



**City of Middletown**  
**Bureau of Fire Prevention**

Theron C. Adkins, Fire Inspector  
 16 James Street  
 Middletown, NY 10940  
 Office: (845)346-4111  
 Fax: (845)343-4014  
 Cell: (845)741-6116  
 E-Mail: tadkins@middletown-ny.com

**Fire Alarm Permit Application**

*In accordance with the Code of the City of Middletown, any structure which has a fire alarm that transmits an alarm signal to an alarm company or emergency service or has a bell, horn or siren which is audible outside the building or structure audible outside the building or structure*

**DO NOT FORGET TO SIGN LAST PAGE AND SUBMIT ALL REQUIRED DOCUMENTS – AVERAGE TURNAROUND FOR ACCEPTANCE IS 2 WEEKS**

|  |  |                               |                                    |                                  |   |                                |          |  |
|--|--|-------------------------------|------------------------------------|----------------------------------|---|--------------------------------|----------|--|
| <b>ADDRESS INFORMATION</b>   | NAME   |                               |                                    |                                  |   |                                |          |  |
|  | ADDRESS  |                               |                                    |                                  |   |                                |          |  |
|  | CITY   |                               | STATE                              | ZIP CODE                         | NEW ALARM SYSTEM <input type="checkbox"/>   |                                |          |  |
|  | TELEPHONE                                      | WORK TELEPHONE                | AFTER HOURS TELEPHONE              |                                  | INFORMATION CHANGE <input type="checkbox"/> |                                |          |  |
|  | EMAIL ADDRESS                                  |                               |                                    |                                  | ALARM DISCONNECTED <input type="checkbox"/> |                                |          |  |
|  | <b>MAILING ADDRESS IF DIFFERENT FROM ABOVE</b> |                               |                                    |                                  |   |                                |          |  |
| <b>FIRE ALARM INFORMATION</b>  | NAME   |                               |                                    |                                  |   |                                |          |  |
|  | ADDRESS  |                               |                                    | CITY                             | STATE                                       | ZIP CODE                       |          |  |
|  | <b>SYSTEM TYPE</b>                             | FIRE <input type="checkbox"/> | SPRINKLER <input type="checkbox"/> | MEDICAL <input type="checkbox"/> | CARBON MONOXIDE <input type="checkbox"/>    | OTHER <input type="checkbox"/> |          |  |
|  | <b>ALARM PANEL LOCATION</b>                    |                               |                                    |                                  |   |                                |          |  |
|  | <b>MONITORING COMPANY</b>                      | COMPANY NAME                  |                                    |                                  |   |                                |          |  |
|  |  | ADDRESS                       |                                    |                                  | CITY  | STATE                          | ZIP CODE |  |
|  |  | TELEPHONE                     |                                    |                                  |   |                                |          |  |
|  | <b>MAINTENANCE COMPANY</b>                     | COMPANY NAME                  |                                    |                                  |   |                                |          |  |
|  |  | ADDRESS                       |                                    |                                  | CITY  | STATE                          | ZIP CODE |  |
|  |  | TELEPHONE                     |                                    |                                  |   |                                |          |  |
| <b>IF YOU ARE NOT AVAILABLE, ONE OF THE FOLLOWING CONTACTS MUST BE ABLE TO RESPOND WITHIN 30 MINUTES</b> |  |                               |                                    |                                  |   |                                |          |  |
| <b>CONTACT INFORMATION</b>   | NAME   |                               |                                    |                                  |   |                                |          |  |
|  | ADDRESS  |                               |                                    | CITY                             | STATE                                       | ZIP CODE                       |          |  |
|  | TELEPHONE                                      | MOBILE TELEPHONE              | EMAIL ADDRESS                      |                                  |   |                                |          |  |
|  | <b>PRIMARY</b>                                 | NAME                          |                                    |                                  |   |                                |          |  |
| ADDRESS  |  |                               | CITY                               | STATE                            | ZIP CODE                                    |                                |          |  |
| TELEPHONE  |  | MOBILE TELEPHONE              | EMAIL ADDRESS                      |                                  |   |                                |          |  |
| <b>SECONDARY</b>   |  | NAME                          |                                    |                                  |   |                                |          |  |
|  | ADDRESS  |                               |                                    | CITY                             | STATE                                       | ZIP CODE                       |          |  |
|  | TELEPHONE                                      | MOBILE TELEPHONE              | EMAIL ADDRESS                      |                                  |   |                                |          |  |

