORY SIGNALS											
TRANSFER TO EMERGENCY POWER		●	●								
DUCT SMOKE DETECTOR ACTIVATION		●	●							●	
TROUBLE SIGNALS											
OPEN CIRCUIT (SEE NOTE 2)		●	●								
CIRCUIT GROUND FAULT (SEE NOTE 1)		●	●								
AC POWER FAILURE (SEE NOTE 1)		●	●					●			

NOTE 1: SYSTEM SHALL REMAIN OPERATIONAL DURING FAULT.
NOTE 2: NOTIFICATION APPLIANCE CIRCUITS AND SIGNALING LINE CIRCUITS SHALL REMAIN OPERATIONAL.

SYMBOLS LEGEND

- Ⓢ ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR
- Ⓛ ADDRESSABLE HEAT DETECTOR (COMBINATION 135FRATE-OF-RISE UNLESS OTHERWISE NOTED)
- Ⓛ ADDRESSABLE MANUAL FIRE ALARM BOX (DOUBLE-ACTION)
- Ⓛ^{15cd} WALL-MOUNT HORNSTROBE NOTIFICATION APPLIANCES (CANDELA RATING AS NOTED)
- Ⓛ^{15cd} WALL-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
- Ⓛ^{15cd} CEILING-MOUNT HORNSTROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
- Ⓛ^{15cd} CEILING-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
- Ⓛ ADDRESSABLE FIRE ALARM CONTROL PANEL
- Ⓛ ADDRESSABLE MONITOR MODULE
- Ⓛ ADDRESSABLE CONTROL MODULE
- Ⓛ FAULT ISOLATION MODULE
- Ⓛ FIRE DEPARTMENT KNOX BOX
- Ⓛ RADIO MASTERBOX (NEW)
- Ⓛ FIRE NETWORK ADAPTER
- Ⓛ NETWORK SWITCH
- Ⓛ REMOTE TEST SWITCH
- Ⓛ REMOTE ALARM INDICATOR
- Ⓛ TRANSIENT VOLTAGE SUPPRESSION
- H - H - H - PROTECTOWIRE LINEAR HEAT DETECTION
- Ⓛ MAGNETIC DOOR HOLD-OPEN DEVICES

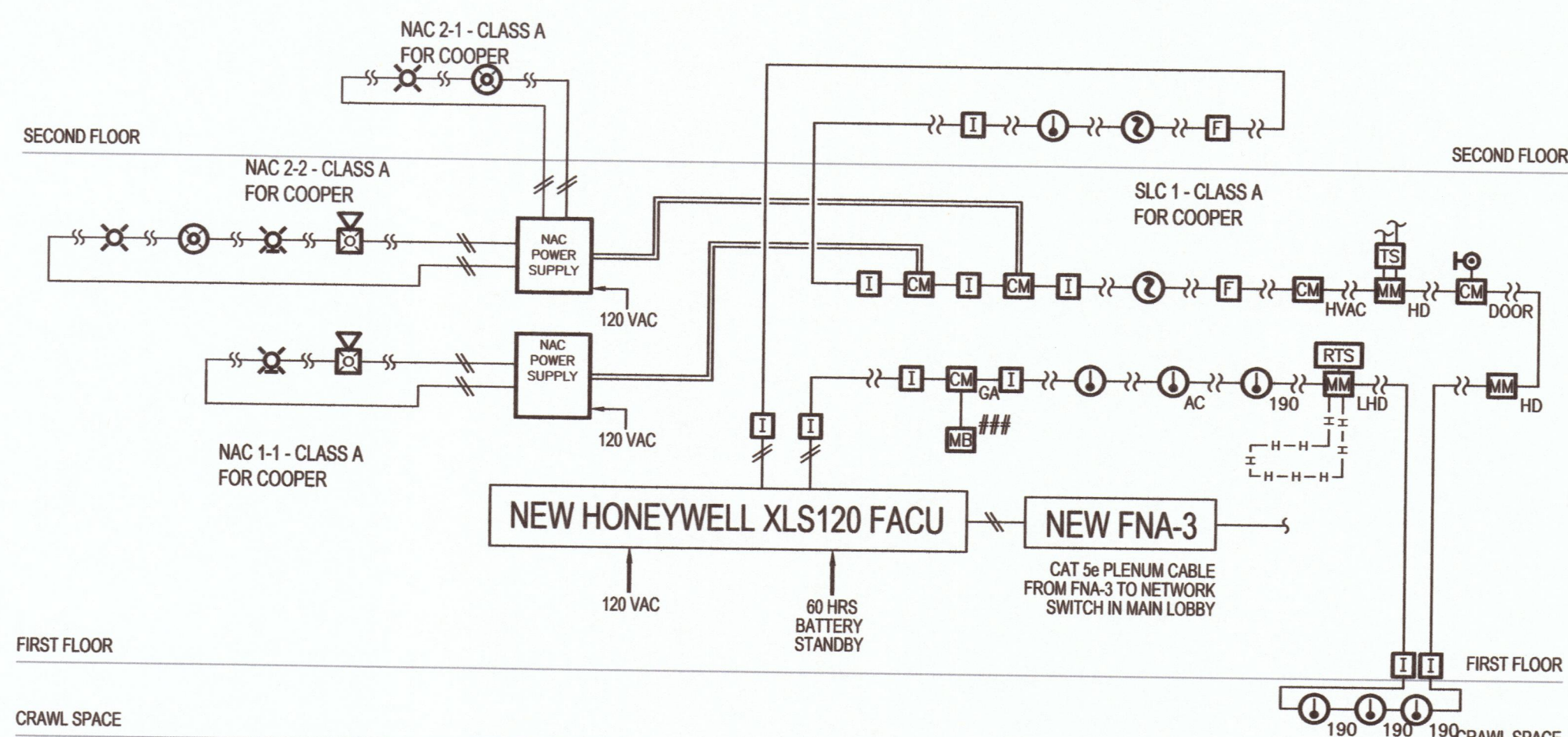
SUBSCRIPT LEGEND

GA	MASTERBOX ZONE - GENERAL ALARM	HVAC	HVAC SHUTDOWN
190	FIXED TEMPERATURE 190 DEGREE	C	CONVENTIONAL DEVICE
AC	ABOVE CEILING	E	EXISTING DEVICE TO REMAIN
HD	HEAT DETECTOR	LHD	LINEAR HEAT DETECTION
DOOR	MAGNETIC DOOR HOLD-OPEN RELEASE		

