Section 9-403

HICKMAN RESIDENTIAL BUILDING CODE

Sections:

9-403.010 Adoption of International Residential Code.

Except as hereinafter provided by specific amendment, the following publications are hereby adopted and incorporated into Section 9.403 of the Hickman Municipal Code:

(a) All but Chapter 11 of the International Residential Code for one- and two-family dwellings, 2012 Edition, first printing, hereinafter referred to as the International Residential Code; and

(b) Chapter 11 of the International Residential Code for one- and two-family dwellings, 2009 Edition, fifth printing; and

(c) Elevated Residential Structures F.E.M.A. Publication No. 54, dated March 1984, published by U.S. Government Printing Office: 2002-717-395/96287. This document is adopted for reference to design standards and techniques only, as set forth in Article 5, Section 5.18 of the Hickman Zoning Regulations (Ord. 2007-03; April 10, 2007).

One printed copy of the above publications have been filed in the office of the City Clerk for use of and examination by the public. (Ord. 2016-17; July 26th, 2016)

9-403.015 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 Hickman, 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 within the city or within one mile of the corporate limits of the city.

Exception: Live/work units complying with the requirements of Section 419 of the International Building Code shall be permitted to be built as one- and two-family dwellings or townhouses under the International Residential Code for One- and Two-family Dwellings.

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 one mile of the corporate limits, of the city.

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. 2016-17; July 26th, 2016)

9-403.020 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 Hickman Municipal Code, or

recommendation or requirement from a manufacturer, the most restrictive shall govern. (Ord. 2016-17; July 26th, 2016)

9-403.025 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 SAFETY

R103.2 Appointment. The City Administrator or City Council shall hire the Chief Building Inspector who will be known as the Building Official.

R103.3 Deputies. Deleted.

9-403.030 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. 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.
2. 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.
3. Residing and re-shingling.
4. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
5. Swings and other playground equipment accessory to a one- or two-family dwelling.
6. Window awnings supported by an exterior wall. This exemption does not include replacement windows. (Ord. 2016-17; July 26th, 2016)

9-403.035 Section R105.3.1.1 Amended; Determination of Substantially Improved or Substantially Damaged Existing Buildings in Flood Hazard Areas.

Section 105.3.1.1 of the International Residential Code is amended to read as follows:

Section R105.3.1.1 Determination of substantially improved or substantially damaged existing buildings in Flood Hazard Areas. For buildings located in a floodplain with the City's zoning jurisdiction, the regulations and specifications set forth in Hickman Zoning Regulations Section 5.18 shall apply (Ord. 2007-03; April 10, 2007). (Ord. 2016-17; July 26th, 2016)

9-403.040 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 Hickman charged with the administration and enforcement of any code or ordinance under the Hickman Municipal Code shall not be stayed or nullified because of the issuance or granting of a building permit. (Ord. 2016-17; July 26th, 2016)

9-403.055 Section R106.2 Amended; Site Plan or Plot Plan.
Section R106.2 of the International Residential Code is amended to read as follows:
R106.2 Site plan or plot plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing the size and location of new construction and existing structures on the site and distances from lot lines. The site plan shall include elevations of existing property lines, street, and proposed foundation as per R403.1.7.3. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The Building Official is authorized to waive or modify the requirement for a site plan when the application for permit is for alteration or repair or when otherwise warranted. (Ord. 2016-17; July 26th, 2016)

9-403.060 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 the Hickman Master Fee Schedule (Most Current Version).

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 International Code Council 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 rate stated in the Hickman Master Fee Schedule (Most Current Version).

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 at the rate stated in the Master Fee Schedule (Most Current Version).

R108.4 Development permit fees.

R108.4.1 A fee shall be assess for any flood plain development permit applied for under Hickman Zoning Regulations Section 5.18.05 (Ord. 2007-03; April 10, 2007), and shall be paid

at the time of application. The fee for each permit shall be stated in the Hickman Master Fee Schedule (Most Current Version).

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 R108.6.2 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, may 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 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, floodplain 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.

R108.8 Demolition permit fees. No demolition, razing, or destructive removal of any structure covered by this code shall be permitted without the issuance of a demolition permit by the Building Official. Demolition permit fees, See the Hickman Master Fee Schedule (Most Current Version). (Ord. 2016-17; July 26th, 2016)

9-403.065 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

9-403.070 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.

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 Hickman 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, or if any fees for any other building permits have not been paid, 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 and all fees for all other building permits have been paid as provided by this code. (Ord. 2016-17; July 26th, 2016)

9-403.075 Section R109.1.2 Amended; Setback Verification.

Section R109.1.2 of the International Residential Code is amended to read as follows:

R109.1.2 Setback verification. A setback dimension greater than six inches over the minimum shall be verified by the Building Official. A setback dimension that is less than six inches but greater than two inches over the minimum dimension shall be verified by the Building Official using a string line between lot pins. A setback dimension that is two inches or less over the minimum shall be verified by a licensed surveyor prior to pouring the concrete for the walls. (Ord. 2016-17; July 26th, 2016)

9-403.080 Section R109.1.4 Amended; Frame Inspection.

Section R109.1.4 of the International Residential Code is amended to read as follows:

R109.1.4 Frame inspection. Inspection of framing construction shall be made after all framing, firestopping, draftstopping, and bracing are in place and after the water-resistive barrier and flashing is installed but before the exterior wall covering is installed. (Ord. 2016-17; July 26th, 2016)

9-403.085 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..

Reinspection fees may be assessed when the Building Inspector initiates the inspection because the permit holder or his agent fails to schedule the inspection as per R109.3

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. 2016-17; July 26th, 2016)

9-403.090 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. 2016-17; July 26th, 2016)

9-403.095 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 or occupancy therefor, as provided in Hickman Zoning Regulations Section 11.06 shall apply.

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 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. Written notice of the withholding issuance of new permits 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 3408 of the International Building Code.

R110.3 Certificate issued. After the Building Official inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by the department, the building official shall issue a certificate of occupancy.

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.

9-403.115 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. 2016-17; July 26th, 2016)

9-403.120 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 delivered 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. The Building Official may post the stop work order on the property subject to the permit. 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 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 Time to correct violations. The International Residential Code violations or any other Hickman Municipal Code violations stated in the stop work order shall be abated within

the time frame directed by the Building Official, or be subject to penalties as prescribed in this code. (Ord. 2016-17; July 26th, 2016)

9-403.125 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 Hickman in the Hickman Municipal Code. Demolition under this code 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. 2016-17; July 26th, 2016)

9-403.135 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	Yes	See LMC 27.52 & 27.53

All footnotes to Table R301.2(1) of this code shall apply. (Ord. 2016-17; July 26th, 2016)

9-403.140 Section R301.2.4 Amended; Floodplain Construction.

Section R301.2.4 of the International Residential Code is amended to read as follows:

Section R301.2.4 Floodplain construction. For buildings located in a floodplain within the City's zoning jurisdiction, the regulations and specifications set forth in Hickman Zoning Regulations Section 5.18 (Ord 2007-03; April 10, 2007). (Ord. 2016-17; July 26th, 2016)

9-403.145 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
Attics served with a fixed stairs	40
Decks and exterior balconies [e]	40
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 mm^2 ,
1 pound = 4.45 N.

All footnotes to Table No. R301.5 of this code shall apply. (Ord. 2016-17; July 26th, 2016)

9-403.150 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/180
Floors – 16'6" or less	L/360
Floors over 16'6" span	L/480

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

All footnotes to Table R301.7 of this code shall apply. (Ord. 2016-17; July 26th, 2016)

9-403.155 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(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 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 than120 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. 2016-17; July 26th, 2016)

9-403.160 Table R302.1(1) Amended; Exterior Walls.

Table R302.1(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. 2016-17; July 26th, 2016)

9-403.165 Section R302.2 Amended; Townhouses.

Section R302.2 of the International Residential Code is amended to read as follows:

R302.2 Townhouses. Each townhouse shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

Exception: A common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be

rated for fire exposure from both sides and shall extend to and be tight against exterior sheathing of exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with the City of Hickman Electrical Code. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4. (Ord. 2016-17; July 26th, 2016)

9-403.170 Figure R302.2 (1) Added; Typical Party Wall Section; Two 1 Hour Walls.

Figure R302.2 (1) is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.175 Figure R302.2 (2) Added; Typical Party Wall Section; 2 Hour Non Bearing Wall With Parallel Bearing Walls.

Figure R302.2 (2) is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.180 Figure R302.2 (3) Added; Typical Party Wall Section; One 2 Hour Shaft Wall.

Figure R302.2 (3) is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.185 Figure R302.2 (4) Added; Typical Party Wall Section; Single 2 Hour Wall.

Figure R302.2 (4) is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.190 Section R302.2.4 Exception 5 Deleted; Structural Independence.

Exception 5 to Section R302.2.4 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.195 Section R302.3 Amended; Two-family Dwellings.

Section R302.3 of the International Residential Code is amended to read as follows:

R302.3 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. Wall assemblies need not extend through attic spaces when the ceiling is protected by not less than 5/8-inch Type X gypsum board and an attic draft stop constructed as specified in Section R302.12.1 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 gypsum board or equivalent. (Ord. 2016-17; July 26th, 2016)

9-403.200 Section R302.5.1 Amended; Opening Protection.

Section R302.5.1 of the International Residential Code is amended to read as follows:

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches in thickness, solid or honeycomb-core steel doors not less than 1 3/8 inches thick, or 20-minute fire-rated doors. (Ord. 2016-17; July 26th, 2016)

9-403.205 Section R302.5.2 Deleted; Duct Penetration.
Section R302.5.2 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.210 Section R302.6 Amended; Separation Required.

Section 302.6 of the International Residential Code is amended to read as follows:

R302.6 Separation required. The garage shall be separated from the residence and its attic area by not less than 5/8-inch 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 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 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-inch Type X gypsum board.

Garages located less than 6 feet 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 Table R302.1(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. 2016-17; July 26th, 2016)

9-403.215 Table R302.6 Amended; Dwelling/Garage Fire Separation.
Table R302.6 of the International Residential Code is amended to read as follows:

TABLE R302.6
DWELLING/GARAGE SEPARATION

DWELLING/GARAGE SEPARATION

SEPARATION	MATERIAL
From the residence and attics	Not less than 5/8-inch type X gypsum board or equivalent applied to the garage side.
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 5/8-inch type X gypsum board or equivalent.
Garages located less than 6 feet from a dwelling unit on the same lot	Not less than 5/8 type X gypsum board or equivalent applied to the interior side of exterior walls that area within this area.

(Ord. 2016-17; July 26th, 2016)

9-403.220 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 over the area of the room at a height of 30 inches above the floor level. (Ord. 2016-17; July 26th, 2016)

9-403.225 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 for intermittent ventilation or 20 cfm 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. 2016-17; July 26th, 2016)

9-403.235 Sections R303.5, 303.5.1, 303.5.2 Deleted; Opening Location.

Sections R303.5, R303.5.1, and R303.5.2 of the International Residential Code are hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.240 Section R303.6 Deleted; Outside Opening Protection.

Section R303.6 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.245 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. The required height shall be measured from the finished floor to the lowest projection from the ceiling.

