



## Common Sense Initiative

**Mike DeWine**, Governor  
**Jon Husted**, Lt. Governor

**Joseph Baker**, Director

### Business Impact Analysis

Agency, Board, or Commission Name: Board of Building Standards

Rule Contact Name and Contact Information:

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Regulation/Package Title (a general description of the rules' substantive content):

Ohio Plumbing Code Update

Rule Number(s): Rescind all existing rules in 4101:3; Adopt new rules 4101:3-1-01, 4101:3-2-01, 4101:3-3-01, 4101:3-4-01, 4101:3-5-01, 4101:3-6-01, 4101:3-7-01, 4101:3-8-01, 4101:3-9-01, 4101:3-10-01, 4101:3-11-01, 4101:3-12-01, 4101:3-13-01, 4101:3-14-01, 4101:3-15-01

Date of Submission for CSI Review: 4/20/23

Public Comment Period End Date: 5/10/23

Rule Type/Number of Rules:

New/ 15 rules

No Change/      rules (FYR?     )

Amended/      rules (FYR?     )

Rescinded/ 15 rules (FYR? X)

The Common Sense Initiative is established in R.C. 107.61 to eliminate excessive and duplicative rules and regulations that stand in the way of job creation. Under the Common Sense Initiative, agencies must balance the critical objectives of regulations that have an adverse impact on business with the costs of compliance by the regulated parties. Agencies should promote transparency, responsiveness, predictability, and flexibility while developing

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regulations that are fair and easy to follow. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

### **Reason for Submission**

1. **R.C. 106.03 and 106.031 require agencies, when reviewing a rule, to determine whether the rule has an adverse impact on businesses as defined by R.C. 107.52. If the agency determines that it does, it must complete a business impact analysis and submit the rule for CSI review.**

**Which adverse impact(s) to businesses has the agency determined the rule(s) create?**

**The rule(s):**

- a. ☒ **Requires a license, permit, or any other prior authorization to engage in or operate a line of business.**
- b. ☐ **Imposes a criminal penalty, a civil penalty, or another sanction, or creates a cause of action for failure to comply with its terms.**
- c. ☐ **Requires specific expenditures or the report of information as a condition of compliance.**
- d. ☐ **Is likely to directly reduce the revenue or increase the expenses of the lines of business to which it will apply or applies.**

### **Regulatory Intent**

2. **Please briefly describe the draft regulation in plain language.**

***Please include the key provisions of the regulation as well as any proposed amendments.***

The Ohio Board of Building Standards (Board) proposes to rescind all existing rules in 4101:3 and adopt new Ohio Administrative Code (OAC) rules to incorporate the 2021 International Plumbing Code by reference with Ohio amendments as follows:

**4101:3-1-01** This proposed rule regulates the administration of the plumbing code by certified building departments and local health departments.

**4101:3-2-01** This proposed rule sets forth the definitions of terms used in rules 4101:3-1-01 through 4101:3-15-01

**4101:3-3-01** This proposed rule contains the general requirements for the installation of plumbing systems for toilet rooms.

**4101:3-4-01** This proposed rule regulates number and installation of plumbing fixtures.

**4101:3-5-01** This proposed rule regulates design and installation of water heaters.

**4101:3-6-01** This proposed rule sets forth the requirements for water supply systems within a building.

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**4101:3-7-01** This proposed rule regulates the design and installation of sanitary drainage piping systems within a building.

**4101:3-8-01** This proposed rule regulates drainage installations requiring an indirect connection to the sanitary drainage.

**4101:3-9-01** This proposed rule contains requirements for vents and venting of plumbing systems.

**4101:3-10-01** This proposed rule regulates installation of plumbing system traps, interceptors and separators.

**4101:3-11-01** This proposed rule sets forth the requirements for storm drainage.

**4101:3-12-01** This proposed rule regulates the design and installation of special piping and storage systems including medical gas.

**4101:3-13-01** This proposed rule references the nonpotable water systems requirements regulated by the Ohio Department of Health.

**4101:3-14-01** This proposed rule references the subsurface landscape irrigation system requirements regulated by the Ohio Department of Health.

**4101:3-15-01** This proposed rule lists technical standards referenced in rules 4101:3-1 through 4101:3-14

Significant changes to these rules are listed in attached Exhibit A.

