

DOCKET ITEM #7
Text Amendment #2018-0011
Height and Front Setback Regulations

Issue: (A) Initiation of a Text Amendment; and (B) Public hearing and consideration of a Text Amendment to the Zoning Ordinance to amend the following definitions sections 2-119 (average finished grade), 2-119.1 (average pre-construction grade), 2-154 (height of building), 2-193 (setback ratio), 2-205 (yard), and 2-205 (front yard); amend sections 3-106, 3-206, 3-306, 3-406, 3-506, 3-606 and 3-706 related to front yard, height and threshold height regulations; amend section 6-403 related to roof decks and penthouses; delete sections 7-2502 and 7-2503 related to infill regulations for single and two-family residential zones; amend portions of section 11-1302 related to special exceptions; and to add new sections 2-122.1 to define contextual block face, 2-154.1 to define threshold height, 2-170.1 to define lot frontage, and 2-170.2 to define lot width.	Planning Commission Hearing:	February 5, 2019
	City Council Hearing:	February 23, 2019
Staff: Mary Christesen, Zoning Manager, mary.christesen@alexandriava.gov Tony LaColla, AICP, Division Chief, anthony.lacolla@alexandriava.gov Sam Shelby, Urban Planner, sam.shelby@alexandriava.gov Ashley Smith, Urban Planner, ashley.smith@alexandriava.gov		

Staff recommendation: Initiation and APPROVAL of the Text Amendment subject to compliance with all applicable codes and ordinances.

I. Issue

Homeowners commonly cite two major concerns: the loss of neighborhood character and their frustrations with regulations that limit development on their own properties. These concerns are not unique to our 270-year-old city, as many municipalities aim to balance new development while maintaining a built environment unique to their jurisdiction. Many cities, including Alexandria, rely on zoning regulations to balance the demands of growing urban populations. Municipalities use zoning laws to protect the character of a city and promote healthy growth by regulating where and how large a dwelling can be placed on individual properties. These bulk regulations intend to prevent inappropriately dense development by requiring sufficient open space and protecting light and air supply to adjacent neighbors. They are also used to keep new development compatible with existing neighborhood character. The City's Zoning Ordinance achieves these goals through the establishment of height limits, setbacks and yard requirements. These regulations are often directly related to one another, creating a system of "checks and balances" that control both the overall size of buildings in relation to the land on which they are built and their locations in relation to property lines shared with adjacent neighbors.

In 2008, City Council approved Residential Infill Regulations to "reduce the size and minimize the incompatibility of new residential infill construction" for single-and-two-family residential zones. Staff proposes updates to the height limits and front setbacks to address concerns about new dwellings and to provide more flexibility for improving existing dwellings, all while maintaining the original goals of the Infill Task Force and the adopted Infill Regulations

Through these changes, staff intends to provide more flexibility to encourage quality development while maintaining individual neighborhood character. Staff collected 10 years' worth of data regarding dwelling heights, setbacks and threshold heights to support the proposed changes. Staff also met citizens and professionals and researched current zoning and development trends. Staff proposes changes to dwelling and front door threshold heights and front yard setbacks. Staff also proposes improvements to the Zoning Ordinance's existing system of "checks and balances" to allow more effective controls of a dwelling's bulk and mass. Staff recommends amendments to sections 2-119, 2-119.1, 2-154, 2-193, 2-204, 2-205, 3-106, 3-206, 3-306, 3-406, 3-506, 3-606, 3-706, 6-403, 7-2502, 7-2503 and 11-1302 and the addition of new sections 2-122.1, 2-154.1, and 2-170.2.

II. Background

A. Infill Regulations for Single and Two-Family Residential Zones

Planning and Zoning staff began studying residential infill development and its impacts in early 2006. At a Planning Commission work session in March of that year, staff presented, among others, two key findings:

- 1) Alexandria's older neighborhoods are a critical component of the City's identity and their character should be maintained
- 2) When houses are built out of scale and character with a neighborhood, the impact can be severe and even traumatic for immediate neighbors.

Staff continued the study of infill development and in June and December of 2006, City Council adopted interim regulations related to front door threshold height and subdivision character to address concerns related to incompatible infill development. In April 2007, City Council established the Infill Task Force to formalize the City's study of infill development and to recommend potential regulatory changes.

City Council adopted the Infill Task Force's recommendations as a text amendment to the Zoning Ordinance in June 2008. These amendments, collectively known as the Infill Regulations, require new dwellings and additions to match established neighborhood character and scale. They were primarily added to Zoning Ordinance Article VII – Supplemental Zone Regulations but other sections of the ordinance were updated, including: Article II – Definitions and Article XI – Development Approvals. The Infill Regulations also modified other sections of the ordinance, but these are not subject to the amendments proposed in this report.

City Council approved minor technical adjustments to the Infill Regulations in February 2010 and April 2011. In early 2018, City Council approved amendments to the Infill Regulations related to attic floor area and open porches. To date, 161 new dwellings and countless additions have been constructed in compliance with the Infill Regulations. Staff reviews the implementation of the Infill Regulations on a regular basis, however, last year marked the first substantive changes to these regulations since their adoption in 2008.

B. Block Face: the Buildings which Establish Neighborhood Character and Scale

The City of Alexandria has a diverse and interconnected zoning map. While each zone establishes its own bulk and open space requirements, they do not fully capture the character and scale of the City's distinct neighborhoods. The 2008 Infill Regulations were, in large part, an attempt to protect these distinct features.

The Infill Regulations rely on the average height, front setback and front door threshold height of existing buildings within a block face to establish "baseline" neighborhood character and scale. For purposes of applying the Infill Regulations, a block face is defined as the existing buildings on the same side of the street between two intersecting streets or one intersecting street and a dead end. All buildings are included unless the block face is:

- 1) Less than 200 feet **or** more than 600 feet long
- 2) Contains fewer than five **or** more than 15 buildings

In cases where these criteria aren't met, the Planning and Zoning director may, subject to an administrative protocol, designate an appropriate block face regardless of intersecting streets. The block face establishes the maximum dwelling and front door threshold heights and minimum front yard requirement for a subject property to keep its redevelopment in character and scale with existing dwellings along the block face.

C. Section 7-2501 – Applicability

Zoning Ordinance section 7-2501 defines which properties are subject to the Infill Regulations. They apply to residential dwellings in the R-20, R-12, R-8, R-5 and R-2-5 zones and single and two-family dwellings in the RA and RB zones. The Infill Regulations do not apply to townhouses or any properties within the Old and Historic Alexandria or Parker-Gray Districts.

D. Height of Building, Average Finished and Pre-Construction Grades and Setback Ratio

Section 2-119 and 2-119.1 – Average Finished and Pre-Construction Grades

These sections define average grade as the average ground surface elevation at intervals of 20 feet around the perimeter of a building, with average pre-construction grade being the average grade around the perimeter of a proposed building prior to construction. Average grades are used in measurements of building and threshold height, required setback ratio and basement floor area.

Section 2-154 – Height of Building

For properties subject to the Infill Regulations, dwelling height is measured from average pre-construction grade or finished grade, whichever is lower. Figure one, below, illustrates an example where average existing (pre-construction) grade was lower than average altered (finished) grade. In this figure, the dwelling's height is taller as measured from pre-construction grade than from finished grade.

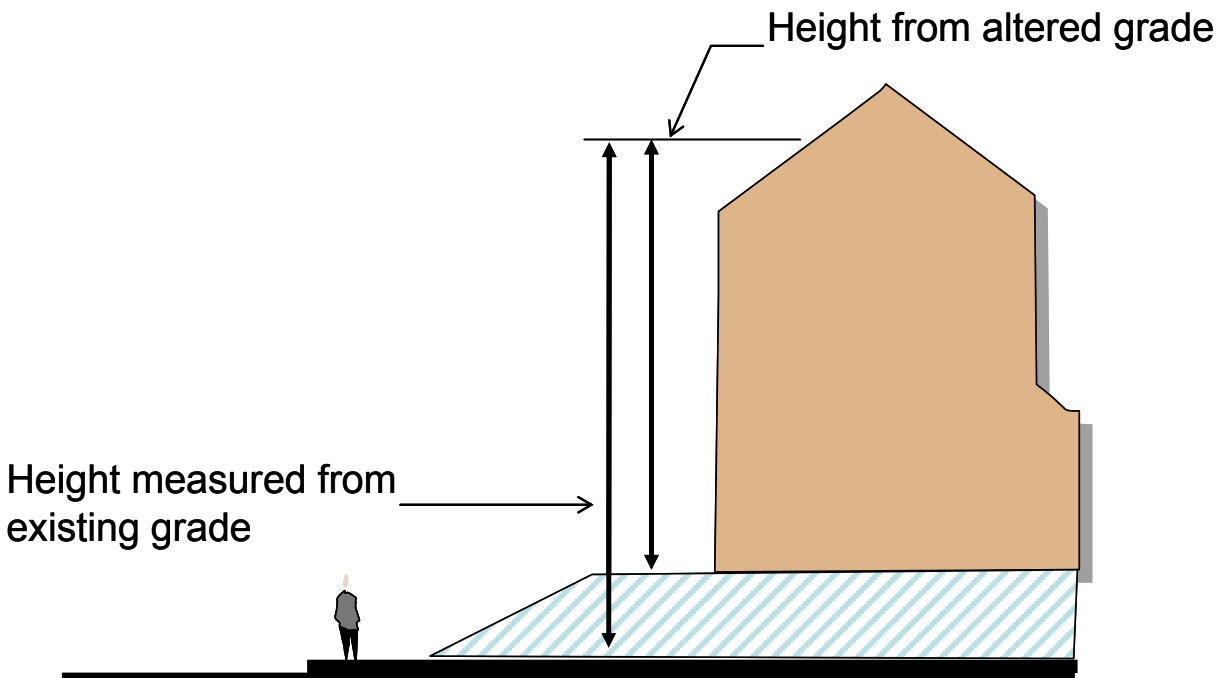


Figure 1 - Height Measured from Existing (Pre-Construction) and Altered (Finished) Grade

Section 2-154 also defines how to measure the height of a building for the purposes of establishing required setback ratios and how different roof forms affect height measurements. It

also exempts certain structures from height measurements pursuant to section 6-403. Dormers, which can have a greater height than the main roof, must be included in overall height measurements regardless of how small a portion of the main roof they occupy. Figure two, below shows the higher midpoint of the dwelling which establishes the overall dwelling height.



Figure 2 - Dormer Height

Section 2-193 – Setback Ratio

Section 2-193 defines setback ratio as follows:

The ratio of the horizontal distance between any part of a building or structure and the nearest side or rear property line or the nearest building or the center line of a street or alley to the height of that part of the building above average finished grade of such line.

Requiring a certain minimum yard depth based on the height of a building is relatively unique to Alexandria. In most other jurisdictions, setbacks are fixed minimums, rather than dependent on a building's height.

E. Section 7-2052 – Height in Line with Existing Development

Zoning Ordinance section 7-2502(A) sets a maximum height of the greater of the following for properties subject to the Infill Regulations:

- 1) 25 feet, or
- 2) The average height of the front of residential buildings, including townhouses and multi-family buildings, within the block face.

Both new dwellings and additions to existing dwellings shall comply with the aforementioned height maximum. Figure three, below, illustrates how the average height is determined.

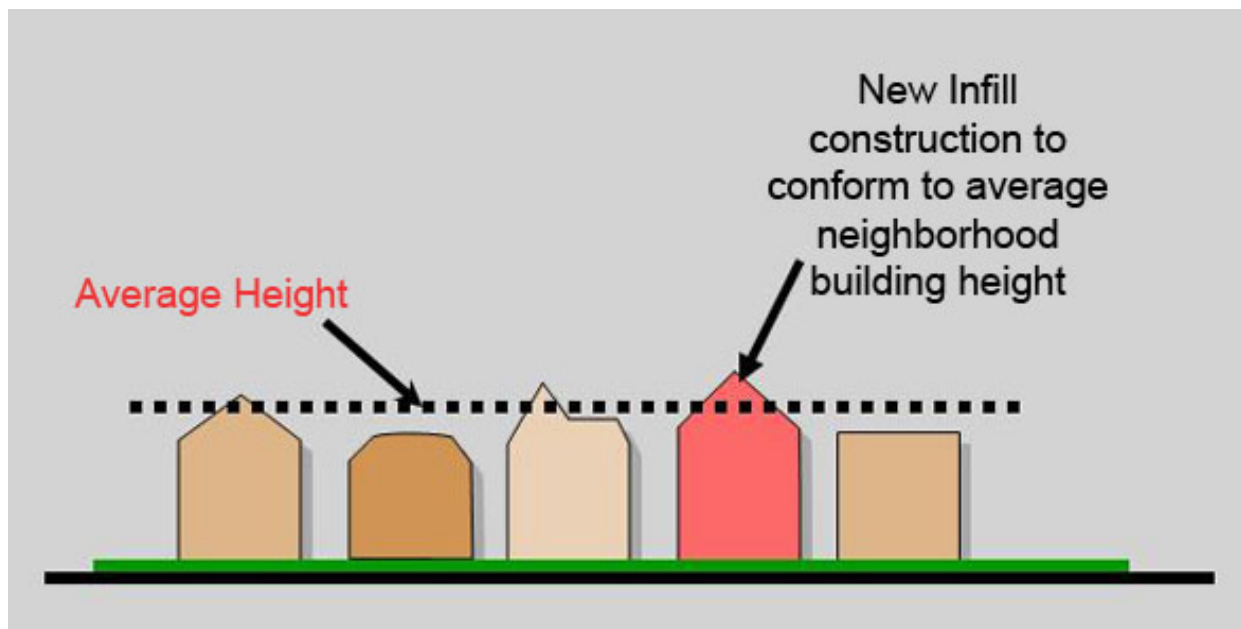


Figure 3 - Average Height of Block Face

7-2502(B) allows for a dwelling height greater than the maximum established by section 7-2502(A) pursuant to an approved special use permit (SUP). For this section only, Planning Commission's recommendation is considered a final City Council decision unless the City Clerk's Office receives a request for a City Council hearing. In consideration of the request for additional height, the Planning Commission must find that the proposed construction has the same residential character and design as adjacent and nearby properties. Since adoption, one request for additional height pursuant to Section 7-2502(B) has been heard by the Planning Commission. The case was approved in April 2018.

Finally, Section 7-2502(D) states that when an entire block is redeveloped, or this is no appropriate block face for determining average height, the height restrictions of the zone in which the property is located shall apply.

F. Residential Front Setback, Front Door Threshold Height, Front Yard and Special Exception Relief

Section 7-2503 – Residential Front Setback and Front Door Threshold Height

Zoning Ordinance section 7-2503(A) requires a minimum front yard setback based on average of the front setbacks of buildings within a block face. New dwellings must be constructed at the required front setback (a build-to requirement) and additions to existing dwellings must provide a front yard of at least the required front setback as follows:

- 1) If a majority (more than 50 percent) of the buildings within a block face have a uniform front setback, then an established front setback exists. The established front setback is the required front setback for a subject property. Figure four, below, illustrates this situation. The properties in blue show a majority of dwellings at a uniform front setback within a block face. The red line shows the established front setback on Dewitt Avenue.



Figure 4 - Block Face with Established Front Setback

- 2) If a block face does not have an established front setback as illustrated above, the required front setback is based on the average front setbacks of all dwellings within the block face. Figure five, below, illustrates this situation. The red line reflects the average front setbacks.



Figure 5 - Block Face without Established Front Setback

Section 11-1302(D) – Special Exception Established

The Zoning Ordinance authorizes the Board of Zoning Appeals (BZA) to grant special exception relief from the front setback required by section 7-2503. The relief cannot exceed 10 percent of the average of the front setbacks, the established uniform front setback or five feet, whichever is less. The applicant for the special exception must demonstrate that the relief is necessary for environmental and/or critical construction reasons. The applicant must also demonstrate that construction of a dwelling in the proposed location would be compatible with the character of the block and would maintain an established front setback along the street. To date, the BZA has not heard any special exception requests under section 11-1302(D).

Section 7-2503(B) – Threshold Height

Section 7-2503(B)(3) defines threshold height as the vertical distance between average pre-construction grade along the front of the building to the top of the threshold or the highest point of the finished first floor, whichever is greater. A subject property's threshold height cannot exceed the average threshold height of dwellings within the block face by more than 20 percent. See figure six, below.

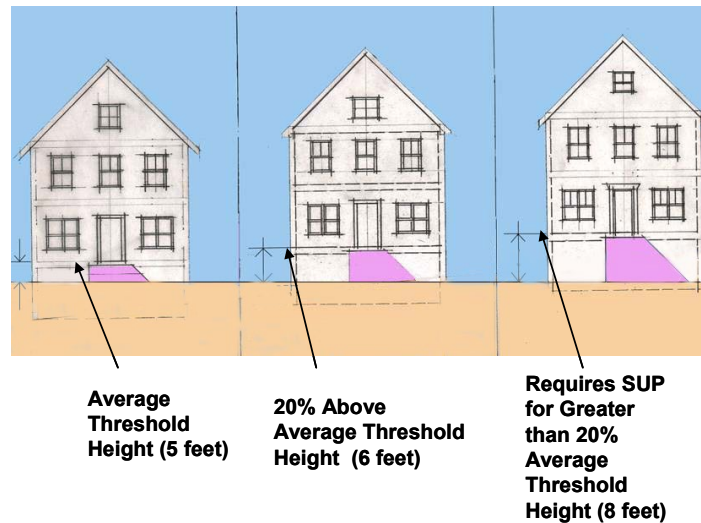


Figure 6 - Threshold Height

Section 7-2503(B)(1) allows for additional threshold height beyond the maximum established by the block face pursuant to an approved SUP. In reviewing the SUP, City Council must determine that the proposed construction will not detract from the value of and will be of substantially the same residential character as adjacent and nearby properties. To date, City Council has not heard any SUP requests for additional threshold height.

Section 7-2503(B)(2) states that if the additional threshold height is the minimum necessary to comply with the Zoning Ordinance's floodplain requirements, Section 6-306(B), no SUP is required.

Section 2-205 – Front Yard

The Zoning Ordinance defines a front yard as follows:

A yard extending across the side of a lot measured between the side lot lines and being the minimum horizontal distance between the front lot line and the main building or any projection thereof not permitted in section 7-202. For a corner lot, the two yards lying between the main building and the intersecting streets shall both be deemed to be front yards and any additional yards shall be deemed to be side yards. For a through lot, the two or more yards lying between the main building and the two or more public streets shall be deemed to be front yards.

G. Section 6-403 – Height Districts – General Regulations and Exceptions

Zoning Ordinance section 6-403, which establishes additional height regulations and exceptions permitted for mechanical appurtenances and penthouses, was created in June 1992 as part of the comprehensive Zoning Ordinance rewrite. Section 6-403 applies to all buildings within the City, including residential. The Zoning Ordinance has included the general intent of these regulations and exceptions since at least 1951 with minor adjustments over time. Section 6-403 permits necessary mechanical appurtenances and one mechanical penthouse, if they all meet certain

criteria, to exceed the Zoning Ordinance's maximum height limits. Additional mechanical penthouses are permitted only with Special Use Permit (SUP) approval.

