COUNTY AGENDA REQUEST

Department:	Legal / Public Safety	Presenter(s):	Dennis Davenport / David Scarbrough
Meeting Date:	Thursday, February 12, 2015	Type of Request:	Consent

Wording for the Agenda:

Approval of staff's request to adopt Ordinance 2015-02, enacting provisions pertaining to the Multifamily Residential Sprinkler Code by designating Sections 12-139 through 12-149 of Article V of Chapter 12 as "Reserved," and by creating a new Article VI, pertaining to "Multifamily Residential Sprinkler Code," in Chapter 12.

Background/History/Details:

On April 24, 2014, the Board of Commissioners adopted Ordinance 2014-07 enacting a new County Code entitled "The Code of Fayette County, Georgia." This action codified 79 county ordinances that had not gone through the codification process since June 2007, and the codification process took over one year to complete. During this process, a portion of the previous code that pertains to sprinkler systems in multifamily buildings was removed from the County Code in error after Municode review.

Upon review by the Public Safety Department, in consultation with the County Attorney, it was determined that the portion of the code that was erroneously left out of County Code needed to be changed and updated. (See "Exhibit A" for a red-line version of the ordinance with recommended changes.)

Ordinance 2015-02 will return the provisions pertaining to the Multifamily Residential Sprinkler Code back into the County Code and will adopt the proposed changes to the code. (See "Exhibit B" for a final-form document of Ordinance 2015-02.)

What action are you seeking from the Board of Commissioners?

Approval of staff's request to adopt Ordinance 2015-02, enacting provisions pertaining to the Multifamily Residential Sprinkler Code by designating Sections 12-139 through 12-149 of Article V of Chapter 12 as "Reserved," and by creating a new Article VI, pertaining to "Multifamily Residential Sprinkler Code," in Chapter 12.

If this item requires funding, please describe:

Not Applicable.

Has this request been considered within the past two years?	No	If so, when?	
Is Audio-Visual Equipment Required for this Request?*	No	Backup Provided with Request?	Yes

* ***All audio-visual material must be submitted to the County Clerk's Office no later than 48 hours prior to the meeting. It is also your department's responsibility to ensure all third-party audio-visual material is submitted at least 48 hours in advance.***

Approved by Finance	Not Applicable	Reviewed by Legal	
Approved by Purchasing	Not Applicable	County Clerk's Approval	Yes
Administrator's Approval			

Staff Notes:

Exhibit A

ARTICLE VI. MULTIFAMILY RESIDENTIAL SPRINKLER CODE. ~~(STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS IN RESIDENTIAL OCCUPANCIES OTHER THAN ONE- AND TWO-FAMILY UP TO FOUR STORIES IN HEIGHT)*~~

~~*Notice: An asterisk (*) following the number or letter designating a paragraph indicates explanatory material on that paragraph in Appendix A, NFPA 13R, 1989 edition.~~

~~Information on referenced publications can be found in chapter 3 and Appendix B, NFPA 13R, 1989 edition.~~

~~Chapter 4 of this standard provides for exceptions to the Standard Building Code and other related requirements applicable to multifamily residential occupancies.~~
~~(Ord. No. 90-15, art. VI, 9-27-90)~~

~~**Sec. 9-91. Contents of standard.**~~

~~Preface~~

~~All multifamily residential dwellings (excluding duplexes) shall be sprinklered under this article. It is intended that this standard provide a method for those individuals required to install a sprinkler system for life safety and property protection. This standard assumes that one or more smoke detectors will be installed in accordance with NFPA 74, Standard for the Installation, Maintenance, and Use of Household Fire Warning Equipment and in accordance with section 903.2 of the Standard Building Code.~~
~~(Ord. No. 90-15, art. VI, 9-27-90; Ord. No. 91-10, § 2, 9-18-91)~~

~~Chapter 1 - General Information~~

~~**1-1* Scope.**~~

Sec. 12-150. Scope.

This standard deals with the design and installation of automatic sprinkler systems for protection against fire hazards in residential occupancies up to four (4) stories in height. Residential occupancies falling under the scope of this standard include apartment buildings, lodging and rooming houses, residential board and care facilities, hotels, dormitories, personal care, and residential board and care occupancies.
~~(Ord. No. 90-15, art. VI, § 1-1, 9-27-90)~~

~~**1-2* Purpose.**~~

Sec. 12-151. Purpose.

The purpose of this standard is to provide design and installation requirements for ~~a sprinkler system~~an automatic fire sprinkler system to aid in the detection and control of fires in residential occupancies and thus provide improved protection against injury, life loss, and property damage. A sprinkler system designed and installed in accordance with this standard is expected to prevent flashover (total involvement) in the room of fire origin, when sprinklered, and to improve the chance for occupants to escape or be evacuated.

Nothing in this standard is intended to restrict new technologies or alternate arrangements, providing that the level of safety prescribed by the standard is not lowered.
~~(Ord. No. 90-15, art. VI, § 1-2, 9-27-90)~~

~~**1-3 Definitions.**~~

Sec. 12-152. Definitions[P1].

The following words, terms and phrases, when used in this ~~standard~~article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Apartment building shall mean a building or portion thereof containing three (3) or more dwelling units with independent cooking and bathroom facilities.

~~*Approved* means acceptable to the authority having jurisdiction.~~

~~Note: In determining the acceptability of installations or procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, such authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization concerned with product evaluations which is in a position to determine compliance with appropriate standards for the current production of listed items.~~

~~*Authority having jurisdiction* means the organization, office, or individual responsible for approving equipment, installations, or procedures.~~

Automatic fire sprinkler system shall mean those systems that satisfy the standards and definitions contained in the National Fire Protection Association, Fire Codes, specifically:

(1) NFPA 13 Standard for the Installation of Sprinkler Systems; and

(2) NFPA 13R Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including Four Stories in Height

~~*Check valve* means a valve that allows flow in one direction only.~~

~~*Control valve* means an indicating valve employed to control (shut) a supply of water to a sprinkler system.~~

~~*Design discharge* means the rate of water discharged by an automatic sprinkler, expressed in gallons per minute.~~

Dormitory shall mean a building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, but without individual cooking facilities.