Exceptions:

1. Bathrooms, hallways, toilet rooms and laundry rooms shall have a ceiling height of not less than 7 feet.

2. For rooms with sloped ceilings, at least 50 percent of the required floor area of the room must have a ceiling height of at least 7 feet 6 inches. No portion of the room with a ceiling height of less than 5 feet shall be included.

3. The ceiling height above bathroom fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet 8 inches above a minimum area 30 inches by 30 inches at the showerhead.

R305.1.1 Basements. Habitable space in basements within a single family dwelling unit shall have a ceiling height of not less than 7 feet.

Exceptions:

1. Beams, soffits, ducts and piping shall not be less than 6 feet 6 inches from the floor and shall not exceed 1/3 of the total ceiling area of the room.

2. Bathrooms, hallways, toilet rooms and laundry rooms shall have a minimum ceiling height of 6 feet 8 inches.

3. Lighting fixtures shall be a minimum of 6 feet 6 inches above the floor.

4. Ceiling fans shall be a minimum of 7 feet from the floor.

R305.2 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. 2016-17; July 26th, 2016)

9-403.250 Section R306.2 Amended; Kitchen.

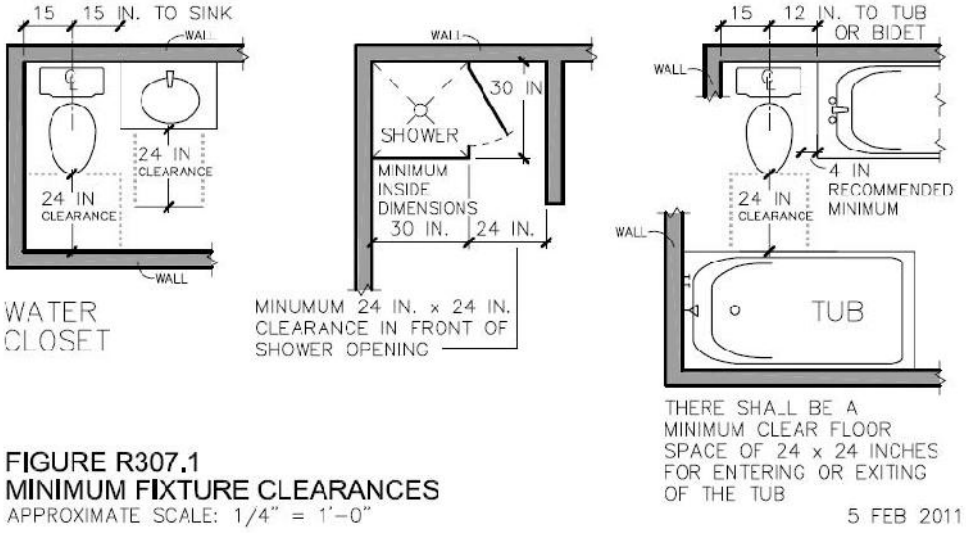
Section R306.2 of the International Residential Code is amended to read as follows:

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. 2016-17; July 26th, 2016)

9-403.255 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. 2016-17; July 26th, 2016)

9-403.260 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 minimum size opening shall be installed to provide access to the circulation pump. Where pumps are located more than 2 feet from the access opening, an 18-inch by 18-inch 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. 2016-17; July 26th, 2016)

9-403.265 Section R308.4.2 Exception No. 3 Deleted; Glazing Adjacent Doors.

Exception No. 3 in Section R308.4.2 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.270 Section R308.4.5 Amended; Glazing and Wet Surfaces.

Section R308.4.5 of the International Residential Code is amended to read as follows:

R308.4.5 Glazing and wet surfaces. Glazing in walls, enclosures or fences containing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches measured vertically above any standing or walking surface shall be considered a hazardous location. This shall apply to single glazing and all panes in multiple glazing.

Exception: Glazing that is more than 60 inches, measured horizontally and in a straight line, from the water's edge of a bathtub, hot tub, spa, whirlpool, or swimming pool. (Ord. 2016-17; July 26th, 2016)

9-403.275 Section R309.3 Amended; Garages and Carports; Flood Hazard Areas.

Section R309.3 of the International Residential Code is amended to read as follows:

R309.3 Flood hazard areas. For buildings located in a floodplain within the City's zoning jurisdiction, the regulations and specifications set forth in Hickman Zoning Regulations Section 5.18 shall apply (Ord 2007-03; April 10, 2007). (Ord. 2016-17; July 26th, 2016)

9-403.280 Section R309.5 Deleted; Fire Sprinklers.

Section R309.5 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.285 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. Basements, habitable attics and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room. Rooms with a storage closet greater than 18 inches in depth or direct access to a bathroom shall also comply with this requirement. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches measured from the finished floor to the bottom of the clear opening. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be in accordance with Section R310.2. Emergency escape and rescue openings shall open directly into the a public way, or a yard or court that opens to a public way.

Exception: Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet. (Ord. 2016-17; July 26th, 2016)

9-403.290 Section R310.1.1 Exception Deleted; Minimum Opening.

The Exception to Section R310.1.1 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.295 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. 2016-17; July 26th, 2016)

9-403.300 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. (Ord. 2016-17; July 26th, 2016)

9-403.305 Section R311.3.2 Amended; Floor Elevations for Other Exterior Doors.

Section R311.3.2 of the International Residential Code is amended to read as follows:

R311.3.2 Floor elevations for other exterior doors. Doors other than the required egress door shall be provided with landings or floors not more than 7 3/4 inches below the top of the threshold.

Exceptions:

1. Where a stairway of 4 or more risers is located on the exterior side of the 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 lower than the top of the threshold. (Ord. 2016-17; July 26th, 2016)

9-403.310 Section R311.7 Amended; Stairways.

Section R311.7 of the International Residential Code is amended to read as follows:

R311.7 Stairways.

R311.7.1 Width. Stairways shall not be less than 36 inches 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 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 where a handrail is installed on one side and 27 inches where handrails are provided on both sides.

Exceptions:

1. The width of spiral stairways shall be in accordance with Section R311.7.10.1.

2. Private stairways for lofts or attics may be 30 inches in width provided the minimum clear width at and below the railing shall not be less than 25 1/2 inches.

3. Stringers and other projections such as trim and similar decorative features may project into the required width 1 1/2 inches on each side.

R311.7.2 Headroom. The minimum headroom in all parts of the stairway shall not be less than 6 feet 8 inches 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 headroom in existing construction, a minimum of 6 feet 6 inches headroom may be allowed.

R311.7.3 Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet between floor levels or landings.

R311.7.4 Walkline. The walkline across winder treads shall be concentric to the curved direction of travel through the turn and located 12 inches from the side where the winders are narrower.

R311.7.5 Stair treads and risers.

R311.7.5.1 Risers. The maximum riser height shall be 7 ¾ inches and the minimum riser height shall be 4 inches. The riser shall be measured vertically between leading edges of the adjacent tread. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch. Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees from the vertical. Open risers are permitted between treads.

R311.7.5.2 Tread depth. The minimum tread depth shall be 10 inches 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.

Winder treads shall have a minimum tread depth of 10 inches measured at a point 12 inches from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 7 inches at any point.

R311.7.5.3 Nosings. The radius of curvature at the nosing shall be no greater than 9/16 inch. A nosing not less than 3/4 inch but not more than 1 1/4 inches be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch between two stories, including the nosing at the level of floors and landings.

Beveling of nosings shall not exceed 1/2 inch. Risers shall be vertical or sloped under the tread above from the underside of the nosing above at an angle not more than 30 degrees from the vertical.

Open risers are permitted.

Exception: A nosing is not required where the tread depth is a minimum of 10 inches.

R311.7.4.4 Exterior wood/plastic composite stair treads. Wood/plastic composite stair treads shall comply with the provisions of Section R507.3.

R311.7.6 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. A flight of stairs shall not have a vertical rise larger than 12 feet 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 measured in the direction of travel.

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.

R311.7.7 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).

R311.7.8 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.

R311.7.8.1 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 and not more than 38 inches.

R311.7.8.2 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. Handrails adjacent to a wall shall have a space of not less than 1½ inch 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.

R311.7.8.3 Grip-size. All required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 1 1/4 inches and not greater than 2 inches. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 6 1/4 inches with a maximum cross section of dimension of 2 1/4 inches. Edges shall have a minimum radius of 0.01 inch.
2. Type II. Handrails with a perimeter greater than 6 1/4 inches shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin with a distance of 3/4 inch measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch within 7/8 inch to a level that is not less than 1 3/4 inches below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1 1/4 inches to a maximum of 2 3/4 inches. Edges shall have a minimum radius of 0.01 inches.
3. Type III. Handrails for exterior stairs of an individual dwelling unit may consist of a 1 ½ inch x 3 ½ inch rail mounted in a horizontal position.

R311.7.9 Illumination. All stairs shall be provided with illumination in accordance with Section R303.6.

R311.7.10 Special stairways. Spiral stairways, winder stairways, circular stairways, and bulkhead enclosure stairways shall comply with all requirements of Section R311.7 except as specified below:

R311.7.10.1 Spiral stairways. Spiral stairways are permitted, provided the minimum width shall be 26 inches with each tread having a 7½-inches 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. A minimum headroom of 6 feet 6 inches shall be provided.

R311.7.10.2 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. The largest tread depth shall not exceed the smallest by more than 3/8 inch. (Ord. 2016-17; July 26th, 2016)

9-403.320 Section R312.1.1 Amended; **Guards, Where Required.**
Section R312.1.1 of the International Residential Code is amended to read as follows:

R312.1.1 Where required. Guards shall be located along open-sided walking surfaces, including stairs, ramp, landing, deck, porch, patio, driveway and sidewalks that are located more than 30 inches measured vertically to the floor or grade below.

A guard shall also be required when the drop off is more than 30 inches within 60 inches of the edge of the walking surface. The maximum slope of the grade from walking surface to the drop-off shall be 20% (12 inches). Insect screening shall not be considered as a guard. (Ord. 2016-17; July 26th, 2016)

9-403.325 Section R312.1.3 Amended; **Guards, Opening Limitations.**

Section R312.1.3 of the International Residential Code is amended to read as follows:

R312.1.3 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 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 cannot pass through.

2. Guards on the open side of stairs shall not have openings which allow passage of a sphere 5 inches in diameter. (Ord. 2016-17; July 26th, 2016)

9-403.330 Section R313 Deleted; Automatic Fire Sprinkler Systems.

Section R313 of the International Residential Code and all subsections thereof are hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.335 Section R314.3 Amended; Single- and Multiple-Station Smoke Alarms.

Section R314.3 of the International Residential Code is amended to read as follows:

R314.3 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. 2016-17; July 26th, 2016)

9-403.340 Section R314.4 Amended; Smoke Alarms; Power Source.

Section R314.4 of the International Residential Code is amended to read as follows:

R314.4 Power Source. Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be interconnected.

Exceptions:

1. Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power.
2. Hard wiring of smoke alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure. (Ord. 2016-17; July 26th, 2016)

9-403.345 Section R314.5 Amended; Smoke Alarms; Interconnection.

Section R314.5 of the International Residential Code is amended to read as follows:

R314.5 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit accordance with Section R314.3, 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. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection of smoke alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure. (Ord. 2016-17; July 26th, 2016)

9-403.350 Section R315 Amended; Carbon Monoxide Alarms.

