(Portions of text and tables not shown are unaffected by the errata)

Applicable to 1st through 11th PRINTINGS (July 19, 2019)

# **CHAPTER 4 FOUNDATIONS**

## TABLE R403.3(2) AIR-FREEZING INDEX FOR U.S. LOCATIONS BY COUNTY

AIR-FREEZING INDEX											
1500 or less	2000	2500	3000	3500	4000						
Mineral	Broadwater,Golden Valley, Granite, Lake, Lincoln, Missoula, Ravalli, Sanders, Sweet Grass	Big Horn, Carbon, Jefferson, Judith Basin, Lewis and Clark, Meagher, Musselshell, Powder River, Powell, Silver Bow, Stillwater, Westland	Carter, Cascade, Deer Lodge, Falcon, Fergus, Flathead, Gallatin, Glacier, Madison, Park, Petroleum, Ponder, Rosebud, Teton, Treasure, Yellowstone	Beaverhead,Blaine, Chouteau, Custer, Dawson, Garfield, Liberty, McCone, Prairie, Toole, Wibaux	Daniels, Hill, Phillips, Richland, Roosevelt, Sheridan, Valley						
	or less	Broadwater,Golden Valley, Granite, Lake, Lincoln, Missoula, Ravalli, Sanders,	1500 2000 2500  or less  Broadwater,Golden Valley, Granite, Lake, Lincoln, Missoula, Ravalli, Sanders, Sweet Grass  Stillwater,	Tool or less  Broadwater, Golden Valley, Granite, Lake, Lincoln, Missoula, Ravalli, Sanders, Sweet Grass  Broadwater, Golden Valley, Granite, Lake, Lincoln, Missoula, Ravalli, Sanders, Sweet Grass  Big Horn, Carbon, Jefferson, Judith Basin, Lewis and Clark, Meagher, Musselshell, Powder River, Powell, Silver Bow, Stillwater, Westland  Carter, Cascade, Deer Lodge, Falcon, Fergus, Flathead, Gallanting Gallatin, Glacier, Madison, Park, Petroleum, Ponder, Rosebud, Teton, Treasure,	Broadwater, Golden Valley, Granite, Lake, Lincoln, Missoula, Ravalli, Sanders, Sweet Grass  Broadwater, Golden Valley, Granite, Lake, Lincoln, Missoula, Ravalli, Sanders, Sweet Grass  Big Horn, Carbon, Jefferson, Judith Basin, Lewis and Clark, Meagher, Musselshell, Powder River, Powell, Silver Bow, Stillwater, Westland  Big Horn, Carbon, Jefferson, Judith Basin, Lewis and Clark, Meagher, Musselshell, Powder River, Powder River, Ponder, Rosebud, Teton, Treasure, Wibaux  Carter, Cascade, Deer Lodge, Falcon, Fergus, Flathead, Gallanting Gallatin, Glacier, Madison, Ponder, Rosebud, Teton, Treasure, Wibaux						

Portions of table not shown remain unchanged.

(Portions of text and tables not shown are unaffected by the errata)

#### $1^{st}$ through $6^{th}$ PRINTING (April 7, 2015)

## **CHAPTER 4 FOUNDATIONS**

#### FIGURE R403.4(1):

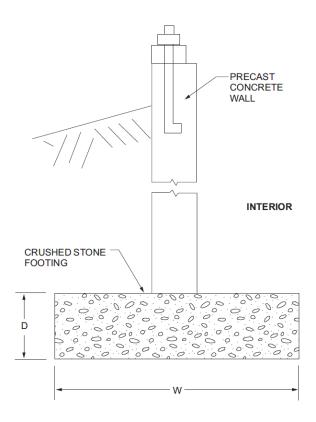


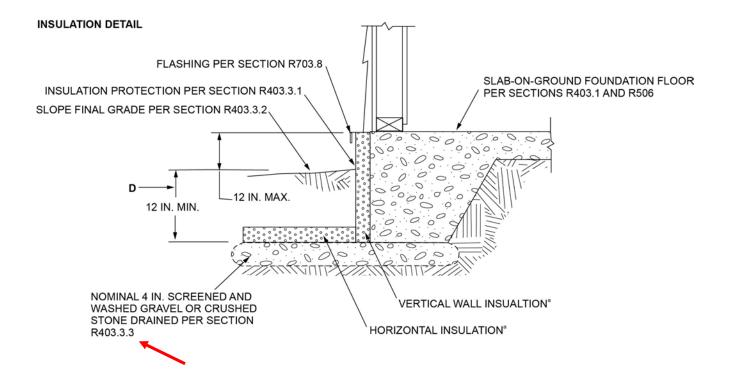
FIGURE R403.4(1)
BASEMENT OR CRAWL SPACE WITH PRECAST
FOUNDATION WALL BEARING ON CRUSHED STONE

(Portions of text and tables not shown are unaffected by the errata)

