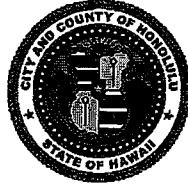


DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

'22JUN09 AM 8:53 CITY CLERK

RICK BLANGIARDI
MAYOR



DEAN UCHIDA
DIRECTOR
DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

June 7, 2022

The Honorable Tommy Waters
Chair and Presiding Officer
and Members
530 South King Street, Room 202
Honolulu, Hawaii 96813

Dear Chair Waters and Members:

SUBJECT: State Plumbing Code

Attached is a draft bill to adopt the State Plumbing Code, and Justification Sheet for the Updates for your favorable action. This measure will update the Plumbing Code through the adoption of the 2018 Uniform Plumbing Code and the State Plumbing Code, subject to local amendments.

Should you have any questions, please contact me at 768-8000.

Very truly yours,

A handwritten signature in black ink, appearing to read "Dean Uchida".

Dean Uchida
Director

Attachments

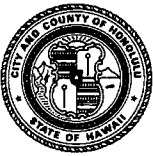
1. Draft bill to adopt the 2018 Plumbing Code
2. 2018 Plumbing Code Amendment Table

APPROVED:

A handwritten signature in black ink, appearing to read "Michael D. Formby".

Michael D. Formby
Managing Director

DEPT. COM. 421



A BILL FOR AN ORDINANCE

RELATING TO THE ADOPTION OF THE STATE PLUMBING CODE.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Purpose. The purpose of this ordinance is to adopt the Hawai'i State Plumbing Code, as required by HRS Sec.107-28, subject to local amendments.

SECTION 2. Articles 1 through 6 of Chapter 19, Revised Ordinances of Honolulu 1990 ("Plumbing Code") are repealed in their entirety.

SECTION 3. Chapter 19, Revised Ordinances of Honolulu 1990 ("Plumbing Code") is amended by adding a new Article 1 ("Adoption of the Hawaii State Plumbing Code") to read as follows:

"Article 1. Adoption of the Hawaii State Plumbing Code."

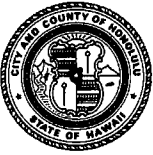
Sec. 19-1.1. Adoption of the Hawaii State Plumbing Code.

The Hawai'i State Plumbing Code adopted by the State Building Code Council on May 19, 2020 ("SPC") is adopted, incorporated by reference herein, and made a part of this code, subject to the following amendments:

- (1) The unnumbered provisions on page 1 of the SPC that relate to the SPC's purpose, scope, definitions, and county permit authorization are deleted; these provisions are not adopted or incorporated into this code.
- (2) The unnumbered provisions in the SPC regarding the "Adoption of the Uniform Plumbing Code, 2018 Edition" are amended to read as follows:

Adoption of the Uniform Plumbing Code. The Uniform Plumbing Code, 28th Edition (2018), 6th Printing ("UPC") including appendices A, B, C, G and I, as copyrighted and published by International Association of Plumbing and Mechanical Officials, 4755 East Philadelphia Street, Ontario, CA 91761-2816 adopted as the State of Hawaii State Plumbing Code and is incorporated herein by reference, subject to the following amendments.

- (3) UPC Section 101.1 is incorporated into the SPC and is amended to read as follows:



A BILL FOR AN ORDINANCE

101.1 Title. This document shall be known as the "Plumbing Code," may be cited as such, and will be referred to herein as "this code."

- (4) UPC Section 101.2 is incorporated into the SPC and amended to read as follows:

101.2 Scope. The provisions of this code shall apply to the design, construction, erection, installation, alteration, repair, relocation, replacement, addition to, use, or maintenance of plumbing systems within the City and County of Honolulu.

- (5) SPC Section 102 ("Organization and Enforcement") is deleted.
- (6) UPC Section 102.1 is incorporated into the SPC and amended to read as follows:

102.1 Conflicts between Codes. In general:

(a) When the provisions of this code conflict with the mechanical code, this code shall prevail.

(b) When there is a conflict between this code and ROH Chapter 18 concerning the fees or procedural requirements for obtaining a permit required by this code, Chapter 18 shall prevail except as otherwise stated herein.

(c) When this code conflicts with ROH Chapter 18 regarding the substantive requirements for obtaining a permit required by this code, this code shall prevail except as otherwise stated herein.

(d) When this code conflicts with ROH Chapter 14, Chapter 14 will prevail; and

(e) Where there is a conflict between a general requirement and a specific requirement in this code, the specific requirement will prevail. The Authority Having Jurisdiction may resolve conflicts between the foregoing codes contrary to the general principals in this section when necessary to prevent absurd results, prevent unjustified hardship to the applicant, or protect the health, safety, and welfare of the public.

(f) When this code conflicts with the manufacturer's installation instructions for plumbing systems, the Authority Having Jurisdiction shall determine the



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applicable requirements, as necessary for the protection of the public. Where there is a conflict between a general requirement and a specific requirement in this code, the specific requirement shall prevail.

(g) Except as otherwise stated herein, conflicts of law are to be resolved in accordance with the rules of statutory construction and conflicts of law recognized by Hawaii courts.

- (7) UPC Section 102.2 is incorporated into the SPC and amended to read as follows:

102.2 Existing Installations. Plumbing systems lawfully in existence at the time of the adoption of this code shall be permitted to have their use, maintenance, or repair continued provided that they do not create a hazard to health, safety or property. If replaced, existing showerheads, kitchen faucets, lavatory faucets, toilets, and urinals shall comply with the water conservation requirements in ROH Chapter 30, Article 4 ("Water Conservation Measures").

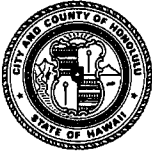
- (8) UPC Section 103.1 is incorporated into the SPC. UPC Section 103.1 is amended by replacing its first paragraph with the following:

"The Authority Having Jurisdiction shall be the director of the department of planning and permitting. In addition to the powers specifically set forth herein, the Authority Having Jurisdiction shall have all powers reasonably necessary to administer and enforce this code, including, without limitation, the powers to render interpretations of this code and adopt and enforce rules that are supplemental to this code".

- (9) UPC Section 104.1 is incorporated into the SPC and amended to read as follows:

104.1 Permits Required. It shall be unlawful to alter, install, repair or replace a plumbing system regulated by this code except as permitted in ROH Section 18-3.1(b), or to cause the same to be done, without first obtaining a building permit.

In addition to the work exempt from requiring a building permit under this section, the following work does not require a building permit: (a) the clearing of stoppages and blocks without the removal or replacement of plumbing systems or parts thereof; and (b) the removal and replacement of water closets, shower heads, and faucets without the replacement or rearrangement of valves, pipes, and other plumbing system components.



A BILL FOR AN ORDINANCE

Exemption from permit requirements under ROH Section 18-3.1(b) shall not be deemed to grant authorization for work to be done in violation of the other requirements of the code or any other laws or ordinances.

- (10) UPC Section 104.2 (Exempt Work) is incorporated into the SPC and is deleted; it is not made a part of this code.
- (11) UPC Section 104.3 ("Application for Permit") is incorporated into the SPC, and is deleted; permit applications shall be governed by ROH Chapter 18.
- (12) UPC Section 104.3.1 is incorporated into the SPC and amended to read as follows:

104.3.1 Construction Documents. In addition to the requirements provided in ROH Chapter 18, construction documents that are submitted with an application for a permit must:

- (a) Provide a true and accurate description of the work that will be performed;
 - (b) Include piping plans with isometric piping diagrams, equipment piping details, equipment schedules, and product information;
 - (c) Be drawn to standard architectural scale using floor plans and elevations or standard engineering scale appropriate to site utilities;
 - (d) Use text with a minimum height of one-eighth inch; and
 - (e) Be prepared, stamped, and signed by a professional civil or mechanical engineer, licensed to practice in the State of Hawaii.
- (13) UPC Sections 104.3.2 ("Plan Review Fees"), 104.3.3 ("Time Limitation of Application"), 104.4 ("Permit Issuance"), 104.4.1 (Approved Plans or Construction Documents"), 104.4.2 ("Validity of Permit"), 104.4.4 ("Extensions"), 104.4.5 ("Suspension or Revocation"), 104.4.6 ("Retention of Plans"), and 104.5 ("Fees") are incorporated into the SPC and deleted. The subjects addressed by these provisions are governed by ROH Chapter 18.
 - (14) UPC Section 104.5.1 is incorporated into the SPC and amended to read as follows:

104.5.1 Work Commencing Before Permit Issuance. Where work for which a permit is required by this code has been commenced without first obtaining a



A BILL FOR AN ORDINANCE

building permit, a special investigation may be made required before a permit is issued for such work.

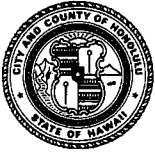
- (15) UPC Section 104.5.2 is incorporated into the SPC and deleted. This section is not adopted or incorporated into this code.
- (16) UPC Section 104.5.3 ("Fee Refunds") is incorporated into the SPC and deleted. Refunds for fees collected in connection with applications for permits required by this code are governed by ROH Chapter 18.
- (17) UPC Section 105.2.3 is incorporated into the SPC and amended to read as follows:

105.2.3 Inspection Requests. It shall be the duty of the person doing the work authorized by a permit to notify the Authority Having Jurisdiction that such work is ready for inspection. A request for inspection may be made in any manner allowed by the Authority Having Jurisdiction but must be made not less than two working days before the desired inspection date. If a request is properly made, the Authority Having Jurisdiction shall not be required to perform the inspection on the requested date, but shall make reasonable efforts to perform the requested inspection on the requested date or as soon thereafter as is practicable under the circumstances.

It shall be the duty of the person requesting inspections, in accordance with this code, to provide access to and means for inspection of such work. After inspection, the Authority Having Jurisdiction shall approve the inspected work if it complies with the requirements of this code and the approved plans for the building permit issued for the work.

As part of any inspection made under this code, the Authority Having Jurisdiction may require verification that the work being inspected was performed by a currently licensed plumbing journey worker and/or contractor. The failure to verify that work under inspection was performed by an appropriately licensed professional will be good and adequate grounds for the Authority Having Jurisdiction to determine that the work fails inspection.

In addition to any fees payable under ROH Chapter 18, a person requesting an inspection will be required to pay an inspection fee. A person may request an inspection to occur during normal business hours shall pay the city a fee of \$50.00 per hour for the time that is used to perform the inspection, which will include time used to travel to and from the inspection location. A person may



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also request an inspection outside of normal business hours. A request for an inspection outside of normal business hours may be approved or denied at the discretion of the Authority Having Jurisdiction, based on the nature of the work to be inspected and the availability of personnel to perform the inspection. The fee for an inspection outside of normal business hours is \$75.00 for each hour that is used to perform the inspection, including time used to travel to and from the inspection location. For the purposes of this section, normal business hours are 8:00 a.m. to 4:00 p.m. on a day on which the city is open for business.

In calculating inspection fees due under this section, the person requesting the inspection will be billed for one hour of time for inspections that take up to one hour and half the hourly rate for each additional half hour or portion thereof used to perform the inspection.

- (18) UPC Section 105.2.4 is incorporated into the SPC, and of the UPC, adopted by the SPC, is amended to read:

105.2.4 Advance Notice. It shall be the duty of the person doing the work authorized by a permit to notify the Authority Having Jurisdiction that such work is ready for inspection. Such notification shall be given not less than 2 working days before the work is to be inspected. Such notification shall be in writing or by telephone, at the option of the Authority Having Jurisdiction.

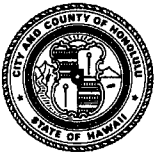
- (19) UPC Section 105.2.6 is incorporated into the SPC and amended to read as follows:

105.2.6 Reinspections. If an inspection is made by the Authority Having Jurisdiction and additional inspections are necessary because less than all of the work requiring inspection is approved, the Authority Having Jurisdiction may require a reinspection of the work that has not been approved. When a reinspection is required, a reinspection fee will be assessed.

Reinspections may be requested in the same manner as requests for initial inspections under Section 105.2.3 and will be billed in the same manner described therein.

Reinspections will not be provided until all outstanding inspection fees and the fee for reinspection have been paid.

- (20) UPC Section 105.2 is incorporated into the SPC, and is amended by adding Subsection 105.2.7 to read:



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105.2.7 Plumbing Special Inspection. The Authority Having Jurisdiction may require work governed by this code to be subject to Plumbing Special Inspection when deemed necessary based on the nature of the work or resources of the department. Plumbing Special Inspections must be performed by appropriately licensed design professionals that are not involved in performing the work that will be inspected.

Plumbing Special Inspectors are to be hired and paid by the applicant and may be required to provide the Authority Having Jurisdiction with proof of their qualifications to perform the required inspections.

Plumbing Special Inspectors shall review the approved construction documents prior to the commencement of work and document the performance of work in compliance with the approved construction documents and the requirements of this code in reports that will be provided to the Authority Having Jurisdiction, the applicant, and the registered professional engineer or architect of record on request.

When work that is subject to a Plumbing Special Inspection is complete, the Plumbing Special Inspector shall submit a final signed report stating that the inspected work was completed in compliance with the approved construction documents and the requirements of this code.

Plumbing Special Inspectors will provide written documentation to the building official demonstrating his or her competence and relevant experience or training in each type of inspection they will perform. Inspector personnel will not be allowed to perform inspections without these qualifications unless directly supervised by the qualified, responsible Plumbing Special Inspector.

- (21) UPC Section 106.2 is incorporated into the SPC and is amended to read as follows:

106.2 Notices of Violation and Order. Whenever any person, firm, or corporation violates any provision of this chapter, the Authority Having Jurisdiction may serve a notice of violation on the persons deemed responsible for the violation, which may include the owners of the property and building or unit thereof. A notice of violation must be served on the responsible persons by:

- (a) Hand delivery to the responsible person at any location or to another person of suitable age and discretion at the responsible person's workplace or place of



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residence or

(b) Certified mail, deliverable to any address at which the responsible person is known to receive mail, with return receipt requested. However, if the whereabouts of one or more responsible persons are unknown and cannot be readily ascertained by the Authority Having Jurisdiction, the Authority Having Jurisdiction may, after reasonable efforts to locate and serve the responsible person as provided for in (a) and (b), serve the notice of violation by publishing a copy of the same in a daily or weekly publication of general circulation within in the city, one per week for two consecutive weeks.

A notice of violation must include at least the following information:

- (a) The date of the notice;
- (b) The name of the persons deemed responsible for the violation;
- (c) The section of the code, the rule, or the permit condition that has been violated;
- (d) A concise statement or description of the violation;
- (e) The deadline for correcting each violation; and
- (f) The name and phone number of the inspector responsible for issuing the notice of violation.

If a violation remains uncorrected after a notice of violation is served on one or more responsible persons, the Authority Having Jurisdiction may then issue a notice of order to the same persons who were served with the notice of violation.

A notice of order must contain the same information required for a notice of violation and may impose civil fines of up to \$2,000.00 per violation, per day for each uncorrected violation that was identified in the notice of violation. In addition to the information required in a notice of violation, a notice of order must inform the responsible persons that the notice of order may be appealed to the Building Board of Appeals within thirty days of service of the notice of order. Notices of order must be served in the same manner as notices of violation.

Service of a notice of violation or notice of order will be effective:

- (a) on the day hand delivery is made;



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- (b) on the day certified mail is signed for; or
- (c) on the date the last required publication is made.

- (22) UPC Section 106.3 is incorporated into the SPC and is amended to read as follows:

106.3 Criminal Penalties. Any person, firm, or corporation violating any of the provision of this code shall be guilty of a misdemeanor, with each days continuance of the violation deemed a separate offense. The penalty for a criminal violation of this code shall be a fine of not more than \$2,000.00 per violation, imprisonment for not more than one year, or by both.

Any officer or inspector designated by the Authority Having Jurisdiction that has been deputized by the chief of police as a special officer for the purpose of enforcing the provisions of the this code may arrest the person responsible for the violation upon a warrant of arrest or issue a citation using a summons and complaint form issued by the judiciary for violations of this code. The form and content of such summons and complaint form shall be as adopted or prescribed by the administrative judge of the district court and shall be printed on a form commensurate with the form of other summonses or citations used in modern methods of arrest, so designed to include all necessary information to make the same valid within the laws and regulations of the State of Hawaii and the City and County of Honolulu.

- (23) UPC Section 106.4 is incorporated into the SPC, and is amended to read as follows

106.4 Stop Orders. If the Authority Having Jurisdiction determines that work is being done in violation to this code or any permit issued hereunder, the Authority Having Jurisdiction may issue a written stop work order to the owner of the property, building, and building unit and to any persons engaged in or causing the work to be done. Upon service of a stop work order, all persons served with the order must immediately stop work until the Authority Having Jurisdiction authorizes further work.

In addition to the information required for a notice of violation under Section 106.2, a stop work order must contain a concise description of the work that is prohibited by the stop work order. A stop work order may be served in the same manner as a notice of violation or notice of order under Section 106.2. The provisions in Section 106.2 regarding the effective date of service will apply to stop work orders.



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- (24) UPC Section 106.0 is incorporated into the SPC and is amended by adding Subsection 106.7.2 to read as follows:

106.7.2 Effect of Order--Right to Appeal.

All orders issued by the Authority Having Jurisdiction will become final 30 calendar days after the date of service. Any person served with an order issued under this code may appeal the order to the Building Board of Appeals before that time. The filing of an appeal will not stay any provision of the order being appealed.

- (25) UPC Section 106.0 is incorporated into the SPC and is amended by adding Subsection 106.7.3 to read as follows:

106.7.3 Judicial Enforcement.

The Authority Having Jurisdiction may institute a civil action in any court of competent jurisdiction to enjoin any violation of this code and any rule adopted or permit issued hereunder.

The Authority Having Jurisdiction may also institute a civil action to enforce the civil fine imposed by an order that has become final. In such cases, the Authority Having Jurisdiction need only show that the notice of violation and order were properly served, that a civil fine was imposed, the amount of the civil fine that it seeks to enforce, and that the fine has not been paid.

- (26) UPC Section 107.1 is incorporated into the SPC and is amended to read as follows:

107.1 Building Board of Appeals.

The Building Board of Appeals constituted under the ROH Chapter 16 shall have the authority hear and determine appeals from the actions of the Authority Having Jurisdiction in the administration and enforcement of this code. The procedures and standards for appeals from the actions of the Authority Having Jurisdiction in the administration and enforcement of this code will be as provided in ROH Chapter 16.

- (27) UPC Section 107.2 ("Limitations of Authority") is incorporated into the SPC and deleted. This section is not adopted or incorporated into this code.



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- (28) UPC Section 203.0 is incorporated into the SPC, and is amended to read as follows:

"Authority Having Jurisdiction" means the Director of the Department of Planning and Permitting, of the City and County of Honolulu. When references are to the Health Officer, Health Department or Health, the Authority Having Jurisdiction shall be the Director of Health of the Department of Health, State of Hawaii.

- (29) UPC Section 204.0 is incorporated into the SPC, and is amended by adding the definition of "Building Code" and amending the definition of "Building Drain" to read as follows:

"Building Code." As defined in ROH § 16-1.1(1), as amended.

- (30) UPC Section 205.0 is incorporated into the SPC, and is amended by adding the following definition in the appropriate alphabetical arrangement:

"Control Valve." A control valve is any type of valve which can change the flow rate of water, which includes compression stop valves.

- (31) UPC Section 206.0 is incorporated into the SPC, and is amended by adding the following definitions in the appropriate alphabetical arrangement:

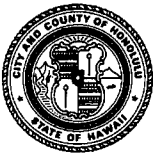
"DOH." means the State of Hawaii, Department of Health

"Dwelling." means a house, apartment, or other place that is intended to provide living accommodations to one or more persons and equipped with amenities for sleeping, cooking, and sanitation

- (32) UPC Section 220.0 is incorporated into the SPC, and is amended to read as follows:

"Registered professional engineer." An engineer licensed in the State of Hawaii under Chapter 464 Professional Engineers, Architects, Surveyors and Landscape Architects.

- (33) UPC Section 221.0 is incorporated into the SPC, and is amended by adding the following definitions in the appropriate alphabetical arrangement:



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“SPC.” means the Hawaii State Plumbing Code, adopted by the State Building Code Council on May 19, 2020.

- (34) UPC Section 223.0 is incorporated into the SPC, and is amended by the addition of the following definition to be located in the appropriate alphabetical arrangement:

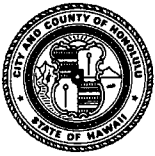
“UPC”. Means the 2018 Uniform Plumbing Code, 28th Edition (2018), 6th Printing.

- (35) UPC Section 301.4 is incorporated into the SPC, and is amended to read:

301.4 Flood Hazard Areas. Plumbing systems that are located in special flood hazard area, floodway area, or flood fringe area identified in ROH Chapter 21A must be designed and installed so that water will not enter or accumulate within their components during flooding. Plumbing systems located below the base flood elevation shall be designed and installed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy. All pipe openings shall terminate at an elevation of at least one foot above the base flood elevation unless the drainage system is equipped with an automatic backwater valve in each discharge line passing through the building exterior wall. Fixtures located at a floor level above the base flood elevation shall not discharge through the backwater valve.

- (36) UPC Section 301.5.1 is incorporated into the SPC, and is amended to read as follows:

301.5.1 Permit Application. In addition to the requirements of ROH Chapter 18, the following will apply to applications for building permits involving alternative engineered designs. The registered professional engineer shall indicate on the design documents that the plumbing system, or part thereof, is an alternative engineered design and note the same in the building permit application. The permit and permanent permit records must indicate that an alternative engineered design was part of the approved installation. A written request by a registered professional mechanical engineer with the concurrence of the building or project owner must be made to the Authority Having Jurisdiction. The details of this approval shall be recorded and entered in the files of the department. Submittals shall be stamped and signed by the registered professional mechanical engineer. The registered professional mechanical engineer responsible for the design supervision and construction observation of the system shall provide a statement that they have personally verified all tests and



A BILL FOR AN ORDINANCE

certifications and, if appropriate, state that the installation complies with the installation requirements.

- (37) UPC Section 301.5.6 is incorporated into the SPC, and is amended to read as follows:

301.5.6 Inspection and Testing. Plumbing Special Inspections, as specified in Section 105.2.7 will be required for work involving alternative engineered designs. The alternative engineered design will be tested and inspected in accordance with the submitted testing and inspection plan and the requirements of this code.

- (38) UPC Section 306.0 is incorporated into the SPC, and is amended by adding Subsection 306.3 to read as follows:

306.3 Industrial Wastewater Discharge Permits. Sanitary sewer systems that require an industrial wastewater discharge permit under ROH Chapter 14 must comply with the design and maintenance requirements adopted by the Department of Environmental Services.

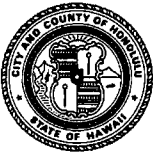
- (39) UPC Section 310.4 is incorporated into the SPC, and is amended to read as follows.

310.4 Use of Vent and Waste Pipes. Except as hereinafter provided in Section 908.0 Wet Venting, Section 909.0 Special Venting for Island Fixtures, Section 910.0 Combination Waste and Vent Systems, no vent pipe shall be used as a soil or waste pipe, nor shall a soil or waste pipe be used as a vent.

- (40) UPC Section 312.3 is incorporated into the SPC, and is amended to read as follows:

312.3 Building Sewer and Drainage Piping. No building sewer or other drainage piping or part thereof, constructed of materials other than those approved for use under or within a building, shall be installed under or within 5 feet (1.5m) of any building or structure, less than one foot (0.3m) below the surface of the ground or as approved by the authority having jurisdiction.

- (41) UPC Section 312.7 is incorporated into the SPC, and is amended to read as follows:



A BILL FOR AN ORDINANCE

312.7 Fire-Resistant Construction. Piping penetrations of fire-resistance-rated walls, partitions, floors, floor/ceiling assemblies, roof/ceiling assemblies, or shaft enclosures shall be protected in accordance with the requirements of the building code.

- (42) UPC Section 317.0, Food-Handling Establishments, including Subsection 317.1 are incorporated into the UPC, are deleted.

- (43) UPC Section 408.2 is incorporated into the SPC, and is amended to read as follows:

408.2 Water Consumption. A showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute (gpm) at 80 psi (6.8 L/m at 552 kPa).

- (44) UPC Section 411.2 is incorporated into the SPC, and is amended to read as follows:

411.2 Water Consumption. A water closets shall have a maximum consumption not to exceed 1.28 gallons (6.8 liters/minute) of water per flush.

- (45) UPC Section 411.2.2 is incorporated into the SPC, and is amended to read as follows:

411.2.2 Flushometer Valve Activated Water Closets. Flushometer valve activated water closets shall have a maximum flush volume of 1.28 gallons (4.8 liters) of water per flush.

- (46) UPC Section 415.2 ("Drinking Fountain Alternatives") is incorporated into the SPC, and is deleted from this code.

- (47) UPC Section 422.0 is incorporated into the SPC, and is amended to read as follows:

Minimum Number of Required Fixtures. Plumbing fixtures shall be provided for the type of building occupancy and in the minimum number required in the Building Code.

- (48) UPC Section 422.1 and UPC Table 422.1 are incorporated into the SPC, and are deleted from this code.



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- (49) UPC Section 501.1 is incorporated into the SPC, and is amended to read as follows:

501.1 Applicability. The regulations of chapter 5 of this code shall govern the construction, location, and installation of fuel-burning and other types of water heaters heating potable water, together with chimneys, vents, and their connectors. The minimum capacity for storage water heaters shall be in accordance with the first-hour rating listed in Table 501.1(2). No water heater shall be hereinafter installed that does not comply with the manufacturer's installation instructions and the type and model of each size thereof approved by the Authority Having Jurisdiction. A list of accepted water heater appliance standards is referenced in Table 501.1(1). Listed appliances shall be installed in accordance with manufacturer installation instructions.

- (50) UPC Section 601.2 is incorporated into the SPC, and is amended to read as follows:

601.2 Hot and Cold Water Required. Except where not deemed necessary for safety or sanitation by the Authority Having Jurisdiction, each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger of backflow or cross-connection. Water closets and urinals shall be flushed using an approved flush tank or flushometer valve.

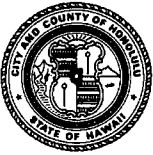
Exception: Listed fixtures that do not require water for their operation and are not connected to the water supply.

- (51) UPC Section 601.0 is incorporated into the SPC, and is amended by adding Subsection 601.4 to read as follows:

601.4 Private Water Systems. Owners of private water systems are responsible for maintaining the potability of their water systems. Private water systems apply to water systems that are not defined as public water systems as defined by the health officer.

- (52) UPC Section 603.5.5 is incorporated into the SPC, and is amended by adding subparagraph (4) to read as follows:

- (4) No gravity tank may be directly connected to the city water main. Gravity tanks must be provided with an over-the-rim filler, the orifice or outlet of



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which must be elevated a distance of six inches (152 .4 mm) above the overflow. A drain shall be provided at the bottom of the tank.

- (53) UPC Section 603.5.14 is incorporated into the SPC, and is amended by adding the following to the list of enumerated items thereunder:

603.5.14 Protection from Fire Systems.

(5) Systems with alarm check valve assembly.

(6) Systems with booster pump and check valve assembly.

- (54) UPC Section 610.4 is incorporated into the SPC and is amended to read as follows:

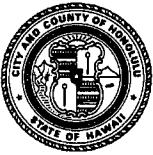
610.4 Sizing Water Supply and Distribution Systems. Except as otherwise required by the Board of Water Supply, systems within the range of Table 610.4 may be sized as described therein or as provided in Section 610.5 of this code.

- (55) UPC Sections 612.0 to 612.7 are incorporated into the SPC, and are deleted from this code. Residential fire sprinkler requirements are to be determined by the Building Code.

- (56) UPC Section 701.2, Subparagraph (2) is incorporated into the SPC, and is amended to read as follows:

(2) ABS and PVC DWV piping installations must be installed in accordance with applicable standards referenced in Table 701.2, provided that "Firestop Protection" requirements will be determined by the Building Code. Except for single-family dwellings, materials exposed within ducts or plenums must have a flame-spread index of a maximum of 25 and a smoke-developed index maximum of 50, where tested in accordance with ASTM E 84 and UL 723. These tests must comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe may not be tested while filled with water.

- (57) UPC Section 704.3 is incorporated into the SPC, and is amended to read as follows:



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704.3 Commercial Sinks. Sinks in commercial kitchens and food service establishments must comply with the requirements adopted by the Health Official.

- (58) UPC Section 707 is incorporated into the SPC, and is amended by adding Subsection 707.15 to read:

707.15 Residential Cleanouts. All cleanouts located on the ground floor within any residential occupancy shall be extended outside of the building, arranged in an accessible location below the building, or above the floor, and extend no less than six inches (152.4 mm) above the flood level rim of the lowest fixture.

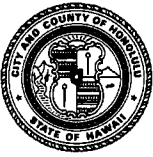
- (59) UPC Section 710.6 is incorporated into the SPC and is amended to read as follows:

710.6 Backwater Valves. Backwater valves, gate valves, fullway ball valves, unions, motors, compressors, air tanks, and other mechanical devices required by this section must be located where they will be accessible for inspection and repair. Unless continuously exposed, these items must be enclosed in a masonry pit fitted with an adequately sized removable cover or other approved compartment.

Backwater valves must:

- (a) Have bodies of cast-iron, plastic, brass, or other approved materials;
 - (b) Have noncorrosive bearings, seats, and self-aligning discs; and
 - (c) Be constructed so as to ensure a positive mechanical seal. Backwater valves must remain open during periods of low flows to avoid screening of solids and shall not restrict capacities or cause excessive turbulence during peak loads. Unless otherwise listed, valve access covers must be a bolted type with gasket, and each valve must bear the manufacturer's name cast into the body and the cover.
- (60) UPC Section 713.1 is incorporated into the SPC and is amended to read as follows:

Where Required. A building in which plumbing fixtures are installed and premises having drainage piping thereon must be connected to a public or private sewer, except as provided in ROH Chapter 14.



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- (61) UPC Section 713.2 ("Private Sewage Disposal System") is incorporated into the SPC and deleted from this code. The use of private sewage disposal systems is allowed under the circumstances described in ROH Chapter 14.

- (62) UPC Section 713.3 is incorporated into the SPC and is amended to read as follows:

713.3 Public Sewer. The rearrangement or subdivision of a lot into smaller parcels will not be deemed adequate cause to permit the construction of a private sewage disposal system.

- (63) UPC Section 713.4 ("Public Sewer Availability") is incorporated into the SPC and is deleted from this code. The availability of public sewers will be determined in accordance with ROH Chapter 14.

- (64) UPC Section 713.5 is incorporated into the SPC, and is amended to read as follows:

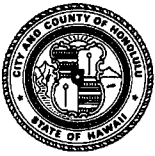
713.5 Permit. No permit shall be issued for the installation, alteration, or repair of a private sewage disposal system, or part thereof, on a lot for which a connection with a public sewer is available. It is unlawful for any person to use or connect to the public sewer system without first obtaining the written approval of the Authority Having Jurisdiction.

- (65) UPC Section 713.7 is incorporated into the SPC, and is amended to read as follows:

713.7 Installation. The installation of building sewers receiving building permits from the Authority Having Jurisdiction must comply with this code. Where a building sewer is lawfully installed without a building permit from the Authority Having Jurisdiction because the building sewer is regulated by another governmental entity, the provisions of this code relating to building sewers need not apply.

- (66) UPC Section 713.0 is incorporated into the SPC, and is amended by adding Subsection 713.8 to read as follows:

713.8 Building Sewer Construction. Building sewer construction shall conform to the requirements for main line sewers as set forth in the City and County of

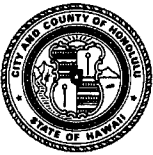


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Honolulu Wastewater System Standard Details, dated July 2017, and ROH Chapter 14 Public Works Infrastructure Requirements Including Fees and Services, as amended, when either of the following conditions exists:

- (1) Where the Authority Having Jurisdiction requires such construction because of the character or quantity of the sewage or industrial waste to be discharged.
 - (2) Where the sewer will be dedicated to the City and County of Honolulu.
- (67) UPC Sections 714.1 ("Unlawful Practices"), 714.2 ("Prohibited Wastewater Discharge"), and 714.3 ("Prohibited Sewer Connection") are incorporated into the SPC and are deleted from this code. These topics are governed by ROH Chapter 14.
- (68) UPC Section 718.3 is incorporated into the SPC and is amended to read as follows:
- 718.3 Protection from Damage.** No building sewer or other drainage piping or part thereof, which is constructed of materials other than those approved for use under of within a building, may be installed within 5 feet (1.5 m) of any part of a building or structure, nor less than 1 foot (305 mm) below the surface of the ground. The provisions of this subsection include structures such as porches and steps, whether covered or uncovered; breezeways; roofed porte cocheres; roofed patios; carports; covered walks; covered driveways; and similar structures or appurtenances.
- (69) UPC Subsection 722.2 is incorporated into the SPC and is amended by adding the following Exception:
- Exception:** An abandoned cesspool is allowed to be used as an overflow receptor for a sewage sump with pump discharge when approved by the Authority Having Jurisdiction.
- (70) UPC Subsection 804.1 is incorporated into the SPC and is amended to read as follows:

804.1 Standpipe Receptors. Plumbing fixtures or other receptors receiving the discharge of indirect waste pipes may be approved and must be of such shape and capacity as to prevent splashing or flooding. Where approved, such fixtures and receptors must be located in a readily accessible location for inspection and



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cleaning. No standpipe receptor for a clothes washer may extend more than 30 inches (762 mm) above its trap. No standpipe receptor for a clothes washer may be less than 18 inches (457 mm) above its trap. No trap for a clothes washer standpipe receptor may be installed below the floor. Stand pipe receptors must be roughed in not less than six inches (152 m) and not more than 18 inches (457 mm) above the floor. No indirect waste receptor may be installed in a toilet room, closet, cupboard, or storeroom, nor in a portion of a building not in general use by the occupants thereof; except standpipes for clothes washers may be permitted to be installed in toilet and bathroom areas where the clothes washer is installed in the same room. Indirect drain receptors for air conditioning condensate drain lines must be accessible without the use of tools or equipment for inspection and cleaning and are allowed to be installed in toilet or bathroom areas.

- (71) UPC Subsection 809.1 is incorporated into the SPC and is amended to read as follows:

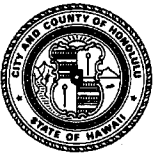
809.1 General. Drinking fountains may be permitted with indirect waste. Outdoor drinking fountains located beyond 200 feet from nearest sanitary drainage system may be allowed to discharge into a dry well in accordance with the dry well detail of the City and County of Honolulu, Department of Parks and Recreation.

- (72) UPC Subsection 814.5 is incorporated into the SPC and is amended to read as follows:

814.5 Point of Discharge. Air-conditioning condensate waste pipes must connect indirectly, except where permitted in Section 814.6, to the drainage system through an air gap or air break to trapped and vented receptors, dry wells, leach pits, or the tailpiece of plumbing fixtures. A condensate drain must be trapped in accordance with the appliance manufacturer's instructions or as approved. Dry wells shall have an inner pipe diameter greater than or equal to the total excavated depth to the bottom of fill.

- (73) UPC, Subsection 903.1 is incorporated into the SPC; with Subparagraph 903.1(2) amended to read as follows:

- (2) ABS and PVC DWV piping installations shall be in accordance with the "Firestop Protection" requirements of the Building Code. Except for individual single-family dwelling, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a



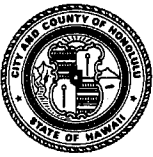
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smoke-developed index of not more than 50 where tested in accordance with ASTM E84 or UL 723. These tests shall comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe shall not be tested filled with water.

- (74) UPC Subsections 908.2 ("Horizontal Wet Venting for Bathroom Groups") inclusive of subparagraphs 908.2.1 through 908.2.5 are incorporated into the SPC and are deleted from this code.
- (75) UPC Subsection 911.0 ("Circuit Venting") inclusive of subparagraphs 911.1 through 911.5 are incorporated into the SPC are deleted from this code.
- (76) UPC Subsection 911.0 ("Circuit Venting") inclusive of subparagraphs 911.1 through 911.5 are incorporated into the SPC are deleted from this code.
- (77) UPC Subsection 1201.1 is incorporated into the SPC, and is amended to read as follows:

1201.1 Applicability. The regulations of this chapter shall govern the installation of fuel gas piping in or in connection with a building, structure or within the property lines of premises up to 5 pounds-force per square inch (psi) (34 kPa) for natural gas and 10 psi (69 kPa) for undiluted propane, other than service pipe.
- (78) UPC Subsection 1203.0 ("Inspection") inclusive of Subparagraphs 1203.1 through 1203.4 are incorporated into the SPC, and are deleted from this code. Inspections are to be performed in accordance with Subsection 105.0 of this code.
- (79) UPC Subsections 1204.1 ("Issuance") and 1204.2 ("Gas Supplier") are incorporated into the SPC, and are deleted from this code.
- (80) UPC Subsection 1204.3 is incorporated into the SPC and is amended to read as follows:

1204.3 Unlawful. It is unlawful for a gas supplier or person acting as a gas supplier to furnish gas or to cause gas to be turned on before the gas system has passed final inspection.
- (81) UPC Subsection 1208.1 is incorporated into the SPC and is amended to read as follows:



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1208.1 Installation of Piping System. The Authority Having Jurisdiction may require a piping plan before proceeding with installation. The plan must show the proposed location of piping, the size of different branches, the various load demands, and the location of the point of delivery. Gas meters may not be located under a window, under interior or exterior stairways, or in engine, boiler, heater or electric meter rooms.

- (82) UPC Section 1210.2 is incorporated into the SPC, and is amended to read as follows:

1210.2 Installation of Piping. Piping installed above ground shall be securely supported and located where it will be protected from physical damage. All exposed gas piping must be kept at least six inches (152 mm) above grade or structure. Where passing through an exterior wall, the piping must be protected against corrosion by coating or wrapping with an inert material approved for such applications. The piping must be sealed around its circumference at the point of the exterior penetration to prevent the entry of water, insects, and rodents. Where piping is encased in a protective pipe sleeve, the annular spaces between the gas piping and the sleeve and between the sleeve and the wall opening must be sealed.

- (83) UPC Section 1319.0 is incorporated into the SPC, and is amended by adding Subsection 1319.4 to read as follows:

1319.4 Approval. In addition to requirements imposed by ROH Chapter 18, plans for medical gas and vacuum systems must be stamped and signed by registered professional mechanical or civil engineer. The registered professional mechanical or civil engineer responsible for the design and construction observation of the medical gas and vacuum system must, upon project completion, provide a statement to the Authority Having Jurisdiction indicating that they have personally verified that the as built system complies with the approved plans and other requirements of this code. Medical gas and vacuum systems must be tested and inspected by a Plumbing Special Inspector.

- (84) UPC Chapter 14 ("Firestop Protection") is deleted in the entirety. The requirements for firestopping must comply with the requirements of the Building Code.
- (85) UPC Section 1501.2 is incorporated into the SPC, and is amended to read as follows:



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1501.2 System Design. Alternate water source systems must be designed by a registered professional mechanical or civil engineer licensed to perform building and site plumbing design work. Components, piping, and fittings used in an alternate water source system must be specified in plans and construction documents. The professional mechanical and civil engineers are responsible for the design and observation of the alternate water source system and must, upon project completion, provide a statement to the Authority Having Jurisdiction indicating that they have personally verified that the as built system complies with the approved plans and the requirements of this code. Alternate water source systems must be tested and inspected by a Plumbing Special Inspector.

Exception:

When project exempt from licensing requirements of HRS Chapter 464, the registered professional engineer is not required for single family dwelling alternate water source systems where outlets, piping, and system components are located on the exterior of the building, and there are no connections to the house plumbing.

- (86) UPC Subsection 1501.7 is incorporated into the SPC, and is amended to read as follows:

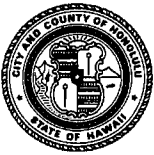
1501.7 Minimum Water Quality Requirements. The minimum water quality for alternate water source systems shall meet the applicable water quality requirements for the intended application as determined by the Health Officer.

- (87) UPC Subsection 1503.9.2 is incorporated into the SPC and is amended to read as follows:

1503.9.2 Gray Water Pipe and Fitting Materials. Aboveground and underground building drainage and vent pipe and fittings for gray water systems must comply with the requirements for aboveground and underground sanitary building drainage and vent pipe and fittings in this code. These materials shall extend not less than 5 feet (1.5 m) outside the building.

- (88) UPC Subsection 1505.1 is incorporated into the SPC and is amended to read as follows:

1505.1 General. The provisions of this section apply to the installation, construction, alteration, and repair of reclaimed (recycled) water systems intended to supply uses such as water closets, urinals, trap primers for floor



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drains and floor sinks, aboveground and subsurface irrigation, and other uses approved by the Authority Having Jurisdiction.

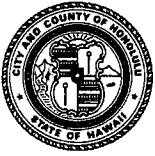
- (89) UPC Subsection 1602.2 is incorporated into the SPC and is amended to read as follows:

1602.2 Plumbing Plan Submission. No permit for a rainwater catchment system shall be issued until complete plumbing plans, with data satisfactory to the Authority Having Jurisdiction, have been submitted and approved. Nonpotable rainwater catchment systems must be stamped and signed by a registered professional mechanical or civil engineer, licensed to perform building and site plumbing design work, respectively. The registered professional mechanical or civil engineer is responsible for the design supervision and construction observation of the nonpotable rainwater catchment systems and must provide the Authority Having Jurisdiction with a statement indicating that the as built system complies with the approved plans and requirements of this code. Nonpotable rainwater catchment systems must be tested and inspected by a Plumbing Special Inspector.

SECTION 4. This ordinance will become effective as an alternative to the existing Plumbing Code upon approval. This ordinance will become effective as a replacement of the existing Plumbing Code and compliance with this code will become mandatory 90 days after its approval.

INTRODUCED BY:

DATE OF INTRODUCTION:



CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

ORDINANCE _____

BILL

A BILL FOR AN ORDINANCE

Honolulu, Hawaii

Councilmembers

APPROVED AS TO FORM AND LEGALITY:

Deputy Corporation Counsel

APPROVED this _____ day of _____, 20 _____.

RICK BLANGIARDI, Mayor
City and County of Honolulu

SUMMARY OF PROPOSED CHANGES TO 2018 PLUMBING CODE

SECTION	TITLE	AMENDMENT DESCRIPTION	RATIONALE/ JUSTIFICATION/ COMMENTS
Section 1	Purpose	The purpose of this ordinance is to adopt the Hawai'i State Plumbing Code, as required by HRS Sec.107-28, subject to local amendments.	Justification: Adoption of State Plumbing Code with local amendments.
Section 3	Article 1	Chapter 19, Revised Ordinances of Honolulu 1990 ("Plumbing Code") is amended by adding a new Article 1 ("Adoption of the Hawaii State Plumbing Code")	Edits integrate previous provisions of ROH, Chapter 19 language to provide clarity and definition.
Subsection 102.2	Existing Installations	Plumbing systems lawfully in existence at the time of the adoption of this code shall be permitted to have their use, maintenance, or repair continued provided that they do not create a hazard to health, safety or property. If replaced, existing showerheads, kitchen faucets, lavatory faucets, toilets, and urinals shall comply with the water conservation requirements in ROH Chapter 30, Article 4 ("Water Conservation Measures").	Showerheads, kitchen faucets, lavatory faucets, toilets, and urinals shall conform to the water conservation requirements in ROH Chapter 30 Water Management, Article 4 Water Conservation Measures.
Subsection 104.1	Permits Required	<p>It shall be unlawful to alter, install, repair or replace a plumbing system regulated by this code except as permitted in ROH Section 18-3.1(b), or to cause the same to be done, without first obtaining a separate building permit.</p> <p>In addition to the work exempt from requiring a building permit under this section, the following work does not require a building permit: (a) the clearing of stoppages and blocks without the removal or replacement of plumbing systems or parts thereof; and (b) the removal and replacement of water closets, shower heads,</p>	See ROH Chapter 18 "Fees and Permits for Building, Electrical, Plumbing, and Sidewalk Codes" Article 3 Permits.

		<p>and faucets without the replacement or rearrangement of valves, pipes, and other plumbing system components.</p> <p>Exemption from permit requirements under ROH Section 18-3.1(b) shall not be deemed to grant authorization for work to be done in violation of the other requirements of the code or any other laws or ordinances.</p>	
Subsection 105.2.3 thru Subsection 105.2.7	Inspection Requests; Advance Notice; Reinspections; Plumbing Special Inspections.	<p>Inspection Requests. It shall be the duty of the person doing the work authorized by a permit to notify the AHJ that such work is ready for inspection.</p> <p>Advanced Notice: It shall be the duty of the person doing the work authorized by a permit to notify the Authority Having Jurisdiction that such work is ready for inspection.</p> <p>Plumbing Special Inspection (Added) The Authority Having Jurisdiction may require work governed by this code to be subject to Plumbing Special Inspection when deemed necessary based on the nature of the work or resources of the department. Plumbing Special Inspections must be performed by appropriately licensed design professionals that are not involved in performing the work that will be inspected.</p>	<p>This subsection is amended to revise the request to previous City advance notice requirements and to add provisions for plumbing license verification; and notification shall be given not less than two working days before the work is to be inspected.</p> <p>The UPC/State code is amended to incorporate the ability to compensate for repetitive inspections.</p> <p>Plumbing special inspectors, independent of the contractors performing the work shall be employed and shall submit, to the AHJ, a final signed report stating that the work requiring special inspection was in conformance to the approved plans and specifications and the applicable workmanship provisions of this code.</p>
Subsection 106.2 through Subsection 106.7.3	Notices of Violation and Order	<p>106.2 – Notice of Correction or Violation; 106.3 Penalties (Criminal Prosecution); 106.3.2 – Summons or Citation; 106.4 – Stop-Work Orders; 106.7.2 – Effect of Order – Right to Appeal (Content of the Order; effect of the Order; and Judicial enforcement of the Order).</p>	Establishes enforcement provisions for both criminal and administrative enforcement.

Subsection 203.0	Authority Having Jurisdiction	Provides definitions for Authority Having Jurisdiction	Clarifies the use in the code.
Subsection 204.0	Building Code (Added)	As defined in ROH § 16-1.1(1), as amended	References ROH Chapter 16 for the definition for building code.
Subsection 205.0	Control Valve (Added)	A control valve is any type of valve which can change the flow rate of water, which includes compression stop valves.	Amends State Plumbing Code and UPC by adding the definition for "Control Valve".
Subsection 206.0	Dwelling (Added)	Dwelling means a house, apartment, or other place that is intended to provide living accommodations to one or more persons and equipped with amenities for sleeping, cooking, and sanitation.	Amends State Plumbing Code and UPC by adding the definition for "Dwelling".
Subsection 220.0	Registered Professional Engineer	An engineer licensed in the State of Hawaii under Chapter 464 Professional Engineers, Architects, Surveyors and Landscape Architects.	Amends State Plumbing Code and UPC by adding the definition for "Registered Professional Engineer" as used in this code.
Subsection 301.4	Flood Hazard Areas	Plumbing systems that are located in special flood hazard area, floodway area, or flood fringe area identified in ROH Chapter 21A must be designed and installed so that water will not enter or accumulate within their components during flooding. Plumbing systems located below the base flood elevation shall be designed and installed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy. All pipe openings shall terminate at an elevation of at least one foot above the base flood elevation unless the drainage system is equipped with an automatic backwater valve in each discharge line passing through the building exterior wall. Fixtures located at a floor level above the base flood elevation shall not discharge through the backwater valve.	Makes reference to ROH Chapter 21A for Flood Hazard related matters.

Subsection 301.5.1	Permit applications	<p>In addition to the requirements of ROH Chapter 18, the following will apply to applications for building permits involving alternative engineered designs.</p> <p>The registered professional engineer shall indicate on the design documents that the plumbing system, or part thereof, is an alternative engineered design so that it is noted on the construction permit application. The permit and permanent permit records shall indicate that an alternative engineered design was part of the approved installation.</p>	UPC amended to provide a means for a Hawaii Licensed Mechanical Engineer to document, on record, an alternate engineered design request. These designs must conform to accepted engineering practices and provide the level of protection intended by this code.
Subsection 301.5.6	Inspection and Testing	Special inspections, as specified in Section 105.2.7 will be required for work involving alternative engineered designs. The alternative engineered design will be tested and inspected in accordance with the submitted testing and inspection plan and the requirements of this code.	UPC/State Plumbing Code is amended to include special inspection for the alternate engineered design.
Subsections 306.3 (added)	Industrial Waste Discharge Permits	<p>(Added)</p> <p>Sanitary sewer systems that require an industrial wastewater discharge permit under ROH Chapter 14 must comply with the design and maintenance requirements adopted by the Department of Environmental Services.</p>	<p>This Subsection is added to incorporate updated language from previous amendment for informational purposes to address sewer lateral connections.</p> <p>All sanitary sewer systems connected to the City's wastewater collection system may require an industrial wastewater discharge permit by the Department of Environmental Services' Regulatory Control Branch, in accordance with the requirements of ROH Chapter 14 Public Works Infrastructure Requirements Including Fees and Services.</p>

