



CITY OF YORK, PENNSYLVANIA
DEPARTMENT OF FIRE/RESCUE SERVICES
FIRE PREVENTION BUREAU
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Construction Document Submittal Guide

For

Fire Alarm Systems

Automatic Fire Detection Systems

And

Supervision of Fire Sprinkler Systems

FIRE ALARM PLAN SUBMISSION REQUIREMENTS

Effective immediately the following items and information shall be submitted with all fire alarm plans. Any plans that do not comply with these requirements will not be accepted for review.

1. Plan review application with all of the required information supplied.
2. Appropriate fee payment.
3. Floor plan showing:
 - a. Rooms, walls and partitions.
 - b. Mounting heights of initiating devices and indicating appliances.
 - c. Device to device wiring diagram.
 - d. Size and number of conductors from device to device.
 - e. Zone identification (for addressable systems, the particular address for each device).
 - f. Source of primary power (dedicated branch circuit with proper identification and secure from tampering).
 - g. Location of End of Line Resistor (EOLR) if used, stating size and capacity of EOLR.
 - h. Wiring arrangement and relays for elevator capture, HVAC shut down, or other system interfaces.
 - i. Minimum and maximum air velocities for HVAC units to determine compatibility with duct mounted smoke detectors.
 - j. Interconnections of fire alarm control panel with offsite transmission of signal.
 - k. A scaled cross-section representation of detector mounting location for door closure service.
 - l. Number and location of phone lines used.
 - m. Location of all Fire Alarm Control Panels (FACP), annunciator panels, digital communicator, or other offsite reporting devices.
 - n. A sequence of operation of the alarm system (fire alarm matrix) and the required "reset" procedures.
 - o. A single line zone riser diagram indicating the zone, number of devices per initiating zone or circuit, and EOLR size and capacity.
 - p. Battery calculations when batteries are used as secondary power supply indicating the total standby duration and alarm duration.
 - q. Sources of secondary power other than battery if used.
4. Manufacturers cut sheets:
 - a. Make, model and type of FACP.
 - b. Make, model, and type of annunciator panels.
 - c. Make, model, and type of all automatic detection devices.
 - d. Make, model, and type of manual pull stations.
 - e. Make, model, and type of all automatic fire detection devices.
 - f. Make, model, and type of audible/visual indicating appliances including decibel/candela rating.
 - g. Make, model, and type of fire department command center equipment.
 - h. Make, model, and type of all offsite reporting equipment.
 - i. Make, model, and type of wire or cable to be used for field wiring of the alarm system.
 - j. Make, model, and type of door hold open devices, smoke dampers, HVAC shutdown, commercial kitchen exhaust system devices affecting buildings or fire protection equipment.
5. Name, address, telephone number, and contact person at the offsite monitoring service.
6. Name, address, telephone number, and contact person at the installing contractor.
7. Name, address, telephone number, and contact person of the project.
8. Names, addresses, telephone numbers, of emergency contact persons for the property.

KNOX-BOX INSTALLATION INFORMATION SHEET

Whenever a key box is required by §506.1 of the 2003 International Fire Code as amended, the key box shall be a Knox-Box 3200 Series or a Knox-Vault 4400 Series. Applications for purchase can be obtained at the Fire Chief's Office and must be completed and returned with appropriate payment. **THE KNOX COMPANY WILL ONLY ACCEPT APPLICATIONS FROM THE FIRE CHIEF'S OFFICE.**

General specifications for Knox-Box installations:

1. The Knox-Box shall be installed in a location approved by the Chief of the Department of Fire/Rescue Services or his designee.
2. The box shall be mounted at a height of six (6) feet from finished grade to the center of the box.
3. The box shall be attached to the building with through bolts unless an alternate mounting method is specifically approved by the Fire Chief or his designee.
4. The box shall be supplied with a tamper switch, wired on a separate zone that will activate a general fire alarm if the box is tampered with. The tamper switch may send a signal directly to the Gamewell Box is specifically approved by the Fire Chief or his designee.
5. The box shall contain all keys and/or access codes that may be required to gain entry into all locations within the building as well as emergency contact information. Emergency information shall be kept current.

