

A G E N D A

FARRAGUT BOARD OF MAYOR AND ALDERMEN

April 11, 2013

BUDGET WORKSHOP

Codes Presentation-5:00 PM

CIP Presentation- 5:30 PM

Knoxville Chamber- 6:20 PM

BEER BOARD

6:55 PM

BMA MEETING

7:00 PM

- I. Silent Prayer, Pledge of Allegiance, Roll Call
- II. Approval of Agenda
- III. Mayor's Report
- IV. Citizens Forum
- V. Approval of Minutes
 - A. March 28, 2013
- VI. Business Items
 - A. Rejection of Bids for Contract 2013-06, Right of Way Mowing
- VII. Ordinances
 - A. First Reading
 1. ORDINANCE 13-03, to amend TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 1. INTERNATIONAL BUILDING CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL BUILDING CODE, 2012 EDITION
 2. ORDINANCE 13-04, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 2. INTERNATIONAL PLUMBING CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL PLUMBING CODE, 2012 EDITION
 3. ORDINANCE 13-05, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 3, ELECTRICAL CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE NFPA ELECTRICAL CODE, 2011 EDITION
 4. ORDINANCE 13-06, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 4. INTERNATIONAL FUEL GAS CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL FUEL GAS CODE, 2012 EDITION
 5. ORDINANCE 13-07, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 5. INTERNATIONAL PROPERTY MAINTENANCE CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL PROPERTY MAINTENANCE CODE, 2012 EDITION

6. **ORDINANCE 13-08**, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 6. RESERVED, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL ENERGY CONSERVATION CODE, 2012 EDITION
7. **ORDINANCE 13-09**, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 8. SWIMMING POOL CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL SWIMMING POOL AND SPA CODE, 2012 EDITION
8. **ORDINANCE 13-10**, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 9. RESERVED, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE ACCESSIBLE AND USABLE BUILDING AND FACILITIES ICC A117.1-2009
9. **ORDINANCE 13-11**, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 10. 2006 INTERNATIONAL MECHANICAL CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL MECHANICAL CODE, 2012 EDITION
10. **ORDINANCE 13-12**, TO AMEND TITLE 12, BUILDING, UTILITY, ETC., CODES, CHAPTER 11. INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL RESIDENTIAL CODE, 2012 EDITION
11. **ORDINANCE 13-13**, TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 12. PLUMBING AND GAS/MECHANICAL LICENSING REQUIREMENTS, OF THE FARRAGUT MUNICIPAL CODE, SECTION 12-1208. LICENSES FOR PLUMBING AND GAS/MECHANICAL CONTRACTORS, TO REFERENCE FEE RESOLUTION ADOPTION
12. **ORDINANCE 13-14**, TO AMEND TITLE 7, FIRE PROTECTION AND FIREWORKS, CHAPTER 1. FIRE CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL FIRE CODE, 2012 EDITION AND THE NFPA 101 LIFE SAFETY CODE, 2012 EDITION

VIII. Town Administrator's Report

IX. Attorney's Report

FARRAGUT BEER BOARD

April 11, 2013

6:55 PM

- I. **Approval of Minutes**
 - A. March 14, 2013
- II. **Consider Approval for an On-Premise Beer Permit for:**
 - A. Jalapenos D Grill, 11151 B Kingston Pike

FARRAGUT BEER BOARD

March 14, 2013

6:55 PM

Ron Honken, Chairman, called the beer board meeting to order at 6:55 PM. Elected officials present were Mayor McGill, Aldermen Elliott, Honken, LaMarche and Markli.

Approval of Minutes

Motion was made to approve the minutes of January 24, 2013 as presented. Moved by Alderman Markli, seconded by Alderman Elliott; voting yes, Mayor McGill, Aldermen Elliott, Honken, LaMarche and Markli; no nays; motion passed.

Consider Approval for an On-Premise Beer Permit for:

The applicant for Jalapenos D Grill, 11151 B Kingston Pike was not present so the item was postponed until the next meeting.

Beer Board meeting adjourned at 6:58 PM

Ron Honken, Chairman

Allison Myers, Town Recorder

AGENDA NUMBER 11.A.

MEETING DATE April 11, 2013

REPORT TO THE BEER BOARD

PREPARED BY: Allison Myers, Town Recorder

SUBJECT: Approval of an On-Premise Beer Permit for Jalapenos D Grill, 11151 B Kingston Pike

INTRODUCTION:

The purpose of this agenda item is approval of an on-premise beer permit for Jalapenos D Grill, 11151 B Kingston Pike. The application is complete.

RECOMMENDATION BY:

Allison Myers, Town Recorder, for approval.

PROPOSED MOTION:

To approve an On-Premise Beer Permit for **Jalapenos D Grill, 11151 B Kingston Pike**, subject to obtaining a certificate of occupancy.

BOARD ACTION:

MOTION BY: _____ SECONDED BY: _____

<u>VOTE/TOTAL</u>	<u>MCGILL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

fd #250
2/27/13

APPLICATION FOR BEER PERMIT

STATE OF TENNESSEE

TOWN OF FARRAGUT

I hereby make application for a permit to sell, store, manufacture, or distribute Beer under the provisions of Tennessee Code Annotated Section 57-5-101 et seq. and base my application upon the answers to the following questions:

1. Reason for application: New Business ☒ New Ownership ☐ Name Change ☐ Other ☐
2. Type of permit requested: Off-Premise ☐ On-Premise ☐ On/Off-Premise ☒ Special Occasion ☐
3. Name of Applicant(s) (Owner(s) of Business) JALAPENOS D GRILL LLC
DBA JALAPENOS D GRILL
4. Type of applicant (check one):
Person ☒ Firm ☐ Corporation ☐ Joint-Stock Company ☐ Syndicate ☐ Other ☐
5. List all persons, firms, corporations, joint-stock companies, syndicates, or associations having at least a 5% ownership interest in the business:
JOSE L SOTO
JOSE IGNACIO GARCIA
6. Applicant's present home address:
1662 WOLVERINE LN KNOXVILLE TN 37931
7. Date of Birth 5/28/1967 Home Telephone Number 865-206-5176
Business Telephone Number _____ Social Security Number _____
8. Representative Email Address: _____
9. Under what name will the business operate? JALAPENOS D GRILL LLC
10. Business address 11151 B KINGSTON PIKE
Business Telephone number _____
11. Specify the identity, email and physical address of the person to receive annual privilege tax notices and any other communication from the Town:
JOSE IGNACIO GARCIA
12. Information of any manager, other than the applicant:
Name: JOSE SOTO Birth Date: 05-
Address: _____

Phone Number: _____

13. Has any person having at least a 5% ownership interest, any of the managers, or any other employee of the business, been convicted of any violation of the beer or alcoholic beverage laws or any crime within the last ten (10) years: ____ Yes ☒ No. If yes, give particulars of each charge, court, and date convicted.

14. Have you or your organization ever had a Beer Permit revoked, suspended, or denied in the State of Tennessee? _____ If so, specify, where, when, and why:

N/A

15. Name and address of property owner, if other than the business owner:

COMMERCIAL REALTY 8220 KINGSTON PIKE KNOXVILLE TN 37919

16. What is the name and address of the Church (or other place of worship) nearest to your business?

CONCORD CHURCH 11020 POANE DRIVE KNOXVILLE TN 37934

17. What is the name and address of the school nearest to your business?

FARRAGUT H.S. 11237 KINGSTON PIKE KNOXVILLE TN 37934

18. Special Occasion Event Name: _____

Location of the special occasion event: _____

Event Date & Times: _____

Representative name & phone number: _____

Have you received a special event permit to hold the event in the Town of Farragut? _____

19. Tennessee Sales Tax Number: _____

I certify that I am knowledgeable of the laws prohibiting the sale of beer to minors and that this application contains true information to the best of my knowledge and belief.

I understand that this application is subject to the Tennessee Public Records Act and shall be open for inspection and reproduction by any citizen. Tennessee Code Annotated 10-7-503.

I understand that by submitting this application, a background investigation shall be conducted and any and all documents related to my request shall become public records.

I understand that the applicant or representative must be present at the beer board meeting in which the permit will be discussed.

Mar. 4, 2013 4:43PM
From:

03/04/2013 16:05 No. 2079 P. 1
#424 r.002/002

Dr. Ralph McGill, Mayor
Mary Dorothy LaMarche, Vice-Mayor
David Smoak, Town Administrator
Allison M. Myers, Town Recorder



Jeff Elliott, Alderman
Ron Honken, Alderman
Robert N. Markli, Alderman

March 4, 2013

Capt. Allen "Wolfe" May, Beer Inspector
Knox County Sheriff Department
400 Main Street
Knoxville, TN 37902

671-1888

Dear Capt. May:

The Town of Farragut has received an application for a beer permit that will be considered for approval by the Farragut Beer Board. I will need the requested as soon as you can get it in order to schedule the meeting. If you have any information on file concerning the following applicant, I would appreciate the information:

Jose Soto
1662 Wolverine Lane
Knoxville, TN 37931



CHECKS OK
3-4-13
WOLFE

Thank you for your cooperation. Please call me if you have any questions.

Sincerely,

Allison Myers
Town Recorder/Treasurer

A G E N D A

FARRAGUT BOARD OF MAYOR AND ALDERMEN

March 28, 2013

BUDGET WORKSHOP

Department Presentations

5:45 PM

Community Health Appointment Workshop

6:30 PM

BMA MEETING

7:00 PM

- I. Silent Prayer, Pledge of Allegiance, Roll Call**
- II. Approval of Agenda**
- III. Mayor's Report**
- IV. Citizens Forum**
- V. Approval of Minutes**
 - A. March 14, 2013
- VI. Business Items**
 - A. Appointment to the Community Health Council
 - B. Resolution R-2013-03, a resolution requesting that the Tennessee Department of Transportation designate the intersection of Hwy. 70/S. R. 1 and Hwy. 11/S. R. 2 (Dixie Lee Junction) as a Signature/Gateway Intersection and to incorporate aesthetic improvements in the proposed redesign of this intersection
 - C. Approval of Proposal for Landscape and Engineering Services for Outdoor Classroom on Campbell Station Road
- VII. Town Administrator's Report**
- VIII. Attorney's Report**

The Farragut Board of Mayor and Aldermen met in a regular session on Thursday, March 28, 2013 at 7:00 p.m. Members present were Mayor McGill, Aldermen LaMarche and Markli; Aldermen Elliott and Honken were absent.

Approval of Agenda

Motion was made to approve the agenda as presented. Moved by Alderman Markli, seconded by Alderman LaMarche; voting yes, Mayor McGill, Aldermen LaMarche and Markli; Aldermen Elliott and Honken were absent; no nays; motion passed.

Citizens Forum

Joleen Dewald, 626 Brochardt Blvd, addressed the board about concerns with the Everett Road project.

Approval of Minutes

Motion was made to approve the minutes of March 14, 2013 as presented. Moved by Alderman Markli, seconded by Alderman LaMarche; voting yes, Mayor McGill, Aldermen LaMarche and Markli; Aldermen Elliott and Honken were absent; no nays; motion passed.

Business Items

Appointment to the Community Health Council

Mayor McGill appointed Debbie Pinchok to serve a three-year term as the Mayor appointee on the Health Council.

Motion was made to appoint Dr. R. Mark Ray to a three-year term on the Health council. Moved by Alderman Markli, seconded by Alderman LaMarche; voting yes, Mayor McGill, Aldermen LaMarche and Markli; Aldermen Elliott and Honken were absent; no nays; motion passed.

Resolution R-2013-03, a resolution requesting that the Tennessee Department of Transportation designate the intersection of Hwy. 70/S. R. 1 and Hwy. 11/S. R. 2 (Dixie Lee Junction) as a Signature/Gateway Intersection and to incorporate aesthetic improvements in the proposed redesign of this intersection

Motion was made to approve Resolution R-2013-03 as presented. Moved by Alderman Markli, seconded by Alderman LaMarche; voting yes, Mayor McGill, Aldermen LaMarche and Markli; Aldermen Elliott and Honken were absent; no nays; motion passed.

Approval of Proposal for Landscape and Engineering Services for Outdoor Classroom on Campbell Station Road

Motion was made to approve the proposal from McGill Associates for design services in the amount of \$31,350. Moved by Alderman LaMarche, seconded by Alderman Markli; voting yes, Mayor McGill and Alderman LaMarche; voting no, Alderman Markli; Aldermen Elliott and Honken were absent; motion passed.

Town Administrator's Report

David Smoak, Town Administrator, reported that the Volunteer Banquet will be at Fox Den on Friday April 5, Dogwood Arts Festival luncheon will be at Campbell Station Park April 10 and the Dogwood Arts ribbon cutting will be at Fox Den.

Meeting adjourned at 7:25 PM.

AGENDA NUMBER V1.A.

MEETING DATE April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: William E. McKelvey, Public Works Director *W.E.M.*

SUBJECT: Rejection of Bids for Contract 2013-06, Right of Way Mowing

INTRODUCTION: The purpose of this agenda item is to reject the bids for Right-of-Way mowing services throughout the Town.

BACKGROUND: The Town of Farragut has approximately 65 miles of right of way to maintain. Maintenance of these areas includes mowing during the growing season once every two weeks and boom arm mowing once during the winter months to cut back all of the excess growth from the prior year. In order to maintain our efficiency and look at possible ways to reduce cost, staff decided to bid this service out. This would allow the Town to determine whether a private contractor could perform the same work cheaper than it would be for town staff to continue to provide this service.

DISCUSSION: Bids were opened on April 1, 2013. There was only one bid, which was submitted by Orr Contracting, Inc. Attached is the bid from Orr Contracting, Inc. in the amount of \$495,550 total for a three-year period. Attached are the summery sheets breaking down the information that was obtained. Orr Contracting, Inc. is a company located in North Carolina that performs right-of-way mowing for Tennessee DOT, Alabama DOT, and North Carolina DOT.

Prior to the bid opening, the Public Works Department also ran budget numbers in the same bid format to see if it would be financially beneficial to the Town to keep the services in-house or contract it out. In the attempt to bid out these services and to be good stewards of the citizen's money, it has been determined that the Public Works Department should continue to provide the right-of-way mowing services for the Town. By the Town continuing to provide these services it would save \$90,785.41 the first year, \$86,784.39 the second year, and \$84,797.63 the third year. The Town of Farragut's operating costs include the cost of a new right-of-way mower (approximate cost \$101,000), in which the cost has been broken down over a five year period.

RECOMMENDATION BY: Bud McKelvey, Public Works Director, to reject bids.

PROPOSED MOTION: Rejection of all bids for Contract 2013-06, Right of Way Mowing, and to continue having the Public Works Department provide the service.

BOARD ACTION:

MOTION BY: _____ **SECONDED BY:** _____

<u>VOTE/TOTAL</u>	<u>MCGILL</u>	<u>ELLIOTT</u>	<u>HONKEN</u>	<u>LAMARCHE</u>	<u>MARKLI</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

Comparison Chart for Right-of-Way Mowing and Boom Arm Mowing

Mowing of Right of Ways, April-October Approximately 16 Cycles Per Year

	per cycle	per year /1	per year/2	per year/3	Total Sum 3 yr. Combined
Orr Contracting, Inc.	9,600.00	153,600.00	152,000.00	152,000.00	457,600.00
Town Of Farragut	3,417.04	54,672.24	55,982.43	57,340.95	167,995.62

Boom Arm Mowing, 1 Cycle per Year

Boom Arm 1 cycle/30 days		per year /1	per year/2	per year/3	Total Sum 3 yr. Combined
Orr Contracting, Inc.		13,950.00	13,500.00	13,500.00	40,950.00
Town Of Farragut		22,092.35	22,733.18	23,361.42	68,186.95

Total Combined Price for Regular Mowing and Boom Arm Mowing

		per year /1	per year/2	per year/3	Total Sum 3 yr. Combined
Orr Contracting, Inc.		167,550	165,500	165,500	498,550
Town Of Farragut		76,764.59	78,715.61	80,702.37	236,182.57

In House Right of Way Mowing and Boom Arm Mowing

Mowing of Right of Ways, April-October Approximately 16 Cycles Per Year

	per cycle	per year /1	per year/2	per year/3	Total Sum 3 yr. Combined
Fuel cost	563.64	9,018.24	9,469.15	9,942.60	
Labor cost	1,640.80	26,252.80	27,040.38	27,851.60	
Equipment cost	1,063.20	17,011.20	17,011.20	17,011.20	
Maintenance cost	149.4	2,390	2,461.70	2535.55	
Totals		54672.24	55982.43	57340.95	167995.62

Boom Arm Mowing, 1 Cycle per Year

	per cycle	per year /1	per year/2	per year/3	Total Sum 3 yr. Combined
Boom Arm 1 cycle/30 days					
Fuel cost tractor	1,690.92	1,690.92	1,775.47	1,828.73	
Labor cost	14,767.20	14,767.20	15,210.22	15,666.53	
Equipment cost	3,189.60	3,189.60	3,189.60	3,189.60	
Maintenance cost	448.2	448.2	461.64	475.5	
Board truck fuel cost	464.28	1996.43	2096.25	2201.06	
Totals		22092.35	22733.18	23361.42	68186.95

Total Combined Price for Regular Mowing and Boom Arm Mowing

	per year /1	per year/2	per year/3	Total Sum 3 yr. Combined
Totals	76764.59	78715.61	80702.37	236182.57

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-03, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 1. International Building Code, to adopt the International Building Code, 2012 Edition

INTRODUCTION: The Town is currently under the International Building Code, 2006 Edition. All codes are adopted by reference.

DISCUSSION: For the past two years the Town staff has been participating in the training of the 2012 editions of the various International Codes. Town staff also participated in two separate training sessions on 2012 ICC Codes with the Home Builders Association and other construction stakeholders. To remain current with ISO requirements and state law, the town must adopt new codes a minimum of every six years.

The provisions of the building code shall apply to the construction, alteration, relocation, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

At the time the International Building Code, 2006 Edition was adopted, the town adopted several modifications to the codes so as to follow current town practices and/or dovetail the requirements with requirements found elsewhere in our Municipal Code. The majority of the amendments found in Section 12-102. Modifications of Ordinance 13-03 are identical to the amendments that are currently in our ordinance. Please note that section numbers have changed between the 2006 and 2012 codes.

Staff is recommending adoption of the International Building Code, 2012 Edition, including Appendix C (Group U-Agricultural Buildings), Appendix G (Flood-resistant Construction), and Appendix I (Patio Covers), as published by the International Code Council, Inc. Staff is recommending that we do not adopt Appendix D (Fire Districts) because it is more restrictive than staff feels is necessary given the current land uses in this area. However, in light of the recent adoption of the *Town of Farragut, Tennessee Comprehensive Land Use Plan Update* in December 2012, in lieu of Appendix D (Fire Districts) staff is recommending the following amendments to the International Building Code, 2012 Edition:

1. Clarification on tenant separations and fire penetrations.
2. Structures in excess of 7,000 gross square feet or two or more stories shall be of Type I, II, III or IV construction.

3. Structures in excess of 7,000 gross square feet per story and is two or more stories shall be sprinklered.
4. Fire walls shall be of noncombustible construction and shall have no penetrations or openings in Type V construction.

The single amendment that is unrelated to fire districts eliminates key operated locking devices as an option for main doors in places of assembly (18). The rest of the amendments are identical to what we currently have adopted.

Attached please find a 2012 IBC summary entitled "Effective Use of the International Building Code".

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer
 John Householder, Codes Officer – Commercial Plans Examiner
 Elliott Sievers, Codes Officer
 Dan Johnson, Fire Marshal
 Colin Cumesty, Fire Inspector
 Ruth Hawk, Community Development Director
 Recommends approval of Ordinance 13-03

PROPOSED MOTION: Move to approve Ordinance 13-03.

BOARD ACTION:

MOTION BY: _____ **SECONDED**

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

Effective Use of the International Building Code

The *International Building Code*® (IBC®) is a model code that provides minimum requirements to safeguard the public health, safety and general welfare of the occupants of new and existing buildings and structures. The IBC is fully compatible with the ICC family of codes, including: *International Energy Conservation Code*® (IECC®), *International Existing Building Code*® (IEBC®), *International Fire Code*® (IFC®), *International Fuel Gas Code*® (IFGC®), *International Green Construction Code*™ (IGCC™) (to be available March 2012), *International Mechanical Code*® (IMC®), *ICC Performance Code*® (ICCPC®), *International Plumbing Code*® (IPC®), *International Private Sewage Disposal Code*® (IPSDC®), *International Property Maintenance Code*® (IPMC®), *International Residential Code*® (IRC®), *International Swimming Pool and Spa Code*™ (ISPSC™) (to be available March 2012), *International Wildland-Urban Interface Code*® (IWUIC®) and *International Zoning Code*® (IZC®).

The IBC addresses structural strength, means of egress, sanitation, adequate lighting and ventilation, accessibility, energy conservation and life safety in regards to new and existing buildings, facilities and systems. The codes are promulgated on a 3-year cycle to allow for new construction methods and technologies to be incorporated into the codes. Alternative materials, designs and methods not specifically addressed in the code can be approved by the code official where the proposed materials, designs or methods comply with the intent of the provisions of the code (see Section 104.11).

The IBC applies to all occupancies, including one- and two-family dwellings and townhouses that are not within the scope of the IRC. The IRC is referenced for coverage of detached one- and two-family dwellings and townhouses as defined in the Exception to Section 101.2 and the definition for "townhouse" in Chapter 2. The IBC applies to all types of buildings and structures unless exempted. Work exempted from permits is listed in Section 105.2.

Arrangement and Format of the 2012 IBC

Before applying the requirements of the IBC, it is beneficial to understand its arrangement and format. The IBC, like other codes published by ICC, is arranged and organized to follow sequential steps that generally occur during a plan review or inspection.

Chapters	Subjects
1-2	Administration and definitions
3	Use and occupancy classifications
4, 31	Special requirements for specific occupancies or elements
5-6	Height and area limitations based on type of construction
7-9	Fire resistance and protection requirements
10	Requirements for evacuation
11	Specific requirements to allow use and access to a building for persons with disabilities
12-13, 27-30	Building systems, such as lighting, HVAC, plumbing fixtures, elevators
14-26	Structural components—performance and stability
32	Encroachment outside of property lines
33	Safeguards during construction
34	Existing building allowances
35	Referenced standards
Appendices A-M	Appendices

The IBC requirements for high-hazard, fire-resistance-rated construction, interior finish, fire protection systems, means of egress, emergency and standby power, and temporary structures are directly correlated with the requirements of the IFC. The following chapters/sections of the IBC are correlated to the IFC:

IBC Chapter/Section	IFC Chapter/Section	Subject
Sections 307, 414, 415	Chapters 50-60; 62-67	High-hazard requirements
Chapter 7	Chapter 7	Fire-resistance-rated construction
Chapter 8	Chapter 8	Interior finish, decorative materials and furnishings
Chapter 9	Chapter 9	Fire protection systems
Chapter 10	Chapter 10	Means of egress
Chapter 27	Section 604	Standby and emergency power
Section 3103	Chapter 24	Temporary structures

The IBC requirements for smoke control systems, and smoke and fire dampers are directly correlated to the requirements of the IMC. IBC Chapter 28 is a reference to the IMC and the IFGC for chimney, fireplaces and barbecues, and all aspects of mechanical systems. The following chapters/sections of the IBC are correlated with the IMC:

IBC Chapter/Section	IMC Chapter/Section	Subject
Section 716	Section 607	Smoke and fire dampers
Section 909	Section 513	Smoke control

The IBC requirements for plumbing fixtures and toilet rooms are directly correlated to the requirements of the IPC. The following chapters/sections of the IBC are correlated with the IPC:

IBC Chapter/Section	IPC Chapter/Section	Subject
Chapter 29	Chapters 3 & 4	Plumbing fixtures and facilities

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Building Code*.

Chapter 1 Scope and Administration. Chapter 1 establishes the limits of applicability of the code and describes how the code is to be applied and enforced. Chapter 1 is in two parts, Part 1—Scope and Application (Sections 101-102) and Part 2—Administration and Enforcement (Sections 103-116). Section 101 identifies which buildings and structures come under its purview and references other ICC codes as applicable. Standards and codes are scoped to the extent referenced (see Section 102.4).

The building code is intended to be adopted as a legally enforceable document and it cannot be effective without adequate provisions for its administration and enforcement. The provisions of Chapter 1 establish the authority and duties of the code official appointed by the jurisdiction having authority and also establish the rights and privileges of the design professional, contractor and property owner.

Chapter 2 Definitions. All terms that are defined in the code are listed alphabetically in Chapter 2. Terms are defined in Chapter 2. Defined terms that are pertinent to a specific chapter are also listed in that chapter. While a defined term may be listed in one chapter or another, the meaning is applicable throughout the code.

Codes are technical documents and every word, term and punctuation mark can impact the meaning of the code text and the intended results. The code often uses terms that have a unique meaning in the code and the code meaning can differ substantially from the ordinarily understood

meaning of the term as used outside of the code. Where understanding of a term's definition is especially key to or necessary for understanding a particular code provision, the term is shown in *italics wherever it appears in the code*.

This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known.

Definitions are deemed to be of prime importance in establishing the meaning and intent of the code text that uses the terms. The user of the code should be familiar with and consult this chapter because the definitions are essential to the correct interpretation of the code and because the user may not be aware that a term is defined.

Chapter 3 Use and Occupancy Classification. Chapter 3 provides for the classification of buildings, structures and parts thereof based on the purpose or purposes for which they are used. Section 302 identifies the groups into which all buildings, structures and parts thereof must be classified. Sections 303 through 312 identify the occupancy characteristics of each group classification. In some sections, specific group classifications having requirements in common are collectively organized such that one term applies to all. For example, Groups A-1, A-2, A-3, A-4 and A-5 are individual groups for assembly-type buildings. The general term "Group A," however, includes each of these individual groups. Other groups include Business (B), Educational (E), Factory (F-1, F-2), High Hazard (H-1, H-2, H-3, H-4, H-5), Institutional (I-1, I-2, I-3, I-4), Mercantile (M), Residential (R-1, R-2, R-3, R-4), Storage (S-1, S-2) and Utility (U). In some occupancies, the smaller number means a higher hazard, but that is not always the case.

Defining the use of the buildings is very important as it sets the tone for the remaining chapters of the code. Occupancy works with the height, area and construction type requirements in Chapters 5 and 6, as well as the special provisions in Chapter 4, to determine "equivalent risk," or providing a reasonable level of protection or life safety for building occupants. The determination of equivalent risk involves three interdependent considerations: (1) the level of fire hazard associated with the specific occupancy of the facility; (2) the reduction of fire hazard by limiting the floor area(s) and the height of the building based on the fuel load (combustible contents and burnable building components); and (3) the level of overall fire resistance provided by the type of construction used for the building. The greater the potential fire hazards indicated as a function of the group, the lesser the height and area allowances for a particular construction type.

Occupancy classification also plays a key part in organizing and prescribing the appropriate protection measures. As such, threshold requirements for fire protection and means of egress systems are based on occupancy classification (see Chapters 9 and 10). Other sections of the code also contain requirements respective to the classification of building groups. For example, Section 706 deals with requirements for fire wall fire-resistance ratings that are tied to the occupancy classification of a building and Section 803.9 contains interior finish requirements that are dependent upon the occupancy classification. The use of the space, rather than the occupancy of the building is utilized for determining occupant loading (Section 1004) and live loading (Section 1607).

Chapter 4 Special Detailed Requirements Based On Use and Occupancy. Chapter 4 contains the requirements for protecting special uses and occupancies, which are supplemental to the remainder of the code. Chapter 4 contains provisions that may alter requirements found elsewhere in the code; however, the general requirements of the code still apply unless modified within the chapter. For example, the height and area limitations established in Chapter 5 apply to all special occupancies unless Chapter 4 contains height and area limitations. In this case, the limitations in Chapter 4 supersede those in other sections. An example of this is the height and area limitations for open parking garages given in Section 406.3.5, which supersede the limitations given in Section 503.

In some instances, it may not be necessary to apply the provisions of Chapter 4. For example, if a covered mall building complies with the provisions of the code for Group M, Section 402 does not apply; however, other sections that deal with a use, process or operation must be applied to that specific occupancy, such as stages and platforms, special amusement buildings and hazardous materials (Sections 410, 411 and 414).

