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# General Contractor's Fire Code Job Site Reference Guide



This Contractor's Job Site Guide is published and provided by the Oklahoma City Fire Marshal's office as a customer service to the construction and design community. Revised 2022.

# General Contractor's Job Site Guide

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# General Contractor's Job Site Guide

## Welcome to the City of Oklahoma City

This Contractor's Job Site Guide is published and provided by the Oklahoma City Fire Marshal's Office as a customer service to the construction and design community. The purpose of this publication is to provide information concerning fire code questions that are frequently asked. Additionally, this guide also provides information regarding what a fire inspector will need to successfully complete your inspection and to assist you in completing your project.

Your project will be assigned to an inspector and ideally you should interact with the same inspector throughout the life of the project. However, occasionally your assigned inspector may not be available for a requested inspection. In that case, another qualified inspector will be assigned to conduct the inspection, which should not cause a delay in the completion of your project.

Links to important information:

Applications and information for required Fire Marshal Permits

<https://www.okc.gov/departments/fire/permits-inspections-code-enforcement/permits>

This guide and pre-inspection worksheets

<https://www.okc.gov/departments/fire/permits-inspections-code-enforcement/new-construction>

Code interpretations issued by OKCFD.

<https://www.okc.gov/departments/fire/permits-inspections-code-enforcement/ahj-policies-procedures>

2015 International Fire Code Supplement (changes to IFC when adopted by OKC)

<https://www.okc.gov/departments/fire/permits-inspections-code-enforcement/2009-ibc-and-ifc-supplements>

2015 International Fire Code, Chapter 33 (fire codes for buildings under construction/demolition) (Free viewing only)

<https://codes.iccsafe.org/content/IFC2015/chapter-33-fire-safety-during-construction-and-demolition>

Knox Company Website for ordering Knox boxes, FDC caps, gate switches, and padlocks

<https://www.knoxbox.com/>

***Our goal is to achieve code compliance by partnering and assisting you with the completion of your project within your deadlines. To be successful in this endeavor, communication is critical. If you communicate your issues to the inspector, an early solution can generally be worked out that will satisfy everyone.***

# General Contractor's Job Site Guide

## FIRE SAFETY DURING CONSTRUCTION, ALTERATION, OR DEMOLITION OF A BUILDING

### General Information

Fire safety during construction, alteration, or demolition of a building is critical for the safety of job employees, fire department personnel and the general public. The following is a general outline of preconstruction requirements and specific information pertaining to each requirement. A preconstruction meeting may be helpful for the General Contractor/Superintendent and Fire Inspector to discuss general or specific requirement issues and aid in obtaining fire permits that may be required during the project. This guide also covers the fire requirements for related Temporary and Full Certificate of Occupancy.

### Definitions

#### **General Contractor/Superintendent**

The General Contractor/Superintendent is responsible for the fire safety of all property under his/her control and will ultimately be held responsible for any fire code violations that may occur on the job site. The General Contractor/Superintendent is responsible for maintaining copies of all city permits and stamped building plans on site and ***SCHEDULING ANY AND ALL INSPECTIONS WITH THIS OFFICE.***

#### **Fire Protection Contractor**

The fire suppression/sprinkler or detection/alarm contractor is responsible for maintaining their approved set of plans on site and coordinating their required inspections with the General Contractor/Superintendent. The fire suppression/sprinkler or detection/alarm contractor is also responsible for maintaining their required fire protection throughout the job site. In addition, the fire suppression/sprinkler or detection/alarm contractor is responsible for verifying their system is ready (***pre-tested***) for inspection prior to General Contractor/Superintendent calling for the Final inspection.

#### **Adopted Fire Codes & Amendments**

The City of Oklahoma City has adopted the International Fire Code (IFC) with local amendments, AHJ's (authority having jurisdiction) as well as the current NFPA editions. Please contact the Fire Marshal's Office for information on the current edition of the adopted codes and amendments or visit our city web site at <https://www.okc.gov/departments/fire/permits-inspections-code-enforcement>

***This guide is not inclusive, and a pre-construction meeting is recommended but not required, however it may divert costly changes or requirements pertaining to your project.***

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## New Construction and Renovation Inspection Requests

For new or renovated structures -- except one- and two-family dwellings -- compliance with the adopted Fire Code is required before issuance of a use and occupancy permit. These inspections are required to be scheduled as part of the permit process.

The following information is designed to make the inspection process go smoothly. Please make the appropriate contractors aware of this information. Following the tips in this section should help to avoid many of the common obstacles in getting an inspection completed in a timely manner.

### Inspection Requests

Inspections may be scheduled by phone, online, or IVR.

