



## BUILDINGS BULLETIN 2018-002

### Technical

**Supersedes:** None

**Issuer:** Thomas Fariello, R.A.  
First Deputy Commissioner

**Issuance Date:** March 14, 2018

**Purpose:** This bulletin clarifies the requirements for new or amended Certificate of Occupancy for introducing an occupancy or use to the rooftop or terrace of a building.

<b>Related Code/Zoning Section(s):</b>	ZR 12-10	ZR 43-42	AC 28-117.1	BC 1101.3
	ZR 32-41	ZR 75-01	BC 107.5	BC 1006
	ZR 42-41	BC 1004.1.1	BC 107.7	BC 1607.11.2.2
	ZR 23-62	BC 1004.2	BC 303.2	BC 1607.11.3
	ZR 33-42	AC Table 6-1		FC 504

**Subject(s):** Rooftop; Terrace; Accessory; Passive recreation; Enclosure; Filing; Means of egress; Structural; Wind effects; Accessibility

#### A. Background.

This bulletin provides guidance to the code, zoning, and filing requirements for rooftops or terraces that are to be occupied, including those for passive recreation purposes, in new buildings and existing buildings. Passive recreation spaces on rooftops and terraces are typically outdoor spaces of the building, such as rooftop gardens or green roofs. They are provided as amenities for the passive enjoyment of the occupants of the building and typically do not involve excessive noise, vibration and other nuisances.

#### B. NYC Construction Codes.

Rooftops and terraces that are open to building occupants must be designed in accordance with New York City Construction Codes. Special consideration should be given to the egress (occupant loads, number of exits, travel distances, egress widths, lighting etc.), loading (dead, live, and wind loads etc.), and other safety requirements such as parapet and guardrail heights and their loading.

#### C. NYC Zoning Resolution.

Rooftops and terraces must also comply with the Zoning Resolution. In certain zoning districts (C1 through C8, and M1 through M3), the use of a rooftop or terrace may be subject to the enclosure requirements of ZR 32-41 or ZR 42-41 under supplementary use regulations, as applicable, unless such use is specifically permitted within its Use Group to be without enclosure (e.g. UG6A Eating and drinking establishments, including those which provide outdoor table service). Rooftops and terraces that are provided as passive recreation spaces accessory to a principal use within the building are not subject to enclosure requirements of ZR 32-41 and ZR 42-41. (See DCP letter dated July 28, 2017 to DOB attached to this bulletin). Those uses that are required to be enclosed in accordance with ZR 32-41 or ZR 42-41 would result in zoning floor area of the building. Floor area may also be incurred when the parapets or guardrails exceed the limitations described in the definition of "floor area" item n in ZR 12-10. Paving materials, other walking surfaces, and

vegetated roofs added onto the finished level of the passive recreational rooftop or terrace are considered permitted obstructions per ZR 23-62, 33-42, and 43-42 respectively provided they do not exceed the heights prescribed in those sections. Rooftop greenhouses would be considered floor area and may not exceed building height limits unless permitted pursuant to ZR 75-01.

**D. New Building (NB) and Alteration type 1 (Alt-1) filing.**

For New Building (NB) and Alteration type 1 (Alt-1) filing, the occupied rooftop and/or terrace shall be designed in accordance with the NYC Construction Codes or prior codes where specifically permitted. The rooftop and/or terrace shall be indicated on the PW-1A form the same way other floors are indicated so that the information will be reflected on the Certificate of Occupancy.

**E. Alteration type 2 (Alt-2) filing for existing buildings.**

- i. Conditions for Alt-2 filing. Where an unoccupied rooftop or terrace of an existing building is proposed to be converted to an occupancy or use, such as a green roof, a green house, a rooftop garden, a restaurant, or other uses for occupants' use or access, the conversion shall be permitted to be filed as an Alteration Type 2 (Alt-2), without requiring a new or amended Certificate of Occupancy (C of O) provided all of the following conditions are met:
  1. The proposed new rooftop or terrace use is for passive recreation, and the proposed new rooftop or terrace use is accessory to a principal use within the building in which the rooftop or terrace is located;
  2. The maximum occupant load of the proposed passive recreational rooftop or terrace does not exceed 74 persons based on floor area per occupant for the proposed function of the space<sup>1, 2</sup> in accordance with Table 6-2 of the 1968 Building Code, or BC Table 1004.1.1 of the 2014 Building Code, as applicable, and as a result, a Place of Assembly Certificate of Operation is not required pursuant to Section AC 28-117.1 and Section BC 303.2, item 1, of the 2014 NYC Construction Codes;
  3. Such conversion does not require an increase in number of required exits<sup>3</sup> ;
  4. Such conversion does not require structural alterations to increase the live loads capacity so as to