Section R315 of the International Residential Code is amended to read as follows:

SECTION R315
CARBON MONOXIDE ALARMS

315.1 Carbon monoxide alarms location. For new construction, additions, and interior alterations requiring a building permit that have an attached garage or fuel-fired appliances, one approved carbon monoxide alarm shall be installed on each floor and located in the immediate vicinity of the bedrooms.

R315.2 Alarm requirements. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions. A combination smoke alarm and carbon monoxide alarm is permitted. Carbon monoxide detectors are not required to be hardwired or interconnected.

9-403.355 Section 317.1 Amended; Protection of Wood and Wood Based Products Against Decay; Location Required.

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

R317.1 Location required. Protection of wood and wood based products 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 AWPA U1 for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA U1.

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

2. All wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from the exposed ground.

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 1/2 inch 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 from the ground or less than 2 inches measured vertically from concrete steps, porch slabs, patio slabs, and similar horizontal surfaces exposed to the weather.

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. 2016-17; July 26th, 2016)

9-403.360 Section R317.1.2 Deleted; Ground Contact.

Section R317.1.2 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.365 Section R317.1.4 Amended; Wood Columns.

Section R317.1.4 of the International Residential Code is amended to read as follows:

R317.1.4 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 above a concrete floor or 6 inches 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 from exposed earth and the earth is covered by an impervious moisture barrier. (Ord. 2016-17; July 26th, 2016)

9-403.370 Section R319 Amended; Premises Identification.

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

R319 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 6-201 of the Hickman Municipal Code. (Ord. 2016-17; July 26th, 2016)

9-403.375 Section R320 Deleted; Accessibility.
Section R320 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.380 Section R322 Deleted; Flood-Resistant Construction.
Section R322 of the International Residential Code and all subsections thereof are hereby deleted. Hickman Municipal Code Chapter 9-406 will apply. (Ord. 2016-17; July 26th, 2016)

9-403.385 Section R401.3 Amended; Foundations; Drainage.
R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved pont of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls as per the approved grading and drainage plan. The grade from the foundation shall fall a minimum of 6 inches within the first 10 feet. The grade at the property line shall not be changed/altered.
Exception: Where lot lines, walls, slopes or other physical barriers prohibit 6 inches of fall within 10 feet, drains or swales shall be constructed to ensure drainage away from the structure. Impervious surfaces within 10 feet of the building foundation shall be sloped a minimum of 2 percent away from the building. (Ord. 2016-17; July 26th, 2016)

9-403.390 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. 2016-17; July 26th, 2016)

9-403.395 Section R403.1 Amended; Footings; General.

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

R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill. Slabs and monolithic slabs shall not bear on new fill unless compacted. Concrete footings shall be designed and constructed in accordance with the provisions of Section R403 or in accordance with ACI 332. (Ord. 2016-17; July 26th, 2016)

9-403.400 Section R403.1.1 Amended; Footings, Minimum Size.

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 thick. Footing projections, P, shall be at least 2 inches 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. (Ord. 2016-17; July 26th, 2016)

9-403.405 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, PRECAST OR MASONRY FOOTINGS
(inches)a

	LOAD-BEARING VALUE OF SOIL (psf)		
	2,000	**3,000**	**ñ4,000**
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.

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. 2016-17; July 26th, 2016)

9-403.410 Figure R403.1(1) Amended; Minimum Footing Reinforcement.
Figure R403.1(1) of the International Residential Code is amended as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.415 Section R403.1.3.2 Amended; Slabs-on-Ground with Turned-Down Footings.

Section 403.1.3.2 of the International Residential Code is amended to read as follows:
R403.1.3.2 Slabs-on-ground with turned-down footings. Slabs-on-ground with turned down footings shall have the minimum of one No. 4 bar at the top and the bottom of the footing. (Ord. 2016-17; July 26th, 2016)

9-403.420 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 extended below the frost line specified in Table R301.2.(1).

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 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 or less shall be allowed to be a monolithic slab as shown in Figure R403.1(1).

3. Decks less than 400 square feet not supported by a dwelling need not be provided with footings that extend below the frost line. (Ord. 2016-17; July 26th, 2016)

9-403.425 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 on center. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches or less than seven bolt diameters from each end of the plate section. In Seismic Design Categories D_0, D_1 and D_2, anchor bolts shall be spaced at 6 feet on center and located within 12 inches 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 in diameter and shall extend a minimum of 7 inches 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 R318. 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.

Exceptions:

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

2. Walls 24 inches 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 R602.12.5 at corners.

3. Walls 12 inches total length or shorter connecting offset braced wall panels shall be permitted to be connected to the foundation without anchor bolts. (Ord. 2016-17; July 26th, 2016)

9-403.430 Section R403.1.7.3 Amended; Foundation Elevation.

Section R403.1.7.3 of the International Residential Code is amended to read as follows:

R403.1.7.3 Foundation elevation. On graded sites, the top of all exterior foundation walls shall be a minimum of 12 inches higher than the finish grade elevation 10 feet from the perimeter of the foundation. The floor of a walkout basement shall be a minimum of 12 inches higher than the grade 10 feet from the foundation. The top of the foundation wall below a daylight window shall be a minimum of 12 inches higher than the finish grade elevation, 10 feet from the perimeter of the foundation. Alternate elevations are permitted subject to the approval of the Building Official, provided it can be demonstrated that required drainage to the point of discharge and away from the structure is provided at all locations on the site. (Ord. 2016-17; July 26th, 2016)

9-403.435 Section R403.3 and Subsections, Tables and Figures Deleted; Frost Protected Shallow Foundations.
Section R403.3 of the International Residential Code and all subsections, tables, and figures under said Section R403.3 are hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.440 Section R403.4.1 Deleted; Crushed Stone Footings.
Section 403.4.1 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.445 Table R403.4 Deleted; Minimum Depth of Crushed Stone Footings.
Table 403.4 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.450 Table R404.1.1(1) Deleted; Plain Masonry Foundation Walls.
Table R401.1(1) Of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.455 Figure R404.1.1(3) Added; Permanent Masonry Foundation Basement Wall Section.
Figure R404.1.1(3) is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.460 Table R404.1.2 (1) Deleted; Minimum Horizontal Reinforcement for Concrete Basement Walls.
Table R404.1.2(1) of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.465 Table R404.1.2(2) Deleted; Minimum Vertical Reinforcement for 6-inch Nominal Flat Concrete Basement Walls.
Table R404.1.2 (2) of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.470 Table R404.1.2(3) Deleted; Minimum Vertical Reinforcement for 8-inch Nominal Flat Concrete Basement Walls.
Table R404.1.2(3) of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.475 Table R404.1.2(4) Deleted; Minimum Vertical Reinforcement for 10-inch Nominal Flat Concrete Basement Walls.
Table R404.1.2(4) of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.480 Table R404.1.2(8) Deleted; Minimum Vertical Reinforcement for 6-, 8-, 10-inch and 12-inch Nominal Flat Basement Walls.
Table R404.1.2(8) of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.485 Table R404.1.2(9) Deleted; Minimum Spacing for Alternate Bar Size and/or Alternate Grade of Steel.
Table R404.1.2(9) of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.490 Section R404.1.2.2 Amended; Reinforcement for Foundation Walls.
Section R404.1.2.2 of the International Residential Code is amended to read as follows:
R404.1.2.2 Reinforcement for foundation walls. Concrete foundation walls shall be laterally supported at the top and bottom and vertical reinforcement shall be provided in accordance with Figures R404.1.2.2(1) and R404.1.2.2(2).
(Ord. 2016-17; July 26th, 2016)

9-403.495 Figures R404.1.2.2(1) and R404.1.2.2(2) Added; Reinforcement for Foundation Walls.
Figure R404.1.2.2(1) and Figure R404.1.2.2(2) are added to the International Residential Code as shown on said figures at the end of this chapter per 2012 code review. (Ord. 2016-17; July 26th, 2016)

9-403.500 Figure R404.1.2.2.1 Added; Deadman/4 foot Concrete Wall.
Figure R404.1.2.2.1 is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.505 Section R404.1.5.2 Amended; Concrete Wall Thickness.
Section R404.1.5.2 of the International Residential Code is amended to read as follows:
R404.1.5.2 Concrete wall thickness. The thickness of concrete foundation walls shall be equal to or greater than the thickness of the wall in the story above. Concrete foundation walls with corbels, brackets or other projections built into the wall for support of masonry veneer or other purposes are not within the scope of the tables in this section.
Where a concrete foundation wall is reduced in thickness to provide a 4-inch shelf for the support of masonry veneer or a bearing ledge for joists, the reduced thickness of the wall shall

not be less than 6 inches. Vertical reinforcement shall be based on the thickness of the thinner portion of the wall.
Exception: Where the height of the reduced thickness portion measured to the underside of the floor assembly or sill plate above is less than or equal to 24 inches and the reduction in thickness does not exceed 4 inches, the vertical reinforcement is permitted to be based on the thicker portion of the wall. (Ord. 2016-17; July 26th, 2016)

9-403.510 Figure R404.1.5.2 Added; Garage Stub Wall Foundation Detail.
Figure R404.1.5.2 is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.515 Section R408.7 Deleted; Flood Resistance.
Section R408.7 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.520 Section R501.3 Deleted; Fire Protection of Floors.
Section R501.3 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.525 Section R502.2.3 Amended; Deck Lateral Load Connection.
Section R502.2.3 of the International Residential Code is amended to read as follows:
R502.2.2.3 Deck lateral load connection. The lateral load connection required by Section R502.2.2 shall be permitted to be in accordance with Figure R502.2.2.3. Hold-down tension devices shall be installed in not less than two locations per deck, and each device shall have an allowable stress design capacity of not less than 1,500 pounds.
Exception: Hold down tension devices shall not be required when a 2x4 diagonal brace is installed on the underside of the floor joist, tying all joists together, including the ledger. (Ord. 2016-17; July 26th, 2016)

9-403.530 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, 30 psf; Deleted.
Table R502.3.3(1) Cantilever Spans for Floor Joists Supporting Light-Frame Exterior

Bearing Wall and Roof Only; Deleted.

Table R502.3.3(2) Cantilever Spans for Floor Joists Supporting Exterior Balcony; Deleted. (Ord. 2016-17; July 26th, 2016)

9-403.535 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 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: Trusses, structural composite lumber, structural glued-laminated members and I-joists shall be supported laterally as required by the manufacturer's recommendations.

R502.7.1 Bridging. Joists exceeding a nominal 2 by 8 inches shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch strip nailed across the bottom of the joists perpendicular to joists at intervals not to exceed 8 feet. Dimensional lumber shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch strip nailed across the bottom of joists perpendicular to joists at intervals not exceeding 8 feet.

Exception: Trusses, structural composite lumber, structural glued-laminated members and I-joists shall be supported laterally as required by the manufacturer's recommendations. (Ord. 2016-17; July 26th, 2016)

9-403.540 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, 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 of the trimmer joist bearing. When the header joist span exceeds 4 feet, 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 long shall be supported at the header by framing anchors or on ledger strips not less than 2 inches by 2 inches. (Ord. 2016-17; July 26th, 2016)

9-403.545 Table R602.3(1) Amended; Fastener Schedule for Structural Members.