- Call 405-297-3584 to request an inspection by speaking to someone in the fire marshal's office.
- You can request an inspection online by visiting <https://access.okc.gov/aca/Welcome.aspx> and following directions to create an account.
- Inspections may be requested via automated phone line (405-316-5656) through the Interactive Voice Response (IVR) system. Visit <https://access.okc.gov/aca/documents/VoicePermits-WEB.pdf> for the inspection codes.

Don't call or request an inspection unless you are ready for inspection. ***Please have all appropriate permit numbers available when requesting any inspection. All inspection requests WILL be made by the General Contractor/Superintendent. Your inspection request will be processed, and you will be contacted by an Inspector to schedule. Inspections will typically be scheduled within 1-3 days after being requested.***

### What You Need for Your Fire Inspection.

- Approved plans.

Approved plans --especially those pertaining to fire alarm, hood suppression systems and fire sprinkler systems. Approved plans must be always kept on site for use by inspectors. Approved plans will have a stamp and signature from the Oklahoma City Plan Review Office and the Oklahoma City Fire Marshal's Office. Copies of approved plans are not acceptable. Shop drawings and other plans without stamps and signature are not acceptable.

- Comment Letters.

Comment letters/Review Sheets from the City's plan review office are part of your approved plans and must be always kept on site for use by inspectors. Make sure you read them thoroughly; these letters often contain important information not found on the plans themselves.

- Plan Revisions.

Construction must match the approved plans. If changes are made to construction or systems, plans must be revised and approved through the City's Development Center or the Fire Marshal's Office. Revised approved plans, with stamp

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and signature, must be on site for inspections. Deviations without revised approved plans require approval of the Fire Marshal and or the Development Center.

- Oklahoma City Fire Marshal's Office General Contractor/Superintendent Pre-Inspection Worksheet. Pre-Inspection work sheet must be completed and signed showing that all required pre-inspections have been performed and completed by the responsible parties and that the ®Knox Box, FDC and locking caps have been addressed.

## GENERAL FIRE SAFETY --- SPECIFIC REQUIREMENTS

**SECTION 1 ---- CONSTRUCTION/SALES TRAILER** (may require fire permit prior to construction). A building permit is required for a temporary construction/sales trailer from the Oklahoma City Development Center located at 420 W. Main. When the construction/sales trailer is equipped with a fire suppression or fire detection system, a permit is required for the installation of the systems and fire inspection acceptance testing is required. Fire protection systems must be maintained while the trailer is on site. When the trailer requires a gas- or diesel-powered generator using flammable or combustible liquids, a fire permit may be required. Please see ***Section 12, Generators Utilizing Flammable/Combustible Liquids***, for specific details on fire application/permit prior to placing the generator in service.

**SECTION 2 --- FIRE HYDRANTS/ON-SITE WATER SUPPLY.** Prior to bringing combustible materials onto the site, required fire hydrants shall be operational. ***Operational*** means being fully tested, chlorinated, and approved by the Engineering and Water Resource Departments.

**Section 2.1 --- STANDPIPE ACCESS DURING CONSTRUCTION** Buildings that are required to have standpipes shall have not less than 1 standpipe provided for use during construction in accordance with IFC Section 3313. Such standpipe(s) shall be available for use prior to construction exceeding 40 feet in height above the lowest level of fire department vehicle access. Such standpipe(s) shall be extended as construction progresses to within 1 floor of the highest point of construction having secured decking or flooring. If a temporary FDC location is to be made available for use during construction, the temporary FDC must have visible signage indicating its location and site plans submitted to [FD-Code@okc.gov](mailto:FD-Code@okc.gov) indicating its location and access route. Also, if the future permanent FDC is not available for use during construction, it must be clearly marked as such (i.e. approved signage, wrapped in caution tape, etc.)

**SECTION 3 --- COMBUSTIBLE WASTE.** Combustible waste shall not be allowed to accumulate on any site except in approved containers. Waste material shall be removed from all buildings daily. ***Combustible debris, waste material, or trash shall not be burned on the site.***

**SECTION 4 ---TEMPORARY FIRE APPARATUS ACCESS ROADS.** Fire apparatus access roads are required during construction to allow emergency response vehicles onto the site for both fire and medical emergencies. Access roads shall be in place when combustible construction materials are brought onto site or prior to the start of vertical construction, whichever comes first. In some cases, depending on the circumstances, access roads may be required at an earlier stage of the project. Access roads shall be a minimum of 20 feet wide with an approved turn-around if longer than 150 feet. Buildings of 30 feet or more in height require fire access roads 26 feet in width where needed for aerial apparatus operations.

