# Landscape Inventory Report
# Drumlins Homeowner Association

**for**

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## *Introduction and Scope of Services*

This report provides the results of a landscape inventory of trees located at Drumlins Homeowners Association Victor, NY conducted in August 2016. The trees were located with a Global Positioning System (GPS) and mapped, and essential data on location, health, management needs, and pests were collected in the inventory. This report summarizes that inventory data and discusses management issues and approaches based on the trees present, their management needs, and the data collected. In addition, tree pruning specifications for the site and data collected are provided.

## Data Collection Methodology and Tree Location Mapping

Tree location data were collected using mid-range accuracy (1-5 meters) GPS equipment to record the geographic coordinate system location for each tree or group of trees. The tree number on the tree location map (Appendix A) corresponds to the same number in the spreadsheet.

### Data Delivery

Inventory data are provided as a hard copy in this report (Appendix B) and as an MS Excel spreadsheet with the appropriate headings as identified below. GPS coordinates are provided as latitude and longitude using degrees as the coordinate system in spreadsheet form only.

### Trees That Were Inventoried

All trees with their trunk fully within the mowed areas at the Drumlins were inventoried. The HOA requested that trees located on the woods edge along the borders of mowed areas be looked at for priority maintenance. Property boundaries were not surveyed or marked therefore Urban Forestry does not guarantee or imply that these trees are on HOA property. Each tree or groups of trees with similar maintenance on the woods edge that was inventoried was tagged with a numbered aluminum tag including ash trees that will die in the near future because of emerald ash borer.

## Data Collection Specification

### Location Information

The inventory used the following fields to identify individual trees or groups and their location. The name in the parenthesis is the name of the Excel spreadsheet column for that data.

1. Tree serial number (Serial #) - Each tree or group of trees received a unique number that also identifies the tree on the location map and in the database.

2. Management Area (Area) - The property was divided into five management areas to assist in planning and maintenance of trees on the site. Each management area had between 39 and 50 trees and they are presented in Figure 1. The HOA can reassign these areas as desired using the GPS points and spreadsheets provided.

3. House Number (House #) - the number of the nearest housing unit to the tree was identified

4. Street name (Street) - the appropriate street name of the house number referenced above was recorded.

5. Location – the location of the tree relative to facing the housing unit was identified as Front, Left, Right, Back, or Woods for trees that were wholly or partially rooted in the woods.

6. Distance (Dist) - estimated distance in five foot intervals to the specified housing unit.

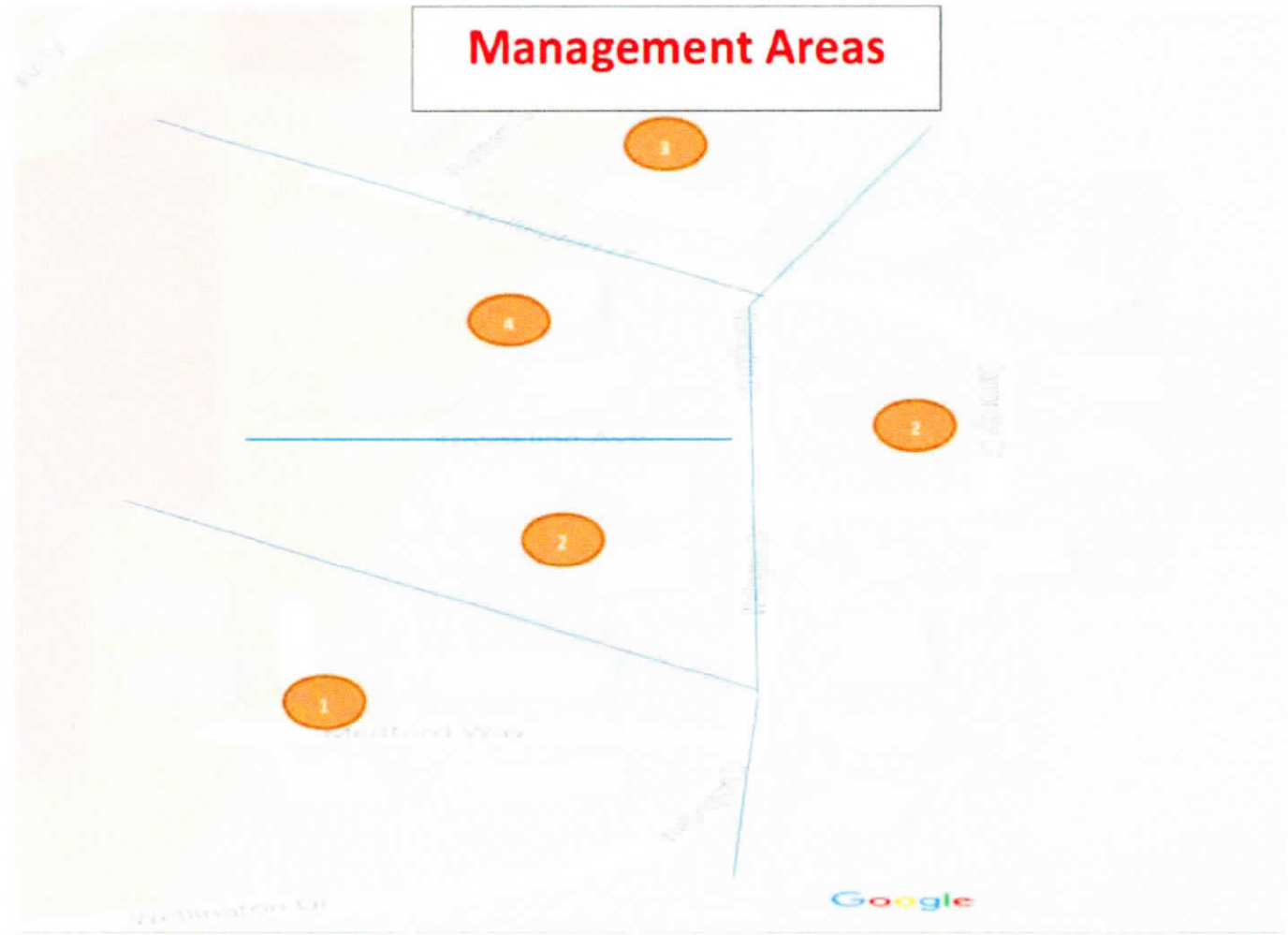


Figure 1. Management areas used for the inventory.

7. Number in Group (# Grp) - The number of trees in a group where multiple trees of the same genus and species are present with the same management recommendations.

8. Geographic Coordinate System
Tree location shall be recorded as per the Data Collection Methodology. The GPS coordinates are presented in a separate tab in the electronic spreadsheet.

**Tree Attributes Data Collection Specifications**
The following attributes shall be collected that identify the tree species, diameter, tree condition and pest status on the property.

9. Common Name (Common), Tree Genus (Genus), Species (Species) - Each tree (no shrubs were inventoried) was identified to genus and species (separate data fields for each), and a common name is provided. In cases where tree species are not commonly assigned (for example, crabapple and hawthorn) genus level identification is presented. All trees were identified, and no "Unknown" species were present in the final data set.

10. Diameter (DBH) - Diameter was measured at 4.5 feet off the ground with a diameter tape and recorded to the nearest diameter inch.

11. Tree Condition (Cond) - Tree condition was assigned as "Excellent" "Good", "Fair", "Poor" "Very Poor" and "Dead" using the methodology identified in the "Guide for Plant Appraisal". This rating includes both structural or mechanical condition and biological health into this single rating.

12. Longevity and Desirability in the Landscape
Potential longevity and desirability in the landscape were rated as follows

- Low- Trees with less than five years potential longevity due to tree health or structural issues or other factors such as undesirable species or location
- Moderate - Trees with 5-10 years potential longevity in the landscape because of health, pest, structural or location issues.
- High- Trees with more than 10 years longevity that are likely to remain in the landscape into the foreseeable future as they are generally lacking observable serious health or structural concerns, and are properly placed, desirable trees in the landscape.

**Tree Maintenance Recommendations**

13. Management Recommendation One (Manage 1)
Management needs requirement was based on tree size/maturity, existing defects and structural tree health concerns. The proposed inventory was not a tree risk survey but identified priority maintenance and general maintenance concerns on the property. Each tree was evaluated after a complete walk around the tree while looking for structural defects on the buttress roots, trunk, scaffold branches, branches and crown of the tree. Sounding with a mallet with a hard plastic head was used to assess wood decay and other structural defects that could be reached from the ground. Management requirement for each tree or stump shall was identified using one of the following fields.

- Prune Large- Was used for trees that cannot be pruned from the ground, are large in size at maturity, and do not have priority management needs as identified below. They would be pruned on a rotational management schedule using a specification that identifies the pruning requirements for established trees in the landscape.
- Prune Small - This category shall be assigned to trees that are small at maturity (crabapples, dogwoods, hawthorns, and similar small stature trees) that do not have priority maintenance requirements. These trees are usually pruned using a specification that considers their size and growth habit.
- Prune Train - Assigned to new plantings or a recently planted trees that can be safely and effectively pruned from the ground using hand tools. Recently planted trees are typically pruned more frequently and require structural pruning that is distinct from other trees in the landscape.
- Prune Safety - Assigned to trees that have defective branches that are greater than 4 inches in diameter and therefore require prioritized pruning before other trees.
- Remove - Assigned to trees in poor biological health and/or with structural defects that cannot be addressed by pruning and/or further decline or death can be expected within the next five years that would necessitate tree removal. Also included in this category are trees that require pruning such that greater than 33% of the live crown will be required to remove defective parts or pruning shall leave the tree with a highly asymmetrical or unbalanced crown. All trees with Remove shall be assigned the maintenance priorities as designated below.
- Stump. Stumps shall be identified, measured for diameter and identified as "Dead" under condition attribute. Stumps shall receive a tree genus and species designation of "Stump".

**Management Priority and Assessment Methodology**

Management priority was assigned as Removal 1, Removal 2, or Removal Amenity. Trees with a Removal 1 should be removed as within the year of the receiving this data. Trees with Removal 2 should be removed within two years of receiving this data. Trees with Removal Amenity do not pose a threat to people or property in their current state or because of their size or condition, but are recommended for removal because of their condition or health, poor location, or the presence of pests or other factors that make them aesthetically or otherwise undesirable in the landscape.

