

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION CODE

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These rules take effect January 17, 2014

(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)

R 408.30701, R 408.30711, R 408.30715, R 408.30717, R 408.30720, R 408.30721, R 408.30722, R 408.30723, R 408.30724, R 408.30725c, R 408.30728, R 408.30741c, R 408.30749, R 408.30753a, R 408.30754a, R 408.30754b, R 408.30757, R 408.30758, R 408.30786, R 408.30791 and R 408.30792 of the Michigan Administrative Code are amended, R 408.30763a and R 408.30757a are added to the Code as follows:

PART 7. PLUMBING CODE

AMENDMENTS AND ADDITIONS TO BASIC PLUMBING CODE

R 408.30701 Applicable code.

Rule 701. Rules governing the installation, replacement, alteration, relocation, and use of plumbing systems or plumbing materials shall be those contained in the international plumbing code, 2012 edition, including appendices B, C, D, and F, except for sections 102.10, 102.11, 103.4, 106.6.1, 106.6.2, 106.6.3, 107.2.5, 107.2.5.1, 107.2.5.2, 107.2.5.3, 109.2 to 109.7, 312.1.1, 602.3 to 602.3.5.1, 608.17 to 608.17.8, 708.3.2, 708.3.6, 712.3.3.1, 712.3.3.2, 1106.6, 1301 to 1303.10 and tables 1106.2(2) and 1106.6. With the exceptions noted, the code is adopted in these rules by reference. All references to the International Building Code, International Residential Code, International Energy Conservation Code, International Electrical Code, International Mechanical Code, and International Plumbing Code mean the Michigan Building Code, Michigan Residential Code, Michigan Uniform Energy Code, Michigan Electrical Code, Michigan Mechanical Code, and Michigan Plumbing Code respectively. The code is available for inspection at the Okemos office of the Michigan department of licensing and regulatory affairs, bureau of construction codes. The code may be purchased from the International Code Council, 500 New Jersey Avenue, N.W., 6th Floor, Washington, D.C. 20001, or from the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2501 Woodlake Circle, Okemos, Michigan 48864, at a cost as of the time of adoption of these rules of \$71.00 each.

R 408.30711 Title and scope.

Rule 711. Sections 101.1 and 101.2 of the code are amended to read as follows:

101.1. Title. This part shall be known as the Michigan plumbing code and is hereinafter referred to as "the plumbing code" or "the code." This part shall control all matters concerning

the installation, replacement, alteration, relocation, and use of plumbing systems or plumbing materials as herein defined and shall apply to existing or proposed buildings and structures in the state.

101.2. Scope. The design and installation of plumbing systems, including sanitary and storm drainage, sanitary facilities, medical gas systems, water supplies, water service, and storm water and sewage disposal in and exiting buildings, shall comply with the requirements of the code. The design and installation of gas piping, chilled water piping in connection with refrigeration process and comfort cooling, and hot water piping in connection with building heating systems shall conform to the Michigan mechanical code. The design and installation of all fire sprinkler systems and standpipe systems shall conform to the Michigan building code. Water and drainage connections to such installations shall be made in accordance with the requirements of the code.

Exception: Detached 1-and 2-family dwellings and multiple single-family dwellings (townhouses) not more than 3 stories high with separate means of egress and their accessory structures shall comply with the Michigan residential code.

R 408.30715 Permits.

Rule 715. Sections 106.4, 106.5.3, and 106.5.4 of the code are amended to read as follows:

106.4. By whom application is made.

(1) Application for a permit shall be made by a plumbing contractor licensed in accordance with 2002 PA 733, MCL 338.3511 to 338.3569.

Exceptions:

1. Water service permits.
2. Building sewer and private sewer permits.
3. Minor repair.

(2) A plumbing contractor shall do both of the following:

(a) Be active in the business of serving the public as a plumbing contractor in a county, city, village, or township in this state.

(b) Operate 1 or more branches in this state bearing the same firm name, where a licensed master plumber is in charge and has the responsibility of supervision at each branch. The names of the authorized master plumbers representing a firm shall be on record with the state plumbing board.

(3) To become a plumbing contractor, an applicant shall file an application on a form furnished by the state plumbing board and file with the board at Okemos, Michigan. An incomplete application will be returned to the applicant.

106.5.3. Expiration. Each permit issued by the code official under the provisions of the code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work may be recommenced, the permit shall be reinstated if the code has not changed. If the code has changed and the work was not started, a new permit shall be first obtained for such work, provided no changes have been made or will be made in the original construction document for such work and provided further that such suspension or abandonment has not exceeded 1 year.

