

# DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

## DIRECTOR'S OFFICE

### CONSTRUCTION CODE

(By authority conferred on the director of the department of licensing and regulatory affairs by section 4 of 1972 PA 230, MCL 125.1504, and Executive Reorganization Order Nos. 2003-1, 2008-4 and 2011-4, MCL 445.2011, 445.2025, and 445.2030)

### PART 4. BUILDING CODE

#### **R 408.30401 Applicable code.**

Rule 401. The provisions of the international building code, 2015 edition, including appendices F, G, and H, except for sections 104.8, 109.2 to 109.6, 114.3, 415.9.1.2 to 415.9.1.9, 415.7.4, 903.2.8.3.1, 903.2.8.3.2, 903.2.8.4, 2902 to 2902.6, Table 2902.1, 3005.5, the definition of “agricultural building” in section 202, the definition of "recreational vehicle" in Appendix G, and, IECC-2015, IEBC-2015, IMC-2015, IPC-2015, IPSDC-2015, NFPA 70-2014, listed in chapter 35, govern the construction, alteration, relocation, demolition, use, and occupancy of buildings and structures, and, with exceptions noted, the international building code is adopted by reference in these rules. All references to the International Building Code, International Residential Code, International Energy Conservation Code, National Electrical Code, International Existing Building Code, International Mechanical Code, and International Plumbing Code mean the Michigan Building Code, Michigan Residential Code, Michigan ~~Uniform~~ Energy Code, Michigan Electrical Code, Michigan Rehabilitation Code for Existing Buildings, Michigan Mechanical Code, and Michigan Plumbing Code respectively. The code is available for inspection at the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 611 W. Ottawa St., 1<sup>st</sup> Floor Ottawa Building Lansing, MI 48933. The code may be purchased from the International Code Council, through the bureau’s website at [www.michigan.gov/bcc](http://www.michigan.gov/bcc), at a cost as of the time of adoption of these amendatory rules of \$128.00.

History: 1979 AC; 1981 AACS; 1985 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 1998 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

#### **R 408.30401a Adult foster care facilities and child care organizations.**

Rule 401a. (1) Promulgation authority for fire safety standards for facilities and camps licensed or registered under the adult foster care facility licensing act, 1979 PA 218, being MCL 400.701 et seq., and the child care organizations act, 1973 PA 116, being MCL 722.101 et seq., is vested in the department of human services and the bureau of fire services.

(2) Until amended or rescinded by the promulgating authority, the 2003 Michigan building code provisions relative to fire safety standards for facilities and camps licensed or registered under the adult foster care facility licensing act, 1979 PA 218, being MCL 400.701 et seq., and the child care organizations act, 1973 PA 116, being MCL 722.101 et seq., remain in effect.

History:2008 AACCS.

**R 408.30402 Title.**

Rule 402. Section 101.1 of the code is amended to read as follows:

101.1. Title. These rules shall be known as the Michigan building code, hereinafter referred to as "the code."

History: 1981 AACCS; 1995 AACCS; 1998-2000 AACCS; 2001 AACCS.

**R 408.30403 Residential group R-3.**

Rule 403. Sections 310.5 310.5.1, 903.3.8.1, and 903.3.8.5 are amended and 903.2.8.3 is added to the code to read as follows:

310.5. Residential group R-3. Residential occupancies where the occupants are primarily permanent in nature and not classified as group R-1, R-2, R-4, or I, including any of the following:

(a) Adult foster care family homes or adult foster care small group homes licensed per the adult foster care facility licensing act, 1979 PA 218, MCL 400.701 to 400.737, that provide accommodations for 6 or fewer persons receiving care.

(b) Buildings that do not contain more than 2 dwelling units.

(c) Boarding houses (nontransient) with 16 or fewer occupants.

(d) Boarding houses (transient) with 10 or fewer occupants.

(e) Congregate living facilities (nontransient) with 16 or fewer occupants.

(f) Congregate living facilities (transient) with 10 or fewer occupants.

(g) Foster family homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for not more than 4 minor children.

(h) Foster care family group homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for more than 4 but fewer than 7 minor children.

310.5.1. Care facilities within a dwelling. Care facilities that are located within a single- family dwelling may comply with the Michigan residential code if 1 of the following conditions is met:

(a) Adult foster care family homes or adult foster care small group homes for 6 or fewer persons receiving care that are within a single-family dwelling and licensed in accordance with the adult foster care facility licensing act, 1979 PA 218, MCL 400.701 to 400.737.

(b) Family child care homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for fewer than 7 minor children.

(c) Group child care homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for more than 6 but not more than 12 minor children.

(d) Foster family homes licensed per the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for not more than 4 minor children.

(e) Foster care family group homes licensed per the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for more than 4 but fewer than 7 minor children.

903.2.8.3. Child care organizations. An automatic sprinkler system installed in accordance with section 903.3.1.3 shall be permitted in child care organizations that are within a single-family dwelling and licensed in accordance with the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, as follows:

(a) Foster family homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for more than 4 but fewer than 7 minor children.

(b) Foster care family group homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for more than 4 but fewer than 7 minor children.

(c) Family child care homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for fewer than 7 minor children.

(d) Group child care homes licensed under the child care organizations act, 1973 PA 116, MCL 722.111 to 722.127a, that provide care for more than 6 but not more than 12 minor children.

903.3.8.1. Number of sprinklers. Limited area sprinkler systems shall not exceed 20 sprinklers.

903.3.8.5. Calculations. Hydraulic calculations in accordance with NFPA 13 shall be provided to demonstrate that the available water flow and pressure are adequate to supply all sprinklers installed with discharge densities corresponding to the hazard classification.

History: 1981 AACS; 1985 AACS; 1988 AACS; 1989 AACS; 1995 AACS; 1998-2000 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

#### **R 408.30403a Rescinded.**

History: 1985 AACS; 1992 AACS; 1995 AACS.

#### **R 408.30404 Duties and powers of building official.**

Rule 404. Section 104.9 of the code is amended to read as follows:

104.9. Approved materials and equipment. Materials, equipment, and devices shall be constructed or installed in accordance with approvals granted under the act or by the building official. The building official shall review reports prepared by recognized evaluation services and determine if the intent of the code is met.

History: 1981 AACS; 1995 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS ; 2014 AACS.

**R 408.30405 Professional architectural and engineering services.**

Rule 405. Section 107.1 of the code is amended to read as follows:

107.1. Submittal documents. Construction documents, special inspection and structural programs and other data shall be submitted in 1 or more sets with each application for a permit. The construction documents shall be prepared by, or under the direct supervision of, a registered design professional when required by 1980 PA 299, MCL 339.101 to 339.2919. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

History: 1981 AACS; 1985 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS; 2008 AACS; 2010 AACS.

**R 408.30406 Rescinded.**

History: 1981 AACS; 1988 AACS; 1995 AACS; 2001 AACS; 2004 AACS.

**R 408.30407 Rescinded.**

History: 1981 AACS; 1995 AACS; 1998-2000 AACS.

