

Subtitle C – General Rules – Green Area Ratio

I am a resident of Ward 5 and have concerns about the way that GAR scores for trees will be calculated as currently proposed. I will first state the existing language in the GAR Landscape Elements and the Multiplier (see 1702.9) and then voice my concerns, followed by a possible solution.

1) “Tree canopy for new trees 6 inches in diameter or larger 0.6”

As written, **all** new trees that are planted which are 6 inches in diameter will receive the same GAR multiplier. For example, consider these two trees, both species native to our area, the white oak (*Quercus alba*) and the American dogwood (*Cornus florida*). The white oak grows to a height of 100 feet or more, while the dogwood grows to only 25-30 feet. A white oak may live well over 200 years while a dogwood rarely lives past 80. The canopy of a white oak that is 100 years old may have a canopy of 100 feet and the full grown dogwood has a canopy of about 35 feet. However, both these trees will earn the same multiplier value, .6, if newly planted.

Solution: Provide a higher ratio for trees based on their size at maturity, not at time of planting. At maturity these larger trees provide much greater value in managing storm water run-off, improving air quality, and mitigating the urban heat island effect, which is what GAR is all about.

2) “Tree canopy for preservation of existing trees 24 inches diameter or larger 0.8”

Currently the District has a special trees category for trees 54 inches in diameter or larger. These are considered trees that should be protected and homeowners are not allowed to have these trees cut down without permission from the Urban Forestry Division. It is essential that trees that are already in the ground be protected when areas are developed. By only giving a multiplier of 0.8 there is little incentive for a developer to protect these well established, large trees and for them to reach their full growth. Contrast this multiplier, 0.8, with the multiplier given to vertical wall plantings, 0.6. As currently written, a developer could plant a vertical green wall (vines) and receive a GAR of 0.6, but not keep the existing tree of 24 or more inches in diameter since it would result in an increase of only 0.2 in GAR.

Solution: Give a larger value for protecting existing large trees and far lesser value for planting a green wall. Although the vegetated wall could improve air quality and mitigate the urban heat

island effect, it would have far less effect on managing storm water since the root system is relatively shallow compared to the root system of a large canopy tree.

3) “ Intensive vegetated roof over at least 8 inches of growth medium 0.8”

Green roofs certainly do aid in storm water management, improve air quality, mitigate temperature (thus providing cooling and heating savings to the owner), but they do not provide some of the important aspects that trees do. When I am walking down the street, I can’t see the plants on the roof. I can’t walk in the shade the tree would provide. I can’t hear and see the birds that the trees provide home to. One of the purposes of GAR according to the regulations is to “Promote attractive and functional landscapes.” Trees can provide that. Green roofs are functional, but as attractive as they may be, they cannot be viewed by those of us at the street level. The pedestrian experience needs to be considered. Note that the intensively vegetated roof would earn a multiplier of 0.8, the same as an existing 24 inch or greater in diameter tree. Note also that 0.8 is the largest multiplier given a tree.

Solution: One of two things: Increase the multiplier for existing trees of 24 inch diameter or more and for trees which will provide a canopy of 2000 per square foot per tree at maturity or lower the multiplier for the green roof to encourage developers to consider planting trees.

1703.4

An additional issue that I would like to bring to your attention is the wording in 1703.4: “Trees shall meet the following conditions: a) All trees shall be at least two and a half inches (2.5 in.) in diameter measured at a height of four feet, six inches (4ft.6in.) above grade when planted and shall be replaced if damaged or killed by any cause.” I have underlined the words that concern me. I am unsure what the word “kills” means in this context. It implies that someone did something to it. Is it synonymous with “died.” Does this mean that if a tree dies for any reason that a developer must replace it? How would this regulation be enforced? Is there a time limit on this requirement? If someone doesn’t replace a tree that is damaged or dies, what happens? Do they pay into a tree fund?

Solution: Change the wording to “die from any cause.” Provide more specific expectations in terms of time replacement is expected and what happens if a tree isn’t replaced, such as contributing to a tree fund to plant trees in schools, parks, or for street tree boxes.

1702.8 and 1703.5

Vegetated Walls – I am confused as to whether credit is given for the vertical growth area or the horizontal area of the plants. I have quoted the two sections that apply to vegetated walls. They seem to conflict.

1702.8 “Landscape elements of the GAR shall be measured in the following ways:

(b) For vegetated walls, use the vertical square footage of the portion of the wall covered by the vegetation”

1703.5 “(c) “The area calculated is the ground coverage area, not the total plant growth area.”

Solution: Clarification of language to indicate clearly what earns the GAR, either the vertical area covered by the plants or the horizontal space in which they are planted.

It is important to protect the trees we currently have in the city and to encourage developers to plant more trees, particularly large canopy trees. Not only do they provide service to us mitigating all of the heat from our urban island, manage the storm water from our roofs and streets, and improve our air quality, they also add esthetically to our lives. GAR is a good idea to help encourage businesses to consider various ways to add “green” as they build, but at this point the multipliers as proposed do not do an adequate job of encouraging tree protection or planting of large canopy trees. Please consider changing the multiplier ratios to reflect what trees do for us!

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