



**FIRE  
INSPECTION  
GUIDE FOR NEW  
COMMERCIAL  
BUILDINGS**

**Handout  
800  
REV 02/13**

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**ADOPTED CODES (with City of Peoria amendments):**

2006 International Fire Code (IFC)  
2006 International Building Code (IBC)  
2005 National Electric Code (NEC)  
2002 NFPA 13  
2002 NFPA 72

**City of Peoria Fire Department  
Fire Prevention Division**

8351 West Cinnabar Avenue  
Peoria, Arizona 85345  
623 773-7279 Phone  
623 773-7295 Fax

[www.peoriaaz.gov/fire](http://www.peoriaaz.gov/fire)



## City of Peoria Fire Marshal's Office

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### **FIRE INSPECTION GUIDE FOR COMMERCIAL BUILDINGS**

(This document is an attempt to identify the items inspected during the course of normal fire inspections. This document is not to be construed as a complete guide or all encompassing. Additional items may be required to be inspected as deemed necessary by the Fire Inspector.)

**IVR Automated Inspection Line (623) 773-7220**  
**or**  
**On-line Inspection Scheduling**  
**(<https://devservices.peoriaaz.gov/aca/peoria.aspx>)**

**Note:**

The phone number or web site is to be used to request all fire related inspections, whether Building or Fire or permits. When requesting an inspection you will need either your Fire Permit Number or your Building Permit Number. The Fire Permits begin with the letter "Fx" followed by seven (7) numerical digits. The Building Permit is only numerical and is also seven (7) digits. You will also need the inspection code for the inspection you are requesting (see below) and a phone number you can be contacted at. The Fire Prevention Office will contact you to schedule the inspection after it is entered into the system.

<b>Underground Fire Line with 200# Test</b>	<b>900</b>
<b>Underground Fire Line Flush</b>	<b>910</b>
<b>Kitchen Hood Extinguishing System Inspection</b>	<b>930</b>
<b>Rough Fire Alarm System Inspection</b>	<b>940</b>
<b>Rough Fire Sprinkler System Inspection with 200# Test</b>	<b>950</b>
<b>Other Inspections/Questions</b>	<b>960</b>
<b>On Site Code Consultation</b>	<b>970</b>
<b>Final Fire Inspection (Building or Fire permits)</b>	<b>990</b>

**Note:**

Only use the following phone number to schedule a fire hydrant flow test, lock keys into a lock box or if you have a general Fire Code question or difficulty (non emergency). Please leave your name, telephone number and a brief message and someone from Fire Prevention will call you back.

**Fire Prevention Inspection and Information Line (623) 773-7593**

## Permits

The following verbiage appears at the bottom of all Fire Permits. Please make note of these requirements.

### General Notes:

#### **Excerpts from the *International Fire Code* – 2006 edition**

##### **105.4.4 Approved documents.**

Construction documents approved by the fire code official are approved with the intent that such construction documents comply in all respects with this code. Review and approval by the fire code official shall not relieve the applicant of the responsibility of compliance with this code.

##### **106.3 Concealed work.**

Whenever any installation subject to inspection prior to use is covered or concealed without having first been inspected, the fire code official shall have the authority to require that such work be exposed for inspection.

It should also be noted that **permits are not transferable**. You should always ensure that the permit is issued to the company that is performing the work. In the event that the permit was issued with the Building Permit, you should check to see that the permit is issued to the correct company. In the event that the permit was issued to a different company or there is a change in the company that is performing the work, a change in contractors must be submitted to the Fire Department.

A change in contractors will require two (2) sets of plans be submitted for review. Information on the company performing the work must appear on the drawings. Any reference to other companies must be removed. A fee will be charged (currently \$100.00) for the review and the change in the system. A new set of approved plans and a new permit will be issued. **No work can be performed on the fire protection system until the proper permit is issued.**

## Underground Fire Line & Flush Inspection

All fire lines that are connected to the City of Peoria water system are inspected and approved by the City of Peoria Engineering Department up to and including the floor flange in the building. **The Fire Department must witness all fire line flushes.** The following information pertains to fire lines that are installed on private water systems and therefore must be permitted and inspected by the Fire Department.

1. The installing contractor shall have a valid City of Peoria Fire Department “Fire Equipment Contractor Permit” (See the information and application at the end of this document) and an “On Site Competent Person” with supporting documentation. No fire inspections will be conducted until a permit is obtained and the competent person’s documentation is provided.
2. An Underground Contractor’s Material and Test Certificate shall be provided. The certificate shall be provided prior to the flush inspection. The flush inspection shall not be conducted without this documentation. The Underground Contractor’s Material and Test Certificate can be found in NFPA 24 – 2002, figure 10.10.1.
3. The approved plans shall be consulted to verify meeting the requirements of NFPA 13 and 24 and can include the following:
  - a. Size of the piping.

- b. Type of piping material.
  - c. Depth of cover over the piping.
  - d. Isolation valves.
  - e. Proper configuration of:
    - i. Joint restraints.
    - ii. Protective wrap (polywrap) of piping, including fire riser flange spigot. (Applies to ductile piping only.)
    - iii. Direction changes.
    - iv. Proper fittings passing below foundations.
    - v. Double Backflow assembly (if exterior to the building).
4. All valves within the system are to be in the open position, including the fire hydrant sectional valve.
  5. A hydrostatic test of all piping at two hundred (200) psi for two (2) hours or fifty (50) psi in excess of the system working pressure, whichever is greater shall be observed.
  6. The pressure after the hydrostatic test shall be relieved to confirm that the test gauge returns to zero. A gauge that does not return to zero could be an indication that the gauge is broken or “pegged” and must be replaced and a new test conducted.
  7. Flushing of all piping with city water shall be observed for a sufficient amount of time to ensure that the piping is clear and free of all debris. The following flow rates shall be provided to produce a minimum velocity of ten (10) feet/second in the pipes.