**R 408.30408 Fees.**

Rule 408. Section 109.1 of the code is amended to read as follows:

109.1. Payment of fees. The fees prescribed by the act shall be paid to the enforcing agency of the jurisdiction before a permit to begin work for new construction, alteration, removal, demolition, or other building operation may be issued. In addition, an amendment to a permit necessitating an additional fee shall not be approved until the additional fee has been paid.

History: 1981 AACS; 1995 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS.

**R 408.30409 Permit.**

Rule 409. Sections 105.1.1, 105.1.2, and 105.2 of the code are amended to read as follows:

105.1.1. Annual permit. In place of an individual permit for each alteration to an already approved electrical, gas, mechanical, or plumbing installation, the enforcing agency is authorized to issue an annual permit upon application to any person, firm, or corporation. The applicant shall be licensed in accordance with the requirements of 1956 PA 217, MCL 338.881 to 338.892, 1984 PA 192, MCL 338.971 to 338.988, or 2002 PA 733, MCL 338.3511 to 338.3569.

105.1.2. Annual permit records. The person to whom an annual permit is issued shall keep a detailed record of alterations made under an annual permit. Access to the records shall be provided at all times and the records shall be filed with the enforcing agency.

105.2. Work exempt from permit. Exemptions from permit requirements of the code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of the code or any other laws or ordinances of this jurisdiction. Permits shall not be required for any of the following:

(a) Building permits shall not be required for any of the following:

(i) One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11).

(ii) A fence that is not more than 7 feet (2 134 mm) high.

(iii) Oil derricks.

(iv) A retaining wall that is not more than 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding class I, II or III-A liquids.

(v) A water tank supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2 to 1.

(vi) A sidewalk and driveway not more than 30 inches (762 mm) above adjacent grade and -not over any basement or story below and are not part of an accessible route.

(vii) Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.

(viii) Temporary motion picture, television, and theater stage sets and scenery.

(ix) Prefabricated swimming pools accessory to a group R-3 occupancy, as applicable in section 101.2, that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18 925 L), and are installed entirely above ground.

(x) Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.

(xi) Swings and other playground equipment accessory to detached 1- and 2-family dwellings.

(xii) Window awnings in group R-3 and U occupancies, supported by an exterior wall that do not project more than 54 inches (1 372 mm) from the exterior wall and do not require additional support, as applicable in section 101.2 and group U occupancies.

(xiii) Nonfixed and movable fixtures, cases, racks, counters, and partitions not over 5 feet 9 inches (1 753 mm) in height.

(b) Electrical permits shall not be required, as in accordance with the Michigan electrical code, R 408.30801 to R 408.30880, for any of the following:

(i) Repairs and maintenance: Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

(ii) Radio and television transmitting stations: The provisions of the code do not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply and to the installation of towers and antennas.

(iii) Temporary testing systems: A permit is not required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

- (c) Mechanical permits shall not be required for any of the following:
- (i) A portable gas heating appliance that has inputs of less than 30,000 Btu's per hour.
  - (ii) Portable ventilation appliances and equipment.
  - (iii) Portable cooling unit.
  - (iv) Steam, hot water, or chilled water piping within any heating or cooling equipment or appliances regulated by this code.
  - (v) Replacement of any minor part that does not alter the approval of equipment or an appliance or make such equipment or appliance unsafe.
  - (vi) A portable evaporative cooler.
  - (vii) Self-contained refrigeration systems that contain 10 pounds (4.5 kg) or less of refrigerant, or that are actuated by motors of 1 horsepower (0.75 kW) or less.
  - (viii) Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.
  - (ix) An oil burner that does not require connection to a flue, such as an oil stove and a heater equipped with a wick.
  - (x) A portable gas burner that has inputs of less than 30,000 Btu's per hour.
  - (xi) When changing or relocating a gas meter or regulator, a permit is not required when installing gas piping which shall be limited to 10 feet (3 005 mm) in length and not more than 6 fittings.
  - (xii) When installing geothermal vertical closed loops under the supervision of a mechanical contractor licensed in HVAC as long as the company meets both the following:
    - (A) Has obtained a certificate of registration as a well drilling contractor pursuant to part 127 of the public health code.
    - (B) Has installed the geothermal vertical closed loops in accordance with the department of environmental quality best practices regarding geothermal heat pump closed loops. Exemption from the permit requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code or other laws or ordinances of this jurisdiction.
- (d) Plumbing permits shall not be required for either of the following:
- (i) The stopping of leaks in drains, water, soil, waste, or vent pipe. However, if any concealed trap, drainpipe, water, soil, waste, or vent pipe becomes defective and it becomes necessary to remove and replace the drain or pipe with new material, then the work is considered new work and a permit shall be obtained and inspection made as provided in the code.
  - (ii) The clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, and the removal and reinstallation of water closets, if the repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

History: 1981 AACCS; 1985 AACCS; 1992 AACCS; 1995 AACCS; 2001 AACCS; 2004 AACCS; 2010 AACCS; 2014 AACCS.

#### **R 408.30410 Violations.**

Rule 410. Section 114.4 of the code is amended to read as follows:

114.4. Violation penalties. It is unlawful for any person, firm, or corporation to violate a provision of the code or fail to conform with any of the requirements thereof, or

erect, construct, alter, extend, repair, move, remove, demolish, or occupy any building, structure, or equipment regulated by the code, or cause work to be performed or done, in conflict with or in violation of the approved construction documents or directive of the enforcing agency, or a permit or certificate issued under the code. A violator shall be assessed a fine in accordance with the act.

History: 1981 AACS; 1995 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS.

**R 408.30411 Stop-work order.**

Rule 411. Section 115.2 of the code is amended to read as follows:

115.2. Issuance. Notice shall be in accordance with the act. A person who is served with a stop work order, except for work that the person is directed to perform to remove a violation or unsafe condition is subject to the penalty provisions prescribed in the act.

History: 1979 AC; 1981 AACS; 1995 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS.

**R 408.30412 Certificate of use and occupancy.**

Rule 412. Sections 111.1 and 111.2 of the code are amended to read as follows:

111.1. Use and occupancy. A building or structure shall not be used or occupied, and a change in the existing occupancy classification of a building or structure or portion thereof shall not be made until a certificate of occupancy has been issued in accordance with the act.

Exception: Certificates of occupancy are not required for work exempt from permits under section 105.2.

111.2. Certificate issued. After the building official inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by the department and all permit and plan review fees are paid, the building official shall issue a certificate of occupancy that contains all of the following:

- (a) The building permit number.
- (b) The address of the structure.
- (c) A description of that portion of the structure for which the certificate is issued.
- (d) A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.

(e) The name and signature of the building official or designee, registered in accordance with the building officials and inspectors registration act, 1986 PA 54, MCL 338.2301 to 338.2313.

(f) The edition of the code under which the permit was issued.

(g) The use and occupancy, in accordance with the provisions of chapter 3. (h) The type of construction as defined in chapter 6.

(i) The design occupant load.

(j) If an automatic sprinkler system is provided, whether the sprinkler system is required.



(k) Any special stipulations and conditions of the building permit.

