

Errata to the Notice of Rule in Development for
State Uniform Fire Prevention and Building Code
(19 NYCRR Parts 1219 to 1229) and
State Energy Conservation Construction Code
(19 NYCRR Part 1240)

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Highlighted text shows the changes that were not included in the original Notice of Rule in Development

Residential Code of New York State

CHAPTER 2

[NY] SEA LEVEL RISE. The increase in the average level of the surface of marine or tidal water for the specified geographic region expressed in inches (mm) that can applied in Coastal A, V Zones, and B Zones or shaded X Zones adjacent to a Coastal A or V Zone.

CHAPTER 3

[NY] R301.2.4 Floodplain construction. Buildings and structures constructed in whole or in part in flood hazard areas ~~(including A or V Zones)~~ as established in Table R301.2, and substantial improvement and *repair* of substantial damage of buildings and structures located in whole or in part in flood hazard areas, shall be designed and constructed in accordance with Section R322. Buildings and structures that are located in more than one flood hazard area, including A Zones, Coastal A Zones, V Zones, B Zones, and shaded X Zones. shall comply with the provisions associated with the most restrictive flood hazard area. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.

SECTION R306 ~~R322~~ FLOOD-RESISTANT CONSTRUCTION

Note: Section R322 and its subsections were renumbered to Section 306 and corresponding subsection numbers accordingly. Not all subsections have edits or have changed from the last code cycle other than their numbering. Only the updated sections are shown here for clarity.

[NY] ~~R322.1~~ R306.1 General. Buildings and structures constructed in whole or in part in flood hazard areas, ~~including A or V Zones and Coastal A Zones, as~~ established in Table R301.2, and substantial improvement and *repair* of substantial damage of buildings and structures located in whole or in part in flood hazard areas structures located in whole or in part in flood hazard areas, including A Zones, shaded X Zones, B Zones, Coastal A Zones, and V Zones, shall be designed and constructed in accordance with the provisions contained in this section. Buildings and structures that are located in more than one flood

hazard area shall comply with the provisions associated with the most restrictive flood hazard area. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.

[NY] **R322.1.1 R306.1.1 Alternative provisions.** As an alternative to the requirements in Section R306, ASCE 24 is permitted subject to the limitations of this code and the limitations therein. When ASCE 24 is used as an alternative to the requirements of Section R306, all construction requirements and building elevation requirements based on the *design flood* elevation (DFE) shall be interpreted to mean the required flood elevation as determined in accordance with Section R306.1.4 through R306.1.4.2.

[NY] **R322.1.1.1 R306.1.1.1 Application of the ~~design~~-required flood elevation.** The required design flood elevation (DFE) determined in accordance with Sections R306.1.4 and R306.1.4.1 shall be used when applying ASCE 24 and when determining the building design and construction requirements of this code.

[NY] **R322.1.2 R306.1.2 Structural systems.** Structural systems of *buildings* and structures shall be designed, connected, and anchored to resist flotation, collapse, or permanent lateral movement due to structural loads and stresses from flooding equal to the required design flood elevation as determined in accordance with Section R306.1.4 through R306.1.4.2.

[NY] **R322.1.4 R306.1.4 Establishing the ~~required~~-design flood elevation.** The design flood elevation shall be used to define flood hazard areas. At a minimum, the required design flood elevation shall be the higher of the following:

1. The base flood elevation at the depth of peak elevation of flooding, including wave height, that has a 1-percent (100-year flood) or greater chance of being equaled or exceeded in any given year,
 - a. plus 2 feet (610 mm) of freeboard, and
 - b. plus a sea level rise of 18 inches (457 mm) in flood hazard areas adjacent to tidal areas.
2. The elevation of the *design flood* associated with the area designated on a flood hazard map adopted by the community, or otherwise legally designated. plus 2 feet (610 mm) of freeboard.