14. Management Recommendation Two (Manage 2)
- Clear - for trees that require pruning to clear the housing unit or will require pruning within the next year
- Raise - for trees that should have lower branches pruned to raise them over driveways, roadways or over mowed turf areas. Typically this is 13 feet over roads or driveways, and 8 feet over walkways and mowed areas.
- Treat – for trees that would benefit from treatment for a specific pest or fertility issue. TreatA was used to identify ash trees that are worth consideration for treatment for emerald ash borer.

15. Tag Number (Tag #) – the number on the aluminum tag installed in trees that are in woods and have priority maintenance needs.

16. Comments- comments that provide additional information or interpretation of the inventory data collected. For trees in groups or in woods locations, the approximate diameter of each tree in the group is listed in the comments separated by a comma.

# Summary Report

### Number of Trees

The landscape inventory showed there are 226 trees in the mowed areas of the Drumlins and 58 trees in the woods or woods border that will require removal. The inventory tallied 189 sites with trees, and 15 sites with multiple or groups of trees of the same species. The groups of trees were almost all conifers such as pine, spruces or Douglas fir.

The relatively large number of trees in the woods with priority maintenance is because they are ash and will likely be dead in the next few years due to emerald ash borer. This is discussed further below. Only three trees in the wooded border were non ash species.

In addition, trees in the woods behind the odd numbered units of Medford Way are encroaching or have branches that will require clearance pruning in the next few years. These trees were not inventoried individually because they were in the woods do not have priority maintenance needs.

The number of trees in each management area are presented in Table 1. These management areas may be useful in budgeting and planning for work on the property. Corresponding maps for the management areas are in Appendix A.

Table 1. Number of trees in each Management Area and Serial #'s represented in the unit (note all numbers are approximate as trees in groups are represented as one tree).

| Management Area | Serial # in Area | Number of Trees in Area |
|---|---|---|
| 1 | 1 - 39 | 39 |
| 2 | 40 - 81 | 41 |
| 3 | 82 – 128 | 47 |
| 4 | 129 – 175 | 50 |
| 5 | 176 – 211 | 36 |

### Condition of Trees

Most trees were rated in good or fair condition (86%), and 13% were rated in poor or worse condition. There was only one dead tree on the property (Figure 2).

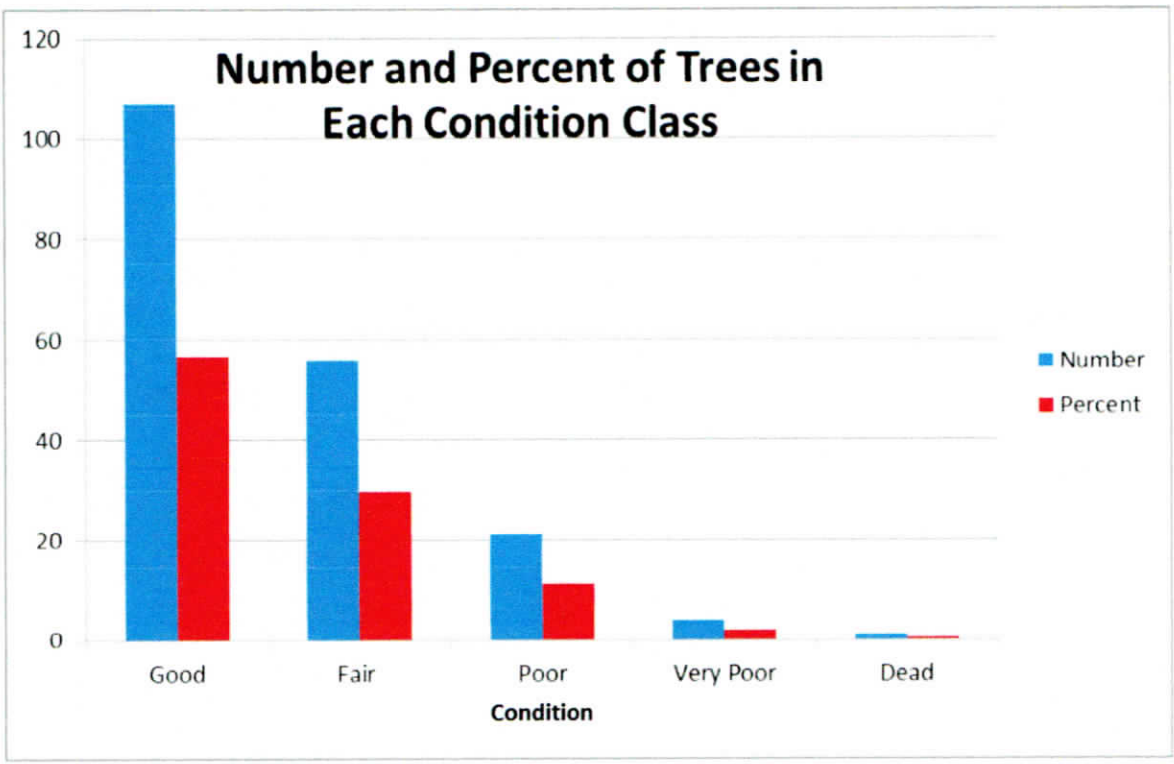


Figure 2. Number and percent of trees each condition class in the mowed landscape areas (note all numbers and percentages are approximate as trees in groups are represented as one tree).

**Species of Trees**

The most common tree at the Drumlins is crabapple, followed by honeylocust, sugar maple, Norway maple and red maple (Table 2). Most sources suggest having no single species above 5% of the population, no single genus (e.g. *Quercus* or oak) more than 10% of the population, and no family representation (e.g. Fagaceae, oak, beech, chestnut) of more than 20% of the population. This helps avoid large scale loss to pests or other disturbances that affect similar types of trees. For example, ash is only 3.7% of the population in the maintained area and if these tree if they are lost to emerald ash borer will hardly be missed from the population.

Table 2. Number and percent of all tree species in mowed or maintained areas (note all numbers and percentages are approximate as trees in groups are represented as one tree).

| Common Name | Number | Percent |
|---|---|---|
| Crabapple | 29 | 15.3 |
| Honeylocust | 17 | 9.0 |
| Sugar maple | 17 | 9.0 |
| Norway maple | 10 | 5.3 |
| Red maple | 10 | 5.3 |
| White pine | 10 | 5.3 |
| Douglas fir | 7 | 3.7 |
| Pignut hickory | 7 | 3.7 |
| White spruce | 7 | 3.7 |
| Flowering dogwood | 6 | 3.2 |
| Shagbark hickory | 6 | 3.2 |
| White cedar | 6 | 3.2 |
| Blue spruce | 5 | 2.6 |
| Kousa dogwood | 5 | 2.6 |
| Limber pine | 4 | 2.1 |
| Pin oak | 4 | 2.1 |
| White ash | 6 | 3.2 |
| Callery pear | 3 | 1.6 |
| Norway maple Crimson King | 3 | 1.6 |
| American basswood | 2 | 1.1 |
| Kwanzan cherry | 2 | 1.1 |
| London planetree | 2 | 1.1 |
| Star magnolia | 2 | 1.1 |
| Tall hedge | 2 | 1.1 |
| Tree lilac | 2 | 1.1 |
| American beech | 1 | 0.5 |
| Amur maple | 1 | 0.5 |
| Black locust | 1 | 0.5 |
| Cherry | 1 | 0.5 |
| False cedar | 1 | 0.5 |
| Green ash | 1 | 0.5 |
| Hawthorn | 1 | 0.5 |
| Hornbeam | 1 | 0.5 |
| Red oak | 1 | 0.5 |
| Redbud | 1 | 0.5 |
| River birch | 1 | 0.5 |
| Sassafras | 1 | 0.5 |
| Serbian spruce | 1 | 0.5 |
| Silver maple | 1 | 0.5 |
| Sweetgum | 1 | 0.5 |

## Longevity

Most trees (134 of 189) were evaluated to have more than 10+ years of expected longevity in the landscape. Twenty eight trees were rated to have 5 – 10 years, and 27 trees were less than five years (Table 3). The trees with the lowest longevity rating are mostly diseased or poor performing conifers or ash (if they are not treated for emerald ash borer).

Table 3. Number of trees and expected longevity in each category (note all numbers and percentages are approximate as trees in groups are represented as one tree).

| Expected Longevity | Number of Trees |
|---|---|
| 10+ Years | 134 |
| 5 – 10 Years | 28 |
| 5 or Less Years | 27 |

## Maintenance Mowed Areas

There were no trees in the maintained or mowed areas with either immediate or high priority safety pruning or removal needs (Table 4). Five trees are recommended for removal with lower priority evaluation in the next two years. Three of these are mature trees in the open area between Brookline and Medford Way that have decay in the base or top, and one is the hickory that was recommended for removal previously behind 1266 Wellington, and one is a declining ash tree.

The relatively large number of Remove Amenity trees (17) is due to the Douglas fir on the property that are being damaged and are in poor condition because of Swiss needlecast disease, flowering dogwoods that are in poor condition (they are intolerant of urban conditions and frequently are short-lived because of several pests), and the white spruce that are in generally in poor condition. The white spruce planted between the white pines behind 1318 – 1320 Wellington are recommended for removal because they are in poor condition, are overgrown with vines and are crowding the better growing white pines. These trees can be removed on a planned basis because they are not currently a safety threat, but are mostly aesthetically unappealing or are or will be in very poor condition in the near future.

Table 4. Maintenance requirements of trees in the mowed areas (note all numbers and percentages are approximate as trees in groups are represented as one tree).

| Maintenance Prune | Number | Percentage |
|---|---|---|
| Prune Large | 81 | 42.9 |
| Prune Small | 39 | 20.6 |
| Prune Evergreen | 32 | 16.9 |
| Prune Train | 15 | 7.9 |
| Remove Amenity | 17 | 9.0 |
| Remove 2 | 5 | 2.6 |

The most common secondary pruning maintenance requirement (Table 5) was raising lower branches to allow trees that should have lower branches pruned to elevate them over driveways, roadways or over mowed turf areas. Typically this is 13 feet over roads or driveways, and 8 feet over walkways and 6-8- feet over mowed areas. A similar number of trees were noted to have clearance pruning requirements because they have branches growing into the side of housing units or over the roof or these branches will be doing so in the next year or so.

