

## **Inspection Definitions and Inspection Procedures**

PURPOSE: To provide a consistent way in which inspections are to be conducted and provide to the customer a general idea of what to expect and when to request inspection services.

**Please be aware that this document does not address Codes issues and is just a brief explanation of each type of inspection. It also must be noted that each project may require multiple inspections for each type of inspection, and because of special circumstances, require additional inspections. Each Fire District may have additional items that require inspections. Consult with your local Authority Having Jurisdiction (AHJ).**

Required inspections will be listed on your permit card; however, the Fire District may, based upon field conditions or other circumstances require additional inspections. A “Pre-Construction” meeting may be beneficial in clarifying these requirements and is **strongly** recommended.

**Please also be aware that this list of inspections and definitions is provided as a courtesy. It is the expectation of the Fire Districts that any persons installing, building, or conducting business within Collier County know the responsibilities they assume when applying for and receiving a permit. It is your responsibility to know the requirements of the Code and inspection procedures.**

Any deviations from the permitted drawings will require adherence to the “Revision” process.

### **600-Pre Construction Meeting:**

This is a meeting to help ensure the project Manager, General Contractor and Sub- Contractors know what the inspection expectations are, who to contact for inspections and to address any inspection concerns or problems during construction.

### **602-609 Inspection Call Fire District:**

The numbers from 602 thru 609 are the fire departments that are listed on your permit card. These are the Fire Departments you will call to set up your pre-construction meeting and fire inspections.

**602- Marco Island FD: 239-394-2108**

**603-East Naples FD: 239-774-2800**

**604-North Naples FD: 239-597-9227 Fax 239-597-3522, online @northnaplesfire.com**

**605-Golden Gate FD: 239-348-7540**

**606-Isles of Capri FD: 239-394-8770**

**607-Ochopee FD: 239-695-4114**

**608-Immokalee FD: 239-657-2700, [inspections@immfire.com](mailto:inspections@immfire.com)**

**609-Big Corkscrew Island FD: 239-455-1204**

### **610-Penetration Protection:**

This inspection is done to ensure all penetrations in a rated fire assembly have been properly protected by an approved fire stop system, installed per the manufacture's installation instructions. This inspection should be done before the walls are finished or ceilings are installed.

#### Inspection Procedures:

- The inspector shall review the approved set of Building Plans and:
- Check that the fire stop system is appropriate for the type of penetration
- Check to ensure that the fire stop system is installed per it's listing
- Check that different fire stop products are not inter mixed
- Check, through the use of destructive testing, at least 10% total or 10% of each type of fire stop system used
- Verify that systems that deviate from their listings have pre-approved engineering judgments and are installed per that engineering judgment. (Note EJ's are to be job specific, done by an engineer, and cite the system number that has been modified.)

### **611-Fire Damper:**

This inspection is to ensure that all fire dampers required in either a rated floor or wall assemblies, are the correct type, hourly rating, and installed per approved plans.

#### Inspection Procedure:

- The inspector shall review the approved set of Building Plans and:
- Check that the fire damper system is appropriate for the type of penetration
- Check to ensure that each fire damper system is installed per the installation instructions and oriented in the correct way
- Check the functionality of all fire dampers
- Check to ensure the proper angles, and bracing are used
- Check access panel placement for functionality

### **612-Fire Barrier Rough:**

This inspection is to ensure that the rated assembly is installed per its listing, and the proper wall board or framing material is used. On multi-layer systems each layer must be inspected. This inspection should be done for each layer applied, and must have the approved design detail documentation on site at the time of inspection. Rated Barriers can include ceilings, walls, shafts, and floors. All materials need to meet the design requirements.

#### Inspection Procedure:

- The inspector shall review the approved set of Building Plans and:
- Check the framing members, including the type and spacing of studs
- Check to ensure the proper wall board is used, based on the design
- Check the orientation of the wall board, and screw pattern, screw type and size
- Check that wall butts are tight, and there are no gaps in the wall, also proper staggering of joints if required
- Check connections and tie-ins to other assemblies rated or not

### **613-Final Fire Barrier Walls:**

This inspection is to ensure that the rated assembly penetrations have been properly protected, and has been inspected for termination into other assemblies. Also verify that head-of walls have been inspected, and passed. Additionally, follow up on any Notice of Violations (NOV) or yellow tags that have been issued. This inspection should be done before walls, ceilings or floors are covered or finished.

