DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND
BUILDING PERMIT

This is to certify that

VICKERY PINE LLC /Protection Professionals

Located at

191 PINE ST

PERMIT ID: 2012-50152

CBL: 063 E007001

has permission to **expand existing fire alarm system to cover sprinkler and add dwelling notification.**
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise clsoed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be procured prior to occupancy.

BJ Waldron (58)

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
THERE IS A PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES
Please call 874-8703 (ONLY)
or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

REQUIRED INSPECTIONS:

Final - Fire

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Date Applied For:	CBL:
201250152	11/13/2012	063 E007001

Location of Construction:	Owner Name:	Owner Address:	Phone:
191 PINE ST	VICKERY PINE LLC	255 WESTERN PROMENADE	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Protection Professionals	325 US Rt 1 Falmouth	(207) 775-5755
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Fire Alarm System	

Proposed Use:	Proposed Project Description:
renovations of main building	expand existing fire alarm system to cover sprinkler and add dwelling notification.

Dept: Zoning **Status:** Approved **Reviewer:** Marge Schmuckal **Approval Date:** 11/13/2012

Note: **Ok to Issue:** ☑

Dept: Fire **Status:** Approved w/Conditions **Reviewer:** Ben Wallace Jr **Approval Date:** 12/24/2012

Note: To add supervision of new sprinkler system and occupant notification to the dwellings. **Ok to Issue:** ☑

1) System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.
2) Buildings with a Fire Alarm system require a Knox Box to be installed per city ordinance.
3) All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".
4) All new and replacement smoke detectors and smoke alarms shall be photoelectric.
5) The fire alarm system shall be certified by a master fire alarm company and have a new fire alarm inspection sticker.
6) The installation shall comply with the following:
   City of Portland Chapter 10, Fire Prevention and Protection;
   NFPA 1, Fire Code (2009 edition), as amended by City Code;
   NFPA 101, Life Safety Code (2009 edition), as amended by City Code;
   City of Portland Fire Department Rules and Regulations;
   NFPA 72, National Fire Alarm and Signaling Code (2010 edition), as amended by Fire Department Rules and Regulations;
   NFPA 720, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment (2009 edition), as amended by Fire Department Rules and Regulations; and
   NFPA 70, National Electrical Code (2011 edition) as amended by the State of Maine.
7) Supervising station monitoring shall be maintained.
8) In field installation shall be installed per code as conditions dictate.
9) Fire Alarm system shall be maintained. If system is to be off line over 4 hours a fire watch shall be in place. Dispatch notification required 874-8576.
10 A master box connection is not authorized for this building.

City of Portland, Maine - Building or Use Permit Application
389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-50152 2012-07-4448 ALTCOM 2012-50152 FAFS	Date Applied: 11/13/2012	CBL: 063- E-007-001	
Location of Construction: 191 PINE ST	Owner Name: VICKERY LLC	Owner Address: 255 WESTERN PROMENADE PORTLAND, MAINE 04102	Phone:
Business Name:	Contractor Name: PROTECTION PROFESSIONALS	Contractor Address: 325 US ROUTE 1 FALMOUTH, ME 04105	Phone: (207) 775-5755
Lessee/Buyer's Name:	Phone:	Permit Type: Building	Zone: R-4
Past Use: Seven (7) residential dwelling units (six in principal structure and one in carriage house)	Proposed Use: Seven (7) residential dwelling units (six in principal structure and one in carriage house) – to install fire alarm	Cost of Work: $4,000.00 Fire Dept: 12/04/12 ✓ Approved w/ conditions ___ Denied ___ N/A Signature: BJ Jalbert (50)	CEO District: Inspection: Use Group: Type: Signature:
Proposed Project Description: renovations of main building		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Brad			

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building Permits do not include plumbing, septic or electrial work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland ___ Wetlands ___ Flood Zone ___ Subdivision ___ Site Plan ___ Maj ___ Min ___ MM Date: 11/13/12	___ Variance ___ Miscellaneous ___ Conditional Use ___ Interpretation ___ Approved ___ Denied Date:	___ Not in Dist or Landmark ___ Does not Require Review ___ Requires Review ___ Approved ___ Approved w/Conditions ___ Denied Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHONE

PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • *www.portlandmaine.gov*

Receipts Details:

Tender Information: Cash$60.00
Tender Amount: 60.00

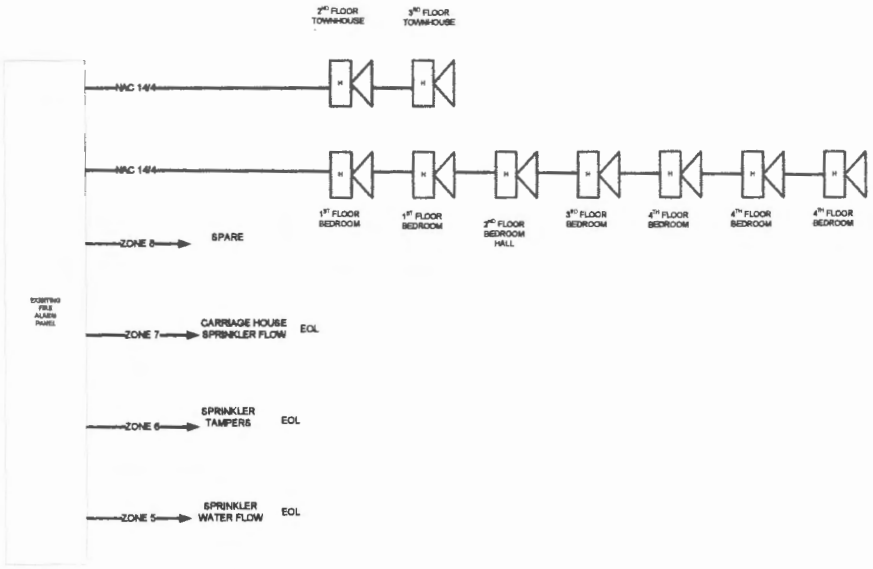
Receipt Header:

Cashier Id: bsaucier
Receipt Date: 11/13/2012
Receipt Number: 50153

Receipt Details:

Referance ID:	8715	Fee Type:	BP-FIRE
Receipt Number:	0	Payment Date:	
Transaction Amount:	60.00	Charge Amount:	60.00
Job ID: Job ID: 2012-07-4448-ALTCOMM - renovations of main building			
Additional Comments: 191 Pine			

Thank You for your Payment!



GENERAL NOTES

1. FIRE ALARM SYSTEM WIRING MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE, APPLICABLE STATE AND LOCAL CODES, AND SHALL BE COORDINATED WITH THE LOCAL AUTHORITY HAVING JURISDICTION.

2. CAUTION: DO NOT CONNECT ANY POWER TO THE CONTROL PANEL (BATTERIES OR 120V AC) UNTIL ALL OTHER FIELD WIRING IS TESTED AND CONNECTED.

3. DO NOT INSTALL FIRE ALARM CONTROL PANEL OR SMOKE DETECTORS IN AN UNHEATED AREA.

4. DO NOT INSTALL ANY AC CURRENT-CARRYING CONDUCTORS CLOSE TO OR IN THE SAME RACEWAY WITH FIRE ALARM SYSTEM CONDUCTORS.

5. SOLID LINES REPRESENT CONNECTIONS TO BE MADE BY THE SYSTEM INSTALLER.

6. SEE MODEL __MPC 6000_ INSTALLATION MANUAL FOR ADDITIONAL WIRING INSTRUCTIONS.

7. ALL RELAYS ARE SHOWN IN NORMAL SUPERVISORY CONDITION. ALL RELAYS ARE FORM "C" TYPE.

INSTALLATION NOTES

1. SMOKE DETECTORS SHALL NOT BE MOUNTED ANY CLOSER THAN 3' FROM ANY AIR DUCT OPENINGS

2. ELEVATOR LOBBY SMOKE DETECTORS SHALL BE MOUNTED WITHIN 10' OF THE ELEVATOR DOOR

3. MANUAL PULL STATIONS SHALL BE MOUNTED PER ADA REQUIREMENTS: 48" AFF OR 42" AFF TO COMPLY WITH SIDE/FRONT REACH REQUIREMENTS

4. WALL MOUNTED HORN/STROBES & STROBES SHALL BE MOUNTED 6" FROM CEILING, OR 96" TO 80" AFF TO THE CENTER OF STROBE

5. HORN/STROBES & STROBES SHALL BE MOUNTED 15' FROM THE CORNER OF THE WALL. IF THIS IS NOT POSSIBLE, DEVICE SHALL BE CENTERED ON THAT WALL.

6. CEILING MOUNTED HALLWAY DEVICES SHALL BE LOCATED IN A SYMMETRICAL MANNER DOWN CENTER OF HALLWAY WHEN POSSIBLE

NOTIFICATION TO INSTALLERS

1. Do not use any other Riser Diagram than this one. Any changes shall be indicated under Revisions. Confirm with our office that you are using the latest issue before starting work.

2. Please call our office *at least ten days in* advance to schedule Final Connections & Testing (referred to as "Finals").

