

ORDINANCE # 08-2014-2

An ordinance of the VILLAGE OF FIRTH, LANCASTER COUNTY, NEBRASKA, adopting the 2009 edition of the *International Residential Code*, regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with separate means of egress in the Village of Firth; providing for the issuance of permits and collections of fees therefore; REPEALING ALL ORDINANCES IN CONFLICT; AND PROVIDING AN EFFECTIVE DATE.

The Board of Trustees of the Village of Firth, Nebraska does ordain as follows:

Section 1. That a certain document, a copy of which is on file in the Office of the Clerk of the Village of Firth, being marked and designated as the International Residential Code, 2009 edition, including Appendix Chapters, as published by the International Code Council, be and is hereby adopted as the Residential Code of the Village of Firth, in the State of Nebraska for regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with separate means of egress as herein provided; providing for issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, penalties, conditions and terms of said Residential Code on file in the office of the Clerk are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes, if any, prescribed in Section 2 of this ordinance.

Section 2. The following sections are hereby revised:

**FIRTH RESIDENTIAL BUILDING CODE
International Residential Code, 2009 Edition**

Firth Code §11.02 Amend to Adopt of 2009 International Residential Code.

Section R102.1 Amended; Applicability; General.

Section R103 Deleted; Department of Building Safety.

Section 105.2 Amended; Work exempt from permit

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

Section R107 and Subsections, Temporary Structures and Uses; Deleted.

Section R108.3 Amended; Plan review fees.

Section R 108.5 Amended; Refunds

Section R109 Section Heading Amended; Inspections and Surveys.

Section R109.1 Amended; Types of Inspections

Section R109.1.2 Amended; Plumbing, mechanical, gas systems Inspection.

Section R109.1.4 Amended; Frame Inspection.

Section R109.1.7 Added; Reinspections.

Section R109.5 Added; Address Identification.

Section R110.2 Amended; Change in use.

Section R110.3 Amended; Certificate issued.

Section R115 Added; Demolition of Buildings.

Section R301.2.4 Amended; Flood Plain Construction.

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

Table R301.5 Amended; Minimum Uniformly Distributed Live Loads.

Table R301.7 Amended; Allowable Deflection of Structural Members.

Section R302.1 Amended; Exterior Walls.

Table R302.1 Amended; Exterior Walls.

Section R302.2 Amended; Townhouses.

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

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

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

Figure R302.2 (4) Added; Typical Party Wall Section; Single 2 Hour Walls.

Section R302.2.2 Amended; Parapets.

Section R302.2.4 Exception 5 Deleted; Structural Independence.

Section R302.3 Amended; Two-family Dwellings.

Section R302.5.2 Deleted; Duct Penetration.

Section R302.6 Amended; Separation Required.

Table R302.6 Amended; Dwelling/Garage Fire Separation.

Section R302.12 Amended; Draftstopping.

Section R303.1 Exception 2 Amended; Habitable Rooms.

Section R303.3 Amended; Bathrooms.

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

Section R303.5 Deleted; Outside Opening Protection.

Section R305 Amended; Ceiling Heights.

Section R306.2 Amended; Kitchen.

Figure R307.1 Amended; Minimum Fixture Clearances.

Section R307.3 Added; Access to Whirlpool Pump.

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

Section R309.5 Added; Headroom Clearance.

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

Section R310.1.1 Exception Deleted; Minimum Opening.

Section R310.1.5 Added; Double Hung Egress Window.

Section R310.3 Amended; Bulkhead Enclosures.

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

Section R311.7 Amended; Stairways.

Section R312 Amended; Guards.

Section R313 Deleted; Automatic Fire Sprinkler Systems.

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

Section R314.4 Amended; Smoke Alarms; Power Source.

