

CHAPTER 20.10

LINCOLN RESIDENTIAL BUILDING CODE

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20.10.010 Adoption of 2006 International Residential Code.

Except as hereinafter provided by specific amendment, the International Residential Code for One- and Two-Family Dwellings, 2006 Edition (First Printing), hereinafter referred to as the International Residential Code is hereby adopted and incorporated into Title 20 of the Lincoln Municipal Code.

One printed copy of the above publication has been filed in the office of the City Clerk for use of and examination by the public. (Ord. 19033 §1; January 7, 2008; prior Ord. 17996 §1; May 13, 2002).

20.10.020 Section R101 Amended; Title, Scope and Purpose.

Section R101 of the International Residential Code is amended to read as follows:

R101.1 Title. These provisions shall be known as the Residential Code for One- and Two-Family Dwellings of the City of Lincoln, Lancaster County, Nebraska, and shall be cited as such and will be referred to herein as “this code.”

R101.2 Scope. The provisions of the *International Residential Code for One- and Two-Family Dwellings* 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 multiple single-family dwellings (townhouses) not more than three stories above grade in height with a separate means of egress and their accessory structures with the city or within three miles of the corporate limits of the city and outside of any other organized city or village not more than three stores in height with a separate means of egress and their accessory structures.

R101.3 Purpose. 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, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within the city and within three miles of the corporate limits of the city and outside of any other organized city or village, and regulating ceratin equipment specified herein.

The purpose of this code is not to create or otherwise establish or designate any particular case or group of persons who will or should be especially protected or benefitted by the terms of this code. (Ord. 19033 §2; January 7, 2008; prior Ord. 17996 §2:May 13, 2002).

20.10.025 Section R102.1 Amended; Applicability; General.

Section R102.1 of the International Residential Code is amended to read as follows:

R102.1 General. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where there is a conflict between the International Residential Code, as adopted or amended, any other section of the Lincoln Municipal Code, or recommendation or requirement from a manufacturer, the most restrictive shall govern. (Ord. 19033 §3; January 7, 2008).

20.10.030 Section R103 Amended; Department of Building and Safety.

Section R103 of the International Residential Code is amended to read as follows:

SECTION R103 – DEPARTMENT OF BUILDING AND SAFETY

R103.1 Building official designated. The Department of Building and Safety is hereinafter designated as the building department under the jurisdiction of the Director of Building and Safety, who is hereinafter designated as the Building Official.

R103.2 Appointment; Deleted.

R103.3 Deputies; Deleted.

(Ord. 17996 §3; May 13, 2002).

20.10.040 Section R105.2 Amended; Work Exempt From Permit.

Section R105.2 of the International Residential Code is amended to read as follows:

R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Building:

1. Fences not over 6 feet 4 inches high.
2. Retaining walls that are not over 4 feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
3. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2 to 1.
4. Shingling and residing.

5. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
6. Prefabricated, temporary, frameless, softside swimming pools that have a depth of 48 inches or less. Swimming pools are further regulated by Lincoln Municipal Code Chapters 8.36 and 8.38. are less than 24 inches deep.
7. Swings and other playground equipment accessory to a one- or two-family dwelling.
8. Window awnings supported by an exterior wall.

Note: Replacement windows are not exempted from permits. Permits and inspections are necessary to determine if egress and tempered glass requirements have been met.

R105.2.1 Emergency repairs. Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the building official.

R105.2.2 Repairs; Deleted.

R105.2.3 Public service agencies; Deleted.

(Ord. 19033 §4; January 7, 2008; prior Ord. 17996 §4; May 13, 2002).

20.10.045 Section R105.4.1 Added; Orders Not Stayed.

Section R105.4.1 is added to the International Residential Code to read as follows:

R105.4.1 Orders not stayed. Orders, deadlines, provisions and/or penalties established by the Building Official or any other officer or other designated authority with the City of Lincoln charged with the administration and enforcement of any code or ordinance under the Lincoln Municipal Code shall not be stayed or nullified because of the issuance or granting of a building permit. (Ord. 19033 §5; January 7, 2008).

20.10.050 Section R105.5 Amended; Expiration.

Section R105.5 of the International Residential Code is amended to read as follows:

R105.5 Expiration. Every permit issued shall become invalid unless the work authorized by such permit is commenced within 120 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced.

All permits shall expire after two years. New plans and permit will be required to extend the project. The building official is authorized to grant by written request, one extension of time due to size and scope of project for a period of not more than one year with the payment of two-thirds of the original building permit fee. (Ord. 17996 §5; May 13, 2002).

20.10.060 Section R107, Temporary Structures and Uses; Deleted.

Section R107 of the International Residential Code and all subsections thereof are hereby deleted. (Ord. 17996 §6; May 13, 2002).

20.10.070 Section R108 Amended; Fees.

Section R108 of the International Residential Code is amended to read as follows:

SECTION R108 - FEES

R108.1 General. Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the fee schedule adopted in the following sections.

R108.2 Permit fees. The fee for each permit shall be as set forth in Table No. 1A.

The determination of value or valuation to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is

issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and any other permanent equipment. The building official may determine valuation by applying the I.C.C. valuation or other recognized method of estimating building construction project cost.

The value or valuation used by the building official in computing the building permit and plan review fees is only an estimate and is not intended to be used as conclusive evidence of the actual value of all construction work for which the permit is issued as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and any other permanent equipment for purposes of determining whether said value exceeds a certain percentage of the fair market value of the building in question.

R108.3 Plan review fees. When a plan or other data are required to be submitted by Section R105.3, a plan review fee shall be paid at the time of submitting plans and specifications for review. Said plan review fee shall be an amount equal to 30% of the building permit fee shown in Table 1A, for residential buildings of one and two dwelling units. At time of submittal for an application for a building permit for residential buildings of one- and two-family dwelling units, a permit deposit of \$100.00 shall be made by the applicant.

The plan review fees in this subsection are separate from and in addition to the permit fees specified in Section R108.2 and shall not be credited to the total building permit fee if such permit is issued. There shall be no refund for plan review after any plan review has been completed by the Department of Building and Safety, even if the application is withdrawn.

One additional plan review of corrections made on the original plans after the initial plan review shall be performed at no cost to the applicant; however, where plans require further corrections, are incomplete, or are changed necessitating additional plan review, an additional plan review fee shall be charged at the rate of ten percent of the total permit fee or \$50.00, whichever is greater, for each additional review. Limited permit applications will be subject to additional plan review fees as specified in this section.

Single-family and duplex limited permit reviews will be subject to an additional plan review fee at the rate of ten percent of the total building permit fee or \$100.00, whichever is greater.

R108.4 Development permit fees.

R108.4.1 A fee shall be assessed for any flood plain development permit applied for under Lincoln Municipal Code Chapters 27.52 and 27.53 and shall be paid at the time of application therefor. The fee for each permit shall be as follows:

Flood Plain Development Permit Fees

Flood Plain Permit	15% of Building Fee (\$250.00 Minimum)
Flood Plain - All other Development (roads, trails, pipelines)	\$250.00
Flood Plain Permit – Fill	\$250.00 + \$50.00 per acre (\$2,500.00 Maximum)
Flood Plain – Mobile Home Placement	\$50.00
Floodplain – Accessory Buildings	\$50.00
Flood Plain – Residential Non-substantial Improvement	\$100.00

R108.4.2 In those cases where a development permit is required for a structure, but a building permit is not required, the value of construction as determined by Section R108.2 of this code shall be used to calculate the development permit fee.

R108.4.3 Any work requiring a development permit commenced prior to the issuance of the permit shall result in the assessment of an investigation fee in accordance with Section R108.6 of this code, which investigation fee shall be in addition to the development permit fee.

R108.4.4 The building official may refund not more than two-thirds of the development permit fee when an application for which such fee has been paid is withdrawn or canceled prior to commencement of plan review.

R108.5 Expiration of plan review. Applications for which no permit is issued within 180 days following the date of application shall expire by limitation, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days on request by the applicant prior to the expiration date showing that circumstances beyond the control of the applicant have prevented action from being taken. No application shall be extended more than once. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay all new Building and Safety Department permit fees.

R108.6 Investigation fees. Work without a permit.

R108.6.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

R108.6.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The minimum investigation fee shall be the same as the minimum fee set forth in Table 1-A. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

R108.7 Fee refunds. There shall be no refunds or credits given on permits or applications regulated by this chapter which have expired. Permit holders returning an unused permit prior to the expiration date of the permit shall be limited to a maximum refund amounting to two-thirds of the total building permit fee, with the remaining one-third to be used to pay the cost of processing the permit. The building official may authorize refunding of not more than two-thirds of the plan review fee or permit deposit paid when an application for a permit for which such fee has been paid is withdrawn or canceled before any plan reviewing is done.

No refund shall be issued on a permit deposit or plan review fee, flood plain development fee, demolition fee, or any other fee collected by the department, where the refund amount is less than \$50.00. Where a fee has been collected in error, the building official may authorize a 100% refund. (Ord. 19033 §6; January 7, 2008; prior Ord. 17996 §7; May 13, 2002).

20.10.080 Table No. 1-A Added; Building Permit Fees.

Table No. 1-A is added to the International Residential Code to read as follows:

TABLE 1-A – BUILDING PERMIT FEES

Total Valuation	Fee
\$0 to and including \$1,000	\$30.00
Each additional \$1,000 or fraction thereof in excess of \$1,000	\$ 2.00
Reinspection fee (wrong address, work does not pass inspection, work not complete, etc.)	\$50.00

(Ord. 19033 §7; January 7, 2008: prior Ord. 17996 §8; May 13, 2002).

20.10.090 Section R109 Section Heading Amended; Inspections and Surveys.

The section heading of Section R109 of the International Residential Code is amended to read as follows:

**SECTION R109
INSPECTIONS AND SURVEYS**

(Ord. 17996 §9; May 13, 2002).

20.10.100 Section R109.1 Amended; Types of Inspections.

Section R109.1 of the International Residential Code is amended to read as follows:

R109.1 Types of inspections. All construction or work for which a permit is required shall be subject to inspection by the building official and all such construction work shall remain accessible and exposed for inspection purposes until approved by the building official.

Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the city. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the city shall not be valid.

A survey of the lot or lots upon which permitted work for additions, alterations, or repairs are being accomplished shall be provided by a duly licensed surveyor of the State of Nebraska before plans and specifications shall be accepted by the building official to verify compliance of the construction or work with building line setback requirements of the Lincoln Municipal Code. All boundary corners of a lot or lots with permanent survey monuments shall be marked in the field by a duly licensed surveyor of the State of Nebraska.

It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the building official nor the city shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

In the event any permit holder or permit holder's agent shall fail to request required inspections as herein provided or in the event any permit holder or permit holder's agent shall have a backlog of one or more permits with no final inspections completed, the building official is authorized to withhold further issuance of any permit or perform any further inspections under this code to said permit holder or the permit holder's agent until required inspections have been completed as provided by this code. (Ord. 19033 §8; January 7, 2008: prior Ord. 17996 §10; May 13, 2002).