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<sup>1</sup> For the purpose of this bulletin, rooftop or terrace provided for the incidental, passive recreational use by the residential occupants in the same residential building, the maximum number of occupants on such rooftop or terrace shall be based on the same floor area per occupant for residential units, which is 200 gross square feet per occupant for buildings subject to the NYC Construction Codes, and 140 net square feet per occupant for buildings subject to the 1968 Code. Where a swimming pool is provided as a residential amenity, the occupant load of the swimming pool shall be based on 50 gross square feet per occupant for the pool, and 15 gross square feet per occupant for the pool deck. Permanent fixtures and amenities such as shrubs, inaccessible green spaces, decorative pools, non-walk-able paving surfaces etc. may be deducted from the total occupant floor area. Increased occupant load is permitted provided it complies with Section BC 1004.2, and the stated occupant load established thereof by the registered design professional is posted on a sign of an approved legible permanent design, in a conspicuous place near the main exit or exit access doorway from the rooftop or terrace.

<sup>2</sup> For the purpose of this bulletin, rooftop or terrace provided for the incidental, passive recreational use by the office occupants of the office building, the maximum number of occupants on such rooftop or terrace shall be based on the same floor area per occupant for offices, which is 100 gross square feet per occupant for buildings subject to the NYC Construction Codes, and 100 net square feet per occupant for buildings subject to the 1968 Code. Permanent fixtures and amenities such as shrubs, inaccessible green spaces, decorative pools, non-walk-able paving surfaces etc. may be deducted from the total occupant floor area. Increased occupant load is permitted provided it complies with Section BC 1004.2, and the stated occupant load established thereof by the registered design professional is posted on a sign of an approved legible permanent design, in a conspicuous place near the main exit or exit access doorway from the rooftop or terrace.

<sup>3</sup> Rooftops and terraces that are occupied are treated as outdoor areas with respect to means of egress requirements per Section BC 1004.8. Where the means of egress from the outdoor areas passes through the interior floor before reaching the entrances of the exits serving the interior floor, the means of egress of the interior floor must be based on the sum of the occupant loads of the interior floor plus the outdoor areas, and travel distances from the outdoor area must be measured to the entrances of the exits within the interior floor. Where independent and direct means of egress is provided to the outdoor areas and does not converge into the exits within the interior floor, the occupant loads of the outdoor areas can be calculated independently from the floor, and travel distances can be measured to the entrances of the direct exits from the outdoor areas.

trigger a revision to the live loads stated on the most current C of O, if such C of O exists; and

5. Such Alt-2 filing further complies with all conditions in Part E(ii) below.
- ii. Code and Zoning requirements. Where a new or amended Certificate of Occupancy is not required and an Alt-2 filing is permissible per Part E(i) of this bulletin, the conversion shall comply with the New York City Construction Codes and the New York City Zoning Resolution. In addition, the following conditions shall apply:
1. Number of occupants permitted with one stairway. For Occupancy Groups R-2 and R-3, the maximum occupant load permitted on the rooftop or terrace shall not exceed 30 persons where one exit stairway (with or without additional fire escape to the rooftop) is provided. If more than 30 persons are proposed on the rooftop or terrace, additional exit stairways shall be provided, and a new building or an Alt-1 filing as well as a new or amended C of O will be required.
  2. Building Code Occupancy Group and Zoning Use Group. The building occupancy group and zoning use group (including those that are accessory to a principal use) of the rooftop or terrace shall be indicated on the construction documents associated with the Alt-2 filing. Depending on the use of the rooftop and/or terrace, it may be considered floor area and may be subject to enclosure requirements in the Zoning Resolution (See Part C above), and as a result, require a new building or an Alt-1 filing as well as a new or amended C of O.
  3. Structural loads. Construction documents submitted for the Alt-2 filing must include structural plans for the rooftop and the terrace as described in Section BC 107.7 even though a new or amended C of O is not required to include the updated live load figures.
  4. Means of egress and accessibility. The construction documents shall include means of egress plans for the roofs and terraces pursuant to Section BC 107.5, and shall demonstrate compliance with applicable provisions of BC Chapter 11 to the extent required by Section BC 1101.3.