Section R315	Amended; Carbon Monoxide Alarms.
Section 317.1	Amended; Protection of Wood and Wood Based Products
Against Decay;	Location Required.
Section R317.1.2	Deleted; Ground Contact.
Section R317.1.4	Amended; Wood Columns.
Section R319	Amended; Premises Identification.
Section R320	Deleted; Accessibility.
Section R322	Deleted; Flood-Resistant Construction.
Table R401.4.1	Amended; Load Bearing Values.
Section R403.1	Amended; Footings; General.
Section R403.1.1	Amended; Minimum Footing Sizes.
Table R403.1	Amended; Minimum Width of Footings.
Figure R403.1(1)	Amended; Minimum Footing Reinforcement.
Section R403.1.3.2	Amended; Slabs-on-Ground with Turned-Down Footings.
Section R403.1.4.1	Amended; Frost Protection.
Section R403.1.6	Amended; Foundation Anchorage.
Section R403.3 and Subsections, Tables and Figures	Deleted; Frost Protected Shallow Foundations.
Section R403.4	Amended; Footings for Precast Concrete Foundations.:
Section R403.4.1	Deleted; Crushed Stone Footings.
Table R403.4	Deleted; Minimum Depth of Crushed Stone Footings.
Table R404.1.1(1)	Deleted; Plain Masonry Foundation Walls.
Figure R404.1.1(3)	Added; Permanent Masonry Foundation Basement Wall Section.
Table R404.1.2 (1)	Deleted; Minimum Horizontal Reinforcement for Concrete Basement Walls.
Table R404.1.2(2)	Deleted; Minimum Vertical Reinforcement for 6-inch Nominal Flat Concrete Basement Walls.
Table R404.1.2(3)	Deleted; Minimum Vertical Reinforcement for 8-inch Nominal Flat Concrete Basement Walls.
Table R404.1.2(4)	Deleted; Minimum Vertical Reinforcement For 10-inch Nominal Flat Concrete Basement Walls.
Table R404.1.2(8)	Deleted; Minimum Vertical Reinforcement for 6-, 8-, 10-inch and 12-inch Nominal Flat Basement Walls.
Table 404.1.2 (9)	Deleted; Minimum Spacing for Alternate Bar Size and/or Alternate Grade of Steel.
Section R404.1.2.2	Amended; Reinforcement for Foundation Walls.
Figures R404.1.2.2(1) through R404.1.2.2(9)	Added; Reinforcement for Foundation Walls.
Figure R404.1.2.2.1	Added; Deadman/4 foot Concrete Wall.
Section 404.1.5.2	Amended; Concrete Wall Thickness.
Figure 404.1.5.2	Added; Garage Stub Wall Foundation Detail.
Section R408.7	Deleted; Flood Resistance.
Section R502.2.3	Amended; Deck Lateral Load Connection.
Section R502.3	Amended; Allowable Joist Spans.
Section R502.7	Amended; Lateral Restraint at Supports.
Section R502.10	Amended; Framing of Openings.
Section R601.3	Amended; Vapor Retarders.

Figure R602.10.3.5 Added; Alternate Braced Wall Panel at Garage Door Openings.

Figure R602.10.4 Added; Braced Walls Using Continuous OSB Sheathing.

Section R703.1 Amended; Exterior Covering; General.

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

Section R703.7.3 Deleted; Lintels.

Section R703.7.4 Amended; Anchorage.

Section R703.7.4.2 Deleted; Air Space.

Figure R703.7 Deleted; Masonry Veneer Wall Details.

R703.7.5 Amended; Flashing.

Section R703.7.6 Amended; Weepholes.

Section R703.8 Amended; Flashing.

Section R703.9.2.1 Amended; Water-Resistive Barrier.

Section R703.9.2.2 Amended; Installation.

Section R703.12.1 Added; Water-Resistive Barrier; Adhered Masonry Veneer.

Section R802.3 Amended; Framing Details.

Section R905.2.7.1 Amended; Ice Barrier.

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

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

Section R1003.11.2 Deleted; Flue Linings for Specific Appliances.

Section R1003.11.3 Deleted; Gas Appliances.

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

Section R1003.11.5 Deleted. Oil-fired Appliances.

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

Section R1004.4 Deleted; Unvented Gas Log Heaters.

Chapter 11 Deleted; Energy Code.

Chapters 19 through 22 and 24 through 42 of the International Residential Code Deleted.