The chapter includes requirements for buildings and conditions that apply to one or more groups, such as high-rise buildings, underground buildings or atriums. Special uses may also imply specific occupancies and operations, such as for Group H, hazardous materials, application of flammable finishes, drying rooms, organic coatings and combustible storage or hydrogen cutoff rooms,

all of which are coordinated with the IFC. Unique consideration is taken for special use areas, such as covered mall buildings, motor-vehicle-related occupancies, special amusement buildings and aircraft-related occupancies. Special facilities within other occupancies are considered, such as stages and platforms, motion picture projection rooms and storm shelters. Finally, in order that the overall package of protection features can be easily understood, unique considerations for specific occupancies are addressed: Groups I-1, I-2, I-3, R-1, R-2, R-3 (by definition R-4), ambulatory care facilities and live/work units.

Chapter 5 General Building Heights and Areas. Chapter 5 contains the provisions that regulate the minimum type of construction for area limits and height limits based on the occupancy of the building. Height and area increases (including allowances for basements, mezzanines and equipment platforms) are permitted based on open frontage for fire department access, and the type of sprinkler protection provided and separation (Sections 503-506, 509). These thresholds are reduced for buildings over three stories in height in accordance with Section 506.4.1. Provisions include the protection and/or separation of incidental accessory occupancies (Table 508.2.5), accessory occupancies (Sections 508.2) and mixed uses in the same building (Sections 506.5, 508.3, 508.4 and 509). Unlimited area buildings are permitted in certain occupancies when they meet special provisions (Section 507).

Table 503 is the keystone in setting thresholds for building size based on the building's use and the materials with which it is constructed. If one then looks at Table 503, the relationship among group classification, allowable heights and areas and types of construction becomes apparent. Respective to each group classification, the greater the fire-resistance rating of structural elements, as represented by the type of construction, the greater the floor area and height allowances. The greater the potential fire hazards indicated as a function of the group, the lesser the height and area allowances for a particular construction type.

Chapter 6 Types of Construction. The interdependence of these fire safety considerations can be seen by first looking at Tables 601 and 602, which show the fire-resistance ratings of the principal structural elements comprising a building in relation to the five classifications for types of construction. Type I construction is the classification that generally requires the highest fire-resistance ratings for structural elements, whereas Type V construction, which is designated as a combustible type of construction, generally requires the least amount of fire-resistance-rated structural elements. The greater the potential fire hazards indicated as a function of the group, the lesser the height and area allowances for a particular construction type. Section 603 includes a list of combustible elements that can be part of a noncombustible building (Types I and II construction).

Chapter 7 Fire and Smoke Protection Features. The provisions of Chapter 7 present the fundamental concepts of fire performance that all buildings are expected to achieve in some form. This chapter identifies the acceptable materials, techniques and methods by which proposed construction can be designed and evaluated against to determine a building's ability to limit the impact of fire. The fire-resistance-rated construction requirements within Chapter 7 provide passive resistance to the spread and effects of fire. Types of separations addressed include fire walls, fire barriers, fire partitions, horizontal assemblies, smoke barriers and smoke partitions. A fire produces heat that can weaken structural components and smoke products that cause property damage and place occupants at risk. The requirements of Chapter 7 work in unison with height and area requirements (Chapter 5), active fire detection and suppression systems (Chapter 9) and occupant egress requirements (Chapter 10) to contain a fire should it occur while helping ensure occupants are able to safely exit.

Chapter 8 Interior Finishes. This chapter contains the performance requirements for controlling fire growth within buildings by restricting interior finish and decorative materials. Past fire experience has shown that interior finish and decorative materials are key elements in the development and spread of fire. The provisions of Chapter 8 require materials used as interior finishes and decorations to meet certain flame-spread index or flame-propagation criteria based on the relative fire hazard associated with the occupancy. As smoke is also a hazard associated with fire, this chapter contains limits on the smoke development characteristics of interior finishes. The performance of the material is evaluated based on test standards.

Chapter 9 Fire Protection Systems. Chapter 9 prescribes the minimum requirements for active systems of fire protection equipment to perform the following functions: detect a fire; alert the occupants or fire department of a fire emergency; and control smoke and control or extinguish the

fire. Generally, the requirements are based on the occupancy, the height and the area of the building, because these are the factors that most affect fire-fighting capabilities and the relative hazard of a specific building or portion thereof. This chapter parallels and is substantially duplicated in Chapter 9 of the *International Fire Code* (IFC); however, the IFC Chapter 9 also contains periodic testing criteria that are not contained in the IBC. In addition, the special fire protection system requirements based on use and occupancy found in IBC Chapter 4 are duplicated in IFC Chapter 9 as a user convenience.

Chapter 10 Means of Egress. The general criteria set forth in Chapter 10 regulating the design of the means of egress are established as the primary method for protection of people in buildings by allowing timely relocation or evacuation of building occupants. Both prescriptive and performance language is utilized in this chapter to provide for a basic approach in the determination of a safe exiting system for all occupancies. It addresses all portions of the egress system (i.e., exit access, exits and exit discharge) and includes design requirements as well as provisions regulating individual components. The requirements detail the size, arrangement, number and protection of means of egress components. Functional and operational characteristics also are specified for the components that will permit their safe use without special knowledge or effort. The means of egress protection requirements work in coordination with other sections of the code, such as protection of vertical openings (see Chapter 7), interior finish (see Chapter 8), fire suppression and detection systems (see Chapter 9) and numerous others, all having an impact on life safety. Chapter 10 of the IBC is duplicated in Chapter 10 of the IFC; however, the IFC contains two additional sections on the means of egress system in existing buildings.

Chapter 11 Accessibility. Chapter 11 contains provisions that set forth requirements for accessibility of buildings and their associated sites and facilities for people with physical disabilities. The fundamental philosophy of the code on the subject of accessibility is that everything is required to be accessible. This is reflected in the basic applicability requirement (see Section 1103.1). The code's scoping requirements then address the conditions under which accessibility is not required in terms of exceptions to this general mandate. While the IBC contains scoping provisions for accessibility (e.g., what, where and how many), ICC/ANSI A117.1, *Accessible and Usable Buildings and Facilities*, is the referenced standard for the technical provisions (i.e., how).

There are many accessibility issues that not only benefit people with disabilities, but also provide a tangible benefit to people without disabilities. This type of requirement can be set forth in the code as generally applicable without necessarily identifying it specifically as an accessibility-related issue. Such a requirement would then be considered as having been "mainstreamed." For example, visible alarms are located in Chapter 9 and ramp requirements are addressed in Chapter 10.

Accessibility criteria for existing buildings are addressed in Section 3411. Appendix E is supplemental information included in the code to address accessibility for items in the new Americans with Disabilities Act/Architectural Barriers Act Accessibility Guidelines (ADA/ABA) that were not typically enforceable through the standard traditional building code enforcement approach system (e.g., beds, room signage). The *International Residential Code* (IRC) references Chapter 11 for accessibility provisions; therefore, this chapter may be applicable to housing covered under the IRC.

Chapter 12 Interior Environment. Chapter 12 provides minimum standards for the interior environment of a building. The standards address the minimum sizes of spaces, minimum temperature levels, and minimum light and ventilation levels. The collection of requirements addresses limiting sound transmission through walls, ventilation of attic spaces and under floor spaces (crawl spaces). Finally, the chapter provides minimum standards for toilet and bathroom construction, including privacy shielding and standards for walls, partitions and floors to resist water intrusion and damage.

Chapter 13 Energy Efficiency. The purpose of Chapter 13 is to provide minimum design requirements that will promote efficient utilization of energy in buildings. The requirements are directed toward the design of building envelopes with adequate thermal resistance and low air leakage, and toward the design and selection of mechanical, water heating, electrical and illumination systems that promote effective use of depletable energy resources. For the specifics of these criteria, Chapter 13 requires design and construction in compliance with the *International Energy Conservation Code* (IECC).

Chapter 14 Exterior Walls. This chapter addresses requirements for exterior walls of buildings. Minimum standards for wall covering materials, installation of wall coverings and the ability of the wall to provide weather protection are provided. This chapter also requires exterior walls that are close to lot lines, or that are bearing walls for certain types of construction, to comply with the minimum fire-resistance ratings specified in Chapters 6 and 7. The installation of each type of wall covering, be it wood, masonry, vinyl, metal composite material or an exterior insulation and finish system, is critical to its long-term performance in protecting the interior of the building from the elements and the spread of fire. Special attention to the use of combustible materials on the exterior of the building such as balconies, eaves, decks and architectural trim is the focus of Section 1406.

Chapter 15 Roof Assemblies and Rooftop Structures. Chapter 15 provides standards for both roof assemblies as well as structures which sit on top of the roof of buildings. The criteria address roof construction and covering which includes the weather-protective barrier at the roof and, in most circumstances, a fire-resistant barrier. The chapter is prescriptive in nature and is based on decades of experience with various traditional materials. These prescriptive rules are very important for satisfying performance of one type of roof covering or another. Section 1509 addresses rooftop structures including penthouses, tanks, towers and spires. Rooftop penthouses larger than prescribed in this chapter must be treated as a story under Chapter 5.

Chapter 16 Structural Design. Chapter 16 prescribes minimum structural loading requirements for use in the design and construction of buildings and structural components. It includes minimum design loads, as well as permitted design methodologies. Standards are provided for minimum design loads (live, dead, snow, wind, rain, flood and earthquake as well as load combinations). The application of these loads and adherence to the serviceability criteria will enhance the protection of life and property. The chapter references and relies on many nationally recognized design standards. A key standard is the American Society of Civil Engineer's *Minimum Design Loads for Buildings and Other Structures* (ASCE 7). Structural design needs to address the conditions of the site and location. Therefore maps of rainfall, seismic, snow and wind criteria in different regions are provided.

Chapter 17 Structural Tests and Special Inspections. Chapter 17 provides a variety of procedures and criteria for testing materials and assemblies, for labeling materials and assemblies, and for special inspection of structural assemblies. This chapter expands on the requirements of Chapter 1 regarding the roles and responsibilities of the building official regarding approval of building components. It also provides additional duties and responsibilities for the owner, contractor, design professionals and special inspectors. Proper assembly of structural components, proper quality of materials used, and proper application of materials are essential to ensuring that a building, once constructed, complies with the structural and fire-resistance minimums of the code and the approved design. To determine this compliance often requires continuous or frequent inspection and testing. Chapter 17 establishes these special inspection and testing standards as well as reporting of the work to the building official.

Chapter 18 Soils and Foundations. Chapter 18 contains minimum requirements for design, construction and resistance to water intrusion of foundation systems for buildings and other structures. It provides criteria for the geotechnical and structural considerations in the selection and installation of adequate support for the loads transferred from the structure above. The uncertainties of foundation construction make it extremely difficult to address every potential failure within the text of the code. The chapter includes requirements for soils investigation and site preparation for receiving a foundation including the allowed load-bearing values for soils and for protecting the foundation from water intrusion. Section 1808 addresses the basic requirements for all foundation types. Later sections address foundation requirements that are specific to shallow foundations and deep foundations. Due care must be exercised in the planning and design of foundation systems based on obtaining sufficient soils information, the use of accepted engineering procedures, experience and good technical judgment.

Chapter 19 Concrete. This chapter provides minimum accepted practices to the design and construction of buildings and structural components using concrete—both plain and reinforced. Chapter 19 is formatted to parallel American Concrete Institute (ACI) 318, *Building Code Requirements for Structural Concrete*. The chapter also includes references to additional standards. Structural concrete must be designed and constructed to comply with this code and all listed standards. There are specific sections of the chapter addressing concrete slabs, anchorage to concrete, shotcrete, reinforced gypsum concrete and concrete-filled pipe columns. Because of the variable properties of

material and numerous design and construction options available in the uses of concrete, due care and control throughout the construction process is necessary.

Chapter 20 Aluminum. Chapter 20 contains standards for the use of aluminum in building construction. Only the structural applications of aluminum are addressed. The chapter does not address the use of aluminum in specialty products such as storefront or window framing or architectural hardware. The use of aluminum in heating, ventilating or air-conditioning systems is addressed in the *International Mechanical Code (IMC)*. The chapter references national standards from the Aluminum Association for use of aluminum in building construction, AA ASM 35, *Aluminum Sheet Metal Work in Building Construction*, and AA ADM 1, *Aluminum Design Manual*. By utilizing the standards set forth, a proper application of this material can be obtained.

Chapter 21 Masonry. This chapter provides comprehensive and practical requirements for masonry construction. The provisions of Chapter 21 require minimum accepted practices and the use of standards for the design and construction of masonry structures. The provisions address: material specifications and test methods; types of wall construction; criteria for engineered and empirical designs; required details of construction including the execution of construction. Masonry design methodologies including allowable stress design, strength design and empirical design are covered by provisions of the chapter. Also addressed are masonry fireplaces and chimneys, masonry heaters and glass unit masonry. Fire-resistant construction using masonry is also required to comply with Chapter 7. Masonry foundations are also subject to the requirements of Chapter 18.

Chapter 22 Steel. Chapter 22 provides the requirements necessary for the design and construction of structural steel (including composite construction), cold-formed steel, steel joists, steel cable structures and steel storage racks. The chapter specifies appropriate design and construction standards for these types of structures. It also provides a road map of the applicable technical requirements for steel structures. Steel is a noncombustible building material commonly associated with Types I and II construction; however, it is permitted to be used in all types of construction. The code requires that materials used in the design of structural steel members conform to designated national standards. Chapter 22 is involved with the design and use of steel materials using the specifications and standards of the American Institute for Steel Construction, the American Iron and Steel Institute, the Steel Joist Institute and the American Society of Civil Engineers.

Chapter 23 Wood. This chapter provides minimum guidance for the design of buildings and structures that use wood and wood-based products in their framing and fabrication. The chapter is organized around three design methodologies: allowable stress design (ASD), load and resistance-factor design (LRFD) and conventional light-frame construction. Included in the chapter are references to design and manufacturing standards for various wood and wood-based products; general construction requirements; design criteria for lateral force-resisting systems and specific requirements for the application of the three design methods. In general, only Type III, IV or V buildings may be constructed of wood. Accordingly Chapter 23 is referenced when the combination of the occupancy (determined in Chapter 3) and the height and area of the building (determined in Chapter 5) indicate that construction can be Type III, IV or V.

Chapter 24 Glass and Glazing. This chapter establishes regulations for glass and glazing used in buildings and structures that, when installed, are subjected to wind, snow and dead loads. Engineering and design requirements are included in the chapter. Additional structural requirements are found in Chapter 16. A second concern of this chapter is glass and glazing used in areas where it is likely to have an impact on the occupants. Section 2406 identifies hazardous locations where glazing installed must either be safety glazing or blocked to prevent human impact. Safety glazing must meet stringent standards and be appropriately marked or identified. Additional standards for glass and glazing in guards, handrails, elevator hoistways and elevator cars, and in athletic facilities are provided.

Chapter 25 Gypsum Board and Plaster. Chapter 25 contains the provisions and referenced standards that regulate the design, construction and quality of gypsum board and plaster. These represent the most common interior and exterior finish materials in the building industry. This chapter primarily addresses quality-control-related issues with regard to material specifications and installation requirements. Most products are manufactured under the control of industry standards. The building official or inspector primarily needs to verify that the appropriate product is used and properly installed for the intended use and location. While often simply used as wall and

ceiling coverings, proper design and application are necessary to provide weather resistance and required fire protection for both structural and nonstructural building components.

Chapter 26 Plastic. The use of plastics in building construction and components is addressed in Chapter 26. This chapter provides standards addressing foam plastic insulation, foam plastics used as interior finish and trim, and other plastic veneers used on the inside or outside of a building. Plastic siding is regulated by Chapter 14. Sections 2606 through 2611 address the use of light-transmitting plastics in various configurations such as walls, roof panels, skylights, signs and as glazing. Requirements for the use of fiber-reinforced polymers, fiberglass reinforced polymers and reflective plastic core insulation are also contained in this chapter. Some plastics exhibit rapid flame spread and heavy smoke density characteristics when exposed to fire. Additionally, exposure to the heat generated by a fire can cause some plastics to deform, which can affect their performance. The requirements and limitations of this chapter are necessary to control the use of plastic and foam plastic products such that they do not compromise the safety of building occupants.

Chapter 27 Electrical. Since electrical systems and components are an integral part of almost all structures, it is necessary for the code to address the installation of such systems. For this purpose, Chapter 27 references the *National Electrical Code* (NEC). In addition, Section 2702 addresses emergency and standby power requirements. Such systems must comply with the *International Fire Code* (IFC) and referenced standards. This section also provides references to the various code sections requiring emergency and standby power, such as high-rise buildings and buildings containing hazardous materials.

Chapter 28 Mechanical Systems. Nearly all buildings will include mechanical systems. This chapter provides references to the *International Mechanical Code* (IMC) and the *International Fuel Gas Code* (IFGC) for the design and installation of mechanical systems. In addition, the chapter references Chapter 21 of the IBC for masonry chimneys, fireplaces and barbecues.

Chapter 29 Plumbing Systems. Chapter 29 regulates the minimum number of plumbing fixtures that must be provided for every type of building. This chapter also regulates the location of the required fixtures in various types of buildings. This section requires separate facilities for males and females except for certain types of small occupancies. The regulations in this chapter come directly from Chapters 3 and 4 of the *International Plumbing Code* (IPC).

Chapter 30 Elevators and Conveying Systems. Chapter 30 provides standards for the installation of elevators into buildings. Referenced standards provide the requirements for the elevator system and mechanisms. Detailed standards are provided in the chapter for hoistway enclosures, hoistway venting and machine rooms. New provisions are added in the 2009 IBC for Fire Service Access Elevators required in high-rise buildings and for the optional choice of Occupant Evacuation Elevators (see Section 403).

Chapter 31 Special Construction. Chapter 31 contains a collection of regulations for a variety of unique structures and architectural features. Pedestrian walkways and tunnels connecting two buildings are addressed in Section 3104. Membrane and air-supported structures are addressed by Section 3102. Safeguards for swimming pool safety are found in Section 3109. Standards for temporary structures, including permit requirements are provided in Section 3103. Structures as varied as awnings, marquees, signs, telecommunication and broadcast towers and automatic vehicular gates are also addressed (see Sections 3105 through 3108 and 3110).

Chapter 32 Encroachments into the Public Right-of-way. Buildings and structures from time to time are designed to extend over a property line and into the public right-of-way. Local regulations outside of the building code usually set limits to such encroachments, and such regulations take precedence over the provisions of this chapter. Standards are provided for encroachments below grade for structural support, vaults and areaways. Encroachments above grade are divided into below 8 feet, 8 feet to 15 feet, and above 15 feet, because of headroom and vehicular height issues. This includes steps, columns, awnings, canopies, marquees, signs, windows, balconies. Similar architectural features above grade are also addressed. Pedestrian walkways must also comply with Chapter 31.

Chapter 33 Safeguards During Construction. Chapter 33 provides safety requirements during construction and demolition of buildings and structures. These requirements are intended to protect the public from injury and adjoining property from damage. In addition the chapter provides for the progressive installation and operation of exit stairways and standpipe systems during construction.

Chapter 34 Existing Structures. The provisions in Chapter 34 deal with alternative methods or reduced compliance requirements when dealing with existing building constraints. This chapter allows for a controlled departure from full compliance with the technical codes, without compromising the minimum standards for fire prevention and life safety features of the rehabilitated building. Provisions are divided by addition, alterations, repairs, change of occupancy and moved structures. There are further allowances for registered historic buildings. There are also special allowances for replacement of existing stairways, replacement of glass and accessibility requirements. The fire escape requirements in Section 3406 are consistent with the fire escape requirements in Section 1030 of the *International Fire Code* (IFC).

Section 3412, Compliance Alternatives, allows for existing buildings to be evaluated so as to show that alterations, while not meeting new construction requirements, will improve the current existing situation. Provisions are based on a numerical scoring system involving 18 various safety parameters and the degree of code compliance for each issue.

Chapter 34 is repeated in the *International Existing Building Code* (IEBC). Sections 3402 through 3409 are repeated as IEBC Chapter 3 and Section 3410 as Chapter 13.

Chapter 35 Referenced Standards. The code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 35 contains a comprehensive list of all standards that are referenced in the code, including the appendices. The standards are part of the code to the extent of the reference to the standard (see Section 102.4). Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the building code official, contractor, designer and owner.

Chapter 35 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

Appendices. Appendices are provided in the IBC to offer optional or supplemental criteria to the provisions in the main chapters of the code. Appendices provide additional information for administration of the Department of Building Safety as well as standards not typically administered by all building departments. Appendices have the same force and effect as the first 35 chapters of the IBC only when explicitly adopted by the jurisdiction.

Appendix A Employee Qualifications. Effective administration and enforcement of the family of *International Codes* depends on the training and expertise of the personnel employed by the jurisdiction and his or her knowledge of the codes. Section 103 of the code establishes the Department of Building Safety and calls for the appointment of a building official and deputies such as plans examiners and inspectors. Appendix A provides standards for experience, training and certification for the building official and the other staff mentioned in Chapter 1.

Appendix B Board of Appeals. Section 112 of Chapter 1 requires the establishment of a board of appeals to hear appeals regarding determinations made by the building official. Appendix B provides qualification standards for members of the board as well as operational procedures of such board.

Appendix C Group U—Agricultural Buildings. Appendix C provides a more liberal set of standards for the construction of agricultural buildings, rather than strictly following the Utility building provision, reflective of their specific usage and limited occupant load. The provisions of the appendix, when adopted, allow reasonable heights and areas commensurate with the risk of agricultural buildings.

Appendix D Fire Districts. Fire districts have been a tool used to limit conflagration hazards in areas of a city with intense and concentrated development. More frequently used under the model codes which preceded the *International Building Code* (IBC), the appendix is provided to allow jurisdictions to continue the designation and use of fire districts. Fire District standards restrict certain occupancies within the district, as well as setting higher minimum construction standards.

Appendix E Supplemental Accessibility Requirements. The Architectural and Transportation Barriers Compliance Board (U.S. Access Board) has revised and updated its accessibility guidelines for buildings and facilities covered by the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA). Appendix E includes scoping requirements contained in the new ADA/ABA Accessibility Guidelines that are not in Chapter 11 and not otherwise mentioned or mainstreamed throughout the code. Items in the appendix deal with subjects not typically addressed in building codes (e.g., beds, room signage, transportation facilities).

Appendix F Rodentproofing. The provisions of this appendix are minimum mechanical methods to prevent the entry of rodents into a building. These standards, when used in conjunction with cleanliness and maintenance programs, can significantly reduce the potential of rodents invading a building.

Appendix G Flood-resistant Construction. Appendix G is intended to fulfill the flood-plain management and administrative requirements of the National Flood Insurance Program (NFIP) that are not included in the code. Communities that adopt the *International Building Code* (IBC) and Appendix G will meet the minimum requirements of NFIP as set forth in Title 44 of the Code of Federal Regulations.

Appendix H Signs. Appendix H gathers in one place the various code standards that regulate the construction and protection of outdoor signs. Whenever possible, the appendix provides standards in performance language, thus allowing the widest possible application.

Appendix I Patio Covers. Appendix I provides standards applicable to the construction and use of patio covers. It is limited in application to patio covers accessory to dwelling units. Covers of patios and other outdoor areas associated with restaurants, mercantile buildings, offices, nursing homes or other non dwelling occupancies would be subject to standards in the main code and not this appendix.

Appendix J Grading. Appendix J provides standards for the grading of properties. The appendix also provides standards for administration and enforcement of a grading program including permit and inspection requirements. Appendix J was originally developed in the 1960s and used for many years in jurisdictions throughout the western states. It is intended to provide consistent and uniform code requirements anywhere grading is considered an issue.

Appendix K Administrative Provisions. Appendix K primarily provides administrative provisions for jurisdictions adopting and enforcing NFPA 70—the *National Electrical Code* (NEC). The provisions contained in this appendix are compatible with administrative and enforcement provisions contained in Chapter 1 of the IBC and the other *International Codes*. Annex H of NFPA 70 also contains administrative provisions for the NEC; however, some of its provisions are not compatible with IBC Chapter 1. Section K110 also contains technical provisions that are unique to this appendix and are in addition to technical standards of NFPA 70.

Appendix L Earthquake Recording Instrumentation. The purpose of this appendix is to foster the collection of ground motion data, particularly from strong-motion earthquakes. When this ground motion data is synthesized, it may be useful in developing future improvements to the earthquake provisions of the code.

Appendix M Tsunami-Generated Flood Hazard. Addressing a tsunami risk for all types of construction in a tsunami hazard zone through building code requirements would typically not be cost effective, making tsunami resistant construction impractical at an individual building level. However, this appendix does allow the adoption and enforcement of requirements for tsunami hazard zones that regulate the presence of high risk or high hazard structures.

ORDINANCE: 13-03
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 1. INTERNATIONAL BUILDING CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL BUILDING CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Code, Chapter 1. International Building Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 1. International Building Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 1

INTERNATIONAL BUILDING CODE

SECTION

- 12-101. International Building Code adopted.
- 12-102. Modifications.
- 12-103. Available in recorder's office.
- 12-104. Violation.
- 12-105. Presumed certification.
- 12-106. Repeated inspections.
- 12-107. Validity.

12-101. International Building Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of regulating the construction, alteration, repair, use, occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenance connected or attached to any building or

ORDINANCE 13-03

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structure, the International Building Code, 2012 Edition, including Appendix C, Appendix G, and Appendix I, as published by the International Code Council, Inc, is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the International Building Code.

12-102. Modifications. (1) The International Building Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) The International Building Code, is amended by adding the following:

“No building permit shall be issued unless and until an access permit as otherwise required by ordinance of the Town of Farragut has been issued.”

“No permit shall be issued to an applicant, or any shareholder of the entity serving as the applicant, if the matter for which application has been filed, if completed, would be in violation of any ordinance of the Town of Farragut. No permit shall be issued to an applicant, or any shareholder of the entity serving as the applicant, who, prior to the issuance of the permit, is in violation of any other sections of the Farragut Municipal Code or ordinance of the Town of Farragut, nor shall any permit be issued for a premise that, prior to the issuance of the permit, is in violation of any other sections of the Farragut Municipal Code or ordinance of the Town of Farragut.”

“A certificate of occupancy shall not be issued until all required building, electrical, gas, mechanical, plumbing, and fire protection systems have been inspected for compliance with the technical codes and all other applicable laws and ordinances of the Town of Farragut are met.”

(3) The International Building Code, is amended by adding the following: Permit drawings shall be no larger than twenty-four (24) x thirty-six (36) inches.

(4) The International Building Code, is amended by adding the following:

Design professional. The design professional shall be an architect or engineer legally registered under the laws of this state regulating the practice of architecture or engineering and shall affix his/her official seal to said drawings, specifications and accompanying data, for the following:

1. All Group A, E and I occupancies.
2. Buildings and structures three stories or more high.
3. Buildings and structures 5,000 square feet (465 square meters) or more in area.

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For all other buildings and structure, the submittal shall bear the certification of the applicant that some specific state law exception permits its preparation by a person not so registered.

Exception. Group R3 buildings, regardless of size, shall require neither a registered architect or engineer nor a certification that an architect or engineer is not required.

(5) The International Building Code, is amended by adding the following: Any structure in excess of 7,000 gross square feet or two or more stories shall be of Type I, II, III or IV construction.

(6) The International Building Code, is amended by adding the following: Any structure in excess of 7,000 gross square feet per story and is two or more stories shall be sprinklered per Section 903.3 of the International Building Code.

(7) The International Building Code, is amended by adding the following: Fire walls shall be of noncombustible construction and shall have no penetrations or openings in Type V construction.

(8) Section 101.1 Title, of the International Building Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(9) The International Building Code, is amended by deleting Section [A] 105.5 Expiration, and substituting in lieu thereof the following:

[A] 105.5 Expiration. Every permit issued for new construction shall be become invalid unless the work on the site authorized by such permit is commenced within one hundred eighty (180) days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of one hundred eighty (180) days after the time the work is commenced.