Pipe Size (inches)	Flow Rate (gpm)
4	390
6	880
8	1,560
10	2,440
12	3,520

**Note:**

The fire line shall be visible during the hydrostatic testing. Center loading of the pipe is acceptable; however, all joints, valves, joint restraints, and fittings shall be visible. **DO NOT** cover the fire line until the inspection is approved. The Fire Department inspection of the fire line consists of the fire line supply piping from the inside / outside of the building(s) to the point of connection to the supply water main at the street or to the water main loop. Stacking of the fire sprinkler riser onto the fire line is not allowed until the fire line is approved and flushed.

**Rough Fire Sprinkler System Inspection**

1. The inspection shall be scheduled by the fire sprinkler contractor.
2. The installing contractor shall have a valid City of Peoria Fire Department “Fire Equipment Contractor Permit” (See the information and application at the end of this document) and an “On Site Competent Person” with supporting documentation. No fire inspections will be conducted until a permit is obtained and the competent person’s documentation is provided.
3. The Approved Plans shall be consulted to verify meeting the requirements of NFPA 13 and can include the following;
  - a. Proper type of fire sprinkler piping.

- b. Double Backflow assembly for size, type, and direction.
  - c. Confirm that the installed piping does not have excessive changes of direction that are not indicated on approved plans. (Excessive use of extra fittings, such as elbows may effect hydraulic calculations and require re-submittal for review and approval).
  - d. Proper size of the fire sprinkler piping.
  - e. Proper pipe hangers and supports with the correct spacing.
  - f. Sway bracing is installed per City of Peoria code requirements. Sway bracing is required at top of fire risers and major changes of direction.
  - g. Proper type, orifice, and temperature of all fire sprinklers.
  - h. Proper clearance of fire sprinklers from ALL obstructions.
  - i. Check for correct distances between the fire sprinklers, off of walls, maximum coverage per fire sprinkler, and distance below roof deck. Also deflector orientation to roof deck.
  - j. Check for installation of orifice in inspector's test. (Orifice shall be the same size as the smallest orifice installed in the system).
  - k. Check to ensure fire sprinklers are not painted. Painted fire sprinklers shall be replaced. Painted sprinkler heads shall not be cleaned.
  - l. All control, auxiliary, drain, and inspector's test valves shall not be located more than seven (7) feet above finish floor or grade.
  - m. Access panels shall be provided for all valves located inside a wall or concealed space.
4. A hydrostatic test of all piping at two hundred (200) psi for two (2) hours or fifty (50) psi in excess of system working pressure whichever is greater shall be observed.
  5. Where a tenant improvement addition or modification is made to an existing fire sprinkler system affecting more than twenty (20) fire sprinklers, the new portion shall be isolated and hydrostatically tested at two hundred (200) psi for two (2) hours or fifty (50) psi in excess of system working pressure whichever is greater. Modifications that cannot be isolated shall not require hydrostatic testing in excess of system working pressure.
  6. Tenant Improvement modifications affecting twenty (20) or fewer fire sprinklers shall not require hydrostatic testing in excess of system working pressure.
  7. The pressure after the hydrostatic test shall be relived to confirm that the test gauge returns to zero. A gauge that does not return to zero could be an indication that the gauge is broken or "pegged" and must be replaced and a new test conducted.
  8. Verify a listed and approved pressure relief valve is installed on all grid type fire sprinkler systems.
  9. The following items shall be verified regarding the Fire Department Connection (FDC);
    - a. Fire Department Connection shall be within one hundred (100) feet of a fire hydrant.
    - b. Fire Department Connection shall be located on the address side (front) of building or located on the building in the fire department access approach as approved.
    - c. Fire Department Connection shall be installed between eighteen (18) and forty eight (48) inches above finish grade.
    - d. The swing check valve is to be installed as close to the Fire Department Connection as possible and is installed in correct direction.
    - e. Hose threads are NST (National Standard Thread). Phoenix or Tempe thread types are not acceptable.

- f. The 2.5 inch approved caps or plugs are installed.
- g. The Fire Department Connection is not to be obstructed (i.e.: electrical transformers, landscaping, etc.).

## **Rough Fire Alarm System Inspection**

1. The inspection shall be scheduled by the fire alarm contractor.
2. The installing contractor shall have a valid City of Peoria Fire Department "Fire Equipment Contractor Permit" (See the information and application at the end of this document) and an "On Site Competent Person" with supporting documentation. No fire inspections will be conducted until a permit is obtained and the competent person's documentation is provided.
3. The approved plans shall be consulted to verify meeting the requirements of NFPA 70 and 72 and can include the following:
  - a. Proper wire type (i.e.: plenum, riser, underground, etc.).
  - b. Proper wire gauge.
  - c. Verify that a Class 'A' fire alarm system has been installed. All fire alarm systems installed in the City of Peoria shall be Class 'A' fire alarm systems. This includes all modules. No exceptions.
  - d. Verify support of all of the wiring is per NFPA 72 and the National Electrical Code (NEC). (Wrapping fire alarm wiring around steel nails, connecting it to ceiling grid support wires, and using metal staples are not approved methods of securing or supporting fire alarm wiring).
  - e. Verify the support of the conduit and back boxes, including protective bushings in conduit and junction boxes.
  - f. All exposed wiring installed below seven (7) feet shall be installed in conduit.
  - g. Verify location of all fire alarm system devices.
  - h. Verify that ALL notification appliances, pulls stations, heat detectors, smoke detectors, and duct detector LEDs located in ALL walls and above ALL ceilings are installed with approved back boxes. This applies to ALL fire alarm systems installed in commercial buildings. Mud rings only are NOT acceptable mounting methods.
  - i. Verify the location of the fire alarm control panel. (If the fire alarm control panel is located in the same room as the fire sprinkler riser and that room has a door that provides direct access to the outside; then an annunciator strip pad is not required).
  - j. Verify that the location of fire alarm control panel is in a temperature controlled space.
  - k. Verify that the fire alarm control panel and any notification appliance booster panels are mounted to a maximum height of six (6) feet to the top of the cabinet.
  - l. Verify the location of the remote annunciator, if required.
  - m. Verify the proper separation of the fire alarm wiring. (A minimum of four (4) feet separation between the wiring on the horizontal runs and one (1) foot separation on the vertical runs shall be provided).
4. Verify that the fire alarm wiring is not painted. Fire alarm wiring that is painted shall be replaced.