**THE APPLICANT HERBY CERTIFIES THAT ALL THE ABOVE INFORMATION IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND WILL NOTIFY THE TOWN OF BRIGHTON - OFFICE OF THE FIRE INSPECTOR OF ANY CHANGES TO THE INFORMATION ON THIS APPLICATION**

|                      |                   |                        |                 |                      |                                  |      |
|----------------------|-------------------|------------------------|-----------------|----------------------|----------------------------------|------|
| APPLICANT SIGNATURE  |                   | APPLICANT NAME (PRINT) |                 |                      | DATE                             |      |
| <b>PERMIT NUMBER</b> | <b>ISSUE DATE</b> | <b>EXPIRATION DATE</b> | <b>FEE PAID</b> | <b>BLDG PERMIT #</b> | Theron C. Adkins, Fire Inspector | K.Z. |
|                      |                   |                        |                 |                      |                                  |      |

## **Fire Alarm Plan Review Checklist**

Please review and familiarize yourself with all requirements listed in this document prior to your submittal. Your compliance with these requirements will enable us complete the review process faster and more efficiently with less rejections due to improper submittals.

### **General**

Three (3) copies of stamped plans must be submitted for review.

Preferred Construction Documents Size - Sheet "D" 24" X 36" (*Fire Marshal may approve other sizes by request*)

Copies shall all be the same size, drawn in indelible ink.

Sheets that are cut and pasted, taped, or that have been altered by any means (pen, pencil, marking pen, etc.) will not be accepted for plan check.

Plans that are not legible may be rejected as unacceptable for plan review purposes.

All plans shall be stamped by a licensed Professional Engineer or a Registered Architect as required by the New York State Department of Education Law with current renewal dates and "wet" signatures.

If, due to the scope of the work proposed, the plans are not required to be stamped, the plans shall be drawn utilizing accepted engineering practices and procedures. All line work and lettering shall be clear and legible.

Plans shall be submitted by a company licensed by the State of New York as Per General Business Law Article 6D. Proof of a valid license is to be submitted with the application.

Distinguish new from existing alarm equipment with "N" and "E" subscripts.

### **Site Plan Information (If Applicable)**

Scale to 1" = 20' or 1" = 40'

Compass direction and clearly marked scale.

All structures on the site.

Each system's connection(s) and show the interconnection(s) of structures on the site (clearly labeled).

Locations of FACP, and all Sub-panels or Power Boosters, and Annunciator Panels.

Distances of all conduit runs from FACP and Sub-panels to buildings or devices.

Locations of all "Exterior Audible" appliances include Fire Sprinkler Bells or Horns as applicable.

Locations of all PIV's, Sprinkler Risers, Detector Check Valves, Water Flow indicators, and other devices with supervisory capability.

### **Provide the following Project information and Notes on plans**

All Applicable codes: Ensure the current codes and editions are listed on the plans.

Authority Having Jurisdiction (City of Middletown Fire Inspector)

Scope of work: Brief project description as it pertains to your plan submittal.

Include description of occupancy and BCNYS classification and proposed use of structure(s).

Symbol legend for fire alarm system.

Symbols shown on the Symbol Legend must match those in Architectural, General Electrical, and Floor plans for the Fire Alarm System.

**NOTE:** To expedite plan review, exclude symbols for components that are not part of the project.

Note on the face of the plans indicating the ambient noise range for all the various spaces identified in the plans and the justification (i.e., national standard or previous test) for this ambient level. Also indicate the minimum audibility level (dBA) to be used for the acceptance test.

Must notate that the strobes will remain flashing on system silence.

Fire alarm control panel (FACP) or a remote annunciator shall be installed at the main entrance in a manner where it is readily visible and readable from the exterior of the building. This remote annunciator will not be capable of controlling any function of the fire alarm system and will be for zone/device identification only.

All pull stations located in public areas or areas where they are subject to impact damage are to be fitted with protective sounding covers.

Must notate that any/all keys and or tools required to reset all components of the fire alarm system will be left on site. (This includes panel keys, proper size Allen keys or proper type of screwdriver(s) necessary to reset pull stations).

Stereo shunt is to be installed that will shut down all music systems in the establishment. Music system will not reset until fire alarm system is reset.

Maximum number of detection devices allowed on two-wire circuits.

Maximum number of detection devices allowed on four-wire circuits.

