Providence College
Tree Inventory & Management Plan | 2011

Submitted by

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MAKING THE MOST OF YOUR INVENTORY MANAGEMENT PLAN

Those who operate a large business or institution understand how inventory impacts operations and budgeting. One must know what's there, how much or how many, and where it all is. But the task doesn't end there. To obtain the greatest benefit from inventory, owners or their designees must *manage* it. Are a company's tools, for example, old and defective, in need of repair, in short supply, or useless and taking up space that could be better occupied?

A good management plan will address these issues and keep the inventory current, in good condition, and functioning for the benefit and safety of those involved.

Managing trees on a large property can seem like an overwhelming task, but the same principles of inventory management apply. This inventory and management plan should provide managers the data they need to develop realistic budgets for their tree maintenance needs, and it will help make the Providence College landscape a safer and more beautiful environment.

The following tips will assist you in making the most of this document:

Who's Who

Those who conducted the inventory and prepared this document are members of the Bartlett Inventory Solutions (BIS) team. They are also employees of Bartlett Tree Experts and operate from the Bartlett Tree Research Laboratories in Charlotte, North Carolina. Readers may interpret the terms "Bartlett Tree Experts," "Bartlett," "the BIS team," "the team," "we," and "our" as the Bartlett company and those who conducted the inventory and prepared this management plan.

Subject Trees

In this document, the term "subject trees" refers (depending on context) to some or all of the 1204 trees (some of them groupings of trees) included in the inventory.

Definitions & Bolded Terms

Some definitions or specifications are detailed within a given section to explain how readers should interpret certain terms or classifications. We have also appended a Glossary for other terms that appear throughout the document. The first reference to each of these terms appears in bold for the reader's convenience.

How This Document is Organized

As usual, the Table of Contents provides an effective road map to document contents, but following it are a List of Tables and List of Maps that users will find helpful in locating specific findings, recommendations, or tree locations. Also, a handy outline appears on page 6 that introduces the order in which results, recommendations, and the Entire Inventory will appear. All tables, photos, maps, and diagrams have numbered captions for quick reference. Starting with the Introduction, pages are numbered consecutively up to the "Entire Inventory" at the back. So that it can stand alone as a main inventory document, the Entire Inventory starts over with page -1-.

EXECUTIVE SUMMARY

In October and December, 2011, the Bartlett Inventory Solutions (BIS) Team from Bartlett Tree Experts conducted an inventory of trees in the Providence College landscape. We identified 1204 trees or groupings of trees that included 65 different species. The attributes that we collected include tree latitude and longitude, size, age and condition class, and a visual assessment of tree structure, health, and **vigor**.

We conducted the attribute collection using a sub-meter accuracy Global Positioning Satellite Receiver (GPSr) device with an error-in-location potential of not greater than three meters.

Our recommendations for the subject trees over the next three-year period include:

Pruning
Prune 559 trees (46%) for safety, health, structure, and appearance. Pruning will comply with American National Standards Institute (ANSI) A300 for pruning and ANSI Z133.1 for safety.

Removals
Remove 34 trees (3%) due to poor tree structure or health.

Tree Risk Assessments
Provide tree risk assessments for 26 trees (2%) to evaluate the impact of wood decay in **stems** and **buttress roots** that show potential for failure.

Cabling & Bracing
Install new and/or inspect structural support systems in 18 trees (1%) to reduce risk of branch failure.

Root Collar Excavations
Perform **root collar** excavations to 497 trees (41%) to lower risk of damaging conditions such as **girdling roots**, basal cankers, masking of root decay and lower-stem decay, and predisposing trees to various insect and disease pests.

Integrated Pest Management (IPM)
Implement Bartlett's IPM program to monitor pests and diseases on the subject trees. Treatments are therapeutic and preventive, and treatment timing is based on pest life cycle.

Soil Samples
Collect soil samples throughout the landscape and submit them for analysis that includes presence of soil nutrients, pH, organic matter, and **cation exchange capacity**.

Bulk Density Samples
Collect bulk density samples throughout the landscape to determine the extent of **soil compaction**.

Root Invigoration
Perform Bartlett's patented Root Invigoration program on 5 trees (<1%) identified as significant to the landscape to improve aeration and promote more efficient root growth, especially for high-value trees in disturbed areas.

INTRODUCTION

In the fall of 2011, Providence College in Providence, RI, retained Bartlett Tree Experts to perform an inventory of trees in the landscape. Team member Brandon Hogan visited the site on October 24 to 26 and December 12 to 15 to conduct the inventory.

The inventory included

- identifying trees within the formal landscape and attaching to each tree a tag with assigned tag number. (Tags 1-1205. Tag number 798 was not used.);
- trees with a dbh greater than 5" were included in the inventory (Some trees with a dbh of less than 5 were included in the inventory. Reasons for this include location, species, and need for work.);
- the wooded area on the north side of the campus, bordered by Sandringham Avenue, was not included in the inventory;
- identifying the trees' condition, health, and vigor;
- recommending risk evaluations and removals of appropriate trees;
- recommending pruning, soil management, and pest management treatments to promote tree safety, health, appearance, and longevity; and
- mapping the trees using GPSr hardware and Geographic Information System (GIS) software.

The methods and procedures we used to make the above determinations and recommendations are detailed in the following sections.

GOALS & OBJECTIVES

An effective management plan communicates clear goals and the specific objectives designed to carry out those goals. We intend "goal" to mean the overall aim or result we expect to achieve for the client in producing the inventory and management plan. The objectives are the specific actions taken or recommended to support goal completion. Table 1 below describes each goal and its corresponding objective(s).

Table 1: GOALS & OBJECTIVES

GOAL	OBJECTIVES TO ACCOMPLISH GOAL
Establish the tree inventory (per numbers agreed) on the Providence College campus.	Using Trimble GeoXT GPSr hardware and ArgGIS 9.3 software, collect data such as tree name, location, size, age class, and condition class.
	Place tag on each tree inventoried.
Provide mechanism for managing inventory, recommendations, and related budget planning.	Provide map or maps of the inventoried trees to assist the client in managing property areas.
	Submit a comprehensive management plan that documents and organizes findings and provides other resources to assist the client in efficient use of the information.
Maximize client understanding and implementation of management plan.	Include in management plan specific explanations and visuals related to plan recommendations.
	Provide appended resources that address health, procedures, and standards related to tree care.
	Make periodic contact with client to follow up and answer any questions about the management plan's contents.
Maximize immediate and long-term tree health and aesthetics.	Implement recommended plant-health-care program that uses • integrated pest management • soil management • maintenance pruning
Manage immediate and long-term risk associated with trees in high-use areas.	Implement recommended risk-management measures that include • risk-reduction pruning • required removals • tree structure evaluations

DATA COLLECTION & TREE INSPECTION METHODOLOGY

In conducting the inventory, we used specialized equipment and software and followed specific procedures to determine tree characteristics, risk evaluations, and recommendations. The following explanation will assist the reader in interpreting the findings of this management plan.

Data Collection Equipment & Attribute Data

The BIS team used the Trimble GeoXT global positioning system receiver (GPSr) hardware unit and accompanying ArgGIS 9.3 software. The attribute data we collected on site are listed below.

- botanical name and regional common name according to local ISA Chapter Tree Species List
- tree location based on GPS coordinate system
- tag number
- diameter at breast height (**DBH**)
- canopy radius
- age class
- height class

- condition class
- root zone infringement, based on **dripline** and estimated **grayscape** (e.g., sidewalks) impact on root zone
- infrastructure interaction (between trees and grayscape that may cause an undesirable condition)
- priority of general tree work (based on 3-year management plan)
- pruning
- need for and inspection of existing cables and braces
- need for and inspection of existing lightning protection
- need for tree hazard evaluations
- tree removals
- soil management recommendations
- pest management recommendations

Specifications/Definitions

Age Class

New Planting	Tree not yet established
Young	Established tree but not in the landscape for many years
Semi-mature	Established tree but has not yet reached full growth potential
Mature	Tree within its full growth potential
Over-mature	Tree that is declining or beginning to decline due to its age

Height Class

Small	Less than 15 feet
Medium	15 to 35 feet
Large	Greater than 35 feet

Condition Class

Dead	
Poor	Most of the canopy displays dieback and undesirable leaf color, inappropriate leaf size or inadequate new growth. Tree or parts of tree are in the process of failure.
Fair	Parts of canopy display undesirable leaf color, inappropriate leaf size, and inadequate new growth. Parts of the tree are likely to fail.
Good	Tree health and condition are acceptable.

Priority of General Tree Work

Priority class recommendations are based on a three-year management plan that takes into consideration tree species, condition, location, age, and proximity to infrastructure. We intend that this rating system assist decision makers in prioritizing tree pruning, cabling and bracing, and tree lightning protection recommendations. *Trees with a priority of 1 and a total Visual Tree Structure Analysis (VTSA) rating of 10 or higher are considered a critical risk (13-15) or high risk (10-12) and*

should be addressed immediately. Prioritization does not take into account any budgetary or financial considerations.

Recommendations for Priorities 1, 2, and 3 are all based on observations by the inventory arborist. The following additional information clarifies each priority class:

Priority 1 To be addressed in years 1 or 2 of the management cycle. Priority 1 may include trees with large dead wood, structural defects, located in exposed sites, high aesthetic value, and/or parts that are currently negatively interacting with infrastructure, such as branches that touch buildings, interfere with signage or lighting, or obstruct pathways.

Priority 2 To be addressed in years 2 or 3 of the management cycle. Priority 2 may include trees with small dead wood, developing structural defects, located in semi-exposed sites, moderate esthetic value, and/or parts that are anticipated to negatively interact with infrastructure, such as branches that touch buildings, interfere with signage or lighting, or obstruct pathways.

Priority 3 To be addressed in year 3 of the management cycle. Priority 3 may include trees with small dead wood, developing structural defects, located in lesser used sites, and/or parts that are anticipated to negatively interact with infrastructure, such as branches that rub on buildings, interfere with signage or lighting, or obstruct pathways.

Pruning

Each of the following is a selective pruning technique to achieve the pruning goal described:

Clean Remove one or more of dead, diseased, and/or broken branches

Raise Provide vertical clearance

Thin Reduce density of live branches

Reduce Reduce height or spread

Structure Select live branches and stems to influence orientation, spacing, growth rate, strength of attachment, and ultimate size of branches and stems

VTSA Inspection Methodology & Risk Rating System

Bartlett's Visual Tree Structure Analysis System (VTSA) ranks the relative degree of risk for prioritizing remedial treatments when managing large tree populations. Bartlett's system uses two criteria: Failure Potential (FP) and Consequence of Failure (CoF). Failure potential considers the severity of defect, architecture, site exposure, and other biological, structural, and site factors that contribute to failure as observed from the ground. Consequence of failure factors in size of the defective plant part, **target** value, and frequency of use and potential for injury/loss should a failure occur as observed from the ground. The following tables describe the rating system in more detail:

Table 2: VTSA RATING SYSTEM - FAILURE POTENTIAL

FAILURE POTENTIAL (FP)		
RISK CATEGORY	**DESCRIPTION**	**POINTS**
Critical Risk	Failure imminent	10
High Risk	Failure likely, especially in storms	7-9
Moderate Risk	Failure possible, especially in severe storms	4-6
Low Risk	Failure unlikely	1-3

Table 3: VTSA RATING SYSTEM - CONSEQUENCE OF FAILURE

CONSEQUENCE OF FAILURE (CoF) These criteria consider potential for injury/loss should a failure occur based on such factors as size of defective plant part, target value, and frequency of use.		
RISK CATEGORY	**DESCRIPTION**	**POINTS**
Severe Consequence	High potential for injury/property loss	5
Moderate Consequence	Moderate potential for property loss and low potential for injury	3-4
Low Consequence	Low potential for any loss	1-2

The Total VTSA = Failure Potential + Consequence of Failure

Table 4: TOTAL VTSA

TOTAL VISUAL TREE STRUCTURE ANALYSIS (VTSA)		
RATING	**RISK CATEGORY**	**DESCRIPTION**
13-15	Critical Risk	Failure imminent. Personal injury and/or property damage inevitable.
10-12	High risk	Failure likely, especially during storms. Personal injury and/or property damage likely.
7-9	Moderate Risk	Failure unlikely, and/or high risk of failure and low risk of property damage/personal injury.
<7	Low Risk	Failure unlikely and low risk of property damage.

Pruning and structural support system procedures will reduce the risk of branch and leader failure to an acceptable level. We emphasize, however, that *all large trees pose a certain degree of inherent risk and this evaluation does not preclude all possibility of failure especially during severe storms*.

For those trees that the client considers hazardous and representing an immediate safety concern, we recommend placing a sign, tape, or other warning indicator near those trees until such time as the hazard can be remedied.

RESULTS & RECOMMENDATIONS

In reviewing the results and recommendations, the reader will find useful the specifications and definitions detailed on page 3 above. We used the following categories to organize the results and recommendations, which are displayed in tables:

- **Results**
  - Stand Dynamics – This characterizes the subject trees according to
    - Condition Class
    - Age Class
    - Tree Groupings
    - Tree Species Identified
    - Tree Size per DBH
    - Estimated Value
  - Conditions or Defects Observed
- **Recommendations**
  - Further Evaluation and Removal
  - Pruning and Structural Support Systems by VTSA Rating and Priority
  - Lightning Protection Systems
  - Soil Management
  - Pest Management
- **Entire Inventory**
  Due to the length and detail of this table, we placed it last, under a major heading, for handy reference.

Where appropriate, we have included explanations, photos, drawings, or other information to illuminate the table contents.

Stand Dynamics

Condition Class

The breakdown of tree condition follows. We have color coded each class to correspond with condition-class colors represented in the maps.

Table 5: CONDITION CLASS BREAKDOWN

Condition Class	Quantity	% of Total
Good	939	78%
Fair	249	21%
Poor	15	1%
Dead	1	<1%

Age Class

The breakdown of tree age class follows:

Table 6: AGE CLASS BREAKDOWN

Age Class	Quantity	% of Total
Mature	195	16%
Semi-Mature	923	77%
Young	86	7%

Tree Groupings

The following table displays trees that we recorded as groupings:

Table 7: TREES RECORDED AS GROUPINGS

Tag #	Common	Type of Planting
137	black cherry	Multiple 2
148	eastern white cedar	Multiple 15
195	American holly	Multiple 8
200	eastern white cedar	Multiple 15
201	eastern white cedar	Multiple 15
202	eastern white cedar	Multiple 15
203	eastern white cedar	Multiple 15
228	eastern white cedar	Hedge
410	yew	Multiple 3
703	sawara cypress	Multiple 12
814	Norway spruce	Multiple 3
911	eastern white cedar	Multiple 4
912	eastern white pine	Multiple 7
922	Canadian (eastern) hemlock	Multiple 3

Tree Species Identified

Our inventory revealed 65 different species of trees, as detailed in the following table:

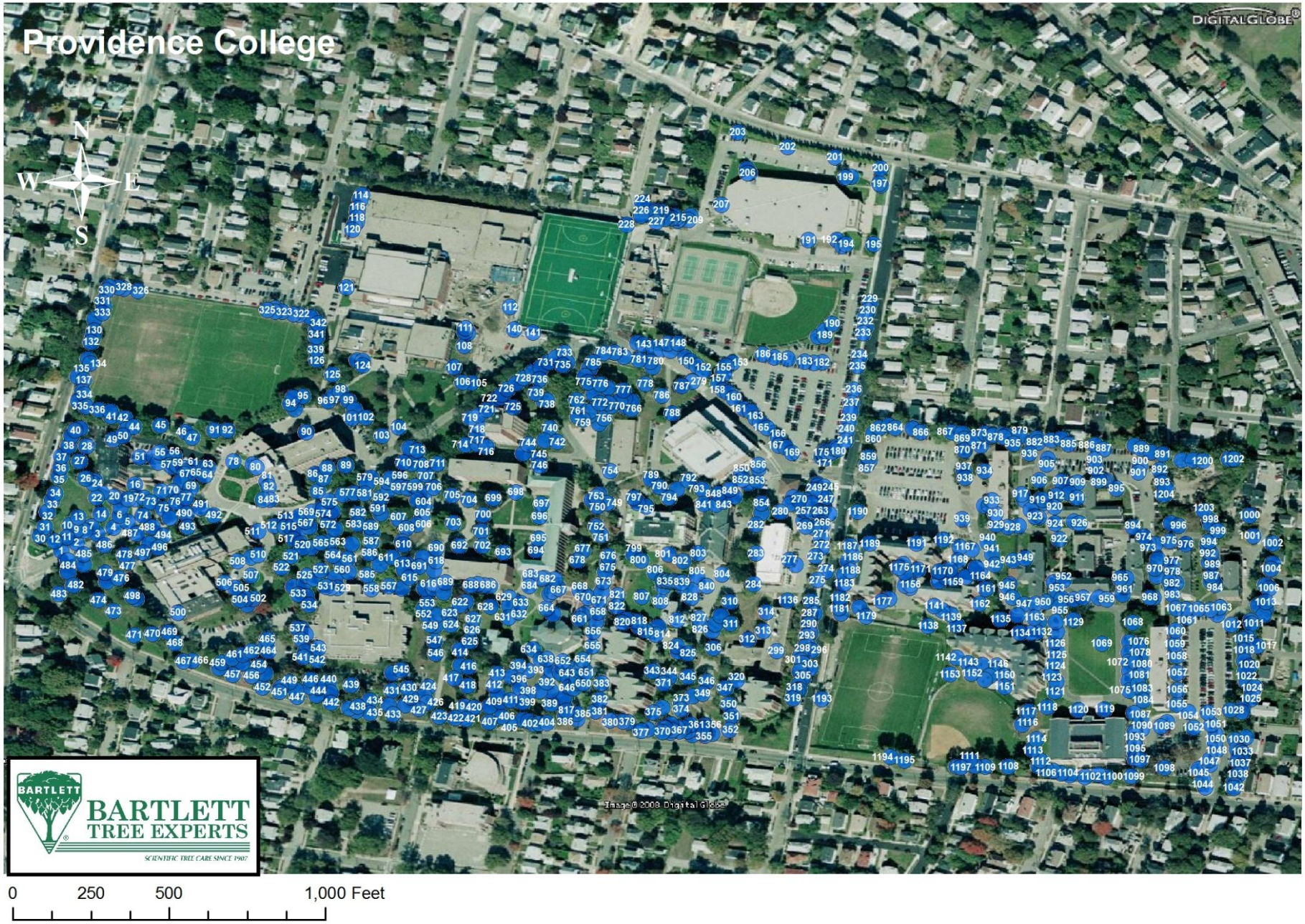
Table 8: TREE SPECIES IDENTIFIED

Genus	Species	Common	Count	Percentage Distribution Total
Abies	balsamea	balsam fir	18	1.50
Acer	griseum	paperbark maple	3	0.25
	palmatum	Japanese maple	22	1.83
	platanoides 'Crimson King'	Crimson King maple	20	1.66

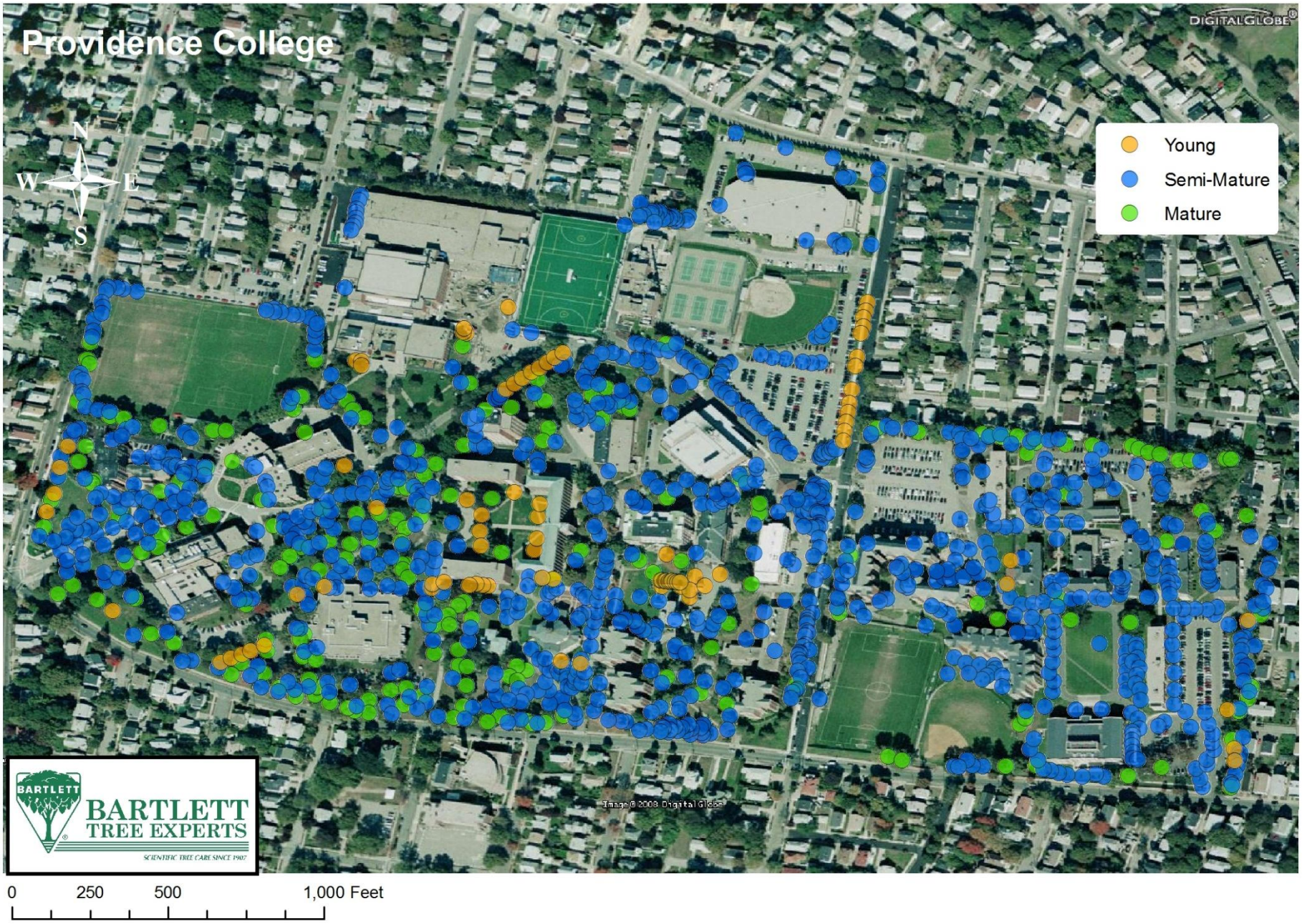
Genus	Species	Common	Count	Percentage Distribution Total
	platanoides	Norway maple	193	16.03
	pseudoplatanus	sycamore maple	1	0.08
	rubrum	red maple	35	2.91
	saccharinum	silver maple	9	0.75
	saccharum	sugar maple	14	1.16
Acer Total			**297**	**24.67**
Aesculus	hippocastanum	horse chestnut	2	0.17
Ailanthus	altissima	tree-of-heaven	2	0.17
Albizia	julibrissin	mimosa	1	0.08
Betula	nigra	river birch	2	0.17
	papyrifera	white birch	18	1.50
Betula Total			**20**	**1.66**
Carpinus	caroliniana	American hornbeam	1	0.08
Catalpa	speciosa	northern catalpa	5	0.42
Cedrus	atlantica	blue atlas cedar	7	0.58
Cercis	canadensis	American redbud	4	0.33
Chamaecyparis	obtusa	hinoki falsecypress	1	0.08
	pisifera	sawara cypress	13	1.08
Chamaecyparis Total			**14**	**1.16**
Cornus	florida	flowering dogwood	55	4.57
	kousa	kousa dogwood	11	0.91
	mas	Cornelian cherry dogwood	2	0.17
Cornus Total			**68**	**5.65**
Crataegus	spp.	hawthorn species	1	0.08
Fagus	grandifolia	American beech	4	0.33
	sylvatica	European beech	8	0.66
Fagus Total			**12**	**1.00**
Fraxinus	americana	white ash	5	0.42
	pennsylvanica	green ash	5	0.42
Fraxinus Total			**10**	**0.83**
Gleditsia	triacanthos	honey locust	48	3.99
Ilex	opaca	American holly	1	0.08
Liquidambar	styraciflua	sweetgum	1	0.08
Liriodendron	tulipifera	yellow-poplar	4	0.33
Magnolia	X soulangiana	saucer magnolia	7	0.58
Malus	floribunda	crabapple	32	2.66
	species	apple	1	0.08
Malus Total			**33**	**2.74**
Morus	alba	white mulberry	1	0.08
Oxydendrum	arboreum	sourwood	1	0.08

