

Instructions

1. Print these pages.
2. **Simple questions** follow after a few paragraphs of the new code language.
3. Circle the correct answers and transfer the answers to the [answer sheets](#) (see last 3 pages).
4. After answering the simple questions you will become familiar with the new code changes.
5. Page down to the last page for the verification form, answer sheets and mailing instructions.

UDC CODE UPDATES PART 1

Fee \$50

6 hour course for:

1. Dwelling Contractor Qualifier Certification.
2. UDC Construction Inspector.

Questions call Gary or Amy Klinka at 920-727-9200 or 920-740-6723 or email garyklinka@hotmail.com

SECTION 1. 320.02 (1) is repealed and recreated to read:

320.02 (1) GENERAL. The provisions of this code apply to all of the following:

(a) All one- and two-family dwellings built on or after the effective dates under 320.03.

Note: This includes site-built dwellings, manufactured buildings used as dwellings, modular homes and dwellings that may be designated as cabins, seasonal homes, temporary residences, etc., (except for manufactured or HUD homes, which are covered separately under this section).

(b) Adult family homes providing care, treatment and services for 3 or 4 unrelated adults built on or after the effective dates under 320.03.

(c) Community-based residential facilities providing care, treatment and services for 5 to 8 unrelated adults built on or after the effective dates under 320.03.

(d) The onsite installation of a mobile home or manufactured home on piers, regardless of the date of production of the home.

Note: The design and construction of a manufactured home is regulated by the U.S. Department of Housing and Urban Development and is not subject to UDC requirements. Prior to regulation by HUD in 1976, manufactured homes were known as mobile homes and their design and construction were not uniformly regulated. See 320.07 (52m) for the statutory definition.

(e) The onsite installation of a manufactured home, regardless of the type of foundation, where the manufactured home has a production date on or after April 1, 2007.

(f) The design and construction of a crawlspace, basement or foundation, other than piers, under a manufactured home where the manufactured home has a production date on or after the effective dates under 320.03.

(g) All garages, carports, porches, stoops, decks, balconies, stairways and similar structures that are attached to any building covered under this section that was constructed or had a production date on or after the effective dates under 320.03.

(h) Adjacent, unattached structures listed under par. (g) that serve an exit from a dwelling.

1. Community-based residential facilities providing care, treatment and services for 3 to 8 unrelated adults built on or after the effective dates under 320.03.

- a. true
- b. false

2. Adult family homes providing care, treatment and services for 5 or 8 unrelated adults built on or after the effective dates under 320.03.

- a. true
- b. false

3. This includes site-built dwellings, manufactured buildings used as dwellings, modular homes and dwellings that may be designated as cabins, seasonal homes, temporary residences, etc., (except for manufactured or HUD homes, which are covered separately under the Federal Laws)

- a. true
- b. false

4. All garages, carports, porches, stoops, decks, balconies, stairways and similar structures that are attached to any building covered under this section that was constructed or had a production date on or after the effective dates under 320.03.

- a. true
- b. false

SECTION 2. 320.02 (2) (e) 1. is amended to read:

320.02 (2) (e) 1. Implementing erosion and sediment control requirements that are more stringent than the standards of this code when directed by an order of the United States Environmental Protection Agency or by an administrative rule of the department of natural resources under s. NR 151.004.

SECTION 3. 320.04 (2) and (5) are repealed and recreated to read:

320.04 (2) ADDITIONS AND ALTERATIONS. Additions and alterations to dwellings covered by this code shall comply with all provisions of this code at the time of permit application or the beginning of the project, if no permit is required.

320.04 (5) REUSE OF A DWELLING OR FOUNDATION. (a) *Existing dwelling or manufactured home placed on a different foundation.* Where an existing dwelling or manufactured home is placed on a different foundation, the new foundation is considered an addition or alteration to the existing dwelling or manufactured home.

Note: The applicability of this code to an addition or alteration to an existing dwelling or manufactured home is determined by the original date of construction of the dwelling or manufactured home and is not altered by any movement of the structure.

(b) *New dwelling or manufactured home.* A new dwelling or manufactured home placed on a new or existing foundation shall meet the permitting, construction and inspection requirements of a new dwelling or manufactured home.

5. Implementing erosion and sediment control requirements that are less stringent than the standards of this chapter code when directed by an order of the United States Environmental Protection Agency or by an administrative rule of the department of natural resources under s. EPA 151.004

- a. true
- b. false

6. The applicability of this code to an addition or alteration to an existing dwelling or manufactured home is determined by the original date of construction of the dwelling or manufactured home and is not altered by any movement of the structure.

- a. true
- b. false

7. Additions and alterations to dwellings covered by this code shall comply with all provisions of this code at the time of permit application or the beginning of the project, if no permit is required.

- a. true
- b. false

8. A new dwelling or manufactured home placed on a new or existing foundation shall meet the permitting, construction and inspection requirements of a new dwelling or manufactured home.

- a. true
- b. false

SECTION 4. 320.04 (6) is created to read:

320.04 (6) SEPARATED BUILDINGS. For a building to be considered a separate single-family dwelling or a separate two-family dwelling within the scope of this code, regardless of ownership or occupancy arrangements, all of the following conditions shall be met:

(a) No structural members other than a common footing may be shared between any 2 dwellings.

Note: Two separated, insulated foundation walls may share the same structural footing.

(b) The adjoining exterior walls of the separate dwellings shall each have exterior coverings meeting the requirements of 321.24.

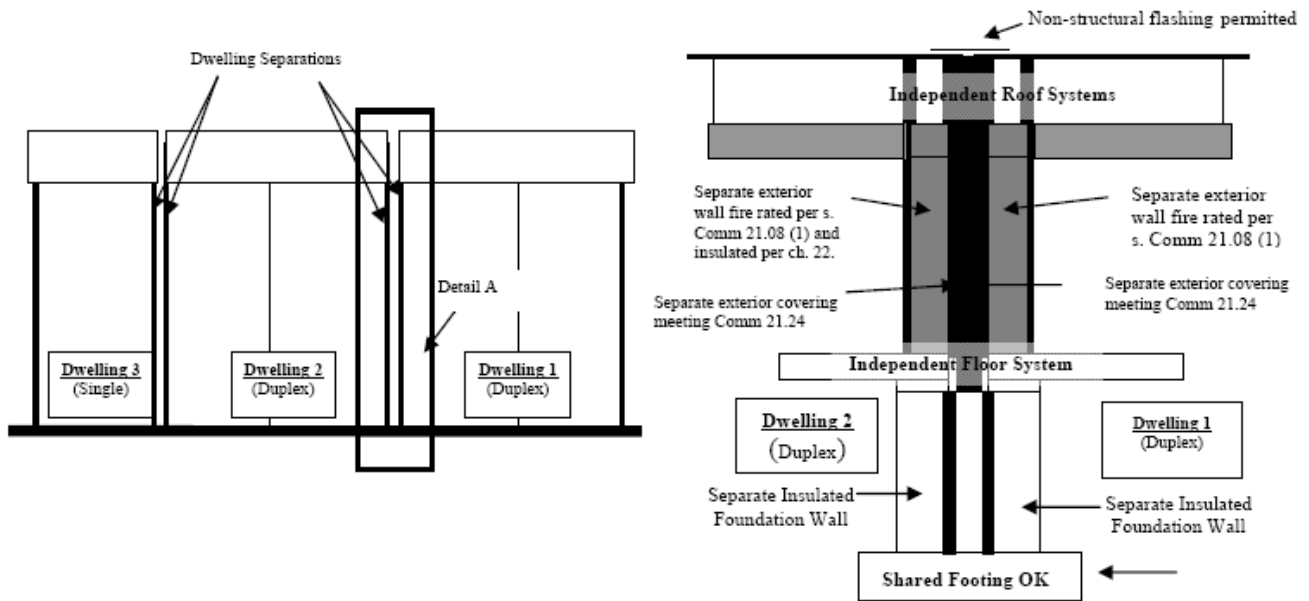
(c) The adjoining exterior walls, including foundations, of the separate dwellings shall each meet the energy requirements under 322, irrespective of any adjacent dwelling.

(d) Both sides of any 2 adjoining walls, floors, ceilings and attics between dwellings shall meet the dwelling separation requirements of 321.08 (1) for 2 dwellings on the same property less than 5 feet apart.

Notes:

1. Flashing is acceptable to connect the roofs between dwelling units. See appendix for further information.

2. A building of 3 or more dwelling units without the separations specified in this section is a commercial building and shall meet the requirements set forth in 360 to 366.



9. Two separated, insulated foundation walls may share the same structural footing.

- a. true
- b. false

10. Both sides of any 2 adjoining walls, floors, ceilings and attics between dwellings shall meet the dwelling separation requirements of 321.08 (1) for 2 dwellings on the same property less than 10 feet apart.

- a. true
- b. false

11. All structural members including a common footing may be shared between any 2 dwellings.

- a. true
- b. false

12. A building of 3 or more dwelling units without the separations specified in this section is a commercial building and shall meet the requirements set forth in 340 to 346.

- a. true

b. false

SECTION 7. 320.05 (6), as renumbered, is amended to read:

320.05 (6) FARM BUILDINGS. The provisions of this code do not apply to the buildings used exclusively for farm operations and not for human habitation.

SECTION 8. 320.05 (9) is created to read:

320.05 (9) MOTOR HOMES AND RECREATIONAL VEHICLES. The provisions of this code do not apply to motor homes and recreational vehicles that are, or have been, titled through the department of transportation.

Note 1: Section 340.01 (33m) and (48r), Stats., read as follows: “Motor home” means a motor vehicle designed to be operated upon a highway for use as a temporary or recreational dwelling and having the same internal characteristics and equipment as a mobile home.

“Recreational vehicle” means a vehicle that is designed to be towed upon a highway by a motor vehicle, that is equipped and used, or intended to be used, primarily for temporary or recreational human habitation, that has walls of rigid construction, and that does not exceed 45 feet in length.

Note 2: A “park model” is a recreational vehicle.

13. The provisions of this code do not apply to motor homes and recreational vehicles that are, or have been, titled through the department of transportation.

- a. true
- b. false

14. “Recreational vehicle” means a vehicle that is designed to be towed upon a highway by a motor vehicle that is equipped and used, or intended to be used, primarily for temporary or recreational human habitation, that has walls of rigid construction, and that does not exceed 35 feet in length.

- a. true
 - b. false
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SECTION 9. 320.065 is created to read:

320.065 State jurisdiction. (1) In accordance with s. 101.64 (8), Stats., municipalities administering the code may be monitored by the department for compliance with the administrative requirements under this code.

(2) In accordance with s. 101.653 (5), Stats., municipalities administering the code may be audited by the department for compliance with the erosion control requirements under this code.

15. In accordance with s. 112.653 (5), Stats., municipalities administering the code shall be audited by the department for compliance with the erosion control requirements under this code.

- a. true
 - b. false
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SECTION 10. 320.07 (5m), and 320.07 (18) are created to read:

320.07 (5m) “Attached,” defining the relationship between another building and a dwelling, means at least one of the following conditions is present:

(a) There is a continuous, weatherproof roof between the two structures.

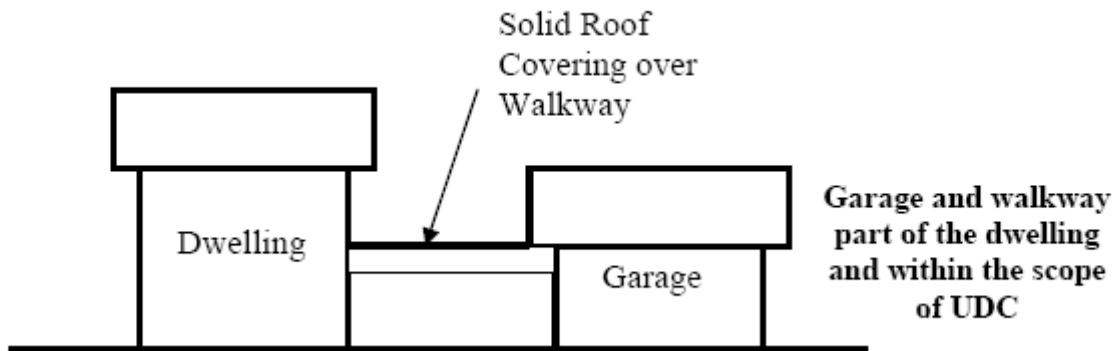
Note: The sides are not required to be enclosed with walls.

(b) There is a continuous, structural floor system between the two structures.

(c) There is a continuous foundation system between the two structures.

320.07 (18) “Common use area” means kitchens, hallways, basements, garages and all habitable rooms.

Note: These areas must meet the circulation requirements under 321.03 (8).



16. “Attached,” defining the relationship between another building and a dwelling, means at least one of the following conditions is present:
- a. There is a continuous, weatherproof roof between the two structures.
 - b. There is a continuous, structural floor system between the two structures.
 - c. There is a continuous foundation system between the two structures.
 - d. All of the above.

SECTION 12. 320.07 (34s) is created to read:

320.07 (34s) “Foundation” means the structural system used to transfer the weight of the building to the earth.
Note: The foundation may include one or more components such as footings, piers, columns, slabs and walls.

17. The foundation may include one or more components such as _____.
- a. footings
 - b. piers
 - c. columns
 - d. all of the above.

SECTION 14. 320.07 (53f) and (77f) are created to read:

320.07 (53f) “Modular home” has the meaning given in s. 101.71 (6), Stats.

Note: Under s. 101.71 (6) (a), Stats., “modular home” means any structure or component thereof which is intended for use as a dwelling and:

- 1. Is of closed construction and fabricated or assembled on-site or off-site in manufacturing facilities for installation, connection, or assembly and installation, at the building site; or
- 2. Is a building of open construction which is made or assembled in manufacturing facilities away from the building site for installation, connection, or assembly and installation, on the building site and for which certification is sought by the manufacturer.

(b) “Modular home” does not mean any manufactured home under s. 101.91 or any building of open construction which is not subject to par. (a) 2.