3. Prior to our arrival at the jobsite to perform "Finals", all of your wires must be:
   a. Labeled by zone and device location per the Riser Diagram.
   b. Free of *grounds, shorts* or *opens*.
   c. *Polarity* must be maintained throughout.
   d. All circuits must show proper *resistance*.
   e. Shielded cable drain wires must be connected and fully isolated from contact with backboxes or any metal surface.
   f. Installed in accordance with N.F.P.A. #70 and N.F.P.A. #72.

4. We require that your cabling installer be present and ready to assist our Technicians on the day we perform the "Finals".

5. Before scheduling "Finals", contact our office and confirm the arrangements for Central Station Monitoring Service or municipal connections, whether provided through our firm or another party.

6. There may be additional charges to the contract if there are delays or extra labor due to improper wiring or uncompleted items.

7. If you have any questions regarding proper wiring methods or installation of the devices we have provided to you, *call our office* at 207.775.5755.

PROTECTION PROFESSIONALS SINCE 1986

CONSULTANT:
PROTECTION PROFESSIONALS
325 US ROUTE ONE
FALMOUTH, ME. 04105
Phone: (207) 775-5755
Fax: (207) 781-2064

PROJECT:
191 PINE STREET
PORTLAND , MAINE

DRAWING:
EXISITING FIRE ALARM LAYOUT AND RISER

REVISIONS

DATE 11-08-2012
SCALE NTS
DRAWN BY SA
PROJECT NO. 0001
SHEET
F1 of 1

Sequence of Operations

	Audio/visual activation	Activate audible/visual signal at FACP & Annunciator	Device Description at FACP & Annunciator	Shutdown of HVAC equipment	Log event in system history	Activate Elevator Fire Hat	Activate Elevator primary or secondary control	Activate Elevator shunt trip	Silence of audible devices Including FACP & annunciator	Release door holders	Release locked doors	Event acknowledgement	Reset of all system functions and all visual devices	Remote transmission to Central Station A=alarm; T=trouble; S=Supervisory; L = log only	Remote indicator
Manual Pull Stations	X	X	X		X					X	X			A	
Smoke detectors common area	X	X	X		X					X	X			A	
Smoke detectors elevator lobbies	X	X	X		X		X			X	X			A	
Smoke Detectors elevator shaft/machine room	X	X	X		X	X	X			X	X			A	
Duct mounted Smoke Detectors		X	X	X	X									S	X
Heat Detectors common area/inside apartments	X	X	X		X					X	X			A	
Heat Detectors Elevator shaft/machine room	X	X	X		X	X		X		X	X			A	
Sprinkler flow or pressure switches	X	X	X		X					X	X			A	
Sprinkler Tamper, low temp, or low air		X	X		X									S	
Secondary fire panel such as kitchen hood	X	X	X		X					X	X			A	
FACP/annunciator silence button		X	X		X				X					L	
FACP/annunciator acknowledge button		X	X		X							X			
FACP/annunciator reset button		X	X		X								X	L	
Removal of any device		X	X		X									T	
Ground fault		X	X		X									T	
System wiring "open"		X	X		X									T	
AC Power loss		X	X		X									T	
Secondary power loss		X	X		X									T	
Telephone line loss		X	X		X									T	

FARADAY

LW-401 Conventional Fire Alarm Panel

Features

- 4 Zones - Expandable to 8 Zones
- Microprocessor Based Control
- Factory Programmed - Field Configurable
- 2 Style Y Notification Appliance Circuits
- 3 Amps Notification and Auxiliary Power
- 24 and 60 Hour Battery Backup
- 8 Form "C" Relay Output Option
- 220/240 Vac, 50/60 HZ Power Supply Option
- Remote Serial Annunciator Option
- Sprinkler Supervisory Service
- Non-Silenceable Bell Service
- Alarm Verification by Zone
- One Person Test Feature
- Zone/Output Bypass Feature
- Subsequent Alarm and Trouble with 24 Hour Reminders
- Alarm, Trouble and Supervisory Last Event Records
- (UL) UL, MEA & CSFM Listed

Model LifeWatch-401

Introduction

The Faraday LW-401 is the next member in a family of products designed to provide cost effective, reliable life safety equipment to the fire alarm market. The microprocessor based fire alarm control panel is supplied with four conventional zones and is expandable to eight. It has many features required by today's demanding market such as field programmability, power limited circuits, one person test, remote annunciation and sufficient power to meet ADA requirements for signaling.

The LW-401 is designed to meet the varied fire alarm needs of small office buildings, apartment buildings, department stores, hotels, strip malls or anywhere a cost efficient, general purpose fire alarm control panel is required.

Description and Features

Initiating Circuits

The base LW-401 has four conventional, Style "B" (Class B) zones which any combination of 30 compatible smoke detectors can be combined on a zone. Any number of thermal detectors, manual stations or other compatible direct shorting devices may be connected to each zone. All of these initiating devices can be mixed on the same zone providing the total power requirement of the zone does not exceed 9 mA supervisory current. The LW-401 has the additional capacity to support detector accessories such as relays, remote alarm lamps and audible bases.

Initiating zones can be programmed for many functions. Alarm verification allows detector application in sensitive areas with or without manual stations mixed on the zone as allowed by code. Manual station operation shall not be delayed on verified zones. Generic zone function allows the NAC's in the LW-401 to follow the action of a master fire alarm panel in the facility.

Initiating zones can also be bypassed as required, for example, during construction on the premises.

The system is expanded through the model 16411B expander which has an additional four initiating circuits in addition to relays and open collector outputs. The system can alternately be expanded through the model 16412B expander module which has an additional four Class A (Style D) initiating circuits. The 16412B also converts the four initiating circuits and the two notification circuits on the main LW-401 to Style D (Class A) and Style Z (Class A) respectively.

Notification Appliance Circuits
The base LW-401 has two Style "Y" (Class B) Notification Appliance Circuits, each rated at 1.5 Amps. The total power output of the panel, between the two notification circuits and the auxiliary output, is limited to 3 Amps. The LW-401 notification circuits are power limited to reduce installation costs without the addition of any hardware.

Three (3) Amps is sufficient to provide power for many applications requiring appliances designed to ADA specifications. Notification Circuits can be programmed for various codes. These include temporal, march time, simplified zone code, and number of rounds. They can also be inhibited during test and programming functions. The two circuits can be individually programmed as non-silenceable. This steady operation can be used for strobes which must continue operation after audible devices are silenced.

Relays and Outputs
The base LW-401 has form "C" relays for general alarm and trouble rated at 1 Amp., 30 VDC. The model 16411B optional expander module has an additional four general purpose, programmable relays rated at 2 Amps., 30 VDC, plus four programmable open collector outputs.

Additionally, the model 16404B relay module provides eight general purpose, programmable relays rated at 2 Amps., 30 Vdc/120 Vac. All remote operations in the fire alarm system are controlled from the 16411B or the 16404B, both of which are installed within the LW-401 enclosure.

Visual and Audible Indicators
The LW-401 has visible LED annunciation by zone for alarm and trouble. Additionally, there is a system alarm LED and a system trouble LED. Supervisory zones utilize the zone trouble LED flashing in sync with a system supervisory LED to indicate an off normal situation.

Clustered with the system alarm, trouble and supervisory LEDs are also LEDs for AC power, bypass and test/program mode. A seven segment display reports a code for each system trouble and is also used during testing and programming functions. Trouble conditions are also annunciated by a piezoelectric sounder housed inside the LW-401.

Remote annunciation is accomplished through a serial connection with the model 16409B, eight zone LED annunciators. These units display alarm, supervisory and trouble conditions for 8 zones. A total of two modules can be attached to each system. The 16409B-0-3 comes with a black enclosure, the 16409B-0-4 with a white enclosure.

Auxiliary Power
The LW-401 contains a 1/2 Amp. auxiliary power circuit which is used to drive remote devices. The total power of the panel, between the auxiliary output and the two notification circuits, is 3 Amps.

Power Supply/Battery Charger
The power supply accepts a 120 Vac/60 Hz input or, optionally, a 220/240 Vac 50 Hz input. On loss of AC power the system switches to battery operation and indicates such by flashing the AC power LED on the display. Battery capacities of 24 and 60 hours are available.

Manual Controls
The LW-401 display has four switches for acknowledging alarm, supervisory and trouble conditions; silencing notification appliance circuits; resetting the system; and for the drill function. These switches are also used when programming the control unit.

Field Programmability and Test Functions
The following functions are field programmable in the LW-401. These features are generally not programmed in the unit as received from the factory. Field programming is accomplished through the display and does not require the use of a computer or any proprietary tools.

Initiating Circuits
Alarm Verification by Zone, Zone Bypass, Supervisory Zone or Generic Zone when the LW-401 is to be used to provide remote notification appliance circuits.
(Note: The default mode is an alarm causing zone.)

Notification Appliance Circuits:
Non-silenceable, Simple Zone Coding, MarchTime, Temporal, Silence Inhibit, CutoffTimers and Reminders.
(Note: The default mode is a steady signal.)

