File #: Int 0564-2007, **Version:** A

Int. No. 564-A

By Council Members Garodnick, the Speaker (Council Member Quinn), Brewer, Fidler, Gonzalez, James, Koppell, Sanders Jr., Seabrook, Weprin, White Jr., Gerson, Lappin, Yassky, Recchia Jr., Sears, Liu, Mendez, de Blasio, Mitchell, Mark-Viverito, Katz, Vallone Jr., Nelson, Vann, Avella, Gioia, Vacca, Jackson, Ferreras, Comrie, Barron, Arroyo, Crowley, Gennaro, Mealy and Reyna

A Local Law to amend the administrative code of the city of New York, in relation to establishing a New York city energy code.

Be it enacted by the Council as follows:

Section 1. Statement of findings and purpose. The Energy Conservation Construction Code of New York State (State Energy Code), authorized by article eleven of the State Energy Law, sets standards for the energy performance of buildings throughout New York. For existing buildings, the State Energy Code only applies when an alteration leads to the replacement of at least fifty percent of a building's system or subsystem, meaning there are no energy efficiency requirements for many renovation projects of a lesser magnitude or lower threshold. As a result of this loophole, New York City is failing to reap the benefits of energy improvements as the building fabric is updated in those situations. The State Energy Law expressly permits a municipality to promulgate a local energy conservation construction code that is more stringent than the State Energy Code. Accordingly, the Council finds that it is reasonable and necessary to promulgate a New York City Energy Code in order to ensure the enforcement of the State Energy Code within New York City and to impose energy standards for renovation projects at a lower threshold than that mandated by the State Energy Code. If following the promulgation of the New York City Energy Code the State revises the State Energy Code, the more stringent provisions of the two codes shall apply until the New York City Energy Code is amended and made more stringent.

§2. Title 28 of the administrative code of the city of New York is amended by adding a new chapter 10 to read as follows:

CHAPTER 10

THE NEW YORK CITY ENERGY CONSERVATION CODE

ARTICLE 1001

ENACTMENT AND UPDATE OF THE NEW YORK CITY ENERGY CONSERVATION CODE

§28-1001.1 Adoption of the energy code. In accordance with section 11-109 of the energy law that permits any municipality to promulgate a local energy conservation construction code, the city of New York hereby adopts the 2007 energy conservation construction code of New York state in effect and any amendments thereto that are more stringent than such code adopted by the city of New York as the minimum requirements for the design, construction and alteration of buildings for the effective use of energy in the city. Such adoption shall be subject to amendments pursuant to local law and set forth in section 1001.2 of this chapter, which shall be known and cited as the "New York city amendments to the 2007 energy conservation construction code of New York state." Such edition of the 2007 energy conservation construction code of New York state with such New York city amendments shall together be known and cited as the "New York city energy conservation code."

§28-1001.2 The New York city amendments to the 2007 energy conservation construction code of New York state. The following New York city amendments to the 2007 energy conservation construction code of New York state are hereby adopted as set forth in this section:

Section 101.1

Section 101.1 is revised to read as follows:

101.1 Title. These provisions shall be known and cited as the *"New York City Energy Conservation Code," "*NYCECC" or "ECC." It is referred to herein as "this code." All section numbers in this code shall be deemed to be preceded by the designation "ECC."

Section 101.2

Section 101.2, including subsections, is deleted in its entirety and a new section 101.2 is added to read as follows:

101.2 Scope. This code applies to residential and commercial buildings as defined herein.

1. Where reference is made within this code to codes referenced in the *Uniform Fire Prevention and Building Code of New York State* or to the *Residential Code of New York State*, the reference shall be deemed to be to the analogous provision of the *New York City Construction Codes*, the 1968 building code of the city of New York, the *New York City Fire Code* and the *New York City Electrical Code*.

2. Where reference is made within this code to the *New York City Building Code*, the reference shall be deemed to be to the analogous provision of the *New York City Construction Codes*, the 1968 building code of the city of New York, the *New York City Fire Code* and the *New York City Electrical Code*.

Section 101.4.3

Section 101.4.3 is revised to read as follows:

101.4.3 Historic buildings. The following exceptions shall apply:

1. Any building or structure that is listed in the State or National Register of Historic Places; designated as an historic property under state designation law or survey; certified as a contributing resource within a National Register listed historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of Historic Places, either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, is exempt from this code.