Section 105.2 Amended; Work exempt from permit Permits shall not be required for the following. Exemptions 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.

1. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to 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 (18927 L) and the ration of height to diameter or width does not exceed 2 to 1.
3. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade and not over any basement or story below.
4. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
5. Prefabricated swing pools that are less than 24 inches (610 mm) deep
6. Swings and other playground equipment accessory to a one or two-family dwelling.
7. Window awnings supported by an exterior wall which do not project more

than 54 inches (1372 mm) from the exterior wall and do not require additional support.

8. Shingling and residing.
9. Window and door replacement provided replacement does not affect structural elements of the building.

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 within the Village's zoning jurisdiction, the regulations and specifications set forth in Firth Municipal Code Chapter 8 shall apply.

Section R107 and Subsections, Temporary Structures and Uses; Deleted.

Section R107 of the International Residential Code and all subsections thereof are hereby deleted.

Section R108.3 Amended; 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 Firth Fee Schedule. 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 Fee Schedule

R108.5 Added; Fee refunds. There shall be no refunds or credits given on permits or applications regulated by this chapter which have expired. A request for refund may be made to the Village Board of Trustees ONLY when the permit holder returns an unused permit prior to the expiration date of the permit. A refund of plan review fee may be requested ONLY when an application for a permit for which such fee has been paid is withdrawn or canceled before any plan review is done.

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

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 Village.

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 Firth Zoning 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 Village shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

Section R109.1.2 Amended; Plumbing, mechanical, gas systems Inspection.

R109.1.2 Plumbing, mechanical, gas systems Inspection. Rough inspection of plumbing, mechanical and gas systems shall be made prior to covering or concealment, before fixtures or appliances are set or installed, and prior to framing inspection.

Section R109.1.4 Amended; Frame Inspection.

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.

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 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.

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.

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**

R110.2 Change in use. Changes in the character or use of a building shall not be made except as specified in Chapter 34, 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 village, the building official shall issue a certificate of occupancy.

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 Village of Firth in the Firth 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.

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 Village’s zoning jurisdiction, the regulations and specifications set forth in Firth Municipal Code Chapter 8.

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 ^b	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 HZR Sec. 5.18

All footnotes to Table R301.2(1) of this code shall apply.

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 mm²,
1 pound = 4.45 N.

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

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

STRUCTURAL MEMBER	ALLOWABLE DEFLECTION
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.

Section R302.1 Amended; Exterior Walls.

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

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

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

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

Exception 3: An accessory building located less than 6 feet from a dwelling unit including decks greater than 30 inches above grade, shall be protected with no less than 5/8" type X gypsum board applied to the interior side of the walls and the ceiling. The door shall be no less than a solid core or steel door no less than 1 3/8" thickness. No other openings shall be permitted.

Table R302.1 Amended; Exterior Walls.

Table R302.1 of the International Residential 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
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*Detached Garages- 1 hour protection from the inside only.

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 walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with the State of Nebraska Electrical Code. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

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.

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.

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.

Figure R302.2 (4) Added; Typical Party Wall Section; Single 2 Hour Walls.

Figure R302.2 (4) is added to the International Residential Code as shown on said figure at the end of this chapter.

Section R302.2.2 Amended; Parapets.

Section R302.2.2 of the International Residential Code is amended to read as follows:

R302.2.2 Parapets. Parapets constructed in accordance with Section R302.2.3 shall be constructed for townhouses as an extension of exterior walls or common walls in accordance with the following:

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

Exception: A parapet is not required in the two cases above when the roof is covered with a minimum class C roof covering, and the roof decking or sheathing is of noncombustible materials

or approved fire-retardant-treated wood for a distance of 4 feet on each side of the wall or walls, or one layer of 5/8 inch Type X gypsum board is installed directly beneath the roof decking or sheathing, supported by a minimum of nominal 2-inch ledgers attached to the sides of the roof framing members, for a minimum distance of 4 feet on each side of the wall or walls.