[NY] **R322.1.4.1 R306.1.4.1 Determination of design flood elevations.** If *design flood* elevations are not specified, the *building official* is authorized to require the applicant to comply with either of the following:

1. Obtain and reasonably use data available from a federal, state, or other source and add 2 feet (610 mm) of freeboard.
2. Determine the *design flood* elevation in accordance with accepted hydrologic and hydraulic engineering practices used to define special *flood hazard area* and add 2 feet (610 mm) of freeboard. Determinations shall be undertaken by a *registered design professional* who shall document that the technical methods used reflect currently accepted engineering practice. Studies, analyses, and computations shall be submitted in sufficient detail to allow thorough review and *approval*.

[NY] **R322.1.4.2 R306.1.4.2 Determination of impacts.** In riverine *flood hazard areas* where design flood elevations are specified but floodways have not been designated, the applicant shall demonstrate that the effect of the proposed *buildings* and structures on *design flood* elevations, including fill, when combined with other existing and anticipated *flood hazard area* encroachments, will not increase the *design flood* elevation more than 1 foot (305 mm) at any point within the *jurisdiction*. For the purpose of applying this section, the *design flood elevation* shall be the elevation established in accordance with Sections R306.1.4 and R306.1.4.1 but shall not include the application of freeboard.

R322.1.6 R306.1.6 Protection of mechanical, plumbing and electrical systems. Electrical systems, *equipment* and components; heating, ventilating, air-conditioning; plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* shall be located at or above the elevation required in Section R306.2 or R306.3. If replaced as part of a *substantial improvement*, electrical systems, *equipment* and components; heating, ventilating, air-conditioning and plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* shall meet the requirements of this section. Systems, fixtures, and *equipment* and components shall not be mounted on or penetrate through walls intended to break away under flood loads.

Exception: Locating electrical systems, *equipment* and components; heating, ventilating, air-conditioning; plumbing *appliances* and plumbing fixtures; *duct systems*; and other service *equipment* is permitted below the elevation required in Section R306.2 or R306.3 provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to ~~the design flood~~ required elevation in accordance with ASCE 24. Electrical wiring systems are permitted to be located below the required elevation provided that they conform to the provisions of the electrical part of this code for wet locations.

[NY] **R322.2 R306.2 Flood hazard areas (including A Zones, B Zones and shaded X Zones).** Areas that have been determined to be prone to flooding and that are not subject to high-velocity wave action shall be designated as *flood hazard areas*. *Flood hazard areas* that have been delineated as subject to wave heights between 1 1/2 feet (457 mm) and 3 feet (914 mm) or otherwise designated by the *jurisdiction* shall be designated as Coastal A Zones and are subject to the requirements of Section R306.3. *Buildings* and structures constructed in whole or in part in flood hazard areas shall be designed and constructed in accordance with Sections R306.2.1 through R306.2.3.

[NY] **R322.2.1 R306.2.1 Elevation requirements.**

1. Buildings and structures in flood hazard areas, not including flood hazard areas designated as Coastal A Zones, B Zones and shaded X Zones adjacent to a Coastal A or V Zone, shall have the lowest floors elevated to or above the ~~base flood elevation plus 2 feet (610 mm), or the design flood elevation, whichever is higher~~ required flood elevation in accordance with R306.1.4.
2. In areas of shallow flooding (AO Zones), buildings and structures shall have the lowest floor (including *basement*) elevated to a height above the highest adjacent *grade* of not less than the depth number specified in feet (mm) on the FIRM plus 1 foot (305 mm), or not less than 3 feet (915 mm) if a depth number is not specified.
3. *Basement* floors that are below *grade* on all sides shall be elevated to or above ~~base flood elevation plus 2 feet (610 mm), or the design flood elevation, whichever is higher~~ required flood elevation in accordance with R306.1.4.
4. Attached garages and carports shall comply with one of the following:
 - 1.1 The floors shall be elevated to or above the elevations required in Item 1 or Item 2, as applicable.
 - 1.2 The floors shall be at or above grade on not less than one side. Where an attached garage or carport is enclosed by walls, the walls shall have flood openings that comply with Section R306.2.2 and the attached garage or carport shall be used solely for parking, building access or storage.
2. Detached accessory structures and detached garages shall comply with either of the following:
 - 2.1 The floors shall be elevated to or above the elevations required in Item 1 or Item 2, as applicable.