## F. Examples (for illustrative purposes only)

### *Example 1*

An existing co-op apartment building with elevator access proposes to convert the unoccupied rooftop space into a community rooftop garden for the use of the occupants. Based on the occupant load calculation (See footnote 1), the maximum number of occupants is 60 persons. There are two existing exits on the rooftop level sufficient to handle the occupant load and to meet the travel distances. The rooftop garden is considered a passive recreation use that is accessory to the residential use, a principal use of the building. The rooftop is subject to accessibility requirements and at least one elevator must be extended to the roof to provide an accessible route. The conversion does not require an amendment to the C of O and can be filed as an Alt-2.

### *Example 2*

A new UG 6B office building is proposed in a Commercial District. The plan includes the use of the rooftop for passive recreation purposes for 100 persons. Since the rooftop use is for passive recreation and is accessory to the offices, a principal use within the building, the enclosure requirements in ZR 32-41 do not apply. Because the rooftop has independent and direct means of egress from the outdoor areas that do not pass through the interior floor, the occupant loads of the outdoor areas for determining the direct means of egress are calculated independently from the interior floor, and travel distances is measured to the entrances of the direct exits from the most remote point on the rooftop (See footnote 3). Two exits will be provided based on the occupant load of 100 persons and the travel distances measured. Elevator access will be provided to the rooftop to serve as an accessible route. Structural loads are tabulated based on various loads expected on the rooftop. A Place of Assembly Certificate of Operation will be obtained because the occupant load exceeds 74 persons. On the C of O, for the rooftop level, the live load, occupant load (100 persons), building occupancy classification (Group A-5), zoning use group (UG 6B), and description of use (Passive recreation use accessory to offices) will be indicated. Because this is a new building, an NB filing will be required.

### *Example 3*

An existing dwelling unit that occupies the top floor of a walk-up apartment building proposes to convert an

area of the unoccupied rooftop to a private garden with an occupant load of 10 persons. Based on occupant load calculation, the proposed occupant load does not exceed 20 persons, and an existing stair provides egress from the roof, the existing single exit is sufficient. The private garden is considered a passive recreation use that is accessory to the residential use, a principal use within the building. Accessibility is not required because it is serving only the unit that is not accessible. The conversion does not require an amendment to the C of O and can be filed as an Alt-2 application.

*Example 4*

An existing UG 6B office building in a Commercial District with a terrace that is currently unoccupied proposes to convert the terrace space into a terrace garden for the use of 70 office occupants of the building. Since the terrace use is for passive recreation and is accessory to the offices, a principal use within the building, the enclosure requirements in ZR 32-41 do not apply. The terrace garden with an exit access through the office spaces where two existing exits are sufficient to handle the occupant load and to meet the required travel distances from the terrace garden. The terrace garden is subject to accessibility requirements and an accessible route must be provided from the interior space to the terrace garden. The conversion does not require an amendment to the C of O and can be filing as an Alt-2 application.

*Example 5*

An existing UG 5A hotel in a Commercial District with a rooftop that is currently unoccupied proposes to convert the rooftop space into a rooftop swimming pool for the use of maximum 65 hotel guests based on occupant load calculation (See footnote 1). Since the rooftop swimming pool is a passive recreation amenity provided to the hotel guests, and is accessory to a principal use (UG 5A hotels), the enclosure requirements in ZR 32-41 do not apply. Because the rooftop swimming pool has a maximum occupant load fewer than 75 persons, the two existing exits are sufficient to handle the occupant load and to meet the travel distances. The rooftop is connected by one elevator that serves as an accessible route. The conversion does not require an amendment to the C of O and can be filed as an Alt-2 application.

*Example 6*

A new UG 5A hotel in a Commercial Districts has a café on the 8<sup>th</sup> floor. The plan includes the use of the terrace on the 8<sup>th</sup> floor for outdoor table services for the café. ZR 32-41 requires permitted uses to be located within completely enclosed buildings, but provides an exception when outdoor uses are specifically permitted under the use groups. The café may be classified under Use Group 6A, Eating and Drinking Establishment, which would include those which provide outdoor table service. As such, there is no enclosure requirement for the terrace table services, provided that the outdoor table services are part of the eating and drinking establishment that is inside the building<sup>4</sup>. Because the means of egress from the terrace passes through the interior floor before reaching the entrances of the exit stairways, the occupant load of the terrace is added to the occupant load of the interior floor, and travel distances is measured to the entrances of the interior floor exits from the most remote point on the terrace (See footnote 3). Two exits will be provided based on the occupant load of 300 persons and the travel distances measured. Elevator access will be provided to meet accessibility requirement. Structural loads are tabulated based on various loads expected on the rooftop. A Place of Assembly Certificate of Operation will be obtained because the occupant load exceeds 74 persons. On the C of O, for the 8<sup>th</sup> floor, it will indicate the live load, occupant load (300 persons), building occupancy classification (Group A-2, A-3), zoning use group (UG 6A), and description of use (Eating and drinking establishment with outdoor table services on terrace).