~~*Dry system* means a system employing automatic sprinklers that are attached to a piping system containing air under atmospheric or higher pressures. Loss of pressure from the opening of a sprinkler or detection of a fire condition causes the release of water into the piping system and out the opened sprinkler.~~

~~*Dwelling unit* means one (1) or more rooms arranged for the use of one (1) or more individuals living together as a single housekeeping unit, normally having cooking, living, sanitary, and sleeping facilities.~~

Hotel shall mean a building or group of buildings under the same management in which there are sleeping accommodations for more than 16 persons and primarily used by transients for lodging with or without meals.

~~*Labeled* means equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials and by whose labeling the manufacturer indicates compliance with appropriate standards of performance in a specified manner.~~

~~*Listed* means equipment or materials included in a list published by an organization acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.~~

~~Note: The means for identifying listed equipment may vary for each organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.~~

Lodging and rooming house shall mean a building or portion thereof that does not qualify as a one- or two-family dwelling, that provides sleeping accommodations for a total of 16 or fewer people on a transient or permanent basis, without personal care services, with or without meals, but without separate cooking facilities for individual occupants.

~~*Multipurpose piping systems* means piping systems within residential occupancies intended to serve both domestic and fire protection needs.~~

Personal care shall mean care involving responsibility for the safety of the resident while inside the building and shall include, but not be limited to, daily awareness by management of the resident's functioning and whereabouts, making and reminding a resident of appointments, the ability and readiness for intervention in the vent of a resident experiencing a crisis, supervision in the areas of nutrition, and actual provision of transient medical care.

Residential board and care facility shall mean an occupancy used for lodging and boarding of four (4) or more residents, not related by blood or marriage to the owners or operators, for the purpose of providing personal care services.

Residential board and care occupancy shall mean any of the following:

(1) Group housing arrangement for physically or mentally handicapped persons who normally attend school in the community, attend worship in the community, or otherwise use community facilities.

(2) Group housing arrangement for physically or mentally handicapped persons who are undergoing training in preparation for independent living, for paid employment, or for other normal community activities.

(3) Group housing arrangement for the elderly that provides personal care services but that does not provide nursing care.

(4) Facilities for social rehabilitation, alcoholism, drug abuse, or mental health problems that contain a group housing arrangement and that provide personal care services but do not provide acute care.

(5) Assisted living facilities.

(6) Other group housing arrangements that provide personal care services but not nursing care.

~~*Residential occupancies* as included in the scope of this standard includes the following, as defined in NFPA 101, Life Safety Code:~~

~~(1) Apartment buildings.~~

~~(2) Lodging and rooming houses.~~

~~(3) Board and care facilities (slow evacuation type with sixteen (16) or less occupants and prompt evacuation type).~~

~~(4) Hotels, motels, and dormitories.~~

Residential occupancy shall mean any building that satisfies the definitions contained herein for apartment building, lodging and rooming house, residential board and care facility, hotel, dormitory, personal care, and/or residential board and care occupancy.

~~*Residential sprinkler* means an automatic sprinkler that has been specifically listed for use in residential occupancies.~~

~~*Shall* indicates a mandatory requirement.~~

~~*Should* indicates a recommendation or that which is advised but not required.~~

~~*Sprinkler, automatic,* means a fire suppression device that operates automatically when its heat-actuated element is heated to or above its thermal rating, allowing water to discharge over a specific area.~~

~~*Sprinkler system* means an integrated system of piping connected to a water supply, with listed sprinklers that will automatically initiate water discharge over a fire area. When required, the sprinkler system also includes a control valve and a device for actuating an alarm when the system operates.~~

~~*Standard* means a document containing only mandatory provisions using the word "shall" to indicate requirements. Explanatory material may be included only in the form of "fine print" notes, in footnotes, or in an appendix.~~

~~*Waterflow alarm* means a sounding device activated by a waterflow detector or alarm check valve.~~

~~*Waterflow detector* means an electric signaling indicator or alarm check valve actuated by water flow in one direction only.~~

~~*Wet system* means a system employing automatic sprinklers that are attached to a piping system containing water and connected to a water supply, so that water discharges immediately from sprinklers opened by a fire.~~
~~(Ord. No. 90-15, art. VI, § 1-3, 9-27-90)~~

Sec. 12-153. Requirements[P2].

(a) Buildings which are included within the definitions of section 12-152 as residential occupancies shall provide and be protected by a fire sprinkler system in accordance with NFPA 13 or NFPA 13R.

(b) The owner or occupant of any building shall be responsible for having the system inspected and tested in accordance with NFPA 25 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2011 Edition.

(c) No person shall shut off, disable, or disarm any automatic fire sprinkler system except for the following purposes:

(1) In order to perform required or necessary service or maintenance to such system. Any such maintenance may be conducted after notice has been given to the fire department.

(2) In the event of accidental damage to the system that causes undo water flow.

(d) In the event that a fire sprinkler system must stay off for an extended time due to repair or maintenance a fire watch may be required during that period. If required the fire watch is to remain in effect until such time that the system is returned to its full capacity.

(e) Records of all system inspections, tests and maintenance required by the governing NFPA standard for the systems listed below shall be maintained on the premises for a minimum of two years.