History: 1979 AC; 1981 AACS; 1995 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS.

**R 408.30413 Rescinded.**

History: 1979 AC; 1981 AACS; 1985 AACS; 1995 AACS; 2010 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30414 Board of appeals.**

Rule 414. Sections 113.1 and 113.3 of the code are amended to read as follows:

113.1. Means of appeal. An interested person may appeal a decision of the enforcing agency to the board of appeals in accordance with the act. An application for appeal shall be based on a claim that the true intent of the code or the rules governing construction have been incorrectly interpreted, the provisions of the code do not apply, or an equal or better form of construction is proposed. The decision of a local board of appeals may be appealed to the construction code commission in accordance with the act and time frames.

Exception: Requests for barrier free design exception shall be in accordance with 1966 PA 1, MCL 125.1352 to 125.1356.

113.3. Qualifications. The board of appeals shall consist of members who are qualified in accordance with the act and are not employees of the governmental subdivision or the agency enforcing the code.

History: 1979 AC; 1981 AACS; 1985 AACS; 1988 AACS; 1992 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS.

**R 408.30415 Rescinded.**

History: 1979 AC; 1981 AACS.

**R 408.30415a Definitions.**

Rule 415a. The definitions of act, agricultural or agricultural purposes, and source point are added and the definitions of building, building inspector, building official, high-rise building, registered design professional, and structure in section 202 of the code are amended to read as follows:

202. Definitions.

“Act” means 1972 PA 230, MCL 125.1501 to 125.1531 and known as the Stille-DeRossett- Hale single state construction code act.

“Agricultural or agricultural purposes” means of, or pertaining to, or connected with, or engaged in agriculture or tillage which is characterized by the act or business of cultivating or using land and soil for the production of crops for the use of animals or humans, and includes, but is not limited to, purposes related to agriculture, farming,



dairying, pasturage, horticulture, floriculture, viticulture, and animal and poultry husbandry.

“Attic, uninhabitable with limited storage” means uninhabitable attics with limited storage are those where the minimum clear height between joists and rafters is 42 inches or greater, 42 inches high by 24 inches in width, or greater, within the plane of the trusses, or where there are not two or more adjacent trusses with web configurations capable of accommodating an assumed rectangle.

“Attic, uninhabitable without storage” means uninhabitable attics without storage are those where the maximum clear height between joists and rafters is less than 42 inches, or where there are not 2 or more adjacent trusses with web configurations capable of accommodating an assumed rectangle 42 inches high by 24 inches in width or greater, within the plane of the trusses.

"Building" means a combination of materials, whether portable or fixed, forming a structure

affording a facility or shelter for use or occupancy by persons, animals, or property. The term does not include a building incidental to the use for agricultural purposes of the land on which the building is located if it is not used in the business of retail trade. The term shall be construed as though followed by the words "or part or parts of the building and all equipment in the building" unless the context clearly requires a different meaning.

"Building official" as found in 1972 PA 230, MCL 125.1501 to 125.1531 and known as the Stille-DeRossett- Hale single state construction code act, means an individual who is employed by a governmental subdivision and is charged with the administration and enforcement of the code and who is registered in compliance with the building officials and inspectors registration act, 1986 PA 54, MCL 338.2301 to 338.2313. A building official may also be an employee of a private organization.

“High-rise building” means a building with an occupied floor located more than 55 feet (1 6764 mm) above the lowest level of fire department vehicle access.

"Registered design professional" means an individual who is licensed under; 1980 PA 299, MCL 339.101 to 339.2919.

"Structure" means that which is built or constructed, an edifice or building of any kind, or a piece of work artificially built up or composed of parts joined together in some definite manner.

Structure does not include a structure incident to the use for agricultural purposes of the land on which the structure is located and does not include works of heavy civil construction, including without limitation, any of the following:

- (a) A highway.
- (b) A bridge.
- (c) A dam.
- (d) A reservoir.
- (e) A lock.
- (f) A mine.
- (g) A harbor.
- (h) A dockside port facility.
- (i) An airport landing facility.
- (j) A facility for the generation, or transmission, or distribution of electricity.

Structure shall be construed as though followed by the words "or part or parts of the structure and all equipment in the structure," unless the context clearly indicates otherwise.

“Source point” is defined in section 4d of 1972 PA 230, MCL 125.1504d.

History: 1988 AACCS; 1995 AACCS; 2001 AACCS; 2004 AACCS; 2008 AACCS; 2010 AACCS; 2014 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30416 Rescinded.**

History: 1979 AC; 1981 AACCS; 2004 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30417 Rescinded.**

History: 1979 AC; 1981 AACCS; 2004 AACCS; 2008 AACCS.

**R 408.30418 Maximum floor area allowances per occupant.**

Rule 418. Table 1004.1.2 of the code is amended to read as follows:

Table 1004.1.2

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit Gallery and Museum	30 net
Assembly with fixed seats	See section 1004.4
Assembly without fixed seats	
Concentrated (chairs only-not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net

Business areas	100 gross
Courtrooms-other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational Classroom area	20 net
Shops and other vocational room areas	50 net
Locker rooms	15 gross
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library Reading rooms	50 net
Stack area	100 gross
Mall buildings-covered and open	See Section 402.8.2
Locker rooms	50 gross
Mercantile	60 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Accessory storage areas, mechanical equipment room	300 gross
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m<sup>2</sup>

History: 1979 AC; 1981 AACS; 2004 AACS; 2008 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30419 Toilet room requirements.**

Rule 419. Sections 1210.1, is amended and 1210.5, 1210.4, and 1210.6 are added to the code to read as follows:

1210.1. Required fixtures. The number and type of plumbing fixtures provided in any occupancy shall comply with the Michigan plumbing code.

1210.4. Toilet room location. Toilet rooms shall not open directly into a room used for the preparation of food for service to the public.

1210.5. Baby changing stations. A building or structure that has baby changing stations in the women's restrooms shall have baby changing stations in the men's restrooms.

1210.6. Directional signage. Directional signage indicating the route to the public facilities shall be posted in accordance with section 3107 of the international building code. Signage shall be located in a corridor or aisle at the entrance to the facilities for customers and visitors.

History: 1979 AC; 1981 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30420 Rescinded.**

History: 1979 AC; 1981 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30421 Emergency escape and rescue.**

Rule 421. Sections 1025.1 and 1030.1 of the code are amended and 1016.2.2 is added to read as follows:

1016.2.2. Group E. Egress from classrooms in group E occupancies shall be limited to

pass through 1 intervening space before reaching an exit access door leading directly to a corridor or an exit.

1025.1. General. Approved luminous egress path markings delineating the exit path shall be provided in buildings with an occupied floor located more than 75 feet (16 764 mm) above the lowest level of fire department vehicle access of groups A, B, E, I, M, and R-I occupancies in accordance with sections 1024.1 to 1024.5.

1030.1. General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in group R occupancies as applicable in section 101.2. Basements and sleeping rooms below the fourth story above grade plane shall have at least 1 exterior emergency escape and rescue opening in accordance with this section. Where basements contain 1 or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. The opening shall open directly into a public street, public alley, yard, or court.