**POLICY STATEMENT CONCERNING FIRE ALARM SYSTEMS INSTALLED
WITHIN THE CITY OF YORK**

1. Before any fire alarm system is installed, enlarged or extended, a permit shall be secured from the Bureau of Planning, Permits and Zoning. Plans and specifications shall be reviewed by the Fire Prevention Bureau prior to the issuance of the building permit.
2. All fire protection systems shall be designed and installed in accordance with the requirements of the Building Code, Fire Code, and local ordinances.
3. All fire alarm systems shall be tested in accordance with the requirements of the Fire Code and the Building Code. The tests shall be conducted by the owner or an authorized representative and in the presence of the code official. All required tests shall be conducted at the expense of the owner or the owner's representative.
4. Dedicated smoke control systems shall be inspected and operated at six-month intervals. All other fire and or life safety devices, including emergency generators and any other special fire safety equipment shall be tested at 12-month intervals.
5. The owner or occupant in charge of the premises shall maintain a complete written record of all tests and inspections required under the Fire Code on the premises. Accurate logs shall be maintained indicating the number, location and type of device tested. And defect, modification or repair shall be logged, and the log shall be available to the code official.
6. The code official shall not be held responsible for any damages incurred during any test required under the provisions of the Fire Code. When the presence of the code official is required for a test, at least 48 hours notice shall be provided.

This policy applies to both required and non-required fire alarm and fire detection systems. As the authority having jurisdiction, we will not waive major criteria in the applicable standards or codes. The codes and standards utilized provide for minimum acceptable standards. Equipment and designs that do not meet the minimum standards shall be considered substandard. In accordance with the local amendment to the Fire Code, whenever provisions of the adopted or referenced codes or standards conflict, the more stringent requirement shall be applied.

1. The plan review fee for fire alarm and fire detection systems shall be as established by York City Council. The plan review fee shall accompany the plan submission.
2. Three (3) sets of construction documents shall be submitted to the Fire Prevention Bureau for review. All plans shall be dimensioned. One set of plans will be returned to the applicant upon permit issuance.
3. Riser diagrams and floor plans must accompany the submittal. Zone layouts shall be clearly indicated. Battery calculations sheets showing 24-hour standby calculations and five-minute alarm power calculations shall be submitted.
4. Catalog “cut sheets” or manufacturer’s information shall be submitted that shows the devices and equipment to be installed are UL listed. Listed spacing of devices shall be indicated if applicable.
5. Fire alarm control panels shall bear the UL protective services label for commercial fire use.
6. All required fire alarm systems shall be monitored by the Municipal Fire Alarm System of the City of York. The secondary means of monitoring required systems shall use either cellular or land line telephone. Non-required systems that are monitored shall comply with the monitoring requirements of NFPA 72.
7. Certificate of Completion forms shall be completed and presented to the Fire Code Official at the time of final test.
8. Trouble and supervisory signals shall be reported to the alarm company or the property owner. Said signals shall not be transmitted to the York county Emergency Operations Center.
9. Knox-Boxes shall be installed prior to scheduling a final inspection of a system. The necessary keys and emergency responder information for the Knox-Box shall be made available at the final acceptance test. The Fire Code Official will place the keys and information in the Knox-Box at that time.
10. Final acceptance testing shall be conducted in the presence of a Fire Code Official. At least 48-hour notice shall be provided.
11. The fire alarm contractor shall provide at least one representative for small-scale final acceptance tests and at least two representatives for large-scale projects.

Please call the Fire Prevention Office at 849-2209 if you have any questions.

TO BE COMPLETED BY THE APPLICANT

Project Name: _____

Address: _____

System Designer: _____

Total Number of All Devices In System: _____

Contractor: _____

Contractor Address: _____

Contractor Phone: _____ Cellular: _____

I hereby certify 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 agree to conform to all codes and standards adopted or reference by the City of York.

Submittal by:

Permit Applicant Name and Company Name

Address and Phone#

Signature

Date

Provide a general description of the fire alarm system, including basic components and type of system (automatic fire detection system, fire alarm system, supervision of automatic sprinkler system, etc.):

Provide a clear description of the system ground here: Include the size and type of grounding electrode conductor and point of attachment.

