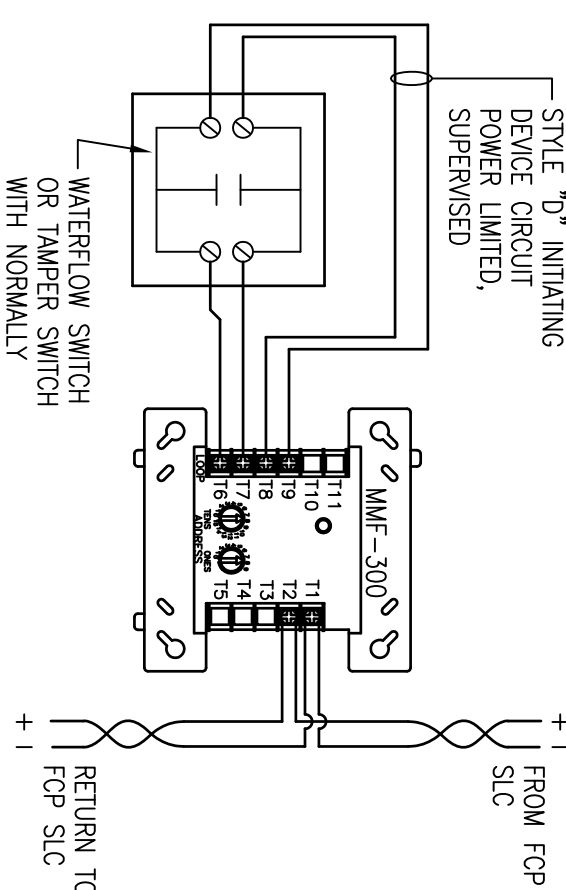
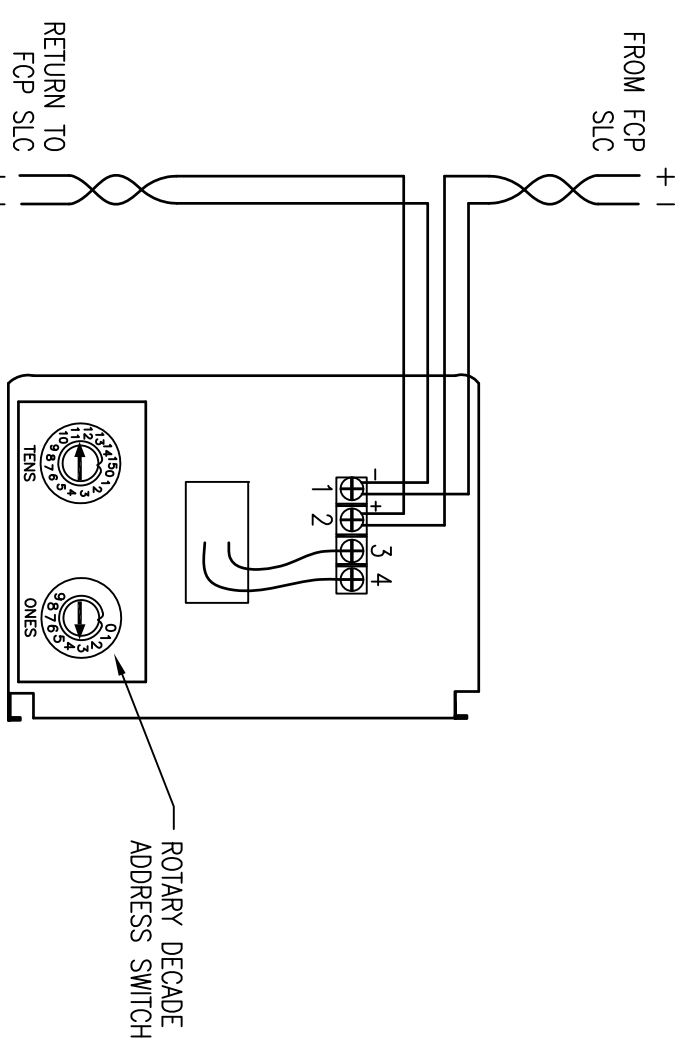