2.2 Floors below the elevations required in Item 1 or Item 2, as applicable, must be:

- 2.2.1 Used only for parking or storage.
- 2.2.2 One story and not larger than 600 square feet (55.74 m²).
- 2.2.3 Anchored to resist flotation, collapse or lateral movement resulting from design flood loads.
- 2.2.4 Equipped with flood openings that comply with Section R306.2.2.
- 2.2.5 Constructed of flood damage-resistant materials that comply with Section R306.1.8. Have mechanical, plumbing and electrical systems, if applicable, that comply with Section R306.1.6.

Exception: Enclosed areas below the ~~design-flood~~ elevation required in this section, including *basements* with floors that are not below *grade* on all sides, shall meet the requirements of Section R306.2.2.

~~R322.2.2~~ R306.2.2 Enclosed area below ~~design-flood~~ required elevation. Enclosed areas, including crawl spaces, that are below the ~~design-flood~~ elevation required in Section R306.2.1 shall:

(Items 1-2 not changed and are omitted for clarity)

Exceptions: The following shall not be required to comply with this section:

- 1. Elevator shafts.
- 2. Utility chases that protect utility lines from freezing, provided the utility chases are the minimum size necessary to protect the utility lines and do not provide access for a person to enter the space.

~~[NY] R322.2.2.1~~ R306.2.2.1 Installation of openings. The walls of enclosed areas shall have openings installed such that:

- 1. There shall be not less than two openings on different sides of each enclosed area; if a building has more than one enclosed area below the ~~design-required~~ flood elevation, each area shall have openings.
- 2. The bottom of each opening shall be not more than 1 foot (305 mm) above the higher of the final interior grade or floor and the finished exterior grade immediately under each opening.
- 3. Openings shall be permitted to be installed in doors and windows; doors and windows without installed openings do not meet the requirements of this section.

~~[NY] R322.2.4~~ R306.2.4 Tanks. Underground tanks shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood. Above-ground tanks shall be installed at or above the elevation required in Section ~~R322.2.1~~ R306.1.4 or shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood.

~~[NY] R322.3~~ R306.3 Coastal high-hazard areas (including V Zones, ~~and Coastal A Zones, B Zones, and shaded X Zones adjacent to a Coastal A or V Zone, where designated, and areas wholly or partially designated by FEMA as coastal special flood hazard areas~~). Areas that have been determined to be subject to wave heights in excess of 3 feet (914 mm) or subject to high-velocity wave action or wave induced erosion shall be designated as coastal high-hazard areas. Flood hazard areas that have been designated as subject to wave heights between 1¹/₂ feet (457 mm) and 3 feet (914 mm) or otherwise designated by the *jurisdiction* shall be designated as Coastal A Zones. *Buildings* and structures constructed in whole or in part in ~~coastal high hazard areas and Coastal A Zones, where designated, these~~

areas, shall be designed and constructed in accordance with Sections ~~R322.3.1~~ R306.3.1 through ~~R322.3.10~~ R306.3.10.

[NY] ~~R322.3.1~~ R306.3.1 Location and site preparation.

1. New *buildings* and *buildings* in tidal areas that are determined to be substantially improved pursuant to Section ~~R104.3.1~~ ~~R105.3.1.1~~ shall be located landward of the intersection of grade and the horizontal plane 18 inches (457 mm) above the reach of mean high tide.
2. For any alteration of sand dunes and mangrove stands, the *building official* shall require submission of an engineering analysis that demonstrates that the proposed alteration will not increase the potential for flood damage.

[NY] ~~R322.3.2~~ R306.3.2 Elevation requirements.

