



FORECON INC.
Forestry & Natural Resource Consultants
1890 E. Main Street
Falconer, New York 14733
Ph: (716) 664-5602 * Fax: (716) 664-6648
www.foreconinc.com

December 8, 2015

VanBuren Point Association
Attn: Margaret Stubbs
5825 5th Avenue, 318A
Pittsburgh, PA 15232

Re: Tree Inspection and Consultation Report for VanBuren Point Association Grounds

Dear Mrs. Stubbs,

I am writing in follow up to our September 18, 2015 meeting to inspect various trees at VanBuren Point. To summarize our meeting, we inspected several individual trees; reviewed general mulching practices; general tree planting practices; species selection for tree planting; generally discussed the ash tree population across the Association grounds and the risks associated with the Emerald Ash Borer beetle; and reviewed the large mowed field areas along the entrance road to the Association. I offer the following to address these specific areas we consulted on.

- 1) Tree Inspections: Together we inspected several private and Association owned trees of your selection. Our inspection was limited to these trees and did not encompass the entire population. Per your decision, I will let the verbal recommendations I made for the individual trees stand on their own and will not report on them in writing in favor of the notes you took during our meeting. I will, however, briefly summarize my observations from the 3 trees in the park that I performed internal inspection using the resistograph; these trees were not formally assessed for risk nor do any of my comments below represent any categorization of risk, but pictures and the resistograph readouts are archived in our files and can be made available upon request.
 - a. 24" Sugar Maple – This tree has a significant amount of internal decay in the base with little sound wood around the outside; it has observable decay and cavities forming at the base. Its structural integrity is seriously compromised making it a hazard, especially in a playground/park setting, and should be removed as soon as possible. (It is my understanding that this tree has been removed since our meeting.)
 - b. 38" White Ash – This tree has a significant amount of internal decay in the base with little sound wood around the outside; and an animal has freshly excavated a burrow into the rotted wood and soil at the base. Its structural integrity is seriously compromised making it a hazard, especially in a playground/park setting, and should be removed as soon as possible. (It is my understanding that this tree has been removed since our meeting.)
 - c. 24" Red Oak – This tree has two codominant trunks originating from a common stump. This tree has an observable hollow center from an open cavity in the crotch and trunk. Despite the hollow center there is still a lot of sound wood around the outside. There is no doubt that it has been structurally compromised to some degree, but is not so completely rotten at the base to the same level of concern as the sugar maple and white ash described above. While this tree, does not pose an immediate hazard, it is somewhat unpredictable and should be

watched carefully. At a minimum this tree should, be inspected every 2 years for any changes in condition, and may need to be removed eventually if its condition worsens. If this tree is important to the Association for its function and contribution to the park, it may be prudent to consider having the trunks of this tree inspected as a candidate for cabling and bracing to reduce the load stress on the join. There is some risk associated with this type of maintenance, which I would be glad to explain more about if you decide to pursue it further.

- 2) Mulching Practices: As we discussed, there are instances across the Association grounds where it appears the Association grounds crew is over mulching trees. Mulching can be aesthetically pleasing to the landscape, but also provides important function for weed control, soil moisture retention, soil temperature control, nutrient cycling, and protection from mowers and string trimmers; it needs to be installed properly, however, to reap those benefits without harming the tree. The base and trunk of a tree are meant to be above ground and burying them under mulch can cause problems. Likewise, most feeding tree roots are located in the top most 6-12" of soil where they draw in water, oxygen, and nutrients; when additional material (mulch, soil, etc.), their function can be inhibited and can especially be deprived of oxygen, which is very stressful. Attached is information regarding proper mulching technique.
- 3) Tree Planting Practices: As we discussed, there are instances across the Association grounds, where trees may have been planted improperly or may have been of poor nursery stock. There are a host of problems that can arise from trees that are not planted properly (i.e. too deep, too shallow, hole too small, etc.). Attached is information regarding proper planting technique.
- 4) Species Selection for Tree Planting: Selecting tree species for planting should consider several factors that at a minimum can include: soil type, shade tolerance, soil moisture tolerance, salt tolerance, available planting space, proximity to structures, proximity to overhead lines, etc. While not an exhaustive list, the following is a list of trees that may be suitable for planting at VanBuren Point, many of which have greater suitability for soils with higher clay content. This list represents trees of varying size, so it may be prudent to research them on the internet to judge height, crown form, foliage color, flowers, etc. to determine what is best suited to the location and/or style preferences.