~~1-4 Valves.~~

~~1-4.1. If a valve for measurement as given in this standard is followed by an equivalent valve in other units, the first stated is to be regarded as the requirement. A given equivalent valve may be approximate.~~

~~Table 1-4~~

~~(See page 6 of NFPA 13R, 1989 edition)~~
~~(Ord. No. 90-15, art. VI, § 1-4.1, 9-27-90)~~

~~1-5 Piping.~~

~~1-5.1 Pipe or tube used in sprinkler systems shall be of the materials in table 1-5.1 or in accordance with 1-5.2 through 1-5.5. The chemical properties, physical properties, and dimensions of the materials listed in table 1-5.1 shall be at least equivalent to the standard cited in the table and designed to withstand a working pressure of not less than one hundred seventy-five (175) psi.~~

~~Table 1-5.1~~

~~(See page 6 of NFPA 13R, 1989 edition)~~

~~1-5.2 Other types of pipe or tube may be used, but only those listed for this service.~~

~~1-5.3 Whenever the word "pipe" is used in this standard, it shall be understood to also mean tube.~~

~~1-5.4 Pipe joined with mechanical grooved fittings shall be joined by a listed combination of fittings, gaskets and grooves. When grooves are cut or rolled on the pipe they shall be dimensionally compatible with the fittings.~~

~~Exception: Steel pipe with wall thicknesses less than schedule 30 (in sizes eight (8) inches and larger) or schedule 40 (in sizes less than eight (8) inches) shall not be joined by fittings used with pipe having cut grooves.~~

~~1-5.5 Fittings used in sprinkler systems shall be of the materials listed in table 1-5.5 or in accordance with 1-5.7. The chemical properties, physical properties, and dimensions of the materials listed in table 1-5.5 shall be at least equivalent to the standards cited in the table. Fittings used in sprinkler systems shall be designed to withstand the working pressures involved, but not less than one hundred seventy-five (175) psi cold water pressure.~~

~~Table 1-5.5~~

~~(See page 7 of NFPA 13R, 1989 edition)~~

~~1-5.6 Joints for the connection of copper tube shall be brazed.~~

~~Exception: Soldered joints (95-5 solder metal) may be used for wet-pipe copper tube systems.~~

~~1-5.7 Other types of fittings may be used, but only those listed for this service.~~
~~(Ord. No. 90-15, art. VI, § 1-5, 9-27-90)~~

~~1-6 System types.~~

~~1-6.1 *Wet-pipe systems*. A wet-pipe system shall be used when all piping is installed in areas not subject to freezing.~~

~~1-6.2 *Protection from freezing*. Provision shall be made to protect piping from freezing in unheated areas.~~

~~A. Pipes in unheated attics shall be protected from freezing by stapling batt insulation paper side down creating a tunnel over all pipes before blown-in insulation is applied. Heavy mill plastic may be used in lieu of batt insulation.~~

~~B. Pipes in unheated attics in buildings not designed for blown-in insulation shall be protected from freezing in a manner acceptable to the authority having jurisdiction.~~

~~C. Sprinkler controls in unheated areas shall be protected from freezing by using hard wired heat cable and batt insulation.~~

~~Exception: Listed standard dry-pendent, dry upright, or dry sidewall sprinklers may be extended into unheated areas not intended for living purposes.~~
~~(Ord. No. 90-15, art. VI, § 1-6, 9-27-90)~~

~~Chapter 2 - Working Plans, Design, Installation Acceptance Tests, and Maintenance~~

~~2-1 Working plans and acceptance tests.~~

~~2-1.1 *Working plans.*~~

~~2-1.1.1 Working plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed or remodeled. Deviations from approved plans will require permission of the authority having jurisdiction.~~

~~2-1.1.2 Working plans shall be drawn to an indicated scale, on sheets of uniform size, with a plan of each floor, made so that they can be easily duplicated, and shall show the following data:~~

~~(a) Name of owner and occupant.~~

~~(b) Location, including street address.~~

~~(c) Point of compass.~~

~~(d) Ceiling construction.~~

~~(e) Full height cross section.~~

~~(f) Location of fire walls.~~

~~(g) Location of partitions.~~

~~(h) Occupancy of each area or room.~~

~~(i) Location and size of concealed spaces, attics, closets, and bathrooms.~~

~~(j) Any small enclosures in which no sprinklers are to be installed.~~

~~(k) Hydraulic calculations shall be provided with a twenty-four-hour pressure chart, showing the high and low pressure in a twenty-four-hour period. Calculations will be formulated on the lowest pressure.~~

~~(l) Make, manufacturer, type, heat-response element, temperature rating, and nominal orifice size of sprinkler.~~

~~(m) Temperature rating and location of high-temperature sprinklers.~~

~~(n) Number of sprinklers on each riser, per floor.~~

~~(o) Kind and location of alarm bells.~~

~~(p) Type of pipe fittings.~~

~~(q) Type of protection for nonmetallic pipe.~~

~~(r) Nominal pipe size with lengths shown to scale.~~

~~Note: Where typical branch lines prevail, it will be necessary to size only one line.~~

~~(s) Location and size of riser nipples.~~

~~(t) Type of fittings and joints and location of all welds and bends.~~

~~(u) Types and locations of hangers, sleeves and braces, and methods of securing sprinklers, where applicable.~~

~~(v) All control valves, check valves, drain pipes, and test connections.~~

~~(w) Underground pipe size, length, location, weight, material, and point of connection to city main; the type of valves, meters, and valve pits; and the depth at which the top of the pipe is laid below grade.~~

~~(x) For hydraulically designed systems, the material to be included on the hydraulic data nameplate.~~

~~(y) Name and address of contractor.~~

~~2-1.2 *Approval of sprinkler systems.*~~

~~2-1.2.1 The installer shall perform all required acceptance tests (see 2-1.3), complete the contractor's material and test certificate(s) (see figure 2-1.2.1), and forward the certificate(s) to the authority having jurisdiction, prior to asking for approval of the installation.~~

~~Figure 2-1.2.1~~

~~(See pages 8 and 9 of NFPA 13R, 1989 edition)~~

~~2-1.2.2 When the authority having jurisdiction desires to be present during the conducting of acceptance tests, the installer shall give advance notification of the time and date the testing will be performed.~~

~~2-1.3 *Acceptance tests.*~~

~~2-1.3.1 Flushing of underground connections.~~

~~2-1.3.1.1 Underground mains and lead-in connections to system risers shall be flushed before connection is made to sprinkler piping in order to remove foreign materials that may have entered the underground piping during the course of the installation. For all systems, the flushing operation shall be continued until water is clear.~~