Table R602.3(1) of the International Residential Code is amended as follows:

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING OF FASTENERS
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3-8d ($2^1/_2$" × 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d ($2^1/_2$" × 0.113")	—
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	—
4	Collar tie to rafter, face nail or $1^1/_4$" × 20 gage ridge strap	3-10d (3" × 0.128")	—
5	Rafter to plate, toe nail	3-16d box nails ($3^1/_2$" × 0.135") or 3-10d common nails (3" × 0.148")	4 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[j]
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d ($3^1/_2$" × 0.135") 3-16d ($3^1/_2$" × 0.135")	—
Wall			
7	Built-up studs-face nail	10d (3" × 0.128")	24" o.c.
8	Abutting studs at intersecting wall corners, face nail	16d ($3^1/_2$" × 0.135")	12" o.c.
9	Built-up header, two pieces with $^1/_2$" spacer	16d ($3^1/_2$" × 0.135")	16" o.c. along each edge
10	Continued header, two pieces	16d ($3^1/_2$" × 0.135")	16" o.c. along each edge
11	Continuous header to stud, toe nail	4-8d ($2^1/_2$" × 0.113")	—
12	Double studs, face nail	10d (3" × 0.128")	24" o.c.
13	Double top plates, face nail	10d (3" × 0.128")	24" o.c.
14	Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d ($3^1/_2$" × 0.135")	—
15	Sole plate to joist or blocking, face nail	16d ($3^1/_2$" × 0.135")	16" o.c.
16	Sole plate to joist or blocking at braced wall panels	3-16d ($3^1/_2$" × 0.135")	16" o.c.
17	Stud to sole plate, toe nail	3-8d ($2^1/_2$" × 0.113") or 2-16d ($3^1/_2$" × 0.135")	—
18	Top or sole plate to stud, end nail	2-16d ($3^1/_2$" × 0.135")	—
19	Top plates, laps at corners and intersections, face nail	2-10d (3" × 0.128")	—
20	1" brace to each stud and plate, face nail	2-8d ($2^1/_2$" × 0.113") 2 staples $1^3/_4$" ×	—
21	1" × 6" sheathing to each bearing, face nail	2-8d ($2^1/_2$" × 0.113") 2 staples $1^3/_4$"	—
22	1" × 8" sheathing to each bearing, face nail	2-8d ($2^1/_2$" × 0.113") 3 staples $1^3/_4$	—

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING OF FASTENERS
23	Wider than 1" × 8" sheathing to each bearing, face nail	3-8d ($2^1/_2$" × 0.113") 4 staples $1^3/_4$"	—
Floor			
24	Joist to sill or girder, toe nail	3-8d ($2^1/_2$" × 0.113")	—
25	Rim joist to top plate, toe nail (roof applications also)	8d ($2^1/_2$" × 0.113")	6" o.c.
26	Rim joist or blocking to sill plate, toe nail	8d ($2^1/_2$" × 0.113")	6" o.c.
27	1" × 6" subfloor or less to each joist, face nail	2-8d ($2^1/_2$" × 0.113") 2 staples $1^3/_4$"	— —
28	2" subfloor to joist or girder, blind and face nail	2-16d ($3^1/_2$" × 0.135")	—
29	2" planks (plank & beam - floor & roof)	2-16d ($3^1/_2$" × 0.135")	at each bearing
30	Built-up girders and beams, 2-inch lumber layers	10d (3" × 0.128")	Nail each layer as follows: 32" o.c. at top and bottom and staggered. Two nails at ends and at each splice.
31	Ledger strip supporting joists or rafters	3-16d ($3^1/_2$" × 0.135")	At each joist or rafter

ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER[b, c, e]	SPACING OF FASTENERS	
			Edges (inches)[i]	Intermediate supports[c, e] (inches)
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing				
32	$^3/_8$" - $^1/_2$"	6d common (2" × 0.113") nail (subfloor wall)[j] 8d common ($2^1/_2$" × 0.131") nail (roof)[f]	6	12[g]
33	$^{19}/_{32}$" - 1"	8d common nail ($2^1/_2$" × 0.131")	6	12[g]
34	$1^1/_8$" - $1^1/_4$"	10d common (3" × 0.148") nail or 8d ($2^1/_2$" × 0.131") deformed nail	6	12

	Other wall sheathing[h]			
35	1/2" structural cellulosic fiberboard sheathing	1 1/2" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1 1/4" long	3	6
36	25/32" structural cellulosic fiberboard sheathing	1 3/4" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1 1/2" long	3	6
37	1/2" gypsum sheathing[d]	1 1/2" galvanized roofing nail; staple galvanized, 1 1/2" long; 1 1/4 screws, Type W or S	7	7
38	5/8" gypsum sheathing[d]	1 3/4" galvanized roofing nail; staple galvanized, 1 5/8" long; 1 5/8" screws, Type W or S	7	7
	Wood structural panels, combination subfloor underlayment to framing			
39	3/4" and less	6d deformed (2" × 0.120") nail or 8d common (2 1/2" × 0.131") nail	6	12
40	7/8" - 1"	8d common (2 1/2" × 0.131") nail or 8d deformed (2 1/2" × 0.120") nail	6	12
41	1 1/8" - 1 1/4"	10d common (3" × 0.148") nail or 8d deformed (2 1/2" × 0.120") nail	6	12

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s; 1 Ksi = 6.895 MPa.

a. All nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.

b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.

c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.

d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.

e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).

f. For regions having basic wind speed of 110 mph or greater, 8d deformed (2 1/2" × 0.120) nails shall be used for attaching plywood and wood structural panel roof sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet, up to 35 feet maximum.

g. For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. When basic wind speed is greater than 100 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing.

h. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C 208.

i. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.

j. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required. (Ord. 2016-17; July 26th, 2016)

9-403.550 Figure R602.10.3.5 Added; Alternate Braced Wall Panel at Garage Door Openings.
Figure R602.10.3.5 is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.555 Figure R602.10.4 Added; Braced Walls Using Continuous OSB Sheathing.
Figure R602.10.3.5 is added to the International Residential Code as shown on said figure at the end of this chapter. (Ord. 2016-17; July 26th, 2016)

9-403.560 Section R702.7 Amended; Vapor Retarders.
Section R702.7 of the International Residential Code is amended to read as follows:
R702.7 Vapor retarders. Class I or II vapor retarders are not permitted on the interior side of exterior walls. (Ord. 2016-17; July 26th, 2016)

9-403.565 Section R703.1 Amended; Exterior Covering; General.
Section R703.1 of the International Residential Code is amended to read as follows:
R703.1 General. To promote building durability, 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 envelope shall provide proper integration of flashings with the WRB and the exterior veneer. These components, in conjunction, shall provide a means of draining water that enters the assembly to the exterior.
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 prior to overlaying with a new veneer product. (Ord. 2016-17; July 26th, 2016)

9-403.570 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 water-resistive barrier, (WRB) free from holes, complying with ASTM E2556 for type II WRB shall be applied over sheathing of all exterior walls. Such WRB shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2 inches. Where vertical joints occur, the WRB shall be lapped not less than 6 inches. The WRB 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.
Manufactured and natural adhered masonry veneer and stucco shall be installed over an approved rain screen (drainage system) that has a minimum depth of 1/8 inch. The 1/8 inch space shall be formed by the use of any non-corrodible furring strip, drainage mat or drainage board. A

water-resistant barrier shall be installed between the rain screen and the wall sheathing. Flashing shall be installed in accordance with Section R703.8. No. 15 asphalt shall not be permitted as a water-resistant barrier for adhered veneer and stucco.

Exceptions:

1. A space is not required where the exterior veneer is installed with a second WRB complying with Section R703.2 which is manufactured in a manner to enhance drainage and meets the 75% efficiency drainage requirement of ASTM E2273, ICC-ES, AC24, ICC-ES, AC235 or other recognized national standards and is installed over a WRB complying with Section 703.2.

2. The water-resistive barrier for detached accessory buildings less than 120 square foot is not required. (Ord. 2016-17; July 26th, 2016)

9-403.575 Section R703.6.3 Amended; Water-Resistive Barriers.

Section R703.6.3 of the International Residential Code is amended to read as follows: **R703.6.3 Water-resistive barriers.** A water-resistive barrier shall be installed as required in Section R703.2 with an approved rain screen (drainage system) that has either a minimum depth of 1/8 inch or has an average minimum drainage efficiency of 90 percent when tested in accordance with ASTM E 2271. The WRB shall be installed between the rain screen and the wall sheathing. Flashing shall be installed in accordance with Section R703.8. No. 15 asphalt shall not be permitted as a water-resistant barrier. (Ord. 2016-17; July 26th, 2016)

9-403.580 Table R703.7.3.1 Deleted; Allowable Spans for Lintels Supporting Masonry Veneer.

Table R703.7.3.1 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.585 Section R703.7.3 Deleted; Lintels.

Section R703.7.3 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.590 Section R703.7.4 Amended; Anchorage.

Section R703.7.4 of the International Residential Code is amended to read as follows: **R703.7.4** 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 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. 2016-17; July 26th, 2016)

9-403.595 Section R703.7.4.2 Deleted; Air Space.
Section R703.4.2 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.600 Figure R703.7 Deleted; Masonry Veneer Wall Details.
Figure R703.7 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.605 Section R703.7.5 Amended; 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 8-inch brickledge drop and all exterior window and door openings are caulked with sealant. (Ord. 2016-17; July 26th, 2016)

9-403.610 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 on center. Weepholes shall not be less than 3 /16 inch 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 8-inch brickledge drop and all exterior window and door openings are flashed per 703.8 amended. (Ord. 2016-17; July 26th, 2016)

9-403.615 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.
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 woodframe construction.

6. At wall and roof intersections.

7. At built-in gutters.

Exceptions:

1. The requirements of subparagraph 3 above may be deleted if a poured concrete foundation is used with a minimum 8-inch brickledge drop.

2. The requirements of subparagraph 3 above may be deleted where soffits serve as protection for the upper course of brick veneer. (Ord. 2016-17; July 26th, 2016)

9-403.620 Section R703.9.2.1 Amended; Water-Resistive Barrier.

Section R703.9.2.1 of the International Residential Code is amended to read as follows:

R703.9.2.1 The water-resistive barrier shall comply with Section R703.2 or ASTM E 2570. No.15 asphalt shall not be permitted as a water-resistive barrier. (Ord. 2016-17; July 26th, 2016)

9-403.625 Section R703.9.2.2 Amended; Installation.

Section R703.9.2.2 of the International Residential Code is amended to read as follows:

R703.9.2.2 Installation: The water-resistive barrier shall be applied between the drainage system and the wall sheathing as per 703.6.3. (Ord. 2016-17; July 26th, 2016)

9-403.630 Section R703.12.1 Amended; Adhered Masonry Veneer; Clearances.

Section R703.12.1 of the International Residential Code is hereby amended to read as follows:

R703.12.1 Clearances.

1. The minimum clearance from the adhered masonry to a concrete stoop is 1/2 inch.

2. The minimum clearance from the rain screen flashing at the bottom of adhered masonry to a sidewalk or driveway is 1/2 inch. A 1 1/2 inch thick expansion joint is required between the foundation and the sidewalk or driveway. The stone veneer on the bottom 6 inches shall not project beyond the edge of the sidewalk or driveway.

