LOCAL LAWS
OF
THE CITY OF NEW YORK
FOR THE YEAR 2014

No. 51

Introduced by Council Members Williams, Koo, Richards, Arroyo, Barron and Kallos (by request of the Mayor).

A LOCAL LAW

To amend the administrative code of the city of New York, the New York city plumbing code, the New York city building code, the New York city mechanical code, the New York city fuel gas code and local law number 71 for the year 2011, in relation to technical corrections and clarification of provisions of the New York city construction codes and, in relation thereto, repealing section 1107.5.6 of the New York city building code and section 7 of local law number 71 for the year 2011 and repealing and replacing section 301.6 of the New York city plumbing code, item 4 of section 314.2.3 of the New York city plumbing code, section 907.2.2 of the New York city building code, item 3 of section 1109.2 of the New York city building code, section 1609.7.3 of the New York city building code, section 1613.5.3 of the New York city building code, sections 1613.5.4 and 1613.5.5 of the New York city building code, table 1704.3 of the New York city building code, table 401.5 of the New York city mechanical code, Section 304.4.1 of the New York city fuel gas code and section 504.3.20 of the New York city fuel gas code.

Be it enacted by the Council as follows:

Section 1. Sections 219.1, 219.2, 219.2.1 and 219.2.2 of article 219 of chapter 2 of title 28 of the administrative code of the city of New York, as renumbered and amended by local law number 141 for the year 2013, are renumbered to be, respectively, sections 28-219.1, 28-219.2, 28-219.2.1 and 28-219.2.2.

§2. Section 219.2.3 of article 219 of chapter 2 of title 28 of the administrative code of the city of New York, as renumbered by local law number 141 for the year 2013, is amended to read as follows:

[§219.2.3] ***§28-219.3*** **False certifications of correction.** It shall be unlawful to prepare, file or offer for filing a certification of correction of an immediately hazardous condition, knowing that such certification contains a false statement or false information. Any person who prepares such a certificate shall be subject to prosecution under section 175.05 or 175.10 of the penal law. Any person who files such a certificate or offers such a certificate for filing shall be subject to prosecution under section 175.30 or 175.35 of the penal law. Nothing in this section shall be

construed to limit, alter or affect the authority conferred by any other provision of this chapter or other law to bring criminal, civil or administrative actions or proceedings or other remedies for the preparation, filing or offering for filing of a certification of correction of an immediately hazardous condition containing a false statement or false information.

§3. Section 301.6 of the New York city plumbing code, as amended by local law number 41 for the year 2012, is REPEALED and a new section 301.6 is added to read as follows:

301.6 Prohibited locations. *Plumbing systems shall not be located in an elevator shaft and plumbing systems not related to elevator machinery shall not be located in elevator equipment rooms.*

Exception: *Floor drains, sumps and sump pumps shall be permitted at the base of the shaft, provided they are indirectly connected to the plumbing system.*

§4. Item 4 of Section 314.2.3 of the New York city plumbing code, as added by local law number 41 for the year 2012, is REPEALED and a new item 4 is added, to read as follows:

4. 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.

Exception: *Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.*

§5. Occupancy A-5 in item No. 1 of Table 403.1 of the New York city plumbing code, as added by local law number 41 for the year 2012, is amended to read as follows:

TABLE 403.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES[a]
(See Sections 403.2 and 403.3)

NO.	CLASSIFICATION	OCCUPANCY[i]	DESCRIPTION	WATER CLOSETS URINALS (SEE SECTION 419.2)		LAVATORIES		BATHTUBS / SHOWERS	DRINKING FOUNTAIN (SEE	OTHER
				MALE	FEMALE	MALE	FEMALE			

1	Assembly	A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per [100] <u>1,000</u>	1 service sink

§6. Section 403.4.8.2 of the New York city building code, as added by local law number 141 for the year 2013, is amended to read as follows:

403.4.8.2 Emergency power loads in Group R-2 occupancies. Group R-2 occupancies in buildings greater than 125 feet (38 100 mm) in height shall be required to provide an emergency power system to support the following loads:

1. Exit signs and means of egress illumination required by Chapter 10;

2. [At least one elevator serving all floors, or one elevator per bank where different banks serve different portions of the building;

3.] Emergency voice communications systems; and

[4.] *3.* Electrically powered fire pumps, unless electrical power to the motor is taken ahead of the main from the street side of the house service switch.

§7. Section 704.11 of the New York city building code, as added by local law number 141 for the year 2013, is amended to read as follows:

704.11 Lintel protection. Lintels over openings wider than 4 feet (1219 mm) in masonry walls, other than in walls of masonry veneer on wood frame structures, shall be fire protected as required by Section 704.3 when the full load over the opening is not relieved by a masonry arch of required strength.