Note: See 320.07 (52m) for the definition of manufactured home.

320.07 (77f) “Water-resistive barrier” means a material, including flashing, behind an exterior wall covering that is intended to resist liquid water that has penetrated behind the permanent weather-resistant finish from further intruding into the exterior wall assembly.

18. “Modular home” does not mean any manufactured home under s. 101.91 or any building of open construction which is not subject to par. (a) 2.
- a. true
 - b. false

SECTION 15. 320.09 and 320.10 are repealed and recreated to read:

320.09 Procedure for obtaining uniform building permit. (1) APPLICATION.

Application for a Wisconsin uniform building permit shall be on forms obtained from the department, the municipality or the authorized UDC inspection agency administering and enforcing this code. No application shall be accepted that does not contain all the information requested on the form.

Note 1: See appendix for a copy of the Wisconsin uniform building permit and application.

Note 2: Any municipality exercising jurisdiction may require reasonable supplementary information not contained on the Wisconsin building permit application.

(2) FILING OF PERMIT APPLICATIONS. (a) Construction or installation of a dwelling. 1. A Wisconsin uniform building permit application for the construction or installation of a dwelling shall be filed with the municipality or the authorized UDC inspection agency administering and enforcing this code.

2. The municipality or authorized UDC inspection agency shall forward a copy of all applications for new dwellings to the department within 30 business days after permit issuance.

Note: The department requires copies of permits that are issued for new dwelling construction or installation, only. Permits issued for additions, alterations, garage construction, etc., should not be filed with the department.

(b) Additions, alterations and repairs. 1. When required by local ordinance, permit applications for additions, alterations and repairs shall be filed with municipalities and counties in accordance with their adopted ordinances.

Note: SPS requires copies of permits that are issued for new dwelling construction only. Any permits issued for additions, alterations, repairs, garage construction, etc. are not required to be filed with the department.

2. Pursuant to s. 101.65 (1m), Stats., a building permit required under subd. 1. may not be issued unless the conditions of sub. (5) (c) are satisfied, except as provided under s. 101.654 (1) (b), Stats.

3. Building permits for additions, alterations and repairs are not required in municipalities where the department has jurisdiction under s. 101.651 (3) (b), Stats.

(c) General requirements. 1. The permit application shall be reviewed by a certified UDC inspector.

2. A permit may be issued only after approval of the requirements under this section by a certified UDC inspector.

3. Dwellings for which a permit has been issued shall be inspected in accordance with 320.10.

19. When required by local ordinance, permit applications for additions, alterations and repairs shall be filed with municipalities and counties in accordance with their adopted ordinances.

a. true

b. false

20. Building permits for additions, alterations and repairs are not required in municipalities where the department has jurisdiction under s. 101.651 (3) (b), Stats.

a. true

b. false

21. Dwellings for which a permit has been issued shall be inspected in accordance with 322.10.

a. true

b. false

22. The municipality or authorized UDC inspection agency shall forward a copy of all applications for new dwellings to the department within 60 business days after permit issuance.

a. true

b. false

(3) FEES. (a) *Municipal fees.* 1. The municipality shall, by ordinance, determine fees to cover expenses of plan examination, inspection and the issuance of the Wisconsin uniform building permit.

2. The municipality shall purchase a Wisconsin uniform building permit seal from the department for each new dwelling in accordance with 302.34.

(b) *Inspection agency fees.* 1. UDC inspection agency fees shall be determined by contract between the municipality and the agency or between the department and the agency, where the agency has been authorized to conduct inspections on behalf of the department.

2. A UDC inspection agency shall purchase a Wisconsin uniform building permit seal from the department in accordance with 332.34.

23. The municipality, inspector, or the builder shall purchase a Wisconsin uniform building permit seal from the department for each new dwelling in accordance with 302.34.

a. true

b. false

24. The municipality shall, by ordinance, determine fees to cover expenses of plan examination, inspection and the issuance of the Wisconsin uniform building permit, zoning permit, and other administrative expenses.

a. true

b. false

(4) PLAN SUBMITTALS. At least 2 sets of plans for all one- and 2-family dwellings shall be submitted to the municipality or authorized UDC inspection agency administering and enforcing this code, for examination and approval at the time the Wisconsin uniform building permit application is filed.

(5) REQUIRED PLANS. The required building plans shall be legible and drawn to scale or dimensioned and shall include all of the following:

(a) *Site plan.* The site plan shall show all of the following:

1. The location of the dwelling and any other buildings, wells, surface waters and dispersal systems on the site with respect to property lines and surface waters adjacent to the site.

2. The areas of land-disturbing construction activity and the location of all erosion and sediment control measures to be employed in order to comply with 321.125.

3. The pre-construction ground surface slope and direction of runoff flow within the proposed areas of land disturbance.

(b) *Floor plan.* 1. Floor plans shall be provided for each floor.

2. The following features shall be included on all floor plans:

a. The size and location of all rooms, doors, windows, structural features, exit passageways and stairs.

b. The use of each room.

c. The location of plumbing fixtures, chimneys, heating and cooling appliances, and a heating distribution layout.

d. The location and construction details of the braced wall lines.

(c) *Elevations.* The elevations shall show all of the following:

1. The exterior appearance of the building, including the type of exterior materials.

2. The location, size and configuration of doors, windows, roof, chimneys, exterior grade, footings and foundation walls.

(d) *Storm water management plan.* 1. A storm water management plan shall be prepared for a site where one acre or more of land will be disturbed.

2. The storm water management plan shall delineate and describe the post-construction storm water management practices to be employed to comply with 321.126.
25. The following features shall be included on all floor plans:
 - a. The size and location of all rooms, doors, windows, structural features, exit passageways and stairs.
 - b. The use of each room.
 - c. The location of furniture and appliances.
 - d. Both a & b.
26. The following features shall be included on all floor plans:
 - a. The location of plumbing fixtures, chimneys, heating and cooling appliances, and a heating distribution layout.
 - b. The location and construction details of the braced wall lines.
 - c. The location of lighting and receptacles.
 - d. Both a & b.
27. The required building plans shall be legible and drawn to scale or dimensioned.
 - a. true
 - b. false
28. A storm water management plan shall be prepared for a site where 2 acre or more of land will be disturbed.
 - a. true
 - b. false
29. The elevations shall show all of the following:
 - a. The exterior appearance of the building, including the type of exterior materials.
 - b. The location, size and configuration of doors, windows, roof, chimneys, exterior grade, footings and foundation walls.
 - c. Driveway and sidewalks.
 - d. only a & b.

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- (6) REQUIRED DATA.** (a) All plans submitted for approval shall be accompanied by sufficient data, calculations and information to determine if the dwelling will meet the requirements of this code.
- (b) The data and information for determining compliance with the energy conservation standards shall be submitted in a format approved by the department.
- (c) Except as required under 321.33, a municipality exercising jurisdiction may not require plans or calculations to be stamped or sealed by an architect or engineer.
- (d) The name of the initial downstream receiving water of the state from the dwelling shall be identified, regarding erosion and sediment control and storm water management.
- (7) MASTER PLANS.** (a) Where a dwelling is intended to be identically and repetitively constructed at different locations, a master plan may be submitted for approval.
- (b) The plans shall include plans and data as required under subs. (5) and (6).
- (c) If the plans conform to the provisions of the code, an approval and a master plan number shall be issued.
- (d) The number issued may be used in lieu of submitting building plans for each location.
- (e) A plot plan shall be submitted for each location at the time of application for the Wisconsin uniform building permit.

30. The data and information for determining compliance with the energy conservation standards shall be submitted in a format approved by the department or local inspector.
 - a. true
 - b. false

31. All plans submitted for approval shall be accompanied by sufficient data, calculations and information to determine if the dwelling will meet the requirements of this code.

- a. true
- b. false

(8) APPROVAL OF PLANS. (a) If the municipality or authorized UDC inspection agency administering and enforcing the code determines that the plans submitted for a one- or 2-family dwelling substantially conform to the provisions of this code and other legal requirements, an approval shall be issued.

(b) The plans shall be stamped “conditionally approved” by a certified inspector who holds the respective credential for the plans reviewed.

(c) One copy shall be returned to the applicant and one copy shall be retained by the municipality or authorized UDC inspection agency administering and enforcing this code.

(d) The conditions of approval shall be indicated by a letter or on the permit.

(e) All conditions of the approval shall be met during construction.

32. The plans shall be stamped “conditionally approved” by a certified inspector who holds the respective credential for the plans reviewed.

- a. true
- b. false

33. One copy shall be returned to the applicant and one copy shall be retained by the municipality or authorized UDC inspection agency administering and enforcing this code.

- a. true
- b. false

34. The conditions of approval shall be indicated by a letter, emailed, verbal phone call or on the permit.

- a. true
- b. false

(9) ISSUANCE AND POSTING OF PERMITS. (a) *Uniform building permit.* 1. The Wisconsin uniform building permit shall be issued if the requirements for filing and fees are satisfied and the plans have been conditionally approved.

2. Pursuant to s. 101.65 (1m), Stats., a Wisconsin uniform building permit may not be issued to a person unless the person complies with subs. 3. and 4., except as provided under s. 101.654 (1) (b) and (c) 2., Stats.

Note 1: Section 101.654 (1) (b), Stats., exempts an owner of a dwelling who resides or will reside in the dwelling and who applies for a building permit to perform work on the dwelling from obtaining a dwelling contractor financial responsibility registration. Under s. 101.65 (1r), an owner who obtains a building permit needs to sign a statement advising the owner of the potential consequences of hiring a contractor to perform work under the permit who is not bonded or insured under s. 101.654 (2) (a), Stats.

Note 2: Section 101.654 (1) (c) 2., Stats., reads: “The continuing education requirements under par. (a) and the rules promulgated by the department under sub. (1m) do not apply to any person who holds a current license issued by the department at the time that the person obtains a building permit if the work the person does under the permit is work for which the person is licensed.”

3. A person applying for a Wisconsin uniform building permit for work covered under 321 or 322 who is not the owner who resides or will reside in the dwelling shall hold one of the following credentials issued by the department:

- a. A dwelling contractor certification.
- b. A dwelling contractor - restricted certification.
- c. A dwelling contractor financial responsibility certification.
- d. A dwelling contractor financial responsibility – restricted certification.

4. A person applying for a Wisconsin uniform building permit for work covered under 321 or 322 who is not the owner who resides or will reside in the dwelling shall hold or engage, as an employee, a person who holds a certification issued by the department as a dwelling contractor qualifier.

5. The permit shall expire 24 months after issuance if the dwelling exterior has not been completed.

6. Pursuant to s. 101.63 (7), Stats., the name and license number of the Wisconsin master plumber responsible for the installation of plumbing shall be entered on the permit by the issuing entity at the time of issuance.

(b) *Permit to start construction of footings and foundation.* 1. Construction may begin on footings and foundations prior to the issuance of the Wisconsin uniform building permit where a permit to start construction is obtained.

2. Upon submittal of the application for a permit to start construction, a plot plan, complete footing and foundation information including exterior grading, and a fee, the municipality or authorized UDC inspection agency enforcing this code may issue a permit to start construction of the footings and foundation.

3. The issuance of a permit to start construction shall not influence the approval or denial of the Wisconsin uniform building permit application.

(c) *Private onsite wastewater treatment systems.* Pursuant to s. 145.195, Stats., if the proposed construction requires connection to a private onsite wastewater treatment system, a Wisconsin uniform building permit may not be issued unless conformance with 383.25

(2) has first been determined.

Note: See appendix for a reprint of 383.25 (2).

(d) *Posting of permit.* 1. The Wisconsin uniform building permit shall be posted in a conspicuous place at the dwelling site.

2. The Wisconsin uniform building permit seal shall be affixed to the posted permit or to the Wisconsin uniform building permit application. The permit seal number shall appear on both documents.

35. A person applying for a Wisconsin uniform building permit for work covered under 321 or 322 who is not the owner who resides or will reside in the dwelling shall hold one of the following credentials issued by the department:

- a. A dwelling contractor certification.
- b. A dwelling contractor - restricted certification.
- c. neither a or b
- d. both a or b

36. A person applying for a Wisconsin uniform building permit for work covered under 321 or 322 who is not the owner who resides or will reside in the dwelling shall hold one of the following credentials issued by the department:

- a. A dwelling contractor financial responsibility certification.
- b. A dwelling contractor financial responsibility – restricted certification.
- c. neither a or b
- d. both a or b

37. A person applying for a Wisconsin uniform building permit for work covered under 321 or 322 who is **not the owner** who resides or will reside in the dwelling shall hold or engage, as an employee, a person who holds a certification issued by the department as a dwelling contractor qualifier.

- a. true
- b. false

- 38. Construction may begin on footings and foundations prior to the issuance of the Wisconsin uniform building permit where a permit to start construction is obtained.
 - a. true
 - b. false
- 39. The issuance of a permit to start construction shall influence the approval or denial of the Wisconsin uniform building permit application.
 - a. true
 - b. false
- 40. The Wisconsin uniform building permit may be posted in a conspicuous place at the dwelling site when an ideal location has been established during construction.
 - a. true
 - b. false
- 41. The Wisconsin uniform building permit seal shall be affixed to the posted permit or to the Wisconsin uniform building permit application. The permit seal number shall appear on one of the documents.
 - a. true
 - b. false

(10) DISAPPROVAL OF PLANS AND DENIAL OF PERMITS. (a) General.

Approval shall be denied if the municipality or authorized UDC inspection agency administering and enforcing this code determines that the Wisconsin uniform building permit application or the plans do not substantially conform to the provisions of this code and other legal requirements.

(b) Denial of application. A copy of the denied application, accompanied by a written statement specifying the reasons for denial, shall be sent to the applicant and to the owner as specified on the Wisconsin uniform building permit application.

(c) Stamping of plans. 1. Plans which do not substantially conform to the provisions of the code shall be stamped "not approved."