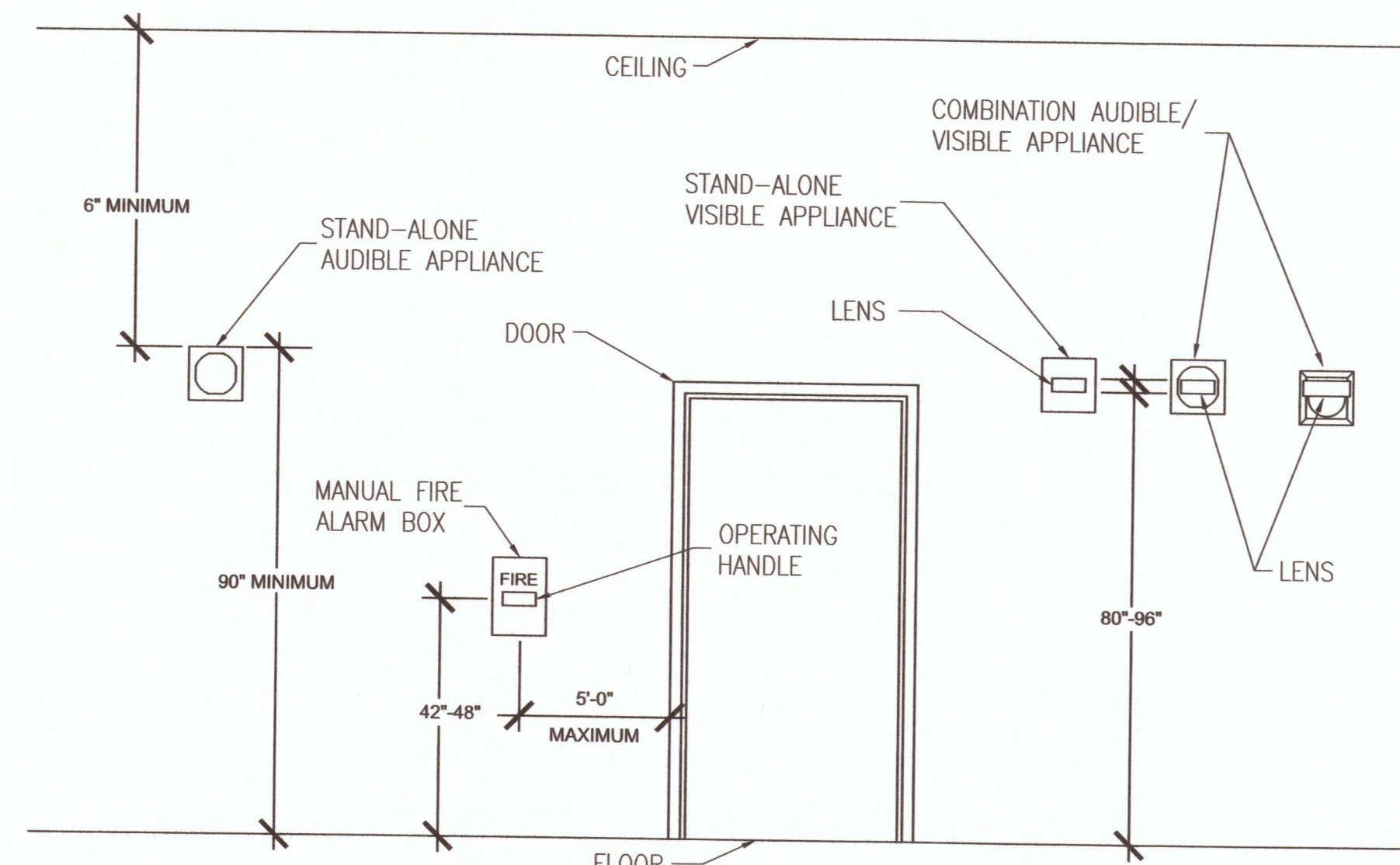
COOPER BLDG. SEQUENCE OF OPERATIONS

BUILDING GENERAL NOTES

1. THE SCOPE OF WORK INCLUDES THE INSTALLATION OF A NEW FIRE ALARM SYSTEM IN THE COOPER BUILDING AND IN THE MAINTENANCE GARAGE COMPLETE WITH A NEW ADDRESSABLE FIRE ALARM CONTROL UNIT, NEW NOTIFICATION APPLIANCES, NEW ADDRESSABLE DEVICES, NEW SIGNALING LINE CIRCUITS AND NEW NOTIFICATION APPLIANCE CIRCUITS, AS SHOWN ON THESE DRAWINGS AND TECHNICAL SPECIFICATIONS. A NEW RADIO MASTERBOX (###) IS TO BE INSTALLED IN THE CORRIDOR OF THE COOPER BUILDING. INCLUDED IN THE SCOPE OF WORK IS SCAFFOLDING, STAGING, RIGGING, OR HOISTING NECESSARY TO INSTALL ALL COMPONENTS, AS SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL INSTALL FIRE NETWORK ADAPTER (FNA) IN THE CORRIDOR OF THE COOPER BUILDING AND IN THE MAINTENANCE BLDG. CONTRACTOR SHALL CONNECT THE FNA AND NETWORK SWITCH VIA MOHAWK CAT5 PLENUM CABLE, PER MANUFACTURER'S REQUIREMENTS. FIRE ALARM CONTROL UNIT AND FNA TO BE CONNECTED VIA TWISTED PAIR WIRE, PER MANUFACTURER'S REQUIREMENTS.
2. THE COOPER BUILDING IS CURRENTLY NOT PROVIDED WITH SPRINKLER PROTECTION. THE FIRE ALARM SYSTEM IS DESIGNED UNDER THE CRITERIA THAT THE BUILDING IS NOT SPRINKLERED WHICH REQUIRES A TOTAL (COMPLETE) COVERAGE FIRE DETECTION SYSTEM IN ACCORDANCE WITH NFPA 72 SECTION 17.5.3.1. HEAT DETECTION IN THE BASEMENT CRAWLSPACES IS NOT REQUIRED BASED ON LIMITED ACCESS AS APPROVED BY THE WARWICK FIRE DEPARTMENT.
3. THE MAINTENANCE BLDG IS CURRENTLY NOT PROVIDED WITH SPRINKLER PROTECTION. THE FIRE ALARM SYSTEM IS DESIGN UNDER THE CRITERIA THAT THE BUILDING IS NOT SPRINKLERED WHICH REQUIRES DETECTION IN SELECT AREAS OF THE CODE.
4. DETECTION IN NON-COMBUSTIBLE, INACCESSIBLE SPACES ABOVE THE COOPER BUILDING CEILINGS SHALL NOT BE REQUIRED PER NFPA 72 SECTION 17.5.3.1.
5. ELEVATOR RECALL CONTROL FUNCTIONS ARE NOT REQUIRED BY THE RHODE ISLAND ELEVATOR SAFETY CODE. NO ELEVATOR RECALL FUNCTIONS TO BE INSTALLED IN COOPER BUILDING.
6. THE COOPER BUILDING IS CONSTRUCTED OF TYPE II (000) CONSTRUCTION PER CITY OF WARWICK BUILDING DEPARTMENT. HEAT DETECTION IS NOT REQUIRED IN SPACES ABOVE ACCESSIBLE CEILINGS GREATER THAN 24 INCHES.
7. THE HONEYWELL XLS120 FIRE ALARM CONTROL UNIT HAS THE CAPACITY FOR ONE (1) INTELLIGENT SIGNALING LINE CIRCUIT.
8. THE COOPER BUILDING WILL BE A MUNICIPALLY CONNECTED FIRE ALARM SYSTEM AND THE MAINTENANCE BLDG WILL BE A LOCAL SYSTEM.



COOPER BUILDING CONCEPTUAL PARTIAL RISER DIAGRAM
SCALE: NOT TO SCALE



TYPICAL MOUNTING HEIGHT DETAIL FOR WALL-MOUNTED COMPONENTS
SCALE: NOT TO SCALE

NO.	REVISION	DATE

PROJECT
FIRE ALARM UPGRADES PHASE IV - COOPER BUILDING

ADDRESS
885 SANDY LANE
WARWICK, RI

PROJECT NO.
1JJW00218.001

DATE
AUGUST 26, 2016

DESIGN
EBJ

DRAWN BY
EBJ

CHECKED BY
JJW

SCALE
0 4' 8' 16'
1/8" = 1'-0"

NOTE: IF DRAWING IS LESS THAN 24" X 36" REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE
FIRE ALARM NOTES, SEQUENCE, LEGEND AND RISER DIAGRAM