20.10.110 Section R109.1.2 Deleted; Plumbing, Mechanical, Gas and Electrical Systems Inspection.

Section R109.1.2 of the International Residential Code is hereby deleted. (Ord. 17996 §11; May 13, 2002).

20.10.120 Section R109.1.7 Added; Reinspections.

Section R109.1.7 is added to the International Residential Code to read as follows:

R109.1.7 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid. (Ord. 17996 §12; May 13, 2002).

20.10.130 Section R109.5 Added; Address Identification.

Section R109.5 is added to the International Residential Code to read as follows:

R109.5 Address identification. All additions, alterations, or repairs for which a permit is required by this code shall be provided with a construction address identification sign. Said identification sign shall be a sign of metal, wood, plastic, or other approved rigid material with permanent identification numbers and letters thereon indicating the legally assigned street or other type address assigned by the building official. Said identification sign shall have numbers and letters of such size and shall be so placed upon the construction site that said sign is readily visible and identifiable from the public street. Said identification sign shall be properly maintained during the entire period of time that the construction or work is being accomplished or maintained. (Ord. 17996 §13; May 13, 2002).

20.10.140 Section R110 Amended; Certificate of Occupancy.

Section R110 of the International Residential Code is amended to read as follows:

SECTION R110 – CERTIFICATE OF OCCUPANCY

R110.1 Use and occupancy. No building or structure other than Group U occupancies, shall be used or occupied, and no change in the existing use or occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefor, as provided in Chapter 27.77 of the Lincoln Municipal Code.

It shall be the responsibility of a permit holder or the permit holder's agent to call for all required inspections, including the final inspection, of all additions, alterations, or repairs performed under a plumbing, mechanical, electrical or building permit. Final inspection shall be called for by the permit holder or the permit holder's agent prior to occupancy of the building or structure or portion thereof. In the event any permit holder or permit holder's agent shall fail to call for required inspections as herein provided or in the event any permit holder or permit holder's agent shall have a backlog of one or more permits with no final inspections completed, the building official is author-

ized to withhold further issuance of any permit or perform any further inspections under this code to said permit holder or the permit holder's agent until required inspections have been completed as provided by this code. Written notice shall be given to the permit holder by the building official.

R110.2 Change in use. Changes in the character or use of a building shall not be made except as specified in Section 3406 of the International Building Code.

R110.3 Certificate issued. After the Building Official performs a final inspection and observes that the required sidewalks along the frontage of any residential zoned single-family or two-family lot abutting upon a local or collector street have been installed, a certificate of occupancy shall be issued when it is found that the building or structure complies with requirements of issuance set forth in Chapter 27.77 of the Lincoln Municipal Code.

R110.4 Temporary certificate. If the Building Official finds that no substantial hazard will result from occupancy of any building or portion thereof before the same is completed, a temporary certificate of occupancy may be issued for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure and issuance of the certificate of occupancy. If the temporary certificate of occupancy is issued for a single- or two-family dwelling located upon a single- or two-family lot abutting upon a local or collector street, the temporary certificate of occupancy shall be conditioned upon the sidewalks along the frontage of said lot being constructed during the same or next construction season.

R110.4.1 Temporary certificate limitations. Each temporary certificate of occupancy shall be limited to a term to be determined by the building official.

R110.5 Revocation. The building official may, in writing, suspend or revoke a certificate of occupancy issued under the provisions of this code whenever the certificate is issued in error, or on the basis of incorrect information supplied, or when it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code. (Ord. 19033 §9; January 7, 2008; prior Ord. 17996 §14; May 13, 2002).

20.10.150 Section R111 Deleted; Service Utilities.

Section R111 of the International Residential Code and all subsections thereof are hereby deleted. (Ord. 17996 §15; May 13, 2002).

20.10.160 Section R112 Amended; Board of Appeals.

Section R112 of the International Residential Code is amended to read as follows:

SECTION R112 – BOARD OF APPEALS

R112.1 Building Code Board of Appeals. The appeals board adopted under Lincoln Municipal Code Section 20.08.150 pursuant to Section 112 of the International Building Code as amended by the City of Lincoln, shall serve as the appeals board for this code.

R112.2 Limitations on authority - Deleted.

R112.2.1 Determination of substantial improvement in acres prone to flooding - Deleted.

R112.2.2 Criteria for issuance of a variance for areas prone to flooding - Deleted.

R112.3 Qualifications - Deleted.

R112.4 Administration - Deleted.

(Ord. 19033 §10; January 7, 2008; prior Ord. 17996 §16; May 13, 2002).

20.10.165 Section R113.3 Amended; Prosecution of Violation.

Section R113.3 of the International Residential Code is amended to read as follows:

R113.3 Prosecution of Violation. If the notice of violation is not complied with and the abatement or correction of the violation is not completed within the time frame given in the notice of violation, the Building Official may withhold issuance of any further building permits and may withhold any further inspection pending compliance with the order of abatement or correction and the Building Official is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct, or abate such violation, or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto. (Ord. 19033 §11; January 7, 2008)

20.10.170 Section R113.4 Amended; Violation Penalties.

Section R113.4 of the International Residential Code is amended to read as follows:

R113.4 Violation penalties. Any person, firm, or corporation who shall violate any of the provisions of this code shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in any sum not to exceed \$500.00, or be imprisoned in the county jail for a period not to exceed six months, or by both such fine and imprisonment, except that each person so convicted shall be fined in a sum of not less than \$200.00 for the first offense, not less than \$250.00 for the second offense, and not less than \$300.00 for the third offense and each offense thereafter. Each day that such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder. (Ord. 17996 §17; May 13, 2002).

20.10.175 Section R114 Amended; Stop Work Order.

Section R114 of the International Residential Code is amended to read as follows:

R114.1 Notice to owner. Upon notice from the Building Official that work on any building or structure is being prosecuted contrary to the provisions of this code or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work, and shall state the conditions under which work shall be permitted to resume. If the owner or owner's agent fails to comply with the stop work order or fails to correct any violations or unsafe and dangerous work practices ordered to be abated or corrected within thirty days or the time frame given in the stop work order, the Building Official shall withhold issuance of any further building permits and withhold any further inspections pending compliance with the stop work order and abatement or correction of any violations or unsafe and dangerous work practices.

R114.2 Unlawful continuance. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.

R114.3 Time to correct violations. The International Residential Code violations or any other Lincoln Municipal Code violations stated in the stop work order shall be abated within thirty days, unless directed otherwise by the Building Official, or be subject to penalties as prescribed in this code. (Ord. 19033 §12; January 7, 2008).

20.10.180 Section R115 Added; Demolition of Buildings.

Section R115 is added to the International Residential Code to read as follows:

SECTION R115 – DEMOLITION OF BUILDINGS

R115.1 General. Demolition of buildings shall comply with Section 3303 of the International Building Code as adopted by the City of Lincoln in the Lincoln Municipal Code. Demolition must start within thirty days and be completed sixty days after the date the permit was issued. The building official may extend a demolition permit an additional thirty days. Applications for demolition permits shall expire 180 days after the application date. (Ord. 19033 §13; January 7, 2008; prior Ord. 17996 §18; May 13, 2002).

20.10.190 Section R202 Amended; Definitions.

Section R202 of the International Residential Code is amended to read as follows:

SECTION R202 – DEFINITIONS

Other than the following, all definitions are adopted as printed in the 2006 International Residential Code:

ACCESSORY STRUCTURE. A structure not greater than 1,800 square feet in floor area, the use of which is customarily accessory to and incidental to that of the dwelling(s) and which is located on the same lot.

KITCHEN. A facility for cooking, storing, and preparing food. A kitchen shall include a stove, refrigerator, sink, and a minimum of 4 lineal feet of counter space. (Ord. 19033 §14; January 7, 2008; prior Ord. 17996 §19; May 13, 2002).

20.10.200 Table No. R301.2(1) Amended; Climatic and Geographic Design Criteria.

Table No. R301.2(1) of the International Residential Code is amended to read as follows:

**TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	WIND SPEED ^d (mph)	SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g
			Weathering ^a	Frost Line depth ^b	Termite ^c			
30 psf	90 mph	B	Severe	36"	moderate to heavy	70° F	No	See LMC 27.52 & 27.53

For SI- 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

- a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301 2(3)] The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.
- b. The frost line depth may require deeper footings than indicated in Figure R403.1(l). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.

- d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- e. The outdoor design dry-bulb temperature shall be selected from the columns of 97 1/2 percent values for winter from Appendix D of the International Plumbing Code. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.
- f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
- g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the currently effective FIRM and FBFM, or other flood hazard map adopted by the community, as may be amended.
- h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."

(Ord. 19033 §15; January 7, 2008: prior Ord. 17996 §20; May 13, 2002).

20.10.210 Table R301.5 Amended; Minimum Uniformly Distributed Live Loads.
 Table R301.5 of the International Residential Code is amended to read as follows:

TABLE R301.5
MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS
(in pounds per square foot)

USE	LIVE LOAD
Attics with limited storage ^{b,g, h}	20
Attics without storage ^b	10
Decks ^e	40
Exterior balconies	60
Fire escapes	40
Guardrails and handrails ^d	200 ⁱ
Guardrails in-fill components ^f	50 ⁱ
Passenger vehicle garages ^a	50 ^a
Rooms other than sleeping rooms	40
Sleeping rooms	40
Stairs	40 ^c

For SI: 1 pound per square foot = 0.0479 kPa, 1 square inch = 645 mm²,
 1 pound = 4.45 N.

All footnotes to Table No. R301.5 of this code shall apply.

(Ord. 19033 §16; January 7, 2008: prior Ord. 17996 §21; May 13, 2002).

20.10.220 Table R301.7 Amended; Allowable Deflection of Structural Members.
 Table R301.7 of the International Residential Code is amended to read as follows:

**TABLE R301.7
 ALLOWABLE DEFLECTION OF STRUCTURAL MEMBERS**

STRUCTURAL MEMBER	ALLOWABLE DEFLECTION
Rafters having slopes greater than 3/12 with no finished ceiling attached to rafters	L/180
Interior walls and partitions	H/240
All other structural members L/240	L/240
Exterior walls with plaster or stucco finish	H/360
Exterior walls —wind loads ^a with brittle finishes	H/240
Exterior walls—wind loads ^a with flexible finishes	H/120
Floors – 16'6" or less	L/360
Floors over 16'6" span	L/480

Note: L = span length, H = span height.

a. The wind load shall be permitted to be taken as 0.7 times the Component and Cladding loads for the purpose of the determining deflection limits herein.
 (Ord. 19033 §17; January 7, 2008; prior Ord. 17996 §22; May 13, 2002).

