## Office of the Zoning Administrator

February 12, 2018
Re: ZC 17-18
Zoning Commission:

Enclosed please find the Department of Consumer and Regulatory Affairs/Office of the Zoning Administrator's agency report to the record in the form of a Powerpoint presentation. The Zoning Administrator intends to present the Powerpoint at the upcoming public hearing.

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Matthew Le Grant Zoning Administrator
Office of the Zoning Administrator
Department of Consumer and Regulatory Affairs $11004^{\text {th }}$ Street SW.
Washington, D.C. 20024

Enclosure: (1)

For questions, please call [add phone number] or email [add email].

## ZONING COMMISSION CASE NO. 17-18

Matthew Le Grant,
Zoning Administrator, DCRA
2/22/18

## Outline

I. DCRA goals
II. Why now?
III. Highlights of the proposed changes:
(a) Basement/cellar
(b) Building height
(c) Areaways and window wells
(d) Gross floor area of floors partially below grade
(e) Habitable room
IV. Additional Proposed Revisions
V. Concluding thoughts

## I. DCRA Goals

- Work in collaboration with the Office of Planning to identify and develop improvements to the zoning rules.
- Improve the clarity and transparency of the definitions and rules of measurement for basements and cellars.
- Align story, height, and gross floor area measurement methods where possible.
- Reduce instances of manipulating grade and ceilings contrary to the intent of the regulations.
- Clarify the issue of habitable rooms in cellars and attics.


## II. Why Now?

- These topics have been an ongoing source of controversy and confusion for developers and concerned neighbors, among others, and have manifested as elements of several Board of Zoning Adjustment (BZA) appeals of Zoning Administrator (ZA) decisions, including:
- Appeal No. 19374 (1514 Q Street NW) (2017)
- Appeal No. 19242 (1828 Ontario Place NW) (2016)
- Appeal No. 19106 (67 V Street NW) (2015)
- Appeal No. 18980 (1636 Argonne Place NW) (2015)
- Appeal No. 18615 (5333 Connecticut Avenue NW) (2013)
- While ZR16 addressed some of these topics, the ZA believes that the Commission could further clarify these issues.


## III.(a) Basement/Cellar

- Current Definitions of Basement and Cellar (B-100.2):
- "Basement: That portion of a story partly below grade, the ceiling of which is four feet ( 4 ft .) or more above the adjacent finished grade."
- "Cellar: That portion of a story, the ceiling of which is less than four feet (4 ft.) above the adjacent finished grade."
- Cellars are not counted toward the maximum number of stories and are not chargeable as gross floor area in zones that limit FAR.


## (a). Basement/Cellar

Concerns:
(1) The strategic manipulation of both finished grade and ceiling height to convert existing lower levels into cellars.
(2) Currently, the definitions of basement and cellar are determined by adjacent finished grade. However, building height and number of stories are currently calculated from the building height measuring point (BHMP) based on existing grade in residential zones. As a result, there is potential ambiguity.

## (a). Basement/Cellar

- Purpose of proposed text changes:
(1) By measuring to the top of the finished floor of the ground floor rather than the ceiling of the lower level, the text change would eliminate the strategic lowering of ceilings to create cellars.
- The additional foot - changing 4 ft . to the ceiling versus 5 ft . to the top of the finished floor - is intended to accommodate standard floor thickness and to make the change essentially neutral. The finished floor standard also tracks the current approach in the zoning regulations for perimeter-wall (B-304.4) and grade plane (B304.5) methodology.
- Based on the idea that lowering the finished floor level would be more difficult than lowering a ceiling.


## (a). Basement/Cellar

(2) Taking the lower in elevation of natural ("existing grade") or finished grade is intended to discourage the strategic raising of finished grade to create a cellar.

- Note the existing definition of "natural grade":
- "The undisturbed elevation of the ground of a lot prior to human intervention; or where there are existing improvements on a lot, the established elevation of the ground, exclusive of the improvements or adjustments to the grade made in the two (2) years prior to applying for a building permit; natural grade may not include manually constructed berms or other forms of artificial landscaping." (B-100.2)
- Two year rule should address issues of creating new nonconformities based on this change.