3. **Please list the Ohio statute(s) that authorize the agency, board or commission to adopt the rule(s) and the statute(s) that amplify that authority.**

Revised Code § 3781.10: <http://codes.ohio.gov/orc/3781.10>

Revised Code § 3781.11: <http://codes.ohio.gov/orc/3781.11>

Revised Code § 3791.04: <http://codes.ohio.gov/orc/3791.04v1>

4. **Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program?**  
*If yes, please briefly explain the source and substance of the federal requirement.*

No – See Ohio Building Code Update BIA

5. **If the regulation implements a federal requirement, but includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.**

Not applicable

6. **What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?**

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Revised Code § 3781.10 directs the Board to “formulate and adopt rules governing the erection, construction, repair, alteration and maintenance of all buildings specified in section 3781.06 of the Revised Code...” Additionally, Revised Code 3781.06 provides:

*Any building that may be used as a place of resort, assembly, education, entertainment, lodging, dwelling, trade, manufacture, repair, storage, traffic, or occupancy by the public, any residential building, and all other buildings or parts and appurtenances of those buildings erected within this state, shall be so constructed, erected, equipped, and maintained that they shall be safe and sanitary for their intended use and occupancy.*

This statute defines safe and sanitary as follows:

*“Safe,” with respect to a building, means it is free from danger or hazard to the life, safety, health, or welfare of persons occupying or frequenting it, or of the public and from danger of settlement, movement, disintegration, or collapse, whether such danger arises from the methods or materials of its construction or from equipment installed therein, for the purpose of lighting, heating, the transmission or utilization of electric current, or from its location or otherwise.*

*“Sanitary,” with respect to a building, means it is free from danger or hazard to the health of persons occupying or frequenting it or to that of the public, if such danger arises from the method or materials of its construction or from any equipment installed therein, for the purpose of lighting, heating, ventilating, or plumbing.*

The Ohio Building Code (OBC) sets forth the construction standards for nonresidential buildings in the State of Ohio to ensure that they are safe and sanitary. Additionally, Revised Code § 3781.01 provides that local governments may not adopt regulations that conflict with the Board’s rules to facilitate the uniform application of the standards.

Revised Code 3781.11 lists conditions that rules of the Board must address, including:

(1) For nonresidential buildings, provide uniform minimum standards and requirements, and for residential buildings, provide standards and requirements that are uniform throughout the state, for construction and construction materials, including construction of industrialized units, to make residential and nonresidential buildings safe and sanitary as defined in section 3781.06 of the Revised Code;

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(2) Formulate such standards and requirements, so far as may be practicable, in terms of performance objectives, so as to make adequate performance for the use intended the test of acceptability;

(3) Permit, to the fullest extent feasible, the use of materials and technical methods, devices, and improvements, including the use of industrialized units which tend to reduce the cost of construction and erection without affecting minimum requirements for the health, safety, and security of the occupants or users of buildings or industrialized units and without preferential treatment of types or classes of materials or products or methods of construction;

(4) Encourage, so far as may be practicable, the standardization of construction practices, methods, equipment, material, and techniques, including methods employed to produce industrialized units;

**7. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?**

The enforcement of these rules will be implemented by certified township, city, and county building departments. Rule 4101:1-1-01 lays out the administrative procedures certified building departments must follow to implement the substantive requirements of these rules to determine compliance. These provisions require a builder or owner to make application to a building department to obtain an approval to build (permit). As part of this application the owner must submit sufficient information and/or construction documents for the building official/plans examiner to determine whether the proposed work complies with the code. After the builder or owner obtains the approval (permit), construction may commence and the building department inspectors will inspect the construction to ensure that the work conforms with the original approval. Rule 4101:1-1-01 § 105.3 provides that in the absence of fraud or a serious safety or sanitation hazard, any non-residential structure built in accordance with approved plans shall be conclusively presumed to comply with these rules. The Board requires that certified nonresidential building departments submit an annual yearly operational report which lists the following information: current employees and their certifications, total number of permits issued during the year for each type of occupancy, total number of inspections made, the total value of construction, and the total number of appeals of the code requested by a builder or owner during the year.

**8. Are any of the proposed rules contained in this rule package being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931?**

*If yes, please specify the rule number(s), the specific R.C. section requiring this submission, and a detailed explanation.*

Not applicable.

**Development of the Regulation**

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**9. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation.**

*If applicable, please include the date and medium by which the stakeholders were initially contacted.*

The Board maintains a stakeholder distribution including building department personnel, contractors, designers and professional associations. The stakeholder list is available upon request.

On March 2, 2023, the Board sent an email to all agency stakeholders informing them of a scheduled stakeholder meeting on March 22, 2023 to hear comments and respond to questions on these rules. The notice summarized the proposed rules and provided other information, background and resources for stakeholder review and also informed stakeholders that if they could not attend the stakeholder meeting, they could submit questions or comments via email: [Proposed 2024 Ohio Building, Mechanical & Plumbing Code Rules | Ohio Department of Commerce](#) On March 22, 2023, the Board conducted a stakeholder meeting on the proposed rules at 1:00 PM and the following individuals attended: In-Person: Chris Randles, Summit County, David Molnar, OBOA/Richland County, Charles Huber, City of Lakewood, Ron Bartley, Nicholas Montan, Tuscarawas County, Lisa Reiheld, ICC, Tracie Boyd, SFM, Kim Boulter, Changing Spaces Ohio, Courtney Hines, Delaware Cty Board of DD, Jennifer Corcoran Changing Spaces Ohio, Matthew Helton, Changing Spaces Ohio, Chase Waits, DCBDD, Lane Beougher, OFCC and Kurt Beres, MA Design; Virtual: Christopher Parmelee, Jarrod Clay, Robert Glass, Joseph R. Briscar, Todd Hager, Duane Matlack, Troy Warnock, Jeremy M. Williams, Tim Thompson, Steve Risser and Brady Campbell.