H. Article III – Bulk and Open Space Regulations for Single and Two-Family Dwellings

The residential zone regulations set a fixed minimum front yard depth and maximum building height for all residentially zoned properties. These regulations have been in effect at least since the 1951 Zoning Ordinance and remain unchanged. Figure seven, below, shows the minimum front yard requirement by the residential zones:

Figure 7 – Front Yard Requirements

Zone	Front Yard Minimum
R-20	40 feet
R-12	35 feet
R-8	30 feet
R-5/R-2-5	25 feet
RA/RB	20 feet

The bulk and open space regulations within the R-20, R-12, R-8, R-5 and R-2-5 zones set a maximum height of 35 feet for single and two-family dwellings. For the RA and RB zones, the maximum height for a single or two-family dwelling is 45 feet.

For single and two-family dwellings located outside the Old and Historic Alexandria and Parker-Gray districts, the Infill Regulations supersede the minimum required front yards and maximum dwelling heights found in Article III of the Zoning Ordinance.

III. Outreach

Staff presented initial findings and potential recommendations and held a discussion at a public meeting on October 2, 2018. Staff was then invited to present the proposed text amendment at The Del Ray Citizen Association's Land Use Committee meeting on November 13, 2018. At the meeting, staff gave a presentation on the proposed height and setback regulation changes and held a discussion. Members of The Del Ray Citizen Association's Land Use Committee expressed general concerns regarding the proposed increase in height. Staff then held a public meeting on November 14, 2018. At this meeting, staff presented draft recommendations and held a discussion. Members of the public expressed general support for staff's recommendations and asked specific questions regarding the impacts of the proposed changes.

Staff then posted presentation materials and background information on the City's website with instructions on how to provide feedback during a specified comment period. During the extended period of feedback, most of the concerns staff received regarding the proposed text amendment focused on the fear of changing the neighborhood character of neighborhoods outside of the historic districts. Specifically, residents of the Rosemont and Del Ray neighborhoods expressed concern over how changes would impact their neighborhoods. Several citizens recognized that the proposed changes might be desirable outside of the Rosemont and Del Ray neighborhoods but would have a "negative impact on the character of the community" not protected by the Old and Historic or Parker-Gray Historic Districts. Overall, staff has received mixed feedback on the

proposed changes. Some citizens are concerned about the increased height while others expressed great support for more flexibility when updating existing or constructing new dwellings.

IV. Discussion of Proposed Text Changes

A. Definitions

Staff proposes amendments to the following definitions: 2-119 (average finished grade), 2-119.1 (average pre-construction grade), 2-154 (height of building), 2-193 (setback ratio), and 2-205 (front yard). With these amendments, staff intends to provide more clarity to both staff and the public for application and interpretation of the Zoning Ordinance.

Sections 2-119 and 2-119.1 – Average Finished and Pre-Construction Grade

The Zoning Ordinance's average grade measurements intend to capture the variation in topography surrounding a building. This allows maximum dwelling and threshold heights, required setback ratio and floor area calculations, which all utilize average grade as a point of measurement, to reflect a dwelling's actual height and bulk. Staff proposes to decrease the required distance between grade measurements used for both average grade measurements for single, two-family, and townhouse dwellings from 20 feet to 10 feet. Because grade can vary significantly over short distances, staff feels that a shorter interval is appropriate for these building types. In many cases, these dwellings contain walls which are less than 20 feet in length. For purposes of establishing a required setback ratio, which only uses the average grade along the building plane in question, and not around the entire perimeter, it's important to have more than one grade measurement. With more than one measurement along a building plane that's less than 10 feet long, an average can be determined resulting in a more precise measurement. Increasing the precision of average grade calculations would improve its ability as a tool used for capturing a building's actual height and mass.

Because average grades can be difficult to understand by reading their definitions alone, staff proposes a visual aid to provide additional clarity, found in figure eight, below.

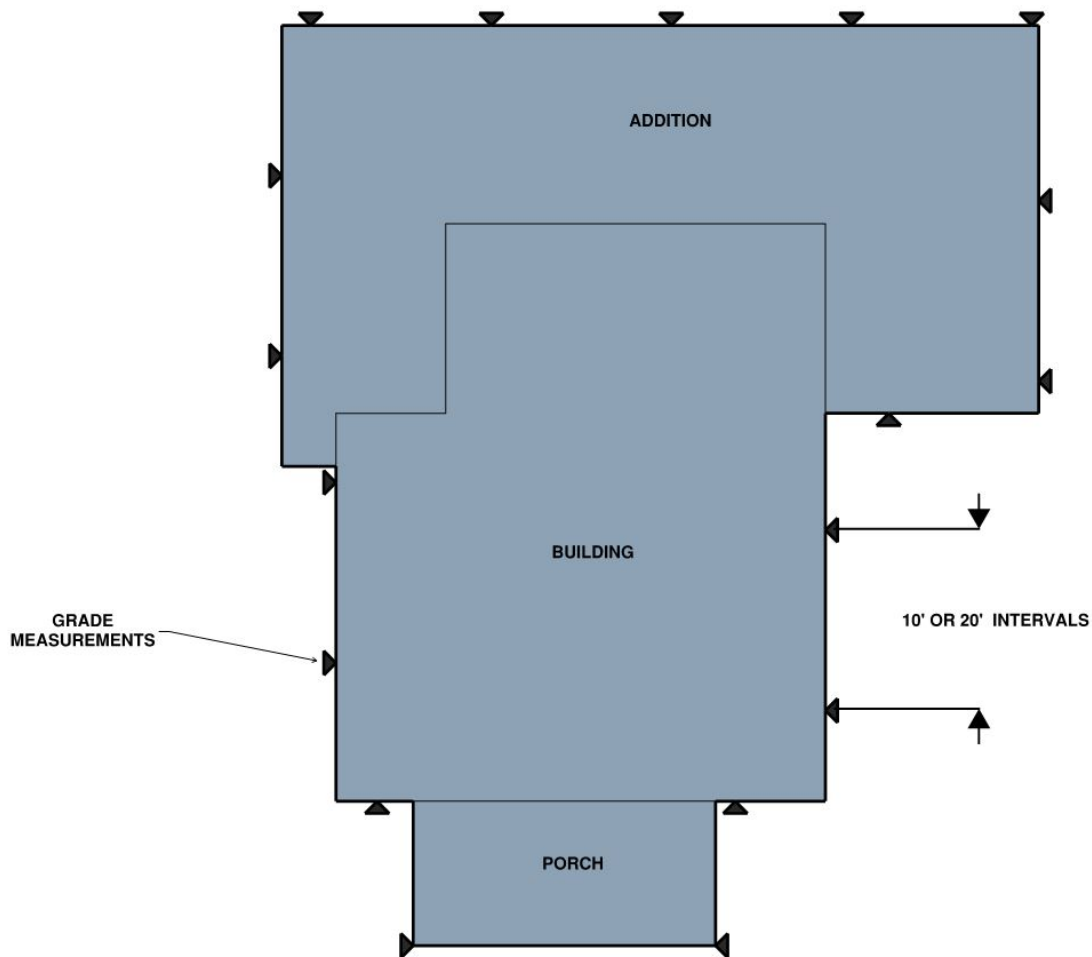
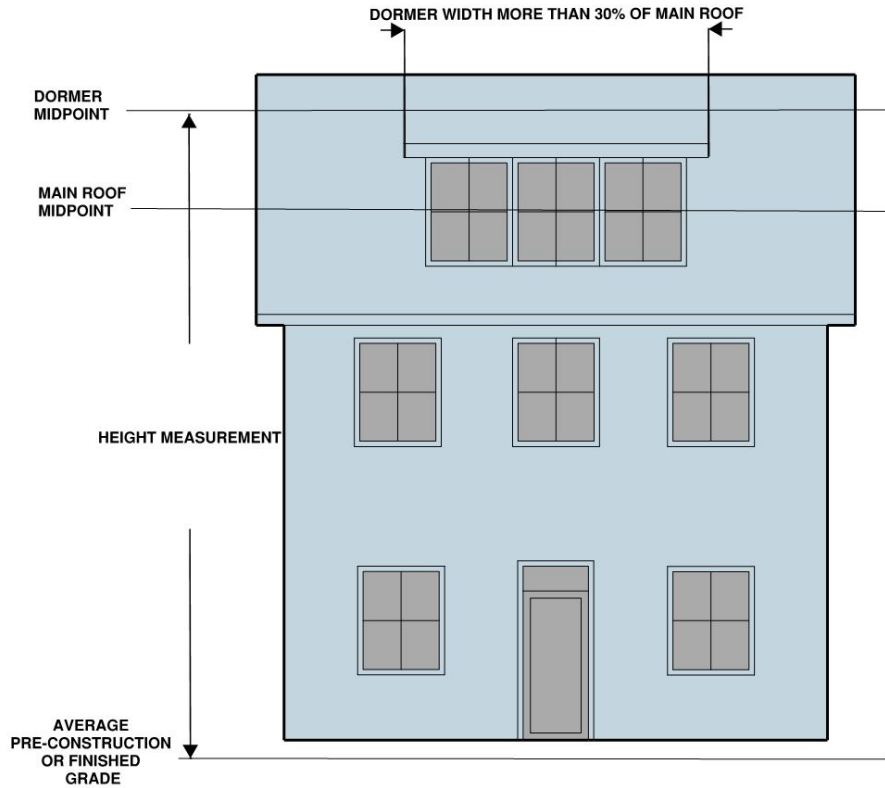
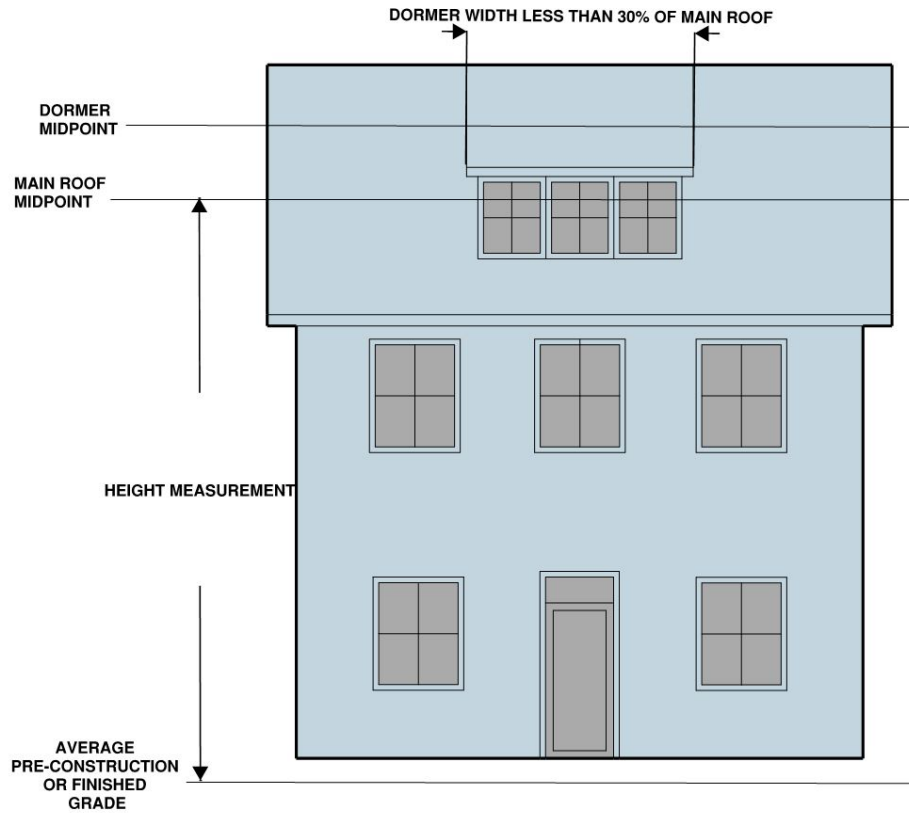


Figure 8 - Average Grade Measurements

Section 2-154 – Height of Building

Staff recommends removing average finished grade from height measurement for dwellings subject to the Infill Regulations. In most cases, average finished grade is rarely lower than pre-construction grade. The current floor area definition discourages lowering grade because a dwelling's basement cannot be excluded from floor area if it is more than four feet out of grade.

Staff proposes to exclude the height of a dormer from overall height measurements in certain circumstances. If a dormer, or the total length of multiple dormers is less than 30 percent of the total roof length where the dormer is located, the dormer height can be excluded from the overall maximum dwelling height, even if its midpoint is higher than the main roof's midpoint. Figures nine and 10, below, illustrate the proposed rule. Regardless of the size of a dormer, it must still meet all setback requirements.



Figures 9 and 10 - Dormer Height Exceptions

For clarity, staff also recommends adding the following figures to this section of the Zoning Ordinance to demonstrate how to measure building height. No changes to these measurements are proposed.

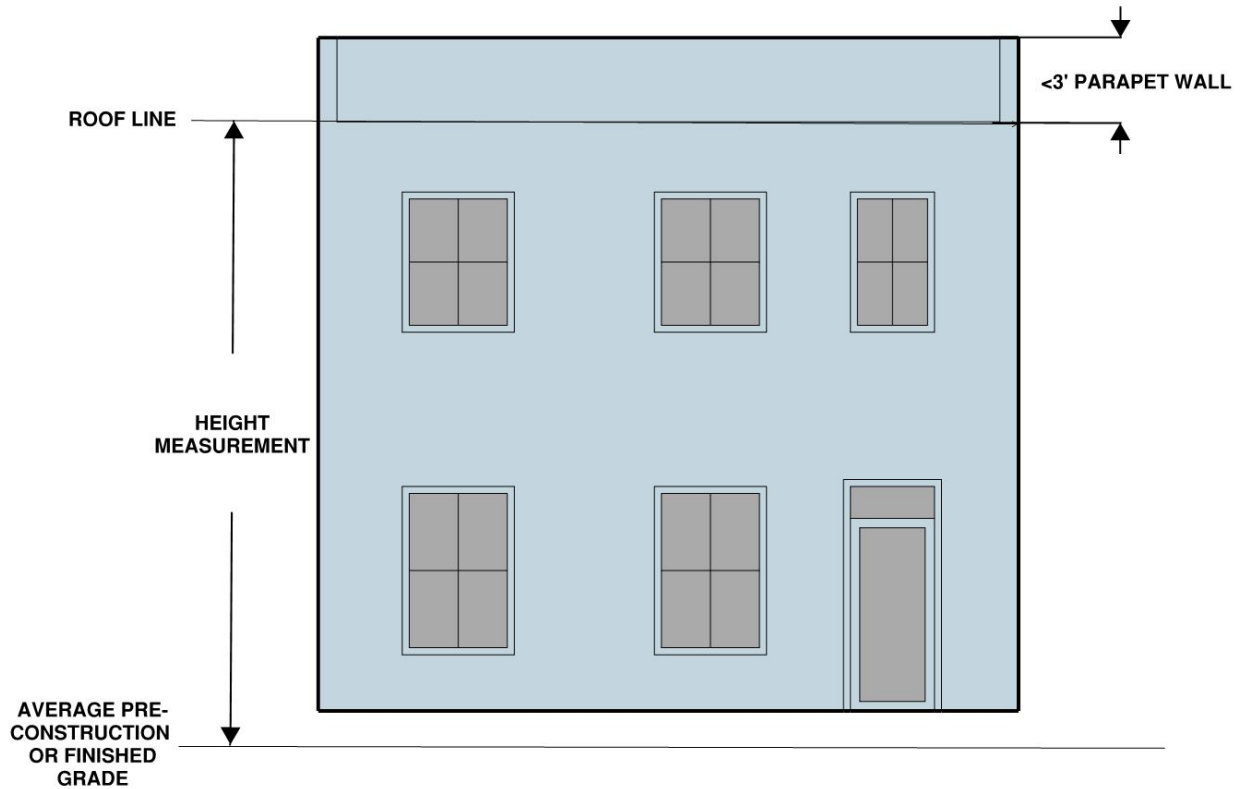


Figure 11 - flat roof: height is measured to roofline because parapet wall is less than three feet in height.

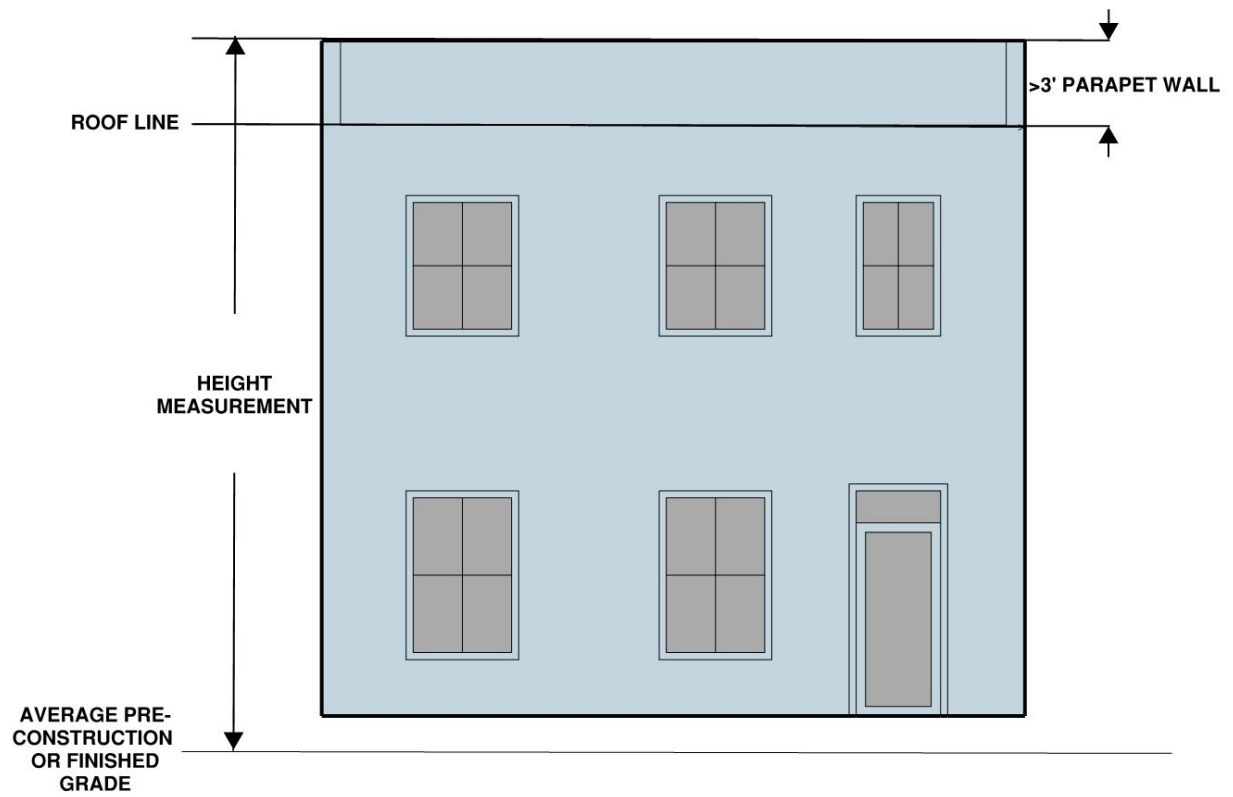


Figure 12 - flat roof: Height is measured to top of parapet wall because it exceeds 3 feet in height.

