

**SHEET NOTES:**

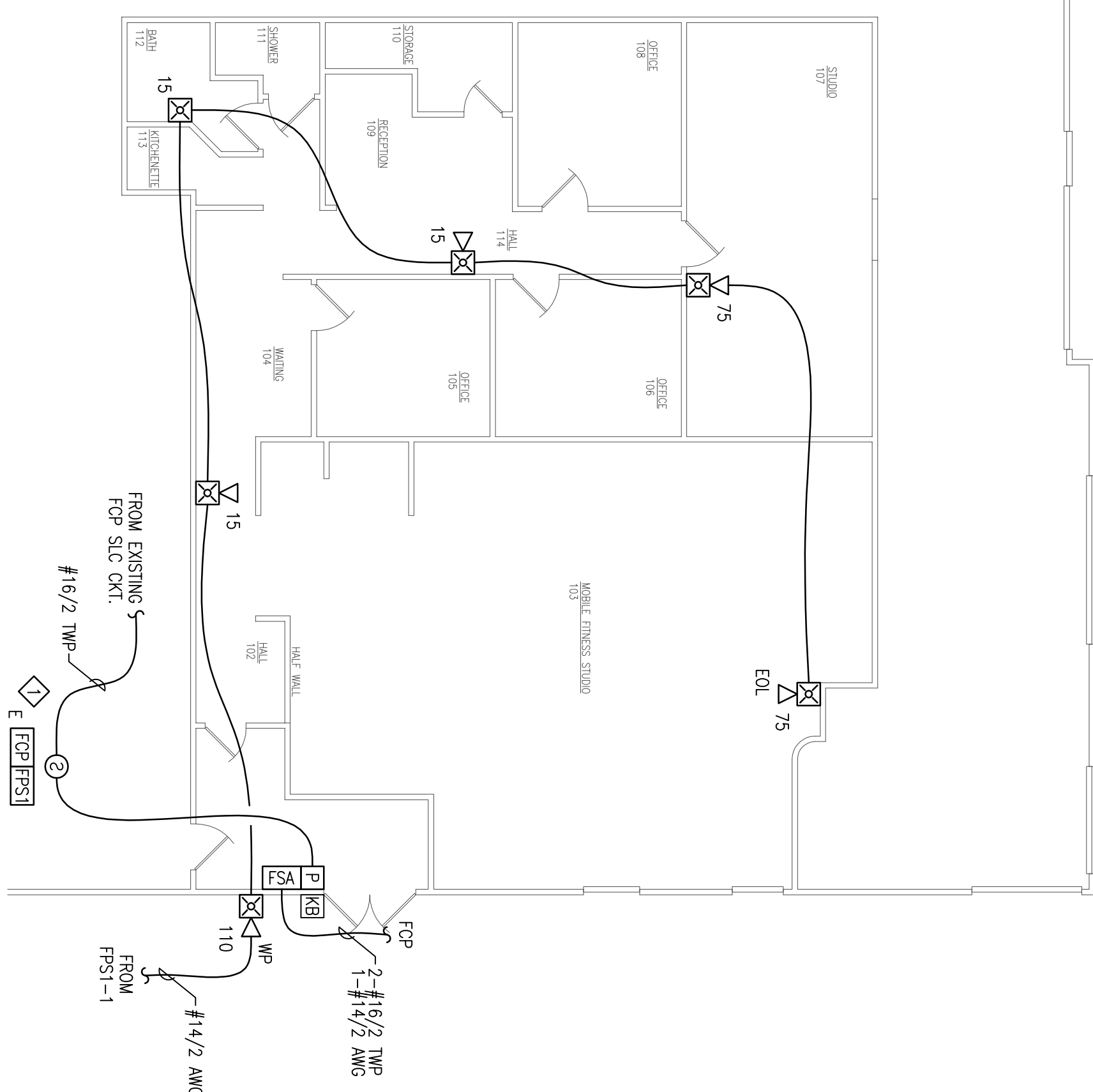
- FIELD VERIFY LOCATION OF EXISTING CONTROL PANEL (FCP) AND LOCATE SMOKE DETECTOR ABOVE PANEL. LOCATE NEW POWER SUPPLY WITH FCP.