- Silver Maple
- European Alder
- River Birch
- Bitternut Hickory
- Shagbark Hickory
- Common Hackberry
- Hawthorn (many varieties)
- Crab Apple (many varieties)
- Honey Locust
- Kentucky Coffee Tree
- Red Bud
- Flowering Dogwood
- Turkish Filbert
- Persimmon
- Golden Raintree
- Tulip Tree
- London Plane Tree
- American Hophornbeam (Ironwood)

American Hornbeam (Blue Beech)
Service Berry
European Larch
Swamp White Oak
Bur Oak
Eastern Pin Oak
Basswood/American Linden
Elm (many varieties)
Paperbark Maple
Amur Maple
Katsura Tree

- 5) Ash Trees and The Emerald Ash Borer: VanBuren Point Association has a fair number of ash trees. These are highly susceptible to the Emerald Ash Borer (EAB) putting them at risk. This insect has been discovered in many locations throughout NY and is present in the Fredonia/Dunkirk area. Based on what we have seen and heard for the area, it is highly likely that some of the trees at VanBuren Point are already infested to some degree, but are not showing the signs yet. This can be problematic as this insect has proven to be devastating to ash trees wherever it is found. They cause considerable dieback as infestation grows and eventually death of the tree (usually within 4 to 5 years); in either case they are responsible for creating significant tree hazards quickly. This can result in a lot of expense for pruning and removal, especially if it occurs all at one time, not to mention the serious loss of tree canopy. We are recommending that communities like VanBuren Point take a proactive approach to EAB rather than a reactive one, by protecting the trees with a pesticide injection treatment.

The injection service we offer give protection from EAB for 2 to 3 years, after which the treatment would need to be repeated. Analysis has shown that, on average, a tree can be treated for a period of 10 years or more for the same cost (spread over time) as the cost of removal, but the tree is retained to continue enjoying the benefits it provides.

For a situation like that at VanBuren Point, this service could be handled in a couple of different ways. A) FORECON could develop a simple yet organized ash tree management plan that could be used in perpetuity going forward, where we would identify and locate all publicly owned ash trees, assess if each is worthy or not for treatment, collect the necessary measurements and data for each tree, develop a list of trees to be treated and trees not to be treated, quote on injection costs, and follow up with the injection treatment; or B) VanBuren Point could select the trees they would like to be considered for treatment and we would follow up with the inspection and injection treatment for only those trees.

Regardless of which direction is chosen, we would further recommend developing a cooperative effort with the residents at VanBuren Point for the simultaneous treatment of privately owned trees. With the inclusion of additional private trees that can be planned for along with the public trees we can be more organized and efficient passing along a cost savings to both the Association and residents that cannot be accounted for when responding to individual private property owner calls for the injection of their trees on an individual basis. We would need some additional information as we proceed with further discussion, but would be glad to discuss the possibilities and process and develop proposals for these services as requested.