2. One copy shall be returned to the person applying for the Wisconsin uniform building permit and one copy shall be retained by the municipality or authorized UDC inspection agency administering and enforcing the code.

(d) Appeals. The applicant may appeal a denial of the application in accordance with the procedure outlined in 320.21.

(11) TIME-SPAN FOR APPROVAL OR DENIAL. Action to approve or deny a uniform building permit application shall be completed within 10 business days of receipt of all forms, fees, plans and documents required to process the application, and completion of other local prerequisite permitting requirements.

- 42. One copy (denied application) shall be returned to the person applying for the Wisconsin uniform building permit and one copy shall be retained by the municipality or authorized UDC inspection agency administering and enforcing the code.
 - a. true
 - b. false
- 43. The applicant may appeal a denial of the application in accordance with the procedure outlined in 323.21
 - a. true
 - b. false

320.10 Inspections. (1) INSPECTOR CERTIFICATION. All inspections, for the purpose of administering and enforcing this code, shall be performed by an inspector certified in accordance with 305 who holds the respective credential for the inspection performed.

(2) GENERAL INSPECTION REQUIREMENTS. (a) General. Inspections shall be

conducted by the municipality or authorized UDC inspection agency administering and enforcing this code to determine if the construction or installations conform to the conditionally approved plans, the Wisconsin uniform building permit application and the provisions of this code.

(b) *Inspection notice*. 1. The applicant or an authorized representative shall request inspections from the municipality or authorized UDC inspection agency administering and enforcing this code.

2. Except as provided under subd. 3., construction may not proceed beyond the point of inspection until the inspection has been completed.

3. Construction may proceed if the inspection has not taken place by the end of the second business day following the day of notification or as otherwise agreed between the applicant and the municipality or authorized UDC inspection agency.

(3) INSPECTION TYPES. (a) *General*. The inspections described in pars. (b) to (I) shall be performed to determine if the work complies with this code.

(b) *Erosion control inspection*. Erosion control inspections shall be performed concurrently with all other required construction inspections. Additional inspections for erosion control may be performed by the delegated authority.

(c) *Foundation excavation inspection*. 1. The excavation for the foundation shall be inspected after the placement of any forms or required reinforcement and prior to the placement of the permanent foundation material.

2. If a drain tile system is required, by the local inspector or by groundwater levels in the excavation, the presence and location of bleeders used to connect the interior and exterior drain tile shall be inspected at the same time as the excavation.

Note: This excavation inspection may be used to determine the need for drain tile under 321.17.

(d) *Foundation reinforcement inspection*. The placement of reinforcement shall be inspected where the reinforcement is required for code compliance.

(e) *Foundation inspection*. The foundation shall be inspected after completion. Where dampproofing, exterior insulation or drain tile are required for code compliance, the foundation shall be inspected prior to backfilling.

(f) *Rough inspection*. 1. A rough inspection shall be performed for each inspection category listed under subpars. a. to e. after the rough work is constructed but before it is concealed.

a. The basement floor area.

Note: The inspection of the basement floor area should include the following: any underfloor plumbing, electrical, or HVAC; any interior drain tile with base course required under 321.17; the structural base course for the floor slab if required under 321.20; and the underfloor vapor retarder as required under 322.38.

b. General construction, including framing.

c. Rough electrical.

d. Rough plumbing.

e. Rough heating, ventilating and air conditioning.

2. All categories of work for rough inspections may be completed before the notice for inspection is given, provided the work has not been covered.

3. The applicant may request one rough inspection or individual rough inspections.

4. A separate fee may be charged for each individual inspection.

(g) *Insulation inspection*. An inspection shall be made of the insulation and vapor retarders after they are installed but before they are concealed.

(h) *Final inspection*. 1. Except as provided under subd. 2., the dwelling may not be occupied until a final inspection has been made that finds no critical violations of this code that could reasonably be expected to affect the health or safety of a person using the dwelling.

2. Occupancy may proceed in accordance with local ordinances if the inspection has not

been completed by the end of the fifth business day following the day of notification or as otherwise agreed between the applicant and the department or municipality.

(i) *Installation inspection.* An inspection shall be performed on the installation of a manufactured dwelling or manufactured home.

Note: The design and construction of manufactured homes is regulated by the federal Department of Housing and Urban Development under Title 24 CFR Part 3280.

44. All inspections, for the purpose of administering and enforcing this code, shall be performed by an inspector certified in accordance with 325 who holds the respective credential for the inspection performed.

- a. true
- b. false

45. Construction may proceed if the inspection has not taken place by the end of the business day following the day of notification or as otherwise agreed between the applicant and the municipality or authorized UDC inspection agency.

- a. true
- b. false

46. Except as provided under subd. 2., the dwelling may not be occupied until a final inspection has been made that finds no critical violations of this code that could reasonably be expected to affect the health or safety of a person using the dwelling.

- a. true
- b. false

47. Occupancy may proceed in accordance with local ordinances if the inspection has not been completed by the end of the second business day following the day of notification or as otherwise agreed between the applicant and the department or municipality.

- a. true
- b. false

(4) NOTICE OF COMPLIANCE OR NONCOMPLIANCE. (a) *General.* 1. Notice of compliance or noncompliance with this code shall be written on the building permit or another readily visible means and posted at the job site.

2. Upon finding of noncompliance, the municipality or authorized UDC inspection agency enforcing this code shall also notify the applicant of record and the owner, in writing, of the violations to be corrected.

3. Except as specified under par. (b), the municipality or authorized UDC inspection agency shall order all cited violations corrected within 30 days after written notification, unless an extension of time is granted under 320.21.

(b) *Erosion and sediment control requirements.* 1. The time period allowed for compliance with the erosion and sediment control provisions under 321.125 shall be determined based on the severity of the noncompliance in relation to soil loss or potential damage to the waters of the state.

2. Pursuant to s. 101.653 (7) (b), Stats., the department, a municipality or the designated UDC inspection agency may issue a special order directing an immediate cessation of construction work on other aspects of the dwelling until compliance with the erosion and sediment control provisions under 321.125 is attained. Construction work may resume once the erosion and sediment control compliance corrections are completed.

Note: Section 101.653 (7) (b) reads: "The department or a city, village, town or county may issue a special order directing the immediate cessation of work on a one- or 2-family dwelling until the necessary plan approval is obtained or until the site complies with the rules promulgated under sub. (2)."

(5) VOLUNTARY INSPECTION. The department or its authorized representative may, at the request of the owner or the lawful occupant, enter and inspect dwellings, subject to the

provisions of this code, to ascertain compliance with this code.

48. Upon finding of noncompliance, the municipality or authorized UDC inspection agency enforcing this code shall also notify the applicant of record or the owner, in writing or by phone call, of the violations to be corrected.

- a. true
- b. false

49. The time period allowed for compliance with the erosion and sediment control provisions under 321.125 shall be determined based on the severity of the noncompliance in relation to soil loss or potential damage to the waters of the state.

- a. true
- b. false

50. Construction work may resume once the erosion and sediment control compliance corrections are completed and the inspector is notified for the re-inspection during the next required inspection.

- a. true
- b. false

51. The department or its authorized representative may, at the request of the owner, adjacent neighbor, municipal official or the lawful occupant, enter and inspect dwellings, subject to the provisions of this code, to ascertain compliance with this code.

- a. true
- b. false

52. Notice of compliance or noncompliance with this code shall be written on the building permit or another readily visible means and posted at the job site or kept at the inspectors office for safe keeping.

- a. true
- b. false

(6) RECORD KEEPING. (a) *Municipal enforcement.* Municipalities that have adopted an ordinance to enforce this code shall maintain records in accordance with all of the following:

1. A record shall be made of each visit to a site, each inspection type performed and the pass or fail results of each inspection.
2. Approved plans shall be retained for 4 years after completion of the dwelling.
3. Applications forms, correction orders, correspondence and inspection records shall be maintained for 7 years after completion of the dwelling.

(b) *State enforcement.* Inspectors working under state contract shall maintain records in accordance with the provisions of the contract that was in effect at the time the inspections were completed.

Note: Records generated by the plan review and inspection functions are public records and are subject to the open-records law.

53. Applications forms, correction orders, correspondence and inspection records shall be maintained for _____ years after completion of the dwelling.

- a. 2
- b. 4
- c. 7
- d. 10

54. Approved plans shall be retained for _____ years after completion of the dwelling.

- a. 2
- b. 4
- c. 7

d. 10

55. Inspectors working under state contract shall maintain records in accordance with the provisions of the contract that was in effect at the time the inspections were completed.

- a. true
- b. false

SECTION 16. 320.13 (2), 320.14 (1), 320.14 (2) (a) 2., 320.14 (2) (b) 2. and 320.21 (1) (intro.) are amended to read:

320.13 (2) INSTALLATION. A Wisconsin uniform building permit shall be obtained in accordance with 320.09 (1) to (5) (a) before any on-site construction falling within the scope of this code is commenced for a manufactured dwelling modular home. The permit shall be issued in accordance with 320.09 (5) (9).

320.14 (1) APPLICATION FOR APPROVAL. (a) An application for approval of any modular home, building system or component shall be submitted to the department in the form required by the department, along with the appropriate fees in accordance with 32.34.

(b) The department shall review and make a determination on an application for approval of a modular home, building system or component within 3 months.

320.14 (2) (a) 2. ‘Compliance assurance program.’ a. Three sets of the compliance assurance program shall be submitted for examination and approval.

b. The compliance assurance program submitted to the department on behalf of the manufacturer shall meet the standards of the Model Documents for the Evaluation, Approval and Inspection of Manufactured Buildings as adopted under Table 320.24-9 10 or an equivalent as determined by standard acceptable to the department.

320.14 (2) (b) 2. ‘Compliance assurance program.’ a. Three sets of the compliance assurance program shall be submitted to the department on behalf of the manufacturer for examination and approval of components.

b. The compliance assurance program shall meet the requirements established by the department or, where applicable, be in the form of the Model Documents for the Evaluation, Approval and Inspection of Manufactured Buildings as adopted under Table 320.24-10 or an equivalent standard acceptable to the department.

320.21 (1) (intro.) APPEALS OF ORDERS AND DETERMINATIONS BY A MUNICIPALITY EXERCISING JURISDICTION. Appeals of order or determination of a municipality exercising jurisdiction under this code, including denials of application for permits, shall be made in accordance with the procedure set out in ch. 68, Stats., prior to making an appeal to the department.

56. An application for approval of any manufactured dwelling modular home, building system or component shall be submitted to the department in the form required by the department, along with the appropriate fees in accordance with 305.

- a. true
- b. false

57. Four sets of the compliance assurance program shall be submitted for examination and approval.

- a. true
- b. false

58. Appeals of order or determination of a municipality exercising jurisdiction under this code, including denials of application for permits, shall be made in accordance with the procedure set out in 305, Stats., prior to making an appeal to the department.

- a. true
- b. false

59. A Wisconsin uniform building permit shall be obtained in accordance with the procedures outlined in 320.09 (1), (2), (3) and (4) (a) 1. (1) to (5) (a) before any on-site construction falling within the scope of this code is commenced for a manufactured dwelling modular home.

- a. true
- b. false

SECTION 31. 321.02 (3) (intro.) is renumbered 321.02 (3) (a) and amended to read:

321.02 (3) (a) General. Design, construction, installation, practice and structural analysis shall conform to the following nationally recognized standards.

SECTION 32. 321.02 (3) (b) 3., as renumbered, is created to read:

321.02 (3) (b) 3. Sawn lumber that is not graded in accordance with the standards under subd. 1., shall use the NDS published allowable design stresses for the lumber species using grade number 3 when used for studs, stringers, rafters or joists and may use grade number 1 when used for beams, posts or timbers.

SECTION 33. 321.02 (3) (e), as renumbered, is amended to read:

321.02 (3) (e) Masonry. The design and construction of masonry shall conform to the following standards:

1. ACI 530, Building Code Requirements for Masonry Structures.
2. ACI 530.1, Specification for Masonry Structures.

SECTION 34. 321.02 (3) (g) is created to read:

321.02 (3) (g) Whole logs. Dwellings constructed of whole logs shall conform to the following standards:

1. ILBA Log Building Standards for Residential, Handcrafted, Interlocking, Scribe-fit Construction.

Note: This standard requires the minimum log diameter to be 8 inches.

2. ICC/ANSI 400, Standard on the Design and Construction of Log Structures.

60. Dwellings constructed of whole logs shall conform to the following standards: 1. ILBA Log Building Standards for Residential, Handcrafted, Interlocking, Scribe-fit Construction. **Note:** This standard requires the minimum log diameter to be 10 inches.

- a. true
- b. false

61. Sawn lumber that is not graded in accordance with the standards under subd. 1., shall use the NDS published allowable design stresses for the lumber species using grade number 1 when used for studs, stringers, rafters or joists and may use grade number 3 when used for beams, posts or timbers.

- a. true
- b. false

SECTION 35. 321.03 (title) and 321.03 (1) (b) are amended to read:

321.03 (title) Exits.

321.03 (1) (b) At least one of the exits shall discharge to grade and may not go through a garage. This exit may include interior or exterior stairs.

SECTION 36. 321.03 (3) is repealed and recreated to read:

321.03 (3) EXITS ABOVE THE SECOND FLOOR. (a) Except as provided under pars. (b) and (c), each habitable floor above the second floor shall be provided with at least 2 exits that meet all of the following requirements:

1. The exits shall be stairways or ramps that lead to the second floor or discharge to

grade.

2. The exits shall be located such that an exit is accessible to the second floor if another exit is blocked.

(b) A second stairway or ramp exit is not required for habitable areas on a third floor that meet all of the following requirements:

1. The habitable area consists of a single room.

Note: Non-habitable areas, such as closets and bathrooms may be partitioned off.