1. Buildings and structures erected within coastal high-hazard areas, and Coastal A Zones, and in areas wholly or partially as B zones or shaded X Zones adjacent to a Coastal A or V Zone, shall be elevated so that the bottom of the lowest horizontal structural members supporting the lowest floor, with the exception of piling, pile caps, columns, grade beams and bracing, is elevated to or above the base flood elevation plus 2 feet (610 mm) and plus a sea level rise of 18 inches (457 mm) in flood hazard areas adjacent to tidal areas or the design flood elevation, as determined in accordance with Section R306.1.4 through R306.1.4.1, whichever is higher. Where stem wall foundations are permitted in Coastal A Zones in accordance with Section R306.3.3, the bottom of the lowest horizontal structural member supporting the lowest floor is the top of the foundation wall, or top of the portion of the foundation wall, supporting the slab.
2. *Basement* floors that are below *grade* on all sides are prohibited.
3. Attached garages used only for parking, building access or storage, and carports shall comply with Item 1 or shall be at or above grade on not less than one side and, if enclosed with walls, such walls shall comply with Item 7.
4. Detached accessory structures and detached garages shall comply with either of the following:
 - 4.1 The bottom of the lowest horizontal structural member supporting the floors shall be elevated to or above the elevation required in Item 1.
 - 4.2 Floors below the elevations required in Item 1 must be:
 - 4.2.1 Used solely for parking or storage.
 - 4.2.2 One story and not larger than 100 square feet (9.29 m²).
 - 4.2.3 Anchored to resist flotation, collapse or lateral movement resulting from design flood loads.
 - 4.2.4 Constructed of flood damage-resistant materials that comply with Section R306.1.8.
 - 4.2.5 Equipped with mechanical, plumbing and electrical systems, if applicable, that comply with Section R306.1.6.
 - 4.5. The use of fill for structural support is prohibited.
 - 5.6. Minor grading, and the placement of minor quantities of fill, shall be permitted for landscaping and for drainage purposes under and around buildings and for support of parking slabs, pool decks, patios and walkways.
 - 6.7. Walls and partitions enclosing areas below the ~~design-flood~~ elevation required in this section shall meet the requirements of Sections R306.3.5 and R306.3.6.

[NY] R322.3.3 R306.3.3 Foundations. Buildings and structures erected in coastal high-hazard areas and Coastal A Zones in areas wholly or partially B zones or shaded X Zones adjacent to a Coastal A or V Zone shall be supported on pilings or columns and shall be adequately anchored to such pilings or columns and shall comply with the following:

1. The space below the elevated building shall be either free of obstruction or, if enclosed with walls, the walls shall meet the requirements of Section R306.3.5.
2. Pilings shall be designed in accordance with ASCE 24 to have adequate soil penetrations to resist the combined wave and wind loads (lateral and uplift) and pile embedment shall include consideration of decreased resistance capacity caused by scour of soil strata surrounding the piling. Water loading values used shall be those associated with the design flood. Wind loading values shall be those required by this code. Pile embedment shall include consideration of decreased resistance capacity caused by scour of soil strata surrounding the piling. Pile systems design and installation shall be certified in accordance with Section R322.3.9.
3. Columns and their supporting foundations shall be designed in accordance with ASCE 24 to resist combined wave and wind loads, lateral and uplift, and shall include consideration of decreased resistance capacity caused by scour of soil strata surrounding the columns. Spread footing, mat, raft or other foundations that support columns shall not be permitted where soil investigations that are required in accordance with Section R401.4 indicate that soil material under the spread footing, mat, raft or other foundation is subject to scour or erosion from wave- velocity flow conditions. If permitted, spread footing, mat, raft or other foundations that support columns shall be designed in accordance with ASCE 24.
4. Flood and wave loads shall be determined in accordance with ASCE 7 and shall include loads associated with the design flood. Wind loads shall be those required by this code.
5. Foundation designs and construction documents shall be prepared and sealed in accordance with Section R306.3.9.