All building permits shall expire according to the following schedule (from the date the permit is issued):

New construction	1 year
Additions	180 days
Accessory structures	180 days
Decks/porches	60 days
Swimming pools	60 days
New gas/mechanical	60 days
Moving structures	30 days
Demolition	30 days
Mechanical changeouts	30 days

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(10) Section [A] 107.3.4 Design professional in responsible charge, of the International Building Code, is amended by adding the following:

[A] 107.3.4.2 Construction documents. The building official may require details, computations, stress diagrams, and other data necessary to describe the construction or installation and the basis of calculations. All drawings, specifications and accompanying data required by the building official to be prepared by an architect or engineer shall be affixed with their official seal.

(11) Section 113 Board of Appeals, of the International Building Code, is amended by adding the following:

[A] 113.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

[A] 113.5 Application. Application to board of appeals shall be made prior to commencement of construction.

[A] 113.6 Notice of meeting. The board shall meet upon notice from the chairman, within twenty (20) days of the filing of an appeal, or at stated periodic meetings.

[A] 113.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

[A] 113.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

[A] 113.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

[A] 113.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

[A] 113.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

(12) Section 114 Violations, of the International Building Code, is amended by adding the following:

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[A] 114.5 Revocation. The building official may also revoke a permit or approval if a permit holder shall, subsequent to the issuance of such permit or approval, violate the terms of the International Building Code or the provisions of any other pertinent sections of the Farragut Municipal Code or other ordinances of the Town of Farragut.”

(13) Section [F] 501.2 Address identification, of the International Building Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

[F] 501.2 Posting of designated street address.

1. All buildings (excluding accessory buildings) shall display the number assigned by the Knox County Addressing Division to the frontage on which the building's front entrance is located. If a building is occupied by more than one unit, each separate outside entrance shall display a separate number.
2. Numerals indicating the official numbers for each building or each entrance to such building shall be placed either over or at the side of the main entrance of said building or upon the front of any porch or stoop thereof or over or at the side of any gateway leading thereto, or upon the steps thereof in such manner that the same may be plainly seen and distinguishable from the street on which the property is located and in such manner that the same shall not be hidden from view by any trees or shrubs or other obstruction.
3. If a unit does not allow ready or easy visibility of its address numerals from the street due to excessive set back, shrubbery or color, an address identification marker shall be placed near the entrance or driveway to the parcel. Such identification marker shall not exceed a total area of two (2) square feet.
4. All building numbers displayed shall be permanent, legible figures not less than four (4) inches nor more than six (6) inches high and of a color contrasting to the building background.
5. In addition to the required assigned numerals on all buildings and the required address identification markers for units with excessive setbacks and/or visibility problems it shall also be permissible to have property address numerals painted on the curb in front of a lot. Such curbside designation shall be positioned in front of the unit or between the driveway and half the distance of the frontage along the public street. All painted numerals displayed on curbs shall be permanent, legible black colored numerals, which are no more nor less than four (4) inches high, on a white contrasting background. All paint used shall be of alkyd resin, Type F traffic paint, or an equal approved by the Town's engineering department. Numerals shall have glass beads or similar materials for reflective purposes.
6. A proper address shall be required for any permit issuance. Final approval of a certificate of occupancy of a building erected or repaired shall be withheld until permanent and proper numbers have been displayed in accordance with this section.

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- (14) Section 708.1 General, of the International Building Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

708.1 General. The following wall, ceiling, and floor assemblies shall comply with this section.

1. Walls, ceilings, and floors separating dwelling units in the same building as required by Section 420.2.
2. Walls, ceilings, and floors separating sleeping units in the same building as required by Section 420.2.
3. Walls, ceilings, and floors separating tenant spaces in covered and open mall buildings as required by Section 402.4.2.1.
4. Corridor walls, ceilings, and floors are required by Section 1018.1.
5. Elevator lobby separation as required by Section 713.14.1.

- (15) Section 708 Fire Partitions, of the International Building Code, is amended by adding the following:

708.10. Tenant Separations. All tenants shall be separated by a minimum of a one-hour fire rated envelope. This shall include but not be limited to floors, walls, and ceilings.

- (16) Section [F] 907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more, of the International Building Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

[F] 907.2.1.1 System initiation in Group A occupancies with an occupant load of three hundred (300) or more. Activation of the fire alarm in Group A occupancies with an occupant load of three hundred (300) or more shall initiate a signal using an emergency voice/alarm communications system in accordance with NFPA 72.

- (17) Section [F] 907.2.11.2 Groups R-2, R-3, R-4 and I-1, of the International Building Code, is amended by adding the following:

4. In each private garage attached to and serving a dwelling unit.

- (18) Section 1008.1.9.3 Locks and latches, of the International Building Code, is amended by deleting item 2. in its entirety.

- (19) Section 1009.16.1 Roof access, of the International Building Code, is amended by adding the following:

1009.16.1.1 Equipment and appliances on roofs or elevated structures. Where equipment and appliances requiring access are installed on roofs or elevated structures, such access shall be

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provided by a permanent approved means of access, the extent of which shall be from grade or floor level to the equipment and appliances' level serve space. Such access shall not require climbing over obstructions greater than 24 (twenty-four) inches high or walking on roofs having a slope greater than four (4) units vertical in twelve (12) units horizontal (thirty-three (33) percent slope).

Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:

1. The side railing shall extend above the parapet or roof edge not less than thirty (30) inches (762 mm).
2. Ladders shall have rung spacing not to exceed fourteen (14) inches (356 mm) on center.
3. Ladders shall have a toe spacing not less than six (6) inches (152 mm) deep.
4. There shall be a minimum of eighteen (18) inches (457 mm) between rails.
5. Rungs shall have a minimum 0.75-inch (19 mm) diameter and be capable of withstanding a three hundred (300) pound (136.1 kg) load.
6. Ladders over thirty (30) feet (9144 mm) in height shall be provided with offset sections and landings capable of withstanding one hundred (100) pounds (488.2 kg/m2) per square foot.
7. Ladders shall be protected against corrosion by approved means.

Catwalks installed to provide the required access shall be not less than twenty-four (24) inches (610 mm) wide and shall have railings as required for service platforms.

(20) Section 1013.2 Where required., of the International Building Code, is amended by deleting the first sentence and substituting in lieu thereof the following:

“Guards shall be located along open-sided walking surfaces or ground surfaces, mezzanine, equipment platforms, retaining walls, stairways, ramps, landings and any other locations that are located more than 30 (thirty) inches (762 mm) above the floor or grade below.”

12-103. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Building Code, 2012 Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-104. Violation. Any person who shall violate a provision of the International Building Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

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12-105. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Building Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Building Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Building Code or otherwise.

12-106. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the codes official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

12-107. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

AGENDA NUMBER

VII.A.2.

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-04, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 2. International Plumbing Code, to adopt the International Plumbing Code, 2012 Edition

INTRODUCTION: The Town is currently under the International Plumbing Code, 2006 Edition. All codes are adopted by reference.

DISCUSSION: For the past two years the Town staff has been participating in the training of the 2012 editions of the various International Codes. Town staff also participated in two separate training sessions on 2012 ICC Codes with the Home Builders Association and other construction stakeholders. To remain current with ISO requirements and state law, the town must adopt new codes a minimum of every six years.

The provisions of the plumbing code shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems. This code shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen systems and sanitary and condensate vacuum collection systems.

Staff is recommending adoption of the International Plumbing Code, 2012 Edition, including Appendix B (Rates of Rainfall for Various Cities), Appendix C (Vacuum Drainage System), Appendix D (Degree Day and Design Temperatures), Appendix E (Sizing of Water Piping System), and Appendix F (Structural Safety), as published by the International Code Council, Inc.

The proposed amendments to the code are identical to what we currently have adopted. This includes the Board of Plumbing and Gas/Mechanical Examiners serving as the Board of Appeals and following our current practices.

Attached please find a 2012 IPC summary entitled "Effective Use of the International Plumbing Code".

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer

John Householder, Codes Officer – Commercial Plans Examiner

Elliott Sievers, Codes Officer

Dan Johnson, Fire Marshal

Colin Cumesty, Fire Inspector

Ruth Hawk, Community Development Director

Recommends approval of Ordinance 13-04

PROPOSED MOTION: Move to approve Ordinance 13-04.

BOARD ACTION:

MOTION BY: _____ **SECONDED**

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

Effective Use of the International Plumbing Code

The *International Plumbing Code* (IPC) is a model code that regulates the design and installation of plumbing systems including the plumbing fixtures in all types of buildings except for detached one- and two-family dwellings and townhouses that are not more than three stories above grade in height. The regulations for plumbing systems in one- and two-family dwellings and townhouses are covered by Chapters 25 through 33 of the *International Residential Code* (IRC). The IPC addresses general plumbing regulations, fixture requirements, water heater installations and systems for water distribution, sanitary drainage, special wastes, venting, storm drainage and medical gases. The IPC does not address fuel gas piping systems as those systems are covered by the *International Fuel Gas Code* (IFGC). The IPC also does not regulate swimming pool piping systems, process piping systems, or utility-owned piping and systems. The purpose of the IPC is to establish the minimum acceptable level of safety to protect life and property from the potential dangers associated with supplying potable water to plumbing fixtures and outlets and the conveyance of bacteria-laden waste water from fixtures.

The IPC is primarily a specification-oriented (prescriptive) code with some performance-oriented text. For example, Section 405.1 is a performance statement but Chapter 6 contains the prescriptive requirements that will cause Section 405.1 to be satisfied.

Where a building contains plumbing fixtures, those fixtures requiring water must be provided with an adequate supply of water for proper operation. The number of required plumbing fixtures for a building is specified by this code and is based upon the anticipated maximum number of occupants for the building and the type of building occupancy. This code provides prescriptive criteria for sizing piping systems connected to those fixtures. Through the use of code-approved materials and the installation requirements specified in this code, plumbing systems will perform their intended function over the life of the building. In summary, the IPC sets forth the minimum requirements for providing safe water to a building as well as a safe manner in which liquid-borne wastes are carried away from a building.

Arrangement and Format of the 2012 IPC

The format of the IPC allows each chapter to be devoted to a particular subject with the exception of Chapter 3 which contains general subject matters that are not extensive enough to warrant their own independent chapter. The IPC is divided into thirteen different parts:

Chapters	Subjects
1-2	Administration and Definitions
3	General Regulations
4	Fixtures, Faucets and Fixture Fittings
5	Water Heaters
6	Water Supply and Distribution
7	Sanitary Drainage
8	Indirect/Special Wastes
9	Vents
10	Traps, Interceptors and Separators
11	Storm Drainage
12	Special Piping (Medical Gas)
13	Gray Water Recycling Systems
14	Referenced Standards
Appendices A-G	Appendices

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Plumbing Code*:

Chapter 1 Scope and Administration. This chapter contains provisions for the application, enforcement and administration of subsequent requirements of the code. In addition to establishing the scope of the code, Chapter 1 identifies which buildings and structures come under its purview. Chapter 1 is largely concerned with maintaining “due process of law” in enforcing the requirements contained in the body of this code. Only through careful observation of the administrative provisions can the building official reasonably expect to demonstrate that “equal protection under the law” has been provided.

Chapter 2 Definitions. Chapter 2 is the repository of the definitions of terms used in the body of the code. Codes are technical documents and every word, term and punctuation mark can impact the meaning of the code text and the intended results. The code often uses terms that have a unique meaning in the code and the code meaning can differ substantially from the ordinarily understood meaning of the term as used outside of the code.

The terms defined in Chapter 2 are deemed to be of prime importance in establishing the meaning and intent of the code text that uses the terms. The user of the code should be familiar with and consult this chapter because the definitions are essential to the correct interpretation of the code and because the user may not be aware that a term is defined.

Where understanding of a term’s definition is especially key to or necessary for understanding of a particular code provision, the term is shown in *italics* wherever it appears in the code. This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known.

Guidance regarding tense, gender and plurality of defined terms as well as guidance regarding terms not defined in this code is provided.

Chapter 3 General Regulations. The content of Chapter 3 is often referred to as “miscellaneous,” rather than general regulations. This is the only chapter in the code whose requirements do not interrelate. If a requirement cannot be located in another chapter, it should be located in this chapter. Chapter 3 contains safety requirements for the installation of plumbing and nonplumbing requirements for all types of fixtures. This chapter also has requirements for the identification of pipe, pipe fittings, traps, fixtures, materials and devices used in plumbing systems.

The safety requirements of this chapter provide protection for the building’s structural members, as well as prevent undue stress and strain on pipes. The building’s structural stability is protected by the regulations for cutting and notching of structural members. Additional protection for the building occupants includes requirements to maintain the plumbing in a safe and sanitary condition, as well as privacy for those occupants.

Chapter 4 Fixtures, Faucets and Fixture Fittings. This chapter regulates the minimum number of plumbing fixtures that must be provided for every type of building. This chapter also regulates the quality of fixtures and faucets by requiring those items to comply with nationally recognized standards. Because fixtures must be properly installed so that they are usable by the occupants of the building, this chapter contains the requirements for the installation of fixtures. Because the requirements for the number of plumbing fixtures affects the design of a building, Chapter 29 of the *International Building Code* (IBC) includes, verbatim, many of the requirements listed in Chapter 4 of this code.

Chapter 5 Water Heaters. Chapter 5 regulates the design, approval and installation of water heaters and related safety devices. The intent is to minimize the hazards associated with the installation and operation of water heaters. Although this code does not regulate the size of a water heater, it does regulate all other aspects of the water heater installation such as temperature and pressure relief valves, safety drip pans, installation and connections. Where a water heater also supplies water for space heating, this chapter regulates the maximum water temperature supplied to the water distribution system.

Chapter 6 Water Supply and Distribution. This chapter regulates the supply of potable water from both public and individual sources to every fixture and outlet so that it remains potable and uncontaminated. Chapter 6 also regulates the design of the water distribution system, which will allow fixtures to function properly and also help prevent backflow conditions. The unique requirements of the water supply for health care facilities are addressed separately. It is critical that the potable water supply system remain free of actual or potential sanitary hazards by providing protection against backflow.

Chapter 7 Sanitary Drainage. The purpose of Chapter 7 is to regulate the materials, design and installation of sanitary drainage piping systems as well as the connections made to the system. The intent is to design and install sanitary drainage systems that will function reliably, that are neither undersized nor oversized and that are constructed from materials, fittings and connections as prescribed herein. This chapter addresses the proper use of fittings for directing the flow into and within the sanitary drain piping system. Materials and provisions necessary for servicing the drainage system are also included in this chapter.

Chapter 8 Indirect/Special Waste. This chapter regulates drainage installations that require an indirect connection to the sanitary drainage system. Fixtures and plumbing appliances, such as those associated with food preparation or handling, health care facilities and potable liquids, must be protected from contamination that can result from connection to the drainage system. An indirect connection prevents sewage from backing up into a fixture or appliance, thus providing protection against potential health hazards. The chapter also regulates special wastes containing hazardous chemicals. Special waste must be treated to prevent any damage to the sanitary drainage piping and to protect the sewage treatment processes.

Chapter 9 Vents. Chapter 9 covers the requirements for vents and venting. Knowing why venting is required makes it easier to understand the intent of this chapter. Venting protects every trap against the loss of its seal. Provisions set forth in this chapter are geared toward limiting the pressure differentials in the drainage system to a maximum of 1 inch of water column (249 Pa) above or below atmospheric pressure (i.e., positive or negative pressures).

Chapter 10 Traps, Interceptors and Separators. This chapter contains design requirements and installation limitations for traps. Prohibited types of traps are specifically identified. Where fixtures do not frequently replenish the water in traps, a method is provided to ensure that the water seal of the trap will be maintained. Requirements for the design and location of various types of interceptors and separators are provided. Specific venting requirements are given for separators and interceptors as those requirements are not addressed in Chapter 9.

Chapter 11 Storm Drainage. Chapter 11 regulates the removal of storm water typically associated with rainfall. The proper installation of a storm drainage system reduces the possibility of structural collapse of a flat roof, prevents the leakage of water through the roof, prevents damage to the footings and foundation of the building and prevents flooding of the lower levels of the building.

Chapter 12 Special Piping and Storage Systems. This chapter contains the requirements for the design, installation, storage, handling and use of nonflammable medical gas systems, including inhalation anesthetic and vacuum piping systems, bulk oxygen storage systems and oxygen-fuel gas systems used for welding and cutting operations. The intent of these requirements is to minimize the potential fire and explosion hazards associated with the gases used in these systems.

Chapter 13 Gray Water Recycling Systems. This chapter regulates the design and installation of gray water collection and disposal systems. The reduction of the use of potable water in buildings has led to the use of gray water for flushing of water closets and urinals and subsurface irrigation. As such, this chapter provides the overall requirements for these systems.

Chapter 14 Referenced Standards. The code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 14 contains a comprehensive list of all standards that are referenced in the code. The standards are part of the code to the extent of the reference to the standard. Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the code official, contractor, designer and owner.

Chapter 14 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

Appendix A Plumbing Permit Fee Schedule. Appendix A provides a format for a fee schedule.

Appendix B Rates of Rainfall for Various Cities. Appendix B provides specific rainfall rates for major cities in the United States.

Appendix C Vacuum Drainage System. Appendix C offers basic information on how a vacuum drainage system relates to the code, should a vacuum drainage system be used for a building.

Appendix D Degree Day and Design Temperatures. This appendix provides valuable temperature information for designers and installers of plumbing systems in areas where freezing temperatures might exist.

Appendix E Sizing of Water Piping System. Appendix E provides two recognized methods for sizing the water service and water distribution piping for any structure. The method under Section E103 provides friction loss diagrams which require the user to "plot" points and read values from the diagrams in order to perform the required calculations and necessary checks. This method is the most accurate of the two presented in this appendix. The method under Section E201 is known to be conservative; however, very few calculations are necessary in order to determine a pipe size that satisfies the flow requirements of any application.

Appendix F Structural Safety. Appendix F is provided so that the user does not have to refer to another code book for limitations for cutting, notching and boring of sawn lumber and cold-formed steel framing.

ORDINANCE: 13-04
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 2. INTERNATIONAL PLUMBING CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL PLUMBING CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 2. International Plumbing Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 2. International Plumbing Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 2

INTERNATIONAL PLUMBING CODE

SECTION

- 12-201. International Plumbing Code adopted.
- 12-202. Modifications.
- 12-203. Available in recorder's office.
- 12-204. Violation.
- 12-205. Presumed certification.
- 12-206. Repeated inspections.
- 12-207. Validity.

12-201. International Plumbing Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of regulating plumbing installations, including repairs, equipment, appliances, fixtures, fittings, and the appurtenances thereto, the International Plumbing Code, 2012 Edition, including Appendix B,

ORDINANCE 13-04

Page 2

Appendix C, Appendix D, Appendix E, and Appendix F, as published by the International Code Council, Inc., is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the International Plumbing Code.

12-202. Modifications. (1) The International Plumbing Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) Section 101.1 Title, of the International Plumbing Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(3) The International Plumbing Code, is amended by deleting Section 109 Means of Appeal, in its entirety and substituting in lieu thereof the following:

SECTION 109 MEANS OF APPEAL

109.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

109.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

109.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

109.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

109.5 Application. Application to board of appeals shall be made prior to commencement of construction.

109.6 Notice of meeting. The board shall meet upon notice from the chairman, within twenty (20) days of the filing of an appeal, or at stated periodic meetings.

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109.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

109.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

109.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

109.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

109.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

12-203. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Plumbing Code, 2012 Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-204. Violation. Any person who shall violate a provision of the International Plumbing Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12-205. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Plumbing Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Plumbing Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Plumbing Code or otherwise.

12-206. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the codes official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

12-207. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

Dr. Ralph McGill, Mayor

Allison Myers, Town Recorder

AGENDA NUMBER VII.A.3.

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-05, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 3. Electrical Code, to adopt the NFPA Electrical Code, 2011 Edition

INTRODUCTION: The Town is currently under the NFPA 70 National Electric Code, 2005 Edition. All codes are adopted by reference.

DISCUSSION: Due to the small size of the Town staff, the Town has opted not to conduct electrical inspections. In lieu of Town staff, State of Tennessee inspectors conduct electrical inspections within the Town. These inspectors are housed out of the Lenoir City Utilities Board offices. Although we do not conduct our own inspections, the Town must remain current in electrical code adoption.

Staff is recommending adoption of the NFPA 70 National Electric Code, 2011 Edition, as prepared by the National Fire Protection Association. The purpose of this code is to regulate the installation of electrical components, apparatus, wiring, and other applications of electrical components.

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer
John Householder, Codes Officer – Commercial Plans Examiner
Elliott Sievers, Codes Officer
Dan Johnson, Fire Marshal
Colin Cumesty, Fire Inspector
Ruth Hawk, Community Development Director
Recommends approval of Ordinance 13-05

PROPOSED MOTION: Move to approve Ordinance 13-05.

BOARD ACTION:

MOTION BY: _____ **SECONDED**
BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

ORDINANCE: 13-05
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 3, ELECTRICAL CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE NFPA ELECTRICAL CODE, 2011 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 3. Electrical Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 3. Electrical Code, Section 12-301. Electrical code adopted, is amended by deleting it in its entirety and substituting in lieu thereof the following:

12-301. Electrical code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purposes of regulating the installation of electrical components, apparatus, wiring, and other applications of electrical components, within the municipality, the NFPA70 National Electric Code, 2011 Edition, as prepared by the National Fire Protection Association, is hereby adopted and incorporated by reference as a part of this code and is hereinafter referred to as the electrical code.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

Dr. Ralph McGill, Mayor

Allison Myers, Town Recorder

AGENDA NUMBER

VII.A.4.

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-06, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 4. International Fuel Gas Code, to adopt the International Fuel Gas Code, 2012 Edition

INTRODUCTION: The Town is currently under the International Fuel Gas Code, 2006 Edition. All codes are adopted by reference.

DISCUSSION: For the past two years the Town staff has been participating in the training of the 2012 editions of the various International Codes. Town staff also participated in two separate training sessions on 2012 ICC Codes with the Home Builders Association and other construction stakeholders. To remain current with ISO requirements and state law, the town must adopt new codes a minimum of every six years.

The Fuel Gas Code shall apply to the installation of fuel-gas piping systems, fuel gas appliances, gaseous hydrogen systems and related accessories.

Staff is recommending adoption of the International Fuel Gas Code, 2012 Edition, including Appendix A (Sizing and Capacities of Gas Piping), Appendix B (Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category 1 Appliances and Appliances Listed for Use with Type B Vents), Appendix C (Exit Terminals of Mechanical Draft and Direct-vent Venting Systems), and Appendix D (Recommended Procedure for Safety Inspection of an Existing Appliance Installation), as published by the International Code Council, Inc.

The proposed amendments to the code are identical to what we currently have adopted. This includes the Board of Plumbing and Gas/Mechanical Examiners serving as the Board of Appeals and following our current practices.

Attached please find a 2012 IFGC summary entitled "Effective Use of the International Fuel Gas Code".

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer

John Householder, Codes Officer – Commercial Plans Examiner

Elliott Sievers, Codes Officer

Dan Johnson, Fire Marshal

Colin Cumesty, Fire Inspector

Ruth Hawk, Community Development Director
Recommends approval of Ordinance 13-06

PROPOSED MOTION: Move to approve Ordinance 13-06.

BOARD ACTION:

MOTION BY: _____ **SECONDED**

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

Effective Use of the International Fuel Gas Code

The IFGC is a model code that regulates the design and installation of fuel gas distribution piping and systems, appliances, appliance venting systems, combustion air provisions, gaseous hydrogen systems and motor vehicle gaseous-fuel-dispensing stations. The definition of fuel gas includes natural, liquefied petroleum and manufactured gases and mixtures of these gases.

The purpose of the code is to establish the minimum acceptable level of safety and to protect life and property from the potential dangers associated with the storage, distribution and usage of fuel gases and the byproducts of combustion of such fuels. The code also protects the personnel that install, maintain, service and replace the systems and appliances addressed by this code.

With the exception of Section 401.1.1, the IFGC does not address utility-owned piping and equipment (i.e., anything upstream of the point of delivery). See the definition of "Point of delivery" and Section 501.8 for other code coverage exemptions.

The IFGC is primarily a specification-oriented (prescriptive) code with some performance-oriented text. For example, Section 503.3.1 is a performance statement, but Chapter 5 contains prescriptive requirements that will cause Section 503.3.1 to be satisfied.

The IFGC applies to all occupancies including one- and two-family dwellings and townhouses. The IRC is referenced for coverage of one- and two-family dwellings and townhouses; however, in effect, the IFGC provisions are still applicable because the fuel gas chapter in the IRC (Chapter 24) is composed entirely of text extracted from the IFGC. Therefore, whether using the IFGC or the IRC, the fuel gas provisions will be identical. The IFGC does not apply to piping systems that operate at pressures in excess of 125 psig for natural gas and 20 psig for LP-gas (note exception in Section 402.6).

The general Section 105.2 and the specific Sections 304.8, 402.3, 503.5.5 and 503.6.9 allow combustion air provisions, pipe sizing and chimney and vent sizing to be performed by approved engineering methods as alternatives to the prescriptive methods in the code.

Arrangement and Format of the 2009 IFGC

The format of the IFGC allows each chapter to be devoted to a particular subject, with the exception of Chapter 3, which contains general subject matters that are not extensive enough to warrant their own independent chapter.

Chapter 1 Scope and Administration. Chapter 1 establishes the limits of applicability of the code and describes how the code is to be applied and enforced. A fuel gas code, like any other code, is intended to be adopted as a legally enforceable document, and it cannot be effective without adequate provisions for its administration and enforcement. The provisions of Chapter 1 establish the authority and duties of the code official appointed by the jurisdiction having authority and also establish the rights and privileges of the design professional, contractor and property owner.

Chapter 2 Definitions. Chapter 2 is the repository of the definitions of terms used in the body of the code. Codes are technical documents and every word, term and punctuation mark can impact the meaning of the code text and the intended results. The code often uses terms that have a unique meaning in the code and the code meaning can differ substantially from the ordinarily understood meaning of the term as used outside of the code.

The terms defined in Chapter 2 are deemed to be of prime importance in establishing the meaning and intent of the code text that uses the terms. The user of the code should be familiar with and consult this chapter because the definitions are essential to the correct interpretation of the code and because the user may not be aware that a term is defined.

Chapter 3 General Regulations. Chapter 3 contains broadly applicable requirements related to appliance location and installation, appliance and systems access, protection of structural elements and clearances to combustibles, among others. This chapter also covers combustion air provisions for gas-fired appliances.

Chapter 4 Gas Piping Installations. Chapter 4 covers the allowable materials for gas piping systems and the sizing and installation of such systems. It also covers pressure regulators, appliance connections and overpressure protection devices. Gas piping systems are sized to supply the maximum demand while maintaining the supply pressure necessary for safe operation of the appliances served.

Chapter 5 Chimneys and Vents. Chapter 5 regulates the design, construction, installation, maintenance, repair and approval of chimneys, vents, venting systems and their connections to gas-fired appliances. Properly designed chimneys, vents and venting systems are necessary to conduct to the outdoors the flue gases produced by the combustion of fuels in appliances. The provisions of this chapter are intended to minimize the hazards associated with high temperatures and potentially toxic and corrosive combustion gases. This chapter addresses all of the factory-built and site-built chimneys, vents and venting systems used to vent all types and categories of appliances. It also addresses direct-vent appliances, integral vent appliances, side-wall mechanically vented appliances and exhaust hoods that convey the combustion byproducts from cooking and other process appliances.

Chapter 6 Specific Appliances. Chapter 6 addresses specific appliances that the code intends to regulate. Each main section applies to a unique type of gas-fired appliance and specifies the product standards to which the appliance must be listed. The general requirements found in the previous Chapters 1 through 5 also apply and the sections in Chapter 6 add the special requirements that are specific to each type of appliance.

Chapter 7 Gaseous Hydrogen Systems. Chapter 7 is specific to gaseous hydrogen generation, storage, distribution and utilization systems, appliances and equipment. Note that hydrogen is not within the definition of "Fuel gas," but it is, nonetheless, commonly used as a fuel for fuel-cell power generation and fuel-cell powered motor vehicles. The scope of Chapter 7 is not limited to any particular use of hydrogen (see Sections 633 and 635). Hydrogen systems have unique potential hazards because of the specific gravity of the gas, its chemical effect on materials and the fact that it is not odorized.

Chapter 8 Referenced Standards. Chapter 8 lists all of the product and installation standards and codes that are referenced throughout Chapters 1 through 7. As stated in Section 102.8, these standards and codes become an enforceable part of the code (to the prescribed extent of the reference) as if printed in the body of the code. Chapter 8 provides the full title and edition year of the standards and codes in addition to the address of the promulgators and the section numbers in which the standards and codes are referenced.