Exceptions:

1. *The members of an assembled metal lintel that support only outer face masonry that is securely bonded or anchored to backing need not be fire protected, provided that the inner members of the assembly support the full load imposed.*

2. *The use of stone lintels in spans exceeding 4 feet (1219 mm) shall not be permitted unless supplemented by fire-protected structural members or masonry arches of the required strength to support the superimposed loads.*

§8. Section 708.12.1.3.2 of the New York city building code, as added by local law number 141 for the year 2013, is amended to read as follows:

708.12.1.3.2 Smoke vents located in an exterior wall. Where the exterior wall serves as part of a shaft enclosure or where a smoke vent duct penetrates the exterior wall of the building, [the vent shall be located at least 30 feet (9144 mm) above and 5 feet (1524 mm) to the side of any other openings in the exterior wall] *no openings shall be located in the wall within a distance of 30 feet (9144 mm) vertically above the vent opening, nor within 5 feet (1524 mm) on either side of the vent opening*.

§9. Section 708.13.3 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

708.13.3 Refuse and laundry chute access rooms. Access openings for refuse and laundry chutes shall be located in dedicated rooms or compartments enclosed by not less than 2 hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Openings into the access rooms shall be protected by opening protectives having a fire protection rating of not less than 1½ hour. Doors shall be [self- or automatic-closing upon the detection of smoke in accordance with Section 715.4.8.3, provided that] *self closing except that where* the storage of refuse, including recyclables, or laundry is not permitted in such access rooms *doors may be automatic closing upon the detection of smoke in accordance with Section 715.4.8.3*.

Exception: Access openings for refuse or laundry chutes located within a dwelling unit need not be located within a separate room or compartment.

§10. Item 1 of Section 716.3.3.2 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

1. Where a smoke damper is installed within a duct, a smoke detector shall be installed in the duct within 5 feet (1524 mm) of the damper with no air outlets or inlets between the detector and the damper. The detector shall be listed for the air velocity, temperature and humidity anticipated at the point where it is installed. Other than in mechanical smoke control systems, dampers shall be closed upon fan shutdown where local smoke detectors require a minimum velocity to operate.

   Exceptions:

   1. *Duct smoke detectors will not be required at each fire smoke damper where the supply fan shall shut down and all the fire smoke dampers associated with the supply system automatically close upon actuation of an automatic alarm initiating device on the floor(s).*

2. *Duct smoke detectors will be required within 5 feet (1524 mm) downstream of any electric duct reheat coil.*

3. *Non-ducted return air systems shall have a smoke detector located within 5 feet (1524 mm) upstream of each return air protected opening in a 2 hour fire rated barrier.*

4. *Ducted return air systems shall have a duct smoke detector located within 5 feet (1524 mm) of a smoke damper; additional smoke detectors will not be required at fire smoke dampers located downstream where there are no additional return air inlets.*

§11. Section 907.2.2 of the New York city building code, as amended by local law number 141 for the year 2013 is REPEALED and a new section 907.2.2 is added, to read as follows:

907.2.2 Group B. *A manual and automatic fire alarm system shall be installed in Group B occupancies that are protected by an automatic sprinkler system where one of the following conditions exists:*

1. *The combined Group B occupant load of all floors is 500 or more.*

2. *The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.*

3. *The Group B fire area contains a Group B ambulatory health care facility.*

Where such occupancies meeting any one of the above conditions are not protected by an automatic sprinkler system, a partial coverage automatic smoke detection system or automatic heat detection system shall be installed in accordance with NFPA 72 in addition to the manual and automatic fire alarm system.

§12. Section 1009.4.2 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

1009.4.2 Riser height and tread depth. Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the leading edges of adjacent treads. Rectangular tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than ⅜ inch (9.5 mm). Winder treads shall have a minimum tread depth of 11 inches (279 mm) measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254 mm) within the clear width of the stair.

Exceptions:

1. Alternating tread devices in accordance with Section 1009.10.

[3.] *2.* Ship ladders in accordance with Section 1009.11.

[4.] *3.* Spiral stairways in accordance with Section 1009.9.

[5.] *4.* Aisle stairs in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1028.11.2.

[6.] *5.* In Group R-2 occupancies:

[6.1.] *5.1.* Sum of treads and risers. The sum of two risers plus one tread exclusive of nosing shall be not less than 24 inches (610 mm) nor more than 25½ inches (648 mm).