20.10.230 Section R302.1 Amended; Exterior Walls.

Section R302.1 of the International Residential Code is amended to read as follows:

R302.1 Exterior walls. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1. These provisions shall not apply to walls, projections, openings or penetrations in walls that are perpendicular to the line used to determine the fire separation distance. Projections beyond the exterior wall shall not extend more than 12 inches (305 mm) into the areas where openings are prohibited. No part of a detached structure shall be closer than 2 feet from a lot line.

Exception 1: Detached tool sheds and storage sheds, playhouses and similar structures with a floor area of equal to or less than 120 square feet are not required to provide wall protection.

Exception 2: Detached accessory buildings greater than 120 square feet with walls located less than 3 feet from a lot line shall be 1 hour protected with exposure from the inside with no openings.

Exception 3: An accessory building located less than 6 feet from a dwelling unit including decks greater than 30 inches above grade, shall be protected with no less than 5/8" type X gypsum board applied to the interior side of the walls and the ceiling. The door shall be no less than a solid

core or steel door no less than 1 3/8" thickness. No other openings shall be permitted. (Ord. 19033 §18; January 7, 2008; prior Ord. 17996 §23; May 13, 2002).

20.10.235 Table R302.1 Amended; Exterior Walls.

Table R302.1 of the International Building Code is amended to read as follows:

**TABLE R302.1
EXTERIOR WALLS**

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	(Fire-resistance rated)	1 hour with exposure from both sides*	0 feet
	(Not fire-resistance rated)	0 hours	5 feet
Projections	(Fire-resistance rated)	1 hour on the underside	<3 feet
	(Not fire-resistance rated)	0 hours	> or = 3 feet
Openings	Not allowed	N/A	<3 feet
	25% Maximum of Wall Area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R317.3	<5 feet
		None required	5 feet

*Detached Garages- 1 hour protection from the inside only.
(Ord. 19033 §19; January 7, 2008)

20.10.240 Section R303.1 Exception 2 Amended; Habitable Rooms.

Exception 2 of Section R303.1 of the International Residential Code is amended to read as follows:

2. The glazed areas shall not be required to be provided in habitable rooms in basements except for bedrooms where Exception 1 above is satisfied and artificial light is provided capable of producing an average illumination of 6 foot candles (6.46 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level. (Ord. 17996 §24; May 13, 2002).

20.10.250 Section R303.3 Amended; Bathrooms.

Section R303.3 of the International Residential Code is amended to read as follows:

R303.3 Bathrooms. Bathrooms, water closet compartments, laundry rooms, and other similar rooms shall be provided with a mechanical ventilation system. The minimum ventilation rates shall be 50 cfm (23.6 L/s) for intermittent ventilation or 20 cfm (9.4 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.

In laundry rooms, dryers vented directly to the outside are deemed to meet the requirements of this section. (Ord. 19033 §20; January 7, 2008; prior Ord. 17996 §25; May 13, 2002).

20.10.253 Sections R303.4, R303.4.1 and R303.4.2 Deleted; Opening Location.

Sections R303.4, R303.4.1 and R303.4.2 of the International Residential Code are hereby deleted. (Ord. 19033 §21; January 7, 2008),

20.10.255 Section R303.5 Deleted; Outside Opening Protection.

Section R303.5 of the International Residential Code is hereby deleted. (Ord. 19033 §22; January 7, 2008)

20.10.260 Section R305 Amended; Ceiling Heights.

Section R305 of the International Residential Code is amended to read as follows:

SECTION R305 – CEILING HEIGHT

R305.1 Ceiling Heights. Habitable space shall have a ceiling height of not less than 7 feet 6 inches (2286 mm) except as otherwise permitted in this section. Kitchens, halls, bathrooms, and toilet compartments may have a ceiling height of not less than 7 feet (2134 mm) measured to the lowest projection from the ceiling. Where exposed beam ceiling members are spaced at less than 48 inches (1219 mm) on center, ceiling height shall be measured to the bottom of the deck supported by these members. Where exposed beam ceiling members are spaced at 48 inches (1219 mm) or more on center, ceiling height shall be measured to the bottom of the deck supported by these members, provided that the bottom of the members is not less than 7 feet (2134 mm) above the floor.

If any room in a building has a sloping ceiling, the prescribed ceiling height for the room is required in only one-half the area thereof. No portion of the room measuring less than 5 feet (1524 mm) from the finished floor to the finished ceiling shall be included in any computation of the minimum area thereof.

If any room has a furred ceiling, the prescribed ceiling height is required in two-thirds the area thereof, but in no case shall the height of the furred ceiling be less than 7 feet (2134 mm).

Exception: The ceiling height of a habitable room in basements within a single family dwelling may be reduced to accommodate existing floor joists, but in no case shall the finished ceiling height be less than 7 feet (2134 mm). Beamed and furred ceilings under ducts or piping shall have a ceiling height of not less than 6 feet 6 inches (1981 mm) and shall not exceed 1/3 of the total ceiling area of the room. When ceilings are constructed to such minimum heights as herein described, no fixtures or other appurtenances shall project below such ceiling heights. Connecting hallways in such basements shall have a ceiling height of not less than 6 feet 10 inches (2083 mm). Bathrooms shall have a minimum ceiling height of 6 feet 8 inches (2036 mm) over the fixture and at the front clearance area for fixtures as shown in Figure R307.1. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet 8 inches (2036 mm) above a minimum area 30 inches (762 mm) by 30 inches (762 mm) at the showerhead. (Ord. 19033 §23; January 7, 2008; prior Ord. 17996 §26; May 13, 2002).

20.10.265 Section R306.2 Amended; Kitchen.

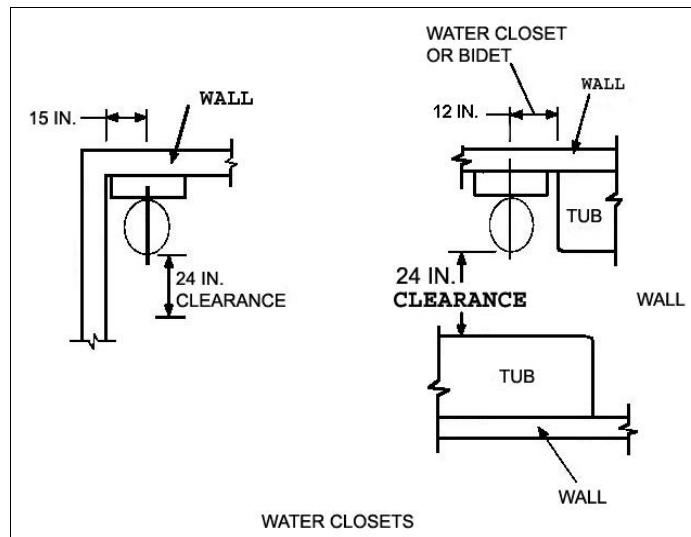
Section R306.2 of the International Residential Code is amended to read as follows:

R306.2 Kitchen. Each dwelling unit shall be provided with a kitchen area and every kitchen area shall be provided with a sink. Domestic free-standing or built-in ranges shall have a vertical clearance above the cooking top of not less than 30 inches to unprotected combustible material. When the underside of such combustible material is protected with insulating millboard at least 1/4 inch thick covered with 28 gage metal or a metal ventilating hood, the distance shall be not less than 24 inches. (Ord. 19033 §24; January 7, 2008)

20.10.270 Figure R307.1 Amended; Minimum Fixture Clearances.

Figure R307.1 of the International Residential Code is amended to read as follows:

FIGURE R307.1
MINIMUM FIXTURE CLEARANCES



(Ord. 19033 §25; January 7, 2008; prior Ord. 17996 §27; May 13, 2002).

20.10.273 Section R307.3 Added; Access to Whirlpool Pump.

Section R307.3 is added to the International Residential Code to read as follows:

R307.3 Access to whirlpool pump. Access shall be provided to circulation pumps in accordance with the fixture manufacturer's installation instructions. Where the manufacturer's instructions do not specify the location and minimum size of field fabricated access openings, a 12-inch by 12-inch (304 mm by 304 mm) minimum size opening shall be installed to provide access to the circulation pump. Where pumps are located more than 2 feet (609 mm) from the access opening, an 18-inch by 18-inch (457 mm by 457 mm) minimum size opening shall be installed. A door or panel shall be permitted to close the opening. In all cases, the access opening shall be unobstructed and be of the size necessary to permit the removal and replacement of the circulation pump. (Ord. 19033 §26; January 7, 2008)

20.10.275 Sections R309.1.1 and R309.1.2 Deleted; Duct Penetration of Garages.

Sections R309.1.1 and R309.1.2 of the International Residential Code are hereby deleted. (Ord. 19033 §27; January 7, 2008).

20.10.280 Section R309.2 Amended; Separation Required.

Section 309.2 of the International Residential Code is amended to read as follows:

R309.2 Separation required. The garage shall be separated from the residence and its attic area by not less than 5/8-inch (15.9 mm) type X gypsum board applied to the garage wall side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 5/8-inch (15.9 mm) type X gypsum board or equivalent. A cantilever projecting over a garage door shall be protected on the underside by not less than 5/8" Type X gypsum board.

Garages located less than 6 feet (914 mm) from a dwelling unit on the same lot shall be protected with not less than 5/8-inch type X gypsum board applied to the interior side of exterior walls that are within this area. Openings in these walls shall be regulated by Section R309.1. This provision does not apply to garage walls that are perpendicular to the adjacent dwelling unit wall. Accessory buildings 120 square feet or greater, located less than 6 feet from the residence shall be protected by not less than 5/8 inch type X gypsum board applied to the interior side, with no openings permitted. (Ord. 19033 §28; January 7, 2008: prior Ord. 17996 §28; May 13, 2002).

20.10.290 Section R309.7 Added; Headroom Clearance.

Section R309.7 is added to the International Residential Code to read as follows:

R309.7 Headroom clearance. Any portion of a garage shall have an unobstructed headroom clearance of not less than 6 feet 8 inches above the finished floor to any ceiling, beam, pipe, or similar construction except for wall-mounted shelves, storage surfaces, racks, or cabinets. (Ord. 19033 §29; January 7, 2008: prior Ord. 17996 §29; May 13, 2002).

20.10.300 Section R310.1 Amended; Emergency Escape and Rescue Required.

Section R310.1 of the International Residential Code is amended to read as follows:

R310.1 Emergency escape and rescue required. Every sleeping room shall have at least one operable emergency escape and rescue window or exterior door opening for emergency escape and rescue. Rooms with a storage closet greater than 18 inches in depth or direct access to a bathroom shall also comply with this requirement. Where openings are provided as a means of escape and rescue, they shall have a clear opening height not more than 44 inches (1118 mm) above the floor. The net clear opening dimensions required by this section shall be obtained by the normal operation of the window or door opening from the inside. Escape and rescue window openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2. (Ord. 19033 §30; January 7, 2008: prior Ord. 17996 §30; May 13, 2002).