Appendix A Sizing and Capacities of Gas Piping. This appendix is informative and not part of the code. It provides design guidance, useful facts and data and multiple examples of how to apply the sizing tables and sizing methodologies of Chapter 4.

Appendix B Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances and Appliances Listed for Use with Type B Vents. This appendix is informative and not part of the code. It contains multiple examples of how to apply the vent and chimney tables and methodologies of Chapter 5.

Appendix C Exit Terminals of Mechanical Draft and Direct-vent Venting Systems. This appendix is informative and not part of the code. It consists of a figure and notes that visually depict code requirements from Chapter 5 for vent terminals with respect to the openings found in building exterior walls.

Appendix D Recommended Procedure for Safety Inspection of an Existing Appliance Installation. This appendix is informative and not part of the code. It provides recommended procedures for testing and inspecting an appliance installation to determine if the installation is operating safely and if the appliance is in a safe condition.

ORDINANCE: 13-06
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 4. INTERNATIONAL FUEL GAS CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL FUEL GAS CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 4. International Fuel Gas Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 4. International Fuel Gas Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 4

INTERNATIONAL FUEL GAS CODE

SECTION

- 12-401. International Fuel Gas Code adopted.
- 12-402. Modifications.
- 12-403. Available in recorder's office.
- 12-404. Violation.
- 12-405. Presumed certification.
- 12-406. Repeated inspections.
- 12-407. Validity.

12-401. International Fuel Gas Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of regulating fuel gas piping installations, including repairs, equipment, appliances, fixtures, fittings, and the appurtenances thereto, the International Fuel Gas Code, 2012 Edition, including Appendix A,

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Appendix B, Appendix C, and Appendix D, as published by the International Code Council, Inc., is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the International Fuel Gas Code.

12-402. Modifications. (1) The International Fuel Gas Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) Section 101.1 Title, of the International Fuel Gas Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(3) The International Fuel Gas Code, is amended by deleting Section 109 (IFGC) Means of Appeal, in its entirety and substituting in lieu thereof the following:

SECTION 109 MEANS OF APPEAL

109.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

109.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

109.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

109.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

109.5. Application. Application to board of appeals shall be made prior to commencement of construction.

109.6 Notice of meeting. The board shall meet upon notice from the chairman, within twenty (20) days of the filing of an appeal, or at stated periodic meetings.

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109.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

109.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

109.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

109.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

109.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

(4) Section 403.5 Metallic tubing, of the International Fuel Gas Code, is amended by adding thereto said paragraph as follows:

"The use of copper tubing is prohibited, except for outside, underground use."

(5) Section 403.5.2 Copper and brass tubing, of the International Fuel Gas Code, is amended by deleting the same in its entirety.

(6) Section 403.5.3 Aluminum tubing, of the International Fuel Gas Code, is amended by deleting the same in its entirety.

12-403. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Fuel Gas Code, 2012 Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-404. Violation. Any person who shall violate a provision of the International Fuel Gas Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

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12-405. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Fuel Gas Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Fuel Gas Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Fuel Gas Code or otherwise.

12-406. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the codes official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

12-407. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

AGENDA NUMBER

VII. A. 5.

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-07, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 5. International Property Maintenance Code, to adopt the International Property Maintenance Code, 2012 Edition

INTRODUCTION: The Town is currently under the International Property Maintenance Code, 2006 Edition. All codes are adopted by reference.

DISCUSSION: The purpose of this code is for regulating and governing the conditions and maintenance of all property, buildings and structures; by providing the standards for supplied utilities and facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy and use, and the demolition of such existing structures. In summary, this code is used to ensure properties are kept up and are good neighbors

Staff is recommending adoption of the International Property Maintenance Code, 2012 Edition, including Appendix A (Boarding Standard), as published by the International Code Council, Inc. The boarding standards establish how windows and doors are to be boarded to prevent entry by unauthorized persons or by animals. For example, boards are to be painted to correspond to the color of the existing structure. The purpose of this requirement is to minimize the abandoned building look.

The proposed amendments to the code are identical to what we currently have adopted. This includes the Board of Plumbing and Gas/Mechanical Examiners serving as the Board of Appeals and following our current practices.

Attached please find a 2012 IPMC summary entitled "Effective Use of the International Property Maintenance Code".

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer

John Householder, Codes Officer – Commercial Plans Examiner

Elliott Sievers, Codes Officer

Dan Johnson, Fire Marshal

Colin Cumesty, Fire Inspector

Ruth Hawk, Community Development Director

Recommends approval of Ordinance 13-07

PROPOSED MOTION: Move to approve Ordinance 13-07.

BOARD ACTION:

MOTION BY: _____ **SECONDED**

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

EFFECTIVE USE OF THE INTERNATIONAL PROPERTY MAINTENANCE CODE

The *International Property Maintenance Code* (IPMC) is a model code that regulates the minimum maintenance requirements for existing buildings.

The IPMC is a maintenance document intended to establish minimum maintenance standards for basic equipment, light, ventilation, heating, sanitation and fire safety. Responsibility is fixed among owners, operators and occupants for code compliance. The IPMC provides for the regulation and safe use of existing structures in the interest of the social and economic welfare of the community.

Arrangement and Format of the 2009 IPMC

Before applying the requirements of the IPMC it is beneficial to understand its arrangement and format. The IPMC, like other codes published by ICC, is arranged and organized to follow sequential steps that generally occur during an inspection. The IPMC is divided into eight different parts:

Chapters	Subjects
1	Administration
2	Definitions
3	General Requirements
4	Light, Ventilation and Occupancy Limitations
5	Plumbing Facilities and Fixture Requirements
6	Mechanical and Electrical Requirements
7	Fire Safety Requirements
8	Referenced Standards

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Property Maintenance Code*:

Chapter 1 Scope and Administration. This chapter contains provisions for the application, enforcement and administration of subsequent requirements of the code. In addition to establishing the scope of the code, Chapter 1 identifies which buildings and structures come under its purview. Chapter 1 is largely concerned with maintaining “due process of law” in enforcing the property maintenance criteria contained in the body of the code. Only through careful observation of the administrative provisions can the building official reasonably expect to demonstrate that “equal protection under the law” has been provided.

Chapter 2 Definitions. All terms that are defined in the code are listed alphabetically in Chapter 2. While a defined term may be used in one chapter or another, the meaning provided in Chapter 2 is applicable throughout the code.

Where understanding of a term’s definition is especially key to or necessary for understanding of a particular code provision, the term is shown in *italics* wherever it appears in the code. This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known.

Guidance regarding tense, gender and plurality of defined terms as well as guidance regarding terms not defined in this code is provided.

Chapter 3 General Requirements. Chapter 3, "General Requirements," is broad in scope. It includes a variety of requirements for the exterior property areas as well as the interior and exterior elements of the structure. This chapter provides requirements that are intended to maintain a minimum level of safety and sanitation for both the general public and the occupants of a structure, and to maintain a building's structural and weather-resistance performance. Chapter 3 provides specific criteria for regulating the installation and maintenance of specific building components; maintenance requirements for vacant structures and land; requirements regulating the safety, sanitation and appearance of the interior and exterior of structures and all exterior property areas; accessory structures; vehicle storage regulations and establishes who is responsible for complying with the chapter's provisions. This chapter also contains the requirements for swimming pools, spas and hot tubs and the requirements for protective barriers and gates in these barriers. Chapter 3 establishes the responsible parties for exterminating insects and rodents, and maintaining sanitary conditions in all types of occupancies.

Chapter 4 Light, Ventilation and Occupancy Limitations. The purpose of Chapter 4 is to set forth these requirements in the code and to establish the minimum environment for occupiable and habitable buildings, by establishing the minimum criteria for light and ventilation and identifies occupancy limitations including minimum room width and area, minimum ceiling height and restrictions to prevent overcrowding. This chapter also provides for alternative arrangements of windows and other devices to comply with the requirements for light and ventilation and prohibits certain room arrangements and occupancy uses.

Chapter 5 Plumbing Facilities and Fixture Requirements. Chapter 5 establishes the minimum criteria for the installation, maintenance and location of plumbing systems and facilities, including the water supply system, water heating appliances, sewage disposal system and related plumbing fixtures.

Sanitary and clean conditions in occupied buildings are dependent upon certain basic plumbing principles, including providing potable water to a building, providing the basic fixtures to effectively utilize that water and properly removing waste from the building. Chapter 5 establishes the minimum criteria to verify that these principles are maintained throughout the life of a building.

Chapter 6 Mechanical and Electrical Requirements. The purpose of Chapter 6 is to establish minimum performance requirements for heating, electrical and mechanical facilities and to establish minimum standards for the safety of these facilities.

This chapter establishes minimum criteria for the installation and maintenance of the following: heating and air-conditioning equipment, appliances and their supporting systems; water-heating equipment, appliances and systems; cooking equipment and appliances; ventilation and exhaust equipment; gas and liquid fuel distribution piping and components; fireplaces and solid fuel-burning appliances; chimneys and vents; electrical services; lighting fixtures; electrical receptacle outlets; electrical distribution system equipment, devices and wiring; and elevators, escalators and dumb-waiters.

Chapter 7 Fire Safety Requirements. The purpose of Chapter 7 is to address those fire hazards that arise as the result of a building's occupancy. It also provides minimum requirements for fire safety issues that are most likely to arise in older buildings.

This chapter contains requirements for means of egress in existing buildings, including path of travel, required egress width, means of egress doors and emergency escape openings.

Chapter 7 establishes the minimum requirements for fire safety facilities and fire protection systems, as these are essential fire safety systems.

Chapter 8 Referenced Standards. The code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 8 contains a comprehensive list of all standards that are referenced in the code. The standards are part of the code to the extent of the reference to the standard. Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the code official, contractor, designer and owner.

Chapter 8 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

ORDINANCE: 13-07
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 5. INTERNATIONAL PROPERTY MAINTENANCE CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL PROPERTY MAINTENANCE CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 5. International Property Maintenance Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 5. International Property Maintenance Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 5

INTERNATIONAL PROPERTY MAINTENANCE CODE

SECTION

- 12-501. International Property Maintenance Code adopted.
- 12-502. Modifications.
- 12-503. Available in recorder's office.
- 12-504. Presumed certification.
- 12-505. Validity.

12-501. International Property Maintenance Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for regulating and governing the conditions and maintenance of all property, buildings and structures; by providing the standards for supplied utilities and facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy and use, and the demolition of such

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existing structures as herein provided; and each and all the regulations, provisions, penalties, conditions and terms of said International Property Maintenance Code, 2012 Edition, including Appendix A, as prepared and adopted by the International Code Council, Inc., is hereby adopted and incorporated by reference as part of this code and is hereinafter referred to as the International Property Maintenance Code.

12-502. Modifications. (1) Section 101.1 Title, of the International Property Maintenance Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(2) Whenever reference is made to the "board of appeals," such shall be deemed to refer to the Farragut Board of Plumbing and Gas/Mechanical Examiners.

(3) Section 111.2.1 Alternate members., of the International Property Maintenance Code, is amended by deleting the same in its entirety.

(4) Section 302.4 Weeds., of the International Property Maintenance Code, is amended by deleting the first sentence in its entirety and substituting in lieu thereof the following: All premises and exterior property shall be maintained free from weeds or plant growth in excess of twelve (12) inches.

12-503. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Property Maintenance Code has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-504. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Property Maintenance Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Property Maintenance Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Property Maintenance Code or otherwise.

12-504. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

AGENDA NUMBER

VII.A.6

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-08, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 6. International Energy Conservation Code, to adopt the International Energy Conservation Code, 2012 Edition

INTRODUCTION: Prior to the adoption of the 2006 ICC codes, the Town was under the 1992 edition of the Model Energy Code. When the Town adopted the International Building Code, 2006 Edition, we deleted the Model Energy Code because the energy requirements had become a part of the building code. The 2012 edition of the ICC codes has separated out the energy codes into a freestanding code, the International Energy Conservation Code, 2012 Edition.

DISCUSSION: For the past two years the Town staff has been participating in the training of the 2012 editions of the various International Codes. Town staff also participated in two separate training sessions on 2012 ICC Codes with the Home Builders Association and other construction stakeholders. Specifically related to the Energy Code, John Householder, Codes Officer-Commercial Plans Examiner, conducted a training class on the Energy Code here at the Town Hall on March 12. To remain current with ISO requirements and state law, the town must adopt new codes a minimum of every six years.

Staff is recommending adoption of the International Energy Conservation Code, 2012 Edition, as published by the International Code Council, Inc.

There are two sections of the Energy Code. The first section of the code applies to commercial building and the buildings sites and associated systems and equipment. The second section of the code applies to residential buildings and the buildings sites and associated systems and equipment. Both sections of this code regulate the design and construction of buildings for the effective use and conservation of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

One of the proposed amendments to the code includes the Board of Plumbing and Gas/Mechanical Examiners serving as the Board of Appeals and following our current practices. The rest of the amendments deal with the staging of the minimum requirements over time and clarifying third party testers/verifiers qualifications. Staff is recommending the following:

Duct Tightness / Post-Construction – Total cfm/100 square feet upon adoption shall be a maximum of 12%.

Duct Tightness / Post-Construction – Total cfm/100 square feet after 7/1/2014 shall be a maximum of 8%.

Duct Tightness / Post-Construction – Total cfm/100 square feet after 7/1/2015 shall be a maximum of 4%.

Duct Tightness / Post-Construction – cfm/100 square feet to Outside upon adoption shall be a maximum of 8%.

Duct Tightness / Post-Construction – cfm/100 square feet to Outside after 7/1/2014 shall be a maximum of 6%.

Duct Tightness / Post-Construction – cfm/100 square feet to Outside after 7/1/2015 shall be a maximum of 4%.

Duct Tightness / Rough-In – cfm/100 square feet upon adoption shall be a maximum of 6%.

Duct Tightness / Rough-In – cfm/100 square feet after 2/1/2014 shall be a maximum of 5%.

Duct Tightness / Rough-In – cfm/100 square feet after 2/1/2015 shall be a maximum of 4%.

This staging will allow builders to learn the new construction techniques over time rather than requiring these minimums to be met immediately upon adoption. Staff is also recommending that we maintain the R-13 wood frame R-value at this time rather than increasing the requirement to “20 or 13 + 5”. The “20 or 13 + 5” insulation would require 2 x 6 studs or exterior foam board. Due to the historic problems of stucco, we are opting to wait until the technology catches up to this requirement. We passed a similar amendment to this when we adopted the 2006 codes. Once the new insulation was available in this area, we amended the code accordingly.

Several residential builders in this area are already constructing homes that comply and/or surpass this energy code. Schaad Properties for example, construct Energy Star certified homes. These homes save up to 50% in energy usage.

Attached please find a 2012 IBC summary entitled “Effective Use of the International Energy Conservation Code”.

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer

John Householder, Codes Officer – Commercial Plans Examiner

Elliott Sievers, Codes Officer

Dan Johnson, Fire Marshal

Colin Cumbesty, Fire Inspector

Ruth Hawk, Community Development Director

Recommends approval of Ordinance 13-08

PROPOSED MOTION: Move to approve Ordinance 13-08.

Effective Use of the International Energy Conservation Code

The *International Energy Conservation Code* (IECC) is a model code that regulates minimum energy conservation requirements for new buildings. The IECC addresses energy conservation requirements for all aspects of energy uses in both commercial and residential construction, including heating and ventilating, lighting, water heating, and power usage for appliances and building systems.

The IECC is a design document. For example, before one constructs a building, the designer must determine the minimum insulation *R*-values and fenestration *U*-factors for the building exterior envelope. Depending on whether the building is for residential use or for commercial use, the IECC sets forth minimum requirements for exterior envelope insulation, window and door *U*-factors and SHGC ratings, duct insulation, lighting and power efficiency, and water distribution insulation.

Arrangement and Format of the 2012 IECC

The IECC contains two separate sets of provisions—one for commercial buildings and one for residential buildings. Each set of provisions are applied separately to buildings within their scope. The IECC—Commercial Provisions apply to all buildings except for residential buildings 3 stories or less in height. The IECC—Residential Provisions apply to detached one- and two-family dwellings and multiple single family dwellings as well as Group R-2, R-3 and R-4 buildings three stories or less in height. These scopes are based on the definitions of “commercial building” and “residential building,” respectively, in Chapter 2 of each set of provisions. Note that the IECC—Commercial Provisions therefore contain provisions for residential buildings 4 stories or greater in height. Each set of provisions is divided into 4 different parts:

Chapters	Subjects
1-2	Administration and definitions
3	Climate zones and general materials requirements
4	Energy efficiency requirements
5	Referenced standards

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Energy Conservation Code* and applies to both the commercial and residential energy provisions:

Chapter 1 Administration. This chapter contains provisions for the application, enforcement and administration of subsequent requirements of the code. In addition to establishing the scope of the code, Chapter 1 identifies which buildings and structures come under its purview. Chapter 1 is largely concerned with maintaining “due process of law” in enforcing the energy conservation criteria contained in the body of the code. Only through careful observation of the administrative provisions can the building official reasonably expect to demonstrate that “equal protection under the law” has been provided.

Chapter 2 Definitions. All terms that are defined in the code are listed alphabetically in Chapter 2. While a defined term may be used in one chapter or another, the meaning provided in Chapter 2 is applicable throughout the code.

Additional definitions regarding climate zones are found in Tables 301.3(1) and (2). These are not listed in Chapter 2.

Where understanding of a term’s definition is especially key to or necessary for understanding of a particular code provision, the term is shown in *italics* wherever it appears in the code. This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known.

Guidance regarding tense, gender and plurality of defined terms as well as guidance regarding terms not defined in this code is provided.

Chapter 3 General Requirements. Chapter 3 specifies the climate zones that will serve to establish the exterior design conditions. In addition, Chapter 3 provides interior design conditions that are used as a basis for assumptions in heating and cooling load calculations, and provides basic material requirements for insulation materials and fenestration materials.

Climate has a major impact on the energy use of most buildings. The code establishes many requirements such as wall and roof insulation *R*-values, window and door thermal transmittance requirement (*U*-factors) as well as provisions that affect the mechanical systems based upon the climate where the building is located. This chapter contains information that will be used to properly assign the building location into the correct climate zone and is used as the basis for establishing requirements or elimination of requirements.

Chapter 4 Energy Efficiency. Chapter 4 of each set of provisions contains the technical requirements for energy efficiency.

Commercial Energy Efficiency. Chapter 4 of the IECC—Commercial Provisions contains the energy-efficiency-related requirements for the design and construction of most types of commercial buildings and residential buildings greater than three stories in height above grade. Residential buildings, townhouses and garden apartments three stories or less in height are covered in the IECC—Residential Provisions. This chapter defines requirements for the portions of the building and building systems that impact energy use in new commercial construction and new residential construction greater than three stories in height, and promotes the effective use of energy. The provisions within the chapter promote energy efficiency in the building envelope, the heating and cooling system and the service water heating system of the building.

Residential Energy Efficiency. Chapter 4 of the IECC—Residential Provisions contains the energy-efficiency-related requirements for the design and construction of residential buildings regulated under this code. It should be noted that the definition of a *residential building* in this code is unique for this code. In this code, a *residential building* is a detached one- and two-family dwelling and multiple single family dwellings as well as R-2, R-3 or R-4 building three stories or less in height. All other buildings, including residential buildings greater than three stories in height, are regulated by the energy conservation requirements in the IECC—Commercial Provisions. The applicable portions of a residential building must comply with the provisions within this chapter for energy efficiency. This chapter defines requirements for the portions of the building and building systems that impact energy use in new residential construction and promotes the effective use of energy. The provisions within the chapter promote energy efficiency in the building envelope, the heating and cooling system and the service water heating system of the building.

Chapter 5 Referenced Standards. The code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 5 contains a comprehensive list of all standards that are referenced in the code. The standards are part of the code to the extent of the reference to the standard. Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the code official, contractor, designer and owner.

Chapter 5 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

ORDINANCE: 13-08
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 6. RESERVED, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL ENERGY CONSERVATION CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 6. Reserved, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 6. Reserved, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 6

INTERNATIONAL ENERGY CONSERVATION CODE

SECTION

- 12-601. International Energy Conservation Code adopted.
- 12-602. Modifications.
- 12-603. Available in recorder's office.
- 12-604. Violation.
- 12-605. Presumed certification.
- 12-606. Repeated inspections.
- 12-607. Validity.

12-601. International Energy Conservation Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of regulating the design and construction of buildings for the effective use and conservation of energy over the useful life of each building, the International Energy Conservation Code, 2012 Edition, as published by the International Code Council, Inc., is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the International Energy and Conservation Code.

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12-602. Modifications. (1) The International Energy Conservation Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) Section C101.1 Title, of the International Energy Conservation Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(3) Section R101.1 Title, of the International Energy Conservation Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(4) Section C109 Board of Appeals, of the International Energy Conservation Code, is amended by adding the following:

C109.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

C109.5 Application. Application to board of appeals shall be made prior to commencement of construction.

C109.6 Notice of meeting. The board shall meet upon notice from the chairman, within twenty (20) days of the filing of an appeal, or at stated periodic meetings.

C109.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

C109.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

C109.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

C109.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

C109.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

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(5) Section R109 Board of Appeals, of the International Energy Conservation Code, is amended by adding the following:

R109.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

R109.5 Application. Application to board of appeals shall be made prior to commencement of construction.

R109.6 Notice of meeting. The board shall meet upon notice from the chairman, within twenty (20) days of the filing of an appeal, or at stated periodic meetings.

R109.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

R109.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

R109.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

R109.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

R109.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

(6) Section R402 Building Thermal Envelope, of the International Energy Conservation Code, is amended by adding the following infiltration rates:

Blower Door – Air changes per hour at 50 pascals upon adoption shall be a maximum of 6.
Blower Door – Air changes per hour at 50 pascals after 7/1/2014 shall be a maximum of 4.
Blower Door – Air changes per hour at 50 pascals after 7/1/2015 shall be a maximum of 3.

(7) Section R402 Building Thermal Envelope, Table R402.1.1 "Insulation and Fenestration Requirements by Component", of the International Energy Conservation Code, is

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amended by replacing "20 or 13 + 5" in the Wood Frame R-Value column with R-13 for "Climate Zone 4 except Marine".

(8) Section R402.4.1.2 Testing, of the International Energy Conservation Code, is amended by adding the following:

Third party verifiers/testers shall be certified by a town recognized professional certifying agency, such as ENERGYSTAR, RESNET, or BPI.

(9) Section R403 Systems, of the International Energy Conservation Code, is amended by adding the following:

Duct leakage shall be satisfied by meeting one of the following options:

Option A:

Total Duct Leakage at Rough-In:

Upon Adoption	Total duct leakage shall be less than or equal to 6 CFM 25 pascals per 100 square feet of conditioned floor area and only after all ducts and air handler(s) have been installed. Leakage limits shall be assessed on a per-system, rather than per-home, basis.
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07/01/2014	Duct leakage to outdoors shall be less than or equal to 5 CFM 25 pascals per 100 square feet of conditioned floor area.
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07/01/2015	Duct leakage to outdoors shall be less than or equal to 4 CFM 25 pascals per 100 square feet of conditioned floor area.
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Option B:

Total Duct Leakage at Post Construction

Upon Adoption	Duct leakage to outdoors shall be less than or equal to 12 CFM 25 pascals per 100 square feet of conditioned floor area and only after all components of the system have been installed (e.g., air handler and register grilles). Leakage limits shall be assessed on a per-system, rather than per-home, basis.
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07/01/2014	Total duct leakage shall be less than or equal to 8 CFM 25 pascals per 100 square feet of conditioned floor area.
07/01/2015	Total duct leakage shall be less than or equal to 4 CFM 25 pascals per 100 square feet of conditioned floor area.

Option C:

Duct Leakage to Outdoors at Post Construction

Upon Adoption: Duct leakage to outdoors shall be less than or equal to 8 CFM 25 pascals per 100 square feet of conditioned floor area and only after all components of the system have been installed (e.g., air handler and register grilles). Leakage limits shall be assessed on a per-system, rather than per-home, basis.

07/01/2014	Duct leakage to outdoors shall be less than or equal to 6 CFM 25 pascals per 100 square feet of conditioned floor area.
07/01/2015	Duct leakage to outdoors shall be less than or equal to 4 CFM 25 pascals per 100 square feet of conditioned floor area.

12-603. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Energy Conservation Code, 2012 Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-604. Violation. Any person who shall violate a provision of the International Energy Conservation Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12-605. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Energy Conservation Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity

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performed is in full compliance with the terms of the International Energy Conservation Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Energy Conservation Code or otherwise.

12-606. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the codes official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

12-607. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

Dr. Ralph McGill, Mayor

Allison Myers, Town Recorder

AGENDA NUMBER VII.A.7.

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-09, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 8. Swimming Pool Code, to adopt the International Swimming Pool and Spa Code, 2012 Edition

INTRODUCTION: The Town is currently under the Standard Swimming Pool Code, 1999 Edition. The Town opted to stay under the 1999 code because there was no swimming pool code in the ICC 2006 series. All codes are adopted by reference.

DISCUSSION: The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location and maintenance or use of swimming pools, aquatic facilities, spas and hot tubs, and related equipment.

Staff is recommending adoption of the International Swimming Pool and Spa Code, 2012 Edition, as published by the International Code Council, Inc. The proposed amendment to the code includes that the Board of Plumbing and Gas/Mechanical Examiners would serve as the Board of Appeals and would follow our current practices.

Attached please find a 2012 ISPSC summary entitled "Effective Use of the International Swimming Pool and Spa Code".

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer
John Householder, Codes Officer – Commercial Plans Examiner
Elliott Sievers, Codes Officer
Dan Johnson, Fire Marshal
Colin Cumenty, Fire Inspector
Ruth Hawk, Community Development Director
Recommends approval of Ordinance 13-09

PROPOSED MOTION: Move to approve Ordinance 13-09.

BOARD ACTION:

MOTION BY: _____ SECONDED

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

EFFECTIVE USE OF THE INTERNATIONAL SWIMMING POOL AND SPA CODE

The *International Swimming Pool and Spa Code* (ISPSC) is a model code that regulates the minimum requirements for the design, construction, alteration, repair and maintenance of swimming pools, spas, hot tubes and aquatic facilities. This includes public swimming pools, public spas, public exercise spas, aquatic recreation facilities, onground storable residential pools, permanent inground residential pools, permanent residential spas, permanent residential exercise spas, portable residential spas and portable residential exercise spas. In this code, these applications fall under the defined term “aquatic vessels” in Chapter 2.

In many jurisdictions, in addition to code officials having the responsibility for reviewing plans and inspecting the construction of aquatic vessels, environmental health officials also have a responsibility for oversight of the operation of aquatic vessels. In order to prevent disease and prevent injuries, environmental health officials conduct operational evaluations (inspections). This may include water chemistry, credentials and training of pool operators and lifeguards, proper water circulation, facility staff’s preparedness to respond to injuries and accidents, and proper sanitation and safety of the facility.

Code officials and environmental health officials commonly work closely in the plan review and inspection of aquatic vessels. This collaboration between departments to jointly review plans and inspect aquatic vessels is critical in order to achieve a safe and healthy environment for all that utilize these facilities.

The Association of Pool & Spa Professionals (APSP), a cooperating sponsor with ICC in the development and update of the ISPSC, further notes: “While it is recognized that proper construction and installation are essential, safe use of pools and spas requires common sense, including constant adult supervision of children, and proper maintenance. It is assumed and intended that pool users will exercise appropriate personal judgment and responsibility (including constant adult supervision of children) and that operators will create and enforce rules and warning appropriate for their pool/spa.”