[6.2.] *5.2.* Dimensions of treads and risers. The maximum riser height shall be 7¾ inches (197 mm) and the minimum tread depth shall be 9½ inches (241 mm) plus nosing. Treads may be undercut a distance equal to the nosing. A nosing not less than ¾ inch (19 mm) but not more than 1¼ inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).

[6.3.] *5.3.* Tolerances. The greatest riser height, tread depth, and nosing projection, within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

[7.] *6.* In Group R-3 occupancies; within dwelling units in Group R-2 occupancies not subject to accessibility provisions in Section 1107.2.5, Exception 2; and in Group U occupancies that are accessory to Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies:

[7.1.] *6.1.* Sum of treads and risers. The sum of two risers plus one tread exclusive of nosing shall be not less than 24 inches (610 mm) nor more than 25 ½ inches (648 mm).

[7.2.] *6.2.* Dimensions of treads and risers. The maximum riser height shall be 8 ¼ inches (210 mm) and the minimum tread depth shall be 9 inches (229 mm) plus nosing. Treads may be undercut a distance equal to the nosing. A 1 ¼ -inch (32 mm) nosing shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).

[7.3.] *6.3.* Tolerances. The greatest riser height, tread depth, and nosing projection, within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

[8.] *7.* In Group R-3 occupancies; and within dwelling units in Group R-2 occupancies; winders shall have a minimum tread depth of 10 inches (254 mm) measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge, when measured at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the greatest winder tread depth at the 12-inch (305 mm) walk line shall not exceed the smallest by more than 3/8 inch (9.5 mm).

[9.] *8.* In Group I-3 facilities, stairways providing access to guard towers, observation stations and control rooms, not more than 250 square feet (23 m^2) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).

§13. Section 1107.5.6 of the New York city building code, as added by local law number 141 for the year 2013, is REPEALED.

§14. Item 3 of section 1109.2 of the New York city building code, as amended by local law number 141 for the year 2013, is REPEALED and a new item 3 is added, to read as follows:

3. Where multiple single-user toilet rooms or bathing rooms are clustered to be within sight of, or adjacent to one another at a single location, at least 50 percent, but not less than one room for each use at each cluster, shall be accessible.

§15. Section 1507.3.9 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

1507.3.9 Flashing. At the juncture of the roof vertical surfaces, flashing and counterflashing shall be provided in accordance with the manufacturer's installation instructions, and where of metal, shall not be less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal. The valley flashing shall extend at least 11 inches (279 mm) from the centerline each way and have a splash diverter rib not less than 1 inch (25 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than 4 inches (102 mm). For roof slopes of three units vertical in 12 units horizontal (25-percent slope) and over, the valley flashing shall have a 36-inch-wide (914 mm) underlayment of either one layer of Type I underlayment running the full length of the valley, or a self-adhering polymer-modified bitumen sheet complying with ASTM D 1970, in addition to other required underlayment. For slopes under seven units vertical in 12 units horizontal (58-percent slope), the metal valley [flushing] *flashing* underlayment shall be solid cemented to the roofing underlayment or a self-adhering polymer modified bitumen [sheet(s)] *sheet* shall be installed.

§16. Section 1507.5.7 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

1507.5.7 Flashing. Roof valley flashing shall be of corrosion-resistant metal of the same material as the roof covering or shall comply with the standards in Table 1507.4.3(1). The valley flashing shall extend at least 8 inches (203 mm) from the centerline each way and shall have a splash diverter rib not less than ¾ inch (19.1 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than 4 inches (102 mm). The metal valley flashing shall have a 36-inch-wide (914 mm) underlayment directly under it consisting of either one layer of underlayment running the full length of the valley or a self-adhering polymer-modified bitumen sheet complying with ASTM D 1970, in addition to underlayment required for metal roof shingles. [The] *For slopes under seven units vertical in 12 units horizontal (58-percent slope), the* metal valley flashing underlayment shall be [solidly] *solid* cemented to the roofing underlayment [for roof slopes under seven units vertical in 12 units horizontal (58-percent slope)] or [of] *a* self-adhering polymer[-] modified bitumen sheet shall be installed.

§17. Section 1507.8.8 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

1507.8.8 Flashing. At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided in accordance with the manufacturer's installation instructions, and where of metal, shall not be less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal. The valley flashing shall extend at least 11 inches (279 mm) from the centerline each way and have a splash diverter rib not less than 1 inch (25 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than 4 inches (102 mm). For roof slopes of three units vertical in 12 units horizontal (25-percent slope) and over, the valley flashing shall have a 36-inch-wide (914 mm) underlayment of either one layer of Type I underlayment running the full length of the valley or a self-adhering polymer-modified bitumen sheet complying with ASTM D 1970, in addition to other required underlayment. [The] *For slopes under seven units vertical in 12 units horizontal (58-percent slope), the* metal valley flashing underlayment shall be [solidly] *solid* cemented to the roofing underlayment [for slopes under seven units vertical in 12 units horizontal (58-percent slope)] or *a* self-adhering polymer[-] modified bitumen sheet shall be installed.

