

**MEMORANDUM**

**TO:** District of Columbia Zoning Commission

**FROM:** Brandice Elliott, AICP, Project Manager  
*JLS*  
Jennifer Steingasser, AICP  
Deputy Director, Development Review & Historic Preservation

**DATE:** October 11, 2019

**SUBJECT:** ZC Case 19-XX – Setdown Report – Request for a Text Amendment to the Zoning Regulations: Subtitles D, E and U – Roof Top or Upper Floor Elements

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**I. RECOMMENDATION**

The Office of Planning (“OP”) recommends the Zoning Commission set down the following text amendments for a public hearing. OP has worked with the staff of the Department of Energy and Environment and the Office of the Zoning Administrator on the proposed language and requests the flexibility with the Office of Attorney General on the draft language for the public hearing notice.

1. Revision to Roof Top or Upper Floor Elements in Subtitles D, E and U
  - a. Apply the solar energy system regulations to semi-detached and row buildings in the R zones;
  - b. Apply the solar energy system regulations more broadly to new construction and additions to existing buildings; and
  - c. Modify the definition of “significantly interfere” to measure impact by shading rather than by a decrease in energy production.

**II. BACKGROUND**

Prior to March 27, 2017, upper story additions could be made to existing structures in the RF zone without consideration of impacts on adjacent solar energy systems. Concern was raised about the lack of such consideration during a review of row house conversions to apartment houses in the RF zones (ZC Case 14-11). The Zoning Commission included protection of adjacent solar energy systems as part of case 14-11 which was focused on conversions of row houses in the RF zone. Subsequently, through case 14-11B the Commission expanded the provision to any rooftop addition to an existing building in the RF zone unrelated to conversions. The provisions are not applicable to new construction or to semi-detached dwellings or attached dwellings not in the RF zones.

### III. ANALYSIS

Currently, protection of roof top solar energy systems is only assessed when there is an upper story addition proposed on an adjacent existing building in the RF zones or an adjacent rowhouse is proposed to be converted to an apartment house in the RF zones.

To date, there have not been any requests for relief from the solar energy system regulations; however, it has become clear during OP’s review of third story additions that require special exceptions that the regulations should apply more broadly to all construction, including new buildings

A total of 50 special exception applications have been submitted since 2017 to allow the conversion of a residential row building into an apartment house. Those developments were subject to the solar energy system provisions. Third story additions unrelated to a conversion in the RF zone may be approved as a matter of right but are also required to comply with the solar energy system provisions. However, a new building would not be subject to the requirements for solar energy system protections. Therefore, new construction, which could have an equal impact as conversion projects that require special exceptions or third story additions in the RF zone on neighboring solar energy systems, would not be held to the same standards.

The proposed text would ensure that any construction, including new buildings, additions to existing buildings, or roof structures or penthouses, would not significantly interfere with solar energy systems, holding all construction to the same standard. The applicability of the standard would also be broadened to include semi-detached and attached buildings in the R zones.

### IV. OP RECOMMENDATION

The Office of Planning (“OP”) recommend the following language be advertised for public hearing. Text to be deleted is marked with ~~striketrough~~ and new text is shown in **bold and underlined**.

A. Addition of a new Subtitle D § 208<sup>1</sup> as follows:

#### **208 ROOF TOP OR UPPER FLOOR ELEMENTS**

**208.1 Any construction, including new buildings, additions to existing buildings, or a roof structure or penthouse, shall not block or impede the functioning of a chimney or other external vent compliant with any District of Columbia municipal code on an adjacent property. A chimney or other external vent must be existing and operative at the date of the building permit application for the addition;**

**208.2 Any construction, including new buildings, additions to existing buildings, or a roof structure or penthouse, shall not significantly interfere with the operation of an existing or permitted solar energy system on an adjacent property unless agreed to by the owner of the adjacent solar energy system. For the purposes of this provision, the following terms shall be interpreted as follows:**

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<sup>1</sup> Section numbering may be adjusted based on outcome of the reorganization of the subtitle chapters and sections but the text will remain as approved by the Commission at the outcome of this case.

- (a) “Significantly interfere” shall mean shading caused solely by the construction such that the adjacent solar energy system is shaded more than five percent (5%) above baseline on an annual basis, as evidenced by a comparative solar shading study acceptable to the Zoning Administrator or other authorized building official; and
- (b) A “solar energy system” shall mean a system of at least 2kW in size; and
- (c) “Existing solar energy system” shall mean a solar energy system that is, either:
- (1) Legally permitted, installed, and operating; or
  - (2) Authorized by an issued permit; provided that the permitted solar energy system is operative within six (6) months after the issuance of the solar energy system permit not including grid interconnection delays caused solely by a utility company connecting to the solar energy system; and
  - (3) Determination of an existing solar energy system shall be made at the time the application for the building permit for the adjacent construction is officially accepted as complete by the Department of Consumer and Regulatory Affairs, or at the time an application for zoning relief for the adjacent addition is officially accepted as complete by the Office of Zoning.