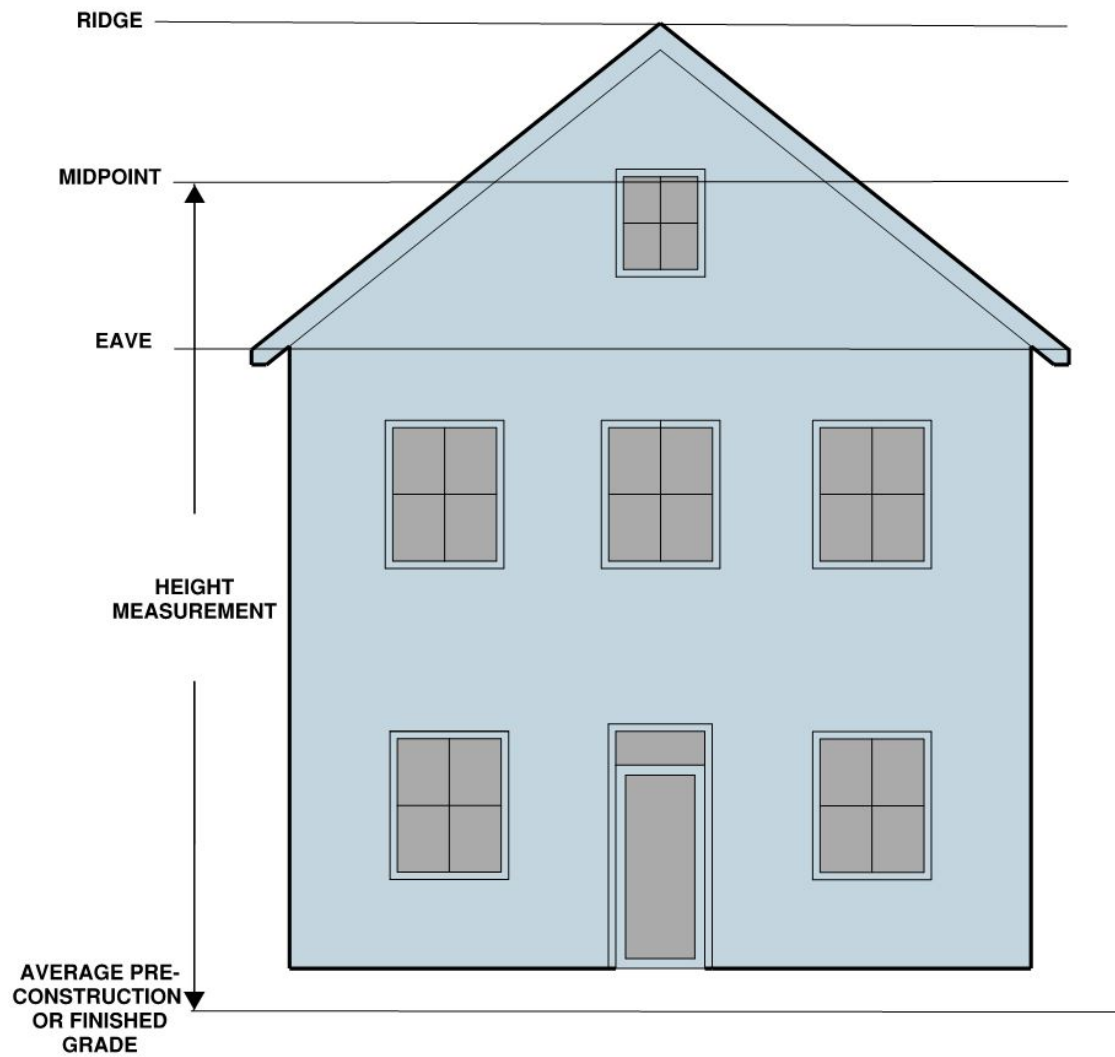


Figure 13 – gable or hip roof - height is measured to midpoint between eave and ridge.

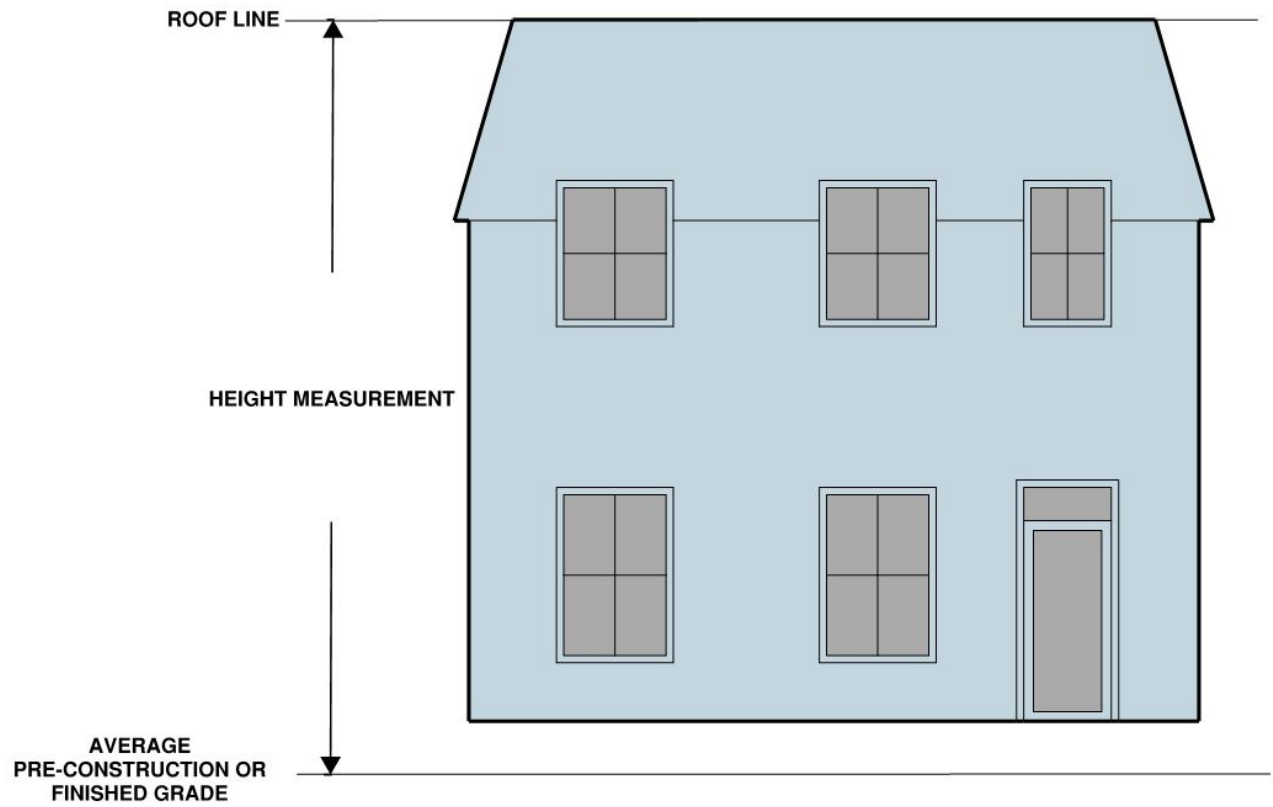


Figure 14 - mansard roof - height is measured to roof line

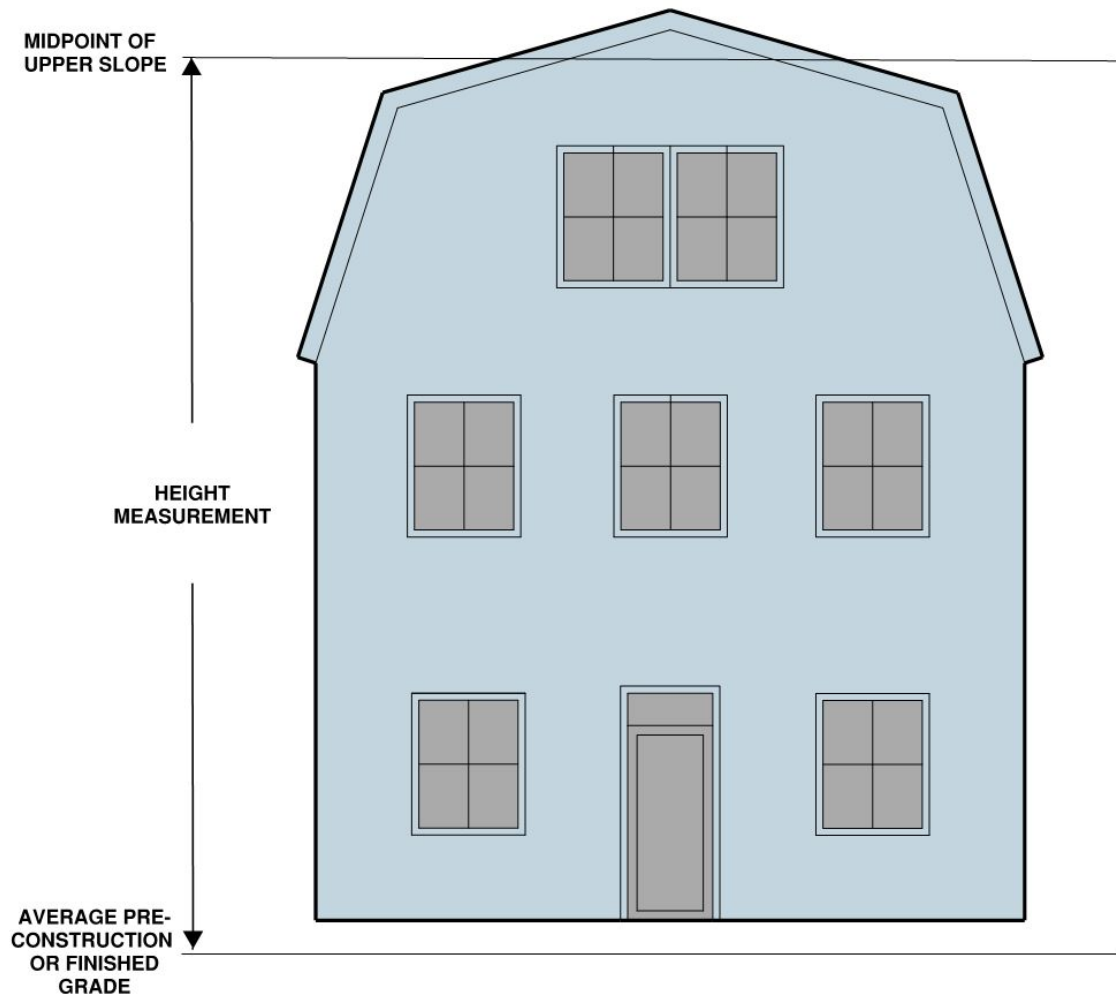


Figure 15 - gambrel roof - height is measured to midpoint of upper slope of the roof

Section 2-193 – Setback Ratio

The current definition of setback ratio sets the starting point for its height measurement from average *finished* grade. Because of this, it's possible that the height could be “artificially” lowered by raising the grade, reducing both the height measurement and required setback. In this case, the required setback would be smaller, but the actual height of the structure would not be lower. Staff proposes to replace average finished grade with average pre-construction grade to address this issue.

Sections 2-205 and 2-204 – Yards

The current front yard definition (section 2-205) is wordy and confusing. Staff proposes minor adjustments to the wording to simplify and add clarity. A graphic, figure 16, below, would also be added to section 2-204 (yard) to illustrate a sample property's yards.

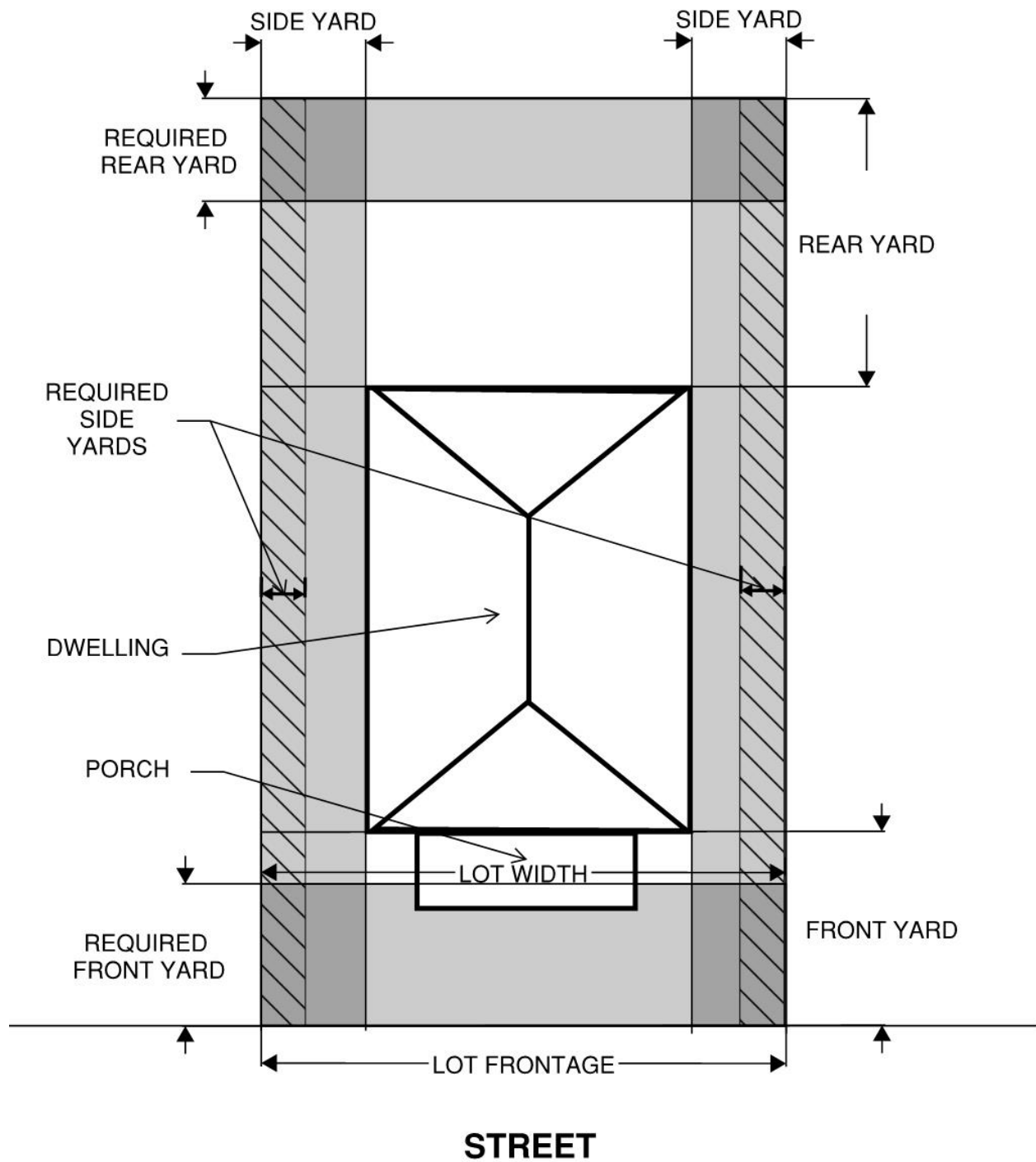


Figure 16 - Yards, Lot Width, Lot Frontage

Sections 2-541.1, 2-170.1 and 2-170.2 – Threshold Height, Lot Frontage and Lot Width

Staff also proposes the addition of new sections 2-154.1 to define threshold height, 2-170.1 to define lot frontage and 2-170.2 to define lot width. These are not new terms but were previously undefined. Lot frontage and width would be shown on the graphic found in section 2-204, above.

B. Infill Regulations

Staff recommends changes to maximum dwelling and front door threshold heights and front yard requirements (sections 7-2502 and 7-2503). Staff also proposes a new definition for block face (new section 2-122.1) and recommends establishing special exception relief for height (section 11-1302) for properties subject to Infill Regulations. Staff proposes to relocate these amended regulations to the bulk and open space subsections within each zone of Article III – Residential Zone Regulations.

Sections 7-2502 and 7-2503 – Block Face Criteria

The current block face criteria in sections 7-2502 and 7-2503 stipulate which dwellings to include when establishing the character and scale of a block. These sections are very complex and require significant staff time to implement and enforce.

Many blocks do not meet these criteria, and an appropriate block face must be determined through an administrative protocol pursuant to section 7-2502(C). Following this protocol can add several days of review time to a project. Because the block face cannot be determined without staff completing this administrative protocol, a subject property's front yard requirement and maximum dwelling and front door threshold heights cannot be determined without a staff determination, creating unpredictability in project planning for applicants.

Other processes in the Zoning Ordinance rely on a different definition of a block face in order to establish neighborhood character. Unlike these applications of block face, the block face defined by the Infill Regulations does not include properties on the opposite side of the street.

New Section 2-122.1 – Contextual Block Face

Staff proposes a new definition (section 2-122.1) titled contextual block face. The contextual block face would rely on the existing definition of abutting property (section 2-102) which is a well-understood term. It would include abutting properties that share the same street frontage or frontages. It would apply only to single or two-family dwellings within the R-20, R-12, R-8, R-5, R-2-5, and the RA and RB zones (not including property located within the Old and Historic Alexandria and Parker-Gray Districts).

Figures 17 and 18, below, show the properties that would be included to establish a contextual block face in blue.