§18. Section 1507.9.9 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

1507.9.9 Flashing. At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided in accordance with the manufacturer's installation instructions, and where of metal, shall not be less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal. The valley flashing shall extend at least 11 inches (279 mm) from the centerline each way and have a splash diverter rib not less than 1 inch (25 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than 4 inches (102 mm). For roof slopes of three units vertical in 12 units horizontal (25-percent slope) and over,

the valley flashing shall have a 36-inch-wide (914 mm) underlayment of either one layer of Type I underlayment running the full length of the valley or a self-adhering polymer-modified bitumen sheet complying with ASTM D 1970, in addition to other required underlayment. [The] *For slopes under seven units vertical in 12 units horizontal (58-percent slope) the* metal valley flashing underlayment shall be solidly cemented to the roofing underlayment [for slopes under seven units vertical in 12 units horizontal (58-percent slope)] or *a* self-adhering polymer-modified bitumen sheet shall be installed.

§19. Section 1609.7.3 of the New York city building code, as added by local law number 141 for the year 2013, is REPEALED and a new Section 1609.7.3 is added to read as follows:

1609.7.3 Rigid tile. *Wind loads on rigid tile roof coverings shall be determined in accordance with the following equation:*

$M_a = q_h C_L b L L_a (1.0 - G C_p)$ ***(Equation 16-45)***

For SI: $M_a = q_h C_L b L L_a (1.0 - G C_p) / 1{,}000$

where:

$b =$ *Exposed width, feet (mm) of the roof tile.*

$C_L =$ *Lift coefficient. The lift coefficient for concrete and clay tile shall be 0.2 or shall be determined by test in accordance with Section 1716.2.*

$GC_p =$ *Roof pressure coefficient for each applicable roof zone determined from Chapter 6 of ASCE 7. Roof coefficients shall not be adjusted for internal pressure.*

$L =$ *Length, feet (mm) of the roof tile.*

$L_a =$ *Moment arm, feet (mm) from the axis of rotation to the point of uplift on the roof tile. The point of uplift shall be taken at 0.76L from the head of the tile and the middle of the exposed width. For roof tiles with nails or screws (with or without a tail clip), the axis of rotation shall be taken as the head of the tile for direct deck application or as the top edge of the batten for battened applications. For roof tiles fastened only by a nail or screw along the side of the tile, the axis of rotation shall be determined by testing. For roof tiles installed with battens and fastened only by a clip near the tail of the tile, the moment arm shall be determined about the top edge of the batten with consideration given for the point of rotation of the tiles based on straight bond or broken bond and the tile profile.*

$M_a =$ *Aerodynamic uplift moment, feet-pounds (N-mm) acting to raise the tail of the tile.*

$q_h =$ *Wind velocity pressure, psf (kN/m^2) determined from Section 6.5.10 of ASCE 7.*

Concrete and clay roof tiles complying with the following limitations shall be designed to withstand the aerodynamic uplift moment as determined by this section.

1. *The roof tiles shall be either loose laid on battens, mechanically fastened, mortar set or adhesive set.*

2. *The roof tiles shall be installed on solid sheathing which has been designed as components and cladding.*

3. *An underlayment shall be installed in accordance with Chapter 15.*

4. *The tile shall be single lapped interlocking with a minimum head lap of not less than 2 inches (51 mm).*

5. *The length of the tile shall be between 1.0 and 1.75 feet (305 and 533 mm).*

6. *The exposed width of the tile shall be between 0.67 and 1.25 feet (204 and 381 mm).*

7. *The maximum thickness of the tail of the tile shall not exceed 1.3 inches (33 mm).*

8. *Roof tiles using mortar set or adhesive set systems shall have at least two-thirds of the tile's area free of mortar or adhesive contact.*

§20. Section 1613.5.3 of the New York city building code, as added by local law number 141 for the year 2013, is REPEALED and a new Section 1613.5.3 is added to read as follows:

1613.5.3 Site coefficients and risk-targeted maximum considered earthquake (MCE_R) spectral response acceleration parameters. *The MCE_R spectral response acceleration parameters for short periods, S_{MS}, and at 1-second period, S_{M1}, adjusted for site class effects shall be determined by Equations 16-47 and 16-48, respectively:*

$$S_{MS} = F_a S_S \qquad \textit{(Equation 16-47)}$$

$$S_{M1} = F_v S_1 \qquad \textit{(Equation 16-48)}$$

where:

F_a = *Site coefficient defined in Table 1613.5.3(1).*

F_v = *Site coefficient defined in Table 1613.5.3(2).*

S_S = *The mapped MCE_R spectral accelerations for short periods as determined in Section 1613.5.1.*

S_1 = *The mapped MCE_R spectral accelerations for a 1-second period as determined in Section 1613.5.1.*

§21. Sections 1613.5.4 and 1613.5.5 of the New York city building code, as added by local law number 141 for the year 2013, are REPEALED and new Sections 1613.5.4 and 1613.5.5 are added to read as follows:

1613.5.4 Design spectral response acceleration parameters. *Five-percent damped design spectral response acceleration at short periods, S_{DS}, and at 1-second period, S_{D1}, shall be determined from Equation 16-49 and 16-50, respectively:*

$S_{DS} = 2/3S_{MS}$ ***(Equation 16-49)***

$S_{D1} = 2/3S_{M1}$ ***(Equation 16-50)***

where:

S_{MS} = *The MCE_R spectral response accelerations for short period as determined in Section 1613.5.3.*

S_{M1} = *The MCE_R spectral response accelerations for 1-second period as determined in Section 1613.5.3.*

1613.5.5 Site classification for seismic design. *Site classification for Site Class C, D or E shall be determined from Table 1613.5.5. The notations presented below apply to only materials encountered above rock meeting Class 1a, 1b, or 1c as defined in Section 1804 or rock with shear wave velocity greater than 2500 feet per second (762 meters per second) to a maximum depth of 100 feet (30 480 mm). Profiles containing distinctly different soil and rock layers shall be subdivided into those layers designated by a number that ranges from 1 to n at the bottom where there is a total of n distinct layers in the upper 100 feet (30 480 mm). The symbol i then refers to any one of the layers between 1 and n.*

where:

v_{si} = *The shear wave velocity in feet per second (m/s).*

d_I = *The thickness of any layer between 0 and 100 feet (30 480 mm).*

(Equation 16-51)

$$\overline{v}_s = \frac{\sum_{i=1}^{n} d_i}{\sum_{i=1}^{n} \frac{d_i}{v_{si}}}$$

$$\sum_{i=1}^{n} d_i = 100 \text{ feet } (30\,480 \text{ mm})$$

where:

N_i is the Standard Penetration Resistance (ASTM D1586) not to exceed 100 blows/foot (328 blows/m) as directly measured in the field without corrections. When refusal is met for a rock layer of Class 1d, N_i shall be less than or equal to 100 blows/foot (328 blows/m) provided that the extend of the Class 1d material is confirmed by a boring to a depth where Class 1c or better rock is determined, not to exceed 100 feet. Alternatively, if this boring is not performed, site classification should be based on all soil material that is above the Class 1d layer.

(Equation 16-52)

$$\overline{N} = \frac{\sum_{i=1}^{n} d_i}{\sum_{i=1}^{n} \frac{d_i}{N_i}}$$

(Equation 16-53)

$$\overline{N}_{ch} = \frac{d_s}{\sum_{i=1}^{m} \frac{d_i}{N_i}}$$

where:

$$\sum_{i=1}^{m} d_i = d_s$$

Use d_i and N_i for cohesionless soil layers only in Equation 16-42.

d_s = The total thickness of cohesionless soil layers in the top 100 feet (30 480 mm).

m = The number of cohesionless soil layers in the top 100 feet (30 480 mm).

S_{ui} = The undrained shear strength in psf (kPa), not to exceed 5,000 psf (240 kPa), ASTM D 2166 or D 2850.

$$\overline{S_u} = \frac{d_c}{\sum_{i=1}^{k} \frac{d_i}{s_{ui}}}$$

where:

$$\sum_{i=1}^{k} di = d_c$$

d_c = The total thickness (100-d_s) (For SI: 30480-d_s) of cohesive soil layers in the top 100 feet (30 480 mm).

k = The number of cohesive soil layers in the top 100 feet (30 480 mm).

PI = The plasticity index, ASTM D 4318.

w = The moisture content in percent, ASTM D 2216.