3. The minimum clearance from the rain screen flashing at the bottom of the adhered masonry to grade shall be 1 1/2 inch.

4. The adhered masonry at the top of the rain screen shall provide a minimum of ¼ inch opening to the soffit to vent the rain screen. (Ord. 2016-17; July 26th, 2016)

9-403.635 Section R703.12.3 Added; Adhered Masonry Veneer; Water-Resistive Barrier.

Section R703.12.3 is added to the International Residential Code to read as follows:

R703.12.1 Water-resistive barrier. A water-resistive vapor-permeable barrier complying with

ASTM E2556 for Type II water-resistive barrier shall be installed as required in Section R703.2 with an approved rain screen (drainage system) that has either a minimum depth of 1/8 inch or has an average minimum drainage efficiency of 90 percent when tested in accordance with ASTM E 2273. The WRB shall be installed between the rain screen and the wall sheathing. Flashing shall be installed in accordance with Section R703.8. No. 15 asphalt shall not be permitted as a water resistant barrier. (Ord. 2016-17; July 26th, 2016)

9-403.640 Section R802.3 Amended; Framing Details.

Section R802.3 of the International Residential Code is amended to read as follows:

R802.3 Framing details. Rafters shall be framed to ridge board or to each other with a gusset plate as a tie. Ridge board shall be at least 1-inch nominal thickness and not less in depth than the cut end of the rafter. At all valleys and hips there shall be a valley or hip rafter not less than 2-inch nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Where the roof pitch is less than three units vertical in 12 units horizontal (25-percent slope), structural members that support rafters and ceiling joists, such as ridge beams, hips and valleys, shall be designed as beams.

A roof that is over framed on a lower roof shall bear on a ledger board. The ledger board shall be a minimum of 2x6 inches and shall be located on the inside of the heel cut. On existing roofs the roof covering shall be removed to allow the ledger board to bear on the roof sheathing and rafters. The framed roof shall comply with R802.11. (Ord. 2016-17; July 26th, 2016)

9-403.645 Section R802.11.1 Amended; Roof Tie-Down; Uplift Resistance.

Section R802.11.1 of the International Residential Code is amended to read as follows:

R802.11.1 Uplift resistance. Roof assemblies shall have uplift resistance in accordance with Sections R802.11.1.2 and R802.11.1.3.

Where the uplift force does not exceed 200 pounds, rafters spaced not more than 24 inches on center shall be permitted to be attached to their supporting wall assemblies in accordance with Table R602.3(1).

Where the basic wind speed does not exceed 90 mph, the wind exposure category is B, the roof pitch is 5:12 or greater, and the roof space in 32 feet or less, rafters spaced not more than 24 inches on center shall be permitted to be attached to their supporting wall assemblies in accordance with Table R602.3(1). (Ord. 2016-17; July 26th, 2016)

9-403.650 Section R802.11.1.2 Amended; Roof Tie-Down; Truss Uplift Resistance.

Section R802.11.1.2 of the International Residential Code is amended to read as follows:

R802.11.1.2 Truss uplift resistance. Trusses shall be attached to supporting wall assemblies by metal strap connections capable of resisting uplift forces as specified on the truss design drawings. Uplift forces shall be permitted to be determined as specified by Table R802.11, if applicable, or as determined by accepted engineering practice. (Ord. 2016-17; July 26th, 2016)

9-403.655 Section R806.5 Amended; Unvented Attic and Unvented Enclosed Rafter Assemblies.

Section R806.5 of the International Residential Code is amended to read as follows:

R806.5 Unvented attic and unvented enclosed rafter assemblies. Unvented attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) and unvented enclosed rafter assemblies (spaces between ceilings that are applied directly to the underside of

roof framing members/rafters and the structural roof sheathing at the top of the roof framing members/rafters) shall be permitted if all the following conditions are met:

1. The unvented attic space is completely contained within the building thermal envelope.

2. No interior Class I vapor retarders or Kraft face batt insulation are installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed rafter assembly.

3. Where wood shingles or shakes are used, a minimum 1/4-inch vented air space separates the shingles or shakes and the roofing underlayment above the structural sheathing.

4. In Climate Zones 5, 6, 7 and 8, any air-impermeable insulation shall be a Class II vapor retarder, excluding Kraft face batt insulation, or shall have a Class III vapor retarder coating or covering in direct contact with the underside of the insulation.

5. Either Items 5.1, 5.2 or 5.3 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.

5.1. Air-impermeable insulation only. Insulation shall be applied in direct contact with the underside of the structural roof sheathing.

5.2. Air-permeable insulation only. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing as specified in Table R806.5 for condensation control.

5.2.1 Allow for a solidly filled cavity with insulation with a breathable vapor barrier on the ceiling side with a minimum R-value per current code for a roof.

5.3. Air-impermeable and air-permeable insulation. The air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing as specified in Table R806.5 for condensation control. The air-impermeable insulation shall be installed directly under the air-impermeable insulation.

5.4. Where preformed insulation board is used as the airpermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

TABLE R806.5 INSULATION FOR CONDENSATION CONTROL

CLIMATE ZONE	MINIMUM RIGID BOARD ON AIR-IMPERMEABLE INSULATION R-VALUE[a]
5	R-20

[a] Contributes to but does not supersede the requirements in Section N1103.2.1

(Ord. 2016-17; July 26th, 2016)

9-403.660 Section R905.2.7.1 Amended; Ice Barrier.

Section R905.2.7.1 of the International Residential Code is amended to read as follows:

R905.2.7.1 Ice barrier; conditioned floor area. In areas where there has been a history of ice forming along the eaves causing a backup of water as designated in Table R301.2(1), an ice barrier that consists of a least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet or other method approved by the Building Official, shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to at least 36 inches.

Exceptions:

1. The ice barrier may be omitted when a raised heel truss or other framing method provides space for a minimum of R-38 attic insulation along the exterior wall.
2. The ice barrier may be omitted for attached garages and detached accessory structures that contain no conditioned floor area. (Ord. 2016-17; July 26th, 2016)

9-403.665 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 asbestoscement 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.

9-403.670 Section R1003.11 Deleted; Masonry Chimneys; Flue Lining (Material).

Section R1003.11 of the International Residential Code is hereby deleted.

9-403.675 Section R1003.11.2 Deleted; Flue Linings for Specific Appliances.

Section R1003.11.2 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.680 Section R1003.11.3 Deleted; Gas Appliances.

Section R1003.11.3 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.685 Section R1003.11.4 Amended; Pellet Fuel-Burning Appliances.

Section R1003.11.4 of the International Residential Code is amended to read as follows:

R1003.11.4 Pellet fuel-burning appliances. Flue lining and vent systems for use in masonry chimneys with pellet fuel-burning appliances shall be limited to the following:

1. Flue lining systems complying with Section R1003.11.1.
2. Pellet vents listed for installation within masonry chimneys. (See Section R1003.11.6 for marking.) (Ord. 2016-17; July 26th, 2016)

9-403.690 Section R1003.11.5 Deleted. Oil-fired Appliances.

Section R1003.11.5 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.695 Section R1003.14 Deleted; Flue Area (Appliance).
Section R1003.14 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.700 Section R1004.4 Deleted; Unvented Gas Log Heaters.
Section R1004.4 of the International Residential Code is hereby deleted. (Ord. 2016-17; July 26th, 2016)

9-403.705 Energy Conservation.
For purposes of compliance with the State Building Code and the Nebraska Energy Code, Chapter 11 of the 2009 International Residential Code has been adopted at Section 9-403.010 of this code. The requirements of the Nebraska Energy Code, Neb. Rev. Stat. § 81-1611 through 81-1626, shall apply to all new single and two-family dwellings or portions thereof which are heated and/or mechanically cooled. (Ord. 2016-17; July 26th, 2016)

9-403.710 Chapters 12 through 43 of the International Residential Code Deleted.
Chapters 12 through 43 of the International Residential Code are hereby deleted.
[FIGURES REFERRED TO WITHIN THIS CHAPTER FOLLOW]

FIGURE R302.2 (1)

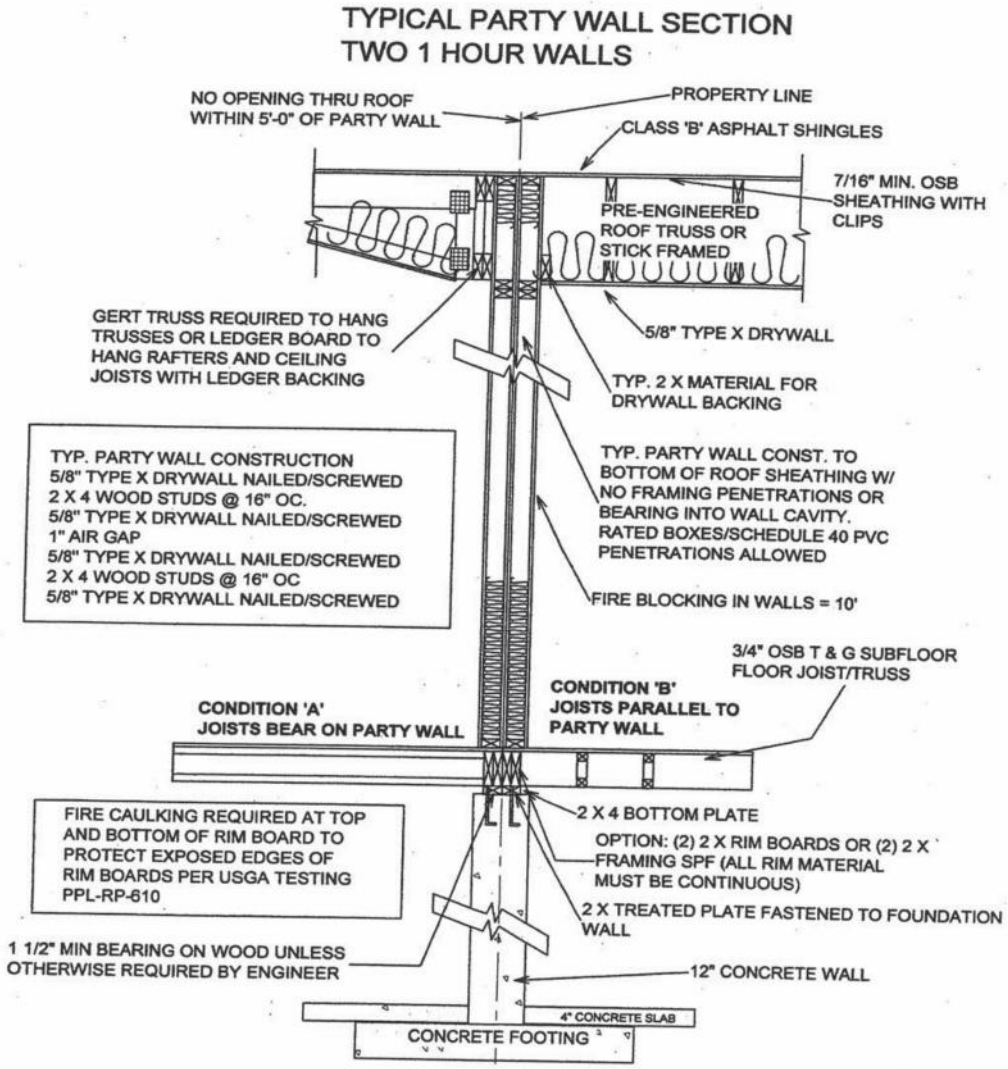


FIGURE R302.2 (2)