Arrangement and Format of the 2012 ISPSC

The format of the ISPSC allows each chapter to be devoted to a particular subject with the exception of Chapter 3 which contains general compliance subject matter that is coordinated with the provisions for each type of aquatic vessel regulated in Chapters 4 – 10. The ISPSC is divided into eleven different parts:

Chapters	Subjects
1	Scope and Administration
2	Definitions
3	General Compliance
4	Public Swimming Pools
5	Public Spas and Public Exercise Spas
6	Aquatic Recreation Facilities
7	Onground Storable Residential Swimming Pools
8	Permanent Inground Residential Swimming Pools
9	Permanent Residential Spas and Permanent Residential Exercise Spas
10	Portable Residential Spas and Portable Residential Exercise Spas
11	Referenced Standards

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Swimming Pool and Spa Code*:

Chapter 1 Scope and Administration. This chapter contains provisions for the application, enforcement and administration of subsequent requirements of the code. The scope is noted as applying to “aquatic vessels,” a term which is defined in Chapter 2. In addition to establishing the scope of the code, Chapter 1 identifies which swimming pools and spas come under its purview. Chapter 1 is largely concerned with maintaining “due process of law” in enforcing the design and construction criteria contained in the body of the code. Only through careful observation of the administrative provisions can the code official reasonably expect to demonstrate that “equal protection under the law” has been provided.

Chapter 2 Definitions. All terms that are defined in the code are listed alphabetically in Chapter 2. While a defined term may be used in one chapter or another, the meaning provided in Chapter 2 is applicable throughout the code. Of specific importance is the definition of “aquatic vessels” which addresses the types of vessels regulated by the code and specific water depth considerations which dictate the application of the code.

Where understanding of a term’s definition is especially key to or necessary for understanding of a particular code provision, the term is shown in *italics* wherever it appears in the code. This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known.

Guidance regarding tense, gender and plurality of defined terms as well as guidance regarding terms not defined in this code is provided.

Chapter 3 General Compliance. Chapter 3, “General Compliance,” is broad in scope. It includes a variety of requirements for pools and spas. This chapter provides requirements that are intended to maintain a minimum level of safety and sanitation for both the general public and the users of pools or spas. Chapter 3 provides specific criteria for electrical, plumbing, mechanical and fuel gas requirements; energy savings requirements; construction in flood hazard areas; barrier requirements; decks around pools and spas; general design; dimensional design; equipment; suction entrapment avoidance; circulation systems; filters; pumps and motors; return and suction fittings; skimmers; heaters; air blowers and air induction systems; water supply; sanitizing equipment; waste water disposal; lighting; ladders and recessed treads; and safety. It is important to note that Chapter 3 is intended to provide general requirements not found in Chapters 4 – 10. Chapters 4 – 10 specifically reference Chapter 3 in order to coordinate the general provisions with the specific provisions based on the type of vessel.

Chapter 4 Public Swimming Pools. The purpose of Chapter 4 is to set forth specific requirements in the code for public swimming pools with regard to diving equipment, bather load limitations, rest ledges, wading pools, decks, deck equipment, filters, dressing and sanitary facilities, special features and signage. The term “public swimming pool” is defined in Chapter 2 and includes the different classes of pools (Class A – Class E).

Chapter 5 Public Spas and Public Exercise Spas. Chapter 5 establishes the specific criteria for public spas and public exercise spas with regard to materials, structure and design, pumps and motors, return and suction fittings, heater and temperature requirements, water supply, sanitation, oxidation equipment and chemical feeders, and safety features. The term “spa” is defined in Chapter 2.

Chapter 6 Aquatic Recreation Facilities. The purpose of Chapter 6 is to establish specific requirements for aquatic recreation facilities with regard to floors, markings and indications, circulation systems, handholds and ropes, depths, barriers, number of occupants, toilet rooms and bathrooms, special features and signage. The term “aquatic recreation facilities” is defined in Chapter 2 and includes wave pools, leisure rivers, inner tube rides and body slides, to name a few.

Chapter 7 Onground Storable Residential Swimming Pools. The purpose of Chapter 7 is to establish specific requirements for onground storable residential swimming pools with regard to ladders and stairs, decks and circulation systems. The term "onground storable pool" is defined in Chapter 2. This chapter applies to what has been commonly referred to in past standards and codes as onground or above-ground pools. The application of the provisions for onground residential pools is limited to pools associated with detached one- and two-family dwellings and townhouses not more than three stories high in accordance with the definition of the term "residential" in Chapter 2.

Chapter 8 Permanent Inground Residential Swimming Pools. The purpose of Chapter 8 is to establish specific requirements for permanent inground residential swimming pools with regard to design, construction tolerances, diving water envelopes, walls, offset ledges, pool floors, diving equipment, special features, circulation systems and safety features. The application of the provisions for inground residential pools is limited to pools associated with detached one- and two-family dwellings and townhouses not more than three stories high in accordance with the definition of the term "residential" in Chapter 2.

Chapter 9 Permanent Residential Spas and Permanent Residential Exercise Spas. The purpose of Chapter 9 is to establish specific requirements for permanent residential spas and permanent residential exercise spas with regard to safety features. The application of the provisions for residential spas ("spa" is defined in Chapter 2) is limited to spas associated with detached one- and two-family dwellings and townhouses not more than three stories high in accordance with the definition of the term "residential" in Chapter 2.

Chapter 10 Portable Residential Spas and Portable Residential Exercise Spas. The purpose of Chapter 10 is to establish specific requirements for portable residential spas and portable residential exercise spas with regard to standards that the equipment must meet. The application of the provisions for residential spas ("spa" is defined in Chapter 2) is limited to spas associated with detached one- and two-family dwellings and townhouses not more than three stories high in accordance with the definition of the term "residential" in Chapter 2.

Chapter 11 Referenced Standards. The code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 11 contains a comprehensive list of all standards that are referenced in the code. The standards are part of the code to the extent of the reference to the standard. Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the code official, contractor, designer and owner.

Chapter 11 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

ORDINANCE: 13-09
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 8. SWIMMING POOL CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL SWIMMING POOL AND SPA CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 8. Swimming Pool Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 8. Swimming Pool Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 8

INTERNATIONAL SWIMMING POOL AND SPA CODE

SECTION

- 12-801. International Swimming Pool and Spa Code adopted.
- 12-802. Modifications.
- 12-803. Available in recorder's office.
- 12-804. Violation.
- 12-805. Presumed certification.
- 12-806. Repeated inspections.
- 12-807. Validity.

12-801. International Swimming Pool and Spa Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of protection for public health, welfare, and safety by prescribing minimum standards for the

ORDINANCE 13-09

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design, construction, or installation, repair or alterations of swimming pools, public or private, and equipment related thereto, the International Swimming Pool and Spa Code, 2012 Edition, as published by the International Code Council, Inc., is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the International Swimming Pool and Spa Code.

12-802. Modifications. (1) The International Swimming Pool and Spa Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) Section 101.1 Title, of the International Swimming Pool and Spa Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(3) The International Swimming Pool and Spa Code, is amended by deleting Section 108 Means of Appeal, in its entirety and substituting in lieu thereof the following:

SECTION 108 MEANS OF APPEAL

108.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

108.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

108.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

108.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

108.5. Application. Application to board of appeals shall be made prior to commencement of construction.

ORDINANCE 13-09

Page 3

108.6 Notice of meeting. The board shall meet upon notice from the chairman, within twenty (20) days of the filing of an appeal, or at stated periodic meetings.

108.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

108.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

108.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

108.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

108.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

(4) The International Swimming Pool and Spa Code, is amended by deleting Section 305.4 Structure wall as a barrier, in its entirety and substituting in lieu thereof the following: "Tennessee Code Annotated 68-14-801 through 68-14-807, also known as "Katie Beth's Law", shall apply.

12-803. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Swimming Pool and Spa Code, 2012 Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-804. Violation. Any person who shall violate a provision of the International Swimming Pool and Spa Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12-805. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Swimming Pool and Spa Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Swimming Pool and Spa Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Swimming Pool and Spa Code or otherwise.

12-806. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the codes official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

12-807. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

AGENDA NUMBER

VII.A.8

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-10, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 9. Reserved, to adopt the Accessible and Usable Buildings and Facilities ICC A117.1-2009, ANSI American National Standard

INTRODUCTION: The Town's current accessibility requirements are through the 2006 Building Code, which references the Accessible and Usable Buildings and Facilities ICC A117.1-2003, ANSI American National Standard. At the time we adopted the 2006 codes, the State of Tennessee had also adopted this Accessibility Code. Because of the changing in the wording of the 2012 Building Code and changes at the State, we felt it best to clarify that we are adopting ANSI 2009 Accessibility Code.

DISCUSSION: The intent of this code is to allow a person with a physical disability to independently get to, enter, and use a site, facility, building, or element.

Staff is recommending adoption of the Accessible and Usable Buildings and Facilities ICC A117.1-2009, ANSI American National Standard, as published by the International Code Council, Inc. We are proposing no amendments to this code.

Attached please find the FORWARD and the Table of Contents of this code. The FORWARD gives a brief history of the development of the code and the Table of Contents indicates what areas are covered by the code.

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer
John Householder, Codes Officer – Commercial Plans Examiner
Elliott Sievers, Codes Officer
Dan Johnson, Fire Marshal
Colin Cumesty, Fire Inspector
Ruth Hawk, Community Development Director
Recommends approval of Ordinance 13-10

PROPOSED MOTION: Move to approve Ordinance 13-10.

BOARD ACTION:

MOTION BY: _____ SECONDED
BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

FOREWORD

(The information contained in this foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, this foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the standard.)

Development

The 1961 edition of ANSI Standard A117.1 presented the first criteria for accessibility to be approved as an American National Standard and was the result of research conducted by the University of Illinois under a grant from the Easter Seal Research Foundation. The National Easter Seal Society and the President's Committee on Employment of People with Disabilities became members of the Secretariat, and the 1961 edition was reaffirmed in 1971.

In 1974, the U.S. Department of Housing and Urban Development joined the Secretariat and sponsored needed research, which resulted in the 1980 edition. After further revision that included a special effort to remove application criteria (scoping requirements), the 1986 edition was published and, when requested in 1987, the Council of American Building Officials (CABO) assumed the Secretariat. Central to the intent of the change in the Secretariat was the development of a standard that, when adopted as part of a building code, would be compatible with the building code and its enforcement. The 1998 edition largely achieved that goal. The 2009 edition of the standard is the latest example of the A117.1 committee's effort to continue developing a standard that is compatible with the building code. (When CABO was consolidated into the International Code Council (ICC) in 1998, the Secretariat duties were assumed by ICC.)

2009 Edition

New to the 2009 edition are coordinated criteria for the various types of dwelling units that provide a step-down between the unit types; technical requirements for Type C (Visitable) Units; Variable Message Signs (i.e., signs that change the information they show such as gate information in train stations and airports); better consistency of sign requirements regarding when raised characters and braille are required; location of toilet paper dispenser (more design options, recessed fixtures addressed, single point of measurement, etc.); a new chapter for a variety of types of recreational facilities; an index and margin markings that will help users find requirements and identify changes from the 2003 edition. In addition, the new standard continued to provide a level of coordination between the accessible provisions of this standard and the Fair Housing Accessibility Guidelines (FHAG) and the newly released Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines (ADA & ABA AG).

ANSI Approval

This Standard was processed and approved for submittal to ANSI by the Accredited Standards Committee A117 on Architectural Features and Site Design of Public Buildings and Residential Structures for Persons with Disabilities. ANSI approved the 2009 edition on October 20, 2010. Committee approval of the Standard does not necessarily imply that all Committee members voted for its approval.

Adoption

ICC A117.1–2009 is available for adoption and use by jurisdictions internationally. Its use within a governmental jurisdiction is intended to be accomplished through adoption by reference in accordance with proceedings establishing the jurisdiction's laws.

Formal Interpretations

Requests for Formal Interpretations on the provisions of ICC A117.1–2009 should be addressed to: ICC, Chicago District Office, 4051 W. Flossmoor Road, Country Club Hills, IL 60478–5795.

Maintenance—Submittal of Proposals

All ICC standards are revised as required by ANSI. Proposals for revising this edition are welcome. Please visit the ICC website at www.iccsafe.org for the official "Call for proposals" announcement. A proposal form and instructions can also be downloaded from www.iccsafe.org.

ICC, its members and those participating in the development of ICC A117.1-2009 do not accept any liability resulting from compliance or noncompliance with the provisions of ICC A117.1-2009. ICC does not have the power or authority to police or enforce compliance with the contents of this standard. Only the governmental body that enacts this standard into law has such authority.

Marginal Markings

Solid vertical lines in the margins within the body of the code indicate a technical change from the requirements of the 2003 edition. Deletion indicators in the form of an arrow (⇒) are provided in the margin where an entire section, paragraph, exception or table has been deleted or an item in a list of items or a table has been deleted.

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ORDINANCE: 13-10
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 9. RESERVED, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE ACCESSIBLE AND USABLE BUILDING AND FACILITIES ICC A117.1-2009

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 9. Reserved, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 9. Reserved, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 9

ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

SECTION

- 12-901. Accessible and Usable Building and Facilities adopted.
- 12-902. Available in recorder's office.
- 12-903. Violation.
- 12-904. Presumed certification.
- 12-905. Validity.

12-901. Accessible and Usable Building and Facilities adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of allowing a person with a physical disability to independently get to, enter, and use a site, facility, building or element, the Accessible and Usable Buildings and Facilities ICC A117.1-2009, ANSI American National Standard, as published by the International Code Council, Inc., is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the Accessibility Code.

ORDINANCE 13-10

Page 2

12-902. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the Accessibility Code, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-903. Violation. Any person who shall violate a provision of the Accessibility Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12-904. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the Accessibility Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the Accessibility Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the Accessibility Code or otherwise.

12-905. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

Dr. Ralph McGill, Mayor

Allison Myers, Town Recorder

AGENDA NUMBER

VII.A.9

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-11, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 10. International Mechanical Code, to adopt the International Mechanical Code, 2012 Edition

INTRODUCTION: The Town is currently under the International Mechanical Code, 2006 Edition. All codes are adopted by reference.

DISCUSSION: For the past two years the Town staff has been participating in the training of the 2012 editions of the various International Codes. Town staff also participated in two separate training sessions on 2012 ICC Codes with the Home Builders Association and other construction stakeholders. To remain current with ISO requirements and state law, the town must adopt new codes a minimum of every six years.

The provisions of the plumbing code shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance or use of mechanical systems.

Staff is recommending adoption of the International Mechanical Code, 2012 Edition, including Appendix A (Chimney Connector Pass-throughs), as published by the International Code Council, Inc.

The proposed amendments to the code are identical to what we currently have adopted. This includes the Board of Plumbing and Gas/Mechanical Examiners serving as the Board of Appeals and following our current practices.

Attached please find a 2012 IPC summary entitled "Effective Use of the International Mechanical Code".

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer

John Householder, Codes Officer – Commercial Plans Examiner

Elliott Sievers, Codes Officer

Dan Johnson, Fire Marshal

Colin Cumesty, Fire Inspector

Ruth Hawk, Community Development Director
Recommends approval of Ordinance 13-11

PROPOSED MOTION: Move to approve Ordinance 13-11.

BOARD ACTION:

MOTION BY: _____ **SECONDED**

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

Effective Use of the International Mechanical Code

The *International Mechanical Code*® (IMC®) is a model code that regulates the design and installation of mechanical systems, appliances, appliance venting, duct and ventilation systems, combustion air provisions, hydronic systems and solar systems. The purpose of the code is to establish the minimum acceptable level of safety and to protect life and property from the potential dangers associated with the installation and operation of mechanical systems. The code also protects the personnel that install, maintain, service and replace the systems and appliances addressed by this code.

The IMC is primarily a prescriptive code with some performance text. The code relies heavily on product specifications and listings to provide much of the appliance and equipment installation requirements. The general Section 105.2 and the exception to Section 403.2 allow designs and installations to be performed by approved engineering methods as alternatives to the prescriptive methods in the code.

The format of the IMC allows each chapter to be devoted to a particular subject with the exception of Chapter 3, which contains general subject matters that are not extensive enough to warrant their own independent chapter.

Chapter 1 Scope and Administration. Chapter 1 establishes the limits of applicability of the code and describes how the code is to be applied and enforced. A mechanical code, like any other code, is intended to be adopted as a legally enforceable document and it cannot be effective without adequate provisions for its administration and enforcement. The provisions of Chapter 1 establish the authority and duties of the code official appointed by the jurisdiction having authority and also establish the rights and privileges of the design professional, contractor and property owner.

Chapter 2 Definitions. Chapter 2 is the repository of the definitions of terms used in the body of the code. Codes are technical documents and every word and term can impact the meaning of the code text and the intended results. The code often uses terms that have a unique meaning in the code and the code meaning can differ substantially from the ordinarily understood meaning of the term as used outside of the code.

The terms defined in Chapter 2 are deemed to be of prime importance in establishing the meaning and intent of the code text that uses the terms. The user of the code should be familiar with and consult this chapter because the definitions are essential to the correct interpretation of the code and because the user may not be aware that a term is defined.

Chapter 3 General Regulations. Chapter 3 contains broadly applicable requirements related to appliance location and installation, appliance and systems access, protection of structural elements, condensate disposal and clearances to combustibles, among others.

Chapter 4 Ventilation. Chapter 4 includes means for protecting building occupant health by controlling the quality of indoor air and protecting property from the effects of inadequate ventilation. In some cases, ventilation is required to prevent or reduce a health hazard by removing contaminants at their source.

Ventilation is both necessary and desirable for the control of air contaminants, moisture and temperature. Habitable and occupiable spaces are ventilated to promote a healthy and comfortable environment for the occupants. Uninhabited and unoccupied spaces are ventilated to protect the building structure from the harmful effects of excessive humidity and heat. Ventilation of specific occupancies is necessary to minimize the potential for toxic or otherwise harmful substances to reach dangerously high concentrations in air.

Chapter 5 Exhaust Systems. Chapter 5 provides guidelines for reasonable protection of life, property and health from the hazards associated with exhaust systems, air contaminants and smoke development in the event of a fire. In most cases, these hazards involve materials and gases that are flammable, explosive, toxic or otherwise hazardous. Where contaminants are known to be present in quantities that are irritating or harmful to the occupants' health or are hazardous in a fire, both naturally and mechanically ventilated spaces must be equipped with mechanical exhaust systems capable of collecting and removing the contaminants.

This chapter contains requirements for the installation of exhaust systems, with an emphasis on the structural integrity of the systems and equipment involved and the overall impact of the systems on the fire safety performance of the building. It includes requirements for the exhaust of commercial kitchen grease- and smoke-laden air, hazardous fumes and toxic gases, clothes dryer moisture and heat and dust, stock and refuse materials.

Chapter 6 Duct Systems. Chapter 6 of the code regulates the materials and methods used for constructing and installing ducts, plenums, system controls, exhaust systems, fire protection systems and related components that affect the overall performance of a building's air distribution system and the reasonable protection of life and property from the hazards associated with air-moving equipment and systems. This chapter contains requirements for the installation of supply, return and exhaust air systems. Specific exhaust systems are also addressed in Chapter 5. Information on the design of duct systems is limited to that in Section 603.2. The code is very much concerned with the structural integrity of the systems and the overall impact of the systems on the fire safety and life safety performance of the building. Design considerations such as duct sizing, maximum efficiency, cost effectiveness, occupant comfort and convenience are the responsibility of the design professional. The provisions for the protection of duct penetrations of wall, floor, ceiling and roof assemblies are extracted from the *International Building Code*.

Chapter 7 Combustion Air. Complete combustion of solid and liquid fuel is essential for the proper operation of appliances, for control of harmful emissions and for achieving maximum fuel efficiency.

The specific combustion air requirements provided in previous editions of the code have been deleted in favor of a single section that directs the user to NFPA 31 for oil-fired appliance combustion air requirements and the manufacturer's installation instructions for solid-fuel burning appliances. For gas-fired appliances, the provisions of the *International Fuel Gas Code* are applicable.

Chapter 8 Chimneys and Vents. Chapter 8 is intended to regulate the design, construction, installation, maintenance, repair and approval of chimneys, vents and their connections to solid and liquid fuel-burning appliances. The requirements of this chapter are intended to achieve the complete removal of the products of combustion from fuel-burning appliances and equipment. This chapter includes regulations for the proper selection, design, construction and installation of a chimney or vent, along with appropriate measures to minimize the related potential fire hazards. A chimney or vent must be designed for the type of appliance or equipment it serves. Chimneys and vents are designed for specific applications depending on the flue gas temperatures and the type of fuel being burned in the appliance. Chimneys and vents for gas-fired appliances are covered in the *International Fuel Gas Code*.

Chapter 9 Specific Appliances, Fireplaces and Solid Fuel-burning Equipment. Chapter 9 sets minimum construction and performance criteria for fireplaces, appliances and equipment and provides for the safe installation of these items. It reflects the code's intent to specifically address all of the types of appliances that the code intends to regulate. Other regulations affecting the installation of solid fuel-burning fireplaces, appliances and accessory appliances are found in Chapters 3, 6, 7, 8, 10, 11, 12, 13 and 14.

Chapter 10 Boilers, Water Heaters and Pressure Vessels. Chapter 10 presents regulations for the proper installation of boilers, water heaters and pressure vessels to protect life and property from the hazards associated with those appliances and vessels. It applies to all types of boilers and pressure vessels, regardless of size, heat input, operating pressure or operating temperature.

Because pressure vessels are closed containers designed to contain liquids, gases or both under pressure, they must be designed and installed to prevent structural failures that can result in extremely hazardous situations. Certain safety features are therefore provided in Chapter 10 to reduce the potential for explosion hazards.

Chapter 11 Refrigeration. Chapter 11 contains regulations pertaining to the life safety of building occupants. These regulations establish minimum requirements to achieve the proper design, construction, installation and operation of refrigeration systems. Refrigeration systems are a combination of interconnected components and piping assembled to form a closed circuit in which a refrigerant is circulated. The system's function is to extract heat from a location or medium, and to reject that heat to a different location or medium. This chapter establishes reasonable safeguards for the occupants by defining and mandating practices that are consistent with the practices and experience of the industry.

Chapter 12 Hydronic Piping. Hydronic piping includes piping, fittings and valves used in building space conditioning systems. Applications include hot water, chilled water, steam, steam condensate, brines and water/antifreeze mixtures. Chapter 12 contains the provisions that govern the construction, installation, alteration and repair of all hydronic piping systems that affect reliability, serviceability, energy efficiency and safety.

Chapter 13 Fuel Oil Piping and Storage. Chapter 13 regulates the design and installation of fuel oil storage and piping systems. The regulations include reference to construction standards for above-ground and underground storage tanks, material standards for piping systems (both above-ground and underground) and extensive requirements for the proper assembly of system piping and components. The *International Fire Code* (IFC) covers subjects not addressed in detail here. The provisions in this chapter are intended to prevent fires, leaks and spills involving fuel oil storage and piping systems.

Chapter 14 Solar Systems. Chapter 14 establishes provisions for the safe installation, operation and repair of solar energy systems used for space heating or cooling, domestic hot water heating or processing. Although such systems use components similar to those of conventional mechanical equipment, many of these provisions are unique to solar energy systems.

Chapter 15 Referenced Standards. Chapter 15 lists all of the product and installation standards and codes that are referenced throughout Chapters 1 through 14. As stated in Section 102.8, these standards and codes become an enforceable part of the code (to the prescribed extent of the reference) as if printed in the body of the code. Chapter 15 provides the full title and edition year of the standards and codes in addition to the address of the promulgators and the section numbers in which the standards and codes are referenced.

Appendix A Chimney Connector Pass-throughs. Appendix A provides figures that illustrate various requirements in the body of the code. Figure A-1 illustrates the chimney connector clearance requirements of Table 803.10.4.

Appendix B Recommended Permit Fee Schedule. Appendix B provides a sample permit fee schedule for mechanical permits. The local jurisdiction can adopt this appendix and fill in the dollar amounts in the blank spaces to establish their official permit fee schedule. The ICC does not establish permit fees because the code is adopted throughout the country and there are vast differences in operating budgets between different parts of the country, as well as between large and small municipalities within the same region.

ORDINANCE: 13-11
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 10. 2006 INTERNATIONAL MECHANICAL CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL MECHANICAL CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc. Codes, Chapter 10. 2006 International Mechanical Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 10. 2006 International Mechanical Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 10

INTERNATIONAL MECHANICAL CODE

SECTION

- 12-1001. International Mechanical Code adopted.
- 12-1002. Modifications.
- 12-1003. Available in recorder's office.
- 12-1004. Violation.
- 12-1005. Presumed certification.
- 12-1006. Repeated inspections.
- 12-1007. Validity.

12-1001. International Mechanical Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of regulating mechanical installations, including alterations, repairs, equipment, appliances, fixtures, fittings and the appurtenances thereto, the International Mechanical Code, 2012 Edition, including

ORDINANCE 13-11

Page 2

Appendix A, as published by the International Code Council, Inc., is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the International Mechanical Code.

12-1002. Modifications. (1) The International Mechanical Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) Section 101.1 Title, of the International Mechanical Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(3) The International Mechanical Code, is amended by deleting Section 109 Means of Appeal, in its entirety and substituting in lieu thereof the following:

SECTION 109 MEANS OF APPEAL

109.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

109.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

109.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

109.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

109.5. Application. Application to board of appeals shall be made prior to commencement of construction.

109.6 Notice of meeting. The board shall meet upon notice from the chairman, within ten (10) days of the filing of an appeal, or at stated periodic meetings.

ORDINANCE 13-11

Page 3

109.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

109.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

109.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

109.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

109.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

(4) Section 606 Smoke Detection Systems Control, of the International Mechanical Code, is amended by adding a new section as follows:

Section 606.5 Systems with a capacity of 2,000 CFM or less. Recirculating air systems with a fan capacity of 2,000 cfm (0.9 m³/s) or less, but serving an area used for egress, shall have an automatic shutdown. Automatic shutdown may be by means of an approved smoke detector placed in the return air stream prior to any exhausting from the building or mixing with the fresh air makeup.

12-1003. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Mechanical Code, 2012 Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-1004. Violation. Any person who shall violate a provision of the International Mechanical Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12-1005. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the

ORDINANCE 13-11

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provisions of the International Mechanical Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Mechanical Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Mechanical Code or otherwise.

12-1006. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the codes official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

12-1007. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

Dr. Ralph McGill, Mayor

Allison Myers, Town Recorder

AGENDA NUMBER

VII. A. 10

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-12, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 12. Building, Utility, Etc. Codes, Chapter 11. International Residential Code, to adopt the International Residential Code, 2012 Edition

INTRODUCTION: The Town is currently under the International Residential Code for One- and Two-Family Dwellings, 2006 Edition. All codes are adopted by reference.

DISCUSSION: For the past two years the Town staff has been participating in the training of the 2012 editions of the various International Codes. Town staff also participated in two separate training sessions on 2012 ICC Codes with the Home Builders Association and other construction stakeholders. To remain current with ISO requirements and state law, the town must adopt new codes a minimum of every six years.

The provisions of the residential code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures. The purpose of this code is to establish minimum requirements to safeguard the public safety, health and general welfare through affordability, structural strength, means of egress facilities, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations.

At the time the International Residential Code for One- and Two-Family Dwellings, 2006 Edition was adopted, the town adopted several modifications to the codes so as to follow current town practices and/or dovetail the requirements with requirements found elsewhere in our Municipal Code. The majority of the amendments found in Section 12-1102. Modifications of Ordinance 13-12 are identical to the amendments that are currently in our ordinance. Please note that section numbers have changed between the 2006 and 2012 codes.

Staff is recommending adoption of the International Residential Code, 2012 Edition, including Appendix A (Sizing and Capacities of Gas Piping), Appendix B (Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances, and Appliances Listed for use with Type B Vents), Appendix C (Exit Terminals of Mechanical Draft and Direct-Vent Venting Systems), Appendix D (Recommended Procedure for Safety Inspection of an Existing Appliance Installation), Appendix E (Manufactured housing Used as Dwellings), Appendix F (Radon Control Methods), Appendix G

(Swimming Pools, Spas and Hot Tubs), Appendix H (Patio Covers), Appendix J (Existing Buildings and Structures), Appendix K (Sound Transmission), Appendix M (Home Day Care – R-3 Occupancy), Appendix N (Venting Methods), Appendix P (Sizing of Water Piping System), and Appendix Q (ICC International Residential Code Electrical Provisions/National Electrical Code Cross Reference), as published by the International Code Council, Inc.

Amendments (7), (8), (9) and (10) of Section 12-1102 are new. Amendment (7) eliminates the requirement to have a self-closing door between the house and an attached garage. Most residents would find a self-closing door to be an inconvenience and an annoyance in this setting.

Amendment (8) allows an approved air exchanger on the HVAC system which will make up the required ventilation in lieu of the dwelling unit being provided with whole-house mechanical ventilation.

