

May 8, 2015

MEMORANDUM

FROM: DEPARTMENT OF CODES AND BUILDING SAFETY

Attached is a draft copy of the ordinance to adopt codes for Metro Nashville. We are moving to adopt the following codes and the accompanying local amendments.

2012 International Building Code

2012 International Residential Code for One and Two-family Dwellings

2012 International Plumbing Code

2012 International Mechanical Code

2012 International Fuel Gas Code

2012 International Energy Conservation Code

ICC A117.1-2009 Accessible and Useable Buildings and Facilities

These are being published to provide a 30 day comment period for all interested parties. Comments related to the codes should be sent to Wade Hill at wade.hill@nashville.gov.

Change Management Notice

METROPOLITAN GOVERNMENT
OF
NASHVILLE AND DAVIDSON COUNTY

DEPARTMENT OF
CODES AND BUILDING
SAFETY



Prior to the introduction of an ordinance, a code change, a change in departmental policy, or a change in a procedure which may significantly affect the permit application process, the Use & Occupancy Certificate application process, or affect the use of real property, the development of real property, or construction thereon, The proposing department shall first submit "Notice" of the proposed change to interdepartmental review and approval by the five, above-listed department heads or their designees. The purpose of this review is to coordinate the change among the departments and to the greatest extent possible reduce impact upon the contractor/ developer customers of the participating departments.

Date: 5/8/15

Department: Codes

Date change will take effect: Approx. 8/1/15

Outline Description of Change:

We are composing an ordinance to adopt the 2012 Editions of the International Building Code, International Residential Code for One and Two-family Dwellings, International Plumbing Code, International Mechanical Code, International Fuel Gas Code, International Energy Conservation Code, and the ICC A117.1-2009 Accessible and Useable Buildings and Facilities. This is a natural progression of Code adoption process.

Transition Plan for Change to Occur:

The change will have a 90 day grace period for projects being submitted for building permit. Trade permits tied to a building permit shall be issued under the code the building permit is issued under. Individual trade permits shall be issued under the new code the day of adoption.

Copy of the Change to be distributed to:

This change will be posted on the Codes and Building Safety's web site, and notice will be sent to the following:

HBA of Middle Tennessee
TSPE
ABC of Middle Tennessee
ACEC, TN Chapter
AGC of Middle Tennessee
BOMA, Middle Tennessee Chapter
AIA, Middle Tennessee Chapter

REIN
ASCE of Middle Tennessee
Nashville Chamber of Commerce
IBEW
NECA
HCC
ACCA

USGBC, Middle Tennessee
TFBAA
Plumbing & Pipefitters, Local #572
TFSCA
Downtown Partnership
NAPMA

"Notice" will be emailed to the customer email distribution lists maintained by Codes, Planning and Water Services.

Ordinance No. _____

An ordinance amending Chapters 10 and 16 of the Metropolitan Code of Laws to adopt updated fire, building, dwelling, energy, gas/mechanical, and plumbing codes with amendments.

WHEREAS, the applicable codes for fire, building, dwelling, energy, gas/mechanical, and plumbing standards are updated by international bodies on a periodic basis; and,

WHEREAS, such updates are adopted by the Metropolitan Council into the Metropolitan Code of Laws as the governing standards for Davidson County, Tennessee; and,

WHEREAS, the amendment of these sections of Metropolitan Code of Laws § 10 and 16 is in the best interests of the citizens of Nashville and Davidson County.

NOW, THEREFORE, BE IT ENACTED BY THE COUNCIL OF THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY:

Section 1. Chapter 10.64 of the Metropolitan Code is hereby amended by deleting Section 10.64.010 in its entirety and substituting in lieu thereof the following new section 10.64.010:

10.64.010 Fire Prevention Code adopted.

The metropolitan government adopts the 2012 International Fire Code published by the International Code Council, as amended in this chapter, and Appendix B, Appendix D, and Appendix F of the International Fire Code, as amended in this chapter, to be applicable throughout the metropolitan government. A copy of the International Fire Code, including Appendices B, D, and F, is attached to the ordinance codified in this section and hereof, the same as if copied verbatim herein. The International Fire Code and Appendices B, D, and F thereto, with amendments indicated herein, and with the addition of the 2012 Life Safety Code for certain occupancies, shall be known as the Metropolitan Fire Prevention Code.

Section 2.

Chapter 10.64 of the Metropolitan Code is hereby amended by deleting Section 10.64.012 in its entirety and substituting in lieu thereof the following new section 10.64.012:

10.64.012 Life Safety Code (NFPA 101-2012) adopted for certain occupancies. The metropolitan government adopts the NFPA 101 Life Safety Code 2012 edition, published by the National Fire Protection Association, as amended in this chapter, for new and existing state buildings and metropolitan government owned buildings, and for the following new and existing occupancies as defined in the NFPA 101 Life Safety Code 2012 edition:

1. educational occupancies;
2. day-care occupancies;
3. residential board and care occupancies; and
4. health care occupancies.

A copy of the 2012 NFPA 101 Life Safety Code is attached to the ordinance codified in this section and hereof, the same as if copied verbatim herein.

Section 3. Chapter 10.64 of the Metropolitan Code is hereby amended by deleting Section 10.64.015 in its entirety and substituting in lieu thereof the following new section 10.64.015:

10.64.015 Amendments to the 2012 International Fire Code and Appendices.

The following amendments, deletions, or additions to the 2012 International Fire Code and appendices thereto are adopted by reference, as fully as though copied into the Metropolitan Fire Prevention Code, and thereby made a part of the Metropolitan Fire Prevention Code.

- A. Section 102.7.1 Conflicts has been amended by deleting it in its entirety and substituting the following:

102.7.1 Conflicts.

Where conflicts occur between provisions of this code and referenced codes and standards the most stringent provision shall apply.

- B. Section 104 is hereby amended by adding the following Section 104.3.2

104.3.2 Existing buildings. The fire code official has the authority to conduct inspections of existing buildings as frequently as deemed necessary by the fire code official.

- C. The exception to Section 105.6.30 Open Burning has been amended by deleting it in its entirety and substituting the following:

105.6.30 Open Burning

Exception: Recreational fires as defined by the fire code official.

- D. Section 105.6 is hereby amended by adding the following new subsection 105.6.47:

105.6.47 Special Events. A special event permit is required if deemed necessary by the fire code official when a Fire Watch is required to assure life safety during an event.

- E. Section 107.1 is hereby amended by deleting it in its entirety and substituting the following new Section 107.1:

107.1 Maintenance and installation of safeguards.

1. Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, or any other feature is required for compliance with the provisions of this code, or otherwise installed, such device, equipment, system, condition, arrangement, level of protection, or other feature shall thereafter be continuously maintained in accordance with this code and applicable referenced standards.

2. Structures and facilities operating under a use and occupancy permit at the time of the adoption of this code must install and continuously maintain all devices, equipment, systems, conditions, arrangements, levels of protection, and any other features that were required by the fire code that was applicable when the structure or facility was issued the use and occupancy permit, or any equivalent safety measures that have been approved by the fire code official. Structures and facilities operating under a use and occupancy permit at the time of the adoption of this code can opt to comply with all of the requirements for new structures and facilities under this code in lieu of all of the requirements of the fire code that was applicable when the structure or facility was issued the use and occupancy permit.

3. Notwithstanding any other provision in this code, if any of the following has been issued pursuant to a previous version of the fire code, all deficiencies identified therein must be remedied immediately unless additional time for compliance is specifically granted by this code pursuant to Section 903.2.1.3.1 or Section 903.2.10.3.1.

3.1. Any citation, notice of violation, request for plan of correction, or any other notice of noncompliance with the applicable fire code from the fire code official; or

3.2. Any order, action or resolution of the Board of Fire and Building Code Appeals; or

3.3. Any court order.

After all deficiencies have been remedied, the structure or facility may then opt, as permitted by 107.1.2 above, to comply with all of the requirements for new structures and facilities under this code in lieu of all of the requirements of the fire code that were applicable when the structure or facility was issued the use and occupancy permit.

4. All existing structures or facilities, whether controlled by this fire code or a previous version of the fire code, shall comply with all provisions of this code that expressly apply to such existing structures or facilities or which, in the opinion of the fire code official, constitute a distinct hazard to life or property pursuant to Sections 102.1.3 and 102.1.4 of this code.

The intent of this Section 107.1 is to ensure that all existing structures and Facilities either comply fully with the fire code that was applicable when the structure or facility was issued a use and occupancy permit or comply fully with this code. A

structure or facility that fully complies with the fire code that was applicable when the use and occupancy permit was issued must still comply with certain provisions of this code: all provisions in this code that expressly apply to such existing properties as well as those which, in the opinion of the fire code official, constitute a distinct hazard to life or property. The intent of this section is also to ensure that structures and facilities that have had a deficiency identified under any previous code must remedy such deficiency even if such condition would not be a violation under this code.

- F. Section 108.1 is hereby amended by adding the following new language to the end of the existing paragraph.

108.1 Board of appeals established. The Board of Appeals created and empowered to act on all appeals under this Metropolitan Fire Prevention Code shall be the Metropolitan Board of Fire and Building Code Appeals (Board) as established and provided for in the Metropolitan Code of Laws, Chapter 2.80 and Section 16.08.010. The Board shall hear all appeals for variances in or interpretations of this Metropolitan Fire Prevention Code by the Fire Marshal of the Metropolitan Government. When acting under this Metropolitan Fire Prevention Code, the Board shall transmit its decisions to the Fire Marshal.

- G. Section 109.4 is hereby amended by adding the following new language to the end of the existing paragraph:

109.4 Violation penalties – add in where required “Misdemeanor, \$50.00 as directed by the General Sessions Environmental Court.

- H. Section 202 is hereby amended by adding the following new definitions to the list of existing definitions.

BED AND BREAKFAST HOMESTAY. A private home, inn or other unique residential facility located in a structure of historical significance as defined in Tennessee Code Annotated Section 68-14-503(3), offering bed and breakfast accommodations and one (1) daily meal and having less than four (4) guest rooms furnished for pay, with guest staying not more than fourteen (14) days, and where the innkeeper resides on the premises or property, or immediately adjacent to it. Guest rooms shall be established and maintained distinct and separate from the innkeeper’s quarters.

EXISTING, LEGAL BUILDING LOT.

An existing, legal building lot shall include the following:

1. Infill Lot. A lot in an established one- and two-family or townhouse dwelling subdivision in which the following infrastructure elements are in existence at the time of the adoption of this ordinance: water mains, fire hydrants, and streets with existing homes constructed. This lot was not sold or built upon during the

initial phase of construction or the original home was demolished to make way for new construction;

2. All one- and two-family or townhouse dwelling lots in phases and sections of subdivisions for which an approved final plat was recorded at the Davidson County Register of Deeds Office prior to the adoption of this ordinance; or
 3. All lots in all future phases or sections of one- and two-family or townhouse dwelling subdivisions that were granted preliminary approval by the Metropolitan Planning Commission prior to the adoption of this ordinance and for which the plans have not materially changed since the time of preliminary approval, as determined by the fire code official.
- I. Section 202 is hereby amended by deleting the definition for Standpipe Classes of, Class III systems and substitute the following:
- Class III Systems. A system providing a 2 ½ inch hose connection with a 2 ½ x 1 ½ inch adapter to supply water for use by fire department personnel only.
- J. Section 307.4.2 Recreational fires has been amended by deleting it in its entirety and substituting the following
- 307.4.2 Recreational fires. Recreational fires shall not be conducted within 50 feet of a structure or combustible material. Conditions which could cause a fire to spread within 50 feet of a structure shall be eliminated before ignition.
- K. Chapter 3 has hereby amended by adding a new Section 319 Marinas and Boatyards.
- Section 319 Marinas and Boatyards
- Marinas, boatyards, yacht clubs, boat condominiums, boat docking facilities, and associated piers, docks, floats and structures on these facilities shall meet the requirements of this code for each occupancy and the 2011 edition of NFPA 303 Fire Protection for Marinas and Boatyards.
- L. Section 404.2 Where Required (Fire Safety and Evacuation Plans) item # 10 has been amended by deleting it in its entirety and substituting it with the following:
- 404.2
10. High-rise Buildings – An approved fire safety and evacuation plan shall be provided in the fire command center. In existing buildings that do not have a fire command center, the plan shall be accessible at the building’s fire alarm annunciator panel.
- M. Section 503.2.7 Grade. Has been amended by deleting it in its entirety and substituting it with the following:
- 503.2.7 Grade - The grade of the fire apparatus access road shall be within the limits established by the fire code official based on the fire departments apparatus. Grades in excess of 10% may be allowed if the building(s) served are protected throughout by an approved automatic fire sprinkler system and access roads do not contain excessive runs of the steeper grade that would not allow fire equipment to maintain

needed speed to manage the grade. In any case the fire code official will determine approval for compliance.

N. Section 609.1 General (Commercial Cooking Hoods). Has been amended by deleting it in its entirety and substituting it with the following 609.1 and 609.1.1:

609.1 General. Commercial kitchen exhaust hoods shall comply with the 2011 edition of NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

609.1.1 Commercial Cooking Kitchen defined:

Commercial Cooking Kitchen is defined as any kitchen that is used to cook and prepare food for sale or distribution to the public.

Examples: Restaurants

Bars, Night Clubs

Private Clubs

Church kitchens that are used for “Meals on Wheels” outreach or to sell food to the congregation or the public for fund raisers.

Homeless shelters

Schools, Day Care Centers

Hospitals, Nursing Homes, Assisted Living Facility kitchens that provide meals for its residents, etc.

Exemptions: 1) Stoves in Type B occupancy break rooms for occasional use only.

2) Stoves used in classroom settings such as home economics class, physical therapy training for patients or demonstration kitchens as long as the food prepared is not sold to the audience.