5. Verify that tamper switches are installed on ALL fire sprinkler system control valves, including control valves on any outside double back flow assembly feeding the fire sprinkler system.
6. Verify any duct detectors required by the Mechanical Code are installed.
7. Verify that any kitchen hood system or special hazard fire suppression system is connected to the fire alarm system.
8. Verify that any door controls, such as door magnets or access controls, is connected to the fire alarm system.
9. Verify that the power for the fire alarm system and/or remote power boosters comes from a reliable power source. In the event that the project is in a multi tenant building, power must come from the house electrical panel or the same electrical distribution panel as the fire alarm system control panel. Power derived from electrical panels that can be turned off when the tenant moves out is not considered reliable.

### **Final Fire Sprinkler System Inspection**

1. The inspection shall be scheduled by the fire sprinkler contractor. **NOTE:** Final inspections must be coordinated with the fire alarm contractor. Final inspections are integrated and system function must be demonstrated for each permit.
2. The installing contractor shall have a valid City of Peoria Fire Department "Fire Equipment Contractor Permit" (See the information and application at the end of this document) and an "On Site Competent Person" with supporting documentation. No fire inspections will be conducted until a permit is obtained and the competent person's documentation is provided.
3. The fire sprinkler contractor shall provide an Aboveground Contractor Material and Test Certificate for each system installed. The final fire inspection shall not be conducted without this documentation. This certificate is found in NFPA 13 – 2002, figure 16.1.
4. Consult the approved plans to verify meeting the requirements of NFPA 13.
5. Verify tamper switch and flow switch components are installed and functioning on the fire sprinkler system.
6. Observe a main drain test. Document the static and residual pressures; then verify that the residual pressure at the base of the riser meets or exceeds the required system demand pressure listed in the approved hydraulic calculation summary on the approved plans. Also, verify that the hydraulic placard and the fire sprinkler system general information sign on the fire riser assembly are correctly filled out. (See the example at the end of this document along with a blank form to be used)
7. Verify that ALL required fire sprinkler system signage is in place. Each valve shall have a sign attached indicating its function.
  - a. Main drain.
  - b. Access panels shall be provided for all valves located inside a wall or concealed space. Signage shall be provided on the outside of access panel indicating type of valve that is concealed within. (This includes Fire Department Connection check valves).
  - c. Control valves.
  - d. Inspectors test.
  - e. Fire Department Connection.

- f. Hydraulic Placard. (If hydraulic placard is located on a fire riser that will be exposed to corrosive conditions then hydraulic placard shall be aluminum and hydraulic information shall be engraved or stamped).
8. Verify that the spare fire sprinkler head cabinet is installed in an area that will not exceed one hundred (100) degrees Fahrenheit and has the following contents; the correct number of spare fire sprinkler heads, correct size fire sprinkler head wrench, and a NEW current issue of NFPA 25. (An ILLEGALLY copied NFPA 25 is NOT acceptable).
9. Verify the floor is sealed where the fire riser flange spigot penetrates the building.
10. Verify that all fire rated walls and exterior wall pipe penetrations are sealed by approved means.
11. Walk through building to verify;
  - a. Verify proper placement, type, and temperature of fire sprinklers.
  - b. Verify that ALL fire sprinklers are unobstructed.
  - c. Verify fire sprinklers are not painted. Painted fire sprinklers shall be replaced. Painted fire sprinkler heads shall NOT be cleaned.
  - d. Verify fire sprinkler escutcheons are in place and properly installed per the fire sprinkler manufacturer data sheet.
12. Observe the activation test of fire alarm system notification appliances and electric bell on the fire sprinkler system water flow through the inspector's test valve. Alarms shall activate in ninety (90) seconds or less with the flow switch adjustment setting on or greater than "B". Document the time it takes the alarms activate.

## **Final Fire Alarm System Inspection**

1. The inspection shall be scheduled by the fire alarm contractor. **NOTE:** Final inspections must be coordinated with the other fire contractors (i.e.: fire sprinkler, kitchen hood, special system, etc.). Final inspections are integrated and system function must be demonstrated for each permit.
2. The installing contractor shall have a valid City of Peoria Fire Department "Fire Equipment Contractor Permit" (See the information and application at the end of this document) and an "On Site Competent Person" with supporting documentation. No fire inspections will be conducted until permit is obtained and the competent person's documentation is provided.
3. Provide a NFPA 72 Inspection and Testing Form. The form shall be completed and present at the final fire alarm inspection. Final fire inspection shall not be conducted without this documentation. This documentation is found in NFPA 72 – 2002, figure 10.6.2.3.
4. The approved plans shall be consulted to verify meeting the requirements of NFPA 70 and 72.
5. Verify the proper location, type, and candela setting of all fire alarm notification appliances.
6. Observe fire alarm system functional tests of all fire alarm devices, including duct smoke detectors.
7. A copy of the 3<sup>rd</sup> party test and balance report for the installation of the duct detectors is required to be supplied to the Fire Inspector. If the report satisfies the Fire Inspector that the duct detectors have been tested and report to the fire alarm system correctly, further testing of the duct detectors are not necessary.
8. Verify that ALL notification appliances are synchronized per NFPA 72 requirements.