NUMBER
FA-1.0

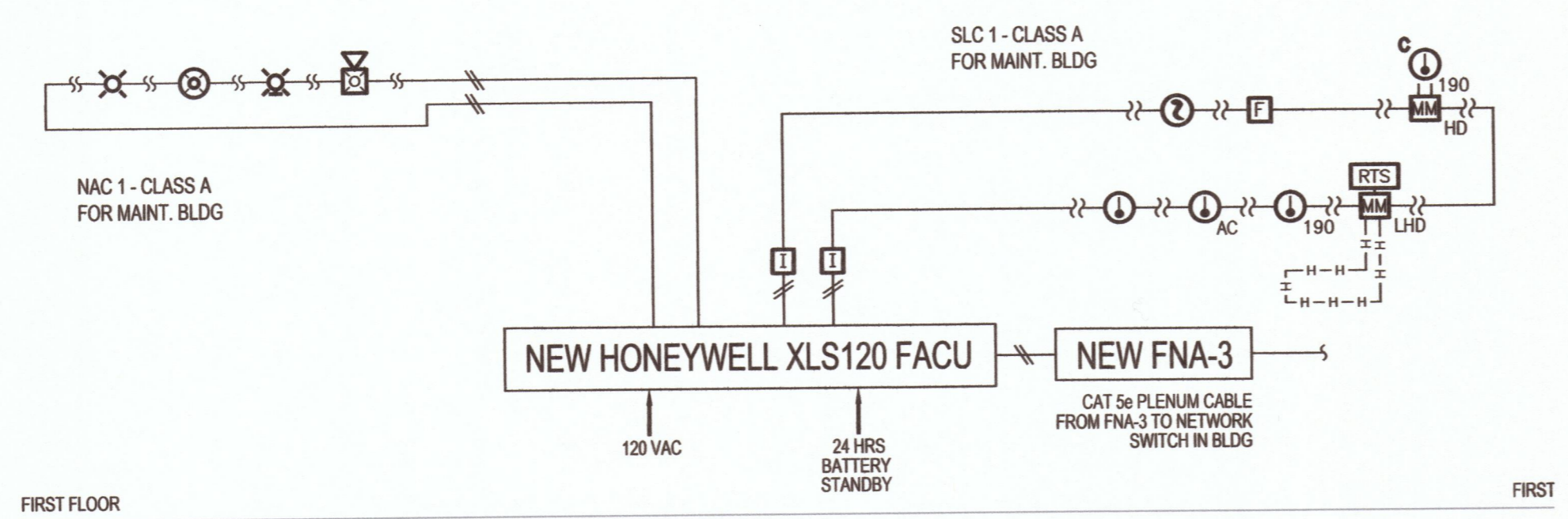
SHEET
2 of 5

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SEAL
No. 8528
REGISTERED PROFESSIONAL ENGINEER
FIRE PROTECTION

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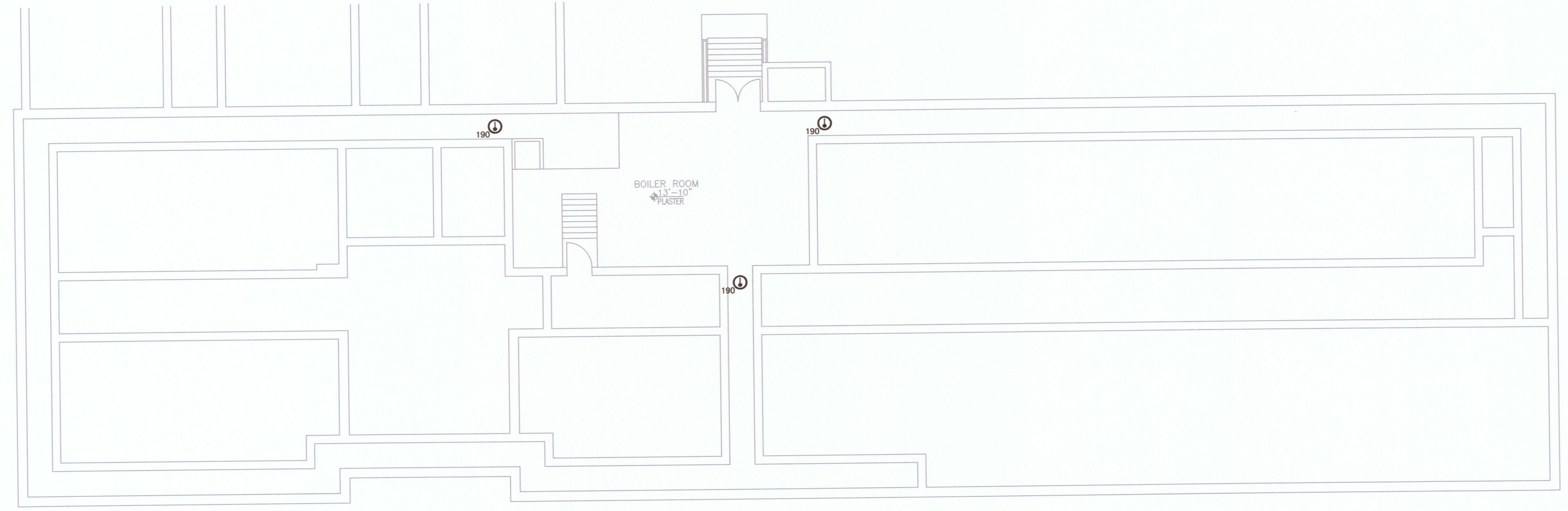


MAINTENANCE BLDG CONCEPTUAL PARTIAL RISER DIAGRAM
SCALE: NOT TO SCALE

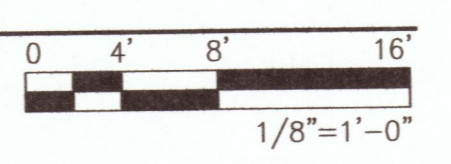
FIRE ALARM OPERATIONS MATRIX	REQUIRED SYSTEM OUTPUTS			
	ANNUNCIATION AND INDICATION	OFF PREMISES SIGNAL TRANSMISSION	ANCILLARY FUNCTIONS	
SYSTEM INPUTS	ACTIVATE ADDRESSABLE AND VISIBILE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE ADDRESSABLE VISIBILE ALARM INDICATOR AT FACU	ACTIVATE ADDRESSABLE VISIBILE SUPERVISORY INDICATOR AT FACU	ACTIVATE ADDRESSABLE VISIBILE TROUBLE INDICATOR AT FACU
ALARM SIGNALS				
MANUAL FIRE ALARM BOX	●	●		
AUTOMATIC DETECTION DEVICE (HEAT OR SMOKE DETECTOR) INITIATION	●	●		
SUPERVISORY SIGNALS				
TROUBLE SIGNALS				
OPEN CIRCUIT (SEE NOTE 2)		●	●	
CIRCUIT GROUND FAULT (SEE NOTE 1)		●	●	
AC POWER FAILURE (SEE NOTE 1)		●	●	●

NOTE 1: SYSTEM SHALL REMAIN OPERATIONAL DURING FAULT.
NOTE 2: NOTIFICATION APPLIANCE CIRCUITS AND SIGNALING LINE CIRCUITS SHALL REMAIN OPERATIONAL.

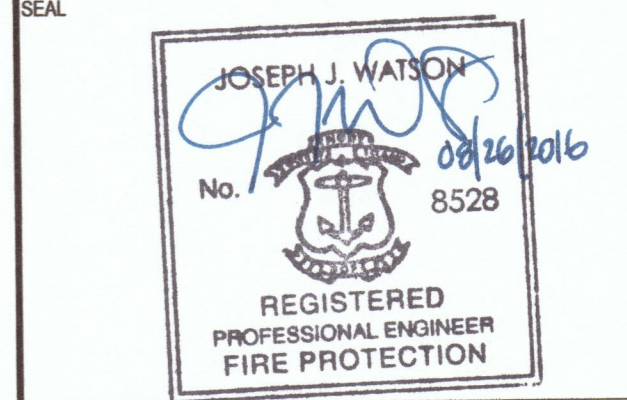
MAINTENANCE BLDG. SEQUENCE OF OPERATIONS



CRAWL SPACE FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"