208.3 Relief from the requirements of Subtitle D § 208.1 may be approved by the Board of Zoning Adjustment as a special exception under Subtitle X, Chapter 9.

- B. Amend Subtitle E § 206 by renumbering 206.1 (a) to 206.1, renumbering 206.1 (b) to 206.2 and renumbering 206.1 (c) to 206.3, and amending the text as follows:

**206 ROOF TOP OR UPPER FLOOR ADDITIONS ELEMENTS**

206.1 ~~In an RF zone district, the following provisions shall apply:~~

~~(a)~~A roof top architectural element original to the building such as cornices, porch roofs, a turret, tower, or dormers, shall not be removed or significantly altered, including shifting its location, changing its shape or increasing its height, elevation, or size. For interior lots, not including through lots, the roof top architectural elements shall not include identified roof top architectural elements facing the structure’s rear lot line. For all other lots, the roof top architectural elements shall include identified rooftop architectural elements on all sides of the structure;

206.2 ~~(b)~~Any construction addition, including new buildings, additions to existing buildings, or a roof structure or penthouse, shall not block or impede the functioning of a chimney or other external vent compliant with any District of Columbia municipal code on an adjacent property. A chimney or other external vent must be existing and operative at the date of the building permit application for the addition; and

**206.3** ~~(e)~~ Any **construction** addition, including **new buildings, additions to existing buildings, or** a roof structure or penthouse, shall not significantly interfere with the operation of an existing **or permitted** solar energy system ~~of at least 2kW~~ on an adjacent property unless agreed to by the owner of the adjacent solar energy system. For the purposes of this **provision** ~~paragraph~~, the following **terms** ~~quoted phrases~~ shall **be interpreted as follows** ~~have the associated meanings~~:

~~(a)(1)~~ “Significantly interfere” shall mean **shading** ~~an impact~~ caused solely by the addition **construction such** ~~that decreases the energy produced by the adjacent solar energy system~~ **is shaded** ~~by~~ more than five percent (5%) **above baseline** on an annual basis, as **evidenced** ~~demonstrated~~ by a comparative solar shading study acceptable to the Zoning Administrator **or other authorized building official**; and

~~(b)~~ **A “solar energy system” shall mean a system of at least 2kW in size; and**

~~(c)(2)~~ “Existing solar energy system” shall mean a solar energy system **in size** that is, ~~at the time the application for the building permit for the adjacent addition is officially accepted as complete by the Department of Consumer and Regulatory Affairs or an application for zoning relief or approval for the adjacent addition is officially accepted as complete by the Office of Zoning,~~ either:

~~(1)(A)~~ Legally permitted, installed, and operating; or

~~(2)(B)~~ Authorized by an issued permit; provided that the permitted solar energy system is operative within six (6) months after the issuance of the solar energy system permit not including grid interconnection delays caused solely by a utility company connecting to the solar energy system; **and**

~~(3)~~ **Determination of an existing solar energy system shall be made at the time the application for the building permit for the adjacent construction is officially accepted as complete by the Department of Consumer and Regulatory Affairs, or at the time an application for zoning relief for the adjacent addition is officially accepted as complete by the Office of Zoning,**

~~206.2~~ **206.4** ~~In an RF zone district, relief~~ **Relief** from the design requirements of Subtitle E § 206.1 may be approved by the Board of Zoning Adjustment as a special exception under Subtitle X, Chapter 9, subject to the conditions of Subtitle E § ~~5203.3~~ **5203.2**.

C. Amend Subtitle E § 5203 as follows:

~~5203.2~~ ~~The Board of Zoning Adjustment may modify or waive not more than two (2) of the requirements specified in Subtitle E §§ 5203.1(a) through (f) provided, that any modification or waiver granted pursuant to this section shall not be in conflict with Subtitle E § 5203.1(e).~~

~~5203.3~~ **5203.2** A special exception to the requirements of Subtitle E § 206 shall be subject to the conditions of Subtitle E § 5203.1(b), (c), and (d). If relief is granted from compliance

with Subtitle E § 206.1(b) or (c), the special exception shall not be conditioned upon compliance with that same requirement as stated in Subtitle E § 5203.1(b)(3) and (4).