Inspection Procedure:

- The inspector shall review the approved Building Plans, and yellow tags, or NOVs and:
- Check to ensure any unresolved items have been corrected
- Check to ensure all assemblies conform to approved plans
- Check for any unprotected openings, not seen during the penetration inspection
- Check for required signage
- Check for tape, mud and caulk

### **614-Shaft/Chase Rough:**

This inspection is to ensure that the elevator and other shafts or chases are installed as required, and per the design in the approved set of plans. To ensure the shaft has the proper hourly rating, and that the shaft was built with the approved materials.

Inspection Procedure:

- The inspector shall review the approved set of Building Plans and:
- Check that the shaft is properly constructed, and all penetrations are properly protected
- Check that all fire suppression and detection devices are present and installed per the applicable approved plans
- Check the type of materials to ensure compliance with the approved design

### **615-Final Shaft/Chase:**

This inspection is to ensure that any rated assembly penetrations have been properly protected. Additionally, follow up on any Notice of Violations (NOV), or yellow tags that have been issued. This inspection should be done before the building final.

Inspection Procedure:

- The inspector shall review the approved set of Building Plans and:
- Check to ensure any unresolved items have been corrected
- Check to ensure all assemblies conform to approved plans
- Check for any unprotected openings, not seen during the penetration inspection

### **616-Fire Alarm Rough:**

This inspection is to ensure the correct type and location of wiring for fire alarms and fire monitoring systems as well as the correct number and locations of connectors and back boxes. This inspection will be done prior to the fire alarm acceptance test.

Inspection Procedure:

- The inspector shall review the approved set of Fire Alarm Plans and:
- Check the type of wiring used including the gauge, number of conductors, shield requirement, secure to structure, and distance to high voltage conductors
- Check the type of back boxes used, including the mounting height and location
- Check whether the device location falls within its listing, such as wet location dry location,

### **617-Final Fire Alarm:**

This inspection is to ensure all fire alarm initiations and notification devices are functioning correctly. This inspection should be done prior to the buildings fire final.

#### Inspection Procedure:

- The inspector shall review the approved set of Fire Alarm Plans and:
- Check that each device is the one that plans call for
- Check the functionality of each device, and any EOL device, check voltage drop
- Check the panel for proper zoning, and identification
- Check batteries by running part of the acceptance test on batteries, and date
- Conduct a timed test of any water flow devices
- Check d/b levels (note carpet, if provided must be installed)
- Verify that, when required, the strobes are synchronized
- Check through dispatch at least one alarm for each building
- Check that each alarm system is provided with a foot print of the building
- Check that all logs, and other paperwork is on the job site, and have a copy of the fire alarm acceptance form

### **618-Smoke Alarms/Heat Detector:**

This inspection is to ensure the functionality and placement of single station smoke alarms and heat detectors. This inspection should be done prior to final inspection.

#### Inspection Procedure:

- The inspector shall review the approved Building Plans and:
- Check the location of the smoke alarms, height and distance from the ceiling, not near steam sources, or cooking areas
- Check interconnection with other single station smoke alarms
- Check battery, and lock pin
- Check duct mounted smoke detector
- Verify proper location of heat detectors

### **619 -Elevator During Alarm:**

This inspection is to ensure that during an emergency condition that the elevator(s) will be recalled to the correct floor. This inspection may be done with the fire alarm acceptance test.

#### Inspection Procedure:

- The inspector shall review the approved set of Fire Alarm Plans and:
- Check to ensure that the elevator will function in emergency mode, and not open on a floor with an active lobby detector
- Check to ensure the inter connection with the fire alarm system
- Verify the type and location of the elevator key

### **620-Underground Rough Inspection:**

This inspection and associated procedures is intended for all underground Fire Lines regardless of the type system they serve. This inspection is to ensure that all underground fire protection piping is of the right size, type, and that restraints are installed to plans and the code. Underground fire protection piping is inspected from the point of connection (where the pipe is used exclusively for fire protection) to one foot above finished grade. This inspection shall be conducted prior to the installation of pavement or landscaping.