**10. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?**

Summaries of written comments received with Board action on the comments and stakeholder meeting discussion in response to the March 2, 2023 proposed code update announcement are attached as Exhibit B.

**11. What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?**

The proposed rules are based on the 2021 International Plumbing Code (IPC) promulgated and amended by the International Code Council (ICC). The model codes developed by ICC are updated every three years through a process that incorporates petitioning, public hearings and voting by ICC members. The ICC Committees that oversaw the development of the different provisions 2021 IPC included code officials, engineers, contractors and other professional organizations.

When a petition to amend the model code is submitted, the proponent of the change must submit the proposed language of the amendment, the reason for the amendment including

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scientific data when applicable, and the cost impact of the amendment. All submitted petitions are then published prior to initial code development hearings on the petitions. Interested persons may review the proposed changes and attend the code development hearing and provide comments. A report then is published on the public hearings for review and then final action is taken on the proposed changes at final action hearings. All successful changes are incorporated into the next edition of the model code.

Upon publication the Board's code committee reviews each substantive change included in the newest edition of the code and determines whether to recommend the change to the Board for adoption. The Board last fully updated the OPC on November 1, 2017.

- 12. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?**  
*Alternative regulations may include performance-based regulations, which define the required outcome, but do not dictate the process the regulated stakeholders must use to comply.*

See question 11.

- 13. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?**

Editorial changes are routinely made to the rules to provide consistency with the Ohio Revised Code and other Board and agencies' rules. Additionally, RC § 3781.10 gives the Board sole authority to adopt rules which regulate the erection, construction, repair, alteration, and maintenance of all buildings or classes of buildings specified RC 3781.06 including residential and non-residential buildings.

- 14. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.**

For these rules to be enforced by a local government, its building department must be certified by the Board. The Board also certifies the personnel who work within these departments to ensure only qualified personnel are enforcing the Board's rules. Certified personnel must complete continuing education to maintain their certifications and continue to be authorized to enforce these rules. The Board has authority to suspend or revoke certifications for failure to properly enforce the rules. Also, the Board has two staff members dedicated to responding to complaints by persons affected by the Board rules. This program helps promote consistent and predictable application of the Board rules.

### **Adverse Impact to Business**

- 15. Provide a summary of the estimated cost of compliance with the rule(s). Specifically, please do the following:**

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**a. Identify the scope of the impacted business community, and**

- Building owners
- Design Professionals
- Contractors
- Building Department Personnel

**b. Quantify and identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance, etc.).**

*The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a representative business. Please include the source for your information/estimated impact.*

- Obtaining updated rules as published as the Ohio Plumbing Code
- Becoming familiar with the changes through research and training
- Increased cost of construction due to changes that require different construction methods/materials/products or increased stringency of construction standards.

Due to the variance in allowed building designs, it is difficult to ascertain, in dollars, a cost increase/decrease in the design cost of a building as a result of the proposed code update. However, as discussed in Question 11 above, when a code change proponent submits a petition to ICC to amend the model code an estimated cost impact of the proposal is included. Of the significant changes, the following sections included in the proposed rules were noted by the proponent as having a cost increase in construction:

606.1 Location of full-open valves - adds location 2.1 which requires separate water supply valve each tenant in a multiple tenant building

609.2.1 Tracer wire for nonmetallic piping - adds a requirement for a tracer wire for nonmetallic piping

**16. Are there any proposed changes to the rules that will reduce a regulatory burden imposed on the business community? Please identify. (*Reductions in regulatory burden may include streamlining reporting processes, simplifying rules to improve readability, eliminating requirements, reducing compliance time or fees, or other related factors*).**

The proposed rules now incorporate unchanged model code by reference rather than duplicating the language in the administrative code reducing total number of words codified by approximately: 90% from the Ohio Building Code; 85% from the Ohio Mechanical Code; and 75% from the Ohio Plumbing Code. Additionally, the proposed rules eliminates about 10,000 regulatory restrictions from the current Ohio Building Code as defined by RC 121.95, about 2,500 regulatory restrictions from the current Ohio Mechanical Code, and about 1,800 regulatory restrictions from the current Ohio Plumbing Code as defined in RC 121.95.