20.10.310 Section R310.1.1 Exception Deleted; Minimum Opening.

The Exception to Section R310.1.1 of the International Residential Code is hereby deleted. (Ord. 17996 §31; May 13, 2002).

20.10.315 Section R310.1.5 Added; Double Hung Egress Window.

Section R310.1.5 is added to the International Residential Code to read as follows:

R310.1.5 Double hung egress window. Double hung windows must meet the requirements for an egress window without removing the upper sash. (Ord. 19033 §31; January 7, 2008).

20.10.320 Section R310.3 Amended; Bulkhead Enclosures.

Section R310.3 of the International Residential Code is amended to read as follows:

R310.3 Bulkhead enclosures. Bulkhead enclosures shall provide direct access only to furnace, water heater, and other mechanical, plumbing and electrical equipment. The bulkhead enclosure with the door panels in the fully open position shall provide the minimum net clear opening required by Section R310.1.1. (Ord. 17996 §32; May 13, 2002).

20.10.330 Section R312.4.3 Amended; Landings at Doors.

Section R311.4.3 of the International Residential Code is amended to read as follows:

R311.4.3 Landings at doors. There shall be a floor or landing on each side of each exterior door. The exterior landing at an exterior doorway shall not be more than 7 3/4 inches (196 mm) below the top of the threshold, provided the door, other than an exterior storm or screen door does not swing over the landing. The landing shall be permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-percent).

Exceptions:

1. Where a stairway of 4 or more risers is located on the exterior side of a door, other than the required exit door, a landing is required.
2. The height of floors at a garage utility door shall not be more than 7 3/4 inches (186 mm) lower than the top of the threshold. The width of each landing shall not be less than the door served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel. (Ord. 19033 §32; January 7, 2008; prior Ord. 17996 §33; May 13, 2002).

20.10.340 Section R311.5 Amended; Stairways.

Section R311.5 of the International Residential Code is amended to read as follows:

SECTION R311.5 - STAIRWAYS

R311.5.1 Width. Stairways shall not be less than 36 inches (914 mm) in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5 inches (114 mm) on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31.5 inches (787 mm) where a handrail is installed on one side and 27 inches (698 mm) where handrails are provided on both sides. Stairways serving a loft of less than 300 square feet in a room within a individual dwelling unit, may not be less than 24 inches (610 mm) in width.

Exceptions:

1. The width of spiral stairways shall be in accordance with Section R311.5.8.1.
2. Private stairways for basements, lofts, or attics may be 30 inches (762 mm) in width provided the minimum clear width at and below the railing shall not be less than 25 1/2 inches (660 mm).
3. Stringers and other projections such as trim and similar decorative features may project into the required width 1 1/2 inches (38 mm) on each side.

R311.5.2 Headroom. The minimum headroom in all parts of the stairway shall not be less than 6 feet 8 inches (2032 mm) measured vertically from the sloped plane adjoining the tread nosing or from the floor surface of the landing or platform.

Exception: When demonstrated to the building official there are practical difficulties in achieving 6 feet 8 inches (2032 mm) headroom in existing construction, a minimum of 6 feet 6 inches (1981 mm) headroom may be allowed.

R311.5.3 Stair treads and risers.

R311.5.3.1 Riser height. The maximum riser height shall be 7¾ inches (196 mm) unless at the discretion of the Building Official, it may be adjusted to accommodate existing conditions. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). The minimum riser height shall be no less than 4 inches. Open risers are permitted.

R311.5.3.2 Tread depth. The minimum tread depth shall be 10 inches (254 mm) unless at the discretion of the Building Official, it may be adjusted to accommodate existing conditions. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 7 inches (152 mm) at any point. A nosing shall not exceed 1" (27.4mm).

R311.5.4 Landings for stairways. There shall be a floor or landing at the top and bottom of each stairway.

Exception 1: A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs.

Exception 2: The bottom of an exterior stair shall be supported by a concrete or stone pad that provides a minimum landing of 12 inches, the top of which is at grade level, and shall be the width of the stairs.

A flight of stairs shall not have a vertical rise larger than 12 feet (3658 mm) between floor levels or landings. The width of each landing shall not be less than the width of the stairway served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel.

R311.5.5 Stairway walking surface. The walking surface of treads and landings of stairways shall be sloped no steeper than one unit vertical in 48 inches horizontal (2-percent slope).

R311.5.6 Handrails. Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers. The handrail for circular, and winding stairs shall be located on the side where the tread is narrower.

R311.5.6.1 Height. Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

R311.5.6.2 Continuity. Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1½ inch (38 mm) between the wall and the handrails.

Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at the turn.
2. The use of a volute, turnout, starting easing or starting newel shall be allowed over the lowest tread.
3. Handrails shall be permitted to be interrupted at the point where a stairway wall changes to an open guard.

R311.5.6.3 Handrail grip size. The handgrip portion of handrails shall have a circular cross section of 1 1/4 inches (32 mm) minimum to 2 5/8 inches (67 mm) maximum. Other handrail shapes that provide an equivalent grasping surface are permissible. Edges shall have a minimum radius of 1/8 inch (3.2 mm). On exterior stairs of individual dwelling units, the handrail

may consist of a 1 1/2 inch (38 mm) thick by a 3 1/2 inch (89 mm) wide piece mounted in the horizontal or vertical dimension. (Ord. 17996 §35; May 13, 2002).

R311.5.8 Special stairways. Spiral stairways, winder stairways, circular stairways, and bulkhead enclosure stairways shall comply with all requirements of Section R311.5 except as specified below:

R311.5.8.1 Spiral stairways. Spiral stairways are permitted, provided the minimum width shall be 26 inches (660 mm) with each tread having a 7½-inches (190 mm) minimum tread depth at 12 inches from the narrower edge. All treads shall be identical, and the rise shall be no more than 9½ inches (241 mm). A minimum headroom of 6 feet 6 inches (1982 mm) shall be provided.

R311.5.8.2 Bulkhead enclosure stairways. Stairways serving bulkhead enclosures, not part of the required building egress, providing access from the outside grade level to the basement shall be exempt from the requirements of Sections R311.4.3 and R311.5 where the maximum height from the basement finished floor level to grade adjacent to the stairway does not exceed 8 feet (2438 mm), and the grade level opening to the stairway is covered by a bulkhead enclosure with hinged doors or other approved means.

R311.5.8.3 Circular stairways. Circular and winding stairways shall have a tread depth at a point not more than 12 inches from the side where the treads are narrower of not less than 10 inches and the minimum depth of any tread shall not be less than 7 inches. Tread depth at any walking line, measured a consistent distance from a side of the stairway, shall be uniform as specified in section R311.5.3.2. (Ord. 19033 §33; January 7, 2008; prior Ord. 17996 §34; May 13, 2002).

20.10.350 Section R315 Amended; Handrails.

(Repealed by Ord. 19033 §34; January 7, 2008; prior Ord. 17996 §35; May 13, 2002).

20.10.355 Section R 312 Amended; Guards.

Section R312 of the International Residential Code is amended to read as follows:

R312.1 Guards. Porches, balconies, ramps or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height. Open sides of stairs with a total rise of more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 34 inches (864 mm) in height measured vertically from the nosing of the treads. Porches and decks which are enclosed with insect screening shall be equipped with guards where the walking surface is located more than 30 inches (762 mm) above the floor or grade below.

A guard is required when a sidewalk, patio, or driveway is 60 inches or less from an egress window well 30 inches in height or greater.

A guard is required when a sidewalk, patio, or driveway is 30 inches or less from a retaining wall of 30 inches in height or greater to the floor or grade below.

When retaining wall heights are between 30 inches and 60 inches to the floor or grade below, there shall be a distance ratio maintained from the sidewalk, patio, or driveway equal to or greater than the retaining wall height if no guard is to be installed.

R312.2 Guard opening limitations. Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of a sphere 5 inches (102mm) or more in diameter.

Exceptions:

1. The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere 6 inches (152 mm) cannot pass through.

2. Openings for required guards on the sides of stair treads shall not allow a sphere 4 3/8 inches (107 mm) to pass through. (Ord. 19033 §35; January 7, 2008).

20.10.360 Section R313.2 Amended; Single- and Multiple-Station Smoke Alarms.

Section R313.2 of the International Residential Code is amended to read as follows:

R313.2 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in the following locations:

1. In each sleeping room; and

2. On each story of the dwelling, including basements and cellars but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72. (Ord. 19033 §36; January 7, 2008; prior Ord. 17996 §36; May 13, 2002).

20.10.370 Section R317.1 Amended; Two-family Dwellings.

Section R317.1 of the International Residential Code is amended to read as follows:

R317.1 Two-family dwellings. Dwelling units in two-family dwellings shall be separated from each other by wall and/or floor assemblies of not less than 1-hour fire-resistive rating when tested in accordance with ASTM E 119. Fire-resistance-rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend to the underside of the roof sheathing. The minimum connection between units of a two-family dwelling shall be an 8-foot roof connection measured parallel to the adjoining walls and connected to each unit.

Exceptions:

1. A fire resistance rating of 1/2 hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.

2. Where the common wall of the dwelling units is located on a property line, the units shall be separated by fire resistance rated wall assemblies meeting the requirements of Section R302 for exterior walls.

3. Wall assemblies need not extend through attic spaces when the ceiling is protected by not less than 5/8-inch (15.9 mm) Type X gypsum board and an attic draft stop constructed as specified in Section R502.12.1 is provided above and along the wall assembly separating the dwellings. The structural framing supporting the ceiling shall also be protected by not less than 1/2 -inch (12.7 mm) gypsum board or equivalent. (Ord. 19033 §37; January 7, 2008; prior Ord. 17996 §37; May 13, 2002).

20.10.380 Section R317.2 Amended; Townhouses.

Section R317.2 of the International Residential Code is amended to read as follows:

R317.2 Townhouses. Each townhouse shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302 for exterior walls.

Exception: A common 2-hour fire-resistance-rated wall is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installations shall be installed in accordance with Chapter 23.10 of the Lincoln Municipal Code. Penetrations of electrical outlet boxes shall be in accordance with Section R317.3 Structural independence must be provided as required in Section R317.2.4. (Ord. 19033 §38; January 7, 2008; prior Ord. 17996 §38; May 13, 2002).

20.10.390 Section R317.2.3 Amended; Parapets.

Section R317.2.3 of the International Residential Code is amended to read as follows:

R317.2.3 Parapets. Parapets constructed in accordance with Section R317.2.3 shall be provided for townhouses as an extension of common exterior or walls in accordance with the following:

1. Where roof surfaces adjacent to the wall or walls are at the same elevation, the parapet shall extend not less than 30 inches (762 mm) above the roof surfaces.

2. Where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is not more than 30 inches (762 mm) above the lower roof, the parapet shall extend not less than 30 inches (762 mm) above the lower roof surface.