~~2-1.3.1.2 Underground mains and lead-in connections shall be flushed at the hydraulically calculated water demand rate of the system.~~

~~2-1.3.1.3 To avoid property damage, provision shall be made for the disposal of water issuing from test outlets.~~

~~2-1.3.2* All systems shall be tested for leakage at fifty (50) psi above maximum system design pressure.~~

~~Exception: When a fire department connection is provided, hydrostatic pressure tests shall be provided in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.~~
~~(Ord. No. 90-15, art. VI, § 2-1, 9-27-90)~~

~~2-2 Design and installation.~~

~~2-2.1 *Devices and materials.*~~

~~2-2.1.1* Only new sprinklers shall be employed in the installation of sprinkler systems.~~

~~2-2.1.2 Only listed or approved devices and materials as indicated in this standard shall be used in sprinkler systems.~~

~~2-2.1.3 Sprinkler systems shall be designed for maximum working pressure of one hundred sixty (160) psi.~~

~~Exception: Higher design pressures may be used when all system components are rated for pressures higher than one hundred seventy-five (175) psi.~~
~~(Ord. No. 90-15, art. VI, § 2-2, 9-27-90)~~

~~2-3 Water supply.~~

~~2-3.1 *General provisions.* Every automatic sprinkler system shall have at least one (1) automatic water supply. When stored water is used as the sole source of supply, the minimum quantity shall equal the water demand rate times thirty (30) minutes. (See 2-5.1.3.)~~

~~2-3.2* *Water supply sources.* The following water supply sources are acceptable:~~

~~(a) A connection to a reliable waterworks system with or without a booster pump, as required.~~

~~(b) An elevated tank.~~

~~(c) A pressure tank installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, and NFPA 22, Standard for Water Tanks for Private Fire Protection.~~

~~(d) A stored water source with an automatically operated pump, installed in accordance with NFPA 20, Standard for the Installation of Centrifugal Fire Pumps.~~

~~2-3.2.1 *Meters.* A minimum of one-inch flow water meter shall be used if individual water meters are used.~~

~~2-3.3 *Multipurpose piping system.*~~

~~2-3.3.1* A common supply main to the building, serving both sprinklers and domestic uses, shall be acceptable when the domestic design demand is added to the sprinkler system demand.~~

~~Exception: Domestic design demand need not be added if provision is made to prevent flow on the domestic water system upon operation of sprinklers.~~

~~2-3.3.2 Sprinkler systems with nonfire protection connections shall comply with section 5-6 of NFPA 13, Standard for the Installation of Sprinkler Systems.~~
~~(Ord. No. 90-15, art. VI, § 2-3, 9-27-90)~~

~~2-4 System components.~~

~~2-4.1 *Valve and drains.*~~

~~2-4.1.1 When a common supply main is used to supply both domestic and sprinkler systems, a single control valve shall be provided to shut off both the domestic and sprinkler systems, and a separate shutoff valve shall be provided for the domestic system only.~~

~~Exception: The sprinkler system piping may have a separate control valve when supervised by one of the following methods:~~

~~(a) Central station, proprietary, or remote station alarm service,~~

~~(b) Local alarm service that will cause the sounding of an audible signal at a constantly attended point, or~~

~~(c) Locking the valves open.~~

~~2-4.1.2 Each sprinkler system shall have a three-quarter-inch or larger drain and test connection with valve on the system side of the control valve, located above flow switch.~~

~~2-4.1.3 Additional one-half-inch drains shall be installed for each trapped portion of a dry system that is subject to freezing temperatures.~~

~~2-4.2 *Fire department connection.* At least one 1-1/2-inch fire department connection shall be provided. Location shall face pavement area.~~

~~2-4.3 *Pressure gauges.* Pressure gauges shall be provided to indicate pressures on the supply and system side of main check valves.~~

~~2-4.4 *Piping support.* Piping hangings and bracing methods shall comply with NFPA 13, Standard for the Installation of Sprinkler Systems, and pipe manufacturer's specifications.~~

~~2-4.4.1 *Controls location.* Sprinkler controls shall be located so as to be accessible from outside the living areas. Minimum clear openings to controls shall be two (2) inches below main valve, two (2) inches above union on top, five (5) inches on both sides measured from center of controls.~~

~~2-4.4.2 *Check valves.* The sprinkler system shall be isolated from the domestic water system by not less than a dual action spring-loaded check valve assembly or two (2) single action spring-loaded check valves in series.~~

~~2-4.4.3 *Pressure relief valve.* Each sprinkler system shall have an adjustable reseating pressure relief valve with a maximum pressure rating of one hundred seventy-five (175) psi located above the main drain valve.~~

~~2-4.5 *Sprinklers.*~~

~~2-4.5.1 Listed residential sprinklers shall be used inside dwelling units. The basis of such a listing shall consist of tests to establish the ability of the sprinklers to control residential fires under standardized fire test conditions. The standardized room fires shall be based on a residential array of furnishings and finishes.~~

~~Exception No. 1: Residential sprinklers shall not be used in dry systems unless specifically listed for that purpose.~~

~~Exception No. 2: Other types of listed sprinklers may be installed in accordance with their listing in dwelling units meeting the definition of a compartment (as defined in NFPA 13R, 1989 edition, 2-5.1.2.2) provided no more than four (4) sprinklers are located in the dwelling unit and at least one (1) smoke detector is provided in each sleeping room.~~

~~2-4.5.2 Ordinary temperature rated sprinklers (one hundred thirty-five (135) to one hundred seventy (170) degrees Fahrenheit) shall be installed where maximum ambient ceiling temperatures do not exceed one hundred (100) degrees Fahrenheit.~~

~~2-4.5.3 Intermediate temperature rated residential sprinklers (one hundred seventy-five (175) to two hundred twenty-five (225) degrees Fahrenheit) shall be installed where maximum ambient~~

~~ceiling temperatures are between one hundred one (101) and one hundred fifty (150) degrees Fahrenheit.~~

~~2-4.5.4 The following practices shall be observed when installing residential sprinklers, unless maximum expected ambient temperatures are otherwise determined.~~

