

- Fire Alarm**
- FACU** Fire Alarm Control Unit
 - FAA** Fire Alarm Annunciator
 - NAC** Fire Alarm Power Supply

- Notification Appliances**
- Horn Strobe, L.F. = Low Frequency Sounder (520Hz)
 - Strobe

- Initiating Devices**
- F** Pull Station
 - S** Smoke Detector, Photoelectric
 - S_H** Smoke and RoR Heat Detector
 - S_H_i** Duct Smoke Detector, Photoelectric
 - S_H_A_{CO}** Smoke, RoR Heat, and CO Detector
 - H_f** Heat Detector, Fixed 135deg F
 - H_{r/f}** Heat Detector, RoR and Fixed 135deg F
 - CO** Carbon Monoxide Detector

- SLC Modules**
- ADM** Addressable Output Module (Relay)
 - AIM** Addressable Input Module (Monitor)
 - IM** Fault Isolation Module

- Miscellaneous**
- RTS Remote Test Switch
 - EOL_{Re}** End of Line (EOL) Resistor
 - DH** Magnetic Door Holder

- Fire Sprinkler Initiating Devices**
- WF** Fire Sprinkler Waterflow Switch
 - VS** Fire Sprinkler Valve (Tamper) Switch
 - PS** Fire Sprinkler Low Pressure (Air) Switch
 - LT** Fire Sprinkler Low Temperature Detector

1 SYMBOL LEGEND
SCALE: NONE

Battery Calculations					
Component	Stand-by Draw	Alarm Draw	Qty	Total Stand-by	Total Alarm
Main Circuit Board	0.165000	0.310000	1	0.165000	0.310000
SLC Devices					
SK-PHOTO-W	0.000200	0.004500	1	0.000200	0.004500
SK-MINIMON	0.000375	0.000375	1	0.000375	0.000375
SK-PULL-DA	0.000375	0.000375	2	0.000750	0.000750
NAC Circuits					
NAC 1	0.000000	0.525000	1	-	0.525000
NAC 2	0.000000	0.000000	1	-	0.000000
Total				0.166325	0.840625
24 Hour Stand By				3.991800	-
5 Minutes of Alarm				-	0.070052
Amp-hours Required					4.06
Battery to be Used					7Ah

2 Battery Calculations
SCALE: NONE

Document	Edition
NFPA 1	2018ed*
NFPA 72	2019ed*
NFPA 101	2018ed*
IBC	2015ed, component of MUBEC*

* Indicates state version

3 APPLICABLE CODES
SCALE: NONE

Floor	Occupancy Type
1	NFPA 101: New Assembly
1	IBC 2015: A-2 Assembly

5 OCCUPANCY TYPES
SCALE: NONE

Voltage Drop Calculation	
NAC Circuit Draw (Amps)	0.5250
NAC Circuit Voltage	24
NAC Circuit Resistance	45.7143
Length of Circuit	125
Conductor Resistance (14Awg)	0.767500
Total Resistance	46.4818
Results	
Voltage At Last Device	23.60

4 VOLTAGE DROP CALC - NAC 1
SCALE: NONE

Circuit Loading				
Model	cd	QTY	Draw (A)	Total
System Sensor P2RL	15	1	0.0540	0.054000
System Sensor P2RL	75	2	0.1210	0.242000
System Sensor PC2RL	75	1	0.1430	0.143000
System Sensor SRL	15	2	0.0430	0.086000
Total				0.525000

6 Circuit Loading - NAC 1
SCALE: NONE

		SYSTEM OUTPUT									
		A	B	C	D	E	F	G	H	I	J
SYSTEM INPUT	1	MANUAL FIRE ALARM BOX	X	X					X	X	
	2	HOOD SUPPRESSION	X	X					X	X	
	3	SMOKE DETECTOR	X	X					X	X	
	6	FACU AC POWER FAILURE					X	X			X
	7	FACU LOW BATTERY					X	X			X
	8	OPEN CIRCUIT				X	X				X
	9	SHORT CIRCUIT				X	X				X

