

# ANNE ARUNDEL COUNTY FIRE DEPARTMENT FIRE MARSHAL DIVISION



## CODE ENFORCEMENT BUREAU

2660 Riva Road

Annapolis, Maryland 21401

Phone (410) 222-7884 Fax (410) 222-7874

Code Enforcement: Captain: Donna A. McGuire

### INSPECTION INFORMATION

To facilitate a smooth inspection process, please ensure that all relevant information is promptly communicated to the appropriate subcontractors. While it's challenging to anticipate every possible reason for inspection failure, adhering to these guidelines can help prevent common delays. Ultimately, the building, project, or installation must align with applicable codes, standards, and approved plans. In the event of inspection failure, a reinspection fee of \$100.00 may be imposed on the responsible party. Payment of this fee is required before scheduling any further inspections or issuing approvals.

### INSPECTIONS REQUESTS:

To request inspections, contact the Fire Marshal Division at 410-222-7884 with a minimum notice of 3 working days. Alternatively, inspections can be requested via the Land Use Navigator, with dates and times selected based on inspector availability. The portal will be updated once the Fire Marshal schedules the inspection.

### APPROVED PLANS MUST BE ON-SITE:

Maintain the approved plans on-site at all times for inspector reference. These plans must bear the stamp and signature from the Anne Arundel County Plans Review Office; duplicates or plans lacking these markings will not be accepted. Shop drawings and other plans without proper stamps and signatures are also not permissible. Failure to have the required plans on-site may lead to inspection cancellation and/or the imposition of fees. Ensure you have these approved plans readily available to save both your time and the inspector's time.

### COMMENT LETTERS:

Include comment letters from the plans review office as integral components of your approved plans, and ensure they are consistently available on-site for inspector reference. Thoroughly read these comment letters, as they frequently contain crucial information not present in the plans.

### **DEVIATION FROM APPROVED PLANS = REVISED PLANS NEEDED:**

Construction must align with the approved plans, and any alterations to the construction or systems necessitate plan revisions through the County Permit Application Center. Ensure that revised approved plans, bearing the required stamp and signature, are present on-site for inspections. Failure to have these revised plans available will cause delays in the inspection process. Approval from the Fire Marshal is mandatory for any deviations that lack corresponding revised approved plans.

### **LAND USE NAVIGATOR INFORMATION:**

Utilize the online tool to apply for permits. Visit the Permits page to ascertain whether a permit is needed and to identify the necessary forms and plans for the application process:

<https://www.aacounty.org/inspections-and-permits/permits>

Learn about the Inspections that may be required:

<https://www.aacounty.org/departments/inspections-and-permits/inspections/>

If applying or renewing a license, review the Licenses section of the website to learn more:

<https://www.aacounty.org/departments/inspections-and-permits/licenses/>

Review the System Help section to use as a reference and to familiarize yourself with the Land Use Navigator:

<https://www.aacounty.org/inspections-and-permits/land-use-navigator/system-help>

Launch the LAND USE NAVIGATOR to create an account and begin accessing services online:

<https://www.aacounty.org/lun>

### **PERMITS REQUIRED (RELATED TO FIRE MARSHAL INSPECTIONS):**

- Building Permit
  - Sprinkler Permit
  - Fire Alarm Permits
  - Kitchen Hood and Duct Permit – If the same contractor does not install both the hood and duct, a separate permit is required for the hood and duct, if both are not indicated on one plan.
  - Kitchen Hood Fire Suppression System Permit
  - Underground Fire Service Main
  - Above ground flammable/combustible liquid tanks (60 gallons or greater capacity)
  - LP gas tank installations
  - Electrical Permit
  - Commercial Fence Permit
- Distinct permits are necessary for each of the mentioned items. No additional permits are automatically granted alongside the building permit, even if plans for those items are included in the building permit set. A separate application for the permit and review period is mandatory.

