



Landscaping Committee Doverbrook Association

Landscaping Committee Recommendations:

Overview:

Priority: Fertilize the maple trees with natural organic compost starting as soon as possible. Fall fertilization will benefit the maple trees in the Spring. Watering for the fall will be through normal rainfall and snow cover. This can be accomplished in two ways.

One: Fertilize with high nitrogen concentrations directly around the maple trees extending out from the base to a distance equal to the crown diameter. Fertilizing with high nitrogen and watering will have the fastest impact on Maple decline in the short term.

Two: Fertilize with an organic material, compost, directly around the maple trees extending out from the base to a distance equal to the crown diameter. Fertilizing with organic compost is a better longer term solution. The benefit of the organic compost is that it will fertilize the soil as well as increase organic material in the soil. The increased organic content will develop better soil structure, and will retain moisture content in the soil better. This means less watering.

Three: Removal. An assessment of the number of maple trees that are expected to die can be assessed over a 1 to 4 year period for budgeting purposes. Instead of removing each tree as it occurs, it is possible to make an assessment, and make arrangements for all of the trees to be removed over a one to 3 year period by contractors who would remove the dead trees in exchange for the wood; thus eliminating the cost of removal. In addition, stump removal could be contracted at a lower price based on the estimated quantity to be removed.

Priority: Use organic composting to increase Soil Structure.

In general however, the soil is very compacted mostly because of the lack of organic material in the soil. Without organic material, the soil will not retain water and will not support insects and worms. These are two natural processes that aerates the soil naturally. Additional factors include compaction from foot traffic and heavy equipment.

One: Spread organic compost material on soils that are identified as having low organic material. This includes areas where there are maple trees.

Two: Increase organic material on soils by mulching the lawn instead of bagging and disposal. This will increase organic material in the soil immediately.

It is noted that there is a high correlation of maples that are in decline, are in a proximal area where the maples are near the street curb, and where salt accumulations are very high due to continuous piling of the snow and salt in the same location. This has resulted in a high percentage of sand and gravel with a possible high concentration of salt. These areas are low in organic material, causing a further compaction of the soil where the soil does not retain water for the trees and turf.

Currently there are only a few options as follows:

1. Reduce salt and sanding of the roads if feasible.
2. Relocate snow piles to different location(s), if feasible.
3. Water high concentration salt areas to remove and flush salt from top soil.

It would seem that these options are not feasible or are too expensive.

Priority: Fertilization

Previous discussion on fertilization incorporated organic material from compost. In addition it was noted that this option would take 3-4 years and many of the maple trees would further decline in that time period, and die.

It was noted that for maple trees that would die with 3-4 years, would die before they would benefit from increased organic material. One possibility would be to use a high nitrogen fertilizer for maple trees that could be saved, and use organic composting material as well.

No suggested increase in the Fertilization Budget currently at \$35,000.00 Annually.

Treat Maple Decline and Turf with natural organic compost, to be used as a fertilizer.

The natural organic compost used as a fertilizer will also provide organic material for trees and turf at the same time.

Water requirement for both trees and turf could be reduced by 12-15% as a result because the organic material will hold the water better in the sandy soil.

Aeration of the soil would increase naturally due to the increased organic content of the soil.

Recommend 4 year cycle of treatment.

Fertilization with natural organic compost to cover 100% of identified trees and turf areas.

Recommend that grass clipping be mulched back into the lawn while being mowed. This will increase the organic material of the soil, and reduce labor and disposal costs.

Maple Tree Decline Description

Currently the Maple Tree Decline trees are being identified and mapped:

Maple trees that will die within one year. Recommend removal.

Maple trees with a decline of 50% or more of their canopy is estimated will die with one to two years. These trees will die eventually with or without treatment.

Maple trees with at least 80% of their canopy will survive two to four years if untreated.

Recommend treatment with natural organic fertilizer.

Annual treatment with 1,000 cubic yards of natural organic compost per year, to be dispersed at a depth of 0.75 inches to 1.5 inches. Application of 0.75 inches for identified turf areas, and 1.5 inches surrounding tree crown areas and areas with little or no turf.

Natural organic compost has been priced at \$12.00 per cubic yard.

Delivery costs are estimated at \$2.75 per cubic yard

Spreading cost is estimated at \$8.00 per cubic yard.

Total cost per cubic yard: \$22.75
Total Cost: \$22,750.00

Maple Tree Decline Additional

Of the Maple Trees in decline with at least 80% crown cover (chance of survival longer than four years), the committee recommends an annual application of 10 pounds of synthetic nitrogen per tree in addition to the natural organic fertilizer. This is needed to provide nitrogen immediately to the soil, as the natural organic compost will not provide enough nitrogen to the soil in the first year cycle. This synthetic nitrogen needs to be watered into the ground at time of application.

Cost: 10 LB, 18-6-12: \$18.00

Total Number of trees (estimate): 50

Total Cost: \$900.00

Maple Tree Removal

The Committee recommends that the Maple Trees that are identified as dead, including Maple Trees that will be dead within one to two years, be identified for removal, and then contracted with a single contractor to be removed, in exchange for the cordwood. The current estimate is 50 trees.

Total Cost for tree removal not including stumping: \$0.00

Soil Sampling

Currently, the Committee has a report that shows a single soil sample, without a noted location. Without soil sampling there is no method of monitoring what areas need specific treatment. There would also be no way to monitor treatment results on 94 acres.

The Committee recommends soil sampling of 25 sites identified on the Map to establish a base, and then monitor these sites for improvement. University of Massachusetts Extension Service.

Cost: \$50.00 per sample

Samples: 25

Total Cost: \$1,250.00

Liming

Current Budget: Lime Annual: 12,000 (included in the Fertilization Budget)

Expensed 2007 to Date: \$6,000 (Application Spring 2007).

The Landscaping Committee recommends that no liming take place for the fall of 2007.

The Committee recommends that without soil sampling to determine the soil pH in various areas, and where to apply it, the money would be wasted.

Total Cost: \$0.00

Priority: Crabapple Trees

Discussion:

It was noted that through late summer and early fall, the weather was very dry, thus suppressing the spread of the crabapple blight.

Reoccurrence of the crabapple blight is dependant upon weather conditions in the spring. If there is a long protracted rainy spring above 60 degrees, the chances increase for another blight.

While the crabapple had blight, it seems that Doverbrook residents have confused the blight with the appearance of the crabapple in general. While the crabapple trees may appear scraggly and rough, this in no way will determine the tree survival as they will live very long. Other residents noted that they did not like the fruit it produced.

The blight is reduced by a hard frost, and that pruning should not be conducted before there are a few hard frosts to kill the blight. Pruning after a freeze will prevent the spread of the blight from the pruning tools. This can be accomplished in late fall or early spring.

Pruning could be done in the late fall or early winter, or early spring, if at all.
Pruning at this point is aesthetic only.