

2. Where approved by the local governmental authority, storm water, surface water, groundwater and clear water wastes of the properties of one- and 2-family dwellings may be discharged onto flat areas, such as streets or lawns, so long as the water flows away from the buildings and does not create a nuisance.

(c) *Segregation of wastes.* 1. a. Except as provided in subd. 3., where a sanitary sewer system and a storm sewer system are available, the drain piping for storm water or clear water wastes may not connect to any part of the sanitary drain system.

b. Where a combined sanitary-storm sewer system is available, storm water wastes, clear water wastes and sanitary wastes may not be combined until discharging to the building sewer.

2. Storm water wastes and clear water wastes may not be combined until discharging into the storm building drain.

3. a. The clear water wastes from a drinking fountain, water heater relief valve, storage tank relief valve or water softener shall be discharged to either a sanitary drain system or a storm drain system.

b. The clear water wastes from equipment other than those listed in subpar. a. may be discharged to a sanitary drain system if not more than 20 gallons of clear water wastes per day per building are discharged.

Note: Subsections (3) (a) and (4) are excerpts from the state uniform plumbing code, s. ILHR 82.36.

History: Cr. Register, November, 1979, No. 287, eff. 6-1-80; r. and recr. Register, February, 1985, No. 350, eff. 3-1-85; r. and recr. (3) (a) 3. and (4), Register, May, 1988, No. 389, eff. 6-1-88; am. (2) (f), Register, January, 1989, No. 397, eff. 2-1-89; r. and recr. (4) (c) 3., Register, August, 1991, No. 428, eff. 9-1-91.

Subchapter V — Foundations

ILHR 21.18 Foundations. Foundation walls shall be designed and constructed to support the vertical loads of the dwelling, lateral soil pressure, and other loads without exceeding the allowable stresses of the materials of which the foundations are constructed.

(1) **CONCRETE FOUNDATION WALLS.** Unless designed through structural analysis, the minimum thickness of concrete foundation walls shall be determined from Table 21.18-A, but in no case shall the thickness be less than the thickness of the wall it supports.

TABLE 21.18-A
CONCRETE WALL THICKNESSES

Type of Concrete	Nominal Thickness (inches)	Maximum Height of Unbalanced Fill ¹ for Material of Wall Being Supported (Wood frame - feet)
3000 psi	6	6.5
Unreinforced concrete	8	8
	10	9
	12 ²	10
	14	11.5

¹ Unbalanced fill is the difference in elevation between the outside grade and the basement floor.

² The maximum height of unbalanced fill for a 12-inch thick plain concrete wall may be increased to 12 feet provided the wall is constructed of concrete with a minimum compressive value of 6,000 psi at 28 days.

(2) **MASONRY FOUNDATION WALLS.** Unless designed through structural analysis, the masonry foundation walls shall be constructed in accordance with the following requirements:

(a) *Unreinforced masonry wall; thickness.* The minimum thickness of unreinforced masonry foundation walls shall be determined by Table 21.18-B, but in no case shall the thickness be less than the thickness of the wall it supports.

(b) *Reinforced masonry wall; thickness.* Reinforced masonry walls shall be reinforced in accordance with the requirements of Tables 21.18-C and 21.18-D. In partially reinforced masonry walls, vertical reinforcement shall be provided on each side of any opening, at each wall corner, and at intervals indicated in the tables.

(c) *Lateral support.* Lateral support such as floor slabs or framing shall be provided at the base and top of the wall.

(d) *Wall design.* The depth below grade, wall height, and pilaster or reinforcement spacing may exceed the maximum values indicated in Tables 21.18-B, -C or -D if the design is based on engineering analysis.

(e) *Subsurface drainage.* Subsurface drainage shall be provided if required by s. ILHR 21.17.

TABLE 21.18-B

MAXIMUM DEPTH BELOW GRADE* (HEIGHT OF FILL) AND THICKNESSES
FOR VARIOUS CONCRETE MASONRY FOUNDATION WALLS WITHOUT
PILASTERS

Wall Construction Nominal Thickness, in., and Type of Unit	Maximum Depth Below Grade, feet, when Walls Support:	
	Frame Construction	Masonry, or Masonry Veneer Construction
Hollow-Load-Bearing:		
8"	5' (6')	6'
10"	6' (7')	7'
12"	7'	7'
Solid Load-Bearing:		
8"	5' (7')	7'
10"	6' (7')	7'
12"	7'	7'

* In well drained sand and gravel soils, the height of the unbalanced fill may be increased to the values shown in parentheses.