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Due to the variance in allowed building designs, it is difficult to ascertain, in dollars, a cost increase/decrease in the design cost of a building as a result of the proposed code update. However, as discussed in Question 11 above, when a code change proponent submits a petition to ICC to amend the model code an estimated cost impact of the proposal is included. Of the significant changes, the following sections included in the proposed rules were noted by the proponent as having a cost *decrease* in construction:

403.1.1 Fixture calculations - adds exceptions 2 and 3 which provide design flexibility by allowing multi-user all-inclusive facilities and allowing single user toilet and bathing room fixtures to count toward the total number of required fixtures

403.1.2 Single-user toilet and bathing room fixtures - allows single user toilets and bathing room fixtures to count toward the required number of total fixtures

403.2 Separate facilities - adds exceptions 5 and 6 which provide design flexibility by allowing multi-user all-inclusive facilities and allowing single user toilet and bathing room fixtures to count toward the total number of required fixtures (not adopted in Ohio for use in E occupancies)

403.3.3 Location of toilet facilities in occupancies other than malls - new exception intended to address self-storage Group S occupancies

403.6 Service sink location - new section which allows service sinks to be within 300 ft of a tenant space

407.2 Bathtub waste outlets and overflows - makes tub overflows optional because not all tubs have an overflow option

606.6 Water supply system test - deletes section 606.7 requiring labeling of water distribution piping and direction of flow

607.1.1 Temperature limiting means - allows the water heater to control the temperature when the water heater complies with ASSE 1082 or 1085

607.1.2 Tempered water temperature control - breaks out the paragraph into a list and allows the water heater to control the temperature when the water heater complies with ASSE 1082 or 1085

1002.4.1 Trap seal protection - adds a new section allowing a fixture drain to prime a floor drain

1002.4.1.5 Fixture drain connection for trap priming - adds a new section allowing a fixture drain to prime a floor drain

1102.6 Roof drains - adds a new ASPE/IAPMO standard for roof drains

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**17. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?**

The majority of the provisions noted above as having an increased cost impact enhance life safety and/or accessibility provisions of the code. Additionally, other changes included in the rule package will decrease cost of construction, offer regulatory alternatives, and recognize new technologies and materials.

**Regulatory Flexibility**

**18. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.**

The rules do not have special exemptions or alternative means of compliance specifically for small business. The OBC requires a building official to issue an adjudication order to an owner when the design or construction of a building does not comply with the OBC. The adjudication order must comply with Revised Code Chapter 119 and give the owner an opportunity to appeal. This mechanism is often utilized by an owner voluntarily to obtain a variance from the requirements. Variance requests are heard by either the Ohio Board of Building Appeals or a certified local board of building appeals.

Also, the OBC permits alternative engineered designs prepared by a registered design professional to not strictly comply with the prescriptive requirements of the rules. To obtain approvals based on alternative engineered designs, the design professional must submit sufficient technical information to demonstrate that the performance meets the intent of the rules.

**19. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?**

Revised Code § 3781.102 does not authorize the Board to set the fees and/or penalties assessed by local certified building departments in connection with the enforcement of these rules. Compliance with the rules is accomplished through construction conforming to the certificate of plan approval (permit). Therefore, there are no potential paperwork violations of these rules.

**20. What resources are available to assist small businesses with compliance of the regulation?**

As these proposed rules updates the Ohio Building Code to a new model code edition, the Board offers training and resources to building department personnel to prepare them to enforce the new codes. These resources are paid for by assessment fees collected by certified building departments pursuant to RC 3781.102 on behalf of the Board to be used exclusively

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for (1) the operating costs of the Board, (2) providing services, including educational programs, for building departments certified by the Board, and (3) paying the expenses of the Residential Construction Advisory Committee.

Additionally, the Board's technical staff spends approximately 25% of their time responding to questions on the building codes and educating design professionals, contractors, the public, and code officials of the intent of the Board's rules assisting all parties in compliance.