106.5.4. Extensions. Any permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit

when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause. No permit shall be extended more than once.

R 408.30717 Duties and powers of code official.

Rule 717. Section 104.1 of the code is amended to read as follows:

104.1 General. The code official shall enforce all of the provisions of the code and shall act on any question relative to the installation, alteration, repair, maintenance, or operation of all plumbing systems, devices, and equipment except as specifically provided for by statutory requirements or as provided for in sections 104.3 to 104.7.

R 408.30719 Stop work orders.

Rule 719. Section 108.5 of the code is amended to read as follows:

108.5. Stop work orders. 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 by the act.

R 408.30720 Means of appeal.

Rule 720. Section 109.1 of the code is amended to read as follows:

109.1 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.

R 408.30721 Required tests.

Rule 721. Section 312.1 of the code is amended and section 312.3 is added to read as follows:

312.1. Required tests. The permit holder shall make the applicable tests prescribed in sections 312.2 to 312.10.2 to determine compliance with the code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for testing. The equipment, material, power, and labor necessary for the inspection and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in this rule. All plumbing system piping shall be tested with either water or, for piping systems other than plastic, by air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests. The code official shall require the removal of any cleanouts if necessary to ascertain if the pressure has reached all parts of the system.

Exception: Drainage and vent low pressure air tests for plastic piping systems shall be acceptable as prescribed in section 312.3 of the code.

312.3 Drainage and vent air test. An air test shall be made by forcing air into the system until there is a uniform gauge pressure of 5 psi (34.5 kPa) or sufficient to balance a 10-inch (254 mm) column of mercury. This pressure shall be held for a test period of not less than 15 minutes. Any adjustments to the test pressure required because of changes in ambient temperatures or the seating of gaskets shall be made before to the beginning of the test period.

R 408.30722 Separate facilities.

Rule 722. Section 403.2 of the code is amended to read as follows:

403.2. Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for private facilities.
2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 50 or fewer.

R 408.30723 Distance of trap from vent.

Rule 723. Section 909.1 of the code is amended to read as follows:

909.1 Distance of trap from vent. Each fixture trap shall have a protecting vent located so that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements in table 909.1.

R 408.30724 Piping.

Rule 724. Section 1114.1.4 of the code is amended to read as follows:

1114.1.4. Discharge piping shall meet the requirements of section 1102.2, 1102.3, or 1102.4 and shall include a gate valve and a full flow check valve. Pipe and fittings shall be the same size as, or larger than, pump discharge tapping.

R 408.30725c Venting of fixture drains.

Rule 725c. Section 909.2 of the code is amended to read as follows:

909.2. Venting of fixture drains. The vent for a fixture drain, except where serving a fixture with integral traps, such as water closets, shall connect above the weir of the fixture trap being vented. The total slope shall not exceed the diameter of the fixture drain.

R 408.30728 Sewer depth.

Rule 728. Section 305.4.1 of the code is amended to read as follows:

305.4.1. Sewer depth. A building sewer that connects to a private disposal system shall be a minimum of 8 inches (203 mm) to the top of the pipe below finished grade at the point of septic tank connection. Building sewers shall be installed a minimum of 42 inches (1067 mm) below grade.

Exception: When permitted by the code official.

R 408.30741c Connections to automatic fire sprinkler systems and standpipe systems.

Rule 741c. Section 608.16.4 of the code is amended to read as follows:

608.16.4. Connections to automatic fire sprinkler systems and standpipe systems. The potable water supply to automatic fire sprinkler and standpipe systems shall be protected against backflow by a double check backflow prevention assembly, a double check fire protection backflow prevention assembly, or a reduced pressure principle fire protection backflow prevention assembly.

Exception: Isolation of the water distribution system is not required for deluge, preaction, or dry pipe systems.

R 408.30749 Special equipment; water supply protection.

Rule 749. Section 608.3.1 of the code is amended to read as follows:

608.3.1. Special equipment; water supply protection. The water supply for hospital fixtures shall be protected against backflow with a reduced pressure principle backflow prevention assembly, an atmospheric or spill-resistant vacuum breaker assembly, or an air gap. Vacuum breakers for bedpan washer hoses, autopsy tables, and hose connections in health care or laboratory areas shall not be located less than 6 feet (1829 mm) above the floor.

R 408.30753a Roof extensions.

Rule 753a. Section 903.1 of the code is amended to read as follows:

903.1. Roof extension. All open vent pipes that extend through a roof shall be terminated at least 1 foot (305 mm) above the roof, except that if a roof is to be used for any purpose other than weather protection, then the vent extensions shall be run not less than 7 feet (2134 mm) above the roof.

