



Your Consulting Arborist

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March 13, 2023

Burke Station Square HOA
John Madeiros
5820 Ridge Ford Drive

Burke, VA 22015

RE: 2023 Tree Management Report for Burke Station Square Common Areas

Dear Burke Station Square HOA:

Following are the results of my field evaluation of trees on the Burke Station Square HOA property for 2023. I focused on the natural areas along the stream valley, especially where it backs to homes and is adjacent to roadways. I also assessed the grove of oak trees in the pool complex that are of high importance to the neighborhood. The results of my evaluation follow. Please note, the majority of work for this year's review remains the removal of trees due to potential risk to people and property. There are significantly fewer removals than in the last review. This might allow for some of the focus on other issues going forward such as: stream erosion and exotic and invasive removal from the stream valley area.

All items identified for work are listed in the attached spreadsheet. Their locations are approximated on the Google Earth map provided. They have been tagged in the field with an aluminum tag and short strip of flagging tape. The number on the tag corresponds to the corresponding column in the spreadsheet. This should allow contractors to easily locate and identify them in the field.

I have also included a specification for contractors to follow while completing the services. If there are any questions regarding the specifications, I can be available to clarify where necessary.

Removals

I identified 13 trees that should be prioritized for removal due to obvious defects or other associated problems elevating their risk to residents and properties in the community. All of these of the trees are considered a priority 1 for removal this year.

The wood from these removals can remain within the save areas. The trees can, at the managements discretion, be topped to approximately thirty foot in height and the trunks left in place for wildlife. This may result in cost savings where trees can be climbed. However, all ash trees should be removed entirely and without climbing due to their brittle nature and tendency to fail during removal operations. Contractors performing the work should be familiar with “ash snap” and the specialized removal procedures this creates.

Wood and brush from the removals may remain on site so long as it is cut to lay flat on the forest floor to reduce the potential for forest fire during drought conditions. This will significantly reduce the costs associated with the removals as access for trucks and equipment is limited near many of the removals.

There is no need to replace the trees removed in any of these circumstances. They are generally in forested areas where there is suitable natural regeneration that will fill any voids created in the canopy.

Oaks near the swimming pool complex

I reviewed the trees near the pool complex and parking that should be pruned and treated to reduce



stress. These are listed in the spreadsheet attached. Pruning is primarily to remove large deadwood overhanging frequently used areas and improve safety. The other items recommended are to reduce the stress associated with the highly trafficked area and pressure of the intensive uses near the trees. These treatments are intended toward preserving the value of the trees to the community and to reduce the likelihood they will decline in the future.

Photo 1 - Oak grove near pool complex

It should be noted that these trees are currently in a mulched picnic area. This is exactly how these trees should be managed to maximize their health. Mulching will provide many benefits for these trees including:

1. Reducing soil erosion and compaction
2. Providing nutrient recycling
3. Improving the soil structurally
4. Reducing drought stress and conserving soil moisture
- 5.

This mulch should be replenished as necessary. It is the most important aspect of maintaining the health of these trees. The other recommended items will compliment this effort and improve their vigor and resistance to pests and drought.

The loss of these trees would change the character of this area significantly and represent a significant loss to the community. Any anticipated changes within this area should be given careful consideration related to the health of these trees. Any digging, hardscape installation, utility work, lighting, irrigation, or other potential disturbance should be planned and implemented in consultation with a certified arborist familiar with tree preservation and protection. As these are large old trees, they will be more susceptible to disturbance than juvenile trees with greater vigor. They are now showing some signs of stress. Any root disturbance could cause additional decline or loss of trees in this area.

While some stress has been noted in these trees, it is not unusual for trees growing in an area of this high use. They are in good condition. The work recommended is intended to help keep them this way and avoid more costly future removals.

Four trees in the pool area are recommended for treatment as they still show signs of stress. These treatments include mulch, systemic borer preventative, Fertilization, and pruning. This is a repeat of past treatments for these trees. The entire area within the pool complex should have the wood chip mulch replenished. This should be done on an annual basis.