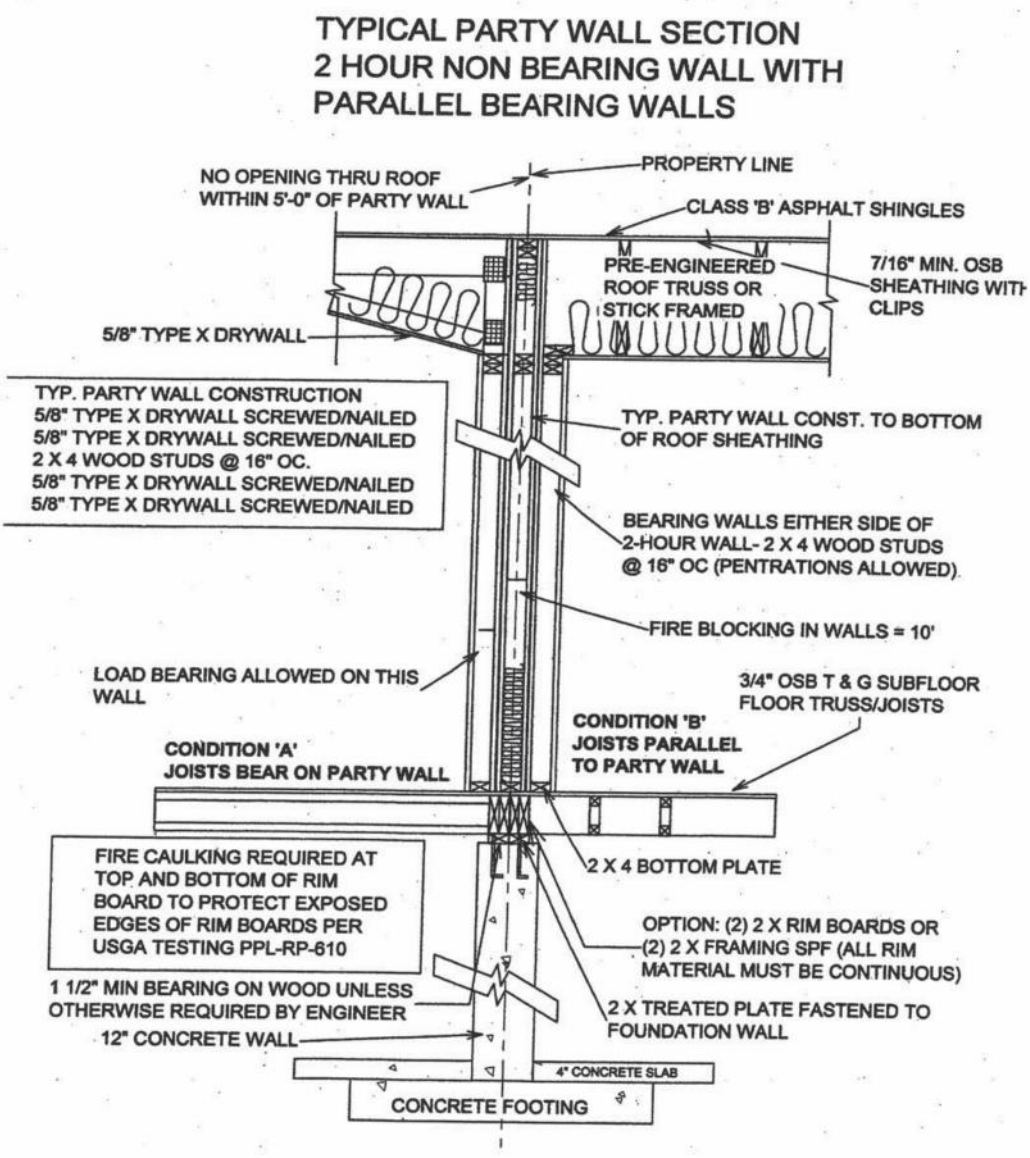


FIGURE R302.2 (3)

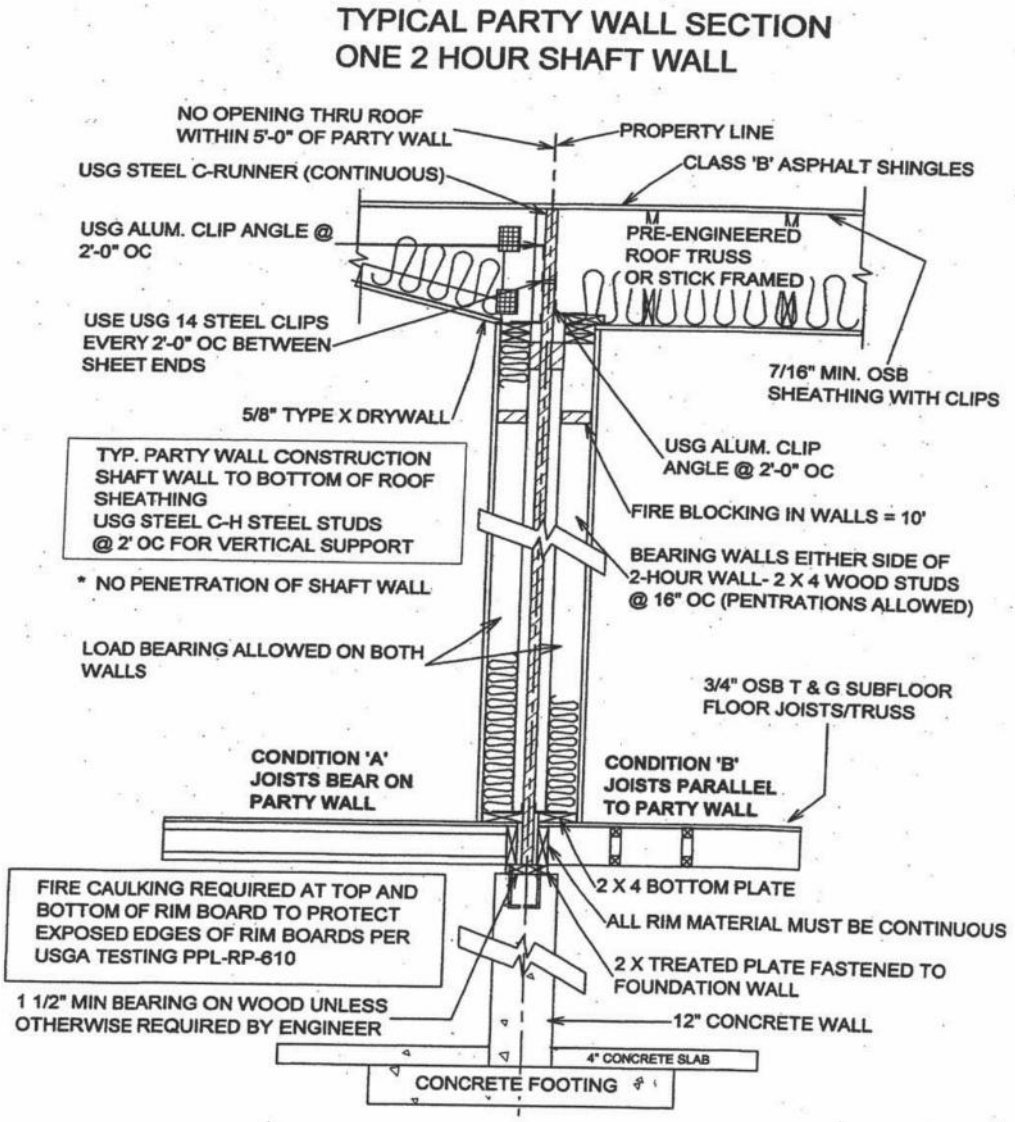


FIGURE R302.2 (4)