Exception: A parapet is not required in the two cases above when the roof is covered with a minimum class B roof covering, and the roof decking or sheathing is of noncombustible materials or approved fire-retardant-treated wood for a distance of 4 feet (1219 mm) on each side of the wall or walls, or one layer of 5/8 -inch (15.9 mm) Type X gypsum board is installed directly beneath the roof decking or sheathing for a distance of 4 feet (1219 mm) on each side of the wall or walls; or one layer of 5/8-inch (15.9 mm) Type X gypsum board is installed on the entire ceiling directly below the attic space. Openings in the roof shall not be located within 5 feet of the fire-resistance-rated wall assemblies to meet this exception.

3. A parapet is not required where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is more than 30 inches (762 mm) above the lower roof. The common wall construction from the lower roof to the underside of the higher roof deck shall not have less than a 1-hour fire-resistive rating. The wall shall be rated for exposure from both sides. (Ord. 19033 §39; January 7, 2008; prior Ord. 17996 §39; May 13, 2002).

20.10.400 Section R317.2.4 Exception 5 Deleted; Structural Independence.

Exception 5 to Section R317.2.4 of the International Residential Code is hereby deleted. (Ord. 19033 §40; January 7, 2008; prior Ord. 17996 §40; May 13, 2002).

20.10.410 Section R318.1 Amended; Moisture Control.

Section R318.1 of the International Residential Code is amended to read as follows:

R318.1 Moisture control. In all framed walls and floors of the building thermal envelope, a vapor retarder shall be installed on the warm-in-winter side of the insulation.

Exceptions:

1. In construction where moisture or freezing will not damage the materials.
2. Where the framed cavity or space is ventilated to allow moisture to escape.

3. Within framed spaces against concrete basement foundation walls. A vapor barrier is not required as part of a framed or furred wall assembly against exterior masonry or poured basement foundation walls. (Ord. 19033 §41; January 7, 2008; prior Ord. 17996 §41; May 13, 2002).

20.10.420 Section R319.1 Amended; Location Required.

Section R319.1 of the International Residential Code is amended to read as follows:

R319.1 Location required. Protection from decay shall be provided in the following locations by the use of naturally durable wood or wood that is preservative treated in accordance with AWWA U1 for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWWA U1.

1. Wood joists or the bottom of a wood structural floor when closer than 18 inches (457 mm) or wood girders when closer than 12 inches (305 mm) to exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation.

2. All foundation plates or sills and sleepers on a concrete or masonry slab, which is in direct contact with earth, and sills that rest on concrete or masonry foundations, shall be treated wood or foundation redwood, all marked or branded by an approved agency.

3. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.

4. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than 0.5 inch (12.7 mm) on tops, sides and ends.

5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches (152 mm) from the ground.

6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.

7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade.

8. Bottom sill plates for bearing walls cannot be imbedded in concrete. (Ord. 19033 §42; January 7, 2008; prior Ord. 17996 §42; May 13, 2002).

20.10.425 Section R319.1.2 Deleted; Ground Contact.

Section R319.1.2 of the International Residential Code is hereby deleted. (Ord. 19033 §43; January 7, 2008).

20.10.430 Section R319.1.4 Amended; Wood Columns.

Section R319.1.4 of the International Residential Code is amended to read as follows:

R319.1.4 Wood columns. Wood columns shall be approved wood of natural decay resistance or approved pressure-preservative-treated wood. Posts, poles and columns supporting permanent structures shall bear upon a concrete footing and shall not be imbedded in the concrete or in the ground unless approved for such use.

Exceptions:

1. Columns exposed to the weather or in basements when supported by concrete piers or metal pedestals projecting 1 inch (25.4 mm) above a concrete floor or 6 inches (152 mm) above exposed earth and the earth is covered by an approved impervious moisture barrier.

2. Columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building when supported by a concrete pier or metal pedestal at a height more than 8 inches

(203mm) from exposed earth and the earth is covered by an impervious moisture barrier. (Ord. 19033 §44; January 7, 2008; prior Ord. 17996 §43; May 13, 2002).

20.10.440 Section R321.1 Amended; Premises Identification.

Section R321.1 of the International Residential Code is amended to read as follows:

R321.1 Premises identification. Approved numbers or addresses shall be provided for all new buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Premises shall have addresses provided on buildings as specified under Chapter 14.24 of the Lincoln Municipal Code. (Ord. 19033 §45; January 7, 2008; prior Ord. 17996 §44; May 13, 2002).

20.10.450 Section R322 Deleted; Accessibility.

Section R322 of the International Residential Code and all subsections thereof are hereby deleted. (Ord. 19033 §46; January 7, 2008; prior Ord. 17996 §45; May 13, 2002).

20.10.460 Section R324 Deleted; Flood-Resistant Construction.

Section R324 of the International Residential Code and all subsections thereof are hereby deleted. Lincoln Municipal Code Chapters 27.52 and 27.53 will apply. (Ord. 19033 §47; January 7, 2008; prior Ord. 17996 §46; May 13, 2002).

20.10.462 Table R401.4.1 Amended; Load Bearing Values.

Table R401.4.1 of the International Residential Code is amended to read as follows:

**TABLE R401.4.1
PRESUMPTIVE LOAD-BEARING VALUES OF
FOUNDATION MATERIALS^a**

CLASS OF MATERIAL	LOAD-BEARING PRESSURE (pounds per square foot)
Crystalline bedrock	12,000
Sedimentary and foliated rock	4,000
Sandy gravel and/or gravel (GW and GP)	3,000
Sand, silty sand, clayey sand, silty gravel and clayey gravel (SW, SP, SM, SC, GM and GC)	2,000
Clay, sandy clay, silty clay, clayey silt, silt and sandy silt (CL, ML, MH and CH)	2,000

For SI: 1 pound per square foot = 0.0479 kPa.

- a. When soil tests are required by Section R401.4, the allowable bearing capacities of the soil shall be part of the recommendations. (Ord. 19033 §48; January 7, 2008).

20.10.464 Section R403.1.1 Amended; Minimum Footing Sizes.

Section R403.1.1 of the International Residential Code is amended to read as follows:

R403.1.1 Minimum size. Minimum sizes for concrete and masonry footings shall be as set forth in Table R403.1 and Figure R403.1(1). The footing width, W, shall be based on the load-bearing value of the soil in accordance with Table R401.4.1. Spread footings shall be at least 8 inches (152 mm) thick. Footing projections, P, shall be at least 2 inches (51 mm) and shall not exceed the thickness of the footing. The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with Table R401.4.1. Footings for wood foundations shall be in accordance with the details set forth in Section R403.2, and Figures R403.1(2) and R403.1(3). (Ord. 19033 §49; January 7, 2008).

20.10.466 Table R403.1 Amended; Minimum Width of Footings.

Table R403.1 of the International Residential Code is amended to read as follows:

**TABLE R403.1
MINIMUM WIDTH OF CONCRETE OR
MASONRY FOOTINGS
(inches)^a**

	LOAD-BEARING VALUE OF SOIL (psf)		
	2,000	3,000	≥4,000
Conventional light-frame construction			
1-story	12	12	12
2-story	16	12	12
3-story	17	12	12
4-inch brick veneer over light frame or 8-inch hollow concrete masonry			
1-story	12	12	12
2-story	16	12	12
3-story	24	16	12
8-inch solid or fully grouted masonry			
1-story	12	12	12
2-story	21	14	12
3-story	32	21	16

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

- a. Where minimum footing width is 12 inches, use of a single wythe of solid or fully grouted 12-inch nominal concrete masonry units is permitted. (Ord. 19033 §50; January 7, 2008).

20.10.467 Figures 403.1(1), 403.1(2) and 403.1(3) Amended; Footings.

Figures 403.1(1), 403.1(2) and 403.1(3) of the International Residential Code are amended as shown on said figures at the end of this chapter. (Ord. 19033 §51; January 7, 2008).

20.10.468 Section R403.1.4.1 Amended; Frost Protection.

Section R403.1.4.1 of the International Residential Code is amended to read as follows:

R403.1.4.1 Frost protection. Foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extended below the frost line specified in Table R301.2.(1);
2. Erected on solid rock.

Exceptions:

1. Protection of freestanding accessory structures with an area of 400 square feet or less, of light-framed construction, with an eave height of 10 feet (3048 mm) or less shall not be required.

2. Protection of freestanding accessory structures with an area of 500 square feet or less, of light-framed construction, with an eave height of 10 feet (3048 mm) or less shall be allowed to be a monolithic slab as shown in Figure R403.3(1).

3. Decks not supported by a dwelling need not be provided with footings that extend below the frost line.

Slabs and monolithic slabs shall not bear on new fill unless compacted. (Ord. 19033 §52; January 7, 2008).

20.10.470 Section R403.1.6 Amended; Foundation Anchorage.

Section R403.1.6 of the International Residential Code is amended to read as follows:

R403.1.6 Foundation anchorage. When braced wall panels are supported directly on continuous foundations, the wall wood sill plate or cold-formed steel bottom track shall be anchored to the foundation in accordance with this section.

The wood sole plate at exterior walls on monolithic slabs and wood sill plate shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet (1829 mm) on center. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate section. In Seismic Design Categories D0, D1 and D2, anchor bolts shall be spaced at 6 feet (1829 mm) on center and located within 12 inches (305 mm) of the ends of each plate section at interior braced wall lines when required by Section R602.10.9 to be supported on a continuous foundation. Bolts shall be at least 1/2 inch (13 mm) in diameter and shall extend a minimum of 7 inches (178 mm) into masonry or concrete. Interior bearing wall sole plates on monolithic slab foundation shall be positively anchored with approved fasteners. A nut and washer shall be tightened on each bolt of the plate. Sills and sole plates shall be protected against decay and termites where required by Sections R319 and R320. Cold-formed steel framing systems shall be fastened to the wood sill plates or anchored directly to the foundation as required in Section R505.3.1 or R603.1.1.

Exceptions:

1. Foundation anchorage, spaced as required to provide equivalent anchorage to 1/2-inch-diameter (13 mm) anchor bolts. "Y" foundation anchor straps are not equivalent.

2. Walls 24 inches (610 mm) total length or shorter connecting offset braced wall panels shall be anchored to the foundation with a minimum of one anchor bolt located in the center third of the plate section and shall be attached to adjacent braced wall panels per Figure R602.10.5 at corners.

3. Walls 12 inches (305 mm) total length or shorter connecting offset braced wall panels shall be permitted to be connected to the foundation without anchor bolts. The wall shall be attached to adjacent braced wall panels per Figure R602.10.5 at corners. (Ord. 19033 §53; January 7, 2008; prior Ord. 17996 §47; May 13, 2002).

20.10.475 Table R404.1.1(5) Deleted; Figure R404.1.1(5) Added; Minimum Reinforcement; Residential Poured Walls.

Table R404.1.1(5) of the International Residential Code is hereby deleted and replaced with Figure R404.1.1(5) as shown on said figure at the end of this chapter. (Ord. 19033 §54; January 7, 2008).