~~(a) Sprinklers under glass or plastic skylights exposed to direct rays of the sun shall be of intermediate temperature classification.~~

~~(b) Sprinklers in an unventilated concealed space under an uninsulated roof, or in an unventilated attic, shall be of intermediate temperature classification.~~

~~(c) Mechanical, furnace, and water heater rooms shall have a one hundred sixty-five (165) to two hundred twelve (212) degree standard sprinkler head.~~

~~2-4.5.5 When residential sprinklers are installed within a compartment, as defined in 2-5.1.2.2, all sprinklers shall be from the same manufacturer and have the same heat-response element, including temperature rating.~~

~~Exception: Different temperature ratings are permitted when required by 2-4.5.4.~~

~~2-4.5.6 Standard spray sprinklers shall be used in areas outside the dwelling unit.~~

~~Exception No. 1: Residential sprinklers may be used in adjoining corridors or lobbies with flat, smooth ceilings and a height not exceeding ten (10) feet.~~

~~Exception No. 2: Quick-response sprinklers may be used in accordance with 2-5.2, Exception No. 1.~~

~~2-4.5.7 Operated or damaged sprinklers shall be replaced with sprinklers having the same performance characteristics as original equipment.~~

~~2-4.5.8 When nonmetallic ceiling plates (escutcheons) are used, they shall be listed. Escutcheon plates used to create a recessed or flush-type sprinkler shall be part of a listed sprinkler assembly.~~

~~2-4.5.9 Painting and ornamental finishes.~~

~~2-4.5.9.1 Sprinkler frames may be factory painted or enameled as ornamental finish in accordance with 2-4.5.9.2; otherwise, sprinklers shall not be painted and any sprinklers that have been painted, except those with factory applied coatings, shall be replaced with new listed sprinklers.~~

~~2-4.5.9.2* Ornamental finishes shall not be applied to sprinklers by anyone other than the sprinkler manufacturer, and only sprinklers listed with such finishes shall be used.~~

~~2-4.6 *Alarms*. Local waterflow alarms shall be provided on all sprinkler systems (located outside) and shall be connected to the building fire alarm system, when provided.~~

~~2-4.6.1 *Alarm power*. The power to alarm switch shall come from the following sources:~~

~~(a) For systems serving only one (1) tenant: From same circuit breaker serving bathroom light switch.~~

~~(b) For systems serving multiple tenants: From house electric meter.~~
~~(Ord. No. 90-15, art. VI, § 2-4, 9-27-90)~~

~~2-5 System design.~~

~~2-5.1 *Design criteria—Inside dwelling unit.*~~

~~2-5.1.1 *Design discharge*. The system shall provide a discharge of not less than eighteen (18) gpm to any single operating sprinkler and not less than thirteen (13) gpm per sprinkler to the number of design sprinklers, but not less than the listing of the sprinkler(s).~~

~~Exception: Design discharge for sprinklers installed in accordance with Exception No. 2 of 2-4.5.1 shall be in accordance with sprinkler listing criteria.~~

~~2-5.1.2* *Number of design sprinklers.*~~

~~2-5.1.2.1 The number of design sprinklers shall include all sprinklers within a compartment to a maximum of four (4) sprinklers.~~

~~2-5.1.2.2 The definition of "compartment" for use in 2-5.1.2.1 to determine the number of design sprinklers is a space that is completely enclosed by walls and a ceiling. The compartment enclosure may have openings to an adjoining space if the openings have a minimum lintel depth of eight (8) inches from the ceiling.~~

~~2-5.1.3 *Water demand*. The water demand for the system shall be determined by multiplying the design discharge of 2-5.1.1 by the number of design sprinklers of 2-5.1.2.~~

~~2-5.1.4 *Sprinkler coverage.*~~

~~2-5.1.4.1 Residential sprinklers shall be spaced so that the maximum area protected by a single sprinkler does not exceed one hundred forty-four (144) square feet.~~

~~2-5.1.4.2 Spacing of sprinkler heads is to be in accordance with manufacturer's specifications, not to exceed sixteen (16) feet by sixteen (16) feet.~~

~~2-5.1.4.3 The minimum distance between sprinklers within a compartment shall be eight (8) feet.~~

~~2-5.1.5 *Pressure*. The minimum operating pressure of any sprinkler shall be in accordance with the listing information of the sprinkler and shall provide the minimum flow rates specified in 2-5.1.1.~~

~~2-5.1.6 Application rates, design areas, areas of coverage, and minimum design pressures other than those specified in 2-5.1.1, 2-5.1.2, 2-5.1.4, and 2-5.1.5 may be used with special sprinklers that have been listed for such specific residential installation conditions.~~

~~2-5.1.6.1 All systems shall be flow verified by a physical flow at highest elevation, worst condition, using orifices of sprinkler heads called for in hydraulic calculations. The installer shall use a graduated container acceptable to the authority having jurisdiction for this test.~~

~~2-5.1.7 *Position of residential sprinklers*.~~

~~2-5.1.7.1 Pendent and upright sprinklers shall be positioned so that the deflectors are within one (1) to four (4) inches from the ceiling.~~

~~2-5.1.7.2 Sidewall sprinklers shall be positioned so that the deflectors are within four (4) to four and one-half (4-1/2) inches from the ceiling.~~

~~2-5.1.7.3 Sprinklers shall be positioned so that the response time and discharge are not unduly affected by obstructions such as ceiling slope, beams, or light fixtures.~~

~~2-5.2 *Design criteria—Outside dwelling unit*. The design discharge, number of design sprinklers, water demand of the system, sprinkler coverage, and position of sprinklers for areas to be sprinklered outside the dwelling unit shall comply with specifications in NFPA 13, Standard for the Installation of Sprinkler Systems.~~