A single tree (shagbark hickory next to 1 Medford) was recommended for cabling because of a codominant stem higher up in the tree.

The white cedars on the property are problematic in most cases as they were planted for screening next to decks or housing units but have grown too large for the space. They cannot be reasonably pruned in most cases because clearance pruning will ruin their aesthetic appeal and eliminate the screening they were planted for. I recommend the HOA systematically review the appropriateness of these trees in locations next to the housing units or decks.

Table 5. Specific maintenance requirements of trees in the mowed areas (note all numbers and percentages are approximate as trees in groups are represented as one tree).

| Management | Number | Percent |
|---|---|---|
| Clear | 49 | 25.9 |
| Raise | 57 | 30.2 |
| Treat | 7 | 3.7 |
| Treat Ash | 6 | 3.2 |
| Cable | 1 | 0.5 |

## Maintenance Bordering Woods Areas

There were 58 trees identified in the bordering woods that were recommended for removal (any tree with its base and or roots that that were partially or fully in the woods was walked by for priority maintenance). Three trees (one dead red maple on the edge that will probably fall into the woods), a cherry with a split in the trunk, and a large diameter ash that appears to be dying from emerald ash borer) were recommended for priority removal.

The remaining 55 trees are a count of ash that will require removal in the next 3 – 5 years because they will die from emerald ash borer. Most of these trees are currently in fair or good condition, and most are relatively small in diameter. These groups of ash near and along the woods edge were identified by tagging a tree in a location and counting the number of ash near the tagged tree and recording their diameter in the comments section of the spreadsheet. It would be most cost efficient to mark these trees with spray paint for identification and have them removed in the winter when they could be dropped into the woods. Most trees could be cut and left in the woods to degrade naturally.

## Pest

The most important pests on the site were emerald ash borer, Swiss needlecast on Douglas fir, Cytospora canker on the blue spruce, and mimosa webworm on the honeylocust. The ash were recommended for treatment or removal because of emerald ash borer (EAB). EAB appeared to me to be on the site now as evidenced by common symptoms on several ash. However I did not specifically sample these trees for the pest. In any case, the EAB is in the surrounding area and if the trees are to be retained in the landscape they will have to be treated **now**. The treatment is very effective (emamectin benzoate injected into the tree trunk) and lasts 2-3 years. The trees will have to be treated repeatedly over their lifetime to sustain them in the landscape. Current cost for treatment is $5 - $10 per diameter inch.

The Douglas firs are in poor condition because Swiss needlecast and should be removed and replaced if desired. They will continue to decline in health because of the disease. Treatment is possible but is marginally effective, costly and will have to be done 2-3 times per year for as long as the trees are retained. Replacement with Norway spruce or concolor fir is recommended, recognizing that these trees are large at maturity (like Douglas fir) and should be given adequate spacing between trees and from housing units.

The Cytospora canker on the spruce is problematic as it slowly kills branches starting at the bottom of the tree. There is no control for the disease. The disease shortens the life of blue spruce in the landscape and some trees are becoming aesthetically unattractive and are losing their screening effect because of the disease.

The webworm should be monitored and treated only if populations build and begins to cause serious damage to the honeylocust. There are effective relatively low toxicity insecticides that can be used for the pest but chemical control for mimosa webworm is rarely warranted. **A treatment after foliage has turned brown is ineffective and a waste of time.** Sprays must be applied at the start of the caterpillar period and before webbing is apparent to be effective (mid-June and again in early August).

Two micronutrient deficiencies were important and were causing the pin oak and red maples to be off color. The oak is chlorotic or yellow because of iron deficiency, and the red maples are off color that is likely due to a manganese deficiency. Both these deficiencies are problems on soils with high pH, and can cause long term decline in tree health if not treated. The treatments are typically injected into the trunk of the tree and usually require annual treatment.

Other management recommendations are in the comments section such as girdling roots and trees with canker diseases that could be pruned.

## Tree Pruning Management and Specifications

There can be several approaches to managing the pruning work. Most of the pruning requirements are clearance and raising next to and around housing units, over driveways and roads, and over lawn areas. This pruning could be approached or managed by one of 4 options :

1. Prune all trees with apparent clearance and raising needs at one time and reprune again when clearance or raising issues redevelop.
2. Break the population up of trees with clearance and raising needs into small numbers and do the pruning over multiple years.
    a. The management units can help identify what trees need to be pruned and on what schedule, and to keep track of what trees have been pruned and when.
3. Use a five year rotation pruning all trees requiring with clearance or raising, structural or small tree pruning in each management unit once every five years.
    a. Typically a five year rotation is adequate if enough pruning is done on each tree to achieve five year clearance
    b. Starting a five year rotation now by pruning one of the management units will leave some trees with clearance and/or raising pruning not completed for 4 years.

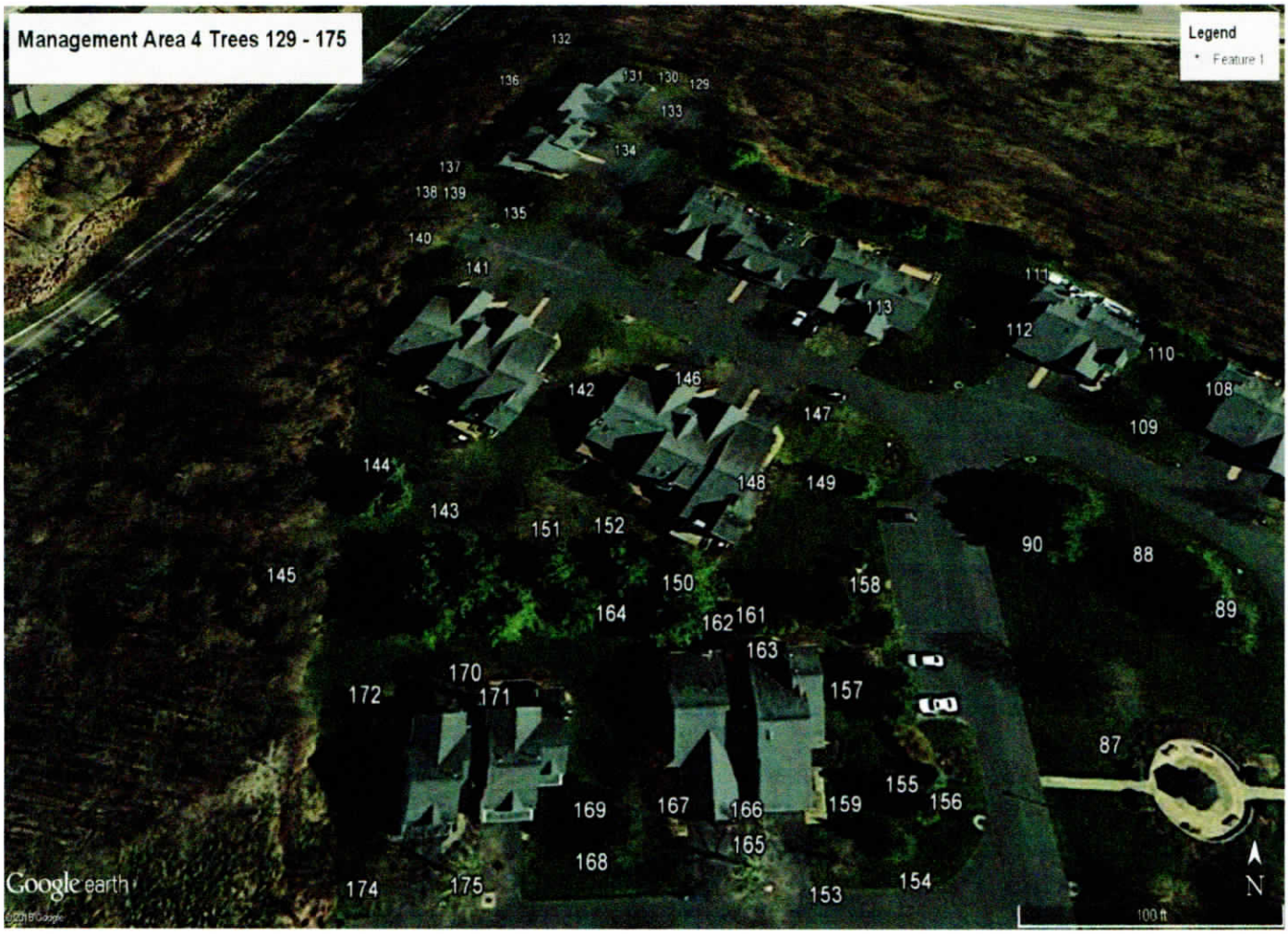
To accomplish the rest of the pruning work, prune any tree with structural pruning needs and prune training when trees in that area are being pruned for clearance or raising. There are a limited number of these trees in the population.

Trees without clearance or raising or structural pruning needs should be re-evaluated in five years for their pruning requirements. Pruning specifications for the clearance, raising, structural pruning and small tree pruning are presented in Appendix C.