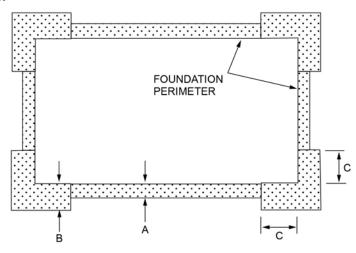
#### 1st through 6th PRINTING (November 7, 2014)

## **CHAPTER 4 FOUNDATIONS**

#### FIGURE R403.3(1):



#### HORIZONTAL INSULATION PLAN



For SI: 1 inch = 25.4 mm.

a. See Table R403.3(1) for required dimensions and R-values for vertical and horizontal insulation and minimum footing depth

## FIGURE R403.3(1) INSULATION PLACEMENT FOR FROST PROTECTED FOOTINGS IN HEATED BUILDINGS

(Portions of text and tables not shown are unaffected by the errata)

#### 1<sup>st</sup> and 2<sup>nd</sup> PRINTING (6-4-14)

# **CHAPTER 4 FOUNDATIONS**

**R402.2 Concrete.** Concrete ......specified in Section <u>4.4.2</u> 4.2.3 of ACI 318. Materials used to produce concrete and testing thereof shall comply with the applicable standards listed in Chapter 3 of ACI 318 or ACI 332.

(Portions of text and tables not shown are unaffected by the errata)

#### 1<sup>st</sup> through 3<sup>rd</sup> PRINTING (4-27-13)

## CHAPTER 4 FOUNDATIONS

**R408.3 Unvented crawl space. R408.3 Unvented crawl space.** Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where:

- 1. Exposed earth is covered with a continuous Class I vapor retarder. Joints of the vapor retarder shall overlap by 6 inches (152 mm) and shall be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall or insulation; and
- 2. One of the following is provided for the under-floor space:
  - 2.1. Continuously operated mechanical exhaust ventilation at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7m²) of crawlspace floor area, including an air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1103.2.1 N1102.2.10 of this code;
  - 2.2. Conditioned air supply sized to deliver at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7 m²) of under-floor area, including a return air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2 N1102.2.10 of this code;
  - 2.3. Plenum in existing structures complying with Section M1601.5, if under-floor space is used as a plenum.

(Portions of text and tables not shown are unaffected by the errata)

#### 1<sup>st</sup> and 2<sup>nd</sup> PRINTING (12-04-12)

# CHAPTER 4 FOUNDATIONS

**TABLE R403.4** 

TABLE R403.4 MINIMUM DEPTH OF CRUSHED STONE FOOTINGS (D), (Inches)

							LC	AD BEA	RING VA	LUE OF	SOIL (p	sf)					
		1500				2000			3000			4000					
		MH, CH, CL, ML				SC, GC, SM, GM, SP, SW			GP, GW								
		Wall width (inches)			Wall width (inches)			Wall width (inches)			Wall width (inches)						
		6	8	10	12	6	8	10	12	00	8	10	12	6	8	10	12
Conventional light-frame construction																	
1-story	1100 plf	6	4	4	4	6	4	4	4	6	4	4	4	6	4	4	4
2-story	1800 plf	8	6	4	4	6	4	4	4	6	4	4	4	6	4	4	4
3-story	2900 plf	16	14	12	10	10	8	6	6	6	4	4	4	6	4	4	4
				4-inch	brick v	eneer ov	er light-	frame or	8-inch h	ollow co	norete n	nasonry					
1-story	1500 plf	6	4	4	4	6	4	4	4	6	4	4	4	6	4	4	4
2-story	2700 plf	14	12	10	8	10	8	6	4	6	4	4	4	6	4	4	4
3-story	4000 plf	22	22	20	18	16	14	12	10	10	8	6	4	6	4	4	4
						8-ind	h solid o	e fully g	routed m	asonry							
1-story	2000 plf	10	8	6	4	6	4	4	4	6	4	4	4	6	4	4	4
2-story	3600 plf	20	18	16	16	14	12	10	8	8	6	4	4	6	4	4	4
3-story	5300 plf	32	30	28	26	22	22	20	18	14	12	10	8	10	8	6	4

For SI: 1 inch = 25.4 mm, 1 pound per square inch = 6.89 kPa

1 plf = 14.6 N/m 1 pounds per square foot =  $47.9 \text{ N/m}^2$ 

(Portions of text and tables not shown are unaffected by the errata)

#### 1<sup>st</sup> and 2<sup>nd</sup> PRINTING (06-06-12)

# CHAPTER 4 FOUNDATIONS

Table R403.3(2)

# TABLE R403.3(2)---continued AIR-FREEZING INDEX FOR U.S. LOCATIONS BY COUNTY

STATE	AIR-FREEZING INDEX										
	1500 or less	2000	2500	3000	3500	4000					
Virginia	All counties										
<del>Utah</del>	All counties not listed	<del>Box Elder,</del> <del>Morgan,</del> <del>Weber</del>	Garfield, Salt Lake, Summit	Carbon, Daggett, Dushesne, Rich, Sanpete, Uintah, Wasatch	-1						
Washington	All counties not listed	<u>Chelan,</u> <u>Douglas, Ferry,</u> <u>Okanogan</u>	==	==	11	==					
West Virginia	All counties										