Outputs:
Bypass Outputs/Relays.

System Programming:
Zone to Output Matrix and Password Maintenance.

System tests features include the One PersonTest feature, a LampTest and Search and Clear of the alarm, trouble and supervisory history buffer.

Engineer and Architect Specifications

The fire alarm control panel shall be a Faraday LW-401, shall utilize conventional zones, shall be microprocessor based and fully field programmable. The base panel shall include four initiating zones, relays

for general alarm and trouble and two power limited notification circuits capable of a total of 3 Amps of power.

The system shall be expandable via a model 16411B expander module which shall contain an additional four conventional zones, four general purpose relays and four general purpose open collector outputs.

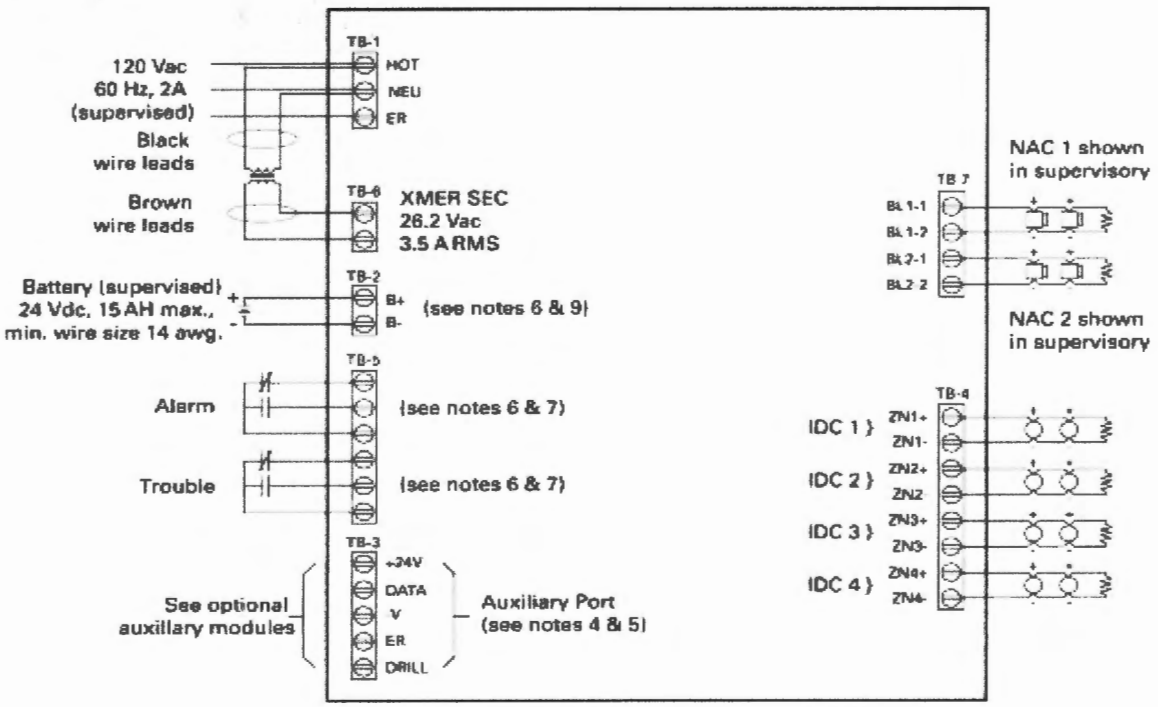
The fire alarm system shall have the following features: subsequent alarm and trouble, one person test feature, brown out protection, 24 or 60 hour battery backup. It shall also have the following selectable features: supervisory zones, alarm verification by zone, non-latching zones, alarm, trouble and supervisory history, notification appliance circuit coding, alarm/trouble 24 hour reminder, and zone/output bypass.

Any initiating device circuit shall have the capability of being mapped to any optional output via the system programming function.

The fire alarm control panel shall be UL listed and meet the requirements of NFPA 72 for local fire alarm control for automatic or manual service, and for sprinkler supervisory and waterflow service.

It shall meet NFPA 72 requirements for central station service when connected to the model DC-100 or DC- 101 digital fire communicator.

Wiring Diagram



Notes:

1. All field wiring must be in accordance with NFPA 70, article 760.
2. Make no wiring connections while the system is powered.
3. Alarm relay contacts are shown de-energized and Trouble relay contacts are shown energized.
4. Auxiliary output rated 0.5 amps at +24 Vdc filtered. maximum line impedance of 5 ohms.
5. Combined current output for NAC1, NAC2 and auxiliary outputs is limited to 3.0 amps.
6. Equipment connected to these terminals must be located within the same room.
7. Refer to the LW-401 Operation, Installation, and Maintenance Manual, for further details.
8. No t-tapping allowed.
9. Connect standby batteries only to terminals B+ and B-. The batteries may be installed in either the bottom of the cabinet or in a UL listed battery enclosure.
10. In all cases the Faraday model number is the compatibility identifier, including the control panel, module (s), and all compatible initiating devices.
11. When using the 16405B module, not suitable for remote station protected premises service where separate trans mission circuits are required for fire, supervisory, and trouble signals.
12. All power limited wiring requires separation from non-power limited wiring.

Technical Specifications

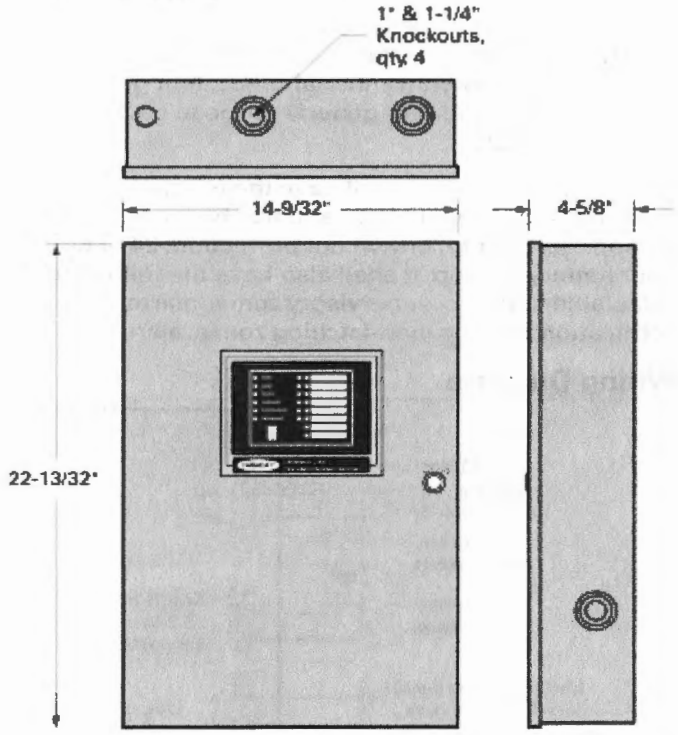
Operating Temperature:
32-120°F (0-49°C)

Humidity:
85% @ 86°F (30°C) up to 24 hrs.

Primary Input Voltage:
LW-401R: 120 Vac, 60 Hz nominal
LW-401IR: 220/240 Vac, 50 Hz nominal

Shipping Weight:
LW-401R, 30 lbs. approx.
LW-401IR, 30 lbs. approx.

Dimensions



Ordering Information

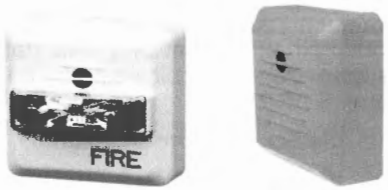
Model	Description	Part No.
16420-0-14-120	Surface mount, 4 zone class "B" (style B), 120 Vac, red	599-699580FA
16420-0-14-240	Surface mount, 4 zone class "B" (style B), 240 Vac, red	599-699581FA
Accessories		
16411B	4-zone expander module	500-696006FA
16412B	Class "A" expander module	500-696007FA
16404B	8 output relay module	500-692972FA
16405B	Municipal tie/leased line module	500-093285FA
16413B	Battery volt/amp meter module	500-696008FA
16418B-0-14	Semi-flush trim kit, red	500-699660FA
16419B-0-3	Deadfront adapter plate, black	500-699662FA
16409B-0-4	8-zone LED remote annunciator, white	500-693317FA
16409B-0-3	8-zone LED remote annunciator, black	500-693062FA

FARADAY
Siemens Building Technologies, Inc.
8 Fernwood Road • Florham Park, NJ 07932
Tel: (973) 593-2600 • Fax: (973) 593-6670
Web: www.faradayfirealarms.com