O. Section 701 has been amended by adding a new subsection 701.1.1:

Section 701.1.1 All openings shall be protected in accordance with table 716.5 of the 2012 edition of the International Building Code.

P. Section 901.4.3 has been amended by adding the following new subsection:

901.4.3.1 Where additions to buildings cause the installation of an automatic fire sprinkler system because of the fire flow requirement of Appendix B the new addition shall be allowed to be separated from the existing structure by a fire wall to comply with the 2012 edition of the International Building Code.

Q. Section 901.7.3 is hereby amended by adding a new subsection 901.7.3.1.

901.7.3.1 Status tags. Fire alarm and fire detection systems upon testing shall have displayed at the main fire alarm panel location a compliance tag/sticker. This

tag/sticker shall bear the fire alarm contractor's name and phone number and a space for an inspection date. A green tag/sticker shall indicate that the alarm system has no deficiencies. A red tag/sticker shall indicate any fire alarm system with deficiencies, including trouble signals. The red tag/sticker shall remain in place until repairs are completed.

R. Section 903.2.1.3 is hereby amended by adding a new subsection 903.2.1.3.1.

903.2.1.3.1 Existing Group A-2 & A-3 Where the occupant load exceeds 200, the following existing assembly occupancies shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 not later than September 30, 2012:

1. Bars with Live Entertainment
2. Dance halls
3. Discotheques
4. Nightclubs
5. Assembly occupancies with festival seating

Regardless of occupant load, any of the occupancies listed above that have been cited with:

1. overcrowding;
2. locked or blocked fire exits;
3. unpermitted pyrotechnics; or,
4. the use of props or displays not meeting applicable flame spread requirements shall be subject to automatic fire sprinkler system requirements as ordered by the fire code official.

For purposes of this section, "live entertainment" shall include any live performance such as live music, dancing, stage acts, disc jockey, or other entertainment that in the opinion of the fire code official could cause a distraction to the audience in the case of a fire or emergency in such a manner as to delay normal exiting from the facility. A mere occasional or infrequent live performance, scheduled or unscheduled, that is incidental or not part of the regular venue of the occupancy shall not be considered live entertainment. In all cases the fire code official has the authority to determine the circumstances that constitute "live entertainment".

S. The exceptions to 903.2.6 is hereby amended by deleting them in their entirety and substituting the following:

903.2.6

Exceptions:

1. An automatic sprinkler system installed in accordance with section 903.3.1.2 shall be allowed in Group I-1 facilities. Sprinkler protection is required in all closets and bathrooms.

2. An automatic sprinkler system installed in accordance with section 903.3.1.3 shall be allowed in Group I-1 facilities when in compliance with all of the following:

- 2.1 A hydraulic design information sign is located on the system riser:
- 2.2 Exception 1 of 903.4 is not applied; and
- 2.3 Systems shall be maintained in accordance with the requirements of Section 903.3.1.2.
- 2.4 Sprinkler protection shall be provided in all closets and bathrooms.

T. Section 903.2.11.3 is hereby amended by adding the following new subsection 903.2.11.3.1.

903.2.11.3.1 Existing buildings with occupied floors 75 feet or more above the lowest level of fire department access.

Existing buildings with occupied floors 75 feet or more above the lowest level of fire department access shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 immediately; or by September 30, 2012 if such building has a Fire Watch and is equipped with a standpipe and hose system installed in accordance with NFPA 14, Standard for the Installation of Standpipe and Hose Systems. When the automatic sprinkler system is installed, a sprinkler control valve and water flow device shall be provided for each floor.

U. Section 903 has been hereby amended by adding the following new subsection 903.7.

903.7 Installations, alterations and repairs.

Installation, alterations and repairs of automatic fire sprinkler systems (including backflow prevention devices) shall be performed by a State of Tennessee licensed fire sprinkler contractor.

V. Section 905.3.1 height (Standpipes) has been hereby amended by deleting the exemption in their entirety.

W. Section 905.3.3 has been hereby amended by deleting it in its entirety and substituting the following:

905.3.3 Covered and open mall buildings. Covered mall and open mall buildings shall be equipped throughout with a Class III standpipe system. Hose connections that are connected to the automatic sprinkler system shall be sized to deliver 250 gpm at the most hydraulically remote hose connection while concurrently supplying the automatic sprinkler system demand. The standpipe system shall be designed not to exceed 50 pounds per square inch (psi) residual pressure loss with a flow of 250 gpm from the fire department connection to the hydraulically most remote hose connection. Hose connections shall be provided at each of the following locations:

- 1. Within the mall at the entrance to each exit passageway or corridor.

2. At each floor-level landing within enclosed stairways opening directly on the mall.
3. At exterior public entrances to the mall of a covered mall building.
4. At public entrances at the perimeter line of an open mall building.
5. At other locations as necessary so that the distance to reach all portions of a tenant space does not exceed 150 feet from a hose connection.

X. Section 905.3.4.1 has been hereby amended by deleting it in its entirety and substituting the following:

905.3.4.1 Hose and Cabinet. In non-sprinkled buildings the 1 ½ inch hose connections shall be equipped with sufficient lengths of 1 ½ inch hose to provide fire protection for the stage area. Hose connections shall be equipped with an approved adjustable fog nozzle and be mounted in a cabinet or a rack.

Y. Section 905.3.5 has been hereby amended by deleting it in its entirety and substituting the following:

905.3.5 Underground buildings. Underground buildings shall be equipped throughout with a class III automatic wet or a manual wet standpipe system.

Z. Section 905.4 paragraph number 6 has been hereby amended by deleting it in its entirety and substituting the following:

905.4 Location of class I standpipe hose connections.

6. Where the most remote portion of a floor or story is located in excess of 150 ft. (47.5 m) of travel distance from a hose connection, additional hose connections shall be provided in approved locations where required by the fire code official to cover all parts of the floor.

AA. Section 905.6 has been hereby amended by deleting 905.6 and submitting the following:

905.6 Locations of Class III standpipe hose connections. Class III standpipe systems shall have hose connections located as required for Class I standpipes in Section 905.4.

BB. Section 907.2.11.2 has been hereby amended by adding a new subsection number 4.

907.2.11.2

4. In each living area.

CC. Section 907.2.11 has been hereby amended by adding a new subsection

907.2.11.5.

907.2.11.5 Smoke alarms for “R” Occupancies must be dual sensing technology (ionization and photo electric) detectors.

Exception: Where allowed to be of a specific type and use as allowed by the fire code official.

DD. Section 907.3 has been hereby amended by adding a new subsection 907.3.5.

907.3.5 Alarm required from smoke activated equipment.

Smoke detectors in elevator equipment rooms, elevator hoist ways, elevator lobbies and smoke activated hold open devices for fire doors shall activate the fire alarm system when required by the fire code official.

EE. Section 913 has been hereby amended by adding a new subsection 913.6.

913.6 Fire Pumps used in fire protection shall have the following signals transmitted to an approved Central Station Alarm Monitoring Service or an approved Proprietary Service:

Electric Fire Pumps

1. Fire Pump Run
2. Phase Reversal
3. Power Failure
4. Main Water Flow

Diesel Fire Pumps

1. Fire Pump Run
2. Low Batteries
3. Failure to Start
4. Main Water Flow

FF. Section 913.2 has been hereby amended by adding a new subsection 913.2.1.

913.2.1 Protection of fire pump rooms. Rooms where fire pumps are located shall be separated from all other areas of the building with 2 hour fire rated reinforced masonry construction.

Exception: Where it has been proven that an explosion or physical hazard does not exist, fire pump enclosures can be of any 2 hour construction allowed by the IBC.

GG. Section 1008.1.9.11 has been hereby amended by deleting the exceptions and replacing them with the following new exceptions:

Exceptions:

1. An automatic release that is actuated with the initiation of the building fire alarm system or a loss of power shall be provided to unlock all stair enclosure doors to allow re-entry. Signs shall be provided on the egress side of the door that states "No Re-Entry allowed from inside this stair unless the power fails or fire alarm is activated".
2. Doors on stair enclosures shall be permitted to be equipped with hardware that prevents re-entry into the interior of the building, provided that the following criteria are met:
 - a) There shall be not less than two levels where it is possible to leave the stair enclosure to access another exit.
 - b) There shall be not more than four stories intervening between stories where it is possible to leave the stair enclosure to access another exit.
 - c) Re-entry shall be possible on the top story or next-to-top story served by the stair enclosure, and such story shall allow access to another exit.

d) Doors allowing re-entry shall be identified as such on the stair side of the door.

e) Doors not allowing re-entry shall be provided with a sign on the stair side indicating the location of the nearest door, in each direction of travel that allows re-entry or exit.

HH. Section 1021 has been hereby amended by adding a new subsection 1021.5.

1021.5 Elevator Lobbies

Elevator lobbies shall have access to at least one exit. Such exit access shall not require the use of a key, a tool, special knowledge, or special effort.

II. Section 1027.5 has been hereby amended by adding a new subsection 1027.5.1.

1027.5.1 Access to a public way from an exit discharge that requires easement agreements from other property owners to insure access to public ways shall be “permanent easements,” protecting all future owners and occupants. Permanent easements can be voided if exit termination from structures is changed to meet the exit termination requirements of this chapter.

JJ. Section 1104.16 (including 1104.16.1 through 1104.16.7) has been amended by deleting it in its entirety.

KK. Section 1104.17 has been hereby amended by deleting exception number 3 in its entirety.

LL. Section 2808.3 has been hereby amended by deleting it in its entirety and replacing it with the following:

2808.3 Size of Piles.

Exception: The fire code official is authorized to allow the pile size to be increased when additional fire protection is provided in accordance with chapter 9. The increase shall be based upon the capabilities of the system installed. Combustible waste materials such as bark, sawdust, chips, and other debris shall not be permitted to accumulate in a quantity or location that constitutes an undue fire hazard as determined by the fire code official.

MM. Section B103.3 is hereby amended by adding the following sentence to the end of the paragraph.

The fire code official may approve alternate types of fire protection when a water supply system can't be provided.

NN. Section B104.2 is hereby amended by deleting it in its entirety and replacing it with the following:

B104.2 Area Separation. Portions of buildings which are separated by fire walls, constructed in accordance with the International Building Code are allowed to be considered as separate fire flow calculation areas.

Exception:

- 1) Additions to existing buildings would be allowed to be considered a separate fire flow calculation area when separated from the new construction with a fire wall in accordance with the International Building Code.
- 2) Provided that townhouses, as defined by the International Residential Code, are separated with approved two-hour fire rated construction, the square footage of one unit only shall be utilized for the purposes of calculating needed fire flow. Such fire-flow requirements remain effective regardless of the number of attached townhouses, provided that an approved fire wall separates each row of eight units or that all units are equipped with either a NFPA 13D, NFPA 13R, or NFPA 13 automatic fire sprinkler system.

OO. Section B105.1 is hereby amended by deleting it in its entirety and replacing it with the following new B105.1.

B105.1 One and two-family and townhouse dwellings. The minimum fire flow and flow duration requirements for one and two-family and townhouse dwellings having a fire flow calculation area that does not exceed 3,600 square feet (344.5 m²) shall be 1,000 gallons per minute (3785.4 L/min) for one hour. Fire-flow and flow duration for dwellings having a fire flow calculation area in excess of 3,600 square feet (344.5 m²) shall not be less than that specified in Table B105.1.

Exceptions:

- 1) A reduction in required fire-flow of 50 percent, as approved, is allowed when the building is equipped with an approved automatic sprinkler system.
- 2) One- and two-family and townhouse dwellings not greater than 3600 square feet which are constructed on existing, legal building lots, as defined in Section 202, are not subject to Appendix B if they:
 1. Meet definition #1 of "existing, legal building lot" and meet the fire-flow requirements of the Insurance Services Office (ISO) Formula for Needed Fire Flow; or
 2. Meet definition #1 of "existing, legal building lot" and have a fire hydrant within 500 feet of all parts of the home, measured by way of hard surface road, and the hydrant flows at least 750 gpm with 20 psi residual pressure; or
 3. Meet definition #1 of "existing, legal building lot" and have a fire hydrant within 500 feet of all parts of the home, measured by way of hard surface road, and the hydrant flows less than 750 gpm but not less than 500 gpm with 20 psi residual pressure and there is a secondary fire hydrant within 1,000 feet of the home that flows no less than 1,000 gpm with 20 psi residual pressure; or

4. Meet definition #2 or definition #3 of “existing, legal building lot,” in which case they shall meet the fire-flow requirements set forth by the fire code official at the time the plat was approved or preliminarily approved. In the event the fire-flow requirements were not noted at the time of approval or preliminary approval, then Appendix B shall apply unless:

4.1 There is a fire hydrant within 500 feet of all parts of the home, measured by way of hard surface road, and the hydrant flows at least 750 gpm with 20 psi residual pressure; or

4.2 There is a fire hydrant within 500 feet of all parts of the home, measured by way of hard surface road, and the hydrant flows less than 750 gpm but not less than 500 gpm with 20 psi residual pressure and there is a secondary fire hydrant within 1,000 feet of the home that flows no less than 1,000gpm with 20 psi residual pressure; or

4.3 The fire-flow requirements of the Insurance Services Office (ISO) Formula for Needed Fire Flow are met.

3) One- and two- family and townhouse dwellings which exceed 3,600 square feet and which are constructed on “existing, legal building lots” shall meet either the fire-flow requirements of the Insurance Service Office (ISO) Formula for Needed Fire Flow or Appendix B of the International Fire Code.