**Appendix A. Tree location maps by Management Area.**


Management Area 2 Trees 40 - 81
Legend
Feature 1
Medford Way
Google earth
100 ft
N


Management Area 3 Trees 82 - 128
Legend
Feature 1
Brookline Ave
Google earth
N
100 ft


Management Area 4 Trees 129 - 175
Legend
Feature 1
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138 139
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Google earth
100 ft
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Management Area 5 Trees 211 - 128
Legend
Feature 1
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200
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Google earth
©2016 Google
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70 ft
64

**Appendix B. Tree listing by Serial #.**

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 19 | Medford Way | Front | 15 | 1 | Honeylocust | Gleditsia | triacanthos | 12 | Good | 10+ | Prune Large | | | |
| 2 | 1 | 19 | Medford Way | Right | 5 | 1 | Red maple | Acer | rubrum | 17 | Good | 10+ | Prune Large | | | Rubbing branch |
| 3 | 1 | 17 | Medford Way | Left | 5 | 1 | Crabapple | Malus | species | 10 | Good | 10+ | Prune Small | Clear | | |
| 4 | 1 | 17 | Medford Way | Left | 5 | 1 | Crabapple | Malus | species | 15 | Good | 10+ | Prune Small | Clear+Raise | | Moss on roof |
| 5 | 1 | 17 | Medford Way | Front | 35 | 1 | Honeylocust | Gleditsia | triacanthos | 11 | Good | 10+ | Prune Large | Raise | | Minor raise |
| 6 | 1 | 13 | Medford Way | Right | 10 | 1 | Crabapple | Malus | species | 12 | Good | 10+ | Prune Small | Clear+Raise | | |
| 7 | 1 | 13 | Medford Way | Right | 10 | 1 | Crabapple | Malus | species | 9 | Fair | 10+ | Prune Small | Clear | | |
| 8 | 1 | 11 | Medford Way | Woods | 30 | 5 | White ash | Fraxinus | americana | 9 | Good | >5 | Remove2 | | 139 | 5, 4, 4, 6 |
| 9 | 1 | 11 | Medford Way | Back | 5 | 1 | Crabapple | Malus | species | 9 | Fair | 10+ | Prune Small | Clear | | |
| 10 | 1 | 11 | Medford Way | Left | 5 | 1 | Crabapple | Malus | species | 10 | Good | 10+ | Prune Small | Raise | | |
| 11 | 1 | 11 | Medford Way | Front | 25 | 1 | Honeylocust | Gleditsia | triacanthos | 13 | Good | 10+ | Prune Large | Raise | | |
| 12 | 1 | 11 | Medford Way | Woods | 40 | 1 | White ash | Fraxinus | americana | 9 | Good | >5 | Remove2 | | 140 | |
| 13 | 1 | 9 | Medford Way | Woods | 50 | 1 | Red maple | Acer | rubrum | 36 | poor | >5 | Remove2 | | 141 | Decay 3 stems |
| 14 | 1 | 9 | Medford Way | Woods | 50 | 2 | White ash | Fraxinus | americana | 9 | Fair | >5 | Remove2 | | 142 | 9,7 |
| 15 | 1 | 9 | Medford Way | Right | 20 | 1 | Honeylocust | Gleditsia | triacanthos | 15 | Good | 10+ | Prune Large | Clear+Raise | | |
| 16 | 1 | 11 | Medford Way | Front | 5 | 1 | Kousa dogwood | Cornus | kousa | 3 | Good | 10+ | Prune Small | | | |
| 17 | 1 | 9 | Medford Way | Right | 10 | 1 | Crabapple | Malus | species | 15 | Good | 10+ | Prune Small | Clear | | |
| 18 | 1 | 9 | Medford Way | Woods | 35 | 1 | Red maple | Acer | rubrum | 16 | Dead | >5 | Remove1 | | 143 | Probably will fall into woods |
| 19 | 1 | 9 | Medford Way | Woods | 25 | 1 | White ash | Fraxinus | americana | 5 | poor | >5 | Remove2 | | 144 | |
| 20 | 1 | 7 | Medford Way | Left | 10 | 1 | Crabapple | Malus | species | 11 | Good | 10+ | Prune Small | Clear | | |
| 21 | 1 | 9 | Medford Way | Front | 5 | 1 | Kousa dogwood | Cornus | kousa | 3 | Good | 5 - 10 | Prune Small | | | Sheared |
| 22 | 1 | 9 | Medford Way | Front | 35 | 1 | Honeylocust | Gleditsia | triacanthos | 16 | Good | 10+ | Prune Large | Raise | | |
| 23 | 1 | 5 | Medford Way | Right | 10 | 1 | Flowering dogwood | Cornus | florida | 3 | Fair | 10+ | Prune Train | | | |
| 24 | 1 | 3 | Medford Way | Back | 5 | 1 | Amur maple | Acer | ginnala | 4 | poor | >5 | Prune Small | Clear | | Multistemmed; growing into deck fencing |
| 25 | 1 | 3 | Medford Way | Front | 15 | 1 | Honeylocust | Gleditsia | triacanthos | 15 | Good | 10+ | Prune Large | Clear+Raise | | |
| 26 | 1 | 1 | Medford Way | Left | 25 | 1 | Honeylocust | Gleditsia | triacanthos | 18 | Good | 10+ | Prune Large | Raise | | |
| 27 | 1 | 1 | Medford Way | Left | 10 | 1 | Crabapple | Malus | species | 8 | Good | 10+ | Prune Small | Clear | | |
| 28 | 1 | 1 | Medford Way | Left | 10 | 1 | Shagbark hickory | Carya | ovata | 26 | Good | 10+ | Prune Large | Clear | | Cable codominant stems |
| 29 | 1 | 1 | Medford Way | Left | 40 | 1 | Honeylocust | Gleditsia | triacanthos | 17 | Good | 10+ | Prune Large | Raise | | |

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 1 | 2 | Medford Way | Front | 40 | 1 | Red maple | Acer | rubrum | 12 | poor | 5 - 10 | Prune Large | Raise | | Top Dead |
| 31 | 1 | 2 | Medford Way | Left | 10 | 1 | Crabapple | Malus | species | 10 | Good | 10+ | Prune Small | Raise | | |
| 32 | 1 | 4 | Medford Way | Front | 30 | 1 | Red maple | Acer | rubrum | 9 | Fair | 10+ | Prune Large | Raise | | Fertilize with Mn and Micronutrients |
| 33 | 1 | 6 | Medford Way | Front | 20 | 1 | Red maple | Acer | rubrum | 6 | Fair | 10+ | Prune Large | Clear+Raise | | Light clearance; Fertilize with Mn and Micronutrients |
| 34 | 1 | 6 | Medford Way | Left | 15 | 1 | River birch | Betula | nigra | 12 | Good | 10+ | Prune Large | Raise | | |
| 35 | 1 | 6 | Medford Way | Left | 15 | 1 | Cherry | Prunus | species | 4 | Good | 10+ | Prune Train | | | |
| 36 | 1 | 6 | Medford Way | Back | 10 | 1 | Douglas fir | Pseudotsuga | menziesii | 10 | poor | >5 | Remove Amenity | | | Diseased; Swiss needle cast |
| 37 | 1 | 6 | Medford Way | Back | 15 | 1 | Douglas fir | Pseudotsuga | menziesii | 8 | poor | >5 | Remove Amenity | | | Diseased; Swiss needle cast |
| 38 | 1 | 2 | Medford Way | Left | 40 | 1 | American basswood | Tilia | americana | 27 | Fair | >5 | Remove2 | | | Decay in upper trunk |
| 39 | 1 | 2 | Medford Way | Back | 25 | 1 | Pignut hickory | Carya | glabra | 15 | Good | 10+ | Prune Large | | | North of Utility Box |
| 40 | 2 | 1254 | Wellington | Front | 10 | 1 | Pin oak | Quercus | palustris | 21 | Fair | 10+ | Prune Large | | | Iron chlorosis; Treat with Fe |
| 41 | 2 | 1254 | Wellington | Right | 30 | 1 | Pignut hickory | Carya | glabra | 22 | Good | 10+ | Prune Large | | | |
| 42 | 2 | 1254 | Wellington | Right | 30 | 1 | American beech | Fagus | grandifolia | 11 | Fair | 10+ | Prune Large | | | Beech scale |
| 43 | 2 | 1256 | Wellington | Back | 15 | 1 | Crabapple | Malus | species | 8 | Fair | 10+ | Prune Small | | | |
| 44 | 2 | 1256 | Wellington | Left | 10 | 1 | Callery pear | Pyrus | calleryana | 8 | Good | 10+ | Prune Small | | | Reduce codominant stem |