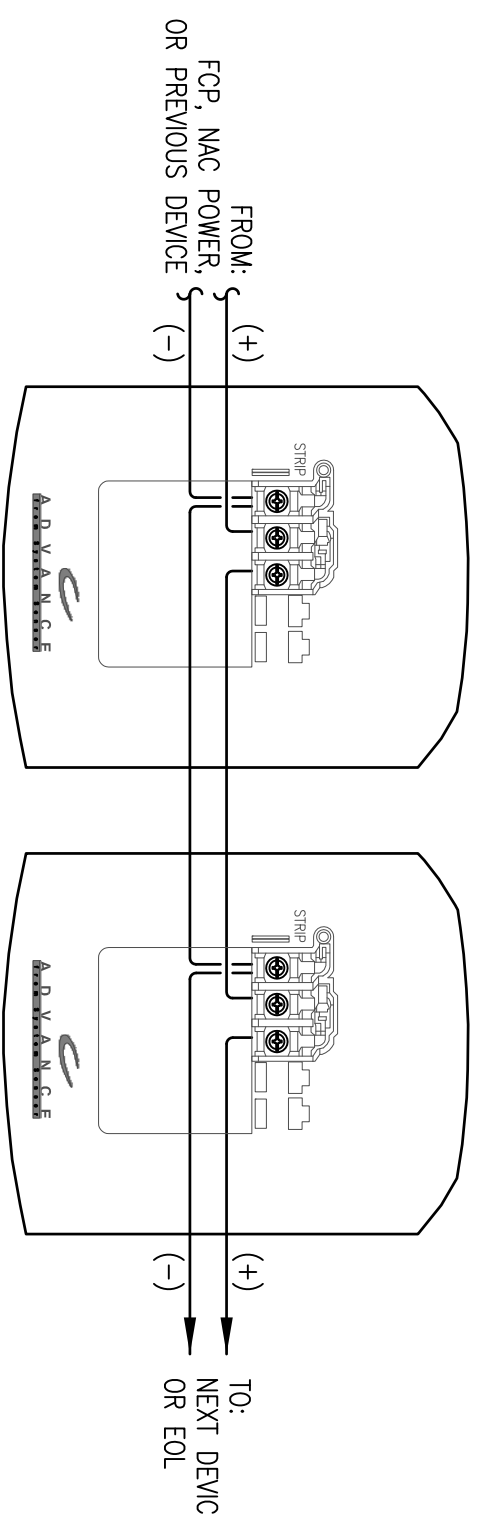
ADDRESSABLE SMOKE DETECTOR WIRING DETAIL
SCHEMATIC: NO SCALE



WATERFLOW / TAMPER WIRING DETAIL
SCHEMATIC: NO SCALE

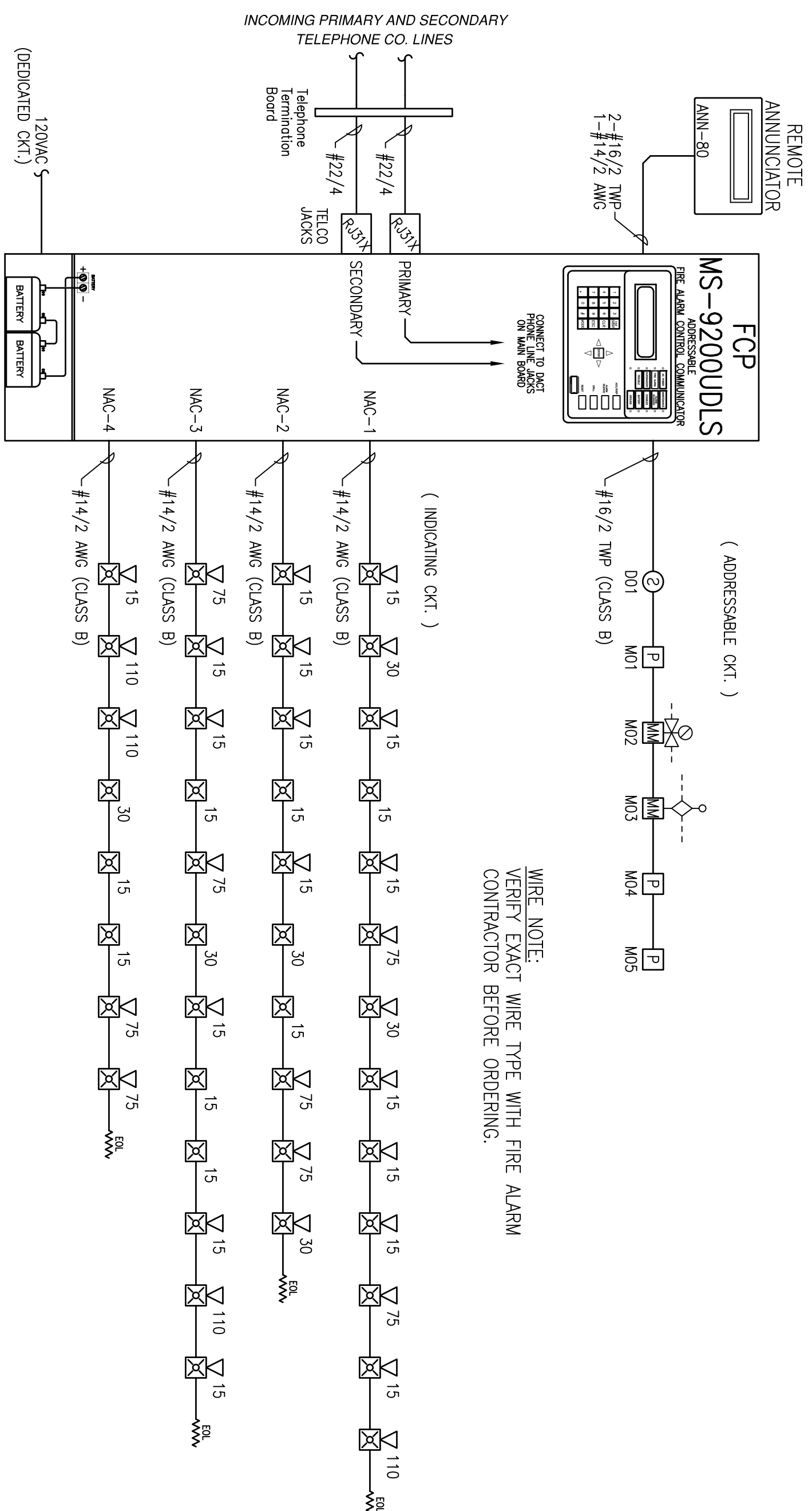


MANUAL PULL STATION WIRING DETAIL
SCHEMATIC: NO SCALE



TYPICAL 2 WIRE STROBE WIRING DETAIL
SCHEMATIC: NO SCALE

WIRE NOTE:
VERIFY EXACT WIRE TYPE WITH FIRE ALARM CONTRACTOR BEFORE ORDERING.



FIRE ALARM RISER DIAGRAM
SCHEMATIC: NO SCALE

FCP Battery Calculation				5/28/2015
PROJECT NAME: WGAN AM-FM				
Required Standby Time: 24 Hours				
Required Alarm Time: 3 Minutes				
Regulated Load in Standby				
Device Type	Number of Devices	Current (amps)	Total Current (amps)	
MS-9200UDLS Main Control Board	1	0.1500	0.1500	
AMN-80 Remote Annunciator	1	0.0150	0.0150	
SDSS Smoke Detectors	1	0.0000	0.0000	
BS-120X PUL Station	3	0.0000	0.0000	
TOTAL STANDBY LOAD				0.1650
Regulated Load in Alarm				
Device Type	Number of Devices	Current (amps)	Total Current (amps)	
MS-9200UDLS Main Control Board	1	0.2500	0.2500	
AMN-80 Remote Annunciator	1	0.4000	0.4000	
Max. Alarm Draw - All Addressable Devices	1	1.3970	1.3970	
MS-9200UDLS Main Control Board	1	1.0000	1.0000	
MS-9200UDLS Main Control Board	1	1.0000	1.0000	
MS-9200UDLS Main Control Board	1	1.0000	1.0000	
TOTAL ALARM LOAD				5.4400
Battery Requirements				
Standby Load	0.1620	X	Required Standby Time in Hours	38880
Current (amps)	24.0000	X	Required Reserve Time in Hours	4.4575
Current (amps)	5.4400	X	Required Reserve Time in Hours	4.5175
Total Ampere Hours (before derating factor)		X		1.2
Derating Factor		X		5.2170
TOTAL AMPERE HOURS REQUIRED				7 AH

GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
- INSTALLATION SHALL COMPLY WITH NEC, NFPA 72 AND ALL OTHER APPLICABLE CODES AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- WIRING DERIVED ON THESE PLANS IS SCHEMATIC - ACTUAL WIRE LOCATIONS MAY DIFFER FROM THESE PLANS. WIRING SHALL BE PERFORMED AS ACTUAL BUILDING CONSTRUCTION CONDITIONS ALLOW AND TO MINIMIZE PENETRATIONS THROUGH AREA SEPARATION WALLS AND FLOOR WALLS. THE USE OF A RACEWAY IS PERMITTED AS LONG AS NO 110V OR HIGHER VOLTAGE CABLES ARE IN THE SAME RACEWAY.
- FIRE RATINGS SHALL BE MAINTAINED FOR ALL PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.
- POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED AC BRANCH CIRCUIT.
- POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CABINET. ALL POWER-LIMITED CIRCUIT WIRING MUST REMAIN AT LEAST 0.25" AWAY FROM ANY NONPOWER-LIMITED CIRCUIT WIRING. FURTHERMORE, ALL POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST ENTER AND EXIT THE CABINET THROUGH DIFFERENT KNOCK OUTS AND/OR SEPARATE CONDUITS.
- WHEN UTILIZING CLASS "A" CIRCUITS, SEPARATE OUTGOING AND RETURN CONDUCTORS OF CLASS "A" CIRCUITS BY A MINIMUM OF 12" WHERE RUN VERTICALLY AND 48" WHERE RUN HORIZONTALLY.
- WHEN UTILIZING SHIELDED CABLE THE SHIELDS THROUGH AND INSULATE AT EACH JUNCTION BOX, INSULATE AND TAPE BACK AT END.
- ALL FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE.
- SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL.
- LOCATE SMOKE DETECTORS A MINIMUM OF THREE (3) FEET FROM MECHANICAL DUCTS. WALL-MOUNTED SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 12" FROM THE WALL AND NOT ON THE BOTTOM OF BEAMS OR SISTS. SHALL BE MOUNTED ON CEILINGS AND NOT ON THE BOTTOM OF BEAMS OR SISTS.
- PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. PROVIDE ALL REQUIRED SYNC MODULES. PROVIDE A MULTI-SYNC MODE SLAVE CONNECTION BETWEEN ALL SYNC MODULES.
- VERIFY ALL FIELD SELECTABLE AUDIBILITY SETTINGS OF NOTIFICATION APPLIANCES WITH FIRE ALARM CONTRACTOR.
- UPON COMPLETION OF THE FIRE ALARM SYSTEM INSTALLATION AND PROGRAMMING, THE INSTALLATION CONTRACTOR SHALL PERFORM FINAL TESTING OF THE ENTIRE SYSTEM. THIS SHALL INCLUDE TESTING OF ALL NOTIFICATION APPLIANCES AND PERFORM A FINAL FIRE ALARM SYSTEM INSPECTION.
- PROVIDE OFF-SITE MONITORING AS REQUIRED BY THE INTERNATIONAL FIRE CODE, SECTION 907.15 AND THE LOCAL AUTHORITY HAVING JURISDICTION.
- INSTALLING APPLIANCE CIRCUIT END OF LINE (WHEN WIRING CLASS "B"), THESE LABELS SHALL BE IN PLACE PRIOR TO START-UP AND TESTING.

FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING
[Symbol]	FIRE ALARM CONTROL PANEL	WALL-TOP @ 56"
[Symbol]	FIRE ALARM POWER SUPPLY	FIELD VERRY
[Symbol]	FIRE SYSTEM ANNUNCIATOR	WALL-TOP @ 56"
[Symbol]	FIRE/SMOKE TAMPER	BY OTHERS
[Symbol]	SMOKE DETECTOR	CEILING
[Symbol]	DUST SMOKE DETECTOR	BY OTHERS
[Symbol]	HEAT DETECTOR	CEILING
[Symbol]	ADDRESSABLE CONTROL MODULE	FIELD VERRY
[Symbol]	ADDRESSABLE MONITOR MODULE	FIELD VERRY
[Symbol]	MANUAL PULL STATION	WALL @ 48"
[Symbol]	CONTROL RELAY (WALL-MOUNTED)	FIELD VERRY
[Symbol]	ADDRESSABLE RELAY MODULE	FIELD VERRY
[Symbol]	REMOTE TEST STATION	FIELD VERRY
[Symbol]	WATER FLOW SWITCH	BY OTHERS
[Symbol]	TAMPER SWITCH	BY OTHERS
[Symbol]	BELL	BY OTHERS
[Symbol]	CEILING MOUNT STROBE	FIELD VERRY
[Symbol]	CEILING MOUNT HORN / STROBE	FIELD VERRY
[Symbol]	HORN / STROBE	WALL 80"-96"
[Symbol]	HORN	WALL 80"-96"
[Symbol]	SPEAKER / STROBE	WALL @ 90"
[Symbol]	SPEAKER	WALL 80"-96"
[Symbol]	STROBE	FIELD VERRY
[Symbol]	KNOX BOX	FIELD VERRY

APPLICABLE CODES:

MAINE UNIFORM ENERGY & BUILDING CODE
PORTLAND CITY CODE, CHAPTER 10, FIRE PREVENTION & PROTECTION
NFPA 1, FIRE CODE, & NFPA 101, LIFE SAFETY CODE

OPERATIONS MATRIX

OPERATIONS	FIRE ALARM INPUT	FIRE ALARM OUTPUT	ACTIVATE ALARM INDICATOR	ACTIVATE AUDIBLE ALARM	ACTIVATE SUPERVISORY INDICATOR	ACTIVATE AUDIBLE SUPERVISORY SIGNAL	ACTIVATE TROUBLE INDICATOR	ACTIVATE AUDIBLE TROUBLE INDICATOR	TRANSMIT ALARM SIGNAL	TRANSMIT SUPERVISORY SIGNAL	TRANSMIT TROUBLE SIGNAL
FIRE ALARM INPUT	●	●	●	●	●	●	●	●	●	●	●
SMOKE DETECTORS	●	●	●	●	●	●	●	●	●	●	●
PULL STATIONS	●	●	●	●	●	●	●	●	●	●	●
WATERFLOW SWITCHES	●	●	●	●	●	●	●	●	●	●	●
TAMPER SWITCHES	●	●	●	●	●	●	●	●	●	●	●
FIRE ALARM AC POWER FAIL	●	●	●	●	●	●	●	●	●	●	●
FIRE ALARM LOW BATTERY	●	●	●	●	●	●	●	●	●	●	●
OPEN CIRCUIT	●	●	●	●	●	●	●	●	●	●	●
GROUND FAULT	●	●	●	●	●	●	●	●	●	●	●
MISC SHORT CIRCUIT	●	●	●	●	●	●	●	●	●	●	●
LOSS OF AC TO BUILDING	●	●	●	●	●	●	●	●	●	●	●

WGAN AM-FM & CH 13
TV STUDIOS & OFFICES
PORTLAND, MAINE
CALCS, DETAILS, LEGEND, MATRIX, NOTES, RISER

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REVISION	DESCRIPTION	DATE
0	ISSUED FOR REVIEW & APPROVAL	5/28/2015

UNIGAD
FA-1
SCALE: NONE
REVISION: 0