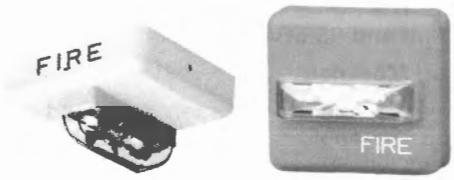
Z Strobes, Horns, Horn/Strobes

Features

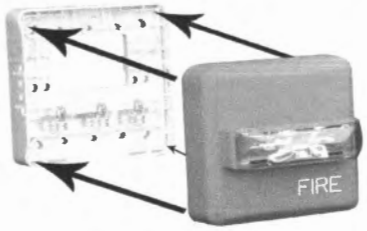
- UL listed. ULC, CSFM, and FM pending.
- ADA/NFPA compliant
- EZ Mount design, with separate base plate, provides ability to pre-wire the base and test the circuit wiring before the walls are covered
- The base plate is protected by a disposable cover and the appliances can quickly snap onto the base after the walls are painted.
- EZ Mount Universal Mounting Plate (ZBB) – uses single plate for ceiling and wall mount installations
- Wall Mount models feature field selectable candela settings of 15/30/75/110cd and 135/185cd
- Ceiling Mount models feature field selectable candela settings of 15/30/75/95cd and 115/177cd
- Strobes can be synchronized using the Siemens 5406B sync modules, MPC-6000 panel, MPC-7000 panel, or RSE-300 power supply with built-in sync protocol
- "Special Applications" listed with Siemens panels
- Strobes produce 1 flash per second
- Selectable Continuous Horn or Temporal (Code-3) Tones with selectable 90 or 95 dBA setting (ZH model)



Series ZH



Series ZR



ZR AND ZH Mounting

Description

The Siemens Series Z notification appliances feature an easy snap on base that is designed to simplify the installation and testing of horns, strobes, and horn/strobes. The separate Series Z snap on base can be pre-wired so circuit wiring can be fully tested before the appliance is installed and before the walls are covered. Once all surrounding work is complete, the appliance can be simply installed by snapping it on the base. Shorting contacts in the base, which provide continuity for circuit testing, are permanently opened when the appliance is installed so any subsequent removal of the appliance will indicate a trouble condition on that circuit at the control panel when circuit supervision is enabled. The same base is used for all Series Z horns, strobes and horn/strobes to provide consistent installation and easy replacement of appliances if required. A locking screw is also included for the appliance to provide extra secure installation.

The Siemens Series Z appliances incorporate the same dependable circuitry and high efficiency optics that are used in Siemens ST strobes, NS horn/strobes and NH horns and have the same high performance ratings. The Series Z appliances are "Special Applications" listed with Siemens panels.

Engineering Specifications

General

Audible/visual notification appliances shall be listed for indoor use and shall meet the requirements of FCC Part 15 Class B. These appliances shall be listed under UL Standard 1971, (Standard for Safety Signaling Devices for Hearing Impaired) and UL Standard 464 (Fire Protective Signaling). The appliances shall use a universal backplate that shall allow mounting to a single-gang, double-gang, 4-inch square, 4" octal, or a 3-1/2" octal backbox. Two wire appliance wiring shall be capable of directly connecting to the mounting back plate. Continuity checking of the entire NAC circuit prior to attaching any audible/visual notification appliances shall be allowed. A dust cover shall fit and protect the mounting plate. The dust cover shall be easily removed when the appliance is installed over the backplate. Removal of an appliance shall result in a trouble condition by the Fire Alarm Control Panel (FACP).

Strobes

Strobe appliances shall produce a minimum flash rate of 60 flashes per minute (1 flash per second) over the Regulated Input Voltage Range and shall incorporate a

Xenon flashtube enclosed in a rugged Lexan® lens. The strobes shall be available with two or four field selectable settings in one unit and shall be rated, per UL 1971, for up to 185 cd for wall mounting and 177 cd for ceiling mounting. The strobes shall operate over an extended temperature range of 32°F to 120°F (0°C to 49°C) and be listed for maximum humidity of 95% RH. Strobe inputs shall be polarized for compatibility with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP).

Audibles and Audible/Strobe Combinations

Horns and horn/strobes shall be listed for Indoor use under UL Standard 464. The horns shall be able to produce a continuous output or a temporal code-3 output that can be synchronized. The horns shall have at least 2 sound level settings of 90 and 95 dBA.

Synchronization Modules

When synchronization of strobes or temporal Code-3 audibles is required, the appliances shall be synchronized using the Siemens 5406B sync modules, MPC-6000 panels, MPC-7000 panels, or RSE-300 power suppies with built-in sync protocol. The strobes shall not drift out of synchronization at any time during operation. Audibles and strobes shall be able to be synchronized on a 2-wire circuit with the capability to silence the audible if required. If the sync module or power supply fails to operate (i.e., contacts remain closed), the strobes shall revert to a non-synchronized flash rate. All notification appliances shall be listed for "Special Applications".

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Input Voltage Range".
- All candela ratings represent minimum effective strobe intensity based on UL Standard 1971.
- Series ZH Strobe products are listed under UL Standards 1971 and 464 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%).
- Series ZH horns are listed under UL Standard 464 for audible signal appliances (Indoor use only).

Technical Information

For complete technical information, please consult the relevant installation sheets as well as the Siemens Compatibility Guide.

Ordering Information / Mounting Requirements / Approvals

Model Number	Order Code	Mounting Options#	Agency Approvals			
			UL	ULC	CSFM	FM
ZH-MC-R	500-636161	B, D, E, F	X	#	#	#
ZH-MC-W	500-636162	B, D, E, F	X	#	#	#
ZH-HMC-R	500-636163	B, D, E, F	X	#	#	#
ZH-HMC-W	500-636164	B, D, E, F	X	#	#	#
ZH-R	500-636159	B, D, E, F	X	#	#	#
ZH-W	500-636160	B, D, E, F	X	#	#	#
ZH-MC-CR	500-636165	B, D, E, F	X	#	#	#
ZH-MC-CW	500-636166	B, D, E, F	X	#	#	#
ZH-HMC-CR	500-636167	B, D, E, F	X	#	#	#
ZH-HMC-CW	500-636168	B, D, E, F	X	#	#	#
ZR-MC-R	500-636169	B, D, E, F	X	#	#	#
ZR-MC-W	500-636170	B, D, E, F	X	#	#	#
ZR-HMC-R	500-636171	B, D, E, F	X	#	#	#
ZR-HMC-W	500-636172	B, D, E, F	X	#	#	#
ZR-MC-CW	500-636174	B, D, E, F	X	#	#	#
ZR-MC-CR	500-636173	B, D, E, F	X	#	#	#
ZR-HMC-CR	500-636175	B, D, E, F	X	#	#	#
ZRS-HMC-CW	500-636176	B, D, E, F	X	#	#	#
ZBB-R	500-636193	Accessory - Includes base, dust cover, mounting screws and installation sheet				
ZBB-W	500-636194	Accessory - Includes base, dust cover, mounting screws and installation sheet				

X = listed/approved # = pending * = Refer to Data Sheet #9675 for mounting options.

WARNING: PLEASE READ THESE SPECIFICATIONS AND INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

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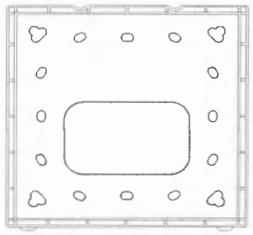
8/07 2M SBT/IG

August 2007 - New Issue

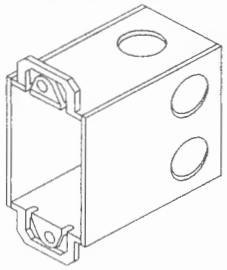
Mounting Matrix and Details

(A) UNIVERSAL MOUNTING PLATE



"AS" Mounting (item included with AS series devices)

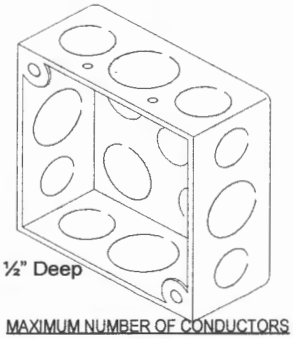
(B) SINGLE-GANG, FLUSH (BO)



MAXIMUM NUMBER OF CONDUCTORS			
AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series AH, AS, MH, NH, NS, ST

(D) 4" SQUARE, FLUSH (BO)



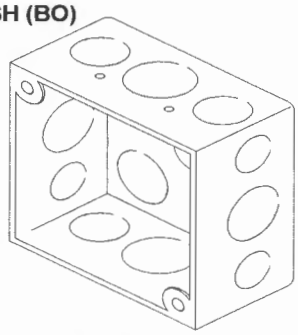
1-1½" Deep

MAXIMUM NUMBER OF CONDUCTORS			
AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series MH115, B6, B10, AH, AS, HS, MBDC, MTH, NH, NS, ST

(E) 4" SQUARE, DEEP, FLUSH (BO)

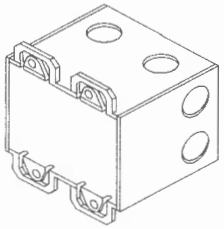
2-1/8" Deep



MAXIMUM NUMBER OF CONDUCTORS			
AWG. #18	AWG. #16	AWG. #14	AWG. #12
8	8	8	8

Used with Series MH115, B6, B10, AH, AS, SETSF, SET-ULC, HS, MBDC, MTH, NH, NS, ST

(F) DOUBLE-GANG, FLUSH (BO)

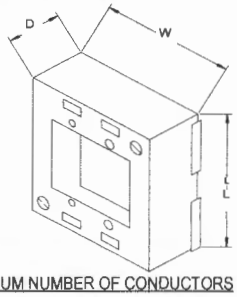


MAXIMUM NUMBER OF CONDUCTORS			
AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series AH, AS, HS, MT, NH, NS, ST

(G) DOUBLE-GANG, SURFACE (BO)

L.	W.
4-¾"	4-¾"
D.	GANG #
1-¾"	2

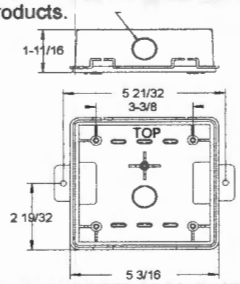


MAXIMUM NUMBER OF CONDUCTORS			
AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series AH, AS, NH, NS, ST

(I) WPBBS (ORDER CODE: RED 500-636137)

Plastic backbox for surface mounting series AS weather-proof outdoor products.