## (a). Basement/Cellar

- Proposed changes shown at Setdown, Notice of Public Hearing, and OP Hearing Report (text unchanged)*:
- "Basement: That portion of a story partly below grade where the finished floor of the ground floor, the ceiling of which is four feet (4 ft .) is five feet ( 5 ft .) or more above the adjacent natural or finished grade, whichever is lower in elevation."
- "Cellar: That portion of a story partly below grade where the finished floor of the ground floor, the ceiling of which is less than four feet ( 4 ft .) five feet ( 5 ft .) above the adjacent natural or finished grade, whichever is lower in elevation."
*new text highlighted in red.


## (a). Basement/Cellar

- Final Text Proposed*
- No change from text that was advertised; earlier struck text not shown for readability reasons:
- "Basement: That portion of a story partly below grade where the finished floor of the ground floor is five feet ( 5 ft .) or more above the adjacent natural or finished grade, whichever is lower in elevation."
"Cellar: That portion of a story partly below grade where the finished floor of the ground floor is less than five feet ( 5 ft .) above the adjacent natural or finished grade, whichever is lower in elevation."
*final new text highlighted in red.


## (a). Graphic: Basement ( $\geq 5$ feet example)



- In this scenario, the dwelling is located in a residential zone, and the natural and finished grade are equivalent.
- The measurement of stories is from the same point as the BHMP, at the midpoint of the façade of the principal building closest to the street lot line.
- The lowest level would be considered a "basement", since the finished floor is 5 feet or greater than the finished and natural grade, whichever is lower.


## (a). Graphic: Cellar (<5 feet example)



- In this scenario, the dwelling is located in a residential zone, and the natural and finished grade are equivalent.
- The measurement of stories is from the same point as the BHMP, at the midpoint of the façade of the principal building closest to the street lot line.
- The lowest level would be considered a "cellar", since the finished floor is less than 5 feet above the finished or natural grade, whichever is lower.


## (b). Residential Building Height

- Current Measurement Rule for Residential Zone Building Height (B-308.2):
- "The building height measuring point (BHMP) shall be established at the existing grade at the mid-point of the building façade of the principal building that is closest to the street lot line."
- Concerns: "Existing grade" is not a defined term unlike "finished grade" and "natural grade"; inconsistent measuring points for building height and basement/cellar.


## (b). Residential Building Height

- Purpose of proposed text changes:
(1) Consistent use of defined terms, i.e. "natural grade" rather than "existing grade."
(2) Create consistent measuring points for building height and basement/cellar.


## (b). Residential Building Height

- Initial proposed changes reflected in Setdown and Notice of Public Hearing*:
- "The building height measuring point (BHMP) shall be established at the existing adjacent natural or finished grade, whichever is the lower in elevation, at the mid-point of the building façade of the principal building that is closest to a street lot line."
- *new text highlighted in red.


## (b). Residential Building Height

- Revised proposed changes in the OP Hearing Report*:
- "The building height measuring point (BHMP) shall be established at the existing adjacent natural or finished grade, whichever is the lower in elevation, at the mid-point of the building façade of the principal building that is closest to a street lot line, provided that it is equal to or lower than the mean finished grade across the building facade, which shall otherwise be the BHMP."
- New text in the OP Hearing report highlighted in blue and bold.
- After further reflection, DCRA proposes to withdraw this highlighted text in blue, which was intended to address issues of excavation (and which it proposes to address in Slide 41), and return to the Setdown/Notice of Public Hearing version. Additional discussion of this issue will occur later in this presentation.


## (b). Residential Building Height

- Final Proposed Text*:
- Earlier struck text not shown for readability reasons:
- "The building height measuring point (BHMP) shall be established at the adjacent natural or finished grade, whichever is the lower in elevation, at the mid-point of the building façade of the principal building that is closest to a street lot line."
*final new text highlighted in red. Reflects withdraw of text from previous slide.


## (b). Graphic: Res. Building Height



- In this scenario, the dwelling is located in a residential zone, and the natural grade is lower than the finished grade at the BHMP.
- The measurement of the BHMP is at the midpoint of the façade of the principal building closest to the street lot line.
- Since the natural grade is lower, this would govern the height measurement. This would be a change from the current code's use of finished grade for the height measurement.