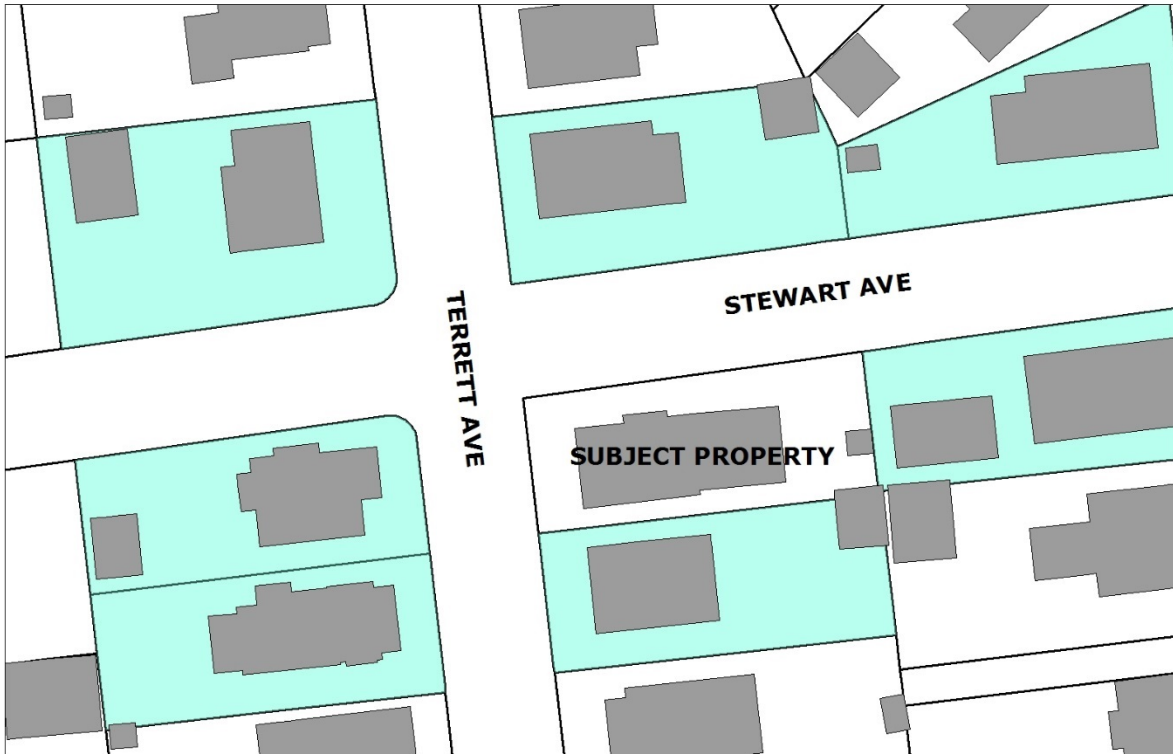


Figure 17 - Contextual Block Face for Corner Lot



Figure 18 - Contextual Block Face for Interior Lot

The contextual block face definition would replace the block face currently defined by sections 7-2502 and 7-2503 but would continue to establish neighborhood character to be used as the basis for a subject property's maximum dwelling and threshold heights and front yard requirement.

Because the contextual block face requires little to no staff interpretation, it would be easier for citizens to visualize the zoning parameters on a subject property. Because abutting properties experience the greatest impact of redevelopment of a subject property, it would follow that they should establish the bulk and open space regulations that would be imposed on a new dwelling or addition.

Section 7-2502 – Height in Line with Existing Development, Article III - New Dwelling Height Maximum, and Section 11-1302 – Special Exception Established

The building height regulations under section 7-2502 were intended to keep new dwellings and additions in scale and character with existing dwellings within a block face. However, staff experience has shown that the overall height limit may be too restrictive and that the block face average height may have inherent flaws in its measurements.

According to a study by the National Association of Homebuilders (NAHB), nine feet has replaced eight feet as the most common ceiling height for new single-family homes. The study shows that nine-foot ceilings have been more common since at least 2008. The study also found that close to 30 percent of new homes have 10-foot or higher ceilings. Staff also heard from local architects, builders and homeowners at the public meetings for this proposal that premanufactured floor joists are becoming more common. The data in the NAHB study also supports this trend. These floor joists are at least six inches deeper than traditional floor joists. Dwellings with open floor plans require thicker joists to support the span of the floor. Both increased ceiling heights and floor joist depths add to the overall height of a dwelling. While the individual numbers aren't significantly larger, cumulatively they can add up to five additional feet of height to a two-story dwelling. Figure 19, below, shows a dwelling with lower ceilings and narrower joists. The figure in this dwelling also shows the dimensions which the Infill Task Force used in 2008 to illustrate that a two-story dwelling could be constructed following the 25-foot height limit. Figure 20 illustrates a dwelling with today's standard ceiling heights and wider floor joists.

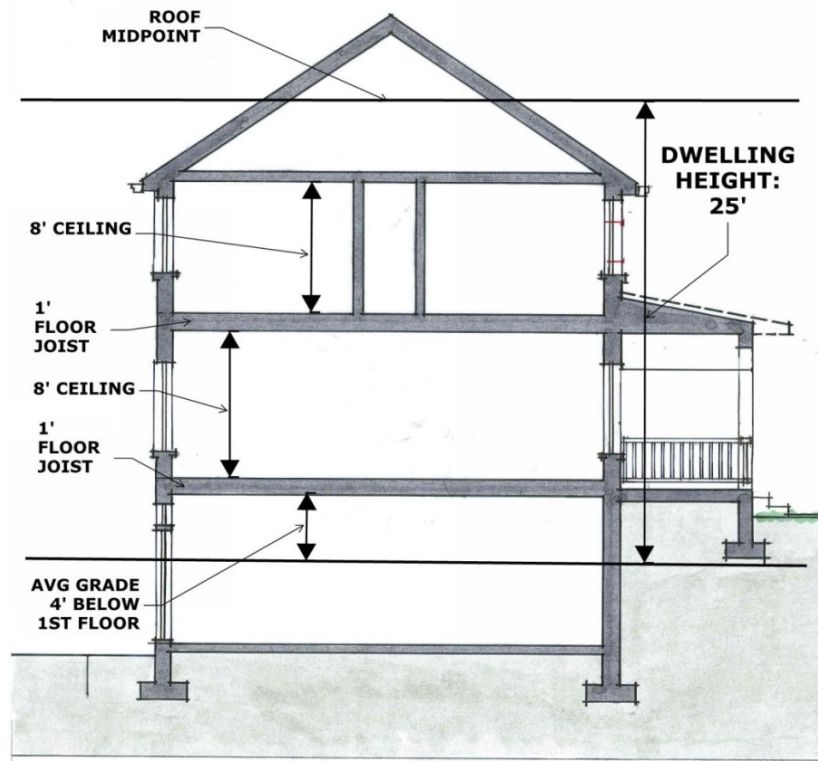


Figure 19 – Traditional Dwelling

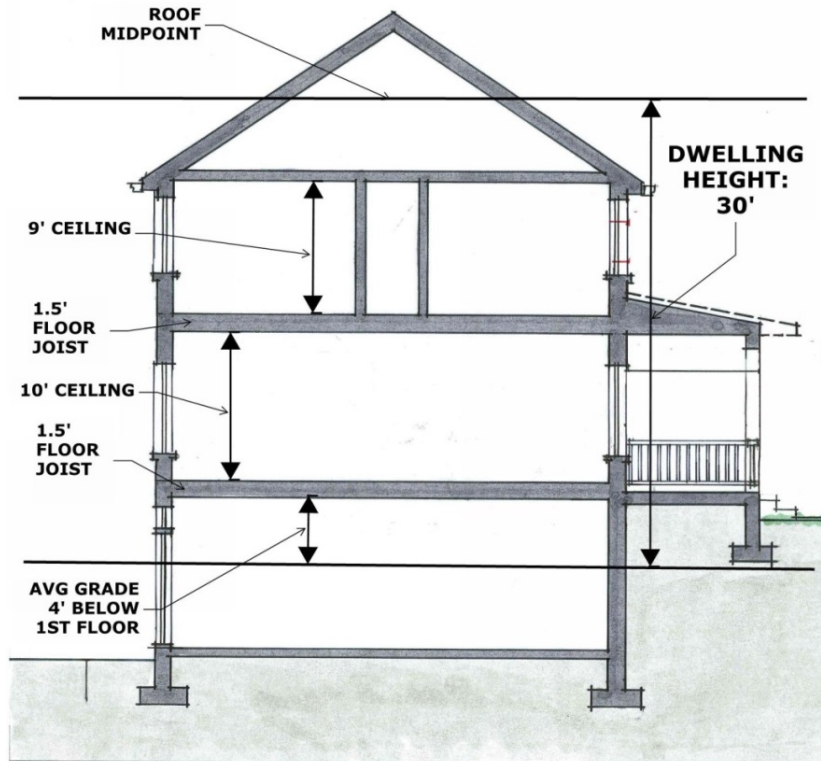


Figure 20 – New Dwelling Reflective of Current Construction Trends

Since its 2008 implementation, staff has received comments from many of Alexandria's homeowners, architects and builders that the height regulations are too restrictive, particularly in how they limit design flexibility both in constructing new dwellings and additions to existing dwellings. In the public meetings held by staff ahead of this report and past text amendments, participants felt that construction of a two-story dwelling, even those with ceilings lower than today's standard ceiling heights, limited the design of the roof.

Based on this feedback, staff explored what was perceived to be an overabundance of new, two-story dwellings constructed with uncharacteristically low-pitched roofs. It was originally thought that floor area regulations were encouraging architects to design these lower pitched roofs in order to exclude the attic space from floor area. However, upon review of new dwellings constructed between 2016 and 2018, staff found that these lower pitched roofs were constructed that way not to avoid attic floor area but to comply with the height regulations.

Staff has also found a flaw in the mechanics of average height measurement used for dwellings within a block face. The Zoning Ordinance defines a block face's average height as measured along the front of the dwellings only. It does not capture sloping topography along the perimeter (average grade) of dwellings within a block face. Despite this, the average height sets the maximum height for the subject property which is measured from average grade and *does* require the topography around the perimeter of the dwelling to be considered. Figures 21 and 22 illustrate this issue with the subject property shown on the right. Figure 22 shows the significant change in topography of the subject property. Although this condition is shared by the property shown on the left in Figure 21 and other dwellings in the block face, as mentioned previously, the average height calculation does not take this into account.

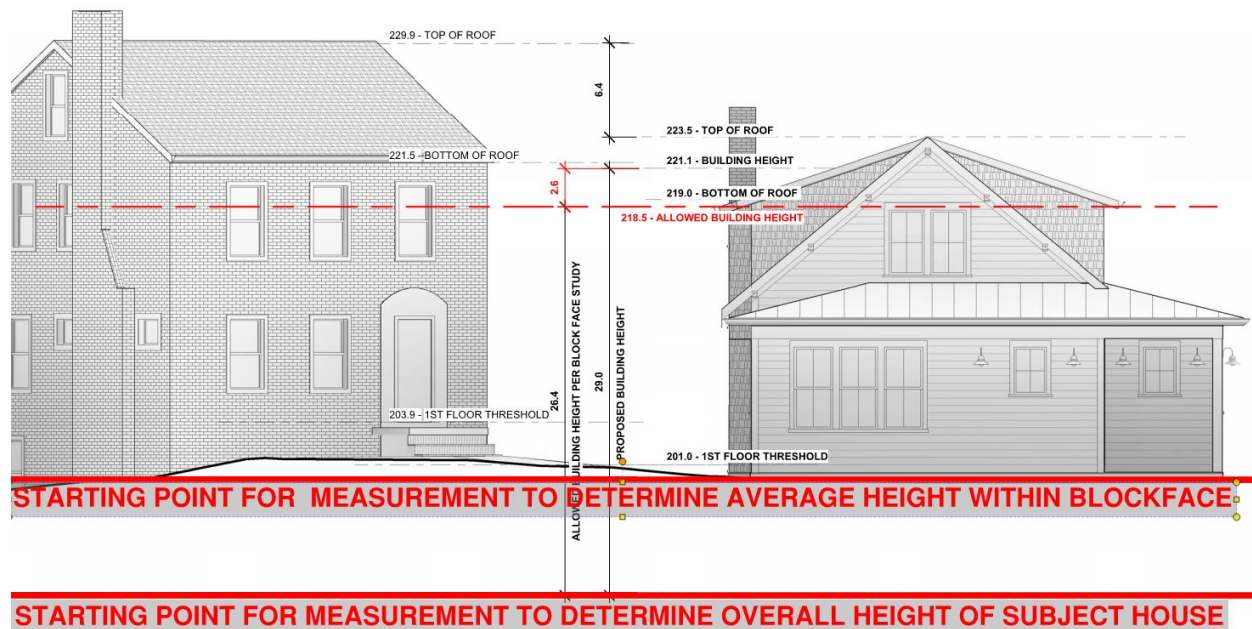


Figure 21 - Block Face Height Measurement and Subject Property Height Measurement

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Height and Front Setback Regulations

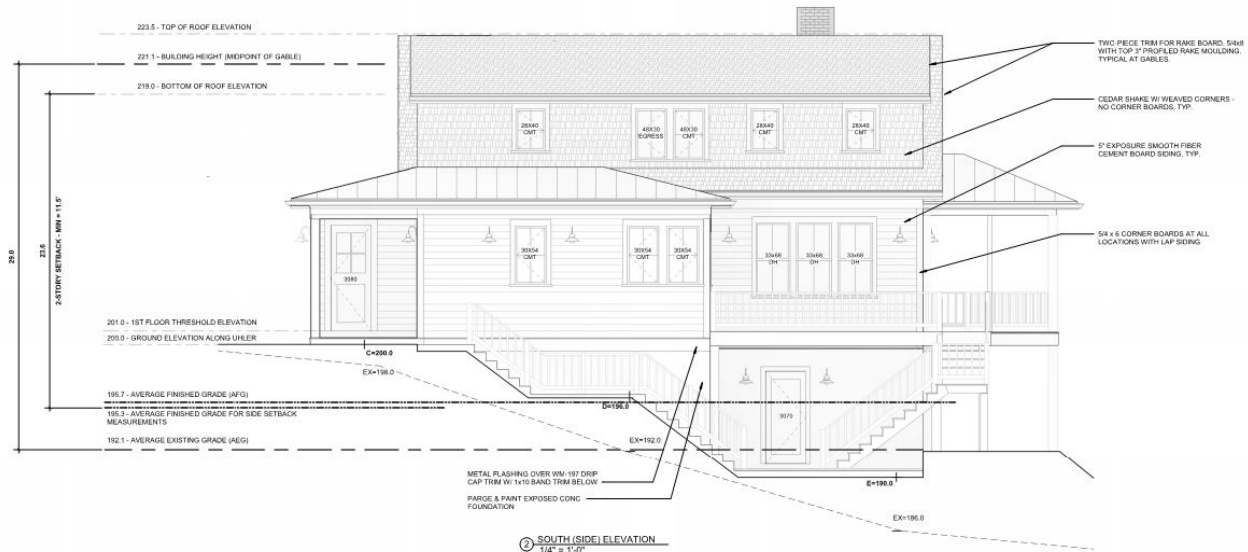


Figure 22 – Side Elevation of Subject Property from Figure 14, above

The 2008 Infill staff report included an analysis of height data collected by the City surveyor. The surveyor measured the height of all dwellings on nine City blocks in different parts of the City. Even though the maximum dwelling height prior to the 2008 Infill Regulations was 35 feet, of all 88 dwellings surveyed, only eight were taller than 25 feet. For this report, staff also analyzed the heights of 1,280 dwellings within the City, many of them constructed prior to the 2008 Infill Regulations. The average height of all dwellings was 23.6 feet. A number of conclusions could be drawn from these analyses, however, staff feels that these data show that the Zoning Ordinance's other controls of mass and bulk (floor area and setback ratio), which have been in effect for over 50 years, control dwelling height to a large degree. A dwelling's height is quite dependent on the size of the lot on which it's located due to setback ratio and floor area requirements. A taller dwelling would be required need to be located on a larger lot and provide larger side and rear setbacks. With the aforementioned recommended changes to the setback ratio, it becomes a stronger tool to capture the height of taller dwellings and requiring them to be located further away from immediately adjacent neighbors.

It is also important to remember that prior to the 2008 Infill Regulations, the floor area requirements were much less stringent. Prior to 2008, any floor area in a dwelling with a ceiling height of less than seven and one-half feet could be excluded. The Infill Task Force identified that dwellings which capitalized on this exclusion were the primary focus of its study because they were excessively large and out of scale with surrounding neighborhoods. This exclusion was removed in 2008 and the floor area regulations were adjusted further in a text amendment approved by City Council in February 2018 to better enable floor area ratio (FAR) to accurately capture a building's actual size.

Staff proposes increasing the overall dwelling height for properties currently subject to the Infill Regulations from 25 feet to 30 feet. With this minor increase in the height requirement, staff intends to allow more flexibility to Alexandria's homeowners not only by fine-tuning the regulations to keep up with current construction trends, but also removing unnecessary

regulatory barriers that limit dwelling design. At the public meetings, some participants mentioned that, under the proposed increased height regulations, homeowners could construct dwellings with even taller ceilings, electing not to construct roofs with steeper pitches. Staff explored establishing ceiling height maximums and minimum roof pitch requirements to address this issue but felt that both options were too restrictive or overly complicated.

Staff feels that the Zoning Ordinance's setback requirements offer strong protection to neighbors from the impact of taller dwellings. Staff does not feel that an additional five feet of height would have a large impact on neighbor character and scale, however, existing floor area regulations also strongly limit a dwelling's mass.

Staff recommends deletion of Section 7-2502 in its entirety. Maximum dwelling heights would be placed into each of the applicable residential zones within Article III of the Zoning Ordinance. The height of adjacent dwellings would only be applicable for homeowners seeking to construct dwellings taller than 30 feet. Details on this process can be found in the next paragraph.

Section 11-1302 – Special Exception for Height

Staff recommends authorizing the BZA to grant a special exception in limited cases for height exceeding 30 feet. The dwelling height shall not exceed the tallest dwelling within the contextual block face plus 20 percent. To solve the measurement flaw in the existing block face height determination, dwelling height would be measured from average pre-construction grade along the front of the dwelling only. Regardless of the height established by the contextual block face, the dwelling would not be eligible to request special exception approval if the proposed height would be more than 35 feet.

The Infill Task Force originally explored creating a special exception process for additional height. Task force members who supported the SUP option for additional height thought that it would encourage property owners to meet the strict standards of the regulations rather than go through an uncertain public process. Members who supported the special exception option thought that the BZA would be the more appropriate body to consider increased height, as the same body is already charged with hearing similar kinds of zoning exception cases for single and two-family properties.

With one case over the last ten years, when 161 new dwellings and numerous additions were constructed, staff feels that the SUP process may be too burdensome for a single-family project; adding significant time and expense to any given project. The special exception process has a shorter timeframe from application submission to decision date and has a lower filing fee than the SUP process. Also, BZA cases follow the same noticing requirements as SUP's heard by the Planning Commission so public involvement would not be reduced.

Section 7-2503 – Residential Front Setback and Front Door Threshold in Line with Existing Development and New Front Setback Based on Contextual Block Face

The front setback regulations intend to preserve neighborhood character by controlling the relationship between houses and the street. Requiring new houses to conform to a uniform or average front setback ensures that development is appropriately compatible with the surrounding neighborhood. Houses constructed at a uniform front setback provide a cohesive feeling.

While the current regulations are well intended, several issues prevent successful implementation and desirable development. Many City blocks lack a uniform front setback. These blocks contain a variety of front yard setbacks without an established majority. These can create an unworkable or undesirable required front setback for a subject property.