Exceptions:

1. In other than group R-3 occupancies as applicable in section 101.2, buildings equipped throughout with an approved automatic sprinkler system in accordance with section 903.3.1.1 or 903.3.1.2.

2. In other than group R-3 occupancies as applicable in section 101.2, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to 2 remote exits in opposite directions.

3. The emergency escape and rescue opening may open onto a balcony within an atrium in accordance with the requirements of section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.

4. Basements with a ceiling height of less than 80 inches (2 032 mm) shall not be required to have emergency escape and rescue openings.

5. High-rise buildings in accordance with section 403.

6. Emergency escape and rescue openings are not required from basements, or sleeping rooms which have an exit door or exit access door that opens directly into a public street, public alley, yard, egress court, or to an exterior exit balcony that opens to a public street, public alley, yard, or egress court.

7. Basements without habitable spaces and having not more than 200 square feet (18.6 square meters) in floor area shall not be required to have emergency escape and rescue openings.

History: 1979 AC; 1981 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30422 Rescinded.**

History: 1979 AC; 1981 AACS.

**R 408.30423 Rescinded.**

History: 1979 AC; 1981 AACS.

**R 408.30427 Barrier free design for buildings, structures, and improved areas.**

Rule 427. Sections 1101.2 and 1109.8 of the code are amended and section 1103.2.15 is added to the code to read as follows:

1101.2. Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with 1966 PA 1, MCL 125.1351 to 125.1356, this code, and ICC/ANSI A 117.1, except sections 611 and 707.

1103.2.15. Military, fire service, and police facilities. Housing, bathing, toilet, training, and storage areas intended for use and occupancy exclusively by military, fire service, police, or security personnel required to be physically agile are not required to be accessible.

1109.8. Lifts. Platform (wheelchair) lifts may be a part of a required accessible route in new construction where indicated in items 1 to 10. Platform (wheelchair) lifts shall be installed in accordance with the Michigan elevator code, R 408.7001 to R 408.8695.

1. An accessible route to a performing area and speakers' platforms.

2. An accessible route to wheelchair spaces required to comply with the wheelchair space dispersion requirements of sections 1108.2.2 to 1108.2.6.
3. An accessible route to spaces that are not open to the general public with an occupant load of not more than 5.
4. An accessible route within a dwelling or sleeping unit.
5. An accessible route to jury boxes and witness stands; raised courtroom stations including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations and court reporters' stations; and to depressed areas such as the well of the court.
6. An accessible route to load and unload areas serving amusement rides.
7. An accessible route to play components or self-contained play structures.
8. An accessible route to team or player seating areas serving areas of sport activity.
9. An accessible route instead of gangways serving recreational boating facilities and fishing piers and platforms.
10. An accessible route where existing exterior site constraints make use of a ramp or elevator infeasible.

History: 1979 AC; 1981 AACS; 1985 AACS; 1987 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30427a Rescinded.**

History: 1987 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS.

**R 408.30427b Rescinded.**

History: 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS.

**R 408.30427c Rescinded.**

History: 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS.

**R 408.30427d Rescinded.**

History: 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS.

**R 408.30427e Rescinded.**

History: 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS.

**R 408.30428 Structural integrity.**

Rule 428. Section 1615.1 of the code is amended to read as follows:

1615.1 . General. Buildings with an occupied floor 75 feet (22 860 mm) or more in height above the lowest level of fire department vehicle access and assigned to risk category III or IV shall comply with the requirements of this section. Frame structures shall comply with the requirements of section 1615.3. Bearing wall structures shall comply with the requirements of section 1615.4.

History: 1979 AC; 1981 AACS; 1985 AACS; 1987 AACS; 1992 AACS; 1995 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

#### **R 408.30429 High-rise buildings.**

Rule 429. Sections 403.1 and 403.5.4, of the code are amended to read as follows:

403.1. Applicability. The provisions of this section shall apply to buildings having the occupied floors located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

Exception: The provisions of this section shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with section 412 of the code.
  2. Open parking garages in accordance with section 406.5 of the code.
  3. Buildings with an occupancy in group A-5 in accordance with section 303.6 of the code.
  4. Special industrial occupancies in accordance with section 503.1.1 of the code.
  5. Buildings with any of the following:
    - 5.1. A group H-1 occupancy.
    - 5.2. A group H-2 occupancy in accordance with section 415.8, 415.9.2, 415.9.3, or 426.1.
    - 5.3. A group H-3 occupancy in accordance with section 415.8.
  6. Existing buildings having occupied floor levels not more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access where the local unit of government complies with both of the following:
    - 6.1. The local unit of government has a municipal fire department with an ISO rating of 3 or lower, employing a full-time career firefighting staff.
    - 6.2. The governing body of the local unit of government has passed a resolution affirming the use of this exception and filed that resolution with the department of licensing and regulatory affairs, bureau of construction codes.
- 403.5.4. Smokeproof exit enclosures. Every required stairway serving floors more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access shall comply with sections 909.20 and 1023.10 of the code.

History: 1979 AC; 1981 AACS; 1985 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS; 2008 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

#### **R 408.30429a Rescinded.**

History: 2002 AACS; 2004 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.



**R 408.30429b Elevator lobby.**

Rule 429b. Section 713.14.1 of the code is amended to read as follows:

713.14.1. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than 3 stories. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by fire partitions. In addition to the requirements in section 708 for fire partitions, doors protecting openings in the elevator lobby enclosure walls shall also be in compliance with section 716.5.3 as required for corridor walls and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for corridors in accordance with section 717.5.4.1. Elevator lobbies shall have at least 1 means of egress complying with chapter 10 and other provisions within this code.

Exceptions:

1. Enclosed elevator lobbies are not required at the level or levels of exit discharge provided the level or levels of exit discharge is equipped with an automatic sprinkler system in accordance with section 903.3.1.1.

2. Elevators not required to be located in a shaft in accordance with section 712.1 are not required to have enclosed elevator lobbies.

3. Enclosed elevator lobbies are not required where additional doors are provided at the hoistway opening in accordance with section 3002.6. The doors shall comply with the smoke and draft control door assembly requirements in section 716.5.3.1 when tested in accordance with UL 1784 without an artificial bottom seal.

4. Enclosed elevator lobbies are not required where the building is protected by an automatic sprinkler system installed in accordance with section 902.2.1.1 or 903.3.1.2. This exception shall not apply to all of the following:

4.1. Group I-2 occupancies.

4.2. Group I-3 occupancies.

4.3. Elevator serving floor levels over 55 feet above the lowest level of fire department vehicle access in high-rise buildings.

5. Smoke partitions may be in place of fire partitions to separate the elevator lobby at each floor where the building is equipped throughout with an automatic sprinkler system installed in accordance with section 903.3.1.1 or 903.3.1.2. In addition to the requirements in section 710 for smoke partitions, doors protecting openings in the smoke partitions shall also be in compliance with sections 710.5.2.2, 710.5.2.3, and 716.5.9 and duct penetrations of the smoke partitions shall be protected as required for corridors in accordance with section 717.5.4.1.