**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 DEPICTED ON THESE PLANS IS SCHEMATIC - ACTUAL WIRING 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 FIRE 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 NON-POWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CABINET. ALL POWER-LIMITED CIRCUIT WIRING, FURTHERMORE, ALL POWER-LIMITED AND NON-POWER-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 HORIZONTALLY, WHERE RUN HORIZONTALLY.
- WHEN UTILIZING SHIELDED GABLE 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 EQUIPMENT. DETECTORS SHALL BE MOUNTED ON CEILING-INSTALLED SMOKE DETECTORS SHALL BE MOUNTED ON CEILINGS AND NOT ON THE BOTTOMS OF BEAMS OR JOISTS.
- PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. CONNECTION BETWEEN ALL 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 FIRE ALARM CONTRACTOR SHALL PERFORM FINAL TESTING OF THE ENTIRE SYSTEM PER ALL APPLICABLE CODES, AND SHALL COORDINATE 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 CONTRACTOR SHALL, PHYSICALLY LABEL ALL INITIATING DEVICES AND LABELS SHALL BE IN PLACE PRIOR TO START-UP AND TESTING.

**APPLICABLE CODES:**

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



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

**Existing FCP Battery Calculation**

PROJECT NAME:	MOBILE FITNESS - 50 COVE STREET
Required Standby Time:	24 Hours
Required Alarm Time:	5 Minutes

Regulated Load in Standby			
Device Type	Number of Devices	Current (Amperes)	Total Current (Amperes)
Existing Vista-32FB Remote Annunciator	1	0.04500	0.04500
New 5192SD Smoke Detectors	1	0.00280	0.00280
New 4193SN Two Zone SIM (for Pull Stations)	1	0.00150	0.00150
Existing 4193SN (for Sprinkler Monitoring)	2	0.00150	0.00300
<b>TOTAL STANDBY LOAD</b>			<b>0.35230</b>

Regulated Load in Alarm			
Device Type	Number of Devices	Current (Amperes)	Total Current (Amperes)
Existing Vista-32FB System	1	0.47000	0.47000
Existing Vista-32FB Remote Annunciator	1	0.16000	0.16000
New 5192SD Smoke Detectors	1	0.04500	0.04500
New 4193SN Two Zone SIM (for Pull Stations)	1	0.00150	0.00150
Existing 4193SN (for Sprinkler Monitoring)	2	0.00150	0.00300
<b>TOTAL ALARM LOAD</b>			<b>0.67730</b>

Battery Requirements			
Standby Load (Amperes)	Required Standby Time in Hours	Required Alarm Time in Hours	Total Current (Amperes)
0.35230	X	24	0.83730
0.67730	X	0.08333	0.08333
<b>TOTAL AMPERE HOURS REQUIRED</b>			<b>10.20997</b>

**PPSI Battery Calculation**

PROJECT NAME:	50 COVE STREET
Required Standby Time:	24 Hours
Required Alarm Time:	5 Minutes

Regulated Load in Standby			
Device Type	Number of Devices	Current (Amperes)	Total Current (Amperes)
Atrox AL802ULADA	1	0.09000	0.09000
<b>TOTAL STANDBY LOAD</b>			<b>0.09000</b>