9. Observe the activation test of the fire alarm system notification appliances, including the electric bell on the fire sprinkler system water flow through inspector's test valve. All alarms shall activate in ninety (90) seconds or less with the flow switch adjustment setting on or greater than "B".
10. Observe the activation test of the fire sprinkler control valve tamper switches. On activation of the tamper switch a supervisory signal shall be received at the fire alarm control panel.
11. If a kitchen hood extinguishing system is installed; observe function tests of the fire alarm system notification appliances upon kitchen hood extinguishing system activation.
12. Verify the following from all tests;
  - a. Measure decibel reading of audible appliances five (5) feet above finish floor in the farthest point of the room from any device. Decibel reading shall be fifteen (15) dBA above ambient noise level and five (5) dBA above peak sound levels lasting sixty (60) seconds or more.
  - b. Verify proper voltage drop. The maximum allowed voltage drop is 4.4 volts. (The installing contractor is to provide a voltage meter at inspection)
  - c. Verify a Class 'A' fire alarm system is installed.
  - d. Verify the proper size of the batteries and verify that batteries are date marked with; month / year
  - e. Verify duct detectors provide the following; unit shuts down on activation of the duct detector, on activation of the duct detector a supervisory signal shall be received at the fire alarm control panel, and if a ceiling is installed, then LED provided at ceiling level operates when duct detector is activated.
  - f. Observe a twenty four (24) hour stand by battery power test. The electrical breaker that provides power to the fire alarm control panel shall be turned off twenty four (24) hours prior to this test. At the end of the twenty four (24) hours an audible test shall be conducted for five (5) minutes.
  - g. Verify that the circuit breakers for the fire alarm control panel and electric bell power are secured (with breaker locks), identified on electric panel schedule, and are designated power circuit breakers.
  - h. Verify the fire alarm control panel power circuit breaker number and electrical panel location is identified inside or near the fire alarm control panel.
  - i. Verify that all signals are received at the fire alarm control panel.
  - j. Verify that all signals are received at the annunciator, if applicable.
  - k. Verify that all signals were received at the off-site, third party, listed monitoring agency. A fire alarm system monitoring activity report shall be faxed to Fire Prevention at 623 773-7295 after completion of final testing. Monitoring activity report shall include the twenty four (24) hour battery power fault.

## **Kitchen Hood Extinguishing System Inspection**

1. The inspection shall be scheduled by the kitchen hood suppression system contractor.
2. The installing contractor shall have a valid City of Peoria Fire Department "Fire Equipment Contractor Permit" (See the information and application at the end of this document). No fire inspections will be conducted until permit is obtained.
3. The approved plans shall be consulted to verify meeting the requirements of NFPA 17A.

4. The installing contractor shall provide the latest system manual as provided by the manufacturer to verify the system installation.
5. Verify the following that can include the following;
  - a. Hood size.
  - b. Location of manual pull station.
  - c. Signage for manual pull station.
  - d. Location, size, and type extinguishing agent.
  - e. Type and size of firing cartridge (if applicable).
  - f. Proper pipe size and type.
  - g. Proper pipe support.
  - h. Proper hood penetration seals.
  - i. Proper nozzle type.
  - j. Verify that nozzle height is per the manufacturer requirements.
  - k. Verify number of allowed fittings for system.
  - l. Verify link installation placement, type, and temperature.
  - m. Verify nozzle locations using the factory laser pointer device, if applicable. The installing kitchen hood extinguishing system contractor shall provide the laser. No inspection will be conducted without this testing device.
  - n. Observe air movement through all system nozzles.
  - o. Observe test of fusible link.
  - p. Observe activation of manual pull station.
  - q. Observe deactivation of all fuel sources under hood during all tests. (Electric and/or Gas)
  - r. Observe deactivation of the "make up air" upon activation of the system. (Exhaust air shall remain working).
  - s. Observe the activation of the fire alarm system notification appliances upon kitchen hood extinguishing system activation on all function tests and verify that the signals are received at the fire alarm control panel.
  - t. Verify the proper placement of the Class 'K' fire extinguisher. The Class 'K' fire extinguisher shall be tagged, mounted, and located within thirty (30) feet of the cooking equipment.
  - u. Verify that the kitchen hood extends a minimum of six inches beyond the edge of the cooking appliances.
  - v. Verify that there are no electrical connections (make up) inside the control unit/head. All electrical connections are to be made in approved junction boxes outside of the control unit/head.

**Note:**

Fire alarm system initiating module for kitchen hood fire extinguishing systems shall be a listed and approved CLASS A fire alarm system module. No exceptions.

## **Final Fire Building and Site Inspection**

1. Verify building address size and location on exterior of building.
  - a. If the address is located less than eleven (11) foot eleven (11) inches above the finished grade; the address characters shall be a minimum of six (6) inches in height with a minimum one (1) inch stroke in contrast to the building colors.
  - b. If the address is located twelve (12) feet or more above the finished grade; the address characters shall be a minimum of twelve (12) inches in height with a minimum two (2) inch stroke in contrast to the building colors.