6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with section 909.21.

7. Enclosed elevator lobbies are not required where the elevator serves only open parking garages in accordance with section 406.5.

History: 2014 AACCS.

**R 408.30430 Liquefied petroleum gas distribution facilities.**

Rule 430. Sections 415.9.1 and 415.9.2 of the code are amended to read as follows:

415.9.1. Flammable and combustible liquids. The storage, handling, processing, and transporting of flammable and combustible liquids shall be in accordance with the

Michigan mechanical code, R 408.30901 to R 408.30998, and the international fire code listed in chapter 35, and the requirements of the Michigan rules for the storage and handling of flammable and combustible liquids, R 29.4101 to R 29.5516.

415.9.2. Liquefied petroleum gas distribution facilities. The design and construction of propane, butane, propylene, butylene, and other liquefied petroleum gas distribution facilities shall conform to the applicable provisions of the Michigan liquefied petroleum gas code, R 29.3801 to R 29.4035. The storage and handling of liquefied petroleum gas systems shall conform to the international fire code listed in chapter 35. The design and installation of piping, equipment, and systems that utilize liquefied petroleum gas shall be in accordance with the international fuel gas code listed in chapter 35. Liquefied petroleum gas distribution facilities shall be ventilated in accordance with the Michigan mechanical code, R 408.30901 to R 408.30998, and the requirements of the Michigan rules for the storage and handling of flammable and combustible liquids, R 29.4101 to R 29.5516.

History: 1979 AC; 1981 AACS; 1985 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS; 2008 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30431 Rescinded.**

History: 1979 AC; 1981 AACS; 1985 AACS.

**R 408.30432 Rescinded.**

History: 1979 AC; 1981 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS; 2008 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30433 Rescinded.**

History: 1979 AC; 1981 AACS; 1985 AACS; 1987 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 1998-2000 AACS.

**R 408.30434 Rescinded.**

History: 1981 AACS; 1985 AACS; 1988 AACS; 1992 AACS.

**R 408.30437 Rescinded.**

History: 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30441 Consumer fireworks facilities.**

Rule 441. Sections 307.5.1, 415.1.1, 427.1, 509.4.2.2, 907.2.5.1, 910.2.3, and 1031.1 of the code are added to read as follows:

307.5.1. High-hazard group H-3. Consumer fireworks 1.4G (class C common) Consumer fireworks 1.4G facilities shall meet the requirements of this code and those requirements of this code and those requirements referenced in section 427.1.

415.1.1. Consumer fireworks facilities 1.4 G (class C common) consumer fireworks 1.4 G facilities shall be designed and constructed in accordance with NFPA 1124 as referenced by the Michigan fireworks safety act, 2011 PA 256, MCL 28.451 to 28.471.

427.1. Consumer fireworks (1.4G) facilities. The items in buildings used for the retail sale of consumer fireworks shall be designed and constructed in accordance with NFPA 1124, as referenced by the Michigan fireworks safety act, 2011 PA 256, MCL 28.451 to 28.471 as follows:

- (a) Means of egress.
- (b) Storage rooms.
- (c) Fire alarms.
- (d) Smoke control.
- (e) Automatic sprinkler systems.

509.4.2.2. Consumer fireworks (1.4G) facilities storage rooms. Storage rooms in consumer fireworks (1.4G) facilities used for the retail sale of consumer fireworks shall be designed and constructed in accordance with the code for the manufacture, transportation, storage, and retail sales of fireworks and pyrotechnic articles, NFPA 1124, as referenced by the Michigan fireworks safety act, 2011 PA 256, MCL 28.451 to 28.471.

907.2.5.1. Consumer fireworks (1.4G) facilities fire alarms. Fire alarm systems in consumer fireworks (1.4G) facilities used for the retail sale of consumer fireworks storage shall be designed and constructed in accordance with the code for the manufacture, transportation, storage, and retail sales of fireworks and pyrotechnic articles, NFPA 1124, as referenced by the Michigan fireworks safety act, 2011 PA 256, MCL 28.451 to 28.471.

910.2.3. Consumer fireworks (1.4G) facilities smoke and heat vents. Smoke and heat vents in consumer fireworks (1.4G) facilities used for the retail sale of consumer fireworks storage shall be designed and constructed in accordance with the code for the manufacture, transportation, storage, and retail sales of fireworks and pyrotechnic articles, NFPA 1124, as referenced by the Michigan fireworks safety act, 2011 PA 256, MCL 28.451 to 28.471.

1031.1. Consumer fireworks (1.4G) facilities means of egress. The means of egress in consumer fireworks (1.4G) facilities used for the retail sale of consumer fireworks means of egress shall be designed and constructed in accordance with the code for the manufacture, transportation, storage, and retail sales of fireworks and pyrotechnic articles, NFPA 1124, as referenced by the Michigan fireworks safety act, 2011 PA 256, MCL 28.451 to 28.471.

History: 2014 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.

#### **R 408.30442 Automatic sprinkler systems.**

Rule 442 . Sections 903.2.8, 903.2.8.2, 903.2.5, and 903.2.5.1 are amended and section 903.2.5.4 is added to the code to read as follows:

903.2.8. Group R. An automatic sprinkler system installed in accordance with section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exception: Camp buildings in remote areas without municipal water supply that meet all of the following:

1. Not more than 1 story, 2000 square feet (186 m<sup>2</sup>) and 25 occupants.
2. Are used not more than 5 months in a year.
3. Shall be provided with not less than 2 exits in compliance with section 1019.
4. Shall not be provided with cooking equipment.
5. Provided with a manual fire alarm system and smoke alarms throughout in compliance with NFPA 72 as listed in chapter 35. For cabins sleeping 4 or fewer occupants only, smoke alarms are required.
6. Storage and equipment rooms shall be protected by a 1-hour fire partition.
7. Compliance with all applicable requirements of the code.

903.2.8.2. Adult foster care family homes. An automatic sprinkler system installed in accordance with section 903.3.1.3 shall be permitted in adult foster care family homes or adult foster care small group homes for 6 or fewer persons receiving care that are within a single-family dwelling and licensed in accordance with the adult foster care facility licensing act, 1979 PA 218, MCL 400.701 to 400.737.

903.2.5. Group H. Automatic sprinkler systems shall be provided in high-hazard occupancies as required in sections 903.2.5.1 to 903.2.5.4.

903.2.5.1. General. An automatic sprinkler system shall be installed in group H occupancies unless the requirements of section 903.2.5.4 are met for buildings containing consumer fireworks.

903.2.5.4. Consumer fireworks (1.4G). Buildings used for the retail sale of consumer

fireworks shall be provided with an automatic sprinkler system in accordance with the Michigan fireworks safety act, 2011 PA 256, MCL 28.451 to 28.471.

History: 1979 AC; 1981 AACS; 2008 AACS; 2010 AACS; 2014 AACS.