Genus	Species	Common	Count	Percentage Distribution Total
Picea	abies	Norway spruce	10	0.83
	glauca	white spruce	11	0.91
	pungens	blue spruce	62	5.15
Picea Total			**83**	**6.89**
Pinus	nigra	Austrian pine	47	3.90
	strobus	eastern white pine	89	7.39
	sylvestris	Scotch pine	6	0.50
Pinus Total			**142**	**11.79**
Platanus	occidentalis	American sycamore	5	0.42
	xacerifolia	London Plane	1	0.08
Platanus Total			**6**	**0.50**
Prunus	cerasifera	Purple Leaf Plum	21	1.74
	serotina	black cherry	5	0.42
	serrulata	Oriental cherry	45	3.74
	subhirtella	Higan cherry	6	0.50
	subhirtella 'Pendula'	Weeping Higan Cherry	12	1.00
Prunus Total			**89**	**7.39**
Pseudotsuga	menziesii	Douglas fir	2	0.17
Pyrus	calleryana	callery pear	51	4.24
Quercus	alba	white oak	34	2.82
	robur	English oak	11	0.91
	rubra	northern red oak	97	8.06
	velutina	black oak	9	0.75
Quercus Total			**151**	**12.54**
Quercus	palustris	pin oak	40	3.32
Taxodium	distichum	common baldcypress	1	0.08
Taxus	spp.	yew	2	0.17
Thuja	occidentalis	eastern white cedar	10	0.83
Tilia	cordata	littleleaf linden	20	1.66
Tsuga	canadensis	Canadian (eastern) hemlock	6	0.50
Ulmus	americana	American elm	11	0.91
	species	elm hybrid	4	0.33
Ulmus Total			**15**	**1.25**
Zelkova	serrata	Japanese zelkova	28	2.33
Grand Total			1204	100.00

Map 1: 2011 TREE INVENTORY



Map 2: TREES BY AGE CLASS

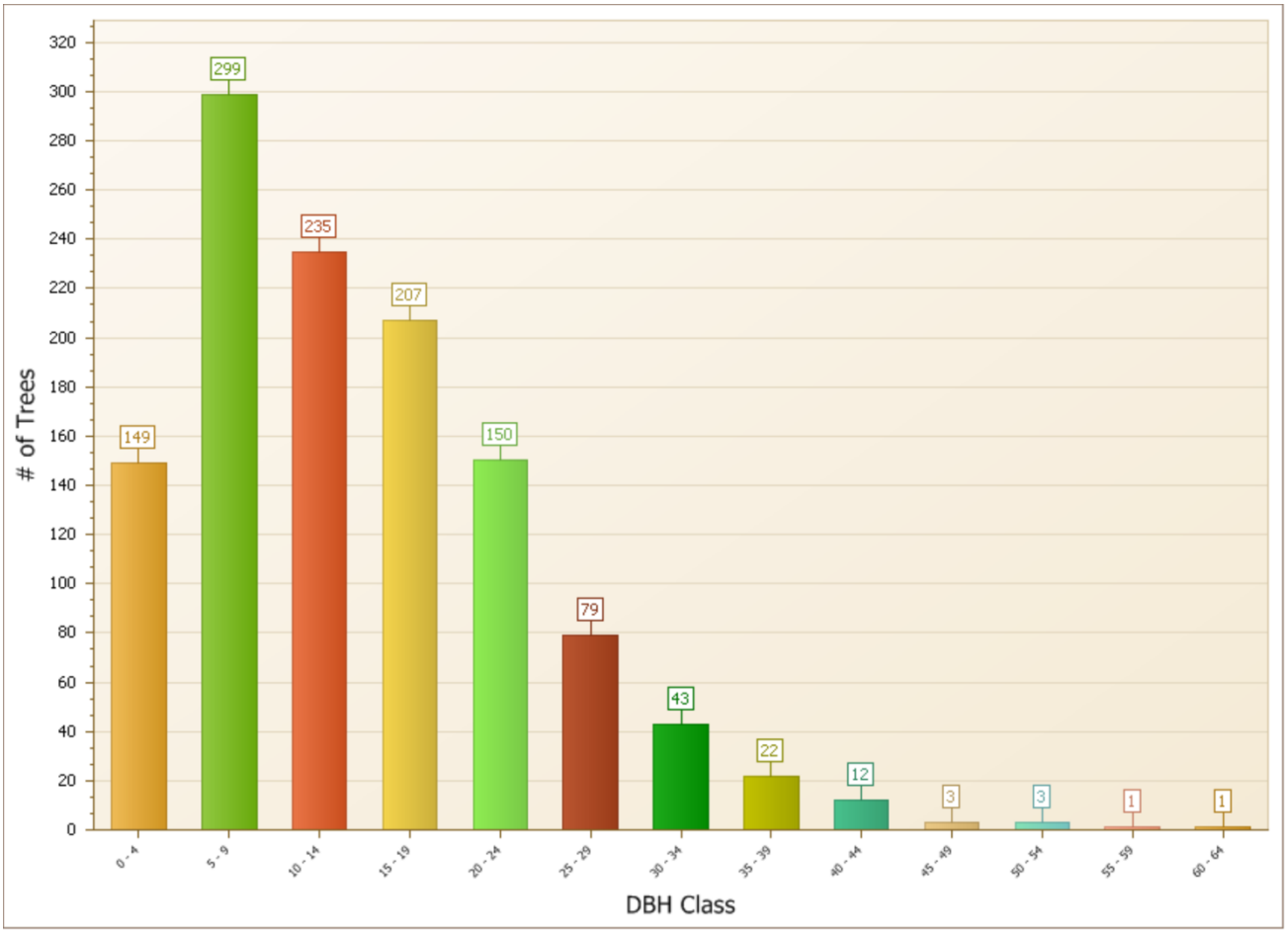


Map 3: TREES BY CONDITION CLASS

Tree Size (DBH)

The following chart illustrates numbers of trees according to size per DBH:

Table 9: TREE SIZE ACCORDING TO DBH



Estimated Value

As part of the Bartlett inventory process, we have included an estimated value for each tree and a cumulative total for each individual tree inventoried. To calculate the estimated value, we use a modified version[1] of the Trunk Formula Method published by the Council of Tree and Landscape Appraisers in *The Guide for Plant Appraisal,* 9th Edition.

[1] This version does not consider cost of purchase and installation of the largest available "like tree."

Our estimated value calcuation uses the following data fields in this formula:

Table 10: DATA FIELDS FOR DETERMINING ESTIMATED TREE VALUE

Estimated Value	Size, species factor, condition factor, and location value
Size	Based on tree DBH (4.5 feet above grade)
Species Factor	Relative species desirability based on 100% for the tree in that geographical location. In most cases, species desirability ratings, published by the International Society of Arboriculture, are used for adjustment.
Condition Factor	Rating of the tree's structure and health based on 100%
Location Factor	Average rating for the site and the tree's contribution and placement, based on 100%

The cumulative total value[2] for all trees inventoried is **$7,528,264.** The following table lists the ten trees with the highest estimated values:

Table 11: TOP TEN TREES - HIGHEST ESTIMATED VALUE

Tag #	Common	Diameter	Estimated Value
1068	northern red oak	64	$74,072
311	northern red oak	48	$55,011
93	pin oak	52	$53,671
134	northern red oak	45	$50,722
1107	eastern white pine	48	$48,899
737	northern red oak	43	$47,737
1129	black oak	56	$46,675
1098	white oak	42	$46,206
45	northern red oak	42	$46,206
621	white oak	40	$43,070

[2] Estimated cumulative total value is actually greater due to our methodology not taking into account individual trees within tree groupings.

Map 4: TOP 10 TREES - HIGHEST ESTIMATED VALUE

Conditions or Defects Observed

In this (results) section, we list in Table 12 trees on which we observed conditions, defects, or other structural issues. Figure 1 provides an example of a tree with a defect on the stem. We list in Table 13 trees on which we observed girdling roots (or the possibility).

Figure 1: Tree #156 exhibiting a wound on the stem.

Table 12: LIST OF TREES WITH CONDITIONS, DEFECTS, OR OTHER STRUCTURAL ISSUES.

Tag #	Common	DBH	Condition or Defect
8	Oriental cherry	15	Co-dominant stems
10	Weeping Higan Cherry	12	Wound(s) - Roots
13	balsam fir	19	Co-dominant stems
27	Norway maple	39	Cavity(s) - Stem
28	Norway maple	30	Storm Damage
30	blue spruce	18	Wound(s) - Roots
31	blue spruce	25	Wound(s) - Roots
33	blue spruce	28	Wound(s) - Roots

Tag #	Common	DBH	Condition or Defect
35	balsam fir	20	Co-dominant stems
39	blue spruce	19	Sweep
41	northern red oak	29	Deadwood > 2 inches
42	northern red oak	30	Deadwood > 2 inches
43	Norway maple	22	Cavity(s) - Stem
47	Norway maple	23	Cavity(s) - Stem
74	Crimson King maple	14	Wound(s) - Stem
76	Crimson King maple	14	Wound(s) - Roots
87	mimosa	20	Sweep
93	pin oak	52	Co-dominant stems
100	Norway maple	27	Cavity(s) - Stem
103	Norway maple	23	Cavity(s) - Stem
122	paperbark maple	5	Staking material
126	pin oak	39	Co-dominant stems
127	Norway maple	17	Cavity(s) - Stem
131	American elm	20	Deadwood > 2 inches
132	northern red oak	33	Deadwood > 2 inches
134	northern red oak	45	Deadwood > 2 inches
139	black cherry	39	Co-dominant stems
143	northern red oak	11	Co-dominant stems
150	pin oak	13	Co-dominant stems
156	callery pear	14	Wound(s) - Stem
165	northern red oak	14	Co-dominant stems
262	Austrian pine	17	Storm Damage
281	pin oak	28	Hanger(s)
284	European beech	34	Cavity(s) - Stem
285	Norway maple	16	Co-dominant stems

Tag #	Common	DBH	Condition or Defect
297	honey locust	17	Hanger(s)
299	honey locust	15	Cavity(s) - Stem
320	Norway maple	20	Cavity(s) - Crown
339	Norway maple	23	Cavity(s) - Stem
340	Norway maple	21	Storm Damage
340	Norway maple	21	Wound(s) - Roots
344	European beech	29	Cavity(s) - Stem
345	Norway maple	24	Co-dominant stems
348	Norway maple	19	Cavity(s) - Crown
348	Norway maple	19	Cavity(s) - Stem
349	Norway maple	25	Cavity(s) - Stem
352	sugar maple	24	Co-dominant stems
359	blue spruce	15	Wound(s) - Roots
360	blue spruce	16	Wound(s) - Roots
362	blue spruce	15	Wound(s) - Roots
365	blue spruce	16	Wound(s) - Stem
370	Norway maple	17	Wound(s) - Roots
371	Norway maple	21	Cavity(s) - Crown
371	Norway maple	21	Cavity(s) - Stem
375	Norway maple	23	Co-dominant stems
386	northern red oak	28	Co-dominant stems
388	Norway maple	14	Cavity(s) - Crown
388	Norway maple	14	Deadwood > 2 inches
393	blue spruce	17	Sweep
404	northern red oak	30	Cavity(s) - Stem
414	Norway maple	34	Cavity(s) - Stem
415	Norway maple	29	Cavity(s) - Stem

Tag #	Common	DBH	Condition or Defect
415	Norway maple	29	Cavity(s) - Crown
439	Norway maple	22	Cavity(s) - Stem
439	Norway maple	22	Deadwood > 2 inches
440	Norway maple	23	Cavity(s) - Stem
447	white oak	36	Cavity(s) - Stem
448	Norway maple	20	Cavity(s) - Stem
448	Norway maple	20	Wound(s) - Root Flare
449	Norway maple	18	Cavity(s) - Stem
449	Norway maple	18	Co-dominant stems
455	Norway maple	28	Cavity(s) - Stem
456	red maple	21	Cavity(s) - Stem
456	red maple	21	Storm Damage
457	Norway maple	24	Cavity(s) - Stem
460	callery pear	4	Wound(s) - Stem
464	pin oak	33	Deadwood > 2 inches
478	Norway maple	19	Cavity(s) - Stem
481	blue spruce	22	Hanger(s)
482	Norway maple	36	Hanger(s)
483	Norway maple	27	Wound(s) - Stem
485	Crimson King maple	13	Wound(s) - Stem
487	Crimson King maple	15	Wound(s) - Stem
510	callery pear	17	Wound(s) - Stem
561	Norway maple	26	Hanger(s)
563	northern red oak	39	Cavity(s) - Stem
563	northern red oak	39	Cavity(s) - Root Flare
572	blue spruce	18	Sweep
572	blue spruce	18	Wound(s) - Stem
576	Norway maple	20	Wound(s) - Roots
580	Norway maple	18	Cavity(s) - Root Flare
580	Norway maple	18	Cavity(s) - Stem
583	Norway maple	22	Wound(s) - Stem
584	Norway maple	18	Cavity(s) - Stem
585	Norway maple	22	Cavity(s) - Stem
589	Norway maple	18	Cavity(s) - Stem
592	Norway maple	22	Cavity(s) - Crown
592	Norway maple	22	Cavity(s) - Stem
597	white oak	30	Co-dominant stems
605	northern red oak	30	Cavity(s) - Stem
608	white oak	40	Hanger(s)
676	Norway maple	26	Cavity(s) - Stem
678	littleleaf linden	16	Storm Damage
679	European beech	50	Wound(s) - Stem
706	Norway maple	18	Cavity(s) - Stem
707	white oak	34	Co-dominant stems
712	Norway maple	20	Cavity(s) - Stem
714	black oak	32	Hanger(s)
715	Norway maple	19	Cavity(s) - Stem
717	Norway maple	24	Storm Damage
721	northern red oak	44	Cavity(s) - Stem
737	northern red oak	43	Co-dominant stems
739	american hornbeam	4	Wound(s) - Stem
741	northern red oak	50	Cavity(s) - Crown
745	European beech	16	Storm Damage
751	yellow-poplar	16	Wound(s) - Stem
753	northern red oak	15	Co-dominant stems
779	Norway maple	18	Hanger(s)
793	Norway maple	23	Cavity(s) - Stem
794	Norway maple	28	Hanger(s)
794	Norway maple	28	Storm Damage

Tag #	Common	DBH	Condition or Defect
800	Norway maple	28	Cavity(s) - Stem
863	northern red oak	22	Hanger(s)
864	Norway maple	22	Cavity(s) - Stem
868	eastern white pine	24	Hanger(s)
889	eastern white pine	26	Co-dominant stems
923	white birch	12	Wound(s) - Stem
975	white oak	28	Hanger(s)
983	eastern white pine	19	Co-dominant stems
1042	sweetgum	32	Hanger(s)
1050	Japanese zelkova	5	Wound(s) - Stem
1084	red maple	14	Co-dominant stems
1109	northern red oak	20	Uneven crown
1116	eastern white pine	26	Wound(s) - Stem
1163	white ash	7	Wound(s) - Stem
1184	Norway maple	19	Seam
1186	silver maple	32	Hanger(s)
1195	northern red oak	40	Co-dominant stems

Table 13: TREES WITH GIRDLING ROOT PRESENT

Tag #	Common	Diameter
1	Crimson King maple	8
20	Scotch pine	17
43	Norway maple	22
49	eastern white pine	15
62	littleleaf linden	25
75	Crimson King maple	17
77	Crimson King maple	19
91	pin oak	28
107	Crimson King maple	8
198	Austrian pine	14
253	flowering dogwood	4
278	crabapple	6
302	silver maple	21
306	Norway maple	28
324	Norway maple	15
326	Norway maple	17
327	Norway maple	17
389	Norway maple	10
441	Norway maple	20
457	Norway maple	24
467	Norway maple	19
571	Norway maple	20
656	Norway maple	8
823	Japanese maple	9
849	red maple	17
982	eastern white pine	15
995	northern catalpa	24
1136	littleleaf linden	12

Further Evaluation & Removal

This section begins our coverage of recommendations. As part of the inventory process, the BIS team conducts a visual inspection of each tree from the ground. In this type of examination, the inspector can determine whether some aspect of tree structure or health indicates that a more comprehensive tree structure evaluation is needed to more thoroughly evaluate tree condition and risk of failure. Figure 2 provides an example of a tree defect that merits further evaluation. The presence of large, open wounds to the stem indicates that there may be a risk of failure.

Figure 2: Stem wound on Tree #284 necessitates further evaluation to more thoroughly assess the risk of failure.

In such cases, we may recommend climbing inspections, examination of the root system using a compressed-air tool (that avoids damage to roots and underground utilities), and one or more of the following: resistance drilling; the IML Resistograph, a precision drilling instrument that provides graphical output (preferred drilling method); or sound-wave examinations that produce estimates of decay percentages in targeted areas. The goal is to use the appropriate method to evaluate impact of wood decay in stems and buttress roots that show potential for failure and to determine presence and condition of the root system.

Once we complete such evaluations, we can then recommend appropriate measures, such as remediation, maintenance, or removal. (A technical report on tree structure evaluation appears in the Appendix.)

The trees listed in Table 14 below met the conditions for further evaluation.

Table 14: TREES RECOMMENDED FOR FURTHER EVALUATION

Tag #	Common	Diameter	Evaluation Type
43	Norway maple	22	Drill Stem
47	Norway maple	23	Drill Stem
100	Norway maple	27	Drill Stem
284	European beech	34	Drill Stem
344	European beech	29	Drill Stem
349	Norway maple	25	Drill Stem
371	Norway maple	21	Drill Stem
404	northern red oak	30	Drill Stem
415	Norway maple	29	Climbing/Inspect
415	Norway maple	29	Drill Stem
439	Norway maple	22	Drill Stem
440	Norway maple	23	Drill Stem
447	white oak	36	Drill Stem
449	Norway maple	18	Drill Stem
455	Norway maple	28	Drill Stem
457	Norway maple	24	Drill Stem
501	pin oak	25	Climbing/Inspect
561	Norway maple	26	Drill Stem
563	northern red oak	39	Drill Stem
563	northern red oak	39	Drill Root Flare
581	Norway maple	15	Drill Stem
585	Norway maple	22	Drill Stem
592	Norway maple	22	Drill Stem
605	northern red oak	30	Drill Stem
721	northern red oak	44	Drill Stem
741	northern red oak	50	Climbing/Inspect
773	Norway maple	20	Drill Stem
793	Norway maple	23	Drill Stem

Map 5: TREES RECOMMENDED FOR FURTHER EVALUATION

In some cases, our visual inspection was adequate to determine need for removal. The trees listed in Table 15 are recommended for removal.

Table 15: TREES RECOMMENDED FOR REMOVAL

Tag #	Common	DBH	GTW Priority	Total Risk Rating
27	Norway maple	39	1 Priority	13
128	Norway maple	14	1 Priority	13
423	Norway maple	17	1 Priority	12
414	Norway maple	34	1 Priority	10
130	Oriental cherry	20	1 Priority	9
51	flowering dogwood	4	1 Priority	…
138	black cherry	6	1 Priority	…
154	callery pear	12	1 Priority	…
331	northern red oak	5	1 Priority	…
334	Norway maple	4	1 Priority	…
335	Norway maple	14	1 Priority	…
336	black cherry	14	1 Priority	…
337	Norway maple	14	1 Priority	…
348	Norway maple	19	1 Priority	…
361	blue spruce	16	1 Priority	…
378	blue spruce	12	1 Priority	…
388	Norway maple	14	1 Priority	…
478	Norway maple	19	1 Priority	…
487	Crimson King maple	15	1 Priority	…
580	Norway maple	18	1 Priority	…
586	Norway maple	19	1 Priority	…
624	American beech	36	1 Priority	…
627	white oak	29	1 Priority	…
676	Norway maple	26	1 Priority	…
784	Norway maple	18	1 Priority	…
841	callery pear	17	1 Priority	…
936	northern catalpa	40	1 Priority	…
456	red maple	21	2 Priority	…
541	Oriental cherry	20	3 Priority	…
543	Oriental cherry	13	3 Priority	…
553	Oriental cherry	13	3 Priority	…
554	Higan cherry	16	3 Priority	…
797	Norway maple	15	3 Priority	…
1036	pin oak	3	3 Priority	…

Map 6: TREES RECOMMENDED FOR REMOVAL

Pruning & Structural Support Systems

A commonly offered service among tree companies, pruning trees is one of the most poorly executed practices by tree workers who lack training in the basics of tree biology. "Lion's tailing," topping, and flush cuts are a few examples, and these can lead to hazardous conditions over time.

Because this practice is so misunderstood, and because specific standards exist to perform pruning correctly, the BIS team decided to include some explanation in the main body of this management plan.

Tree owners and tree-care practitioners should always keep in mind that *any pruning cut is a wound*. Informed tree-care professionals have learned to manage that wounding to preserve the health, safety, and integrity of the tree.

Improper Pruning Practices

A few of the most common pruning abuses are

- Lion's Tailing – pruning that removes interior branches along the stem and scaffold branches. This encourages poor branch taper, poor wind load distribution, and risk of branch failure. It also deprives the tree of foliage it needs to produce **photosynthates**. See Figure 4.
- Topping – pruning cuts that reduce a tree's size by using heading cuts that shorten branches to a predetermined size. This also deprives the tree of adequate foliage. See Figure 3.
- Flush Cuts – pruning cut through the **branch collar**, flush against the trunk or parent stem, causing unnecessary injury. See Figure 5.
- Using Climbing Spikes Inappropriately – Using climbing spikes on a healthy tree, for example, wounds healthy stem tissues and can lead to infection by fungal pathogens.