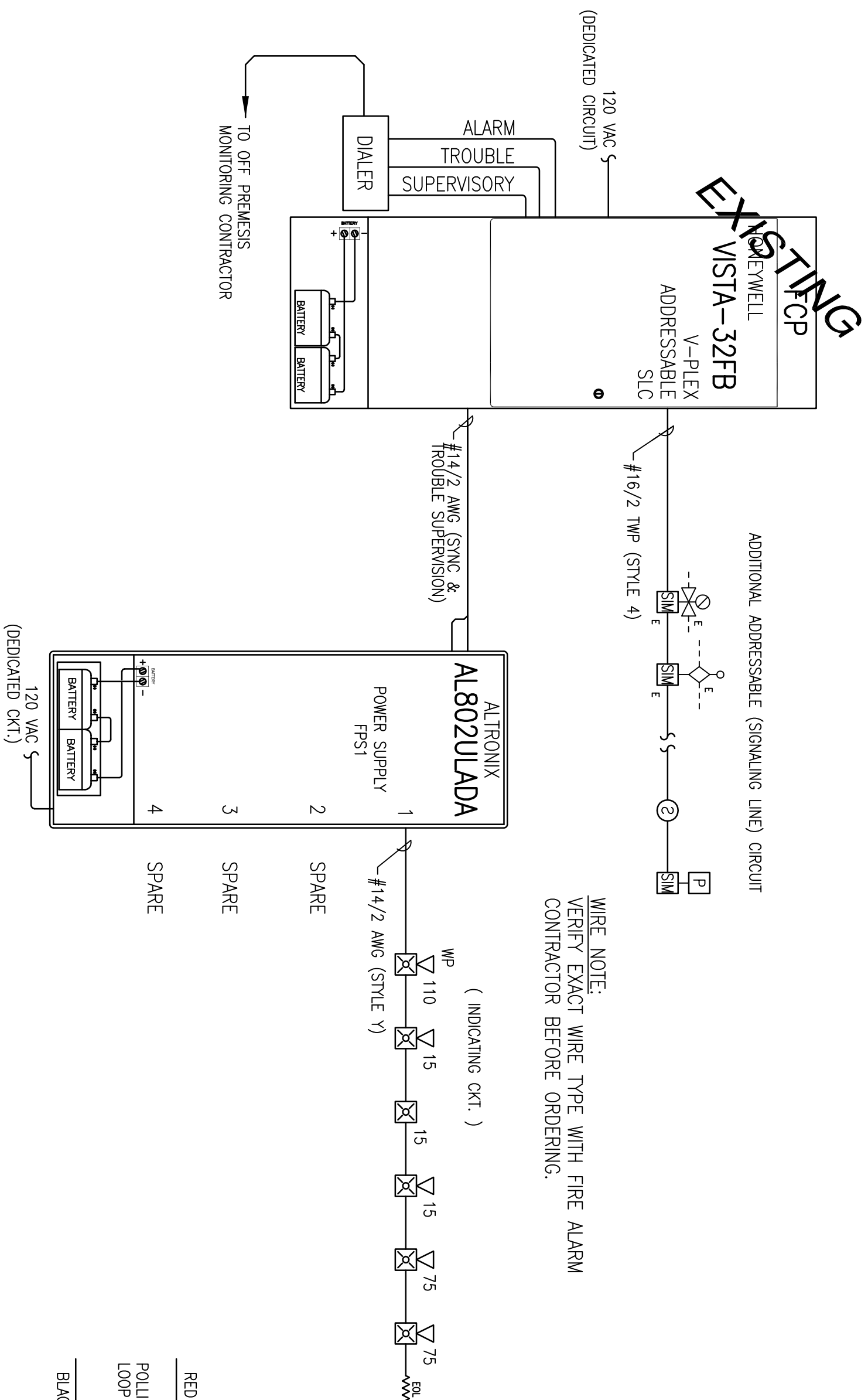
  

Regulated Load in Alarm			
Device Type	Number of Devices	Current (Amperes)	Total Current (Amperes)
Atrox AL802ULADA	1	0.78000	0.78000
<b>TOTAL ALARM LOAD</b>			<b>0.78000</b>