Where a site does not qualify under the criteria for Site Class F and there is a total thickness of soft clay greater than 10 feet (3048 mm) where a soft clay layer is defined by s_u < 500 psf (24 kPa), w > 40 percent, and PI > 20, it shall be classified as Site Class E. The shear wave velocity for rock, Site Class B, shall be either measured on site or estimated by a geotechnical engineer or engineering geologist/seismologist for competent rock with moderate fracturing and weathering. Softer and more highly fractured and weathered rock shall either be measured on site for shear wave velocity or classified as Site Class C. The hard rock category, Site Class A, shall be supported by shear wave velocity measurements either on site or on profiles of the same rock type in the same formation with an equal or greater degree of weathering and fracturing. Where hard rock conditions are known to be continuous to a depth of 100 feet (30 480 mm), surficial shear wave velocity measurements are permitted to be extrapolated to assess v_s. The rock categories, Site Classes A and B, shall not be used if there is more than 10 feet (3048 mm) of soil between the rock surface and the bottom of the spread footing or mat foundation.

§22. Table 1704.3 of the New York city building code, as amended by local law number 141 for the year 2013, is REPEALED and a new Table 1704.3 is added to read as follows:

TABLE 1704.3
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	*CONTINUOUS*	*PERIODIC*	*REFERENCED STANDARD*[a]	*BC REFERENCE*
1. Material verification of high-strength bolts, nuts and washers:				
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	–	*X*	*AISC 360, Section A3.3 and applicable ASTM material specifications*	—
b. Manufacturer's certificate of compliance required.	—	*X*	—	—
2.Inspection of high-strength bolting:				
a. Snug-tight joints.	—	*X Note b*	*AISC 360 Section M2.5*	*1704.3.3*
b. Pre-tensioned and slip-critical joints using turn-of-nut with matchmarking, twist-off bolt or direct tension indictor methods of installation.	—	*X*		
c. Pre-tensioned and slip-critical joints using turn-of-nut without matchmarking or calibrated wrench methods of installation.	*X*	—		
3. Material verification of structural steel and cold formed steel deck:				
a. For structural steel, identification markings to conform to AISC 360.	—	*X*	*AISC 360, Section M5.5*	—
b. For other steel, identification markings to conform to ASTM standards specified in the approved construction documents.	—	—	*Applicable ASTM Standards*	
c. Manufacturers' certified mill test reports.	—	*X*	*Applicable ASTM material standards*	
4. Material verification of weld filler materials:				

a. Identification markings to conform to AWS specification in the approved construction documents.	–	–	AISC 360, Section A3.5 and applicable AWS A5 documents	–
b. Manufacturer's certificate of compliance required.	–	–	—	—
5.Inspection of welding: a. Structural steel, cold-formed steel and cold-formed steel deck:	–	–		
1) Complete and partial penetration groove welds.	X	–	AWS D1.1	1704.3.1
2) Multipass fillet welds.	X	–		
3) Single-pass fillet welds > 5/16".	X	–		
4) Plug and slot welds.	X	–		
5) Single-pass fillet welds ≤ 5/16".	–	X		
6) Floor and roof deck welds.	–	X	AWS D1.3	—
7) Cold-formed steel welds.	–	X	AWS D1.3	–
b. Reinforcing steel:	–	—	AWS D1.4 ACI 318: 3.5.2	1903.5.2
1) Verification of weldability of reinforcing steel other than ASTM A 706.	–	X		
2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement.	X	–		
3) Shear reinforcement.	X Note a	—		
4) Other reinforcing steel.	–	X		

6. Inspection of steel frame joint details for compliance with approved construction documents:				
a. Details such as bracing and stiffening.	—	*X*	—	*1704.3.2*
b. Member locations.	—	*X*		
c. Application of joint details at each connection.	—	*X*		

For SI: 1 inch = 25.4 mm.

a. A minimum of 10 percent of shear studs shall be verified for strength of welded connection. If failure is evident on one or more, then the strength of all shear studs shall be verified.

b. Turn of the nut bolting shall be continuously inspected. Exception: Periodic inspection shall be acceptable when the contractor's procedures have been established and verified for compliance by the special inspector.

§23. Section 2603.4.1.1 of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

2603.4.1.1 Masonry or concrete construction. A thermal barrier is not required for foam plastic *insulation* installed in a masonry or concrete wall, floor or roof system where the foam plastic insulation is covered on each face by a minimum of 1 inch (25 mm) thickness of masonry or concrete.