***During construction, temporary access roads may be provided when in compliance with the following:***

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**Access during construction.** The contractor or person in charge of any construction site for commercial, industrial, mercantile, educational, institutional, assembly, hotel, motel, multi-family dwelling, mobile home park, or any other commercial occupancy whose structures total more than 4,000 square feet shall provide and maintain fire lanes as shown on approved site plans. Fire lanes shall be constructed of asphalt or concrete or other alternative pre-approved by the Fire Marshal and sufficient to support fire apparatus:

- Concrete: 37.5-ton weight limit required.
- Asphalt: 37.5-ton weight limit required.
- Gravel: 37.5-ton weight limit required (Minimum 1" rock, six-inch deep with underlay approved by Oklahoma City Fire Marshal's Office on a compacted sub-grade.)
- Fire lanes shall be not less than 20 feet unobstructed width and a minimum vertical clearance of 14 feet.
- Fire lanes shall be in place prior to any above-slab construction or storage of combustible materials on site.
- Buildings of 30 feet or more in height require fire access roads 26 feet in width for aerial apparatus access in the immediate vicinity (15'-30') of the building.
- The fire apparatus access road shall have an all-weather driving surface, graded to drain standing water, and engineered to bear the imposed loads (75,000 pounds) of fire apparatus when the road is wet.
- ***When requested, compaction test results shall be provided to the Inspector prior to approval.*** Alternate methods may be approved when designed and sealed by a professional engineer and approved by the Fire Department.
- Trenches cut across any fire apparatus access road must be filled in and resurfaced by the end of the working day.
- Access roads must reach to within 150 feet of all points of any building, combustible construction materials, and combustible debris storage areas.
- The edges of the access road shall be obvious or clearly marked.
- Each site should have a minimum of two access points into the site. The access points shall be a minimum of 20 feet in width and shall be always maintained and accessible.

All fire apparatus access roads shall be clearly marked at the entrance with an approved sign approximately four feet by four feet. The lettering shall be red on a white background with letters at least four inches high and having a minimum 3/4-inch brushstroke. The front of the sign shall include the address of the site and shall include the words "Fire Access Road." If appropriate, the use of arrows may be approved by your inspector. The back of the sign shall document the name of the project superintendent and a 24-hour phone number. Also, additional access road markings may be required throughout the project.

**SECTION 5 --- FIRE EXTINGUISHERS.** At least one fire extinguisher (minimum 2-A:10-B:C) is required in a building under construction or during alteration or demolition. Additional fire extinguishers shall be placed at each floor level at each stairway, in each storage or construction shed, and where special hazards exist such as flammable/combustible liquid storage. Extinguishers shall be installed in plain view in an accessible location.

**SECTION 6 --- ASPHALT KETTLES.** Asphalt kettles shall not be used inside of or on top of any building. One 3-A:40-B:C fire extinguisher is required to be on the roof of the structure being covered, and one 40-B:C fire extinguisher within 25 feet of the asphalt kettle. There must be an attendant within 100 feet of an operating kettle and no ladders or similar obstacles shall form the route to the kettle. The kettle shall be no closer than 20 feet to any building or structure.

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**SECTION 7 --- HEATERS.** *All heaters used in structures must be designed and approved for indoor use.* Portable heater clearances to combustibles shall be maintained in accordance with the manufacturer's instruction, be protected from damage, and be anchored or have a stable base to prevent dislodgement or overturning. Adequate ventilation must be provided for fuel burning heaters. Heaters must be turned off, moved to the outdoors a safe distance from any structure, and allowed to cool before fueling.

**SECTION 8 --- HOT WORK.** Any person performing cutting or welding operations, using a torch or other flame-producing device for removing paint, sweating pipe joints, applying roofing materials, or any other process requiring an open flame device in or on any building or structure shall be provided with one 2-A:20-B:C portable fire extinguisher within 30 feet of the hot work location or a 5/8-inch diameter water hose.

When using a water hose, it must be of sufficient length to reach all portions of the building or area where hot work is being conducted and must be pre-connected to a reliable water supply on the premises where the hot work operation is being performed. Combustible material in the proximity to an open flame shall be protected against ignition by shielding, wetting, or other means.

***In all cases, a fire watch shall be maintained in the vicinity of the operation for not less than 30 minutes after the torch or flame-producing device has been used.***

Companies performing welding and hot work operations on the site will provide the superintendent with written safety procedures to be followed by their personnel.