Budgets

I anticipate the following budgets for the work recommended. This is organized by task.

| <u>Item</u> | <u>Budget Amount \$</u> |
|--------------------|---|
| Removals | \$15,000.00 |
| Pruning | \$3,500.00 |
| Mulching | \$4,000.00 |
| Fertilization | \$11,200 |
| Pest treatments | \$ 600.00 (if done in conjunction with fertilization) |
| Total | \$34,300.00 |

These budgets are based on my experience and familiarity with the work recommended. There may be substantial variation in costs associated with tree care. The specifications provided should help to reduce this variation. Actual costs may vary but should not exceed these budgets. I am available to help secure contractors for this work as necessary and to review the work to make certain it is completed as specified.

Forested stream valley

The overall condition of the stream valley area has not changed substantially since the prior review in 2018. The only significant change is a greater abundance of exotic and invasive species.

The overall condition of the trees and forests is good. The composition is well stratified and layered. All the elements of a natural community, overstory, understory, and ground plain, are present and fairly diverse in regard to species present. White oak, red oak, American beech, red maple, and blackgum are all common in forested area. Exotic and invasive species consist primarily of multi-flora rose, porcelain berry, ailanthus, and princess tree. They are most prevalent in areas of disturbance and along the edges. Trees in some areas are getting overcome by vines, but not to an alarming extent. The largest problem in this area is advanced erosion and scouring of the stream channel. Trees are sometimes being undermined to the point of failure. There is some encroachment into the natural areas by adjacent homeowners. Emerald ash borer is prevalent and resulting in the death of ash trees throughout the forest. I did not see any other significant pest problems throughout the forest.

Following are my recommendation regarding the overall treatment of the stream valley ecosystem.

Stream Erosion

The conditions of the stream erosion do not appear to any worse than in my prior visit. It remains problematic, but not any more severe than in the past review. It remains an issue that should be addressed as timing and budgets allow.

It is obvious by the amount of erosion that this has been occurring for some time and is an ongoing problem. The treatment of the specific sections and issues remains beyond the scope of this report. I recommend the community contact the Northern Virginia Soil Conservation District (NVSCD) as a first step in addressing the erosion issues.

I am hopeful the NVSCD can help direct the community toward resources that approach the reduction of erosion and undermining of trees in a natural manner by selecting a consultant that matches the techniques to level of erosion specific to this area. I encourage the community to select consultants and contractors that do not resort to extensive tree clearing and massive stone works for reducing erosion, as these, in my opinion, tend to cause a high degree of forest degradation and create additional maintenance issues following restoration.

Emerald ash borer

Emerald ash borer remains the primary cause for the death and removal of trees in the stream valley. It appears to be working its course. As the ash are removed, this should not be an issue in coming years. As predicted, the death of ash trees has continued to appoint where most ash trees have been removed, at least from positions where they represent a significant risk. Seven ash trees are included for removal in this review.

Exotic and invasive species

Exotic invasive species include multi-flora rose, Korean mustard, Japanese stilt grass, vine honeysuckle porcelain berry, princess tree and others. The levels have increased since my last report. Most of the invasive species occur in pockets where past disturbance was evident. At a minimum, the vines that are climbing trees should be cut at the base, so they do not affect the health of the trees.

It is not cost effective or affordable for a community to try to treat these on a wholesale basis across the site. One of the most effective ways to for a community to treat these is to request that tree contractors remove any vines from trees in the vicinity of their work as they are performing removals.

The invasive species should become a higher priority now that the association is caught up on tree removals.

These are the primary issues I observed regarding the forests and trees at Burke Station Square in 2023. By far, the most significant and important to address is the removal of trees that pose a risk to residents and their property. As these items are addressed and fewer removals are encountered, more resources might be allocated to stream erosion and the management of invasive plants. An annual re-assessment is recommended to continue to address the removal of ash trees, additional trees that die, maintenance of the oak grove, and other issues that might arise.

Please contact me if you have any questions regarding the information provided.

Respectfully,



3/13/2023

Donald E. Zimar
Registered Consulting Arborist

Attachments:

- Burke Station Square Recommended Work Listing 2023.PDF
- Burke Station Square Tree Locations 2023 GE.pdf
- Burke Station Square Specifications.PDF