- c. The address characters shall be visible from the street or road fronting the property and if required, on all fire department approaches.
  2. Verify proper location of the lock boxes.
    - a. Lock boxes and padlocks shall be directly obtained from the Knox Corporation. NO application OR signature is required from the fire department. **THE LOCK BOX AND PADLOCK MANUFACTURED BY THE KNOX COMPANY ARE THE ONLY APPROVED TYPE USED BY THE CITY OF PEORIA.**
    - b. Lock boxes shall be installed at the entrance door and at the fire sprinkler riser room, unless approved otherwise or additional lock boxes are required to due the building configuration.
    - c. Lock boxes shall be installed approximately sixty (60) inches above the finished grade to the TOP of the box.
    - d. Call 623 773-7593 to have keys lock up in lock boxes when locks are changed.
  3. Verify the placement of fire extinguishers.
    - a. Verify correct type. (Example: 2-A:10-B:C)
    - b. Verify proper location. Fire extinguishers shall be installed a maximum travel distance of every seventy five (75) feet and if possible; mounted near exit doors.
    - c. All fire extinguishers shall be service tagged with month / year and mounted a minimum of three feet six inches and maximum of five (5) feet to the top of the fire extinguisher above finish floor or grade and shall be unobstructed from access or view. Provide fire extinguisher signage as required.
  4. Verify required exterior and interior building door signage.
    - a. Provide the letters 'FACP' and 'FIRE RISER ROOM' on all doors that give access to the fire alarm control panel and the fire sprinkler riser. This can be accomplished with painted stencil or a corrosive resistant sign with minimum four (4) inch high letters in contrast to the door colors.
    - b. Provide the letters "ROOF ACCESS" on all doors that have roof access ladders inside.
    - c. Provide on or above the suite front doors the 'SUITE NUMBER OR LETTER'. This can be accomplished with self adhesive characters, stencil, or a sign with minimum four (4) inch high characters in contrast to the door colors.
    - d. Provide on the suite back or side doors the 'SUITE NUMBER OR LETTER' and 'BUILDING ADDRESS NUMBERS'. This can be accomplished with self adhesive characters, stencil, or a sign with minimum four (4) inch high characters in contrast to the door colors.
  5. Fire lanes shall be appropriately marked in ONE of these two options.

**Option One:** Provide approved signs at a maximum of eighty (80) feet on center. (See the example at the end of this document)

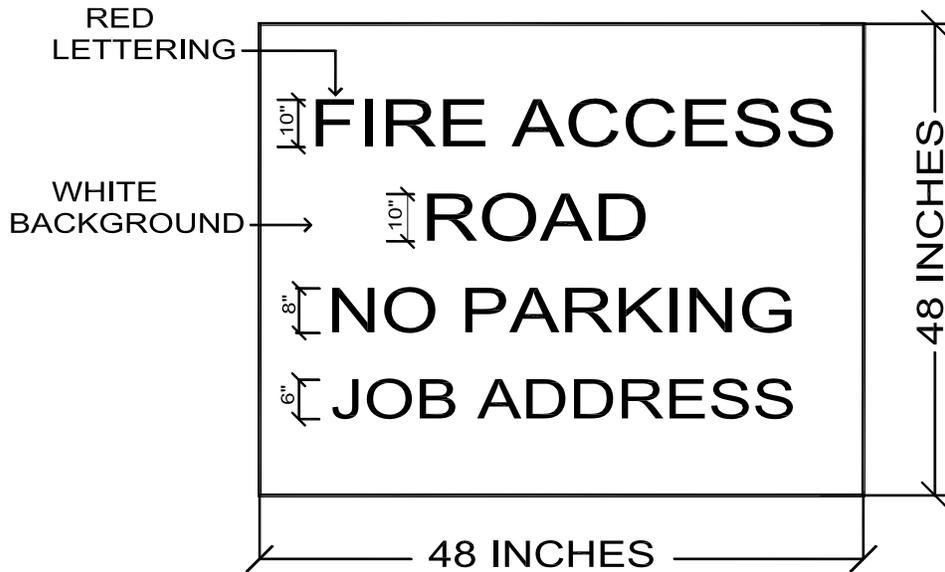
**Option Two:** Paint curbs red. Provide lettering on the curb at a maximum of eighty (80) feet on center; marked **NO PARKING FIRE LANE** in four (4) inch white block letters on the vertical face of the curb.
  6. Verify the on site fire hydrants and building fire department connection.
    - a. The large (4.5 inch) port shall be facing directly towards the Fire Lane.
    - b. The bottom of the 4.5 inch port shall be installed between eighteen (18) inches and twenty four (24) inches above the finished grade.
    - c. Verify a minimum three (3) foot diameter clearance around the fire hydrants.
    - d. Verify that the blue reflectors are installed centerline of the right away and in direct line of the fire hydrants.

- e. Verify fire department connection has proper signage. Additional signage may be required if fire department connection is visually obstructed. (Example; when a parking space is directly in front of the fire department connection.)