**SECTION 9 --- WARMING FIRES.** Warming fires at construction sites shall comply with the following:

- No warming fires shall be ignited or maintained unless the fire is contained in an APPROVED waste burner located at least 25 feet from any structure.
- An approved waste burner is a 30 or 55-gallon metal drum, intact, with a spark arrester, constructed of iron or heavy wire mesh with openings no larger than ½-inch.
- The fire must be attended **AT ALL TIMES** by a competent person who shall have a minimum 5/8-inch diameter garden hose pre-connected to a reliable water supply or a 2-A:10-B:C fire extinguisher. This means somebody must be specifically assigned to attend the fire. It is **NOT** permissible to leave the fire unattended. The fire must be completely extinguished before it can be left unattended.
- The warming fire shall be extinguished when the burning of material causes or creates dense smoke or odor.
- All burning shall meet the requirements of the Oklahoma County Health Department Division of Air Quality. You must check daily to see if it is permissible to burn by calling the Burn Permit Hotline at 405-316-6843.
- ***The Fire Marshal may prohibit any and all fires when deemed hazardous.***

**SECTION 10 --- FLAMMABLE OR COMBUSTIBLE LIQUIDS, STORAGE.** The storage of flammable or combustible liquids shall be in an approved area and in containers approved for the product contained. Flammable or combustible liquids shall not be stored in buildings under construction. All containers used for the storage of flammable or combustible liquids must be labeled to identify the liquid they contained. A fire permit is required for the storage or use of more than 5 gallons of flammable liquids or 25 gallons of combustible liquids inside or more than 10 gallons of flammable liquids or 60 gallons of combustible liquids outside. Check with your inspector.

**SECTION 11 --- COMPRESSED OR LIQUEFIED GASES, STORAGE OR USE.** Cylinders, valves, regulators, hose and other apparatus and fittings for oxygen **shall** be kept free from oil and grease. Oxygen cylinders, apparatus and fittings **shall not** be handled with oily hands, oily gloves or greasy tools or equipment. Acetylene gas **shall not** be piped except using



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approved cylinder manifolds and connections. Cylinders shall be located away from the hot work area to prevent such cylinders or generators from being heated by radiation from heated materials, sparks or slag, or misdirection of the torch flame. (See Section 8, Hot Work). All cylinders shall be secured to prevent dislodgement and access by unauthorized persons.

**SECTION 12 --- GENERATORS UTILIZING FLAMMABLE OR COMBUSTIBLE LIQUIDS.** A permit is required to be obtained from the Oklahoma City Fire Marshal's office when proposing to install a temporary generator having a fuel tank using flammable liquids in excess of 10 gallons or combustible liquids having a capacity in excess of 60 gallons. Prior to installation, a site plan showing distance from buildings, property lines, public right-of-ways and grounding specifications shall be submitted to the Fire Marshal's Office.

**SECTION 13 --- KEY BOXES.** The Oklahoma City Fire Department requires ®Knox Company key boxes and other ®Knox devices. The applicant shall obtain a ®Knox Company order form from the Fire Marshal's Office, 2300 General Pershing Blvd. or online at <http://www.knoxbox.com/>. Instructions are on the form or the website.

®KNOX 3200 or 4400 Series boxes are required near the front entry/exit of the building and may be required, depending on building size and site access, adjacent to sprinkler riser and/or fire alarm control panel rooms with exterior access. Dependent upon structures, applications, and location of sprinkler riser and fire alarm control panel, additional Key boxes, ® Knox padlocks, ®Knox key switches, or other ®Knox devices may be required. The height of key box(s) shall be at least 48" to a maximum of 60" above finished grade and shall be immediately visible and accessible to emergency responders.

Keys shall be marked or labeled to identify its use (e.g., Suite 101, Master).

®Knox reflector sticker will be applied to the front entrance door.

**SECTION 14 --- FIRE LANES.** Required fire lanes shall be identified with approved signage in accordance with Oklahoma City Fire Marshal's Office AHJ and relevant IFC. When fire lane signs are not shown on approved site plans or when you have questions, call (405) 297-3584 for assistance. The painting of curbing to identify fire lanes may be required in some instances.

**SECTION 15 --- ADDRESSES.** New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall not be spelled out. Numbers shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). ***Approved address numbers shall be visible from the street, mounted on the building or on a roadway monument.***

## **SECTION 15.1 --- TEMPORARY PERMANENT POWER**

### **Minimum Temporary Permanent Power Requirements**

- Address must be posted and clearly visible in case of emergency. Address numbers will be no less than 4 inches in height on the structure, mailbox, or curb, and in sharp contrast to its background.
- Facility must meet appropriate minimum life safety code requirements for construction.
- Fire extinguishers must be provided in accordance with section 5.
- Hydrant(s) must be WET and operational.
- Fire apparatus and emergency vehicle access roads shall have an unobstructed width of not less than 20 feet, 26 feet if over 3 stories or 30 feet high for aerial apparatus access.