Inspection Procedure:

- The inspector shall review the approved sets of Site and Fire Protection Plans and:
- Check for type, size, and schedule of pipe being used
- Check for proper burial depth
- Check for type of restraints, installation of restraints and corrosion protection
- Check trench for large rocks or other debris
- Check the final grade

**621-Underground Flush Hydrostatic:**

This inspection ensures there are no substantial leaks in the fire sprinkler underground piping. This inspection should be done prior to pavement or landscaping being done.

Inspection Procedure:

- The inspector shall review the approved set of Fire Protection Plans and:
- Check that the system is pumped up to 200 psi
- Check to ensure the system holds the pressure for two hours
- Check for leaks, if leaks are detected that they are within the permissible limits as per NFPA 24
- Check to insure that there are no jumpers or other restrictions on the underground piping and back flow preventers
- Check to ensure that full bore flush is run for a **minimum** of two minutes and at full pressure
- Check that the water flows until there is no more debris being produced
- Check to ensure copies of the underground test papers are filled out correctly

**642- Hydrant Rough:**

This inspection ensures the proper type of restraint for the fire hydrants are installed per plans. This inspection should be done prior to any vertical construction and roads are paved.

Inspection Procedure:

- The inspector shall review the approved set of Site Plans and:
- Check for proper location of the fire hydrant
- Check for the correct restraint, restraint installation and corrosion protection
- Check that the restraint system used is installed correctly
- Check hydrant shut-off valve

**622-Hydrant Final:**

This inspection is to ensure all hydrants are installed per the approved site plans. This inspection should be conducted prior to any vertical construction and roads are paved.

Inspection Procedure:

- The inspector will review the approved Site Plans and:
- Check to ensure that any yellow tags or NOVs have been resolved
- Check break-a-way pad
- Check final grade
- Check to ensure the hydrants are the type detailed on the plans, and have the correct barrel and port sizes
- Check to ensure the threads are in compliance with the National Thread Standard
- Flow hydrant to verify adequate fire flow
- See each District's specific hydrant requirements

### **623-Fire Sprinkler Rough:**

This inspection is to ensure that no obvious glue plugs are present in the reducing coupling and proper piping and other components are being used for CPVC systems and to ensure that the metal piping has been installed per approved plans and is reamed and hung in the correct manner. This inspection should be done prior to ceilings or other obstructions are in place.

#### Inspection Procedure:

- The inspector shall review the approved set of Fire Sprinkler Plans and:
- Check for type and size of pipe being used
- Check for proper sprinkler head placement
- Check for type of hangers and location, and how they are secured to the structure
- Check for glue plugs in the reducing coupling for CPVC systems
- Check for proper reaming of pipe. This inspection can be done in one of two ways examples are. If the pipe is hung, then the inspector may at his/her choice require sections of pipe to be dropped. If the pipe is found not to have been properly reamed, then all the sprinkler pipe shall come down. The other option is to inspect the pipe prior to it being hung, this is the recommended method
- Check the building ground to ensure the sprinkler system is not being used as an electrical ground. However, steel sprinkler piping may be bonded to the structure

### **624-Fire Sprinkler/Hydro:**

This inspection is to check for any leaks or pressure loss during a two hour period time. The test shall be done at no less than 200 PSI unless approved by the AHJ. The hydrostatic test will be done with sprinkler heads in place. This inspection should be done before the ceiling is installed.

#### Inspection Procedures:

- The inspector shall review the approved set of Fire Sprinkler Plans and:
- Verify that the approved sprinkler heads have been installed
- Check for proper sprinkler head placement
- Check that the system is pumped up to 200 psi. or appropriate pressure.
- Check that the system is under pressure for at least two hours
- Check to ensure that there is no pressure loss, or visible water leaks during this test.
- Required at the inspectors' discretion, removal of some pendent fire sprinklers once the system is drained. This is lieu of an above ground sprinkler flush. However, if debris is noted a full system flush maybe required

### **625-Fire Sprinkler Final:**

This inspection is to ensure that the fire sprinkler system has been properly inspected and tested. Additionally, the inspector is to follow up on any Notice of Violations (NOV), or yellow tags that have been issued. This inspection should be done prior to fire final.