4) B105.1 One and Two Family dwellings Exception No. 4: One family dwellings located within the General Services District (GSD) constructed after May 30, 2009, on a lot of one acre in size or more shall meet either the fire-flow requirements of the Insurance Service Office (ISO) Formula for Needed fire Flow or Appendix B of the International Fire Code. In the event such a lot of one acre in size or more within the GSD is subdivided in the future, all dwellings constructed on the subdivided lots shall meet the fire flow requirements of Appendix B of the International Fire Code.

Section 4.

Chapter 10.64.016 is hereby amended by deleting it in its entirety and substituting the following:

10.64.016 Amendments to the 2012 NFPA 101 Life Safety Code.

A. Section 4.6.3 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting number 5 in its entirety.

B. Section 7.1.3.2.1 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting statement (c) of number 3 and statements (b) and (c) of number 9 in its entirety.

C. Section 7.2.8 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting it in its entirety.

- D. Section 7.2.9.1 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting number 5 in its entirety.
- E. Section 7.12.1 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting statement (c) in number 1 in its entirety.
- F. Section 8.6.5 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting numbers 5 and 6 in its entirety.
- G. Sections 18.2.3.4 and 19.2.3.4 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes are hereby amended by deleting subsection number 5 in its entirety.
- H. Sections 18.3.2.5.2 and 19.3.2.5.2 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes are hereby amended by adding the following statement at the end of the paragraph.

Hot plates or any similar devices are not allowed.
- I. Sections 18.7.5.6 and 19.7.5.6 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes are hereby amended by adding the following statement at the end of the first paragraph.

The owner/manager is responsible for keeping records that can be available to the AHJ of any decorations or material allowed by this section.
- J. Section 28.2.2.1.2 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting it in its entirety.
- K. Section 30.2.2.1.2 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting it in its entirety.
- L. Section 32.1.4.2 is hereby amended by adding a new item #7 under Special Definitions.

32.1.4.2

(7). Unacceptable evacuation capability - A board and care facility that has an evacuation classification of slow or impractical, with residents who reside on the second level or above and cannot at least move to a protected area of refuge acceptable to the AHJ. These residents shall be transferred to the next level of care (nursing / hospital) immediately.

- M. Section 33.3.3.7.7 of the 2012 edition of the NFPA 101 Life Safety Code which is a part of the National Fire Codes is hereby amended by deleting it in its entirety.

Section 5.

Chapter 10.64.017 is hereby amended by deleting it in its entirety and substituting the following:

10.64.017 Amendments to miscellaneous NFPA codes and standards that are referenced in the 2012 International Fire Code and 2012 NFPA 101 Life Safety Code.

The following amendments, deletions, or additions to the NFPA codes are adopted by reference, as fully as though copied into the 2012 International Fire Code and 2012 Life Safety Code, and thereby made a part of the Metropolitan Fire Prevention Code.

- A. Section 6.3.1.1 of the 2010 edition of NFPA 13 Standard of the Installation of Sprinkler Systems, which is a part of the National Fire Code, is amended by adding the following statement to end of 6.3.1.1. Minimum pipe size shall be no less than one (1) inch inside diameter.
- B. Section 11.2.3.2.3 (Quick Response Sprinklers) of the 2010 edition of NFPA 13 Standard for the Installation of Sprinkler Systems, which is part of the National Fire Code is hereby amended by deleting the subsection 11.2.3.2.3 in its entirety.
- C. Section 11.2.3.3 (Room Design Method) of the 2010 edition of NFPA 13 Standard for the Installation of Sprinkler Systems, which is part of the National Fire Code is hereby amended by deleting the subsection 11.2.3.3 in its entirety.
- D. Section 24.1 (Approval of Sprinkler Systems and Private Fire Service Mains) of the 2010 edition of NFPA 13 Standard for the Installation of Sprinkler Systems, which is part of the National Fire Code is hereby amended by deleting it in its entirety and substituting the following:
24.1 Approval of Sprinkler Systems and Private Fire Service Mains. The installing contractor shall be a licensed Tennessee Fire Sprinkler Contractor and shall do the following:
 - (1) Notify the authority having jurisdiction and the property owner or the property owner's authorized representative of the time and date testing will be performed
 - (2) Perform all required acceptance tests (*see Section 24.2*)
 - (3) Complete and sign the appropriate contractor's material and test certificate(s) (*see Figure 24.1*)

(4) Remove all caps and straps prior to placing the sprinkler system in service

(5) Shall be responsible for the installation of Fire Protection Sprinkler Systems from the point of underground connection to the approved water supply, beginning where the line becomes solely a fire protection line.

E. Section 7.3.2.2. (Locations for hose connections) of the 2010 edition of NFPA 14 Standard for the Installation of Standpipe and Hose Systems, which is part of the National Fire Code is hereby amended by deleting it in its entirety and substituting it with the following:

F. Section 7.3.2.2 Where the most remote portion of a full story is located in excess of 150 ft. (47.5 m) of travel distance from a required exit containing or adjacent to a hose connection, additional hose connections shall be provided , in approved locations, where required by the AHJ to cover all parts of the floor.

Section 4.12.1.1 (protection of Fire Pumps) of the 2010 edition of NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection, which is part of the National Fire Code is hereby amended by deleting section 4.12.1.1.1 through 4.12.1.1.3 (including the table 4.12.1.1.2) in it's entirety and substituting it with the following:

4.12.1.1.1 Protection of fire pump rooms. Rooms where fire pumps are located inside buildings they shall be separated from all other areas of the building with 2 hour fire rated reinforced masonry construction.

Exception:

Where it has been proven that an explosion or physical hazard does not exist, fire pump enclosures can be of any 2 hour construction allowed by the IBC.

4.12.1.1.2 Fire Pumps installed in separate fire pump buildings shall be provided with at least a 50 foot separation.

G. Section 4.24 of the 2010 edition of NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection, which is part of the National Fire Code is hereby amended by deleting it in its entirety and substituting it with the following:

4.24 When required by other sections of this standard, alarms shall call attention to improper conditions in the fire pump equipment. Fire Pumps used in fire protection shall have the following alarm signals transmitted to an approved Central Station Alarm Monitoring Service or an Approved proprietary Service:

Electric Fire Pumps

1. Fire Pump Run
2. Phase Reversal
3. Power Failure
4. Main Water Flow

Diesel Fire Pumps

1. Fire Pump Run
2. Low Batteries
3. Failure to Start
4. Main Water Flow

- H. Section 10.3 of the 2010 edition of NFPA 72 National Fire Alarm and Signaling Code, which is part of the National Fire Code is hereby amended by adding a new subsection 10.3.1.1.

10.3.1.1 Fire Alarm Control Panels shall be listed for fire alarm use. Fire alarm control panels that also have burglar alarm listings can be used for approved fire alarm systems as long as they are used for fire use only. The outside of the panel shall read "Fire Alarm Control Panel" and shall not state burglar on the exterior of the panel.

- I. Section 3.2.4 of the 2011 edition NFPA 96 which is part of the National Fire Codes is hereby amended by adding the following statement to the end of the paragraph.

The AHJ has the right to deny the use of any listed assembly or product.

- J. Section 5.2 of the 2011 edition NFPA 96 which is part of the National Fire Codes is hereby amended by adding the following statement to the end of the paragraph.

In no case is the hood to be sized with less than a six (6) inch overhang from cooking equipment.

Exception: Specialty hoods listed and acceptable to the AHJ.

Section 6.

Section 16.08.010 Adoption By Reference, of the Metropolitan Code of Laws is hereby amended by deleting existing Section 16.08.010 and substituting the following:

Section 16.08.010 Adoption By Reference

The following sections and appendices are adopted and incorporated into this chapter as the technical section of the building code of the metropolitan government, by reference, as fully as though copied into this code, except as have been or may be hereafter amended herein:

- A. 2012 Edition of the International Building Code, published by the International Code Council, as amended in this chapter, and Appendices C,&D of the 2012 Edition of the International Building Code.
- B. 2009 Edition of the International ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities.

- C. 2012 International Residential for One and Two-Family Dwellings published by the International Code Council, as amended in this chapter, and Appendices E,F, G, H, & M of the International Residential Code for One and Two-Family Dwellings.
- D. 2012 Edition of the International Energy Conservation Code.

Section 7.

Section 16.08.012 Amendments to the International Building Code, of the Metropolitan Code of Laws is hereby amended by deleting existing Section 16.08.012 and substituting the following:

16.08.012 Amendments to the International Building Code

The following amendments, deletions or additions to the 2012 Edition of the International Building Code are adopted by reference as fully as though copied into said Dwelling Code and thereby made a part of the Dwelling Code.

- A. The 2012 Edition of the International Building Code is hereby amended by deleting Sections 101 through 116.5 in their entirety.
- B. Section 201 of the 2012 Edition of the International Building Code is hereby amended by adding the following new Section 201.5 to Section 201:

201.5 Interchangeability with The International Codes. The International Property Maintenance Code shall be construed to mean the Property Standards Code of the Metropolitan Government. The International Private Sewage Disposal Code shall be construed to mean the Subsurface Sewage Disposal Systems Code of the Metropolitan Government. The ICC Electrical Code shall be construed to mean the National Electrical Code.

- C. Section 202 of the 2012 Edition of the International Building Code is hereby amended by adding the following new definitions:

BED AND BREAKFAST HOMESTAY -- means a private home, inn, or other unique residential facility located in a structure of historical significance as defined in Tennessee Code Annotated Section 68-14-503(3) offering bed and breakfast accommodations and one (1) daily meal and having less than four (4) guest rooms furnished for pay, with guests staying not more than fourteen (14) days, and where the innkeeper resides on the premises or property, or immediately adjacent to it. Guest rooms shall be established and maintained distinct and separate from the innkeeper's quarters.

BREEZEWAY – A covered connector between two buildings or structures, open at each end but less than 50 percent open, located at, above, or below grade level, that may be used as a means of egress from a building or structure.

BOARD -- shall mean the Metropolitan Board of Fire and Building Code Appeals.

CODE OFFICIAL - shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

DIRECTOR -- shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

NORMAL MAINTENANCE REPAIRS -- shall be defined as repairs to an existing building or structure, including but not limited to exterior and interior painting, papering, glazing of windows and doors, floor finishing, minor repairs to chimneys, stairs, porches, underpinning, and repairs to an existing roof not to exceed 33 percent of the roof area.

TEMPORARY -- shall mean not more than 90 calendar days.

- D. Section 202 of the 2012 Edition of the International Building Code is hereby amended by deleting the definition of “Building Official” and substituting the following definition to Section 202:

BUILDING OFFICIAL -- shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

- E. Section 310.5, R-3 of the 2012 Edition of the International Building Code is hereby amended by adding the following to the Section 310.5:

Bed and breakfast home stays R3.

- F. Section 501.2 of the 2012 Edition of the International Building Code is hereby amended by deleting Section 501.2 and substituting the following:

501.2. Premises Identification. All buildings and structures within Metropolitan Nashville and Davidson County shall have approved address numbers posted in accordance with following:

1. Residences are to have their numbers at least three (3) inches in size, on a contrasting background, and in a position to be plainly visible and legible from the street or road fronting the property. The numbers may be attached to the residence or the mailbox, if the mailbox is next to the street.
2. Numbers posted on the outside of nonresidential buildings must be six inches, or larger, on a contrasting background, and in a position to be plainly visible and legible from the street or road fronting the premises. Numbers posted on interior doors or spaces (such as a lease space in a mall) must be at least three inches in size.
3. Multifamily buildings shall have their numbers displayed to be plainly visible and legible, on a contrasting background, and a minimum size of six inches in height. Identifying numbers, at least three inches in height shall also be posted on or at the doors of individual dwelling

units.

- G. Sections 907.2.10.1.1 through 907.2.10.1.4 of the 2012 Edition of the International Building Code are hereby amended by deleting Sections 907.2.10.1.1 through 907.2.10.1.4 and substituting the following:

907.2.10.1.1 Groups R-2, R-3, R-4 and I-1. Single-or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1, regardless of occupant load at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a dwelling unit, including basements, garages and cellars but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

Exception: Heat detectors may be substituted for smoke detectors installed in cellars and attached garages.

907.2.10.1.2 Additions, alterations or repairs to Group R. Where an addition, alteration or repair to an individual dwelling unit or guestroom in Group R requires a permit, smoke alarms shall be installed within that individual dwelling unit or guestroom in accordance with this section. Where one or more sleeping rooms are added or created in an existing Group R, smoke alarms shall be installed in accordance with this section.

EXCEPTION: Repairs to the exterior surfaces of occupancies in Group R are exempt from the requirements of this section.

- H. The 2012 Edition of the International Building Code is hereby amended by deleting Sections 1612.1 through 1612.5 in their entirety.

- I. Section 2902.2 of the 2012 Edition of the International Building Code is hereby amended by deleting Section 2902.2 and substituting the following:

2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

EXCEPTIONS:

1. Separate facilities shall not be required for dwelling units and sleeping units.

2. Separate facilities shall not be required in structures or tenant spaces with a total gross square footages in the following occupancies.

Table 403.2 Occupancies with one bathroom for both sexes.

Occupancy	Gross sq foot
Business	1,500
Education	1,500
Factory	3,000
Mercantile	2,000
Pools	1,000
Restaurants	1,000

EXCEPTION: Any business that dispenses gasoline or diesel oil to the public shall have separate facilities for each sex.

- J. Section 2902.2 of the 2012 Edition of the International Building Code is hereby amended by adding new Section 2902.2.2.

2902.2.2 In toilet rooms, the required lavatory shall be located in the same room as the required water closet.

Exception. Educational occupancies

- K. Chapter 29 of the 2012 Edition of the International Building Code is hereby amended by adding a new Section, 2902.6 as follows:

2902.6 Location of employee toilet facilities in occupancies other than assembly or mercantile. Access to toilet facilities in occupancies other than mercantile and assembly occupancies shall be from within the employees' regular working area. Employee facilities shall be either separate facilities or combined employee and public customer facilities. Minimum employee facilities are 1 water closet, 1 lavatory and 1 drinking fountain.

