

BST&G Fire District

Ohio Fire Code Provisions



Ohio Specific Provisions related to the 2017 Ohio Fire Code

These provisions state the requirements of the BST&G Fire District and its Fire Code Officials that are issued under the of the **2017 Ohio Fire Code (“OFC”)**, including but not limited to **Section 104 General Authority and Responsibilities** as contained in the **Ohio Administrative Code Section 1301:7-7-01**.

A. Applications and Permits:

All plans for proposed new construction, modifications to an existing structure, or residential and commercial developments within the BST&G Fire District coverage area shall be submitted to the Fire District, Fire Code Official for review of the following items: site access, fire hydrants, fire apparatus access roads, underground fire lines, fire department connections, fire suppression systems, fire alarm systems, life safety plans, construction documents, etc. Plan review, fee payment, and approval shall be obtained from BST&G Fire District prior to construction.

The BST&G Fire District has provided notice to the Delaware County Building Safety and The Bureau of Building Code Compliance of Ohio officials of the participation in the plans review and permitting processes.

1. Per the **OFC, Section 104.2 Applications and Permits**, the fire code official is authorized to receive applications, review construction documents and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.
2. Per the **OFC, Section 104.2.1 Plan review for fire protection systems in structures regulated by the building code as listed in rule 1301:7-7-80 of the Administrative Code**. For the purposes of this paragraph, a fire code official is authorized to conduct plan review of fire protection systems in structures regulated by the building code as listed in rule **1301:7- 7-80 of the Administrative Code** in accordance with **Section 106.1.2** of that code and the provisions of this paragraph. The fire code official is authorized to:
3. Per the **OFC, Section 104.2.1.1** Receive and review fire protection system and associated fire safety feature related construction documents when notice is provided to the building code official in accordance with **Section 106.1.2** of the building code as listed in rule **1301:7-7-80 of the Administrative Code**.

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B. Types of Permits and Fees:

All fire protection systems and building plans shall be submitted to the BST&G Fire District, Fire Code Official in addition to Delaware County Building Safety or The Bureau of Building Code Compliance of Ohio for review and comment prior to initiation of any construction. All permits and fees shall be paid in full prior to any demolition or construction. Lack of payment will result in a “FAILED” reinspection and fees shall accumulate and/ or a “Stop Work Order” will be issued for the project. This permit list is in addition to those required by the respective Building Code Department.

All permit fees shall be made payable by check and mailed to:

BST&G Fire District
Attention: Community Risk Reduction
350 W. Cherry
Sunbury, Ohio 43074

(please reference the business name and invoice number on your check)

1. **OFC Section 105.1.1 Permits required.** A property owner or owner’s authorized agent who intends to conduct and operation or business or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the fire code official and obtain the required permit.
2. The following is a summary of the permit list adopted by the BST&G Fire District as set forth in the **OFC Sections 105.1.1 and 105.1.1.2, Ohio Administrative Code 1301:7-7-01. Please refer to BST&G Fire District Inspection Fee Schedule for more details.**
 - **Plan Review**
 - Commercial Plan Review: New Construction, Modification, Alterations
 - Residential Subdivision/ Multifamily/ Apartments Complex
 - **Construction Permits and Fire Protection Systems**
 - Above Ground Storage Tanks (Additional required permits or inspection for the AST installation, alteration or removal will be directed to the State of Ohio Fire Marshal’s Office at 614-752-8200)
 - Sprinkler Systems
 - Independent Standpipe Systems
 - Underground Fire Lines
 - Fire Pumps
 - Automatic Extinguishing Systems (CO2, Clean Agent, Dry Chemical)
 - Commercial Kitchen Cooking Hood Systems
 - Fire Alarm Systems