2. The room is not used for sleeping.

3. The habitable area has a floor area of 400 square feet or less.

4. There is at least one egress window meeting the requirements of sub. (6) in the habitable area.

(c) A second stairway or ramp exit is not required for habitable areas on a third floor that meet all of the following requirements:

1. The dwelling is fully sprinklered in accordance with NFPA 13R or NFPA 13D.

2. If a required exit includes an attached garage, the garage shall be sprinklered.

62. At least one of the exits shall discharge to grade and may not go through a garage. This exit may include interior or exterior stairs.

a. true

b. false

63. A second stairway or ramp exit is not required for habitable areas on a third floor that meet all of the following requirements:

a. The habitable area consists of a single room.

b. The room is not used for sleeping.

c. neither a or b

d. both a & b

64. A second stairway or ramp exit is not required for habitable areas on a third floor that meet all of the following requirements:

a. The habitable area has a floor area of 400 square feet or less.

b. There is at least one egress window meeting the requirements of sub. (6) in the habitable area.

c. neither a or b

d. both a & b

65. Except as provided under pars. (b) and (c), each habitable floor above the second floor shall be provided with at least 2 exits that meet all of the following requirements:

a. The exits shall be stairways or ramps that lead to the second floor or discharge to grade.

b. The exits shall be located such that an exit is accessible to the second floor if another exit is blocked.

c. neither a or b

d. both a & b

66. A second stairway or ramp exit is not required for habitable areas on a third floor that meet all of the following requirements:

a. The dwelling is fully sprinklered in accordance with NFPA 13R or NFPA 13D.

b. If a required exit includes an attached garage, the garage shall be sprinklered.

c. neither a or b

d. both a & b

SECTION 37. 321.03 (6) (e) 5. is amended to read:

321.03 (6) (e) 5. a. Ladders or other steps used to comply with subd. 4. may infringe on the required area of the areaway by a maximum of 6 inches.

b. Ladder rungs shall have a minimum inside width of at least 12 inches and shall project

at least 3 inches from the wall behind the ladder.

c. Ladder rungs shall be able to support a concentrated load of 200 pounds.

d. Ladder rungs shall have a maximum rise of 12 inches between rungs and shall extend to within 12 inches of exterior grade.

SECTION 38. 321.03 (7) is repealed and recreated to read:

321.03 (7) DOORS USED FOR EXITING. (a) Doors used for exiting from a dwelling shall meet the following dimensions:

1. At least one exit door shall be a swing-type door at least 80 inches high by 36 inches wide.

2. Except as allowed under subds. 3. and 4., other required exit doors shall be at least 76 inches high by 32 inches wide.

3. Where double doors are used as a required exit, each door leaf shall provide a clear opening at least 30 inches wide and be at least 76 inches high.

4. Where sliding doors are used as a required exit, the clear opening shall be at least 30 inches wide and be at least 76 inches high.

(b) All exit doors shall be openable from the interior without the use of a key.

67. Ladders or other steps used to comply with subd. 4. may infringe on the required area of the areaway by a maximum of 4.5 inches.

a. true

b. false

68. Ladder rungs shall have a maximum rise of 10 inches between rungs and shall extend to within 12 inches of exterior grade.

a. true

b. false

69. Ladder rungs shall be able to support a concentrated load of 300 pounds.

a. true

b. false

70. Ladder rungs shall have a minimum inside width of at least 14 inches and shall project at least 6 inches from the wall behind the ladder.

a. true

b. false

71. Where double doors are used as a required exit, each door leaf shall provide a clear opening at least 32 inches wide and be at least 80 inches high.

a. true

b. false

72. Where sliding doors are used as a required exit, the clear opening shall be at least 30 inches wide and be at least 76 inches high.

a. true

b. false

73. All exit doors shall be openable from the exterior without the use of a key.

a. true

b. false

74. Except as allowed under subds. 3. and 4., other required exit doors shall be at least 80 inches high by 32 inches wide.

a. true

b. false

75. At least one exit door shall be a swing-type door at least 80 inches high by 36 inches wide.

a. true

b. false

SECTION 41. 321.035 is created to read:

321.035 Interior circulation. (1) DOORS AND OPENINGS. All doors and openings to the following areas shall be at least 80 inches high and provide either a net clear opening width of 30 inches or be a 32-inch door:

- (a) Except as provided under pars. (b) and (c), all entrances into common use areas.
- (b) At least 50% of the bedrooms.
- (c) 1. At least one full bathroom, including doors or openings to a sink, toilet and tub or shower. If this bathroom is accessible only through a bedroom, the bedroom door shall meet the minimum width requirements of this section.
- 2. If one or more full bathrooms are provided on the first floor, the bathroom meeting the requirements under this section shall be on the first floor.

Note: This section does not require a full bathroom on the first floor.

(2) HALLWAYS. (a) Except as allowed under par. (b), the clear width of hallways shall be at least 36 inches.

(b) The following are allowed to infringe on the required clear width of a hallway:

- 1. Door hardware and finish trim.
- 2. Handrails may infringe into the minimum width of a hallway up to 4½ inches on each side.
- 3. Heating registers may infringe into the minimum width of a hallway up to 4½ inches and no part of the register may be more than 38 inches above the floor.
- 4. Ducts, pipes, light fixtures, structural features, and corner treatments that are within 84 inches of the floor may infringe into the minimum width of a hallway by a maximum of 4½ inches on each side.
- 5. Unlimited infringements are allowed in a hallway more than 84 inches above the floor.

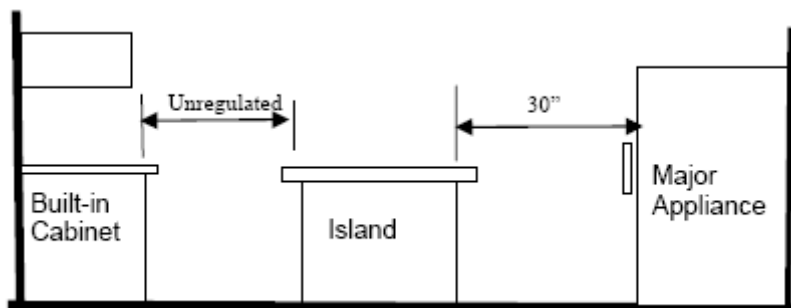
(3) KITCHENS. (a) There shall be at least 30 inches of clearance between a wall, a permanently-installed kitchen island, permanently-installed kitchen cabinets and the following kitchen appliances, if provided:

- 1. A range, cook top or oven.
- 2. A sink, refrigerator or freezer.

(b) Measurements shall be taken from the face of the wall, island, cabinet or appliance, ignoring knobs and handles.

Note: See ICC/ANSI A117.1 chapter 10 for more guidelines relating to doors and accessible routes.

Under that standard, doors must be at least 80-inches in height and provide a minimum net clear opening of 31-3/4-inches in width in order to provide accessibility for people with disabilities.



76. There shall be at least 30 inches of clearance between a wall, a permanently-installed kitchen island, permanently-installed kitchen cabinets and the following kitchen appliances, if provided:

- a. A range

- b. cook top
- c. oven
- d all of the above

77. All doors and openings to the following areas shall be at least 80 inches high and provide either a net clear opening width of 30 inches or be a 32-inch door **except**:

- a. Less than 50% of the bedrooms only if the other bedrooms meet the above requirements.
- b. The other bathrooms if at least one full bathroom, including doors or openings to a sink, toilet and tub or shower are at least 80 inches high and provide either a net clear opening width of 30 inches or be a 32-inch door.
- c. neither a or b
- d. both a & b

78. Heating registers may infringe into the minimum width of a hallway up to 4½ inches and no part of the register may be more than 38 inches above the floor.

- a. true
- b. false

79. Ducts, pipes, light fixtures, structural features, and corner treatments that are within 84 inches of the floor may infringe into the minimum width of a hallway by a maximum of 4½ inches on each side.

- a. true
- b. false

80. Unlimited infringements are allowed in a hallway more than 84 inches above the floor.

- a. true
- b. false

81. Handrails may infringe into the minimum width of a hallway up to 4½ inches on each side.

- a. true
- b. false

82. If one or more full bathrooms are provided on the first floor, the bathroom meeting the requirements under this section shall be on the second floor.

- a. true
- b. false

SECTION 42. 321.04 (1) is repealed and recreated to read:

321.04 (1) SCOPE. (a) *General.* Except as provided under par. (b), the following stairways shall conform to the requirements of this section.

- 1. Every interior and exterior stairway attached to, or supported by any part of the structure covered under this code.
- 2. Tub access steps, unless they are an integral part of an approved plumbing product.

(b) *Exceptions.* The following stairways are not required to comply with the requirements of this section:

- 1. Stairways leading to non-habitable attics or crawl spaces.
- 2. Non-required stairways connecting the basement directly to the exterior of the structure without communicating with any other part of the structure.

83. Except as provided under par. (b), the following stairways shall conform to the requirements of this section.

- a. Every interior and exterior stairway attached to, or supported by any part of the structure covered under this code.
- b. Tub access steps, unless they are an integral part of an approved plumbing product.
- c. neither a or b
- d. both a & b

84. The following stairways are not required to comply with the requirements of this section:

- a. Stairways leading to non-habitable attics or crawl spaces.
- b. Non-required stairways connecting the basement directly to the exterior of the structure without communicating with any other part of the structure.
- c. neither a or b
- d. both a & b

SECTION 43. 321.04 (2) (c) 2. and 321.04 (2) (c) 3. b. are amended to read:

321.04 (2) (c) 2. ‘Spiral staircase treads.’ Spiral staircase treads shall have a minimum tread depth of 7 inches from nosing to nosing measured at a point 12 inches from the outer edge of the center column.

321.04 (2) (c) 3. b. The depth of the immediately adjoining winder treads shall be equal at a point 12 inches from the narrow end of the tread or inside face of spindles or balusters.

SECTION 44. 321.04 (2) (c) 3. c. and 321.04 (2) (c) 4. c. are created to read:

321.04 (2) (c) 3. c. Winder treads may not be used on a straight stairway.

321.04 (2) (c) 4. c. Winder treads may not be used on a straight stairway.

85. Winder treads may be used on a straight stairway.

- a. true
- b. false

86. The depth of the any of the adjoining winder treads shall be equal at a point 12 inches from the narrow end of the tread or inside face of spindles or balusters.

- a. true
- b. false

87. ‘Spiral staircase treads.’ Spiral staircase treads shall have a minimum tread depth of 8 inches from nosing to nosing measured at a point 12 inches from the narrow end of the tread outer edge of the center column.

- a. true
- b. false

SECTION 45. 321.04 (2) (e) 1. is amended to read:

321.04 (2) (e) 1. Within a stairway flight, the greatest tread depths depth may not exceed the smallest tread depth by more than 3/8 inch and the greatest riser height may not exceed the smallest riser height by more than 3/8 inch.

SECTION 46. 321.04 (2) (g) and 321.04 (3) (a) 2. note are created to read:

321.04 (2) (g) *Walking surface.* The walking surface of stair treads and landings shall be a planar surface that is free of lips or protrusions that could present a tripping hazard.

321.04 (3) (a) 2. note:

Note: A handrail provided at 30 to 38 inches above the tread nosing meets the height requirement for a guardrail on a stairway.

SECTION 47. 321.04 (3) (a) 3. c. is created to read:

321.04 (3) (a) 3. c. Rope, cable or similar materials used in handrail or guardrail infill shall be strung with maximum openings of 3½ inches with vertical supports a maximum of 4 feet apart.

Note: In some cases, the vertical supports could be simple cable stays that offer vertical support to the rope or cable span. Structural posts must be supplied to provide the rail with the minimum 200 pound load resistance, as well as to resist the tensile loads exerted by the tightened rope or cable.

SECTION 48. 321.04 (3) (a) 4. is renumbered 321.04 (3) (a) 4. a.

88. Rope, cable or similar materials used in handrail or guardrail infill shall be strung with maximum openings of 4 inches with vertical supports a maximum of 4 feet apart.

- a. true
- b. false

89. A handrail provided at 30 to 38 inches above the tread nosing meets the height requirement for a guardrail on a stairway.

- a. true
- b. false

90. Within a stairway flight, the greatest tread depths depth may not exceed the smallest tread depth by more than 3/8 inch and the greatest riser height may not exceed the smallest riser height by more than 3/8 inch.

- a. true
- b. false

SECTION 49. 321.04 (3) (a) 4. b. and c. are created to read:

321.04 (3) (a) 4. b. Handrail or guardrail infill components, balusters and panel fillers shall withstand a horizontally applied perpendicular load of 50 pounds on any one-foot-square area.

c. Glazing used in handrail or guardrail assemblies shall be safety glazing.

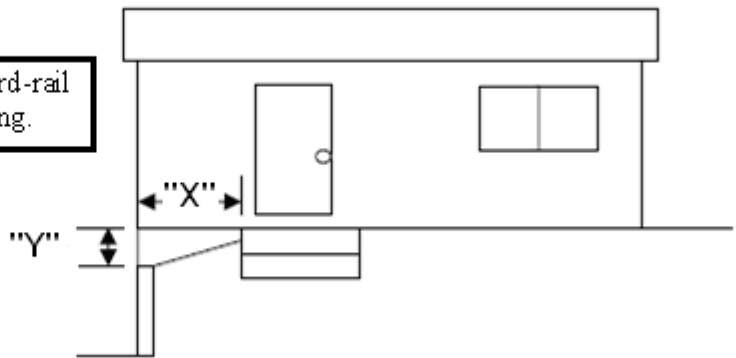
SECTION 50. 321.04 (3) (c) 1. is amended to read:

321.04 (3) (c) 1. 'Application.' a. All openings between floors, and open sides of landings, platforms, balconies or porches that are more than 24 inches above grade or a floor shall be protected with guardrails.

b. The requirements under subpar. a. apply where insect screens are the only means of enclosure or protection for a surface that is more than 24 inches above grade or a floor.

c. For exterior applications, the 24 inch vertical measurement shall be taken from the lowest point within 3 feet horizontally from the edge of the deck, landing, porch or similar

If "X" is ≤ 36 " and "Y" is > 24 ", then a guard-rail is required on the left-hand side of the landing.