§24. Section 3002.4.1 of the New York city building code, as added by local law number 141 for the year 2013, is amended to read as follows:

3002.4.1 Standby power required for elevators. [Emergency] *Standby* power shall be provided to elevators in the following categories:

1. Elevator(s) in high-rise buildings covered by Section 403.1, other than R-2 occupancies, as required by Section 403.4.8.1;

2. Elevator(s) in high-rise buildings in R-2 occupancies more than 125 feet (38 100 mm) in height, as required by Section 403.4.8.2;

3. Elevator(s) in underground buildings, as required by Section 405.4.3;

4. Elevator(s) in Groups B, E, and R-1 occupancies that are subject to Section 2702.2.20; and

5. Elevator(s) serving as accessible means of egress pursuant to Section 1007.4.

§25. Referenced standard D692 on the list of ASTM referenced standards in Section 3502 of the New York city building code is amended to read as follows:

ASTM ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

Standard Reference Number	Title	Referenced in code section number
D 692/*D 692M*—09	Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures	.1917.2

§26. Table 401.5 of the New York city mechanical code, as renumbered by local law number 141 for the year 12013, is REPEALED and a new Table 401.5 is added to read as follows:

TABLE 401.5
OPENING SIZES IN LOUVERS, GRILLES AND SCREENS PROTECTING OUTDOOR EXHAUST AND AIR INTAKE OPENINGS

OUTDOOR OPENING TYPE	***MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS MEASURED IN ANY DIRECTION***
Intake openings in residential occupancies	*Not < ¼ inch and not > ½ inch*
Intake openings in other than residential occupancies	*Not < ¼ inch and not > 1 inch*

For SI: 1 inch = 25.4 mm.

§27. Section 513.4.6 of the New York city mechanical code, as amended by local law number 141 for the year 2013, is amended to read as follows:

513.4.6 Duration of operation. All portions of active or passive smoke control systems shall be capable of continued operation after detection of the fire event for a period of not less than 20 minutes or 1.5 times the calculated egress time, whichever is [less] *more*.

§28. Sections 804.1 and 804.2 of the New York city mechanical code, as amended by local law 141 for the year 2013, are amended to read as follows:

804.1 Direct-vent terminations. Vent terminals for direct-vent appliances shall be installed in accordance with the manufacturer's installation instructions. [Horizontal venting shall be allowed only if approved by the commissioner and only if in a nonhazardous location and if the appliance has a sealed combustion chamber.] In addition, direct vent terminations shall comply with the following requirements:

1. Where located adjacent to walkways, the termination shall be not less than 7 feet (2134 mm) above the level of the walkway.

2. Vents shall terminate at least 3 feet (914 mm) above any forced air inlet, other than the forced air inlet for the subject direct vent appliance, located within 10 feet (3048 mm).

3. The vent system shall terminate at least 4 feet (1219 mm) below, 4 feet (1219 mm) horizontally from or 1 foot (305 mm) above any door, window or gravity air inlet into the building.

4. The vent termination point shall not be located closer than 3 feet (914 mm) to an interior corner formed by two walls perpendicular to each other.

5. The vent termination shall not be mounted directly above or within 3 feet (914 mm) horizontally from any gas or electric metering, regulating, venting relief equipment or other building opening.

6. The bottom of the vent termination shall be located at least 24 inches (610 mm) above finished grade.

7. The maximum heat input of an appliance served by single horizontal vent termination shall be 350,000 Btu/h (1025 kW), unless otherwise approved by the [Commissioner] *commissioner*.

8. The maximum heat input of all appliances served by horizontal vent terminations located within a 10 foot (3048 mm) radius shall be 350,000 Btu/h (1025 kW), unless otherwise approved by the [Commissioner] *commissioner*.

9. The vent termination shall be located a minimum of 4 feet from the lot line or from adjacent buildings. The termination shall be installed in accordance with the vent manufacturer's listing and installation instructions.

804.2 Appliances with integral vents. Appliances incorporating integral venting means shall be installed in accordance with their listings and the manufacturer's installation instructions. [Horizontal venting shall be allowed only if approved by the commissioner and only if in a nonhazardous location and if the appliance has a sealed combustion chamber.] In addition, integral vent terminals shall comply with the following requirements:

1. Where located adjacent to walkways, the vent terminal shall be not less than 7 feet (2134 mm) above the level of the walkway.

2. The vent terminal shall be at least 3 feet (914 mm) above any forced air inlet, other than the forced air inlet for the subject integral vent appliance, located within 10 feet (3048 mm).

3. The vent terminal shall be at least 4 feet (1219 mm) below, 4 feet (1219 mm) horizontally from or 1 foot (305 mm) above any door, window or gravity air inlet into the building.

4. The vent terminal shall not be located closer than 3 feet (914 mm) to an interior corner formed by two walls perpendicular to each other.

5. The vent terminal shall not be mounted directly above or within 3 feet (914 mm) horizontally from any gas or electric metering, regulating, venting relief equipment or other building opening.