~~Exception No. 1: When compartmented into areas of five hundred (500) square feet or less by thirty-minute fire-rated construction, and the area is protected by standard or quick-response sprinklers not exceeding one hundred thirty (130) square feet per sprinkler, the system demand may be limited to the number of sprinklers in the compartment area, but not less than a total of four (4) sprinklers. Openings from the compartments need not be protected if such openings are provided with a lintel at least eight (8) inches in depth and the total area of such openings does not exceed fifty (50) square feet for each compartment. Discharge density shall be appropriate for the hazard classification as determined by NFPA 13.~~

~~Exception No. 2: Lobbies, in other than hotels and motels, foyers, corridors, and halls outside the dwelling unit, with flat, smooth ceilings and not exceeding ten (10) feet (3.0 meters) in height, may be protected with residential sprinklers, with a maximum system demand of four (4) sprinklers.~~

~~2-5.3 *Pipe sizing*. Piping shall be sized in accordance with hydraulic calculation procedures to comply with NFPA 13, Standard for the Installation of Sprinkler Systems.~~
~~(Ord. No. 90-15, art. VI, § 2-5, 9-27-90)~~

~~2-6 Location of sprinklers.~~

~~Sprinklers shall be installed in all areas.~~

~~Exception No. 1: Sprinklers may be omitted from bathrooms not exceeding fifty-five (55) square feet.~~

~~Exception No. 2: Sprinklers may be omitted from small clothes closets where the least dimensions do not exceed thirty (30) square feet and the walls and ceilings are surfaced with noncombustible or limited combustible materials as defined by NFPA 220, Standard on Types of Building Construction.~~

~~Exception No. 3: Sprinklers may be omitted from open attached: Porches, balconies, corridors, and stairs.~~

~~Exception No. 4: Sprinklers may be omitted from attics, penthouse equipment rooms, crawl spaces, floor/ceiling spaces, elevator shafts, and other concealed spaces that are not used or intended for living purposes or storage.~~

~~Exception No. 5: Sprinklers may be omitted from interior halls and foyers that do not exceed four (4) feet in width.~~
~~(Ord. No. 90-15, art. VI, § 2-6, 9-27-90)~~

~~2-7* Maintenance.~~

~~The owner is responsible for the condition of a sprinkler system and shall keep the system in normal operating condition.~~

~~2-7.1 All condominiums shall have the following wording in the recorded declaration of covenants and a copy of the document shall be provided to the authority having jurisdiction.~~

~~"Sprinkler system. In the event that any unit should be equipped with a sprinkler system, nothing shall be hung from the sprinklers comprising a part of the system, nor shall any such sprinklers be painted, covered, or otherwise changed, tampered with, or altered."~~

~~Prior to any alteration, amendment, modification, or change thereof, he/they will submit such alteration, amendment, modification, or change to the fire marshal/building official for his approval and agrees to comply with all domestic sprinkler requirements of local ordinance.~~
~~(Ord. No. 90-15, art. VI, § 2-7, 9-27-90)~~

~~Chapter 3--Referenced Publications~~

~~3-1 Additional requirements.~~

~~The following documents or portions thereof are referenced within this standard and shall be considered part of the requirements of this document. The edition indicated for each reference is the current edition as of the date of the NFPA issuance of this document.~~

~~3-1.1 *NFPA publications*. National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.~~

~~NFPA 13-1989, Standard for the Installation of Sprinkler Systems~~

~~NFPA 20-1987, Standard for the Installation of Centrifugal Fire Pumps~~

~~NFPA 22-1987, Standard for Water Tanks for Private Fire Protection~~

~~NFPA 74-1989, Standard for the Installation, Maintenance, and Use of Household Fire Warning Equipment~~

~~NFPA 101-1988, Life Safety Code~~

~~NFPA 220-1985, Standard on Types of Building Construction.~~

~~3-1.2 *Other publications.*~~

~~3-1.2.1 *ANSI publications*. American National Standard Institute, Inc., 1430 Broadway, New York, NY 10018.~~

~~ANSI B-16.1-1975, Cast Iron Pipe Flanges and Flanged Fittings, Classes 25, 125, 250, and 800~~

~~ANSI B-16.3-1985, Malleable Iron Threaded Fittings, Classes 150 and 300~~

~~ANSI B-16.4-1985, Cast Iron Threaded Fittings, Classes 125 and 250~~

~~ANSI B-16.5-1981, Pipe Flanges and Flanged Fittings~~

~~ANSI B-16.9-1986, Factory-Made Wrought Steel Buttwelding Fittings~~

~~ANSI B-16.11-1980, Forged Steel Fittings, Socket-Welding and Threaded~~

~~ANSI B-16.18-1984, Cast Copper Alloy Solder Joint Pressure Fittings~~

~~ANSI B-16.22-1980, Wrought Copper and Copper Alloy Solder Joint Pressure Fittings~~

~~ANSI B-16.25-1986, Buttwelding Ends~~

~~ANSI B-36.10M-1985, Welded and Seamless Wrought Steel Pipe.~~

~~3-1.2.2 *ASTM publications.* American Society for Testing and Material, 1916 Race Street, Philadelphia, PA 19103.~~

~~ASTM A53-1987, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless Steel Pipe ASTM A135-1986, Standard Specification for Electric-Resistance-Welded Steel Pipe~~

~~ASTM A234-1987, Standard Specification for Piping Fittings of Wrought-Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures~~

~~ASTM A795-1985, Specifications for Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection Use~~

~~ASTM B32-1987, Standard Specification for Solder Metal, 95-5 (Tin-Antimony-Grade 95TA)~~

~~ASTM B88-1986, Standard Specification for Seamless Copper Water Tube~~

~~ASTM B251-1987, Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube~~

~~ASTM E380-1986, Standard for Metric Practice.~~

~~3-1.2.3 *AWS publication.* American Welding Society, 2501 N.W. 7th Street, Miami, FL 33125.~~

~~AWS A5.8--1981, Specification for Brazing Filler Metal.~~

~~3-1.2.4 *SBCCI.* Southern Building Code Congress International, Inc., 900 Montclair Road, Birmingham, AL 35213-1206.~~