## Gate Inspection

1. Plans and specifications for electric gate systems shall be submitted to the City of Peoria Fire Department for review and approval prior to scheduling gate inspection. For review permit questions please call 623 773-7593.
2. All gates limiting access will be required to provide emergency access controls for Fire Department entry.
3. The gates shall be designed so that the access roadway or turning radius (WB50) shall not be obstructed by the operation of the gate. Minimum set back from the public streets shall be a distance determined by the City Engineer and allow the emergency vehicle the ability to safely operate the lock box or panel. Turning radius from the public street shall be WB50.
4. Clear width of the roadway shall be a minimum of twenty (20) feet clear width on all entrances. Exit roadways shall be a minimum of sixteen (16) feet clear width or larger on all exits. Unless otherwise approved by the fire department.
5. Sub-divisions may have a divided entrance and exit gates. The entrance side shall have a clearance of twenty (20) feet clear width, the exit side sixteen (16) feet clear width.
6. Access controls shall be exterior to the gate and located for activation by the vehicle operator without dismounting from the vehicle. The height of the lock box/control panel shall be sixty-six (66) inches, measured from the finished grade line of the street.
7. The lock box, padlock or key switch must be an approved model utilized by the Peoria Fire Department. **THE LOCK BOX, PADLOCK AND KEY SWITCH MANUFACTURED BY THE KNOX COMPANY ARE THE ONLY APPROVED TYPE USED BY THE CITY OF PEORIA.**
8. Traffic Preemption opening device shall be provided on all motorized gates. Opticom, 3M, Model 722 receiver (no coding model) or equivalent shall be used. **The exact model used shall be noted on the approved plans.**
9. Gates must open to twenty (20) within twenty (20) seconds (one foot per second) of activation and remain in the open position until closed by operation of the electrical control device.
10. The control pedestal must be identified with a minimum six (6) inch by ten (10) inch sign with red letters on a white background. This sign shall be securely fastened to the pedestal and legible from the approaching vehicle. "EMERGENCY FIRE DEPARTMENT ACCESS".
11. Battery back up for all motorized gates is required, unless the gate fail safe (open) in the event of a power failure.
12. Secondary "Exit Only" gates shall be set up for Fire Department emergency accesses. Exit only gates, which are not motorized, shall be installed per City of Peoria Fire Department Standard detail. Exit only gates shall have a minimum clearance of twenty (20) feet clear width and be posted with a sign that states "Caution Gate Opens Out." The ground shall be painted with a yellow strip showing the depth of the gate swing.
13. Operation of the gate shall be by pre-emption device or key switch.

## Fire Signage and Access Requirements



## Fire Department Construction Access Requirements

1. Provide fire department access sign as prescribed above.
2. The fire department access sign shall be located as close as possible to the fire department construction access road entrance and shall be visibly maintained at all times.
3. The fire department access roads shall be a minimum width of twenty (20) feet wide.
4. The fire department access roads shall be constructed and maintained as to support the weight of the fire apparatus, (75,000 lbs.), in all weather conditions and at all times.
5. Reflectors shall be provided to define the width of the fire department access roads. The reflectors shall be mounted at intervals not to exceed fifty feet.
6. The access road shall be extended to within two hundred (200) feet of any combustible materials and/or any location on the jobsite where any person(s) shall be working for a minimum of four continuous hours in any day.
7. All open trenches shall have steel plates capable of maintaining the integrity of the access road design when these trenches cross an access road.
8. Access roads shall be in place prior to the start of vertical construction.

### Reasoning:

Fire apparatus access roads are essential during construction to allow emergency response to the site for both fire and medical emergencies.

## FIRE SPRINKLER SYSTEM GENERAL INFORMATION SIGN

PROJECT ADDRESS 12345 NORTH 83RD. AVENUE  
 OCCUPANCY CLASSIFICATION STORAGE  
 HAZARD CLASSIFICATION ORDINARY HAZARD GROUP II  
 SYSTEM DENSITY .20 G.P.M. / 1500 SQUARE FEET  
 AREA OF OPERATION 1500 SQUARE FEET  
 AREA PER SPRINKLER 130 SQUARE FEET  
 NUMBER OF SPRINKLERS CALCULATED 12  
 HOSE WATER ALLOWANCE INSIDE 0 OUTSIDE 250

## SPRINKLER SYSTEM DEMAND

PSI REQUIRED AT SOURCE 49.5  
 GPM REQUIRED AT SOURCE 405.3  
 PSI REQUIRED AT BASE OF RISER 39.8  
 GPM REQUIRED AT BASE OF RISER 155.3  
 PSI AVAILABLE 65.5  
 GPM AVAILABLE 405.3

## ORIGINAL FLOW TEST DATA

STATIC PSI 80.0  
 RESIDUAL PSI 68.0  
 PITOT PSI 40.0  
 ORIFICE DIAMETER 2 1/2-INCH  
 COEFFICIENT OF DISCHARGE .90  
 GPM 1061.0  
 LOCATION 12345 NORTH 83RD. AVENUE  
 BY WHOM CITY OF PEORIA AND COMPANY ABC  
 DATE JANUARY 1, 2050

### SUPPLY USED IN DESIGN

72.0  
61.2  
40.0  
2 1/2-INCH  
.90  
1061.0

## ORIGINAL MAIN DRAIN TEST DATA

STATIC PSI 69.0  
 RESIDUAL PSI 58.0

## INSTALLATION INFORMATION

NAME OF  
 INSTALLING CONTRACTOR COMPANY ABC  
 INSTALLATION DATE JUNE 8, 2050

## BUILDING STORAGE CRITERIA

THE FIRE SPRINKLER SYSTEM IN THIS BUILDING HAS BEEN DESIGNED PER THE 2050 EDITION OF NFPA 13 AND SHALL COMPLY WITH THE CODE REQUIREMENTS OF THAT DOCUMENT AND THE CITY OF PEORIA CODE REQUIREMENTS.

MAXIMUM HEIGHT TO TOP OF STORAGE SHALL NOT EXCEED 12 FEET ABOVE FINISH FLOOR.