Location of sprinkler system waterflow and tamper supervision, if applicable.

Sprinkler system water flow and tamper switches shall be zoned separately.

Location of range hood fire suppression systems discharge contacts, if applicable.

The source of primary power and its wiring riser diagram.

The source of secondary power.

The signal initiating circuits and wiring diagram, including calculations of all signal circuits for loads, wire size and length.

Location of end-of-line resistors.

For digital alarm communication transmitters, the configuration of the two separate transmission lines. (NFPA 72 - 8.6.3.2.1.4)

If any duct smoke detectors are installed, they shall be supervised by this system and shall be wired to a supervisory zone only, not an alarm-initiating zone, as provided in NFPA 72 and 90A. (Required in H VAC systems

> 2000 CFM.)

Duct smoke detectors and visible and audible supervisory signal at a constantly attended location.

This system will be “certificated or placarded” as a “Central Station Service” Fire Alarm System and is stated as such on the plans. (24 hours secondary power)

Provide a note on the shop drawing requiring the installer to coordinate with the mechanical contractor when determining installation of smoke detectors or sensors (i.e., not closer than 3 feet from any supply/return diffuser and that additional detection may be required due to the relocation or spacing adjustment of detectors, as a result).

The submitted plans shall indicate the location of the circuit breaker for the primary power source and shall have a red marking (red circuit breaker switch). The circuit shall be identified in the circuit break panel as “FIRE ALARM CIRCUIT”. The circuit breaker shall also be equipped with breaker lock. (NFPA 72 – Section 4.4.1.4.2.2)

The submitted plans shall indicate the location of and the identification of the circuit breaker panel and circuit number to be dedicated to the fire alarm system. The location of and identification of the circuit breaker panel and dedicated fire alarm circuit shall be permanently identified at the fire alarm control panel. (NFPA 72 – Section

4.4.1.4.2.3)

#### **Title Block Information**

Owner’s name, address, and telephone number.

Occupant’s name, address and telephone number, if different from owner.

Contractor/Professional contact name, address, telephone, fax numbers

Installation Company, address and telephone number

Fire Alarm signal monitoring company name, address and telephone number

In accordance with IFC 907.15, all fire alarm system shall be monitored by an approved supervising station. The Fire Inspector of the City of Middletown considers all UL listed or FM approved central, remote or proprietary supervising stations as approved supervising stations.

A 3”x 4” space labeled for “Fire Inspector Use Only”.

*This will be used for the Fire Inspectors review comments, approval stamp, date, and signature*

#### **Building floor plan(s)**

Plans must be clearly legible and where possible, drawn to 1’0” = 1/8” scale

Compass direction and clearly marked scale.

Only electrical equipment, devices, wiring, etc. related to the fire alarm system(s) should be shown on the plans.

Ensure the background is coordinated with the Architectural Floor plans, and include rated wall and door locations, and uses of all areas or spaces.

Identify and indicate the height of all walls that are NOT full height.

Walls not indicated with specific heights will be considered to be full height and require fire alarm appliances accordingly.

Indicate height of library stacks or storage walls (those not indicated will be presumed to be full height).

Identify all elevation changes.

Identify Fire-rated corridor(s), walls for occupancy and area separation(s), and other rated walls and stair enclosures to determine requirements for penetration protection.

Penetrations of all fire-rated walls shall be protected in accordance with the Building Code of New York State. Provide details and design numbers of through-penetration fire stopping systems.

Provide cross sectional elevation of the building showing ceiling heights and spaces above suspended ceilings etc.

Indicate all conditions which would impact detector spacing and location. Refer to NFPA-72 Chapter 5 for criteria.

State the type of ceiling being installed (suspended, sheetrock, open joist etc...)

If utilizing ceiling mounted visible notification appliances indicate the height of the applicable ceilings.

Show Type and location of fire alarm panels, detectors, manual pull stations, audible alarm appliances, visible notification appliances, supervisory signal components, EOL'S, equipment and devices, all identified by symbols matching the symbol legend.

Provide drawings of reflected ceiling plans or identify and beams (beam pockets), soffits, etc which will affect device spacing and locations.

## **Product Data (Cut) Sheet Submittal**

### **Wiring Riser Diagram**

The class and/or style are shown for all initiating device circuits, signal line circuits and notification appliance

*Type of system: conventional hardwired, wireless, addressable, analog addressable, Class "A", Class "B".*

Show all wiring, indicating number, type and size of wires for each circuit.