~~Appendix A~~

~~(See page 12 of NFPA 13R, 1989 edition)~~

~~Appendix B Referenced Publications~~

~~(See page 17 of NFPA 13R, 1989 edition)~~
~~(Ord. No. 90-15, art. VI, § 3-1, 9-27-90)~~

~~Chapter 4--Allowable Exceptions to Code Related Requirements~~

~~Preface~~

~~The following modifications to other code related requirements are permitted under this standard. Only those modifications listed herein are permitted. All other provisions of applicable codes remain in effect.~~
~~(Ord. No. 90-15, art. VI, ch. 4, 9-27-90)~~

~~4-1 Standard Building Code.~~

~~4-1.1 (403.4.1) In a building or portion of a building of a single occupancy classification, when enclosed spaces are provided for separate tenants, such spaces shall be separated by not less than one-hour fire resistance.~~

~~Modification--Standard one-half-inch gypsum wallboard may be substituted for the five-eighth-inch type X gypsum wallboard relative to one-hour tenant separation walls.~~

~~Modification--Standard one-half-inch gypsum wallboard may be substituted for the five-eighth-inch type X gypsum wallboard, and five-eighth-inch plywood may be substituted for the three-fourth-inch plywood relative to one-hour floor ceiling assemblies.~~

~~4-1.2 (403.5) Each townhouse shall be considered a separate building and shall be separated from adjoining townhouses by the use of separate exterior walls meeting the requirements of table 600 for zero clearance from property lines as required for the type of construction, or by a party wall, or when not more than three stories in height, may be separated by a single wall meeting the following requirements:~~

~~1. Such wall shall provide not less than a two-hour fire resistive rating. Plumbing, piping, ducts, electrical or other building services shall not be installed within or through the two-hour wall unless such materials and methods of penetration have been tested in accordance with 1001.1.~~

~~Modification--Fee simple townhouses may have one-hour rated party walls in lieu of the two-hour requirement.~~

~~4-1.3 (1704.2, 1704.2.3) Draftstopping shall be provided in wood frame construction in multifamily (two (2) or more) dwellings, motels and hotels in the attic, mansard, overhang, or other concealed roof space when tenant separation walls do not extend to the roof sheating above.~~

~~Modification--Attic smoke stops will be permitted every three thousand (3,000) square feet in lieu of smoke stops between every unit.~~

~~4-1.4 (Table 400 and table 600) Maximum permissible square footage per floor for type VI construction is seven thousand (7,000) square feet. Areas exceeding this are required to have a four-hour fire wall for separation.~~

~~Modification--Fire wall requirements:~~

~~1. Buildings up to eight thousand (8,000) square feet per floor, no fire wall is required.~~

2. Buildings up to ten thousand (10,000) square feet per floor, a two-hour fire wall to the underside of the roof deck is required at the approximate center of the building.

3. Buildings over ten thousand (10,000) square feet per floor, a four-hour fire wall extending up thirty-six (36) inches above the roof surface and out flush with the roof overhang is required every eight thousand (8,000) square feet.

4-1.5 (Table 1103 Travel Distance, Deadend Length, Exit and Means of Egress Width) Maximum dead-end corridor length is equal to twenty (20) feet.

Modification--Exit travel may be extended to a maximum of thirty-five (35) feet in lieu of the existing twenty (20) feet.
(Ord. No. 90-15, art. VI, § 4-1, 9-27-90)

4-2 NFPA 101 Life Safety Code (1988).

4-2.1 (5-2.2.3.2) Outside stairs shall be separated from the interior of the building by walls with fire resistance rating with fixed or self-closing opening protectives, as required for enclosed stairs. This protection shall extend at least ten (10) feet upward or to the roofline, whichever is lower, at least ten (10) feet horizontally and downward to ground level.

Modification--Tenants may travel by other tenants' doors and windows without those doors and windows being rated.

4-2.2 (18-3.2.1) Every hazardous area shall be separated from other parts of the building by construction having a fire resistance rating of at least one hour, and communicating openings shall be protected by approved smoke actuated or self-closing fire doors with a fire protection rating of three-fourths hour, or such area shall be equipped with an automatic extinguishing system. Hazardous areas include, but are not limited to:

Boiler and heater rooms.

Laundries.

Repair shops.

Rooms or spaces used for storage of combustible supplies and equipment in quantities deemed hazardous by the authority having jurisdiction.

Modification--One-hour rating of walls and doors in hazardous areas will not be required.

4-2.3 (18-3.3.1) Interior finish on walls and ceilings in accordance with section 6-5 shall be as follows:

1. Vertical exits--Class A.

~~2. Exit access--Class A or B.~~

~~3. Lobbies, corridors that are not exit access--Class A or B.~~

~~4. Individual apartments and other habitable spaces--Class A, B, C.~~

~~Modification--Interior finish shall be Class C or better.~~
~~(Ord. No. 90-15, art. VI, § 4-2, 9-27-90; Ord. No. 91-10, § 4, 9-18-91)~~

~~4-3 Fayette County development regulations.~~

~~4-3.1 (Section 5-3 F) Fire hydrants shall be spaced a distance not to exceed four hundred (400) feet apart in industrial, commercial and multifamily residential areas, including but not limited to hotels, motels, hospitals, nursing homes, offices, educational buildings, apartments and condominiums, with all areas of each building capable of being reached by four-hundred-foot hose lays.~~

~~Modification--Hydrant spacing may be increased from four hundred (400) to six hundred (600) feet from building.~~
~~(Ord. No. 90-15, art. VI, § 4-3, 9-27-90)~~
~~(Code 1992, § 9-91)~~

~~Secs. 9-92--9-100. Reserved.~~

Exhibit B

STATE OF GEORGIA

FAYETTE COUNTY

ORDINANCE

NO. 2015-02

AN ORDINANCE TO AMEND THE CODE OF ORDINANCES FOR FAYETTE COUNTY, GEORGIA; TO ENACT PROVISIONS PERTAINING TO THE MULTIFAMILY RESIDENTIAL SPRINKLER CODE; TO REPEAL CONFLICTING ORDINANCES; TO PROVIDE FOR SEVERABILITY; TO PROMOTE THE PUBLIC HEALTH, SAFETY AND WELFARE, AND FOR OTHER PURPOSES.