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KEY PLAN

NO.	REVISION	DATE
1		
2		

PROJECT
**FIRE ALARM UPGRADES
PHASE IV -
COOPER BUILDING**

ADDRESS
885 SANDY LANE
WARWICK, RI

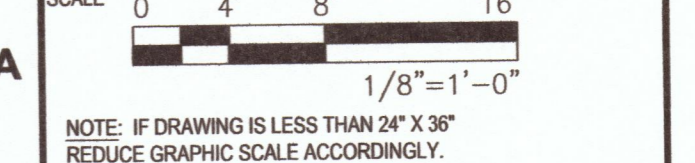
PROJECT NO
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DATE
AUGUST 26, 2016

DESIGN
EBJ

DRAWN BY
EBJ

CHECKED BY
JJW



TITLE
**CRAWL SPACE
FIRE ALARM PLAN AND
DETAILS**

NUMBER
FA-1.1

SHEET
3 of 5

KEY NOTES

- 1 THE FIRE ALARM DESIGN IN THIS LOCATION IS BASED OFF THE FUTURE PROPOSED LAYOUT OF THE SPACE.
- 2 INSTALL PROTECTOWIRE MODEL PLR-156R LINEAR HEAT DETECTION. AT LEAST ONE LINE OF PROTECTOWIRE MUST BE LOCATED AT OR WITHIN 3 FEET MEASURED HORIZONTALLY FROM THE PEAK, BUT NOT CLOSER THAN 4 INCHES VERTICALLY TO THE PEAK. CONTRACTOR TO PROVIDE REMOTE TEST SWITCH FOR LINEAR HEAT DETECTION.
- 3 ALL NOTIFICATION APPLIANCES AND INITIATING DEVICES IN THE GYMNASIUM/AUDITORIUM SHALL BE PROVIDED WITH PROTECTIVE CAGES AND COVERS.
- 4 INSTALL CONTROL MODULE AND RELAY FOR AIR HANDLING UNIT SHUTDOWN UPON ALARM CONDITION.
- 5 TRANSIENT VOLTAGE SUPPRESSION SHALL BE PROVIDED FOR THE IDC THAT LEAVES THE BUILDING.
- 6 NEW EXTERIOR ANTENNA SHALL BE PROVIDED FOR THE TRANSMISSION OF SIGNALS VIA THE NEW RADIO MASTERBOX.
- 7 HEAT DETECTOR SHALL BE INSTALLED ABOVE THE DROP CEILING ON THE BOTTOM OF THE NEAREST 2" x 12" JOIST.
- 8 LINEAR HEAT DETECTION IN THE MAINTENANCE SHOP SHALL BE PROTECTOWIRE MODEL PLR-190R.