D. Amend Subtitle U § 320.2 as follows:

320.2 Conversion of an existing residential building existing on the lot prior to May 12, 1958, to an apartment house shall be permitted as a special exception in an RF-1, RF-2, or RF-3 zone if approved by the Board of Zoning Adjustment under Subtitle X, Chapter 9, subject to the following conditions:

(f) Any **construction** addition, including **additions to existing buildings or** a roof structure or penthouse, shall not block or impede the functioning of a chimney or other external vent compliant with any District of Columbia municipal code on an adjacent property. A chimney or other external vent must be existing and operative at the date of the building permit application for the addition;

(g) Any **construction** addition, including **additions to existing buildings or** a roof structure or penthouse, shall not significantly interfere with the operation of an existing **or permitted** solar energy system of at least 2kW on an adjacent property unless agreed to by the owner of the adjacent solar energy system. For the purposes of this **provision** paragraph, the following **terms** quoted phrases shall **be interpreted as follows** have the associated meaning:

(1) “Significantly interfere” shall mean **shading** an impact caused solely by the addition **construction such** that decreases the energy produced by the adjacent solar energy system **is shaded** by more than five percent (5%) **above baseline** on an annual basis, as **evidenced** demonstrated by a comparative solar shading study acceptable to the Zoning Administrator **or other authorized building official**;

(2) **A “solar energy system” shall mean a system of at least 2kW in size; and**

~~(3)~~(2) “Existing solar energy system” shall mean a solar energy system that is, ~~at the time the application for the building permit for the adjacent addition is officially accepted as complete by the Department of Consumer and Regulatory Affairs or an application for zoning relief or approval for the adjacent addition is officially accepted as complete by the Office of Zoning,~~ either:

(A) Legally permitted, installed, and operating; or

(B) Authorized by an issued permit; provided that the permitted solar energy system is operative within six (6) months after the issuance of the solar energy system permit not including grid interconnection delays caused solely by a utility company connecting to the solar energy system; **and**

**(C) Determination of an existing solar energy system shall be made at the time the application for the building permit for the adjacent construction is officially accepted as complete by the Department of Consumer and Regulatory Affairs, or at the time an application**

**for zoning relief for the adjacent addition is officially accepted as complete by the Office of Zoning.**

## V. COMPREHENSIVE PLAN WRITTEN ELEMENTS

### Citywide Elements:

#### *Housing Element*

##### *Policy H-2.2.24: Energy Retrofits*

*Encourage energy efficiency retrofits that reduce water use, and home heating and cooling costs, thereby reducing monthly housing expenditures. 510.6*

Ensuring that new construction is subject to the regulations protecting the functionality of solar energy systems will continue to encourage homeowners to invest in energy efficiency retrofits that reduce energy costs.

#### *Environmental Element*

##### *Policy E-2.2.1: Energy Efficiency*

*Promote the efficient use of energy, additional use of renewable energy, and a reduction of unnecessary energy expenses. The overarching objective should be to achieve reductions in per capita energy consumption by DC residents and employees. 610.3*

##### *Policy E-2.2.2: Energy Availability*

*Improve energy availability and buffer District consumers from fluctuations in energy supply and prices. This should be achieved through the District's energy purchasing policies, financial assistance programs for lower income customers, incentives for "green" power, and regulatory changes that ensure that local energy markets are operating efficiently. 610.4*

##### *Policy E-2.2.3: Reducing Home Heating and Cooling Costs*

*Encourage the use of energy-efficient systems and methods for home insulation, heating, and cooling, both to conserve natural resources and also to reduce energy costs for those members of the community who are least able to afford them. 610.5*

##### *Policy E-2.2.4: Alternative Energy Sources*

*Support the development and application of renewable energy technologies such as active, passive, and photovoltaic solar energy, fuel cells, and other sustainable sources. Such technology should be used to reduce the dependence on imported energy, provide opportunities for economic and community development, and benefit environmental quality. A key goal is the continued availability and access to unobstructed, direct sunlight for distributed-energy generators and passive-solar homes relying on the sun as a primary energy source. 610.6*

The proposed text amendment would increase the availability of a cost-efficient energy source by ensuring that the functionality of solar energy systems cannot be significantly impeded by all types of construction.

## **VI. SUMMARY OF PLANNING CONTEXT ANALYSIS**

The regulations regarding solar energy systems have been in place for a few years, however, the regulations are limited and currently only protect the functionality of solar energy systems from interference from a proposed addition to a building in the RF zone or from a conversion to an apartment house in the RF. Expanding the regulations to apply to all types of adjoining buildings (semi-detached and attached) including new construction, in the R zones and the RF zones will ensure the functionality of all solar energy systems, both existing and permitted.

JS/be