Sequentially number each circuit and component. The labels must correspond with the Riser Wiring Diagram.

Show all devices, appliances, components and equipment by symbols matching the symbol legend for each circuit

Identify each appliance for both initiating devices and notification.

For example:(sequentially number each circuit and component)

*A1-1 = Audible circuit #1, device #1*

*P3-4 = Initiation circuit #3, device #4, etc.*

Identify devices in the sequence intended to be wired per the riser

Show the candela rating of each visible notification appliance adjacent to the device on the floor plans in compliance with UL Standard 1971 and NFPA 72, Chapter 4.

Provide mounting details of all components as applicable (ie: manual audible, visible and combination

visible/audible notification appliances,

Show mounting heights and "Beam Detector" installation directives maximum height above finished floor, horizontal spacing, etc.).

Show all doors and door swings, Floor to ceiling windows, skylights (for ceiling mounted appliances) and other openings, projections, elevation changes, etc. that would affect the placement of alarm appliances.

Spare conductors shall be identified.

NOTE: Wiring must be listed for use as required by Title 24 Part 3 (CEC) Article 760 for non-power limited and power limited circuits. Additionally use "THHW" or equivalent for wet locations.

"Point-to-Point" wiring detail for each type of device or appliance being installed

Zone identification when (or where) applicable.

### **Equipment List** (May be combined with the symbol legend when identified as such)

Legend showing all symbols, device descriptions, size and type of outlet box and mounting heights.

Indicate the make and model and number of each fire alarm component:

Fire alarm control panels.

Fire alarm annunciator panels.

Automatic detection or signaling devices.

Manual initiation devices.

Candela / decibel rating for all audible and/or visual alarm devices.

Fire department command centers.

Door closures, smoke dampers, HVAC shut-down devices, elevator recall devices, fire protection systems monitoring

devices or similar devices or equipment that affect buildings of fire protection equipment services.

Off-premises reporting devices.

Where applicable, the various zone designations and the areas they serve.

### **Voltage Drop Calculations**

Product Data Sheet Submittal shall include the following information and details as applicable to the project:

Current and legible copies of manufacturer's product data specification sheets (Cut sheets) for all equipment used.

Include all pages of the product data sheets.

Product data sheets must include the current draw of the components.

Include cut sheets for existing Fire Alarm Control Panels and Extender Panels for compatibility confirmation.

Audible Devices are listed to produce the Temporal Three Pattern either via the Main Fire Alarm Control Panel, or

by self-generation.

All new systems or system upgrades shall produce the Temporal Three Pattern.

If the existing system does not currently provide the Temporal Three Pattern, additions/modifications to the system do not have to meet that requirement. The pattern used on any particular system must be uniform throughout the building. Synchronization of the patterns is required to eliminate “overlapping” of tones or patterns.

For Additions or Modifications to existing systems; provide listing for any new FACP’s.

If component parts from different manufacturers are to be mixed in any system, then a manufacturer’s statement of compatibility of said parts shall be included in the submission.

### **Battery Calculations**

A battery calculation formula format sheet (with all values used) showing that battery power is adequate for 24 hours of stand-by power and 5 minutes of alarm power. Standby Battery Calculations for each Control Panel, Sub Panel, Power Booster, Central Station Transmitter, Power supply.

Standby Operation (100% of applicable components for 24 hours).

Alarm Operation (100% of applicable components for 5 minutes) after 24 hours of Standby Operation).

Control Panel or Sub-panel amperage draw.

List of components by model, which draw power from the panel. Amperage draw for each component.

Quantities of each component.

Total current draw for all components type/model.

Total current draw of each subtotal.

Calculate required battery Amp Hours (Standby + Alarm Operation requirements).

Provide Amp Hours of Batteries you intent to provide – less the required capacity and list the spare Amp Hours available.

Indicate the installation date (if applicable) for standby lead acid batteries per NFPA 72.

Alarm power consumption of all current drawing devices including operating signals, lights, relays, etc..

*Omit power consumption for door hold opens, unless they are intended to be maintained as part of the system.*

Provide formula used for voltage drop calculation for all notifications circuits in the FACP and for each sub-panel with a battery back up. Account for each notification appliance’s voltage draw, and provide total draw and drop for each circuit. Indicate notification appliance model and voltage drop corresponding with those listed in the applicable manufacturer’s product data sheet (Cut Sheets).