91. Glazing used in handrail or guardrail assemblies shall be safety glazing or just tempered glass.

- a. true
- b. false

92. Handrail or guardrail infill components, balusters and panel fillers shall withstand a horizontally applied perpendicular load of 200 pounds on any one-foot-square area.

- a. true
- b. false

93. For exterior applications, the 24 inch vertical measurement shall be taken from the lowest point within 3 feet horizontally from the guardrail of the deck, landing, porch or similar

- a. true
- b. false

94. The requirements under subpar. a. do not apply where insect screens are the only means of enclosure or protection for a surface that is more than 24 inches above grade or a floor.

- a. true

b. false

SECTION 52. 321.045 (intro.) is renumbered 321.045 (1) and amended to read:

321.045 (1) GENERAL. Every exterior or interior ramp which leads to or from a required exit shall comply with the requirements of this section.

SECTION 53. 321.045 (1) Note is created to read:

321.045 (1) Note: See ICC/ANSI A117.1 chapter 5 for more guidelines relating to the design and construction of an accessible ramp. Under that standard, ramps along an accessible route for people with disabilities should have a slope of not more than 1-foot of rise in 12-feet of run and should have handrails on both sides of the ramp.

95. Under that standard, ramps along an accessible route for people with disabilities should have a slope of not more than 1-foot of rise in 8-feet of run and should have handrails on both sides of the ramp.

- a. true
- b. false

96. Every exterior or interior ramp which leads to or from a required exit shall comply with the requirements of this section.

- a. true
- b. false

SECTION 57. 321.05 (3) (intro.), as renumbered, is amended to read:

321.05 (3) (intro.) SAFETY GLASS. Except as provided in par. (e), glazing shall consist of safety glass meeting the requirements of CPSC 16 CFR, Part 1201 when installed in any of the following locations:

SECTION 58. 321.05 (3) (a) and 321.05 (3) (b), as renumbered, are repealed and recreated to read:

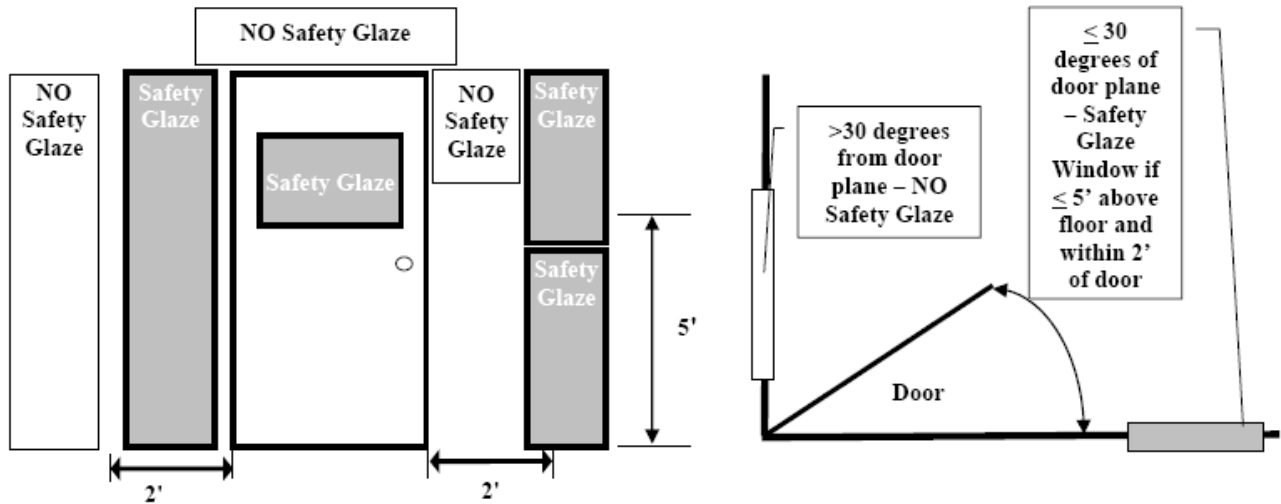
321.05 (3) (a) In any sidelight or glazing adjacent to a door that meets all of the following:

1. The nearest point of the glazing is within 2 feet of the door.
2. The nearest point of the glazing is within 5 feet of the floor.
3. The plane of the glazing is within 30 degrees of the plane of the door when the door is in the closed position.

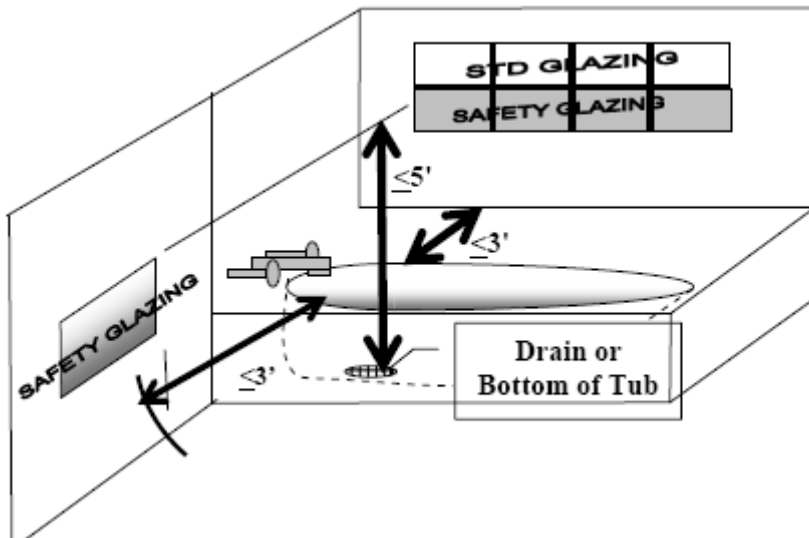
321.05 (3) (b) In any wall where the glazing is within 5 feet vertically of the lowest drain inlet and within 3 feet horizontally of the nearest part of the inner rim of a bathtub, hot tub, shower, spa or whirlpool appliance.

SECTION 59. 321.05 (3) note 2 is created to read.

321.05 (3) Note 2: Glass blocks are considered to be masonry products and are regulated under the ACI 530 standard adopted under 320.24. They are not required to be safety glazing.



97. Safety glass is required in any sidelight or glazing adjacent to a door that meets all of the following:
- The nearest point of the glazing is within 2 feet of the door.
 - The nearest point of the glazing is within 5 feet of the floor.
 - neither a or b
 - both a & b
98. Safety glass is required in any sidelight or glazing adjacent to a door that meets all of the following:
- The plane of the glazing is within 30 degrees of the plane of the door when the door is in the closed position.
 - The plane of the glazing is within 30 degrees of the plane of the door when the door is in the open position.
 - neither a or b
 - both a & b



99. Safety glass is required in any wall where the glazing is within 3 feet vertically of the lowest drain inlet and within 5 feet horizontally of the nearest part of the inner rim of a bathtub, hot tub, shower, spa or whirlpool appliance.
- true
 - false
100. Glass blocks are considered to be masonry products and are regulated under the ACI 530 standard adopted under 320.24. They are not required to be safety glazing.

- a. true
- b. false

321.08 (1) (intro.) FIRE SEPARATION. Dwelling units shall be separated from garage spaces, accessory buildings, property lines and other dwelling units in accordance with Table 321.08 and the following requirements:

321.08 (1) (c) 2. Only glazing allowed by the door's listing may be installed in any door required under this section.

SECTION 64. 321.08 (1) (d) 1. is repealed and recreated to read:

321.08 (1) (d) 1. Access openings in fire separation walls or ceilings shall be protected in one of the following ways:

- a. The opening is protected with a material that has a finish rating of at least 20 minutes.
- b. The opening is protected in the same way as the wall or ceiling where the opening is located.

SECTION 65. 321.08 (2) (a) is repealed and recreated to read:

321.08 (2) (a) *General*. In 2-family dwellings, dwelling units shall be separated from each other and from shared tenant spaces including attics, basements, garages, vestibules and corridors.

101. Access openings in fire separation walls or ceilings shall be protected in one of the following ways:

- a. The opening is protected with a material that has a finish rating of at least 20 minutes.
- b. The opening is protected in the same way as the wall or ceiling where the opening is located.
- c. neither a or b
- d. both a or b

102. Only glazing allowed by the door's listing may be installed in any door required under this section.

- a. true
- b. false

103. In 2-family dwellings, dwelling units shall be separated from each other and from shared tenant spaces including:

- a. attics
- b. basements
- c. garages
- d. **all of the above**

104. In 2-family dwellings, dwelling units shall be separated from each other and from shared tenant spaces including:

- a. vestibules
- b. corridors.
- c. neither a or b
- d. both a & b

321.08 (2) (b) *Attic separation*. Dwelling units with attic space that extends over both units shall be separated in accordance with one of the following:

1. 'Complete separation.' The units shall be provided with wall construction under par. (d) that extends all the way to the underside of the roof deck.

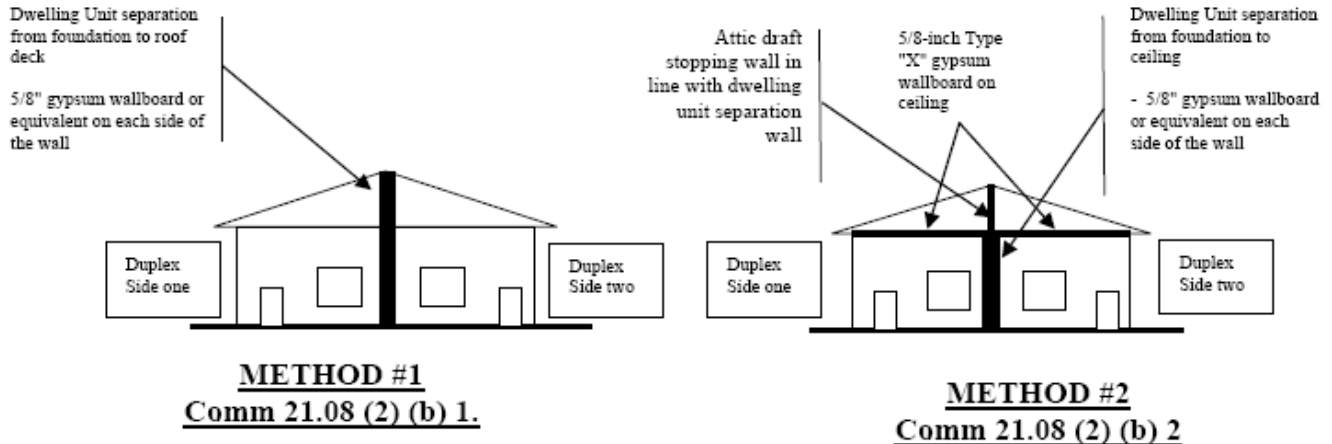
2. 'Vertical and horizontal separation.' a. The units shall be provided with wall construction under par. (d) that extends to the dwelling unit ceiling and ceiling construction under par (e).

b. Dwelling units using this method of separation shall provide attic draft stopping under par. (f) that extends all the way to the underside of the roof deck above and in line with the

separation wall.

SECTION 69. 321.08 (2) (d), as renumbered, is amended to read:

321.08 (2) (d) Walls. Walls in the dwelling unit separation shall be protected by not less than one layer of 5/8-inch Type X gypsum wallboard or 2 layers of 1/2-inch gypsum wallboard or equivalent on each side of the wall with joints in compliance with sub. (1) (a) 2.



105. Dwelling units using this method of separation shall provide attic draft stopping under par. (f) that extends all the way to the underside of the roof deck above and in line with the separation wall.

- a. true
- b. false

106. Walls in the dwelling unit separation shall be protected by not less than 2 layers of 5/8-inch Type X gypsum wallboard or 2 layers of 1/2-inch gypsum wallboard or equivalent on each side of the wall with joints in compliance with sub. (1) (a) 2.

- a. true
- b. false

SECTION 70. 321.08 (2) (f) is created to read:

321.08 (2) (f) Draft stopping for concealed roof spaces and attics. 1. Attic areas, mansards, overhangs and other concealed roof spaces shall be draft stopped above and in line with the separation wall.

2. Acceptable draft stopping materials include:

- a. 3/8-inch wood structural panel.
- b. 1/2-inch gypsum board.

SECTION 71.321.09 (1) (b), 321.09 (2) and 321.09 (3) are amended to read:

321.09 (1) (b) On floor levels that contain one or more sleeping areas, an alarm shall be installed outside of the sleeping rooms within 21 feet of the centerline of the door opening to any sleeping room and in an exit path from any sleeping room.

(2) (a) Except for dwellings with no electrical service, smoke detectors required by this section shall be continuously powered by the house electrical service, and shall be interconnected so that activation of one detector will cause activation of all detectors.

(b) Dwellings with no electrical service shall be provided with battery-powered smoke detectors in the locations under sub. (1). Interconnection and battery-backup are not required in these dwellings.

(3) For family living units with one or more communicating split levels or open adjacent levels with less than 5 feet of separation between levels, one smoke detector on the

upper level shall suffice for an adjacent lower level, including basements. Where there is an intervening door between one level and the adjacent lower level, smoke detectors shall be installed on each level.

107. Dwellings with no electrical service shall be provided with battery-powered smoke detectors in the locations under sub. (1). Interconnection and battery-backup are required in these dwellings.

- a. true
- b. false

108. Attic areas, mansards, overhangs and other concealed roof spaces shall be draft stopped above and in line with the separation wall. Acceptable draft stopping materials include:

- a. 3/8-inch wood structural panel.
- b. 1/2-inch gypsum board.
- c. neither a or b
- d. both a or b

109. On floor levels that contain one or more sleeping areas, an alarm shall be installed outside of the sleeping rooms within 12 feet of the centerline of the door opening to any sleeping room.

- a. true
- b. false

110. Smoke detectors are required by this section shall be continuously powered by the house electrical service, and shall be interconnected so that activation of one detector will cause activation of all detectors. (Except for dwellings with no electrical service)

- a. true
- b. false

111. For family living units with one or more communicating split levels or open adjacent levels with less than 5 feet of separation between levels, one smoke detector on the upper level shall suffice for an adjacent lower level, including basements.