EXCEPTION:

1. Facilities required for employees in storage structures or kiosks, that are located in adjacent structures under the same ownership, lease or control, shall be a maximum travel distance of 500 feet (152 m) from the employees' regular working area.

2. In education occupancies, the maximum travel distance to bathrooms shall be 300 ft and the facilities shall be located on the same floor level.

2902.6.1 Travel distance. The required toilet facilities in occupancies other than assembly or mercantile shall be located not more than one story above or below the employee's

regular working area and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

EXCEPTION: The location and maximum travel distances to the required employee toilet facilities in factory and industrial occupancies are permitted to exceed that required in Section 2902.4.1, provided the location and maximum travel distances are approved by the code official.

- L. Chapter 29 of the 2012 Edition of the International Building Code is hereby amended by adding Section 2902.7.

2902.7 Public facilities. Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. Public toilet facilities shall be located not more than one story above or below the space required to be provided with public toilet facilities and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m). The path of travel to the public facilities shall not pass through a stock room or similar room.

- M. Section 2902.3.3 of the 2012 Edition of the International Building Code is hereby amended by adding the following to the end of Section 2902.3.3:

Restaurants other than food tenants in the food court shall have the required facilities installed within their tenant space.

- N. Section 2902.6.4.5 of the 2012 Edition of the International Building Code is hereby amended by adding a new Section 2902.6.4.5 as follows:

2902.6.4.5 Unisex toilet and bathing rooms. In assembly and mercantile occupancies, an accessible unisex toilet room shall be provided where an aggregate of six or more male or female water closets are required. In buildings of mixed occupancy, only those water closets required for the assembly or mercantile occupancy shall be used to determine the unisex toilet room requirement. In recreational facilities where separate-sex bathing rooms are provided, an accessible unisex bathing room shall be provided.

- O. Section 3103 of the 2012 Edition of the International Building Code is hereby amended by deleting Section 3103 and substituting the following:

3103
TEMPORARY STRUCTURES

3103.1 General. The provisions of this section shall apply to structures erected for a period of 90 days or less. Tents and other membrane structures erected for a period of 90 days or less shall comply with the Metropolitan Fire Code. Those erected for a longer period of time shall comply with applicable sections of this code.

EXCEPTION: Provisions of the Metropolitan Fire Code shall apply to tents and membrane structures erected for a period of 90 days or less.

3103.1.1 Permit required. Temporary structures that cover an area in excess of 120 square feet (11.16 m²), including connecting areas or spaces with a common means of egress or entrance which are used or intended to be used for the gathering together of ten or more persons, shall not be erected, operated or maintained for any purpose without obtaining a permit from the building official.

P. Section 3109.4.1.8 of the 2012 Edition of the International Building Code is hereby amended by deleting Section 3109.4.1.8 in its entirety.

Q. Section 3202.2 of the 2012 Edition of the International Building Code is hereby amended by deleting Section 3202.2 and substituting the following:

3202.2 Encroachments above grade and below 8 feet in height. Encroachments into the public right-of-way above grade and below 8 feet (2438 mm) in height shall be prohibited. Doors and windows shall not open or project into the public right-of-way above grade and below 8 feet in height.

3202.2.1 Awnings, canopies, marquees and signs. The vertical clearance from the public right-of-way sidewalk to the lowest part of any awning, canopies, marquees and signs, shall be 8 feet (2438 mm) minimum.

R. Section 3202.3.1 of the 2012 Edition of the International Building Code is hereby amended by deleting Section 3202.3.1 and substituting the following:

3202.3.1 Awnings, canopies, marquees and signs. Awnings, canopies, marquees and signs shall be constructed so as to support applicable loads as specified in Chapter 16. Awnings, canopies, marquees and signs with less than 15 feet (4572 mm) clearance above the sidewalk shall not extend into or occupy more than two-thirds the width of the sidewalk measured from the building.

3202.3.1.1 SUPPORT. Fixed awnings, marquees, signs or canopies shall be entirely supported from the building.

S. Section 3202.4 of the 2012 Edition of the International Building Code is hereby amended by deleting Section 3202.4 and substituting the following:

3202.4 Temporary encroachments. Where allowed by the local authority having jurisdiction, vestibules and storm enclosures shall not be erected for a period of time exceeding 90 days in any one year and shall not encroach more than 3 feet (914 mm) nor more than one-fourth of the width of the sidewalk beyond the street lot line. Temporary entrance awnings shall be erected with a minimum clearance of 8 feet (2438 mm) to the lowest portion of the hood or awning where supported on removable steel or other approved noncombustible support from the building.

- T. The 2012 Edition of the International Building Code is hereby amended by deleting Sections 3406.1 through 3406.5 in their entirety.
- U. The 2012 Edition of the International Building Code is hereby amended by deleting Sections 3412.1 through 3412.9.1 in their entirety.
- V. Section D101.2 of the 2012 Edition of the International Building Code is hereby amended by deleting Section D101.2 and substituting the following:

D101.2 The Fire District shall include such territory or portion thereof as established by the official Fire Zone Map of the Metropolitan Government of Nashville and Davidson County, Tennessee.’’

Section 8.

Section 16.08.014 Amendments to the International Residential Code for One And Two Family Dwellings of the Metro code of Law is hereby amended by deleting 16.12.014 and substituting the following 16.12.014;

16.08.014 Amendments to the International Residential Code for One And Two Family Dwellings

The following amendments, deletions, or additions to the 2012 Edition of the International Residential Code for One and Two Family Dwellings are adopted by reference, as fully as though copied into such Dwelling Code, and thereby made a part of the Dwelling Code.

- A. Section R101.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section R101.1 and substituting the following:
R101.1 Title. These provisions shall be known as the Residential Code for One- and Two- family Dwellings of Metro Nashville, Tennessee, and shall be cited as such and will be referred to herein as “this code”.
- B. Sections R103.1 through R105.9 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Sections R103.1 through 105.9 in their entirety.
- C. Section R106.1.3 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section R106.3.1 in its entirety.
- D. Section R107.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting R107.1 Section and substituting the following:
R107.1 General. The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but

shall not be permitted for more than 90 days. The building official is authorized to grant extensions for demonstrated cause.

- E. Sections R108.1 through R108.6 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Sections R108.1 through 108.6 in their entirety.
- F. Section R109.1.3 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section R109.1.3 in its entirety.
- G. Section R202 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding the following new definitions to Section R202.

BED AND BREAKFAST HOMESTAY--means a private home, inn or other unique residential facility located in a structure of historical significance as defined in Tennessee Code Annotated Section 68-14-503(3) offering bed and breakfast accommodations and one (1) daily meal and having less than four (4) guest rooms furnished for pay, with guest staying not more than fourteen (14) days, and where the innkeeper resides on the premises or property, or immediately adjacent to it. Guest rooms shall be established and maintained distinct and separate from the innkeeper's quarters.

BOARD--shall mean the Metropolitan Board of Fire and Building Code Appeals.

DIRECTOR--shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

NORMAL MAINTENANCE REPAIRS--shall be defined as repairs to an existing building or structure, including but not limited to exterior and interior painting, papering, glazing of windows and doors, floor finishing, minor repairs to chimneys, stairs, porches, underpinning, and repairs to an existing roof.

TEMPORARY--shall mean not more than 90 calendar days.

- H. Section R202 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting the definitions of "Building Official," and substituting the following:

BUILDING OFFICIAL--shall mean the Director of the Metropolitan Department of Codes Administration.

- I. Table R301.2(1) of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Table R301.2(1) and substituting the following:

Table R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ground Snow Load	Wind Speed MPH	Seismic Design	Subject To Damage From				Winter Design Temp
			Weathering	Frost Depth	Termite	Decay	
10#	90	C	Severe	12"	Heavy	Severe	14° F

- J. Section R306 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding Section R306.5:

R306.5 Clothes Washing facilities. Every dwelling unit shall be provided with a washing machine connection, a dryer electrical connection and a vent for the dryer.

- K. Section R309.3 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section R309.3 in its entirety.

- L. R309.5 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section R309.5 in its entirety.

- M. R313.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by creating a new Section R313.1.

R313.1 Townhouse automatic fire sprinkler systems.

A townhouse shall be considered a separate building with independent exterior walls and shall be separated by a two-hour fire-resistance-rated wall assembly. A townhouse shall be built according to local and statewide adopted building codes; provided, however, a fire sprinkler system shall not be required for a townhouse. For the purposes of this Code, "townhouse" means a single family dwelling unit constructed in a group of three (3) or more attached units that extends from foundation to roof, not more than three (3) stories in height, with a separate means of egress, and an open space or public way on at least two (2) sides.

- N. R313.2 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section R313.2 in its entirety.

- O. Section R319 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section R319 and substituting the following:

R319. Premises Identification. All buildings and structures within Metropolitan Nashville and Davidson County shall have approved address numbers posted in accordance with following:

Residences are to have their numbers at least three (3) inches in size, on a contrasting background, and in a position to be plainly visible and legible from the street or road

fronting the property. The numbers may be attached to the residence or the mailbox, if the mailbox is next to the street.

- P. Sections R322.1 through R322.3.6 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Sections R322.1 through 322.3.6 in their entirety.
- Q. Chapter 3 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding the following new section R324:

SECTION R324--HOUSE MOVING

Any person desiring to move any house, building, or structure shall comply with all of the provisions set forth in Section 16.28.175 of the Metropolitan Code and other provisions of this Code.

- R. Section R403.1 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Section R403.1 and substituting the following:

R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill. All concrete footing shall have minimum bottom reinforcement. Minimum reinforcement shall be 2-#4's continuous and shall be located a minimum of 3 inches clear from the bottom and side of the footing.

- S. Section R501.3 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Section R501.3 and substituting the following:

R501.3 Fire protection of floors.

Floor assemblies, not required elsewhere in this code to be fire-resistance rated, shall be provided with a ¹/₂-inch (12.7 mm) gypsum wallboard membrane, ⁵/₈-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member.

Exceptions:

CLIMATE ZONE	FENESTRATION U-FACTOR ^b	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC ^{b, c}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^e WALL R-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13 + 5	8/13	19	5/13 ^f	0	5/13
4 except Marine	0.35	0.60	NR	38	13	5/10	19	10/13	10, 2 ft	10/13
5 and Marine 4	0.32	0.55	NR	49	20 or 13 + 5	13/17	30 ^g	15/19	10, 2 ft	15/19
6	0.32	0.55	NR	49	20 + 5 or 13 10 ^h	15/20	30 ^g	15/19	10, 4 ft	15/19
7 and 8	0.32	0.55	NR	49	20 + 5 or 13 10 ^h	19/21	38 ^g	15/19	10, 4 ft	15/19

Foot notes:

For SI: 1 foot = 304.8 mm.

a. *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *l* value specified in the table.

b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.

c. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.

d. R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 4 through 6 for heated slabs.

e. There are no SHGC requirements in the Marine Zone.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure N1101.10 and Table N1101.10.

g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. First value is cavity insulation, second is continuous insulation or insulated siding so "13 + 5" means R-13 cavity insulation plus R-5 continuous insulation or insulated siding. If structural sheathing covers 40 percent or less of the exterior, continuous insulation *R*-value shall be permitted to be reduced by more than R-3 in the locations where structural sheathing is used – to maintain a consistent total sheathing thickness.

i. The second *R*-value applies when more than half the insulation is on the interior the mass wall.

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA13D, or other approved equivalent sprinkler system.

2. Floor assemblies located directly over a crawl space not intended for storage.

3. Portions of floor assemblies can be unprotected when complying with the following:

3.1. The aggregate area of the unprotected portions shall not exceed 80 square feet per story

3.2. Fire blocking in accordance with Section R302.11.1 shall be installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.

4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

T. Table N1102.1.1(R402.1.1) 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Table N1102.1.1(R402.1.1) and substituting a new Table N1102.1.1(R402.1.1)

TABLE N1102.1.1 (R402.1.1) INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

U. Table N1102.1.3(R402.1.3) of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Table N1102.1.3(R402.1.3) and substituting a new Table N1102.1.3(R402.1.3)

TABLE N1102.1.3 (R402.1.3) EQUIVALENT U-FACTORS^a

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR ^b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR
1	0.50	0.75	0.035	0.082	0.197	0.064	0.360	0.477
2	0.40	0.65	0.030	0.082	0.165	0.064	0.360	0.477

3	0.35	0.55	0.030	0.057	0.098	0.047	0.091 ^c	0.136
4 except Marine	0.35	0.60	0.030	0.082	0.141	0.047	0.059	0.065
5 and Marine 4	0.32	0.55	0.026	0.057	0.082	0.033	0.050	0.055
6	0.32	0.55	0.026	0.048	0.060	0.033	0.050	0.055
7 and 8	0.32	0.55	0.026	0.048	0.057	0.028	0.050	0.055

a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.

b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.17 in Zone 1, 0.14 in Zone 2, 0.12 in Zone 3, 0.087 in Zone 4 except Marine, 0.065 in Zone 5 and Marine 4, and 0.057 in Zones 6 through 8.

c. Basement wall U-factor of 0.360 in warm-humid locations as defined by Figure 301 and Table 301.1.

V. Section N1102.4.1.2 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Section N1102.4.1.2 and substituting the following:

N1102.4.1.2 (R402.4.1.2) Testing.

The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the *building official*, testing shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *building official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures;
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures;
3. Interior doors, if installed at the time of the test, shall be open;
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and
6. Supply and return registers, if installed at the time of the test, shall be fully open.