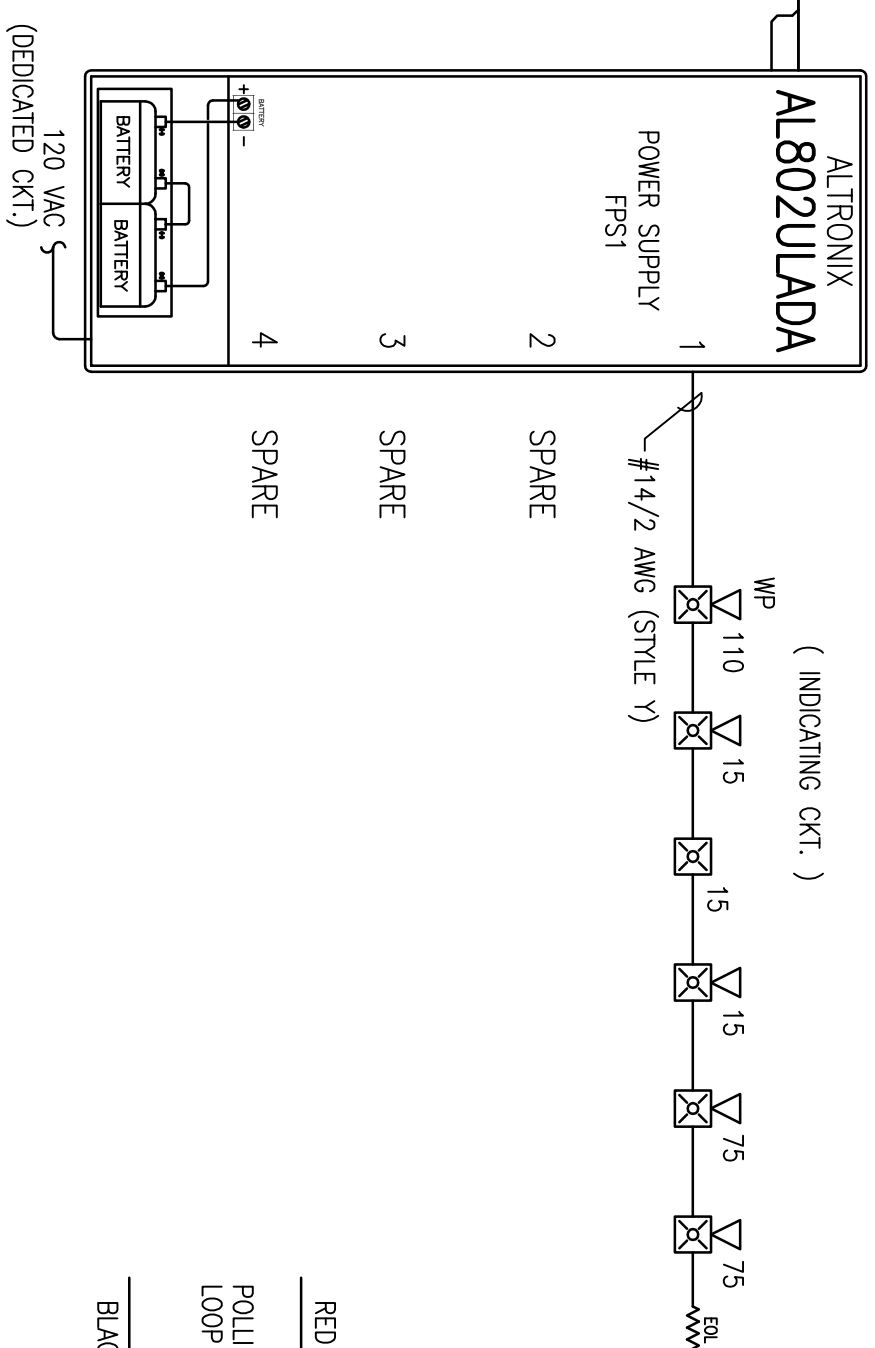
Battery Requirements			
Standby Load (Amperes)	Required Standby Time in Hours	Required Alarm Time in Hours	Total Current (Amperes)
0.09000	X	24	2.16000
0.78000	X	0.08333	0.08333
<b>TOTAL AMPERE HOURS REQUIRED</b>			<b>2.24333</b>