## Exhibit A

# Ohio Plumbing Code Summary of Significant Changes – 2017 to 2024

Ohio Administrative Code Rule Number	2024 OPC Section	Source of change (2018 IPC, 2021 IPC, or BBS)	Description of Change
4101:3-1-01	101.1	BBS	Formal adoption by reference of the International Plumbing Code (IPC)
	101.1.1	BBS	“Rules of construction” are universal edits of the IPC
	101.3.1	BBS	Identifies provisions of the plumbing code that are enforced by building official – Consolidated from multiple sections of the OPC
	101.3.2	BBS	Identifies who enforces medical gas
4101:3-2-01	Accessible	2018	Added definition
	Building	BBS	Replaced definition
	Copper Alloy	2021	Added definition
	Existing installation	BBS	Replaced definition
	Full Open Valve	2018	Added definition
	Private	2021 and BBS	ICC Modified definition and BBS replaced definition
	Private residential swimming pool	BBS	Added definition
	Press Connect Joint	2018	Added definition
	Public or Public Utilization	2021 and BBS	ICC Modified definition and BBS replaced definition
	Public Swimming Pool	2018 and BBS	ICC Added definition and BBS replaced definition
	Push-fit fitting	2021	Added definition
	Registered design professional	BBS	Modified definition – includes landscape architects
	Swimming Pool	2018 and BBS	ICC Modified definition and BBS further modified
	Water Dispenser	2021 and BBS	ICC Modified definition and BBS retained current definition
4101:3-3-01	301.3	BBS	Kept ICC model code in charging paragraph. Kept Ohio modifications to exception #1 and relocated Ohio exception #2 to OPC Section 802.1.8
	303.5	2018 and BBS	ICC Added - Third-party listing of soil pipe and BBS modified with Ohio terms
	305.1	2018	Clarified - Corrosion protection of metallic pipe
	305.3	BBS	Modified section with petitioner language for pipes through foundations
	305.6	2018	Modified - Protection against physical damage
	307.7	BBS	Relocated provision to OPC chapter 1
	308.6	2018	Clarified - Sway bracing for drainpipes
	308.9	2021	Modified - Bundled hot water piping insulation

## Ohio Plumbing Code Summary of Significant Changes – 2017 to 2024

	308.10	2018	Added - Thermal expansion tank support
	309.1	BBS	Kept IPC model code – No modifications
	309.3	BBS	Kept IPC model code – No modifications
	310.3	BBS	Relocated provision to OPC chapter 1
	312	BBS	Most of the Ohio changes to the testing and inspections section have remained with the exception of sections 312.10.1, 10.2, 312.11 and 312.12 (see below)
	312.10.1	BBS	Kept IPC model code – No modifications
	312.10.2	BBS	Kept IPC model code – No modifications
	312.11	BBS	Delete unique Ohio section – Important for owners but not within the OPC scope
	312.12	BBS	Delete unique Ohio section – Duplication of chapter 1 requirements.
	314.2.3.3	2021	Added – identification of concealed condensate piping as primary or secondary
	314.3	BBS	Relocated provision to OPC chapter 1
	317	BBS	Replace entire section with general reference directing owners to comply with DIC rules for submission (RC §4104.44)
4101:3-4-01	Table 403.1	2018	Modified - Added fixtures for a gaming area
			Modified - Deleted Group classification column
			Modified - Added Note f for swimming pool fixture quantities.
		BBS	Kept model code values and column headings – Ohio modifications moved footnote f from “outdoor sporting events and activities” description cell to “assembly” classification cell as well as deleted current Ohio footnotes f and g as redundant with Sections 403.3 and 424.2
	403.1.1	2021	Modified – Added 2 exceptions to address fixture contribution from multi-user and single-user facilities serving all genders to the overall count required by Table 403.1
	403.1.2	2018	Modified - Signage for single user toilet room
		2021	Clarified – Fixture count contribution from single user toilet rooms
	403.1.3	2018	Added - Lavatories distribution proportionate to water closets

## Ohio Plumbing Code Summary of Significant Changes – 2017 to 2024

	403.2	2018	Modified – Added small business exception
		2021	Modified – Added multi-user, multi-gender toilet room design exceptions
		BBS	Modified – Added Group E limitation for separate facilities
	403.3	2018	Clarified - Public/Employee toilet facility simplification
		BBS	Modified – Removed attendant condition. All parking garages are exempt
	403.3.1	2021	Clarified – Remove accessible route duplication
	403.3.3	2021	Modified – Added exception for distance to toilet in Group S
	403.5	2021	Clarified – Remove accessible route duplication
	403.6	2021	Added – Service sink location limits
	403.7	BBS	Relocated provision to OPC chapter 1
	404.3	BBS	Relocated provision to OPC chapter 1
	405.3.1	2018	Clarified - Clearance to obstruction
	405.3.4	BBS	Modified – Added requirement for water closet compartment in multi-user, all gender toilet rooms
	405.3.5	2018	Clarified – Minimum distance between urinal partitions
	405.4.3	2021	Modification – Added new standard for water closet carriers
	405.5	2018	Added – Standard for pumped waste fixtures
	407.2	2021	Modified – Bathtub overflow optional
	409.1	2018	Modified – Added standard for residential dishwashing machines NSF 184
	409.4	2018	Modified – Waste connection requirement for residential dishwasher relocated from 802.1.6 and language revised for clarity
	410.3.2	2021	Added – Quantity of drinking fountains used while standing v. while seated
	410.4	2021	Clarified – Minimum required before substitution of dispensers for fountains
		BBS	Retained Ohio language for water dispenser substitution of drinking fountains
	411.3	2018	Added – Temperature mixing for emergency shower/eyewash
		2021	Modified – Control of temperature where shower/eyewash has direct supply from water heater