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- Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus (Capable of supporting 35.5 tons) and shall be surfaced to provide all-weather driving capabilities. (See section 4 for specific requirements)

## **SECTION 16 --- FIRE PROTECTION INSPECTION AND ACCEPTANCE TESTING, GENERAL.**

The most current set of approved plans bearing the red fire department stamp and the system installation permit shall remain at the job site at all times. A system installation permit shall be presented to the Inspector at time of inspection. The installing contractor's name shall be documented on the permit. ***Inspections or tests will not be conducted without the approved plans and permit along with a completed General Contractors Pre-inspection worksheet on site.***

The use of an approved plan or installation permit that documents a different installing contractor will not be allowed to be used, unless the contractor named on the approved plan or permit submits a letter to the Oklahoma City Fire Marshal's office authorizing the installing contractor to use their plan or permit. When this cannot be accomplished, the actual installing contractor shall submit a new plan for review and approval and shall obtain a separate permit naming their company as the contractor. It is required that all systems are ***pretested*** by the installing contractor and all repairs or corrections made ***prior*** to the inspector's arrival for an inspection. The installing contractor and job superintendent/GC should assure that the systems are, in fact, problem free and ready for testing. Final acceptance tests will be conducted for all building fire protection systems at the same time. Representatives from all fire protection system installers must be on site for final acceptance testing.

***Acceptance tests will not be conducted using generator power.***

Missed inspections and re-inspections of systems where failure is due to contractor omissions or errors may require a re-inspection fee to be assessed. See Section 17.

**Section 16.1 --- Residential Fire Sprinkler Systems - General.** At time of inspection, an approved plan, stamped and signed by the Oklahoma City Fire Marshal's office, must be on site at all times. A copy of the installation permit, naming the installing contractor on the permit, shall also be required at the site.

The Oklahoma City Fire Marshal's office does not witness hydrostatic tests of fire suppression systems. The fire suppression contractor is required to complete the hydrostatic tests in accordance with NFPA 13, 13R, or 13D as applicable and document test results.

**Section 16.1.1 --- NFPA 13D sprinkler systems.** Two inspections will be conducted on the system:

### **Inspection 1, Rough-in inspection (50% inspection):**

- A rough-in inspection will be conducted when the piping and riser are in place.
- The system need not be connected to a water supply at this point. ***ALL PIPING AND SYSTEM COMPONENTS MUST BE VISIBLE.*** All system piping, hangars and clamps must be visible from floor level. ***NO*** sheet rock, insulation or ceiling tile shall be installed prior to the rough-in inspection without prior approval of your fire inspector. You will be required to remove any obstructions to view the complete system.
- Any required insulation tenting (installed according to INTERP-2017-01, Insulation Requirements for Residential Fire Sprinkler Systems) will be inspected.

### **Inspection 2, Final acceptance testing.**

- The system must be 100% complete and pre-tested prior to any requests for inspection.
- Electrical power must come from the grid through a meter connected to the electrical system.
- The system must be connected to a permanent water supply for final inspections.

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- The Inspector Test Valve (required when a waterflow alarm is installed) shall be identified with signage.
- A calculation plate shall be filled out and installed near the sprinkler riser. Information on the calculation plate shall be either stamped or etched (no Sharpie markers allowed).
- The sprinkler control valves shall be secured in the open position.
- A sign must be on the riser in accordance with NFPA 13D.
- A sign must be visible at the attic entrance (when provided) stating the building is equipped with a home suppression system. The sign must warn the occupant about keeping the attic insulation in place, so the suppression pipe is protected against freezing temperatures. Similar to the sign below.



**Section 16.1.2 --- NFPA 13R sprinkler systems.** Two inspections will be conducted on the system:

The Oklahoma City Fire Marshal's office does not witness hydrostatic tests of fire suppression systems. The fire suppression contractor is required to complete the hydrostatic tests in accordance with NFPA 13, 13R, or 13D as applicable and document test results.

**Inspection 1, Rough-in Inspection:** The rough-in inspection will consist of the following:

- Heads should be installed and should be covered by protection caps.
- All piping and system components must be visible from floor level.
- Flushing of underground piping will be in accordance with NFPA 13. A sample "Contractor's Material and Test Certificate for Underground Piping" is provided in NFPA 13. This form is to be signed by the contractor and owner's representatives. It is suggested to keep a copy of this form on site after flushing has been completed.

**Inspection 2, Final acceptance testing.** Final acceptance testing will consist of opening the Inspectors Test Valve (ITV), a final overhead, and riser inspection.