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

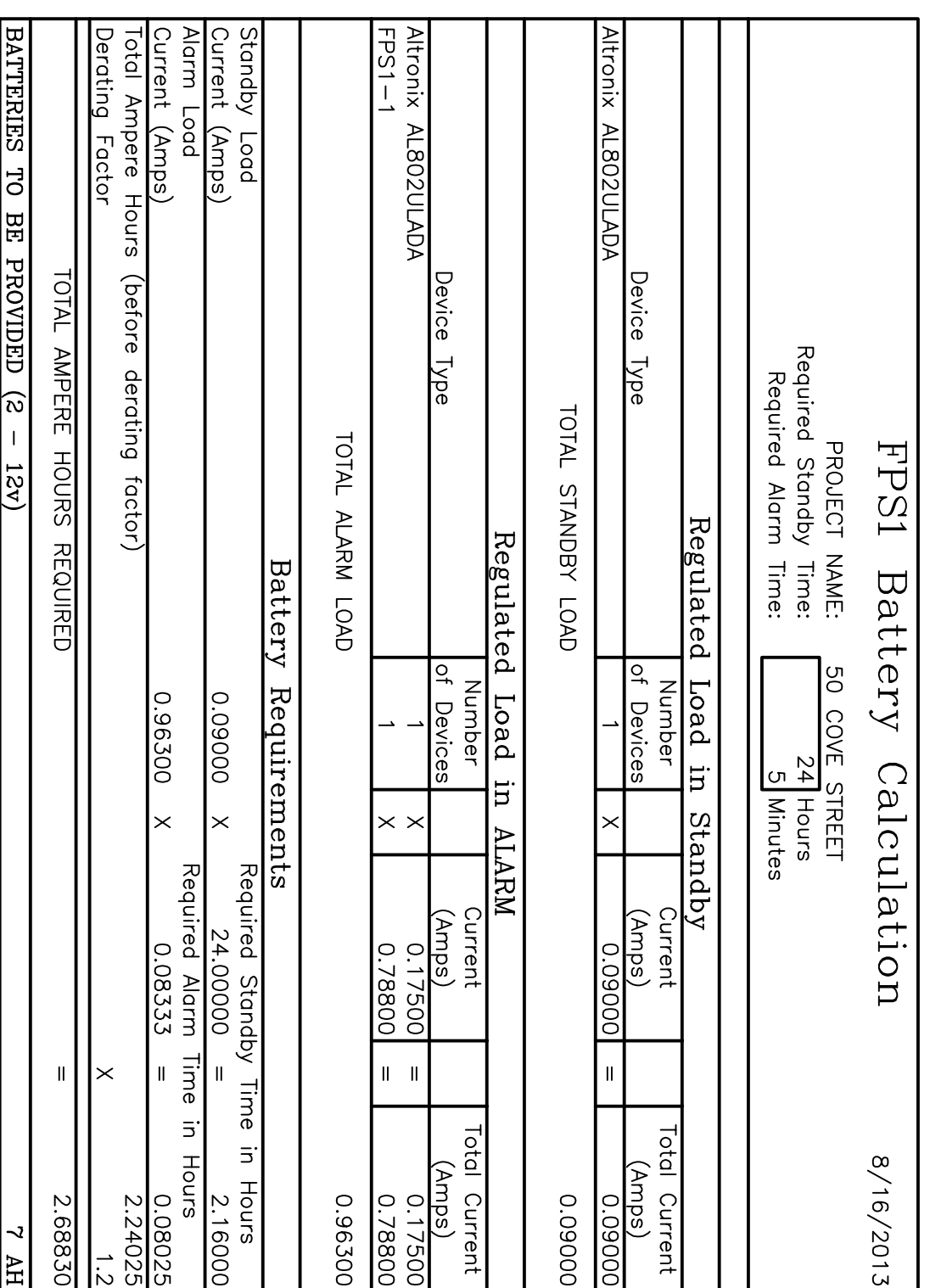


**EXISTING**  
VISTA-32FB  
ADDRESSABLE  
SLC

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



**FIRE ALARM RISER DIAGRAM**  
SCHEMATIC: NO SCALE



**PPSI Battery Calculation**

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Device Type	Number of Devices	Current (Amperes)	Total Current (Amperes)
Atrox AL802ULADA	1	0.78000	0.78000
<b>TOTAL ALARM LOAD</b>			<b>0.78000</b>