## Ohio Plumbing Code Summary of Significant Changes – 2017 to 2024

	412	2018	Relocated section 424 to 412
	412.3	2021	Modified – Lower flow shower heads must be compatible with mixing valve
	412.4		
	412.5	2021	Modified – Added methods of temperature limiting control for bathtubs
	412.7	2018	Added – Flow limiting device as part of temperature limiting control. Not a substitute for temperature limiting valves per 412.3 and 412.5
	412.10	2021	Modified – Added methods for temperature limiting control for head shampoo sinks.
	412.11	2021	Added – New text and standard for pre-rinse spray valves used in commercial food prep
	414	2018	Relocated section 427 to 414
	415	2018	Relocated section 425 to 415
	416	2018	Relocated section 413 to 416
	416.1	2021	Modified – New standard for commercial food waste disposers
	417	2018	Relocated section 414 to 417
	418	2018	Relocated section 415 to 418
	419	2018	Relocated section 416 to 419
	419.1	2021	Modified – Clarified impact on fixture count where a group wash fixture is used.
	419.3	2021	Modified – Included group wash fixtures for minimum waste outlet size.
	419.5	2021	Modified – Deleted CSA B125.3 standard as acceptable temperature limiting device for public handwashing – part of ASSE 1070
	420	2018	Relocated section 426 to 420
	421	2018	Relocated section 417 to 421
	421.1	2021	Modified – Added new standards for different types of prefab showers
	421.3.1	2021	Added – Standard for waste fittings that drain a shower.
	422	2018	Deleted entire section for health care fixtures and equipment. Relocated section 418 to 422
	423.3	2021	Modified – Replaced CSA standard with ASSE 1082 standard for footbaths and pedicure baths
	424		Relocated section 419 to 424
	425		Relocated section 420 to 425
	426		Relocated section 421 to 426
4101:3-5-01	501.2	2021	Clarified – Align code language with language of standard

# Ohio Plumbing Code Summary of Significant Changes – 2017 to 2024

	502.1	2018	Modified – Added solar thermal water heating systems and compliance with mechanical code and ICC 900 standard.
	502.1.1	BBS	Deleted Ohio exception. This is part of the listing
	504.6	2018	Modified – T & P discharge piping minimum size where insert fitting are used.
	504.7	2018	Modified – Expanded the types of materials for water heater drain pan
4101:3-6-01	602.3	BBS	Delete all of section 602.3. This work is regulated through ODH rules for private water supply.
	602.3.1	2018	Modified – Added standard for water well construction that is not otherwise regulated. This change is moot.
	602.3.5	2021	Modified – Added NSF standard for potable water pumps. This change is moot.
	603.3	BBS	Relocated provision to OPC chapter 1
	605.2	BBS	Returned to model code organization of section. Separate requirements for water supply in general from requirements for drinking water supply specifically.
	605.2.1		Relocated unique Ohio exceptions to 605.2.1 (which was previously deleted)
	605.11	2018	Deleted Section 605.11 Brass. Brass is one type of copper alloy. Subsequent sections renumbered
	605.12.3	2021	Modified – Solder and flux used in drinking water systems must comply with NSF 61 standard
	605.13.6		
	605.13.7	2018	Clarified – where push-fit type joints are acceptable
	605.14.4		
	605.16.3		
	606.1	2021	Modified – Added location #2.1 for water shut-off at each tenant in multi-tenant buildings other than a dwelling
		BBS	Retains Ohio modification for location #4 at the base of every water riser.
	606.7	2021	Deleted the labeling of water distribution pipes where bundled.
	607.1.1	2021	Modified - Expands means and standards for temperature limiting and tempered water control. Revised the format of 607.1.2.
	607.1.2		
	607.3	2018	Modified – Allows other means of pressure control in a hot water system beyond a thermal expansion tank only