Section 7-2503 requires new dwellings to be built exactly at the average front setback. On blocks without uniform front setbacks, this build-to requirement can create construction difficulties due to topography, lot shape and size, trees and other factors. The build-to requirement can also locate a new dwelling out of line with its immediate neighbors. On blocks without a uniform front setback, the numerical average often sites a new dwelling with a front setback that doesn't match any of the dwellings' existing front setbacks. Often, block faces do contain several dwellings with a uniform front setback but don't make up the majority of dwellings. As such, new dwellings and additions would be set by the average and not the existing uniform front setback, even if the dwellings which establish this uniformity include the subject property's immediate neighbors.

Staff also proposes amendments to the current front door threshold height regulations. Upon review of threshold height data which included a sample of over 1,200 dwellings, staff found that the average front door threshold is approximately three feet in height. Based on this, staff proposes to establish a minimum allowable threshold height of two and one-half feet. Applicants may also measure the threshold heights of dwellings within the block face. The applicant could then construct a dwelling with a threshold height as tall as the tallest threshold height in the contextual block face.

Staff proposes to delete section 7-2503 in its entirety. Regulations for maximum dwelling and threshold heights and minimum front yard requirements should be easily accessible within the "Bulk and Open Space" requirements of the individual residential zones. Too frequently, applicants overlook the Infill Regulations because they are not listed under or referenced in the individual zones.

New Front Setback Established by Contextual Block face

Staff proposes two changes to front setback requirements in this text amendment. The first proposal amends the current single-family front yard requirements for houses within the R-5 (section 3-406) and R-2-5 (section 3-506) zones. Staff experience and front setback data collected from over 1,200 dwellings show that current front yard requirements do not match the built environment. Figure 23 below shows the current and proposed minimum front yard requirements.

Figure 23 – Zone Front Yard Requirements

Zone	Current front yard setback	Proposed Front Yard Setback
R-5	25 Feet	20 Feet
R-2-5	25 Feet	20 Feet

Staff's second proposal regarding front yard setback requirements is to establish a new front yard requirement based on a subject property's contextual block face. Under this proposal, the front

yards of dwellings within the contextual block face establish a range for the subject property's required front setback. Development on a subject property must provide a minimum front yard of at least the smallest front setback of dwellings within the block face. Development on a subject property must not provide a greater front yard than the dwelling with the largest front setback within the block face. Further, if the greatest front setback, including the subject property, is greater than the Zoning Ordinance's minimum front yard requirements in Article III, the subject property shall provide at least the zone's minimum front yard requirement.

Figures 24, 25 and 26 illustrate the proposed rule.



Figure 24 - Corner Lot: the dwellings with front yards facing Terrett Avenue establish the subject property's minimum and maximum depth of the front yard facing that street

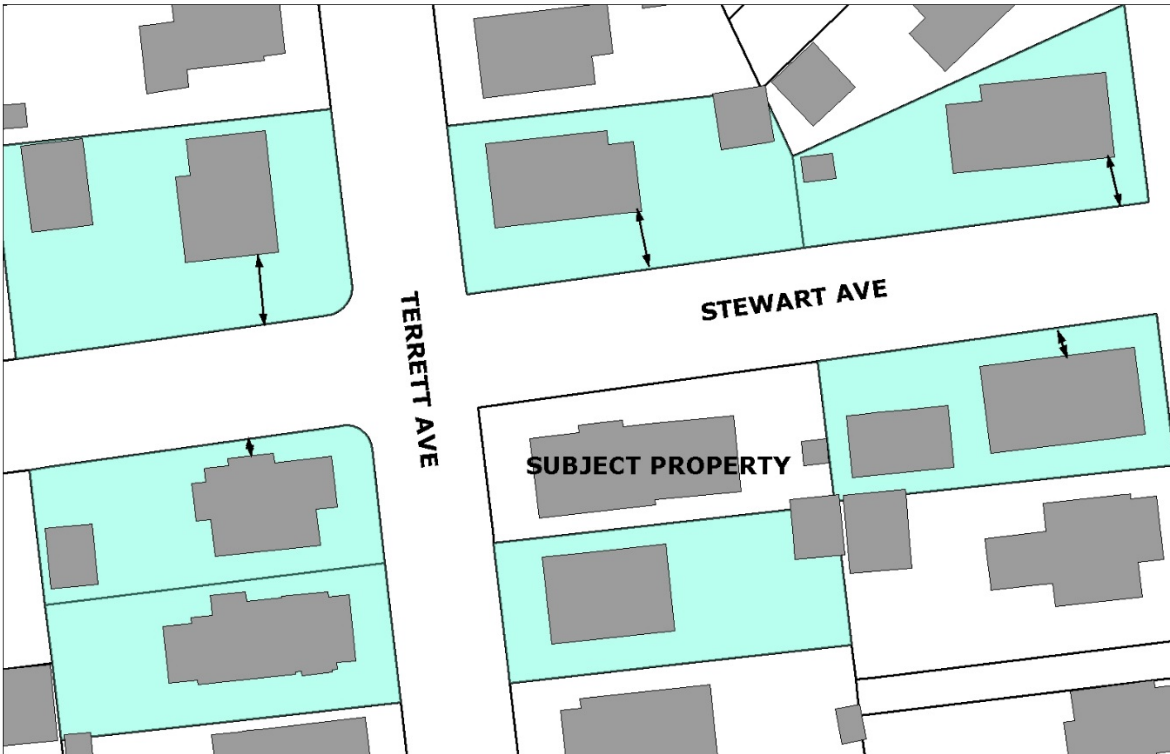


Figure 25 - Corner Lot: the dwellings with front yards facing Stewart Avenue establish the subject property's minimum and maximum depth of the front yard facing that street.



Figure 26 - Interior Lot

Under this rule, staff proposes that new dwellings could be constructed within the range established and not at a specific build-to location like the current rule. It would maintain uniform block faces where they exist and encourage uniformity on irregular block faces. In the case of additions to existing dwellings which provide a greater

C. Section 6-403 – Height Districts – General Regulations and Exceptions

Staff proposes amendments to section 6-403 to allow additional flexibility for structures that support the use of rooftops as recreational or open spaces. Under this proposal, stairs, elevators, roof decks and required railings, all meeting certain criteria, would be permitted regardless of the otherwise applicable maximum height limits. Staff also proposes to increase the number of penthouses permitted without Special Use Permit approval from one to three.

V. Recommendation

Staff recommends that these proposed amendments take full effect six months after the date of adoption by City Council. Projects submitted during this timeframe could be reviewed under either the current or proposed regulations (in whole only, not in part). With this provision, staff recommends initiation and approval of the text amendments.

Staff: Mary Christesen, Zoning Manager, Department of Planning and Zoning
Tony LaColla, AICP, Division Chief
Sam Shelby, Urban Planner
Ashley Smith, Urban Planner

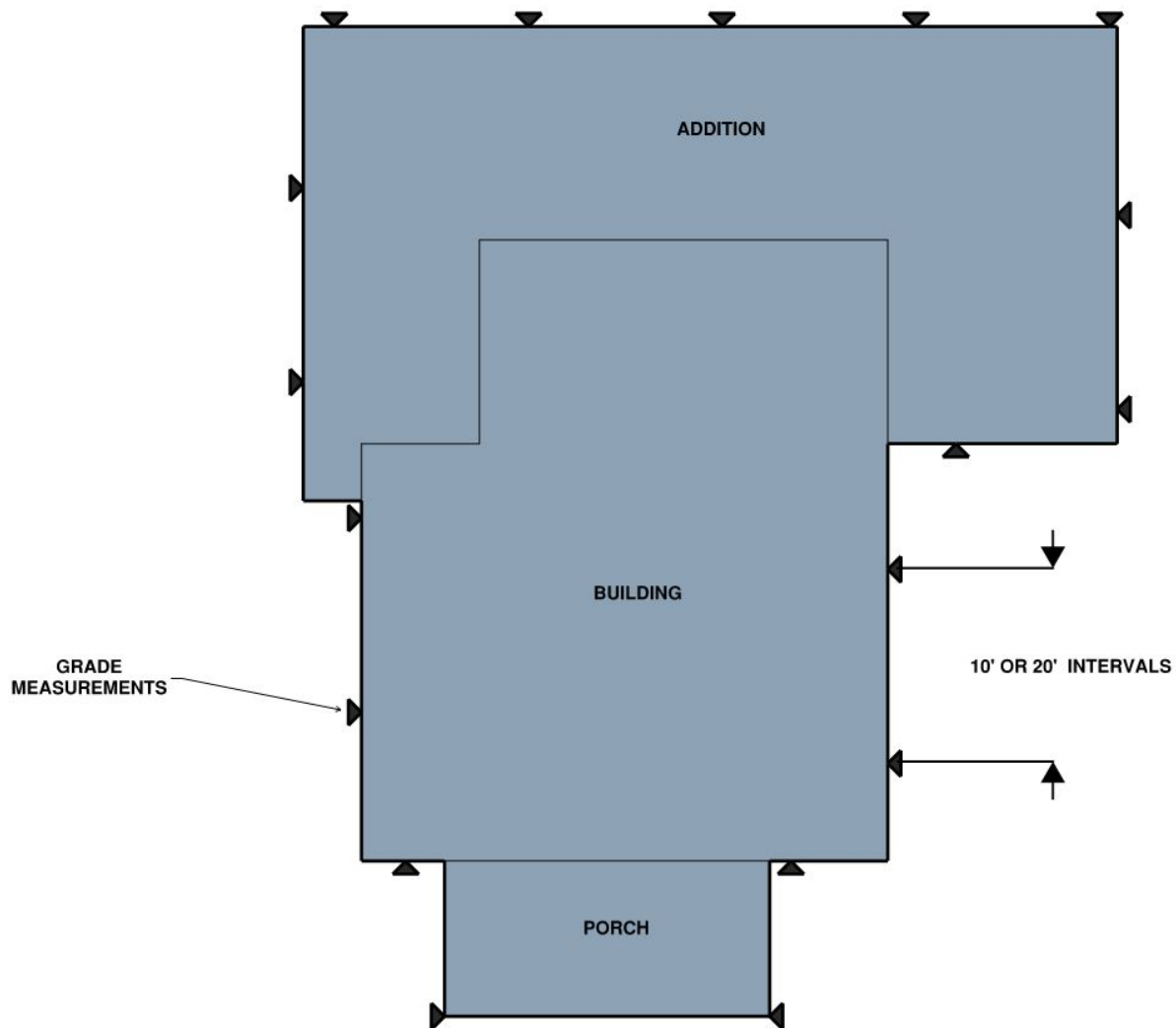
VI. Proposed Text Changes

Note: New text is underlined

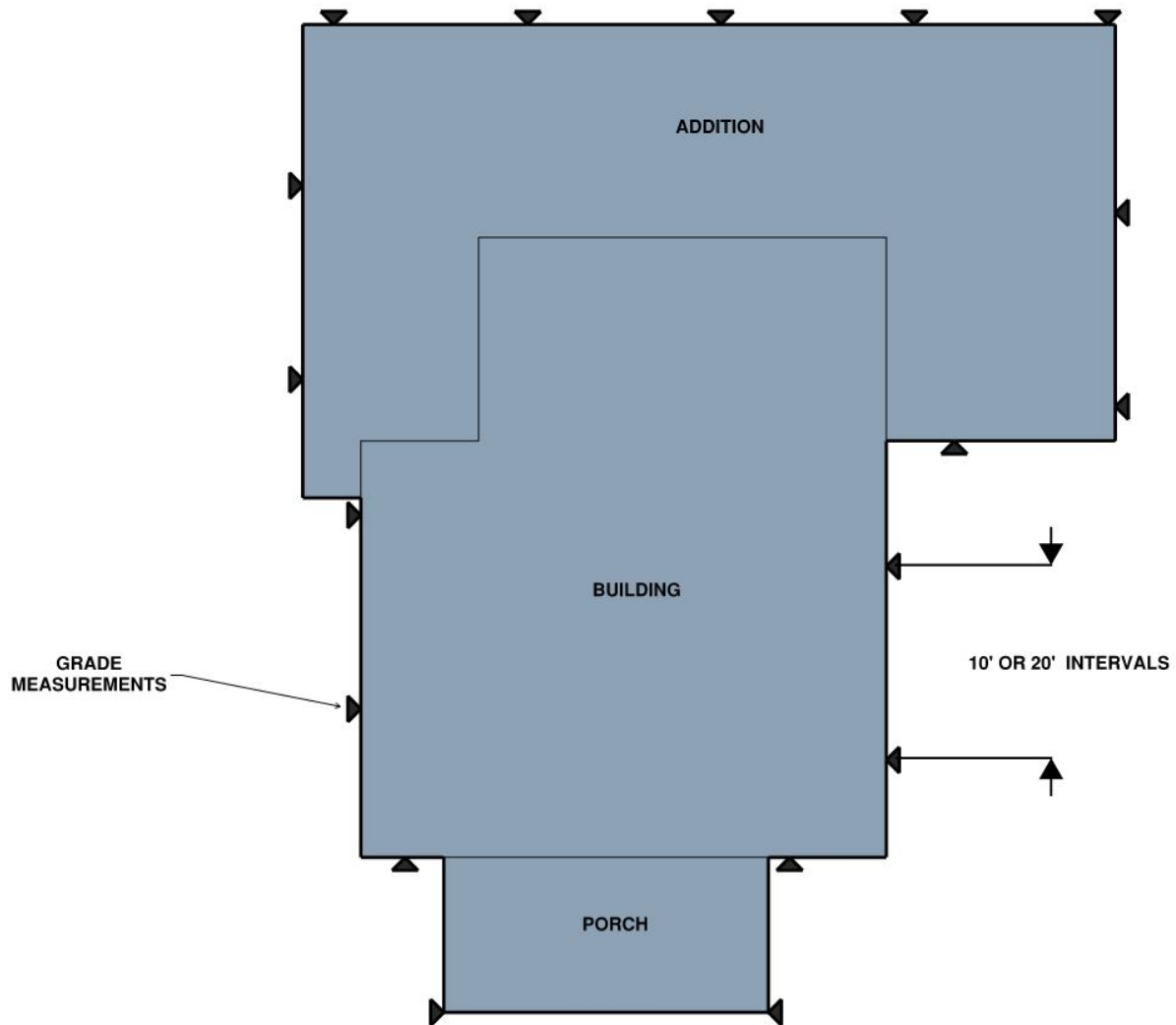
~~Deleted text is shown with a strikethrough~~

Article II – Definitions

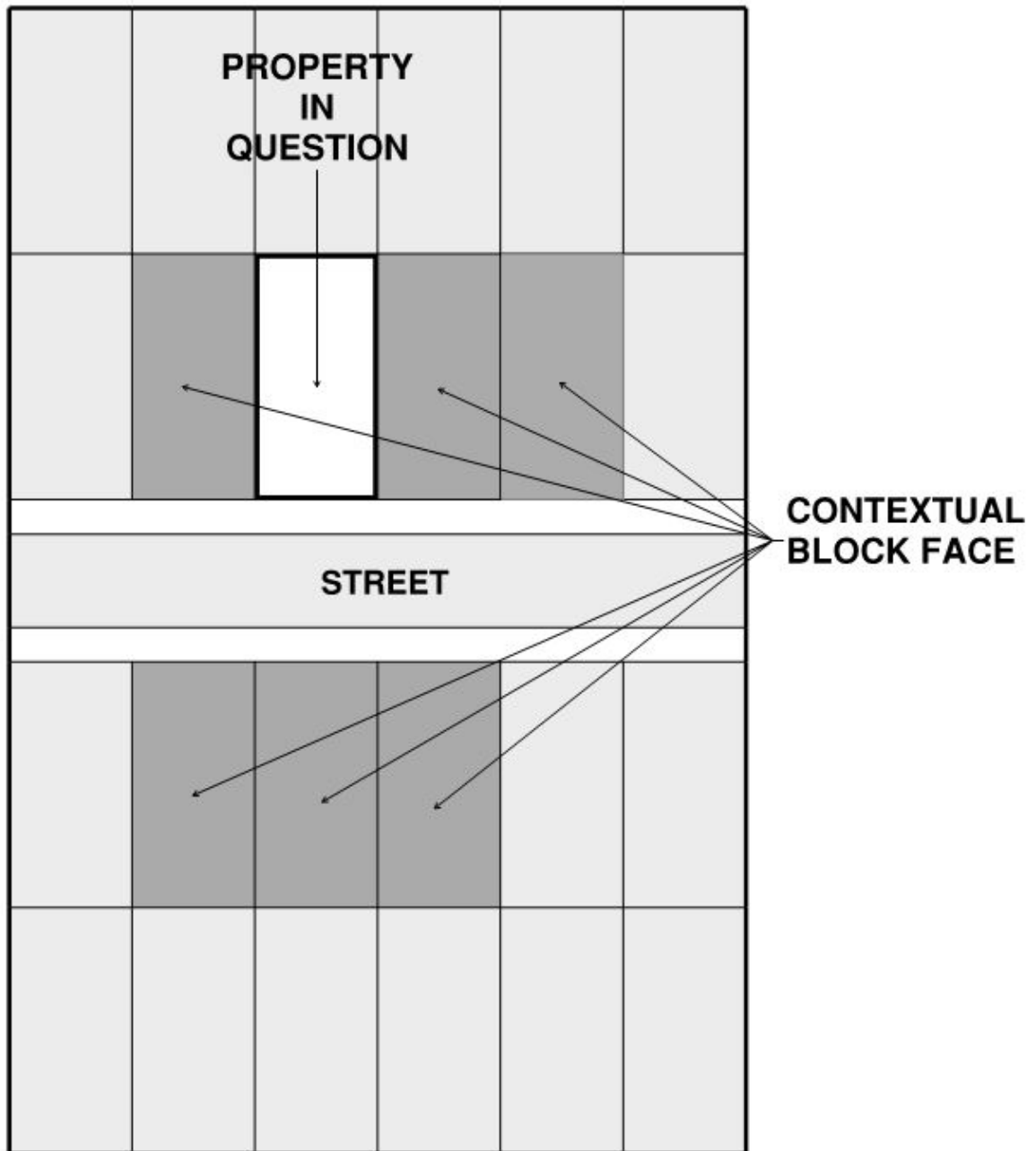
2-119 - Average finished grade. The elevation obtained by averaging the finished ground surface elevation at intervals of ~~10~~20 feet at the perimeter of a single, two-family or townhouse dwelling building, and intervals of 20 feet at the perimeter of any other building.