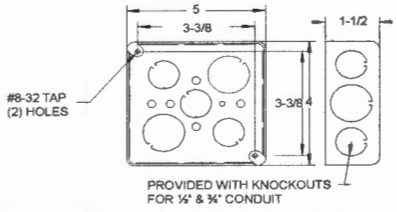


MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
8	8	8	8

(J) BBS BACKBOX (ORDER CODES: RED 500-636110)

Standard steel backbox with knockouts for interior surface mounting, concealed conduit mounting or semi-flush applications.



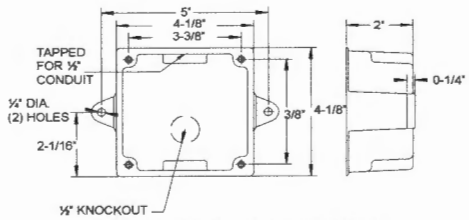
MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series MH115, B6, B10, AH, AS, MBDC, MTH-15-115, NH, NS, ST

(K) WBBS WEATHER RESISTANT BACKBOX (ORDER CODES: RED 500-636129, WHITE 500-636131)

Sturdy die cast housing, threaded conduit hole and knockout for out-door applications.

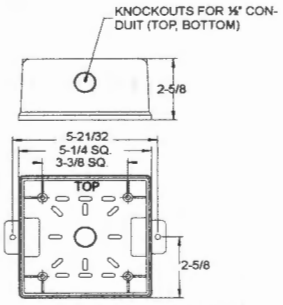


MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series MH115, B6, B10, SETSF, MBDC, MTH-15-115

(M) MT-SUR-BOX BACKBOX (ORDER CODES: RED 500-693168, WHITE 500-636118)



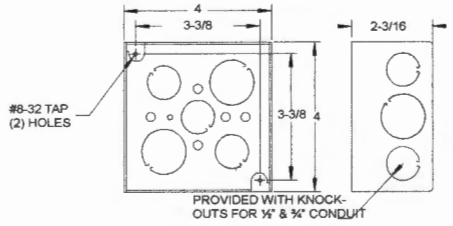
MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
8	8	8	8

Used with Series SET, HS, MTH, MTWP. For surface mounting MT products.

(N) DBBS BACKBOX (ORDER CODE: RED 500-636111)

Standard steel backbox provided with knockouts for interior surface mounting, concealed conduit mounting or semi-flush applications.



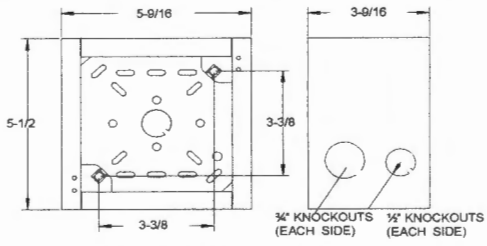
MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
8	8	8	8

Used with Series MH115, B6, B10, AH, AS, SETSF, HS, MBDC, MTH, NH, NS, ST

(P) SBBS BACKBOX (ORDER CODES: RED 500-636119, WHITE 500-636120)

For surface mounting speakers, chimes, and electronic applications.

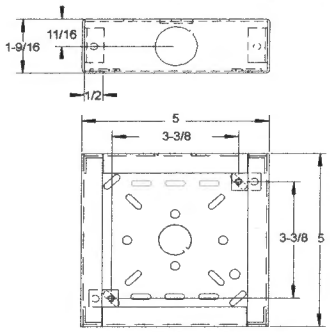


MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
8	8	8	8

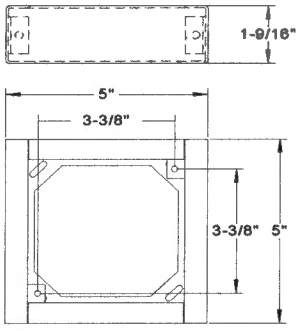
Used with Series B6, B10, CH, SEF, SET, SETFL, HS, MBDC, MTH, NH, NS, ST

(X) SHBBS SQUARE, SURFACE BACKBOX (Order Codes: Red 500-636126, White 500-636127)



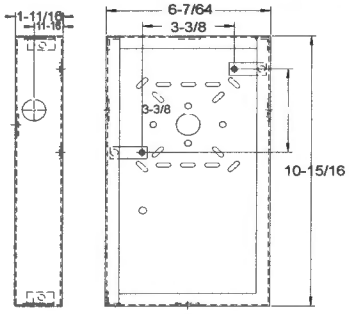
Used with Series AS, AH, NS, Z

(Y) SERS SQUARE SEMI-FLUSH EXTENSION RING (Order Codes: Red 500-636122, White 500-636123)

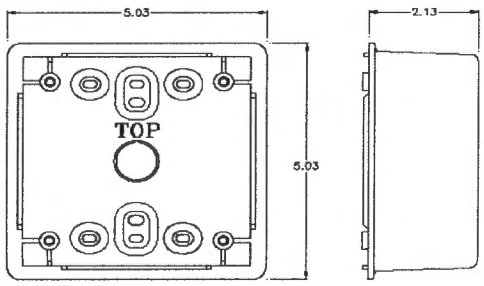


Used with Series CH, SEF, SET

(Z) SBL2S BACKBOX (Order Codes: RED 500-636121)

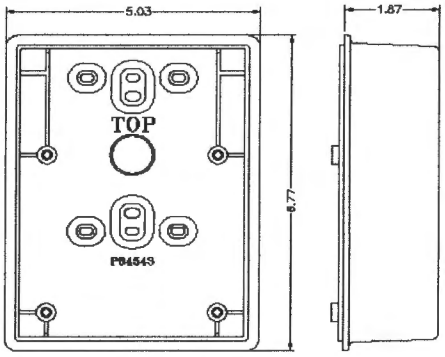


(AA) SPSB (Order Codes: Red 500-636112, White 500-363113)



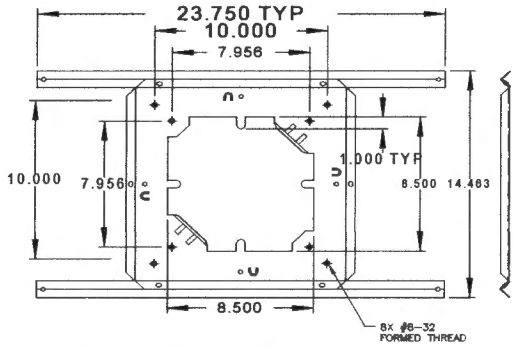
Used with Series SE Speakers

(BB) SPSSB (ORDER CODES: RED 500-636114, WHITE 500-636115)



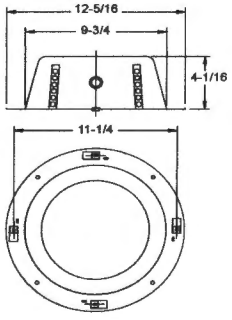
Used with Series SE-MC/HMC (wall mount speaker/ strobe)

(CC) SB-W 8" CEILING SUPPORT BRIDGE (ORDER CODE: WHITE 500-634882)



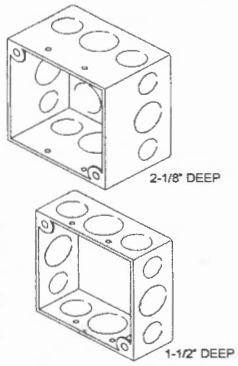
Used with Series S 8" Ceiling Speakers

(DD) SE-1 8" CEILING SPEAKER BACKBOX (ORDER CODE: WHITE: 500-634881)



Used with 8" Ceiling Speakers

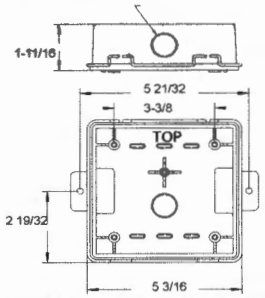
(Q) 4" SQUARE DEEP W/ EXTENSION RING, FLUSH (BO)



EXT. RING DEPTH	1-1/2"	2-1/8"
AWG. #18	8	8
AWG. #16	8	8
AWG. #14	8	8
AWG. #12	4	8

Used with Series CH, SEF, SET, SETFL

(T) WPSBBS (ORDER CODES: RED 500-636139, WHITE 500-636140)



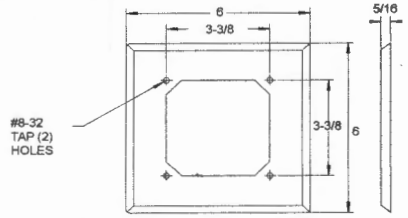
MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
8	8	8	8

Used with Series ST-WP

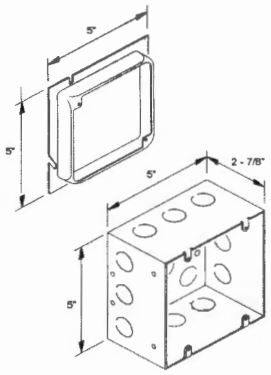
(R) SFPS SEMI-FLUSH PLATE (ORDER CODES: RED 500-636124, WHITE 500-636125)

Stamped aluminum surface wall plate which mounts behind the basic unit and serves to cover recessed backboxes in semi-flush mounting applications.