#### **R 408.30443 Masonry.**

Rule 443. Section 1405.4.2 of the code is amended to read as follows:

1405.4.2. Masonry. Flashing and weep holes shall be located in the first course of masonry above finished ground level above the foundation wall or slab; at the heads of windows, doors, and other wall openings; at window sills and at other points of support including structural floors, shelf angles, and lintels where anchored veneers are designed in accordance with section

1405.6. Flashing shall extend to, or beyond, the finished face of the wall.

History: 1979 AC; 1981 AACS; 1985 AACS; 1987 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS; 2004 AACS; 2010 AACS; 2014 AACS.

#### **R 408.30444. Rescinded.**

History: 1979 AC; 1981 AACS; 1987 AACS; 1992 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS; 2004 AACS; 2008 AACS.

**R 408.30445 Automatic sprinkler systems.**

Rule 445. Section 903.2.11.3 of the code is amended to read as follows:

903.2.11.3. Buildings more than 30 feet (9144 mm) in height. An automatic sprinkler system shall be installed throughout a building that has a floor level which has an occupant load of 30 or more occupants and which is located 30 feet (9144 mm) or more above the lowest level of fire department vehicle access.

Exceptions:

1. Open parking structures.
2. Occupancies in group F-2.
3. Existing buildings having occupied floor levels not more than 55 feet (16764 mm) in height above the lowest level of fire department vehicle access, where the local unit of government complies with the following parameters:

3.1. The local unit of government having a municipal fire department with an ISO rating of 3 or lower, employing a full-time career fire fighting staff.

3.2. The governing body of the local unit of government has passed a resolution affirming the use of this exception and filed that resolution with the department of licensing and regulatory affairs, bureau of construction codes .

History: 1979 AC; 1981 AACS; 1987 AACS; 1992 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS; 2004 AACS; 2010 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30446 Smoke alarm locations.**

Rule 446. Sections 907.2.11.8 and 907.2.11.8.1 are added to the code as follows:

907.2.11.8. Smoke alarm locations in existing buildings constructed before November 6, 1974. Within each dwelling unit or sleeping unit, a single-station smoke alarm shall be installed in all of the following locations:

- (1) In each sleeping room or each area directly outside the sleeping room.
- (2) On each floor level including the basement level.

For sleeping units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than 1 full story below the upper level.

907.2.11.8.1. Equipment requirements. The required equipment for smoke alarms shall consist of the following:

(1) Installation. Smoke alarm devices shall be listed and installed in accordance with the manufacturer's installation requirements, the provisions of the code, and the provisions of NFPA

72 as listed in chapter 35.

(2) Power Source. The equipment shall be operable by power from 1 of the following primary sources:

(a) The building wiring provided the wiring is served from a commercial source and is equipped with a battery backup. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

(b) A non-rechargeable battery able to power the smoke alarm in the normal condition for a life of 5 years.

(c) A rechargeable battery, with proper charging, able to power the alarm for a life of 5 years.

(d) A commercial use alarm system with battery backup listed and approved in accordance with the commercial fire warning equipment provisions of NFPA 72, as adopted by reference in this rule.

(3) Audible Alarm Notification. The activation of the alarm signal shall produce a sound that is audible in all occupiable dwelling areas.

(4) Testing and Maintenance. The owner of a dwelling unit, in which required or optional fire detection or fire protection systems equipment is installed, shall be responsible for the proper operation, testing, and maintenance of the equipment in accordance with the manufacturer's instructions included with the equipment. The occupant of rental dwelling units shall be responsible for the periodic operational testing and periodic cleaning of the installed equipment within the rental unit in accordance with the testing instructions provided in the manufacturer's instructions for the equipment. If the system fails, breaks, or is out of service, it shall be repaired and functional within 30 days.

Exception: Smoke alarms and devices installed in buildings constructed before November 6,

1974 where an installation was approved by the appropriate enforcing agency under regulations in effect at the time of the installation shall be considered to comply with the provisions of the code.

History: 1981 AACCS; 1985 AACCS; 2005 AACCS; 2008 AACCS; 2010 AACCS; 2014 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.

#### **R 408.30447 Smokeproof enclosures.**

Rule 447. Section 1023.11 of the code is amended to read as follows:

1023.11. Smokeproof enclosures. In buildings required to comply with section 403 or 405 of the code, each of the exits of a building that serves stories where the floor surface is located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access or more than 30 feet (9 144 mm) below the level of exit discharge serving such floor levels shall be a smokeproof enclosure or pressurized stairway in accordance with section 909.20 of the code.

History: 1981 AACCS; 1985 AACCS; 1988 AACCS; 1992 AACCS; 1995 AACCS; 2001 AACCS; 2004 AACCS; 2008 AACCS; 2010 AACCS; 2014 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.

#### **R 408.30448 Rescinded.**

History: 1979 AC; 1981 AACCS; 1987 AACCS; 1992 AACCS; 1995 AACCS; 1998-2000 AACCS; 2001 AACCS; 2008 AACCS; 2010 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30448a Rescinded.**

History: 1992 AACS; 1995 AACS.

**R 408.30448b Rescinded.**

History: 1992 AACS; 1995 AACS.

**R 408.30448c Rescinded.**

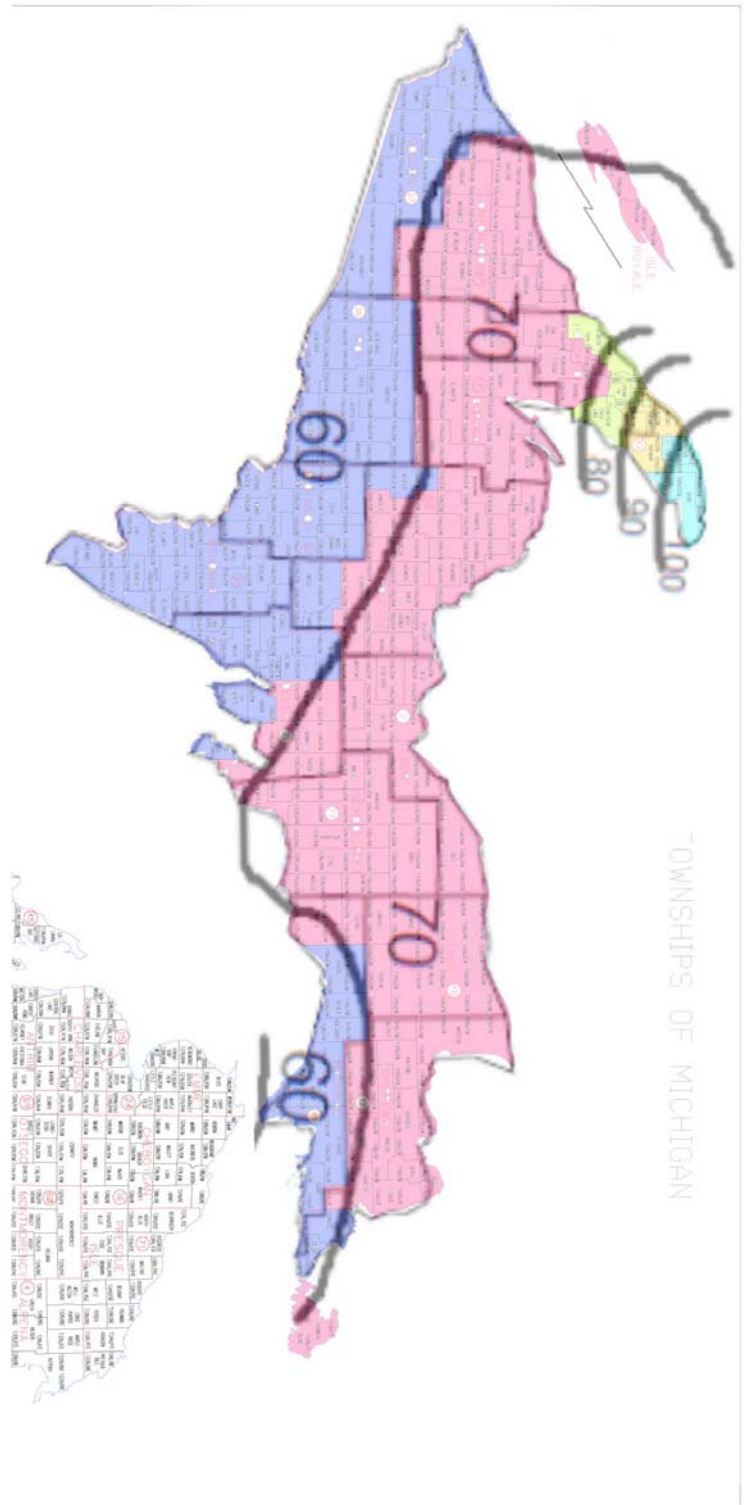
History: 1992 AACS; 1995 AACS.