7 FIRE ALARM MATRIX OF OPERATIONS
SCALE: NONE

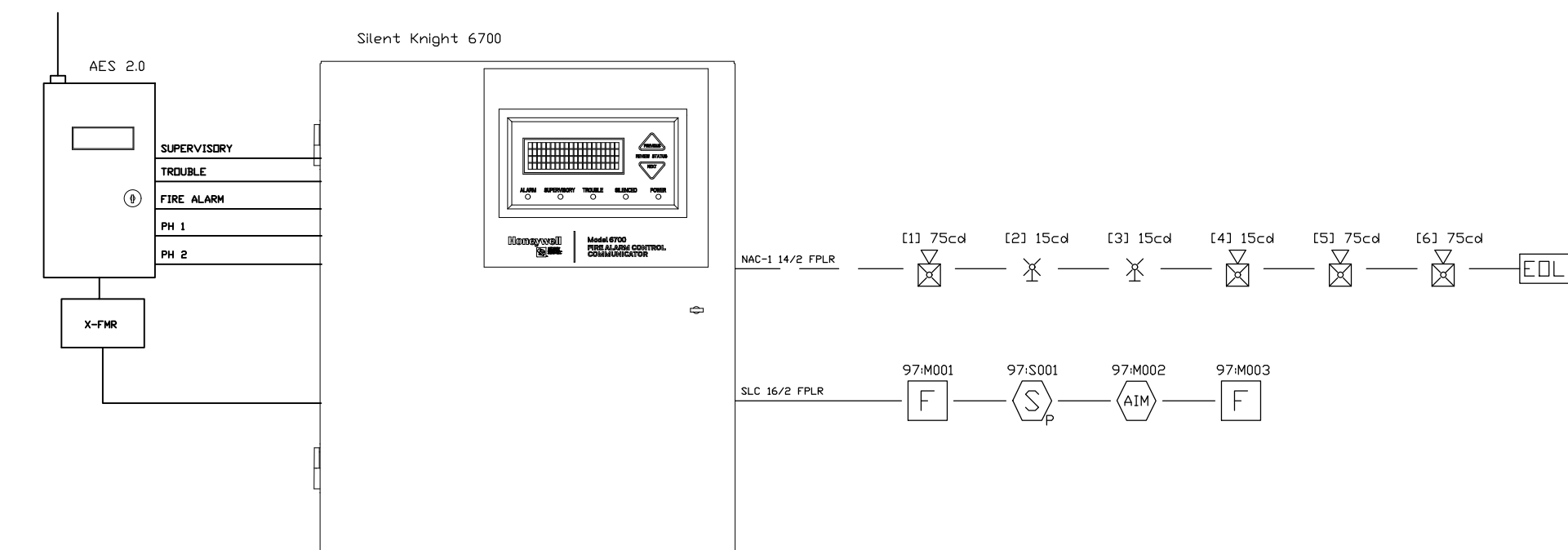
Installation of a small fire alarm system in the new Copper Branch restaurant.

The system will monitor the hood system.

- The system will have the following additional features:
- Two manual fire alarm boxes
 - One smoke detector to protect the FACU
 - Six notification appliances

The FACU location was chosen to provide an easily accessible location for the fire department and minimize damage through normal building use. By locating the fire alarm control unit in this area, a smoke detector can be installed.

8 SYSTEM NARRATIVE
SCALE: NONE



9 FIRE ALARM RISER DIAGRAM
SCALE: DIAGRAMMATIC

John Mocker, SET
John Mocker
NICET Level IV - Fire Alarm
Technician ID: 137219
Expires: 11/1/2022



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

12/30/2019



Revision Information

Rev	Date	Description
01	11/08/2019	Issued For Review
02		
03		
04		
05		
06		
07		
08		
09		
10		

Project Information

Copper Branch
0 Canal Plaza Portland, ME

Sheet Information

AUTHOR	ZMS
SCALE	As noted
FA-01	FIRE ALARM PROJECT INFORMATION

John Mocker, SET
John Mocker
 NICET Level IV - Fire Alarm
 Technician ID: 137219
 Expires: 11/11/2022