3. A parapet is not required where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is more than 30 inches above the lower roof. The common wall construction from the lower roof to the underside of the higher roof deck shall have not less than a 1-hour fire-resistance rating. The wall shall be rated for exposure from both sides.

4. Penetration and openings in the roof shall not be located within 5 feet of the property line.

Section R302.2.4 Exception 5 Deleted; Structural Independence.

Exception 5 to Section R302.2.4 of the International Residential Code is hereby deleted.

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

3. Wall assemblies need not extend through attic spaces when the ceiling is protected by not less than 5/8-inch Type X gypsum board and an attic draft stop constructed as specified in Section R502.12.1 is provided above and along the wall assembly separating the dwellings. The structural framing supporting the ceiling shall also be protected by not less than 1/2 -inch gypsum board or equivalent.

Section R302.5.2 Deleted; Duct Penetration.

Section R302.5.2 of the International Residential Code is hereby deleted.

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. 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.

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**

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.

Section R302.12 Amended; Draftstopping.

Section R302.12 of the International Residential Code is amended to read as follows:

R302.12 Draftstopping. In combustible construction where there is usable space both above and below the concealed space of a floor/ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 1,000 square feet. Draftstopping shall divide the concealed space into approximately equal areas. Where the assembly is enclosed by a floor membrane above and a ceiling membrane below, draftstopping shall be provided in floor/ceiling assemblies under the following circumstances:

1. Ceiling is suspended under the floor framing.
2. Floor framing is constructed of truss-type open-web or perforated members.

Attics in combustible construction. Draftstopping shall be installed so that no part of the attic is greater than 3,000 square feet in area.

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.

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.

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

Sections R303.4, R303.4.1 and R303.4.2 of the International Residential Code are hereby deleted.

Section R303.5 Deleted; Outside Opening Protection.

Section R303.5 of the International Residential Code is hereby deleted.

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.

Section R306.2 Amended; Kitchen.

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

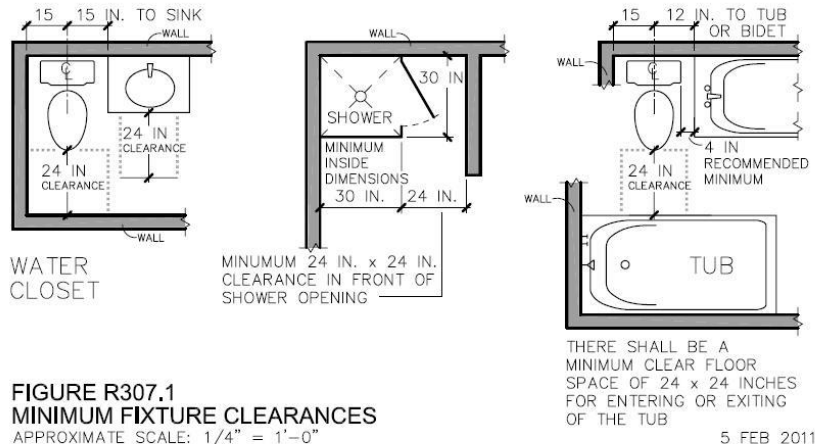
R306.2 Kitchen. Each dwelling unit shall be provided with a kitchen area and every kitchen area shall be provided with a sink. Domestic free-standing or built-in ranges shall have a vertical clearance above the cooking top of not less than 30 inches to unprotected combustible

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.

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**



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.

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 Village’s zoning jurisdiction, the regulations and specifications set forth in the Firth Municipal Code Chapter 8.

Section R309.5 Added; Headroom Clearance.

Section R309.5 is added to the International Residential Code to read as follows:

R309.5 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.

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

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

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

Section R310.1.1 Exception Deleted; Minimum Opening.

The Exception to Section R310.1.1 of the International Residential Code is hereby deleted.

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.

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.

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 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.

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 R311.7.9.1.
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 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.

R311.7.4 Stair treads and risers.

R311.7.4.1 Riser height. The maximum riser height shall be 7 3/4 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. The minimum riser height shall be no less than 4 inches. Open risers are permitted.

R311.7.4.2 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.