FIRE SPRINKLER DEFLECTORS SHALL NOT BE LESS THAN 18 INCHES FROM THE TOP OF STORAGE.

aisle width shall be 8 FEET FEET

RACK FLUE SPACE SHALL BE 6 INCHES INCHES

COMMODITY CLASSIFICATION CLASS I THRU IV

ENCAPSULATED \_\_\_\_\_ NON-ENCAPSULATED X

SOLID SHELVING \_\_\_\_\_ OPEN SHELVING X

## OTHER INFORMATION

STORAGE ALLOWS FLAMMABLE / COMBUSTIBLE LIQUIDS  
 YES \_\_\_\_\_ NO X

STORAGE ALLOWS HAZARDOUS MATERIALS  
 YES \_\_\_\_\_ NO X

LIMITATIONS ON EXTENDED COVERAGE OR OTHER LISTED SPECIAL SPRINKLERS

MAXIMUM SPACING BETWEEN SPRINKLERS SHALL NOT EXCEED 18 FEET

MINIMUM SPACING BETWEEN SPRINKLERS SHALL NOT EXCEED 8 FEET

MAXIMUM DISTANCE OF SPRINKLERS OFF WALLS SHALL NOT EXCEED 9 FEET

MAXIMUM DISTANCE OF SPRINKLER DEFLECTORS FROM ROOF DECK SHALL NOT EXCEED 12 INCHES

EXAMPLE

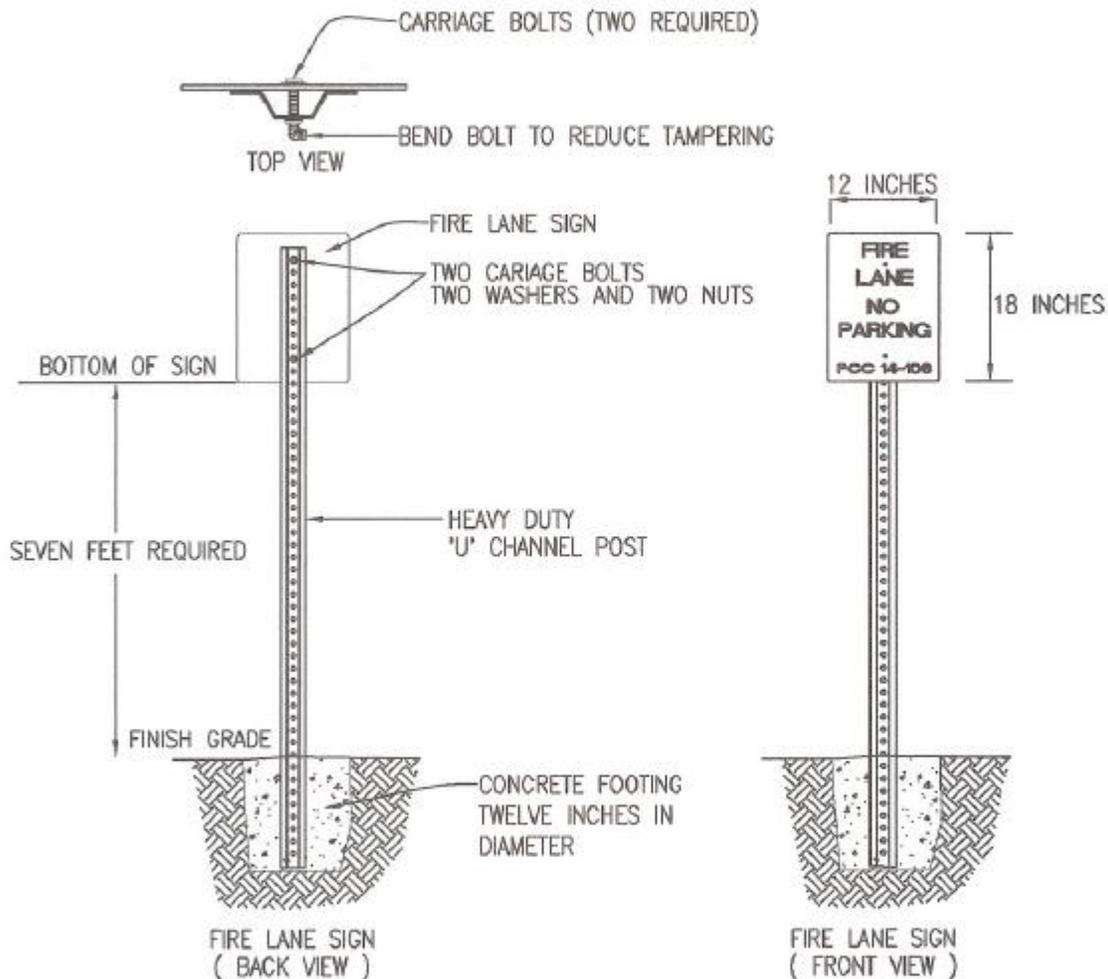
EXAMPLE

EXAMPLE

FIRE SPRINKLER SYSTEM GENERAL INFORMATION SIGN	BUILDING STORAGE CRITERIA
PROJECT ADDRESS _____ OCCUPANCY CLASSIFICATION _____ HAZARD CLASSIFICATION _____ SYSTEM DENSITY _____ AREA OF OPERATION _____ AREA PER SPRINKLER _____ NUMBER OF SPRINKLERS CALCULATED _____ HOSE WATER ALLOWANCE    INSIDE _____ OUTSIDE _____	THE FIRE SPRINKLER SYSTEM IN THIS BUILDING HAS BEEN DESIGNED PER THE _____ EDITION OF NFPA 13 AND SHALL COMPLY WITH THE CODE REQUIREMENTS OF THAT DOCUMENT AND THE CITY OF PEORIA CODE REQUIREMENTS.  MAXIMUM HEIGHT TO TOP OF STORAGE SHALL NOT EXCEED _____ FEET ABOVE FINISH FLOOR.  FIRE SPRINKLER DEFLECTORS SHALL NOT BE LESS THAN _____ INCHES FROM THE TOP OF STORAGE.  AISLE WIDTH SHALL BE _____ FEET RACK FLUE SPACE SHALL BE _____ INCHES COMMODITY CLASSIFICATION _____  ENCAPSULATED _____    NON-ENCAPSULATED _____  SOLID SHELVING _____    OPEN SHELVING _____
SPRINKLER SYSTEM DEMAND	
PSI REQUIRED AT SOURCE _____ GPM REQUIRED AT SOURCE _____ PSI REQUIRED AT BASE OF RISER _____ GPM REQUIRED AT BASE OF RISER _____ PSI AVAILABLE _____ GPM AVAILABLE _____	