Amendments (9) and (10) eliminates the requirement to have automatic fire sprinkler systems installed in townhouses and one- and two-family dwellings, but that if such systems are installed, that they meet the minimum codes.

Attached please find a 2012 IBC summary entitled "Effective Use of the International Residential Code".

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer
John Householder, Codes Officer – Commercial Plans Examiner
Elliott Sievers, Codes Officer
Dan Johnson, Fire Marshal
Colin Cumesty, Fire Inspector
Ruth Hawk, Community Development Director
Recommends approval of Ordinance 13-12

PROPOSED MOTION: Move to approve Ordinance 13-12.

BOARD ACTION:

MOTION BY: _____ **SECONDED**

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

Effective Use of the International Residential Code

Effective Use of the International Residential Code

The *International Residential Code*® (IRC®) was created to serve as a complete, comprehensive code regulating the construction of single-family houses, two-family houses (duplexes) and buildings consisting of three or more townhouse units. All buildings within the scope of the IRC are limited to three stories above grade plane. For example, a four-story single-family house would fall within the scope of the *International Building Code*® (IBC®), not the IRC. The benefits of devoting a separate code to residential construction include the fact that the user need not navigate through a multitude of code provisions that do not apply to residential construction in order to locate that which is applicable. A separate code also allows for residential and nonresidential code provisions to be distinct and tailored to the structures that fall within the appropriate code's scopes.

The IRC contains coverage for all components of a house or townhouse, including structural components, fireplaces and chimneys, thermal insulation, mechanical systems, fuel gas systems, plumbing systems and electrical systems.

The IRC is a prescriptive-oriented (specification) code with some examples of performance code language. It has been said that the IRC is the complete cookbook for residential construction. Section R301.1, for example, is written in performance language, but states that the prescriptive requirements of the code will achieve such performance.

It is important to understand that the IRC contains coverage for what is conventional and common in residential construction practice. While the IRC will provide all of the needed coverage for most residential construction, it might not address construction practices and systems that are atypical or rarely encountered in the industry. Sections such as R301.1.3, R301.2.1, R301.2.2, R320.1, R322.1, M1301.1, G2401.1 and P2601.1 refer to other codes either as an alternative to the provisions of the IRC or where the IRC lacks coverage for a particular type of structure, design, system, appliance or method of construction. In other words, the IRC is meant to be all inclusive for typical residential construction and it relies on other codes only where alternatives are desired or where the code lacks coverage for the uncommon aspect of residential construction. Of course, the IRC constantly evolves to address new technologies and construction practices that were once uncommon, but now common.

The IRC is unique in that much of it, including Chapters 3 through 9 and Chapters 34 through 43, is presented in an ordered format that is consistent with the normal progression of construction, starting with the design phase and continuing through the final trim-out phase. This is consistent with the "cookbook" philosophy of the IRC.

The IRC is divided into eight main parts, specifically, Part I—Administration, Part II—Definitions, Part III—Building Planning and Construction, Part IV—Energy Conservation, Part V—Mechanical, Part VI—Fuel Gas, Part VII—Plumbing and Part VIII—Electrical.

The following provides a brief description of the content of each chapter and appendix of the IRC:

Chapter 1 Scope and Administration. This chapter contains provisions for the application, enforcement and administration of subsequent requirements of the code. In addition to establishing the scope of the code, Chapter 1 identifies which buildings and structures come under its purview. Chapter 1 is largely concerned with maintaining "due process of law" in enforcing the building criteria contained in the body of the code. Only through careful observation of the administrative provisions can the building official reasonably expect to demonstrate that "equal protection under the law" has been provided.

Chapter 2 Definitions. Terms defined in the code are listed alphabetically in Chapter 2. It is important to note that two chapters have their own definitions sections: Chapter 24 for the defined terms that are unique to fuel gas and Chapter 35 containing terms that are applicable to electrical Chapters 34 through 43. In the case where Chapter 2 and another chapter both define the same term differently, the definition found in Chapter 24 and/or 35 is intended to prevail where the term is used in Chapter 24 and/or 35 and the definition contained in Chapter 2 is intended to prevail

where the term is used in all other locations in the code. Except where Chapter 24 or 35 has a definition that will prevail therein, the definitions in Chapter 2 are applicable throughout the code.

Additional definitions regarding skylights that are not listed in Chapter 2 are found in Section R308.6.1.

Where understanding a term's definition is key to or necessary for understanding a particular code provision, the term is shown in *italics* where it appears in the code. This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known.

Guidance regarding not only tense, gender and plurality of defined terms, but also terms not defined in this code, is provided.

Chapter 3 Building Planning. Chapter 3 provides guidelines for a minimum level of structural integrity, life safety, fire safety and livability for inhabitants of dwelling units regulated by this code. Chapter 3 is a compilation of the code requirements specific to the building planning sector of the design and construction process. This chapter sets forth code requirements dealing with light, ventilation, sanitation, minimum room size, ceiling height and environmental comfort. Chapter 3 establishes life-safety provisions including limitations on glazing used in hazardous areas, specifications on stairways, use of guards at elevated surfaces, window and fall protection, and rules for means of egress. Snow, wind and seismic design and flood-resistant construction, as well as live and dead loads, are addressed in this chapter.

Chapter 4 Foundations. Chapter 4 provides the requirements for the design and construction of foundation systems for buildings regulated by this code. Provisions for seismic load, flood load and frost protection are contained in this chapter. A foundation system consists of two interdependent components: the foundation structure itself and the supporting soil.

The prescriptive provisions of this chapter provide requirements for constructing footings and walls for foundations of wood, masonry, concrete and precast concrete. In addition to a foundation's ability to support the required design loads, this chapter addresses several other factors that can affect foundation performance. These include controlling surface water and subsurface drainage, requiring soil tests where conditions warrant and evaluating proximity to slopes and minimum depth requirements. The chapter also provides requirements to minimize adverse effects of moisture, decay and pests in basements and crawl spaces.

Chapter 5 Floors. Chapter 5 provides the requirements for the design and construction of floor systems that will be capable of supporting minimum required design loads. This chapter covers four different types: wood floor framing, wood floors on the ground, cold-formed steel floor framing and concrete slabs on the ground. Allowable span tables are provided that greatly simplify the determination of joist, girder and sheathing sizes for raised floor systems of wood framing and cold-formed steel framing. This chapter also contains prescriptive requirements for attaching a deck to the main building.

Chapter 6 Wall Construction. Chapter 6 contains provisions that regulate the design and construction of walls. The wall construction covered in Chapter 6 consists of five different types: wood framed, cold-formed steel framed, masonry, concrete and structural insulated panel (SIP). The primary concern of this chapter is the structural integrity of wall construction and transfer of all imposed loads to the supporting structure. This chapter provides the requirements for the design and construction of wall systems that are capable of supporting the minimum design vertical loads (dead, live and snow loads) and lateral loads (wind or seismic loads). This chapter contains the prescriptive requirements for wall bracing and/or shear walls to resist the imposed lateral loads due to wind and seismic.

Chapter 6 also regulates exterior windows and doors installed in walls. The chapter contains criteria for the performance of exterior windows and doors and includes provisions for window sill height, testing and labeling, vehicular access doors, wind-borne debris protection and anchorage details.

Chapter 7 Wall Covering. Chapter 7 contains provisions for the design and construction of interior and exterior wall coverings. This chapter establishes the various types of materials, materials standards and methods of application permitted for use as interior coverings, including interior plaster, gypsum board, ceramic tile, wood veneer paneling, hardboard paneling, wood shakes and wood shingles. Chapter 7 also contains requirements for the use of vapor retarders for moisture control in walls.

Exterior wall coverings provide the weather-resistant exterior envelope that protects the building's interior from the elements. Chapter 7 provides the requirements for wind resistance and water-resistive barrier for exterior wall coverings. This chapter prescribes the exterior wall coverings as well as the water-resistive barrier required beneath the exterior materials. Exterior wall coverings regulated by this section include aluminum, stone and masonry veneer, wood, hardboard, particleboard, wood structural panel siding, wood shakes and shingles, exterior plaster, steel, vinyl, fiber cement and exterior insulation finish systems.

Chapter 8 Roof-ceiling Construction. Chapter 8 regulates the design and construction of roof-ceiling systems. This chapter contains two roof-ceiling framing systems: wood framing and cold-formed steel framing. Allowable span tables are provided to simplify the selection of rafter and ceiling joist size for wood roof framing and cold-formed steel framing. Chapter 8 also provides requirements for the application of ceiling finishes, the proper ventilation of concealed spaces in roofs (e.g., enclosed attics and rafter spaces), unvented attic assemblies and attic access.

Chapter 9 Roof Assemblies. Chapter 9 regulates the design and construction of roof assemblies. A roof assembly includes the roof deck, vapor retarder, substrate or thermal barrier, insulation, vapor retarder and roof covering. This chapter provides the requirement for wind resistance of roof coverings.

The types of roof covering materials and installation regulated by Chapter 9 are: asphalt shingles, clay and concrete tile, metal roof shingles, mineral-surfaced roll roofing, slate and slate-type shingles, wood shakes and shingles, built-up roofs, metal roof panels, modified bitumen roofing, thermoset and thermoplastic single-ply roofing, sprayed polyurethane foam roofing, liquid applied coatings and photovoltaic modules/shingles. Chapter 9 also provides requirements for roof drainage, flashing, above deck thermal insulation and recovering or replacing an existing roof covering.

Chapter 10 Chimneys and Fireplaces. Chapter 10 contains requirements for the safe construction of masonry chimneys and fireplaces and establishes the standards for the use and installation of factory-built chimneys, fireplaces and masonry heaters. Chimneys and fireplaces constructed of masonry rely on prescriptive requirements for the details of their construction; the factory-built type relies on the listing and labeling method of approval. Chapter 10 provides the requirements for seismic reinforcing and anchorage of masonry fireplaces and chimneys.

Chapter 11 Energy Efficiency. The purpose of Chapter 11 is to provide minimum design requirements that will promote efficient utilization of energy in buildings. The requirements are directed toward the design of building envelopes with adequate thermal resistance and low air leakage, and toward the design and selection of mechanical, water heating, electrical and illumination systems that promote effective use of depletable energy resources. The provisions of Chapter 11 are duplicated from the *International Energy Conservation Code—Residential Provisions*, as applicable for buildings which fall under the scope of the IRC.

For ease of use and coordination of provisions, the corresponding IECC—Residential Provisions section number is indicated following the IRC section number [e.g. N1102.1 (R402.1)].

Chapter 12 Mechanical Administration. Chapter 12 establishes the limits of applicability of the code and describes how the code is to be applied and enforced. A mechanical code, like any other code, is intended to be adopted as a legally enforceable document and it cannot be effective without adequate provisions for its administration and enforcement. The provisions of Chapter 12 establish the authority and duties of the code official appointed by the jurisdiction having authority and also establish the rights and privileges of the design professional, contractor and property owner. It also relates this chapter to the administrative provisions in Chapter 1.

Chapter 13 General Mechanical System Requirements. Chapter 13 contains broadly applicable requirements related to appliance listing and labeling, appliance location and installation, appliance and systems access, protection of structural elements and clearances to combustibles, among others.

Chapter 14 Heating and Cooling Equipment. Chapter 14 is a collection of requirements for various heating and cooling appliances, dedicated to single topics by section. The common theme is that all of these types of appliances use energy in one form or another, and the improper installation of such appliances would present a hazard to the occupants of the dwellings, due to either the potential for fire or the accidental release of refrigerants. Both situations are undesirable in dwellings that are covered by this code.

Chapter 15 Exhaust Systems. Chapter 15 is a compilation of code requirements related to residential exhaust systems, including kitchens and bathrooms, clothes dryers and range hoods. The code regulates the materials used for constructing and installing such duct systems. Air brought into the building for ventilation, combustion or makeup purposes is protected from contamination by the provisions found in this chapter.

Chapter 16 Duct Systems. Chapter 16 provides requirements for the installation of ducts for supply, return and exhaust air systems. This chapter contains no information on the design of these systems from the standpoint of air movement, but is concerned with the structural integrity of the systems and the overall impact of the systems on the fire-safety performance of the building. This chapter regulates the materials and methods of construction which affect the performance of the entire air distribution system.

Chapter 17 Combustion Air. Complete combustion of solid and liquid fuel is essential for the proper operation of appliances, control of harmful emissions and achieving maximum fuel efficiency. If insufficient quantities of oxygen are supplied, the combustion process will be incomplete, creating dangerous byproducts and wasting energy in the form of unburned fuel (hydrocarbons). The byproducts of incomplete combustion are poisonous, corrosive and combustible, and can cause serious appliance or equipment malfunctions that pose fire or explosion hazards.

The combustion air provisions in this code from previous editions have been deleted from Chapter 17 in favor of a single section that directs the user to NFPA 31 for oil-fired appliance combustion air requirements and the manufacturer's installation instructions for solid fuel-burning appliances. If fuel gas appliances are used, the provisions of Chapter 24 must be followed.

Chapter 18 Chimneys and Vents. Chapter 18 regulates the design, construction, installation, maintenance, repair and approval of chimneys, vents and their connections to fuel-burning appliances. A properly designed chimney or vent system is needed to conduct the flue gases produced by a fuel-burning appliance to the outdoors. The provisions of this chapter are intended to minimize the hazards associated with high temperatures and potentially toxic and corrosive combustion gases. This chapter addresses factory-built and masonry chimneys, vents and venting systems used to vent oil-fired and solid fuel-burning appliances.

Chapter 19 Special Fuel-burning Equipment. Chapter 19 regulates the installation of fuel-burning appliances that are not covered in other chapters, such as ranges and ovens, sauna heaters, fuel cell power plants and hydrogen systems. Because the subjects in this chapter do not contain the volume of text necessary to warrant individual chapters, they have been combined into a single chapter. The only commonality is that the subjects use energy to perform some task or function. The intent is to provide a reasonable level of protection for the occupants of the dwelling.

Chapter 20 Boilers and Water Heaters. Chapter 20 regulates the installation of boilers and water heaters. Its purpose is to protect the occupants of the dwelling from the potential hazards associated with such appliances. A water heater is any appliance that heats potable water and supplies it to the plumbing hot water distribution system. A boiler either heats water or generates steam for space heating and is generally a closed system.

Chapter 21 Hydronic Piping. Hydronic piping includes piping, fittings and valves used in building space conditioning systems. Applications include hot water, chilled water, steam, steam condensate, brines and water/antifreeze mixtures. Chapter 21 regulates installation, alteration and repair of all hydronic piping systems to insure the reliability, serviceability, energy efficiency and safety of such systems.

Chapter 22 Special Piping and Storage Systems. Chapter 22 regulates the design and installation of fuel oil storage and piping systems. The regulations include reference to construction standards for above-ground and underground storage tanks, material standards for piping systems (both above-ground and underground) and extensive requirements for the proper assembly of system piping and components. The purpose of this chapter is to prevent fires, leaks and spills involving fuel oil storage and piping systems, whether inside or outside structures and above or underground.

Chapter 23 Solar Systems. Chapter 23 contains requirements for the construction, alteration and repair of all systems and components of solar energy systems used for space heating or cooling, and domestic hot water heating or processing. The provisions of this chapter are limited to those necessary to achieve installations that are relatively hazard free.

A solar energy system can be designed to handle 100 percent of the energy load of a building, although this is rarely accomplished. Because solar energy is a low-intensity energy source and dependent on the weather, it is usually necessary to supplement a solar energy system with traditional energy sources.

As our world strives to find alternate means of producing power for the future, the requirements of this chapter will become more and more important over time.

Chapter 24 Fuel Gas. Chapter 24 regulates the design and installation of fuel gas distribution piping and systems, appliances, appliance venting systems and combustion air provisions. The definition of "Fuel gas" includes natural, liquefied petroleum and manufactured gases and mixtures of these gases.

The purpose of this chapter is to establish the minimum acceptable level of safety and to protect life and property from the potential dangers associated with the storage, distribution and use of fuel gases and the byproducts of combustion of such fuels. This code also protects the personnel who install, maintain, service and replace the systems and appliances addressed herein.

Chapter 24 is composed entirely of text extracted from the IFGC; therefore, whether using the IFGC or the IRC, the fuel gas provisions will be identical. Note that to avoid the potential for confusion and conflicting definitions, Chapter 24 has its own definition section.

Chapter 25 Plumbing Administration. The requirements of Chapter 25 do not supersede the administrative provisions of Chapter 1. Rather, the administrative guidelines of Chapter 25 pertain to plumbing installations that are best referenced and located within the plumbing chapters. This chapter addresses how to apply the plumbing provisions of this code to specific types or phases of construction. This chapter also outlines the responsibilities of the applicant, installer and inspector with regard to testing plumbing installations.

Chapter 26 General Plumbing Requirements. The content of Chapter 26 is often referred to as "miscellaneous," rather than general plumbing requirements. This is the only chapter of the plumbing chapters of the code whose requirements do not interrelate. If a requirement cannot be located in another plumbing chapter, it should be located in this chapter. Chapter 26 contains safety requirements for the installation of plumbing systems and includes requirements for the identification of pipe, pipe fittings, traps, fixtures, materials and devices used in plumbing systems. If specific provisions do not demand that a requirement be located in another chapter, the requirement is located in this chapter.

Chapter 27 Plumbing Fixtures. Chapter 27 requires fixtures to be of the proper type, approved for the purpose intended and installed properly to promote usability and safe, sanitary conditions. This chapter regulates the quality of fixtures and faucets by requiring those items to comply with nationally recognized standards. Because fixtures must be properly installed so that they are usable by the occupants of the building, this chapter contains the requirements for the installation of fixtures.

Chapter 28 Water Heaters. Chapter 28 regulates the design, approval and installation of water heaters and related safety devices. The intent is to minimize the hazards associated with the installation and operation of water heaters. Although this chapter does not regulate the size of a water heater, it does regulate all other aspects of the water heater installation such as temperature and pressure relief valves, safety drip pans and connections. Where a water heater also supplies water for space heating, this chapter regulates the maximum water temperature supplied to the water distribution system.

Chapter 29 Water Supply and Distribution. This chapter regulates the supply of potable water from both public and individual sources to every fixture and outlet so that it remains potable and uncontaminated by cross connections. Chapter 29 also regulates the design of the water distribution system, which will allow fixtures to function properly. Because it is critical that the potable water supply system remain free of actual or potential sanitary hazards, this chapter has the requirements for providing backflow protection devices.

Chapter 30 Sanitary Drainage. The purpose of Chapter 30 is to regulate the materials, design and installation of sanitary drainage piping systems as well as the connections made to the system. The intent is to design and install sanitary drainage systems that will function reliably, are neither undersized nor oversized and are constructed from materials, fittings and connections whose quality is regulated by this section. This chapter addresses the proper use of fittings for directing the flow into and within the sanitary drain piping system. Materials and provisions necessary for servicing the drainage system are also included in this chapter.

Chapter 31 Vents. Venting protects the trap seal of each trap. The vents are designed to limit differential pressures at each trap to 1 inch of water column (249 Pa). Because waste flow in the drainage system creates pressure fluctuations that can negatively affect traps, the sanitary drainage system must have a properly designed venting system. Chapter 31 covers the requirements for vents and venting. All of the provisions set forth in this chapter are intended to limit the pressure differentials in the drainage system to a maximum of 1 inch of water column (249 Pa) above or below atmospheric pressure (i.e., positive or negative pressures).

Chapter 32 Traps. Traps prevent sewer gas from escaping from the drainage piping into the building. Water seal traps are the simplest and most reliable means of preventing sewer gas from entering the interior environment. This chapter lists prohibited trap types as well as specifies the minimum trap size for each type of fixture.

Chapter 33 Storm Drainage. Rainwater infiltration into the ground adjacent to a building can cause the interior of foundation walls to become wet. The installation of a subsoil drainage system prevents the build-up of rainwater on the exterior of the foundation walls. This chapter provides the specifications for subsoil drain piping. Where the discharge of the subsoil drain system is to a sump, this chapter also provides coverage for sump construction, pumps and discharge piping.

Chapter 34 General Requirements. This chapter contains broadly applicable, general and miscellaneous requirements including scope, listing and labeling, equipment locations and clearances for conductor materials and connections and conductor identification.

Chapter 35 Electrical Definitions. Chapter 35 is the repository of the definitions of terms used in the body of Part VIII of the code. To avoid the potential for confusion and conflicting definitions, Part VIII, Electrical, has its own definition chapter.

Codes are technical documents and every word, term and punctuation mark can impact the meaning of the code text and the intended results. The code often uses terms that have a unique meaning in the code, which can differ substantially from the ordinarily understood meaning of the term as used outside of the code.

The terms defined in Chapter 35 are deemed to be of prime importance in establishing the meaning and intent of the electrical code text that uses the terms. The user of the code should be familiar with and consult this chapter because the definitions are essential to the correct interpretation of the code and because the user may not be aware that a term is defined.

Chapter 36 Services. This chapter covers the design, sizing and installation of the building's electrical service equipment and grounding electrode system. It includes an easy-to-use load calculation method and service conductor sizing table. The electrical service is generally the first part of the electrical system to be designed and installed.

Chapter 37 Branch Circuit and Feeder Requirements. Chapter 37 addresses the requirements for designing the power distribution system which consists of feeders and branch circuits emanating from the service equipment. This chapter dictates the ratings of circuits and the allowable loads, the number and types of branch circuits required, the wire sizing for such branch circuits and feeders and the requirements for protection from overcurrent for conductors. A load calculation method specific to feeders is also included. This chapter is used to design the electrical system on the load side of the service.

Chapter 38 Wiring Methods. Chapter 38 specifies the allowable wiring methods, such as cable, conduit and raceway systems, and provides the installation requirements for the wiring methods. This chapter is primarily applicable to the "rough-in" phase of construction.

Chapter 39 Power and Lighting Distribution. This chapter mostly contains installation requirements for the wiring that serves the lighting outlets, receptacle outlets, appliances and switches located throughout the building. The required distribution and spacing of receptacle outlets and lighting outlets is prescribed in this chapter, as well as the requirements for ground-fault and arc-fault circuit interrupter protection.

Chapter 40 Devices and Luminaires. This chapter focuses on the devices, including switches and receptacles, and lighting fixtures that are typically installed during the final phase of construction.

Chapter 41 Appliance Installation. Chapter 41 addresses the installation of appliances including HVAC appliances, water heaters, fixed space-heating equipment, dishwashers, garbage disposals, range hoods and suspended paddle fans.

Chapter 42 Swimming Pools. This chapter covers the electrical installation requirements for swimming pools, storable swimming pools, wading pools, decorative pools, fountains, hot tubs, spas and hydromassage bathtubs. The allowable wiring methods are specified along with the required clearances between electrical system components and pools, spas and tubs. This chapter includes the special grounding requirements related to pools, spas and tubs, and also prescribes the equipotential bonding requirements that are unique to pools, spas and tubs.

Chapter 43 Class 2 Remote-control, Signaling and Power-limited Circuits. This chapter covers the power supplies, wiring methods and installation requirements for the Class 2 circuits found in dwellings. Such circuits include thermostat wiring, alarm systems, security systems, automated control systems and doorbell systems.

Chapter 44 Referenced Standards. The code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 44 contains a comprehensive list of all standards that are referenced in the code. The standards are part of the code to the extent of the reference to the standard. Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the code official, contractor, designer and owner.

Chapter 44 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

Appendix A Sizing and Capacities of Gas Piping. This appendix is informative and not part of the code. It provides design guidance, useful facts and data and multiple examples of how to apply the sizing tables and sizing methodologies of Chapter 24.

Appendix B Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances and Appliances Listed for Use with Type B Vents. This appendix is informative and not part of the code. It contains multiple examples of how to apply the vent and chimney tables and methodologies of Chapter 24.

Appendix C Exit Terminals of Mechanical Draft and Direct-vent Venting Systems. This appendix is informative and not part of the code. It consists of a figure and notes that visually depict code requirements from Chapter 24 for vent terminals with respect to the openings found in building exterior walls.

Appendix D Recommended Procedure for Safety Inspection of an Existing Appliance Installation. This appendix is informative and not part of the code. It provides recommended procedures for testing and inspecting an appliance installation to determine if the installation is operating safely and if the appliance is in a safe condition.

Appendix E Manufactured Housing Used as Dwellings. The criteria for the construction of manufactured homes are governed by the National Manufactured Housing Construction and Safety Act. While this act may seem to cover the bulk of the construction of manufactured housing, it does not cover those areas related to the placement of the housing on the property. The provisions of Appendix E are not applicable to the design and construction of manufactured homes. Appendix E provides a complete set of regulations in conjunction with federal law for the installation of manufactured housing. This appendix also contains provisions for existing manufactured home installations.

Appendix F Radon Control Methods. Radon comes from the natural (radioactive) decay of the element radium in soil, rock and water and finds its way into the air. Appendix F contains requirements to mitigate the transfer of radon gases from the soil into the dwelling. The provisions of this appendix regulate the design and construction of radon-resistant measures intended to reduce the entry of radon gases into the living space of residential buildings.

Appendix G Swimming Pool, Spas and Hot Tubs. Appendix G provides the regulations for swimming pools, hot tubs and spas installed in or on the lot of a one- or two-family dwelling. This appendix contains provisions for an effective barrier surrounding the water area and entrapment protection for suction outlets to reduce the potential for drowning of young children.

Appendix H Patio Covers. Appendix H sets forth the regulations and limitations for patio covers. The provisions address those uses permitted in patio cover structures, the minimum design loads to be assigned for structural purposes, and the effect of the patio cover on egress and emergency escape or rescue from sleeping rooms. This appendix also contains the special provisions for aluminum screen enclosures in hurricane-prone regions.

Appendix I Private Sewage Disposal. Appendix I simply provides the opportunity to utilize the International Private Sewage Disposal Code for the design and installation of private sewage disposal in one- and two-family dwellings.

Appendix J Existing Buildings and Structures. Appendix J contains the provisions for the repair, renovation, alteration and reconstruction of existing buildings and structures that are within the scope of this code. To accomplish this objective and to make the rehabilitation process more available, this appendix allows for a controlled departure from full code compliance without compromising minimum life safety, fire safety, structural and environmental features of the rehabilitated existing building or structure.

Appendix K Sound Transmission. Appendix K regulates the sound transmission of wall and floor-ceiling assemblies separating dwelling units and townhouse units. Air-borne sound insulation is required for walls. Air-borne sound insulation and impact sound insulation are required for floor-

ceiling assemblies. The provisions in Appendix K set forth a minimum Sound Transmission Class (STC) rating for common walls and floor-ceiling assemblies between dwelling units. In addition, a minimum Impact Insulation Class (IIC) rating is also established to limit structure-borne sound through common floor-ceiling assemblies separating dwelling units.

Appendix L Permit Fees. Appendix L provides guidance to jurisdictions for setting appropriate permit fees. This appendix will aid many jurisdictions to assess permit fees that will assist to fairly and properly administer the code. This appendix can be used for informational purposes only or may be adopted when specifically referenced in the adopting ordinance.

Appendix M Home Day Care–R-3 Occupancy. Appendix M provides means of egress and smoke detection requirements for a Group R-3 Occupancy that is to be used as a home day care for more than five children who receive custodial care for less than 24 hours. This appendix is strictly for guidance and/or adoption by those jurisdictions that have Licensed Home Care Provider laws and statutes that allow more than five children to be cared for in a person's home. When a jurisdiction adopts this appendix, the provisions for day care and child care facilities in the IBC should be considered also.

Appendix N Venting Methods. Because venting of sanitary drainage systems is perhaps the most difficult concept to understand, and Chapter 31 uses only words to describe venting requirements, illustrations can offer greater insight into what the words mean. Appendix N has a number of illustrations for commonly installed sanitary drainage systems in order for the reader to gain a better understanding of this code's venting requirements.

Appendix O Automatic Vehicular Gates. Appendix O provides the requirements for the design and construction of automatic vehicular gates. The provisions are for where automatic gates are installed for use at a vehicular entrance or exit on the lot of a one- or two-family dwelling. The requirements provide protection for individuals from potential entrapment between an automatic gate and a stationary object or surface.

Appendix P Sizing of Water Piping System. Appendix P provides two recognized methods for sizing the water service and water distribution piping for a building. The method under Section AP103 provides friction loss diagrams that require the user to “plot” points and read values from the diagrams in order to perform the required calculations and necessary checks. This method is the most accurate of the two presented in this appendix. The method under Section AP201 is known to be conservative; however, very few calculations are necessary in order to determine a pipe size that satisfies the flow requirements of any application.