- a. true
- b. false

112. Use the information from question 109 above. Where there is an intervening door between one level and the adjacent lower level, smoke detectors shall be installed on each level.

- a. true
- b. false

SECTION 72. 321.09 (6) is created to read:

321.09 (6) In basements where two required exits are separated by a continuous wall, a smoke detector shall be placed on each side of the wall within 21 feet of each exit.

SECTION 73. 321.095 is created to read:

321.095 Automatic fire sprinklers. (1) Except as allowed under sub. (2), where automatic fire sprinklers using a dedicated water supply system are installed, the design, installation, testing and maintenance shall follow the requirements of NFPA 13D.

(2) Limited area dwelling systems are allowed.

Note: See 382.40 (3) (e) of the Wisconsin Uniform Plumbing Code for requirements for multipurpose piping systems. These systems attach fire sprinkler heads to the dwelling's potable water piping system.

Note: Chapter 145, Stats., requires automatic fire sprinkler systems, on dedicated water supply systems, to be installed by a licensed sprinkler fitter.

113. Chapter 145, Stats., requires automatic fire sprinkler systems, on dedicated water supply systems, to be installed by a licensed sprinkler fitter, master plumber or the homeowner.

- a. true

b. false

114. In basements where two required exits are separated by a continuous wall, a smoke detector shall be placed on each side of the wall within 21 feet of each exit.

a. true

b. false

SECTION 74. 321.10 (1) and 321.10 (2) (a) are amended to read:

321.10 Protection against decay and termites. (1) Wood used in any of the locations specified applications under this section shall meet all of the following requirements:

(a) The wood shall be labeled and pressure treated with preservative in accordance with an AWWPA standard or shall be a naturally durable and decay-resistant species or shall be engineered to be decay resistant.

(b) The wood shall be pressure treated with preservative or shall be naturally termiteresistant unless additional steps are taken to make the wood termite-resistant.

321.10 (2) (a) Resting directly upon or embedded in earth.

SECTION 75. 321.10 (2) (b) is repealed and recreated to read:

321.10 (2) (b) Floor joists or sleepers that meet all of the following conditions:

1. The joists or sleepers are protected from the weather.
2. The joists or sleepers are within 18 inches above a lower floor surface, deck or soil.
3. There is no vapor retarder that meets the requirements under 321.05 (4) (b) between the joists or sleepers and the soil below.

Note: This situation could occur with a floor over a crawl space or when a floor is added over a patio deck or a garage slab.

SECTION 76. 321.10 (2) (g) is repealed.

SECTION 77. 321.10 (2) (c) to (f) are renumbered 321.10 (2) (d) to (g).

SECTION 78. 321.10 (2) (c) is created to read:

321.10 (2) (c) Floor joists exterior to the dwelling that are within 18 inches above exterior grade, unless protected with a moisture barrier.

Note: Acceptable moisture barriers for this application include 3/4-inch exterior preservative-treated plywood, or ice dam protection material listed as meeting the requirements of ASTM D 1970 or vapor retarder material, provided they are protected from physical and UV light damage.

115. Wood used in any of the locations specified applications under this section shall meet all of the following requirements:

- a. The wood shall be labeled and pressure treated with preservative in accordance with an AWWPA standard
- b. shall be a naturally durable and decay-resistant species
- c. shall be engineered to be decay resistant.
- d. all of the above.

116. Acceptable moisture barriers for this application _____ provided they are protected from physical and UV light damage.

- a. include 3/4-inch exterior preservative-treated plywood
- b. ice dam protection material listed as meeting the requirements of ASTM D 1970
- c. vapor retarder material
- d. all of the above

SECTION 79. 3 21.10 (2) (e), 321.10 (2) (f) 1. and 321.10 (2) (g), as renumbered, are amended to read:

321.10 (2) (e) Sills and rim joists that rest on concrete or masonry and are also below grade or within 8 inches above final exterior grade.

321.10 (2) (f) 1. Siding and sheathing in contact with concrete, masonry or earth and within 6 inches of earth above final exterior grade.

321.10 (2) (g) Ends of wood structural members built into and their shims resting on or supported in masonry or concrete walls and having clearances of less than ½ inch on the top, sides and ends.

SECTION 80. 321.10 (2) (h) is repealed and recreated to read:

321.10 (2) (h) Bottom plates or sole plates of walls that rest on concrete or masonry and that are below exterior grade or less than 8 inches above final exterior grade.

SECTION 81. 321.10 (2) (i) is amended to read:

321.10 (2) (i) Columns in direct contact with concrete or masonry unless supported by a structural pedestal or plinth block at least 3 inches one inch above the floor.

SECTION 82. 321.10 (2) (k) is created to read:

321.10 (2) (k) Permanent wood foundations.

117. Siding and sheathing in contact with concrete, masonry or earth and within ____ inches of earth above final exterior grade.

- a. 3
- b. 6
- c. 8
- d. none of the above

118. Sills and rim joists that rest on concrete or masonry and are also below grade or within ____ inches above final exterior grade.

- a. 3
- b. 6
- c. 8
- d. none of the above

119. Ends of wood structural members built into and their shims resting on or supported in masonry or concrete walls and having clearances of less than __ inch on the top, sides and ends.

- a. ¼"
- b. ½"
- c. ¾"
- d. 1"

120. Bottom plates or sole plates of walls that rest on concrete or masonry and that are below exterior grade or less than ____ inches above final exterior grade.

- a. 3
- b. 6
- c. 8
- d. none of the above

121. Columns in direct contact with concrete or masonry unless supported by a structural pedestal or plinth block at least ____ inches one inch above the floor.

- a. 3
- b. 6
- c. 8
- d. none of the above

SECTION 85. 321.10 (5) and 321.11 Note are created to read:

321.10 (5) FASTENERS. (a) Fasteners for pressure-preservative treated wood and fire-retardant-treated wood shall meet one of the following requirements:

1. The fastener is a steel bolt with a diameter of 0.5 inch or greater.

2. The fastener is made of stainless steel.
3. The fastener is made of hot-dipped, zinc-galvanized steel with the coating weight and thickness labeled as complying with ASTM A 153.
4. The fastener is made of steel with a mechanically-deposited zinc coating labeled as complying with ASTM B 695, Class 55 or greater.
5. The fastener has coating types and weights in accordance with the fastener manufacturer's recommendations. In the absence of the manufacturer's recommendations subd. 1., 2., 3., or 4. shall apply.

Note: "Zinc plated," "zinc coated," "chrome plated," etc. fasteners do not necessarily comply with either of these standards.

(b) When a fastener is used with a hanger or other metal fixture, the fastener shall be of the same material as the hanger or metal fixture.

Note: When separate pieces are in close contact, zinc corrodes rapidly in the presence of plain steel. Zinc corrodes much more rapidly in the presence of stainless steel.

(c) For the purposes of this section, a fastener includes nails, screws and bolts, along with nuts and washers.

122. The fastener has coating types and weights in accordance with the fastener manufacturer's recommendations. In the absence of the manufacturer's recommendations subd. 1., 2., 3., or 4. shall apply.

- a. true
- b. false

123. Fasteners for pressure-preservative treated wood and fire-retardant-treated wood shall meet one of the following requirements:

- a. The fastener is a steel bolt with a diameter of 0.5 inch or greater.
- b. The fastener is made of stainless steel.
- c. neither a or b
- d. both a or b

124. Fasteners for pressure-preservative treated wood and fire-retardant-treated wood shall meet one of the following requirements:

- a. The fastener is made of hot-dipped, zinc-galvanized steel with the coating weight and thickness labeled as complying with ASTM A 153.
- b. The fastener is made of steel with a mechanically-deposited zinc coating labeled as complying with ASTM B 695, Class 55 or greater.
- c. neither a or b
- d. both a or b

125. When a fastener is used with a hanger or other metal fixture, the fastener shall be of the same material as the hanger or metal fixture.

- a. true
- b. false

126. When separate pieces are in close contact, zinc corrodes rapidly in the presence of plain steel. Zinc corrodes much more rapidly in the presence of stainless steel.

- a. true
- b. false

127. For the purposes of this section, a fastener includes:

- a. nails
- b. screws
- c. neither a or b
- d. both a or b

128. For the purposes of this section, a fastener includes:

- a. bolts
- b. nuts and washers.
- c. neither a or b
- d. both a or b

321.11 Note: See 322.04 (2) for requirements for protecting foam plastic on the exterior of a dwelling.

SECTION 86. 321.15 (1) and (2) are renumbered 321.15 (2) and (3), and 321.15 (intro.) is renumbered 321.15 (1).

SECTION 87. 321.15 (1), as renumbered, is amended to read:

321.15 (1) General. (a) The dwelling and attached structures, such as decks and garages, shall be supported on a structural system designed to transmit and safely distribute the loads to the soil.

(b) The loads for determining the footing size shall include the weight of the live load, roof, walls, floors, pier or column, plus the weight of the structural system and the soil over the footing.

(c) Footings shall be sized to not exceed the allowable material stresses.

(d) The bearing area shall be at least equal to the area required to transfer the loads to the supporting soil without exceeding the bearing values capacity of the soil.

(e) Structures supported on floating slabs or similar shallow foundations may not be physically attached to structures that are supported by footings that extend below the frost line unless an isolation joint is used between the structures. This isolation shall extend for the full height of the structure.

SECTION 88. 321.15 (2) (a) Note, as renumbered, is amended to read:

321.15 (2) (a) Note: Unstable soil includes soils that are unable to support themselves at a 90 degree angle for the full depth of the footing.

SECTION 89.321.15 (2) (b), as renumbered, is amended to read:

321.15 (2) (b) Column or pier footing. 1. The minimum width and length of column or pier footings shall measure at least 2 feet by 2 feet.

2. The minimum depth of column or pier footings shall measure at least 12 inches nominal.

SECTION 90. 321.15 (2) (e), as renumbered, is amended to read:

321.15 (2) (e) Floating slabs. Any dwelling supported on a floating slab on grade shall be designed through structural analysis.



129. The dwelling and attached structures, such as decks and garages, shall be supported on a structural system designed to transmit and safely distribute the loads to the soil.

- a. true
- b. false

130. See _____ for requirements for protecting foam plastic on the exterior of a dwelling.

- a. 322.04 (2)

- b. 321.01(2)
 - c. neither a or b
 - d. both a & b
131. The minimum width and length of column or pier footings shall measure at least 3 feet by 2 feet.
- a. true
 - b. false
132. The minimum depth of column or pier footings shall measure at least 8 inches.
- a. true
 - b. false
133. Any dwelling supported on a floating slab on grade shall be designed through structural analysis.
- a. true
 - b. false
134. Structures supported on floating slabs or similar shallow foundations may be physically attached to structures that are supported by footings that extend below the frost line. If an isolation joint is used between the structures the this isolation shall extend for the full width of the structure.
- a. true
 - b. false
135. Unstable soil includes soils that are unable to support themselves at a 90 degree angle for the full depth of the footing.
- a. true
 - b. false
136. Footings should be sized to exceed the allowable material stresses.
- a. true
 - b. false

SECTION 91.321.16 is repealed and recreated to read:

321.16 Frost protection. (1) GENERAL. (a) Except as allowed under sub. (2), footings and foundations, including those for ramps and stoops, shall be placed below the frost penetration level or at least 48 inches below adjacent grade, whichever is deeper.

(b) Footings may not be placed on frozen material.

(2) EXCEPTIONS. (a) Frost protected shallow foundations shall be designed in accordance with ASCE-32 as adopted in Table 320.24-5.

(b) Portions of footings or foundations located directly under window areaways do not require frost protection provided the rest of the foundation is protected in accordance with this section.

(c) Footings and foundations may bear directly on bedrock less than 48 inches below adjacent grade provided all of the following conditions are met.

1. The rock shall be cleaned of all earth prior to placement.
2. All clay in crevices of the rock shall be removed to the level of frost penetration or to 1.5 times the width of the rock crevice, whichever is less.
3. Provisions shall be taken to prevent water from collecting anywhere along the foundation.

137. Footings and foundations may bear directly on bedrock less than 48 inches below adjacent grade provided all of the following conditions are met.

- a. The rock shall be cleaned of all earth prior to placement.
- b. All clay in crevices of the rock shall be removed to the level of frost penetration or to 1.5 times the width of the rock crevice, whichever is less.
- c. Provisions shall be taken to prevent water from collecting anywhere along the foundation.
- d. all of the above.

138. Footings and foundations, including those for ramps and stoops, shall be placed below the frost penetration level or at least 48 inches below adjacent grade, whichever is less.

- a. true
- b. false

139. Portions of footings or foundations located directly under window areaways do require frost protection provided the rest of the foundation is protected in accordance with this section.

- a. true
- b. false

SECTION 92. 321.17 (1) (a) 2. and 321.17 (1) (b) 2. are amended to read:

321.17 (1) (a) 2. For the purposes of this section, a complete drain tile or pipe system includes all of the following:

- a. The drain tile or pipe installed inside and outside the foundation at the footing level. , except as allowed under 321.17 (3) (d) 1. b.
- b. Bleeders connecting the inside tile or pipe to the outside tile or pipe.
- c. The sump pit or crock.
- d. The discharge piping.
- e. A pump or other means of discharging water to natural grade.

321.17 (1) (b) 2. For the purposes of this section, a partial drain tile or pipe system includes a means of discharging water from the tile or pipe and may include any of the other elements under par. (a) 2.

Note: Means of discharging water include a sump pit, a crock or natural means of drainage to daylight.

SECTION 93. 321.17 (3) (d) 1. to 6. are renumbered 321.17 (3) (d) 2. to 7.

SECTION 94. 321.17 (3) (d) 1. is created to read:

321.17 (3) (d) 1. a. Except as allowed under subd. 1. b., the top of the tile or pipe shall be at or below the top of the footing.

b. Where the top of the footing is more than 4 inches below the bottom of the floor slab, tile or pipe is required on the interior of the foundation only and it shall be placed directly under the floor.