The test must be performed by a person certified as a Home Energy Rating Systems (HERS) rater or Duct and Envelope Tightness Verifier or who possesses a current professional certification from HERS rater, Building Performance Institute or other similar entity. The test cannot be performed by the prime contractor as listed on the building permit or a direct employee of the prime contractor. A certification from the person performing the test shall be with the following information:

1. Address where test was performed.
2. Name of person performing test.
3. Company name.
4. Date test was performed; and
5. Results of test in A.C.H.

Beginning at the time of adoption of this Code, all testing will be required, all documents shall be provided and attached to the dwelling appropriately. There is a grace period for airtightness compliance until January 1, 2016.

- X. Section N1104 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Section N1104 in its entirety.
- Y. Standard Reference Design for the Air Exchange Rate ,Table N1105.5.2(1) , of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Standard Reference Design for the Air Exchange Rate ,Table N1105.5.2(1) and substituting the following:
- Air leakage rate of 5 air changes per hour. in Zones 1 and 2, and 5 air changes per hour in Zones 3 through 8 at a pressure of 0.2 inches w.g (50 Pa). The mechanical ventilation rate shall be in addition to the air leakage rate and the same as in the proposed design, but no greater than $0.01 \times CFA + 7.5 \times (N_{br} + 1)$
- where:
 CFA = conditioned floor area
 N_{br} = number of bedrooms
Energy recovery shall not be assumed for mechanical ventilation.
- Z. Sections M1201.1 through E4304.5 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Sections M1201.1 through E4304.5 in their entirety.

Section 9.

Section 16.08.016 Amendments to the International Energy Conservation Code, of the Metropolitan Code of Laws is hereby amended by deleting existing Section 16.08.016 and substituting the following:

16.08.016 Amendments to the International Energy Conservation Code

The following amendments, deletions or additions to the 2009 Edition of the International Energy Conservation Code are adopted by reference as fully as though copied into said Dwelling Code and thereby made a part of the Dwelling Code.

- A. Section 101.1 of the 2012 Edition of the International Energy Conservation Code is hereby amended by deleting Section 101.1 and adding a new Section 101.1.

101.1 Title. This code shall be known as the International Energy Conservation Code of Metropolitan Nashville and Davidson County, and shall be cited as such. It is referred to herein as "this code."

- B. The 2009 Edition of the International Energy Conservation Code is hereby amended by deleting Sections 401.1 through 405.6.3 in their entirety.

Section 10.

Section 16.12.120 Adoption By Reference, of the Metropolitan Code of Laws is hereby amended by deleting existing Section 16.12.120 and substituting the following:

Section 16.08.120 Adoption By Reference

The following sections and appendices are adopted and incorporated into this chapter as the technical section of the building code of the metropolitan government, by reference, as fully as though copied into this code, except as have been or may be hereafter amended herein:

- A. 2012 Edition of the International Plumbing Code published by the International Code Council, as amended in this chapter, and Appendices B, C, D & E of the 2012 Edition of the International Plumbing Code.
- B. The following sections of the Subsurface Sewage Disposal System laws and regulations as published by the Tennessee Department of Environment and Conservation, Ground Water Protection division, as amended October 1993, are adopted and incorporated into this chapter as the Plumbing Code of the Metropolitan Government, by reference, as fully as though copied in this chapter, except as such sections and appendices have been or may be hereafter revised or amended by the Metropolitan Council: Section 201.1 through Chapter 14 and Appendices A and B." See Chapter 15.72 of the Metropolitan Code of Laws for additional requirements."

Section 11.

Section 16.12.130 of the Metropolitan Code of Laws is amended by deleting Section 16.12.130 and substituting the following:

16.12.130 Amendments to the International Plumbing Code

The following amendments, deletions, or additions to the 2012 Edition of the International Plumbing Code are adopted by reference, as fully as though copied into such Plumbing Code, and thereby made a part of the Plumbing Code.

- A. Sections 103.1 through 104.3 of the 2012 Edition of the International Plumbing Code are hereby amended by deleting Sections 103.1 through 104.3 in their entirety.
- B. Sections 104.6 through 105.1 of the 2012 Edition of the International Plumbing Code are hereby amended by deleting Sections 104.6 through 105.1 in their entirety.
- C. Sections 105.3 through 110.4 of the 2012 Edition of the International Plumbing Code are hereby amended by deleting Sections 105.3 through 1110.4 in their entirety.
- D. Section 201 of the 2012 Edition of the International Plumbing Code is amended by adding a new Section 201.5 and substituting the following:

201.5 Interchangeability with the International Codes. The International Building Code shall be construed to mean the 2012 International Building Code. The International Property Maintenance Code shall be construed to mean the Property Code of the Metropolitan Government. The International Mechanical Code shall be construed to mean the 2012 International Mechanical Code. The International Fuel Gas Code shall be construed to mean the 2012 International Fuel Gas Code. The International Plumbing Code shall be construed to mean the 2012 International Plumbing Code. The International Private Sewage Disposal Code shall be construed to mean the Subsurface Sewage Disposal Systems Code. The ICC Electrical Code shall be construed to mean the 2011 National Electrical Code.

- E. Section 202 of the 2012 Edition of the International Plumbing Code is hereby amended by adding the definition of "Plumbing Official" as follows:

PLUMBING OFFICIAL--shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

- F. Sections 305.4 and 305.4.1 of the 2012 Edition of the International Plumbing Code are hereby amended by deleting Sections 305.4 and 305.4.1 and substituting the following:

305.4. Freezing. Plumbing fixtures, water, soil and waste pipes shall not be installed outside of a building, in attics or crawl spaces, concealed in outside walls, or in any other place subjected to freezing temperature unless adequate provision is made to protect such pipes from freezing by insulation and heat or in the case of plumbing fixtures, if the manufacturer provides guidelines for exterior use. Exterior water supply system piping shall be installed not less than twenty-four (24) inches below grade.

305.6.2 Sewer depth. Building sewers that connect to private sewage disposal systems shall be a minimum of twelve (12) inches below finished grade at the point of septic tank connection. Building sewers shall be a minimum of twelve (12) inches below grade. Sewers subject to vehicular traffic require a minimum of twenty-four (24) inches of cover or shall be encased radially in six inches (6) of concrete. A sleeve shall be required to protect the service pipe from the cement encasement in compliance with Section 305.1 Corrosion.

- G. Section 307.2 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 307.2 and substituting the following:

307.2. Cutting, notching and boring in wood members. Joist notching. Notches on the ends of joists shall not exceed one-fourth the actual joist depth. Holes bored in joists shall not be within 2 inches (51 mm) of the top or bottom of the joist, and the diameter of any such hole shall not exceed one third the actual depth of the joist. Notches in the top or bottom of joists shall not exceed one sixth of the actual joist depth and shall not be located in the middle third of the span.

307.2.1. Stud cutting and notching. In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched to a depth not exceeding 25 percent of its actual width. Cutting or notching of studs to a depth not greater than 40 percent of the width of the actual stud width is permitted in nonbearing partitions supporting no loads other than the weight of the partition.

307.2.2. Bored holes. A hole not greater in diameter than 40 percent of the actual stud width is permitted to be bored in any wood stud. Bored holes not greater than 60 percent of the actual width of the stud is permitted in nonbearing partitions or in any wall where each bored stud is doubled, provided not more than two such successive doubled studs are so bored. In no case shall the edge of the bored hole be nearer than 0.625 inch (15.9 mm) to the edge of the stud. Bored holes shall not be located at the same section of stud as a cut or notch.

307.2.3 Cutting, notching and boring holes in structural steel framing. The cutting, notching and boring of holes in structural steel framing members shall be as prescribed by the registered design professional.

307.2.4. Cutting, notching and boring holes in cold-formed steel framing. Flanges and lips of load-bearing cold-formed steel framing members shall not be cut or notched. Holes in webs of load-bearing cold-formed steel framing members shall be permitted along the centerline of the web of the framing member and shall not exceed the dimensional limitations, penetration spacing or minimum hole edge distance as prescribed by the registered design professional. Cutting, notching and boring holes of steel floor/roof decking shall be as prescribed by the registered design professional.

307.2.5. Cutting, notching and boring holes in nonstructural cold-formed steel wall framing. Flanges and lips of nonstructural cold-formed steel wall studs shall not be cut or notched. Holes in webs of nonstructural cold-formed steel wall studs shall be permitted along the centerline of the web of the framing member, shall not exceed 1.5 inches (38 mm) in width or 4 inches (102 mm) in length, and the holes shall not be spaced less than 24 inches (610 mm) center to center from another hole or less than 10 inches (254 mm) from the bearing end.

307.2.6. Cutting, notching and boring holes in nonstructural cold-formed steel wall framing. Flanges and lips of nonstructural cold-formed steel wall studs shall not be cut or notched. Holes in webs of nonstructural cold-formed steel wall studs shall be permitted along the centerline of the web of the framing member, shall not exceed 1.5 inches (38 mm) in width or 4 inches (102 mm) in length, and the holes shall not be spaced less than 24 inches (610 mm) center to center from another hole or less than 10 inches (254 mm) from the bearing end

307.2.7. Cutting, notching and boring holes in nonstructural cold-formed steel wall framing. Flanges and lips of nonstructural cold-formed steel wall studs shall not be cut or notched. Holes in webs of nonstructural cold-formed steel wall studs shall be permitted along the centerline of the web of the framing member, shall not exceed 1.5 inches (38 mm) in width or 4 inches (102 mm) in length, and the holes shall not be spaced less than 24 inches (610 mm) center to center from another hole or less than 10 inches (254 mm) from the bearing end.

H. Section 312.6 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 312.6 in its entirety.

I. New Footnotes h and i of Table 403.1 of the 2012 Edition of the International Plumbing Code are hereby adding footnotes h and i of Table 403.1 and as the following:

{h} For day nurseries, a minimum of one bathtub shall be required.

{i} The minimum number of service sinks shall be 1 per building or 1 per janitor's closet or 1 per tenant space over 7,500 gross square feet.

J. Section 403.2 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 403.2 and substituting the following:

403.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

EXCEPTIONS:

1. Separate facilities shall not be required for private facilities.

2. Separate facilities shall not be required in structures or tenant spaces with a total gross square footages in the following occupancies.

Table 403.2 Occupancies with one bathroom for both sexes.

Occupancy	Gross Square footage
Business	1,500
Education	1,500
Factory	3,000
Mercantile	2,000
Pools	1,000
Restaurants	1,000
Storage	7,500

EXCEPTION: Any business that dispenses gasoline or diesel oil to the public shall have separate facilities for men and female.

K. Section 403.5 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 403.5 in its entirety.

- L. Chapter 4 is amended by adding a new Section 403.6 and 403.6.1 of the 2012 Edition of the International Building Code is hereby amended by adding new Section 403.6 and 403.6.1 as follows:

403.6 Location of employee toilet facilities in occupancies other than assembly or mercantile. Access to toilet facilities in occupancies other than mercantile and assembly occupancies shall be from within the employees' regular working area. Employee facilities shall be either separate facilities or combined employee and public customer facilities. Minimum employee facilities are 1 water closet, 1 lavatory and 1 drinking fountain.

EXCEPTION:

1. Facilities that are required for employees in storage structures or kiosks, and are located in adjacent structures under the same ownership, lease or control, shall be a maximum travel distance of 500 feet (152 m) from the employees' regular working area.
2. In education occupancies, the maximum travel distance to bathrooms shall be 300 ft and the facilities shall be located on the same floor level.

403.6.1 Travel distance. The required toilet facilities in occupancies other than assembly or mercantile shall be located not more than one story above or below the employee's regular working area and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

EXCEPTION: The location and maximum travel distances to the required employee toilet facilities in factory and industrial occupancies are permitted to exceed that required in 403.4.1, provided the location and maximum travel distances are approved by the code official.

- M. Section 403.7 and 403.7.1 of the 2012 Edition of the International Plumbing Code is hereby amended by adding new Section 403.7 and 403.7.1 as follows:

403.7 Public facilities. Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. Public toilet facilities shall be located not more than one story above or below the space required to be provided with public toilet facilities and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m). The path of travel to the public facilities shall not pass through a stock room or similar room.

403.7.1 Covered malls. In covered mall buildings, the path of travel to required toilet facilities shall not exceed a distance of 300 feet (91 440 mm). The required facilities shall be based on total gross square footage, and facilities shall be installed in each individual store or in central toilet areas located in accordance with this section. Restaurants other than food tenants in the food court shall have the required facilities installed within their tenant space. The maximum travel distance to the central toilet facilities in covered mall buildings shall be measured from the main entrance of any store or tenant space.

- N. Section 406.1 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 406.1 in its entirety.

- O. Section 411.2 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 411.2 and substituting the following:

411.2 Water connection. Emergency showers and eyewash stations shall be provided with an unvalved supply of cold water as required by the manufacturer.

- P. Section 412.3 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 412.3 and substituting the following:

412.3 Size of floor drains. Floor drains shall have a minimum 3-inch-diameter (76 mm) drain outlet.

- Q. Section 420 of the 2012 Edition of the International Plumbing Code is hereby amended by adding a new Section 420.5 as follows:

420.5 Surrounding material. Walls within 2 feet (610 mm) of a water closet shall have a smooth, hard, nonabsorbent surface, to a height of 4 feet (1219 mm) above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

- R. Section 503.1 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 503.1 and substituting the following:

503.1 Cold water line valve. The cold water branch line from the main water supply line to each hot water storage tank or water heater shall be provided with a valve, located within 3 feet of the equipment and serving only the hot water storage tank or water heater. The valve shall not interfere or cause a disruption of the cold water supply to the remainder of the cold water system. The valve shall be provided with access on the same floor level as the water heater served.