20.10.476 Figure R404.1.1(6) Added; Minimum Concrete Foundation Wall Corner Detail; Residential Poured Wall.

Figure R404.1.1(6) is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 19033 §55; January 7, 2008).

20.10.477 Figure R404.1.1(7) Added; Permanent Masonry Foundation Basement Wall Section.

Figure R404.1.1(7) is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 19033 §56; January 7, 2008).

20.10.480 Section R408.7 Deleted; Flood Resistance.

Section R408.7 of the International Residential Code is hereby deleted. (Ord. 19033 §57; January 7, 2008; prior Ord. 17996 §48; May 13, 2002).

20.10.485 Section R502.2.3 Added; Fastener Spacing Recommendations.

Section 502.2.3 is added to the International Residential Code to read as follows:

R502.2.3 Fastener Spacing Recommendations for Residential Deck Ledgers When Using Pressure Treated Syp Sawn Lumber.

<u>Joist Span (ft)</u>	<u>Up to 10'</u>	<u>10'-1" to 18'</u>
1/2" diameter lag screw with 1/2" sheathing	18" o.c.	12" o.c.
1/2" diameter bolt with 1/2" sheathing	32" o.c.	18" o.c.

1. The tip of the lag screw shall fully extend beyond the inside face of the rim joist.
2. Ledgers shall be flashed to prevent water from contacting the house rim joist.
3. Lag screws and bolts need to be staggered along the length of the ledger.
4. The width of the ledger shall not be less than the width of the joists.
5. Lag screws and bolts shall be placed at least 2" in from the bottom and top of the ledger and at least 2" in from the ends.

(Ord. 19033 §58; January 7, 2008).

20.10.490 Section R502.3 Amended; Allowable Joist Spans.

Section R502.3 of the International Residential Code is amended to read as follows:

R502.3 Allowable joist spans. Spans for floor joists shall be in accordance with Table R502.3.1(2). For other grades and species and for other loading conditions, refer to the AF&PA Span Tables for Joists and Rafters.

R502.3.1 Sleeping areas and attic joists; Deleted.

R502.3.2 Other floor joists; Deleted.

R502.3.3 Floor cantilevers; Deleted.

Table R502.3.1(1) Floor Joist Spans for Common Lumber Species; Deleted.

Table 502.3.3(1) Cantilever Spans for Floor Joists Supporting Light-Frame Exterior Bearing Wall and Roof Only; Deleted.

Table 502.3.3(2) Cantilever Spans for Floor Joists Supporting Exterior Balcony; Deleted. (Ord. 19033 §59; January 7, 2008; prior Ord. 17996 §49; May 13, 2002).

20.10.500 Section R502.7 Amended; Lateral Restraint at Supports.

Section R502.7 of the International Residential Code is amended to read as follows:

R502.7 Lateral restraint at supports. Joists shall be supported laterally at the ends by full-depth solid blocking not less than 2 inches (51 mm) nominal in thickness; or by attachment to a header, band, or rim joist, or to an adjoining stud, or the floor sheathing and interior bearing partitions; or shall be otherwise provided with lateral support to prevent rotation.

Exception: In Seismic Design Categories D 1 and D2 , lateral restraint shall also be provided at each intermediate support.

R502.7.1 Bridging. Joists exceeding a nominal 2 by 8 dimensional lumber shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch (25.4 mm by 76 mm) strip nailed across the bottom of joists perpendicular to joists at intervals not exceeding 8 feet (2438 mm). (Ord. 17996 §50; May 13, 2002).

20.10.510 Section R502.10 Amended; Framing of Openings.

Section R502.10 of the International Residential Code is amended to read as follows:

R502.10 Framing of openings. Openings in floor framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet (1219 mm), the header joist may be a single member the same size as the floor joist. Single trimmer joists may be used to carry a single header joist that is located within 3 feet (914 mm) of the trimmer joist bearing. When the header joist span exceeds 4 feet (1219 mm), the trimmer joists and the header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header joist to trimmer joist connection. Tail joists over 12 feet (3658 mm) long shall be supported at the header by framing anchors or on ledger strips not less than 2 inches by 2 inches (51 mm by 51 mm). (Ord. 17996 §51; May 13, 2002).

20.10.520 Section R502.12 Amended; Draftstopping Required.

Section R502.12 of the International Residential Code is amended to read as follows:

R502.12 Draftstopping required. When there is usable space both above and below the concealed space of a floor/ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 3,000 square feet (278.7 m²). Draftstopping shall divide the concealed space into approximately equal areas. Where the assembly is enclosed by a floor membrane above and a ceiling membrane below draftstopping shall be provided in floor/ceiling assemblies under the following circumstances:

1. Ceiling is suspended under the floor framing.
2. Floor framing is constructed of truss-type open-web or perforated members. Draft stop shall be installed prior to the framing inspection. (Ord. 17996 §52; May 13, 2002).

20.10.530 R602.8 Amended; Fireblocking Required.

Section R602.8 of the International Residential Code is amended to read as follows:

R602.8 Fireblocking required. Fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and the roof space. Fireblocking shall be provided in wood-frame construction in the following locations:

1. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling and floor level and at 10 foot (3048 mm) intervals both vertical and horizontal. Batts or blankets of mineral or glass fiber or other approved non-rigid materials shall be allowed as fireblocking in walls constructed using parallel rows of studs or staggered studs.

2. Fireblocking of cornices of a two-family dwelling is required at the line of dwelling unit separation.

R602.8.1 Materials. Fireblocking shall consist of 2-inch (51 mm) nominal lumber, or two thicknesses of 1-inch (25.4 mm) nominal lumber with broken lap joints, or one thickness of 23/32-inch (19.8 mm) wood structural panels with joints backed by 23/32-inch (19.8 mm) wood structural panels or one thickness of 3/4-inch (19.1 mm) particle board with joints backed by 3/4 -inch (19.1 mm) particle board, 1/2-inch (12.7 mm) gypsum board, or 1/4-inch (6.4 mm) cement-based mill-board. Loose-fill insulation material shall not be used as a fire block unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.

R602.8.1.1 Fireblocking integrity. The integrity of all fireblocks shall be maintained. (Ord. 17996 §53; May 13, 2002).

20.10.535 Sections R702.3.8 and R702.3.8.1 Deleted; Water-resistant Gypsum Backing Board.

Sections R702.3.8 and R702.3.8.1 of the International Residential Code are hereby deleted. (Ord. 19033 §60; January 7, 2008).

20.10.537 Section R702.4.2 Amended; Gypsum Backer Board.

Section R702.4.2 of the International Residential Code is amended to read as follows:

R702.4.2 Cement, fiber-cement and glass mat gypsum backers. Cement, fiber-cement or glass mat gypsum backers in compliance with ASTM C 1288, C 1325 or C 1178 and installed in accordance with manufacturers' recommendations shall be used as backers for wall tile in tub and shower areas and wall panels in shower areas. Regular gypsum wallboard is permitted under tile or wall panels in other wall and ceiling areas when installed in accordance with GA-216 or ASTM C 840. (Ord. 19033 §61; January 7, 2008).

20.10.540 Section R703.1 Amended; Exterior Covering; General.

Section R703.1 of the International Residential Code is amended to read as follows:

R703.1 General. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8. The exterior wall envelope shall be designed and constructed in such a manner as to

prevent the accumulation of water within the wall assembly by providing a water-resistive barrier behind the exterior veneer as required by Section R703.2.

Any deteriorated or rotting veneer shall be removed prior to installing new veneer. An approved weather barrier shall be installed over the existing wood exterior veneer prior to overlaying with a new veneer product. (Ord. 17996 §54; May 13, 2002).

20.10.545 Section R703.2 Amended; Water Resistive Barrier.

Section R703.2 of the International Residential Code is amended to read as follows:

R703.2 Water-resistive barrier. One layer of No. 15 asphalt felt, free from holes and breaks, complying with ASTM D 226 for Type 1 felt or other approved water-resistive barrier shall be applied over studs or sheathing of all exterior walls. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2 inches (51 mm). Where joints occur, felt shall be lapped not less than 6 inches (152 mm). The felt or other approved material shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to meet the requirements of the exterior wall envelope as described in Section R703.1.

Exception: Omission of the water-resistive barrier is permitted in the following situations:

1. In detached accessory buildings under 120 square feet. (Ord. 19033 §62; January 7, 2008).

20.10.550 Table R703.7.3 Deleted; Allowable Spans for Lintels Supporting Masonry Veneer.

Table R703.7.3 of the International Residential Code is hereby deleted. (Ord. 19033 §63; January 7, 2008; prior Ord. 17996 §55; May 13, 2002).

20.10.560 Section R703.7.3 Amended; Lintels.

Section R703.7.3 of the International Residential Code is amended to read as follows:

R703.7.3 Lintels. Masonry veneer shall not support any vertical load other than the dead load of the veneer above. Veneer above openings shall be supported on lintels of non-combustible materials. The lintels shall have a length of bearing of not less than 4 inches (102 mm). (Ord. 17996 §56; May 13, 2002).

20.10.570 Section R703.7.4 Amended; Anchorage.

Section R703.7.4 of the International Residential Code is amended to read as follows:

R703.7.4 Anchorage. Masonry veneer shall be anchored to the supporting wall with corrosion-resistant metal ties. Where veneer is anchored to wood backings through the use of corrugated sheet metal ties, the distance separating the veneer from the sheathing material shall be a maximum of 1 inch (25.4 mm). Where the veneer is anchored to wood backings through the use of metal strand wire ties, the distance separating the veneer from the sheathing material shall be a maximum of 4 1/2 inches (114 mm). Where the veneer is anchored to cold-formed steel backings, adjustable metal strand wire ties shall be used. Where veneer is anchored to cold-formed steel backings, the distance separating the veneer from the sheathing material shall be a maximum of 4.5 inches (114 mm).

Anchors, supports and ties shall be noncombustible and corrosion resistant. When the terms "corrosion resistant" or "noncorrosive" are used in this section, they shall mean having a corrosion resistance equal to or greater than a hot-dipped galvanized coating of 1.5 ounces of zinc per square foot (458 g/m²) of surface area. When an element is required to be corrosive resistant

or noncorrosive, all of its parts, such as screws, nails, wire, dowels, bolts, nuts, washers, shims, anchors, ties and attachments, shall be corrosion resistant. (Ord. 17996 §57; May 13, 2002).

20.10.580 Section R703.7.4.2 Amended; Air Space.

Section R703.4.2 of the International Residential Code is amended to read as follows:

R703.7.4.2 Air space. The veneer shall be separated from the sheathing by an air space of a minimum of 1/2 inch (12.7 mm), but not more than 4 1/2 inches (144 mm). The weather resistant membrane or asphalt-saturated felt required by Section R703.2 is not required over water-repellent sheathing materials. (Ord. 19033 §64; January 7, 2008; prior Ord. 17996 §58; May 13, 2002).