- The system must be 100% complete and pre-tested prior to any requests for inspection.
- Electrical power must come from the grid through a meter connected to the electrical system.
- The system must be connected to a permanent water supply for final inspections
- The exterior bell, as well as horn/strobes shall activate within 90 seconds (preferably within 30-60 seconds) of opening the ITV.
- The ITV and all valves shall be identified with signage.
- All system control valves shall be electrically monitored.
- A sprinkler head box with at least six sprinkler heads shall be installed near the sprinkler riser.
- All calculated systems require a stamped or engraved metal hydraulic calculation data plate installed on or near the sprinkler riser.

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**Section 16.2 --- NFPA 13 Sprinkler Systems.** 2 inspections will be conducted on the system. New sprinkler systems require a 50% inspection and a final acceptance test. Documented proof of an underground flush of the sprinkler supply line should be furnished to the fire inspector prior to connection of the sprinkler riser.

The Oklahoma City Fire Marshal's office does not witness hydrostatic tests of fire suppression systems. The fire suppression contractor is required to complete the hydrostatic tests in accordance with NFPA 13, 13R, or 13D as applicable and document test results.

Note: Fire Department Connections installed on backflow devices are not approved.

**50 Percent/Fire sprinkler system rough-in inspections:** include all overhead piping, hangars and clamps, overhead upright sprinkler heads and down piping (pendant sprinkler heads if possible) is required to be installed.

- All system piping, hangars and clamps must be visible from floor level. NO sheet rock, insulation or ceiling tile shall be installed prior to the pressure and rough-in inspection without prior approval of your fire inspector. You will be required to remove any obstructions to view the complete system.

**Inspection 2, Final acceptance testing.** A final acceptance inspection includes visual inspection of the entire system (drywall and ceiling panels shall be in place) and witnessing tests of system components (valves, water flow, fire pump, etc.).

- All calculated systems require a stamped or engraved metal hydraulic calculation data plate installed on or near the sprinkler riser.
- A sprinkler head box shall be installed near the sprinkler riser and contain at least six sprinkler heads of each type of head installed, sprinkler head wrench, and an NFPA 25 booklet.
- All system control valves shall be electrically monitored.
- Signage shall be provided to identify the Inspector Test Valve location, the main drain and other control valves.
- System shall be fully tested by:
- Opening the two-inch drain and documenting the residual and static pressures. The pressures must meet or exceed the pressures documented on the approved plans.
- Closing the tamper valve.
- Opening the Inspectors test valve. The exterior bell or audio/visual device shall activate within 90 seconds (preferably within 3-60 seconds) of opening ITV, as well as audio/visual fire alarm system components.

**SECTION 16.3 --- FIRE DEPARTMENT CONNECTIONS (FDC).** FDC's are not allowed on the backflow devices. The FDC's shall be installed on the building or remotely installed according to approved plans. Remote FDC's shall be a maximum of 100 feet from a fire hydrant. FDC's must be within ten feet of a hard drivable surface. Signage may be required to identify the building the FDC serves. An exterior horn strobe is required to be mounted above the FDC for a building mounted FDC or visually in line with a remote FDC on the building in an approved location. The FDC may be required to have a waterflow horn/strobe at the FDC location if required by the inspector due to visual obstructions to the building.

**SECTION 16.3.1 --- FIRE SUPPRESSION WATER TANKS.** Above ground or underground tanks (and related water lines for these tanks) for sprinkler system water supply or for drafting by fire apparatus for manual water supply must be installed and tested in accordance with NFPA 22. Prior approval of submitted plans with tank location, tank size,

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connection size, filling method, valve frost protection, and connection access is required. Final tank installation approval will require an on-site fire marshal inspection.

## **SECTION 16.4 --- FIRE ALARM SYSTEMS**

All fire alarm systems shall be installed in accordance with the relevant International Fire Code and NFPA 72. All tests shall be requested by the installer/sub-contractor doing the work and will be coordinated to be conducted at the same time as the sprinkler acceptance test and hood system test, if applicable. If a general contractor is overseeing the construction project, **then the GC should schedule all inspections.**

***The entire system shall be fully installed, operational and pre-tested prior to system acceptance testing by the Fire Marshal's Office.***

- The fire alarm control panel shall be in normal operation at time of final acceptance testing.
- All control panels, initiating, notification, and signaling devices, power supplies and auxiliary devices shall be tested in the presence of the inspector.
- All device tests shall be in accordance with the manufacturers' recommendations. It shall be the responsibility of the installer to provide the equipment and supplies necessary to conduct the test. The Oklahoma City Fire Department requires that duct and smoke detectors are tested using canned smoke. CO detectors must be tested with canned CO.
- Duct detectors may initiate a supervisory signal. Smoke and heat detectors shall initiate alarm signals.
- Third party monitoring shall be tested to verify that all device signals were received, and the description is accurate.
- When a change in method of monitoring from the approved plan is proposed (e.g., phone lines to radio dialer), revised plans shall be submitted to the Fire Marshal's Office for review and approval prior to installation. The revised approved plan shall be on site at time of final acceptance testing.
- A Certificate of Completion (NFPA 72) shall be completed and provided to the Fire Marshal's Office prior to final acceptance.