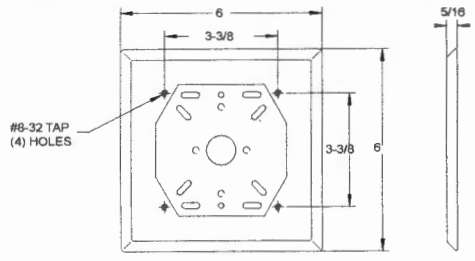
Used with Series MT, SET, SE, NH, NS, ST

(U) 5" SQUARE BACKBOX W/ EXTENSION RING, FLUSH (BO)



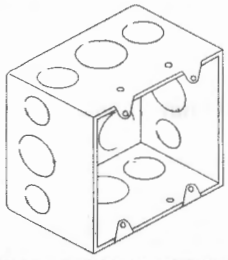
(S) APS ADAPTER PLATE (ORDER CODE: RED 500-630109)

Stamped aluminum adapter plate designed for applications where semi-flush installations cannot be used. The plate can be mounted to standard octagon or round backboxes single or double gang boxes or plaster rings. The backbox and basic unit are then fastened to the plate. This type mounting is referred to as a concealed conduit installation.



Used with Series MBDC

(W) $4^{11}/_{16}$" SQUARE, DEEP SURFACE (BO)



MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
10	10	10	10

MOUNTING MATRIX

	Series SET-C	Series ST	Series ST-MC-RETRO	Series MH115	Series SE	Series B10-115	Sereis CH	Series SETSF-B	Series SETSF	Series MBDC	Series SET/SET Wall Mount	Series SE-C	Series MH	Series MTH	Series NH/NS	Series HS	Series AS/AH	Series AH-WB(3), MT-WP(4), MTH	Series Z
(A) Universal Mounting Plate (included with AS series devices)																	X		
(B) 1-GANG x 2" Deep - Flush (BO)		X											X		X		X		X
(D) 4" x 4" x 1.5" Deep - Flush (BO)		X	X	X		X				X					X		X		X
(E) 4" x 4" x 2.125 Deep - Flush (BO)		X	X	X	X	X		X		X				X	X	X	X		X
(F) 2-Gang x 3.5" Deep - Flush (BO)		X												X	X	X	X		X
(G) 2-Gang x 1.75" Deep - Surface (BO)		X													X		X		
(I) WPBBS-R Weatherproof Backbox for AS-WP																		2	
(J) BBS Surface (SP) Note 9		X		X		X				X					X				
(K) WBBS Weatherproof (SP)				X		X			X	X							X	3	
(M) MT-SUR-BOX Surface & Weatherproof (SP)											X			X		X		4	
(N) DBBS Surface (SP)		X		X		X			X	X				X	X	X			
(P) SBBS Surface (SP)	X	X				X	X	X		X	X			X	X	X	X		
(Q) 4" x 4" x 2.125" Box w/ 1.5" Extension Ring- Flush (BO)	X		X				X	X			X	X							
(R) SPT Semi-Flush Plate (SP)		X		X		X	X	X		X	X			X	X	X	X		
(S) APS Adapter Plate (SP)						X			X	X	X								
(T) WPSBBS-R Weatherproof Backbox for ST-WP																		1	
(U) 5" Square Backbox w/ Extension Ring, Flush (BO)	X						X	X				X							
(W) 4.6875" x 4.6785" x 2.125" Deep Surface (BO)																			
(X) SHBBS (SP) Shallow Surface		X				X				X					X		X		
(Y) SERSSemi-Flush Extension Ring (Retrofit Appl.)	X						X				X								
(Z) SBLS-2 Surface (SP)		X	X	X		X	X	X		X									
(AA) SPSB Backbox for SE Speaker					X														
(BB) SPSSB Backbox for SE Speaker Strobe					X														
(EE) SPEXT Extension Ring												X							
(FF) ZBB																			X

MOUNTING NOTES

Caution: The mounting options figures show the maximum number of field wires (conductors) that can enter the backbox used with each mounting option. If these limits are exceeded, there may be insufficient space in the backbox to accommodate the field wires and stresses from the wires could damage the product.

Although the limits shown for each mounting option comply with the National Electrical code (NEC), Siemens recommends use of the largest backbox option and the use of approved field wires whenever possible, to provide additional wiring room for easy installation and minimum stress on the product from wiring.

Caution: Check that the installed product will have sufficient clearance and wiring room prior to installing backboxes and conduit, especially if sheathed multiconductor cable or 3/4" conduit fittings are used.

1. Mounting hardware for each mounting option is supplied.
2. Conduit entrances to the backbox should be selected to provide sufficient wiring clearance for the installed product. When extension rings are required, conduit should enter through the backbox, not the extension ring. Use Steel City #53151 (1-1/2" deep) or #53171 (2-1/8" deep) extension rings (as noted in the mounting options) or equal with the same cut-out area.
3. When terminating field wires, do not use more lead length than required. Excess lead length could result in insufficient wiring space for the appliance.
4. Use care and proper techniques to position the field wires in the backbox so that they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires and wires with thick insulation or sheathing.
5. Do not pass additional wires (used for other than the appliance) through the backbox "unless the backbox is of a sufficient size to permit additional wiring as described in NEC 314.16 (B)". Such additional wires could result in insufficient wiring space for the appliance.

NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Siemens Inc. standard terms and conditions.

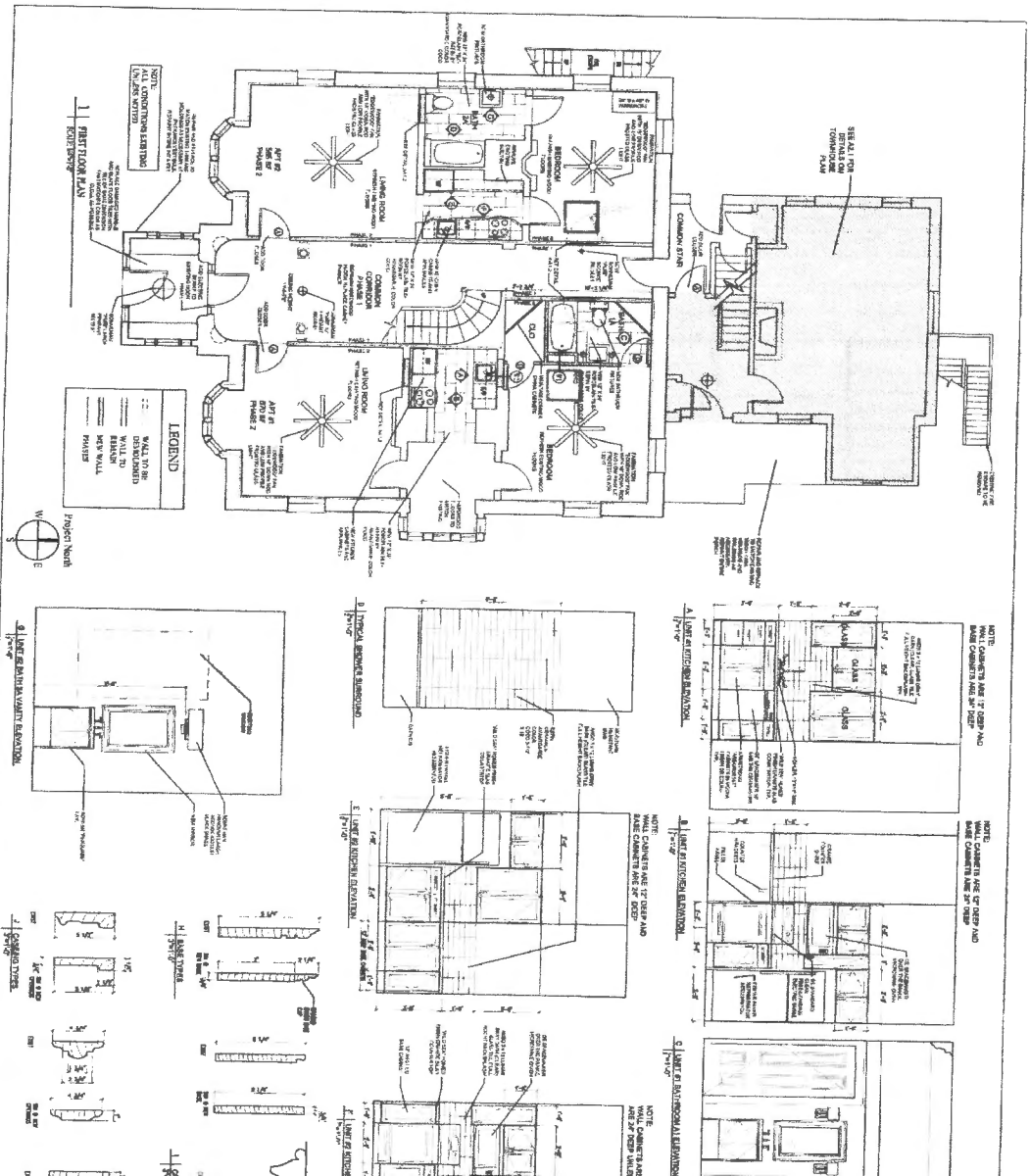
SPACE AGE
ELECTRONICS, INC.