## (c). Areaways \& Window Wells

- Current Text:
- Grade, Finished: The elevation of the ground directly abutting the perimeter of a building or structure.
- Areaway: A subsurface space adjacent to a building open at the top or protected at the top by a grating or guard that includes window wells and passageways accessing basement/cellar doors.
- Concern: The zoning regulations are silent on when an areaway (or window well) alter finished grade.


## (c). Areaways \& Window Wells

- Purpose of proposed text changes:
(1) Codifies longstanding Zoning Administrator interpretations.
(2) Builds upon the introduction of a definition of "areaway" in ZR16.
(3) Clarifies the maximum dimensions of areaways and window wells for determinations of grade. Determination of grade can impact the measuring point for stories, height, and gross floor area.


## (c). Areaways \& Window Wells

- Initial proposed text at Setdown and in Notice of Public Hearing:
- "Grade, Finished: The elevation of the ground directly abutting the perimeter of a building or structure or at the top edge of a window well. Exceptions to finished grade are:
(i) a window well that projects no more than four feet ( 4 ft ) from the building face; and
(ii) an areaway that provides direct access to an entrance and projects no more than five feet ( 5 ft .) from the building face, and is not more than five feet ( 5 ft .) wide along the face of the building."
*new text highlighted in red.


## (c). Areaways \& Window Wells

- Revised proposed text reflected in OP Hearing Report:
- "Grade, Finished: The elevation of the ground directly abutting the perimeter of a building or structure or at the top edge of a window well. Exceptions to finished grade are:
(i) a window well that projects no more than four feet ( 4 ft .) from the building face; and
(ii) an areaway that provides direct access to an entrance and projects no more than five feet ( 5 ft .) from the building face, and is not more than five feet ( 5 ft .) wide along the face of the building."
- DCRA supports the removal of the text in (ii) as potentially too restrictive but notes more flexible alternative in Slide 43.


## (c). Areaways \& Window Wells

- Final Proposed Text*:
- Earlier struck text not shown for readability reasons.
- "Grade, Finished: The elevation of the ground directly abutting the perimeter of a building or structure or at the top edge of a window well. Exceptions to finished grade area:
(i) a window well that projects no more than four feet ( 4 ft .) from the building face; and
(ii) an areaway that provides direct access to an entrance and projects no more than five feet ( 5 ft .) from the building face."


## (c). Graphic: Areaways (exception to grade ( $\leq 5$ feet example))



- In this scenario, the dwelling is located in a residential zone, and the natural grade is lower than the finished grade at the BHMP.
- The measurement of the BHMP is at the midpoint of the façade of the principal building closest to the street lot line, in this case at the retaining wall of the areaway.
- Because the areaway dimension is less than or equal to 5 feet in depth, it would not be considered to create a new finished grade.
- Since the natural grade is lower, this would govern the height measurement.


## (c). Graphic: Areaways (exception to grade (>5 feet example))



- In this scenario, the dwelling is located in a residential zone, and the natural grade is lower than the finished grade at the BHMP.
- The measurement of the BHMP is at the midpoint of the façade of the principal building closest to the street lot line, in this case at the retaining wall of the areaway.
- Because the areaway dimension is greater than 5 feet in depth, it would create a new finished grade and be considered a "sunken patio."


## (d). Gross Floor Area

- Current Text of Gross Floor Area Measurement (GradePlane Method) (B-304.5)
- "For a building attached at any point to a neighboring building, GFA of the portion of a story located partially below finished grade shall be calculated as follows:
(a) Establish a line between the midpoint of a building façade facing the nearest street at finished grade, and the midpoint of the opposite building façade at finished grade;
(b) Determine the portion of this line where the distance between it, and the ground floor of the story directly above;
(c) Project a perpendicular line from the point along the line described in paragraph (b) to the exterior walls of the building; and
(d) Measure the floor area that is between the projected perpendicular line and the other portions of the with a height greater than or equal to six feet ( 6 ft .), when measured from the perpendicular line to the ground floor of the story above ground floor."
- Concerns: Inconsistent measuring points with other related standards.