**WORK WITHOUT PERMITS:**

Ensure that an approved permit is present on-site before commencing any work. No work is allowed without a permit and approved plans from the County Inspections and Permit Center, including activities like pulling wire for alarm systems. Engaging in work without approved permits may lead to the issuance of a Stop Work Order as per the Annotated Code of Maryland/PUBLIC SAFETY/TITLE 9 – FIRE PROTECTION AND PREVENTION, Uniform Code NFPA 1. Violating this order, or tampering with or removing it, is considered a misdemeanor and is subject to a fine not exceeding \$1000.00, imprisonment not exceeding six months, or both.

**NO OCCUPANCY UNTIL FINAL INSPECTIONS ARE COMPLETED:**

Occupancy, whether in whole or in part, is prohibited until final inspections are concluded. If there's a need to stock before occupancy, permission shall be obtained from the building inspector.

**GAUGES USED FOR TESTING:**

The licensed contractor performing the test must supply all gauges, and these gauges must be UL (Underwriters Laboratory) listed, in good working order, and calibrated within the past 12 months.

**STANDARDS FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS:**

The owner or their representative must formulate a comprehensive fire safety program for both demolition and construction activities. Each building must be reachable by fire department apparatus through roadways featuring a durable driving surface of no less than 20 ft. width, capable of supporting the live loads of fire apparatus, and offering a minimum vertical clearance of 14 feet. For buildings exceeding one story, at least one stairway meeting NFPA 101, Life Safety Code requirements and always in usable condition, shall be provided. **In new buildings mandating standpipes, these standpipes must extend with each floor (including during construction) and be securely capped at the top.**

**UNDERGROUND FIRE SERVICE WATER LINES FOR SPRINKLER SYSTEMS:**

Before covering the line, it is mandatory to conduct an inspection and hydrostatic test, with both a representative from the Fire Marshal Office and an infrastructure inspector from the Inspections and Permits Division present as witnesses. If the line falls under private jurisdiction or the infrastructure agency lacks jurisdiction, coordinate with the Fire Marshal Division to schedule an inspection before covering the line. Additionally, the Fire Marshal must witness the line flush before connecting it to the sprinkler riser. Line flushing adheres to NFPA 13 and 24 standards, ensuring a specific water velocity measured in gallons per minute (GPM) during the flush, based on the line's diameter. A Contractors Material and Test Certificate for Underground Piping form is essential.

**FIRE SUPPRESSION WATER TANKS:**

Tanks, whether situated above or below ground, along with associated water lines for sprinkler system water supply or for manual water supply drafting by fire apparatus, require inspection by the Fire Marshal. An air test, witnessed by the Fire Marshal, is also necessary. To schedule these activities before placing the tank in the ground, reach out to the Fire Marshal Division.

### **SPRINKLER SYSTEMS:**

Inspections for sprinkler systems will only occur if all piping is fully exposed. The use of ladders to view above ceiling tiles is not permissible. Approved plans must be present on-site during the inspection, and piping should not be painted until the system has been inspected and approved by the Fire Marshal. Additionally, a Contractors Material and Test Certificate for Aboveground Piping form is mandatory.

- Hydrostatic test required for installations with more than 20 sprinklers.
- Visual inspection required for any number of installed sprinklers.
- Ensure the system is installed in accordance with applicable standards and approved plans.
- Match the installation with approved plans, including details like manufacturer/model/temperature of sprinkler, piping size, type, and plan layout. Deviations require plan revisions, and any deviations without approved plans need Fire Marshal approval.
- Mark all piping along its length with manufacturer/type.
- Identify the function of all control valves with signs.
- Replace painted sprinklers.
- Mark doors to rooms containing sprinkler equipment/control valves.
- Display hydraulic data plates in the riser room.
- Keep a stock of spare sprinklers (of each type) in a box with a wrench in the riser room.
- Any loss of pressure or visible leak is grounds for failure.
- For fire pump installations, undergo an electrical inspection by the County Electrical Inspector before Fire Marshal Inspection/Test.
- Fire pump installations require a hydrostatic test of pump piping witnessed by the Fire Marshal before the pump test.
- Inspect and test the fire pump installation according to NFPA 20, Standard for the Installation of Centrifugal Fire Pumps.
- For standpipes, undergo a hydrostatic test and flush witnessed by the Fire Marshal.