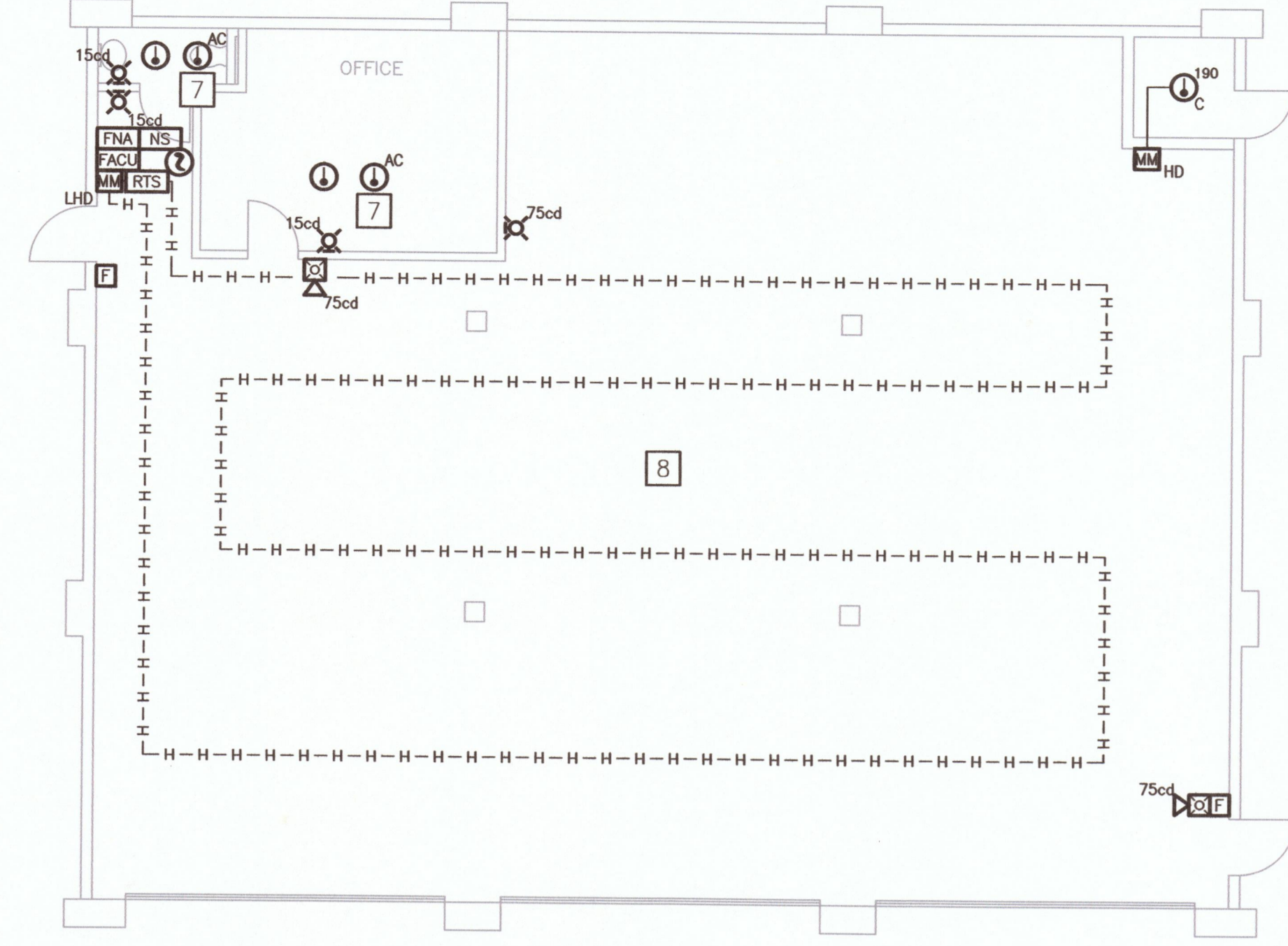
SHEET NOTES

1. DETECTION IN NON-COMBUSTIBLE, INACCESSIBLE SPACES ABOVE CEILINGS SHALL NOT BE REQUIRED PER NFPA 72 SECTION 17.5.3.1.
2. THE CONTRACTOR SHALL INSTALL DEDICATED CONTROL UNIT IN MAINTENANCE SHOP. THE FIRE ALARM CONTROL UNIT SHALL BE CONNECTED TO THE CITY WIDE NETWORK AS SPECIFIED.

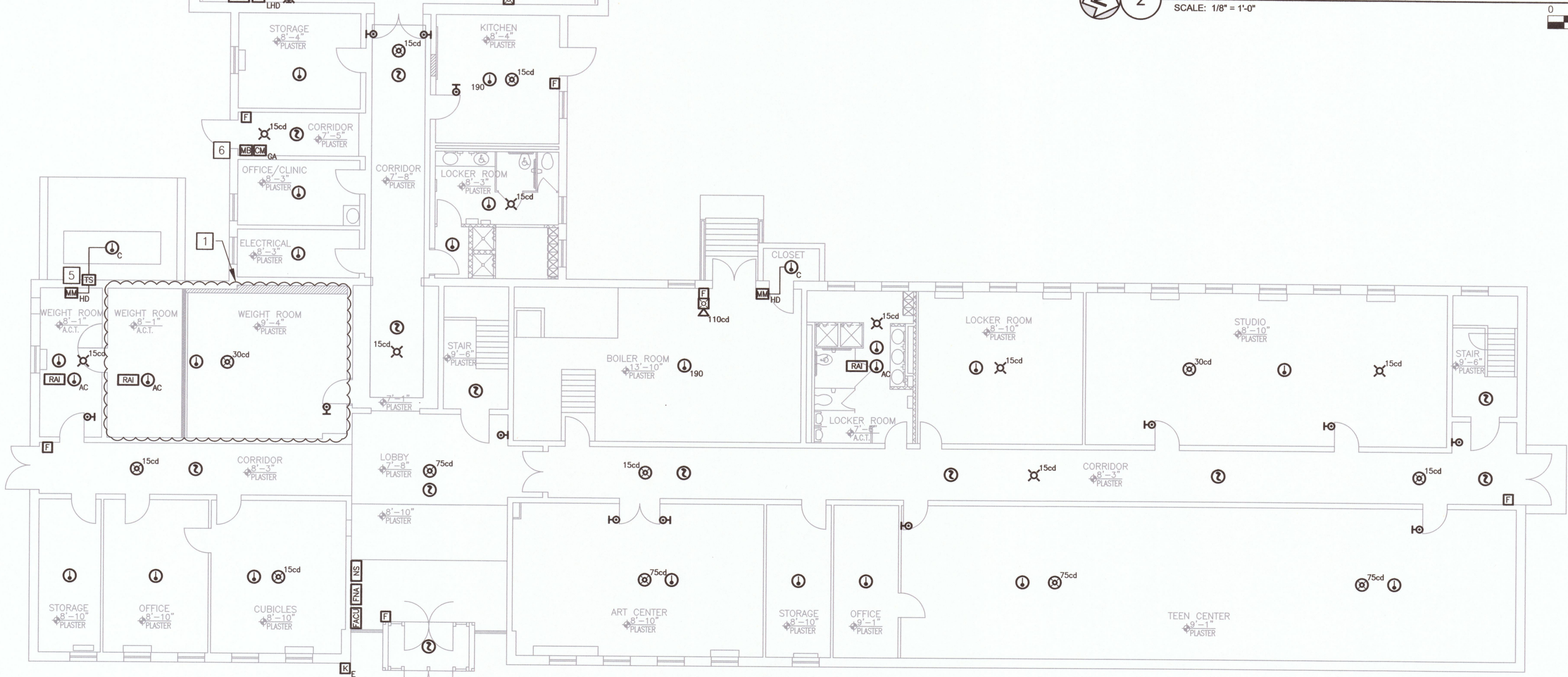
SYMBOLS LEGEND

Ⓜ	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR
Ⓛ	ADDRESSABLE HEAT DETECTOR (COMBINATION 135F/RATE-OF-RISE UNLESS OTHERWISE NOTED)
F	ADDRESSABLE MANUAL FIRE ALARM BOX (DOUBLE-ACTION)
Ⓧ ^{15cd}	WALL-MOUNT HORNSTROBE NOTIFICATION APPLIANCES (CANDELA RATING AS NOTED)
Ⓧ ^{75cd}	WALL-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
Ⓧ ^{15cd}	CEILING-MOUNT HORNSTROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
Ⓧ ^{75cd}	CEILING-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
Ⓜ	ADDRESSABLE FIRE ALARM CONTROL PANEL
Ⓜ	ADDRESSABLE MONITOR MODULE
Ⓜ	ADDRESSABLE CONTROL MODULE
Ⓜ	FAULT ISOLATION MODULE
Ⓜ	FIRE DEPARTMENT KNOX BOX
Ⓜ	RADIO MASTERBOX (NEW)
FNA	FIRE NETWORK ADAPTER
NS	NETWORK SWITCH
RTS	REMOTE TEST SWITCH
RAI	REMOTE ALARM INDICATOR
TS	TRANSIENT VOLTAGE SUPPRESSION
-H-H-H-	PROTECTOWIRE LINEAR HEAT DETECTION
Ⓜ	MAGNETIC DOOR HOLD-OPEN DEVICE