## Ohio Plumbing Code Summary of Significant Changes – 2017 to 2024

	608.3	2018	Modification – Added 608.4 and extracted requirement from 608.3 to clarify backflow protection. All subsequent subsections are renumbered
	608.4		
	608.12 (formerly 608.11)	2018	Modified – Renumbered and added compliance with NSF 61 standard for interior of tanks in contact with potable water.
	608.15.2.1 (formerly 608.14.2.1)	2021	Modified – Drainage for backflow preventer discharge must accommodate max flow rate per manufacturer specs
	608.17.1 (formerly 608.16.1)	2018	Modified – Renumbered and reorganized sections to clarify backflow requirements used with carbonated beverage machines from requirements used with coffee and non-carbonated beverage machines (formerly 608.16.10)
	608.17.1.1		
	608.17.1.2		
	608.17.2 (formerly 608.16.2)	2021	Modified – Added ASSE 1081 standard for backflow requirements used with low hazard boiler
	608.17.10	2018	Added – Backflow protection requirements for humidifiers
	609.1	2018	Modified – Replaced outdated care facility terminology with current terms
	609.2	2021	Modified – Replaced terminology and expanded on requirements for a redundant water service Grp I-2, Cond 2
	609.2.1	2021	Added – Requirement for tracer wire on water service for Group I-2, Cond 2
	610.1	BBS & Petition #23-01	Added – Exception that outlines disinfection process for safe potable water in new plumbing systems of dwellings
	611.1	2018	Modified – Added NSF standard for reverse osmosis treatment unit.
4101:3-7-01	701.2	2018	Modified – Connection to sewer required except for gray water systems (ODH rules)
		BBS	Modifies model code to simplify. Public sewer or as otherwise permitted by OEPA or ODH.
	701.8	2018	Deleted – sanitary drainage above “food areas” no longer prohibited.
		BBS	Added – new section 701.8 for reuse of existing sanitary drain piping
	702.3	2018	Modified – Standard added for PP pipe
		2021	Modified – Standard added for ABS pipe

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		BBS	Ohio continues to delete this section and Table 702.3 as outside the scope of the OPC
	703	BBS	Ohio continues to delete this section in its entirety as outside the scope of the OPC
	703.4	2018	Modified – Use of existing building drain is clarified. Change is moot.
	704.1	2018	Modified – Slope for grease laden waste minimum ¼ inch/foot (2%)
	704.2	2018	Modified – Allowable reduction in pipe size clarified and expanded
	705.2.4	2021	Added – Push-fit DWV fittings for ABS and PVC piping
	705.10.4		
	705.16.4	2018	Modified – Allows a solvent cement joint between drain and sewer where only one joint is needed between ABS and PVC.
	706.3	BBS	Added language for through wall drainage in response to a petition
	708.1.6	2021	Added – Removeable fixture traps are acceptable as cleanouts. Subsequent subsections in 708.1 are renumbered
	709.3	2018	Clarified – Conversion of GPM to drainage fixture units (DFU)
	712.3.2	2018	Modified – Limits on elevation of some sump pit covers
	712.4.2	2018	Modified – Limit of waste ejector solids reduced to ½" max.
	713	2018	Deleted – All of health care plumbing is deleted as outdated or superseded. Renumber subsequent Sections
	716 (formerly 717)	2018	Modified – Pipe bursting method for replacement allowed for building drain
		BBS	Retains model code but modifies for use with building drain only (not sewer.)
	717	2021	Added – Relining method for restoring building sewers and drains
		BBS	Modifies for use with building drain only (not sewer.) Deleted subsections (717.3, .3.1, .4, .5, .6, .8 and .10) are administrative or manufacturer's instruction content.
	718	2021	Added – Cure-in-place method for rehabilitation of building drain
		BBS	Deleted this section in its entirety
4101:3-8-01	801.2	2018	Modified – Added humidification equipment that discharges to a drain must be protected

# Ohio Plumbing Code Summary of Significant Changes – 2017 to 2024

	802.1	2018	Modified – Waste-water discharge from humidification equipment must be indirectly connected to sanitary drain
	802.1.6	2018	Deleted – Domestic dishwashing machines. Renumber subsequent sub sections.
	802.1.7 (formerly 802.1.8)	Petition #18-06	Modified to allow direct connection for pot, pan and utensil sinks. Clarify that food sinks are under 802.1.1
	802.1.8	BBS	Relocated Ohio provision from exception #2 under OPC Section 301.3
	*802.4	BBS – comment from Kyle Gordon of Heapy Eng.	*Add an exception that allows standpipes to have “access” rather than “ready access”
	802.4.3.1	2018	Added – Alternative connection of laundry tub/tray, without a fixture trap, to clothes washer standpipe
4101:3-9-01	903.1	2021	Reorganized the section for clarity
	903.1.3	2021	Added – Requirements for vent terminations where covered by roof-mounted panel (e.g. solar or PV) or an architectural roof element (e.g. decorative shroud)
	903.1.4 (formerly 903.6)	2021	Relocated – Requirements for sidewall vent terminals.
	915.1	2021	Modified – Food waste disposer may discharge into a combination waste vent
	915.2	Petition #18-05	Retained model code for combination waste and vent, allowing vertical pipe between fixture drain of floor drain and horizontal pipe
	918.8	2018	Modified – Limit use of AAV near air intakes
4101:3-10-01	1002.1	2021	Modified – Deleted existing exception #3 and adds new exception #4 which will allow direct connection of pot and pan sinks to a hydromechanical grease interceptor under certain conditions. Renumbered subsequent exception
		BBS & Petition #18-04	Modified – Retained model code in Exception 1 and relocated distance to trap requirements in new subsections
	1002.1.1	BBS	Added – Relocated requirements for vertical distance to trap weir with an exception
	1002.1.2	BBS	Added – Relocated requirements for horizontal distance to trap inlet without exception
	1002.4.1.5	2021 & Petition #18-12	Added – Use of wastewater from lavs and hand sinks to supply trap primers