### **KITCHEN HOODS:**

Inspections shall be required of hood and duct work on the ground before hanging to verify welds, dimensions, model number, and the specified wall construction type adjacent to the hood, as outlined in the plans. Another inspection is necessary after the installation is complete. If hoods or duct work are closed before a Fire Marshal ground inspection, they may need to be taken down or made visible for inspection to the Fire Marshal's satisfaction. Approved plans must be accessible during any hood inspection, and all equipment must match the approved plans. The hood and ductwork shall be on the same permit.

## **REQUIREMENTS FOR HOOD/DUCT AND SUPPRESSION SYSTEM INSPECTIONS:**

- Approved plans must be on-site.
- Installation must adhere to approved plans and NFPA 96 standards.
- Mechanical Inspection performed by the County Mechanical Inspector..
- Utilize a drop light to verify welds/seams inside the duct/hood.
- Ensure safe access to all parts of the duct and hood.
- If duct wrapping for reduced clearance is used, the Fire Marshal must inspect it before closure; material details must be indicated on the approved plans.
- Have manufacturer installation guidelines on-site for Fire Marshal reference.
- Provide an audible or visual indicator upon suppression system activation.
- If a fire alarm system is in place, suppression system activation should trigger the fire alarm signaling system.

## **FIRE ALARM SYSTEMS/HVAC:**

- No installations, including pulling wire or device installation, are allowed without an approved fire alarm system permit and plans on-site.
- Approved plans with a submittal book must be available for the inspector.
- Installation should adhere to approved plans, NFPA 101 (Life Safety Code), and NFPA 72 (National Fire Alarm Code).
- Deviations from approved plans require revised submissions to the Permit Application Center or Fire Marshal approval for deviations without plans.
- Apply for the fire alarm system permit early in the construction process.
- The Fire Alarm permit is inspected by the Electrical inspector for the wiring and is required before the Fire Marshal inspection.
- An inspection of all wiring and appliances (devices permit) must be completed by the County electrical inspector before scheduling the Fire Marshal inspection, leaving a passed inspection sticker.
- Present a record of completion form to the Fire Marshal during the inspection (found in NFPA 72, Chapter 1).
- Ensure all equipment matches approved plans and equipment lists; model numbers and manufacturers will be checked.
- Device locations must match approved plans; deviations without revised plans need Fire Marshal approval.
- Check sound levels with a sound meter before the Fire Marshal inspection to meet NFPA 72 requirements; the Fire Marshal will inspect for proper sound levels.
- HVAC duct detection requires access panels for smoke testing, installation in line with NFPA 90A, and marking of duct detector locations on ceiling grids or posted diagrams.
- Duct detectors, if required by NFPA 90A, must be on the supply side and also on the return side for systems over 15,000 CFM serving more than one story.
- HVAC duct detection activation initiates a supervisory condition, not an alarm.
- Mark duct detector locations on ceiling grids or provide a posted diagram at the main electrical panel indicating HVAC unit locations.
- Provide means to manually stop the operation of supply, return, and exhaust fans in an emergency, with conspicuous shutdown devices.

- Have at least two personnel on-site for the inspection with the ability to communicate and verify signals during testing if the FACP and devices are not in close proximity.
- Ensure the phone number and contact information for the off-site monitoring company are available to confirm proper receipt of signals off-site.

