



COUNTY OF WINNEBAGO

REGIONAL PLANNING & ECONOMIC DEVELOPMENT DEPARTMENT

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FOOTINGS **IRC 2003 Section R403**

403.1 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.

MINIMUM WIDTH OF CONCRETE OR MASONRY FOOTINGS

	LOAD- BEARING VALUE OF SOIL (psf)			
	1,500	2,000	3,000	≥4,000
Conventional light-frame construction				
1-story	12	12	12	12
2-story	15	12	12	12
3-story	23	17	12	12
4-Inch Brick veneer over light frame or 8-inch hollow concrete masonry				
1-story	12	12	12	12
2-story	21	16	12	12
3-story	32	24	16	12
8-Inch solid or fully grouted masonry				
1-story	16	12	12	12
2-story	29	21	14	12
3-story	42	32	21	12

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 6 inches (152 mm) in thickness. Footing projections, **P** shall be at least 2 inches (51 mm) and shall not exceed the thickness of the footing.

The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with Table R401.4.1. Footings for wood foundations shall be in accordance with the details set forth in Section R403.2, and Figures R403.1 (2) and R403.1 (3).

R403.1.3.2 Slabs-on-ground with turned-down footings.

Slabs-on-ground with turned down footings shall have a minimum of one No. 4 bar at the top and bottom of the footing.

Exception: For slabs-on-ground cast monolithically with a footing, one No.5 bar or two No. 4 bars shall be located in the middle third of the footing depth.

R403.1.4 Minimum Depth.

All exterior footings shall be placed at least 12 inches (305 mm) below the undisturbed ground. Where applicable, the depth of footings shall also conform to Sections R403.1.4.1 through R403.1.4.2.