**R 408.30448d Ground snow loads.**

Rule 448d. Figure 1608.2 of the code is amended to read as follows:

FIGURE 1608.2 Ground Snow Loads





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**R 408.30449 Frost protection.**

Rule 449. Section 1809.5 of the code is amended to read as follows:

1809.5. Frost protection. Except where otherwise protected from frost, foundation walls, piers, and other permanent supports of buildings and structures shall be protected from frost by at least 1 of the following methods:

(1) Extending not less than 42 inches (1 067 mm) below finish grade.

(2) Constructing in accordance with ASCE-32 listed in chapter 35. (3) Erecting on solid rock.

Exceptions:

1. Free-standing buildings meeting all of the following conditions shall not be required to be protected:

a. Classified in risk category I in accordance with section 1604.5 of the code.

b. Area of 600 square feet (55.74 m<sup>2</sup>) or less for light-frame construction or 400 square feet (37 m<sup>2</sup>) or less for other than light-frame construction.

c. Eave height of 10 feet (3 048 mm) or less.

2. Upon evidence of the existence of any of the following conditions, the building official may modify the footing depth accordingly:

a. Freezing temperatures. b. Soil type.

c. Groundwater conditions. d. Snow depth experience.

e. Exposure to the elements.

f. Other specific conditions identified by the building official that may affect the foundation system.

Footings shall not bear on frozen soil unless such frozen condition is of a permanent character.

History: 1979 AC; 1981 AACS; 1985 AACS; 1988 AACS; 1992 AACS; 1995 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS.

**R 408.30449a Rescinded.**

History: 1992 AACS; 1995 AACS.

**R 408.30451 Rescinded.**

History: 1985 AACS; 1988 AACS; 1992 AACS; 1995 AACS.

**R 408.30451a Rescinded.**

History: 1992 AACS; 1995 AACS.

**R 408.30451b Rescinded.**

History: 1992 AACS; 1995 AACS.

**R 408.30451c. Flood loads.**

Rule 451c. Section 1612.3.1 of the code is amended and 1612.4.1 is added to the code to read as follows:

1612.3.1. Alternate flood hazard provisions. Absent the adoption of a flood hazard map and supporting data, flood hazard areas as determined by the state under its administration of the Part 31, floodplain regulatory authority of the natural resources and environmental protection act, 1994 PA 451, MCL 324.101 to 324.90106, shall become the basis for regulation of floodplain development within the community and section 1612 shall apply to buildings and structures within those areas.

1612.4.1. Minimum requirements for buildings and structures. All of the following are in addition to the requirements of ASCE 24:

(1) Buildings and structures in flood hazard areas subject to high velocity wave action

(zone V) shall be in compliance with the requirements of ASCE 24 for such flood hazard areas.

(2) The lowest floors of structure category II buildings and structures shall be at or above the elevation specified in ASCE 24 or 1 foot (305 mm) above the design flood elevation, whichever is higher.

(3) The lowest floors of structure category III and IV buildings and structures in flood hazard areas not subject to high velocity wave action (zone A) shall be at or above the elevation specified in ASCE 24 or 1 foot (305 mm) above the 500-year flood elevation, whichever is higher. For the purpose of this requirement, the 500-year flood elevation is the elevation of flooding having a 0.2% chance of being equaled or exceeded in any given year.

(4) Dry floodproofing for structure category II buildings and structures shall extend to or above the elevation specified in ASCE 24 or 1 foot (305 mm) above the design flood elevation, whichever is higher.

(5) Dry floodproofing for structure category III and IV buildings and structures shall extend to or above the elevation specified in ASCE 24 or 1 foot (305 mm) above the 500-year flood elevation, whichever is higher. For the purpose of this requirement, the 500-year flood elevation is the elevation of flooding having a 0.2% chance of being equaled or exceeded in any given year.

(6) The interior floor or finished ground level of under-floor spaces and crawlspaces shall comply with section 1805.1.2.1 of this code.

History: 1992 AACCS; 1995 AACCS; 2001 AACCS; 2008 AACCS; 2010 AACCS; 2014 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30451d Rescinded.**

History: 1992 AACCS; 1995 AACCS.

**R 408.30451e Rescinded.**

History: 1992 AACS; 1995 AACS; 1998-2000 AACS.

**R 408.30452 Rescinded.**

History: 1985 AACS; 1988 AACS; 1995 AACS; 2014 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30453 Plumbing systems.**

Rule 453. Section 2901.1 of the code is amended to read as follows:

2901.1. Scope. The provisions of this chapter and the Michigan plumbing code, R 408.30701 to R 408.30796, shall govern the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of, plumbing equipment and systems. Plumbing systems and equipment shall be constructed, installed, and maintained in accordance with the Michigan plumbing code, R 408.30701 to R 408.30796.

History: 1985 AACS; 1988 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS.

**R 408.30454 Rescinded.**

History: 1985 AACS; 1988 AACS; 1995 AACS; 1998-2000 AACS.

**R 408.30455 Rescinded.**

History: 1985 AACS; 1988 AACS; 1995 AACS; 1998-2000 AACS.

**R 408.30456 Rescinded.**

History: 1985 AACS; 1988 AACS; 1995 AACS; 1998-2000 AACS.

Editor's note: Former R 408.30456 was rescinded by 1979 ACS 8, Eff. Dec. 16, 1981.