**G. Structural loads and wind effects**

Occupied rooftops and terraces are considered special-purpose roofs and are subject to Section BC 1607.11.2.2 for minimum live load requirements. Areas for green roofs not intended for human occupancy are subject to Section BC 1607.11.3 for minimum live load requirements. Attention should be given to outdoor furniture, planters, decorative materials, artworks etc. to ensure proper anchorage against wind-induced overturning, uplift, and sliding during wind events.

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<sup>4</sup> Kitchens, food preparation areas, cooking areas, wait stations, and bar areas, etc. must be inside such eating and drinking establishment.

#### **H. Accessibility**

Design and configuration of occupancies on rooftops and terraces and access thereto shall be subject to Chapter 11 of the NYC Building Code.

#### **I. Exit signs and lighting**

Where more than one exit access or exits is provided on the rooftop or terrace, exit signs shall be provided pursuant to Section BC 1011. Occupied rooftops and terraces are considered exit access components and are therefore required by Section BC 1006 to be illuminated by either daylight or electric lighting at all times that the space is occupied.

#### **J. Fire Code**

Design and configuration of rooftop occupancy shall be subject to New York City Fire Code, including section FC 504 (*Building and Rooftop Access*).

*(Attachment: DCP letter dated July 28, 2017 to DOB on next page)*



DEPARTMENT OF CITY PLANNING  
CITY OF NEW YORK  
ZONING DIVISION

Marisa Lago, *Director*  
Department of City Planning

July 28, 2017

First Deputy Commissioner Tom Fariello  
New York City Department of Buildings - 7<sup>th</sup> Floor  
280 Broadway  
New York, NY 10007

Re: Zoning Interpretation of Roof Top Uses in Commercial Buildings

Dear First Deputy Commissioner Fariello:

The Department of City Planning is writing because it is DCP's view that the use of roofs in commercial districts as open passive recreation space is supported by the text of the New York City Zoning Resolution (the "ZR") and that DOB could permit the use of such open space without a zoning text amendment. Specifically, it is DCP's view that this use of a roof in a commercial district is permitted as an open accessory use, as such term is defined in Section 12-10 of the ZR. These types of open passive recreational uses satisfy the ZR definition of "accessory use" in that such uses are: 1) conducted on the same zoning lot as the principal use; 2) are popular as office space amenities and customarily found in connection with the principal use; and 3) are operated and maintained substantially for the benefit or convenience of the owners, occupants, employees, customers or visitors of the principal use, in that these roofs/terraces function as an integral open space amenity serving in some circumstances individual tenants, and in other cases, any occupant of the building. These spaces function as open spaces on the zoning lot.

DCP's view is that the ZR did not intend to treat such passive recreation use as a commercial or manufacturing use that must be enclosed, and that allowing passive recreational use of a roof to be open is a reasonable interpretation of the commercial district enclosure requirements, which make the most sense when applied to prohibit principal commercial uses being taken outdoors. Enclosure rules were clearly meant to prevent noise and other nuisances that would negatively impact the neighborhood.

From DCP's land use policy perspective, we have no objection to viewing open passive recreational roof space as an advantage for the area. Such spaces provide beneficial access to the outdoors and provide relief from congestion of high density districts. These accessory open roof spaces in commercial,

Beth Lebowitz, *Director, Zoning Division*  
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as well as residential districts for passive recreational use, provide a place to have lunch or to sit outdoors for the office workers or occupants of the building. These spaces provide necessary relief in commercial office areas with few parks or open space, and would accordingly relieve the crowding in highly used public plazas and streets.

Sincerely,

A handwritten signature in black ink, appearing to read "Beth Lebowitz". The signature is fluid and cursive, with a large loop at the end of the last name.

Beth Lebowitz

Cc: Mona Sehgal Esq., General Counsel, DOB  
Felicia Miller, Esq., Deputy General Counsel, DOB  
Anita Laremont, Esq., General Counsel, DCP  
Janine Gaylard, Associate Counsel, DCP  
Keith Wen, Technical Advisor