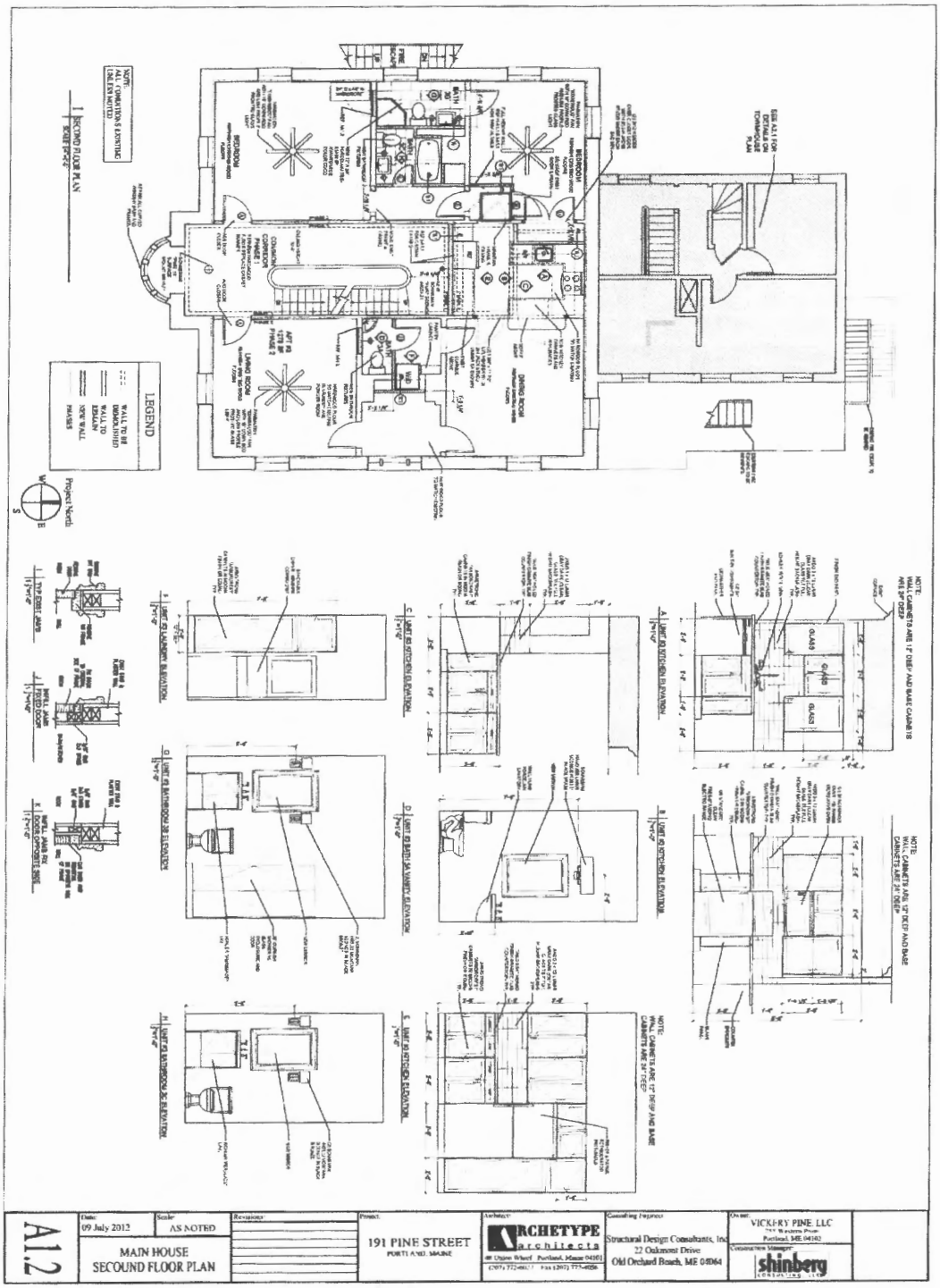
Specifications:

The Fire Document Box (FDB) shall be constructed of 16 gauge cold rolled steel (CRS), it shall be painted with a durable red powder coat paint. The front door shall be lettered with the words "FACU MAINTENANCE RECORDS" in White indelible letters 1" in height. The door of the FDB shall be locked with a keyed lock (standard shall be CAT 30, but others shall be available along with Private Labeling).

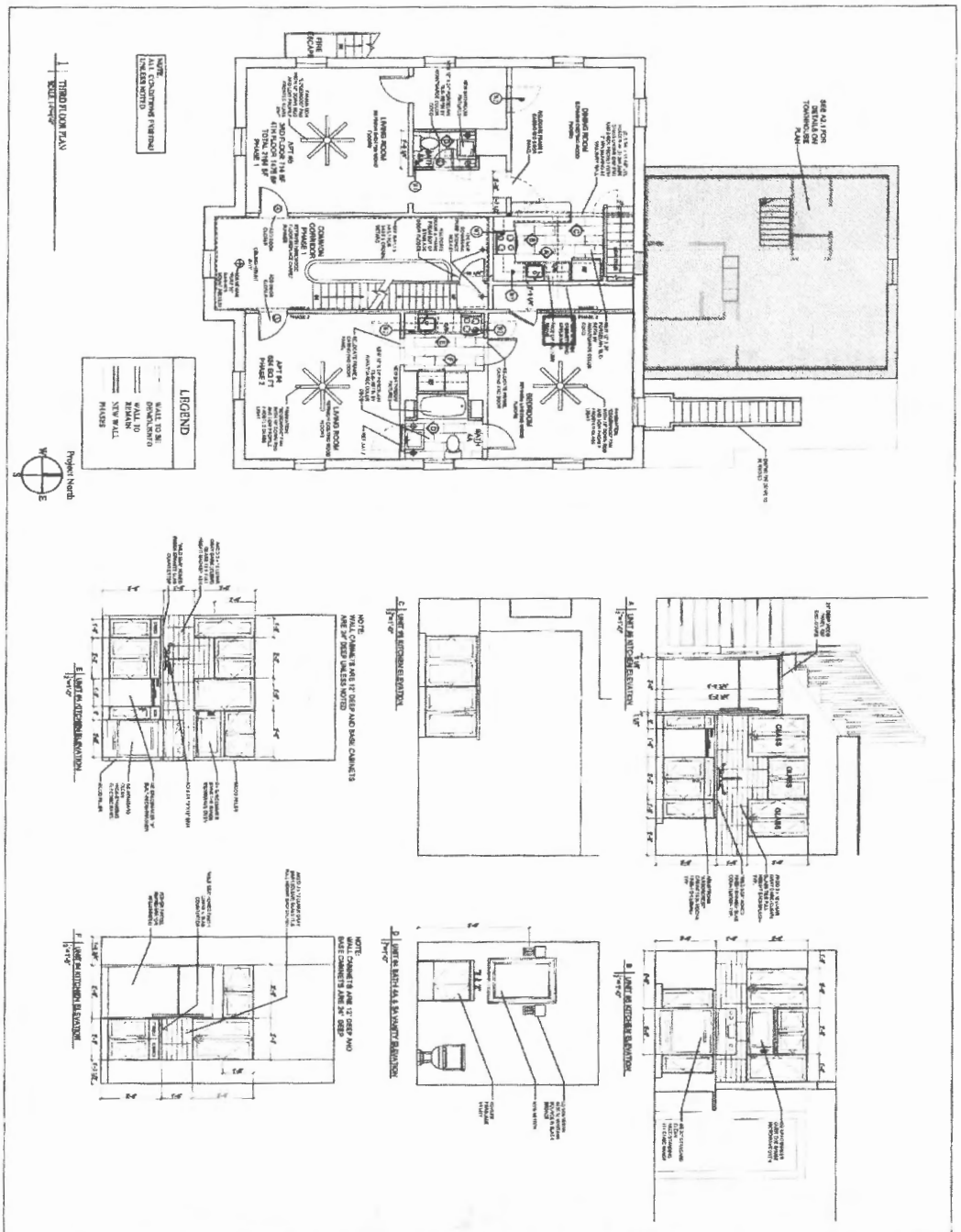
Inside the cabinet shall contain a16 gauge galvanized CRS sleeve. This sleeve shall allow for the storage of 1" of paper, test and inspection records, manuals and other important documents. The sleeve shall also facilitate the hanging of key rings and thumb drives (for data storage) along with business cards and space for a CD 'jewel" case. The unit shall also contain a 1.4oz can of smoke detector test gas. Inside the door shall have a "Notes" label for the recording of valuable information such as AHJ approvals, various system codes and the location of hard to find devices.