Battery Requirements			
Standby Load (Amperes)	Required Standby Time in Hours	Required Alarm Time in Hours	Total Current (Amperes)
0.09000	X	24	2.16000
0.78000	X	0.08333	0.08333
<b>TOTAL AMPERE HOURS REQUIRED</b>			<b>2.24333</b>

Device	Current (Amps)	Distance (ft)	Voltage at Device	Drop (%)
Device 1	0.212	20.0	20.16	12%
Device 2	0.066	18.97	19.97	2%
Device 3	0.079	19.86	19.86	3%
Device 4	0.178	18.92	18.92	3%
Device 5	0.178	18.92	18.92	3%
Device 6	0.728	189	189	3%

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**FIRE ALARM SYMBOL LEGEND**

SYMBOL	DESCRIPTION	MOUNTING
FCP	FIRE ALARM CONTROL PANEL	WALL-TOP @ 66"
FPS	FIRE ALARM POWER SUPPLY	FIELD VERIFY
FSA	FIRE SYSTEM ANNUNCIATOR	WALL-TOP @ 66"
FSD	FIRE/SMOKE DAMPER	BY OTHERS
SD	SMOKE DETECTOR	CEILING
SD	DUCT SMOKE DETECTOR	BY OTHERS
HD	HEAT DETECTOR	CEILING
SM	SERIAL INTERFACE MODULE	FIELD VERIFY
AM	ADDRESSABLE MONITOR MODULE	FIELD VERIFY
MP	MANUAL PULL STATION	WALL @ 48"
RL	CONTROL RELAY (MULTI-WIRED)	FIELD VERIFY
RM	ADDRESSABLE RELAY MODULE	FIELD VERIFY
KB	KNOX BOX	FIELD VERIFY
WFS	WATER FLOW SWITCH	BY OTHERS
WTS	WATER TANK SWITCH	BY OTHERS
B	BELL	BY OTHERS
CM	CEILING MOUNT STROBE	FIELD VERIFY
HM	CEILING MOUNT HORN / STROBE	FIELD VERIFY
SM	CEILING MOUNT SPEAKER / STROBE	FIELD VERIFY
HM	HORN / STROBE	WALL @ 7'-9"
SM	SPEAKER / STROBE	WALL @ 7'-9"
SM	SPEAKER	WALL @ 90"
SM	STROBE	WALL @ 7'-9"

**OPERATIONS MATRIX**

OPERATIONS MATRIX	FIRE ALARM INPUT	FIRE ALARM OUTPUT
SMOKE DETECTORS	●	●
PULL STATIONS	●	●
WATERFLOW SWITCHES	●	●
WATERFLOW SWITCHES	●	●
VALVE TAMPER SWITCHES	●	●
FIRE ALARM AC POWER FAIL	●	●
FIRE ALARM LOW BATTERY	●	●
OPEN CIRCUIT	●	●
GROUND FAULT	●	●
MISC SHORT CIRCUIT	●	●
LOSS OF AC TO BUILDING	●	●

RESERVED FOR CITY SIGNATURE

**CUNNINGHAM**  
Security Systems

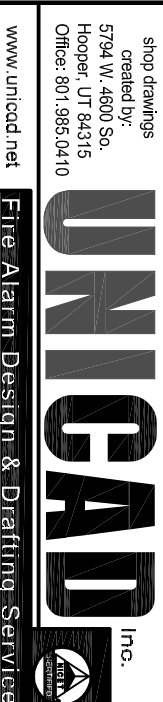
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**MOBILE FITNESS**  
50 COVE STREET  
PORTLAND, MAINE 04101  
**FIRE ALARM PLAN**

REVISION	DESCRIPTION	DATE
0	ISSUED FOR REVIEW & APPROVAL	8/16/2013

DRAWN	JRS
CHECKED	WANE B. HAWES
DATE	8/15/2013
SCALE	1/8"=1'-0"

**FA-1**



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UNIFORMITY IN GRAPHIC AND DESIGN  
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