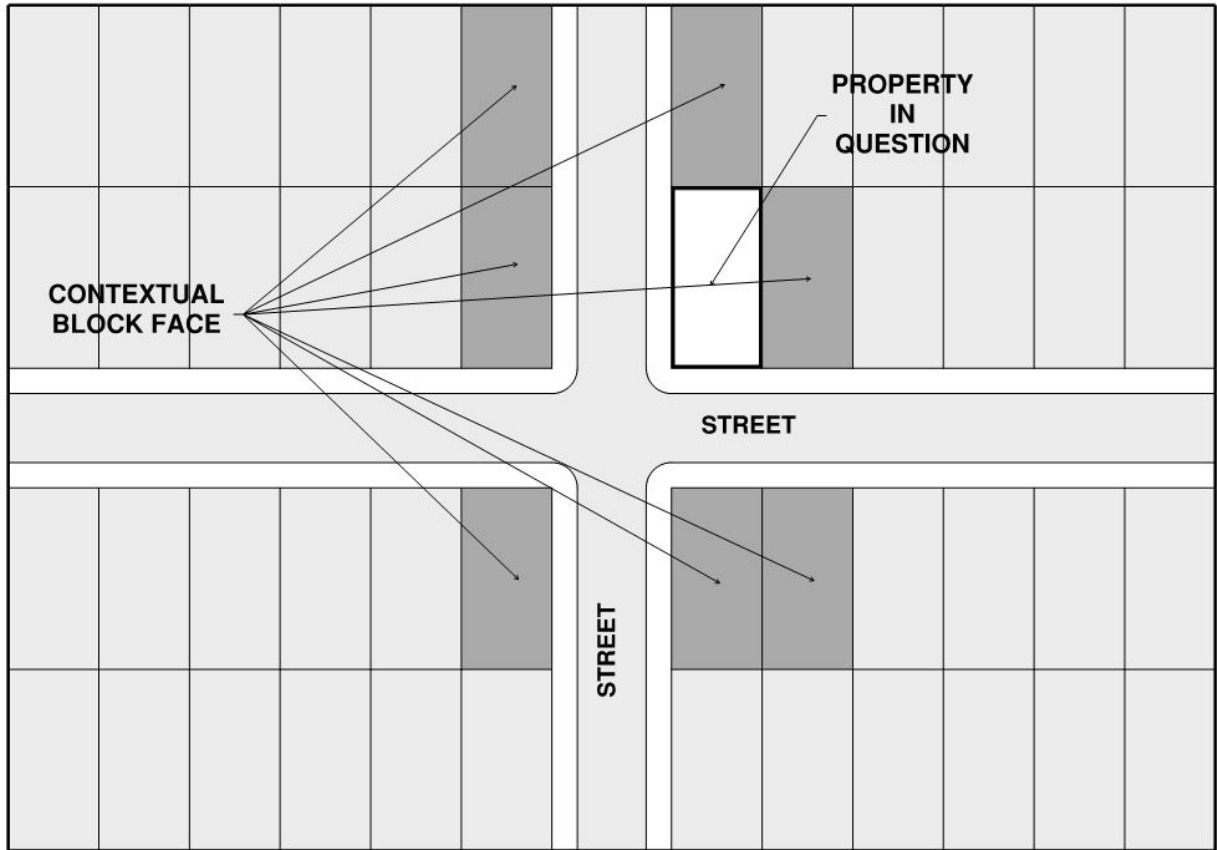


2-119.1 - Average pre-construction grade. The elevation obtained by averaging the ground surface elevation at intervals of ~~10~~20 feet at the perimeter of a proposed single, two-family or townhouse dwelling building and intervals of 20 feet at the perimeter of any other building ~~building~~ prior to construction.



2-122.1 – Block face, contextual. Abutting properties developed with single or two-family dwellings that share a common street frontage or frontages with the property in question.

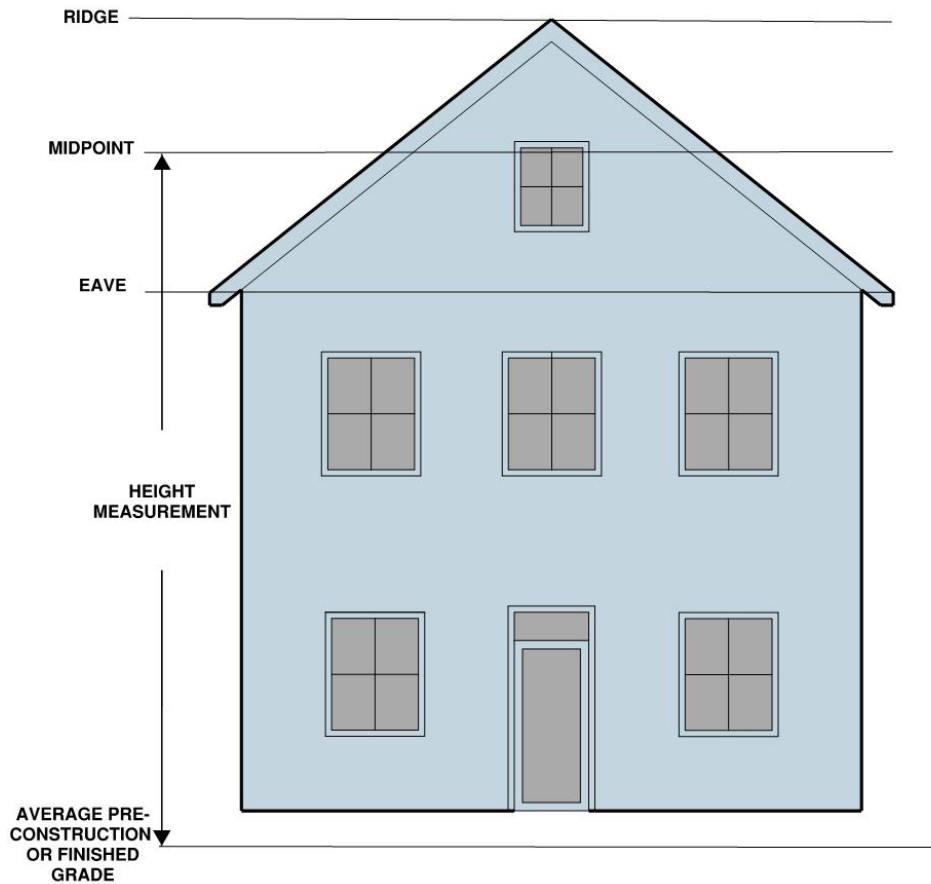




2-154 - Height of building. The vertical distance measured from average finished grade to the highest point of the building, except that:

(A) Gable or hip roof.

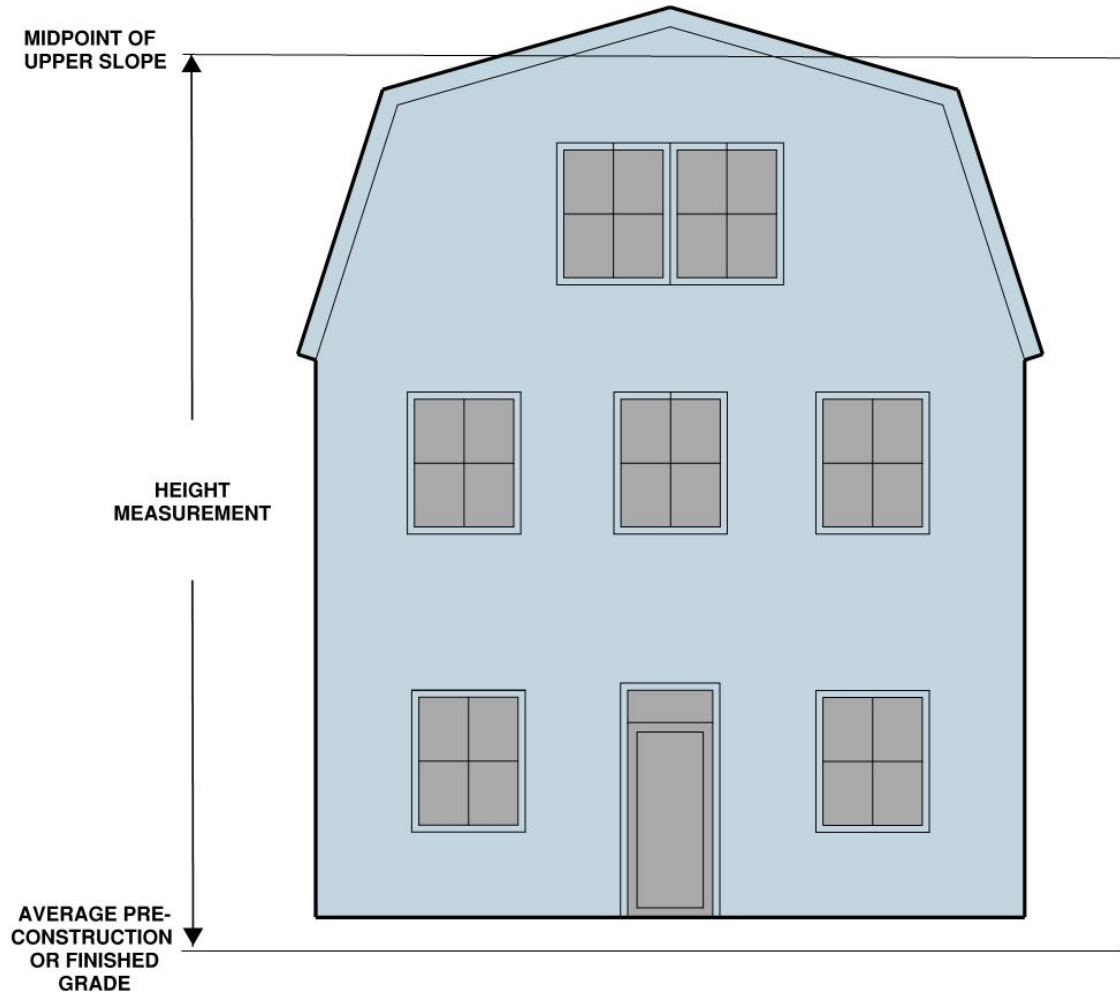
(1) —In the case of a gable or hip roof, height shall be measured to the midpoint between the eaves and the ridge.



~~(2) For purposes of establishing the setback ratio on the gable end of a building with a gable roof, height shall be measured to the midpoint between the eaves and the ridge.~~

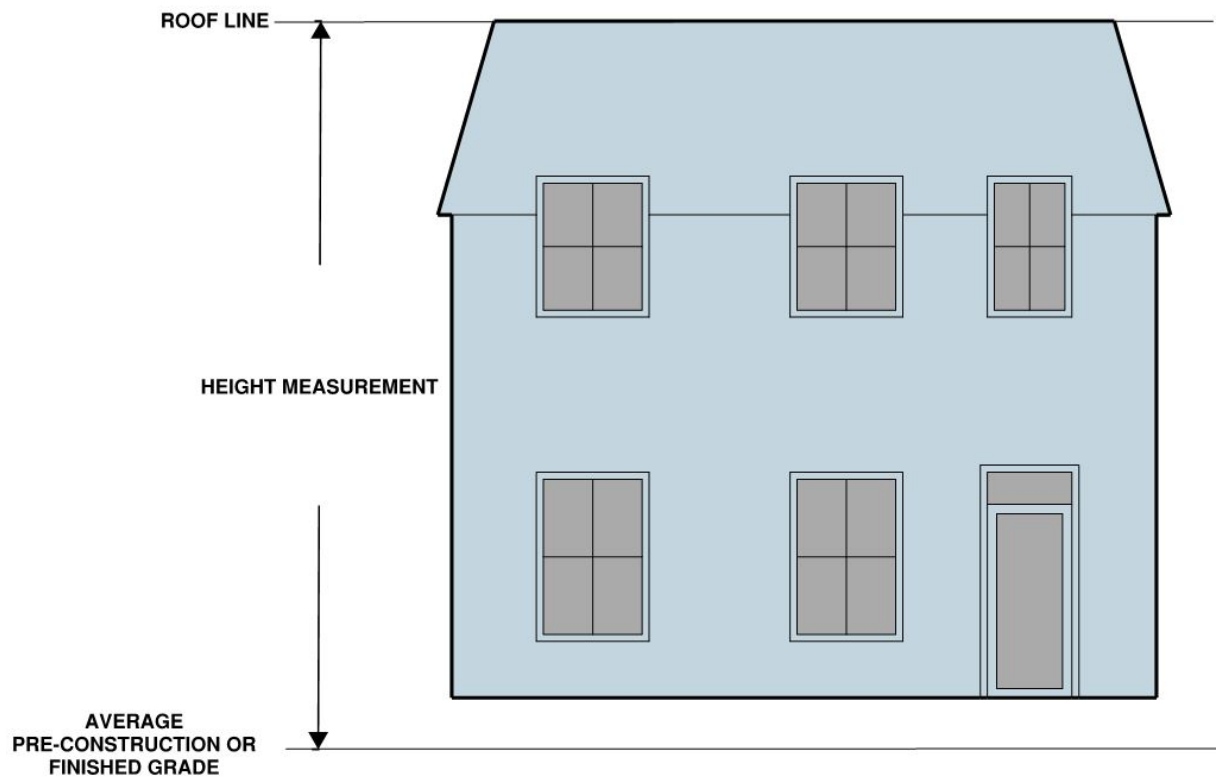
(B) Gambrel roof.

~~(1)~~—In the case of a gambrel roof, height shall be measured to the midpoint of the upper slope of the roof.

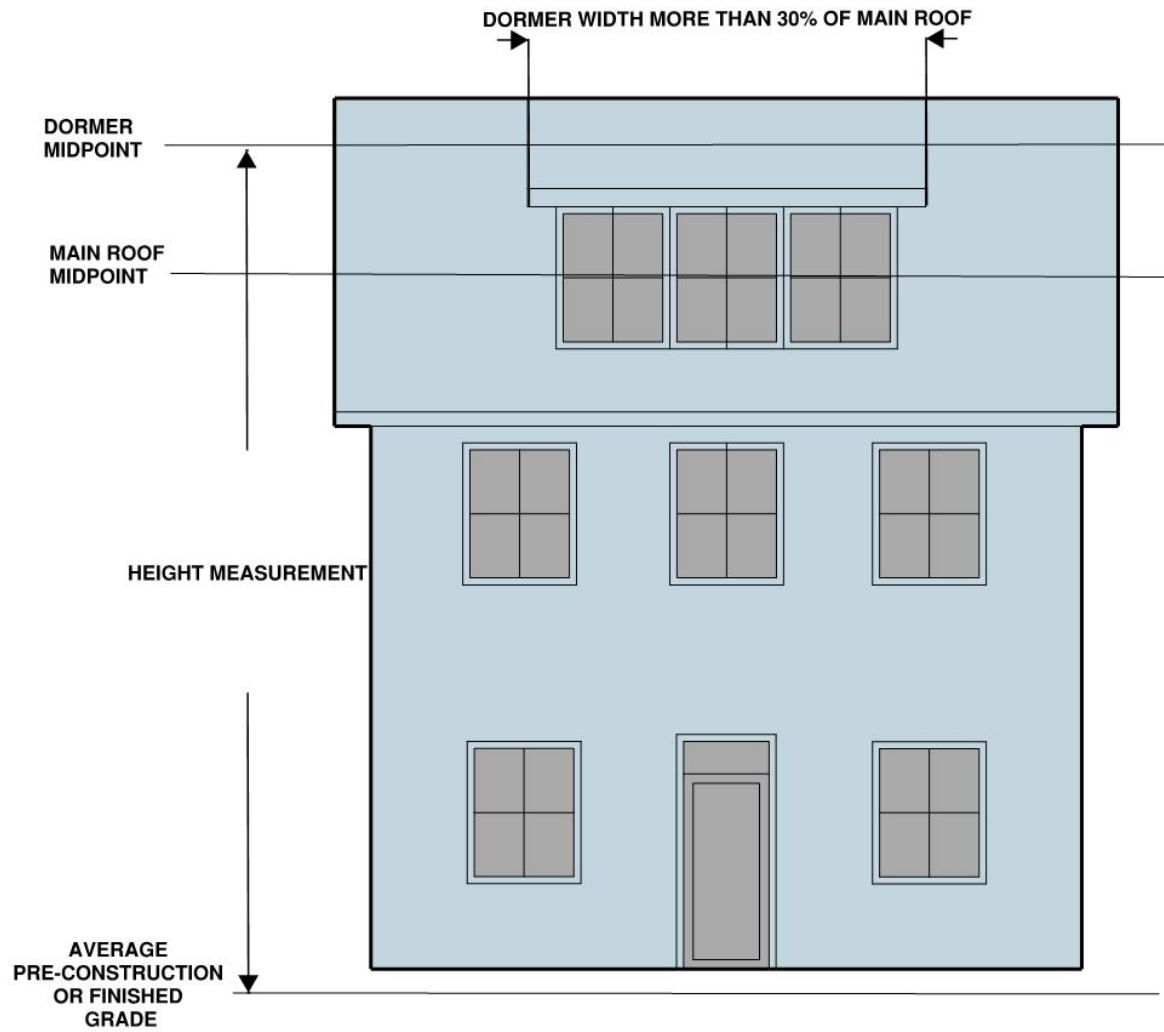


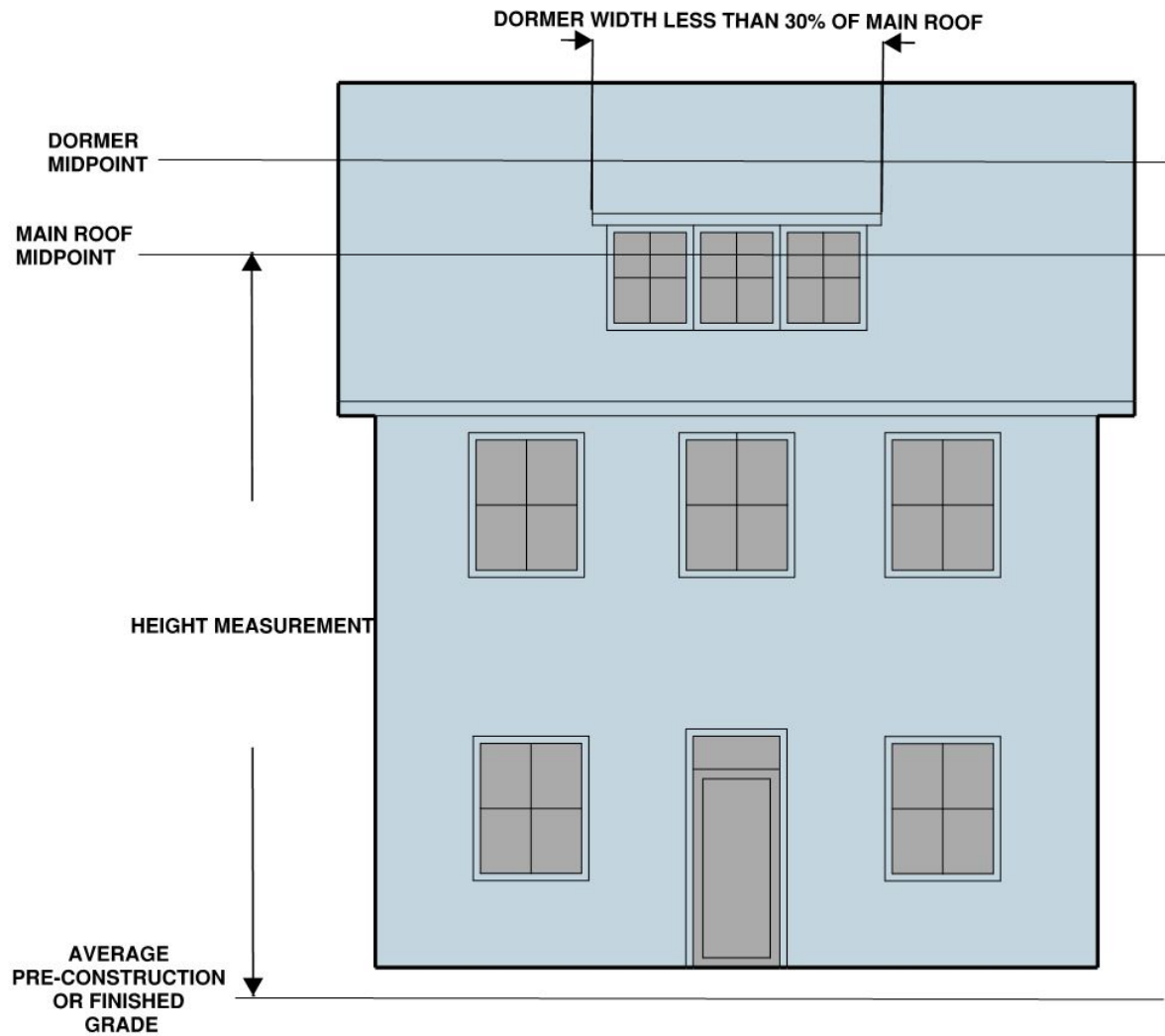
- (2) ~~For purposes of establishing the setback ratio on the vertical end of a building with a gambrel roof, height shall be measured to the point where the upper slope and the lower slope of the ridged roof meet.~~

- (C) Mansard roof. In the case of a mansard roof, height shall be measured to the roof line.