2. Any building or structure that is designated by the Landmarks Preservation Commission,

either as an individual landmark or as within an historic district and is not listed, designated or certified as provided in subdivision one of this section; or that is calendared by the Landmarks Preservation Commission for consideration as an individual landmark or part of an historic district and is not certified to be eligible to be listed as provided in subdivision one of this section, is exempt from the envelope and exterior lighting requirements of this code. Any interior that is designated as a New York city landmark and is not listed, designated or certified as provided in subdivision one of this section; or that is calendared for consideration by the Landmarks Preservation Commission for designation as an interior landmark and is not certified to be eligible to be listed as provided in subdivision one of this subsection, is exempt from this code.

Section 101.4.4

Section 101.4.4, including subsections, is deleted in its entirety and a new section 101.4.4 is added to read as follows:

101.4.4 Additions, alterations, renovations and repairs. Additions, alterations, renovations and repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as such provisions relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems.

Exception: The following need not comply with this code, provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.

2. Glass only replacements in an existing sash and frame.

3. Existing ceiling, wall or floor cavities exposed during construction provided that these

cavities are filled with insulation.

4. Construction where the existing roof, wall or floor cavity is not exposed.

Section 101.5.1

Section 101.5.1 is deleted in its entirety and a new section 101.5.1 is added to read as follows:

101.5.1 Demonstration of compliance. The following documentation, as further described in rules promulgated by the department, shall be required to demonstrate compliance with this code for any building application or applications related to a project required to be submitted to the department:

101.5.1.1 Professional statement. Any registered design professional or lead energy professional filing such application or applications shall provide, sign and seal the following statement: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *New York City Energy Conservation Code*."

101.5.1.2 Energy analysis. For any project, an energy analysis comprising a sheet or sheets within the drawing set of the initial application for the project shall be provided. The energy analysis shall demonstrate how the project design complies with this code.

1. For any new building project, such analysis shall include the envelope, mechanical, service water heating, and lighting and power systems in accordance with this code, regardless of how the project may be broken down into separate jobs for filing or other purposes.

2. For any building alteration project or addition, such analysis shall compare the proposed design to prescriptive requirements of this code, except where alternate methods are provided in rules promulgated by the department.

Exception: An energy analysis shall not be required for work not required to have a permit as provided pursuant to section 28-105.4 of the *Administrative Code*.

101.5.1.3 Supporting documentation. Supporting documentation, which is the approved construction drawings for a project, shall demonstrate conformance of such approved drawings with

the energy analysis for every element of the energy analysis. In addition, it shall demonstrate conformance with other mandatory requirements of this code, including but not limited to mechanical and lighting system controls.

Exception: Supporting documentation shall not be required for work not required to have a permit as provided pursuant to section 28-105.4 of the *Administrative Code*.

Section 101.5.2.3

Section 101.5.2.3 - Delete section.

Section 105.1

A new subsection 105.1.2 is added to read as follows:

105.1.2 Reconciliation with *Energy Conservation Construction Code of New York State*. Whenever any provision of the *Energy Conservation Construction Code of New York State* provides for a more stringent requirement than imposed by this code, the more stringent requirement shall govern.

Section 202

General Definitions

Revise the definition of "Addition" after the definition of "Accessible," to read as follows:

ADDITION. An extension or increase in the conditioned space floor area or height of a building or structure.

Delete the definition of "Agricultural buildings" after the definition of "Addition" in its entirety.

Add a new definition of "Alteration" before the definition of "Approved," to read as follows:

ALTERATION. Any construction or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a mechanical system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

Revise the definition of "Approved" before the definition of "Automatic," to read as follows:

APPROVED. Approved shall have the meaning as such term is defined in section 28-101.5 of the *Administrative Code*.

Add a new definition of "Project" before the definition of "Proposed design," to read as follows:

PROJECT. A design and construction undertaking comprised of work related to one or more buildings and the site improvements. A project is represented by one or more plan/work applications, including construction documents compiled in accordance with Section 106 of the New York City Building Code, that relate either to the construction of a new building or buildings or to the demolition or alteration of an existing building or buildings. Applications for a project may have different registered design professionals and different job numbers, and may result in the issuance of one or more permits.

Delete the definition of "Substantial Alteration" in its entirety.

Revise the definition of "System or Subsystem," to read as follows:

SYSTEM. A building assembly made up of various components that serve a specific function including but not limited to exterior walls, windows, doors, roofs, ceilings, floors, lighting, piping, ductwork, insulation, HVAC system equipment or components, electrical appliances and plumbing appliances.

Chapter 10

Chapter 10: Under ASHRAE, revise "*90.1-2001" to "90.1-2004."