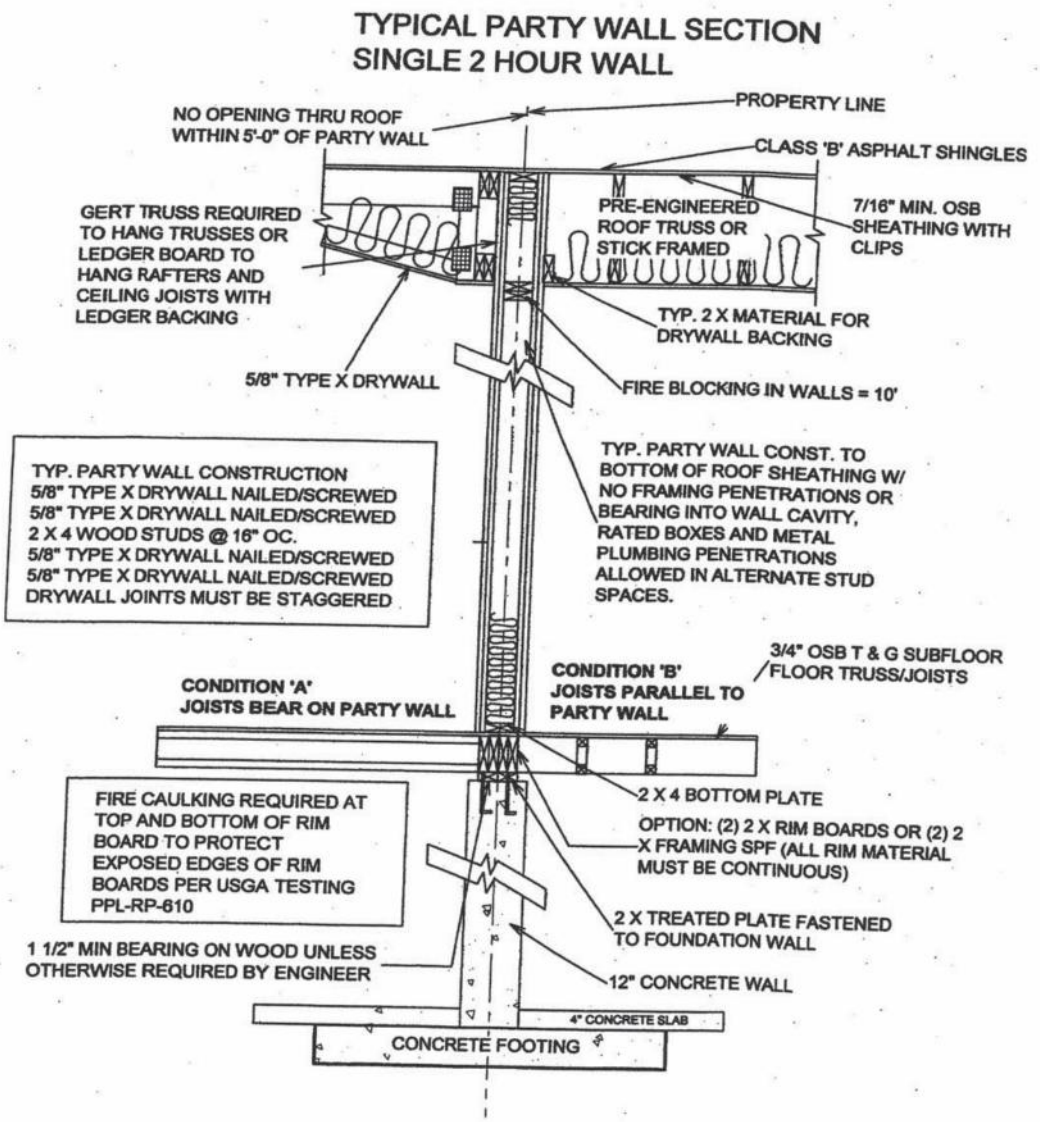
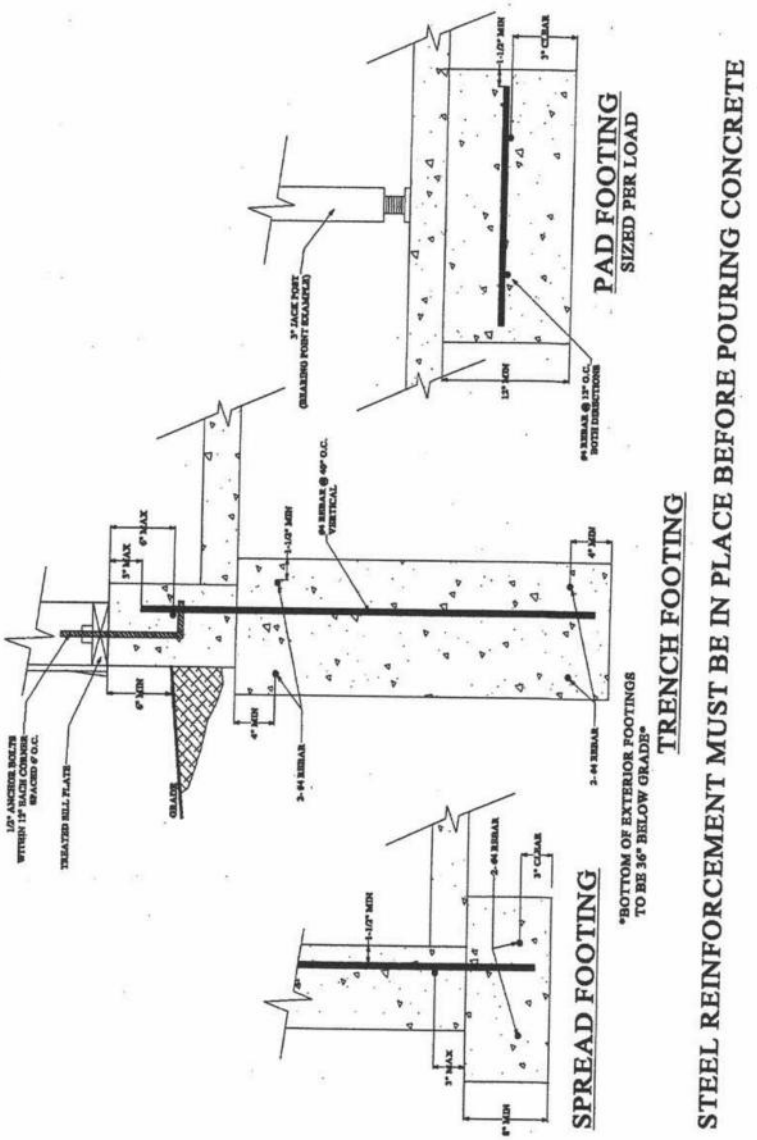


FIGURE R403.1 (1) -Page 1 of 2

*FIGURE 403.1(1)
MINIMUM FOOTING REINFORCEMENT



STEEL REINFORCEMENT MUST BE IN PLACE BEFORE POURING CONCRETE

FIGURE R403.1 (1) -Page 2 of 2

*FIGURE R403.1(1)
MONOLITHIC SLAB

- *SINGLE STORY ONLY
- *500 SQ. FT. MAX
- *20' MIN. DIMENSION
- *1- ROW BLOCK MAX
- *12" MAX FILL

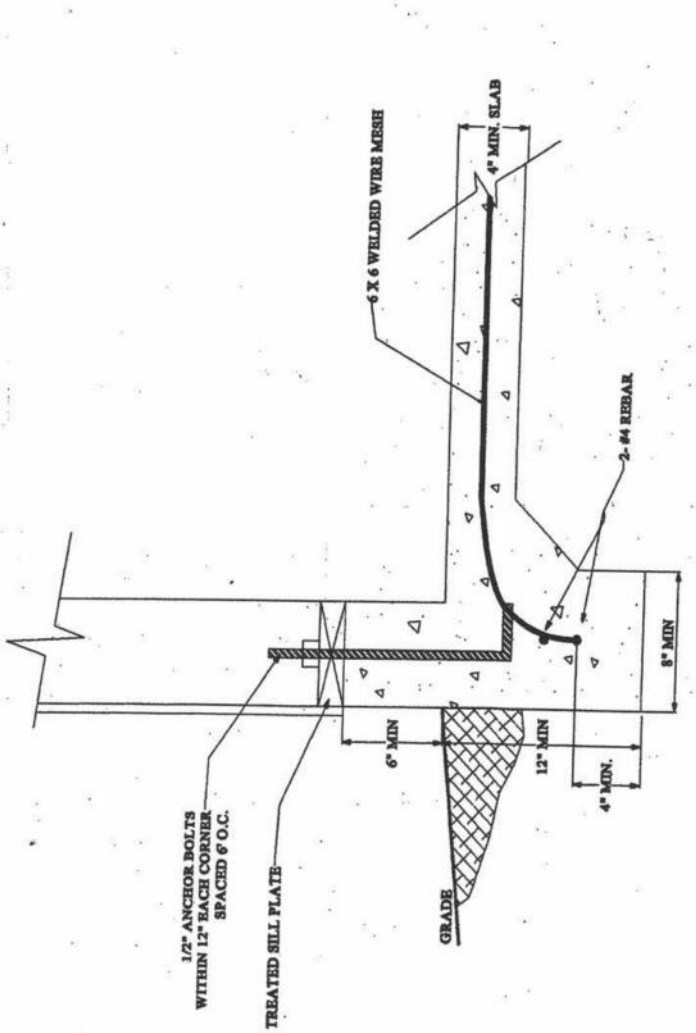


FIGURE R404.1.1 (3)

PERMANENT MASONRY FOUNDATION BASEMENT WALL SECTION

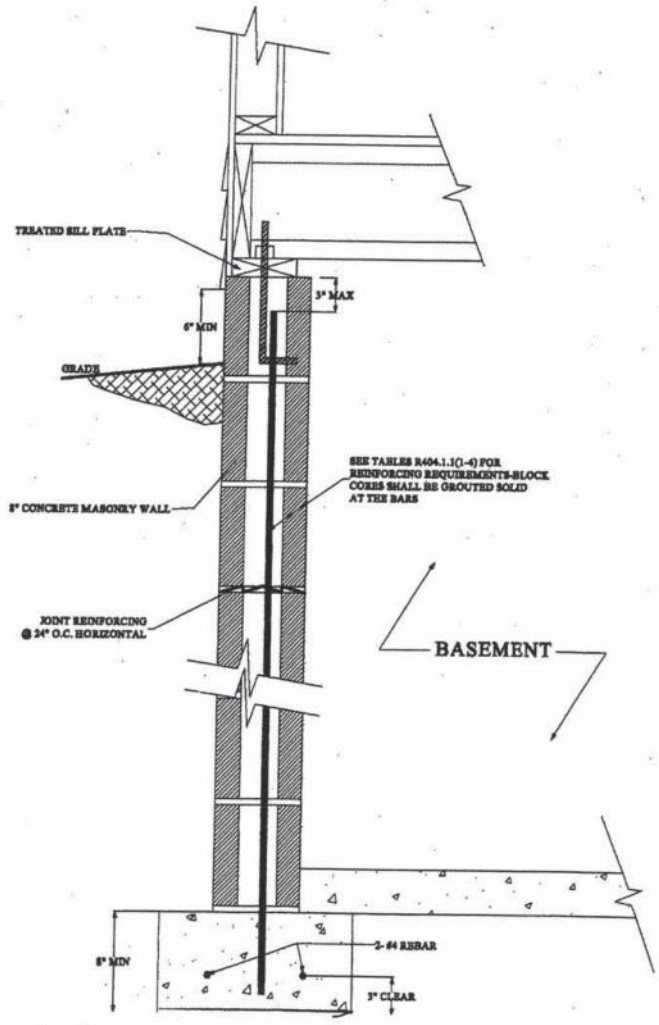
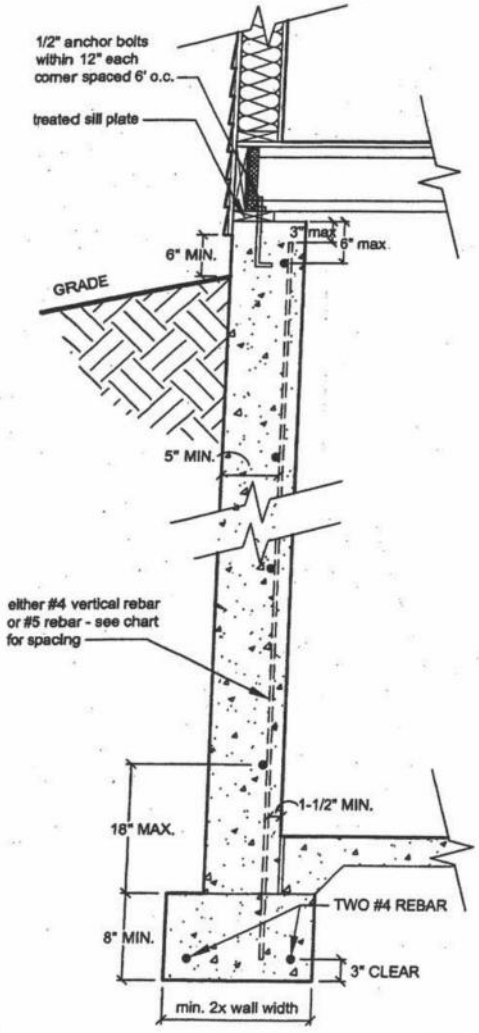


FIGURE R404.1.2.2 (1)

BASEMENT WALL SECTION



10" Concrete Foundation		
Wall Height	Vertical Spacing	
	#4 rebar	#5 rebar
4' *	18" o.c.	24" o.c.
8'	24" o.c.	40" o.c.
9'	20" o.c.	30" o.c.
10'	16" o.c.	24" o.c.

8" Concrete Foundation		
Wall Height	Vertical Spacing	
	#4 rebar	#5 rebar
4' *	18" o.c.	24" o.c.
8'	24" o.c.	30" o.c.
9'	16" o.c.	24" o.c.
10'	12" o.c.	18" o.c.

horizontal spacing #4 rebar 24" o.c. with bottom rebar 18" or less from top of footing and top rebar between 3" and 6" from top of foundation wall.