**R 408.30457 Mechanical systems.**

Rule 457. Section 2801.1 of the code is amended to read as follows:

2801.1. Scope. Mechanical appliances, equipment, and systems shall be constructed, installed, and maintained in accordance with the Michigan mechanical code, R 408.30901 to R 408.30998, and the international fuel gas code listed in chapter 35. Masonry chimneys, fireplaces, and barbeques shall comply with the Michigan mechanical code, R 408.30901 to R 408.30998, and chapter 21 of the code.

History: 1985 AACCS; 1988 AACCS; 1995 AACCS; 2001 AACCS; 2008 AACCS.

**R 408.30458 Elevators and conveying systems.**

Rule 458. Sections 3001.1, 3001.2, 3001.4, 3002.5, 3002.6, 3003.1, and 3003.2, of the code are amended and sections 3001.2.1, 3001.2.2, 3003.1.5 and 3004.5 are added to the code to read as follows:

3001.1. Scope. The design, construction, installation, alteration, and repair of elevators and conveying systems and their equipment shall conform with the requirements of the Michigan elevator laws and rules, MCL 408.801 to 408.824, MCL 338.2151 to 338.2160, and R 408.7001 to R 408.8695 and this chapter. Installation or construction in flood hazard areas established in section 1612.3 shall comply with ASCE 24 listed in chapter 35.

3001.2. Other devices. Other devices shall conform to the requirements of sections 3001.2.1 and 3001.2.2 of the code.

3001.2.1. Conveyors. Conveyors and related equipment shall conform to the requirements of ASME B20.1 listed in chapter 35.

3001.2.2. Automotive lifts. Automotive lifts shall conform to the requirements of ALI ALCTV listed in chapter 35.

3001.4. Change in use. A change in use of an elevator from freight to passenger, passenger to freight, or from 1 freight class to another freight class shall comply with the requirements of the Michigan elevator code, R 408.7001 to R 408.8695.

3002.5. Emergency doors. Where an elevator is installed in a single blind hoistway or on the outside of a building, there shall be installed in the blind portion of the hoistway or blank face of the building, an emergency door in accordance with the requirements of the Michigan elevator code, R 408.7001 to R 408.8695.

3002.6. Prohibited doors. Doors, other than hoistway doors and the elevator car door, shall be prohibited at the point of access to an elevator car.

3003.1. Standby power. In buildings and structures where standby power is required or furnished to operate an elevator, the operation shall be in accordance with sections 3003.1.1 to 3003.1.5 of the code.

3003.1.5. Lighting. Where standby power is connected to elevators, the machine room, car top, pit, and landing lighting shall be connected to the standby power source.

3003.2 Fire-fighters' emergency operation. Elevators shall be provided with phase I emergency recall operation and phase II emergency in-car operation in accordance with the requirements of the Michigan elevator code, R 408.7001 to R 408.8695.

3004.5. Construction at bottom of hoistway. Pits extending to the ground shall have noncombustible floors and be designed as to prevent entry of ground water into the pit. The pit floor of any hoistway not extending to the ground shall be of fire-resistive construction having a fire-resistance rating at least equal to that required for the hoistway enclosure.

History: 1988 AACCS; 1992 AACCS; 1995 AACCS; 2001 AACCS; 2004 AACCS; 2008 AACCS; 2016 MR 24, Eff. Apr. 20, 2017.



**R 408.30459 Elevators.**

Rule 459. Sections 1009.4 and 1607.9.1 of the code are amended to read as follows:

1009.4. Elevators. To be considered part of an accessible means of egress, an elevator shall be in compliance with the emergency operation and signaling device requirements of the Michigan elevator code, R 408.7001 to R 408.8695.

1607.9.1. Elevators. Elevator loads shall be increased by 100% for impact and the structural supports shall be designed within the limits of deflection prescribed by the Michigan elevator code, R 408.7001 to R 408.8695.

History: 1985 AACS; 1988 AACS; 1992 AACS; 2008 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30460 Rescinded.**

History: 1979 AC; 1981 AACS; 1987 AACS; 1988 AACS; 1992 AACS.

**R 408.30461 Rescinded.**

History: 1979 AC; 1981 AACS; 1987 AACS; 1988 AACS; 2001 AACS; 2004 AACS.

**R 408.30475 Rescinded.**

History: 1985 AACS; 1988 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30476 Criteria.**

Rule 476. Section 1301.1.1 of the code is amended to read as follows:

1301.1.1. General. Buildings shall be designed and constructed in accordance with the Michigan energy code, part 10a , R 408.31087 to R 408.31099.

History: 1985 AACS; 1988 AACS; 1995 AACS; 2001 AACS; 2010 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30495 Rodent proofing.**

Appendix F101.1 of the code is amended and F101.1.1 is added to the code to read as follows:

F101.1. General. Buildings or structures and the walls enclosing habitable or occupiable rooms and spaces in which people live, sleep, or work, or in which feed, food, or foodstuff is stored, prepared, processed, served, or sold shall be constructed in accordance with this section. Other buildings are subject to these requirements as provided in section F101.1.1 of the code.

F101.1.1. Additional buildings. In a community that has a vermin infestation program for the eradication of vermin enacted by local ordinance, all buildings identified within such an ordinance shall be constructed in accordance with this section.



History: 1985 AACS; 1988 AACS; 2001 AACS; 2008 AACS.

**R 408.30495a Rescinded.**

History: 1985 AACS; 1988 AACS; 1995 AACS; 2004 AACS.

**R 408.30495b Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495c Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495d Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495e Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495f Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495g Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495h Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495i Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495j Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30495k Rescinded.**

History: 1985 AACS; 1988 AACS.

**R 408.30497 Signs.**

Appendix H101.1.1 is added to the code to read as follows:

H101.1.1. Local ordinances. A governmental subdivision that has sign regulations governing the placement, location, size, height, or setback from public right of ways shall govern such items.

History: 1979 AC; 1981 AACS; 2001 AACS; 2016 MR 24, Eff. Apr. 20, 2017.

**R 408.30499 Adoption of standards by reference; referenced codes.**

Rule 499. Chapter 35 of the code is amended to add the following referenced codes, which are available from the Michigan Department of Energy, Labor and Economic Growth, Bureau of Construction Codes, 2501 Woodlake Circle, Okemos, Michigan 48864:

- (a) Michigan Electrical Code R 408.30801 to R 408.30880, of the Michigan Administrative Code.
- (b) Michigan Mechanical Code R 408.30901 to R 408.30998a of the Michigan Administrative Code.
- (c) Michigan Plumbing Code R 408.30701 to R 408.30796 of the Michigan Administrative Code.
- (d) Michigan Uniform Energy Code R 408.31061 to R 408.31099 of the Michigan Administrative Code.
- (e) Michigan Elevator Code R 408.7001 to R 408.8695 of the Michigan Administrative Code.
- (f) Michigan Boiler Code R 408.4001 to R 408.5507 of the Michigan Administrative Code.

History: 1985 AACS; 1988 AACS; 1995 AACS; 1998-2000 AACS; 2001 AACS; 2004 AACS; 2008 AACS; 2010 AACS; 2014 AACS.

**R 408.30499a Rescinded.**

History: 1998-2000 AACS; 2001 AACS.