Provide summary of battery calculations for 24-hour standby and 5-minute alarm power:

System Power Supplies:

Fire Alarm Control Panel: Normal Voltage: _____ Amps: _____

Overcurrent Protection: Type: _____ Amps: _____

Location of FACP: _____
(INCLUDE SHEET NUMBER FROM PLANS)

Secondary Power Supply:

Storage Battery: Amp Hour Rating: _____

Calculated capacity required to operate system in amp hours: _____ 24 hrs _____ 60hrs

Engine-driven generator dedicated to fire alarm system

Emergency or Standby System used as backup to Primary Power Supply, instead of using a Secondary Power Supply:

Emergency System complies with NFPA 70, Article 702 and also meets the requirements of Article 700 or 701.

Provide a clear description of the type and number of batteries and charging unit to be installed:

Remove this page and insert Battery Calculations

This page is to remain if batteries are **not** used as Secondary Power Supply

Remove this page and insert manufacturer's specifications for Engine-driven generator dedicated to fire alarm system or power source for Emergency System

This page is to remain if Engine-driven generator is **not** to be installed.

Remove this page and insert a manufacturer's specification or information sheet on the

Fire Alarm Control Panel

Include any special listing information for installation or operation

The Fire Alarm Control Panel shall be listed for the intended use.

Remove this page and insert the manufacturer's specification or information sheet on

Remote Annunciator Panel(s)

Remote annunciator panels shall be required as determined by the Fire Code Official.

Remove this page and insert the manufacturer's specification or information sheet on the

Smoke Detectors and Duct Detectors

Information shall include the listed spacing of the device(s) to be used.

Specify the model number of the device(s) to be used.

All devices shall be tested in accordance with the manufacturer's installation guidelines.

All systems shall provide total coverage and smoke detectors shall be installed in all areas required by the appropriate NFPA standard and local ordinances.

This page is to remain if smoke detectors are **not** to be installed.

Remove this page and insert the manufacturer's specifications or information sheet on

Heat Detectors

Information shall include the listed spacing of the devices to be used.

Specify the model number(s) of the device(s) to be used.

All devices shall be installed in accordance with the requirements of NFPA 72.

All devices shall be tested in accordance with the manufacturer's installation guidelines.

Heat detectors shall be installed in all areas required by the appropriate NFPA standard and the Fire Code Official.

This page is to remain if heat detectors are **not** to be installed.

Remove this page and insert the manufacturer's specifications or information sheet on

Alarm Notification Appliances

All alarm notification appliances shall be installed in accordance with NFPA 72 and the Uniform Construction Code of Pennsylvania.

Remove this page and insert the manufacturer's specifications or information sheet on

Manual Fire Alarm Boxes

Manual fire alarm boxes shall be installed as required by NFPA 72, §907.4 of the International Fire Code as well as where required by the Fire Code Official.

This page is to remain if manual fire alarm boxes are **not** to be installed.

Remove this page and insert the manufacturer's specifications or information sheet on all

Supervisory Devices

This page is to remain if supervisory devices are **not** to be installed.

Remove this page and insert a copy of the

Monitoring Agreement

The monitoring agreement shall be signed by all responsible parties.

All account information shall be submitted for approval.

The owner/occupant shall be capable of responding to the premises within 30 minutes of a fire alarm or shall employ a runner capable of a 30-minute response.

All alarm systems connected to the Municipal Fire Alarm System shall be equipped with a secondary means of transmitting an alarm signal approved by the Fire Code Official.

Central Stations and Proprietary Supervisory Stations shall be approved by the Fire Code Official.

This page is to remain if a monitoring agreement is **not** required.

Remove this page and insert a copy of the

Inspection, Testing and Maintenance Contract

As required by NFPA 72 and the I.C.C. International Fire Code

The Inspection, Testing and Maintenance Contract shall be signed by all responsible parties.

MUNICIPAL FIRE ALARM CONNECTION

All required fire alarm systems shall transmit alarm signals by connection to the Municipal Fire Alarm System of the City of York as required by Article 1501.04 of the Codified Ordinances of The City of York.

CODE WHEEL ASSIGNMENT: _____

Code wheel assignment may be obtained by contacting Deputy Chief Richard Halpin at 849-2310.

**GAMEWELL FIRE ALARM
INSTALLATION INFORMATION SHEET**

Whenever a fire detection or fire suppression system is required in any building, it shall be connected to the City's Gamewell Municipal Fire Alarm System.