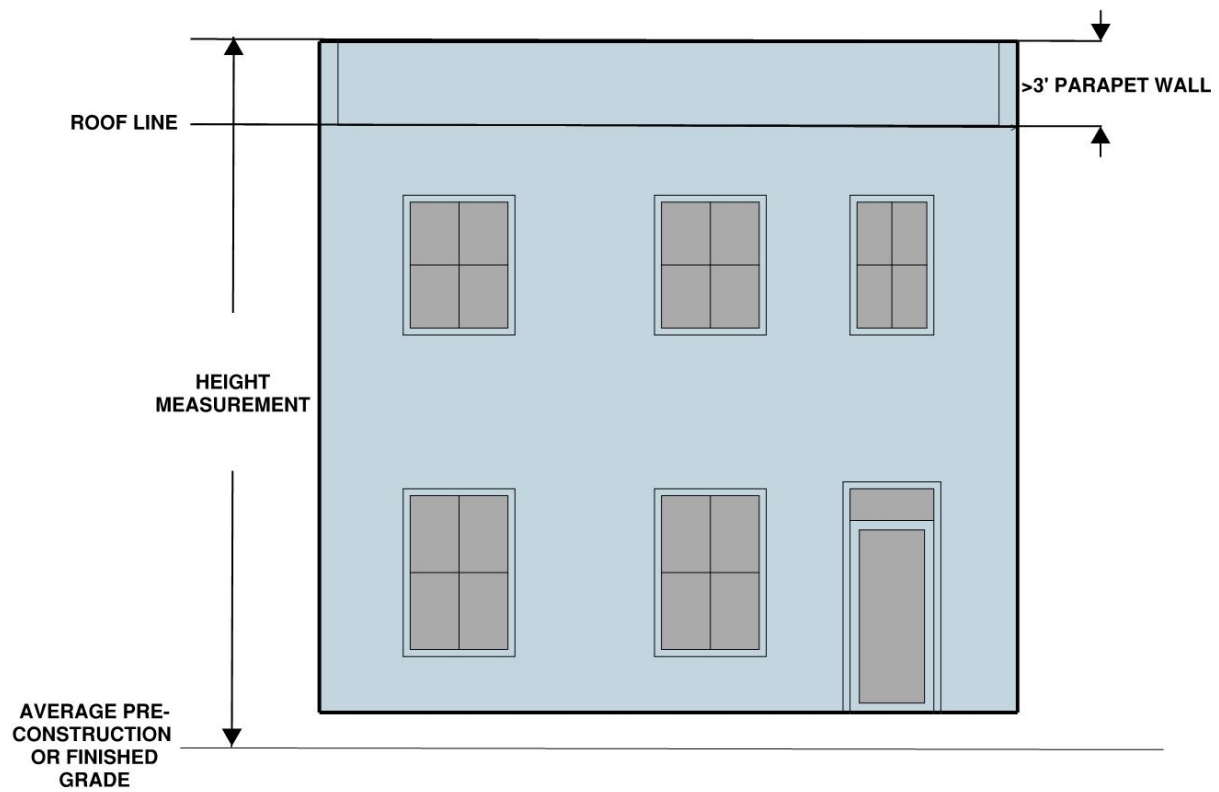
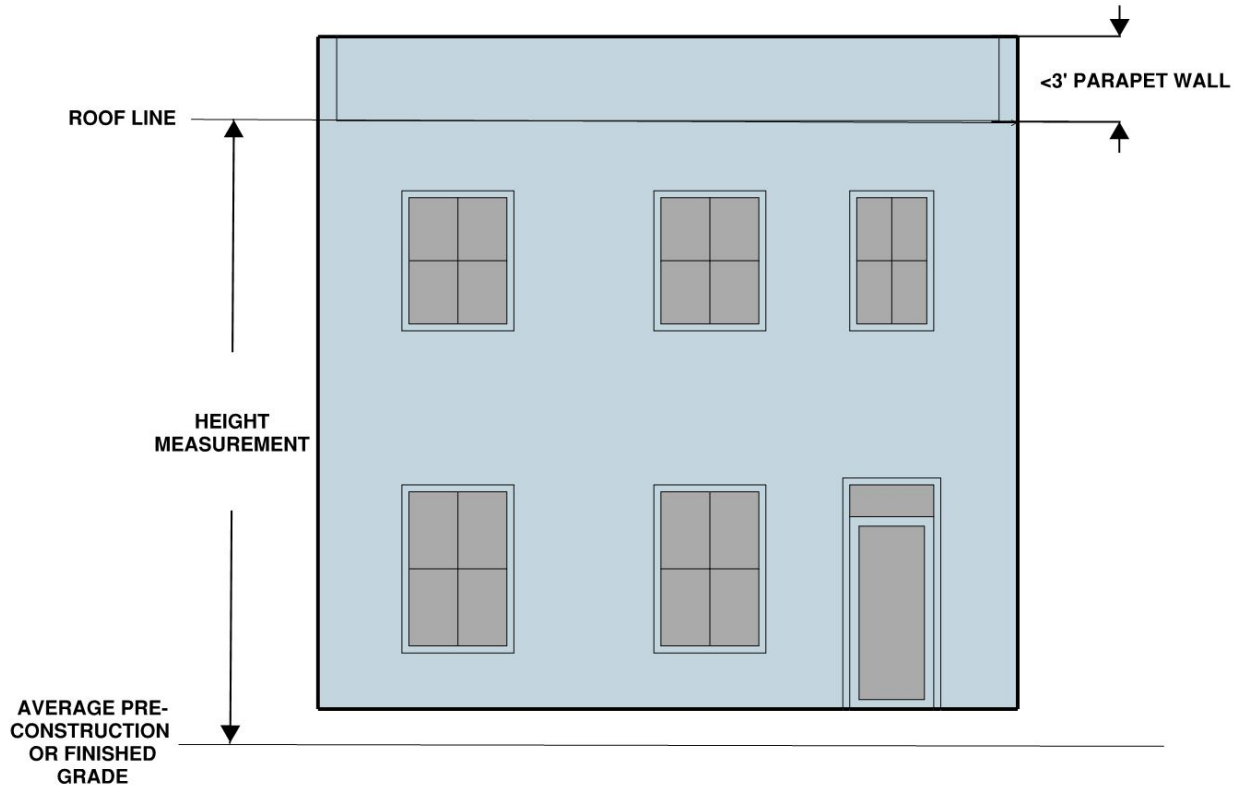
- (D) Dormers. In the case of dormers, height shall be measured to the midpoint between the dormers eaves and the ridge. For buildings in the R-20, R-12, R-8, R-5, R-2-5, and single-family and two-family dwellings in the RA and RB zones, not including property located within the Old and Historic Alexandria and Parker-Gray Districts, height shall be measured to the midpoint of the dormers if the total width of all dormers is more than 30 percent of the horizontal width of the roof.





(E) In the case of a flat roof with a parapet wall which is three feet in height or less, the highest point shall be the roof line;

Text Amendment #2018-0011
Height and Front Setback Regulations



- (~~FE~~) In the case of a building with ten feet or less horizontal distance between the building setback line and the right-of-way line, height shall be measured from the average finished grade or the curb grade, whichever is less;
- (~~GF~~) For ~~a~~ buildings in the R-20, R-12, R-8, R-5, R-2-5, and single-family and two-family dwellings in the RA and RB zones (not including property located within the Old and Historic Alexandria and Parker-Gray Districts), height shall be measured from the average pre-construction grade, ~~or average finished grade, whichever is lower; and~~
- (~~HG~~) For treatment of rooftop appurtenances, church steeples, reception or transmission structures, noncomplying buildings and structures, lighting for congregate recreational facilities and dog parks and roof decks and guards, chimneys, flagpoles, steeples, antennas, roof decks, and mechanical penthouses, see section 6-403.

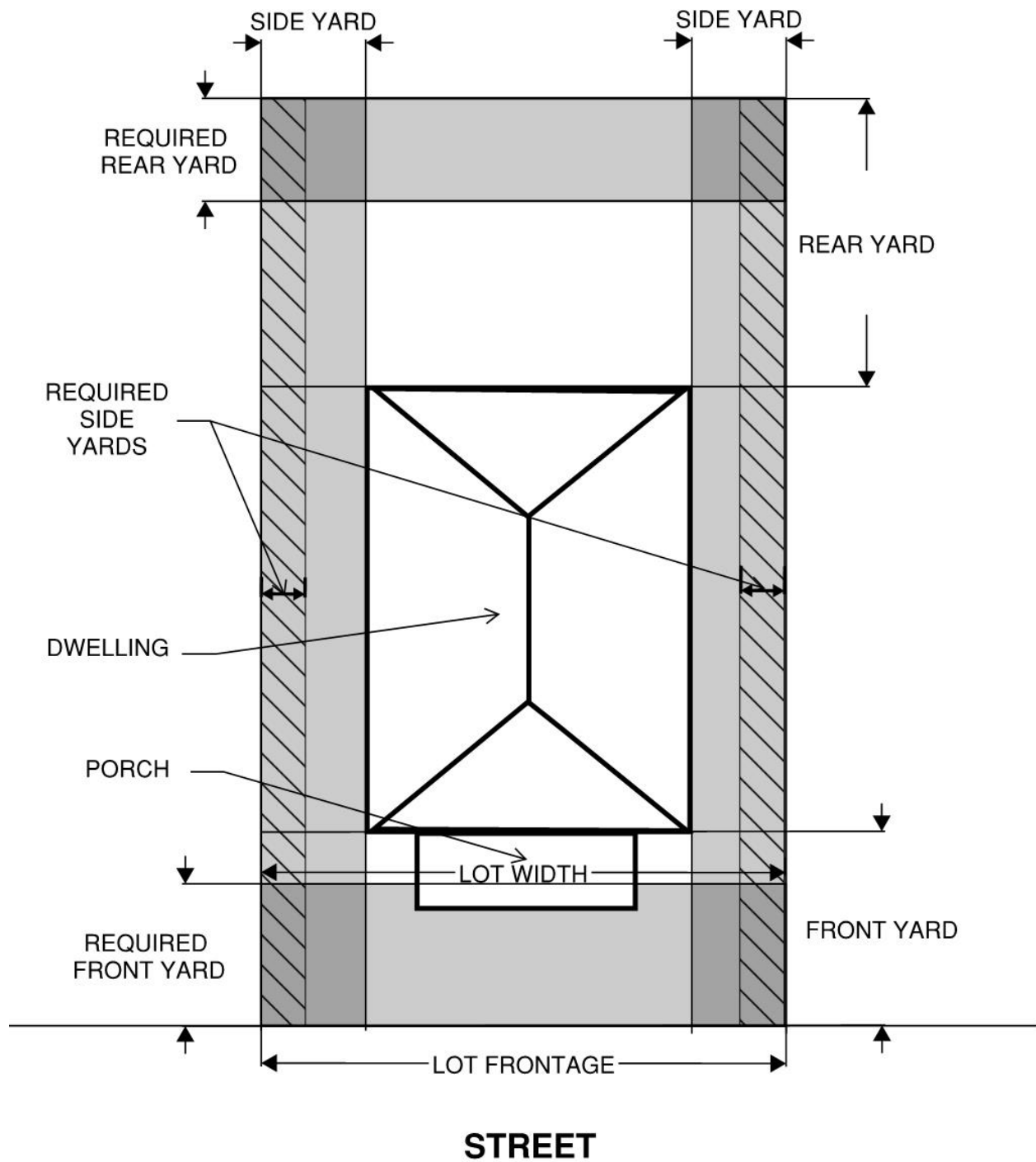
2-154.1 – Height, threshold. The vertical distance, as measured from the average pre-construction grade along a building wall which faces a street, to the top of the finished first floor.

2-170.1 – Lot frontage. The length of a front lot line.

2-170.2 – Lot width. The distance along a straight line measured between the side lot lines or, in the case of a corner lot, a side lot line and secondary front lot line, at the zone's minimum front yard requirement. The front yard requirement established by a contextual block face shall not apply to lot width determination.

2-193 - Setback ratio. The ratio of the horizontal distance between any part of a building or structure and the nearest side or rear property line or the nearest building or the center line of a street or alley to the height of that part of the building above average finished grade of such line, except that for buildings in the R-20, R-12, R-8, R-5, R-2-5 and single-family and two-family dwellings in the RA and RB zones not including property located within the Old and Historic Alexandria and Parker-Gray Districts, height shall be measured from the average pre-construction grade of such line.

2-204 – Yard. The required open area on the same lot with a building or group of buildings, which open area lies between the building or group of buildings and the nearest lot line or between one building and another building and is unoccupied and unobstructed from the ground upward.



2-205 - Yard, front. A yard extending across the width of a lot ~~side of a lot measured between the side lot lines and being the minimum horizontal distance~~ between the front lot line and the main building or any projection thereof not permitted in section 7-202. For a corner lot, the two yards lying between the main building and the intersecting streets shall both be deemed to be front yards and any additional yards shall be deemed to be side yards. For a through lot, the two or more yards lying between the main building and the two or more public streets shall be deemed to be front yards.

Sec. 3-100 - R-20/Single-family zone.

3-106 - Bulk and open space regulations.

(A) *Yard requirements.*

- (1) *Front yard.* For each residential use, the required front yard shall be between the range established by the front yards within the contextual block face. provide a front yard of at least 40 feet. If the minimum front yard, including the front yard of the property in question, within this range exceeds 40 feet, a residential use shall provide a front yard of at least 40 feet. Any other use shall provide a front yard of at least 70 feet.
- (2) *Side yards.* Each residential use shall provide two side yards, each based on a setback ratio of 1:2 and a minimum size of 12 feet. Each other use shall provide two side yards, each based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (3) *Rear yard.* Each residential use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 12 feet. Each other use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 25 feet.

(B) *FAR.* The maximum permitted floor area ratio shall be 0.25.

(C) *Height.* The maximum permitted height of a structure is ~~30~~³⁵ feet except for a church or school use in which case the maximum permitted height is 40 feet.

(D) *Threshold height.* The maximum permitted threshold height for a residential use is two and one-half feet, the highest threshold height within the contextual block face or the minimum necessary to comply with the floodplain requirements of section 6-306(B), whichever is greatest.

Sec. 3-200 - R-12/Single-family zone.

3-206 - Bulk and open space regulations.

(A) *Yard requirements.*

- (1) *Front yard.* For each residential use, the required front yard shall be between the range established the front yards within the contextual block face. provide a front yard of at least 35 feet. If the minimum front yard, including the front yard of the property in question, within this range exceeds 35 feet, a residential use shall provide a front yard of at least 35 feet. Any other use shall provide a front yard of at least 35 feet.

- (2) *Side yards.* Each residential use shall provide two side yards, each based on a setback ratio of 1:2 and a minimum size of ten feet. Each other use shall provide two side yards, each based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (3) *Rear yard.* Each residential use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of ten feet. Each other use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (B) *FAR.* The maximum permitted floor area ratio is 0.30.
- (C) *Height.* The maximum permitted height of a structure is ~~30~~35 feet except for a church or school use in which case the maximum permitted height is 40 feet.
- (D) *Threshold height.* The maximum permitted threshold height for a residential dwelling is two and one-half feet, the highest threshold height within the contextual block face or the minimum necessary to comply with the floodplain requirements of section 6-306(B), whichever is greatest.

Sec. 3-300 - R-8/Single-family zone.

3-306 - Bulk and open space regulations.

- (A) *Yard requirements.*
 - (1) *Front yard.* For each residential use, the required front yard shall be between the range established by the front yards within the contextual block face. ~~provide a front yard of at least 30 feet.~~ If the minimum front yard, including the front yard of the property in question, within this range exceeds 30 feet, a residential use shall provide a front yard of at least 30 feet. Any other use shall provide a front yard of at least 30 feet.
 - (2) *Side yards.* Each residential use shall provide two side yards, each based on a setback ratio of 1:2 and a minimum size of eight feet. Each other use shall provide two side yards, each based on a setback ratio of 1:1 and a minimum size of 25 feet.
 - (3) *Rear yard.* Each residential use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of eight feet. Each other use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (B) *FAR.* The maximum permitted floor area ratio is 0.35.
- (C) *Height.* The maximum permitted height of a structure is ~~30~~35 feet except for a church or school use in which case the maximum permitted height is 40 feet.
- (D) *Threshold height.* The maximum permitted threshold height for a residential use is two and one-half feet, the highest threshold height within the contextual block face or the minimum necessary to comply with the floodplain requirements of section 6-306(B), whichever is greatest.

Sec. 3-400 - R-5/Single-family zone.

3-406 - Bulk and open space regulations.

(A) *Yard requirements.*

- (1) *Front yard.* For each residential use, the required front yard shall be between the range established by the front yards within the contextual block face. ~~provide a front yard of at least 25 feet.~~ If the minimum front yard, including the front yard of the property in question, within this range exceeds 20 feet, a residential use shall provide a front yard of at least 20 feet. Any other use shall provide a front yard of at least 25 feet.
- (2) *Side yards.* Each residential use shall provide two side yards, each based on a setback ratio of 1:3 and a minimum size of seven feet. Each other use shall provide two side yards, each based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (3) *Rear yard.* Each residential use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of seven feet. Each other use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 25 feet.

(B) *FAR.* The maximum permitted floor area ratio is 0.45.