Exception: In Coastal A Zones and in areas wholly or partially designated by FEMA as B Zones or shaded X Zones adjacent to a Coastal A or V Zone, stem wall foundations supporting a floor system above and backfilled with soil or gravel to the underside of the floor system shall be permitted provided that the foundations are designed to account for wave action, debris impact, erosion and local scour, and sea level rise in tidal areas. Where soils are susceptible to erosion and local scour, stem wall foundations shall have deep footings to account for the loss of soil.

R322.3.5 R306.3.5 Walls below design-flood required elevation. Walls and partitions are permitted below the ~~elevated floor~~ elevation required in Section R306.3.2, provided that such walls and partitions are not part of the structural support of the building or structure and:

1. Electrical, mechanical and plumbing system components are not to be mounted on or penetrate through walls that are designed to break away under flood loads; and
2. Are constructed with insect screening or open lattice; or
3. Are designed to break away or collapse without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Such walls, framing and connections shall have a resistance of not less than 10 (479 Pa) and not more than 20 pounds per square foot (958 Pa) as determined using allowable stress design, or a resistance to an ultimate load of not less than 17 and not more than 33 pounds per square foot (814 and 1580 Pa);
or

4. Where wind loading values of this code exceed 20 pounds per square foot (958 Pa), as determined using allowable stress design or an ultimate load of 33 pounds per square foot (1580 Pa), the *construction documents* shall include documentation prepared and sealed by a registered *design professional* that:
 - 4.1. The walls and partitions below the **design-flood required** elevation have been designed to collapse from a water load less than that which would occur during the base flood.
 - 4.2. The elevated portion of the building and supporting foundation system have been designed to withstand the effects of wind and flood loads acting simultaneously on structural and nonstructural building components. Water-loading values used shall be those associated with the design flood. Wind-loading values shall be those required by this code.
5. Walls intended to break away under flood loads as specified in Item 3 or 4 have flood openings that meet the criteria in Section R322.2.2, Item 2.

Exceptions: The following shall not be required to comply with this section:

1. Elevator shafts.
2. Utility chases that protect utility lines from freezing, provided the utility chases are the minimum size necessary to protect the utility lines and do not provide access for a person to enter the space.

~~R322.3.6~~ R306.3.6 Enclosed areas below design-flood required elevation. Enclosed areas below the **design-flood**-elevation required in Section R306.3.2 shall be used solely for parking of vehicles, building access or storage.

~~R322.3.7~~ R306.3.7 Stairways and ramps. Stairways and ramps that are located below the lowest floor elevations specified in Section R306.3.2 shall comply with one or more of the following:

1. Be designed and constructed with open or partially open risers and guards.
2. Stairways and ramps not part of the required means of egress shall be designed and constructed to break away during design flood conditions without causing damage to the building or structure, including foundation.
3. Be retractable, or able to be raised to or above the lowest floor elevation, provided that the ability to be retracted or raised prior to the onset of flooding is not contrary to the means of egress requirements of the code.
4. Be designed and constructed to resist flood loads and minimize transfer of flood loads to the building or structure, including foundation.

Areas below stairways and ramps shall not be enclosed with walls below the **design-flood**-elevation required in Section R306.3.2 unless such walls are constructed in accordance with Section R306.3.5.

~~R322.3.10~~ R306.3.10 Tanks. Underground tanks shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood plus 18 inches (457 mm) in flood hazard areas adjacent to tidal areas to account for sea level rise. Above-ground tanks shall be installed at or above the elevation required in Section **~~R322.3.2~~ R306.3.2**. Where elevated on platforms, the platforms shall be cantilevered from, or knee braced to the *building* or shall be supported on foundations that conform to the requirements of Section **~~R322.3~~ R306.3**.

Building Code of New York State

CHAPTER 2 DEFINITION

[BSNY] DESIGN FLOOD. The *flood* associated with the greater **flood elevation** of the following two areas:

1. Area with a flood plain subject to a 1-percent or greater chance of *flooding* in any year.
- 2.. Area designated as a *flood hazard area* on a community's flood hazard map, or otherwise legally designated

[NY] SEA LEVEL RISE. The increase in the average level of the surface of marine or tidal water for the specified geographic region expressed in inches (mm) that can applied in Coastal A, V Zones, and B Zones or shaded X Zones adjacent to a Coastal A or V Zone.