## (d). Gross Floor Area

- Purpose of proposed text changes:
(1) Create consistent measuring approaches across related standards.
(2) Introduce labeling of the methods of measurement: "perimeterwall method" [used for detached buildings] and "grade plane method" [used for attached buildings].
(3) Similar changes are proposed for the perimeter-wall method (B304.4), which are not here shown for reasons of brevity.


## (d). Gross Floor Area

## - Initial proposed text of Gross Floor Area Measurement (Grade-Plane Method) at Setdown and Notice of Public Hearing ( $B-304.5$ )

- "For a building attached at any point to a neighboring building, GFA of the portion of a story located partially below natural or finished grade shall be calculated by the grade-plane method as follows:
(a) Establish a line between the midpoint of a building façade facing the nearest street at the adjacent natural or finished grade, whichever is lower, and the midpoint of the opposite building façade of the building at the adjacent natural or finished grade, whichever is lower;
(b) Determine the portion of this line that is five feet (5 ft.) or more below where the distance between it, and the ground finished floor of the story directly above, is greater than or equal to six (6) feet;
(c) Project a perpendicular line from the point along the line described in paragraph (b) to the exterior walls of the building; and
(d) Measure the floor area that is between the projected perpendicular line and the other portions of the story that are with a height greater than or equal to six feet (6 ft.) five feet ( 5 ft .) or more below the finished, when measured from the perpendicular line to the ground-floor of the story above-ground floor."


## (d). Gross Floor Area

- Revised proposed text of Gross Floor Area Measurement (Grade-Plane Method) reflected in OP Public Hearing Report ( $B-304.5$ )
- "For a building attached at any point to a neighboring building, GFA of the portion of a story located partially below adjacent natural or finished grade shall be calculated by the grade-plan method as follows:
(a) Establish a line between the midpoint of a building façade facing the nearest street at the adjacent natural or finished grade, whichever is lower, and the midpoint of the opposite building façade of the building at the adjacent natural or finished grade, whichever is lower;
(b) Determine the portion of this line that is five feet ( 5 ft .) or more below where the distance between it, and the ground finished floor of the story directly above, is greater than or equal to six (6) feet;
(c) Project a perpendicular line from the point along the line described in paragraph (b) to the exterior walls of the building; and
(d) Measure the floor area that is between the projected perpendicular line and the other portions of the story that are with a height greater than or equal to six feet (6 ft.) five feet ( 5 ft .) or more below the finished, when measured from the perpendicular line to the ground floor of the story above ground floor."


## (d). Gross Floor Area

- Final proposed text (Grade-Plane Method):
- Earlier struck text not shown for readability reasons.
- "For a building attached at any point to a neighboring building, GFA of the portion of a story located partially below adjacent natural or finished grade shall be calculated by the grade-plan method as follows:
(a) Establish a line between the midpoint of a building façade facing the nearest street at the adjacent natural or finished grade, whichever is lower, and the midpoint of the opposite façade of the building at the adjacent natural or finished grade, whichever is lower;
(b) Determine the portion of this line that is five feet ( 5 ft .) or more below the finished floor of the story directly above;
(c) Project a perpendicular line from the point along the line described in paragraph (b) to the exterior walls of the building; and
(d) Measure the floor area that is between the projected perpendicular line and the other portions of the story that are five feet ( 5 ft .) or more below the finished floor of the ground floor."


## (d). Graphic: Gross Floor Area (Grade-Plane Method)



- In this scenario, the residential building is detached and is located in a non-residential zone of greater than 40 ' height where the BHMP is measured at the level of the curb.
- The lowest level is partially below grade and the grade-plane method is used.
- Assume that natural and finished grade are the same in this scenario, and that the natural grade is at the same plane as the BHMP.
- The gross floor area is counted from the grade where the line is 5 feet or more below the finished floor of the story above.


## (e). Habitable Room

- Current Habitable Room Definition (B-100.2):
- "Habitable Room: An undivided enclosed space used for living, sleeping, or kitchen facilities. The term "habitable room" shall not include attics, cellars, corridors, hallways, laundries, serving or storage pantries, bathrooms, or similar space; neither shall it include mechanically ventilated interior kitchens less than one hundred square feet ( 100 sq . ft.) in area, nor kitchens in commercial establishments."
- Not applied to matter-of-right projects by the Zoning Regulations only as a limit to special exception relief for rear yard requirements in the MU (G-1201.1(c)) and D (l-205.5(c)) zones by the BZA
- Identical provision applied to fewer zones (SP, C-3, and C-4) in the 1958 Regulations (Sections 534.9 \& 774.4).


