



Grading and Retaining Walls

Docket #149-21 & #11-21

Zoning and Planning Committee
October 14, 2021
Department of Planning and Development



Agenda

- Existing Regulations
- Issues
- Potential Solutions
- Next Steps
- Questions for the Committee

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Existing Regulations



Height

Zoning ordinance sets maximum height and floor area limits for new single and two-family homes.

Height is measured from the average finished grade elevations around the perimeter of the building.



Grading and Retaining Walls

Prior to 2009 a Special Permit was required to change existing grades by more than 3 feet

This rule was difficult to reasonably implement and interpretations were necessary over time to allow for foundation excavation and similar work

In 2009, at recommendation of the zoning task force, this provision was replaced by a Special Permit requirement for retaining walls over 4 feet in height in the setback



Stormwater

Engineering requires stormwater review when there is an increase in impervious area of more than 4% of the lot area or 400 square feet

Zoning ordinance also includes language that the Commissioner of ISD and the City Engineer may reject a project if they believe it will cause runoff to or from abutting properties or the erosion of soil

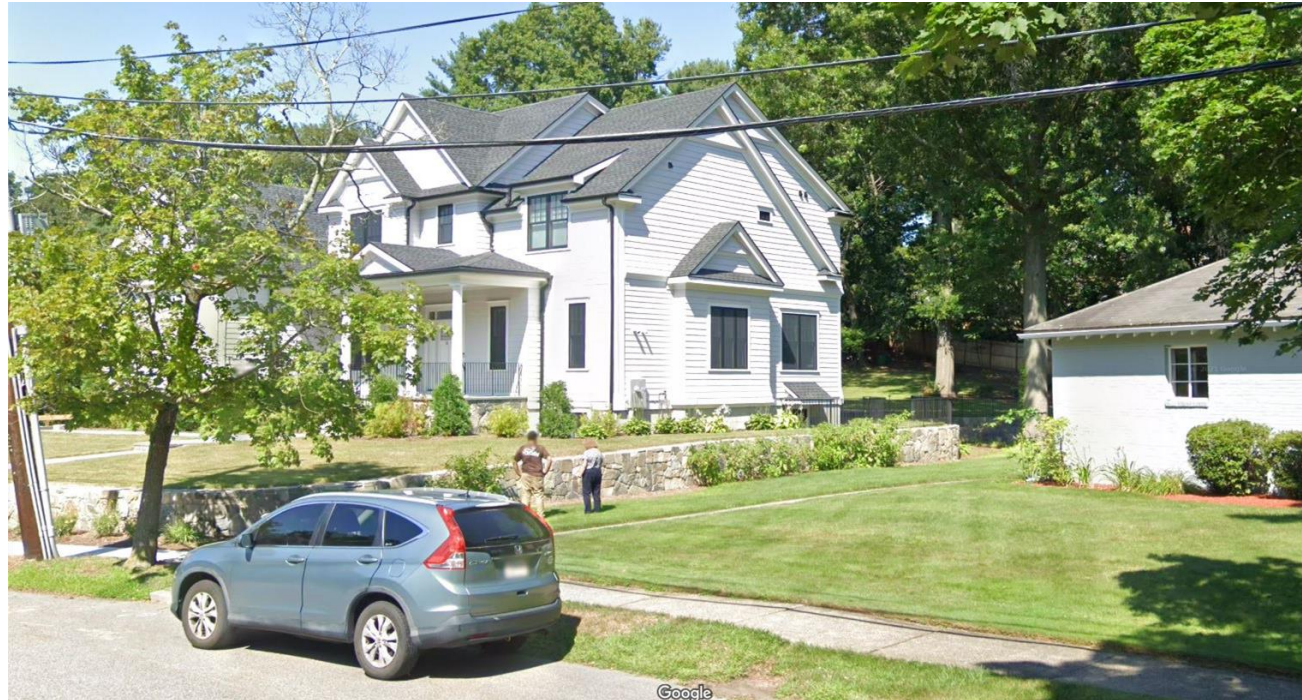
The Engineering department is currently updating the stormwater ordinance, which is expected to significantly expand the thresholds for review

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Issues

Height

Measuring height from finished grade allows for the manipulation of existing gradees, which can result in homes that appear taller than adjacent homes



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Before



After



Height

Raising the existing grade is often done to construct a full basement where there is a high water table, to include a tucked under garage, or the maximize FAR



Retaining Walls

There are no height restrictions or Special Permit requirement for retaining walls outside of setbacks

Retaining walls are often used to allow construction on steep lots or create a flat yard



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Retaining Walls

Large retaining walls present aesthetic and safety concerns for adjacent properties





Stormwater

Most sites already contain
impervious area so redevelopment,
however significant, may not trigger
the 4% or 400 square feet threshold

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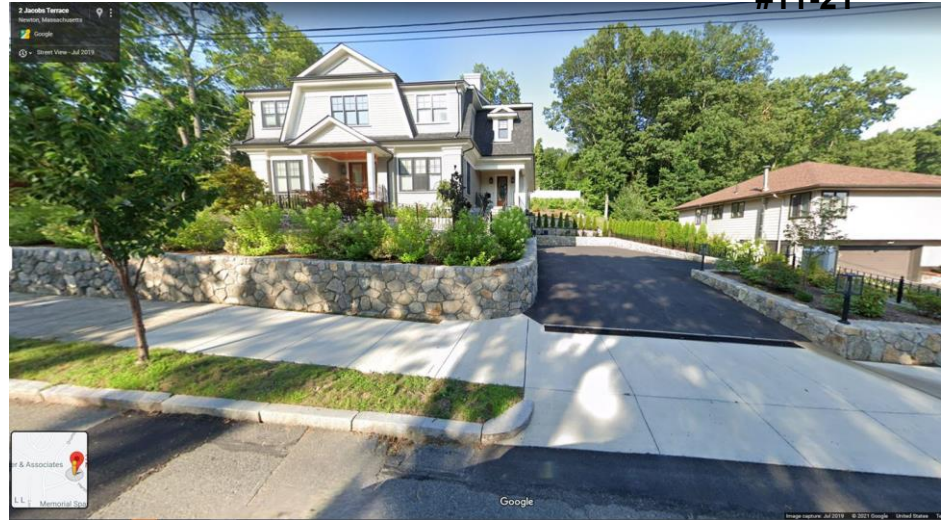
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Image capture: Aug 2019 © 2021 Google

After

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Before



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#11-21

Before



After



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Potential Solutions

Measure height from existing grade or a fixed point such as the back of sidewalk

Measure height along the front elevation, not average grade

Require a Special Permit for all retaining walls over a certain height

Set a maximum height for individual or terraced retaining walls

Provide clear Engineering review process for retaining walls

Update zoning ordinance to be consistent with new stormwater ordinance, once adopted



Next Steps

Research past building permits to better understand the issues and how prevalent they have been

Work with Engineering and ISD to develop possible solutions

Coordinate with proposed stormwater ordinance updates

Return to the Committee next term

Questions for the Committee

- Are we missing any related issues?
 - Which of these issues are of greatest concern?
 - Aesthetics (building height and massing, views of retaining walls)?
 - Retaining wall safety?
 - Stormwater runoff?
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