SECTION 1107 MOTOR-VEHICLE-RELATED FACILITIES

[NY]1107.2.3 Electrical vehicle charging station Equipment. Accessible vehicle charging spaces shall comply with the requirements of ICC ANSI A117.1

[NY]1107.2.3.1 Horizontal reach. Curbs, bollards, and other obstructions shall not create a horizontal reach to operable parts on the *electric vehicle supply equipment* that exceeds 10 inches (254 mm) horizontally from the clear floor space required at *electric vehicle charging station*.

[NY] 1107.2.3.2 Cord and cable length. The overall usable cord and cable length for accessible vehicle spaces shall be a minimum sufficient length to reach the vehicle charging inlet on all commercially available passenger electric vehicles served.

SECTION 1202 VENTILATION

[NY] 1202.1 General.

Buildings shall be provided with natural ventilation in accordance with Section 1202.5, or mechanical ventilation in accordance with the *Mechanical Code of New York State*. ~~Where natural ventilation is proposed in buildings 4 or more stories in height containing dwelling units, dwelling units shall be tested in accordance with Section R402.4.1.2 of the Energy Conservation Code of New York State. Where the air infiltration rate in a dwelling unit is less than 5 air changes per hour where tested with a blower door at a pressure 0.2 inch w.e. (50 Pa) in accordance with Section R402.4.1.2 of the International Energy Conservation Code—Residential Provisions, the dwelling unit~~

Dwelling units complying with the air leakage requirements of the *Energy Conservation Code of New York State* or 2024 New York State ASHRAE 90.1 shall be ventilated by mechanical means in accordance with Section 403 of the *Mechanical Code of New York State*. Ambulatory care facilities and Group I-2 occupancies shall be ventilated by mechanical means in accordance with Section 407 of the *Mechanical Code of New York State*.

Mechanical Code of New York State

[NY] 401.2 Ventilation required.

Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403. ~~All Dwelling units, where natural ventilation is proposed, shall be tested in accordance with Section R402.4.1.2 of the Energy Conservation Construction Code of New York State. Where the air infiltration rate is less than 5 air changes per hour when tested with a blower door at a pressure of 0.2 inch water column (50 Pa), the dwelling unit~~ Dwelling units complying with the air leakage requirements of the Energy Conservation Code of New York State or 2024 New York State ASHRAE 90.1 shall be ventilated by mechanical means in accordance with Section 403. Ambulatory care facilities and Group I-2 occupancies shall be ventilated by mechanical means in accordance with Section 407.

Fire Code of New York State

[NY]312.2 Posts.

Guard posts shall comply with all of the following requirements:

1. Constructed of steel not less than 4 inches (102 mm) in diameter and concrete filled.
2. Spaced not more than 4 feet (1219 mm) between posts on center.

Exception: Guard posts protecting an accessible electrical vehicle charging station are permitted to be spaced not more than 6 feet (1828 mm) clear opening between post.

3. Set not less than 3 feet (914 mm) deep in a concrete footing of not less than a 15-inch (381 mm) diameter.
4. Set with the top of the posts not less than 3 feet (914 mm) above ground.
5. Located not less than 3 feet (914 mm) from the protected object.

Exception: Guard posts protecting an accessible electrical vehicle charging station are permitted to be located less than 3 feet from the charging station in order to allow a maximum horizontal reach of 10 inches (254 mm) to the operable parts of the vehicle charging station accordance with the Building Code of New York State Section 1107.2.3

[NY] 403.7.3.1 Fire safety and evacuation plans. The fire safety and evacuation plans required by Section 404 shall include a description of special staff actions. Plans shall include all of the following in addition to the requirements of Section 404:

1. Procedures for evacuation of detained individuals with needs for containment or restraint and post-evacuation containment, where present.
2. Procedures for a defend-in-place strategy.
3. Procedures for a full-floor or building evacuation, where necessary.