20.10.590 Figure R703.7 Deleted; Masonry Veneer Wall Details.

Figure R703.7 of the International Residential Code is hereby deleted. (Ord. 17996 §59; May 13, 2002).

20.10.600 R703.7.5 Amended; Stone and Masonry Veneer, General; Flashing.

Section R703.7.5 of the International Residential Code is amended to read as follows:

R703.7.5 Flashing. Flashing shall be located beneath the first course of masonry above finished ground level above the foundation wall or slab and at other points of support, including structural floors, shelf angles and lintels when masonry veneers are designed in accordance with Section R703.7. See Section R703.8 for additional requirements.

Exception: The requirements of R703.7.5 may be deleted if a poured concrete foundation is used with a minimum 7-inch (178 mm) brickledge drop and all exterior window and door openings are caulked with sealant. (Ord. 17996 §60; May 13, 2002).

20.10.610 Section R703.7.6 Amended; Weepholes.

Section R703.7.6 of the International Residential Code is amended to read as follows:

R703.7.6 Weepholes. Weepholes shall be provided in the outside wythe of masonry walls at a maximum spacing of 33 inches (838 mm) on center. Weepholes shall not be less than 3 /16 inch (4.8 mm) in diameter. Weepholes shall be located immediately above the flashing.

Exception: The requirements of R703.7.6 may be deleted if a poured concrete foundation is used with a minimum 7-inch (178 mm) brickledge drop and all exterior window and door openings are caulked with sealant. (Ord. 17996 §61; May 13, 2002).

20.10.620 Section R703.8 Amended; Flashing.

Section R703.8 of the International Residential Code is amended to read as follows:

R703.8 Flashing. Approved corrosion-resistive flashing shall be provided in the exterior wall envelope in such a manner as to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. The flashing shall extend to the surface of the exterior wall finish and shall be installed to prevent water from reentering the exterior wall envelope. Approved corrosion-resistant flashings shall be installed at all of the following locations:

1. At top of all exterior window and door openings in such a manner as to be leakproof, except that self-flashing windows having a continuous lap of not less than 1 1/8 inches (28 mm) over the sheathing material around the perimeter of the opening, including corners, do not require additional flashing; jamb flashing may also be omitted when specifically approved by the building official.

2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.
3. Under and at the ends of masonry, copings and sills.
4. Continuously above all projecting wood or composite trim.
5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.
6. At wall and roof intersections.
7. At built-in gutters.

Exceptions:

1. The requirements of subparagraphs 1 and 3 above may be deleted if a poured concrete foundation is used with a minimum 7-inch (178 mm) brickledge drop and all exterior window and door openings are caulked with sealant.
2. Where exterior porches, decks, or stairs attach to the outside of a finished exterior wall (i.e. cementboard siding, brick veneer, EIFS, etc.), subparagraph 5 above may be deleted. This exception does not include wood, vinyl or steel siding applications.
3. Where soffits serve as protection for the upper course of brick veneer. (Ord. 19033 §65; January 7, 2008: prior Ord. 17996 §62; May 13, 2002).

20.10.630 Section R703.9 Amended; Exterior Insulation Finish Systems, General.

Section R703.9 of the International Residential Code is amended to read as follows:

R703.9 Exterior insulation finish systems, general. All Exterior Insulation Finish Systems (EIFS) shall be installed in accordance with the manufacturer's installation instructions and the requirements of this section and shall be sealed at all exterior window and door openings. Decorative trim shall not be face nailed through the EIFS. The EIFS shall terminate not less than 6 inches (152 mm) above the finished ground level. (Ord. 17996 §63; May 13, 2002).

20.10.640 Section R903.1 Amended; Weather Protection, General.

Section R903.1 of the International Residential Code is amended to read as follows:

R903.1 General. Roof decks shall be covered with approved roof coverings secured to the building or structure in accordance with the provisions of this chapter. Roof assemblies shall be designed and installed in accordance with this code and the approved manufacturer's installation instructions such that the roof assembly shall serve to protect the building or structure. (Ord. 19033 §66; January 7, 2008: prior Ord. 17996 §64; May 13, 2002).

20.10.650 Section R905.2.7.1 Deleted; Underlayment Application; Ice Protection.

Section R905.2.7.1 of the International Residential Code is hereby deleted. (Ord. 17996 §65; May 13, 2002).

20.10.660 Section R907.3 Amended; Reroofing; Recovering Versus Replacement.

Section R907.3 of the International Residential Code is amended to read as follows:

R907.3 Recovering versus replacement. New roof coverings shall not be installed without first removing existing roof coverings where any of the following conditions occur:

1. Where the existing roof or roof covering is water-soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
2. Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering.

Exception: The application of new protective coating over existing spray polyurethane foam roofing systems shall be permitted without tear-off of existing roof covering. (Ord. 19033 §67; January 7, 2008; prior Ord. 17996 §66; May 13, 2002).

20.10.670 Section R1003.11 Amended; Masonry Chimneys; Flue Lining (Material).

Section R1003.11 of the International Residential Code is amended to read as follows:

R1003.11 Flue lining (material). Masonry chimneys shall be lined. The lining material shall be appropriate for the type of appliance connected, according to the terms of the appliance listing and manufacturer's instructions.

R1003.11.3 - Deleted.

R1003.11.5 - Deleted.

(Ord. 19033 §68; January 7, 2008; prior Ord. 17996 §67; May 13, 2002).

20.10.680 Section R1003.12.2 Deleted; Space Around Lining.

Section R1003.12.2 of the International Residential Code is hereby deleted. (Ord. 19033 §69; January 7, 2008; prior Ord. 17996 §68; May 13, 2002).

20.10.690 Section R1003.14 Deleted; Flue Area (Appliance).

Section R1003.14 of the International Residential Code is hereby deleted. (Ord. 19033 §70; January 7, 2008; prior Ord. 17996 §69; May 13, 2002).

20.10.695 Section R1004 Deleted; Factory Built Fireplaces.

Section R1004 of the International Residential Code is hereby deleted. (Ord. 19033 §71; January 7, 2008).

20.10.700 Chapter 11 Amended; Energy Code.

Chapter 11 of the International Residential Code is amended to read as follows:

**CHAPTER 11
ENERGY CODE**

SECTION 1100 – PURPOSE OF ENERGY CODE.

The purpose of this chapter is to provide minimum design requirements and criteria that will result in a more efficient utilization of energy by providing thermal design and insulation standards for building construction. Any references in this code to the International Energy Code shall comply with this section.

SECTION 1101 - ENERGY CODE - APPLICATION AND SCOPE.

1101.1 General. The requirements of this chapter shall apply to all new buildings and structures or portions thereof which are heated and/or mechanically cooled and afford facilities or residential occupancies as defined in this code as A-1 and A-2 occupancies and R-1, R-2, R-3, R-4, and I-1 occupancies as defined by the International Building Code.

1101.2 Alternate Materials, Method of Construction, Design or Insulating System. The provisions of this chapter are not intended to prevent the use of any material, method of construction, design or insulating system not specifically prescribed herein, provided that any such variance from these standards has been approved by the building official.

1101.3 Existing Buildings, Additions or Alterations. The provisions of this chapter are not intended to apply to existing buildings until such time as additions, alterations or repairs are made.

SECTION 1102 - -- ENERGY CODE - DEFINITIONS

For the purpose of this chapter, certain terms and words are hereby defined. Words used in the present tense shall include the future, the singular number shall include the plural.

APPROVED MECHANICAL ENGINEERED SYSTEM. The equipment and ductwork installed for the purpose of supplying air to, or removing air from, any room or space by mechanical means in accordance with the Lincoln Heating Code.

CRAWL SPACE. Accessible underfloor area less than full story height and below a level of occupancy.

GLAZING. Glass or glass-like (plastic) material, which is transparent or translucent, a pane or sheet, which is installed in prepared openings such as doors, windows and enclosures.

EFFECTIVE SOUTH GLAZING. Glazing facing within fifteen degrees of true south, shaded by a permanent exterior shading device on July 21st and unshaded on December 21st.

HEATED SLAB. A floor containing heated pipes, ducts or electrical heating elements for complete or partial heating of the building.

UNCONDITIONED SPACE. A space which is not conditioned within the human comfort range by an energy-using system. A basement, crawl space, or garage is considered unheated space unless it is provided with a positive heat supply to maintain a minimum temperature of fifty degrees.

UNHEATED SLAB. An unheated floor, relying for warmth from heat delivered above floor level by the heating system.

P.S.F. Pounds per square foot.

SECTION 1103 -- INSULATION REQUIREMENTS - RESIDENTIAL BUILDINGS

The maximum average coefficient of heat transmission for construction elements between conditioned and unconditioned space for residential occupancy shall be as follows:

CONSTRUCTION ELEMENT	U-VALUE ¹	R-VALUE ¹
Walls (except basement, cellar, and crawl space)	.065	15.40
Basement walls ³		11.00
Ceilings		38.00
Crawl Space		13.00
Floors ²		30.00
Roofs		38.00
Glazing in Windows and Doors (Low E Windows)	.35	

¹ U-Values and R-Values do not require adjustments for framing.

² Insulation not required for basement floors more than 3 feet below grade; otherwise, see slab-at-grade floors.

³ Basement finish of exterior concrete foundation walls only at time of finish.

Note: This section is considered a prescriptive method for complying with the Nebraska Energy Code. Alternative methods may be submitted with appropriate Res-Check documentation.

Walls: Exterior floor perimeter bands shall meet stated R-value for “walls (except basement, cellar and crawl space).”

When insulation is applied to the exterior side of foundation walls which are partly above grade, the insulation shall have a protective covering installed as recommended by the manufacturer on the above-grade section and the top one foot of the insulation material below grade.

Glazing and doors: Low E glazing is required for all habitable spaces. Glazed area other than effective south glazing shall total no more than fifteen percent of the gross floor area. Additional glass area may be added as effective south glazing. The effective south glazing area must be integrated into the design so that indoor temperatures throughout the building can be maintained within the human comfort range at all times. A thermal storage material equal to a minimum of twenty-two B.T.U. per degree Fahrenheit for each square foot of effective south glazing shall absorb the heat energy from the solar input which might otherwise result in building temperature variations above the human comfort range. Basement floor area shall contribute to glazed area allowance for basement only. All spaces around exterior framing shall be filled with insulation.

Slab-at-grade floors: Perimeter insulation shall be used to reduce the slab heat loss. The thermal resistance of the insulation around the perimeter of the floor shall have a minimum resistance of R-7 for heated slabs and R-5 for unheated slabs. The insulation shall extend downward from the top of the slab for a minimum distance of twenty-four inches or downward to the bottom of the slab, then horizontally below the slab for a minimum total distance of twenty-four inches. This applies only to that part of the total slab which is below a heated space. Insulation not required for floors more than 3 feet below grade.