Appendix Q ICC International Residential Code Electrical Provisions/National Electrical Code Cross Reference. This cross reference allows the code user to trace the code sections in Chapters 34 through 43 back to their source: the *National Electrical Code*. See the introduction to Chapter 34 for more information on the relationship between Part VIII of this code and the NEC, NFPA 70.

ORDINANCE: 13-12
PREPARED BY: Hawk/Coker/Householder/Sievers/Johnson/Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC., CODES, CHAPTER 11. INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL RESIDENTIAL CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12, Building, Utility, Etc., Codes, Chapter 11. International Residential Code for One- And Two-Family Dwellings, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 11. International Residential Code For One- And Two-Family Dwellings, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 11

INTERNATIONAL RESIDENTIAL CODE

SECTION

- 12-1101. International Residential Code adopted.
- 12-1102. Modifications.
- 12-1103. Available in recorder's office.
- 12-1104. Violation.
- 12-1105. Presumed certification.
- 12-1106. Repeated inspections.
- 12-1107. Validity.

12-1101. International Residential Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of detached one and two family dwellings and multiple single family

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dwellings (townhouses) not more than three stories in height with separate means of egress as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said International Residential Code, 2012 Edition, including Appendix A, Appendix B, Appendix C, Appendix D, Appendix E, Appendix F, Appendix G, Appendix H, Appendix J, Appendix K, Appendix M, Appendix N, Appendix P, and Appendix Q, as published by the International Code Council, Inc, is hereby adopted and incorporated by reference as part of this code and hereinafter referred to as the International Residential Code.

12-1102. Modifications. (1) The International Residential Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) Whenever reference is made to the “board of appeals,” such shall be deemed to refer to the Farragut Board of Plumbing and Gas/Mechanical Examiners.

(3) The International Residential Code, is amended by adding the following:

“All building permits shall expire according to the following schedule (from the date the permit is issued):

New construction	1 year
Additions	180 days
Accessory structures	180 days
Decks/porches	60 days
Swimming pools	60 days
New gas/mechanical	60 days
Moving structures	30 days
Demolition	30 days
Mechanical changeouts	30 days

(4) The International Residential Code, is amended by adding the following:

“No building permit shall be issued unless and until an access permit as otherwise required by ordinance of the Town of Farragut has been issued.”

“No permit shall be issued to an applicant, or any shareholder of the entity serving as the applicant, if the matter for which application has been filed, if completed, would be in violation of any ordinance of the Town of Farragut. No permit shall be issued to an applicant, or any shareholder of the entity serving as the applicant, who, prior to the issuance of the permit, is in violation of any other sections of the Farragut Municipal Code or ordinance of the Town of Farragut, nor shall any permit be issued for a premise

ORDINANCE 13-12

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that, prior to the issuance of the permit, is in violation of any other sections of the Farragut Municipal Code or ordinance of the Town of Farragut.”

(5) Section R101.1 Title, of the International Residential Code, is amended by inserting the phrase “Town of Farragut” for NAME OF JURISDICTION.

(6) Section R113 Violations, of the International Residential Code, is amended by adding the following:

“The building official may also revoke a permit or approval if a permit holder shall, subsequent to the issuance of such permit or approval, violate the terms of the International Residential Code or the provisions of any other pertinent sections of the Farragut Municipal Code or ordinances of the Town of Farragut.”

(7) Section R302.5.1 Opening protection, of the International Residential Code, is amended by deleting the phrase “equipped with a self-closing device.”

(8) Section R303.4 Mechanical ventilation, of the International Residential Code, is amended by adding the phrase “or approved air exchanger on the HVAC system which will make up the required ventilation.”

(9) Section R313.1 Townhouse automatic fire sprinkler systems, of the International Residential Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

Section R313.1 Townhouse automatic fire sprinkler systems. When an automatic residential fire sprinkler system is installed in townhouses, the following shall apply:

(10) Section R313.2 One- and two-family dwellings automatic fire systems, of the International Residential Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

Section R313.2 One- and two-family dwellings automatic fire systems. When an automatic residential fire sprinkler system is installed in one- and two-family dwellings, the following shall apply:

(11) Section R319 Site Address, of the International Residential Code, is amended by adding the following:

Posting of designated street address. (a) All buildings (excluding accessory buildings) shall display the number assigned by the Knox County Addressing Division to the frontage on which the building’s front entrance is located. If a building is occupied by

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more than one residential unit, each separate outside entrance shall display a separate number.

(b) Numerals indicating the official numbers for each building or each entrance to such building shall be placed either over or at the side of the main entrance of said building or upon the front of any porch or stoop thereof or over or at the side of any gateway leading thereto, or upon the steps thereof in such manner that the same may be plainly seen and distinguishable from the street on which the property is located and in such manner that the same shall not be hidden from view by any trees or shrubs or other obstruction.

(c) If a unit does not allow ready or easy visibility of its address numerals from the street due to excessive set back, shrubbery or color, an address identification marker shall be placed near the entrance or driveway to the parcel. Such identification marker shall not exceed a total area of two (2) square feet.

(d) All building numbers displayed shall be permanent, legible figures not less than four (4) inches nor more than six (6) inches high and of a color contrasting to the building background.

(e) In addition to the required assigned numerals on all buildings and the required address identification markers for units with excessive setbacks and/or visibility problems it shall also be permissible to have property address numerals painted on the curb in front of a lot. Such curbside designation shall be positioned in front of the unit or between the driveway and half the distance of the frontage along the public street.

All painted numerals displayed on curbs shall be permanent, legible black colored numerals, which are no more nor less than four (4) inches high, on a white contrasting background. All paint used shall be of alkyd resin, Type F traffic paint, or an equal approved by the Town's engineering department. Numerals shall have glass beads or similar materials for reflective purposes.

(f) A proper address shall be required for any permit issuance. Final approval of a certificate of occupancy of a building erected or repaired shall be withheld until permanent and proper numbers have been displayed in accordance with this section.

(12) Section R501.3 Fire protection of floors, 2., of the International Residential Code, is amended by deleting the phrase "or fuel-fired appliances".

12-1103. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Residential Code, 2012

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Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

12-1104. Violation. Any person who shall violate a provision of the International Residential Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12-1105. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Residential Code shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Residential Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Residential Code or otherwise.

12-1106. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the codes official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the codes official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

12-1107. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

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SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

Dr. Ralph McGill, Mayor

Allison Myers, Town Recorder

AGENDA NUMBER

VII.A. II

MEETING DATE April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-13, ordinance on 1st reading to amend the Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 12. Plumbing and Gas/Mechanical Licensing Requirements, to delete fees and reference fee resolution

INTRODUCTION: On June 23, 2011, the Board of Mayor and Aldermen passed Resolution 2011-06, which established the fees the town charges for the various services provided. Some of the fees included in Resolution 2011-06 were found within the Municipal Code. At that time, we thought we had amended all the applicable ordinances removing fees.

DISCUSSION: The purpose of Ordinance 13-13 is to remove the referenced fee out of the Municipal Code. The passing of Resolution 2011-06, and subsequent resolutions, created a central location for all of the town's fees. This ordinance removes the duplicate fee and completes the process.

PROFESSIONAL RECOMMENDATION: Community Development Director, Ruth Hawk, recommends approval of Ordinance 13-13.

PROPOSED MOTION: To approve Ordinance 13-13.

BOARD ACTION:

MOTION BY: _____ **SECONDED**
BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

ORDINANCE: 13-13
PREPARED BY: Hawk, Coker, Householder, Sievers, Johnson, Cumesty
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 12, BUILDING, UTILITY, ETC. CODES, CHAPTER 12. PLUMBING AND GAS/MECHANICAL LICENSING REQUIREMENTS, OF THE FARRAGUT MUNICIPAL CODE, SECTION 12-1208. LICENSES FOR PLUMBING AND GAS/MECHANICAL CONTRACTORS, TO REFERENCE FEE RESOLUTION ADOPTION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 12. Plumbing and Gas/Mechanical Licensing Requirements, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 12, Building, Utility, Etc. Codes, Chapter 12. Plumbing and Gas/Mechanical Licensing Requirements, Section 12-1208. Licenses for Plumbing and Gas/Mechanical Contractors, (6) Fees, is amended by deleting it in its entirety and substituting in lieu thereof the following:

(6) No license shall be granted until the fee established in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen has been paid to the Town of Farragut.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.

Dr. Ralph McGill, Mayor

Allison Myers, Town Recorder

AGENDA NUMBER

VII.A.12

MEETING DATE: April 11, 2013

REPORT TO THE BOARD OF MAYOR AND ALDERMEN

PREPARED BY: Ruth Viergutz Hawk, Community Development Director

SUBJECT: Ordinance 13-14, ordinance on 1st reading to amend the text of the Farragut Municipal Code, Title 7. Fire Protection and Fireworks, Chapter 1. Fire Code, to adopt the International Fire Code, 2012 Edition and the NFPA 101 Life Safety Code, 2012 Edition

INTRODUCTION: The Town is currently under the International Fire Code, 2006 Edition and the NFPA 101 Life Safety Code, 2006 Edition. All codes are adopted by reference.

DISCUSSION: For the past two years the Town staff has been participating in the training of the 2012 editions of the various International Codes. Town staff also participated in two separate training sessions on 2012 ICC Codes with the Home Builders Association and other construction stakeholders. To remain current with ISO requirements and state law, the town must adopt new codes a minimum of every six years.

The purpose of these codes is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety to fire fighters and emergency responders during emergency operations.

Staff is recommending adoption of the International Fire Code, 2012 Edition, including Appendix B (Fire-Flow Requirements for Buildings), Appendix C (Fire Hydrant Locations and Distribution), Appendix D (Fire Apparatus Access Roads), Appendix E (Hazard Categories), Appendix F (Hazard Ranking), Appendix G (Cryogenic Fluids – Weight and Volume Equivalents), Appendix H (Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) Instructions), and Appendix I (Fire Protection Systems – Noncompliant Conditions), as published by the International Code Council. Staff is recommending adoption of the NFPA 101 Life Safety Code, 2012 Edition, including Annex A (Explanatory Material), Annex B (Supplemental Evacuation Equipment), and Annex C (Informational References), as prepared and adopted by the National Fire Protection Association.

At the time the International Fire Code, 2006 Edition was adopted, the town adopted several modifications to the codes so as to follow current town practices and/or dovetail the requirements with requirements found elsewhere in our Municipal Code. The majority of the amendments found in Section 7-102. Modifications of Ordinance 13-14 are identical to the amendments that are currently in our ordinance. Please note that some section numbers have changed between the 2006 and 2012 codes.

Amendments (10), (11), (16), (19) and (20) of Section 7-102 are new. These amendments primarily provide clarification and/or eliminate locks and latches problems that we have dealt with in the past.

Attached please find a 2012 IBC summary entitled "Effective Use of the International Fire Code" and the Table of Contents for the NFPA 101 Life Safety Code, 2012 Edition.

PROFESSIONAL RECOMMENDATION:

Steve Coker, Codes Officer
John Householder, Codes Officer – Commercial Plans Examiner
Elliott Sievers, Codes Officer
Dan Johnson, Fire Marshal
Colin Cumesty, Fire Inspector
Ruth Hawk, Community Development Director
Recommends approval of Ordinance 13-14

PROPOSED MOTION: Move to approve Ordinance 13-14.

BOARD ACTION:

MOTION BY: _____ **SECONDED**

BY: _____

<u>VOTE/TOTAL</u>	<u>ELLIOTT</u>	<u>LAMARCHE</u>	<u>MARKLI</u>	<u>HONKEN</u>	<u>MCGILL</u>
YES	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____
ABSTAIN	_____	_____	_____	_____	_____

Effective Use of the International Fire Code

The *International Fire Code*® (IFC®) is a model code that regulates minimum fire safety requirements for new and existing buildings, facilities, storage and processes. The IFC addresses fire prevention, fire protection, life safety and safe storage and use of hazardous materials in new and existing buildings, facilities and processes. The IFC provides a total approach of controlling hazards in all buildings and sites, regardless of the hazard being indoors or outdoors.

The IFC is a design document. For example, before one constructs a building, the site must be provided with an adequate water supply for fire-fighting operations and a means of building access for emergency responders in the event of a medical emergency, fire or natural or technological disaster. Depending on the building's occupancy and uses, the IFC regulates the various hazards that may be housed within the building, including refrigeration systems, application of flammable finishes, fueling of motor vehicles, high-piled combustible storage and the storage and use of hazardous materials. The IFC sets forth minimum requirements for these and other hazards and contains requirements for maintaining the life safety of building occupants, the protection of emergency responders, and to limit the damage to a building and its contents as the result of a fire, explosion or unauthorized hazardous material discharge.

Arrangement and Format of the 2012 IFC

Before applying the requirements of the IFC it is beneficial to understand its arrangement and format. The IFC, like other codes published by the International Code Council, is arranged and organized to follow sequential steps that generally occur during a plan review or inspection. The 2012 IFC has been reorganized into 7 Parts as illustrated in the tables below. Each Part represents a broad subject matter and includes the chapters that logically fit under the subject matter of each Part. It is also foreseeable that additional chapters will need to be added in the future as regulations for new processes or operations are developed. Accordingly, the reorganization was designed to accommodate such future chapters by providing reserved (unused) chapters in several of the Parts. This will allow the subject matter parts to be conveniently and logically expanded without requiring a major renumbering of the IFC chapters.

2012 REORGANIZATION OF THE IFC	
Parts and Chapters	Subject Matter
Part I – Chapters 1 and 2	Administrative and definitions
Part II – Chapters 3 and 4	General safety provisions
Part III – Chapters 5 through 11	Building and equipment design features
Part III - Chapters 12 through 19	Reserved for future use
Part IV – Chapters 20 through 36	Special occupancies and operations
Part IV – Chapters 37 through 49	Reserved for future use
Part V – Chapters 50 through 67	Hazardous materials
Part V – Chapters 68 through 79	Reserved for future use
Part VI – Chapter 80	Referenced standards
Part VII - Appendices A through J	Adoptable and informational appendices

2012 IFC CHAPTER REORGANIZATION		
CHAPTER NUMBER 2009	CHAPTER NUMBER 2012	CHAPTER TITLE
1	1	Scope and Administration
2	2	Definitions
3	3	General Requirements
4	4	Emergency Planning and Preparedness
5	5	Fire Service Features
6	6	Building Services and Systems
7	7	Fire-Resistance-Rated Construction
8	8	Interior Finish, Decorative Materials and Furnishings
9	9	Fire Protection Systems
10	10	Means Of Egress
11	20	Aviation Facilities
12	21	Dry Cleaning
13	22	Combustible Dust-Producing Operations
14	33	Fire Safety during Construction and Demolition
15	24	Flammable Finishes
16	25	Fruit and Crop Ripening
17	26	Fumigation and Insecticidal Fogging
18	27	Semiconductor Fabrication Facilities
19	28	Lumber Yards and Woodworking Facilities
20	29	Manufacture of Organic Coatings
21	30	Industrial Ovens
22	23	Motor Fuel-Dispensing Facilities and Repair Garages
23	32	High-Piled Combustible Storage
24	31	Tents and Other Membrane Structures
25	34	Tire Rebuilding and Tire Storage
26	35	Welding and Other Hot Work
27	50	Hazardous Materials—General Provisions
28	51	Aerosols
29	52	Combustible Fibers
30	53	Compressed Gases
31	54	Corrosive Materials
32	55	Cryogenic Fluids
33	56	Explosives and Fireworks
34	57	Flammable and Combustible Liquids
35	58	Flammable Gases and Flammable Cryogenic Fluids
36	59	Flammable Solids
37	60	Highly Toxic and Toxic Materials
38	61	Liquefied Petroleum Gases
39	62	Organic Peroxides

(continued)

2012 IFC CHAPTER REORGANIZATION—continued		
CHAPTER NUMBER 2009	CHAPTER NUMBER 2012	CHAPTER TITLE
40	63	Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids
41	64	Pyrophoric Materials
42	65	Pyroxylin (Cellulose Nitrate) Plastics
43	66	Unstable (Reactive) Materials
44	67	Water-Reactive Solids and Liquids
45	36	Marinas
46	11	Construction Requirements for Existing Buildings
47	80	Referenced Standards
Appendix A-J	Appendix A-J	No changes in reorganization

The IFC requirements for fire-resistive construction, interior finish, fire protection systems, means of egress and construction safeguards are directly correlated to the chapters containing parallel requirements in the IBC, as follows:

IFC Chapter	Subject
7	Fire-resistance-rated construction
8	Interior finish, decorative materials and furnishings
9	Fire protection systems
10	Means of egress
33	Fire safety during construction and demolition

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Fire Code*:

PART I—ADMINISTRATIVE

Chapter 1 Scope and Administration. This chapter contains provisions for the application, enforcement and administration of subsequent requirements of the code. In addition to establishing the scope of the code, Chapter 1 identifies which buildings and structures come under its purview. Chapter 1 is largely concerned with maintaining “due process of law” in enforcing the regulations contained in the body of the code. Only through careful observation of the administrative provisions can the code official reasonably expect to demonstrate that “equal protection under the law” has been provided.

Chapter 2 Definitions. All terms that are defined in the code are listed alphabetically in Chapter 2. While a defined term may be used in one chapter or another, the meaning provided in Chapter 2 is applicable throughout the code.

Where understanding of a term’s definition is especially key to or necessary for understanding of a particular code provision, the term is shown in *italics* wherever it appears in the code. This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known.

Guidance regarding tense, gender and plurality of defined terms as well as guidance regarding terms not defined in this code are also provided.

PART II—GENERAL SAFETY PROVISIONS

Chapter 3 General Requirements. The open burning, ignition source, vacant building, miscellaneous storage, roof gardens and landscaped roofs and hazards to fire fighters requirements and precautions, among other general regulations, contained in this chapter are intended to improve premises safety for everyone, including construction workers, tenants, operations and maintenance personnel and emergency response personnel. As with other chapters of the *International Fire Code*, Section 302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 4 Emergency Planning and Preparedness. This chapter addresses the human contribution to life safety in buildings when a fire or other emergency occurs. The requirements for continuous training and scheduled fire, evacuation and lockdown drills can be as important as the required periodic inspections and maintenance of built-in fire protection features. The level of preparation by the occupants also improves the emergency responders’ abilities during an emergency. The *International Building Code* (IBC) focuses on built-in fire protection features, such as automatic sprinkler systems, fire-resistance-rated construction and properly designed egress systems whereas this chapter fully addresses the human element. As with other chapters of the *International Fire Code*, Section 402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

PART III—BUILDING AND EQUIPMENT DESIGN FEATURES

Chapter 5 Fire Service Features. The requirements of this chapter apply to all buildings and occupancies and pertain to access roads; access to building openings and roofs; premises identification; key boxes; fire protection water supplies; fire command centers; fire department access to equipment and emergency responder radio coverage in buildings. As with other chapters of the *International Fire Code*, Section 502 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 6 Building Services and Systems. This chapter focuses on building systems and services as they relate to potential safety hazards and when and how they should be installed. This chapter brings together all building system- and service-related issues for convenience and provides a more systematic view of buildings. The following building services and systems are addressed: fuel-fired appliances (Section 603), emergency and standby power systems (Section 604), electrical equipment, wiring and hazards (Section 605), mechanical refrigeration (Section 606), elevator recall and maintenance (Section 607), stationary storage battery systems (Section 608) and commercial kitchen hoods (Section 609). As with other chapters of the *International Fire Code*, Section 602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 7 Fire-resistance-rated Construction. The maintenance of assemblies required to be fire-resistance rated is a key component in a passive fire protection philosophy. Chapter 7 sets forth requirements to maintain required fire-resistance ratings of building elements and limit fire spread. The required maintenance of fire-resistance-rated assemblies and opening protectives is described in Section 703 while Section 704 covers the enclosure requirements for shafts in existing buildings. As with other chapters of the *International Fire Code*, Section 702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 8 Interior Finish, Decorative Materials and Furnishings. The overall purpose of Chapter 8 is to regulate interior finishes, decorative materials and furnishings in new and existing buildings so that they do not significantly add to or create fire hazards within buildings. The provisions tend to focus on occupancies with specific risk characteristics, such as vulnerability of occupants, density of occupants, lack of familiarity with the building and societal expectations of importance. This chapter is consistent with Chapter 8 of the *International Building Code* (IBC), which regulates the interior finishes of new buildings. As with other chapters of the *International Fire Code*, Section 802 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 9 Fire Protection Systems. Chapter 9 prescribes the minimum requirements for active systems of fire protection equipment to perform the functions of detecting a fire, alerting the occupants or fire department of a fire emergency, controlling smoke and controlling or extinguishing the fire. Generally, the requirements are based on the occupancy, the height and the area of the building, because these are the factors that most affect fire-fighting capabilities and the relative hazard of a specific building or portion thereof. This chapter parallels and is substantially duplicated in Chapter 9 of the *International Building Code*; however, this chapter also contains periodic testing criteria that are not contained in the IBC. In addition, the special fire protection system requirements based on use and occupancy found in Chapter 4 of the IBC are duplicated in Chapter 9 of the IFC as a user convenience. As with other chapters of the *International Fire Code*, Section 902 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 10 Means of Egress. The general criteria set forth in Chapter 10 regulating the design of the means of egress are established as the primary method for protection of people in buildings by allowing timely relocation or evacuation of building occupants. Both prescriptive and performance language is utilized in this chapter to provide for a basic approach in the determination of a safe exiting system for all occupancies. It addresses all portions of the egress system (i.e., exit access, exits and exit discharge) and includes design requirements as well as provisions regulating individual components. The requirements detail the size, arrangement, number and protection of means of egress components. Functional and operational characteristics also are specified for the components that will permit their safe use without special knowledge or effort. The means of egress protection requirements work in coordination with other sections of the code, such as protection of vertical openings (see Chapter 7), interior finish (see Chapter 8), fire suppression and detection systems (see Chapter 9) and numerous others, all having an impact on life safety. Sections 1002 through 1029 are duplicated text from Chapter 10 of the IBC; however, the IFC contains an additional Section 1030 on maintenance of the means of egress system in existing buildings. Retroactive minimum means of egress requirements for existing buildings are now found in Chapter 11 (which was formerly Chapter 46). As with other chapters of the *International Fire Code*, Section 1002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 11 Construction Requirements for Existing Buildings. Chapter 11 (which was formerly Chapter 46) applies to existing buildings constructed prior to the adoption of the code and intends to provide a minimum degree of fire and life safety to persons occupying existing buildings by providing for alterations to such buildings that do not comply with the minimum requirements of

the *International Building Code*. Prior to the 2009 edition, its content existed in the IFC but in a random manner that was neither efficient nor user-friendly. In the 2007/2008 code development cycle, a code change (F294-07/08) was approved that consolidated the retroactive elements of IFC/2006 Sections 607, 701, 704, 903, 905, 907 and 3406 (then 2506) and all of then-Section 1027 (Means of Egress for Existing Buildings) into a single chapter for easier and more efficient reference and application to existing buildings. As with other chapters of the *International Fire Code*, Section 1102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapters 12 through 19. Reserved for future use.

PART IV—SPECIAL OCCUPANCIES AND OPERATIONS

Chapter 20 Aviation Facilities. Chapter 20 (which was formerly Chapter 11) specifies minimum requirements for the fire-safe operation of airports, heliports and helistops. The principal nonflight operational hazards associated with aviation involve fuel, facilities and operations. Therefore, safe use of flammable and combustible liquids during fueling and maintenance operations is emphasized. Availability of portable Class B:C-rated fire extinguishers for prompt control or suppression of incipient fires is required. As with other chapters of the *International Fire Code*, Section 2002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 21 Dry Cleaning. The provisions of Chapter 21 (which was formerly Chapter 12) are intended to reduce hazards associated with use of flammable and combustible dry cleaning solvents. These materials, like all volatile organic chemicals, generate significant quantities of static electricity and are thus readily ignitable. Many flammable and nonflammable dry cleaning solvents also possess health hazards when involved in a fire. As with other chapters of the *International Fire Code*, Section 2102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 22 Combustible Dust-producing Operations. The requirements of Chapter 22 (which was formerly Chapter 13) seek to reduce the likelihood of dust explosions by managing the hazards of ignitable suspensions of combustible dusts associated with a variety of operations including woodworking, mining, food processing, agricultural commodity storage and handling and pharmaceutical manufacturing, among others. Ignition source control and good housekeeping practices in occupancies containing dust-producing operations are emphasized. As with other chapters of the *International Fire Code*, Section 2202 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 23 Motor Fuel-dispensing Facilities and Repair Garages. This chapter (which was formerly Chapter 22) provides provisions that regulate the storage and dispensing of both liquid and gaseous motor fuels at public and private automotive, marine and aircraft motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities and repair garages. As with other chapters of the *International Fire Code*, Section 2302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 24 Flammable Finishes. Chapter 24 (which was formerly Chapter 15) requirements govern operations where flammable or combustible finishes are applied by spraying, dipping, powder coating or flow-coating processes. As with all operations involving flammable or combustible liquids and combustible dusts or vapors, controlling ignition sources and methods of reducing or controlling flammable vapors or combustible dusts at or near these operations are emphasized. As with other chapters of the *International Fire Code*, Section 2402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 25 Fruit and Crop Ripening. Chapter 25 (which was formerly Chapter 16) provides guidance that is intended to reduce the likelihood of explosions resulting from improper use or handling of ethylene gas used for crop-ripening and coloring processes. This is accomplished by regulating ethylene gas generation; storage and distribution systems and controlling ignition sources. Design and construction of facilities for this use are regulated by the *International Building Code* to reduce the impact of potential accidents on people and buildings.

Chapter 26 Fumigation and Insecticidal Fogging. This chapter (which was formerly Chapter 17) regulates fumigation and insecticidal fogging operations which use toxic pesticide chemicals to kill insects, rodents and other vermin. Fumigants and insecticidal fogging agents pose little hazard if properly applied; however, the inherent toxicity of all these agents and the potential flammability of some makes special precautions necessary when they are used. Requirements of this chapter are intended to protect both the public and fire fighters from hazards associated with these products. As with other chapters of the *International Fire Code*, Section 2602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 27 Semiconductor Fabrication Facilities. The requirements of this chapter (which was formerly Chapter 18) are intended to control hazards associated with the manufacture of electrical circuit boards or microchips, commonly called semiconductors. Though the finished product possesses no unusual hazards, materials commonly associated with semiconductor manufacturing are often quite hazardous and include flammable liquids, pyrophoric and flammable gases, toxic substances and corrosives. The requirements of this chapter are concerned with both life safety and property protection. However, the fire code official should recognize that the risk of extraordinary property damages is far more common than the risk of personal injuries from fire. As with other chapters of the *International Fire Code*, Section 2702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 28 Lumber Yards and Woodworking Facilities. Provisions of this chapter (which was formerly Chapter 19) are intended to prevent fires and explosions, facilitate fire control and reduce exposures to and from facilities storing, selling or processing wood and forest products, including sawdust, wood chips, shavings, bark mulch, shorts, finished planks, sheets, posts, poles, timber and raw logs and the hazard they represent once ignited. This chapter requires active and passive fire protection features to reduce on- and off-site exposures, limit fire size and development and facilitate fire fighting by employees and the fire service. As with other chapters of the *International Fire Code*, Section 2802 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 29 Manufacture of Organic Coatings. This chapter (which was formerly Chapter 20) regulates materials and processes associated with the manufacture of paints as well as bituminous, asphaltic and other diverse compounds formulated to protect buildings, machines and objects from the effects of weather, corrosion and hostile environmental exposures. Paint for decorative, architectural and industrial uses comprises the bulk of organic coating production. Painting and processes related to the manufacture of nonflammable and noncombustible or water-based products are exempt from the provisions of this chapter. The application of organic coatings is covered by Chapter 24. Elimination of ignition sources, maintenance of fire protection equipment and isolation or segregation of hazardous operations are emphasized. As with other chapters of the *International Fire Code*, Section 2902 contains a term that is defined in Chapter 2 and is applicable to the chapter contents.