* 2' deadman required at 12' o.c. entire length of wall

May 5th 2011

FIGURE R404.1.2.2 (2)

MIN. CONCRETE FOUNDATION WALL CORNER DETAIL (RESIDENTIAL POURED WALL)

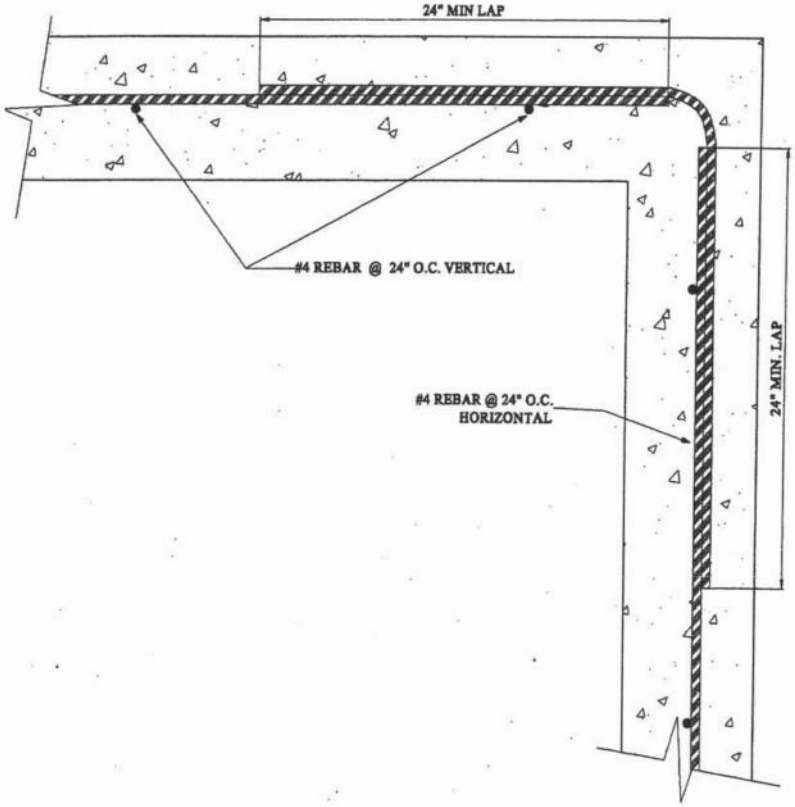
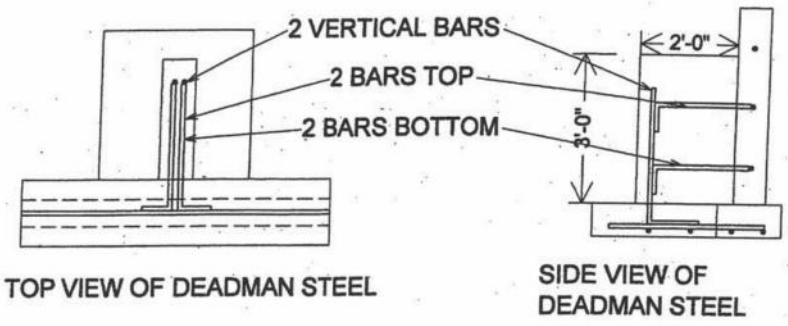


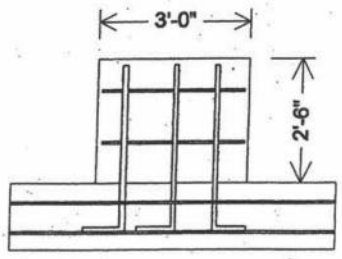
FIGURE R404.1.2.2.1

DEADMAN / 4 FOOT CONCRETE WALL 20 FT O.C.



TOP VIEW OF DEADMAN STEEL

SIDE VIEW OF DEADMAN STEEL



TOP VIEW OF FOOTING STEEL

FIGURE R404.1.5.2

GARAGE DOOR STEM WALL FOR BRACED WALL PANEL

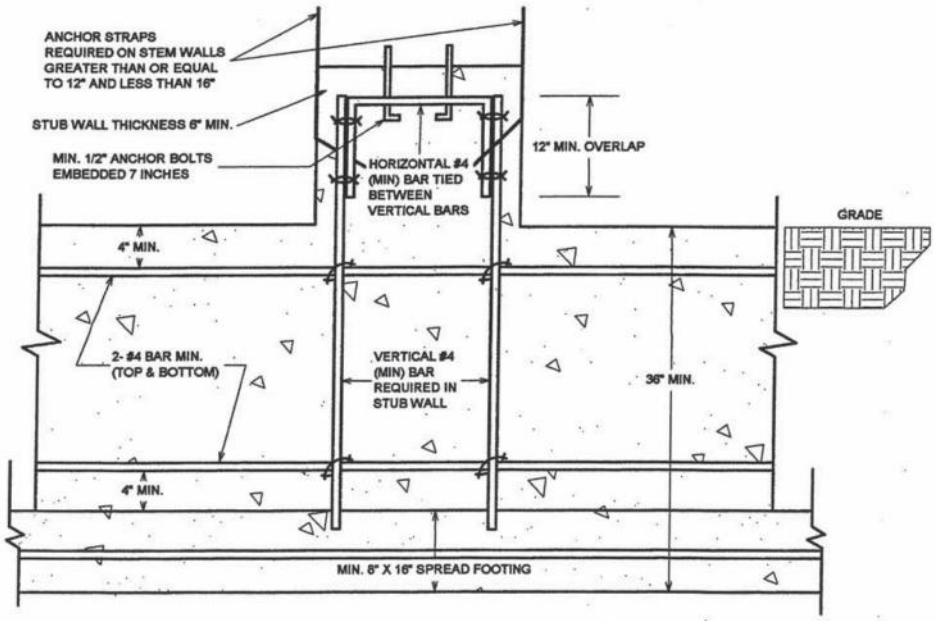


Figure 602.10.3.5

ALTERNATE BRACED WALL PANEL AT GARAGE DOOR OPENINGS

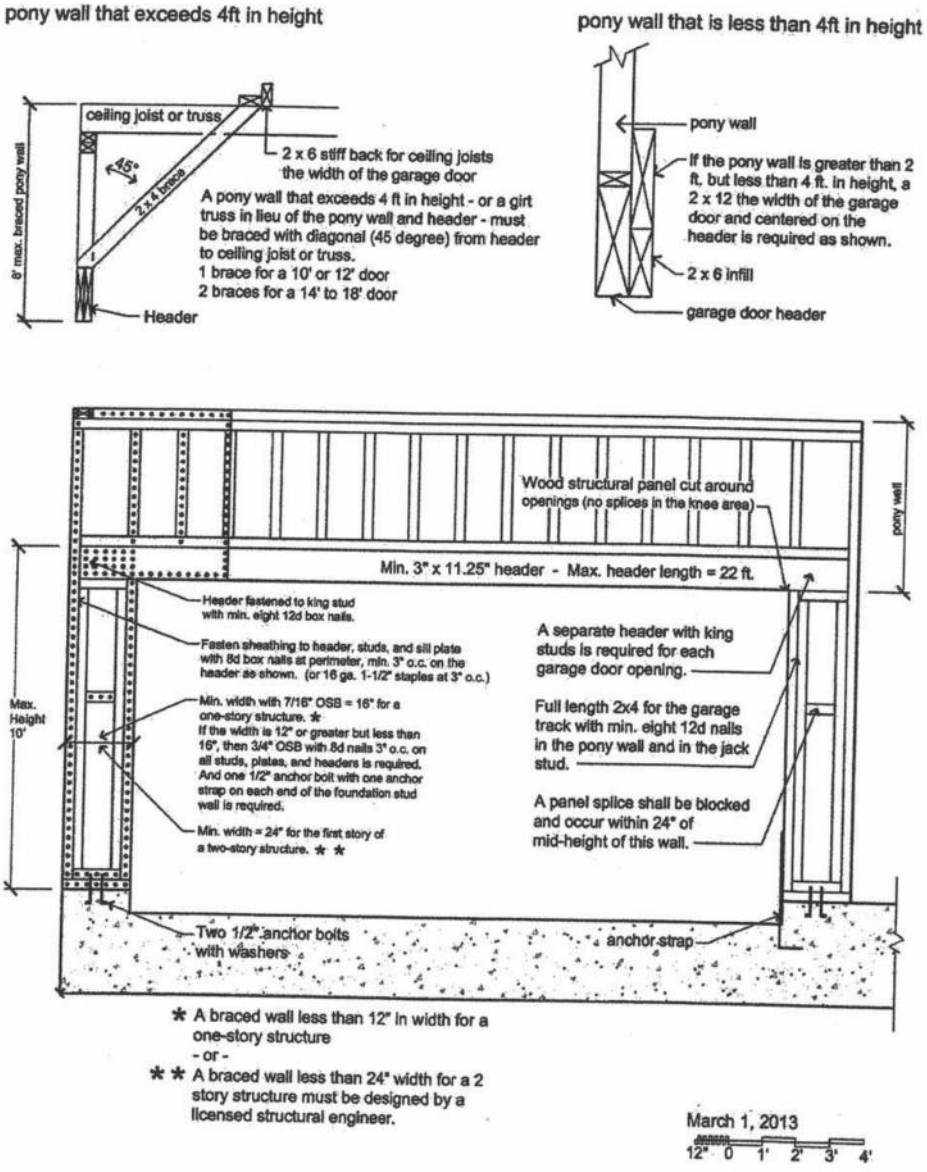


FIGURE R602.10.4

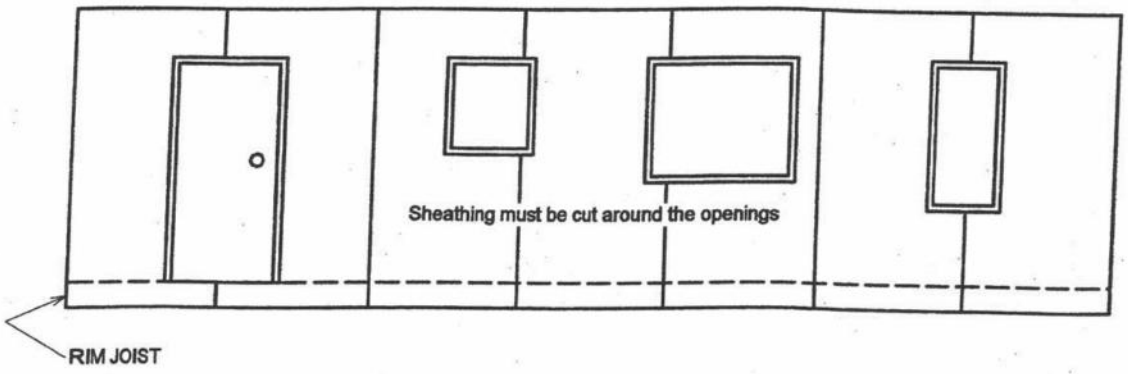
BRACED WALLS USING CONTINUOUS OSB SHEATHING

All Panels are a part of the braced wall and contribute to the total strength of the wall.

Minimum sheathing thickness is 7/16" OSB.

Nailing - 8d-6" perimeter and around openings and 12" in the field, or 1 3/4 16 ga staples 4" perimeter and around openings and 8" in the field.

Sheathing can be vertical or horizontal with no blocking.



Wall sheathing extends to bottom of sill plate or 1" metal strap 4' O.C. minimum.

(Ord. 2016-17; July 26th, 2016)