Subject: Determining and Certifying Residential Date: January 29, 2019 No.: 19-01

Building Height

<u>Summary</u>: This bulletin provides expanded guidance on how height information should be depicted on residential grading and site plans, as well as when and how to submit as-built height certifications.

Effective Date: Immediately.

<u>Background</u>: Several Letters to Industry (LTIs) have been issued to address building height, either in whole or in part. These letters include LTI 06-13, issued July 1, 2006; Technical Memorandum 09-12, issued September 15, 2009; and, Technical Bulletin 18-03, issued February 2, 2018. This bulletin supersedes LTI 06-13 and Technical Memorandum 09-12, but does not supersede Technical Bulletin 18-03, which can be downloaded from the county's website at

https://www.fairfaxcounty.gov/landdevelopment/land-development-technical-bulletins.

Please note, per this Technical Bulletin, as-built height certifications will no longer be required for single family attached dwellings (i.e. townhouses).

What is Building Height?

Building height is the vertical distance to the highest point of the roof for flat roofs; to the deck line of mansard roofs; and, to the average height between the eaves and the ridge for gable, hip and gambrel roofs measured from the curb level if the building is not more than ten feet in distance from the front lot line, or from the grade in all other cases (Article 20 of the Fairfax County Zoning Ordinance).

How is Building Height Calculated?

Building height is calculated by subtracting the grade from the roof height. See Appendix A for additional information on how grade and roof height are determined.

What Height Information is Required on Grading and Site Plans?

All bonded grading plans and infill lot grading plans for single family detached dwellings and all site plans for single family attached dwellings must provide the following information:

- 1. A plan view of the perimeter of the dwelling identifying the location of each elevation point.
- 2. Elevations presented in tabular form.
 - a. Grading plans require both pre-existing and proposed finished grade elevations
 - b. Site plans only require proposed finished grade elevations

3. Totals.

- a. Grading plans require the total of the pre-existing grade elevation points and the total of the proposed finished grade elevations points
- b. Site plans only require the total of the proposed finished grade elevation points
- 4. Averages.
 - a. Grading plans require the average of the pre-existing grade elevation points and the average of the proposed finished grade elevation points
 - b. Site plans only require the average of the proposed finished grade elevation points
- 5. Lower average grade (applicable to grading plans only).
- 6. Roof, midpoint and eave elevations, as applicable.
- 7. Building height.

What Height Information is Required on Architectural Plans?

All architectural plans must provide the height of the structure as measured from the front stoop.

What is an As-Built Height Certification?

A height certification is an as-built height survey reviewed by county staff to verify compliance with the building height requirement of the zoning district in which the dwelling is located. If an as-built height certification is required, it must be approved before a residential use permit can be issued.

When is an As-Built Height Certification Required?

An as-built height certification *will* be required for:

1. New single family detached dwellings and additions with proposed heights of 33 feet or greater. This requirement includes dwellings in the R-C and R-E districts that qualify to be up to 40 feet tall.

An as-built height certification *may* be required for:

1. An addition to a single family detached dwelling or a new single family detached dwelling on an existing foundation that is 30 feet or greater in height.

An as-built height certification will not be required for:

1. New single family attached dwellings and additions.

What Information is Required on an As-Built Height Certification?

All as-built height certifications must include the following information:

- 1. Seal with signature from either a certified engineer, surveyor, architect or landscape architect.
- 2. Date the as-built height certification was prepared.
- 3. Company name, address, phone number and email of the submitting professional.
- 4. Subdivision name.
- 5. Lot and section number.

- 6. Property address.
- 7. Tax map number.
- 8. Referenced grading plan number.
- 9. A plan view of the perimeter of the dwelling identifying the location of each elevation point. If there is an approved grading plan, use the elevation points depicted on the grading plan.
- 10. Elevations.
 - a. Average pre-existing and finished grade elevations
 - b. Roof, midpoint and eave elevations, as applicable.
 - c. Lower average grade elevation.
- 11. Building height.

How Do I Submit an As-Built Height Certification?