Chapter 30 Industrial Ovens. This chapter (which was formerly Chapter 21) addresses the fuel supply, ventilation, emergency shutdown equipment, fire protection and the operation and maintenance of industrial ovens, which are sometimes referred to as industrial heat enclosures or industrial furnaces. Compliance with this chapter is intended to reduce the likelihood of fires involving industrial ovens which are usually the result of the fuel in use or volatile vapors given off by the materials being heated or to manage the impact if a fire should occur. As with other chapters of the *International Fire Code*, Section 3002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 31 Tents and Other Membrane Structures. The requirements in this chapter (which was formerly Chapter 24) are intended to protect temporary as well as permanent tents and air-supported and other membrane structures from fire by regulating structure location and access, anchorage, egress, heat-producing equipment, hazardous materials and operations, combustible vegetation, ignition sources, waste accumulation and requiring regular inspections and certifying continued compliance with fire safety regulations. As with other chapters of the *International Fire Code*, Section 3102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 32 High-piled Combustible Storage. This chapter (which was formerly Chapter 23) provides guidance for reasonable protection of life from hazards associated with the storage of combustible materials in closely packed piles or on pallets, in racks or on shelves where the top of storage is greater than 12 feet in height. It provides requirements for identifying various classes of commodities; general fire and life safety features including storage arrangements, smoke and heat venting, fire department access and housekeeping and maintenance requirements. The chapter attempts to define the potential fire severity and, in turn, determine fire and life safety protection measures needed to control, and in some cases suppress, a potential fire. This chapter does not cover miscellaneous combustible materials storage regulated in Section 315. As with other chapters of the *International Fire Code*, Section 3202 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 33 Fire Safety During Construction and Demolition. Chapter 33 (which was formerly Chapter 14) outlines general fire safety precautions for all structures and all occupancies during construction and demolition operations. In general, these requirements seek to maintain required levels of fire protection, limit fire spread, establish the appropriate operation of equipment and promote prompt response to fire emergencies. Features regulated include fire protection systems, fire fighter access to the site and building, means of egress, hazardous materials storage and use and temporary heating equipment and other ignition sources. With the 2012 reorganization, this chapter now correlates with Chapter 33 of the IBC.

Chapter 34 Tire Rebuilding and Tire Storage. The requirements of Chapter 34 (which was formerly Chapter 25) are intended to prevent or control fires and explosions associated with the remanufacture and storage of tires and tire byproducts. Additionally, the requirements are intended to minimize the impact of indoor and outdoor tire storage fires by regulating pile volume and location, segregating the various operations, providing for fire department access and a water supply and controlling ignition sources.

Chapter 35 Welding and Other Hot Work. This chapter (which was formerly Chapter 26) covers requirements for safety in welding and other types of hot work by reducing the potential for fire ignitions that usually result in large losses. Several different types of hot work would fall under the requirements found in Chapter 35, including both gas and electric arc methods and any open-torch operations. Many of the activities of this chapter focus on the actions of the occupants. As with other chapters of the *International Fire Code*, Section 3502 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 36 Marinas. Chapter 36 (which was formerly Chapter 45) addresses the fire protection and prevention requirements for marinas. It was developed in response to the complications encountered by a number of fire departments responsible for the protection of marinas as well as fire loss history in marinas that lacked fire protection. Compliance with this chapter intends to establish safe practices in marina areas, provide an identification method for mooring spaces in the marina, provide fire fighters with safe operational areas and fire protection methods to extend hose lines in a safe manner. As with other chapters of the *International Fire Code*, Section 3602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapters 37 through 49. Reserved for future use.

PART V—HAZARDOUS MATERIALS

Chapter 50 Hazardous Materials—General Provisions. This chapter (which was formerly Chapter 27) contains the general requirements for all hazardous chemicals in all occupancies. Hazardous chemicals are defined as those that pose an unreasonable risk to the health and safety of operating or emergency personnel, the public and the environment if not properly controlled during handling, storage, manufacture, processing, packaging, use, disposal or transportation. The general provisions of this chapter are intended to be companion provisions with the specific requirements of Chapters 51 through 67 (which were formerly Chapters 28 through 44) regarding a given hazardous material. As with other chapters of the *International Fire Code*, Section 5002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 51 Aerosols. Chapter 51 (which was formerly Chapter 28) addresses the prevention, control and extinguishment of fires and explosions in facilities where retail aerosol products are displayed or stored. It is concerned with both life safety and property protection from a fire; however, historically, aerosol product fires have caused property loss more frequently than loss of life. Requirements for storing aerosol products are dependent on the level of aerosol product, level of sprinkler protection, type of storage condition and quantity of aerosol products. As with other chapters of the *International Fire Code*, Section 5102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 52 Combustible Fibers. Chapter 52 (which was formerly Chapter 29) establishes the requirements for storage and handling of combustible fibers, including animal, vegetable and synthetic fibers, whether woven into textiles, baled, packaged or loose. Operations involving combustible fibers are typically associated with salvage, paper milling, recycling, cloth manufacturing, carpet and textile mills and agricultural operations, among others. The primary hazard associated with these operations is the abundance of materials and their ready ignitability. As with other chapters of the *International Fire Code*, Section 5202 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 53 Compressed Gases. This chapter (which was formerly Chapter 30) regulates the storage, use and handling of all flammable and nonflammable compressed gases, such as those that are used in medical facilities, air separation plants, industrial plants, agricultural equipment and similar occupancies. Standards for the design, construction and marking of compressed gas cylinders and pressure vessels are referenced. Compressed gases used in welding and cutting, cryogenic liquids and liquefied petroleum gases are also regulated under Chapters 35, 55 and 61, respectively. Compressed gases that are classified as hazardous materials are also regulated in Chapter 50, which includes general requirements. As with other chapters of the *International Fire Code*, Section 5302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 54 Corrosive Materials. Chapter 54 (which was formerly Chapter 31) addresses the hazards of corrosive materials that have a destructive effect on living tissues. Though corrosive gases exist, most corrosive materials are solid and classified as either acids or bases (alkalis). These materials may pose a wide range of hazards other than corrosivity, such as combustibility, reactivity or oxidizing hazards, and must conform to the requirements of the code with respect to all their known hazards. The focus of this chapter is on materials whose primary hazard is corrosivity; that is, the ability to destroy or irreparably damage living tissue on contact. As with other chapters of the *International Fire Code*, Section 5402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 55 Cryogenic Fluids. This chapter (which was formerly Chapter 32) regulates the hazards associated with the storage, use and handling of cryogenic fluids through regulation of such things as pressure relief mechanisms and proper container storage. These hazards are in addition to the code requirements that address the other hazards of cryogenic fluids such as flammability and toxicity. These other characteristics are dealt with in Chapter 50 and other chapters, such as Chapter 58 dealing with flammable gases. Cryogens are hazardous because they are held at extremely low temperatures and high pressures. Many cryogenic fluids, however, are actually inert gases and would not be regulated elsewhere in the code. Cryogens are used for many applications but specifically have had widespread use in the biomedical field and in space programs. As with other chapters of the *International Fire Code*, Section 5502 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 56 Explosives and Fireworks. This chapter (which was formerly Chapter 33) prescribes minimum requirements for the safe manufacture, storage, handling and use of explosives, ammunition and blasting agents for commercial and industrial occupancies. These provisions are intended to protect the general public, emergency responders and individuals who handle explosives. Chapter 56 also regulates the manufacturing, retail sale, display and wholesale distribution of fireworks, establishing the requirements for obtaining approval to manufacture, store, sell, discharge or conduct a public display, and references national standards for regulations governing manufacture, storage and public displays. As with other chapters of the *International Fire Code*, Section 5602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 57 Flammable and Combustible Liquids. The requirements of this chapter (which was formerly Chapter 34) are intended to reduce the likelihood of fires involving the storage, handling, use or transportation of flammable and combustible liquids. Adherence to these practices may also limit damage in the event of an accidental fire involving these materials. These liquids are used for fuel, lubricants, cleaners, solvents, medicine and even drinking. The danger associated with flammable and combustible liquids is that the vapors from these liquids, when combined with air in their flammable range, will burn or explode at temperatures near normal living and working environment. The protection provided by the code is to prevent the flammable and combustible liquids from being ignited. As with other chapters of the *International Fire Code*, Section 5702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 58 Flammable Gases and Flammable Cryogenic Fluids. Chapter 58 (which was formerly Chapter 35) sets requirements for the storage and use of flammable gases. For safety purposes, there is a limit on the quantities of flammable gas allowed per control area. Exceeding these limitations increases the possibility of damage to both property and individuals. The principal hazard posed by flammable gas is its ready ignitability, or even explosivity, when mixed with air in the proper proportions. Consequently, occupancies storing or handling large quantities of flammable gas are classified as Group H-2 (high hazard) by the *International Building Code*. As with other chapters of the *International Fire Code*, Section 5802 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 59 Flammable Solids. This chapter (which was formerly Chapter 36) addresses general requirements for storage and handling of flammable solids, especially magnesium; however, it is important to note that several other solid materials, primarily metals including, but not limited to, such metals as titanium, zirconium, hafnium, calcium, zinc, sodium, lithium, potassium, sodium/potassium alloys, uranium, thorium and plutonium which, under the right conditions, can be explosion hazards. Some of these metals are almost exclusively laboratory materials but because of where they are used, fire service personnel must be trained to handle emergency situations. Because uranium, thorium and plutonium are also radioactive materials, they present still more specialized problems for fire service personnel. As with other chapters of the *International Fire Code*, Section 5902 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 60 Highly Toxic and Toxic Materials. The main purpose of this chapter (which was formerly Chapter 37) is to protect occupants, emergency responders and those in the immediate area of the building and facility from short-term, acute hazards associated with a release or general exposure to toxic and highly toxic materials. This chapter deals with all three states of toxic and highly toxic materials: solids, liquids and gases. The code does not address long-term exposure effects of these materials which are addressed by agencies such as the Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA). As with other chapters of the *International Fire Code*, Section 6002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 61 Liquefied Petroleum Gases. Chapter 61 (which was formerly Chapter 38) establishes requirements for the safe handling, storing and use of LP-gas to reduce the possibility of damage to containers, accidental releases of LP-gas and exposure of flammable concentrations of LP-gas to ignition sources. LP-gas (notably Propane) is well known as a camping fuel for cooking, lighting, heating and refrigerating and also remains a popular standby fuel supply for auxiliary generators as well as being widely used as an alternative motor vehicle fuel. Its characteristic as a clean-burning fuel having resulted in the addition of propane dispensers to service stations throughout the country. As with other chapters of the *International Fire Code*, Section 6102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 62 Organic Peroxides. This chapter (which was formerly Chapter 39) addresses the hazards associated with the storage, handling and use of organic peroxides and intends to manage the fire and oxidation hazards of organic peroxides by preventing their uncontrolled release. These chemicals possess the characteristics of flammable or combustible liquids and are also strong oxidizers. This unusual combination of properties requires special storage and handling precautions to prevent uncontrolled release, contamination, hazardous chemical reactions, fires or explosions. The requirements of this chapter pertain to industrial applications in which significant quantities of organic peroxides are stored or used; however, smaller quantities of organic peroxides still pose a significant hazard and, therefore, must be stored and used in accordance with the applicable provisions of this chapter and Chapter 50. As with other chapters of the *International Fire Code*, Section

6202 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 63 Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids. Chapter 63 (which was formerly Chapter 40) addresses the hazards associated with solid, liquid, gaseous and cryogenic fluid oxidizing materials, including oxygen in home use, and establishes criteria for their safe storage and protection in indoor and outdoor storage facilities, minimizing the potential for uncontrolled releases and contact with fuel sources. Although oxidizers themselves do not burn, they pose unique fire hazards because of their ability to support combustion by breaking down and giving off oxygen. As with other chapters of the *International Fire Code*, Section 6302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 64 Pyrophoric Materials. This chapter (which was formerly Chapter 41) regulates the hazards associated with pyrophoric materials, which are capable of spontaneously igniting in the air at or below a temperature of 130°F (54°C). Many pyrophoric materials also pose severe flammability or reactivity hazards. This chapter addresses only the hazards associated with pyrophoric materials. Materials that pose multiple hazards must conform to the requirements of the code with respect to all hazards. As with other chapters of the *International Fire Code*, Section 6402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 65 Pyroxylin (Cellulose Nitrate) Plastics. This chapter (which was formerly Chapter 42) addresses the significant hazards associated with pyroxylin (cellulose nitrate) plastics, which are the most dangerous and unstable of all plastic compounds. The chemically bound oxygen in their structure permits them to burn vigorously in the absence of atmospheric oxygen at a rate 15 times greater than comparable common combustibles. Strict compliance with the provisions of this chapter, along with proper housekeeping and storage arrangements, help to reduce the hazards associated with pyroxylin (cellulose nitrate) plastics in a fire or other emergencies.

Chapter 66 Unstable (Reactive) Materials. This chapter (which was formerly Chapter 43) addresses the hazards of unstable (reactive) liquid and solid materials as well as unstable (reactive) compressed gases. In addition to their unstable reactivity, these materials may pose other hazards, such as toxicity, corrosivity, explosivity, flammability or oxidizing potential. This chapter, however, intends to address those materials whose primary hazard is unstable reactivity. Materials that pose multiple hazards must conform to the requirements of the code with respect to all hazards. Strict compliance with the provisions of this chapter, along with proper housekeeping and storage arrangements, help to reduce the exposure hazards associated with unstable (reactive) materials in a fire or other emergency. As with other chapters of the *International Fire Code*, Section 6602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 67 Water-reactive Solids and Liquids. This chapter (which was formerly Chapter 44) addresses the hazards associated with water-reactive materials that are solid or liquid at normal temperatures and pressures. In addition to their water reactivity, these materials may pose a wide range of other hazards, such as toxicity, flammability, corrosiveness or oxidizing potential. This chapter addresses only those materials whose primary hazard is water reactivity. Materials that pose multiple hazards must conform to the requirements of the code with respect to all hazards. Strict compliance with the requirements of this chapter, along with proper housekeeping and storage arrangements, helps to reduce the exposure hazards associated with water-reactive materials in a fire or other emergency. As with other chapters of the *International Fire Code*, Section 6702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapters 68 through 79. Reserved for future use.

PART VI—REFERENCED STANDARDS

Chapter 80 Referenced Standards. The code contains several references to standards that are used to regulate materials and methods of construction. Chapter 80 (which was formerly Chapter 47) contains a comprehensive list of all standards that are referenced in the code. The standards are part of the code to the extent of the reference to the standard (see Section 102.7). Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with

the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the code official, contractor, designer and owner.

Chapter 80 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

PART VII—APPENDICES

Appendix A Board of Appeals. This appendix contains optional criteria that, when adopted, provides jurisdictions with detailed appeals, board member qualifications and administrative procedures to supplement the basic requirements found in Section 108 of the code. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

Appendix B Fire-flow Requirements for Buildings. This appendix provides a tool for the use of jurisdictions in establishing a policy for determining fire-flow requirements in accordance with IFC Section 507.3. The determination of required fire flow is not an exact science, but having some level of information provides a consistent way of choosing the appropriate fire flow for buildings throughout a jurisdiction. The primary tool used in this appendix is a table which presents fire flow based on construction type and building area based on the correlation of the Insurance Services Office (ISO) method and the construction types used in the *International Building Code*. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

Appendix C Fire Hydrant Locations and Distribution. This appendix focuses on the location and spacing of fire hydrants which is important to the success of fire-fighting operations. The difficulty with determining the spacing of fire hydrants is that every situation is unique and has unique challenges. Finding one methodology for determining hydrant spacing is difficult. This particular appendix gives one methodology based on the required fire flow that fire departments can work with to set a policy for hydrant distribution around new buildings and facilities in conjunction with IFC Section 507.5. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

Appendix D Fire Apparatus Access Roads. This appendix contains more detailed elements for use with the basic access requirements found in IFC Section 503 which gives some minimum criteria, such as a maximum length of 150 feet and a minimum width of 20 feet, but in many cases does not state specific criteria. This appendix, like Appendices B and C, is a tool for jurisdictions looking for guidance in establishing access requirements and includes criteria for multiple-family residential developments, large one- and two-family subdivisions, specific examples for various types of turn-arounds for fire department apparatus and parking regulatory signage. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

Appendix E Hazard Categories. This appendix contains guidance for designers, engineers, architects, code officials, plans reviewers and inspectors in the classifying of hazardous materials so that proposed designs can be evaluated intelligently and accurately. The descriptive materials and explanations of hazardous materials and how to report and evaluate them on a Material Safety Data Sheet (MSDS) that are contained in this appendix are intended to be instructional as well as informative. Note that this appendix is for information purposes and is not intended for adoption.

Appendix F Hazard Ranking. The information in this appendix is intended to be a companion to the specific requirements of Chapters 51 through 67 which regulate the storage, handling and use of all hazardous materials classified as either physical or health hazards. These materials pose diverse hazards, including instability, reactivity, flammability, oxidizing potential or toxicity; therefore, identifying them by hazard ranking is essential. This appendix lists the various hazardous mate-

materials categories that are defined in the code, along with the NFPA 704 hazard ranking for each. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

Appendix G Cryogenic Fluids—Weight and Volume Equivalents. This appendix gives the fire code official and design professional a ready reference tool for the conversion of the liquid weight and volume of cryogenic fluid to their corresponding volume of gas and vice versa and is a companion to the provisions of Chapter 55 of the code. Note that this appendix is for information purposes and is not intended for adoption.

Appendix H Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) Instructions. This appendix is intended to assist businesses in establishing a Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) based on the classification and quantities of materials that would be found on site in storage and/or use. The sample forms and available Material Safety Data Sheets (MSDS) provide the basis for the evaluations. It is also a companion to IFC Sections 407.5 and 407.6 which provide the requirement that the HMIS and HMMP be submitted when required by the fire code official. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

Appendix I Fire Protection Systems—Noncompliant Conditions. The purpose of this IFC appendix, which was developed by the ICC Hazard Abatement in Existing Buildings Committee, is to provide the fire code official with a list of conditions that are readily identifiable by the inspector during the course of an inspection utilizing the *International Fire Code*. The specific conditions identified in this appendix are primarily derived from applicable NFPA standards and pose a hazard to the proper operation of the respective systems. While these do not represent all of the conditions that pose a hazard or otherwise may impair the proper operation of fire protection systems, their identification in this adoptable appendix will provide a more direct path for enforcement by the fire code official. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

Appendix J Building Information Sign. This new appendix replaces the emergency responder communications facilities provisions which previously occupied Appendix J and that have been relocated to Section 510 in the 2012 edition. It provides design, installation and maintenance requirements for a Building Information Sign (BIS), a fire service tool to be utilized in the crucial, initial response of fire fighters to a structure fire. The BIS placard is designed to be utilized within the initial response time frame of an incident to assist fire fighters in their tactical size-up of a situation as soon as possible after arrival on the scene of a fire emergency. The BIS design is in the shape of a fire service Maltese Cross symbol and includes five spaces (the four wings plus the centerpiece of the cross symbol) in which information is placed about the tactical considerations of construction type and hourly rating, fire protection systems, occupancy type, content hazards and special features which could affect tactical decisions and operations. Note that the provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance (see sample ordinance on page xxi).

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ORDINANCE: 13-14
PREPARED BY: Hawk/Johnson/Cumesty/Householder/Coker/Sievers
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND TITLE 7, FIRE PROTECTION AND FIREWORKS, CHAPTER 1. FIRE CODE, OF THE FARRAGUT MUNICIPAL CODE, TO ADOPT THE INTERNATIONAL FIRE CODE, 2012 EDITION AND THE NFPA 101 LIFE SAFETY CODE, 2012 EDITION

WHEREAS, the Board of Mayor and Alderman of the Town of Farragut, Tennessee, wishes to amend Title 7, Fire Protection and Fireworks, Chapter 1. Fire Code, of the Farragut Municipal Code,

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Alderman of the Town of Farragut, Tennessee, that the Farragut Municipal Code is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Title 7, Fire Protection and Fireworks, Chapter 1. Fire Code, is amended by deleting it in its entirety and substituting in lieu thereof the following:

CHAPTER 1

INTERNATIONAL FIRE CODE

SECTION

- 7-101. Fire Code adopted.
- 7-102. Modifications.
- 7-103. Available in recorder's office.
- 7-104. Violation.
- 7-105. Presumed certification.
- 7-106. Repeated inspections.
- 7-107. Validity.

7-101. Fire Code adopted. Pursuant to authority granted by Tennessee Code Annotated, 6-54-501 through 6-54-506, and for the purpose of establishing the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety to fire fighters and

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emergency responders during emergency operations, the International Fire Code, 2012 Edition, including Appendix B, Appendix C, Appendix D, Appendix E, Appendix F, Appendix G, Appendix H, and Appendix I, as published by the International Code Council, Inc., and the NFPA 101 Life Safety Code, 2012 Edition, including Annex A, Annex B, and Annex C, as prepared and adopted by the National Fire Protection Association, are hereby adopted and incorporated by reference as a part of this code and is hereinafter referred to as the fire code.

7-102. Modifications. (1) The International Fire Code and NFPA 101 Life Safety Code, is amended by establishing the permit fees in the general fee schedule resolution adopted by the Farragut Board of Mayor and Aldermen.

(2) Section [A] 101.1 Title, of the International Fire Code, is amended by inserting the phrase "Town of Farragut" for NAME OF JURISDICTION.

(3) Section 105. Permits, of the International Fire Code, shall be amended by adding the following:

105.2.1.1 Permit denial. No permit shall be issued to an applicant, or any other shareholder of the entity serving as the applicant, if the matter for which application has been filed, if completed, would be in violation of any ordinance of the Town of Farragut. No permit shall be issued to an applicant, or any shareholder of the entity serving as the applicant, who, prior to the issuance of the permit, is in violation of any other sections of the Farragut Municipal Code or ordinance of the Town of Farragut nor shall any permit be issued for a premise that, prior to the issuance of the permit, is in violation of any other sections of the Farragut Municipal Code or ordinance of the Town of Farragut.

(4) Section 108 Board of Appeals, of the International Fire Code, is amended by adding the following:

108.4 Membership. The Farragut Board of Plumbing and Gas/Mechanical Examiners shall serve as the board of appeals.

108.5 Application. Application to board of appeals shall be made prior to commencement of construction.

108.6 Notice of meeting. The board shall meet upon notice from the chairman, within twenty (20) days of the filing of an appeal, or at stated periodic meetings.

108.7 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official, and any person whose interests are affected shall be given an opportunity to be heard.

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108.7.1 Procedure. The board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

108.8 Board decision. The board shall modify or reverse the decision of the code official by a concurring vote of the majority of membership.

108.8.1 Administration. The code official shall take immediate action in accordance with the decision of the board.

108.9 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.

(5) Section 109. Violations, of the International Fire Code, shall be amended by adding the following:

109.1.1 Revocation. The fire official may also revoke a permit or approval if a permit holder shall, subsequent to the issuance of such permit or approval, violate the terms of the International Fire Code or the provisions of any other pertinent sections of the Farragut Municipal Code or ordinances of the Town of Farragut.

(6) Section 401.3.1 Fire events, of the International Fire Code, shall be amended by deleting it in its entirety and substituting in lieu thereof the following:

401.3.1 Fire events. In the event an unwanted fire or other emergency occurs on a property, the owner or occupant shall immediately report such condition to the fire department.

(7) Section 901.6 Inspection, testing and maintenance, of the International Fire Code, shall be amended by adding the following phrase to the last sentence:

“..., only with approval of the fire official.”

(8) Section 901.7 Systems out of service, of the International Fire Code, shall be amended by deleting the first sentence in its entirety and substituting in lieu thereof the following:

901.7 Systems out of service. Where any fire protection system is out of service, the fire department and the fire official shall be notified immediately and, where required by the fire

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official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service.

(9) Section 903.2.3 Group E., 1., of the International Fire Code, shall be amended by deleting it in its entirety and substituting in lieu thereof the following:

1. Throughout all Group E fire areas greater than five thousand (5,000) square feet in area.

(10) Section 903.4.2 Alarms, of the International Fire Code, shall be amended by adding the following sentence:

“Alarms shall comply with Section 907.5 Occupant Notification Systems.”

(11) Section 903.4.3 Floor control valves, of the International Fire Code, shall be amended by deleting it in its entirety and substituting in lieu thereof the following:

903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor.

(12) Section 907.1.2 Fire alarm shop drawings, of the International Fire Code, shall be amended by adding the following:

14. A point-to-point wiring diagram for all devices.
15. A riser diagram showing the zones for all devices connected to the control panel.

(13) Section 907.1.3 Equipment, of the International Fire Code, shall be amended by adding the following sentence as the end of the paragraph:

“All systems installed within a building shall be interconnected and compatible in accordance with their listings.”

(14) Section 907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more, of the International Fire Code, shall be amended by deleting the first sentence in its entirety and substituting in lieu thereof the following:

907.2.1.1 System initiation in Group A occupancies with an occupant load of 300 or more. Activation of the fire alarm in Group A occupancies with an occupant load of 300 or more shall initiate a signal using an emergency voice/alarm communications system in accordance with NFPA 72.

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(15) Section 907.2.11.1 Group R-1, of the International Fire Code, shall be amended by adding the following:

4. In each garage or storage area with a four foot or wider door to the outside.

(16) Section [B]1008.1.9.3 Locks and latches., 2., of the International Fire Code, shall be amended by deleting it in its entirety.

(17) Section 1029.2 Minimum size, of the International Fire Code, shall be amended by deleting the Exception.

(18) Section D107 One- or Two-Family Residential Developments of Appendix D, of the International Fire Code, shall be deleted in its entirety.

(19) Section 7.2.1.5.5 Key-Operated Locks, of the NFPA 101 Life Safety Code, shall be amended by deleting it in its entirety.

(20) Section 6.1.14.4 Separated Occupancies, of the NFPA 101 Life Safety Code, shall be amended by deleting it in its entirety and substituting in lieu thereof the International Building Code, 2012 Edition separations.

(21) Section 16.3.2.5 of the NFPA 101 Life Safety Code, shall be deleted in its entirety and substitute in lieu thereof the following:

16.3.2.5 Domestic cooking equipment capable of producing grease laden vapors shall be protected as required by NFPA 96.

(22) The NFPA 101 Life Safety Code, shall be amended by deleting Chapter 24 One- and Two-Family Dwellings, in its entirety.

7-103. Available in recorder's office. Pursuant to the requirements of Tennessee Code Annotated, 6-54-501 to 6-54-504, one (1) copy of the International Fire Code, 2012 Edition, and one (1) copy of the NFPA 101 Life Safety Code, 2012 Edition, has been placed on file in the recorder's office and shall be kept there for the use and inspection of the public.

7-104. Violation. Any person who shall violate a provision of the International Fire Code or the NFPA 101 Life Safety Code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

7-105. Presumed certification. Any person, corporation, or entity, who accepts or charges a fee or compensation of any kind for the accomplishment of any act covered under the provisions of the International Fire Code or the NFPA 101 Life Safety Code, shall, by the acceptance of such fee or compensation, be presumed to have certified simultaneously therewith that all such activity performed is in full compliance with the terms of the International Fire Code and the NFPA 101 Life Safety Code. Breach of the terms of such certification shall give rise to a private cause of action in favor of the aggrieved party against the party who accepts or charges the fee or compensation, as well as and in addition to any remedies enforceable by the municipality under the terms of the International Fire Code and the NFPA 101 Life Safety Code or otherwise.

7-106. Repeated inspections. A permit holder is required to contact the town office to request required inspections at such time as the construction is at the appropriate stage for the inspection to be completed. It is the responsibility of the permit holder to have the appropriate construction and improvements in place at the time a request for inspection is made. When a request for inspection is made and the fire official finds that the required construction and/or improvements are inadequate to perform the required inspection, a penalty fee shall be assessed. If a second request for inspection is made and the fire official finds that the required construction and/or improvements are inadequate to perform the required inspection, an additional penalty fee shall be assessed. The purpose of these reinspection fees is to recover costs incurred for additional follow-up inspections. The penalty fee shall be collected prior to scheduling another inspection and prior to the issuance of a certificate of occupancy.

Said penalty fee shall be assessed when the permit holder fails to have the required construction and improvements in place in order for the fire official to perform the appropriate requested inspection. The permit holder shall be responsible for notifying the town at such time as he/she is ready for the follow-up inspection to be undertaken.

7-107. Validity. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 2.

This ordinance shall take effect from and after its final passage and publication, the public welfare requiring it.