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	*1003.3.2	2018	Modified – Prohibits a food waste disposer from discharging into a grease interceptor.
		*BBS	*Retain model code
	*1003.3.3	2018	Added – Additives to grease interceptor must comply with manufacturer's instructions and ASME A112.14. standard
		*BBS	*Retain model code
4101:3-11-01	1102.4	2018	Modified – Added types of pipe allowed for use in storm sewer.
		BBS	Deleted section and table. Model code change is moot
	1102.6	2021	Modified – Added testing and rating of roof drains in accordance with a standard
	1106.2.1	2021	Added – Equation to convert rainfall rate to GPM
	1106.5	2018	Modified – Sets a minimum size and location (elevation) of scuppers
4101:3-12-01	1202.1	2021	Modified – Aligned the requirement with the NFPA 99 standard.
	1202.2	BBS	Relocated enforcement provision to OPC Chapter 1.
4101:3-13-01	Chapter 13	2015	Non-potable water systems – ODH rules
4101:3-14-01	Chapter 14	2015	Subsurface graywater soil absorption
4101:3-15-01	1501.3	BBS	Updated referenced standards: IAPMO Z124.10 ICC A117.1 NFPA 37 NFPA 70

\*Indicates a change after the stakeholder comment period

2024 Ohio Plumbing Code Comments					
Commenter	Email	Code Section	Comment	Staff Comments	Code Committee Action
Allen, Mark	<a href="mailto:mallen@phdmc.org">mallen@phdmc.org</a>	915.1	O.P.C. Combination waste & vent system section 915.1 propose Modified food waste disposer may discharge into a combination waste and vent system. Since 1998 when Ohio adopted this code the combination waste & vent system been working great with no problems because the type of plumbing fixtures allowed on the system all water discharge plumbing fixtures allowing air over water in the drain sizing chart. By allowing a garbage disposer on the Combination waste and vent system the solids from the disposal will take up more of the pipe inside volume less air to vent the plumbing system . I think this will cause many problems .	American Society of Plumbing Engineers (ASPE) researched this issue and demonstrated that system works when food waste disposer discharges into CW&V system	3/30 No change
Allen, Mark	<a href="mailto:MAllen@phdmc.org">MAllen@phdmc.org</a>	1003.3.2	Modified – Prohibits a food waste disposer from discharging to a grease interceptor. This is a big mistake the current 2018 O.P.C. Section 1003.3.2 allowing the food waste disposal connect to the grease interceptor , a solid interceptor shall separate the discharge before connecting to the grease interceptor. This installation works great ! In a commercial kitchen when they scape all the plates off into a food waste disposal before they enter the dish washer this is where all the grease drains to. This section of code should remain the same.	Food particles could block the flow of the small openings and baffles within the hydromechanical grease interceptor. Because of the small size of hydromechanical grease interceptors, manufacturers of this type of interceptor state that food particles from a disposal should not be discharged into a hydromechanical interceptor.	3/30 No change

			<p>just don't know about how ODH views their authority regarding water reclamation systems (see email thread below). With this in mind as Ohio moves forward in the code adoption process, it would seem that we should adopt chapter 13 and chapter 14 by reference as well. Without any proper enforcement/regulation of these types of systems people can be put at risk.</p> <p>I do understand why OBBS adopted the code the way they did and maybe fixing this would require ODH to amend their definitions. Note #10 should be removed from the OAC 3701-28-01 definition of "Private Water System" because it is not intended for human consumption.</p> <p>OAC 3701-28-01 Definitions(XXX) "Private water system" means any water system, other than a public water supply system, for the provision of water for human consumption, if the system has fewer than fifteen service connections and does not regularly serve an average of at least twenty-five individuals daily at least sixty days each year. A private water system includes the following:(10) Auxiliary water sources that enter a structure to supplement flushing toilets or laundry washing;ORC rule 3701.344 clearly defines "private water system" as being for human consumption, so the reference to "recycled water" would only apply if the water was intended for human consumption. I do not necessarily endorse removing this reference because this could come into play if Ohio at some point allows for rainwater catchment systems to be used for a potable water source. There are some systems out there now which are designed</p>		
Richardson, Jim	<a href="mailto:JARichardson@columbus.gov">JARichardson@columbus.gov</a>	Chapters 13 & 14		ODH law includes recycled water and ODH definition of "human consumption" includes flushing toilets and washing laundry	3/30 No change