R311.7.4.3 Profile. 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 R317.4.

R311.7.5 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.

R311.7.6 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).

R311.7.7 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.

R311.7.7.1 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 (965 mm).

R311.7.7.2 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.

R311.7.7.3 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.

R311.7.8 Illumination. All stairs shall be provided with illumination in accordance with Section R303.6.

R311.7.9 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:

R311.7.9.1 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.

R311.7.9.2 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.

Section R312 Amended; Guards.

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

**SECTION R312
GUARDS**

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

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

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

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

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

Exception: 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.

Section R313 Deleted; Automatic Fire Sprinkler Systems.

Section R313 of the International Residential Code and all subsections thereof are hereby deleted.

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.

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. Interconnection and 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.

Section R315 Amended; Carbon Monoxide Alarms.

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

**SECTION R315
CARBON MONOXIDE ALARMS**

R315.1 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.

Section R317.1 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 AWPAC U1 for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPAC U1.

1. Wood joists or the bottom of a wood structural floor when closer than 18 inches (457 mm) or wood girders when closer than 12 inches 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.

Section R317.1.2 Deleted; Ground Contact.

Section R317.1.2 of the International Residential Code is hereby deleted.

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 (203mm) from exposed earth and the earth is covered by an impervious moisture barrier.

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. Address numbers shall be a minimum of four (4) inches in height.

Section R320 Deleted; Accessibility.

Section R320 of the International Residential Code is hereby deleted.

Section R322 Deleted; Flood-Resistant Construction.

Section R322 of the International Residential Code and all subsections thereof are hereby deleted. Firth Municipal Code Chapter 8 will apply.

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	2,000

(CL, ML, MH and CH)	
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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.

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 footing shall be designed and constructed in accordance with the provisions of Section R403 or in accordance with ACI 332.

Section R403.1.1 Amended; Minimum Footing Sizes.

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

R403.1.1 Minimum size. Minimum sizes for concrete and masonry footings shall be as set forth in Table R403.1 and Figure R403.1(1). The footing width, W, shall be based on the load-bearing value of the soil in accordance with Table R401.4.1. Spread footings shall be at least 8 inches 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.

Table R403.1 Amended; Minimum Width of Footings.

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

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

	LOAD-BEARING VALUE OF SOIL (psf)		
	2,000	3,000	≥4,000
Conventional light-frame construction			
1-story	12	12	12
2-story	16	12	12
3-story	17	12	12

4-inch brick veneer over light frame or 8-inch hollow concrete masonry			
1-story	12	12	12
2-story	16	12	12
3-story	24	16	12
8-inch solid or fully grouted masonry			
1-story	12	12	12
2-story	21	14	12
3-story	32	21	16

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

- a. Where minimum footing width is 12 inches, use of a single wythe of solid or fully grouted 12-inch nominal concrete masonry units is permitted.

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.

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.

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 extend 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 R403.3(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.

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 D₀, D₁ and D₂, 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.

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.

Section R403.4 Amended; Footings for Precast Concrete Foundations.

Section R403.4 of the International Residential Code is amended to read as follows:

R403.4 Footings for precast concrete foundations. Footings for precast concrete foundations shall be as described in Table 403.1.

Section R403.4.1 Deleted; Crushed Stone Footings.

Section 403.4.1 of the International Residential Code is hereby deleted.

Table R403.4 Deleted; Minimum Depth of Crushed Stone Footings.

Table 403.4 of the International Residential Code is hereby deleted.

Table R404.1.1(1) Deleted; Plain Masonry Foundation Walls.

Table R401.1(1) Of the International Residential Code is hereby deleted.

Figure R404.1.1(3) Added; Permanent Masonry Foundation Basement Wall Section.

Figure R401.1.1(3) is added to the International Residential Code as shown on said figure at the end of this chapter.

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.

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.

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.

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.

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.

Table 404.1.2 (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.

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) through R404.1.2.2(9).

Figures R404.1.2.2(1) through R404.1.2.2(9) Added; Reinforcement for Foundation Walls.