Figure 3: Examples of topping

Figure 4: Black oval indicates general area of excessive foliage removal.

Figure 5: Examples of flush cuts

Correct Pruning Practices

For specific standards on pruning practices, readers will find ANSI Standards on this topic in the Appendix. We have, however, included below some key pruning categories and diagrams to illuminate the goal of each.

Cleaning

Selective pruning to remove one or more of the following parts: dead, diseased, and/or broken branches.

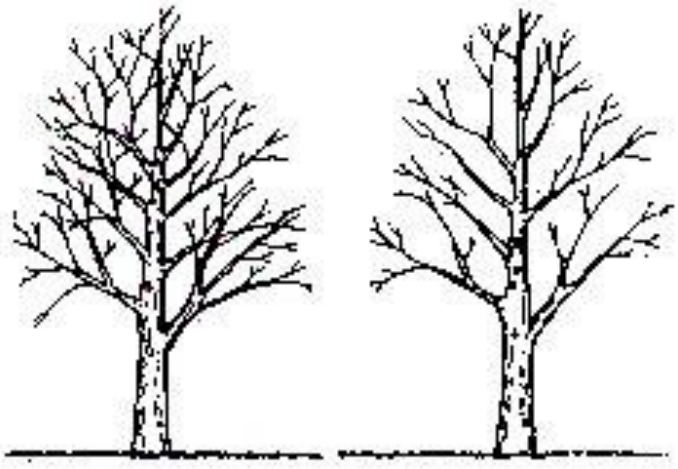


Figure 6: Illustration of crown cleaning

Raising

Selectively pruning to provide vertical clearance.

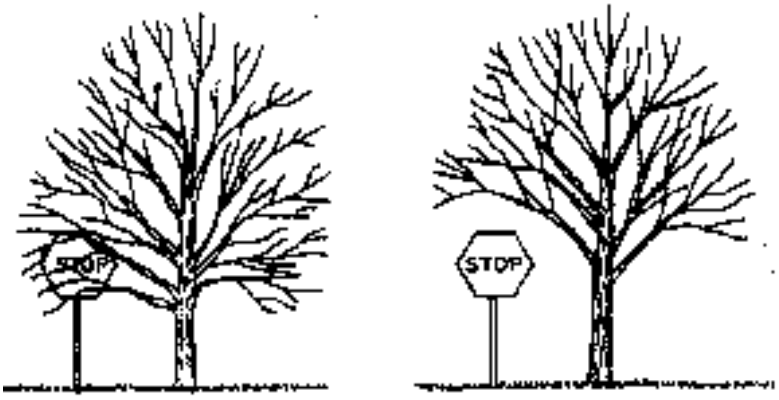


Figure 7: Illustration of crown raising

Thinning

Selective pruning to reduce density of live branches.

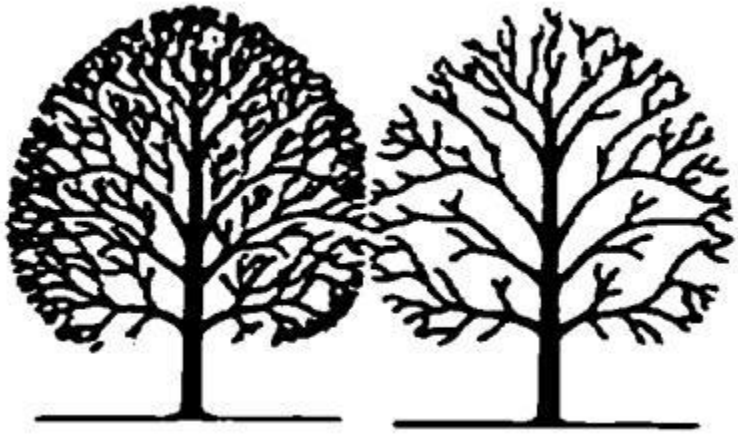


Figure 8: Illustration of thinning

Reducing (Reduction Pruning)

Selective pruning to reduce height or spread.

Figure 9: Illustration of reduction pruning

Structural

Selective pruning of live branches and stems to influence orientation, spacing, growth rate, strength of attachment, and ultimate size of branches and stems.

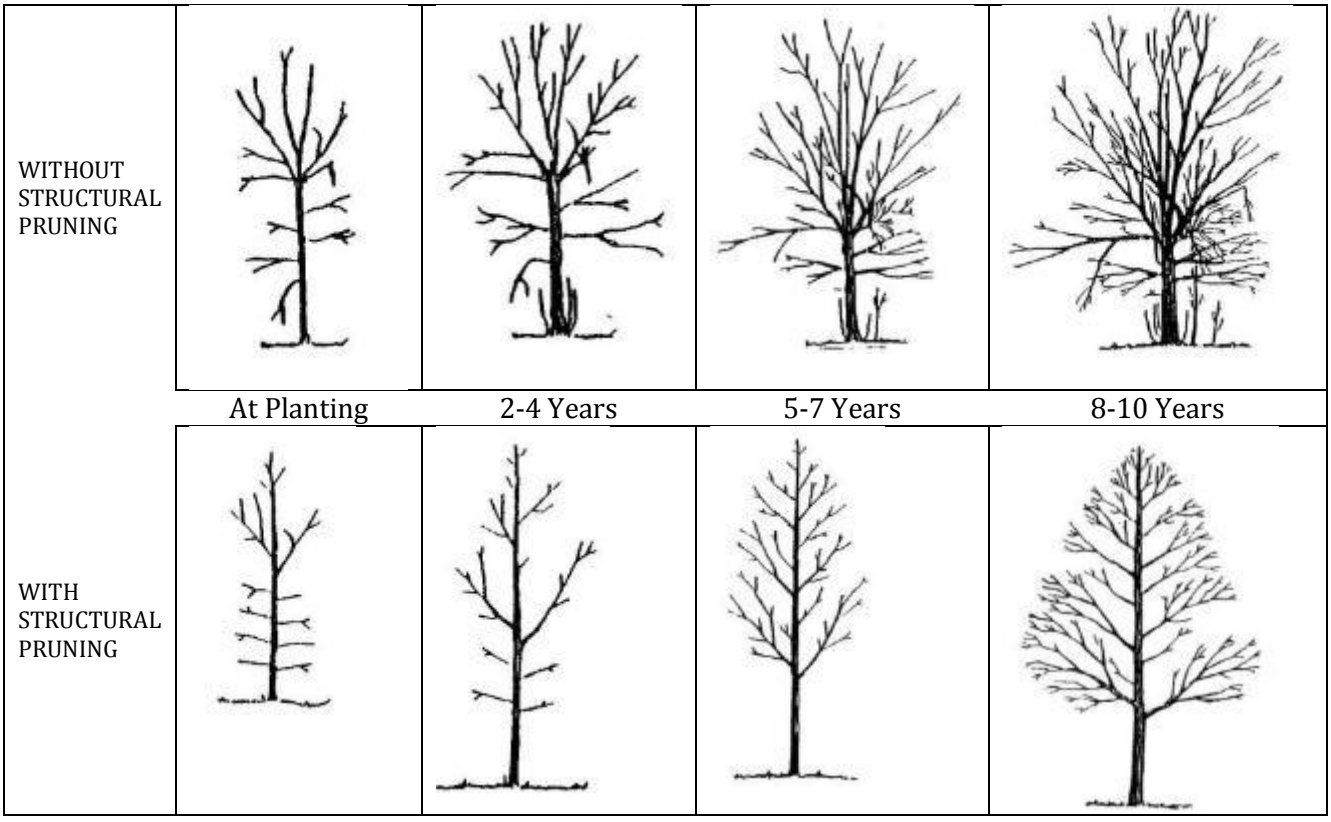


Figure 10: Illustration of structural pruning

We recommended pruning on the following trees:

Table 16: TREES RECOMMENDED FOR PRUNING

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
297	honey locust	17	1 Priority	CLEAN	13	…
482	Norway maple	36	1 Priority	CLEAN	13	…
561	Norway maple	26	1 Priority	CLEAN	13	…
714	black oak	32	1 Priority	CLEAN	13	…
794	Norway maple	28	1 Priority	CLEAN	13	…
863	northern red oak	22	1 Priority	CLEAN	13	…
975	white oak	28	1 Priority	CLEAN	13	…
134	northern red oak	45	1 Priority	CLEAN	12	…
295	honey locust	20	1 Priority	CLEAN	12	…
439	Norway maple	22	1 Priority	CLEAN	12	…
464	pin oak	33	1 Priority	CLEAN	12	…
1042	sweetgum	32	1 Priority	CLEAN	12	…
1186	silver maple	32	1 Priority	CLEAN	12	…
576	Norway maple	20	1 Priority	CLEAN	11	…
402	northern red oak	30	1 Priority	CLEAN	10	…
139	black cherry	39	1 Priority	CLEAN	8	…
139	black cherry	39	1 Priority	RAISE	8	…
281	pin oak	28	1 Priority	CLEAN	8	…
5	Crimson King maple	10	1 Priority	REDUCE	…	Pole
8	Oriental cherry	15	1 Priority	THIN	…	…
16	white birch	14	1 Priority	CLEAN	…	…
16	white birch	14	1 Priority	RAISE	…	…
16	white birch	14	1 Priority	REDUCE - Building	…	…
17	kousa dogwood	5	1 Priority	REDUCE	…	Lighting
17	kousa dogwood	5	1 Priority	THIN	…	Lighting
20	Scotch pine	17	1 Priority	CLEAN	…	…
20	Scotch pine	17	1 Priority	REDUCE - Building	…	…
28	Norway maple	30	1 Priority	CLEAN	…	…
40	Austrian pine	21	1 Priority	CLEAN	…	…
41	northern red oak	29	1 Priority	CLEAN	…	…
42	northern red oak	30	1 Priority	CLEAN	…	…
43	Norway maple	22	1 Priority	CLEAN	…	…
44	Austrian pine	22	1 Priority	CLEAN	…	…
45	northern red oak	42	1 Priority	CLEAN	…	Lighting
45	northern red oak	42	1 Priority	REDUCE	…	Lighting
50	sugar maple	15	1 Priority	CLEAN	…	…
50	sugar maple	15	1 Priority	REDUCE - Building	…	…
53	flowering dogwood	5	1 Priority	CLEAN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
53	flowering dogwood	5	1 Priority	REDUCE - Building	…	…
54	flowering dogwood	5	1 Priority	CLEAN	…	…
54	flowering dogwood	5	1 Priority	REDUCE - Building	…	…
55	Crimson King maple	6	1 Priority	RAISE	…	…
55	Crimson King maple	6	1 Priority	STRUCTURE	…	…
56	sugar maple	18	1 Priority	RAISE	…	Lighting
56	sugar maple	18	1 Priority	RAISE	…	Parking
56	sugar maple	18	1 Priority	REDUCE	…	Lighting
56	sugar maple	18	1 Priority	REDUCE	…	Parking
57	eastern white pine	15	1 Priority	REDUCE - Building	…	…
58	flowering dogwood	4	1 Priority	REDUCE - Building	…	…
59	flowering dogwood	4	1 Priority	REDUCE - Building	…	…
60	flowering dogwood	4	1 Priority	CLEAN	…	…
60	flowering dogwood	4	1 Priority	REDUCE - Building	…	…
61	balsam fir	22	1 Priority	CLEAN	…	Lighting
61	balsam fir	22	1 Priority	REDUCE	…	Lighting
62	littleleaf linden	25	1 Priority	RAISE	…	…
62	littleleaf linden	25	1 Priority	THIN	…	…
63	crabapple	6	1 Priority	CLEAN	…	…
63	crabapple	6	1 Priority	THIN	…	…
64	littleleaf linden	17	1 Priority	RAISE	…	Sidewalk
64	littleleaf linden	17	1 Priority	THIN	…	Sidewalk
69	sourwood	4	1 Priority	RAISE	…	Sidewalk
71	blue spruce	24	1 Priority	CLEAN	…	…
78	Japanese maple	5	1 Priority	THIN	…	…
78	Japanese maple	5	1 Priority	CLEAN	…	…
79	flowering dogwood	4	1 Priority	CLEAN	…	…
80	flowering dogwood	5	1 Priority	CLEAN	…	…
81	flowering dogwood	10	1 Priority	CLEAN	…	…
82	flowering dogwood	4	1 Priority	CLEAN	…	…
84	Japanese maple	6	1 Priority	CLEAN	…	…
84	Japanese maple	6	1 Priority	THIN	…	…
85	flowering dogwood	9	1 Priority	REDUCE	…	Lighting
86	flowering dogwood	7	1 Priority	REDUCE	…	Lighting
87	mimosa	20	1 Priority	CLEAN	…	…
89	northern red oak	4	1 Priority	STRUCTURE	…	…
90	Japanese maple	5	1 Priority	CLEAN	…	…
91	pin oak	28	1 Priority	CLEAN	…	Fence
92	pin oak	35	1 Priority	CLEAN	…	Lighting
92	pin oak	35	1 Priority	REDUCE	…	Lighting
93	pin oak	52	1 Priority	CLEAN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
93	pin oak	52	1 Priority	THIN	…	…
95	Norway maple	25	1 Priority	CLEAN	…	Lighting
95	Norway maple	25	1 Priority	RAISE	…	Lighting
105	pin oak	39	1 Priority	CLEAN	…	…
105	pin oak	39	1 Priority	THIN	…	…
107	Crimson King maple	8	1 Priority	RAISE	…	…
107	Crimson King maple	8	1 Priority	THIN	…	…
108	Norway maple	25	1 Priority	THIN	…	Lighting
108	Norway maple	25	1 Priority	REDUCE	…	Lighting
126	pin oak	39	1 Priority	CLEAN	…	…
126	pin oak	39	1 Priority	THIN	…	…
129	northern red oak	20	1 Priority	RAISE	…	Sidewalk
131	American elm	20	1 Priority	CLEAN	…	…
132	northern red oak	33	1 Priority	CLEAN	…	…
143	northern red oak	11	1 Priority	STRUCTURE	…	…
146	northern red oak	7	1 Priority	REDUCE	…	Lighting
146	northern red oak	7	1 Priority	STRUCTURE	…	Lighting
150	pin oak	13	1 Priority	STRUCTURE	…	…
152	northern red oak	11	1 Priority	STRUCTURE	…	…
157	northern red oak	19	1 Priority	STRUCTURE	…	…
158	northern red oak	12	1 Priority	STRUCTURE	…	…
159	northern red oak	14	1 Priority	STRUCTURE	…	…
160	pin oak	14	1 Priority	STRUCTURE	…	…
164	northern red oak	8	1 Priority	STRUCTURE	…	…
165	northern red oak	14	1 Priority	STRUCTURE	…	…
166	northern red oak	13	1 Priority	STRUCTURE	…	…
167	northern red oak	14	1 Priority	STRUCTURE	…	…
168	northern red oak	16	1 Priority	STRUCTURE	…	…
169	northern red oak	14	1 Priority	STRUCTURE	…	…
170	Austrian pine	13	1 Priority	RAISE	…	…
170	Austrian pine	13	1 Priority	CLEAN	…	…
181	callery pear	6	1 Priority	RAISE	…	Parking
181	callery pear	6	1 Priority	THIN	…	Parking
182	callery pear	6	1 Priority	RAISE	…	Parking
182	callery pear	6	1 Priority	THIN	…	Parking
183	callery pear	6	1 Priority	RAISE	…	…
183	callery pear	6	1 Priority	THIN	…	…
184	callery pear	6	1 Priority	RAISE	…	…
184	callery pear	6	1 Priority	THIN	…	…
185	callery pear	6	1 Priority	RAISE	…	…
185	callery pear	6	1 Priority	THIN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
186	callery pear	6	1 Priority	RAISE	…	Parking
186	callery pear	6	1 Priority	THIN	…	Parking
191	Japanese maple	4	1 Priority	RAISE	…	…
191	Japanese maple	4	1 Priority	THIN	…	…
193	white birch	13	1 Priority	RAISE	…	…
195	American holly	8	1 Priority	RAISE	…	Fence
195	American holly	8	1 Priority	REDUCE	…	Fence
196	Austrian pine	13	1 Priority	RAISE	…	Sidewalk
200	eastern white cedar	8	1 Priority	REDUCE	…	Lighting
201	eastern white cedar	8	1 Priority	REDUCE	…	Lighting
202	eastern white cedar	8	1 Priority	REDUCE	…	Lighting
229	elm hybrid	5	1 Priority	STRUCTURE	…	…
230	elm hybrid	5	1 Priority	STRUCTURE	…	…
231	elm hybrid	5	1 Priority	STRUCTURE	…	…
232	elm hybrid	5	1 Priority	STRUCTURE	…	…
233	sugar maple	4	1 Priority	STRUCTURE	…	…
234	sugar maple	4	1 Priority	STRUCTURE	…	…
235	sugar maple	4	1 Priority	STRUCTURE	…	…
236	pin oak	4	1 Priority	RAISE	…	Sidewalk
236	pin oak	4	1 Priority	STRUCTURE	…	Sidewalk
237	pin oak	4	1 Priority	STRUCTURE	…	…
238	pin oak	4	1 Priority	RAISE	…	…
238	pin oak	4	1 Priority	STRUCTURE	…	…
239	pin oak	4	1 Priority	RAISE	…	…
239	pin oak	4	1 Priority	STRUCTURE	…	…
240	pin oak	4	1 Priority	RAISE	…	…
240	pin oak	4	1 Priority	STRUCTURE	…	…
241	pin oak	4	1 Priority	RAISE	…	…
241	pin oak	4	1 Priority	STRUCTURE	…	…
250	callery pear	13	1 Priority	RAISE	…	Sidewalk
251	callery pear	13	1 Priority	RAISE	…	…
252	flowering dogwood	4	1 Priority	REDUCE - Building	…	…
262	Austrian pine	17	1 Priority	CLEAN	…	…
264	eastern white pine	15	1 Priority	REDUCE	…	Fence
270	eastern white pine	14	1 Priority	RAISE	…	Sign blockage
271	honey locust	10	1 Priority	THIN	…	…
271	honey locust	10	1 Priority	RAISE	…	…
272	honey locust	12	1 Priority	THIN	…	…
272	honey locust	12	1 Priority	RAISE	…	…
274	honey locust	10	1 Priority	CLEAN	…	…
274	honey locust	10	1 Priority	RAISE	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
274	honey locust	10	1 Priority	THIN	…	…
276	flowering dogwood	4	1 Priority	RAISE	…	…
276	flowering dogwood	4	1 Priority	REDUCE - Building	…	…
277	flowering dogwood	7	1 Priority	REDUCE - Building	…	…
278	crabapple	6	1 Priority	RAISE	…	Sidewalk
278	crabapple	6	1 Priority	THIN	…	Sidewalk
279	crabapple	7	1 Priority	REDUCE - Building	…	…
279	crabapple	7	1 Priority	THIN	…	…
280	crabapple	4	1 Priority	RAISE	…	Sidewalk
285	Norway maple	16	1 Priority	THIN	…	…
302	silver maple	21	1 Priority	CLEAN	…	…
306	Norway maple	28	1 Priority	CLEAN	…	…
308	white spruce	15	1 Priority	CLEAN	…	…
311	northern red oak	48	1 Priority	CLEAN	…	…
314	red maple	18	1 Priority	REDUCE - Building	…	…
316	northern red oak	21	1 Priority	CLEAN	…	…
323	Norway maple	18	1 Priority	RAISE	…	…
323	Norway maple	18	1 Priority	CLEAN	…	…
326	Norway maple	17	1 Priority	CLEAN	…	Fence
326	Norway maple	17	1 Priority	REDUCE	…	Fence
330	Norway maple	17	1 Priority	RAISE	…	Fence
333	Norway maple	17	1 Priority	RAISE	…	Fence
344	European beech	29	1 Priority	CLEAN	…	…
344	European beech	29	1 Priority	RAISE	…	…
349	Norway maple	25	1 Priority	CLEAN	…	…
350	pin oak	28	1 Priority	REDUCE - Building	…	…
352	sugar maple	24	1 Priority	CLEAN	…	…
365	blue spruce	16	1 Priority	CLEAN	…	…
375	Norway maple	23	1 Priority	THIN	…	…
385	Norway spruce	17	1 Priority	CLEAN	…	…
391	American elm	8	1 Priority	STRUCTURE	…	…
394	northern red oak	24	1 Priority	CLEAN	…	…
394	northern red oak	24	1 Priority	RAISE	…	…
394	northern red oak	24	1 Priority	REDUCE - Building	…	…
401	northern red oak	26	1 Priority	CLEAN	…	…
412	red maple	4	1 Priority	STRUCTURE	…	…
413	northern red oak	18	1 Priority	CLEAN	…	…
413	northern red oak	18	1 Priority	RAISE	…	…
419	balsam fir	20	1 Priority	CLEAN	…	…
422	black oak	29	1 Priority	CLEAN	…	…
424	American elm	10	1 Priority	STRUCTURE	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
426	American elm	10	1 Priority	STRUCTURE	…	…
431	white oak	31	1 Priority	CLEAN	…	…
437	northern red oak	28	1 Priority	CLEAN	…	Street
437	northern red oak	28	1 Priority	RAISE	…	Street
439	Norway maple	22	1 Priority	CLEAN	…	…
445	Norway maple	17	1 Priority	RAISE	…	Parking
446	white oak	36	1 Priority	CLEAN	…	…
451	Norway maple	19	1 Priority	CLEAN	…	…
458	Norway maple	20	1 Priority	RAISE	…	Lighting
465	pin oak	34	1 Priority	CLEAN	…	
469	balsam fir	13	1 Priority	REDUCE	…	Lighting
472	Norway maple	39	1 Priority	CLEAN	…	…
472	Norway maple	39	1 Priority	REDUCE	…	…
474	Norway maple	33	1 Priority	CLEAN	…	…
477	silver maple	29	1 Priority	CLEAN	…	…
477	silver maple	29	1 Priority	RAISE	…	…
479	flowering dogwood	4	1 Priority	CLEAN	…	…
480	Weeping Higan Cherry	16	1 Priority	CLEAN	…	…
481	blue spruce	22	1 Priority	CLEAN	…	…
486	Crimson King maple	13	1 Priority	REDUCE	…	…
486	Crimson King maple	13	1 Priority	CLEAN	…	…
489	Crimson King maple	18	1 Priority	REDUCE	…	Lighting
492	Oriental cherry	12	1 Priority	CLEAN	…	…
492	Oriental cherry	12	1 Priority	THIN	…	…
494	Oriental cherry	13	1 Priority	CLEAN	…	Lighting
494	Oriental cherry	13	1 Priority	RAISE	…	Lighting
494	Oriental cherry	13	1 Priority	THIN	…	Lighting
496	crabapple	12	1 Priority	CLEAN	…	…
496	crabapple	12	1 Priority	THIN	…	…
497	crabapple	14	1 Priority	CLEAN	…	…
497	crabapple	14	1 Priority	THIN	…	…
500	Japanese maple	5	1 Priority	REDUCE - Building	…	…
501	pin oak	25	1 Priority	CLEAN	…	…
505	honey locust	10	1 Priority	CLEAN	…	…
505	honey locust	10	1 Priority	RAISE	…	…
505	honey locust	10	1 Priority	THIN	…	…
506	honey locust	10	1 Priority	CLEAN	…	…
506	honey locust	10	1 Priority	RAISE	…	…
506	honey locust	10	1 Priority	THIN	…	…
508	saucer magnolia	8	1 Priority	REDUCE - Building	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
509	callery pear	14	1 Priority	REDUCE - Building	…	…
510	callery pear	17	1 Priority	REDUCE - Building	…	…
511	white birch	12	1 Priority	REDUCE - Building	…	…
512	crabapple	14	1 Priority	CLEAN	…	…
512	crabapple	14	1 Priority	THIN	…	…
525	Japanese maple	5	1 Priority	CLEAN	…	…
529	white birch	10	1 Priority	REDUCE - Building	…	…
555	Oriental cherry	4	1 Priority	STRUCTURE	…	…
556	white birch	9	1 Priority	REDUCE - Building	…	…
557	white birch	12	1 Priority	REDUCE - Building	…	…
558	flowering dogwood	5	1 Priority	REDUCE - Building	…	…
561	Norway maple	26	1 Priority	CLEAN	…	…
565	flowering dogwood	5	1 Priority	CLEAN	…	…
568	Japanese maple	8	1 Priority	REDUCE	…	Lighting
568	Japanese maple	8	1 Priority	THIN	…	Lighting
575	crabapple	5	1 Priority	CLEAN	…	…
575	crabapple	5	1 Priority	THIN	…	…
577	pin oak	18	1 Priority	CLEAN	…	…
577	pin oak	18	1 Priority	STRUCTURE	…	…
587	Norway maple	24	1 Priority	CLEAN	…	…
591	Norway maple	5	1 Priority	STRUCTURE	…	…
592	Norway maple	22	1 Priority	CLEAN	…	…
597	white oak	30	1 Priority	CLEAN	…	…
598	white oak	33	1 Priority	CLEAN	…	…
599	blue spruce	12	1 Priority	CLEAN	…	…
605	northern red oak	30	1 Priority	CLEAN	…	…
608	white oak	40	1 Priority	CLEAN	…	…
616	Oriental cherry	4	1 Priority	STRUCTURE	…	…
620	Oriental cherry	4	1 Priority	STRUCTURE	…	…
621	white oak	40	1 Priority	CLEAN	…	…
622	white oak	40	1 Priority	CLEAN	…	…
623	Norway maple	34	1 Priority	CLEAN	…	…
655	Norway maple	10	1 Priority	REDUCE	…	Lighting
678	littleleaf linden	16	1 Priority	CLEAN	…	…
682	Oriental cherry	4	1 Priority	THIN	…	…
684	Oriental cherry	10	1 Priority	RAISE	…	…
685	northern red oak	4	1 Priority	STRUCTURE	…	…
686	northern red oak	4	1 Priority	STRUCTURE	…	…
687	northern red oak	4	1 Priority	STRUCTURE	…	…
688	northern red oak	4	1 Priority	STRUCTURE	…	…
689	Oriental cherry	4	1 Priority	STRUCTURE	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
694	honey locust	5	1 Priority	STRUCTURE	…	…
695	honey locust	5	1 Priority	STRUCTURE	…	…
696	honey locust	5	1 Priority	STRUCTURE	…	…
697	honey locust	5	1 Priority	STRUCTURE	…	…
700	honey locust	4	1 Priority	STRUCTURE	…	…
701	honey locust	5	1 Priority	STRUCTURE	…	…
707	white oak	34	1 Priority	CLEAN	…	…
711	northern red oak	40	1 Priority	CLEAN	…	…
717	Norway maple	24	1 Priority	CLEAN	…	…
719	Norway maple	27	1 Priority	CLEAN	…	…
726	red maple	4	1 Priority	STRUCTURE	…	…
727	red maple	4	1 Priority	STRUCTURE	…	…
728	red maple	4	1 Priority	STRUCTURE	…	…
729	red maple	4	1 Priority	STRUCTURE	…	…
730	red maple	4	1 Priority	STRUCTURE	…	…
731	red maple	4	1 Priority	STRUCTURE	…	…
732	red maple	4	1 Priority	STRUCTURE	…	…
733	red maple	4	1 Priority	STRUCTURE	…	…
735	Weeping Higan Cherry	6	1 Priority	CLEAN	…	…
735	Weeping Higan Cherry	6	1 Priority	THIN	…	…
737	northern red oak	43	1 Priority	CLEAN	…	…
741	northern red oak	50	1 Priority	CLEAN	…	…
743	crabapple	8	1 Priority	CLEAN	…	…
744	crabapple	5	1 Priority	CLEAN	…	…
744	crabapple	5	1 Priority	THIN	…	…
745	European beech	16	1 Priority	CLEAN	…	…
751	yellow-poplar	16	1 Priority	CLEAN	…	…
753	northern red oak	15	1 Priority	STRUCTURE	…	…
754	white birch	9	1 Priority	REDUCE - Building	…	…
754	white birch	9	1 Priority	THIN	…	…
755	crabapple	10	1 Priority	CLEAN	…	…
755	crabapple	10	1 Priority	REDUCE - Building	…	…
755	crabapple	10	1 Priority	THIN	…	…
762	pin oak	18	1 Priority	CLEAN	…	…
779	Norway maple	18	1 Priority	CLEAN	…	…
781	Norway maple	9	1 Priority	STRUCTURE	…	…
782	Norway maple	10	1 Priority	STRUCTURE	…	…
786	tree-of-heaven	21	1 Priority	STRUCTURE	…	…
804	American sycamore	4	1 Priority	STRUCTURE	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
805	American sycamore	4	1 Priority	STRUCTURE	…	…
806	Weeping Higan Cherry	8	1 Priority	CLEAN	…	…
806	Weeping Higan Cherry	8	1 Priority	THIN	…	…
807	apple	9	1 Priority	STRUCTURE	…	…
808	Oriental cherry	9	1 Priority	THIN	…	…
811	Japanese maple	4	1 Priority	CLEAN	…	…
811	Japanese maple	4	1 Priority	THIN	…	…
812	Japanese maple	4	1 Priority	CLEAN	…	…
812	Japanese maple	4	1 Priority	THIN	…	…
821	Higan cherry	8	1 Priority	THIN	…	…
822	Higan cherry	6	1 Priority	REDUCE	…	…
822	Higan cherry	6	1 Priority	THIN	…	…
824	Japanese maple	5	1 Priority	CLEAN	…	…
824	Japanese maple	5	1 Priority	THIN	…	…
826	blue atlas cedar	8	1 Priority	REDUCE - Building	…	…
827	hinoki falsecypress	6	1 Priority	REDUCE - Building	…	…
828	American sycamore	4	1 Priority	STRUCTURE	…	…
829	American sycamore	4	1 Priority	STRUCTURE	…	…
851	Japanese maple	5	1 Priority	CLEAN	…	…
851	Japanese maple	5	1 Priority	THIN	…	…
857	northern red oak	17	1 Priority	RAISE	…	…
858	northern red oak	18	1 Priority	CLEAN	…	…
858	northern red oak	18	1 Priority	RAISE	…	…
859	northern red oak	15	1 Priority	CLEAN	…	…
859	northern red oak	15	1 Priority	RAISE	…	…
860	northern red oak	25	1 Priority	CLEAN	…	…
860	northern red oak	25	1 Priority	RAISE	…	…
864	Norway maple	22	1 Priority	CLEAN	…	…
864	Norway maple	22	1 Priority	RAISE	…	…
866	northern red oak	26	1 Priority	CLEAN	…	…
866	northern red oak	26	1 Priority	RAISE	…	…
868	eastern white pine	24	1 Priority	CLEAN	…	…
899	sawara cypress	20	1 Priority	CLEAN	…	Building
899	sawara cypress	20	1 Priority	RAISE	…	Building
900	honey locust	7	1 Priority	STRUCTURE	…	…
901	honey locust	7	1 Priority	STRUCTURE	…	…
903	honey locust	5	1 Priority	STRUCTURE	…	…
904	honey locust	7	1 Priority	STRUCTURE	…	…
905	honey locust	6	1 Priority	STRUCTURE	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
906	Norway maple	8	1 Priority	STRUCTURE	…	…
907	pin oak	10	1 Priority	STRUCTURE	…	…
911	eastern white cedar	4	1 Priority	Shear to Maintain Shape	…	…
912	eastern white pine	8	1 Priority	REDUCE	…	Sidewalk
920	callery pear	15	1 Priority	REDUCE - Building	…	…
928	callery pear	6	1 Priority	REDUCE - Building	…	…
934	Norway maple	22	1 Priority	RAISE	…	…
941	Japanese zelkova	7	1 Priority	STRUCTURE	…	…
944	Purple Leaf Plum	4	1 Priority	STRUCTURE	…	…
946	Japanese zelkova	5	1 Priority	STRUCTURE	…	…
948	Japanese zelkova	5	1 Priority	STRUCTURE	…	…
954	sawara cypress	21	1 Priority	RAISE	…	…
954	sawara cypress	21	1 Priority	REDUCE - Building	…	…
957	crabapple	4	1 Priority	STRUCTURE	…	…
958	crabapple	4	1 Priority	REDUCE	…	…
958	crabapple	4	1 Priority	STRUCTURE	…	…
961	sawara cypress	24	1 Priority	REDUCE - Building	…	…
962	sawara cypress	16	1 Priority	REDUCE - Building	…	…
963	sawara cypress	19	1 Priority	REDUCE - Building	…	…
972	white mulberry	5	1 Priority	THIN	…	…
981	Scotch pine	16	1 Priority	RAISE	…	…
984	eastern white pine	17	1 Priority	REDUCE - Building	…	…
995	northern catalpa	24	1 Priority	CLEAN	…	…
995	northern catalpa	24	1 Priority	RAISE	…	…
1002	northern catalpa	18	1 Priority	RAISE	…	…
1003	northern red oak	21	1 Priority	CLEAN	…	…
1003	northern red oak	21	1 Priority	RAISE	…	…
1004	northern red oak	21	1 Priority	CLEAN	…	…
1004	northern red oak	21	1 Priority	RAISE	…	…
1006	northern red oak	14	1 Priority	REDUCE - Building	…	…
1006	northern red oak	14	1 Priority	CLEAN	…	…
1010	pin oak	5	1 Priority	STRUCTURE	…	…
1012	red maple	6	1 Priority	REDUCE	…	…
1012	red maple	6	1 Priority	STRUCTURE	…	…
1030	eastern white pine	32	1 Priority	RAISE	…	Lighting
1043	Purple Leaf Plum	4	1 Priority	REDUCE	…	Sidewalk
1043	Purple Leaf Plum	4	1 Priority	THIN	…	Sidewalk
1044	Purple Leaf Plum	4	1 Priority	STRUCTURE	…	…
1052	pin oak	9	1 Priority	STRUCTURE	…	…
1053	Oriental cherry	4	1 Priority	REDUCE	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
1055	Norway maple	6	1 Priority	STRUCTURE	…	…
1056	Norway maple	6	1 Priority	STRUCTURE	…	…
1057	Norway maple	6	1 Priority	STRUCTURE	…	…
1058	Norway maple	6	1 Priority	STRUCTURE	…	…
1059	Norway maple	6	1 Priority	STRUCTURE	…	…
1060	Norway maple	6	1 Priority	STRUCTURE	…	…
1061	red maple	5	1 Priority	STRUCTURE	…	…
1062	red maple	5	1 Priority	STRUCTURE	…	…
1063	red maple	6	1 Priority	STRUCTURE	…	…
1064	red maple	6	1 Priority	STRUCTURE	…	…
1065	red maple	5	1 Priority	STRUCTURE	…	…
1066	red maple	5	1 Priority	STRUCTURE	…	…
1067	red maple	7	1 Priority	STRUCTURE	…	…
1076	Purple Leaf Plum	6	1 Priority	STRUCTURE	…	…
1077	Purple Leaf Plum	5	1 Priority	STRUCTURE	…	…
1078	Purple Leaf Plum	5	1 Priority	STRUCTURE	…	…
1079	Purple Leaf Plum	7	1 Priority	REDUCE	…	Lighting
1079	Purple Leaf Plum	7	1 Priority	STRUCTURE	…	Lighting
1080	Purple Leaf Plum	6	1 Priority	STRUCTURE	…	…
1081	Purple Leaf Plum	5	1 Priority	STRUCTURE	…	…
1082	Purple Leaf Plum	6	1 Priority	STRUCTURE	…	…
1083	Purple Leaf Plum	6	1 Priority	STRUCTURE	…	…
1088	American elm	7	1 Priority	STRUCTURE	…	…
1089	American elm	6	1 Priority	STRUCTURE	…	…
1090	American elm	8	1 Priority	STRUCTURE	…	…
1091	crabapple	4	1 Priority	RAISE	…	…
1092	American elm	9	1 Priority	STRUCTURE	…	…
1095	American elm	9	1 Priority	STRUCTURE	…	…
1097	American elm	6	1 Priority	STRUCTURE	…	…
1102	red maple	5	1 Priority	STRUCTURE	…	…
1103	red maple	5	1 Priority	STRUCTURE	…	…
1111	littleleaf linden	12	1 Priority	STRUCTURE	…	…
1112	red maple	5	1 Priority	STRUCTURE	…	…
1113	red maple	5	1 Priority	STRUCTURE	…	…
1114	red maple	5	1 Priority	STRUCTURE	…	…
1119	crabapple	3	1 Priority	THIN	…	…
1120	crabapple	3	1 Priority	THIN	…	…
1123	littleleaf linden	11	1 Priority	CLEAN	…	…
1124	littleleaf linden	10	1 Priority	CLEAN	…	…
1126	littleleaf linden	10	1 Priority	CLEAN	…	…
1130	white ash	6	1 Priority	STRUCTURE	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
1131	white ash	7	1 Priority	STRUCTURE	…	…
1132	white ash	7	1 Priority	STRUCTURE	…	…
1142	red maple	5	1 Priority	STRUCTURE	…	…
1143	red maple	4	1 Priority	STRUCTURE	…	…
1144	red maple	5	1 Priority	STRUCTURE	…	…
1145	Weeping Higan Cherry	6	1 Priority	THIN	…	…
1145	Weeping Higan Cherry	6	1 Priority	REDUCE	…	…
1160	honey locust	8	1 Priority	STRUCTURE	…	…
1163	white ash	7	1 Priority	STRUCTURE	…	…
1164	Norway maple	10	1 Priority	REDUCE	…	Lighting
1168	honey locust	8	1 Priority	STRUCTURE	…	…
1171	honey locust	8	1 Priority	REDUCE - Building	…	…
1171	honey locust	8	1 Priority	THIN	…	…
1180	silver maple	32	1 Priority	CLEAN	…	…
1188	Oriental cherry	10	1 Priority	RAISE	…	…
1188	Oriental cherry	10	1 Priority	REDUCE - Building	…	…
1189	crabapple	4	1 Priority	THIN	…	…
1198	northern catalpa	30	1 Priority	CLEAN	…	…
1203	white oak	34	1 Priority	CLEAN	…	…
1204	northern red oak	20	1 Priority	RAISE	…	…
1205	northern red oak	20	1 Priority	RAISE	…	…
7	Weeping Higan Cherry	12	2 Priority	THIN	…	…
19	kousa dogwood	7	2 Priority	REDUCE - Building	…	…
19	kousa dogwood	7	2 Priority	THIN	…	…
19	kousa dogwood	7	2 Priority	RAISE	…	…
47	Norway maple	23	2 Priority	REDUCE	…	Lighting
49	eastern white pine	15	2 Priority	REDUCE - Building	…	…
52	flowering dogwood	5	2 Priority	CLEAN	…	…
65	Austrian pine	20	2 Priority	CLEAN	…	…
72	blue spruce	21	2 Priority	CLEAN	…	…
94	pin oak	22	2 Priority	RAISE	…	Fence
101	Purple Leaf Plum	8	2 Priority	REDUCE	…	Lighting
101	Purple Leaf Plum	8	2 Priority	THIN	…	Lighting
109	Oriental cherry	5	2 Priority	STRUCTURE	…	…
110	Oriental cherry	5	2 Priority	STRUCTURE	…	…
111	Oriental cherry	5	2 Priority	STRUCTURE	…	…
112	Oriental cherry	5	2 Priority	STRUCTURE	…	…
113	callery pear	5	2 Priority	RAISE	…	…
113	callery pear	5	2 Priority	THIN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
114	callery pear	5	2 Priority	RAISE	…	…
114	callery pear	5	2 Priority	THIN	…	…
115	callery pear	5	2 Priority	RAISE	…	…
115	callery pear	5	2 Priority	THIN	…	…
116	callery pear	5	2 Priority	RAISE	…	…
116	callery pear	5	2 Priority	THIN	…	…
117	callery pear	5	2 Priority	RAISE	…	…
117	callery pear	5	2 Priority	THIN	…	…
118	callery pear	5	2 Priority	RAISE	…	…
118	callery pear	5	2 Priority	THIN	…	…
119	callery pear	5	2 Priority	RAISE	…	…
119	callery pear	5	2 Priority	THIN	…	…
120	callery pear	5	2 Priority	RAISE	…	…
120	callery pear	5	2 Priority	THIN	…	…
122	paperbark maple	5	2 Priority	STRUCTURE	…	…
123	paperbark maple	4	2 Priority	STRUCTURE	…	…
135	northern red oak	18	2 Priority	CLEAN	…	Sidewalk
135	northern red oak	18	2 Priority	RAISE	…	Sidewalk
144	northern red oak	11	2 Priority	STRUCTURE	…	…
145	northern red oak	9	2 Priority	STRUCTURE	…	…
155	callery pear	14	2 Priority	RAISE	…	…
155	callery pear	14	2 Priority	THIN	…	…
171	Austrian pine	10	2 Priority	RAISE	…	…
171	Austrian pine	10	2 Priority	CLEAN	…	…
173	Austrian pine	9	2 Priority	RAISE	…	…
173	Austrian pine	9	2 Priority	CLEAN	…	…
175	Austrian pine	11	2 Priority	CLEAN	…	…
175	Austrian pine	11	2 Priority	RAISE	…	…
192	white birch	16	2 Priority	CLEAN	…	…
192	white birch	16	2 Priority	REDUCE - Building	…	…
192	white birch	16	2 Priority	THIN	…	…
242	Austrian pine	14	2 Priority	CLEAN	…	…
242	Austrian pine	14	2 Priority	RAISE	…	…
245	Austrian pine	14	2 Priority	CLEAN	…	…
245	Austrian pine	14	2 Priority	RAISE	…	…
260	Austrian pine	15	2 Priority	CLEAN	…	…
273	honey locust	13	2 Priority	CLEAN	…	…
273	honey locust	13	2 Priority	RAISE	…	…
273	honey locust	13	2 Priority	THIN	…	…
275	honey locust	10	2 Priority	RAISE	…	…
275	honey locust	10	2 Priority	CLEAN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
275	honey locust	10	2 Priority	THIN	…	…
284	European beech	34	2 Priority	REDUCE - Building	…	…
315	northern red oak	29	2 Priority	CLEAN	…	…
315	northern red oak	29	2 Priority	THIN	…	…
324	Norway maple	15	2 Priority	RAISE	…	…
325	Norway maple	16	2 Priority	RAISE	…	…
332	Norway maple	14	2 Priority	RAISE	…	Fence
340	Norway maple	21	2 Priority	CLEAN	…	…
395	blue spruce	22	2 Priority	CLEAN	…	…
399	sugar maple	4	2 Priority	STRUCTURE	…	…
406	black oak	36	2 Priority	CLEAN	…	…
417	American elm	5	2 Priority	STRUCTURE	…	…
450	balsam fir	25	2 Priority	CLEAN	…	…
473	sugar maple	5	2 Priority	STRUCTURE	…	…
488	Crimson King maple	18	2 Priority	CLEAN	…	…
488	Crimson King maple	18	2 Priority	RAISE	…	…
488	Crimson King maple	18	2 Priority	THIN	…	…
498	silver maple	19	2 Priority	REDUCE - Building	…	…
499	silver maple	22	2 Priority	REDUCE - Building	…	…
538	white oak	26	2 Priority	CLEAN	…	…
552	pin oak	24	2 Priority	REDUCE - Building	…	…
552	pin oak	24	2 Priority	THIN	…	…
567	flowering dogwood	5	2 Priority	CLEAN	…	…
567	flowering dogwood	5	2 Priority	THIN	…	…
574	flowering dogwood	12	2 Priority	CLEAN	…	…
579	Japanese maple	5	2 Priority	THIN	…	…
607	white oak	38	2 Priority	CLEAN	…	…
629	flowering dogwood	4	2 Priority	CLEAN	…	…
629	flowering dogwood	4	2 Priority	THIN	…	…
637	Purple Leaf Plum	5	2 Priority	STRUCTURE	…	…
638	Purple Leaf Plum	5	2 Priority	STRUCTURE	…	…
639	Purple Leaf Plum	7	2 Priority	STRUCTURE	…	…
652	American redbud	4	2 Priority	CLEAN	…	…
653	American redbud	4	2 Priority	CLEAN	…	…
658	Norway maple	9	2 Priority	REDUCE	…	…
659	callery pear	8	2 Priority	THIN	…	…
683	Oriental cherry	4	2 Priority	THIN	…	…
815	Higan cherry	6	2 Priority	THIN	…	…
816	Higan cherry	6	2 Priority	THIN	…	…
823	Japanese maple	9	2 Priority	THIN	…	…
825	kousa dogwood	8	2 Priority	THIN	…	…