**BUILDING PUBLIC SAFETY RADIO REQUIREMENTS:**

- Anne Arundel County, Maryland, has adopted NFPA 1, Fire Code, 2018 Edition, NFPA 101, Life Safety Code, 2018 Edition, and NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, 2016 Edition.
- NFPA 1-2018 and NFPA 101-2018 outline requirements for reliable public safety radio system coverage in occupancies, while NFPA 1221-2016 provides requirements for the design, installation, and maintenance of communications enhancement systems.
- Modern building design and construction, including LEED-certified buildings, pose challenges for providing reliable two-way radio coverage for first responders inside many structures.
- Two-way radio communications enhancement systems, utilizing bi-directional amplifiers (BDAs) and a network of indoor antennas (Distributed Antenna System - DAS), extend the coverage of 700 and 800 MHz public safety communications systems within buildings.
- DAS systems must be designed, installed, maintained, and repaired by qualified personnel to meet coverage reliability requirements and avoid unintended harmful interference with FCC-licensed users of the RF spectrum.
- Anne Arundel County has established a framework and policy for building owners and developers to comply with in-building public safety radio coverage requirements outlined in NFPA 1221-2016.
- For more information and to access the documentation and application package, click the provided links. Questions can be emailed to 800MHz@aacounty.org.

**Related Documents Link:**

<https://www.aacounty.org/fire-department/fire-marshal/codes-regulations/building-public-safety-radio-requirements>

**NEEDED PRIOR TO FIRE MARSHAL FINAL INSPECTION:**

Ensure that a pass sticker is affixed for all applicable permits and inspections related to your project.

- Electrical inspection: Conducted by Electrical Inspector.
- Sprinkler system: Inspected by the Fire Marshal before Use of Occupancy inspection.
- Underground water line for sprinkler system: Inspected by infrastructure inspector or Fire Marshal; flush by Fire Marshal.
- Fire Alarm System - Inspected and passed by the Electrical Inspector.
- Fire Alarm System - System permit: Inspected and passed by the Fire Marshal.
- Kitchen Hood and Fire Suppression System: Inspected by the Fire Marshal before Use of Occupancy inspection.
- Above ground/underground tank inspections (combustible/flammable liquid, LP, water).
- Generator inspection if used as an emergency power source for exit-emergency lighting or fire alarm system secondary power; compliance with NFPA 110 Standard.

## **FOR USE AND OCCUPANCY – FINAL INSPECTION:**

- Ensure approved plans and comment letters are on-site for inspection, verifying that all comment letter items have been addressed.
- Check means of egress, including exit access, exits, and exit discharge.
- Verify proper door operation and width, ensuring a minimum of 32 inches clear.
- Check door hardware and locking devices, prohibiting key locks on the egress side.
- Inspect illuminated exit signs in normal and emergency modes..
- Confirm emergency lighting is wired to the area lighting circuit, activating when the lighting for an area is turned off.
- Check stairs for riser and tread dimensions.
- Inspect handrails and guardrails, measuring from the front, leading edge of the stair.
- Verify fire walls for penetration, ensuring fire stopping via an approved method.
- Check fire doors, frames, and hardware for all required labels, with visible labels. Ensure fire doors are self-closing and positive (self) latching. Glass in fire doors, side lights, or fire partitions must bear a label of fire resistance by an approved testing agency.
- Inspect interior finish (walls, ceilings, floors), providing specifications for flame spread, critical radiant flux for carpets, and specification sheets for curtains and hanging materials, if required by the Life Safety Code.
- Verify fire lane/s design and installation to support a minimum of 40 tons (if unpaved), with proper designation and marking according to Fire Marshal Division specifications.
- Confirm the proper location, operation, and accessibility of fire hydrants and building sprinkler/standpipe connections (18-42 inches above grade).
- Ensure fire extinguishers are installed according to NFPA 10, accessible, and within 75 feet of travel distance. Mount them on a wall with the top not exceeding five feet off the floor.
- Display the building address permanently on or about the property in letters or numbers at least six inches high on a contrasting background, clearly legible from the street named in the address. For multifamily structures, each dwelling unit should be labeled on the exterior door in plain block numbers or letters at least six inches high.
- Address any other items specifically required for your project.