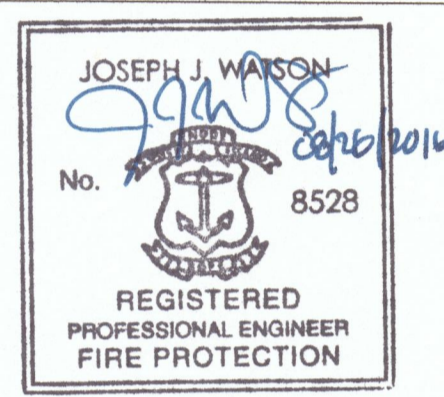
SUBSCRIPT LEGEND	
GA	MASTERBOX ZONE - GENERAL ALARM
190	FIXED TEMPERATURE 190 DEGREE
AC	ABOVE CEILING
HD	HEAT DETECTOR
DOOR	MAGNETIC DOOR HOLD-OPEN RELEASE
HVAC	HVAC SHUTDOWN
C	CONVENTIONAL DEVICE
E	EXISTING DEVICE TO REMAIN
LHD	LINEAR HEAT DETECTION



2 MAINTENANCE SHOP FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"



1 FIRST FLOOR FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"



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KEY PLAN

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SCALE
0 4' 8' 16'
1/8"=1'-0"

NOTE: IF DRAWING IS LESS THAN 24" X 36"
REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE
**FIRST FLOOR &
MAINTENANCE SHOP
FIRE ALARM PLAN**

NUMBER
FA-1.2

SHEET
4 of 5

KEY NOTES

- 1 THE FIRE ALARM DESIGN IN THIS LOCATION IS BASED ON THE FUTURE PROPOSED LAYOUT OF THE SPACE.
- 2 INSTALL PROTECTOWIRE MODEL PLR-155R LINEAR HEAT DETECTION. AT LEAST ONE LINE OF PROTECTOWIRE MUST BE LOCATED AT OR WITHIN 3 FEET MEASURED HORIZONTALLY FROM THE PEAK, BUT NOT CLOSER THAN 4 INCHES VERTICALLY TO THE PEAK. CONTRACTOR TO PROVIDE REMOTE TEST SWITCH FOR LINEAR HEAT DETECTION.
- 3 ALL NOTIFICATION APPLIANCES AND INITIATING DEVICES IN THE GYMNASIUM/AUDITORIUM SHALL BE PROVIDED WITH PROTECTIVE CAGES AND COVERS.
- 4 INSTALL CONTROL MODULE AND RELAY FOR AIR HANDLING UNIT SHUTDOWN UPON ALARM CONDITION.
- 5 TRANSIENT VOLTAGE SUPPRESSION SHALL BE PROVIDED FOR THE IDC THAT LEAVES THE BUILDING.
- 6 NEW EXTERIOR ANTENNA SHALL BE PROVIDED FOR THE TRANSMISSION OF SIGNALS VIA THE NEW RADIO MASTERBOX.
- 7 HEAT DETECTOR SHALL BE INSTALLED ABOVE THE DROP CEILING ON THE BOTTOM OF THE NEAREST 2" x 12" JOIST.
- 8 LINEAR HEAT DETECTION IN THE MAINTENANCE SHOP SHALL BE PROTECTOWIRE MODEL PLR-190R.