- 1. Using the as-built height certification template, fill in all required information. The template is available on the Fairfax County website at:
 - https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/assets/documents/forms/as-built height certification template.pdf
- 2. Email the completed as-built height certification to the Zoning Permit Review Branch at: DPZMailforZPRB@fairfaxcounty.gov
- 3. You will receive an email notification once the review of the as-built height certification is complete

If you have additional questions regarding grading, site or architectural plans, please contact the Customer Technical Support Center at **703-222-0801**, **TTY 711**.

If you have additional questions regarding as-built height certifications, please contact the Zoning Permit Review Branch at **703-324-1359**, **TTY 711**.

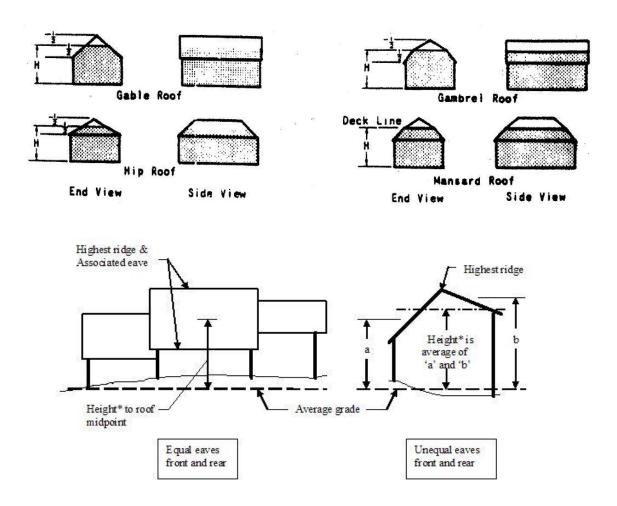
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Appendix A

How is Roof Height Measured?

- 1. Flat Roof
 - a. Roof height is measured at the highest point of the roof.
- 2. Mansard Roof
 - a. Roof height is measured at the deck line.
- 3. Gable, Hip or Gambrel Roofs
 - a. Roof height is the average height (midpoint) between the ridge and the corresponding eaves of the highest roof line.
 - b. If the eaves are uneven, find the midpoints between the ridge of the highest roof line and each of the eaves. The average of these midpoints will be the roof height.
- 4. Multiple Roofs
 - a. Use the roof with the highest ridge.



What is Grade?

Grade, as it relates to detached and attached single family dwellings, is a reference plane representing the average ground level (Article 20 of the Fairfax County Zoning Ordinance). Grade for the following structures is determined as follows:

- 1. Single Family Detached Dwelling
 - a. Average ground level adjoining a building at all exterior walls. Building height measurements for single family detached dwellings and additions will use the lower average ground level of either the pre-existing or finished grade elevation that exists or is proposed at the time of Building Permit issuance for the dwelling.
- 2. All Other Principle Structures
 - a. Average finished ground level adjoining a building at all exterior walls.

How is Grade Calculated?

Grade is calculated as follows:

- 1. Single Family Detached Dwelling
 - a. Take elevation points around the perimeter of the dwelling at evenly spaced intervals of approximately 20 feet.
 - b. The site reviewer may request additional or fewer points in instances where the 20-foot requirement cannot be reasonably applied, for example, where the grade may be inaccessible due to structures such as decks.
 - c. Calculate the average of the points for both the pre-existing grade and the finished grade. The lower of the two averages will be considered the grade.
- 2. Single Family Attached Dwelling
 - a. Take elevation points only around the perimeter of the individual unit and not around the entire building group or row.
 - b. Use a minimum of two elevation points at the front and two at the rear for interior units. For end units, use a minimum of two points at the front, two points at the rear and one point on the side.
 - c. Calculate the average of the points using the finished grade only to determine the grade.

Average grade calculations do not include:

- 1. The lower elevation of window wells that are not more than 10 feet in width along the wall of the building and extend from the building no more than 4 feet.
- 2. Areaways with width less than 15 feet.

Finished grades that are established with a retaining wall must extend 10 feet from the structure in order to include the higher grade elevation toward the average grade calculation. Grades established by a retaining wall that extends less than 10 feet from the structure are measured at the base of the retaining wall.