ORIGINAL FLOW TEST DATA	SUPPLY USED IN DESIGN
STATIC PSI _____ RESIDUAL PSI _____ PITOT PSI _____ ORIFICE DIAMETER _____ COEFFICIENT OF DISCHARGE _____ GPM _____ LOCATION _____ BY WHOM _____ DATE _____	_____ _____ _____ _____ _____ _____ _____
ORIGINAL MAIN DRAIN TEST DATA	
STATIC PSI _____ RESIDUAL PSI _____	
INSTALLATION INFORMATION	OTHER INFORMATION
NAME OF INSTALLING CONTRACTOR _____ INSTALLATION DATE _____	STORAGE ALLOWS FLAMMABLE / COMBUSTIBLE LIQUIDS YES _____    NO _____  STORAGE ALLOWS HAZARDOUS MATERIALS YES _____    NO _____  LIMITATIONS ON EXTENDED COVERAGE OR OTHER LISTED SPECIAL SPRINKLERS  MAXIMUM SPACING BETWEEN SPRINKLERS SHALL NOT EXCEED _____ FEET  MINIMUM SPACING BETWEEN SPRINKLERS SHALL NOT EXCEED _____ FEET  MAXIMUM DISTANCE OF SPRINKLERS OFF WALLS SHALL NOT EXCEED _____ FEET  MAXIMUM DISTANCE OF SPRINKLER DEFLECTORS FROM ROOF DECK SHALL NOT EXCEED _____ INCHES



# CITY OF PEORIA FIRE MARSHAL'S OFFICE



## LIST OF MATERIALS FOR INSTALLATION:

10 FT LONG HEAVY DUTY GALVANIZED U-CHANNEL OR PAINTED POST.

FIRE SIGN CONSTRUCTED OF .080 ALUMINUM CONSTRUCTION WITH WHITE REFLECTIVE BACKGROUND AND RED SCREEN PRINTED LETTERS.

1/4 BOLTS & NUTS & LARGE FLAT OR FENDER WASHERS.

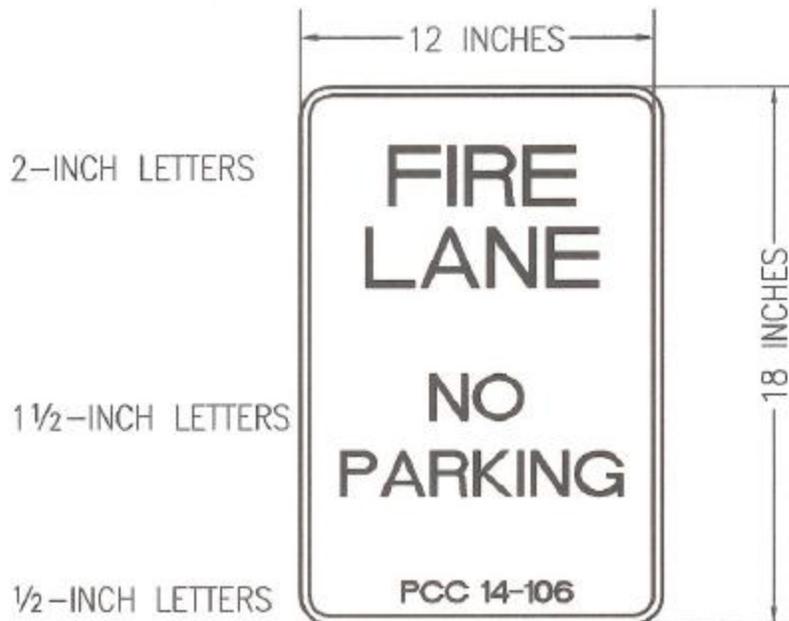
SIGN SHALL FACE THE ONCOMING TRAFFIC

POST SHALL BE INSTALLED TWELVE TO EIGHTEEN INCHES FROM BACK OF CURB OR BACK OF SIDEWALK



## CITY OF PEORIA FIRE MARSHAL'S OFFICE

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### FIRE LANE SIGN DETAIL

THE SIGN PLATE SHALL BE A MINIMUM OF 12 INCHES BY 18 INCHES WITH A THICKNESS OF .080 ALUMINUM CONSTRUCTION.

THE SIGN FACE SHALL HAVE A WHITE REFLECTIVE BACKGROUND WITH A RED LEGEND. USE THE STANDARD 3M SCOTCHLITE SIGN FACE NUMBER R7-32 OR EQUIVALENT, WITH RED SCREEN PRINTED LETTERING AS SHOWN ABOVE.

FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS.