

### NOTABLE CHANGES TO THE PLUMBING SECTION OF THE BUILDING CODE\* EFFECTIVE DECEMBER 31, 2014

**Purpose and Legislative intent:** This local law implements section 28-601.1 of the administrative code, which requires triennial updates of the New York City plumbing code to reflect changes in the International Plumbing Code. These amendments will bring the New York City plumbing code up to date with the 2009 International Plumbing Code published by the International Code Council, with differences to accommodate the unique nature of construction in the City. The local law is divided into parts from A through O with each part comprising amendments to a separate chapter or appendix of the code in separately numbered sections within the part. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.

This code update summary is comprised of both additions and deletions to the previous code. Either of these could be in the form of very minor corrections to entire sections being added or deleted. This document contains examples of wording being removed by placing the wording in brackets "[]" and examples of new wording being underlined. This summary also is intended to illustrate most of the more substantive changes while leaving *out the many very minor ones*. As licensed master plumbers I recommend that you do read the entire revised code to see the totality of all the changes.

Section 106.6 of the New York City plumbing code is amended. This is a 4 plus page amendment that covers public sanitary, storm and combined sewer systems from feasibility, to the permit application, to connections, DEP certifications and exceptions to certain requirements. On site disposal of storm water and sewage is also discussed.

**Section 201.3 of the code has been amended.** This is the section on terms and definitions and it spans approximately 7 pages. New terms have been added and defined while others have been modified. Several examples are:

BACKFLOW - The undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the distribution pipes of the potable supply of water from any source or sources <u>or the undesirable reversal of flow from the intended direction of flow in the drainage</u>

system due to a system stoppage, system overload or a higher pressure on the drainage pipe side of the house trap.

BACKWATER VALVE - A device or valve installed in the building drain, sewer or any branch line where such drain or branch is subject to backflow, which prevents drainage or waste from backing up into a lower level or fixtures and causing a flooding condition.

Others new or modified definitions are: BRANCH INTERVAL, BUILDING SEWER, CLEAR WATER WASTE, COMBINED [BUILDING] SEWER, DETENTION SYSTEM, DRAINAGE FIXTURE UNIT, DRAINAGE SYSTEM, DRYWELL, FLOOR DRAIN, GREASE INTERCEPTOR, GREASE REMOVAL DEVICE - GRD, GROUNDWATER OR GROUND WATER, HAND SINK, LOW-PRESSURE STEAM-HEATING BOILER, PERMEABILITY, PNEUMATIC SEWAGE EJECTOR VENT, POTABLE WATER, PRIVATE SEWER, PUBLIC SEWER, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER - RPZ, RETENTION SYSTEM, SANITARY SEWER, SEWAGE, SEWER, STORM SEWER, STORM WATER OR STORMWATER, and SUMP VENT.

**301.7** – [Where conflicts between this code and the conditions of the listing or the manufacturer's installation instructions occur, the provisions of this code apply] In instances where conflicts occur between this code and the manufacturer's installation instructions, the more restrictive provisions shall apply.

Section 310.5 of the New York City plumbing code is added to cover Urinal partitions. Other requirements such as when partitions are used, dimensions and certain exceptions are covered.

**312.1.2** - Tests in accordance with this code shall be witnessed by department plumbing inspectors or approved agencies. The department shall prescribe qualifications for individuals who are authorized to witness such tests on behalf of approved agencies, including but not limited to the requirement that such individuals shall be licensed master plumbers or registered design professionals with not less than 5 years experience in the inspection and testing of piping systems. Such tests may be conducted without any [verifying] inspection or tests <u>witnessed</u> by the department, provided that verified statements and supporting inspectorial and test reports are filed with the department within [one] <u>two</u> working days of such tests.

**312.8** - Storm drain systems within a building shall be tested by water or air in accordance with Section 312.2 or 312.3. Where storm drainage piping is designed to run full, the system shall be tested to withstand the head of 10 feet of water above the anticipated high water level.

Exception: Corrugated HDPE pipe installed outside of a building shall be tested to withstand the head of water equal to grade.

**312.9** - Where shower floors and receptors are made water-tight by the application of materials required by Section 417.5.2, the completed liner installation shall be tested. The pipe from the shower drain shall be plugged water-tight for the test. The floor and receptor area shall be filled with potable water to a depth of not less than 2 inches measured at the threshold. Where a threshold of at

least 2 inches high does not exist, a temporary threshold shall be constructed to retain the test water in the lined floor or receptor area to a level not less than 2 inches deep measured at the threshold. The water shall be retained for a test period of not less than 15 minutes, and there shall not be evidence of leakage.

**312.10.1** - Annual inspections shall be made of all backflow prevention assemblies, air gaps, spill-\*For <u>all</u> changes please see Intro 141 of 2013 on the City Council website: http://legistar.council.nyc.gov/Legislation.aspx

forms shall be retained by the owner and shall be made available upon request to the department for a period of five years.

**312.10.2** - Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, <u>and</u> double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation, <u>and annually thereafter</u>. Refer to Section 608.13 and the <u>Department of Environmental Protection</u> for additional testing requirements.

**314.1.1** - <u>Condensate from all fuel-burning appliances and associated flues shall be neutralized to a pH of at least 6 and no more than 8 prior to disposal to a sanitary system.</u>

**314.2.3** - Where damage to any building components could occur as a result of overflow from the equipment primary condensate removal system, a new additional option for protection has been added. A water-level detection device shall be provided that will shut off the equipment served in the event that the primary drain is blocked. The device shall be installed in the primary drain line, the overflow drain line, or in the equipment-supplied drain pan, located at a point higher than the primary drain line connection and below the overflow rim of such pan.

Section PC 403 of the New York City plumbing code is repealed and a new section PC 403 is added to cover Minimum Plumbing Facilities. It is a 6 page new section covering fixture calculations, various occupancy types, a new table of required fixtures and a new table covering the minimum number of required fixtures.

**406.3** - <u>Automatic clothes washers that discharge by gravity shall be permitted to drain to a waste</u> receptor or an approved trench drain.

**407.2** - Bathtubs shall have waste outlets a minimum of 1 and 1/2 inches in diameter. The waste outlet shall be equipped with an approved stopper, <u>and a built-in overflow shall be provided</u>. *Note: The overflow language was missing from the 2008 version*.

**408.3** - <u>The discharge water temperature from a bidet fitting shall be limited to a maximum temperature of 110°F (43°C) by a water temperature limiting device conforming to ASSE 1070.</u>

**413.1** - Domestic food waste grinders shall conform to ASSE 1008. Food waste grinders shall not increase the drainage fixture unit load on the sanitary drainage system. <u>Food waste grinders shall</u> <u>be permitted only within dwelling units.</u>

**416.3** - Lavatories shall have waste outlets not less than 1 and 1/4 inches in diameter. A strainer, pop-up stopper, crossbar or other device shall be provided to restrict the clear opening of the waste outlet. Where a stopper is utilized, a built-in overflow shall be provided.

The New York City plumbing code is amended by adding a new section 416.5 to read as follows:

**416.5** - <u>Tempered water shall be delivered from public hand-washing facilities. Tempered water shall</u> <u>be delivered through an approved water-temperature limiting device that conforms to ASSE 1016 or</u> <u>ASSE 1070 or CSA B 125.3.</u>

Exception: Where point of use heaters are installed, outlet water temperature shall be regulated to provide tempered water.

Sections 417.2 and 417.3 of the New York City plumbing code are amended to read as follows:

**417.2** - <u>Water supply risers</u> from the shower valve to the shower head outlet, whether exposed or <u>concealed</u>, shall be attached to the structure. <u>The attachment to the structure shall be made by the use of</u> <u>support devices designed for use with the specific piping material or by fittings anchored with screws.</u>

**417.4.2** - The shower compartment access and egress opening shall have a minimum clear and unobstructed finished width of 22 inches. Shower compartments required to be designed in conformance to accessibility provisions shall comply with Section 404.1.

The New York City plumbing code is amended by adding new sections 417.5.1 and 417.5.2 to address shower compartment floors. They cover supports as well as the materials of PVC, sheet lead and sheet copper.

**Section 419.4** - Waterless urinals reiterates that <u>approved waterless urinals may be utilized only as</u> part of an approved building water conservation plan.

A new section 421.5 is added to address access to whirlpool bathtub pumps. It states that <u>access shall be</u> provided to whirlpool bathtub circulation pumps in accordance with the fixture or pump manufacturer's installation instructions. Where the manufacturer's instructions do not specify the location and minimum size of field-fabricated access openings, a 12-inch by 12-inch minimum sized opening shall be installed to provide access to the circulation pump. Where pumps are located more than 2 feet from the access opening, an 18-inch by 18-inch minimum sized opening shall be installed. A door or panel shall be permitted to close the opening. In all cases, the access opening shall be unobstructed and of the size necessary to permit the removal and replacement of the circulation pump.

**424.3** - New language has been added stating that <u>hand-held showers shall provide backflow protection in</u> <u>accordance with ASME A112.18.1 or CSA B125.1 or shall be protected against backflow by a device complying with ASME A112.18.3</u>.

**424.4** - <u>Multiple (gang) showers supplied with a single-tempered water supply pipe shall have the water supply for such showers controlled by an approved automatic temperature control mixing valve that conforms to ASSE 1069 or CSA B125, or each shower head shall be individually controlled by a balanced-pressure, thermostatic or combination balanced-pressure/thermostatic valve that conforms to ASSE 1016 or CSA B125 and is installed at the point of use. Such valves shall be equipped with a means to limit the maximum setting of the valve to 120°F (49°C), which shall be field adjusted in accordance with the manufacturer's instructions.</u>

Sections PC 502 and 504.6 of the New York City plumbing code are amended. They cover the elevation of water heater ignition sources, clearances for maintenance and replacement of appliances and relief outlets of T and P valves.

**Section 606.1 has been modified** to clarify the location of water distribution supply valves. Shutoff valves are required on the <u>supply and</u> discharge side of every water <u>sub-</u>meter, on the top of every water down-feed pipe <u>and on the base of every up-feed pipe</u> in occupancies other than one- and two-family residential occupancies, <u>on the water supply pipe to each sillcock and on the water supply pipe to each appliance or mechanical equipment.</u>

**606.5.3** - A<u>ll water supply tanks shall be equipped with a lockable cover to prevent access by</u> unauthorized persons or vermin. Such cover shall be tamper-proof and equipped with a local alarm.

Section 606.7 of the New York City plumbing code has been amended. This amendment covers the requirement of sub-meters in water distribution pipe lines serving a commercial cooking facility, commercial laundry facility or commercial gym or spa to measure the amount of water supplied through such lines.

New Section 606.8 addresses the use of combination water and air pressure tanks including the design and installation requirements.

**607.1** - In residential occupancies, hot water shall be supplied to all plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry or building maintenance. In nonresidential occupancies, hot water shall be supplied for culinary purposes, cleansing, laundry or building maintenance <u>purposes</u>. In nonresidential occupancies, hot water or tempered water shall be supplied for bathing and washing purposes. Tempered water shall be <u>supplied through a water temperature limiting device that conforms to ASSE 1070 and shall limit the tempered water to a maximum of 110°F (43°C). This provision shall not supersede the requirement for protective shower valves in accordance with Section 424.3.</u>

**608.7** - <u>Potable water outlets and combination stop-and-waste valves shall not be installed</u> <u>underground or below grade. Freeze-proof yard hydrants that drain the riser into the ground are</u> <u>considered to be stop-and-waste valves.</u>

Exception: Freeze-proof yard hydrants that drain the riser into the ground shall be permitted to be installed, provided that the potable water supply to such hydrants is protected upstream of the hydrants in accordance with Section 608 and the hydrants are permanently identified as nonpotable outlets by approved signage that reads as follows: "Caution, Nonpotable Water. Do Not Drink."

**608.8.2** - The color of the pipe identification shall be discernable and consistent throughout the building. <u>The color purple shall be used to identify recycled, rain and gray water distribution systems.</u>

**608.13.7** - Double check-valve assemblies shall conform to ASSE 1015, <u>CSA B64.5, CSA B64.5.1</u>, or AWWA C510. Double-detector check-valve assemblies shall conform to ASSE 1048. These devices shall be capable of operating under continuous pressure conditions. These devices shall be tested annually by a <u>New York State</u> certified tester <u>employed by a New York City licensed plumber.</u>

**608.14.2** - Backflow preventers shall not be located in areas subject to freezing except where they can be removed by means of unions or are protected from freezing by heat, insulation or both.

**608.14.2.1** - <u>The termination of the piping from the relief port or air gap fitting of a backflow</u> <u>preventer shall discharge to an approved indirect waste receptor or to the outdoors where it will</u> <u>not cause damage or create a nuisance.</u>

**608.16.10** - <u>The water supply connection to coffee machines and noncarbonated beverage</u> <u>dispensers shall be protected against backflow by a backflow preventer conforming to ASSE 1022</u> <u>or by an air gap.</u>

100

**701.2.5** - All abandoned building sewers <u>shall require plug permits from the Department of</u> <u>Environmental Protection and</u> shall be securely sealed at a point inside the curb line and as close thereto as practicable.

**701.3** – This section has been amended to read that every building having plumbing fixtures installed and intended for human habitation, occupancy or use on premises abutting on a street, alley or easement in which there is a public sewer shall have a separate connection with the sewer. Where located on the same lot, multiple buildings shall not be prohibited from connecting to a common building sewer that connects to the public sewer, provided, however, that the common elements of an internal private drain are located in a dedicated, unobstructed right-of-way that extends to the sewer with a minimum width of 10 feet located entirely outside of the building footprint and outside of all overhangs and projections that are less than 14 feet in height above grade.

## TABLE 702.1 ABOVE-GROUND DRAINAGE AND VENT PIPE – ADDED MATERIALS

Polyvinyl chloride (PVC) plastic pipe with a 3.25-inch O.D. and a solid, cellular core or composite wall	ASTM D 2949; ASTM F 1488
Polyvinylidene fluoride (PVDF) plastic pipe	ASTM F 1673; CAN/CSA B 181.3

a. Limited to residential buildings five stories or less in height.

## TABLE 702.2 UNDERGROUND BUILDING DRAINAGE AND VENT PIPE – ADDED MATERIALS

 Polyvinyl chloride (PVC) plastic pipe in IPS diameters, including schedule

 40, DR 22 (PS 200), and DR 24 (PS 140); with a solid, cellular core or

 composite wall<sup>d</sup>

ASTM D 2665; ASTM F 891; ASTM F 1488; CSA B181.2

a. Limited to residential buildings five stories or less in height.

## TABLE 702.3 BUILDING SEWER PIPE – ADDED MATERIALS

#### a. Limited to residential buildings five stories or less in height.

## TABLE 702.4 PIPE FITTINGS - ADDED MATERIALS TO MATCH PIPE

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic pipe [schedule 40] <u>in IPS</u> diameters <sup>a</sup>	[ASTM D 3311; CSA B181.1;] ASTM D 2661 <u>; ASTM F 628: CSA B</u> <u>181.1</u>
Acrylonotrile butadiene styrene (ABS) plastic pipe in sewer and drain diameters	ASTM D 2751
Brass	ASTM B62
Galvanized steel	ASTM A153; ASME B16.3
Non-asbestos fiber cement	ASTM C1449
Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters <sup>a</sup>	ASTM D 3034
Polyvinyl chloride (PVC) plastic pipe with a 3.25- inch O.D. <sup>a</sup>	ASTM D 2949
Polyvinylidene fluoride (PVDE) plastic pipe	ASTM F 1673; CAN/CSA B181.3
Vitrified clay pipe	ASTM C425

a. <u>Limited to residential buildings five stories or less in height</u>

#### The New York City plumbing code is amended by adding a new section 703.6.1 to read as follows:

**703.6.1** - Every sanitary or combined building drain equipped with a building trap, sewage pump, ejector, receiving tank, oil separator, or similar equipment, shall be provided with a fresh air inlet pipe connected to the building drain immediately upstream from, and within 4 feet of such trap or equipment. Such connection shall be made in the same manner as prescribed in Section PC 905 for vent connections to horizontal drains, and the fresh air inlet pipe shall be extended to the outer air and shall be terminated in an open end at least 6 inches above grade. The open end shall be protected by a perforated metal plate permanently fixed in the mouth of the inlet and having an open ventilating area at least equal to the area of the pipe, or by a return bend with its unprotected open end at least 6 inches above grade, located inside the street line. The size of the fresh air inlet pipe shall be at least one-half the diameter of the building drain at the point of connection, but not less than 3 inches.

**Sections 705.16 through 705.20 of the New York City plumbing code are amended.** They address joints between polyethylene plastic pipe and fittings, polyolefin plastic pipe and fittings and polyvinylidene plastic pipe and fittings. This section covers how the joints are made and the standards to which they must adhere. This includes both heat fusion and mechanical type joints.

Table 709.1 of the New York City plumbing code is amended regarding certain fixture unit valuesand minimum trap sizes.

DRAINAGE FIXTURE UNITS FOR FIXTURES AND GROUPS				
FIXTURE TYPE	DRAINAGE FIXTURE UNIT VALUE AS LOAD FACTORS	MINIMUM SIZE OF TRAP (inches)		
Bidet	1	[1 <sup>1</sup> /4] <u>1½</u>		
Dental lavatory	1	[1 <sup>1</sup> /4] <u>1½</u>		
Floor drains	2	[2] <u>3</u>		
<u>Floor sinks</u>	Sum of FU value of fixtures discharging into it	2		
Kitchen sink, domestic	2	[1 <sup>1</sup> /2] <u>2</u>		
Kitchen sink, domestic with food waste grinder and/or dishwasher	2	[1 <sup>1</sup> /2] <u>2</u>		
Laundry tray (1 or 2 compartments)	2	[1 <sup>1</sup> /2] <u>2</u>		
Lavatory	1	[1 <sup>1</sup> /4] <u>1½</u>		
Shower	2	[1 <sup>1</sup> /2] <u>2</u>		
Sink	2	[1 <sup>1</sup> /2] <u>2</u>		

#### TABLE 709.1 DRAINAGE FIXTURE UNITS FOR FIXTURES AND GROUPS

Table 710.1(2) of the New York City plumbing code is amended to read as follows:

 TABLE 710.1(2) - NEW TABLE - COLUMN REMOVED

 HORIZONTAL FIXTURE BRANCHES AND STACKS

		MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS (dfu)			
		Stacks			
DIAMETER OF PIPE (inches)	Total for horizontal branch	[Total discharge into one branch interval]	Total for stack of three branch Intervals or less	Total for stack greater than three branch intervals	
11⁄2	3	[2]	4	8	
2	6	[6]	10	24	
21⁄2	12	[9]	20	42	
3	20	[20]	48	72	
4	160	[90]	240	500	
5	360	[200]	540	1,100	
6	620	[350]	960	1,900	
8	1,400	[600]	2,200	3,600	
10	2,500	[1,000]	3,800	5,600	
12	3,900	[1,500]	6,000	8,400	
15	7,000	[Note c]	Note c	Note c	

a. Does not include branches of the building drain. Refer to Table 710.1(1).

b. Stacks shall be sized based on the total accumulated connected load at each story or branch interval. [As the total accumulated connected load decreases, stacks are permitted to be reduced in size. Stack diameters shall not be reduced to less than one-half of the diameter of the largest stack size required.] <u>No soil or waste stack shall be smaller than any horizontal branch connection thereto.</u>

c. Sizing load based on design criteria.

**802.1.8** - <u>Sinks used for the washing, rinsing or sanitizing of utensils, dishes, pots, pans or</u> <u>serviceware used in the preparation, serving or eating of food shall discharge indirectly through an</u> <u>air gap or an air break.</u>

Exception: Hand sinks may be directly connected to the drainage system.

Section 803.2 of the New York City plumbing code is amended to read as follows:

**803.2** - <u>All discharges into the public sewers are subject to regulation by the Department of Environmental Protection. The Department of Environmental Protection may prohibit the discharge of any corrosive liquids, including but not limited to spent acids or other harmful chemicals that may destroy or injure a drain, sewer, soil or waste pipe, or create noxious or toxic fumes or interfere with sewage treatment processes or may require that such liquids be neutralized or treated prior to discharge in accordance with Department of Environmental Protection regulations. Where treatment prior to discharge is required by the Department of Environmental Protection, liquids shall not be discharged into the plumbing system without being thoroughly neutralized or treated in [accordance with the requirements of the New York City department of environmental protection] compliance with the rules of the Department of Environmental Protection.</u>

Section PC 909, PC 1002 and PC 1003 of the New York City plumbing code are amended to read as follows:

#### SECTION PC 909 WET VENTING

**909.1** - Any combination of fixtures within one bathroom group located in the same room [are] <u>is</u> permitted to be vented by a <u>horizontal</u> wet vent. The wet vent shall be considered the vent for the fixtures and shall extend from the connection of the dry vent along the direction of the flow in the drain pipe to the most downstream fixture drain connection to the horizontal branch drain. <u>Each wet-vented fixture drain shall connect independently to the horizontal wet vent</u>. Only the fixtures within the bath-room groups shall connect to the wet-vented horizontal branch drain. Any additional fixtures shall discharge downstream of the <u>horizontal</u> wet vent.

**909.2** - The dry vent connection to the wet vent shall be an individual vent or common vent to the lavatory, bidet, shower or bathtub. The dry vent shall be sized based on the largest required diameter of pipe within the wet vent system served by the dry vent.

**909.2.1** - Horizontal wet vent. The dry-vent connection for a horizontal wet-vent system shall be an individual vent or a common vent for any bathroom group fixture, except an emergency floor drain. Where the dry-vent connects to a water closet fixture drain, the drain shall connect horizontally to the horizontal wet-vent system. Not more than one wet-vented fixture drain shall discharge upstream of the dry-vented fixture drain connection.

**909.3** - <u>The dry vent serving the wet vent shall be sized based on the largest required diameter of pipe within the wet-vent system served by the dry vent.</u> The wet vent shall be a minimum size of 2 inches.

**1002.1** - Each plumbing fixture shall be separately trapped by a water-seal trap, except as otherwise permitted by this code. The trap shall be placed as close as possible to the fixture outlet. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches <u>and the horizontal</u> <u>distance shall not exceed 30 inches measured from the centerline of the fixture outlet to the centerline of the inlet of the trap</u>. The [distance] <u>height</u> of a clothes washer standpipe above a trap shall conform to Section 802.4. A fixture shall not be double trapped. <u>This section shall not apply to outdoor drinking fountains discharging to a drywell.</u>

**1003.3.1** - A grease interceptor <u>or automatic grease removal device</u> shall be required to receive the <u>direct and indirect discharges</u> from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, kitchens, hospitals, bars, cafeterias <u>(including school cafeterias)</u>, <u>butcher shops</u>, <u>slaughterhouses</u>, fish markets, <u>supermarket food processing</u> <u>areas</u>, <u>delicatessens</u>, or clubs. <u>Fixtures and equipment shall include pot sinks</u>, <u>prerinse sinks</u>, <u>soup</u> <u>kettles or similar devices</u>, wok stations, floor drains or sinks into which kettles are drained, food <u>scrap sinks</u>, <u>scraper sinks</u>, <u>scullery sinks</u>, <u>meat and/or poultry and/or fish preparation sinks</u>, <u>automatic</u> <u>hood wash units</u>, and <u>dishwashers with a maximum discharge temperature in compliance with the</u> <u>requirements of the Department of Environmental Protection</u>. Grease interceptors and automatic <u>grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils or</u> <u>grease to be discharged</u>. **1003.3.3** - A grease interceptor <u>or an automatic grease removal device</u> shall not be required for individual dwelling units, any private living quarters, <u>or non-culinary schools which only contain</u> residential type stoves and sinks intended for teaching basic home cooking skills.

**1003.3.4** - Grease interceptors <u>and automatic grease removal devices shall be sized in accordance</u> with the rules of the Department of Environmental Protection. Grease interceptors and <u>automatic grease removal devices</u> shall <u>be designed and tested in accordance with</u> PDI G101, ASME A112.14.3 or ASME A112.14.4 and shall be installed in accordance with the manufacturer's instructions.

**1003.3.5** - Where automatic grease removal devices are installed, such devices shall be located downstream of each fixture or multiple fixtures in accordance with the manufacturer's instructions. The automatic grease removal device shall be sized to pretreat the measured or calculated flows for all connected fixtures or equipment. Ready access shall be provided for inspection and maintenance.

Section PC 1101 of the New York City plumbing code is amended to govern the materials, design, construction and installation of storm drainage.

**1101.2.2** - The determination as to whether a public storm sewer or public combined sewer is available to a building shall be made in accordance with applicable requirements of the DEP.

**1101.2.3** - <u>The determination as to whether connection to an available public storm sewer or combined public sewer is feasible shall be made in accordance with applicable requirements of the DEP.</u>

**1101.2.4** - Extensions of public storm or combined sewers shall be made in accordance with the rules of the DEP.

**1101.5** - The size of a drainage pipe shall not be reduced in the direction of flow unless that drainage pipe is part of an approved detention system.

**1101.5.1** - Where a detention system is provided, the pipe leaving the detention tank shall be permitted to be reduced to the flow allowed by the Department of Environmental Protection, provided, however, that an emergency overflow shall be provided to protect the building from internal flooding. Such emergency overflow shall equal the full size of the incoming storm water flow. Such emergency overflow shall discharge the overflow outside of the building into either of the following locations:

#### <u>1. The tax lot; or</u>

2. The public sewer, provided that the overflow piping is provided with a vent, of the same diameter as the overflow piping, that terminates on the front wall of the building facing the street and no more than 2 feet above the sidewalk, provided further that the connection from the overflow pipe to outlet pipe of the detention tank is no more than 9 inches below the top of the curb level.

## TABLE 1102.4 - AMENDED BUILDING STORM SEWER PIPE - FITTINGS ALSO

MATERIAL	STANDARD
Cast-iron pipe	ASTM A 74; ASTM A 888; CISPI 301
Chlorinated polyvinyl chloride (CPVC) plastic	ASTM F 437; ASTM F 438; ASTM F 439
Nonasbestos fiber-cement pipe	ASTM C [1449] <u>1450</u>
Polyvinyl chloride (PVC) plastic pipe (Type DWV, SDR26,	ASTM D 2665; ASTM D 3034; ASTM F 891; CSA B 182.2; CAN/CSA B
SDR35, SDR41, PS50 or PS100) <sup>[a] <u>b</u></sup>	182.4 <u>; CSA B 181.2</u>
Vitrified clay pipe	ASTM C 4 <u>00;</u> ASTM C 700
Stainless steel drainage systems, Type 316L	ASME A112.3.1

a. Approved plastic sewer for piping 12 inches and larger in accordance with Section 1101.10, Exception 2.

b. Limited to residential buildings five stories or less in height.

**1104.3** – Amended as follows: Drains carrying clear water, i.e., air-conditioning drips, pump drips, cooling water, etc., may discharge into the storm water drainage system through an indirect waste connection discharging into a trapped funnel or raised lip floor drain.

#### Exception: Cooling tower blow-down shall discharge into the sanitary drainage system.

**1104.4** – New section to read as follows: <u>Floor drains provided in open or enclosed parking</u> garages shall drain to the storm drainage system.

A six page amendment to the code has been made by adding a new section, PC 1114 covering PRIVATE ON-SITE STORMWATER DISPOSAL SYSTEMS. Topics covered are percolation tests, soil borings, precipitation rates, permitted use of drywells including their design, size, location, installation procedure, maintenance and signage.

# Appendix C of the New York City plumbing code is repealed and a new five page appendix C has been added covering WATER RECYCLING SYSTEMS, WASTEWATER RECYCLING SYSTEMS and RAINWATER RECYCLING SYSTEMS.

The provisions of this appendix govern the materials, design, construction and installation of water recycling systems as well as water recycling systems collecting wastewater and rainwater. Treated effluent must comply with the water quality standards and may be used for flushing of water closets and urinals, cooling tower makeup, washing of sidewalks, streets or buildings, laundry, subsurface or drip landscape irrigation systems, or other approved uses that are located in the same lot as the water recycling system. This appendix will apply to water recycling systems collecting rainwater and/or condensate used solely for cooling tower makeup and/or subsurface and drip irrigation. Also covered are definitions such as gray water and black water, the disinfection of systems, the testing and coloring of effluent water.

Appendix E of the New York City plumbing code is titled "Sizing of Water Piping System" has been amended with several minor changes. As an example, Section E101.1.1 now reads as follows: This appendix outlines two procedures which may be utilized for sizing a water piping system. The

design procedures are based on the minimum static pressure available from the supply source, the head [charges] <u>changes</u> in the system caused by friction and elevation, and the rates of flow necessary for operation of various fixtures.

Also, there are several sizing tables which are now identified that were previously unidentified. Another table has the word "Fairly" removed and now simply reads "Friction Loss in Rough Pipe. Lastly, a new Section E202 has been added to the code to read as follows:

#### SECTION PC E202 - NEW DETERMINATION OF PIPE VOLUMES

**E202.1** - Where required for engineering design purposes, Table E202.1 shall be used to determine the approximate internal volume of water distribution piping.

	OUNCES OF WAT	ER PER FOOT OF TUBE	
Size Nominal Inch	<u>Copper Type M</u>	<u>Copper Type L</u>	Copper Type K
<u>3/8</u>	<u>1.06</u>	<u>0.97</u>	0.84
<u>1/2</u>	<u>1.69</u>	<u>1.55</u>	<u>1.45</u>
<u>3/4</u>	3.43	<u>3.22</u>	<u>2.90</u>
<u>1</u>	<u>5.81</u>	<u>5.49</u>	<u>5.17</u>
$\frac{1^{1}}{4}$	<u>8.70</u>	<u>8.36</u>	<u>8.09</u>
<u>1<sup>1</sup>/2</u>	<u>12.18</u>	<u>11.83</u>	<u>11.45</u>
2	21.08	<u>20.58</u>	<u>20.04</u>

## TABLE E202.1 NEW INTERNAL VOLUME OF VARIOUS WATER DISTRIBUTION TUBING

This local law shall take effect on the same date as the effective date of a local law amending the administrative code of the city of New York in relation to bringing the New York City building code up to date with the 2009 edition of the International Building Code published by the International Code Council.