CHAPTER 80

NFPA

855-23 Standard for the Installation of Stationary Energy Storage Systems

Energy Conservation Construction Code of New York State

Commercial

[NY] C403.1.3 Electric-resistance space heating. *Dwelling units and sleeping units* using electric-resistance space heating shall limit the total installed heating capacity of all electric-resistance space heating to no more than 2.0 kW per unit. All other occupiable spaces within the building using electric-resistance space heating shall limit the total installed heating capacity of all electric-resistance space heating to no more than 0.25 kW 2.5 W per square foot or 5 percent of the total building HVAC system heating capacity or serve less than 5 percent of the conditioned floor area, whichever is less.

Exceptions:

1. Portions of buildings that require greater electric resistance space heating capacity for health care, research, or commercial and industrial processes subject to the approval of the building official.
2. Redundant or emergency systems required by regulation in Groups I-2 and I-3 facilities.
3. Temporary electric resistance heating systems with a maximum setpoint of 40°F (4°C) in unfinished and unoccupied tenant spaces.
4. Heat pump supplemental heating that complies with C403.4.1.1.

C405.15 Renewable Energy Systems. Buildings shall comply with Sections C405.15.1 through C405.15.4.

[NY] C405.15.1 On-site renewable energy systems Buildings shall be provided with on-site renewable electricity generation systems with a direct current (DC) nameplate power rating of not less than 0.75 W/ft² (8.1 W/m²) multiplied by the sum of the gross conditioned floor area of all floors not to exceed the combined gross conditioned floor area of the three largest floors.

Exceptions: The following buildings or building sites shall comply with Section C405.15.2:

1. A building site located where an unshaded flat plate collector oriented toward the equator and tilted at an angle from horizontal equal to the latitude receives an annual daily average incident solar radiation less than 1.1 kBtu/ft² - day (3.5 kWh/m² - day).
2. A building where more than 80 percent of the roof area is covered by any combination of permanent obstructions such as, but not limited to, mechanical equipment, vegetated space, access pathways or occupied roof terrace.
3. Any building where more than 50 percent of the roof area is shaded from direct-beam sunlight by natural objects or by structures that are not part of the building for more than 2500 annual hours between 8:00 a.m. and 4:00 p.m.
4. A building with gross conditioned floor area less than 5,000 square feet (465 m²).

[NY] C405.15.2 Off-site renewable energy. The applicant for buildings that qualify for one or more of the exceptions to Section C405.15.1 or do not meet the requirements of Section C405.15.1 with an on-site renewable energy system shall provide to the building official an attestation of having procured off-site renewable electrical energy, in accordance with Sections C405.15.2.1 and C405.15.2.2, that shall be not less than the total off-site renewable electrical energy determined in accordance with Equation 4-11.

$$TRE_{off} = (REN_{off} \times 0.75 \text{ W/ft}^2 \times FLRA - IRE_{on}) \times 15 \quad \text{(Equation 4-11)}$$

where:

TRE_{off} = Total off-site renewable electrical energy in kilowatt-hours (kWh) to be procured in accordance with Table C405.15.2.

REN_{off} = Annual off-site renewable electrical energy of 1.35 kilowatt-hours per watt of array capacity.

FLRA = The sum of the gross conditioned floor area of all floors not to exceed the combined floor area of the three largest floors.

IRE_{on} = Annual on-site renewable electrical energy generation of a new on-site renewable energy system, to be installed as part of the building project, whose rated capacity is less than the rated capacity required in Section C405.15.1.