- S. Section 504.7.1 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 504.7.1 and substituting the following:

504.7.1 Pan size and drain. The pan shall be not less than 2.0 inches (51 mm) deep and shall have a minimum clearance from the water heater of two (2) inches on all sides: the pan shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a minimum diameter of 1 inch.

- T. Section 606.1 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 606.1 and substituting the following:

606.1 Location of full-open valves. Full-open valves shall be installed in the following locations: The main shut off valve is required to be installed in the habitable or occupied portion of the structure.

1. On the building water service pipe from the public water supply near the curb.
2. On the water distribution supply pipe at the entrance into the structure.

3. On all branches.
4. On the base of every water riser pipe in occupancies other than multiple family residential occupancies that are two stories or less in height.
5. On the top of every water down-feed pipe in occupancies other than one-and two-family residential occupancies.
6. On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.
7. On the water supply pipe to a gravity or pressurized water tank.
8. On the water supply pipe to every water heater.
9. On the water supply pipe to each appliance or mechanical equipment.

U. Section 608.16.4 Exception 2 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 608.16.4 exception 2 in its entirety.

V. Footnotes Table 710.1(1) of the 2012 Edition of the International Plumbing Code are hereby amended by adding footnote b to Table 710.1(1):

{b} There shall be 3 water closets maximum on any 3 inch drain line.

W. Section 903.1 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Section 903.1 and substituting the following:

903.1 Stack required. Every building in which plumbing is installed shall have at least one 3 inch main vent stack. Such stack shall run undiminished in size and as directly as possible from the building drain through to the open air or to a vent header that extends to the open air. The stack shall terminate not less than 12 inches above the roof

X. Chapter 12 of the 2012 Edition of the International Plumbing Code is hereby amended by deleting Chapter 12 in its entirety.

Y. The 2012 Edition of the International Plumbing Code is hereby amended by adding Appendix H as follows:

APPENDIX H REGULATIONS GOVERNING PRIVATE SEWAGE DISPOSAL SYSTEMS

The following regulations shall apply to the manufacture, sale, installation, repair, alteration, extension and relocation of all private sewage disposal systems under the jurisdiction of the Metropolitan Government of Nashville and Davidson County.

H101. APPROVED AND LIMITATIONS.

H101.1 ALLOWABLE USE. Septic tanks and soil absorption systems and other similar facilities may be constructed where no public sewerage system is available or is likely to become available within a reasonable time.

H101.2 PUBLIC SEWER CONNECTION. Private domestic sewage treatment and disposal systems shall be discontinued and adequately abandoned when public sewers become available to the building served.

H101.3 PERMISSION TO CONSTRUCT. No plumbing permit shall be issued for the installation of any septic tank or disposal field or for any individual or private sewage disposal system until satisfactory evidence of approval of such system, by the Metropolitan Department of Health, has been submitted to the Department of Codes Administration. On approved and recorded subdivisions, such notification consists of a letter to Codes Administration from the Health Department which covers each subdivided lot.

H101.4 PLANS AND SPECIFICATIONS.

H101.4.1 All manufacturers or distributors of mechanical sewage disposal units, filters, precast septic tanks or any other method of sewage disposal must submit detailed plans and specifications to the Director of Health of the Metropolitan Health Department, and receive approval prior to the manufacture and sale or installation of the product with the Metropolitan area of Nashville and Davidson County.

H101.4.2 Commercial and public buildings, such as but not limited to theaters, food dispensers, assembly halls, schools, churches, apartment buildings, motels, factories, mobile home parks, camp grounds and parks proposed to be constructed in an unsewered area, must submit detailed plans and specifications for the proposed sewage disposal system to the Sanitary Engineering Division of the Metropolitan Health Department for approval prior to any construction.

H101.4.3 The plans and specifications shall be submitted in triplicate and shall include the following:

H101.4.3.1 Detailed plan of the proposed septic tank or treatment tank and effluent disposal system showing building location, and with the distance labeled from building served to system, from system to well, lot line, lake, stream or other watercourse.

H101.4.3.2 The ground slope should be indicated and information submitted relative to the expected use and occupancy of the building to be served.

H101.4.3.3 Provide soil borings and percolation test data.

H101.4.3.4 There shall be maintained at the project site one set of plans bearing the Health Department's stamp of approval.”

Section 12.

Section 16.12.140 of the Metropolitan Code of Laws is hereby amended by deleting Section 16.12.140 and substituting the following:

16.12.140 Amendments to the Plumbing Sections of the 2012 International Residential Code for One- and Two-Family Dwellings.

The following amendments, deletions or additions to the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings are hereby adopted by reference as fully as though copied into said dwelling code and thereby made a part of the dwelling code.

- A. Section P2603.5 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2603.5 and substituting the following:

P2603.5 Freezing. Water, soil or waste pipe and sanitary "P" traps shall not be installed or permitted outside of a building, or concealed in exterior walls, in attics spaces or building overhangs above the adjacent grade. Soil and waste pipes may be installed in outside walls when adequate provisions are made to protect them from freezing. Water service pipe shall not be installed less than 24 in. below finished grade measured from the top of the pipe.

- B. Section P2603.5.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2603.5.1 and substituting the following:

P2603.5.1 Sewer Depth. Building sewers that connect to private sewage disposal systems shall be a minimum of 12 inches below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 12 inches below grade.

- C. Section P2801.4 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2801.4 and substituting the following:

P2801.4 Prohibited locations. Water heaters shall be readily accessible and shall not be located above a suspended ceiling or in unheated and un-insulated space. See Chapter 20 for additional requirements.

Exception:

1. Direct-vent water heaters and other water heaters can be located in unheated basements and or attached garages.
2. Appliances installed in a dedicated enclosure in which all combustible air is taken directly from the outdoors, in accordance with Section M1703. Access to such enclosure shall be through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the International Energy Conservation Code and equipped with an approved self-closing device.

- D. Section P2801.5 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2801.5 and substituting the following:

P2801.5 Required pan. Where water heaters or hot water storage tanks are installed in remote locations or where leaks can cause damage to the building or its contents, the tank or heater shall be installed in a galvanized steel pan having a minimum thickness of 24 gage (0.016) or other pans listed for such use. Listed pans shall comply with CSA LC3.

Exception: When water heaters are installed in a crawl space or in a basement below grade, no pan is required. The relief valve waste shall terminate 6 to 10 inches above the floor the water heater rests upon.

- E. Section P2801.5.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2801.5.1 and substituting the following:

P2801.5.1 Pan Size and drain. Safety pans shall be no less than 2 in. deep and shall have a minimum clearance from the water heater of 2 in. on all sides. The capacity of the pan shall be of sufficient size to receive all drippings or condensate from the tank or heater. The pan shall be drained by an indirect waste pipe no less than 1 in. in diameter or the diameter of the outlet of the required relief valve, whichever is larger.

- F. Section P2903.3 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding the following new Section P2903.3.

P2903.3 Minimum pressure. Minimum positive pressure or twenty (20) psi is required at the building entrance for either public or private water services. No person shall install or maintain a water service connection to any dwelling where a booster pump has been installed unless such booster pump is equipped with a low pressure cut-off mechanism designed to cut off the booster pump when the pressure on the suction side of the pump drops to twenty (20) psi gage.

- G. Section P2903.5 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding the following new Section P2903.5.1:

P2903.5.1 Air Chambers. Each fixture shall be furnished with air chambers installed in the supply lines, hot and cold, close to the fixture, between the fixture shutoffs and the branch lines, installed in the upright position, connected at the bottom, consisting of pipe with the same ID size as the line installed to, 12 inches in length, with a cap or plug (or manufactured means) to seal the end of the air chamber, to reduce hazard and noise.

Exception:

Water heaters are not required to have air chambers. Water closets with exposed bottom feeds entering the location through the floor are not required to have air chambers.

- H. Section P2903.9.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2903.9.1 and substituting the following:

P2903.9.1 Service Valve. A main shut-off valve on the water service line shall be installed for each dwelling unit within a building and shall be accessible in the living portion of the dwelling unit. Additionally, the water service shall be valued at the curb or property line in accordance with local requirements.

- I. Section P2903.9.3 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2903.9.3 and substituting the following:

P2903.9.3 Fixture valve and access.. Valves or stops to individual fixtures or appliances shall be required and the valves or stops shall be accessible on the same floor and within 3 feet of the fixture. Valves for a manifold distribution system may be located at the manifold or at the fixture serviced. Valves to riser and branches may be installed, but

- J. Section P2903.9.3 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P2903.9.3 and substituting the following:

P2903.9.3 Fixture valve and access.. Valves or stops to individual fixtures or appliances shall be required and the valves or stops shall be accessible on the same floor and within 3 feet of the fixture. Valves for a manifold distribution system may be located at the manifold or at the fixture serviced. Valves to riser and branches may be installed, but shall not be required.

- K. Chapter 29 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding the following new Section P2909:

SECTION P2909 TESTING WATER SUPPLY SYSTEMS

P2909.1 General. Upon completion of a section or of the entire water-supply system, it shall be tested under a water pressure not less than 100 psi (689 kPa) for 30 minutes or the water pipe systems may be tested with air at 125 psi if not prohibited by pipe manufacturer specifications, without evidence of leakage. The water used for tests shall be obtained from a potable source of supply.

- L. Table P3002.2 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Table P3002.2 and substituting the following:

P3003.2.1 Prohibited Material. The following pipe shall not be used for building sewers or drains in one and two family dwellings:

ABS-DWV	ASTM D 2661-87A
ABS Sewer Pipe	ASTM D 2751-88
Bituminized fiber drain and sewer pipe	ASTM D 1861
PSP PVC X	D 3033-85
PSM PVC	D 3034-88

Table 3002.2.2
BUILDING SEWER PIPING

Cast-iron pipe and fittings	ASTM A 74
Cast-iron pipe and fittings (hubless)	CISPI HS74
Cast-iron soil pipe and fittings for hubless sanitary system	CISPI 301
Seamless copper tube	ASTM B 75
Copper water tube	ASTM B 88
Concrete sewer, storm drain and culvert pipe	ASTM C 14
Compression joints for vitrified clay pipe and fittings	ASTM C 425
Vitrified clay pipe and fittings	ASTM C 700
PVC/DV%TV pipe and fittings	ASTM D 2665
3.25-inch O.D. PVC/DVVV pipe and fittings	ASTM D 2949
Type PSM/PVC sewer pipe and fittings	ASTM D 3034
Joints for drain and sewer plastic pipe using flexible elastome seals	ASTM D 3212
Co-extruded PVC Schedule 40, PS 50 or PS - 100 plastic pipe with cellular core	ASTM F 891
Copper drainage tube (DWV)	ASTM B 306
Mechanical couplings for drain waste and vent pipe and sewer pipe	CSA B 602M
Solvent cement for PVC-DVVV pipe and fittings	ASTM D 2564
Socket bell for PVC-DWV pipe and fittings	ASTM D 2672
Primers for solvent-cemented PVC-DWV pipe and fittings	ASTM F 656
Couplings for hubless cast-iron soil pipe and fittings	CISPI 310
Shielded couplings joining cast-iron soil pipe and fittings	ASTM C 1277
Cast-iron soil pipe and fittings for hubless	ASTM A 888

Co-extruded composite PVC DWV schedule 40 IPS pipe (solid cellular core) solvent cement fittings	ASTM F 1488 ASTM D 2564 ASTM D 2665 ASTM F 891
Co-extruded composite PVC DWV IPS-DR-PS in PS35, PS5	ASTM F 1488

PS100, PS140, PS200 solvent cement fittings	ASTM D 2564 ASTM D 2665 ASTM F 891
Co-extruded composite PVC sewer and drain pipe DR-PS in PS35, PS50, PS100, PS140, PS200 solvent cement fittings	ASTM F 1488 ASTM D 2564 ASTM D 3034 ASTM F 789

- M. Section P3005.2.7 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P3005.2.7 and substituting the following:

P3005.2.7 Building drain and building sewer junction. There shall be a cleanout near the junction of the building drain and building sewer. This cleanout shall be outside the building wall and brought up to finish grade.

- N. Section P3005.2 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding a new Section P3005.2.12:

P3005.2.12 Concealed Piping. Cleanouts on concealed piping or piping under a floor slab or in a crawl space of less than 24 inches in height or a plenum shall be extended through and terminate flush with the finished wall, floor or ground surface or shall be extended to the outside of the building. Cleanout plugs shall not be covered with cement, plaster or any other permanent finish material. Where it is necessary to conceal a cleanout or to terminate a cleanout in an area subject to vehicular traffic, the covering plate shall be of an approved type designed and installed for this purpose.

- O. Section P3005.2.10 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting section P3005.2.10.

- P. Section P3005.4.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P3005.4.1 and substituting the following:

P3005.4.1 Fixture branch and stack sizing. Fixture branch and stacks shall be sized using the following general procedure:

1. Branches and stacks shall be sized according to Table P3005.4.1. Below-grade drain pipes shall not be less than 2 inches in diameter.

2. Minimum Stack Size. Drain stack shall not be smaller than the largest horizontal branch connected, with the following exception:

2.1. A 4-inch-by-3-inch (102 mm by 76 mm) closet bend or flange or a 4-inch (102 mm) closet bend into a 3-inch (76 mm) stack tee shall be acceptable (see Section P3005.1.4).

- Q. Table P3005.4.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding the following new footnotes c and d :

c. No building sewer shall be less than four (4) inches in size, and the first two and one-half (2 1/2) feet from the main tap shall be a minimum of six (6) inches in diameter. d. a maximum of 3 water closets shall be installed on a single 3 inch drain line.

- R. Section P3008 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting section P3008.

- S. Chapter 30 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by adding the following new Section P3010:

SECTION P3010--SWIMMING POOLS

Piping carrying waste water from swimming or wading pools, including pool drainage, backwash from filters, water from scum gutter drains or floor drains that serve walks around pools, shall be connected to the sanitary sewer system. They shall be installed as an indirect waste utilizing a circulation pump, if necessary, when indirect waste line is below the sewer grade.