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45 | 2 | 1258 | Wellington | Front | 30 | 1 | Pin oak | Quercus | palustris | 18 | Fair | 10+ | Prune Large | | | Iron chlorosis; Treat with Fe |
| 46 | 2 | 1256 | Wellington | Front | 5 | 1 | Star magnolia | Magnolia | stellata | 5 | Fair | 10+ | Prune Small | | | Treat for scale |
| 47 | 2 | 1258 | Wellington | Front | 15 | 1 | Tree lilac | Syringa | reticulata | 2 | poor | 5 - 10 | Prune Train | | | trunk damage |
| 48 | 2 | 1260 | Wellington | Left | 5 | 1 | White cedar | Thuja | occidentalis | 8 | Fair | 5 - 10 | Prune Evergreen | | | Too close to house |
| 49 | 2 | 1260 | Wellington | Back | 15 | 1 | Crabapple | Malus | species | 10 | Good | 10+ | Prune Small | | | |
| 50 | 2 | 1266 | Wellington | Right | 15 | 1 | Shagbark hickory | Carya | ovata | 17 | Good | 10+ | Prune Large | | | |
| 51 | 2 | 1266 | Wellington | Back | 30 | 1 | Shagbark hickory | Carya | ovata | 22 | Fair | >5 | Remove1 | | | |
| 52 | 2 | 1262 | Wellington | Woods | 60 | 3 | White ash | Fraxinus | americana | 12 | Fair | >5 | Remove2 | | 146 | 12,10, 6 |
| 53 | 2 | 1258 | Wellington | Back | 10 | 1 | Flowering dogwood | Cornus | florida | 2 | poor | >5 | Remove Amenity | | | trunk damage |
| 54 | 2 | 1266 | Wellington | Front | 20 | 1 | Norway maple | Acer | platanoides | 11 | Fair | 5 - 10 | Prune Large | | | Decline |
| 55 | 2 | 1266 | Wellington | Front | 10 | 1 | Callery pear | Pyrus | calleryana | 4 | Good | 10+ | Prune Train | | | |
| 56 | 2 | 1266 | Wellington | Back | 35 | 1 | Sugar maple | Acer | saccharum | 16 | Good | 10+ | Prune Large | Raise | | |
| 57 | 2 | 1266 | Wellington | Back | 40 | 1 | Sugar maple | Acer | saccharum | 8 | poor | 5 - 10 | Prune Large | | | Suppressed tree |
| 58 | 2 | 1266 | Wellington | Back | 30 | 1 | Sugar maple | Acer | saccharum | 22 | Good | 10+ | Prune Large | Raise | | |
| 59 | 2 | 1268 | Wellington | Back | 30 | 1 | Sugar maple | Acer | saccharum | 14 | Good | 10+ | Prune Large | Raise | | |
| 60 | 2 | 1270 | Wellington | Back | 10 | 1 | Hawthorn | Crataegus | species | 4 | Fair | 5 - 10 | Remove Amenity | | | |
| 61 | 2 | 1270 | Wellington | Back | 20 | 1 | Sugar maple | Acer | saccharum | 11 | Fair | 5 - 10 | Prune Large | | | Initial decline |
| 62 | 2 | 1270 | Wellington | Back | 5 | 4 | White cedar | Thuja | occidentalis | 10 | Fair | 10+ | Prune Evergreen | Clear | | |
| 63 | 2 | 1270 | Wellington | Front | 25 | 1 | Red maple | Acer | rubrum | 10 | Fair | 10+ | Prune Large | Raise | | Structural prune Codominant stems; Fertilize for MN |
| 64 | 2 | 1268 | Wellington | Front | 15 | 1 | rway maple Crimson Ki | Acer | platanoides | 13 | Good | 10+ | Prune Large | | | |
| 65 | 2 | 1268 | Wellington | Front | 5 | 1 | Tall hedge | Rhamnus | species | 15 | Very poor | >5 | Remove Amenity | | | Decline |
| 66 | 2 | 2 | Cambridge Cir | Front | 15 | 1 | Red maple | Acer | rubrum | 5 | Fair | 10+ | Prune Train | Raise | | |
| 67 | 2 | 2 | Cambridge Cir | Left | 10 | 1 | Shagbark hickory | Carya | ovata | 15 | Good | 10+ | Prune Large | Clear | | |
| 68 | 2 | 2 | Cambridge Cir | Left | 10 | 8 | False cedar | Chamaecyparis | species | 3 | Fair | 10+ | Prune Evergreen | | | |
| 69 | 2 | 2 | Cambridge Cir | Front | 20 | 1 | Green ash | Fraxinus | pennsylvannica | 11 | Good | >5 | Prune Large | eat or Remove | | |
| 70 | 2 | 2 | Cambridge Cir | Front | 5 | 1 | Crabapple | Malus | species | 4 | Good | 10+ | Prune Small | | | |

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 2 | 6 | Cambridge Cir | Front | 20 | 1 | White ash | Fraxinus | americana | 7 | Good | >5 | Prune Train | eat or Remove | | Clear |
| 72 | 2 | 6 | Cambridge Cir | Right | 10 | 1 | Crabapple | Malus | species | 13 | Fair | 5 - 10 | Prune Small | Raise | | |
| 73 | 2 | 6 | Cambridge Cir | Right | 5 | 1 | Kousa dogwood | Cornus | kousa | 2 | Fair | 10+ | Prune Train | | | |
| 74 | 2 | 6 | Cambridge Cir | Back | 35 | 1 | Sugar maple | Acer | saccharum | 14 | Good | 10+ | Prune Large | | | |
| 75 | 2 | 6 | Cambridge Cir | Back | 35 | 2 | Sugar maple | Acer | saccharum | 7 | Fair | 10+ | Prune Large | | | |
| 76 | 2 | 8 | Cambridge Cir | Back | 10 | 1 | Flowering dogwood | Cornus | florida | 5 | Very poor | >5 | Remove Amenity | Raise | | |
| 77 | 2 | 8 | Cambridge Cir | Woods | 35 | 8 | Ash | Fraxinus | species | 6 | Fair | >5 | Remove2 | | 147 | ,5,3,6,10,6,5, |
| 78 | 2 | 8 | Cambridge Cir | Woods | 40 | 3 | Ash | Fraxinus | species | 10 | poor | >5 | Remove2 | | 148 | 11,12,8 |
| 79 | 2 | 8 | Cambridge Cir | Woods | 70 | 4 | Ash | Fraxinus | species | 11 | Fair | >5 | Remove2 | | 149 | 11,11,6,5 |
| 80 | 2 | 8 | Cambridge Cir | Left | 5 | 1 | Redbud | Cercis | canadensis | 20 | Fair | >5 | Prune Small | Clear | | |
| 81 | 2 | 8 | Cambridge Cir | Front | 25 | 1 | Red maple | Acer | rubrum | 5 | Fair | 10+ | Prune Train | Raise | | |
| 82 | 3 | 0 | Gazebo | South | 0 | 3 | Limber pine | Pinus | flexilis | 18 | Good | 10+ | Prune Evergreen | Raise | | |
| 83 | 3 | 0 | Gazebo | South | 0 | 1 | Norway maple | Acer | platanoides | 10 | Good | 10+ | Prune Large | Raise | | |
| 84 | 3 | 0 | Gazebo | South | 0 | 1 | Star magnolia | Magnolia | stellata | 4 | Good | 10+ | Prune Small | | | |
| 85 | 3 | 0 | Gazebo | Center | 0 | 1 | Norway maple | Acer | platanoides | 9 | Good | 10+ | Prune Large | Raise | | |
| 86 | 3 | 0 | Gazebo | Center | 0 | 1 | Norway maple | Acer | platanoides | 9 | Good | 10+ | Prune Large | Raise | | |
| 87 | 3 | 0 | Gazebo | Center | 0 | 1 | Pin oak | Quercus | palustris | 17 | Good | 10+ | Prune Large | Raise | | Iron Chlorosis Treat with Fe; Codominant stems |
| 88 | 3 | 0 | Gazebo | North | 0 | 1 | White ash | Fraxinus | americana | 7 | Good | >5 | Prune Train | eat or Remove | | |
| 89 | 3 | 0 | Gazebo | North | 0 | 3 | Limber pine | Pinus | flexilis | 18 | Good | 10+ | Prune Evergreen | Raise | | |
| 90 | 3 | 0 | Gazebo | North | 0 | 3 | Limber pine | Pinus | flexilis | 18 | Good | 10+ | Prune Evergreen | Raise | | |
| 91 | 3 | 10 | Cambridge Cir | Front | 20 | 1 | rway maple Crimson Ki | Acer | platanoides | 10 | Good | 10+ | Prune Large | | | Codominant ste |
| 92 | 3 | 10 | Cambridge Cir | Front | 20 | 1 | Red maple | Acer | rubrum | 10 | Fair | 5 - 10 | Prune Large | Raise | | Canker; Structural p |
| 93 | 3 | 10 | Cambridge Cir | Woods | 35 | 2 | Ash | Fraxinus | species | 12 | poor | >5 | Remove2 | | 150 | 10,12 |
| 94 | 3 | 12 | Cambridge Cir | Woods | 35 | 1 | Ash | Fraxinus | species | 16 | Fair | >5 | Remove2 | | 151 | |
| 95 | 3 | 12 | Cambridge Cir | Front | 15 | 1 | Norway maple | Acer | platanoides | 5 | Good | 10+ | Prune Train | Raise | | |
| 96 | 3 | 12 | Cambridge Cir | Left | 5 | 1 | Crabapple | Malus | species | 15 | Good | 10+ | Prune Small | Clear+Raise | | |
| 97 | 3 | 16 | Cambridge Cir | Front | 20 | 1 | Norway maple | Acer | platanoides | 14 | poor | 5 - 10 | Prune Large | Raise | | Decline |
| 98 | 3 | 16 | Cambridge Cir | Right | 5 | 1 | Crabapple | Malus | species | 12 | Good | 10+ | Prune Small | Clear+Raise | | |
| 99 | 3 | 16 | Cambridge Cir | Back | 1 | 3 | White cedar | Thuja | occidentalis | 8 | Fair | 10+ | Remove Amenity | Clear | | Too close to house |
| 100 | 3 | 16 | Cambridge Cir | Woods | 30 | 2 | Ash | Fraxinus | species | 16 | Fair | >5 | Remove2 | | 152 | 16,11 |
| 101 | 3 | 18 | Cambridge Cir | Woods | 35 | 3 | Ash | Fraxinus | species | 45 | poor | >5 | Remove1 | | 153 | 45,10,14 |
| 102 | 3 | 18 | Cambridge Cir | Front | 15 | 1 | Red maple | Acer | rubrum | 8 | poor | 5 - 10 | Prune Large | Raise | | |
| 103 | 3 | 20 | Cambridge Cir | Front | 10 | 1 | Crabapple | Malus | species | 6 | Good | 10+ | Prune Small | Clear+Raise | | Too close |
| 104 | 3 | 20 | Cambridge Cir | Back | 1 | 2 | White cedar | Thuja | occidentalis | 8 | Fair | 10+ | Prune Evergreen | Clear | | |