28-1001.3 Periodic update.

28-1001.3.1 Periodic update. The commissioner shall submit to the city council proposed amendments that he or she determines should be made to this code to bring it up to date with or exceed the latest edition of the energy conservation construction code of New York state. The commissioner shall, at a minimum, submit such proposed amendments (i) following any revision of the energy conservation construction code

of New York state that establishes more stringent requirements than those imposed by this code and (ii) no later than the end of the third year after the effective date of this section and every third year thereafter. Prior to such submission, such proposed amendments shall be submitted to an advisory committee established by the commissioner pursuant to section 28-1003.2 for review and comment.

28-1001.3.2 New York city energy advisory committee. The commissioner shall establish a New York city energy conservation code advisory committee to provide advice and recommendations regarding such code and revisions thereto. Such committee shall include registered design professionals knowledgeable in energy efficiency, energy conservation, building design and construction; environmental advocates with expertise in energy efficiency and conservation; construction and real estate professionals; and representatives of appropriate labor organizations.

§3. Section 28-101.1 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

28-101.1 Title. The provisions of this chapter shall apply to the administration of the codes set forth in this title and the 1968 building code. The codes as set forth in this title shall be known and may be cited as the "New York city construction codes" and shall consist of:

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.

The New York city energy conservation code.

§4. Section 28-101.4.3 of the administrative code of the city of New York is amended by adding a new item 8 to read as follows:

8. All work related to energy efficiency shall be regulated by the New York city energy conservation code.

§5. Section 28-104.7.9 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

28-104.7.9 Energy conservation [construction] code. The application shall contain all information required to demonstrate compliance with the [energy conservation construction code of New York state] New York city energy conservation code. This information shall include signed and sealed construction drawings to the extent that they demonstrate such energy code compliance in the energy analysis or the supporting documentation as required by such energy code and rules.

§6. Item 4 of section 28-104.8.1 of the administrative code of the city of NewYork, as added by local law number 33 for the year 2007, is amended to read as follows:

4. A statement certifying compliance with the [energy conservation construction code of New York state] New York city energy conservation code.

§7. Section 101.4.6 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

101.4.6 Energy. The provisions of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* shall apply to matters governing the design, construction and alteration of buildings for energy efficiency.

§8. Section 106.6 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

106.6 Architectural plans. Construction documents for all buildings shall provide detailed drawings of all architectural elements of the building showing compliance with the code, including but not limited to doors, windows and interior finish schedules, [and other] details necessary to substantiate all required fire-protection characteristics, [as well as other] details demonstrating compliance with the *New York City Energy Conservation Code* and details demonstrating compliance with all accessibility requirements of this code. Site safety features shall be shown where applicable. Plans shall also provide details of the exterior wall envelope as

required, including but not limited to flashing, insulation, vapor retarder, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

Exception: Where a curtain wall system is to be employed containing elements that are normally detailed on shop or working drawings, approval of construction documents shall be conditioned upon deferred submittal of such shop or working drawings showing the approval of the registered design professional who prepared the architectural construction documents, or of a signed statement by such registered design professional that such drawings were prepared to his or her satisfaction. In such cases, submittal of construction documents showing compliance with the [*Energy Conservation Construction Code of New York State]* *New York City Energy Conservation Code* related to such curtain wall may also be deferred. Such deferred submittal of construction documents must demonstrate that the estimated annual energy use for the envelope in the energy analysis submitted as part of the initial filing is not exceeded.

§9. Section 106.13 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

106.13 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy

professional.

2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§10. Section 1301.1.1 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§11. Section 106.10 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.10 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.

2. The format for the energy analysis shall be as established in the *Energy Conservation Construction*

Code of New York State, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§12. Section 313.1 of the New York city plumbing code, as added by local law number 33 for the year 2007, is amended to read as follows:

313.1 General. Equipment efficiencies shall be in accordance with the [New York state energy conservation construction code] *New York City Energy Conservation Code*.

§13. Section 607.2 of the New York city plumbing code, as added by local law number 33 for the year 2007, is amended to read as follows:

607.2 Hot water supply temperature maintenance. Where the developed length of hot water piping from the source of hot water supply to the farthest fixture exceeds 20 feet (6096 mm), the hot water supply system shall be provided with a method of maintaining the temperature in accordance with the [New York state energy conservation construction code] *New York City Energy Conservation Code*.

§14. Section 607.2.1 of the New York city plumbing code, as added by local law number 33 for the year 2007, is amended to read as follows:

607.2.1 Piping insulation. Circulating hot water system piping shall be insulated in accordance with the [New York state energy conservation construction code] *New York City Energy Conservation Code*.