6. The bottom of the vent terminal shall be located at least 24 inches (610 mm) above finished grade.

7. The maximum heat input of an appliance served by single horizontal vent terminal shall be 350,000 Btu/h (1025 kW), unless otherwise approved by the [Commissioner] *commissioner*.

8. The maximum heat input of all appliances served by horizontal vent terminals located within a 10 foot (3048 mm) radius shall be 350,000 Btu/h (1025 kW), unless otherwise approved by the [Commissioner] *commissioner*.

9. The vent terminal shall be located a minimum of 4 feet from the lot line or from adjacent buildings. The termination shall be installed in accordance with the vent manufacturer's listing and installation instructions.

§29. Section FGC 202 of the New York city fuel gas code, as amended by local law number 141 for the year 2013, is amended by adding a definition of "CONNECTOR, CHIMNEY OR VENT" following in alphabetical order the definition of "CONNECTOR, APPLIANCE (Fuel)" to read as follows:

CONNECTOR, CHIMNEY OR VENT. *The pipe that connects an appliance to a chimney or vent.*

§30. Section 304.4.1 of the New York city fuel gas code, as added by local law number 141 for the year 2013, is REPEALED and a new section 304.4.1 is added to read as follows:

304.4.1 Makeup air for fuel burning devices. *Where exhaust fans are installed, makeup air shall be provided to replace the exhausted air. Calculations shall be provided on the construction documents to validate the use of the exhaust fan(s) and compliance with this Chapter.*

§31. Section 504.3.20 of the New York city fuel gas code, as amended by local law number 141 for the year 2013, is REPEALED and a new section 504.3.20 is added, to read as follows:

504.3.20 Chimney and vent location. *Tables 504.3(1), 504.3(2), 504.3(3), 504.3(4), and 504.3(5) shall be used only for chimneys and vents not exposed to the outdoors below the roof line. A Type B vent or listed chimney lining system passing through an unused masonry chimney flue shall not be considered to be exposed to the outdoors. A Type B vent shall not be considered to be exposed to the outdoors where it passes through an unventilated enclosure or chase insulated to a value of not less than R8. Tables 504.3(6) and 504.3(7) shall be used for clay-tile-lined exterior masonry chimneys, provided all of the following conditions are met:*

1. *The vent connector is Type B double-wall.*
2. *At least one appliance is draft hood equipped.*
3. *The combined appliance input rating is less than the maximum capacity given by Table 504.3(6a) for NAT+NAT or Table 504.3(7a) for FAN+NAT.*
4. *The input rating of each space-heating appliance is greater than the minimum input rating given by Table 504.3(6b) for NAT+NAT or Table 504.3(7b) for FAN+NAT.*
5. *The vent connector sizing is in accordance with Table 504.3(3).*

§32. Section 7 of local law number 71 for the year 2011 is REPEALED.

§33. Section 8 of local law number 71 for the year 2011 is amended to read as follows:

§8. This local law shall take effect on January 1, 2015, except that *sections 5 and 6 of this local law shall take effect on the same date that section 1 of subpart 19 of part C of local law number 141 for the year 2013 takes effect, and except that* the commissioner of transportation and the commissioner of buildings shall take such actions as are necessary for its implementation, including the promulgation of rules, prior to [such effective date] *January 1, 2015*.

§34. Notwithstanding any other law or rule, tables, figures or equations in PDF or other electronic format to be added to the New York city construction codes or amended pursuant to this local law need not be underlined to denote new matter being added. The absence of underlining to

denote new matter being added shall not affect the validity of new tables, figures or equations in PDF or other electronic format to be added to the New York city construction codes or amended pursuant to this local law.

§35. This local law shall take effect on December 31, 2014, except that this local law shall not apply to construction work related to applications for construction document approval filed prior to such effective date, and except that the commissioner of buildings shall take such measures as are necessary for its implementation, including the promulgation of rules, prior to such effective date.

THE CITY OF NEW YORK, OFFICE OF THE CITY CLERK, s.s.:

I hereby certify that the foregoing is a true copy of a local law of The City of New York, passed by the Council on September 23, 2014 and approved by the Mayor on September 30, 2014.

MICHAEL M. McSWEENEY, City Clerk, Clerk of the Council.

CERTIFICATION OF CORPORATION COUNSEL

I hereby certify that the form of the enclosed local law (Local Law No. 51 of 2014, Council Int. No. 472-A of 2014) to be filed with the Secretary of State contains the correct text of the local law passed by the New York City Council and approved by the Mayor.

JEFFREY D. FRIEDLANDER, Acting Corporation Counsel.