#### Inspection Procedure:

- The inspection shall review the approved set of plans, also determine if all yellow tags or NOV's have been resolved and:
- Check for spare heads and wrench in the spare head sprinkler box
- Check to ensure that all control valves are labeled, and lock in the open position.
- Check the riser for calculation plate
- Check FDC for signage, and port covers
- Check that the above ground test papers are completed and accurate.
- Check to see sprinkler heads are unobstructed, and free of paint
- Check for proper sprinkler head placement

### **626-Standpipe Rough/Hydro A/G:**

This inspection is to ensure that the aboveground portion of the standpipe system has been installed correctly and in the proper location(s.)

Inspection Procedure:

- The inspector shall review the approved set of Standpipe Plans and:
- Check for type, size, and schedule of pipe being used
- Check location and accessibility (clearance) of valves and connections
- Check fire stopping and or ratings requirements (if required) are in compliance
- Check for location and appropriateness of any pressure reducing or restricting devices
- Hydro test to 200 psi for 2 hrs

### **627-Standpipe Final:**

This inspection is to verify that all the required finishes to the standpipe system are appropriate and are in place.

Inspection Procedure:

- The inspector shall review the approved set of Fire Protection Plans and verify:
- Appropriate type and length of hose (if required)
- Installation of proper type and size of connections or reducers
- Type of nozzle installed (if required)

### **628-Fire Pumps:**

This inspection is to ensure that any fire pump installed has been thoroughly run and inspected to make sure the pump was installed correctly and the controllers operated as required by the code. The inspection should be done after the hydrostatic test on the above ground sprinkler system

Inspection Procedure:

- The inspector shall review the approved set of Fire Pump/Sprinkler Plans and:
- Check that the actual test is performed by the pump installers
- Check to ensure that all electrical components are inspected by the installer prior to pump start up
- Check that the test is run for the minimum rated and peak loads to check for overheating
- Check that all applicable tests are conducted on the fire pump and components
- Check that the system is under 200 PSI pressure for at least two hours
- Check to ensure that there is no pressure loss, or visible water leaks during this test
- Check to confirm all acceptance documentation paperwork is in order
- The fire pump manufacturer is responsible to run and document the test

### **629-Emergency Lighting:**

This inspection is to ensure the proper coverage of emergency lighting by generator, battery or individual lighting units. This inspection should be done before the building fire final.

Inspection Procedure:

- The inspector shall review the approved Building Plans and:
- Check location of emergency fixture against the approve plans
- Check that turning of a light switch would not activate emergency lighting, but will activate when power is lost
- Check to ensure activation is within Code, for emergency power whether by battery or generator

- If battery powered test duration of the battery

### **630-Door/Window's/Opening Protection:**

This inspection is to ensure the proper device with the correct hourly rating is used per the approved set of plans. This inspection should be done after all frames, doors closers, shutters or rated window are installed.

Inspection Procedure:

- The inspector shall review the approved Building Plans and:
- Check that all devices are of the correct hourly rating
- Check the functionality of all closers and fusible links
- Check the frames to ensure they are listed with the device
- Check hinges, closers and latching of rated devices
- Check rated glass for required identification

### **631-Trash Chute:**

This inspection is to ensure that the trash chute(s) is/are of the proper hourly rating, and that the trash chute(s) was/were built per the approved plans.

Inspection Procedure:

- The inspector shall review the approved set of Building Plans and:
- Check that the Trash Chute is properly constructed, and all penetrations are properly protected
- Check that all fire suppression and detection devices are present and installed per the applicable approved plans

### **632-Fire Extinguishers:**

This inspection is to ensure that all required portable fire extinguishers are properly tagged, and the locations are per approved plans, or as per direction of the inspector due to obstructions.

Inspector Procedure:

- The inspector shall review the approved set of Building Plans and:
- Check to ensure proper travel distance and mounting height requirements
- Check to ensure the fire extinguisher is the appropriate type and size based on the hazard and location (travel distance)
- Check to ensure the extinguishers are properly tagged

### **633-Fire Protection Plan:**

This inspection is a North Naples Fire District Requirement and does not apply in some other fire districts. Contact the District you're working in for details.

### **634-Exhaust Hoods:**

This inspection ensures that the grease or Class B hood is installed per the approved set of plans, and if applicable, the pre-engineered listing of the hood. This inspection should be done after the duct- hood rough inspection.