One (1) Gamewell M34-110 Local Energy Master Box with plain door (no public access) and weatherproof cottage shell. **DO NOT SUBSTITUTE**

The above box to be mounted on exterior wall surface at location specified by the City of York and may be painted any color by the owner.

Installer of the system shall contact the Department of Fire/Rescue Services to obtain Code wheel number assignment and box location.

The installer shall deliver the Gamewell Box and keys to the Electrical Bureau at 1625 Toronita St. to be checked for timing prior to installation.

The installer shall contact the Fire Prevention Office or Electrical Bureau to schedule a site visit for specific mounting location of the Gamewell Box, weatherhead and through clevis attachment point.

The installer shall contact the Electrical Bureau for final connections.

The following are general specifications and equipment requirements for Gamewell Box installations.

1. The Gamewell Box shall be mounted at a height of 5 and 1/2 feet from finished grade to the center of the box.
2. An insulated through bolted clevis shall be installed at the specified height for the attachment of the municipal alarm wires.
3. Two #12 solid conductors shall be supplied from the Gamewell Box with a minimum of 18" extending through the weatherhead for final connection.
4. A #12 solid grounding wire shall be provided from the Gamewell Box to a driven or cold water pipe ground.
5. Installation Fee: **\$200.00 plus \$75.00 per hour for labor plus cost of materials.**

Contact the following for information prior to installation.

Principal Contacts

Fire: (717) 854-3921

Deputy Chief Richard W. Halpin
Asst. Chief Steve Buffington
Lieutenant Ken Smith

Electrical:(717)849351

Dave Rudolph, Supervisor
Harry Olp, Technician
Roy Wolfhope, Technician

Three (3) copies of the floor plan and specification book shall be submitted for review.

A site plan shall be included.

A symbol legend shall be included on the title page of the floor plan.

Floor plans shall be accurately dimensioned and the location of all devices shall be clearly indicated.

Plans shall comply with all requirements of item #3 on page 2 of this document.

FIRE ALARM PLAN SUBMITTAL CHECKLIST

All items must be checked off or marked n/a in order to submit plans for review. Missing or incomplete information will result in the plans being deemed incomplete. Incomplete plans will be returned to the submitting party.

Project Name: _____

Project Address: _____

- | √ | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Total number of devices indicated |
| <input type="checkbox"/> | <input type="checkbox"/> | Appropriate fee |
| <input type="checkbox"/> | <input type="checkbox"/> | Required system |
| <input type="checkbox"/> | <input type="checkbox"/> | NFPA 72, Chapter 4, 3 or 4 – (Central Station Service or Proprietary Station) |
| <input type="checkbox"/> | <input type="checkbox"/> | System Grounding details |
| <input type="checkbox"/> | <input type="checkbox"/> | Battery Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | Central Station “Monitoring Agreement” signed by all parties |
| <input type="checkbox"/> | <input type="checkbox"/> | Code wheel Assignment |
| <input type="checkbox"/> | <input type="checkbox"/> | Inspection, Testing, and Maintenance Agreement |
| <input type="checkbox"/> | <input type="checkbox"/> | Riser and point to point wiring diagrams |
| <input type="checkbox"/> | <input type="checkbox"/> | Floor plans with ceiling construction type(s) and ceiling heights |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Acceptance Test and Certificate of Compliance |

Manufacturer’s cut sheets or information sheets for all devices and equipment:

- | | | |
|--------------------------|--------------------------|-------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Generator Specs |
| <input type="checkbox"/> | <input type="checkbox"/> | Fire Alarm Control Panel |
| <input type="checkbox"/> | <input type="checkbox"/> | Remote Annunciators |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Detectors |
| <input type="checkbox"/> | <input type="checkbox"/> | Duct Detectors |
| <input type="checkbox"/> | <input type="checkbox"/> | Heat Detectors |
| <input type="checkbox"/> | <input type="checkbox"/> | Manual Fire Alarm Boxes |
| <input type="checkbox"/> | <input type="checkbox"/> | Alarm Notification Appliances |
| <input type="checkbox"/> | <input type="checkbox"/> | Wiring |
| <input type="checkbox"/> | <input type="checkbox"/> | Supervisory Devices |
-

To be completed by Fire Prevention Bureau:

Submission Date: _____ Accepted By: _____

Number of Devices: _____ Fee: _____ Paid

Entered into plan review log. Submittals reviewed for required information.