



PITCHFORDASSOCIATES
arboriculture + environmental consulting

June 17, 2021

Mr. William Miller
Attorney
2301 Champlain St. NW
Apt. 210
Washington, DC 20009

Dear Mr. Miller:

This letter will summarize my initial observations and sentiments based on a site visit I made with you, and Jeff Chown on Monday, June 14th to the on-going stream restoration project within the Hollin Hills community of Alexandria, Virginia. We surveyed the project from private properties along Beechwood Road and Paul Spring Road. Both properties are adjacent to the Brickelmaier Park.

The forest I observed is a mixed-hardwood forest in good to excellent condition. It could be categorized as a Tulip poplar association, which is the common forest type in the DC metro region. Trees typical of this association include poplar, red oak, white oak, hickory, red maple, sweetgum, green ash in the overstory. The understory has an excellent population of American beech. Based on this forest structure, I estimate that it is in a mid-successional stage of development and that most of the larger overstory trees are likely 80-120 years old. There may be outliers of older trees, particularly the oaks, but I would be surprised if they are greater than 150 years old.

Currently, there is no extensive invasive plant problem. I attribute this to the dense forest canopy. English ivy is the dominant invasive plant on the forest floor as it moves in from the neighboring residential properties. The dense shade is limiting the introduction of the highly invasive plants typically found in forests in the DC region.

During my visit, I did not observe trees being felled. A tree crew was at work loading branches and smaller logs into a chipper using a large excavator machine near the entrance to the park at Paul Spring Road. There are also piles of wood chips. I assume that the debris and wood chips piles were from the on-going tree removal process.

The plans that Jeff Chown provided show many trees to be removed. I believe that the tree tables show 79 removals. These are presumably larger diameter trees, and do not include smaller diameter trees that will be collateral damage. In fact, the smallest diameter in the tree removal table appears to be 12 inches. I am quite sure that there are many smaller trees that will also be removed.

The sheet titled "Tree Tables and Tree Preservation Details" calls for a variety of tree preservation measures including root pruning, tree bumpers and tree protection signage. I did not see details for tree protection matting, except for a narrative about "applying 4-6" of mulch extending 5' minimum around the trunk of the tree per ANSI A-300." The orange safety fencing has been installed that delineated the limits of disturbance (LOD), however I did not see tree protection fencing, bumpers, root pruning or

extensive mulching installed as shown on the plans.

Some of the root pruning includes cutting roots that are within the structural root zone (SRZ), or “root plate” of many trees. This zone includes the larger diameter roots near the base that provide the tree with structural support. Cutting these roots can lead to whole tree failure, and almost certainly an irreversible level of decline in vigor. As an example, on Sheet 7, root pruning is called out to be within roughly 3’ of tree #1365, which is a 23” diameter Tulip poplar. Root pruning near tree #1381 is roughly 2’ from the base. This is a 12” diameter Red maple. Cutting the roots this close to these trees will almost certainly result in tree death, and probably whole tree failure. I also don’t see how someone can operate a vibratory plow, trencher, or similar device on the steeply sloped land where these trees are growing.

I only had time for a cursory review of this project but suspect that there are many other examples of root pruning being far too close to preservation candidates. This is a serious situation that requires more extensive review.

The root protection system that I observed consists of a roughly 12” deep layer of wood chips overlain with a heavy-duty wooden palette. I have some experience with this system, as it is being used by a contractor on a job I am overseeing in DC right now. Large excavators and dump trucks are running over this system on the DC job daily. The downside is that the wooden pallets are breaking up rather quickly, but for the time being the system appears to be providing adequate protection.

Summary:

The erosion that has occurred along the existing stream bed is obvious and predictable. This is likely caused by the increasing frequency and volume of water flowing through these creeks during our “100-year” storm events in our area, which seem to be occurring on a much shorter frequency. I also realize that storm water runoff is a significant issue throughout the DC metro region. To my eye, the increase runoff it is a direct result of increasing urbanization, impervious surfaces and changing climate patterns.

One of the major problems I see with this project is that it removes and/or irreparably damages the best storm water management systems designed by nature – the trees. This pattern of extensive tree removal just to install an artificial storm water management system boggles my mind. The extent of the disturbance in this forest that I witnessed, and can further envision from the drawings, is highly concerning. I would hope that a smaller scaled project could be implemented to be more sensitive to the environment.

I am also concerned by the sentiment that these are “one and done” projects. The narrative is that there will be no need to deal with them again for many years. However, in my experience, the facts are rarely consistent with this expectation. Inevitably, these features need repair in a short period of time. One final point is that by opening large gaps in these forests this will inevitably lead to increased sunlight hitting the forest floor. This in turn will lead to extensive invasive plant introduction. I can almost guarantee that the new open areas of this project will be covered with invasive plants in just a few years.

Thank you for the opportunity to provide these initial observations. Please let me know if you have any subsequent questions.

Sincerely,



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