Inspection Procedures:

- The inspector shall review the approved Hood Plans and manufacturer's installation instructions and:
- Check connection from the hood to the duct work for appropriate welded fittings



- Check the gauge of the metal if the hood is engineered, or made to order hood
- Check filters to ensure they are approved type
- Obtain a copy of an air balance report
- Check roof or wall exhaust fan
- Check proximity to combustibles

### **635-Rough Duct Hood System:**

This inspection is done to ensure that duct work used to ventilate grease-laden vapors is installed per approved plans and that all welds and openings are properly protected.

Inspection Procedure:

- The inspector shall review the approved set of Hood Plans and:
- Check the duct work as to size and metal thickness, layout, access hatches and high temp gaskets
- Check to ensure that the joints are properly welded, with a minimum of a light or smoke test
- Check proximity of combustibles
- Verify required clearances between exhaust and intakes or other openings are maintained and verify duct wrap when required

### **636-Extinguishing System Hoods:**

This inspection is done to ensure that the fire suppression system was installed correctly, and to ensure proper activation in the event of a fire.

Inspection Procedure:

- The inspector shall review the approved set of Fire Suppression System Plans and:
- Check the piping location, size, and number of “T”s or elbows
- Check to ensure the height of nozzles over appliances, and coverage is correct
- Verify the nozzles are of the correct type
- Check the number of bottles installed
- Check the remote pulls for location, functionality and signage
- Check to ensure a class K fire extinguisher is properly mounted, and is properly labeled and use signage
- Check the continuity of piping by conducting a balloon test
- Check the operation of the fire alarm connection, if tied into one
- Ensure system is UL 300 compliant

### **637-Extinguishing System/Spray Booth:**

This is to ensure that spray application booths are installed per the approved plans, in regards to fire suppression systems, ventilation filters and protection of electrical circuits for explosion protection. This inspection should be done prior to operation.

Inspection Procedure:

- The inspector shall review the Building, Fire Suppression, and Fire Alarm Plans, and:
- Check functionality of the fans, and ventilation system
- Check the filter media, and filter frame
- Check the explosion proof electrical system
- Check to ensure if a fire alarm is present that the system is tied in
- Review the air balance report on the ventilation system
- Conduct a test of the functionality of the complete system
- Ensure test papers are properly completed

### **638-Tank Tie Down:**

This inspection is to ensure that all propane tanks whether above or below ground are properly secured.

Inspection Procedure:

- The inspector shall review the approved set of Tank Installation Plans and:
- Check that the tank is properly located, as to sources of ignition, exits and set back requirements
- If below ground, check location, burial depth and corrosion protection
- Check the restraints and mounting surface

### **639-Fuel Tank Pressure Test:**

This inspection is to ensure that during the transport and installation of tanks, no damage was done to the tank that would allow product leakage into the environment.

Inspection Procedure:

- The inspector shall review the approved set of Tank Installation Plans and:
- Check to ensure the correct tank and size are per the approved plans
- Check the pressure based on the Code or manufactures literature
- Check the time period that the test is to be done in
- Note: If approved by the local AHJ, test results performed by other governmental agencies may be accepted

### **640-Fuel Tanks/Piping:**

This inspection is to ensure that tanks containing flammable or combustible liquids are installed per plans, and that required safeguards are present. The inspector will check piping and containment

Inspection Procedure

- The inspector shall review the approved set of Tank Installation Plans and:
- Check location to set backs and property lines for spacing requirements
- Check to ensure separation to buildings and other structures
- Check to ensure containment system (if required) is provided
- Check placarding and signage

### **641-Fire Final:**

This inspection is to ensure that all codes have been met, and all required paperwork is completed. This is the last New Construction Inspection.

Inspection Procedures:

- The inspector shall review the approved set of Building Plans, ensure that all revisions have been approved by plan review and:
- Check that all applicable inspections have been done and passed
- Check to ensure all fire suppression systems and other life safety devices are tested and fully functional
- Check to ensure addressing is correct
- Check that all exit and emergency lighting is correct and functional
- Check all yellow tags or NOV's to ensure all outstanding issues have been resolved
- Check that all applicable documentation has been received
- Check that all applicable Notice of Fire Compliance's have been issued