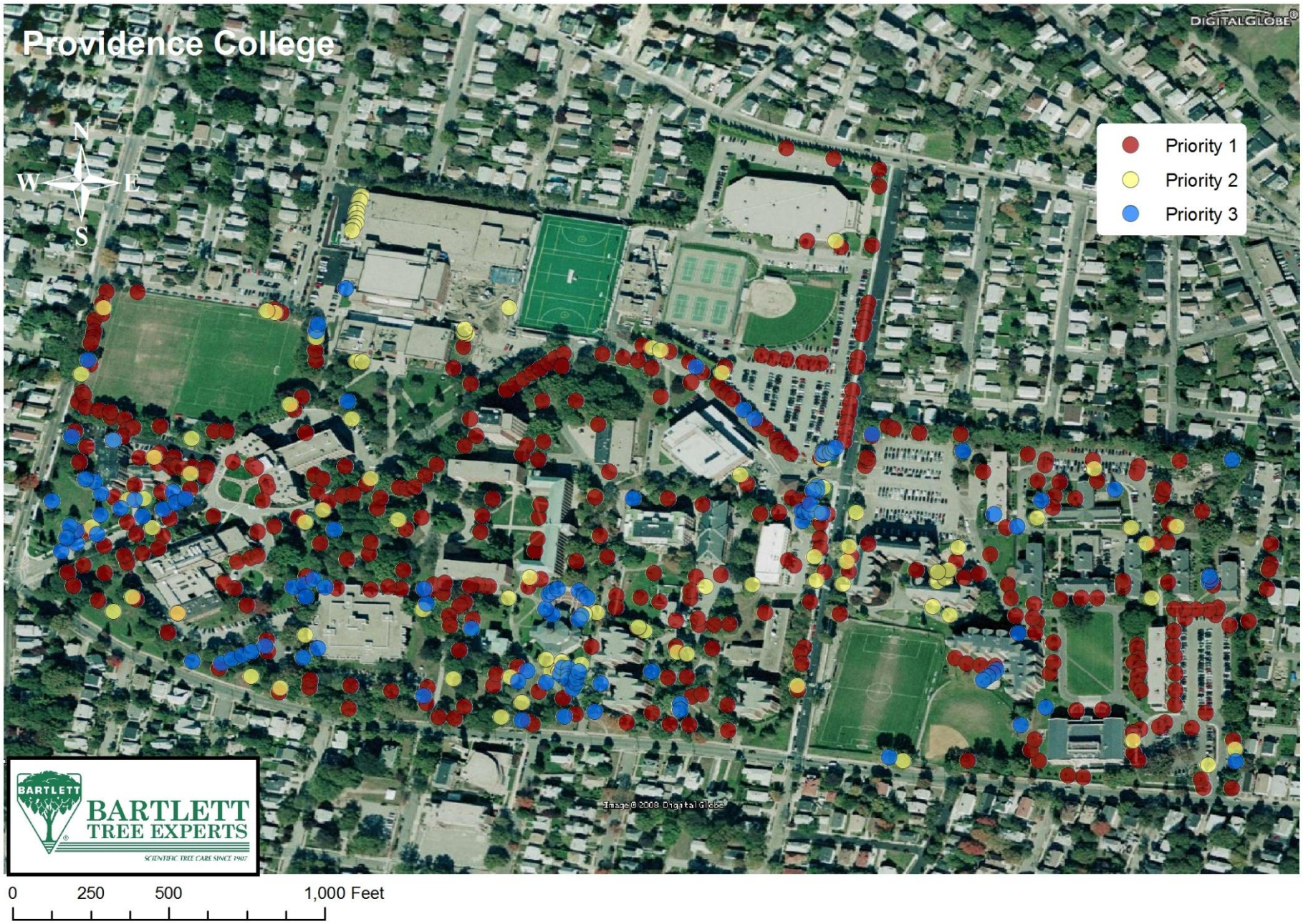
Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
840	European beech	4	2 Priority	STRUCTURE	…	…
850	white birch	4	2 Priority	THIN	…	…
894	horse chestnut	24	2 Priority	RAISE	…	…
894	horse chestnut	24	2 Priority	THIN	…	…
902	honey locust	5	2 Priority	STRUCTURE	…	…
921	Japanese maple	4	2 Priority	CLEAN	…	…
966	eastern white pine	14	2 Priority	REDUCE - Building	…	…
973	Scotch pine	14	2 Priority	REDUCE - Building	…	…
996	blue spruce	18	2 Priority	CLEAN	…	…
1031	red maple	4	2 Priority	STRUCTURE	…	…
1046	Purple Leaf Plum	4	2 Priority	STRUCTURE	…	…
1093	crabapple	4	2 Priority	REDUCE	…	Sidewalk
1093	crabapple	4	2 Priority	THIN	…	Sidewalk
1139	kousa dogwood	4	2 Priority	THIN	…	…
1141	kousa dogwood	4	2 Priority	THIN	…	…
1157	honey locust	9	2 Priority	CLEAN	…	…
1157	honey locust	9	2 Priority	REDUCE - Building	…	…
1158	honey locust	8	2 Priority	REDUCE - Building	…	…
1167	northern red oak	12	2 Priority	STRUCTURE	…	…
1169	Purple Leaf Plum	6	2 Priority	REDUCE - Building	…	…
1169	Purple Leaf Plum	6	2 Priority	THIN	…	…
1170	honey locust	10	2 Priority	REDUCE - Building	…	…
1170	honey locust	10	2 Priority	THIN	…	…
1183	Oriental cherry	12	2 Priority	THIN	…	…
1185	Oriental cherry	10	2 Priority	THIN	…	…
1187	Oriental cherry	10	2 Priority	THIN	…	…
1190	northern red oak	25	2 Priority	THIN	…	…
1195	northern red oak	40	2 Priority	THIN	…	…
1	Crimson King maple	8	3 Priority	RAISE	…	…
1	Crimson King maple	8	3 Priority	STRUCTURE	…	…
2	Crimson King maple	13	3 Priority	RAISE	…	…
2	Crimson King maple	13	3 Priority	THIN	…	…
3	Crimson King maple	14	3 Priority	RAISE	…	…
9	Weeping Higan Cherry	13	3 Priority	THIN	…	…
10	Weeping Higan Cherry	12	3 Priority	THIN	…	…
11	Purple Leaf Plum	8	3 Priority	THIN	…	…
14	blue spruce	22	3 Priority	CLEAN	…	…
15	blue spruce	23	3 Priority	CLEAN	…	…
18	kousa dogwood	7	3 Priority	THIN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
21	Scotch pine	18	3 Priority	CLEAN	…	…
23	blue spruce	24	3 Priority	CLEAN	…	…
25	blue spruce	18	3 Priority	CLEAN	…	…
26	blue spruce	19	3 Priority	CLEAN	…	…
33	blue spruce	28	3 Priority	CLEAN	…	…
39	blue spruce	19	3 Priority	CLEAN	…	…
48	blue spruce	18	3 Priority	CLEAN	…	…
48	blue spruce	18	3 Priority	RAISE	…	…
70	Weeping Higan Cherry	14	3 Priority	CLEAN	…	…
70	Weeping Higan Cherry	14	3 Priority	THIN	…	…
74	Crimson King maple	14	3 Priority	THIN	…	…
75	Crimson King maple	17	3 Priority	THIN	…	…
76	Crimson King maple	14	3 Priority	THIN	…	…
77	Crimson King maple	19	3 Priority	THIN	…	…
99	Oriental cherry	11	3 Priority	THIN	…	…
121	river birch	4	3 Priority	CLEAN	…	…
121	river birch	4	3 Priority	THIN	…	…
133	northern red oak	25	3 Priority	CLEAN	…	…
151	northern red oak	13	3 Priority	STRUCTURE	…	…
161	northern red oak	13	3 Priority	STRUCTURE	…	…
163	pin oak	15	3 Priority	STRUCTURE	…	…
172	Austrian pine	11	3 Priority	CLEAN	…	…
174	Austrian pine	11	3 Priority	CLEAN	…	…
176	Austrian pine	10	3 Priority	CLEAN	…	…
177	Austrian pine	12	3 Priority	CLEAN	…	…
178	Austrian pine	8	3 Priority	CLEAN	…	…
179	Austrian pine	10	3 Priority	CLEAN	…	…
243	Austrian pine	12	3 Priority	CLEAN	…	…
243	Austrian pine	12	3 Priority	RAISE	…	…
244	Austrian pine	12	3 Priority	CLEAN	…	…
244	Austrian pine	12	3 Priority	RAISE	…	…
249	flowering dogwood	4	3 Priority	CLEAN	…	…
255	Austrian pine	16	3 Priority	CLEAN	…	…
256	Austrian pine	16	3 Priority	CLEAN	…	…
257	Austrian pine	13	3 Priority	CLEAN	…	…
258	Austrian pine	14	3 Priority	CLEAN	…	…
259	Austrian pine	15	3 Priority	CLEAN	…	…
261	Austrian pine	12	3 Priority	CLEAN	…	…
341	Norway maple	23	3 Priority	CLEAN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
342	Norway maple	25	3 Priority	CLEAN	…	…
343	white birch	6	3 Priority	THIN	…	…
373	silver maple	29	3 Priority	THIN	…	…
374	northern catalpa	24	3 Priority	CLEAN	…	…
381	northern red oak	23	3 Priority	CLEAN	…	…
381	northern red oak	23	3 Priority	THIN	…	…
383	northern red oak	23	3 Priority	RAISE	…	…
383	northern red oak	23	3 Priority	THIN	…	…
386	northern red oak	28	3 Priority	CLEAN	…	…
392	Norway maple	13	3 Priority	CLEAN	…	…
393	blue spruce	17	3 Priority	CLEAN	…	…
396	flowering dogwood	8	3 Priority	CLEAN	…	…
400	northern red oak	17	3 Priority	CLEAN	…	…
425	blue spruce	20	3 Priority	CLEAN	…	…
459	callery pear	4	3 Priority	THIN	…	…
460	callery pear	4	3 Priority	THIN	…	…
461	callery pear	4	3 Priority	THIN	…	…
462	callery pear	4	3 Priority	THIN	…	…
463	callery pear	4	3 Priority	THIN	…	…
466	balsam fir	13	3 Priority	CLEAN	…	…
523	Japanese maple	7	3 Priority	THIN	…	…
524	flowering dogwood	4	3 Priority	THIN	…	…
526	flowering dogwood	4	3 Priority	THIN	…	…
531	river birch	4	3 Priority	THIN	…	…
532	blue spruce	19	3 Priority	CLEAN	…	…
571	Norway maple	20	3 Priority	CLEAN	…	…
626	flowering dogwood	5	3 Priority	THIN	…	…
640	crabapple	5	3 Priority	THIN	…	…
641	crabapple	6	3 Priority	THIN	…	…
642	crabapple	6	3 Priority	THIN	…	…
643	crabapple	5	3 Priority	THIN	…	…
644	crabapple	7	3 Priority	THIN	…	…
646	crabapple	5	3 Priority	THIN	…	…
647	crabapple	5	3 Priority	THIN	…	…
648	crabapple	5	3 Priority	THIN	…	…
649	crabapple	5	3 Priority	THIN	…	…
660	callery pear	7	3 Priority	THIN	…	…
661	callery pear	8	3 Priority	REDUCE - Building	…	…
661	callery pear	8	3 Priority	THIN	…	…
662	callery pear	7	3 Priority	THIN	…	…
663	callery pear	7	3 Priority	THIN	…	…

Tag #	Common	DBH	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
664	callery pear	6	3 Priority	THIN	…	…
665	callery pear	8	3 Priority	THIN	…	…
666	callery pear	9	3 Priority	THIN	…	…
667	callery pear	8	3 Priority	THIN	…	…
668	callery pear	9	3 Priority	THIN	…	…
669	callery pear	8	3 Priority	THIN	…	…
670	callery pear	9	3 Priority	THIN	…	…
861	northern red oak	14	3 Priority	RAISE	…	…
870	Norway maple	22	3 Priority	RAISE	…	…
895	blue spruce	19	3 Priority	CLEAN	…	…
919	callery pear	15	3 Priority	THIN	…	…
927	callery pear	6	3 Priority	THIN	…	…
930	Purple Leaf Plum	6	3 Priority	THIN	…	…
985	eastern white pine	14	3 Priority	CLEAN	…	…
986	eastern white pine	12	3 Priority	CLEAN	…	…
987	eastern white pine	14	3 Priority	CLEAN	…	…
1115	eastern white pine	32	3 Priority	CLEAN	…	…
1118	northern red oak	9	3 Priority	STRUCTURE	…	…
1134	white ash	7	3 Priority	STRUCTURE	…	…
1146	Weeping Higan Cherry	6	3 Priority	THIN	…	…
1147	Weeping Higan Cherry	7	3 Priority	THIN	…	…
1148	Weeping Higan Cherry	7	3 Priority	THIN	…	…
1149	Weeping Higan Cherry	5	3 Priority	THIN	…	…
1194	silver maple	29	3 Priority	CLEAN	…	…
1194	silver maple	29	3 Priority	THIN	…	…
1202	white oak	42	3 Priority	CLEAN	…	…

Map 7: TREES BY WORK PRIORITY



Structural Support Systems

Cabling and bracing are structural support systems that can reduce risk of failure by limiting movement of stems or branches in certain situations. Examples include co-dominant stems or overextended branches with heavy foliage loads. Often cabling and bracing are combined with pruning to lighten the load on these branches or stems.

We recommend that the following trees have new cable systems installed:

Table 17: TREES RECOMMENDED FOR STRUCTURAL SUPPORT SYSTEMS

Tag #	Common	Diameter	GTW Priority	GTW Type	Total Risk Rating	Interaction Type
139	black cherry	39	1 Priority	CABLE - NEW	8	…
8	Oriental cherry	15	1 Priority	CABLE - NEW W/ROD	…	…
62	littleleaf linden	25	1 Priority	CABLE - NEW	…	…
93	pin oak	52	1 Priority	CABLE - NEW	…	…
108	Norway maple	25	1 Priority	CABLE - NEW	…	Lighting
126	pin oak	39	1 Priority	CABLE - NEW	…	…
285	Norway maple	16	1 Priority	CABLE - NEW	…	…
339	Norway maple	23	1 Priority	CABLE - NEW	…	…
345	Norway maple	24	1 Priority	CABLE - NEW	…	…
375	Norway maple	23	1 Priority	CABLE - NEW	…	…
451	Norway maple	19	1 Priority	CABLE - NEW	…	…
597	white oak	30	1 Priority	CABLE - NEW	…	…
614	white oak	32	1 Priority	CABLE - INSPECT	…	…
699	European beech	24	1 Priority	CABLE - NEW	…	…
707	white oak	34	1 Priority	CABLE - NEW	…	…
737	northern red oak	43	1 Priority	CABLE - NEW	…	…
1195	northern red oak	40	2 Priority	CABLE - NEW	…	…
386	northern red oak	28	3 Priority	CABLE - NEW	…	…

Soil Management

Urban soils (as opposed to forest soils) are often mixed with the byproducts of construction activities that build our foundations, driveways, streets, parking lots, and other structures and grayscapes. This material compromises the physical, chemical, and biological properties that create healthy soils. Bartlett Tree Experts recommends several procedures and treatments that address soil quality. We address some of these below.

Soil Testing

Collecting soil samples and having them tested helps determine nutrients that may be lacking, unfavorable soil pH values, and adequacy of soil organic matter. Following laboratory test results, we can implement a prescription fertilization program to balance soil chemistry and optimize conditions for plant growth.

Mulch Application

Proper mulching provides many benefits to trees and shrubs. It moderates soil temperatures, reduces soil moisture loss, reduces soil compaction, provides nutrients, and improves soil structure. This practice results in more root growth and healthier plants. Mulch is frequently applied incorrectly, so we recommend that readers inspect the technical report on mulch application guidelines that appears in the Appendix. Figure 11 illustrates root growth density under grass versus mulch.

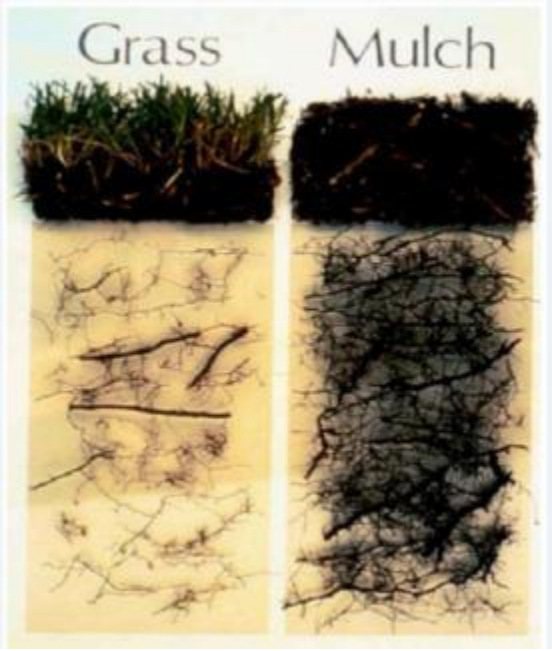


Figure 11: Example of root density under grass versus mulch

Bulk Density

Compacted soils are regrettably common in the urban setting. A bulk density test, which requires an undisturbed core sample, measures the level of soil compaction. Arborists can use the results to diagnose problems or to determine what size holes to dig for planting. If soil density exceeds a measured threshold for a given soil type and tree species, we recommend Bartlett's Root Invigoration program.

Root Invigoration

The aim of Bartlett's patented Root Invigoration Program is to improve soil conditions by addressing soil compaction and promoting efficient root growth, especially for high-value trees in disturbed areas. The process includes taking soil samples to determine what nutrients are deficient, performing a root collar excavation, "air-tilling" a portion of the root zone to find fine roots, incorporating organic matter, fertilizing (based on soil sample), and applying mulch. The area of the root system treated can vary by tree. For the Root Invigoration Program to be successful, proper watering techniques must be employed after the process is complete.

Root Collar Excavation

Excavating the root collar is necessary for trees whose buttress roots are covered by excess soil or mulch. Buried root collars can contribute to tree health problems, including girdling roots (See, again, Table 14), basal cankers, and masking root and lower stem decay. We have supplied a technical report on root collar disorders in the Appendix.

Figures 12, 13, and 14 provide examples of some of the above issues.

Figure 12: No root flare is visible at this tree's base. The root collar is buried.

Figure 13: Example of exposed root collar

Figure 14: Example of improper mulch application, known as "volcano mulch."

The following trees are recommended for root collar excavations:

Table 18: TREES RECOMMENDED FOR ROOT COLLAR EXCAVATIONS

Tag #	Common	DBH
1	Crimson King maple	8
2	Crimson King maple	13
3	Crimson King maple	14
4	Crimson King maple	9
5	Crimson King maple	10
6	flowering dogwood	8
12	blue spruce	18
16	white birch	14
17	kousa dogwood	5
19	kousa dogwood	7
20	Scotch pine	17
29	Norway maple	19
31	blue spruce	25
41	northern red oak	29
43	Norway maple	22
44	Austrian pine	22
47	Norway maple	23
49	eastern white pine	15
56	sugar maple	18
58	flowering dogwood	4
60	flowering dogwood	4
61	balsam fir	22
62	littleleaf linden	25
69	sourwood	4
73	hawthorn species	8
74	Crimson King maple	14
75	Crimson King maple	17
76	Crimson King maple	14
77	Crimson King maple	19
78	Japanese maple	5
79	flowering dogwood	4
80	flowering dogwood	5
81	flowering dogwood	10
82	flowering dogwood	4
83	flowering dogwood	4
84	Japanese maple	6
85	flowering dogwood	9
86	flowering	7

Tag #	Common	DBH
	dogwood	
87	mimosa	20
88	blue atlas cedar	17
89	northern red oak	4
90	Japanese maple	5
91	pin oak	28
95	Norway maple	25
96	Norway maple	21
97	white birch	9
98	Norway maple	9
99	Oriental cherry	11
100	Norway maple	27
101	Purple Leaf Plum	8
103	Norway maple	23
104	Crimson King maple	11
105	pin oak	39
106	Norway maple	20
107	Crimson King maple	8
109	Oriental cherry	5
110	Oriental cherry	5
111	Oriental cherry	5
112	Oriental cherry	5
113	callery pear	5
114	callery pear	5
115	callery pear	5
116	callery pear	5
117	callery pear	5

Tag #	Common	DBH
118	callery pear	5
119	callery pear	5
120	callery pear	5
121	river birch	4
126	pin oak	39
127	Norway maple	17
140	green ash	4
142	northern red oak	10
143	northern red oak	11
144	northern red oak	11
145	northern red oak	9
146	northern red oak	7
147	tree-of-heaven	28
148	eastern white cedar	7
149	northern red oak	10
150	pin oak	13
151	northern red oak	13
152	northern red oak	11
153	callery pear	13
155	callery pear	14
156	callery pear	14
157	northern red oak	19
158	northern red oak	12
159	northern red oak	14
160	pin oak	14
161	northern red oak	13
162	northern red oak	14

Tag #	Common	DBH
163	pin oak	15
164	northern red oak	8
166	northern red oak	13
167	northern red oak	14
168	northern red oak	16
169	northern red oak	14
170	Austrian pine	13
171	Austrian pine	10
172	Austrian pine	11
173	Austrian pine	9
174	Austrian pine	11
177	Austrian pine	12
178	Austrian pine	8
179	Austrian pine	10
181	callery pear	6
182	callery pear	6
183	callery pear	6
184	callery pear	6
185	callery pear	6
186	callery pear	6
187	white spruce	6
188	white spruce	6
189	white spruce	8
190	white spruce	8
191	Japanese maple	4
193	white birch	13
194	white birch	14

Tag #	Common	DBH
198	Austrian pine	14
229	elm hybrid	5
230	elm hybrid	5
231	elm hybrid	5
232	elm hybrid	5
233	sugar maple	4
234	sugar maple	4
235	sugar maple	4
236	pin oak	4
237	pin oak	4
238	pin oak	4
239	pin oak	4
240	pin oak	4
241	pin oak	4
244	Austrian pine	12
245	Austrian pine	14
246	flowering dogwood	4
249	flowering dogwood	4
252	flowering dogwood	4
253	flowering dogwood	4
254	flowering dogwood	5
275	honey locust	10
278	crabapple	6
281	pin oak	28
285	Norway maple	16
286	Norway maple	22
287	honey locust	15
288	honey locust	18

Tag #	Common	DBH
289	honey locust	17
290	honey locust	12
291	honey locust	19
294	honey locust	18
297	honey locust	17
299	honey locust	15
300	honey locust	18
301	honey locust	13
302	silver maple	21
304	honey locust	15
306	Norway maple	28
310	Norway maple	14
312	flowering dogwood	11
320	Norway maple	20
321	Norway maple	14
322	Norway maple	16
323	Norway maple	18
324	Norway maple	15
325	Norway maple	16
326	Norway maple	17
327	Norway maple	17
328	Norway maple	14
329	Norway	13

Tag #	Common	DBH
	maple	
332	Norway maple	14
333	Norway maple	17
339	Norway maple	23
341	Norway maple	23
343	white birch	6
344	European beech	29
345	Norway maple	24
347	Norway maple	21
351	Norway maple	22
353	blue spruce	19
370	Norway maple	17
380	sugar maple	22
381	northern red oak	23
384	Norway spruce	13
385	Norway spruce	17
386	northern red oak	28
387	Norway maple	11
389	Norway maple	10
390	Norway maple	12
392	Norway maple	13
393	blue spruce	17
397	balsam fir	18
398	kousa dogwood	4
399	sugar maple	4

Tag #	Common	DBH
405	Norway maple	8
408	balsam fir	18
409	Norway maple	11
411	balsam fir	16
412	red maple	4
417	American elm	5
420	Norway maple	11
421	Norway maple	11
424	American elm	10
426	American elm	10
427	Austrian pine	17
429	Norway maple	13
430	white oak	26
433	Norway maple	16
439	Norway maple	22
440	Norway maple	23
441	Norway maple	20
445	Norway maple	17
446	white oak	36
448	Norway maple	20
454	balsam fir	12
457	Norway maple	24
458	Norway maple	20
459	callery pear	4
460	callery pear	4
461	callery pear	4
463	callery pear	4