- 6) Field Areas: It is my understanding that the large field areas are mowed on a regular basis, but are used little for recreation, etc. They are merely maintained to keep them neat and orderly as a scenic backdrop to the homes nearby and as a highly visible area along the road. As they are

considerable in size (10 plus acres?), this must be a significant expense in fuel and labor, not to mention the environmental impact associated fuel consumption and exhaust emissions from the equipment. You also pointed out that the one area closest to Lake Erie is particularly prone to significant flooding and often has relatively deep standing water present across a large area. As such, you expressed concern that if the Association stops maintaining the area it could be designated as a wetland possibly encumbering the Association in some regulatory fashion. I do not know at this point if that concern is valid or not, but with further investigation and inspection of that site, we can provide more specific insight. Barring these wetland concerns, my thoughts about options for these areas are the following:

- a. Instead of mowing these areas as regularly as the Association has been, allow them to develop into unmaintained grassland that would be mowed every 2 to 3 years instead (perhaps incorporate some supplemental plantings of trees and shrubs across the areas). This would still maintain a certain degree of order to keep it from becoming completely out of control and wild, but would allow them to have much greater function as habitat for birds and other wildlife. In their present highly maintained condition, they lack diversity and offer little ecological benefit; there are numerous bird and animal species that use grass lands for part of their life cycle for nesting and feeding. Likewise, lawn/grass as it is now, does little to control and manage water the way an area with more tree cover would do. As a comparison of extremes, a forest acts like a sponge in its ability to absorb and retain water, whereas maintained lawn acts more like a paper towel – it absorbs very little, and coupled with poorly drained soils, most of the water stays perched on the surface or runs off creating storm water issues. You are witness to this dilemma. By taking a less aggressive approach to maintaining these areas, you would reduce cost, environmental impact, and create ecological benefit. And, by continuing to mow it, albeit much less, the Association may still be able to avoid the wetland regulatory issues of concern.
- b. Another option is to take a more engineered landscape approach to managing this area by developing organized green infrastructure through a combination of strategic excavation and planting, whereby you would work with and develop the wet areas to remain wet and functional, but develop the areas around them in a structured fashion through planting of trees, shrubs, wildflowers, and other plants; recreational elements like trails, educational signage, etc. could also be planned and incorporated into the design. All of this would be designed and developed in a controlled fashion into a relatively self-sustaining system that has beauty, can be used for recreation, provides diverse wildlife habitat, has ecologic function, has aesthetic appeal in a high profile visible area, and is easy and inexpensive to maintain long-term.

As I mentioned during our meeting, we have a cooperative partnership with EcoStrategies, an environmental engineering firm that among other things, has a specific expertise in the area of storm water management, soils, wetlands, and environmental development projects like I just described. I have consulted with Andy Johnson, their principal engineer, about your situation and he would have much to offer above and beyond the simple description I offer above. He is also well versed in the regulations associated with wetlands and environmental permitting, etc. and can help address the concerns the Association has there. He has a lot of experience with this and a creative approach that the Association would be able to appreciate.

While pursuing this option may sound like it has the potential to become a complex undertaking it can be as simple or as complex as the Association wants to make it or can afford; for projects like these there is a wide range of options for design and approach

available. As a team, FORECON and EcoStrategies can bring a lot of expertise to the table in terms of design, development and oversight, budgeting, grant application, etc. to help the Association address the function, use and maintenance of these areas.

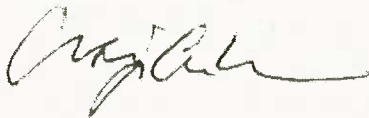
The first step would involve an initial consultation and site inspection that would include Andy and me. We would recommend this occur in the early spring of 2016 closely following snow melt (i.e. March) when we can fully see the extent of water retention/flooding associated with the area. You asked for cost estimates for budgeting purposes - the initial consultation would cost \$750.00; after our initial discussion and with a clear view of the Associations goals for these areas, we would be in position to follow up with a more detailed proposal of costs necessary to develop recommendations and a design plan for these areas that would also include cost estimates for development for budgetary planning. There may also be an opportunity to pursue a grant for an environmental development project like this and at your option we could include specifics about our grant application services in our proposal. I would highly recommend the Association pursue grant opportunities, as they can significantly reduce financial burden.