R 408.30754a Frost Closure.

Rule 754a. Section 903.2 of the code is amended to read as follows:

Section 903.2. Frost Closure. To prevent frost closure, every vent extension through a roof shall be a minimum of 3 inches (76 mm) in diameter. Any increase in the size of the vent shall be made inside the building a minimum of 1 foot (305 mm) below the roof or inside the wall.

R 408.30754b Extensions outside a structure.

Rule 754b. Section 903.7 of the code is amended to read as follows:

903.7. Extensions outside a structure. Vent pipes installed on the exterior of the structure shall be protected against freezing by insulation or heat, or both.

R 408.30757 Horizontal drains within building and building sewers.

Rule 757. Section 708.3 and 708.3.1. of the code is amended to read as follows:

708.3 Where required. Cleanouts shall be located in accordance with sections 708.3.1, 708.3.3 to 708.3.5.

708.3.1. Horizontal drains within buildings and building sewers. All horizontal drains within buildings and building sewers shall be provided with cleanouts located not more than 100 feet (30 480 mm) apart.

For underground piping that is more than 10 inches in diameter, manholes shall be provided and located at every major change of direction, grade, elevation, or size of pipe or at intervals of not more than 400 feet (12 1920 mm). Metal covers shall be provided for the manholes and shall be of sufficient weight to meet local traffic and loading conditions.

Within buildings, manhole covers shall be gastight and the manhole shall be vented with not less than a 4-inch (102 mm) pipe.

R 408.30757a Discharge pipe and fittings.

Rule 757a. Section 712.3.3 of the code is added to read as follows:

712.3.3. Discharge pipe and fittings. Discharge piping and fittings shall be constructed of approved materials.

R 408.30758 Minimum number of fixtures.

Rule 758. Sections 403.1 and 403.3.1 and Table 403.1 of the code are amended to read as follows:

403.1. Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined in accordance with the Michigan building code. Occupancy classification shall be determined in accordance with the Michigan building code.

Exceptions:

1. The actual number of occupants determined by a supporting affidavit from the owner or agency.

2. Hand washing sinks in food service establishments shall be provided in accordance with regulation no. 553, food establishments, R 285.553.1 to R 285.553.26 of the Michigan department of agriculture.

3. Toilet facilities for public swimming pools shall be provided in accordance with public swimming pools, R 325.2111 to R 325.2199 of the Michigan department of environmental quality.

4. Toilet facilities for child care center, day care center, and nursery school facilities shall be provided in accordance with child day care licensing – child care centers, R 400.5101 to R 400.5940 of the Michigan department of human services.

5. Toilet facilities for children's camps shall be provided in accordance with children's and adult foster care camps, R 400.11101 to R 400.11319 of the Michigan department of human services.

403.3.1. Access. The route to the public toilet facilities required by section 403.3 shall not pass through kitchens, storage rooms, or closets. Access to the required facilities shall be from within the building. All routes shall comply with the accessibility requirements of the Michigan building code. The public shall have access to the required toilet facilities at all times that the building is occupied.

TABLE 403.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a
(See Sections 403.1.1 and 403.2)

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN ^{a,f} (SEE SECTION 410.1)	OTHER
				MALE	FEMALE	MALE	FEMALE			
1	Assembly	A-1 ^d	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200			1 per 500	1 service sink
		A-2 ^d	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75			1 per 500	1 service sink
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200			1 per 500	1 service sink
		A-3 ^d	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200			1 per 500	1 service sink
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750			1 per 1,000	1 service sink
			Places of worship and other religious services.	1 per 150	1 per 75	1 per 200			1 per 1,000	1 service sink
		A-4	Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150		1 per 1,000	1 service sink

		A-5	Stadiums, amusement parks, bleachers, and grandstands for outdoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 120 for the remainder exceeding 1,520	1 per 200	1 per 150	1 per 1,000	1 service sink
		A-5	Outdoor educational and municipal venues no larger than 3,000 spectators	1 per 125	1 per 65	1 per 200	1 per 150	1 per 1,000	1 service sink
2	Business	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial, and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50	1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80			1 per 100	1 service sink ^g
3	Educational	E	Educational facilities	1 per 50	1 per 50			1 per 100	1 service sink
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly, or processing of products or materials	1 per 100	1 per 100	(see Section 411)		1 per 400	1 service sink
5	Institutional	I-1	Residential care	1 per 10	1 per 10	1 per 8		1 per 100	1 service sink
		I-2	Hospitals, ambulatory nursing home patients, care recipient	1 per room ^c	1 per room ^c	1 per 15		1 per 100	1 service sink per floor
			Employees, other than residential care ^b	1 per 25	1 per 35			1 per 100	
			Visitors, other than residential care	1 per 75	1 per 100			1 per 500	