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- Emergency Responder Radio Systems
- Battery Storage Systems
- Group H Occupancy Areas
- Smoke Control / Exhaust Systems
- Tent / Membrane Permit and Inspections
- Construction Trailers
- Plan Review / Construction Meetings
- Adjudication Hearings
- Phased Inspections / Partial Inspections
- Re-inspection of failed systems acceptance tests
- Cancellation of an acceptance test within a 24-hour period of scheduled time.
- After Hours Inspections (Business Hours: Mon - Fri 8 am - 4 pm)
- **Operational (Annual) Permits**
 - Aerosol Products (In excess of allowable limits per **OFC Section 105.6.1.**)
 - Combustible Fibers (In excess of allowable limits per OFC **Section 105.6.8.**)
 - Compressed Gasses (In excess of **OFC Section, Table 105.6.9**)
 - Cryogenic Fluids (In excess of **OFC Section, Table 105.6.11**)
 - Fireworks (Permits, inspections, per inspector and apparatus fee)
 - Flammable and Combustible Liquids (In excess of allowable limits per **OFC Section 105.6.17**)
 - Hazardous Materials (In excess of **OFC Section, Table 105.6.21**)
 - HPM Facilities
 - Private Fire Hydrants (If maintained by BST&G Fire District)
- **Annual Inspections and Reinspections (See fee schedule)**
 - Buildings less than 30,000 sq ft (Small)
 - Buildings 30,000 - 65,000 sq ft (Medium)
 - Buildings 65,000 - 250,000 sq ft (Large)
 - Buildings 250,000 - 450,000 sq ft (Extra Large)
 - Buildings greater than 450,000 sq ft (Megastructure)
 - Daycare Facility 10 or less children
 - Daycare Facility 11 or more children
 - A business may be granted one (1) reinspection at no charge at the discretion of the Fire Inspector. Unless provided a waiver from the Fire Chief, a fee will be assessed for all reinspection's. For buildings less than 30,000 sq. feet, the fee will start at \$50.00 and increase in increments of \$50.00 for each additional reinspection. For all other businesses, the reinspection fee is the same as the annual inspection fee. All reinspection fees shall be paid prior to the start of the scheduled inspection.

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- **Miscellaneous Fees**
 - Fire Watch / Special Duty
 - Apparatus Fee (minimum of 4 hours)
 - Fire Extinguisher Training
 - Underground Storage Tanks (Any required permit or inspection for the UST installation, alteration or removal will be directed to the State of Ohio Fire Marshal's Office at 614-752-8200)
- 3. The Fire Code Official may waive the fee when the permit is obtained by a non-profit organization or is for a non-profit function.
- 4. As-Build plans are required to be submitted by electronic media in PDF format upon completion of construction.
- 5. If construction commences prior to the issuance of said permits, a "STOP WORK ORDER" shall be issued, and further action may be taken in the form of a formal citation or adjudication.
- 6. ALL contractors found working without an approved permit shall be charged **twice the permit fee.**

Please refer to BST&G Fire District Inspection Fee Schedule for more details.

THE FOLLOWING IS IN ADDITION TO ALL FEDERAL, STATE, COUNTY, LOCAL AND NATIONAL CODES AND STANDARDS.

C. Construction Documents

1. Submittals shall be per the ***OFC Sections 105.4.1 Submittals and 105.4.2 Information on Construction Documents***, with one (1) copy of each submittal, on both paper and electronic media, being tendered to the BST&G Fire Code Official.
 - Paper Media - One (1) full set of shop drawings at a standard engineering scale (1:10, 1:20, 1:30, 1:40, 1:50, 1:60) and one (1) half size set of civil drawings shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work will conform the provisions of the OFC, relevant laws and these specific provisions.
 - Electronic Media - One (1) base drawing of each sheet, at a standard engineering scale (1:10, 1:20, 1:30, 1:40, 1:50, 1:60) on a USB drive. Drawings may be shared with BST&G Fire District via a link provided by the applicant or via email to the BST&G Fire District, Fire Code Official. Drawings shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work will

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conform to the provisions of the OFC, relevant laws and these specific provisions.

2. Plans submitted shall include, but not limited to, the following information:
 - Site plan layout of the property to display the location of parking lot entrances, fire hydrant locations, fire department connections (FDC) locations, post indicator valve (PIV) locations, emergency generator locations, vehicle hazards, and an indicating icon with the North direction.
 - Completed floor plans for each level including doors, windows, fire rated building walls, fire rated doors, life safety plan, standpipe locations, fire extinguisher locations, exit signs, emergency lighting, Knox Box location(s) and any other special hazards.
 - Completed drawings of the sprinkler system that includes the locations of the sprinkler head, sprinkler head type, sprinkler riser location, sprinkler zones on all floors, and fire flow calculations.
 - Completed drawing for the fire alarm system of each floor that includes the location of all fire alarm devices. Include details on the type of fire alarm panel, devices reporting to the fire alarm and each device reporting function.
 - Completed drawings for electrical, mechanical and plumbing that include the location of all utility shut offs.
 - Hazardous material - including quantities, storage locations and SDS information.

D. Fire Apparatus Access Road and Water Supply

For more information, please reference BST&G Fire District “*Certification of Approval for Fire Apparatus Access Roads Prior to Above Grade Construction*” document.