C405.15.2.1 Off-site procurement. The building owner, as defined in the *Building Code of New York State*, shall procure and be credited for the total amount of off-site renewable electrical energy, not less than required in accordance with **Equation 4-11**, with one or more of the following:

1. *Physical renewable energy power purchase agreement.*
2. *Financial renewable energy power purchase agreement.*
3. *Community renewable energy facility.*
4. Off-site renewable energy system owned by the building property owner.
5. *Renewable energy investment fund.*
6. *Green retail tariff.*

The generation source shall be located where the energy can be delivered to the *building site* by any of the following:

1. Direct connection to the off-site renewable energy facility.
2. The local utility or distribution entity.
3. An interconnected electrical network where energy delivery capacity between the generator and the *building site* is available.

C405.15.2.2 Off-site contract. The renewable energy shall be delivered or credited to the *building site* under an energy contract with a duration of not less than 10 years. The contract shall be structured to survive a partial or full transfer of ownership of the building property.

C405.15.3 Renewable energy certificate (REC) documentation. The property owner or owner's authorized agent shall demonstrate that where renewable energy certificates (RECs) or energy attribute certificates (EACs) are associated with on-site and off-site renewable energy production required by Sections C405.15.1 and C405.15.2, all of the following criteria for RECs and EACs shall be met:

1. The RECs and EACs are retained and retired by or on behalf of the property owner or tenant for a period of not less than 15 years or the duration of the contract in Section C405.15.2.2, whichever is less.
2. The RECs and EACs are created within a 12-month period of the use of the REC.
3. The RECs and EACs are from a generating asset placed in service not more than 5 years before the issuance of the certificate of occupancy.

C405.15.4 Renewable energy certificate purchase. A *building* that qualifies for one or more of the exceptions to Section C405.15.1, and where it can be demonstrated to the *building official* that the requirements of Section C405.15.2 cannot be met, the building owner shall contract the purchase of renewable electricity products before the certificate of occupancy is issued. The purchase of renewable electricity products shall comply with the Green-e Energy National Standard for renewable electricity products equivalent to five times the amount of total off-site renewable energy calculated in accordance with Equation 4-11.

Residential

[NY] **R402.2.1 Ceilings with ~~attic spaces~~-attics.** Where Section ~~R402.1.2~~ [R402.1.3](#) requires ~~R-38~~ [R-49](#) insulation in the ceiling ~~or attic~~, installing ~~R-30~~ [R-38](#) over 100 percent of the ceiling area requiring insulation shall satisfy the requirement for ~~R-38~~ [R-49](#) wherever the full height of uncompressed ~~R-30~~ [R-38](#) insulation extends over the wall top plate at the eaves. ~~Where Section R402.1.2 R402.1.3 requires R-49 R-60 insulation in the ceiling or attic, installing R-38 R-49 over 100 percent of the ceiling or attic area requiring insulation shall satisfy the requirement for R-49 R-60 insulation wherever the full height of uncompressed R-38 R-49 insulation extends over the wall top plate at the eaves.~~ This reduction shall not apply to ~~the U-factor alternative approach in Section R402.1.4~~ [the insulation and fenestration criteria in Section R402.1.2](#) and the ~~Total UA~~ [component performance](#) alternative in Section R402.1.5.

[NY] **R402.2.2 Ceilings without ~~attic spaces~~-attics.** ~~Where Section R402.1.3 requires insulation R-values greater than R-38 in the interstitial space above a ceiling and below the structural roof deck, and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation R-value for such roof/ceiling assemblies shall be R-38.~~ ~~Where Section R402.1.2 requires insulation R-values greater than R-30 in the ceiling interstitial space above a ceiling and below the structural roof deck, and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation R-value for such roof/ceiling assemblies shall be R-30.~~ Insulation shall extend over the top of the wall plate to the outer edge of such plate and shall not be compressed. This reduction of insulation from the requirements of Section ~~R402.1.2~~ [R402.1.3](#) shall be limited to 500 ~~square feet~~ [ft²](#) (46 m²) or 20 percent of the total insulated ceiling area, whichever is less. This reduction shall not apply to the ~~U-factor alternative approach in Section R402.1.4~~ [and the Total UA](#) [component performance](#) alternative in Section R402.1.5.