As a final thought, VanBuren Point has enough a of a tree population that it may want to consider a more comprehensive management strategy through a complete inventory and management plan for its trees. This would allow a much more sophisticated focused effort for tree maintenance and would eliminate the sporadic "shot gun" approach that has been traditionally followed. Each tree would be located, measured and assessed, mapped, and cataloged. Trees of concern can be identified before they become problems. Tree maintenance would be prioritized and scheduled, making budgeting easier and more predictable. The Association would have more control and be proactive in terms of addressing liability. Planned planting can also be incorporated into a plan like this to help identify planting sites, address planting goals for open space areas, and be strategic about placement, selection, and timing. We would be glad to discuss this further as well. There is certainly no harm in continuing as you have if that works for the Association.

I hope this report provides a reasonable summary of our meeting and the possibilities for going forward with the management of the tree population and grounds at VanBuren Point Association. I am likewise available as needed for any additional consultation for other trees or to further address any of the issues reported on above. If you have any questions, please do not hesitate to contact me. Please also let me know if you would like to proceed with the initial consultation to begin evaluating the field areas as described above and we will tentatively plan it into our schedule for next spring.

Thanks again for considering our services.

Best Regards.

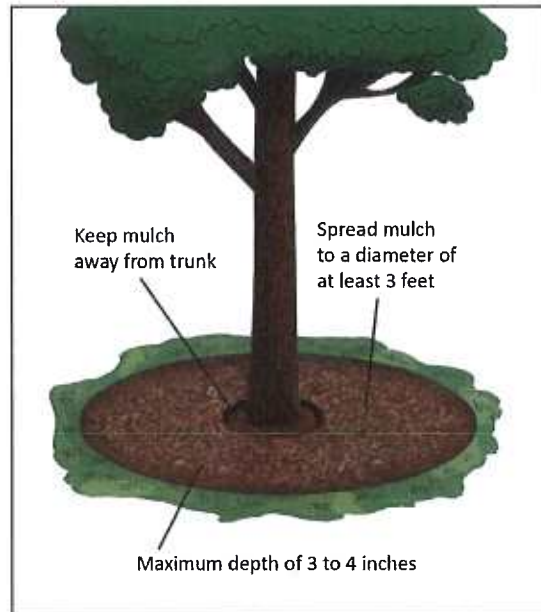


Craig Vollmer, *Certified Arborist, Certified Forester*
Chief Forester/Arborist

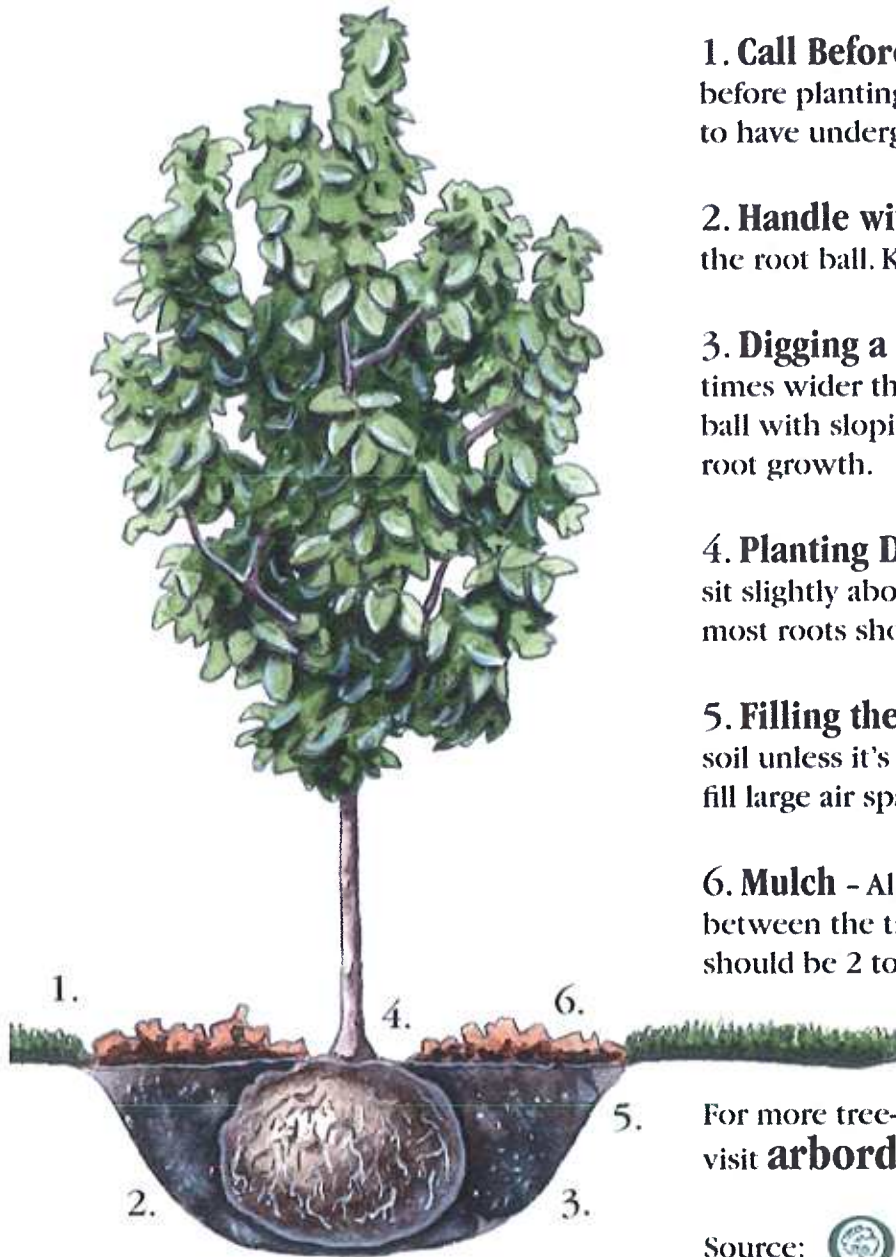
Mulching