1. **501.3 Construction documents.** Construction documents for proposed fire apparatus access, location of fire lanes, security gates across fire apparatus access construction documents and hydraulic calculations for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.
2. **501.4 Timing of installation.** Where fire apparatus access roads or a water supply for fire protection are required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection where construction of new roadways allows passage by vehicles in accordance with paragraph (E)(2)(505.2) of this rule.
3. **503.1.2 Additional access.** The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a

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single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

4. **503.2.2 Authority.** The fire code official shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.
5. **503.2.3 Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced to provide all-weather driving capabilities.
 - Fire apparatus access roads shall be designed and maintained to support an imposed load of 70,000 pounds on 4 stabilizer jacks with a total surface area of 788 square inches. Under all-weather conditions, the material shall be a minimum of hard packed aggregate base during the construction phase. The Professional Engineer shall base the calculations on the base design and not on the final pavement design. Concrete or Asphalt shall be the required finished surface.

E. Underground Fire Line Inspections

For more information, please reference BST&G Fire District “*Fire Protection Underground Pipe Inspections and Test Procedures*” document.

1. The responsible person shall schedule the attendance and inspection, with the BST&G Fire District, Fire Code Official, of all thrust blocking on underground fire suppression lines, private fire hydrants, fire sprinkler riser lines, and fire department connections. Thrust blocking shall meet the minimum requirements of **2025 NFPA 24**.
2. All underground fire lines, hydrants, and fire department connections shall be flush and flowed per the requirements of **2024 NFPA 24**.

F. Fire Hydrants, Fire Protection Water Supplies

The BST&G Fire District Fire Code Official and Del Co Water shall have final approval on all locations of fire hydrants prior to any construction.

1. **507.1 Required water supply.** An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.
2. The maximum distance between fire hydrants shall be 300 ft in commercial areas and 400 ft in residential areas.
3. Fire hydrants shall be provided no less than 20 ft, nor more than 50 ft of all intersecting streets.
4. One (1) fire hydrant shall be provided within 150 ft of the terminus of a public or private dead-end street, stub street, common access drive, or cul-de-sac.

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5. Fire hydrants shall not require the opening of a valve for the fire hydrants to provide the required fire flows needed.
6. Hydrant flow testing, as recommended per **NFPA 291**, shall be conducted and documented to ensure that the minimum flow is available. These tests shall be conducted at the expense of the owner. The BST&G Fire District shall be notified for the opportunity to witness these tests.
7. Fire hydrant and water line plans shall be submitted to the BST&G Fire District. All plans shall be full size with one of the scales indicated above.
8. The minimum water line size for a fire hydrant shall be 6 inches in diameter. If the water line is a dead-end line and exceeds 600 ft in length or has two or more hydrants on the line, an 8-inch pipe size is required.
9. The minimum branch size for a fire hydrant shall be 6 inches in diameter.
10. Fire hydrants shall consist of:
 - One (1) 5-inch Stortz connection
 - Two (2) 2.5-inch hose connections
 - Meet the NFPA National Standard fire hose threads.
11. Additional fire hydrant requirements:
 - Set the depth so that the breakaway flange is within 6 inches above the finish grade.
 - The steamer connection shall be facing the road
 - Check the hydrant to ensure that there is no leakage at the breakaway flange and that the water freely drains through the weep hole when shut off.
12. Fire hydrants shall be in service, and a letter received from the local water department with a certificate of completion from the installing contractor prior to the construction above grade. All hydrants shall remain functional and in service after this step.
13. All fire hydrants on a private system shall be painted Industrial Green. A private system is defined as ANY hydrant not maintained or are the responsibility of the Water Department.

G. Fire Suppression Systems

1. A copy of the sprinkler plans *APPROVED BY THE BST&G FIRE DISTRICT* shall remain on site after building occupancy.
2. **Post Indicating Valves (PIV)**
 - Specific details shall be provided for pipe material transitions, changes in pipe connection (i.e., slip joint, fixed flange, mechanical joints, mega-lug joints) **2016 NFPA Section 4.1.3**
 - Sprinkler systems other than limited area systems, as defined in The Ohio Building Code, shall have a post indicating valve installed. The post indicating valve shall be monitored at a constantly attended location

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and/or kept locked. Post indicator valve locations shall be approved by the BST&G Fire District. All control valved shall be provided with permanently attached identification tags indicating the valve's function and what is being controlled. Post indicator valve handles shall be secured by a break a way lock to the post indicator valve.