Subsection 317.0 (Deleted)	Food Handling Establishments	Food-Handling Establishments, including Subsection 317.1 of the UPC, adopted by the SPC, are deleted.	UPC/State Plumbing Code is amended to indicate that DOH, Sanitation Branch regulates the operations of food-handling establishments. The requirements for food-handling establishments are covered in DOH, Chapter 12 Food Service and Food Establishment Sanitation Code.
Subsection 408.2, Subsection 411.2 and Subsection 411.2.2	Water Consumption (showerhead and Water Closets); Flushometer Valve Activated water Closets	Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute (gpm) at 80 psi (6.8 L/m at 552 kPa). Water closets shall have a maximum consumption not to exceed 1.28 gallons (6.8 liters/minute) of water per flush. Flushometer valve activated water closets shall have a maximum flush volume of 1.28 gallons (4.8 liters) of water per flush.	UPC/State Plumbing Code is amended to address the City's administrative policies for conservation of natural resources.
Subsection 422.0	Minimum Number of Required Fixtures	Plumbing fixtures shall be provided for the type of building occupancy and in the minimum number required in the Building Code.	The Building Code requires minimum number of plumbing fixtures based on type of occupancy for new construction. HAR Title 12 Department of Labor and Industrial Relations, Subtitle 8 Division of Occupational Safety and Health, Part 3 Construction Standards, Chapter 117.1 Sanitation requires plumbing facilities for employees. DOH Chapter 11 Sanitation, Section "11-11-9 Minimum Sanitary Facilities." for various assembly type occupancies.
Subsection 601.2	Hot and Cold Water Required – Exception	Exception: Listed fixtures that do not require water for their operation and are not connected to the water supply.	Private use plumbing fixtures already required to comply with ROH Chapter 27 Housing Code, Section 27-4.5 Sanitation, Para. (d) Fixtures, Sub-Para. (1) second sentence states: "All plumbing fixtures shall be connected to an approved system of water supply and provided

			with hot and cold running water necessary for its normal operation.”
Subsection 601.4 (Added)	Private Water Systems	(Added) Owners of private water systems are responsible for maintaining the potability of their water systems. Private water systems apply to water systems that are not defined as public water systems as defined by the health officer.	Note: Public water systems within private property are regulated by the requirements of DOH “Chapter 20 Rules Relating to Public Water Systems”. “Public water system” means a system which provides water for human consumption, through pipes other constructed conveyances if the system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least sixty days out of the year. Such term includes: (1) Any collection, treatment, storage, and distribution facilities under control of the operator of such system, and (2) Any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. A public water system may be privately or publicly owned or operated. A public water system is a “community water system” or a “non-community water system”.
Subsection 603.5.14	Protection from Fire Systems	Amended by adding the following devices: (5) Systems with alarm check valve assembly. (6) Systems with booster pump and check valve assembly.	Amended to include alternative devices.
Subsections 610.4	Sizing Water Supply and Distribution Systems.	Except as otherwise required by the Board of Water Supply, systems within the range of Table 610.4 may be sized as described therein or as provided in Section 610.5 of this code.	Amended to incorporate provisions from previous code and to clarify BWS jurisdiction.
Subsections 704.3	Commercial Sinks	Sinks in commercial kitchens and food service establishments must comply with the requirements adopted by the Health Official.	DOH, Sanitation Branch regulates the operations of food-handling establishments.

Subsections 710.6	Backwater Valves (first paragraph)	Backwater valves, gate valves, fullway ball valves, unions, motors, compressors, air tanks, and other mechanical devices required by this section shall be located where they will be accessible for inspection and repair and, unless continuously exposed, shall be enclosed in a masonry pit fitted with an adequately sized removable cover or other approved compartment.	Amended to allow for other types of valve boxes.
Subsection 722.2	Cesspools, Septic Tanks, and Seepage Pits – Exception (added).	(added) Exception: An abandoned cesspool is allowed to be used as an overflow receptor for a sewage sump with pump discharge when approved by the Authority Having Jurisdiction.	This subsection is amended to include previous amendment allowing secondary use for cesspool.
Subsection 1208.1 and Subsection 1210.2	Installation of Piping Systems, and Installation of Piping	<p>The Authority Having Jurisdiction may require a piping plan before proceeding with installation. The plan must show the proposed location of piping, the size of different branches, the various load demands, and the location of the point of delivery. Gas meters may not be located under a window, under interior or exterior stairways, or in engine, boiler, heater or electric meter rooms.</p> <p>Piping installed above ground shall be securely supported and located where it will be protected from physical damage. All exposed gas piping shall be kept at least six inches (152 mm) above grade or structure. Where passing through an exterior wall, the piping shall be protected against corrosion by coating or wrapping with an inert material approved for such applications. The piping shall be sealed around its circumference at the point of the exterior penetration to prevent the entry of water, insects, and rodents. Where piping is encased in a protective pipe sleeve, the annular spaces between the gas piping and the sleeve and</p>	Amended to incorporate Gas Company requested amendment and building code exterior stairways restriction pursuant to NFPA 54:7.2.1.

		between the sleeve and the wall opening shall be sealed.	
Subsection 1319.4 (Added)	Approval	(Added) In addition to requirements imposed by ROH Chapter 18, plans for medical gas and vacuum systems must be stamped and signed by registered professional mechanical or civil engineer. The registered professional mechanical or civil engineer responsible for the design and construction observation of the medical gas and vacuum system must, upon project completion, provide a statement to the Authority Having Jurisdiction indicating that they have personally verified that the as built system complies with the approved plans and other requirements of this code. Medical gas and vacuum systems must be tested and inspected by a Plumbing Special Inspector.	Amended to require both licensed mechanical or civil engineer and special inspection for medical gas and vacuum systems.
Chapter 14 (Deleted)	Fire Stop Protection	Deleted in its entirety.	Deleted because the requirements for firestopping are covered in the Building Code based on type of construction, hazard classification, and occupancy.
Subsection 1501.2	System Design (alternate water source systems)	Alternate water source systems must be designed by a registered professional mechanical or civil engineer licensed to perform building and site plumbing design work. Components, piping, and fittings used in an alternate water source system must be specified in plans and construction documents. The professional mechanical and civil engineers are responsible for the design and observation of the alternate water source system and must, upon project completion, provide a statement to the Authority Having Jurisdiction indicating that they have personally verified that the as built system complies with the approved plans and the requirements of	Amended to require mechanical or civil engineers, and plumbing special inspection for alternate water source systems.

		<p>this code. Alternate water source systems must be tested and inspected by a Plumbing Special Inspector.</p> <p>Exception: When project exempt from licensing requirements of HRS Chapter 464, the registered professional engineer is not required for single family dwelling alternate water source systems where outlets, piping, and system components are located on the exterior of the building, and there are no connections to the house plumbing.</p>	
Subsection 1501.7	Minimum Water Quality Requirements	The minimum water quality for alternate water source systems shall meet the applicable water quality requirements for the intended application as determined by the Health Officer.	Amended to reference water quality as determined by the Authority Having Jurisdiction.
Subsection 1602.2	Plumbing Plan Submission	No permit for a rainwater catchment system shall be issued until complete plumbing plans, with data satisfactory to the Authority Having Jurisdiction, have been submitted and approved. Nonpotable rainwater catchment systems must be stamped and signed by a registered professional mechanical or civil engineer, licensed to perform building and site plumbing design work, respectively. The registered professional mechanical or civil engineer is responsible for the design supervision and construction observation of the nonpotable rainwater catchment systems and must provide the Authority Having Jurisdiction with a statement indicating that the as built system complies with the approved plans and requirements of this code. Nonpotable rainwater catchment systems must be tested and inspected by a Plumbing Special Inspector.	Amended requiring mechanical or civil engineers, and special inspection for nonpotable rainwater catchment systems.