Mulching can help: maintain soil moisture immediate to the tree; control competition from weeds and turf; insulate the soil, moderating temperatures; and inhibit certain diseases. Some mulch is formulated to enhance soil structure improving fertility, aeration, and drainage. Mulching also adds aesthetic character to the landscape creating a groomed appearance. One of the more important functions that mulching can serve is protecting the trees and roots from damage from lawnmowers and weed trimmers.

Mulching, however, is only effective if applied correctly (see also diagram right and pictures below). The most common mistake made by home owners and landscapers is over mulching. Mulch should be no deeper than 2 to 4 inches and should not be mounded against the trunk – the root collar/flare should be exposed. The turf should be removed around the tree and mulch should be spread over and around the roots out to the drip line (as often as and where possible). Improper mulching can restrict oxygen in the soil; allow excess moisture to build up in the soil; become a haven for damaging insects; rodents, and fungus; inhibit water penetration; and ultimately cause problems for the roots and trunk of the tree.



Six things you should know when planting a tree.



1. Call Before You Dig - Several days before planting, call the national 811 hotline to have underground utilities located.

2. Handle with Care - Always lift tree by the root ball. Keep roots moist until planting.

3. Digging a Proper Hole - Dig 2 to 5 times wider than the diameter of the root ball with sloping sides to allow for proper root growth.

4. Planting Depth - The trunk flare should sit slightly above ground level and the top-most roots should be buried 1 to 2 inches.

5. Filling the Hole - Backfill with native soil unless it's all clay. Tamp in soil gently to fill large air spaces.

6. Mulch - Allow 1 to 2 inch clearance between the trunk and the mulch. Mulch should be 2 to 3 inches deep.

5. For more tree-planting tips and information, visit arborday.org.

Source:  Arbor Day Foundation

90075201