Reviewed for Code Compliance
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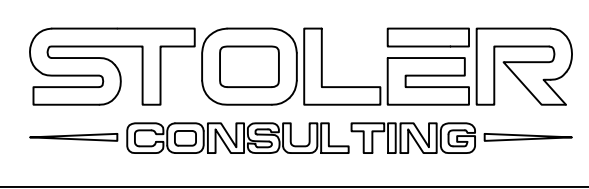
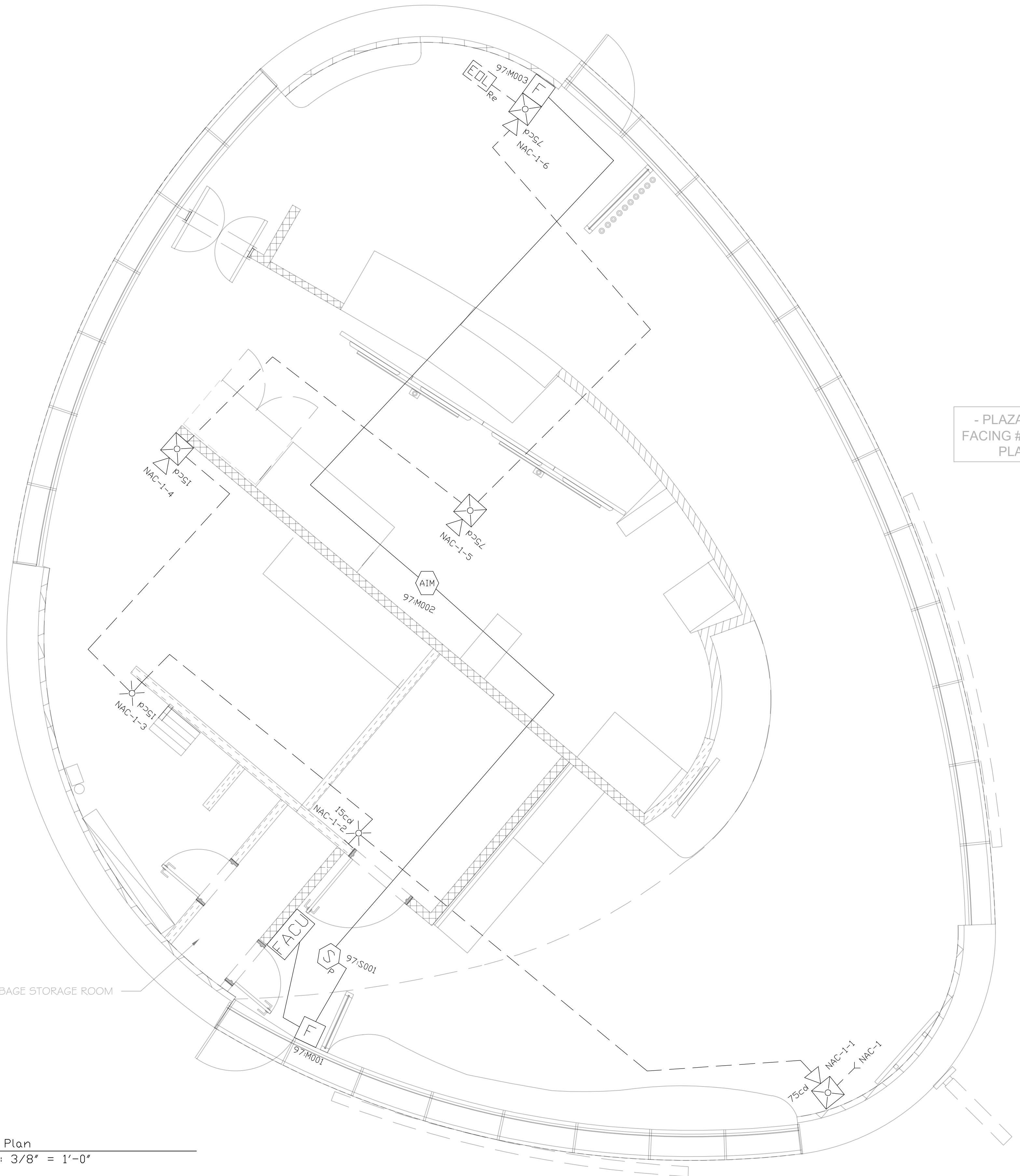
12/30/2019

- PLAZA SIDE -
 FACING #3 CANAL
 PLAZA

- PLAZA SIDE -
 FACING #2 CANAL
 PLAZA

GARBAGE STORAGE ROOM

1 Floor Plan
 SCALE: 3/8" = 1'-0"



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02		
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04		
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10		

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Copper Branch
0 Canal Plaza Portland, ME

Sheet Information

AUTHOR	ZMS
SCALE	3/8" = 1'-0"
FA-02	Floor Plan