Tag #	Common	DBH
466	balsam fir	13
467	Norway maple	19
469	balsam fir	13
471	blue spruce	14
473	sugar maple	5
479	flowering dogwood	4
480	Weeping Higan Cherry	16
481	blue spruce	22
484	Crimson King maple	8
486	Crimson King maple	13
493	Japanese maple	10
494	Oriental cherry	13
495	Oriental cherry	13
496	crabapple	12
501	pin oak	25
504	yellow-poplar	10
505	honey locust	10
506	honey locust	10
510	callery pear	17
513	kousa dogwood	4
516	flowering dogwood	5
518	kousa dogwood	4
519	flowering dogwood	4
524	flowering dogwood	4
525	Japanese maple	5
526	flowering	4

Tag #	Common	DBH
	dogwood	
528	flowering dogwood	4
530	flowering dogwood	6
531	river birch	4
532	blue spruce	19
533	flowering dogwood	4
534	blue spruce	20
545	Norway maple	18
546	American beech	27
547	Norway maple	13
549	flowering dogwood	5
550	flowering dogwood	5
551	flowering dogwood	6
555	Oriental cherry	4
558	flowering dogwood	5
559	Norway maple	20
564	flowering dogwood	5
565	flowering dogwood	5
566	flowering dogwood	5
569	flowering dogwood	5
571	Norway maple	20
574	flowering dogwood	12
578	Japanese maple	4
581	Norway maple	15
591	Norway	5

Tag #	Common	DBH
	maple	
594	Japanese maple	4
616	Oriental cherry	4
617	Norway maple	16
618	Norway maple	14
619	Norway maple	16
620	Oriental cherry	4
621	white oak	40
629	flowering dogwood	4
630	Norway maple	9
631	Norway maple	10
632	Norway maple	9
633	Norway maple	11
634	Norway maple	11
635	Norway maple	11
636	Norway maple	10
637	Purple Leaf Plum	5
638	Purple Leaf Plum	5
639	Purple Leaf Plum	7
641	crabapple	6
645	Norway maple	10
647	crabapple	5
650	Norway maple	11
651	Norway maple	11
652	American	4

Tag #	Common	DBH
	redbud	
653	American redbud	4
654	Norway maple	10
655	Norway maple	10
656	Norway maple	8
657	Norway maple	10
658	Norway maple	9
659	callery pear	8
660	callery pear	7
661	callery pear	8
662	callery pear	7
663	callery pear	7
664	callery pear	6
665	callery pear	8
666	callery pear	9
667	callery pear	8
668	callery pear	9
669	callery pear	8
670	callery pear	9
671	Norway maple	8
672	Norway maple	8
673	Norway maple	10
674	Norway maple	22
675	Norway maple	17
682	Oriental cherry	4
683	Oriental cherry	4
684	Oriental cherry	10
685	northern red oak	4
686	northern	4

Tag #	Common	DBH
	red oak	
687	northern red oak	4
688	northern red oak	4
689	Oriental cherry	4
690	Norway maple	15
691	Norway maple	18
698	red maple	4
701	honey locust	5
702	red maple	4
704	red maple	3
710	Japanese maple	8
712	Norway maple	20
713	Oriental cherry	13
715	Norway maple	19
720	Norway maple	17
726	red maple	4
727	red maple	4
728	red maple	4
729	red maple	4
730	red maple	4
731	red maple	4
732	red maple	4
733	red maple	4
735	Weeping Higan Cherry	6
739	american hornbeam	4
743	crabapple	8
744	crabapple	5
755	crabapple	10
757	white oak	17
767	callery pear	12

Tag #	Common	DBH
768	callery pear	11
774	Norway maple	16
776	Norway maple	16
777	Norway maple	16
782	Norway maple	10
783	Norway maple	17
788	callery pear	11
789	Norway maple	16
797	Norway maple	15
801	Oriental cherry	4
804	American sycamore	4
808	Oriental cherry	9
810	Purple Leaf Plum	3
811	Japanese maple	4
812	Japanese maple	4
813	saucer magnolia	14
820	Higan cherry	7
821	Higan cherry	8
822	Higan cherry	6
823	Japanese maple	9
825	kousa dogwood	8
830	English oak	4
831	English oak	4
832	English oak	4
833	English oak	4
834	English oak	4

Tag #	Common	DBH
835	English oak	4
836	English oak	4
837	English oak	4
838	English oak	4
839	English oak	4
848	white birch	14
849	red maple	17
850	white birch	4
852	Oriental cherry	9
854	northern red oak	29
855	American redbud	12
856	American redbud	8
857	northern red oak	17
858	northern red oak	18
859	northern red oak	15
860	northern red oak	25
861	northern red oak	14
862	northern red oak	31
871	sugar maple	8
894	horse chestnut	24
919	callery pear	15
920	callery pear	15
921	Japanese maple	4
924	Norway maple	12
926	kousa dogwood	4
927	callery pear	6
928	callery pear	6
929	flowering dogwood	5

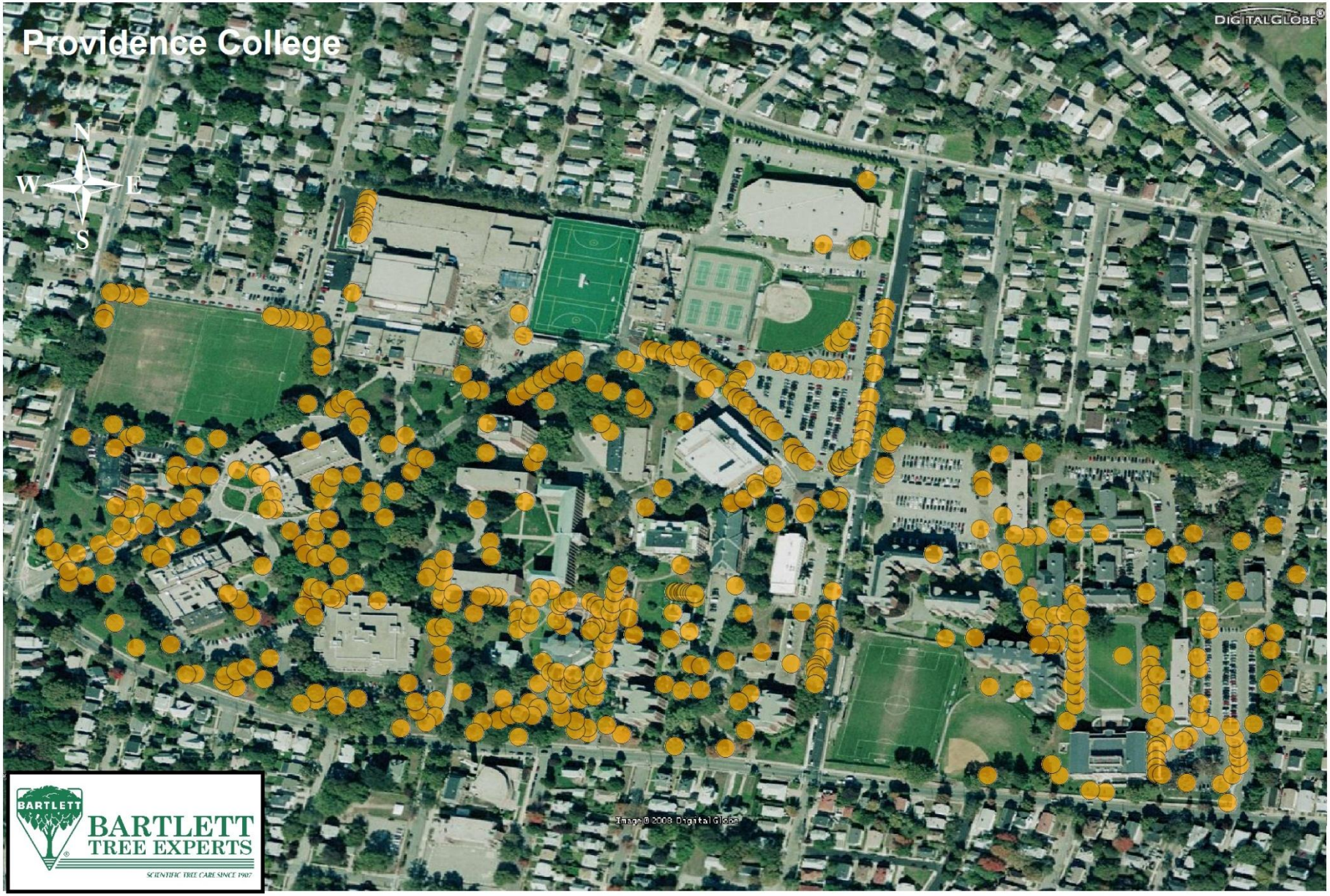
Tag #	Common	DBH
931	Oriental cherry	5
935	Norway maple	17
937	Oriental cherry	4
938	Oriental cherry	4
939	blue atlas cedar	7
940	Japanese zelkova	5
941	Japanese zelkova	7
942	Japanese zelkova	6
944	Purple Leaf Plum	4
946	Japanese zelkova	5
947	Japanese zelkova	5
948	Japanese zelkova	5
950	Japanese zelkova	5
951	Oriental cherry	5
953	Oriental cherry	5
955	Japanese zelkova	6
962	sawara cypress	16
963	sawara cypress	19
972	white mulberry	5
982	eastern white pine	15
986	eastern white pine	12
995	northern catalpa	24
999	white oak	39

Tag #	Common	DBH
1000	white oak	34
1003	northern red oak	21
1010	pin oak	5
1012	red maple	6
1014	Austrian pine	22
1020	blue atlas cedar	10
1021	blue atlas cedar	9
1028	Japanese zelkova	6
1043	Purple Leaf Plum	4
1045	Japanese zelkova	5
1047	Japanese zelkova	7
1048	Japanese zelkova	5
1049	Japanese zelkova	5
1050	Japanese zelkova	5
1051	Japanese zelkova	6
1053	Oriental cherry	4
1054	Japanese zelkova	6
1055	Norway maple	6
1056	Norway maple	6
1058	Norway maple	6
1059	Norway maple	6
1061	red maple	5
1066	red maple	5

Tag #	Common	DBH
1069	littleleaf linden	10
1070	littleleaf linden	8
1071	littleleaf linden	7
1072	littleleaf linden	8
1073	littleleaf linden	8
1074	littleleaf linden	10
1075	littleleaf linden	10
1079	Purple Leaf Plum	7
1084	red maple	14
1085	Oriental cherry	6
1088	American elm	7
1089	American elm	6
1090	American elm	8
1091	crabapple	4
1092	American elm	9
1094	crabapple	4
1095	American elm	9
1096	crabapple	4
1097	American elm	6
1098	white oak	42
1102	red maple	5
1103	red maple	5
1111	littleleaf linden	12
1112	red maple	5
1113	red maple	5

Tag #	Common	DBH
1118	northern red oak	9
1121	littleleaf linden	11
1122	littleleaf linden	6
1123	littleleaf linden	11
1124	littleleaf linden	10
1125	littleleaf linden	10
1126	littleleaf linden	10
1127	littleleaf linden	8
1128	littleleaf linden	9
1130	white ash	6
1131	white ash	7
1132	white ash	7
1133	saucer magnolia	4
1134	white ash	7
1136	littleleaf linden	12
1137	Japanese zelkova	11
1138	blue spruce	17
1150	Japanese zelkova	10
1152	Japanese zelkova	10
1166	Norway maple	8
1191	Norway maple	8

Map 8: TREES RECOMMENDED FOR ROOT COLLAR EXCAVATION



Pest Management

The BIS team also recommends an Integrated Pest Management (IPM) Program for trees in the formal landscape. An IPM program monitors for potentially damaging insects, diseases and cultural problems that are often seasonal and were not evident during our inventory visits. These pests include, but are not limited to, the following:

- Anthracnose – on flowering dogwood
- Aphids – on a variety of species
- Bacterial Leaf Scorch – on trees within red oak group
- Boring Insects – on a variety of tree species
- Caterpillar Defoliators – on a variety of tree species, especially oak
- Oak Wilt – on oak
- Suspected Phytophthora Root Rot and Canker – on a variety of tree species, especially beech species
- Scab and Rust Fungi – on crabapple and apple species.
- Scale Insects – on a variety of tree species, especially oak
- Spider Mites – on a variety of tree species

We identified the following trees for an IPM Program at this time:

Table 19: TREES RECOMMENDED FOR IPM PROGRAM

Tag #	Common	Diameter	Pest
6	flowering dogwood	8	Anthracnose
6	flowering dogwood	8	powdery mildew
16	white birch	14	Sap Sucker Damage
52	flowering dogwood	5	Anthracnose
52	flowering dogwood	5	powdery mildew
79	flowering dogwood	4	Anthracnose
79	flowering dogwood	4	powdery mildew
80	flowering dogwood	5	Anthracnose
80	flowering dogwood	5	powdery mildew
81	flowering dogwood	10	Anthracnose
81	flowering dogwood	10	powdery mildew
82	flowering dogwood	4	Anthracnose
82	flowering dogwood	4	powdery mildew
83	flowering dogwood	4	Anthracnose
83	flowering dogwood	4	powdery mildew
180	flowering dogwood	4	Anthracnose
180	flowering dogwood	4	powdery mildew
246	flowering dogwood	4	Anthracnose
246	flowering dogwood	4	powdery mildew
247	flowering dogwood	4	Anthracnose
247	flowering dogwood	4	powdery mildew
248	flowering dogwood	4	Anthracnose

Tag #	Common	Diameter	Pest
248	flowering dogwood	4	powdery mildew
249	flowering dogwood	4	powdery mildew
624	American beech	36	Phytophthora
652	American redbud	4	Scale
653	American redbud	4	Scale
679	European beech	50	Phytophthora
909	Canadian (eastern) hemlock	6	Mites
1092	American elm	9	Sap Sucker Damage

New Planting Recommendations

The Providence College campus is realitively densely planted. At this time we do not recommened any new planting sites. Replanting areas where removals have occurred or will occur would allow the college to increase species diversity while not dramatically increasing the amount of rescourses required to care for the tree population.

Existing Planting Recommendations

Two areas on the Providence College campus were identified during the inventory as being 'over planted' or having trees planted too close together. Eleven white pines, located between Koffler and Sullivan halls (Figure 16), are planted too closely together and as a result are in direct competition with one another for resources. It is recommended that the college consider the removal of every other tree in this row to provide more space for the existing trees to grow to their full potential. In addition, a row of locust, maple, and oak trees bordering the western side of Huxley Avenue (Figure 15) are planted too close together and in direct competition with one another. The college should consider replanting this area as these trees will only continue to grown and infringe upon one another.

Figure 16: White Pines

Figure 15: Locusts, Maples, and Oaks

Entire Inventory Follows

ENTIRE INVENTORY

Table 20: ENTIRE INVENTORY

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1	Acer	platanoides 'Crimson King'	Crimson King maple	8	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$1,255
2	Acer	platanoides 'Crimson King'	Crimson King maple	13	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$3,315
3	Acer	platanoides 'Crimson King'	Crimson King maple	14	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$3,845
4	Acer	platanoides 'Crimson King'	Crimson King maple	9	Semi-mature	Medium (16 to 35')	15	Good		$1,589
5	Acer	platanoides 'Crimson King'	Crimson King maple	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,962
6	Cornus	florida	flowering dogwood	8	Mature	Small (<15')	15	Good		$1,046
7	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	12	Semi-mature	Small (<15')	15	Good	2 Priority	$3,531
8	Prunus	serrulata	Oriental cherry	15	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,517
9	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	13	Semi-mature	Small (<15')	15	Good	3 Priority	$4,144
10	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	12	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$3,531
11	Prunus	cerasifera	Purple Leaf Plum	8	Semi-mature	Large (>35')	10	Fair	3 Priority	$897
12	Picea	pungens	blue spruce	18	Semi-mature	Large (>35')	15	Good		$7,415
13	Abies	balsamea	balsam fir	19	Semi-mature	Large (>35')	15	Good		$7,082
14	Picea	pungens	blue spruce	22	Semi-mature	Large (>35')	15	Good	3 Priority	$11,077

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
15	Picea	pungens	blue spruce	23	Semi-mature	Large (>35')	15	Good	3 Priority	$12,107
16	Betula	papyrifera	white birch	14	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$3,204
17	Cornus	kousa	kousa dogwood	5	Semi-mature	Small (<15')	10	Good	1 Priority	$572
18	Cornus	kousa	kousa dogwood	7	Semi-mature	Small (<15')	10	Good	3 Priority	$1,121
19	Cornus	kousa	kousa dogwood	7	Semi-mature	Small (<15')	10	Good	2 Priority	$1,121
20	Pinus	sylvestris	Scotch pine	17	Semi-mature	Large (>35')	15	Fair	1 Priority	$4,724
21	Pinus	sylvestris	Scotch pine	18	Semi-mature	Large (>35')	15	Fair	3 Priority	$5,297
22	Pseudotsuga	menziesii	Douglas fir	5	Semi-mature	Medium (16 to 35')	10	Good		$531
23	Picea	pungens	blue spruce	24	Mature	Large (>35')	15	Good	3 Priority	$13,183
24	Picea	pungens	blue spruce	22	Mature	Large (>35')	15	Good		$11,077
25	Picea	pungens	blue spruce	18	Semi-mature	Large (>35')	15	Good	3 Priority	$7,415
26	Picea	pungens	blue spruce	19	Semi-mature	Large (>35')	15	Good	3 Priority	$8,262
27	Acer	platanoides	Norway maple	39	Mature	Large (>35')	30	Fair	1 Priority	$19,745
28	Acer	platanoides	Norway maple	30	Mature	Large (>35')	25	Fair	1 Priority	$12,611
29	Acer	platanoides	Norway maple	19	Semi-mature	Large (>35')	20	Good		$7,082
30	Picea	pungens	blue spruce	18	Semi-mature	Large (>35')	15	Fair		$5,297

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
31	Picea	pungens	blue spruce	25	Mature	Large (>35')	20	Good		$14,304
32	Picea	pungens	blue spruce	4	Young	Small (<15')	5	Good		$366
33	Picea	pungens	blue spruce	28	Mature	Large (>35')	20	Good	3 Priority	$17,943
34	Picea	pungens	blue spruce	4	Young	Small (<15')	5	Good		$366
35	Abies	balsamea	balsam fir	20	Semi-mature	Large (>35')	15	Good		$7,847
36	Picea	pungens	blue spruce	4	Young	Small (<15')	5	Good		$366
37	Abies	balsamea	balsam fir	14	Semi-mature	Large (>35')	15	Good		$3,845
38	Picea	pungens	blue spruce	4	Young	Small (<15')	5	Good		$366
39	Picea	pungens	blue spruce	19	Semi-mature	Large (>35')	15	Good	3 Priority	$8,262
40	Pinus	nigra	Austrian pine	21	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$5,150
41	Quercus	rubra	northern red oak	29	Mature	Large (>35')	30	Good	1 Priority	$24,747
42	Quercus	rubra	northern red oak	30	Mature	Large (>35')	30	Good	1 Priority	$26,483
43	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Fair	1 Priority	$6,782
44	Pinus	nigra	Austrian pine	22	Semi-mature	Large (>35')	20	Fair	1 Priority	$5,652
45	Quercus	rubra	northern red oak	42	Mature	Large (>35')	35	Good	1 Priority	$46,206
46	Pinus	nigra	Austrian pine	21	Semi-mature	Large (>35')	20	Good		$7,209
47	Acer	platanoides	Norway maple	23	Semi-mature	Medium (16 to 35')	20	Fair	2 Priority	$7,412
48	Picea	pungens	blue spruce	18	Semi-mature	Large (>35')	15	Fair	3 Priority	$5,297

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
49	Pinus	strobus	eastern white pine	15	Semi-mature	Large (>35')	15	Good	2 Priority	$5,885
50	Acer	saccharum	sugar maple	15	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$4,204
51	Cornus	florida	flowering dogwood	4	Semi-mature	Medium (16 to 35')	15	Poor	1 Priority	$112
52	Cornus	florida	flowering dogwood	5	Semi-mature	Medium (16 to 35')	15	Fair	2 Priority	$292
53	Cornus	florida	flowering dogwood	5	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$292
54	Cornus	florida	flowering dogwood	5	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$292
55	Acer	platanoides 'Crimson King'	Crimson King maple	6	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$706
56	Acer	saccharum	sugar maple	18	Semi-mature	Large (>35')	20	Good	1 Priority	$8,475
57	Pinus	strobus	eastern white pine	15	Semi-mature	Large (>35')	15	Good	1 Priority	$5,885
58	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	1 Priority	$262
59	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	1 Priority	$262
60	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	1 Priority	$262
61	Abies	balsamea	balsam fir	22	Semi-mature	Large (>35')	20	Fair	1 Priority	$6,782
62	Tilia	cordata	littleleaf linden	25	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$14,304
63	Malus	floribunda	crabapple	6	Mature	Small (<15')	20	Good	1 Priority	$471
64	Tilia	cordata	littleleaf linden	17	Semi-	Medium (16	20	Good	1	$6,614

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')			Priority	
65	Pinus	nigra	Austrian pine	20	Semi-mature	Large (>35')	20	Fair	2 Priority	$4,671
66	Pinus	nigra	Austrian pine	8	Semi-mature	Medium (16 to 35')	15	Good		$1,046
67	Pinus	nigra	Austrian pine	12	Semi-mature	Medium (16 to 35')	15	Good		$2,354
68	Picea	pungens	blue spruce	26	Mature	Large (>35')	20	Good		$15,471
69	Oxydendrum	arboreum	sourwood	4	Semi-mature	Small (<15')	10	Good	1 Priority	$445
70	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	14	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$4,806
71	Picea	pungens	blue spruce	24	Mature	Large (>35')	20	Fair	1 Priority	$9,416
72	Picea	pungens	blue spruce	21	Semi-mature	Large (>35')	15	Good	2 Priority	$10,093
73	Crataegus	spp.	hawthorn species	8	Semi-mature	Medium (16 to 35')	20	Fair		$897
74	Acer	plantaoides 'Crimson King'	Crimson King maple	14	Semi-mature	Medium (16 to 35')	20	Good	3 Priority	$3,845
75	Acer	plantaoides 'Crimson King'	Crimson King maple	17	Semi-mature	Medium (16 to 35')	20	Good	3 Priority	$5,669
76	Acer	plantaoides 'Crimson King'	Crimson King maple	14	Semi-mature	Medium (16 to 35')	20	Good	3 Priority	$3,845
77	Acer	plantaoides 'Crimson King'	Crimson King maple	19	Semi-mature	Medium (16 to 35')	20	Good	3 Priority	$7,082
78	Acer	palmatum	Japanese maple	5	Mature	Small (<15')	5	Fair	1 Priority	$525
79	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Fair	1 Priority	$187
80	Cornus	florida	flowering	5	Semi-	Small (<15')	10	Fair	1	$292