***NOTE:*** A fully addressable fire alarm system shall require that the monitoring company provide a point-to-point description of the device actuation (e.g., Alarm, Smoke Detector and Ballroom).

An approved simplified floor plan of the areas served by the alarm panel may be required to be posted near the annunciation panel. Zone descriptions and/or devices shall correspond with the floor plan. Check with your inspector.

**SECTION 16.5 --- KITCHEN HOOD SYSTEMS.** Kitchen hood systems shall be installed in accordance with the International Fire Code and NFPA 17 or 17A. The installing contractor shall perform all tests. The testing shall include:

- All components, including remote manual pull stations, mechanical or electric devices, detectors, actuators, and inter-locks, shall be tested for proper operation during the inspection in accordance with the manufacturers' listed procedures.
- Gas cooking appliances shall be connected to gas lines prior to testing.
- Electric power required for acceptance testing of systems shall be provided by grid power only.
- Upon activation of the system, the makeup air supply to a hood shall be shut down and hood exhaust fans shall continue to run unless shutdown is required by the extinguishing system manufacturer or unless another component of the system requires shutdown.
- When the building has a fire alarm system, the hood extinguishing system shall be connected to provide alarm signals to the Fire Alarm Control Panel and third-party monitoring.
- A Class K fire extinguisher shall be required for UL 300 compliant kitchen hood systems.

***The entire system shall be fully installed, operational and pre-tested prior to system acceptance testing by the Fire Marshal's Office.***

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**SECTION 16.6 --- ELECTRONIC DOOR HARDWARE** Any installed electronic door hardware devices (such as mag locks, electrified panic hardware, electric strikes, card readers, etc.) must have a permit issued by the Fire Marshal's office. The application may be found at <https://www.okc.gov/home/showpublisheddocument/1096/635852744741570000>

**SECTION 16.7 --- EMERGENCY RESPONDER RADIO COVERAGE** Newly constructed and remodeled existing buildings of Type 1 or Type 2 construction with the following occupancy types will need to be tested for compliance with IFC Section 510. Occupancy types requiring testing: Apartments, Daycare Centers, Hospitals(including Psychiatric Hospitals), Schools(public or private) Hotel or Motel Facilities, Nursing Homes or Assisted Living Facilities, Restaurants, various Places of Assembly as determined by the *fire code official*, Hazardous Materials Facilities, Marijuana Facilities (processing or growing), University and Vocational trade Schools, Congregate Care Facilities, Group Homes, Halfway Houses, Residential Board and Care facilities, Social Rehabilitation Facilities, Foster Care Facilities, Detoxification Facilities, Alcohol and Drug Centers, all buildings with 5 or more stories or 75 foot above the lowest level of firefighter access not otherwise listed.

The installation of such a system requires a permit from the fire marshal's office. The application may be found at <https://www.okc.gov/home/showpublisheddocument/16180/637164998164400000>

**SECTION 17 --- MISSED OR FAILED SCHEDULED INSPECTIONS.** Missed or failed scheduled inspections due to installer/contractor error will be subject a re-inspection fee as established by Oklahoma City Ordinance Chapter 60 and General Schedule of Fees.

**SECTION 18 --- IDENTIFICATION OF FIRE PROTECTION EQUIPMENT.** Room(s) containing the fire sprinkler riser(s) or fire alarm control panel (FACP) shall be identified with signage on doors leading to the room(s).

**SECTION 19 --- AUTOMATIC AND MANUAL SECURITY GATES OR BARRICADES.** Plans for the installation of automatic security gates or barricades across fire apparatus access roads shall be submitted to the Development Center at 420 W. Main (405) 297-2525. The plan shall include but is not limited to the width of the gate opening, direction of gate swing, location of pre-emption device, and location of ®Knox gate switch. A permit application and permit fees shall be submitted to the Development Center prior to installation.

**SECTION 20 --- MANUAL GATES FIRE DEPARTMENT ACCESS.** Manual gates installed across fire apparatus access roads shall require a ®Knox Box padlock. The padlock may be purchased from the Knox Company. When a standard padlock is found, the fire department will use bolt cutters to open the gates. The Oklahoma City Fire Department will not be responsible for replacement of the padlock.