Fireplaces: All woodburning fireplaces and combustion air intakes for woodburning fireplaces shall be equipped with dampers.

Caulking and sealants: Exterior joints around windows and door frames, between wall and foundation, between wall and roof, between wall panels, at penetrations of utility services through walls, floors and roofs, and all other openings to the exterior envelope shall be caulked, gasketed, and/or otherwise sealed in an approved manner.

Vapor barriers: When the construction includes any material including insulation that would be damaged by moisture or its freezing, a vapor barrier shall be installed as near to the warm surface of the walls, ceiling, roof, and floors as practicable. Vapor barriers are not, however, required on ceilings which have a ventilated attic space above the ceiling. The vapor barrier shall have a maximum transmission rating of .25 perm or a rating lower than that of all other materials included as part of the wall, ceiling, roof, or floor of which the vapor barrier is applied, whichever is lowest.

Building insulation: Materials used for insulation shall be of approved effectiveness and adequate durability as established by nationally recognized testing laboratories or agencies to assure that required design conditions concerning heat losses are maintained. Insulation in contact with the ground shall be of such a type so as not to be adversely affected by soil, vermin, or water. When eave vents are installed, adequate baffling of the vent opening must be provided to deflect the incoming air above the surface of the insulation.

Insulation air barrier: An air barrier, which may be house wrap, drywall, rigid sheathing or similar material, is required on the cold side of insulated walls located adjacent to attics, unheated spaces or sky light enclosures. Walls adjacent to heated spaces shall meet minimum R- values as specified in Section 1103.

Duct Insulation: Heating Ducts and plumbing above an unheated, attached garage shall be insulated with a minimum of R-13 insulation. (Ord. 19033 §72; January 7, 2008; prior Ord. 17996 §70; May 13, 2002).

20.10.710 Chapters 19 through 42 of the International Residential Code Deleted.

Chapters 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, and 42 of the International Residential Code are hereby deleted. (Ord. 19275 §1; June 29, 2009; Ord. 17996 §71; May 13, 2002).

20.10.720 Section M1305.1.1 Amended; Central Furnaces.

Section M1305.1.1 of the International Residential Code is amended to read as follows:

M1305.1.1 Central furnaces. Central furnaces within compartments or alcoves shall have a minimum working space clearance of 3 inches (76 mm) along the sides, back and top. Furnaces having a firebox open to the atmosphere shall have at least a 6-inch (152 mm) working space along the front combustion chamber side. Combustion air openings at the rear or side of the compartment shall comply with the requirements of Chapter 17.

Exception: This section shall not apply to replacement appliances installed in existing compartments and alcoves where the working space clearances are in accordance with the equipment or appliance manufacturer's installation instructions. (Ord. 19275 §2; June 29, 2009).

20.10.730 Section M1307.3 Amended; Elevation of Ignition Source.

Section M1307.3 of the International Residential Code is amended to read as follows:

M1307.3 Elevation of ignition source. Appliances having a burner or ignition source, excluding the blower motor, shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the floor in garages. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate with a private garage through openings shall be considered to be part of the garage.

M1307.3.1 Protection from impact. Appliances located in a garage or carport shall be protected from impact by automobiles. (Ord. 19275 §3; June 29, 2009).

20.10.740 Section M1411.5 Amended; Insulation of Refrigerant Piping.

Section M1411.5 of the International Residential Code is amended to read as follows:

M1411.5 Insulation of refrigerant piping. Piping and fittings for refrigerant vapor (suction) lines shall be insulated with insulation having a thermal resistivity of at least R-2. (Ord. 19275 §4; June 29, 2009).

20.10.750 Section M1502.6 Amended; Duct Length.

Section M1502.6 of the International Residential Code is amended to read as follows:

M1502.6 Duct length. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm), including two 90-degree ells, from the dryer location to the wall or roof termination. The maximum length shall be reduced 2.5 feet for each 45-degree ell and 5 feet for each 90-degree ell beyond the allowed two 90-degree ells. The maximum length of the exhaust duct does not include the transition duct.

Exceptions:

1. Where the make and model of the clothes dryer to be installed is known and the manufacturer's installation instructions for the dryer are provided to the Building Official, the maximum length of the exhaust duct, including any transition duct, shall be permitted to be in accordance with the dryer manufacturer's installation instructions.

2. Where large-radius 45-degree (0.8 rad) and 90-degree (1.6 rad) bends are installed, determination of the equivalent length of clothes dryer exhaust duct for each bend by

engineering calculation in accordance with the ASHRAE Fundamentals Handbook shall be permitted. (Ord. 19275 §5; June 29, 2009).

20.10.760 Section M1503.3 Amended; Kitchen Exhaust Rates.

Section M1503.3 of the International Residential Code is amended to read as follows:

M1503.3 Kitchen exhaust rates. Where domestic kitchen cooking appliances are equipped with ducted range hoods or down-draft exhaust systems, the fans shall be sized in accordance with Section M1507.3. Residential kitchen exhaust fans shall not be sized with air flow exceeding 300 cfm.

Exception: Residential kitchen exhaust may exceed 300 cfm provided makeup air is provided into the structure. The makeup air shall be controlled by a motorized damper that is electrically interlocked to open with operation of the kitchen exhaust fan. The makeup air shall be conditioned to within 10 degrees F. of the space designed temperature during the winter heating mode. The makeup air may be conditioned by circulation with a forced air furnace system or by other means approved by the Building Official. (Ord. 19275 §6; June 29, 2009).

20.10.770 Section M1507.3 Amended; Ventilation Rate.

Section M1507.3 of the International Residential Code is amended to read as follows:

M1507.3 Ventilation rate. Ventilation systems shall be designed to have the capacity to exhaust all the air from the restroom, toilet room, and bath room a minimum of five times per hour. If such rooms calculate a CFM of less than 50 CFM, their exhaust rate shall be a minimum of 50 CFM.

Table M1507.3 is hereby deleted.

(Ord. 19275 §7; June 29, 2009).

20.10.780 Section M1601.1.1 Amended; Above-ground Duct Systems.

Section M1601.1.1 of the International Residential Code is amended to read as follows:

M1601.1.1 Above-ground duct systems. Above-ground duct systems shall conform to the following:

1. Equipment connected to duct systems shall be designed to limit discharge air temperature to a maximum of 250°F (121°C).
2. Factory-made air ducts shall be constructed of Class 0 or Class 1 materials as designated in Table M1601.1.1(1).
3. Fibrous duct construction shall conform to the SMACNA Fibrous Glass Duct Construction Standards or NAIMA Fibrous Glass Duct Construction Standards.
4. Minimum thickness of metal duct material shall be as listed in Table M1601.1.1(2). Galvanized steel shall conform to ASTM A 653.
5. Use of gypsum products to construct return air ducts or plenums is permitted, provided that the air temperature does not exceed 125°F (52°C) and exposed surfaces are not subject to condensation.
6. Duct systems shall be constructed of materials having a flame spread index not greater than 200.
7. Stud wall cavities and the spaces between solid floor joists to be used as air plenums shall comply with the following conditions:
 - 7.1. These cavities or spaces shall not be used as a plenum for supply air.
 - 7.2. These cavities or spaces shall not be part of a required fire-resistance-rated assembly.

7.3. Stud wall cavities and joist-space plenums shall be isolated from adjacent concealed spaces by tight-fitting fire blocking in accordance with Section R602.8. (Ord. 19275 §8; June 29, 2009).

20.10.790 Section M1601.3.1 Amended; Joints and Seams.

Section M1601.3.1 of the International Residential Code is amended to read as follows:

M1601.3.1 Joints and seams. Joints of duct systems shall be made substantially airtight by means of tapes, mastics, gasketing or other approved closure systems. Replacement duct and duct connections to replacement equipment shall be sealed where accessible. Closure systems used with rigid fibrous glass ducts shall comply with UL 181A and shall be marked “181A-P” for pressure-sensitive tape, “181 A-M” for mastic or “181 A-H” for heat-sensitive tape. Closure systems used with flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked “181B-FX” for pressure-sensitive tape or “181B-M” for mastic. Duct connections to flanges of air distribution system equipment or sheet metal fittings shall be mechanically fastened. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked 181B-C. Crimp joints for round metal ducts shall have a contact lap of at least 1½ inches (38 mm) and shall be mechanically fastened by means of at least three sheet-metal screws or rivets equally spaced around the joint. (Ord. 19275 §9; June 29, 2009).

20.10.800 Section M1601.3.2 Amended; Duct Installation; Support.

Section M1601.3.2 of the International Residential Code is amended to read as follows:

M1601.3.2 Support. Metal ducts shall be supported by 1/2-inch (13 mm) wide 26-gage metal straps or 12-gage galvanized wire at intervals not exceeding 10 feet (3048 mm) or other approved means. Nonmetallic ducts shall be supported in accordance with the manufacturer’s installation instructions. (Ord. 19275 §10; June 29, 2009).

20.10.810 Section M1702.2 Amended; Combustion Air; Confined Space.

Section M1702.2 of the International Residential Code is amended to read as follows:

M1702.2 Confined space. Where the space in which the appliance is located does not meet the criterion specified in Section M1702.1, two permanent openings to adjacent spaces shall be provided so that the combined volume of all spaces meets the criterion. One opening shall be within 12 inches (305 mm) of the top and one within 12 inches (305 mm) of the bottom of the space, as illustrated in *Figure M1702.2*. Each opening shall have a free area equal to a minimum of 1 square inch per 1,000 Btu/h (2201 mm²/kW) input rating of all appliances installed within the space, but not less than 100 square inches (64 415 mm²).

Exception: Existing Building: When fuel-burning appliances are installed in an existing building containing other fuel-burning appliances, the room or space shall be provided combustion air as required by this chapter for all fuel-burning appliances contained therein. Additional floor area can be used for combustion air requirements of a replacement furnace when all of the following conditions are met:

- (1) The structure is a single-family dwelling.
- (2) The communicating high-low combustion grills between the mechanical space and adjoining areas must constitute at least 50% of the required cubic feet for combustion air for the total BTU’s in the space.
- (3) A blower type furnace is being installed.
- (4) A grill equivalent to one square inch (25 mm²) free air per 4000 BTU (19.325 L/W) input rating of all appliances shall be installed on the supply duct or plenum.

(5) The grill shall not have shutters and shall be labeled with at least 1/2-inch letters of metal, plastic, or other approved materials and read: "Combustion Air Grill--Do Not Cover. If covered, may cause illness or death."

(6) The combustion grill cannot be on the plenum or supply duct, within the furnace room, if the furnace room area is less than 25% of the required cubic feet. (Ord. 19275 §11; June 29, 2009).

20.10.820 Section M1803.3.3 Deleted; Chimney and Vent Connections; Installation; Size.

Section M1803.3.3 of the International Residential Code is hereby deleted. (Ord. 19275 §12; June 29, 2009).