Voltage Drop, percent not to exceed listed manufacturer’s operating range.

**NOTE:** Voltage Drop listed manufacturer’s operating range: Providing a 10% safety factor will allow the expansion of the circuit/addition of appliances in the future.

These calculations are to include the following information:

- a. The total number of devices on each wiring circuit.
- b. The current draw of each device.
- c. The maximum length of wire utilized on each circuit.
- d. The wire size being used.
- e. The voltage remaining at the last device.
- f. Intelligent Horn/Strobes must show the manufactures information of how the voltage drops shall be calculated

Adjustable Multi-Candela Horn/Strobes - the battery calculations shall be calculated according to the candela rating on

the fire alarm plans. For example, if the fire alarm plans indicate the candela rating is 110, the battery calculation shall

calculate for a 110 candela.

**“Visible” Appliances” (Strobes)**, calculate the voltage crop using the candela draw for each device shown on the floor plans. Use the listed drop shown in manufacturer’s data specifications (Cut Sheets).

**“Audible Appliances” (Horns or Bells)**, calculate the voltage drop using listed drop shown in the manufacturer’s data specifications (cut sheets).

Audible notification appliances: Ensure that occupied areas shall be provided with a fire alarm audible decibel level at 15 dBA above ambient noise levels. Provide additional Audible Notification Appliances as necessary to attain 15dBA above ambient. All areas may be tested using a sound level meter, and witnessed by the Office of the Fire Inspector. Voltage Drops for each circuit or appliance will be annotated on the Fire Alarm Acceptance Check List.

### **Final Acceptance Testing**

Verify manual pull stations not more than 5 feet from entrance to each exit and located so that travel distance to nearest box does not exceed 200 feet.

Verify visual alarm notification mounting heights such that entire lens is not less than 80” and not greater than 96 above the finished floor or at a performance based alternative. (NFPA 72 7.5.4.1, IFC 907.2 and 907.3)

All corridor spaced strobes are placed a maximum of 100' feet apart and within 15'feet from ends of the corridor.

Circuit breaker and panel number as well as the central station account number are to be noted on the inside of the FACP door.

Before requesting final approval of the installation, the installing contractor shall furnish a written statement stating that the system has been installed in accordance with approved plans and tested in accordance with the manufacturer’s published instructions and the appropriate NFPA requirements. NFPA 72 - 4.5.1.2

Any deviations from the design standards shall be noted and copies of the approvals for such deviations shall be attached to the written statement. FCNYS §F901.2.1.



A record of completion in accordance with NFPA 72 - Figure 4.5.2.1 verifying that the system has been installed in accordance with the approved plans and specifications shall be presented to the Office of the Fire Inspector at the time of the final acceptance test.

All batteries shall be labeled with date of installation as prescribed in NFPA 72 4.4.1.8.1

Detectors shall not be installed until after the construction cleanup of all trades is complete and final. Smoke detector heads found installed prior to cleanup will need to be replaced or re-certified by the manufacturer. NFPA 72 - 5.7.1.11

**Please read the information below and sign before submitting your application**

Your application shall be deemed complete only if this checklist is completed and submitted along with the submittal package. Submittals not accompanied by a checklist will not be accepted. Accuracy of the submittal package, including this checklist, is the responsibility of the applicant. Failure to submit an accurate submittal package will be considered an incomplete application by the Plan Reviewer.

An incomplete submittal will result in a **HOLD**.

If work is found to have commenced without approved plans and/or a proper permit, this office reserves the right to shut down any/all portions of the entire project deemed necessary to inspect, investigate and confirm that work has been done.

When work for which a permit is required has been conducted without a permit or approval, a stop work is immediately posted and all permit fees immediately double upon application and plan review for an installation permit.

If any portion of the work performed is not clearly visible or readily accessible, you will be ordered to demolish, disassemble or remove any and all obstructions regardless of the cost incurred. Failure to comply will result in the suspension/revocation of any Building or other permits related to the site.

**I VERIFY THAT I DESIGNED OR DIRECTLY SUPERVISED THE DESIGN OF THIS ALARM SUBMITTAL AND I VERIFY THAT SUBMITTAL REQUIREMENTS ARE ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.**

In addition, it is understood that the installation of systems shall be made only by persons properly trained and qualified to install the specific system being provided. The installer certifies to this authority that the installation is in complete agreement with the terms of the listing and manufacturer's instructions and/or approved design plan.

Print Name \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_