Figures R404.1.2.2(1) through R404.1.2.2(9) are added to the International Residential Code as shown on said figures at the end of this chapter.

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.

Section 404.1.5.2 Amended; Concrete Wall Thickness.

Section 404.1.5.2 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.

Figure 404.1.5.2 Added; Garage Stub Wall Foundation Detail.

Figure 404.1.5.2 is added to the International Residential Code as shown on said figure at the end of this chapter.

Section R408.7 Deleted; Flood Resistance.

Section R408.7 of the International Residential Code is hereby deleted.

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 capavillage 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.

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

Table 502.3.3(2) Cantilever Spans for Floor Joists Supporting Exterior Balcony; Deleted.

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.

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.

Section R601.3 Amended; Vapor Retarders.

Section R601.3 of the International Residential Code is amended to read as follows:

R601.3 Vapor retarders. Class I or II vapor retarders are not permitted on the interior side of framed walls.

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.

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.

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.

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.

Section R703.7.3 Deleted; Lintels.

Section R703.7.3 of the International Residential Code is hereby deleted.

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 (458 g/m²) of surface area. When an element is required to be corrosive resistant or noncorrosive, all of its parts, such as screws, nails, wire, dowels, bolts, nuts, washers, shims, anchors, ties and attachments, shall be corrosion resistant.

Section R703.7.4.2 Deleted; Air Space.

Section R703.4.2 of the International Residential Code is hereby deleted.

Figure R703.7 Deleted; Masonry Veneer Wall Details.

Figure R703.7 of the International Residential Code is hereby deleted.

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.

9-403.585 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.

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 wood-frame 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.

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.

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.

Section R703.12.1 Added; Water-Resistive Barrier; Adhered Masonry Veneer.

Section R703.12.1 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.

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.

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.

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

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

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

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

3. Where the existing roof has two or more applications of any type of roof covering.
Exception: The application of new protective coating over existing spray polyurethane foam roofing systems shall be permitted without tear-off of existing roof covering.

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

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

Section R1003.11.2 Deleted; Flue Linings for Specific Appliances.

Section R1003.11.2 of the International Residential Code is hereby deleted.

Section R1003.11.3 Deleted; Gas Appliances.

Section R1003.11.3 of the International Residential Code is hereby deleted.

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.)

Section R1003.11.5 Deleted. Oil-fired Appliances.

Section R1003.11.5 of the International Residential Code is hereby deleted.

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

Section R1003.14 of the International Residential Code is hereby deleted.

Section R1004.4 Deleted; Unvented Gas Log Heaters.

Section R1004.4 of the International Residential Code is hereby deleted.

Chapter 11 Deleted; Energy Code.

Chapter 11 of the International Residential Code is hereby deleted.

Chapters 19 through 22 and 24 through 42 of the International Residential Code Deleted.

Chapters 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, and 42 of the International Residential Code are hereby deleted.

SECTION 3: All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION 4: That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The Board of Trustees of the Village of Firth hereby declares that it would have passed this ordinance, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentence, clauses and phrases be declared unconstitutional.

SECTION 5: That notion in this ordinance or in the Residential Code hereby adopted shall be construed to affect any suit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Section 3 of this ordinance; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this ordinance.

SECTION 6: That the Clerk is hereby ordered and directed to cause this ordinance to be posted by title and available for public viewing in the Village Office in its entirety.

SECTION 7: That this ordinance and the rules, regulations, provisions, requirements, orders and matters established and adopted hereby shall take effect and be in full force and effect 28 days from and after the date of its final passage and adoption (September 2, 2014.)

Dated this **5th** day of **August, 2014**

VILLAGE OF FIRTH

By David L. Hobelman

Chairman of the Board

ATTEST:

Jill A. Hoefler

Village Clerk

CERTIFICATION

I, Jill Hoefler, clerk of the Village of Firth, Nebraska, hereby certify that the foregoing is a true and complete copy of **Ordinance #08-2014-02** of said village, passed by the Village Board this **5th** day of **August, 2014**.

Jill A. Hoefler

Village Clerk

(SEAL)