(C) *Height.* The maximum permitted height of a structure is ~~30~~35 feet except for a church or school use in which case the maximum permitted height is 40 feet.

(D) *Threshold height.* The maximum permitted threshold height for a residential use is two and one-half feet, the highest threshold height within the contextual block face or the minimum necessary to comply with the floodplain requirements of section 6-306(B), whichever is greatest.

Sec. 3-500 - R-2-5/Single- and two-family zone.

3-506 - Bulk and open space regulations.

(A) *Yard requirements.*

- (1) *Front yard.* For each residential use, the front yard shall be between the range of front yards within the contextual block face. ~~provide a front yard of at least 25 feet.~~ If the minimum front yard, including the front yard of the property in question, within this range exceeds 20 feet, a residential use shall provide a front yard of at least 20 feet. Any other use shall provide a front yard of at least 25 feet.
- (2) *Side yards.* Each single-family or duplex dwelling shall provide two side yards, each based on a setback ratio of 1:3 and a minimum size of seven feet. Each two-family semi-detached dwelling shall provide two side yards, each based on a setback ratio of 1:3 and a minimum size of ten feet. Each other use shall provide two side yards, each based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (3) *Rear yard.* Each residential use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of seven feet. Each other use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 25 feet.

- (B) *FAR.* The maximum permitted floor area ratio is 0.45.
- (C) *Height.* The maximum permitted height of a structure is ~~30~~35 feet except for a church or school use in which case the maximum permitted height is 40 feet.
- (D) *Threshold height.* The maximum permitted threshold height for a residential use is two and one-half feet, the highest threshold height within the contextual block face or the minimum necessary to comply with the floodplain requirements of section 6-306(B), whichever is greatest.

Sec. 3-600 - RA/Multifamily zone.

3-606 - Bulk and open space regulations.

- (A) *Yard requirements.*
 - (1) *Front yard.* For each single and two-family dwelling, use the required front yard shall be between the range of front yards within the contextual block face. shall provide a front yard of at least 20 feet. If the minimum front yard, including the front yard of the property in question, within this range exceeds 20 feet, each single and two-family dwelling shall provide a front yard of at least 20 feet. All other uses shall provide a front yard of at least 20 feet.
 - (2) *Side yards.*
 - (a) Each single-family and two-family dwelling shall provide two side yards based on a setback ratio of 1:3 and a minimum size of seven feet.
 - (b) Each end lot in a group of townhouses shall provide a side yard based on a setback ratio of 1:3 and a minimum size of eight feet.
 - (c) Each structure containing multifamily dwellings shall provide two side yards each based on a setback ratio of 1:2 and a minimum size of 16 feet.
 - (d) All other uses shall provide two side yards based on a setback ratio of 1:1 and a minimum size of 25 feet.
 - (3) *Rear yard.* Each residential use shall provide a rear yard based on a setback ratio of 1:1 and a minimum yard of eight feet. Each other use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (B) *Open and usable space.* Each lot occupied by a dwelling unit shall provide a minimum of 800 square feet of open and usable space for each dwelling unit; provided however,
 - (1) In the case of multifamily dwellings, improved rooftops and decks are encouraged and the following amount of such space may be offset against the amount of open and usable space which would otherwise be required at ground level: up to 80 square feet of the open space requirement for each dwelling unit may be provided in the form of improved rooftops or decks if an amount of land equal to the amount provided in rooftops or decks is located between the front lot line and any building or parking area and is appropriately landscaped;

- (2) In the case of a rooming or boarding house, an additional 200 square feet for each guest room shall be provided.
- (C) *FAR.* The maximum permitted floor area ratio is 0.75.
- (D) *Height.* The maximum permitted height for single and two-family dwellings is 30 feet. For all other structures, the maximum permitted height of a structure is 45 feet.
- (E) *Threshold height.* The maximum permitted threshold height for single and two-family dwellings is two and one-half feet, the highest threshold height within the contextual block face or the minimum necessary to comply with the floodplain requirements of section 6-306(B), whichever is greatest.

Sec. 3-700 - RB/Townhouse zone.

3-706 - Bulk and open space regulations.

- (A) *Yard requirements.*
 - (1) Front yards outside historic districts. For each single and two-family dwelling, the required front yard shall be between the range of front yards within the contextual block face. If the minimum front yard, including the front yard of the property in question, within this range exceeds 20 feet, each single and two-family dwelling shall provide a front yard of at least 20 feet. All other uses shall provide a front yard of at least 20 feet.
 - (24) Front yards within historic districts. Within the Old and Historic Alexandria and Parker-Gray Districts, ~~Each use shall provide a front yard of at least 20 feet, except within the Old and Historic Alexandria and the Parker-Gray Districts where~~ the front building line shall be the same as the front lot line or such other line consistent with the character of the district that the board of architectural review approves.
 - (32) *Side yards-outside historic districts.*
 - (a) Each single-family and two-family dwelling shall provide two side yards each based on a setback ratio of 1:3 and a minimum size of eight feet.
 - (b) Each end lot in a group of townhouses shall provide a side yard based on a setback ratio of 1:3 and a minimum size of eight feet.
 - (c) Each structure containing multifamily dwellings shall provide two side yards each based on a setback ratio of 1:2 and a minimum size of 16 feet.
 - (d) Each other use shall provide two side yards based on a setback ratio of 1:1 and a minimum size of 25 feet.
 - (43) *Side yards-within historic districts.* Within the Old and Historic Alexandria and the Parker-Gray Districts, the following side yard requirements shall apply.
 - (a) Each residential lot which is 35 feet wide or wider shall provide two side yards of at least five feet each.

- (b) Each residential lot which is at least 25 feet but less than 35 feet wide shall provide one side yard of at least five feet.
 - (c) No side yard is required on a residential lot which is less than 25 feet wide.
 - (d) Each nonresidential lot shall provide two side yards of at least five feet each, regardless of the width of the lot.
- (54) *Rear yard.* Each residential use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of eight feet. Each other use shall provide a rear yard based on a setback ratio of 1:1 and a minimum size of 25 feet.
- (B) *Open and usable space.* Each lot occupied by a dwelling unit shall provide a minimum of 800 square feet of open and usable space for each dwelling unit; provided however,
- (1) In the case of multifamily dwellings, improved rooftops and decks are encouraged and the following amount of such space may be offset against the amount of open and usable space which would otherwise be required at ground level: up to 80 square feet of the open space requirement for each dwelling unit may be provided in the form of improved rooftops or decks if an amount of land equal to the amount provided in rooftops or decks is located between the front lot line and any building or parking area and is appropriately landscaped.
- (C) *FAR.* The maximum permitted floor area ratio is 0.75.
- (D) *Height.* ~~The maximum permitted height of a structure is 45 feet~~
- (1) *Outside historic districts.*
 - (a) The maximum height for single and two-family dwellings is 30 feet.
 - (b) The maximum height for all other structures is 45 feet.
 - (2) *Within historic districts.* Within the Old and Historic Alexandria and the Parker-Gray Districts, the maximum height of a structure is 45 feet.
- (E) *Threshold height outside historic districts.* The maximum permitted threshold height for single and two-family dwellings outside the Old and Historic Alexandria and Parker-Gray districts is two and one-half feet, the highest threshold height within the contextual block face or the minimum necessary to comply with the floodplain requirements of section 6-306(B), whichever is greatest.

Sec. 6-400 - Height districts. 6-403 - General regulations and exceptions.

- (A) *Relationship of height to setback.* In all height districts, the allowable height of a building at any point shall not exceed twice the distance from the face of the building at that point to the centerline of the street facing such building.
- (B) *Mechanical Rooftop appurtenances.* Chimneys, towers, tanks, machinery, equipment, stairs, elevators, roof decks and guards, penthouses or other ~~necessary~~ mechanical appurtenances to a main building may be erected as a part of the main building to their required heights, regardless of any other height provisions or restrictions of this ordinance, provided that the following requirements are met.

(1) All ~~necessary rooftop mechanical appurtenances and penthouses~~ shall be concealed by or constructed of exterior architectural materials or features of the same type of quality used on the exterior walls of the main building in question.

(2) For buildings located within the Old and Historic Alexandria District or the Parker Gray District, or for buildings outside such districts designated pursuant to section 10-300, the board of architectural review may, after public hearing, waive or modify the screening requirement of subsection (B)(1) of this section, if the board finds such requirement to be architecturally inappropriate. The board of architectural review may delegate the waiver authority in the Parker-Gray District under this subsection (3), making it an administrative determination pursuant to the requirements of section 10-203 of this ordinance.

(3) *Penthouses* The following limitations apply to ~~rooftop mechanical~~ penthouses:

(a) ~~A maximum of three~~Only one penthouses ~~are~~ is permitted unless the number is increased by a special use permit;

(b) The penthouses shall not exceed 15 feet unless the height is increased by a special use permit;

(c) The penthouses must be limited in size to the minimum space ~~required to house-~~ necessary for stairs, elevators, required elevator vestibules not exceeding 64 square feet per elevator, necessary mechanical equipment, or similar appurtenances; and

(d) No equipment may be placed above the roof of the penthouse to increase its height if such equipment could be located on the roof of the building itself.

~~(3) For buildings located within the Old and Historic Alexandria District or the Parker Gray District, or for buildings outside such districts designated pursuant to section 10-300, the board of architectural review having jurisdiction of the matter may, after public hearing, waive or modify the screening requirement of subsection (B)(1) of this section, if the board finds such requirement to be architecturally inappropriate. The board of architectural review for the Parker Gray District may delegate the waiver authority under this subsection (3), making it an administrative determination pursuant to the requirements of section 10-203 of this ordinance.~~

(4) *Roof Decks and Guards.* Roof decking and required guards, not to exceed six feet above the roofline or the minimum height required by the Virginia Uniform Statewide Building Code (USBC), whichever is higher. Such structures shall be constructed with material that is transparent or compatible with the design of the building and must comply with all setbacks otherwise required by this ordinance.

(C) *Church steeples.* No church building shall exceed the height for each zone, as limited by the Height District Maps, except that a church steeple may be erected to a height of 90 feet, or to a height in excess of 90 feet but not in excess of 150 feet with a special use permit. For purposes of this section 6-403(C), steeple shall mean a decorative or symbolic architectural component including a tower, spire, belfry or

similar component extending above the ridge line of the building roof, or the highest point of the roof of the building.

- (D) *Reception or transmission structures.* All radio and television reception or transmission structures may be erected only in compliance with section 7-1205 and section 7-1206.
- (E) *Noncomplying buildings and structures.* Any building or structure lawfully in existence on June 24, 1992 which does not comply with the provisions of this section 6-400, shall be categorized as a noncomplying structure subject to section 12-100; provided, however, that any building or structure in existence on June 24, 1992 and immediately prior to such date categorized as an illegal building or structure because of height, shall continue to be so categorized.
- (F) *Lighting for congregate recreations facilities and dog parks.*
 - (1) Subject to the limitations in subsection (2) below, poles for lighting the following uses may be constructed to a height which otherwise exceeds that permitted by the zone with a special use permit:
 - (a) Congregate recreational facilities; and
 - (b) Dog parks.
 - (2) The following limitations apply:
 - (a) Poles include luminaire assemblies;
 - (b) Poles may be up to 80 feet in height;
 - (c) The applicant shall demonstrate that the increased pole height will mitigate the impact of lighting in terms of spillage and glare
 - (d) Poles shall be setback a minimum of 35 feet from any right-of-way or residential property line; and
 - (e) Poles may be located in any zone.

Sec. 7-2500 - Infill regulations for single- and two-family residential zones.

~~7-2502 Height in line with existing development.~~

- ~~(A) The height of a residential building erected or altered after June 24, 2008 shall not exceed the greater of:~~
 - ~~(1) 25 feet, or~~
 - ~~(2) The average height along the front of the building of the residential buildings existing on that block (one side of a street between two intersecting streets or one intersecting street and a street dead end) by more than 20 percent~~
- ~~(B) A height greater than that calculated in section 7-2502(A) may be permitted if a special use permit is approved pursuant to section 11-500 of this ordinance, and city council determines that the proposed construction will be of substantially the same residential character and design as adjacent and nearby properties. For purposes of this subsection, the recommendation of the planning commission on the special use permit shall be deemed a final decision of the city council, unless any person files with the city clerk a request for hearing by council within 5 working days after the action of the~~

~~commission. In the event such request is filled, the application shall be docketed for consideration at the next available council public hearing meeting. All notice for applications under this subsection shall include a description of the procedure herein provided, in such form as the director shall require.~~

~~(C) For the purposes of this section 7-2502, where the number of buildings on one side of a street between two intersecting streets or between one intersecting street and a street dead end is either fewer than five or where the distance between streets as specified above is less than 200 feet or where the number of buildings is greater than 15 or where the distance between streets as specified above is greater than 600 feet, the director may designate an appropriate block for purposes of calculating height without regard to intersecting streets subject to an administrative protocol, and subject to city council approval as part of the special use permit, if there is one, granted pursuant to this section 7-2502.~~

~~(D) Where an application proposes redevelopment of one or more entire blocks, as defined in section 7-2502(A)(2), or where there is no appropriate blocks for purposes of calculating height, this section 7-2502 shall not apply and the height restrictions of the zone in which the property is located shall apply.~~

~~7-2503 Residential front setback and front door threshold in line with existing development.~~

~~(A) *Average setback.* Unless a different rule is specified for a particular zone, wherever the major portion of a block is developed, and the majority of the buildings built on one side of a street between two intersecting streets or between one intersecting street and a street dead end have been built at a uniform front setback forward or behind the minimum front setback prescribed for the zone in which such buildings are located, new residential buildings hereafter erected shall conform to the setback line so established. Absent a majority of buildings at a uniform front setback, the setback shall be established by the average of the front setbacks of the buildings on one side of the street of a block as described above. For all other residential construction, including without limitation, porches and additions, the director may designate an appropriate front setback no closer to the front property line than the established or average setback line. The board of zoning appeals is authorized to grant a special exception under the provisions of section 11-1300 to modify the strict application of this requirement.~~

~~(B) *Average threshold.* Whenever the major portion of a block is developed, no front door threshold of a single family, two family or townhouse residential building erected or altered after January 20, 2007 shall exceed the average height of the front door threshold of the residential buildings built on that block (one side of a street between two intersecting streets or one intersecting street and a street dead end) by more than 20 percent, provided, that~~

~~(1) Additional front door threshold height may be permitted if a special use permit is approved pursuant to section 11-500 of this ordinance, and city council determines that the proposed construction will not detract from the value of and will be of substantially the same residential character as adjacent and nearby properties.~~

- ~~(2) No SUP shall be necessary if the additional front door threshold height is the minimum necessary to comply with the floodplain requirements of section 6-306(B).~~
- ~~(3) For the purpose of this paragraph 7-2503(B), the height of the front door threshold is defined as the vertical distance between the average pre-construction grade along the front of the building to the top of the threshold. The front door threshold shall accurately reflect the actual location of the first floor of the building, and in all cases the front door threshold shall be measured to the top of the threshold or the top of the highest elevation of the finished first floor, whichever is greater.~~
- ~~(C) *Blockface determination.* For the purposes of this section 7-2503, where the number of buildings on one side of a street between two intersecting streets or between one intersecting street and a street dead end is either fewer than five or where the distance between streets as specified above is less than 200 feet or where the number of buildings is greater than 15 or where the distance between streets as specified above is greater than 600 feet, the director may designate an appropriate block for purposes of calculating front setback and front door threshold height without regard to intersecting streets subject to an administrative protocol, and subject to city council approval as part of the special use permit, if there is one, granted pursuant to this section 7-2503.~~

11-1300 – Special exception.

11-1302 - Special exception established.

A lot developed with a single family, two family or townhouse dwelling may be the subject of a special exception from the following zoning requirements pursuant to this section 11-1300:

- (A) Fences on corner lots.
- (B) Yard and setback requirements for enlargement of a dwelling, as follows:
 - (1) Yard and setback requirements applicable to the extension or enlargement of a single family, two family or townhouse dwelling only, within any one noncomplying plane of such dwelling.
 - (2) As used in this subsection, the term noncomplying plane means the vertical plane established by a wall, one story or more in height, of a main building which wall:
 - (a) Does not comply with the yard or setback requirements of this ordinance,
 - (b) Existed prior to the effective date of any change to the yard or setback regulations or restrictions applicable to such wall, and
 - (c) Extends for more than 50 percent of the length of the building along the side containing such wall.
 - (3) The term noncomplying plane does not include any plane established in whole or in part by entrances, steps or other projections into a required yard.

- (4) Nothing in this subsection shall be deemed to authorize the extension or enlargement of a single family, two family or townhouse dwelling beyond the height or floor area ratio permitted by the zone in which such dwelling is located, nor to authorize the approval of more than one special exception per dwelling under the provisions of this subsection.
- (C) Yard and setback requirements for a front porch subject to the following requirements:
 - (1) The applicant for a ground level covered front porch shall demonstrate by clear and convincing evidence that the proposed porch is compatible with the existing building architecture, neighboring properties and neighborhood character, and will comply with the following requirements:
 - (a) No portion of the porch shall extend beyond either end of the front building facade, unless such extension complies with the regulations for the zone in which it is located.
 - (b) The roof line of the porch shall be in scale with the existing building architecture.
 - (2) Nothing in this subsection shall be deemed to authorize the extension or enlargement of a single family, two family or townhouse dwelling beyond the height or floor area ratio permitted by the zone in which such dwelling is located, nor to authorize the approval of more than one special exception per dwelling under the provisions of this subsection.
- ~~(D) Established front yard setback requirements for a main dwelling required by section 7-2503, subject to the following requirements:~~
 - ~~(1) Limitation on front setback increase or decrease.~~
 - ~~(a) An adjustment is allowed of as much as ten percent from the average front setback line calculated for the project or five feet, whichever is less.~~
 - ~~(b) The front setback increase or decrease shall be the minimum necessary to achieve the desired result.~~
 - ~~(2) The applicant shall demonstrate by clear and convincing evidence that the proposed change in front setback for the dwelling is necessary for environmental and/or critical construction reasons and that the dwelling in the proposed location will be compatible with the character of the rest of the neighborhood block and will not be detrimental to the maintenance of a an established setback along the street.~~
- (D) Maximum height for single and two-family dwellings in the R-20, R-12, R-8, R-5, R-2-5, and single-family and two-family dwellings in the RA and RB zones not including property located within the Old and Historic Alexandria and Parker-Gray Districts, subject to the following requirements:
 - (1) Dwelling shall not exceed the height of the tallest dwelling within the contextual block face plus 20 percent. For the purposes of applying this

subsection only, dwelling height shall be measured from average pre-construction grade along the front of the dwelling only;

(2) Regardless of the height established by (1), above, the maximum height shall not exceed 35 feet.

(3) Nothing in this subsection shall be deemed to authorize the extension or enlargement of a dwelling beyond the floor area ratio permitted or height to setback ratios required by the zone in which such dwelling is located, nor to authorize the approval of more than one special exception per dwelling under the provisions of this subsection.