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105 | 3 | 20 | Cambridge Cir | Woods | 50 | 5 | Ash | Fraxinus | species | 12 | poor | >5 | Remove2 | | 154 | 12, 14, 6, 5, 5 |
| 106 | 3 | 22 | Cambridge Cir | Back | 10 | 1 | Sweetgum | Liquidambar | styraciflua | 3 | Good | 10+ | Prune Train | Clear+Raise | | |
| 107 | 3 | 22 | Cambridge Cir | Woods | 45 | 5 | Ash | Fraxinus | species | 11 | Fair | >5 | Remove2 | | 155 | 14,10,10,4,8 |
| 108 | 3 | 24 | Cambridge Cir | Left | 5 | 1 | Crabapple | Malus | species | 8 | Good | 10+ | Prune Small | Clear+Raise | | |
| 109 | 3 | 24 | Cambridge Cir | Front | 25 | 1 | Ash | Fraxinus | species | 13 | Very poor | >5 | Remove1 | | | |
| 110 | 3 | 24 | Cambridge Cir | Left | 25 | 1 | White pine | Pinus | strobus | 16 | Fair | 10+ | Prune Evergreen | | | |
| 111 | 3 | 28 | Cambridge Cir | Back | 25 | 4 | White spruce | Picea | glauca | 9 | Fair | 5 - 10 | Prune Evergreen | | | Vines |
| 112 | 3 | 28 | Cambridge Cir | Left | 5 | 1 | Crabapple | Malus | species | 10 | Good | 10+ | Prune Small | | | |
| 113 | 3 | 1314 | Wellington | Front | 10 | 1 | Crabapple | Malus | species | 12 | Good | 10+ | Prune Small | Clear | | |
| 114 | 3 | 1316 | Wellington | Front | 15 | 1 | Sugar maple | Acer | saccharum | 11 | Good | 10+ | Prune Large | | | |
| 115 | 3 | 1318 | Wellington | Front | 20 | 1 | Tree lilac | Syringa | reticulata | 3 | Fair | 10+ | Prune Train | | | |
| 116 | 3 | 1316 | Wellington | Back | 50 | 1 | White pine | Pinus | strobus | 18 | Good | 10+ | Prune Evergreen | | | |
| 117 | 3 | 1318 | Wellington | Back | 35 | 1 | White spruce | Picea | glauca | 10 | Fair | 5 - 10 | Remove Amenity | | | Vines: Remove to allow pine to grow |
| 118 | 3 | 1320 | Wellington | Back | 35 | 1 | White pine | Pinus | strobus | 18 | Good | 10+ | Prune Evergreen | | | |
| 119 | 3 | 1320 | Wellington | Back | 35 | 1 | White spruce | Picea | glauca | 10 | poor | 5 - 10 | Remove Amenity | | | Remove to allow pine to grow |
| 120 | 3 | 1322 | Wellington | Back | 35 | 1 | White pine | Pinus | strobus | 18 | Fair | 10+ | Prune Evergreen | | | |
| 121 | 3 | 1322 | Wellington | Back | 35 | 1 | White spruce | Picea | glauca | 9 | poor | 5 - 10 | Remove Amenity | | | Vines: remove to allow pines to grow |
| 122 | 3 | 1322 | Wellington | Back | 35 | 1 | White pine | Pinus | strobus | 16 | Good | 10+ | Prune Evergreen | | | |
| 123 | 3 | 1322 | Wellington | Back | 35 | 1 | White spruce | Picea | glauca | 10 | Good | 5 - 10 | Prune Evergreen | | | |
| 124 | 3 | 1322 | Wellington | Back | 35 | 2 | White pine | Pinus | strobus | 15 | Good | 10+ | Prune Evergreen | | | |
| 125 | 3 | 1322 | Wellington | Front | 20 | 1 | Norway maple | Acer | platanoides | 14 | poor | 5 - 10 | Prune Large | | | Decline |
| 126 | 3 | 1322 | Wellington | Left | 20 | 1 | Honeylocust | Gleditsia | triacanthos | 17 | Good | 10+ | Prune Large | Clear+Raise | | |
| 127 | 3 | 1322 | Wellington | Left | 50 | 1 | Honeylocust | Gleditsia | triacanthos | 16 | Good | 10+ | Prune Large | Raise | | |
| 128 | 3 | 1322 | Wellington | Woods | 85 | 2 | Ash | Fraxinus | species | 15 | poor | >5 | Remove2 | | 156 | 15,9 |
| 129 | 4 | 9 | Waltham St | Front | 35 | 1 | White ash | Fraxinus | americana | 16 | Good | 10+ | Prune Large | at or Remove | | Clear+raise |
| 130 | 4 | 9 | Waltham St | Woods | 45 | 1 | Black cherry | Prunus | serotina | 16 | poor | >5 | Remove1 | | 157 | Trunk split |
| 131 | 4 | 9 | Waltham St | Front | 5 | 1 | Crabapple | Malus | species | 14 | Good | 10+ | Prune Small | Clear | | |
| 132 | 4 | 9 | Waltham St | Woods | 50 | 2 | Ash | Fraxinus | species | 10 | poor | >5 | Remove2 | | 158 | 10, 12, 12 |
| 133 | 4 | 7 | Waltham St | Front | 20 | 1 | Honeylocust | Gleditsia | triacanthos | 13 | Fair | 10+ | Prune Large | Clear | | |
| 134 | 4 | 3 | Waltham St | Front | 25 | 1 | Honeylocust | Gleditsia | triacanthos | 12 | Fair | 10+ | Prune Large | | | |
| 135 | 4 | 1 | Waltham St | Front | 30 | 1 | Honeylocust | Gleditsia | triacanthos | 19 | Good | >5 | Prune Large | | | |
| 136 | 4 | 9 | Waltham St | Woods | 50 | 1 | Ash | Fraxinus | species | 24 | poor | >5 | Remove2 | | 159 | |

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 137 | 4 | 1 | Waltham St | Back | 30 | 1 | Flowering dogwood | Cornus | florida | 10 | dead | >5 | Remove Amenity | | | |
| 138 | 4 | 1 | Waltham St | Back | 25 | 1 | Douglas fir | Pseudotsuga | menziesii | 16 | poor | 5 - 10 | Prune Evergreen | | | Needlecast |
| 139 | 4 | 1 | Waltham St | Left | 50 | 1 | White ash | Fraxinus | americana | 25 | Fair | >5 | Prune Large | eat or Remove | | Raise |
| 140 | 4 | 1331 | Wellington | Front | 65 | 1 | Sassafras | Sassafras | albidum | 17 | Fair | 10+ | Prune Large | Raise | | |
| 141 | 4 | 1331 | Wellington | Front | 20 | 1 | Norway maple | Acer | platanoides | 16 | poor | >5 | Prune Large | | | Decline |
| 142 | 4 | 1327 | Wellington | Left | 30 | 1 | Sugar maple | Acer | saccharum | 10 | Good | 10+ | Prune Large | | | |
| 143 | 4 | 1327 | Wellington | Back | 35 | 1 | Honeylocust | Gleditsia | triacanthos | 17 | Good | 10+ | Prune Large | Raise | | |
| 144 | 4 | 1329 | Wellington | Back | 60 | 1 | Blue spruce | Picea | pungens | 14 | Fair | 5 - 10 | Prune Evergreen | | | Cytospora canker; lower branches dead |
| 145 | 4 | 1329 | Wellington | Woods | 110 | 1 | Ash | Fraxinus | species | 12 | Fair | >5 | Remove2 | | | |
| 146 | 4 | 1319 | Wellington | Front | 15 | 1 | rway maple Crimson Ki | Acer | platanoides | 11 | Good | 10+ | Prune Large | Raise | | Girdling root cut |
| 147 | 4 | 1317 | Wellington | Front | 35 | 1 | White ash | Fraxinus | americana | 12 | Good | >5 | Prune Large | eat or Remove | | |
| 148 | 4 | 1317 | Wellington | Left | 5 | 1 | Crabapple | Malus | species | 12 | Good | 10+ | Prune Small | | | |
| 149 | 4 | 1317 | Wellington | Left | 45 | 1 | Blue spruce | Picea | pungens | 11 | Good | 10+ | Prune Evergreen | | | |
| 150 | 4 | 1317 | Wellington | Back | 20 | 1 | White pine | Pinus | strobus | 17 | Fair | 10+ | Prune Evergreen | | | |
| 151 | 4 | 1319 | Wellington | Back | 5 | 1 | White cedar | Thuja | occidentalis | 14 | Fair | 10+ | Prune Evergreen | Clear | | Too close |
| 152 | 4 | 1321 | Wellington | Back | 40 | 1 | Honeylocust | Gleditsia | triacanthos | 16 | Good | 10+ | Prune Large | Raise | | |
| 153 | 4 | 2 | Brookline | Front | 25 | 1 | Silver maple | Acer | saccharinum | 10 | Fair | 5 - 10 | Remove Amenity | | | Girdling roots Canker; Fertilize with Mn |
| 154 | 4 | 2 | Brookline | Front | 45 | 1 | Douglas fir | Pseudotsuga | menziesii | 7 | poor | >5 | Remove Amenity | | | Needlecast |
| 155 | 4 | 2 | Brookline | Left | 50 | 1 | Douglas fir | Pseudotsuga | menziesii | 10 | Fair | >5 | Remove Amenity | | | |
| 156 | 4 | 2 | Brookline | Left | 55 | 1 | Blue spruce | Picea | pungens | 5 | Good | 10+ | Prune Evergreen | | | |
| 157 | 4 | 2 | Brookline | Left | 35 | 5 | Douglas fir | Pseudotsuga | menziesii | 13 | Fair | >5 | Prune Evergreen | | | |
| 158 | 4 | 2 | Brookline | Back | 55 | 2 | Serbian spruce | Picea | omorika | 4 | Good | 10+ | Prune Evergreen | | | |
| 159 | 4 | 2 | Brookline | Left | 10 | 1 | Callery pear | Pyrus | calleryana | 3 | Fair | 10+ | Prune train | | | |
| 160 | 4 | 2 | Brookline | Back | 10 | 1 | Crabapple | Malus | species | 8 | Good | 10+ | Prune Small | Clear | | |
| 161 | 4 | 2 | Brookline | Back | 10 | 1 | White cedar | Thuja | occidentalis | 8 | Good | 10+ | Prune Evergreen | | | |
| 162 | 4 | 4 | Brookline | Back | 20 | 1 | White spruce | Picea | glauca | 4 | Good | 10+ | Prune Evergreen | | | |
| 163 | 4 | 4 | Brookline | Back | 15 | 1 | Crabapple | Malus | species | 8 | Good | 10+ | Prune Small | Clear | | |
| 164 | 4 | 4 | Brookline | Back | 15 | 1 | White pine | Pinus | strobus | 20 | Good | 10+ | Prune Evergreen | Clear+Raise | | |
| 165 | 4 | 2 | Brookline | Front | 20 | 1 | London planetree | Platanus | acerifolia | 20 | Good | 10+ | Prune Large | Clear | | |
| 166 | 4 | 2 | Brookline | Front | 5 | 1 | Kousa dogwood | Cornus | kousa | 3 | Good | 10+ | Prune train | Clear | | |