## (e). Habitable Room

- Concerns: Confusion related to the meaning and application of the term "habitable room."
- Not included or referred to in the definitions of basement or cellar.
- Not included or referred to in the calculation of building height, number of stories, or FAR.
- Current practice recognizes habitable use of cellars
- C-1003.9 of the Zoning Regulations specifies dwelling units in cellars must be included in IZ set-aside calculations.
- Zoning Commission Case Nos. 15-33 and 06-34A approved plans that included dwelling units in cellars.
- BZA Appeal 18615 and application numbers 19127, 19035, 18814, 18785, 18724, 17679-C, and 17111-A also approved plans with dwelling units in cellars.


## (e). Habitable Room

- Purpose of the proposed text changes:
(1) By removing the term from the definition, it would remove any lack of clarity or confusion related to the ability to have habitable rooms in cellar or attics, a condition that has occurred with regularity in the District for years.
(2) DCRA would further not object to the removal of the second sentence of the "habitable room" definition in its entirety.


## (e). Habitable Room

## - Proposed text at Setdown, Notice of Public Hearing, and OP Hearing Report (text unchanged)*:

- "Habitable Room: An undivided enclosed space used for living, sleeping, or kitchen facilities. Unless otherwise specified, The the term "habitable room" shall not include attics, cellars, corridors, hallways, laundries, serving or storage pantries, bathrooms, or similar space; neither shall it include mechanically ventilated interior kitchens less than one hundred square feet ( 100 sq . ft.) in area, nor kitchens in commercial establishments."
- *new text highlighted in red.


## (e). Habitable Room

- Final Proposed Text*
- Earlier struck text not shown for readability reasons.
- "Habitable Room: An undivided enclosed space used for living, sleeping, or kitchen facilities. Unless otherwise specified, the term "habitable room" shall not include corridors, hallways, laundries, serving or storage pantries, bathrooms, or similar space; neither shall it include mechanically ventilated interior kitchens less than one hundred square feet ( 100 sq. ft.) in area, nor kitchens in commercial establishments."
*final new text highlighted in red.


## IV. Additional Proposed Revisions Response to Feedback

- Based on feedback to the record, as well as further review of the proposals, DCRA proposes additional revisions to address potential manipulation of areaways/window wells.


## IV. Additional Proposed Revisions

## (1) Areaway/Window Well - Definition

Issue: Clarify that the access must lead from grade or public way to the interior of the building. If there is no access, then the space would be considered a window well and restricted to 4 feet depth under the proposed rules of measurement. Also clearly distinguish between window wells and areaways.

## Current Definition of "Areaway":

Areaway: A subsurface space adjacent to a building open at the top or protected at the top by a grating or guard that includes window wells and passageways accessing basement/cellar doors.

## For Further Consideration

Areaway: A subsurface space adjacent to a building open at the top or protected at the top by a grating or guard that includes window wells and used as a passageways directly connecting accessing basement/cellar doors with a public right of way via stairs or ramp but not a ladder.

Window well: A subsurface space adjacent to a building open at the top or protected at the top by a grating or guard that provides light and air and/or emergency egress.
*new text highlighted in red.

## IV. Additional Proposed Revisions

## (2) Areaway/Window Well - Finished Grade

- Issue: Further clarify where grade is measured for areaways and window wells.
"Grade, Finished: The elevation of the ground directly abutting the perimeter of (i) a building or structure or (ii) an areaway or window well that constitute at the top edge of a window well. Exceptions-an exception to finished grade area as follows:
(i) a window well that projects no more than four feet ( 4 ft .) from the building face; and
(ii) an areaway that provides direct access to an entrance and projects no more than five feet ( 5 ft .) from the building face."
*Reflects latest version of proposed text (Slide 23), with newest in red.


## IV. Additional Proposed Revisions

## (3) Areaway/Window Well - Excavation Adjacent to Midpoint of Façade

## Issue:

- To prevent manipulation to grade of excavating around but not at the midpoint of the façade.