## **SECTION 21 --- TENANT IMPROVEMENT REQUIREMENTS**

- All applicable fire protection system installing contractor representatives must be on site for final system inspections and testing.
- Approved plans and installation permits shall be on-site.
- The Fire Inspector shall confirm that all fire protection systems are in accordance with approved plans and adequate fire sprinkler and fire alarm coverage is provided.
- Fire sprinkler contractor will flow water using Inspector Test Valve (ITV). The Inspector will verify exterior water bell activation and fire alarm audio/visual devices operate properly.

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- Fire alarm contractor will contact monitoring company to verify signals were accurately received and at the correct address.

## **SECTION 22 --- TEMPORARY CERTIFICATE OF OCCUPANCY (TCO), AND FULL CERTIFICATE OF OCCUPANCY (C O),**

### **GENERAL**

- **Approved** fire protection plans bearing the Fire Marshal's Office stamp and installation permits must be always available at the job site from the start of construction through final Certificate of Occupancy inspection.

### ***Temporary Certificate of Occupancy***

Where permits are required and upon the request of a permit applicant, the Development Center is authorized to issue a temporary/conditional permit to occupy the premises or portion thereof before the entire work or operations on the premises is completed, provided that such portion or portions will be occupied safely prior to full completion or installation of equipment and operations without endangering life or public welfare. The Fire Marshal's Office can place limitations or restrictions necessary to keep the permit area safe. The holder of a conditional permit shall proceed only to the point for which approval has been given, at the permit holder's own risk and without assurance that approval for the occupancy or the utilization of the entire premises, equipment or operations will be granted.

**SECTION 22.1 --- TCO OR CO CHECKLIST.** The following is a checklist of the most common items that will be confirmed as being in compliance for Temporary Certificate of Occupancy (TCO). This checklist is not intended to include all items or issues. Compliance with additional items may be required prior to the Oklahoma City Fire Marshal's approving an inspection as "Temp Final" or "Final".

- Fire sprinkler system inspected, tested and approved by the Fire Marshal's Office.
- Construction is in accordance with the approved plans.
- Fire alarm system inspected tested and approved by the Fire Marshal's Office. Third party monitoring shall be tested and approved.
- Commercial kitchen hood system inspected, tested and approved by the Fire Marshal's Office
- Any other fire protection systems inspected, tested and approved by the Fire Marshal's Office
- The building address and/or suite number shall be posted to be visible from the street, mounted on the building or on a roadway monument.
- ®KNOX key box(s) installed. See Section 13. The following Keys shall be placed in ®KNOX box(s):
- A key to unlock the fire riser or Fire Alarm Control Panel (FACP) room door, • Key(s) to unlock the main and rear doors (may be contractor keys at this time)
- A key to unlock the Fire Alarm Control Panel (FACP) cover door. • Locking Caps on Fire Department Connections (FDC's)
- Fire Department Connections FDC's identified with signage, when required.
- Post Indicator Valves (PIV) shall be in-service ("OPEN") and painted red with handles padlocked to the body of the PIV.

**Exception:** PIV's on stub-outs intended for future use and normally left in the closed position are to be painted forest green to avoid confusion with PIV's currently in service.

- All fire line backflow devices and wall indicator valves shall be chained and padlocked in the open position or tamper monitored by a third party.

Your Fire Inspector will document any TCO or CO limitations and outstanding items required to be completed to receive full Certificate of Occupancy (CO) in Accela or the current inspection software used by the City of Oklahoma City.

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**SECTION 22.2 --- FULL CERTIFICATE OF OCCUPANCY (CO) CHECKLIST.** In addition to Section 22-1, the following is a checklist of the most common items that will be confirmed as being in compliance for full CO. This checklist is not intended to include all items or issues. Compliance with additional items may be required prior to the Oklahoma City Fire Marshal's Office approval for full CO.

- All fire riser rooms and fire alarm control panel rooms shall be identified with signage. See Section 18.
- Permanent fire apparatus access roads paved with curbing, movable bollards or chains and aprons completed and approved fire lane signs installed.
- Suite numbers posted, front and rear doors, in accordance with code requirements.
- FDC signage installed to identify building it serves in accordance with code requirements.
- Vehicle protection for gas meters, backflow devices, other fire protection equipment is installed when subject to vehicular traffic.
- Portable fire extinguishers installed to be visible and accessible.
- Permanent, occupant keys shall be required to be placed in the Knox box(s)

## ***Reminder.....***

***#1 - APPROVED PLANS AND PERMITS MUST REMAIN ON THE JOB SITE DURING CONSTRUCTION AND TESTING.***

***#2 - ALWAYS PRE-TEST ALL YOUR FIRE PROTECTION SYSTEMS BEFORE SCHEDULING AN INSPECTION.***

***#3 - IF UNSURE OF A REQUIREMENT CONTACT A PLAN REVIEWER OR NCO INSPECTOR IN THE FIRE MARSHAL'S OFFICE.***

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