		I-3	Prisons ^b	1 per cell	1 per cell	1 per 15	1 per 100	1 service sink
			Reformatories, detention centers, and correctional centers ^b	1 per 15	1 per 15	1 per 15	1 per 100	1 service sink
			Employees ^b	1 per 25	1 per 35	-	1 per 100	-
		I-4	Adult day care and child care	1 per 15	1 per 15	1	1 per 100	1 service sink

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN ^{e,f} (SEE SECTION 410.1)	OTHER
				MALE	FEMALE	MALE	FEMALE			
6	Mercantile	M	Retail stores, service stations, shops, salesrooms, markets, and shopping centers	1 per 500		1 per 750		-	1 per 1000	1 service sink ^g
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit		1 service sink
		R-2	Dormitories, fraternities, sororities, and boarding houses (not transient)	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		R-2	Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	-	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units
		R-3	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink

		R-3	One- and two-family dwellings	1 per dwelling unit	1 per dwelling unit	1 per dwelling unit	-	1 kitchen sink per dwelling unit; 1 automatic clothes washer per dwelling unit
		R-4	Congregate living facilities with 16 or fewer persons	1 per 10	1 per 10	1 per 8	1 per 100	1 service sink
8	Storage ^h	S-1 S-2	Structures for the storage of goods, warehouses, storehouse, and freight depots. Low and Moderate Hazard	1 per 100	1 per 100	See Section 411	1 per 1,000	1 service sink

- a. The fixtures shown are based on 1 fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the *International Building Code*.
- b. Toilet facilities for employees shall be separate from facilities for inmates or patients.
- c. A single-occupant toilet room with 1 water closet and one lavatory serving not more than 2 adjacent patient sleeping units shall be permitted where such room is provided with direct access from each patient room and with provisions for privacy.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. The minimum number of required drinking fountains shall comply with Table 403.1 and Chapter 11 of the International Building Code.
- f. Drinking fountains are not required for an occupant load of 15 or fewer.
- g. For business and mercantile occupancies with an occupant load of 15 or fewer, service sinks shall not be required.
- h. Structures not designed for occupants or as an employee's regular working area, are not required to have toilet facilities.

R 408.30763a Tempered water for public hand-washing facilities.

Rule 763a. Section 416.5 is added to the code to read as follows:

416.5. Tempered water for public hand-washing facilities. Tempered water shall be delivered from lavatories and group wash fixtures located in public toilet facilities in accordance with section 607.1. Tempered water shall be delivered through an approved water-temperature limiting device that conforms to ASSE 1070 or CSA B125.3.

R 408.30786 Sizing of secondary drains.

Rule 786. Section 1108.3 of the code is amended to read as follows:

1108.3. Sizing of secondary drains. Secondary, or emergency, roof drain systems shall be sized in accordance with section 1106 based on the rainfall rate for which the primary system is sized in tables 1106.2 and 1106.3. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

R 408.30791 Definitions.

Rule 791. Section 202 of the code is amended to amend the definition of code official and add the definitions of the act and plumbing contractor.

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

“Code official” means the person appointed and employed by a governmental subdivision charged with the administration and enforcement of the state code or codes and registered in accordance with the requirements of 1986 PA 54, MCL 338.2301 to 338.2313.

"Plumbing contractor" means a person who is licensed in accordance with 2002 PA 733, MCL 338.3511 to 338.3569.

“Plumbing systems” includes the water distribution pipes; plumbing fixtures and traps; water-treating or water-using equipment; soil, waste, and vent pipes; and building drains; in addition to their respective connections, devices and appurtenances with a structure or premises; and water services, sanitary and storm sewers serving such structure or premises.

R 408.30792 Food utensils, dishes, pots and pans sinks.

Rule 792. Section 802.1.8 of the code is amended to read as follows:

802.1.8. Food utensils, dishes, pots and pans sinks. Sinks used for the washing, rinsing, or sanitizing of utensils, dishes, pots, pans, or service ware where used in the preparation, serving, or eating of food shall discharge indirectly through an air gap or an air break to the drainage system.

Exception: When required, a hydromechanical grease interceptor connected to the washing sink or wash compartment shall be directly connected to the drainage system.