## As Currently Proposed:

- For R, RF, and RA zones, building height, stories, and basement cellar would be measured from the midpoint of the façade nearest the street (at the lower of the finished or natural grade). (B-308.2).
- For grade plane calculations for attached buildings in zones where there gross floor area limitations, the calculation also would establish a line from the midpoint of the building façade facing the street (at the lower of the finished or natural grade). (B-304.5(a))


## IV. Additional Proposed Revisions

## (3) Areaway/Window Well Issue: Excavation Adjacent to Midpoint of Façade

Residential Height: (insert new text in B-308.2)
308.2"The building height measuring point (BHMP) shall be established at the adjacent natural or finished grade, whichever is the lower in elevation, at the mid-point of the building façade of the principal building that is closest to a street lot line provided that it is equal to or lower than the mean finished grade across the building façade, which shall otherwise be the BHMP. If any areaway(s) or other excavation project more than five feet ( 5 ft .) or window well(s) project more than four feet ( 4 ft .) from anywhere along the building facade facing the nearest street, the BHMP shall be the equivalent of the lowest elevation of the areaway(s), excavation, or window well(s) along the facade, excluding:
(a) driveways directly connecting a garage and public right of way, only where existing or for building permit applications officially accepted by the Department of Consumer and Regulatory Affairs as being complete prior to the effective date of this title, so long as the driveway is not expanded in width along the facade."

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## IV. Additional Proposed Revisions

(3) Areaway/Window Well Issue: Excavation Adjacent to Midpoint of Façade

Grade Plane Method: (insert new text in B-304.5(a))

- "For a building attached at any point to a neighboring building, GFA of the portion of a story located partially below adjacent natural or finished grade shall be calculated by the grade-plan method as follows:
(a) Establish a line between the midpoint of a building façade facing the nearest street at the adjacent natural or finished grade, whichever is lower, and the midpoint of the opposite façade of the building at the adjacent natural or finished grade, whichever is lower $\overline{\%}$. If any areaway(s) or other excavation project more than five feet ( 5 ft .) or window well(s) project more than four feet ( 4 ft .) from anywhere along the building facade facing the nearest street or from the opposite facade of the building, the measuring points shall be the equivalent of the lowest elevation of the areaway, excavation, or window well(s) along the facade;
*Reflects latest version of proposed text (Slide 30), with newest in red.


## IV. Additional Proposed Revisions

## (4) Areaway/Window Well - Width

## - Issue

- In response to concern about potentially excessively wide areaways and window wells, the ZA suggests that one response could include a restriction on the amount of façade that can be excepted from grade.
- Possible Approach:
- Possible: areaway(s) and/or window well(s) may not extend in aggregate width more than $50 \%$ of the length along an adjacent building face. A special exception could be applied to achieve a greater amount.
- However, the ZA recognizes that there could be reasons for different standards in different zones.


## IV. Additional Proposed Revisions

## (5) Areaways/Window Wells - Natural Grade

## Issue:

- Insert the areaway and window well Proposed Changes to Finished Grade \& Change Timeframe


## Defined:

- "The undisturbed elevation of the ground of a lot prior to human intervention; or where there are existing improvements on a lot, the established elevation of the ground, exclusive of the improvements or adjustments to the grade made in the two (2) years prior to applying for a building permit; natural grade may not include manually constructed berms or other forms of artificial landscaping." (B-100.2)


## Proposals:

(1) Change the timeframe from 2 years to 5 years or some other higher number to restrict manipulation.
(2) Add in exception for "areaways" and "window wells" as proposed to be added to the definition of "finished grade" for consistency and to protect existing areaways and window wells that would otherwise become non-conforming.

## V. Concluding Thoughts

- Should the Commission approve the proposes changes, at the time of permitting, DCRA will be expecting applicants, where necessary, to show natural and finished grade, building height measuring points, and any necessary calculations, on plans and sections for transparency.
- I am now available for questions.


[^0]:    *Reflects latest version of proposed text, with newest in red. This reflects the removal of text "provided that it is equal to or lower than the mean finished grade across the building façade, which shall otherwise be the BHMP" seen in the OP Hearing report (also see Slide 16).