Note: This situation will commonly occur with a walk-out basement.

SECTION 95. 321.17 (3) (d) 6., as renumbered, is amended to read:

321.17 (3) (d) 6. a. Bleeder tiles or pipes shall be provided at no more than 8-foot intervals to connect the exterior drain tile or pipe to the interior drain tile or pipe.

- b. Bleeder tiles or pipes shall have a minimum interior diameter of 3 inches.
- c. Direct connection of the bleeders is not required if the intersection of the bleeder with the tile or pipe is covered with a membrane or fabric that prevents soil and fines from entering the system.

140. Bleeder tiles or pipes shall be provided at no more than 6-foot intervals to connect the exterior drain tile or pipe to the interior drain tile or pipe.

- a. true
- b. false

141. Bleeder tiles or pipes shall have a minimum interior diameter of 3 inches.

- a. true
- b. false

142. Direct connection of the bleeders is not required if the intersection of the bleeder with the tile or pipe is covered with a _____ that prevents soil and fines from entering the system.

- a. membrane
- b. fabric

- c. neither a or b
- d. both a or b

143. Where the top of the footing is more than 4 inches below the bottom of the floor slab, tile or pipe is required on the interior of the foundation only and it shall be placed directly under the floor.

- a. true
- b. false

144. For the purposes of this section, a complete drain tile or pipe system includes all of the following:

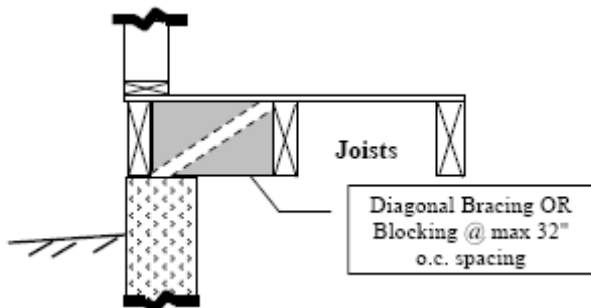
- a. The drain tile or pipe installed inside and outside the foundation except as allowed under 321.17 (3) (d) 1. b.
- b. Bleeders connecting the inside tile or pipe to the outside tile or pipe.
- c. The sump pit or crock.
- d. all of the above

145. For the purposes of this section, a complete drain tile or pipe system includes all of the following:

- a. The discharge piping.
- b. A pump or other means of discharging water to natural grade.
- c. neither a or b
- d. both a & b

321.18 (1) (d) 1. Note: Per 321.22 (1), sill plates are not required on foundation walls of poured concrete or on masonry walls with mortar- or grout-filled cores or on masonry walls with a solid block top course.

321.18 (1) (d) 2.b. Includes floor joist bridging, along with solid blocking, as a bracing means for foundation walls that are parallel with the floor joists.



SECTION 97. 321.18 (1) (d) 2. b. is amended to read:

SECTION 98. 321.18 (2) (a) (title), 321.18 (2) (b) (title) and 321.18 (2) Note are created to read:

321.18 (2) (a) (title) *General structural requirements.*

321.18 (2) (b) (title) *Equalized loading.*

321.18 (2) Note: See 321.15 (1) (c) for trench footing requirements.

SECTION 99. 321.18 (3) (a) is repealed and recreated to read:

321.18 (3) (a) Dampproofing. 1. Except as allowed under subd. 3., masonry block foundation walls shall be coated with a layer of minimum 3/8-inch thick type M or S portland cement mortar parging on the exterior of the wall from footing to finished grade.

2. Masonry foundation walls shall be damp-proofed by applying to the exterior surface of the Portland cement parging from footing to finished grade, a continuous coating of one of the following:

- a. A bituminous coating applied in accordance with the manufacturer's instructions.
- b. Acrylic-modified cement applied at a minimum rate of 3 pounds per square yard.
- c. A layer of minimum 1/8-inch thick structural surface bonding material labeled as complying with ASTM C887.

Note: The ASTM C887 standard is entitled, “Standard Specification for Packaged, Dry, Combined Materials for Surface Bonding Mortar.”

- d. A waterproofing treatment applied in accordance with the manufacturer’s instructions.
- 3. a. Parging of masonry block foundation walls is not required where a dampproofing material is sufficiently flexible to be listed or designed for direct application to masonry block.
- b. Parging of masonry block foundation walls is not required where a layer of minimum 1/4-inch thick structural surface bonding material labeled as complying with ASTM C887 is used for dampproofing.

321.18, Table 321.18-C footnote a, Table 321.18-D footnote a, Table 321.18-E footnote a, and Table 321.18-F footnote a: For design lateral soil loads, see 321.18 (1) (d)

(e). Soil classes are in accordance with the Unified Soil Classification System and design lateral soil loads are for moist soil conditions without hydrostatic pressure.

146. Except as allowed under subd. 3., masonry block foundation walls shall be coated with a layer of minimum 1/4-inch thick type K or L Portland cement mortar parging on the exterior of the wall from footing to finished grade.

- a. true
- b. false

147. Masonry foundation walls shall be damp-proofed by applying to the exterior surface of the portland cement parging from footing to finished grade, a continuous coating of one of the following:

- a. A bituminous coating applied in accordance with the manufacturer's instructions.
- b. Acrylic-modified cement applied at a minimum rate of 3 pounds per square yard.
- c. neither a or b
- d. both a or b

148. Masonry foundation walls shall be damp-proofed by applying to the exterior surface of the portland cement parging from footing to finished grade, a continuous coating of one of the following:

- a. A layer of minimum 1/8-inch thick structural surface bonding material labeled as complying with ASTM C887.
- b. A waterproofing treatment applied in accordance with the manufacturer’s instructions.
- c. neither a or b
- d. both a or b

149. Parging of masonry block foundation walls is not required where a layer of minimum 3/8-inch thick structural surface bonding material labeled as complying with ASTM C887 is used for dampproofing.

- a. true
- b. false

150. Sill plates are required on foundation walls of poured concrete or on masonry walls with mortar- or grout-filled cores or on masonry walls with a solid block top course.

- a. true
- b. false

151. Soil classes are in accordance with the Unified Soil Classification System and design lateral soil loads are for moist soil conditions without hydrostatic pressure.

- a. true
- b. false

321.18 (4) WOOD FOUNDATIONS. Wood foundations shall be designed and constructed in accordance with the standard adopted in Table 320.24-2.

Note: The department will accept Permanent Wood Foundations Design and Construction Guide published by the Southern Forest Products Association through the Southern Pine Council, as complying with this standard. The Design and Construction Guide requires a 3.5 inch thick floor slab if a poured concrete floor slab is used.

321.22 (1) FLOOR JOISTS. (a) *General.* 1. Floor joists shall comply with the structural requirements and live load determination under 321.02.

2. Where the joists of a floor system are parallel to, and located between bearing walls above and below, the joists shall be doubled.

(b) *Floor joists on concrete walls.* Where a sill plate is provided for floor joists on poured concrete, the sill plates shall be fastened to the foundation.

Note: Section 321.18 (1) (d) requires the floor joists to also be fastened to the sill plate.

(c) *Floor joists on masonry walls with a solid top course.* Where a sill plate is provided for floor joists on solid block top course masonry, the sill plate shall be fastened to the foundation.

(d) *Floor joists on masonry walls with open top course.* 1. Where the masonry wall has an open top course, a sill plate at least as wide as the foundation wall shall be fastened to the foundation.

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2. Where anchor bolts are used on masonry walls with an open top course, the minimum width of an individual piece making up the sill plate shall be at least 5.5 inches.

Note: A sill plate can be made of multiple pieces to achieve the full width.

152. Where the masonry wall has an open top course, a sill plate at least as wide as the foundation wall shall be fastened to the foundation.

- a. true
- b. false

153. Where anchor bolts are used on masonry walls with an open top course, the minimum width of an individual piece making up the sill plate shall be at least 6 inches.

- a. true
- b. false

154. Where a sill plate is provided for floor joists on solid block top course masonry, the sill plate shall be fastened to the foundation.

- a. true
- b. false

155. The department will accept Permanent Wood Foundations Design and Construction Guide published by the Southern Forest Products Association through the Southern Pine Council, as complying with this standard. The Design and Construction Guide requires a 3 inch thick floor slab.

- a. true
- b. false

156. Wood foundations shall be designed and constructed in accordance with the standard adopted in Table 323.24-2.

- a. true
- b. false

321.22 (3) (d) Lateral restraint for all wood beams shall be provided at all columns using a saddle or other approved connection where the beam meets one of the following conditions:

1. The beam is not restrained at both ends.
2. The beam is more than 11.25 inches deep using actual measurement.

Note: A saddle supports the beam on the bottom and allows for the through-connection of fasteners into the side of the beam.



SECTION 105. 321.22 (8) (b) and Table 321.22-C are repealed.

SECTION 106. 321.24 (2) is amended to read:

321.24 (2) DURING CONSTRUCTION. During construction, wall cavity insulation may not be installed until a water-resistant covering is in place over the wall cavity and windows, doors and a roof with at least underlayment are installed.

SECTION 107. 321.24 (2) Note is amended to read:

321.24 (2) Note: An example of acceptable water-resistant covering for a wall is foam sheathing with permanently taped joints.

SECTION 108. 321.24 (3) (c) is renumbered 321.24 (3) (d).

157. A saddle supports the beam on the bottom and allows for the through-connection of fasteners into the top of the beam.

- a. true
- b. false

158. An example of acceptable water-resistant covering for a wall is foam sheathing with permanently taped joints.

- a. true
- b. false

159. Lateral restraint for all wood beams shall be provided at all columns using a saddle or other approved connection where the beam meets one of the following conditions:

- a. The beam is not restrained at both ends.
- b. The beam is more than 11.25 inches deep using actual measurement.
- c. neither a or b
- d. both a or b

160. During construction, wall cavity insulation may not be installed until a water-resistant covering is in place over the wall cavity and windows, doors and a roof with at least underlayment are installed.

- a. true
- b. false

SECTION 109. 321.24 (3) (c), 321.24 (3) Note, and 321.24 (4) are created to read:

- 321.24 (3) (c) 1.** Any joints between 2 pieces of flashing that form a vertical joint shall be lapped a minimum of 6 inches and sealed.
- 2.** Any joints between 2 pieces of flashing that form a horizontal joint shall be lapped a minimum of 2 inches and sealed unless otherwise specified by the flashing manufacturer.
- 3.** Sealants used for flashing shall be exterior grade and shall be compatible with the materials being sealed.

321.24 (3) Note: See 321.26 (5) for additional flashing requirements with masonry cavity walls and 321.28 (7) for additional flashing requirements with roofing.

321.24 (4) WATER-RESISTIVE BARRIER REQUIREMENTS. (a) General. 1.

Exterior walls of wood or metal frame construction shall be provided with a water-resistive barrier from the highest point to the bottom of the permanent weather-resistant covering.

Note: Acceptable water-resistive barrier materials include polymeric-based house wraps and spray-applied water-resistive barriers installed per the manufacturer's instructions, # 15 or greater asphalt-saturated felts that comply with ASTM D 226 for type I felt, and extruded foam sheathing with permanently taped joints. Duct tape or similar will not result in a permanently taped joint.

2. Structural products with an integral water-resistive barrier may be approved by the department as a complete assembly.

(b) *Material compatibility.* The water-resistive barrier material shall be compatible with the other materials in the wall with which it will come into contact.

Note: Spray-applied water-resistive barriers may not be compatible with foam plastic insulation.

(c) *Performance requirements.* 1. Polymer-based house wraps shall meet all of the following requirements:

a. A water vapor permeability rating of 5 perms or higher when tested in accordance with ASTM E96.

b. An acceptable water-resistance rating determined in accordance with ASTM D779, AATCC 127 or CCMC 07102.

Note: Asphalt-saturated felt or "tar paper" is not a polymeric-based house wrap.

Note: For more information on the water-resistance tests and their results, see the International Code Council Evaluation Services Acceptance Criteria AC 38.

2. Spray-applied water-resistive barriers shall be approved under the International Code Council Evaluation Services.

Note: For approval criteria, see ICC – ES acceptance criteria AC 212 or successor document.

(d) *Application.* 1. Horizontal seams in sheet or strip material shall be overlapped such that the upper layer extends over the lower layer at least 2 inches.

2. Vertical seams in sheet or strip materials shall be overlapped at least 6 inches.

3. Any rips, tears or voids shall be patched in accordance with subds. 1. and 2.

(e) *Penetrations.* 1. Penetrations caused by fasteners of the water-resistive barrier or the weather-resistant exterior covering do not require sealing.

2. Penetrations of 5 square inches or less with an annular space of no more than ½ inch shall be sealed with caulk or similar material.

161. Exterior walls of wood or metal frame construction shall be provided with a water-resistive barrier from the highest point to the bottom of the permanent weather-resistant covering.

a. true

b. false

162. Acceptable water-resistive barrier materials include:

a. polymeric-based house wraps

b. spray-applied water-resistive barriers installed per the manufacturer's instructions

c. neither a or b

d. both a or b

163. Acceptable water-resistive barrier materials include:

a. # 15 or greater asphalt-saturated felts that comply with ASTM D 226 for type I felt

b. extruded foam sheathing with permanently taped joints.

c. neither a or b

d. both a or b

164. Expensive duct tape will result in a permanently taped joint.

a. true

b. false

165. The water-resistive barrier material shall be compatible with the other materials in the wall with which it will come into contact.
- a. true
 - b. false
166. Polymer-based house wraps shall meet all of the following requirements:
- a. A water vapor permeability rating of 5 perms or higher when tested in accordance with ASTM E96.
 - b. An acceptable water-resistance rating determined in accordance with ASTM D779, AATCC 127 or CCMC 07102.
 - c. neither a or b
 - d. both a & b
167. Penetrations caused by fasteners of the water-resistive barrier or the weather-resistant exterior covering do not require sealing.
- a. true
 - b. false
168. Penetrations of 5 square inches or less with an annular space of no more than 2 inch shall be sealed with caulk or similar material.
- a. true
 - b. false

321.18 (1) (d) 2. b. Solid blocking and bridging shall be the same depth as the joist.