- T. Section P3102.1 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P3102.1 and substituting the following:

P3102.1. Main vent required. Every buildings shall have a main vent that is either a vent stack or a stack vent. Such vent size shall be a minimum 3 inches in diameter and shall run undiminished in size and as directly as possible from the building drain up through to the open air above the roof. Additional branches may be served by air admittance valves installed in accordance with Section P3114.

- U. Section P3201.2 of the 2012 Edition of the International Residential Code for One- and Two-Family Dwellings is hereby amended by deleting Section P3201.2 and substituting the following:

P3201.2 Trap seals. Traps shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm). Traps that could lose their seal due to evaporation because of infrequent use, such as floor drains, shall be fitted with a trap primer.

Section 13.

Section 16.16.180 Adoption By Reference, of the Metropolitan Code of Laws is hereby amended by deleting existing Section 16.16.180 and substituting the following:

Section 16.08.180 Adoption By Reference

The following sections and appendices are adopted and incorporated into this chapter as the technical section of the building code of the metropolitan government, by reference, as fully as though copied into this code, except as have been or may be hereafter amended herein:

- A. 2012 Edition of the International Fuel Gas Code, published by the International Code Council, as amended in this chapter, and Appendices A,B,C,&D of the 2012 Edition of the International Fuel Gas Code.
- B. 2012 Edition of the International Mechanical Code, published by the International Code Council, as amended in this chapter, and Appendix A of the 2012 Edition of the International Mechanical Code.

Section 14.

Section 16.16.180 Adoption By Reference, of the Metropolitan Code of Laws is hereby amended by deleting existing Section 16.16.180 and substituting the following:

- A. The 2012 Edition of the Storage and Handling of Liquefied Petroleum Gases (NFPA 58), Sections 1-1 through 9-5.6 and Chapter 12, inclusive with Appendixes A, B, C, D, E, F, G, H and I:

Section 15.

Section 16.16.230 of the Metropolitan Code of Laws is hereby amended by deleting Section 16.12.230 and substituting the following:

16.16.230 Amendments to Gas/ Mechanical Sections of the 2012 International Residential Code for One- and Two-Family Dwellings.

The following amendments, deletions or additions to the 2012 Edition of the International Residential Code for One- and two-Family Dwellings are hereby adopted by reference as fully as though copied into said Dwelling Code and thereby made a part of the Dwelling Code.

- A. Chapter 12 of the 2012 Edition of the International Residential code for One-and Two-Family Dwellings is hereby amended by adding the following new Section M1203:

SECTION M1203 AUTHORITY TO DISCONNECT UTILITIES IN EMERGENCIES

M1203 Authority. The building official shall have the authority to order disconnected a fuel supply or appliance that does not conform to this code; the building official shall also have the authority to order disconnected a gas utility service, or energy supplies to a building, structure, premises or equipment in case of emergency when necessary to eliminate an immediate hazard to life or property. A notice shall be attached to the energy supply or appliances stating the reason for disconnection. Such notices shall not be removed nor shall the system or appliance be reconnected until authorized by the building official.

- B. Section M1601.3.4 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by adding the following new Section M1601.3.4:

4. All ductwork installed in non-conditioned and not completely conditioned areas such as crawl, attic and the floor/ceiling assembly shall be insulated.

- C. Section G2407.6.2 and Figure G2407.6.2 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings are hereby amended by deleting Sections G2407.6.2 and Figure G2407.6.2.

- D. Section G2415.6 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by adding a new Section G2415.6.1

G2415.6.1 Buried building piping. Piping shall not be installed in such a way as to be in contact with the ground or fill under a building or building floor slab. When the administrative authority determines that it is not practical to avoid the installation of building piping that is buried or laid under a floor slab, the gas piping shall be encased in wrought iron, plastic schedule 40 pipe or steel pipe. The casing shall extend into a normally usable and accessible portion of the building. At the point where the casing terminates in the building, the space between the casing and the gas piping shall be tightly and permanently sealed with materials such as commercial casing seals, plastic, foams, cement, tars or asphalt materials. The casing shall extend at least 4 inches (102 mm) outside the building and be vented and installed in a way as to prohibit the entrance of water. The entire installation shall be such that the gas piping can be readily replaced without damage to the building.

- E. Section G2417.1.1 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Section G2417.1.1 and substituting the following:

G2417.1.1 Inspections. On completion of the installation, alteration, repair or replacement of gas piping, and prior to the use thereof, the building official shall be notified that the gas piping is ready for inspection.

G2417.1.1.1 Accessibility for inspection. Excavations required for the installation of underground piping shall be kept open until such time as the piping has been inspected and approved. If piping is covered or concealed before approval, it shall be exposed on the direction of the building official.

G2417.1.1.2 Required inspections. The building Official shall make the following inspections and shall either approve that portion of the work as completed, or shall notify the permit holder wherein the same fails to comply with this code.

G2417.1.1.3 Rough fuel-gas piping inspection. This inspection shall be made after gas piping authorized by the permit has been installed and before such piping has been covered or concealed or a fixture or appliance has been attached thereto. This inspection shall

include a determination that the gas piping size, material and installation meet the requirements of this chapter. It shall also include an air pressure test, at which time the gas piping shall stand a pressure of not less than 10 pounds per square inch gauge (68.9 kPa gauge) and shall hold this pressure for a length of time of not less than twenty (20) minutes, with no perceptible drop in pressure. The test shall be made using air pressure only, and be verified in writing by the gas/mechanical contractor on forms authorized by the Department of Codes Administration witnessed and signed. Retest or additional certification, in special situations may be required by the Director of Codes Administration or by his/her duly authorized representative. Necessary apparatus for conducting test shall be furnished by the permit holder.

G2417.1.1.4 Final inspection. This inspection shall be made after piping authorized by the permit has been installed and after all portions thereof which are to be covered or concealed are so concealed and after all fixtures, appliances and shutoff valves have been attached thereto.

G2417.1.1.5 Other inspections. In cases where the work authorized by the permit consists of a minor installation of additional piping to piping already connected to a gas meter, the foregoing inspection may be waived at the discretion of the building official. The building official shall make such inspections as deemed advisable in order to assure that the work has been performed in accordance with the intent of this code.

- F. Section G2417.4.1 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Section G2417.4.1 and substituting the following:

G2417.4.1 Air Pressure Test. This inspection shall include an air pressure test, at which time the gas piping shall stand a pressure of not less than ten (10) pounds, per square inch gauge pressure and shall hold this pressure for a length of time of not less than twenty (20) minutes, with no perceptible drop in pressure. The test shall be made using air pressure only, and verified in writing by the gas/mechanical contractor on forms authorized by the Department of Codes Administration witnessed and signed. Retest or additional certification, in special situations may be required by the Director of Codes Administration or by his/her duly authorized representative. The necessary apparatus for conducting the test shall be furnished by the permit holder.

- G. Section G2417.4.2 of the 2012 Edition of the International Residential Code for One- and two-Family Dwellings is hereby amended by deleting Section G2417.4.2 and substituting the following:

G2416.4.2 Air Pressure Test 2 psi and greater. Gas piping 2 psi or higher pressure must stand a pressure of a least 20 psi, but never less than ten (10) times the maximum pressure to which the piping will be subjected in operation, for a period of not less than twenty (20) minutes without showing any drop in pressure.”

Section 16.16.240 of the Metropolitan Code of Laws is hereby amended by deleting Section 16.16.240 and substituting the following:

“16.16.240 Local amendments to International Fuel Gas Code.

The following amendments, deletions, or additions to the 2012 Edition of the International Fuel Gas Code are adopted by reference, as fully as though copied into such Gas Code, and thereby made a part of the Gas Code.

- A. Section 101.1 of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting Section 101.1 in its entirety.
- B. Section 201 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding a new section 201.5 and substituting the following:

201.5 Interchangeability with the International Codes. The International Building Code shall be construed to mean the 2012 International Building Code. The International Property Maintenance Code shall be construed to mean the Property Internationals Code of the Metropolitan Government. The International Mechanical Code shall be construed to mean the 2012 International Mechanical Code. The International Fuel Gas Code shall be construed to mean the 2012 International Gas Code. The International Plumbing Code shall be construed to mean the 2012 International Plumbing Code. The International Private Sewage Disposal Code shall be construed to mean the Subsurface Sewage Disposal Systems Code. The ICC Electrical Code shall be construed to mean the 2011 National Electrical Code.

- C. Section 202 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding the following new definition as follows:

ADMINISTRATIVE AUTHORITY -- shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

GAS OFFICIAL -- shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

- D. Section 202 of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting the definition of “Code Official” and substituting the following:

CODE OFFICIAL -- shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

- E. Section 304.6.2 and Figure 304.6.2 of the 2012 Edition of the International Fuel Gas Code are hereby amended by deleting the section and figure in their entirety.

- F. Section 402.6(1) of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting Section 402.6(2) and substituting the following:

1. The piping system may be threaded. Piping system over 5 psig shall be welded.

- G. Section 404.4 of the 2012 Edition of the International Gas Code is hereby amended by deleting Section 404.4 and substituting the following:

404.4. Piping in solid partitions and walls. This provision shall not apply to tubing which pierces walls, floors, or partitions. Tubing shall not be run horizontally inside hollow walls or partitions unless protected along its full concealed length against physical damage. Tubing may be run vertically inside hollow walls or partitions without protection along its entire concealed length provided and the tubing is not rigidly secured.

- H. Section 404 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding a new section 404.11.3 as follows:

404.11.3. Cathodic protection shall be required on metallic gas piping installed underground. The following chart may be used to determine requirement for anodes as to size and number required:

Coated Pipe				
	Anode Spacing In Feet			
Anode W	¾"	1"	2"	3"
1#	809'	643'	352'	238'
5#	1079'	857'	470'	317'
17#	1798'	1428'	783'	528'

Exception: Coated and wrapped metallic gas piping run underground that does not exceed thirty (30) feet in length shall not require additional cathodic protection.

- I. Section 404.12 of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting Section 404.12 and substituting the following:

404.12 Minimum burial depth and clearances. Underground piping systems shall be installed a minimum depth of 18 inches (458 mm) below grade, except as provided for in 404.12.1.

- J. Section 404.12 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding a new Sections 404.12.2, 404.12.3, 404.12.4 and 404.12.5 as follows:

404.12.1 Clearances. No gas piping shall be placed underground closer than eight (8) inches from a water pipe, sewer line, or any other utility service line. Underground gas piping shall be installed with enough clearance from any other underground structure to avoid contact therewith, to allow proper maintenance, and to protect against damage that might result from proximity to other structures. In addition, underground plastic piping shall be installed with

sufficient clearance, or shall be insulated, from a source of heat so as to prevent the heat from impairing the serviceability of the pipe.

404.12.3. Protection against damage.

Where soil conditions are unstable and settling of piping or foundation walls or heavy vehicular traffic may occur, adequate measures shall be provided to prevent excessive stressing of the piping. Piping shall be buried a sufficient depth or covered in a manner so as to protect the piping from physical damage.

404.12.4. Cover Requirements. Underground piping systems shall be installed with at least eighteen (18) inches of cover. The cover may be reduced to twelve (12) inches if external damage to the pipe is not likely to result. If minimum of twelve (12) inches of cover cannot be maintained, the pipe shall be installed in conduit or bridged (shielded).

404.12.5. Separate Ditch for Gas Piping. The laying or installing of gas piping in the same ditch with water, sewer, drainage pipe or any other utility service line is prohibited except when approved by the administrative authority.

- K. Section 404.13 of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting Section 404.13 and substituting the following:

404.13 Trenches. The trench shall be graded so that the pipe has a firm, substantially continuous bearing on the bottom of the trench. Where flooding of the trench is done to consolidate the backfill, care shall be exercised to see that the pipe is not floated from its firm bearing on the trench bottom.

- L. Section 404.17.1 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding Section 404.17.1 Exception 4.

4. Plastic piping shall not be used for consumer's gas piping when operating pressures are in excess of 2 psi, unless approved by the Director of Codes Administration or his duly authorized representative.

- M. Section 406.2 of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting Section 406.2 and substituting the following:

406.2 Test medium. The test medium shall be air, nitrogen, or carbon dioxide or an inert gas. Oxygen shall not be used. Fuel gas may be used in piping systems operating at pressures of one half (½) pound per square inch or less.

- N. Section 406.4 of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting Sections 406.4.1 and 406.4.2 and substituting the following:

406.4.1. Method of Testing. Low pressure (not in excess of 0.5 psi) gas piping shall withstand a pressure of at least 10.0 psi for a period of not less than twenty (20) minutes without showing any drop in pressure. For 2 psi or higher pressure piping must stand a

pressure of at least 20 psi, but never less than ten (10) times the maximum pressure to which the piping will be subjected in operation, for a period of not less than twenty (20) minutes without showing any drop in pressure. An overnight test of larger piping systems may be required. The test shall be verified in writing on forms authorized by the Department of Codes Administration witnessed and signed. Retest or additional certification, in special situations, may be required by the Director of Codes Administration or by his/her duly authorized representative. Necessary apparatus for conducting the test shall be furnished by the permit holder.

- O. Section 410.1 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding Section 410.1 and 410.1.2. as follows:

410.1.1. Shutoff value. An accessible gas shutoff valve shall be provided upstream of each gas pressure regulator. Where two gas pressure regulators are installed in series in a single gas line, a manual valve is not required at the second regulator.

410.1.2 Venting of Pressure Regulators. A vent line(s) from a gas appliance pressure regulator and a bleed line(s) from a diaphragm type valve shall not be connected to a common manifold terminating in a combustion chamber. Vent lines shall not terminate in positive pressure type combustion chambers.

