

**FIRE INSPECTORS GUIDELINES FOR  
PLAN REVIEWS AND INSPECTIONS OF  
NEW CONSTRUCTION / ADDITIONS AND  
CHANGE OF OCCUPANCY**

# **PLAN REVIEWS**

## **SITE PLANS:**

- 1) Access to buildings (Volume V NC Building Code sections 602.6.1 thru 602.6.6)
- 2) Fire hydrant locations (Volume V NC Building Code sections 603.1.1 thru 603.1.2)
- 3) Blocking/obstructing fire hydrants (Volume V NC Building Code section 602.5)
- 4) Street Numbers (Volume V NC Building Code section 603.17)
- 5) Fire Department connections (Volume V NC Building Code section 603.16.1- 603.16.2)
- 6) Detail information for any underground or above ground storage tanks (Ch.9 Volume V)
- 7) Any landscaping to be done, make sure will not interfere with any of the above requirements now or in the future.
- 8) Layout for all utilities

## **BUILDING PLANS:**

- 1) Occupancy classification
- 2) Type of construction
- 3) Total square feet of building
- 4) Means of egress
- 5) Fire rated walls and doors
- 6) Stairways
- 7) Atriums
- 8) Interior finishes which include walls, floors, ceilings, etc.
- 9) Location of fire protection and life safety devices

## **ELECTRICAL:**

- 1) Exit illuminations (Volume V sections 807.1.4 thru 807.3)
- 2) Emergency Lighting (Volume V sections 807.1.4 thru 807.3)
- 3) Back up power (Volume V 807.1.2)
- 4) Fire Alarm (Volume V 603.6.1 thru 603.7.6)
- 5) Wiring for sprinklers and fire pumps (Volume V 603.15.1 thru 603.15.7)
- 6) Special locking devices on exit doors
- 7) Penetrations in fire rated walls, floors, ceilings, etc. who will be doing the sealing

## **PLUMBING:**

- 1) Penetrations in fire rated walls, floors, ceilings, etc. who will be doing the sealing
- 2) Utilities site plan
- 3) Sprinklers layout (hydraulics, design, water test)
- 4) Drains for oil and water (separations and collections for both)

## **MECHANICAL:**

- 1) HVAC details (smoke detectors, duct detectors) remote indicators
- 2) Smoke removal systems
- 3) Boilers (wall related separation from other protection devices)

## **FIRE PROTECTION:**

- 1) Fire hydrant locations
- 2) Fire department connections
- 3) Sprinkler systems
- 4) Fire alarm systems
- 5) Fixed suppression systems
- 6) Ventilation systems
- 7) Flammable/Combustible liquids & gas storage
- 8) Standpipe systems
- 9) Portable fire extinguishers placements and the number & size required

## **HAZARDOUS MATERIAL PRODUCTION or STORAGE:**

- 1) Type & amount of chemicals to be used or stored
- 2) Fire protection systems needed
- 3) Type and size of storage tanks
- 4) Detail layout of the placement of tanks, racks or storage bins, or other areas products to be stored
- 5) Detail sketch of building and site (label too)

**All the above areas must meet or exceed Volume V, and all Volumes of NC Building Codes that apply and all NFPA standards that are assorted with them.**

**Buildings under construction may be required to meet certain codes (see Volume V Chapter 6)**

# PRE-CERTIFICATE OF OCCUPANCY INSPECTION

to be done before final inspection

- 1) Do a walk through just before final inspection to see if there are any problems
- 2) Involve all trade inspectors and general contractor (s)
- 3) Detail what is expected in order to obtain a certificate of occupancy
- 4) Give general contractor (s) a copy of the final inspection checklist so there will be no questions at the final inspection.

## FINAL INSPECTION

- 1) Conduct 100% acceptance test of all fire protection devices
- 2) Proper seal of all penetrations in all fire rated walls, floors and ceilings
- 3) Labeling of all fire rated walls, doors and partitions
- 4) Street numbers posted
- 5) Installation of all fire extinguishers
- 6) Approved locking devices on all exit doors
- 7) Illuminated exit signs in place and working
- 8) Emergency lighting in place and working
- 9) Marking of fire lanes
- 10) Access to fire hydrants and fire department connections
- 11) Occupancy capacity posted
- 12) Interior finish of approved material
- 13) Need a certificate of compliance of all fire protection systems that were installed (some examples are: fire alarm, sprinkler, standpipe, fixed suppression systems). **Will not sign off on CO until have this in hand.** Certificate will state that all systems were installed according to all building codes and NFPA standards.
- 14) Check all egress for compliance with the code
- 15) Breakers in panel boxes are label

# FIRE INSPECTOR'S CHECKLIST FOR FINAL INSPECTION

- 1) Conduct 100% acceptance of the following:

Systems to be Tested

Passed / Fail / Particle Pass

a) fire alarm systems

\_\_\_\_\_

b) smoke detectors

\_\_\_\_\_

c) duct detectors

\_\_\_\_\_

d) smoke removal systems

\_\_\_\_\_

e) sprinklers systems

\_\_\_\_\_

f) standpipe systems

\_\_\_\_\_

g) ventilation systems

\_\_\_\_\_

h) fixed suppression systems

\_\_\_\_\_

i) fire extinguishing systems

\_\_\_\_\_

j) flame, fire-gas and other fire detectors

\_\_\_\_\_

k) have in hand a certificate of compliance for each

\_\_\_\_\_

- 2) Proper seal of all penetrations in all fire rated walls, floors, & ceilings

\_\_\_\_\_

- 3) Labeling of all rated walls, doors & partitions

\_\_\_\_\_

- 4) Street numbers posted

\_\_\_\_\_

- 5) Installation of all fire extinguishers

\_\_\_\_\_

- 6) Approved locking devices of all exit doors

\_\_\_\_\_

- 7) Illuminated Exit signs in place & working

\_\_\_\_\_

- 8) Emergency lighting in place & working

\_\_\_\_\_

- 9) Marking of Fire Lanes

\_\_\_\_\_

- 10) Access to fire hydrants and fire dept. connections

\_\_\_\_\_

- 11) Occupancy capacity posted

\_\_\_\_\_

- 12) Check all egress for compliance

\_\_\_\_\_

- 13) Breakers in all panel boxes are label

\_\_\_\_\_

- 14) Interior finish of approved materials

\_\_\_\_\_

## **HAZARDOUS MATERIALS PRODUCTION AND STORAGE SITES**

- 1) Site plan
- 2) Floor plan
- 3) How materials will be handle
- 4) Monitoring program
- 5) Security systems
- 6) Labeling and warning signs
- 7) Loading and unloading sites
- 8) Cleaning areas on site
- 9) Utilities locations
- 10) Ground water issues
- 11) What property is next to site
- 12) What type and amounts of materials stored & will be stored on site
- 13) Storage areas (where product will be stored)
- 14) MSDS sheets needed
- 15) Employee training
- 16) Safety systems designs
- 17) Emergency response plans