§15. Section 106.8 of the New York city fuel gas code, as added by local law number 33 for the year 2007, is amended to read as follows:

106.8 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, and service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§16. Section 301.2 of the New York city fuel gas code, as added by local law number 33 for the year 2007, is amended to read as follows:

301.2 Energy utilization. Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code.*

§17. Section 605.3 of the New York city fuel gas code, as added by local law number 33 for the year 2007, is amended to read as follows:

605.3 Combustion Air Supply. The requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* concerning combustion air supply shall be followed.

§18. Section 106.10 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

106.10 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: “To the best of my knowledge, belief and professional judgment, these plans and

specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§19. The definition of Unusually Tight Construction in section 202 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

UNUSUALLY TIGHT CONSTRUCTION. Construction meeting all of the following requirements:

1. Walls exposed to the outside atmosphere having a continuous water vapor retarder with a rating of 1 perm (57 ng/s • m^2 • Pa) or less with openings gasketed or sealed; and
2. Openable windows and doors meeting the air leakage requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*, Section 802.3.1; and
3. Caulking or sealants are applied to areas, such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines, and at other openings.

§20. Section 301.2 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

301.2 Energy utilization. Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the [*Energy Conservation Construction Code of New York State]* *New York City Energy Conservation Code*.

§21. Exception 3 of section 303.3 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

3. Appliances installed in a dedicated enclosure in which all combustion air is taken directly from the outdoors, in accordance with Section 703. Access to such enclosure shall be through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* and equipped with an approved self-closing device.

§22. Section 312.1 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

312.1 Load calculations. Heating and cooling system design loads for the purpose of sizing systems, appliances and equipment shall be determined in accordance with the procedures described in the ASHRAE Handbook of Fundamentals. Heating and cooling loads shall be adjusted to account for load reductions that are achieved when energy recovery systems are utilized in the HVAC system in accordance with the ASHRAE Handbook - HVAC Systems and Equipment. Alternatively, design loads shall be determined by an approved equivalent computation procedure, using the design parameters specified in Chapter 3 of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code.* Heating and cooling system design loads for the purpose of sizing systems, appliances and equipment shall also comply with the requirements of Section 1204 of the *New York City Building Code*.

§23. Section 514.1 of the New York city mechanical code, as added by local law number 33 for the year

2007, is amended to read as follows:

514.1 General. Energy recovery ventilation systems shall be installed in accordance with this section. Where required for purposes of energy conservation, energy recovery ventilation systems shall also comply with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§24. Section 603.9 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

603.9 Joints, seams and connections. All longitudinal and transverse joints, seams and connections in metallic and nonmetallic ducts shall be constructed as specified in SMACNA *HVAC Duct Construction Standards-Metal and Flexible* and SMACNA *Fibrous Glass Duct Construction Standards* or NAIMA *Fibrous Glass Duct Construction Standards*. All longitudinal and transverse joints, seams and connections shall be sealed in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§25. Section 604.1 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

604.1 General. Duct insulation shall conform to the requirements of Sections 604.2 through 604.13 and the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§26. Section 903.5 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

903.5 Combustion air supply. All installations of factory-built fireplaces shall comply with the requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* concerning combustion air supply.

§27. Section 905.4 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

905.4 Combustion air supply. All fireplace stoves and room heaters shall comply with the requirements of the

[*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* concerning combustion air supply.

§28. Section 1204.1 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

1204.1 Insulation characteristics. Pipe insulation installed in buildings shall conform to the requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*, shall be tested in accordance with ASTM E 84 and shall have a maximum flame spread index of 25 and a smoke-developed index not exceeding 450. Insulation installed in an air plenum shall comply with Section 602.2.1.

§29. Section 1204.2 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

1204.2 Required thickness. Hydronic piping shall be insulated to the thickness required by the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§30. If any section, subdivision, paragraph, item, sentence, clause, phrase or other portion of this local law is for any reason declared unconstitutional or invalid, in whole or in part, by any court of competent jurisdiction, such portion shall be deemed severable, and such unconstitutionality or invalidity shall not affect the validity of the remaining portions of this law, which remaining portions shall continue in full force and effect.

§31. This local law shall take effect on July 1, 2010 and shall apply to work for which applications for construction document approval are submitted to the department of buildings on and after such date; provided, that the commissioner of buildings shall take all actions necessary to implement this local law, including the promulgation of rules, on or before such effective date.

12-8-09 11:45am