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
			dogwood		mature				Priority	
81	Cornus	florida	flowering dogwood	10	Semi-mature	Medium (16 to 35')	10	Fair	1 Priority	$1,168
82	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Fair	1 Priority	$187
83	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good		$262
84	Acer	palmatum	Japanese maple	6	Mature	Small (<15')	10	Good	1 Priority	$1,059
85	Cornus	florida	flowering dogwood	9	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,324
86	Cornus	florida	flowering dogwood	7	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$801
87	Albizia	julibrissin	mimosa	20	Semi-mature	Large (>35')	20	Good	1 Priority	$4,577
88	Cedrus	atlantica	blue atlas cedar	17	Semi-mature	Large (>35')	15	Good		$8,504
89	Quercus	rubra	northern red oak	4	Young	Small (<15')	10	Good	1 Priority	$471
90	Acer	palmatum	Japanese maple	5	Mature	Medium (16 to 35')	20	Good	1 Priority	$736
91	Quercus	palustris	pin oak	28	Mature	Large (>35')	25	Good	1 Priority	$20,506
92	Quercus	palustris	pin oak	35	Mature	Large (>35')	25	Good	1 Priority	$30,925
93	Quercus	palustris	pin oak	52	Mature	Large (>35')	30	Good	1 Priority	$53,671
94	Quercus	palustris	pin oak	22	Semi-mature	Large (>35')	20	Good	2 Priority	$12,660
95	Acer	platanoides	Norway maple	25	Mature	Medium (16 to 35')	20	Good	1 Priority	$12,261

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
96	Acer	platanoides	Norway maple	21	Semi-mature	Medium (16 to 35')	20	Good		$8,651
97	Betula	papyrifera	white birch	9	Semi-mature	Medium (16 to 35')	15	Good		$1,854
98	Acer	platanoides	Norway maple	9	Semi-mature	Medium (16 to 35')	15	Good		$1,589
99	Prunus	serrulata	Oriental cherry	11	Mature	Medium (16 to 35')	20	Good	3 Priority	$2,967
100	Acer	platanoides	Norway maple	27	Mature	Medium (16 to 35')	20	Good		$14,301
101	Prunus	cerasifera	Purple Leaf Plum	8	Semi-mature	Medium (16 to 35')	15	Fair	2 Priority	$897
102	Acer	platanoides	Norway maple	26	Mature	Large (>35')	20	Good		$13,261
103	Acer	platanoides	Norway maple	23	Semi-mature	Large (>35')	20	Good		$10,377
104	Acer	platanoides 'Crimson King'	Crimson King maple	11	Semi-mature	Small (<15')	15	Fair		$1,695
105	Quercus	palustris	pin oak	39	Mature	Large (>35')	25	Good	1 Priority	$36,857
106	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	20	Fair		$5,605
107	Acer	platanoides 'Crimson King'	Crimson King maple	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,255
108	Acer	platanoides	Norway maple	25	Mature	Medium (16 to 35')	20	Fair	1 Priority	$8,758
109	Prunus	serrulata	Oriental cherry	5	Young	Small (<15')	10	Good	2 Priority	$613
110	Prunus	serrulata	Oriental cherry	5	Young	Small (<15')	10	Good	2 Priority	$613
111	Prunus	serrulata	Oriental cherry	5	Young	Small (<15')	10	Good	2 Priority	$613

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
112	Prunus	serrulata	Oriental cherry	5	Young	Small (<15')	10	Good	2 Priority	$613
113	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
114	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
115	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
116	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
117	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
118	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
119	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
120	Pyrus	calleryana	callery pear	5	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$327
121	Betula	nigra	river birch	4	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$366
122	Acer	griseum	paperbark maple	5	Young	Small (<15')	10	Good	2 Priority	$654
123	Acer	griseum	paperbark maple	4	Young	Small (<15')	10	Good	2 Priority	$418
124	Acer	griseum	paperbark maple	4	Young	Small (<15')	5	Good		$418
125	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	15	Fair		$4,050
126	Quercus	palustris	pin oak	39	Mature	Large (>35')	30	Good	1 Priority	$36,857
127	Acer	platanoides	Norway maple	17	Semi-	Medium (16	15	Fair		$4,050

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')				
128	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	15	Dead	1 Priority	$0
129	Quercus	rubra	northern red oak	20	Semi-mature	Large (>35')	20	Good	1 Priority	$11,770
130	Prunus	serrulata	Oriental cherry	20	Semi-mature	Large (>35')	20	Poor	1 Priority	$4,204
131	Ulmus	americana	American elm	20	Semi-mature	Large (>35')	20	Fair	1 Priority	$3,737
132	Quercus	rubra	northern red oak	33	Mature	Large (>35')	25	Good	1 Priority	$31,303
133	Quercus	rubra	northern red oak	25	Mature	Large (>35')	20	Good	3 Priority	$18,391
134	Quercus	rubra	northern red oak	45	Mature	Large (>35')	30	Good	1 Priority	$50,722
135	Quercus	rubra	northern red oak	18	Semi-mature	Large (>35')	20	Good	2 Priority	$9,534
136	Fraxinus	pennsylvanica	green ash	13	Semi-mature	Medium (16 to 35')	20	Good		$3,868
137	Prunus	serotina	black cherry	6	Semi-mature	Medium (16 to 35')	15	Fair		$336
138	Prunus	serotina	black cherry	6	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$336
139	Prunus	serotina	black cherry	39	Mature	Large (>35')	30	Fair	1 Priority	$13,163
140	Fraxinus	pennsylvanica	green ash	4	Semi-mature	Medium (16 to 35')	10	Fair		$262
141	Fraxinus	pennsylvanica	green ash	4	Semi-mature	Medium (16 to 35')	10	Fair		$262
142	Quercus	rubra	northern red oak	10	Semi-mature	Medium (16 to 35')	15	Good		$2,943

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
143	Quercus	rubra	northern red oak	11	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$3,561
144	Quercus	rubra	northern red oak	11	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$3,561
145	Quercus	rubra	northern red oak	9	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$2,383
146	Quercus	rubra	northern red oak	7	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,442
147	Ailanthus	altissima	tree-of-heaven	28	Mature	Large (>35')	20	Good		$5,127
148	Thuja	occidentalis	eastern white cedar	7	Semi-mature	Medium (16 to 35')	10	Good		$1,282
149	Quercus	rubra	northern red oak	10	Semi-mature	Medium (16 to 35')	15	Good		$2,943
150	Quercus	palustris	pin oak	13	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$4,420
151	Quercus	rubra	northern red oak	13	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$4,973
152	Quercus	rubra	northern red oak	11	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$3,561
153	Pyrus	calleryana	callery pear	13	Semi-mature	Medium (16 to 35')	15	Good		$2,210
154	Pyrus	calleryana	callery pear	12	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$1,345
155	Pyrus	calleryana	callery pear	14	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$2,563
156	Pyrus	calleryana	callery pear	14	Semi-mature	Medium (16 to 35')	15	Fair		$1,831
157	Quercus	rubra	northern red oak	19	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$10,623
158	Quercus	rubra	northern red oak	12	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$4,237

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
159	Quercus	rubra	northern red oak	14	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,767
160	Quercus	palustris	pin oak	14	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,127
161	Quercus	rubra	northern red oak	13	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$4,973
162	Quercus	rubra	northern red oak	14	Semi-mature	Medium (16 to 35')	15	Good		$5,767
163	Quercus	palustris	pin oak	15	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$5,885
164	Quercus	rubra	northern red oak	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,883
165	Quercus	rubra	northern red oak	14	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,767
166	Quercus	rubra	northern red oak	13	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$4,973
167	Quercus	rubra	northern red oak	14	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,767
168	Quercus	rubra	northern red oak	16	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$7,533
169	Quercus	rubra	northern red oak	14	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,767
170	Pinus	nigra	Austrian pine	13	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,763
171	Pinus	nigra	Austrian pine	10	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,635
172	Pinus	nigra	Austrian pine	11	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$1,978
173	Pinus	nigra	Austrian pine	9	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,324
174	Pinus	nigra	Austrian pine	11	Semi-	Medium (16	15	Good	3	$1,978

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')			Priority	
175	Pinus	nigra	Austrian pine	11	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,978
176	Pinus	nigra	Austrian pine	10	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$1,635
177	Pinus	nigra	Austrian pine	12	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$2,354
178	Pinus	nigra	Austrian pine	8	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$1,046
179	Pinus	nigra	Austrian pine	10	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$1,635
180	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Fair		$187
181	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$471
182	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$471
183	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$471
184	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$471
185	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$471
186	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$471
187	Picea	glauca	white spruce	6	Semi-mature	Medium (16 to 35')	10	Good		$824
188	Picea	glauca	white spruce	6	Semi-mature	Medium (16 to 35')	10	Good		$824
189	Picea	glauca	white spruce	8	Semi-mature	Medium (16 to 35')	10	Good		$1,465

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
190	Picea	glauca	white spruce	8	Semi-mature	Medium (16 to 35')	10	Good		$1,465
191	Acer	palmatum	Japanese maple	4	Semi-mature	Small (<15')	15	Good	1 Priority	$471
192	Betula	papyrifera	white birch	16	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$5,859
193	Betula	papyrifera	white birch	13	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$3,868
194	Betula	papyrifera	white birch	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
195	Ilex	opaca	American holly	8	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$1,674
196	Pinus	nigra	Austrian pine	13	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,763
197	Pinus	nigra	Austrian pine	13	Semi-mature	Medium (16 to 35')	15	Good		$2,763
198	Pinus	nigra	Austrian pine	14	Semi-mature	Medium (16 to 35')	15	Good		$3,204
199	Pinus	nigra	Austrian pine	14	Semi-mature	Medium (16 to 35')	15	Good		$3,204
200	Thuja	occidentalis	eastern white cedar	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,674
201	Thuja	occidentalis	eastern white cedar	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,674
202	Thuja	occidentalis	eastern white cedar	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,674
203	Thuja	occidentalis	eastern white cedar	8	Semi-mature	Medium (16 to 35')	15	Good		$1,674
204	Pinus	nigra	Austrian pine	13	Semi-mature	Small (<15')	15	Good		$2,763
205	Pinus	nigra	Austrian pine	15	Semi-	Small (<15')	15	Good		$3,678

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature					
206	Pinus	nigra	Austrian pine	12	Semi-mature	Medium (16 to 35')	15	Good		$2,354
207	Thuja	occidentalis	eastern white cedar	4	Semi-mature	Medium (16 to 35')	10	Good		$418
208	Prunus	serotina	black cherry	19	Semi-mature	Medium (16 to 35')	20	Fair		$3,372
209	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	15	Fair		$3,662
210	Pinus	strobus	eastern white pine	10	Semi-mature	Medium (16 to 35')	15	Fair		$1,868
211	Quercus	palustris	pin oak	25	Semi-mature	Large (>35')	20	Good		$16,348
212	Pinus	strobus	eastern white pine	7	Semi-mature	Medium (16 to 35')	15	Fair		$915
213	Pinus	strobus	eastern white pine	15	Semi-mature	Medium (16 to 35')	15	Fair		$4,204
214	Pinus	strobus	eastern white pine	12	Semi-mature	Medium (16 to 35')	15	Fair		$2,690
215	Pinus	strobus	eastern white pine	13	Semi-mature	Medium (16 to 35')	15	Fair		$3,157
216	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	15	Fair		$3,662
217	Pinus	strobus	eastern white pine	15	Semi-mature	Medium (16 to 35')	15	Fair		$4,204
218	Pinus	strobus	eastern white pine	8	Semi-mature	Medium (16 to 35')	10	Fair		$1,196
219	Pinus	strobus	eastern white pine	11	Semi-mature	Medium (16 to 35')	15	Fair		$2,261
220	Pinus	strobus	eastern white pine	6	Semi-mature	Medium (16 to 35')	10	Fair		$673

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
221	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	15	Fair		$3,662
222	Pinus	strobus	eastern white pine	11	Semi-mature	Medium (16 to 35')	15	Fair		$2,261
223	Pinus	strobus	eastern white pine	16	Semi-mature	Medium (16 to 35')	15	Fair		$4,783
224	Pinus	strobus	eastern white pine	16	Semi-mature	Medium (16 to 35')	15	Fair		$4,783
225	Pinus	strobus	eastern white pine	12	Semi-mature	Medium (16 to 35')	15	Fair		$2,690
226	Pinus	strobus	eastern white pine	16	Semi-mature	Medium (16 to 35')	15	Fair		$4,783
227	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	20	Good		$6,356
228	Thuja	occidentalis	eastern white cedar	4	Semi-mature	Medium (16 to 35')	10	Good		$418
229	Ulmus	species	elm hybrid	5	Young	Medium (16 to 35')	10	Good	1 Priority	$327
230	Ulmus	species	elm hybrid	5	Young	Medium (16 to 35')	10	Good	1 Priority	$327
231	Ulmus	species	elm hybrid	5	Young	Medium (16 to 35')	10	Good	1 Priority	$327
232	Ulmus	species	elm hybrid	5	Young	Medium (16 to 35')	10	Good	1 Priority	$327
233	Acer	saccharum	sugar maple	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
234	Acer	saccharum	sugar maple	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
235	Acer	saccharum	sugar maple	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
236	Quercus	palustris	pin oak	4	Young	Medium (16	10	Good	1	$418

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
						to 35')			Priority	
237	Quercus	palustris	pin oak	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
238	Quercus	palustris	pin oak	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
239	Quercus	palustris	pin oak	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
240	Quercus	palustris	pin oak	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
241	Quercus	palustris	pin oak	4	Young	Medium (16 to 35')	10	Good	1 Priority	$418
242	Pinus	nigra	Austrian pine	14	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$3,204
243	Pinus	nigra	Austrian pine	12	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$2,354
244	Pinus	nigra	Austrian pine	12	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$2,354
245	Pinus	nigra	Austrian pine	14	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$3,204
246	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good		$262
247	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good		$262
248	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good		$262
249	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	3 Priority	$262
250	Pyrus	calleryana	callery pear	13	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$1,579
251	Pyrus	calleryana	callery pear	13	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$1,579

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
252	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	15	Good	1 Priority	$262
253	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	15	Good		$262
254	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	15	Good		$409
255	Pinus	nigra	Austrian pine	16	Semi-mature	Large (>35')	15	Good	3 Priority	$4,185
256	Pinus	nigra	Austrian pine	16	Semi-mature	Large (>35')	15	Good	3 Priority	$4,185
257	Pinus	nigra	Austrian pine	13	Semi-mature	Large (>35')	15	Good	3 Priority	$2,763
258	Pinus	nigra	Austrian pine	14	Semi-mature	Large (>35')	15	Good	3 Priority	$3,204
259	Pinus	nigra	Austrian pine	15	Semi-mature	Large (>35')	15	Good	3 Priority	$3,678
260	Pinus	nigra	Austrian pine	15	Semi-mature	Large (>35')	15	Good		$3,678
261	Pinus	nigra	Austrian pine	12	Semi-mature	Large (>35')	15	Good	3 Priority	$2,354
262	Pinus	nigra	Austrian pine	17	Semi-mature	Large (>35')	15	Good	1 Priority	$4,724
263	Thuja	occidentalis	eastern white cedar	4	Semi-mature	Small (<15')	10	Fair		$299
264	Pinus	strobus	eastern white pine	15	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,885
265	Pinus	strobus	eastern white pine	12	Semi-mature	Medium (16 to 35')	15	Good		$3,766
266	Pinus	strobus	eastern white pine	13	Semi-mature	Medium (16 to 35')	15	Good		$4,420
267	Pinus	strobus	eastern white	9	Semi-	Medium (16	15	Good		$2,119

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
			pine		mature	to 35')				
268	Pinus	strobus	eastern white pine	13	Semi-mature	Medium (16 to 35')	15	Good		$4,420
269	Pinus	strobus	eastern white pine	15	Semi-mature	Medium (16 to 35')	15	Good		$5,885
270	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,127
271	Gleditsia	triacanthos	honey locust	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,962
272	Gleditsia	triacanthos	honey locust	12	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,825
273	Gleditsia	triacanthos	honey locust	13	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$3,315
274	Gleditsia	triacanthos	honey locust	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,962
275	Gleditsia	triacanthos	honey locust	10	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,962
276	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	1 Priority	$262
277	Cornus	florida	flowering dogwood	7	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$801
278	Malus	floribunda	crabapple	6	Semi-mature	Small (<15')	10	Good	1 Priority	$471
279	Malus	floribunda	crabapple	7	Semi-mature	Small (<15')	10	Good	1 Priority	$641
280	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good	1 Priority	$209
281	Quercus	palustris	pin oak	28	Mature	Large (>35')	30	Good	1 Priority	$20,506
282	Pinus	nigra	Austrian pine	15	Semi-mature	Large (>35')	15	Good		$3,678

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
283	Platanus	xacerifolia	London Plane	18	Semi-mature	Medium (16 to 35')	20	Good		$7,415
284	Fagus	sylvatica	European beech	34	Mature	Large (>35')	25	Fair	2 Priority	$23,614
285	Acer	platanoides	Norway maple	16	Semi-mature	Large (>35')	20	Good	1 Priority	$5,022
286	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Good		$9,495
287	Gleditsia	triacanthos	honey locust	15	Semi-mature	Medium (16 to 35')	20	Good		$4,414
288	Gleditsia	triacanthos	honey locust	18	Semi-mature	Medium (16 to 35')	20	Good		$6,356
289	Gleditsia	triacanthos	honey locust	17	Semi-mature	Medium (16 to 35')	20	Good		$5,669
290	Gleditsia	triacanthos	honey locust	12	Semi-mature	Medium (16 to 35')	20	Good		$2,825
291	Gleditsia	triacanthos	honey locust	19	Semi-mature	Medium (16 to 35')	20	Good		$7,082
292	Gleditsia	triacanthos	honey locust	19	Semi-mature	Large (>35')	20	Good		$7,082
293	Acer	platanoides	Norway maple	21	Semi-mature	Large (>35')	20	Good		$8,651
294	Gleditsia	triacanthos	honey locust	18	Semi-mature	Medium (16 to 35')	20	Good		$6,356
295	Gleditsia	triacanthos	honey locust	20	Semi-mature	Large (>35')	20	Good	1 Priority	$7,847
296	Gleditsia	triacanthos	honey locust	17	Semi-mature	Medium (16 to 35')	20	Good		$5,669
297	Gleditsia	triacanthos	honey locust	17	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$5,669
298	Gleditsia	triacanthos	honey locust	14	Semi-	Medium (16	20	Good		$3,845

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')				
299	Gleditsia	triacanthos	honey locust	15	Semi-mature	Medium (16 to 35')	20	Good		$4,414
300	Gleditsia	triacanthos	honey locust	18	Semi-mature	Large (>35')	20	Good		$6,356
301	Gleditsia	triacanthos	honey locust	13	Semi-mature	Medium (16 to 35')	20	Good		$3,315
302	Acer	saccharinum	silver maple	21	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$7,209
303	Gleditsia	triacanthos	honey locust	20	Semi-mature	Medium (16 to 35')	20	Good		$7,847
304	Gleditsia	triacanthos	honey locust	15	Semi-mature	Medium (16 to 35')	20	Good		$4,414
305	Gleditsia	triacanthos	honey locust	17	Semi-mature	Medium (16 to 35')	20	Good		$5,669
306	Acer	platanoides	Norway maple	28	Mature	Large (>35')	25	Fair	1 Priority	$10,986
307	Picea	glauca	white spruce	14	Semi-mature	Medium (16 to 35')	15	Fair		$3,204
308	Picea	glauca	white spruce	15	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$3,678
309	Picea	abies	Norway spruce	12	Semi-mature	Medium (16 to 35')	15	Good		$3,766
310	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	15	Fair		$2,746
311	Quercus	rubra	northern red oak	48	Mature	Large (>35')	35	Good	1 Priority	$55,011
312	Cornus	florida	flowering dogwood	11	Semi-mature	Small (<15')	15	Good		$1,978
313	Acer	rubrum	red maple	18	Semi-mature	Medium (16 to 35')	20	Good		$7,415

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
314	Acer	rubrum	red maple	18	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$7,415
315	Quercus	rubra	northern red oak	29	Mature	Large (>35')	25	Good	2 Priority	$24,747
316	Quercus	rubra	northern red oak	21	Semi-mature	Large (>35')	20	Good	1 Priority	$12,977
317	Quercus	rubra	northern red oak	15	Semi-mature	Large (>35')	20	Good		$6,621
318	Quercus	rubra	northern red oak	23	Semi-mature	Large (>35')	20	Good		$15,566
319	Quercus	rubra	northern red oak	23	Semi-mature	Large (>35')	20	Good		$15,566
320	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	20	Fair		$5,605
321	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	20	Good		$3,845
322	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	20	Fair		$3,587
323	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$6,356
324	Acer	platanoides	Norway maple	15	Semi-mature	Medium (16 to 35')	20	Good	2 Priority	$4,414
325	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	20	Good	2 Priority	$5,022
326	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$4,050
327	Acer	platanoides	Norway maple	17	Semi-mature	Large (>35')	20	Good		$5,669
328	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	20	Good		$3,845
329	Acer	platanoides	Norway maple	13	Semi-	Medium (16	20	Good		$3,315

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')				
330	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$5,669
331	Quercus	rubra	northern red oak	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$736
332	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	20	Good	2 Priority	$3,845
333	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$5,669
334	Acer	platanoides	Norway maple	4	Semi-mature	Small (<15')	10	Good	1 Priority	$314
335	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$3,845
336	Prunus	serotina	black cherry	14	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$2,563
337	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$3,845
338	Acer	rubrum	red maple	20	Semi-mature	Large (>35')	20	Good		$9,155
339	Acer	platanoides	Norway maple	23	Semi-mature	Large (>35')	20	Good	1 Priority	$10,377
340	Acer	platanoides	Norway maple	21	Semi-mature	Medium (16 to 35')	20	Good	2 Priority	$8,651
341	Acer	platanoides	Norway maple	23	Semi-mature	Large (>35')	20	Good	3 Priority	$10,377
342	Acer	platanoides	Norway maple	25	Semi-mature	Large (>35')	20	Good	3 Priority	$12,261
343	Betula	papyrifera	white birch	6	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$824
344	Fagus	sylvatica	European beech	29	Mature	Medium (16 to 35')	20	Fair	1 Priority	$17,676

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
345	Acer	platanoides	Norway maple	24	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$8,071
346	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	20	Fair		$5,605
347	Acer	platanoides	Norway maple	21	Semi-mature	Medium (16 to 35')	20	Fair		$6,179
348	Acer	platanoides	Norway maple	19	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$5,058
349	Acer	platanoides	Norway maple	25	Mature	Medium (16 to 35')	20	Fair	1 Priority	$8,758
350	Quercus	palustris	pin oak	28	Mature	Large (>35')	30	Good	1 Priority	$20,506
351	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Fair		$6,782
352	Acer	saccharum	sugar maple	24	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$10,761
353	Picea	pungens	blue spruce	19	Semi-mature	Large (>35')	15	Good		$8,262
354	Acer	saccharum	sugar maple	21	Semi-mature	Medium (16 to 35')	20	Good		$11,535
355	Picea	pungens	blue spruce	15	Semi-mature	Large (>35')	15	Good		$5,150
356	Picea	pungens	blue spruce	15	Semi-mature	Large (>35')	15	Good		$5,150
357	Picea	pungens	blue spruce	11	Semi-mature	Large (>35')	10	Good		$2,769
358	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	15	Good		$6,356
359	Picea	pungens	blue spruce	15	Semi-mature	Large (>35')	15	Good		$5,150
360	Picea	pungens	blue spruce	16	Semi-	Large (>35')	15	Good		$5,859