If so desired, the internal sleeve (held in by 2 wing nuts) may be removed and the space used to insert a 1.5" 3 ring binder.

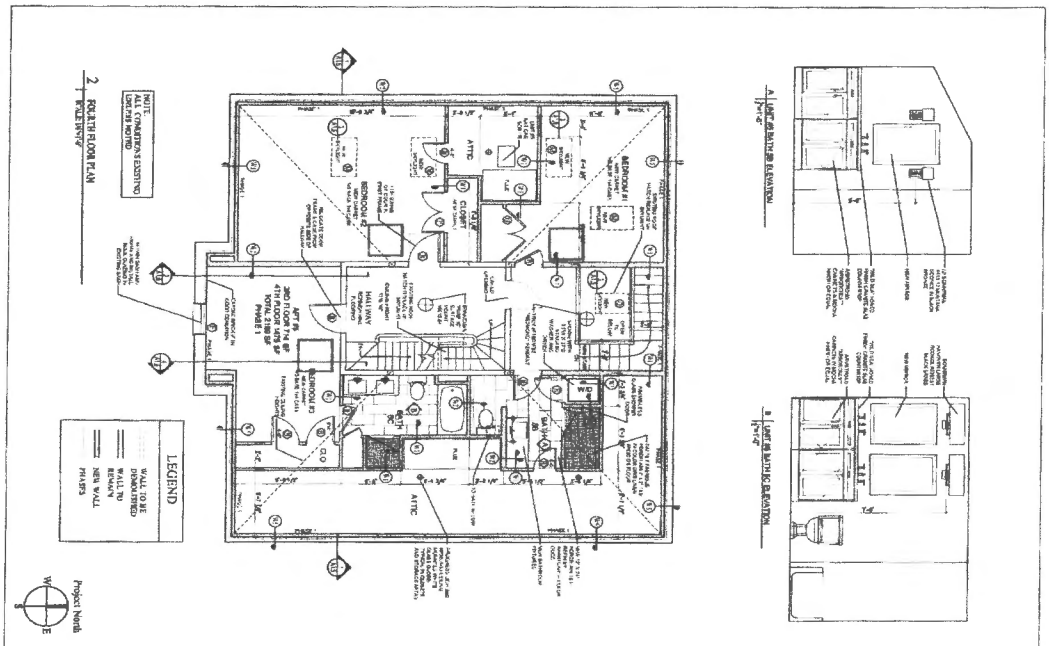


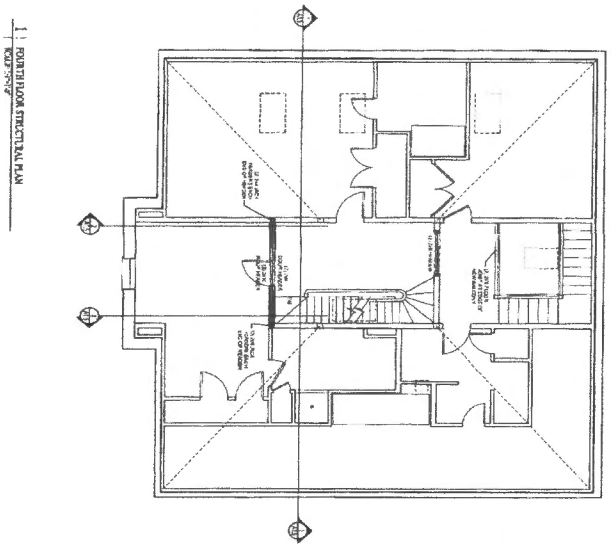


A12	Date: 09 July 2012	Scale: AS NOTED	Revisions:	Project: 191 PINE STREET PORTLAND, MAINE	Architect: ARCHETYPE architects, 48 Union Wharf, Portland, Maine 04101, (207) 772-0811, Fax (207) 775-0826	Consulting Engineer: Structural Design Consultants, Inc, 22 Oakmont Drive, Old Orchard Beach, ME 04064	Owner: VICKERY PINE LLC, 777 Western Prom, Portland, ME 04102; Construction Manager: shinberg
	MAIN HOUSE SECOUND FLOOR PLAN						



A1.3	Date: 09 July 2012	Scale: AS NOTED	Revisions:	Project: 191 PINE STREET PORTLAND, MAINE	Architect: ARCHETYPE architects 49 Union Wharf Portland, Maine 04101 (207) 772-6922 Fax (207) 772-4976	Consulting Engineer: Structural Design Consultants, Inc 22 Oakmont Drive Old Orchard Beach, ME 04064	Owner: VICKERY PINE, LLC 253 Western Prom. Portland, ME 04102 Construction Manager: shinberg CONSULTING LLC
	MAIN HOUSE THIRD FLOOR PLAN						





A1.4	Date: 09 July 2012	Scale: AS NOTED	Revisions:	Project: 191 PINE STREET PORTLAND, MAINE	Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6635 Fax (207) 772-6636	Consulting Engineer: Structural Design Consultants, Inc 22 Oakmont Drive Old Orchard Beach, ME 04064	Owner: VICKERY PINE, LLC 255 Western Prom Portland, ME 04102 Construction Manager: shinberg consulting
	MAIN HOUSE FOURTH FLOOR PLAN						

Protection Professionals
325 US Route 1
Falmouth, ME 04105
Ph 207-775-5755
Fax 207-781-2064

Device List

No. 4627

List Date
11/8/2012

Bill To Name / Address	Job Site
Vickery Pine LLC Jason Vickery 255 Western Promenade Portland, Maine 04102	191 Pine Street Portland, Maine 04102

CHANGING THIS DEVICE LIST DOES NOT ALTER THE ORIGINAL ESTIMATE
Attach copy to Purchase Order for accounting

Estimate No.

Item	Description	Qty To Order	Qty Ordered
	Currently there is a Faraday LW-401 fire alarm panel with a Silent Knight dialer. The fire alarm panel can be easily repaired or replaced at this time by our company. The existing system has a pull station, a smoke detector, and a horn strobe on each stairway landing. The basement has a pull station as well as heat detection throughout the basement, one smoke detector over the fire panel, and two horn strobes. The attic has two heat detectors. The building is under renovation. One item being added is a sprinkler system. The sprinkler contractor will be adding two zones and one zone of supervisory signals. The other item that is being changed is the room layout. We recommend installing several horns in the units to ensure proper notification of any alarm activity. Please note that a heat detector will not be required in any space which has a sprinkler head. If a horn is required in the Carriage House, then please note option below. This item was not accepted by the customer. Base quote: Add horns, add a module, connect new sprinkler system		
500-696006FA	16411B - 4 Zone Class "B" . w/outputs Mod (to increase zones on fire panel from 4 zones to 8 zones)	1	
500-636159	Horn, red, wall, double gang: located in 1st floor bedrooms (X2), 2nd floor bedroom (X1), 3rd floor bedroom front (X1), 4th floor bedroom area (X3), 2nd floor Town house (X1), 3rd floor bedroom Town house (X1)	9	
Bat 12-7	12V 7AH Batteries SEC-1075	3	
06-SSU00672	Fire Document box 12 inches wide X 13.1 inches high X 2.25 inches deep, CAT 30 keyed	1	
	Option #1: Install a horn into the Carriage House, if included with the installation above. All trenching to be supplied by others. If this option is not chosen when the base quote is done, then a revised quote would be necessary.		

Ordered By: _____ **Date:** _____

Received By: _____ **Date:** _____

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Device List

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List Date
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Bill To Name / Address	Job Site
Vickery Pine LLC Jason Vickery 255 Western Promenade Portland, Maine 04102	191 Pine Street Portland, Maine 04102

CHANGING THIS DEVICE LIST DOES NOT ALTER THE ORIGINAL ESTIMATE
Attach copy to Purchase Order for accounting

Estimate No.

Item	Description	Qty To Order	Qty Ordered
	*****This item was not accepted by the customer on 11-5-12. Option #2: Replace all smoke detectors after the construction but before the finals. ******This item was not accepted by the customer on 11-5-12. State of Maine Sales Tax		

Ordered By: _____ **Date:** _____

Received By: _____ **Date:** _____