BE IT ORDAINED BY THE BOARD OF COMMISSIONERS OF FAYETTE COUNTY AND IT IS HEREBY ENACTED PURSUANT TO THE AUTHORITY OF THE SAME THAT THE CODE OF ORDINANCES OF FAYETTE COUNTY AS IT PERTAINS TO FIRE PREVENTION AND PROTECTION (CHAPTER 12), BE AMENDED AS FOLLOWS:

Section 1. By designating Sections 12-139 through 12-149 of Article V of Chapter 12 as "Reserved", and by creating a new Article VI, pertaining to "Multifamily Residential Sprinkler Code", in Chapter 12, to be numbered and read as follows:

ARTICLE VI. MULTIFAMILY RESIDENTIAL SPRINKLER CODE.

Sec. 12-150. Scope.

This standard deals with the design and installation of automatic sprinkler systems for protection against fire hazards in residential occupancies up to four (4)

stories in height. Residential occupancies falling under the scope of this standard include apartment buildings, lodging and rooming houses, residential board and care facilities, hotels, dormitories, personal care, and residential board and care occupancies.

Sec. 12-151. Purpose.

The purpose of this standard is to provide design and installation requirements for an automatic fire sprinkler system to aid in the detection and control of fires in residential occupancies and thus provide improved protection against injury, life loss, and property damage. A sprinkler system designed and installed in accordance with this standard is expected to prevent flashover (total involvement) in the room of fire origin, when sprinklered, and to improve the chance for occupants to escape or be evacuated. Nothing in this standard is intended to restrict new technologies or alternate arrangements, providing that the level of safety prescribed by the standard is not lowered.

Sec. 12-152. Definitions.

The following words, terms, and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Apartment building shall mean a building or portion thereof containing three (3) or more dwelling units with independent cooking and bathroom facilities.

Automatic fire sprinkler system shall mean those systems that satisfy the

standards and definitions contained in the National Fire Protection Association, Fire Codes, specifically:

(1) NFPA 13 Standard for the Installation of Sprinkler Systems; and

(2) NFPA 13R Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including Four Stories in Height

Dormitory shall mean a building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, but without individual cooking facilities.

Hotel shall mean a building or group of buildings under the same management in which there are sleeping accommodations for more than 16 persons and primarily used by transients for lodging with or without meals.

Lodging and rooming house shall mean a building or portion thereof that does not qualify as a one- or two-family dwelling, that provides sleeping accommodations for a total of 16 or fewer people on a transient or permanent basis, without personal care services, with or without meals, but without separate cooking facilities for individual occupants.

Personal care shall mean care involving responsibility for the safety of the resident while inside the building and shall include, but not be limited to, daily awareness by management of the resident's functioning and whereabouts, making and reminding a resident of appointments, the ability and readiness for intervention in the vent of a resident experiencing a crisis, supervision in the areas of nutrition, and actual

provision of transient medical care.

Residential board and care facility shall mean an occupancy used for lodging and boarding of four (4) or more residents, not related by blood or marriage to the owners or operators, for the purpose of providing personal care services.

Residential board and care occupancy shall mean any of the following:

(1) Group housing arrangement for physically or mentally handicapped persons who normally attend school in the community, attend worship in the community, or otherwise use community facilities.

(2) Group housing arrangement for physically or mentally handicapped persons who are undergoing training in preparation for independent living, for paid employment, or for other normal community activities.

(3) Group housing arrangement for the elderly that provides personal care services but that does not provide nursing care.

(4) Facilities for social rehabilitation, alcoholism, drug abuse, or mental health problems that contain a group housing arrangement and that provide personal care services but do not provide acute care.

(5) Assisted living facilities.

(6) Other group housing arrangements that provide personal care services but not nursing care.

Residential occupancy shall mean any building that satisfies the definitions contained herein for apartment building, lodging and rooming house, residential board and care facility, hotel, dormitory, personal care, and/or residential board and care occupancy.

Sec. 12-153. Requirements.

(a) Buildings which are included within the definitions of section 12-152 as residential occupancies shall provide and be protected by a fire sprinkler system in accordance with NFPA 13 or NFPA 13R.

(b) The owner or occupant of any building shall be responsible for having the system inspected and tested in accordance with NFPA 25 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2011 Edition.

(c) No person shall shut off, disable, or disarm any automatic fire sprinkler system except for the following purposes:

(1) In order to perform required or necessary service or maintenance to such system. Any such maintenance may be conducted after notice has been given to the fire department.

(2) In the event of accidental damage to the system that causes undo water flow.

(d) In the event that a fire sprinkler system must stay off for an extended time due to repair or maintenance a fire watch may be required during that period. If required the fire watch is to remain in effect until such time that the system is returned to its full capacity.

(e) Records of all system inspections, tests and maintenance required by the governing NFPA standard for the systems listed below shall be maintained on the premises for a minimum of two years.

Section 2. This ordinance shall become effective immediately upon its adoption by the

Board of Commissioners for Fayette County.

Section 3. All other ordinances or parts of ordinances in conflict with this ordinance are hereby repealed.

Section 4. In any event any section, subsection, sentence, clause or phrase of this Ordinance shall be declared or adjudged invalid or unconstitutional, such adjudication shall in no manner affect other sections, subsections, sentences, clauses or phrases of this Ordinance, which shall remain in full force and effect as if the section, subsection, sentence, clause or phrase so declared or adjudged invalid or unconstitutional were not a part thereof. The Board of Commissioners hereby declares that it would have passed the remaining parts of this Ordinance if it had known that such part or parts hereof would be declared or adjudged invalid or unconstitutional.

SO ENACTED this _____ day of _____, 2015.

BOARD OF COMMISSIONERS OF
FAYETTE COUNTY

By:_____
Charles Oddo, Chairman

(SEAL)

ATTEST:

_____
Floyd Jones, County Clerk

Approved as to form:

_____
County Attorney