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 167 | 4 | 4 | Brookline | Left | 5 | 1 | Crabapple | Malus | species | 8 | Good | 10+ | Prune Small | Clear | | |
| 168 | 4 | 4 | Brookline | Left | 30 | 1 | Limber pine | Pinus | flexilis | 16 | Good | 10+ | Prune Evergreen | Raise | | |
| 169 | 4 | 8 | Brookline | Front | 5 | 1 | Kousa dogwood | Cornus | kousa | 4 | Good | 10+ | Prune train | Clear | | |
| 170 | 4 | 8 | Brookline | Back | 40 | 7 | White pine | Pinus | strobus | 17 | Good | 10+ | Prune Evergreen | Raise | | |
| 171 | 4 | 10 | Brookline | Back | 5 | 1 | Crabapple | Malus | species | 11 | Good | 10+ | Prune Small | Clear | | |
| 172 | 4 | 10 | Brookline | Left | 10 | 1 | Kwanzan cherry | Prunus | serrulata | 10 | Fair | 10+ | Prune Small | Raise | | |
| 173 | 4 | 10 | Brookline | Left | 10 | 1 | Kwanzan cherry | Prunus | serrulata | 8 | Good | 10+ | Prune Small | clear | | |
| 174 | 4 | 10 | Brookline | Front | 15 | 1 | Norway maple | Acer | platanoides | 11 | Fair | 10+ | Prune Large | Raise | | |
| 175 | 4 | 10 | Brookline | Front | 15 | 1 | London planetree | Platanus | acerifolia | 16 | Good | 10+ | Prune Large | Clear | | |
| 176 | 5 | 7 | Brookline | Right | 45 | 1 | Black locust | Robinia | pseudoacacia | 24 | Fair | 10+ | Prune Large | Raise | | |
| 177 | 5 | 7 | Brookline | Front | 15 | 1 | Honeylocust | Gleditsia | triacanthos | 15 | Good | 10+ | Prune Large | Clear | | |
| 178 | 5 | 5 | Brookline | Front | 10 | 1 | Pin oak | Quercus | palustris | 13 | Fair | 10+ | Prune Large | Clear | | Iron chlorosis; Treat for FE |
| 179 | 5 | 5 | Brookline | Front | 15 | 1 | Honeylocust | Gleditsia | triacanthos | 15 | Good | 10+ | Prune Large | Clear | | |
| 180 | 5 | 5 | Brookline | Left | 5 | 1 | Crabapple | Malus | species | 6 | Good | 10+ | Prune Large | Clear+Raise | | |
| 181 | 5 | 7 | Brookline | Back | 10 | 1 | White spruce | Picea | glauca | 6 | poor | >5 | Prune Evergreen | | | |
| 182 | 5 | 7 | Brookline | Back | 15 | 1 | Pignut hickory | Carya | glabra | 22 | Good | 10+ | Prune Large | Clear | | |
| 183 | 5 | 5 | Brookline | Woods | 40 | 4 | Ash | Fraxinus | species | 10 | Fair | >5 | Remove2 | | 161 | 10, 6, 10, 8 |
| 184 | 5 | 5 | Brookline | Back | 30 | 1 | White pine | Pinus | strobus | 11 | Fair | 10+ | Prune Evergreen | | | |
| 185 | 5 | 5 | Brookline | Back | 20 | 1 | Blue spruce | Picea | pungens | 12 | Fair | 5 - 10 | Prune Evergreen | | | Cytospora canker |
| 186 | 5 | 5 | Brookline | Back | 5 | 1 | Tall hedge | Rhamnus | species | 10 | Fair | 5 - 10 | Prune Small | Clear | | |
| 187 | 5 | 1 | Brookline | Right | 20 | 2 | Blue spruce | Picea | pungens | 10 | Fair | 5 - 10 | Prune Evergreen | | | Cytospora canker |
| 188 | 5 | 1 | Brookline | Left | 5 | 1 | Crabapple | Malus | species | 12 | Fair | 10+ | Prune Small | Clear+Raise | | |
| 189 | 5 | 1277 | Wellington | Right | 20 | 1 | Sugar maple | Acer | saccharum | 11 | poor | 5 - 10 | Prune Large | | | Decline |
| 190 | 5 | 1277 | Wellington | Right | 20 | 1 | Sugar maple | Acer | saccharum | 19 | Good | 10+ | Prune Large | | | |
| 191 | 5 | 1277 | Wellington | Right | 20 | 1 | Sugar maple | Acer | saccharum | 15 | Good | 10+ | Prune Large | Clear | | |
| 192 | 5 | 1277 | Wellington | Right | 20 | 1 | Sugar maple | Acer | saccharum | 16 | Good | 10+ | Prune Large | Clear | | |
| 193 | 5 | 1277 | Wellington | Back | 30 | 2 | Douglas fir | Pseudotsuga | menziesii | 5 | poor | >5 | Remove Amenity | | | Needlecast |
| 194 | 5 | 1277 | Wellington | Back | 35 | 1 | Hornbeam | Carpinus | caroliniana | 6 | poor | 5 - 10 | Prune Small | | | |
| 195 | 5 | 1275 | Wellington | Front | 20 | 1 | Red maple | Acer | rubrum | 12 | poor | 5 - 10 | Prune Large | Clear+Raise | | Canker |
| 196 | 5 | 1275 | Wellington | Left | 5 | 1 | Crabapple | Malus | species | 7 | Good | 10+ | Prune Small | Clear | | |
| 197 | 5 | 1275 | Wellington | Left | 30 | 1 | Norway maple | Acer | platanoides | 15 | Good | 10+ | Prune Large | Raise | | Structural prune |
| 198 | 5 | 1275 | Wellington | Left | 45 | 1 | Sugar maple | Acer | saccharum | 20 | Good | 10+ | Prune Large | Raise | | |
| 199 | 5 | 1275 | Wellington | Left | 50 | 1 | Pignut hickory | Carya | glabra | 24 | Good | 10+ | Prune Large | Raise | | |
| 200 | 5 | 1275 | Wellington | Left | 50 | 1 | Pignut hickory | Carya | glabra | 6 | Fair | 5 - 10 | Prune Large | | | |
| 201 | 5 | 1275 | Wellington | Left | 45 | 1 | Shagbark hickory | Carya | ovata | 18 | Good | 10+ | Prune Large | | | |

| Serial # | Area | House # | Street | Loc | Dist | # Grp | Common | Genus | species | DBH | Cond | Long | Manage 1 | Manage 2 | Tag# | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 202 | 5 | 1275 | Wellington | Back | 45 | 1 | American basswood | Tilia | americana | 21 | Fair | >5 | Remove2 | | | Decay in top |
| 203 | 5 | 1275 | Wellington | Back | 30 | 1 | Sugar maple | Acer | saccharum | 16 | Good | 10+ | Prune Large | | | |
| 204 | 5 | 1275 | Wellington | Back | 40 | 1 | Sugar maple | Acer | saccharum | 13 | Fair | >5 | Remove2 | | | Butt rot |
| 205 | 5 | 1275 | Wellington | Back | 50 | 1 | Sugar maple | Acer | saccharum | 17 | Good | 10+ | Prune Large | | | |
| 206 | 5 | 1275 | Wellington | Back | 60 | 1 | Pignut hickory | Carya | glabra | 18 | Good | 10+ | Prune Large | | | |
| 207 | 5 | 1275 | Wellington | Back | 70 | 1 | Flowering dogwood | Cornus | florida | 4 | poor | >5 | Remove Amenity | | | |
| 208 | 5 | 1275 | Wellington | Back | 65 | 1 | Red oak | Quercus | rubra | 26 | Good | 10+ | Prune Large | | | |
| 209 | 5 | 1275 | Wellington | Back | 65 | 1 | Pignut hickory | Carya | glabra | 16 | Good | 10+ | Prune Large | | | |
| 210 | 5 | 1275 | Wellington | Back | 30 | 1 | Flowering dogwood | Cornus | florida | 4 | Very poor | >5 | Remove Amenity | | | Decline |
| 211 | 5 | 1275 | Wellington | Back | 45 | 1 | Shagbark hickory | Carya | ovata | 14 | Good | 10+ | Prune Large | | | |

**Appendix C. Pruning and Removal Specifications**

# Scope of Work

This document contains work specifications for contractor bids for tree pruning, tree removal, and stump removal at the Drumlins Home Association (DHOA), Victor, NY.

# I. Tree Pruning

### Trees to be Pruned

All trees requiring pruning are identified by tree number in the DHOA map and listing. The number on the map corresponds to the Serial # in the spreadsheet listing. Trees are identified by common name, street name, house number and location relative to the housing, and size. Specific pruning needs are identified in some cases in the spreadsheet listing.

### Bids (Dependent on how trees are managed)

Requests for bids could be on a per tree price or lump sum depending on how the population is managed.

### Site Damage and Protection

All work shall be performed so damage to turf, housing units, adjacent trees and hardscapes is avoided. Contractors shall be responsible for all costs associated with damages resulting from pruning and/or removal work. Restoration of damage to turf from pruning is described below.

### General

All pruning work shall be supervised by or completed by an ISA Certified Arborist or Tree Worker in accordance with the most current editions the American National Standards Institute's "Tree Shrub and Other Woody Plant Maintenance – Standard Practices, Tree Pruning" ANSI A300 and "Pruning, Trimming, Repairing, Maintaining and Removing Trees, and Cutting Brush – Safety Requirements," ANSI Z133.1 and the following specifications. The Drumlins Home Association or their representative shall be notified of starting dates before work commences and upon completion of any signed contract.

### Pruning Objectives

The primary pruning objective is to provide horizontal and vertical clearance of housing units, driveways, roadways, lighting, and for lawn maintenance equipment using crown raising and reduction Pruning should be limited to crown raising and reduction as needed to meet the specification below and to restore crown balance and aesthetics after raising and reduction. Where additional pruning objectives are requested on individual trees, it is identified in spreadsheet listing. Additional pruning to meet the specification below may be required.