SECTION 115. 321.25 (6) (a) 4., and 321.25 (7), (8) and (9) are created to read:

321.25 (6) (a) 4. All columns shall be positively attached to the beams they support using clips, straps or saddles.

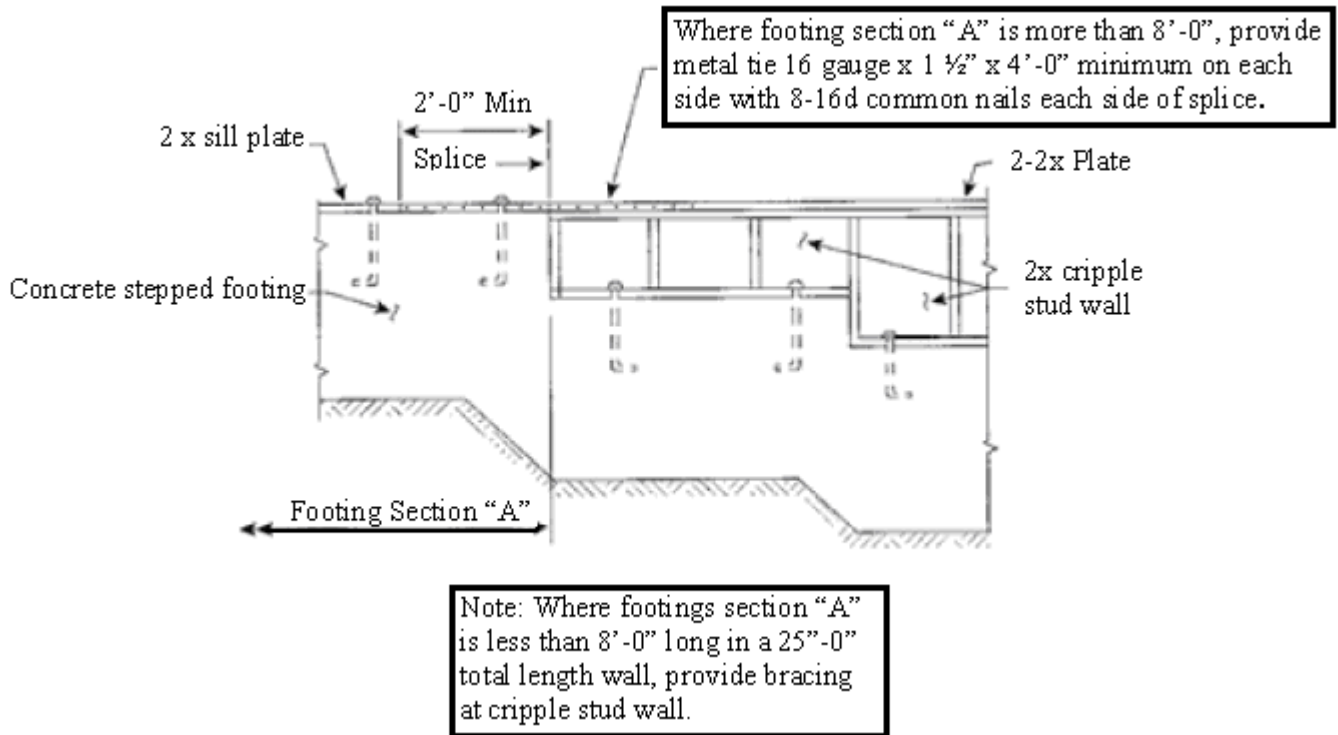
321.25 (7) FOUNDATION CRIPPLE WALLS. (a) Foundation cripple walls shall be framed with studs at least as large as the studs above.

(b) When more than 4 feet in height, cripple walls shall be framed with studs needed for an additional floor level.

(c) Cripple walls with a stud height of less than 14 inches shall be sheathed on at least one side for its entire length with a wood structural panel that is fastened to both the top and bottom plates or the cripple walls shall be constructed of solid blocking.

(d) Cripple walls with a stud height of 14 inches or greater shall be braced in accordance with sub. (8) or (9).

(e) Cripple walls shall be fully supported by a continuous foundation.



- 169. Foundation cripple walls shall be framed with studs at least as large as the studs above.
 - a. true
 - b. false
- 170. Cripple walls with a stud height of less than 14 inches shall be sheathed on at least one side for its entire length with a wood structural panel that is fastened to both the top and bottom plates, this would be code compliant.
 - a. true
 - b. false
- 171. Cripple walls with a stud height of less than 14 inches shall be constructed of solid blocking, this would be code compliant.
 - a. true
 - b. false
- 172. All columns shall be positively attached to the beams they support using:
 - a. clips
 - b. straps
 - c. saddles
 - d. all of the above
- 173. Cripple walls shall be fully supported by a continuous foundation.
 - a. true
 - b. false
- 174. Solid blocking and bridging shall be the same depth as the joist.
 - a. true
 - b. false

321.25 (8) WALL BRACING. (a) *General.* Dwellings using wood-framed walls shall be braced in accordance with this section. Where a building, or a portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with accepted engineering practice.

Note: Acceptable engineering wall bracing practices include the provisions under s. R602.10 of the International Residential Code–2009.

(b) *Bracing Materials and Methods.* Braced wall lines, both interior and exterior shall be braced using one of the following materials and methods:

1. a. Nominal 1-inch-by-4-inch continuous diagonal braces let in to the top and bottom plates.
b. The let-in bracing shall be placed at an angle not more than 60 degrees or less than 45 degrees from the horizontal.
2. a. Preformed metal continuous diagonal T-bracing not less than 22 gage thick and 1 ¾ inch wide let in to the top and bottom plates and the intervening studs installed in accordance with the manufacturer's specifications.
b. The let-in bracing shall be placed at an angle not more than 60 degrees or less than 45 degrees from the horizontal.

Note: 22 gage steel is 0.03 inches thick.

3. Wood boards of 5/8-inch net minimum thickness applied diagonally on studs spaced a maximum of 24 inches fastened to studs in accordance with the fastener table in the appendix.
4. Wood structural panel sheathing with all edges fastened to framing or blocking in accordance with the fastener table in the appendix and not less than 3/8 inch thick for 16-inch stud spacing and not less than 7/16 inch thick for 24-inch stud spacing.
5. Minimum ½-inch thick structural fiberboard sheathing applied vertically or horizontally on studs spaced a maximum of 16 inches on center. Structural fiberboard sheathing shall be installed in accordance with the fastener table in the appendix.
6. Gypsum board with minimum ½-inch thickness placed on studs spaced a maximum of 24 inches on center and fastened at panel edges including top and bottom plates at 7 inches on center with the size nails specified in the fastener table in the appendix.
7. Alternative methods under par. (9), including Alternate Braced Wall Panels, par. (9) (b), and Continuously Sheathed Braced Wall Lines using Wood Structural Panels, par. (9) (c)..
8. Other approved wind bracing materials and methods.

Note: See Appendix for acceptable nailing schedule.

(c) *Minimum length of braced panels.* 1. 'General.' Except as provided under subd. 2., the minimum lengths shall be as follows:

- a. For methods under par. (b) 3., 4. and 5., each braced wall panel shall be at least 48 inches in length, covering a minimum of three stud spaces where studs are spaced 16 inches on center and covering a minimum of two stud spaces where studs are spaced 24 inches on center.
 - b. For the method under par. (b) 6., each braced wall panel shall be at least 96 inches in length where applied to one face of a braced wall panel and at least 48 inches in length where applied to both faces.
 - c. For methods under par. (b) 3., 4. and 5., for purposes of computing the percentage of panel bracing required in Table 321.25-H, the effective length of the braced wall panel shall be equal to the actual length of the panel.
 - d. When the method under par. (b) 6. panels are applied to only one face of a braced wall panel, bracing percentages required in Table 321.25-H under other methods permitted column shall be doubled.
2. 'Exceptions.'
- a. Lengths of braced wall panels for continuous wood structural panel sheathing shall be in accordance with sub. (9) (c).
 - b. Lengths of alternate braced wall panels shall be in accordance with sub. (9) (a) or (b).
 - c. For methods under par. (b) 3., 4. and 5., panels between 36 inches and 48 inches in length shall be permitted to count towards the required percentage of bracing in Table 321.25-H, and the effective contribution shall comply with Table 321.25-G.

175. Preformed metal continuous diagonal T-bracing not less than 24 gage thick and 2 3/4 inch wide let in to the top and bottom plates and the intervening studs installed in accordance with the manufacturer's specifications.

- a. true
- b. false

176. The let-in bracing shall be placed at an angle not more than 60 degrees or less than 45 degrees from the horizontal.

- a. true
- b. false

177. Wood boards of 1/2-inch net minimum thickness applied diagonally on studs spaced a maximum of 32 inches fastened to studs in accordance with the fastener table in the appendix.

- a. true
- b. false

178. Wood structural panel sheathing with all edges fastened to framing or blocking in accordance with the fastener table in the appendix and not less than 7/16 inch thick for 16-inch stud spacing and not less than 1/2 inch thick for 24-inch stud spacing.

- a. true
- b. false

179. Gypsum board with minimum 1/2-inch thickness placed on studs spaced a maximum of 24 inches on center and fastened at panel edges including top and bottom plates at 7 inches on center with the size nails specified in the fastener table in the appendix.

- a. true
- b. false

180. For methods under par. (b) 3., 4. and 5., each braced wall panel shall be at least 48 inches in length, covering a minimum of three stud spaces where studs are spaced 24 inches on center and covering a minimum of two stud spaces where studs are spaced 32 inches on center.

- a. true
- b. false

181. Minimum 1/2-inch thick structural fiberboard sheathing applied vertically or horizontally on studs spaced a maximum of 24 inches on center. Structural fiberboard sheathing shall be installed in accordance with the fastener table in the appendix.

- a. true
- b. false

182. Where a building, or a portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with accepted engineering practice.

- a. true
- b. false

183. Braced wall lines, both interior and exterior shall be braced using one of the following materials and methods:

- a. a. Nominal 1-inch-by-4-inch continuous diagonal braces let in to the top and bottom plates.
- b. The let-in bracing shall be placed at an angle not more than 60 degrees or less than 45 degrees from the horizontal.
- c. neither a or b
- d. both a or b

184. Preformed metal continuous diagonal T-bracing shall be ≥ 22 gauge steel and ≥ 0.03 inches thick.

- a. true
- b. false

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<u>1</u>	a b c d	<u>41</u>	a b c d	<u>81</u>	a b c d
<u>2</u>	a b c d	<u>42</u>	a b c d	<u>82</u>	a b c d
<u>3</u>	a b c d	<u>43</u>	a b c d	<u>83</u>	a b c d
<u>4</u>	a b c d	<u>44</u>	a b c d	<u>84</u>	a b c d
<u>5</u>	a b c d	<u>45</u>	a b c d	<u>85</u>	a b c d
<u>6</u>	a b c d	<u>46</u>	a b c d	<u>86</u>	a b c d
<u>7</u>	a b c d	<u>47</u>	a b c d	<u>87</u>	a b c d
<u>8</u>	a b c d	<u>48</u>	a b c d	<u>88</u>	a b c d
<u>9</u>	a b c d	<u>49</u>	a b c d	<u>89</u>	a b c d
<u>10</u>	a b c d	<u>50</u>	a b c d	<u>90</u>	a b c d
<u>11</u>	a b c d	<u>51</u>	a b c d	<u>91</u>	a b c d
<u>12</u>	a b c d	<u>52</u>	a b c d	<u>92</u>	a b c d
<u>13</u>	a b c d	<u>53</u>	a b c d	<u>93</u>	a b c d
<u>14</u>	a b c d	<u>54</u>	a b c d	<u>94</u>	a b c d
<u>15</u>	a b c d	<u>55</u>	a b c d	<u>95</u>	a b c d
<u>16</u>	a b c d	<u>56</u>	a b c d	<u>96</u>	a b c d
<u>17</u>	a b c d	<u>57</u>	a b c d	<u>97</u>	a b c d
<u>18</u>	a b c d	<u>58</u>	a b c d	<u>98</u>	a b c d
<u>19</u>	a b c d	<u>59</u>	a b c d	<u>99</u>	a b c d
<u>20</u>	a b c d	<u>60</u>	a b c d	<u>100</u>	a b c d
<u>21</u>	a b c d	<u>61</u>	a b c d	<u>101</u>	a b c d
<u>22</u>	a b c d	<u>62</u>	a b c d	<u>102</u>	a b c d
<u>23</u>	a b c d	<u>63</u>	a b c d	<u>103</u>	a b c d
<u>24</u>	a b c d	<u>64</u>	a b c d	<u>104</u>	a b c d
<u>25</u>	a b c d	<u>65</u>	a b c d	<u>105</u>	a b c d
<u>26</u>	a b c d	<u>66</u>	a b c d	<u>106</u>	a b c d
<u>27</u>	a b c d	<u>67</u>	a b c d	<u>107</u>	a b c d
<u>28</u>	a b c d	<u>68</u>	a b c d	<u>108</u>	a b c d
<u>29</u>	a b c d	<u>69</u>	a b c d	<u>109</u>	a b c d
<u>30</u>	a b c d	<u>70</u>	a b c d	<u>110</u>	a b c d
<u>31</u>	a b c d	<u>71</u>	a b c d	<u>111</u>	a b c d
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<u>34</u>	a b c d	<u>74</u>	a b c d	<u>114</u>	a b c d
<u>35</u>	a b c d	<u>75</u>	a b c d	<u>115</u>	a b c d
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<u>38</u>	a b c d	<u>78</u>	a b c d	<u>118</u>	a b c d
<u>39</u>	a b c d	<u>79</u>	a b c d	<u>119</u>	a b c d
<u>40</u>	a b c d	<u>80</u>	a b c d	<u>120</u>	a b c d

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