- The Post Indicator Valve (PIV) shall have a twelve inch (12") wide by eighteen (18") high white aluminum sign with six inch (6") red reflective letter "P.I.V." The building address in one and one half (1 ½ ") high by half inch (1/2 ") wide red reflective letters with the building's address permanently attached to the PIV barrel. **2017 Ohio Fire Code Section 912.5**

3. Fire Department Connections (FDC)

- Plans shall show location of fire department connection (FDC), indicating the location of the check valve and automatic ball drain; **2016 NFPA 24 – Section 5.9**
- All fire department connections will be remotely located from the building unless otherwise approved by the BST&G Fire District.
- The fire department connection shall be located at the address side of the building, five feet (5') behind the right-of-way. The Code Official, prior to construction, **shall approve** the location of the fire department connection. **2017 Ohio Fire Code Section 912.2.1**
- As defined in the **Ohio Fire Code and the Ohio Building Code**, the fire department connections shall be compatible with the connections of the AHJ. All threads provided for the fire department connections to the sprinkler system(s) or any other fire system supplying shall be a 5" Storz connection with a 30-degree angle towards the ground. It shall also be 36" off the finish grade. **2016 NFPA 24 Section 5.9.2.4 2017 Ohio Fire Code Section 912.2.1**
- Steel pipe used for FDC shall be externally wrapped and internally galvanized between the Check Valve and the outside fitting. **2016 NFPA 24 Section 10.1.1.3**
- All fire department connections for the sprinkler system and standpipe systems shall be installed in a location approved by the BST&G Joint Fire District and be within 40' of the nearest approved fire hydrant.
- The fire department connection shall be marked with a red aluminum sign, 18" in height and 24" in width be mounted near fire department connection with the final location to be approved by the BST&G Joint Fire District. The sign shall have white letters reading "FDC" that are 6" in height and 1" stroke width. The fire department connection shall also have signage attached to the FDC, of red aluminum that shall have 1"

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white letters containing the building address and what the required pump pressure shall be for the suppression system.

- The water line shall be a minimum of 6” diameter line from the 5” Stortz fitting to the sprinkler riser. The fire department connection line may be a 4” line if the sprinkler water line into the building is a 4” or smaller line.
- If the fire department connection is in an area subject to vehicular, impact bollards shall be installed to protect the connection following the **OFC 312** guidelines.
- Private fire service mains and their appurtenances shall be installed, flushed and tested per **NFPA 24**.
- The BST&G Fire District shall be present to witness all underground fire line inspections.
- Zone maps shall be posted near the riser(s) at a location determined by the Fire Code Official.
- The sprinkler riser shall be placarded and have permanently attached to it the demand and design criteria.
- All fire department connections shall be painted “Fire Protection Red”

4. Fire Pumps

- When a fire pump is required for the building systems, separate fire department connection line six-inch (6”) minimum, shall be connected to discharge side of fire pump. The required check valve shall be located immediately adjacent to the point of connection of the fire department connection to the fire pump discharge piping.
- The fire protection underground piping shall be sloped to the automatic ball drip valve located in the valve vault. Based upon pipe configuration of multiple low point drains may be required. **2016 NFPA 13 Section 913.1.1 through 913.5.4**
- Separate signage shall be required for the pump fire department connection and shall have a separate sign stating, “**Fire Pump Connection.**”

5. Standpipe Systems

- Standpipe Systems in buildings shall meet the minimum requirements of the **OFC Section 905 Standpipe Systems, 2024 NFPA 14** and those required by BST&G Fire District.

H. Fire Alarm & Signaling

For more information, please reference BST&G Fire District “*Fire Alarm Test Procedures and Submittal Checklist*” documents.

1. A copy of the fire alarm and signaling plans **APPROVED BY THE BST&G FIRE DISTRICT** shall remain on site after building occupancy.