### Small Tree Prune (Prune Small)

(Crabapples, purpleleaf plum, redbud and similar species)

Crown Raising and Clearance Pruning -pruning shall consist of removal or reduction of branches to provide the specified vertical raising and horizontal clearance. *Removal cuts shall be preferred over reduction cuts where possible.* Where reduction cuts are used, cuts shall be made to a lateral growing away from the units, driveways, roads or other targets. Raising and clearance shall meet the following specifications:

- Raising/clearance shall be 8 feet over sidewalks
- Horizontal clearance of buildings shall be at least 3 feet or clearance that will allow at least 5 years without disfiguring the tree
- Pruning shall provide overhead clearance of roofs of all branches for at least 5 years regrowth without disfiguring the tree.

Crown raising and clearance shall be conducted to maintain the natural or existing form of the tree to the degree possible. Where necessary, minimal additional pruning to maintain aesthetics and crown balance should be used.

**Structural Pruning**
In a limited number of cases, structural pruning is identified for individual trees in spreadsheet listing. Structural pruning shall use thinning and reducing of crowns to eliminate or slow the growth of codominant stems, laterals that are competing because of their size of attachment to the main trunk, or where fast growth is competing with the main leader. Removal and reduction cuts should be used as needed to meet the desired pruning objective.

**Large Trees Prune**
(Honeylocust, red maple, Norway maple, sugar maple, hickory, ash, and similar species)

**Pruning Objectives**
The primary pruning objective is to provide horizontal and vertical clearance of housing units, driveways, roadways, lighting, and for lawn maintenance equipment using crown raising and reduction, Pruning should be limited to crown raising and reduction as needed to meet the specification below and to retain crown balance and aesthetics after raising and reduction. Additional pruning to meet the specification below may be required.

Crown Raising and Clearance Pruning -pruning shall consist of removal or reduction of branches to provide the specified vertical and horizontal clearance. *Removal cuts shall be preferred over reduction cuts where possible.* Where reduction cuts are used, cuts shall be made to a lateral growing away from the units, driveways, walks or other targets.

- Driveways shall be cleared of all overhead branches
- Raising/clearance shall be 8 feet over sidewalks.
- Roads shall be cleared of branches if possible or raised to a height of 13 feet over roads.
- Raising over lawns should be 6-8 feet to avoid conflict with lawn maintenance equipment.
- In no case shall lower branches be raised more than 1/3 the total height of the tree or more than 25% of the live crown be removed.
- Lateral or horizontal clearance of buildings shall be at least 5 feet or clearance that will allow at least 5 years regrowth without disfiguring the tree
- Vertical building clearance over roofs shall be at least 10 feet or clearance that will allow at least 5 years regrowth without disfiguring the tree

Crown raising and clearance pruning shall be conducted to maintain the natural or existing form of the tree to the degree possible. Where necessary, minimal additional pruning to maintain aesthetics and crown balance should be used.

**Pruning Tools and Methods**
The following pruning procedures shall be used on all trees:

- All cuts shall be made with sharp pruning tools as close as possible to the trunk or parent limb, without cutting into the branch collar or leaving a protruding stub.
- All branches too large to support by one hand shall be pre-cut to avoid splitting or ripping of the bark.
- When necessary, ropes or other equipment shall be used to lower large branches or stubs to the ground. Tree branches shall be removed in such a manner to avoid damage to other parts of the tree or other plants or property.
- The use of climbing spurs or hooks is strictly prohibited.

- No wound treatment dressings shall be applied.

**Pruning Cuts**

The following shall apply to all trees being pruned:

- Pruning cuts that remove branches at their point of origin shall be preferred
- Pruning cuts that remove branches shall be made close to the trunk or parent branch without cutting into the branch bark ridge or branch collar or leaving a protruding stub
- Removal of dead branches shall be done without injuring wound wood that has formed on the trunk or parent branch by make the final cut just outside the branch collar.
- Reduction cuts that reduce the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and shall not damage the remaining stem.
    - When pruning to a lateral, the remaining lateral branch should be large enough to assume the terminal role and should be at least one-third (1/3) the diameter of the parent branch.
- All severed branches shall be removed from the tree when the tree is left unattended

**Prune Train**

The following specification shall be used to prune recently planted trees and all trees that can be pruned from the ground using hand tools.

A. Assess the Tree

1. Assess tree health and determine the pruning Dose (Live branch area that is removed by pruning)
    i. Poor Health – perform Steps A, B & C-clearance only
    ii. Good Health – Dose up to 33%
    iii. Excellent Health – Dose of 33%
2. Assign the pruning Form

A-Form – tree will be pruned to a single central stem
- proceed to A.

B-Form –tree will not be pruned to a single central stem
- proceed to B.

Step A. A – Apical Dominance – A- Form trees only. Prune all until reaching prescribed Dose.

1. Select a Central Stem
2. Reduce or head all branches completing with the selected Central Stem

Step B. B – Bad Branches – prune all until reaching prescribed Dose

1. Broken, Dead, Diseased
2. Bad Branch Attachments
3. Rubbing Branches

Step C. C - Competing Branches– prune all until reaching prescribed Dose

1. Clearance
2. Codominant Stems
3. Competing Laterals
4. Multiple Attachments
5. Vertical Spacing
6. Crossing branches

**Prohibited Pruning Practices**

The following pruning practices shall be prohibited.

- Heading cuts or pruning to laterals that are less than 1/3 the diameter of the parent branch or where internodal cuts are made.
- Lions tail-removal of branches nearest the trunk such that branches and foliage remain primarily on the ends of branches
- Poor pruning cuts

    - Allowing stubs to remain
    - Flush cuts where the branch collar and/or branch collar are cut into or removed
    - Ripping or tearing of the bark on the parent branch or trunk
- Topping or indiscriminate crown reduction with pruning cuts made using internodal cuts without regard to tree health, structure or appearance
- Thinning without a specific objective necessary to improve tree health or use in the landscape

## Site Restoration Specifications

- All lawn damage created as a result of the tree pruning operations shall be restored to conditions prior to the tree work with high quality topsoil as soon as weather permits and no later than April 1, 2012.
- Where necessary, sites where topsoil was required shall be re-seeded with a high quality grass seed in early spring.

## II. *Tree & Stump Removal*

**Tree and Stump Removal**

All trees for removal are identified in Appendix B. *No tree removal shall commence before confirmation with the Drumlins Home Association or their agent that the correct tree is being removed.*

**Bids- Trees in Mowed Areas**

A per tree price is required for tree removals.

**Bids- Trees in Wooded Mowed Areas**

Where ash are being removed in the woods border, a lump sum price is requested for removal of all tagged trees, and removal of designated ash on the border property.

### Standard

All tree and stump removal work shall be supervised or completed by ISA Certified Arborist or Tree Workers qualified personnel and in accordance with the most current edition of the American National Standards Institute's "Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush – Safety Requirements," ANSI Z133.1 and the following specifications.

### Site and Damage and Protection

All work shall be performed so damage to turf, housing units, adjacent trees and hardscapes is avoided. Contractors shall be responsible for all costs associated with damages resulting from removal work. Restoration of damage to turf is described below.

### Tree Removal Specification

**All trees**

Removal

- Trees or limbs being removed that are large enough to cause hardscape or infrastructure damage on impact with the ground or infrastructure are to be lowered with roping and rigging techniques.
- All wood, limbs or brush are to be removed and the area is to be cleaned up daily.
- Brush will not be allowed to accumulate so as to create a hazard.
- The stump shall be flush cut as close as possible to existing tree lawn grade.

### Site Restoration Specifications

- All lawn damage created as a result of the tree removal or pruning operations shall be restored to conditions prior to the tree work with high quality topsoil as soon as weather permits and no later than April 1, 2012.
- Where necessary, sites where topsoil was required shall be re-seeded with a high quality grass seed in early spring.

## III. Stump Removal Specifications

### Stump Removal

All trees with stumps for removal are identified in Appendix C. A per tree price is required for all stump removal bids.

Underground Utility Stakeout

Contractor must request and retain an underground utility stakeout prior to excavation from the authorized authority to perform these duties. The contractor will be liable for any damages to underground utilities.

- Stumps to be ground to remove the entire stump or a minimum of 12" depth below normal ground level of tree lawn area. Stumps shall be ground to a depth of 6" within 2' of an identified underground utility.
- All adjoining buttress roots and surface roots to be ground to 12" depth or chopped out with an axe
- All grindings must be placed back in the stump hole if site restoration (see below) is not competed at the same time as grinding.
- Adjacent to hardscape, roots are to be removed to edge of hardscape without damaging it.

## Site Damage Restoration Specifications

- All lawn damage created as a result of the stump grinding operations shall be restored with high quality topsoil as soon as weather permits and no later than April 1.
- Where necessary, sites where topsoil was required shall be re-seeded with a high quality grass seed in early spring.

### Stump Removal Restoration

- Site restoration where stumps were ground shall be completed as soon as weather permits and no later than April 1, 2012.
- Areas to be restored shall match the existing lawn or mulched area as if a tree was never in the location.
- Area to be restored shall be graded using high quality top soil or mulch such that the entire area is level with adjacent ground elevation.
- Irregularities that form low places that will hold water or high places, such as created by root crowns, shall be eliminated and graded as above.
- Areas requiring backfill shall be completely tamped using a hand tamper.
- Stumps removed in turf areas shall be reseeded with high quality grass seed in early spring.

## Notice of Disclaimer

Evaluations provided by Urban Forestry LLC are based on the visual inspection methods. Inspection does not include additional decay evaluations, aerial or subterranean testing unless specifically contracted for. Urban Forestry LLC is not responsible for discovery or identification of hidden conditions, discovery of conditions not contracted for, or conditions that would not normally be detected using the agreed upon method(s). Further, results may not remain accurate after inspection due to changes in conditions, time, or variable deterioration of inspected material. The client hereby agrees that UFLLC is acting as an independent contractor and that Urban Forestry LLC's services are a non-exclusive study of the client's trees and further agree that any recommendations/evaluations made by UFLLC are solely for the benefit of the client so as to assist the client in its planning/assessment of the allocation of resources. UFLLC shall have no liability for any claims arising out of the performance or non-performance of the recommended actions and the client shall defend and indemnify UFLLC from any such claim including but not limited to claims alleging that UFLLC tested, identified or caused damage (directly or indirectly) to trees or other property or persons on or outside the client property.