



Introduction

This manual is designed to provide you, the contractor, owner or design professional with a step-by-step guide to our process, beginning with plan submission and ending with the final approval signature.

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STEP 1:

Fire Alarm Contractor Registration and Plan Submission

All fire alarm contractors must be licensed with the state Fire Marshal's Office and registered with the City of Columbus Department of Building and Zoning Services (BZS). Instructions for registration and plan submittal for Fire Alarm Permits are available at the BZS Customer Service counter and on-line at:

www.columbus.gov/bzs—Documents Library

For Non-Fire Division related questions call:

Information Line (614) 645-7433

For Fire Division related questions call:

Fire Prevention Bureau (614) 645-7641

To contact by email:

Fire Alarm structuralinfo@columbus.gov

Electrical electricalinfo@columbus.gov

HVAC Mechanical mechanicalinfo@columbus.gov



STEP 2:

System Installation Phase

As the fire alarm system is being installed, specific inspections must be performed.

The following information will outline these procedures:

At the stage the contractor has installed the alarm device boxes and wiring in the rough walls (e.g. pull stations, horns, strobes, etc.) it will be necessary that these installations be inspected by the Electrical Inspector.

The Fire Alarm - Rough Walls inspection can be scheduled online at www.columbus.gov/bzs/inspection-requests or by calling the Electrical Inspection Line at (614) 645-8235.

The items inspected will include but not be limited to:

- System components installed according to approved plans
- System components proper for this type of installation
- Device boxes in the proper location to meet all applicable codes

NOTE: Inspector will indicate approval on the Building Card under Fire Alarm - Rough

At the stage that the contractor has installed the alarm device boxes and wiring in the rough ceiling (e.g. smoke alarms, heat detectors, etc.) it will be necessary that these installations be inspected by the Electrical Inspector.

The Fire Alarm-Rough Ceiling inspection can be scheduled online at www.columbus.gov/bzs/inspection-requests or by calling the Electrical Inspection Line at (614) 645-8235.

The items inspected will include but not be limited to:

- System components installed according to approved plans;
- System components proper for this type of installation.

NOTE: Inspector will indicate approval on the Building Card under Fire Alarm - Rough

STEP 3:

System Testing Phase

At this stage, the installation contractor(s) are ready to perform a 100% pretest of all system components according to the guidelines set forth in NFPA 72.

As the test is performed, the NFPA 72 "Record of Completion" forms are to be filled out completely by the licensed installation contractor(s).

STEP 4:

Specialty Alarm Systems

Specialty systems must be tested and approved prior to the final fire alarm witness test.

Elevators

Prior to performing the witness test for elevator recall, a certificate of operation or temporary certificate of operation must be obtained from Ohio Division of Industrial Compliance. (<https://www.com.ohio.gov/dico/forms.aspx>)

Fire Pumps

To schedule inspection, submit completed Fire Protection Inspection Request Form by fax to (614) 645-2434 or email to BZSCFD InspectionRequests@columbus.gov

Electric Pumps

- Inspectors needed: Electrical and Fire Official
- Testing procedures: 100% test of all device activation in accordance with the manufacturers specifications.

Gas Fired Pumps

- Inspectors needed: Mechanical and Fire Official
- Testing procedures: 100% test of all device activation and interlock of mechanical system in accordance with

STEP 5:

Fire Alarm Witness Test

The rough fire alarm approval and the testing and approval of all specialty systems must be completed prior to scheduling the Final Fire Alarm Witness Test. Failure to do so will result in a failed test and loss of the Building and Fire Department inspection fees.

To schedule inspection, submit completed Fire Protection Request Form by fax to (614) 645-2434 or email to BZSCFDInspectionRequest@columbus.gov.

The Witness Test

The witness test will consist of a random inspection of device activation at a minimum of 10% of all devices (as determined by the inspector) except as otherwise noted on in this manual. The inspection must include at least one device for each system component (i.e., elevator recall, smoke detector, horn-strobe, etc.)