SHEET NOTES

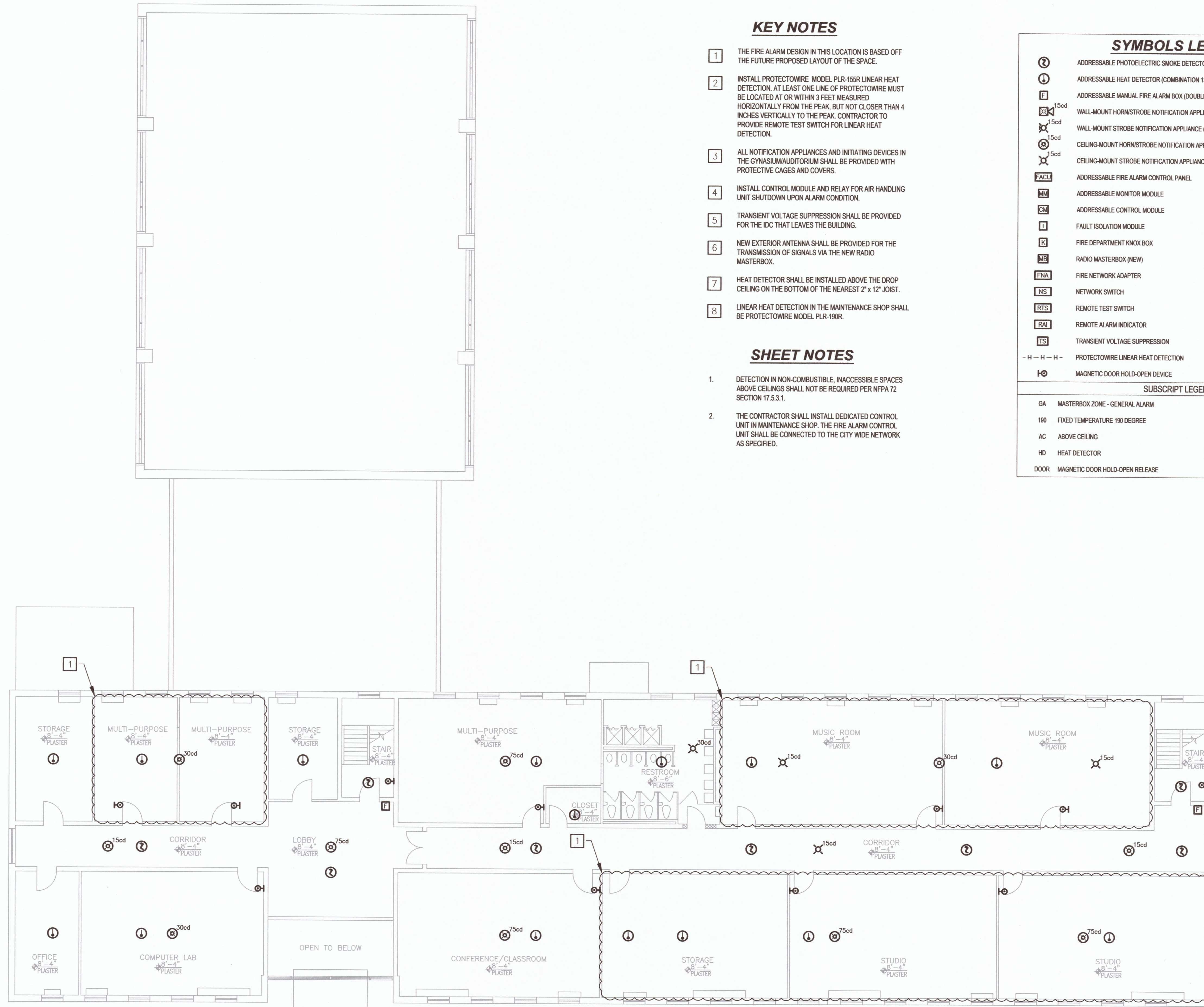
1. DETECTION IN NON-COMBUSTIBLE, INACCESSIBLE SPACES ABOVE CEILINGS SHALL NOT BE REQUIRED PER NFPA 72 SECTION 17.5.3.1.
2. THE CONTRACTOR SHALL INSTALL DEDICATED CONTROL UNIT IN MAINTENANCE SHOP. THE FIRE ALARM CONTROL UNIT SHALL BE CONNECTED TO THE CITY WIDE NETWORK AS SPECIFIED.

SYMBOLS LEGEND

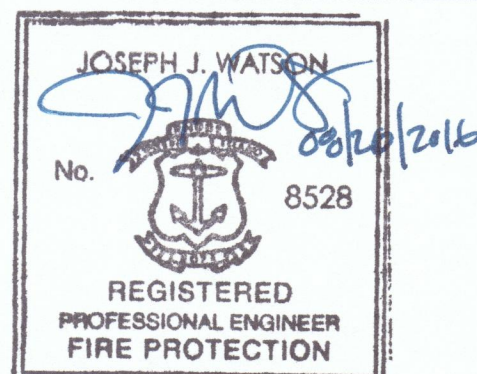
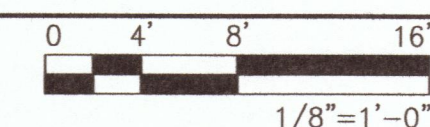
Ⓜ	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR
Ⓛ	ADDRESSABLE HEAT DETECTOR (COMBINATION 135F/RATE-OF-RISE UNLESS OTHERWISE NOTED)
F	ADDRESSABLE MANUAL FIRE ALARM BOX (DOUBLE-ACTION)
Ⓜ ^{15cd}	WALL-MOUNT HORNSTROBE NOTIFICATION APPLIANCES (CANDELA RATING AS NOTED)
Ⓜ ^{15cd}	WALL-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
Ⓜ ^{15cd}	CEILING-MOUNT HORNSTROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
Ⓜ ^{15cd}	CEILING-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
FACU	ADDRESSABLE FIRE ALARM CONTROL PANEL
MM	ADDRESSABLE MONITOR MODULE
EM	ADDRESSABLE CONTROL MODULE
I	FAULT ISOLATION MODULE
K	FIRE DEPARTMENT KNOX BOX
MB	RADIO MASTERBOX (NEW)
FNA	FIRE NETWORK ADAPTER
NS	NETWORK SWITCH
RTS	REMOTE TEST SWITCH
RAI	REMOTE ALARM INDICATOR
TS	TRANSIENT VOLTAGE SUPPRESSION
- H - H - H -	PROTECTOWIRE LINEAR HEAT DETECTION
Ⓜ	MAGNETIC DOOR HOLD-OPEN DEVICE

SUBSCRIPT LEGEND

GA	MASTERBOX ZONE - GENERAL ALARM	HVAC	HVAC SHUTDOWN
190	FIXED TEMPERATURE 190 DEGREE	C	CONVENTIONAL DEVICE
AC	ABOVE CEILING	E	EXISTING DEVICE TO REMAIN
HD	HEAT DETECTOR	LHD	LINEAR HEAT DETECTION
DOOR	MAGNETIC DOOR HOLD-OPEN RELEASE		



1 SECOND FLOOR FIRE ALARM PLAN
 SCALE: 1/8" = 1'-0"



IT IS A VIOLATION OF STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DRAWING IN ANY WAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

KEY PLAN



NO.	REVISION	DATE

PROJECT
**FIRE ALARM UPGRADES
 PHASE IV -
 COOPER BUILDING**

ADDRESS
 885 SANDY LANE
 WARWICK, RI

PROJECT NO.
 1JW00218.001

DATE
 AUGUST 26, 2016

DESIGN
 EBJ

DRAWN BY
 EBJ

CHECKED BY
 JJW

SCALE
 0 4' 8' 16'
 1/8" = 1'-0"

NOTE: IF DRAWING IS LESS THAN 24" X 36"
 REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE
**SECOND FLOOR
 FIRE ALARM PLAN**

NUMBER
FA-1.3

SHEET
 5 of 5