- P. Chapter 4 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding a new Section 417 as follows:

Section 417

2# PSI Piping System.

417.1 General. 2 psi gas piping systems designed in accordance with this section and other requirements of this code are intended for use where the building service regulator has been set to deliver gas at 2 psi. Piping systems shall be designed to allow a maximum pressure drop of one and one half (1½) psi between the meter and the regulator that reduces the pressure to seven (7) inch w.c. Piping systems shall be further designed to allow up to one (1) inch w.c. pressure drop between the above first cut regulator and the appliance or the appliance regulator if used.

417.2 Gas Piping Materials. All piping shall be metallic material only, and comply with 403. Piping installed for 2 psi pressure shall be (1) type L copper tubing, (2) refrigeration service tubing having a wall thickness of not less than .030", (3) corrugated stainless steel conduit, (4) iron pipe. All piping and tubing shall be sized so as to not exceed the capacities shown on tables 1003A, 1003B, or 1003C. Iron pipe already in service may be retained. Aluminum tubing will not be installed or used for this service. All horizontal tubing shall be supported at approximately four (4) foot intervals.

417.3 Marking. All piping in the 2 psi portion of the system shall be marked at the beginning, all ends with a metal tag stating "2 psi." All such tubing or piping must also be marked at intervals not to exceed six (6) feet with approved means of identification designating 2 psi gas pressure.

417.4 Piping in Partitions. When copper tubing is installed in a hollow partition in a new piping installation, a metallic sleeve, or equivalent means, shall be used to protect the tubing where it passes through a wood plate or other structural member of the wall. The sleeve, if used, shall extend at least four (4) inches on either side of the structural member in the partition. Iron pipe may be used for the sleeve. The ends must be reamed to avoid sharp edges which may come in contact with copper tubing. Tubing in the partition shall have some slack. Concealed tubing joints are prohibited.

417.5 General Piping. All fuel lines from the meter shall pass through the foundation with iron pipe, then a pipe to flare adapter may be installed for the copper tubing. In such case that the piping system cannot pass through the foundation, iron pipe will run from the meter to the outside wall of structure and attach with suitable pipe straps then adapt to copper tubing. Installation procedures must guard against dirt, tubing cutting chips, or other material entering the fuel line. Blow out lines before connecting and testing.

417.6 Joints and Fittings, Tubing. All joints and fittings in 2 psi tubing shall be made with International SAE heavy duty short shoulder flare fittings having a forty-five (45) degree flare. All joints and fittings in 2 psi corrugated stainless steel conduit shall be made with approved fitting design for that system. Brazed or silver soldered joints made with an alloy having a melting temperature in excess of 1000 degrees Fahrenheit are permitted. Soft solder joints are not permitted. All joints in existing copper tubing must be inspected and tested before being used for 2 psi service. All soft solder joints will be replaced with a flare fitting or with a silver solder joint. All bends should be smooth without any binds in tubing. Bending springs or tubing benders should be used.

417.7 MP Regulators. MP pressure regulators installed in the 2 psi portions of the piping shall comply with the following provisions:

417.7.1 The MP regulator shall comply with Sections 402.1 and 402.13 and shall be stated by its manufacturer as being suitable for the inlet and outlet gas pressures for which it is to be used.

417.7.2. The MP regulator shall maintain a reduced outlet pressure under lock-up (no flow) conditions and shall be so installed on the piping system that they cannot be concealed by building construction.

417.7.3. The capacity of the MP regulator, determined by published ratings of its manufacturer, shall be adequate to supply the appliances served by it.

417.7.4. The MP pressure regulator shall be accessible for servicing and may be located either indoors or outdoors. When located indoors, the regulator shall be vented to outdoors or equipped with a vent limiting device, in either case complying with Section 410.3.

417.7.5. The service regulator shall be set to deliver 2 psi, with flow of 30 CFH, after which the adjusting cap shall be sealed with a copper wire and lead seal. The regulator will be

marked with a red cap and a metal tag stating 2 psi attached. The gas meter will be installed with a Red index indicating 2 psi system.

417.8 The regulator which reduces the pressure from 2 psi to seven (7) inch w.c. shall be located as close as practical to the appliance which it serves. This regulator must be installed where it cannot be concealed by building construction. The 2 psi to seven (7) inch w.c. regulator must be vented to the outside atmosphere or must be equipped with a vent limiter device. When installed for one appliance only, the preferred location of the regulator and its shut off cock is above the floor level and immediately adjacent to the appliance it serves.

417.9 Appliance regulators, when used, may be installed on or adjacent to the appliance manifold. Appliance regulators are not required on manually operated room heaters, ranges or similar appliances not equipped with a pilot. A pipe nipple at least six (6) inches long, or equivalent tubing, must be installed between the 2 psi to seven (7) inch w.c. regulator and the appliance regulator. Existing appliance regulator shall be retained on any appliance, unless defective.

417.10 Manual Shutoff Valve. Where there is more than one MP regulator in the complete piping system served by one meter, a listed shutoff valve shall be installed immediately ahead of each MP regulator. A listed shutoff valve shall be installed ahead of each 2 psi to seven (7) inch w.c. regulator. Individual runs of tubing may be made to each appliance from a manifold. The cocks may be at the manifold, but they must be easily accessible, and identified as to the appliance served.

Q. Section 502 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding a new Section 502.8 as follows:

502.8 Marking.

502.8.1 In those localities where solid and liquid fuels are used extensively, gas vents shall be plainly and permanently identified by a label attached to the wall or ceiling at a point where the vent connector enters the gas vent.

502.8.2 The label shall read: This gas vent is for appliances which burn gas. Do not connect to solid or liquid fuel-burning appliances or incinerators.

502.8.3 The authority having jurisdiction shall determine whether its area constitutes such a locality.

R. Section 503.1 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding a new Sections 503.1.1 and 503.1.2 as follows:

503.1.1 Equipment Not required to be Vented.

- a. Listed ranges.
- b. Built-in domestic cooking units listed and marked for optional venting.
- c. Listed hot plates and listed laundry stoves.
- d. Listed Infrared Radiant heaters (see Section 516.1.1).

- e. A single listed booster type (automatic instantaneous) water heater, when designed and used solely for the sanitizing rinse requirements of a National Sanitation Foundation Class 1, 2, or 3 dishwashing machine, provided that the input is limited to 50,000 Btu per hour, the storage capacity is limited to 12.5 gallons, and the heater is installed, with the draft hood in place and unaltered, in a commercial kitchen having a mechanical exhaust system. When installed in this manner, the draft hood outlet shall not be less than thirty-six (36) inches vertically and six (6) inches horizontally from any surface other than the heater.
- f. Listed refrigerators.
- g. Counter appliances.
- h. Room heaters listed for unvented use shall not be installed in bathrooms or bedrooms and in institutions such as homes for the aged, sanitariums, convalescent homes, orphanages, etc.
- i. Direct gas-fired make-up air heaters.
- j. Other equipment listed for unvented use and not provided with flue collars.
- k. Specialized equipment of limited input such as laboratory burners or gas lights.

503.1.2. When any or all of this equipment is installed so the aggregate input rating exceeds 20 Btu per hour per cubic foot of room or space in which it is installed, one or more shall be provided with venting systems or other approved means for removing the vent gases to the outside atmosphere so the aggregate input rating of the remaining unvented equipment does not exceed the 20 Btu per hour per cubic foot figure. When the room or space in which the equipment is installed is directly connected to another room or space by a doorway, archway, or other opening of comparable size which cannot be closed, the volume of such adjacent room or space may be included in the calculations.

- S. Section 602 of the 2012 Edition of the International Fuel Gas Code is hereby amended by adding the following new Section 602.4:

602.4 Installations requirements. A decorative appliance for installation in a vented fireplace shall be installed only in a vented fireplace having a working chimney flue and constructed of noncombustible materials. These appliances shall not be thermostatically controlled.

1. A listed decorative appliance for installation in a vented fireplace shall be installed in accordance with its listing and the manufacturer's instructions.

2. An unlisted decorative appliance for installation in a vented fireplace shall be installed in a fireplace having a permanent free opening, based on appliance input rating and chimney height, equal to or greater than that specified in Table 634.1

- T. Section 624.1.1 of the 2012 Edition of the International Fuel Gas Code is hereby amended by deleting Section 624.1.1 substituting the following and adding Sections 624.1.2 and 624.1.3:

624.1.1 Installation requirement. Water heaters other than the direct vent type shall be located as close as practicable to the chimney or gas vent. They should be so located as to provide short runs of water piping to the water heaters.

624.1.2 All gas water heaters installed in attics, on combustible floors or in remote locations shall rest in pans of minimum 0.0276-inch (24 ga.) galvanized sheet steel or equivalent with minimum depth of two (2) inches and shall have a minimum clearance from the water heater

of two (2) inches on all sides: the pan shall be a sufficient size to receive all drippings or condensation from such water heaters. All drain pans shall have a minimum one (1) inch drain. No plastic pans will be permitted (See Section 504.7 of the International Plumbing Code for other safety pan requirements).

Exception: Water heaters shall not be located in unheated and un-insulated spaces except in unheated basements and garages.

Section 17.

Section 16.16.260 of the Metropolitan Code of Laws hereby amended by deleting Section 16.16.260 and substituting the following:

“16.16.260 International Mechanical Code--Local amendments.

The following amendments, deletions, or additions to the 2012 Edition of the International Mechanical Code are adopted by reference, as fully as though copied into such Mechanical Code, and thereby made a part of the Mechanical Code.

- A. Section 101.1 of the 2012 Edition of the International Mechanical Code is hereby amended by deleting Section 101.1 in its entirety.
- B. Section 103.1 through 110.4 of the 2012 Edition of the International Mechanical Code is hereby amended by deleting Section 103.1 through 110.4 in its entirety.
- C. Section 201 of the 2012 Edition of the International Mechanical Code is amended by adding a new section 201.5 and substituting the following:

201.5 Interchangeability with the International Codes. The International Building Code shall be construed to mean the 2012 International Building Code. The International Property Maintenance Code shall be construed to mean the Property Code of the Metropolitan Government. The International Mechanical Code shall be construed to mean the 2012 International Mechanical Code. The International Fuel Gas Code shall be construed to mean the 2012 International Fuel Gas Code. The International Plumbing Code shall be construed to mean the 2012 International Plumbing Code. The International Private Sewage Disposal Code shall be construed to mean the Subsurface Sewage Disposal Systems Code. The ICC Electrical Code shall be construed to mean the 2011 National Electrical Code.

- D. Section 202 of the 2012 Edition of the International Mechanical Code is hereby amended by adding the following new definition of as follows:

ADMINISTRATIVE AUTHORITY -- shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

- E. Section 202 of the 2012 Edition of the International Mechanical Code is hereby amended by deleting the definition of “Code Official” and substituting the following:

CODE OFFICIAL -- shall mean the Director of the Metropolitan Department of Codes Administration, his deputy or duly authorized representative.

F. Sections 506, 507, 508, and 509 of the 2012 International Mechanical Code are hereby amended by deleting Sections 506, 507, 508, and 509 and substituting the following:

Section 506 Grease Hood Duct Systems

506.1 Grease hood duct systems shall comply with NFPA 96 2012 Edition.

506.2 Grease duct test. Prior to the use or concealment of any portion of a grease duct system, a leakage test shall be performed. Ducts shall be considered to be concealed where installed in shafts or covered by coatings or wraps that prevent the ductwork from being visually inspected on all sides. The permit holder shall be responsible to provide the *necessary* equipment and perform the grease duct leakage test. A light test shall be performed to determine that all welded and brazed joints are liquid tight.

A light test shall be performed by passing a lamp having a power rating of not less than 100 watts through the entire section of ductwork to be tested. The lamp shall be open so as to emit light equally in all directions perpendicular to the duct walls. A test shall be performed for the entire duct system, including the hood to duct connection. The duct work shall be permitted to be tested in sections, provided that every joint is tested. For *listed* factory-built grease ducts, this test shall be limited to duct joints assembled in the field and shall exclude factory welds.

G. Section 601 of the 2012 International Mechanical Code is hereby amended by adding a new Section 601.5 as follows:

601.5 Insulation required. All ductwork installed in non-conditioned and not completely conditioned areas such as crawl, attic and the floor/ceiling assembly shall be insulated.

Section 18.

Section 16.28.030 of the Metropolitan Code of Laws hereby amended by deleting Section 16.28.030 and substituting the following:

16.28.030 - Normal maintenance repair—Permits not required.

A. Normal maintenance repairs of an existing building or structure may with the approval of the building official be made without permit, provided such repairs do not violate any provisions of this chapter.

Normal maintenance repairs shall be defined as repairs to an existing building or structure, including but not limited to exterior and interior painting, papering, glazing of windows and doors, floor finishing, minor repairs to chimneys, stairs, porches, underpinning and repairs to an existing roof not to exceed thirty-three percent of the roof area.

B. Replacing an existing roof on an existing one or two family dwelling is considered normal maintenance and does not require a permit. Work shall conform to provisions of the adopted International Residential Code for one-and two family dwellings.

Section 19. This Ordinance shall take effect from and after its final passage, the welfare of the Metropolitan Government of Nashville and Davidson County requiring it.

RECOMMENDED BY:

INTRODUCED BY:

Terrence Cobb
Director, Department of Codes Administration

RECOMMENDED BY:

Council Member(s)

Ricky White
Director Chief of Nashville Fire Department

APPROVED AS TO
AVAILABILITY OF FUNDS:

Richard Riebeling
Director of Finance

APPROVED AS TO FORM AND
LEGALITY:

Jonathan P. Michael
Assistant Metropolitan Attorney