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2. A fire alarm document box shall be installed at the area of the main fire alarm panel and shall include current as-built drawings. Electronic as-built drawings as well as a points list shall be submitted to the BST&G Fire District.
3. The BST&G Fire District shall approve the location(s) of all fire alarm panels and remote indicators. An identification map approved by the Fire Code Official shall be installed at the alarm panel indicating fire alarm devices such as smoke detectors, pull stations, sprinkler systems, duct smoke detectors and like items. Remote annunciators shall be required in all fire pump rooms, riser rooms, inside at least one (1) main entrance to the building and inside designated fire department entry doors as determined by the Fire Code Official.
4. A Remote Fire Alarm Annunciator Panel shall be located inside of the main entrance. Additional annunciator panels may be required.
5. Per **NFPA 72**, the installing contractor shall complete and sign all appropriate fire alarm completion records.
6. Duct detector locations shall be designated by a 1” wide red plastic sign with .75” white lettering permanently attached to the ceiling grid below the unit or in a location as approved by the fire code official and shall read Duct Detector # __.
7. Stand-alone Remote Duct Smoke Detector remote indicators shall be installed to the right side of the main front door (determined facing the door from the outside), no more than three feet (3’) inside the front door and shall be approved by the BST&G Fire District prior to installation.
8. Duct Remote Indicator Signage – A permanent sign shall be placed above the remote as to their function for both trouble and alarm.
9. A permanent sign shall be attached to the ceiling grid below a hidden smoke detector unit or a duct detector and is identified with the same language as the fire alarm panel, or as otherwise required by the BST&G Fire District.
10. The Fire District requires horn strobes to be installed on the outside wall leading into sprinkler riser/fire pump room.

I. **Witnessing of Acceptance Testing / Retest**

1. The responsible person shall schedule the attendance and witnessing of an acceptance test or retest with the Fire Code Official and Delaware County Building Safety or The Bureau of Building Code Compliance of Ohio at least forty-eight (48) hours prior to the desired test date and time.
2. Prior to scheduling an inspection, test or retest, the responsible person shall submit to the Fire Code Official, a **Statement of Compliance (a.901.5.1) of the 2017 Ohio Fire Code**. All fees shall be paid in full prior to scheduling the inspection, test or retest.

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3. Inspections will begin promptly at the scheduled time. Should the inspection not be ready to take place at the scheduled time or is cancelled with less than 24 hours' notice, the inspection will be deemed incomplete and "Failed". A re-inspection will need to be scheduled, and a fee will be assessed by the Fire Code Official. The Fire District will not construct "punch lists" for projects.

J. Final Fire & Life Safety Inspection

The responsible person shall schedule a final fire and life safety inspection with the BST&G Fire District, Fire Code Official, at least forty-eight (48) hours prior to the desired date and time needed for the inspection. All fees shall be paid prior to scheduling the final inspection. Should the inspection not be ready to take place at the scheduled time or is cancelled with less than 24 hours' notice, the inspection will be deemed incomplete and "Failed". A re-inspection will need to be scheduled, and a fee will may be assessed by the Fire Code Official.

K. Hazard Communication

1. Per **OFC 407.1 General**. The provisions of paragraphs (G)(2)(407.2) to (G)(7)(407.7) of this rule shall be applicable where hazardous materials subject to permits under paragraph (A)(5)(5001.5) of rule [1301:7-7-50](#) of the Administrative Code are located on the premises or where required by the fire code official.
2. Per **OFC 407.2 Material Safety Data Sheets**. Material Safety Data Sheets (MSDS) for all hazardous materials shall be either readily available on the premises as a paper copy, or where approved, shall be permitted to be readily retrievable by electronic access.

L. Key Boxes (Knox Box)

1. Per the OFC **Section 506.1 Where Required**. Where access to or within a structure with an area that is restricted because of secured opening or where immediate access for life-saving or firefighting purposes, the Fire Code Official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037 as listed in rule **1301:7-7-80 of the Administrative Code** and shall contain keys to gain necessary access as required by the fire code official.
2. In relation to the **OFC Section 506.1.1 Locks**. An approved lock shall be installed on gates or similar barriers where required by the fire code official.
3. Per the **Ohio Fire Code Section 506.1 Where Required**. All commercial buildings shall be equipped with key boxes, at a minimum being a 3200 Series hinged door Knox Box. A key box is required for the front door and may be required in multiple access points for the buildings depending on the size and building configuration.

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4. A card containing the emergency contact information for the individual in charge of the building and/or property. A minimum of two (2) sets of master keys will need to be labeled and provided to the Fire Code Official to be secured inside of the key box.

M. Premises Identification

1. Per the OFC **Section 505.1 Address Identification**. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained. The BST&G Fire District specifications call for a minimum size in height of 6” with a minimum stroke width of 1” letters/numbers of contrasting color. The fire department only requires the actual digits of the address not the street name, unless specified specifically by the fire code official.

N. Alternative Energy and Energy Storage

1. **IFC Chapter 12 and NFPA 855** shall govern any energy generation or energy storage in, on and adjacent to any structure.

THE ABOVE RULES AND REGULATIONS ARE IN ADDITION TO ALL FEDERAL, STATE, COUNTY, LOCAL AN NATIONAL CODES AND STANDARDS.