Fire Alarm Witness Test Procedures

Manual Fire Alarm Systems

- Inspectors needed: Structural
- Testing procedures: Minimum 10% random test of all devices for circuit trouble and 100% for audibility.

Smoke Detection Systems

- Inspectors needed: Structural
- Testing procedures: Minimum 10% random test of all devices in accordance with the manufacturers' recommended testing method for alarm and circuit trouble.

Elevator Recall Activation

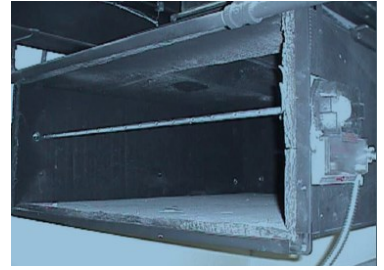
- Inspectors needed: Structural
- Testing procedures: The designated and alternate floor levels as well as the elevator machine room must be checked. The remainder of the test can be a random check of devices.

Smoke Detector for Air Distribution Systems

- Inspectors needed: Structural
- Testing procedures: 100% test of all device activation in accordance with the manufacturers specifications and all applicable code provisions.
- The items inspected will include but not be limited to:
 - Inspection of installation as per the approved plans, manufacturers specifications, and all applicable codes.
 - Verification of unit shutdown upon activation or switch to smoke control mode of operation.
 - Verification of system circuit trouble.

Smoke Dampers or Combination of Fire/Smoke Dampers

- Inspectors needed: Structural
- Testing procedures: 100% test of all device activation in accordance with the manufacturers specifications and all applicable code provisions.
- The items inspected will include but not be limited to:
 - Inspection of installation as per the approved plans, manufacturers specifications, and all applicable codes.
 - Verification of unit operation upon activation of the system.
 - Verification of damper operation upon activation.

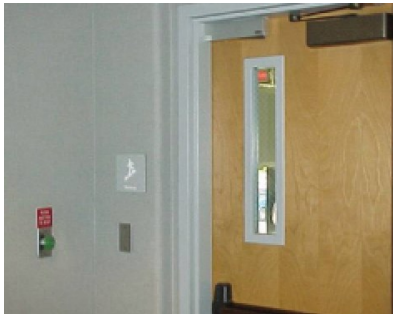


Fire Suppression Systems (riser flow and tamper devices)

- Inspectors needed: Structural
- Testing procedures: 100% test of riser/standpipe systems for flow alarm and tamper. Inspectors will verify the required residual pressure at system riser for all new systems. Post indicator valves and system circuit trouble shall be checked.

Special locking, egress control and electric strike devices (i.e., hold-open devices, magnetic locks etc.)

- Inspectors needed: Structural
- Testing procedures: 100% test of all device activation in accordance with the manufacturers specifications.



Emergency Egress Requirements

- Inspectors needed: Structural
- Testing procedures: 100% test of all egress component including signage, lighting, and path of travel.

Smoke Control Systems

- Inspectors needed: Structural
- Testing procedures: 100% test of all devices, equipment, components and sequences in accordance with the manufacturer's specifications and all applicable code provisions.

Dry Chemical, Wet Chemical, Clean Agent Systems and Carbon Dioxide Systems

- Inspectors needed: Structural
- Testing procedures: 100% test of all device activation in accordance with the manufacturers specifications and all applicable code provisions.
- Items inspected will include, but not be limited to:
 - Inspection of installation as per the approved plans, manufacturer's specifications and all applicable code provisions.

Fire Shutters/Rolling Fire Doors Activation

- Inspectors needed: Structural
- Testing procedures: 100% test of all device activation in accordance with the manufacturers specifications.

Fire Alarm System Monitoring (including sub and booster panels/ Automatic Telephone-dialing Devices)

- Inspectors needed: Structural
- Testing procedures: 100% test of all device activation in accordance with the manufacturers specifications.

NFPA 72 "Record of Completion" forms are to be filled out by a licensed alarm contractor and placed at the fire alarm panel prior to the final inspection.

STEP 6: Final Approval

The Structural Inspector will complete a Fire Alarm Witness Test Form and will indicate approval on the Building Card under "Fire Alarm – Final"