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature					
361	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	15	Poor	1 Priority	$2,511
362	Picea	pungens	blue spruce	15	Semi-mature	Large (>35')	15	Good		$5,150
363	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	15	Good		$5,859
364	Picea	pungens	blue spruce	13	Semi-mature	Large (>35')	15	Good		$3,868
365	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	15	Fair	1 Priority	$4,185
366	Acer	platanoides	Norway maple	19	Semi-mature	Medium (16 to 35')	20	Good		$7,082
367	Picea	pungens	blue spruce	13	Semi-mature	Large (>35')	15	Fair		$2,763
368	Picea	pungens	blue spruce	14	Semi-mature	Large (>35')	15	Fair		$3,204
369	Picea	pungens	blue spruce	8	Semi-mature	Large (>35')	10	Fair		$1,046
370	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Fair		$4,050
371	Acer	platanoides	Norway maple	21	Semi-mature	Large (>35')	20	Fair		$6,179
372	Acer	saccharinum	silver maple	24	Semi-mature	Large (>35')	20	Good		$9,416
373	Acer	saccharinum	silver maple	29	Semi-mature	Large (>35')	20	Good	3 Priority	$13,748
374	Catalpa	speciosa	northern catalpa	24	Semi-mature	Large (>35')	20	Fair	3 Priority	$8,071
375	Acer	platanoides	Norway maple	23	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$10,377

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
376	Picea	pungens	blue spruce	17	Semi-mature	Large (>35')	15	Fair		$4,724
377	Acer	platanoides	Norway maple	17	Semi-mature	Large (>35')	20	Good		$5,669
378	Picea	pungens	blue spruce	12	Semi-mature	Medium (16 to 35')	10	Poor	1 Priority	$1,412
379	Acer	saccharum	sugar maple	21	Semi-mature	Large (>35')	20	Good		$11,535
380	Acer	saccharum	sugar maple	22	Semi-mature	Large (>35')	20	Good		$12,660
381	Quercus	rubra	northern red oak	23	Semi-mature	Large (>35')	25	Good	3 Priority	$15,566
382	Quercus	rubra	northern red oak	21	Semi-mature	Large (>35')	25	Fair		$9,269
383	Quercus	rubra	northern red oak	23	Semi-mature	Large (>35')	25	Good	3 Priority	$15,566
384	Picea	abies	Norway spruce	13	Semi-mature	Large (>35')	15	Fair		$3,157
385	Picea	abies	Norway spruce	17	Semi-mature	Large (>35')	15	Fair	1 Priority	$5,399
386	Quercus	rubra	northern red oak	28	Mature	Large (>35')	25	Fair	3 Priority	$16,478
387	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Fair		$1,695
388	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$2,746
389	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Fair		$1,401
390	Acer	platanoides	Norway maple	12	Semi-mature	Medium (16 to 35')	15	Good		$2,825
391	Ulmus	americana	American elm	8	Semi-	Medium (16	15	Good	1	$837

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')			Priority	
392	Acer	platanoides	Norway maple	13	Semi-mature	Medium (16 to 35')	15	Fair	3 Priority	$2,368
393	Picea	pungens	blue spruce	17	Mature	Large (>35')	20	Fair	3 Priority	$4,724
394	Quercus	rubra	northern red oak	24	Mature	Large (>35')	25	Good	1 Priority	$16,949
395	Picea	pungens	blue spruce	22	Mature	Large (>35')	20	Fair	2 Priority	$7,912
396	Cornus	florida	flowering dogwood	8	Mature	Small (<15')	15	Fair	3 Priority	$747
397	Abies	balsamea	balsam fir	18	Semi-mature	Medium (16 to 35')	20	Good		$6,356
398	Cornus	kousa	kousa dogwood	4	Semi-mature	Small (<15')	10	Good		$366
399	Acer	saccharum	sugar maple	4	Semi-mature	Small (<15')	10	Good	2 Priority	$418
400	Quercus	rubra	northern red oak	17	Semi-mature	Large (>35')	20	Fair	3 Priority	$6,074
401	Quercus	rubra	northern red oak	26	Mature	Large (>35')	20	Fair	1 Priority	$14,208
402	Quercus	rubra	northern red oak	30	Mature	Large (>35')	20	Fair	1 Priority	$18,917
403	Quercus	rubra	northern red oak	22	Semi-mature	Large (>35')	20	Fair		$10,173
404	Quercus	rubra	northern red oak	30	Mature	Large (>35')	20	Fair		$18,917
405	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	10	Fair		$897
406	Quercus	velutina	black oak	36	Mature	Large (>35')	25	Fair	2 Priority	$26,069

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
407	Quercus	velutina	black oak	32	Mature	Large (>35')	20	Good		$29,522
408	Abies	balsamea	balsam fir	18	Semi-mature	Large (>35')	15	Good		$6,356
409	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Fair		$1,695
410	Taxus	spp	yew	5	Semi-mature	Small (<15')	15	Good		$490
411	Abies	balsamea	balsam fir	16	Semi-mature	Large (>35')	15	Fair		$3,587
412	Acer	rubrum	red maple	4	Semi-mature	Small (<15')	10	Good	1 Priority	$366
413	Quercus	rubra	northern red oak	18	Semi-mature	Large (>35')	20	Good	1 Priority	$9,534
414	Acer	platanoides	Norway maple	34	Mature	Large (>35')	25	Fair	1 Priority	$15,743
415	Acer	platanoides	Norway maple	29	Mature	Large (>35')	20	Fair		$11,784
416	Quercus	velutina	black oak	30	Mature	Large (>35')	20	Good		$26,483
417	Ulmus	americana	American elm	5	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$327
418	Fagus	grandifolia	American beech	30	Mature	Large (>35')	25	Good		$26,483
419	Abies	balsamea	balsam fir	20	Mature	Large (>35')	20	Fair	1 Priority	$5,605
420	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Fair		$1,695
421	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Fair		$1,695
422	Quercus	velutina	black oak	29	Mature	Large (>35')	25	Fair	1 Priority	$17,676
423	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$4,050
424	Ulmus	americana	American elm	10	Semi-	Medium (16	15	Good	1	$1,308

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')			Priority	
425	Picea	pungens	blue spruce	20	Mature	Large (>35')	20	Fair	3 Priority	$6,539
426	Ulmus	americana	American elm	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,308
427	Pinus	nigra	Austrian pine	17	Semi-mature	Large (>35')	15	Good		$4,724
428	Quercus	alba	white oak	32	Mature	Large (>35')	25	Good		$29,522
429	Acer	platanoides	Norway maple	13	Semi-mature	Medium (16 to 35')	15	Good		$3,315
430	Quercus	alba	white oak	26	Mature	Large (>35')	25	Good		$19,892
431	Quercus	alba	white oak	31	Mature	Large (>35')	25	Good	1 Priority	$27,715
432	Quercus	alba	white oak	24	Semi-mature	Large (>35')	20	Good		$16,949
433	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	20	Good		$5,022
434	Quercus	alba	white oak	28	Mature	Large (>35')	25	Good		$23,070
435	Acer	platanoides	Norway maple	24	Mature	Medium (16 to 35')	20	Good		$11,299
436	Quercus	alba	white oak	36	Mature	Large (>35')	25	Good		$36,497
437	Quercus	rubra	northern red oak	28	Mature	Large (>35')	25	Fair	1 Priority	$16,478
438	Abies	balsamea	balsam fir	20	Semi-mature	Large (>35')	15	Good		$7,847
439	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Fair	1 Priority	$6,782
440	Acer	platanoides	Norway maple	23	Semi-mature	Large (>35')	20	Fair		$7,412
441	Acer	platanoides	Norway maple	20	Semi-mature	Large (>35')	20	Good		$7,847

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
442	Quercus	velutina	black oak	29	Mature	Large (>35')	20	Good		$24,747
443	Quercus	alba	white oak	29	Mature	Large (>35')	25	Good		$24,747
444	Quercus	alba	white oak	28	Mature	Large (>35')	25	Good		$23,070
445	Acer	platanoides	Norway maple	17	Semi-mature	Large (>35')	20	Good	1 Priority	$5,669
446	Quercus	alba	white oak	36	Mature	Large (>35')	25	Good	1 Priority	$36,497
447	Quercus	alba	white oak	36	Mature	Large (>35')	25	Good		$36,497
448	Acer	platanoides	Norway maple	20	Semi-mature	Large (>35')	20	Fair		$5,605
449	Acer	platanoides	Norway maple	18	Semi-mature	Large (>35')	20	Fair		$4,540
450	Abies	balsamea	balsam fir	25	Mature	Large (>35')	20	Fair	2 Priority	$8,758
451	Acer	platanoides	Norway maple	19	Semi-mature	Large (>35')	20	Good	1 Priority	$7,082
452	Acer	platanoides	Norway maple	15	Semi-mature	Medium (16 to 35')	15	Good		$4,414
453	Acer	platanoides	Norway maple	32	Mature	Large (>35')	20	Good		$19,681
454	Abies	balsamea	balsam fir	12	Semi-mature	Medium (16 to 35')	15	Good		$2,825
455	Acer	platanoides	Norway maple	28	Mature	Large (>35')	20	Fair		$10,986
456	Acer	rubrum	red maple	21	Semi-mature	Medium (16 to 35')	20	Fair	2 Priority	$7,209
457	Acer	platanoides	Norway maple	24	Mature	Large (>35')	20	Fair		$8,071
458	Acer	platanoides	Norway maple	20	Semi-mature	Large (>35')	20	Good	1 Priority	$7,847
459	Pyrus	calleryana	callery pear	4	Young	Small (<15')	5	Good	3 Priority	$209
460	Pyrus	calleryana	callery pear	4	Young	Small (<15')	5	Good	3 Priority	$209

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
461	Pyrus	calleryana	callery pear	4	Young	Small (<15')	5	Good	3 Priority	$209
462	Pyrus	calleryana	callery pear	4	Young	Small (<15')	5	Good	3 Priority	$209
463	Pyrus	calleryana	callery pear	4	Young	Small (<15')	5	Good	3 Priority	$209
464	Quercus	palustris	pin oak	33	Mature	Large (>35')	25	Fair	1 Priority	$19,875
465	Quercus	palustris	pin oak	34	Mature	Large (>35')	25	Fair	1 Priority	$20,990
466	Abies	balsamea	balsam fir	13	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$3,315
467	Acer	platanoides	Norway maple	19	Semi-mature	Medium (16 to 35')	20	Good		$7,082
468	Acer	platanoides	Norway maple	34	Mature	Large (>35')	20	Good		$22,040
469	Abies	balsamea	balsam fir	13	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$3,315
470	Acer	platanoides	Norway maple	28	Mature	Large (>35')	20	Good		$15,380
471	Picea	pungens	blue spruce	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
472	Acer	platanoides	Norway maple	39	Mature	Large (>35')	25	Fair	1 Priority	$19,745
473	Acer	saccharum	sugar maple	5	Young	Small (<15')	10	Good	2 Priority	$654
474	Acer	platanoides	Norway maple	33	Mature	Large (>35')	25	Fair	1 Priority	$14,906
475	Picea	abies	Norway spruce	18	Semi-mature	Large (>35')	15	Good		$8,475
476	Abies	balsamea	balsam fir	22	Semi-mature	Large (>35')	15	Good		$9,495
477	Acer	saccharinum	silver maple	29	Mature	Large (>35')	20	Good	1	$13,748

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
									Priority	
478	Acer	platanoides	Norway maple	19	Semi-mature	Medium (16 to 35')	15	Poor	1 Priority	$3,035
479	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	1 Priority	$262
480	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	16	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$6,277
481	Picea	pungens	blue spruce	22	Semi-mature	Large (>35')	15	Fair	1 Priority	$7,912
482	Acer	platanoides	Norway maple	36	Mature	Large (>35')	25	Fair	1 Priority	$17,379
483	Acer	platanoides	Norway maple	27	Mature	Large (>35')	25	Fair		$10,215
484	Acer	platanoides 'Crimson King'	Crimson King maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,255
485	Acer	platanoides 'Crimson King'	Crimson King maple	13	Semi-mature	Medium (16 to 35')	15	Fair		$2,368
486	Acer	platanoides 'Crimson King'	Crimson King maple	13	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$3,315
487	Acer	platanoides 'Crimson King'	Crimson King maple	15	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$3,153
488	Acer	platanoides 'Crimson King'	Crimson King maple	18	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$6,356
489	Acer	platanoides 'Crimson King'	Crimson King maple	18	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$6,356
490	Acer	platanoides 'Crimson King'	Crimson King maple	22	Semi-mature	Medium (16 to 35')	15	Good		$9,495
491	Acer	platanoides 'Crimson King'	Crimson King maple	23	Semi-mature	Medium (16 to 35')	15	Good		$10,377
492	Prunus	serrulata	Oriental cherry	12	Mature	Small (<15')	20	Fair	1 Priority	$2,522
493	Acer	palmatum	Japanese maple	10	Mature	Medium (16	20	Good		$2,943

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
						to 35')				
494	Prunus	serrulata	Oriental cherry	13	Mature	Medium (16 to 35')	20	Good	1 Priority	$4,144
495	Prunus	serrulata	Oriental cherry	13	Semi-mature	Medium (16 to 35')	15	Good		$4,144
496	Malus	floribunda	crabapple	12	Mature	Small (<15')	20	Good	1 Priority	$1,883
497	Malus	floribunda	crabapple	14	Mature	Medium (16 to 35')	20	Fair	1 Priority	$1,831
498	Acer	saccharinum	silver maple	19	Semi-mature	Large (>35')	20	Good	2 Priority	$5,901
499	Acer	saccharinum	silver maple	22	Semi-mature	Large (>35')	20	Good	2 Priority	$7,912
500	Acer	palmatum	Japanese maple	5	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$736
501	Quercus	palustris	pin oak	25	Mature	Large (>35')	20	Good	1 Priority	$16,348
502	Cornus	florida	flowering dogwood	5	Semi-mature	Medium (16 to 35')	10	Good		$409
503	Cornus	florida	flowering dogwood	4	Semi-mature	Medium (16 to 35')	5	Good		$262
504	Liriodendron	tulipifera	yellow-poplar	10	Semi-mature	Medium (16 to 35')	15	Good		$2,289
505	Gleditsia	triacanthos	honey locust	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,962
506	Gleditsia	triacanthos	honey locust	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,962
507	Taxodium	distichum	common baldcypress	12	Semi-mature	Medium (16 to 35')	15	Good		$3,296
508	Magnolia	X soulangiana	saucer magnolia	8	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$1,465

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
509	Pyrus	calleryana	callery pear	14	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$1,831
510	Pyrus	calleryana	callery pear	17	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$2,700
511	Betula	papyrifera	white birch	12	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$3,296
512	Malus	floribunda	crabapple	14	Mature	Medium (16 to 35')	20	Fair	1 Priority	$1,831
513	Cornus	kousa	kousa dogwood	4	Semi-mature	Small (<15')	10	Good		$366
514	Platanus	occidentalis	American sycamore	18	Semi-mature	Large (>35')	20	Good		$6,356
515	Cornus	florida	flowering dogwood	5	Semi-mature	Medium (16 to 35')	10	Good		$409
516	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good		$409
517	Abies	balsamea	balsam fir	18	Semi-mature	Large (>35')	15	Good		$6,356
518	Cornus	kousa	kousa dogwood	4	Semi-mature	Small (<15')	5	Good		$366
519	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good		$262
520	Pseudotsuga	menziesii	Douglas fir	24	Mature	Large (>35')	20	Good		$12,241
521	Quercus	alba	white oak	38	Mature	Large (>35')	30	Good		$39,834
522	Quercus	alba	white oak	38	Mature	Large (>35')	30	Good		$39,834
523	Acer	palmatum	Japanese maple	7	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$1,442
524	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	3 Priority	$262
525	Acer	palmatum	Japanese maple	5	Semi-mature	Small (<15')	10	Fair	1 Priority	$525

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
526	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	3 Priority	$262
527	Abies	balsamea	balsam fir	22	Mature	Large (>35')	15	Good		$9,495
528	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Fair		$187
529	Betula	papyrifera	white birch	10	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$2,289
530	Cornus	florida	flowering dogwood	6	Semi-mature	Small (<15')	15	Fair		$420
531	Betula	nigra	river birch	4	Young	Medium (16 to 35')	10	Good	3 Priority	$366
532	Picea	pungens	blue spruce	19	Semi-mature	Large (>35')	15	Good	3 Priority	$8,262
533	Cornus	florida	flowering dogwood	4	Young	Small (<15')	10	Good		$262
534	Picea	pungens	blue spruce	20	Semi-mature	Large (>35')	15	Good		$9,155
535	Quercus	alba	white oak	21	Mature	Large (>35')	25	Good		$12,977
536	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Fair		$187
537	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Fair		$187
538	Quercus	alba	white oak	26	Mature	Large (>35')	20	Fair	2 Priority	$14,208
539	Quercus	velutina	black oak	40	Mature	Large (>35')	25	Good		$43,070
540	Abies	balsamea	balsam fir	17	Semi-mature	Large (>35')	15	Good		$5,669
541	Prunus	serrulata	Oriental cherry	20	Mature	Medium (16 to 35')	15	Poor	3 Priority	$4,204
542	Quercus	rubra	northern red oak	37	Mature	Large (>35')	25	Good		$38,178

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
543	Prunus	serrulata	Oriental cherry	13	Semi-mature	Medium (16 to 35')	15	Poor	3 Priority	$1,776
544	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Fair		$6,782
545	Acer	platanoides	Norway maple	18	Semi-mature	Large (>35')	20	Fair		$4,540
546	Fagus	grandifolia	American beech	27	Mature	Medium (16 to 35')	20	Good		$21,451
547	Acer	platanoides	Norway maple	13	Semi-mature	Medium (16 to 35')	15	Fair		$2,368
548	Fagus	grandifolia	American beech	37	Mature	Large (>35')	20	Good		$38,178
549	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good		$409
550	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Fair		$292
551	Cornus	florida	flowering dogwood	6	Semi-mature	Small (<15')	10	Fair		$420
552	Quercus	palustris	pin oak	24	Mature	Large (>35')	20	Good	2 Priority	$15,066
553	Prunus	serrulata	Oriental cherry	13	Semi-mature	Small (<15')	15	Poor	3 Priority	$1,776
554	Prunus	subhirtella	Higan cherry	16	Semi-mature	Medium (16 to 35')	15	Poor	3 Priority	$2,690
555	Prunus	serrulata	Oriental cherry	4	Young	Small (<15')	10	Good	1 Priority	$392
556	Betula	papyrifera	white birch	9	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$1,854
557	Betula	papyrifera	white birch	12	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$3,296
558	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	15	Good	1 Priority	$409

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
559	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	20	Fair		$5,605
560	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	20	Fair		$5,605
561	Acer	platanoides	Norway maple	26	Mature	Medium (16 to 35')	20	Fair	1 Priority	$9,472
562	Acer	platanoides	Norway maple	25	Mature	Large (>35')	20	Good		$12,261
563	Quercus	rubra	northern red oak	39	Mature	Large (>35')	35	Fair		$29,618
564	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good		$409
565	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good	1 Priority	$409
566	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good		$409
567	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good	2 Priority	$409
568	Acer	palmatum	Japanese maple	8	Semi-mature	Small (<15')	15	Good	1 Priority	$1,883
569	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good		$409
570	Abies	balsamea	balsam fir	21	Semi-mature	Large (>35')	15	Good		$8,651
571	Acer	platanoides	Norway maple	20	Semi-mature	Large (>35')	20	Fair	3 Priority	$5,605
572	Picea	pungens	blue spruce	18	Semi-mature	Large (>35')	15	Good		$7,415
573	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	15	Good		$5,859
574	Cornus	florida	flowering dogwood	12	Mature	Small (<15')	15	Good	2 Priority	$2,354

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
575	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	15	Fair	1 Priority	$234
576	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$5,605
577	Quercus	palustris	pin oak	18	Semi-mature	Large (>35')	15	Good	1 Priority	$8,475
578	Acer	palmatum	Japanese maple	4	Semi-mature	Medium (16 to 35')	15	Good		$471
579	Acer	palmatum	Japanese maple	5	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$736
580	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$4,540
581	Acer	platanoides	Norway maple	15	Semi-mature	Medium (16 to 35')	15	Fair		$3,153
582	Acer	platanoides	Norway maple	25	Mature	Large (>35')	20	Fair		$8,758
583	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Good		$9,495
584	Acer	platanoides	Norway maple	18	Semi-mature	Large (>35')	20	Fair		$4,540
585	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Fair		$6,782
586	Acer	platanoides	Norway maple	19	Semi-mature	Large (>35')	20	Poor	1 Priority	$3,035
587	Acer	platanoides	Norway maple	24	Mature	Large (>35')	20	Good	1 Priority	$11,299
588	Acer	platanoides	Norway maple	28	Semi-mature	Large (>35')	20	Good		$15,380
589	Acer	platanoides	Norway maple	18	Semi-mature	Large (>35')	20	Fair		$4,540
590	Taxus	spp	yew	4	Mature	Small (<15')	15	Good		$314
591	Acer	platanoides	Norway maple	5	Young	Small (<15')	10	Good	1	$490

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
									Priority	
592	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Fair	1 Priority	$6,782
593	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Good		$9,495
594	Acer	palmatum	Japanese maple	4	Semi-mature	Small (<15')	10	Good		$471
595	Acer	platanoides	Norway maple	19	Semi-mature	Large (>35')	15	Fair		$5,058
596	Picea	pungens	blue spruce	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
597	Quercus	alba	white oak	30	Mature	Large (>35')	25	Good	1 Priority	$26,483
598	Quercus	alba	white oak	33	Mature	Large (>35')	25	Good	1 Priority	$31,303
599	Picea	pungens	blue spruce	12	Semi-mature	Large (>35')	15	Fair	1 Priority	$2,354
600	Picea	pungens	blue spruce	14	Semi-mature	Large (>35')	15	Good		$4,486
601	Picea	pungens	blue spruce	14	Semi-mature	Large (>35')	15	Fair		$3,204
602	Betula	papyrifera	white birch	16	Semi-mature	Medium (16 to 35')	20	Fair		$4,185
603	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	15	Fair		$4,185
604	Picea	pungens	blue spruce	24	Mature	Large (>35')	15	Fair		$9,416
605	Quercus	rubra	northern red oak	30	Mature	Large (>35')	25	Fair	1 Priority	$18,917
606	Picea	abies	Norway spruce	15	Semi-mature	Large (>35')	15	Fair		$4,204
607	Quercus	alba	white oak	38	Mature	Large (>35')	30	Good		$39,834

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
608	Quercus	alba	white oak	40	Mature	Large (>35')	30	Good	1 Priority	$43,070
609	Acer	platanoides	Norway maple	24	Mature	Large (>35')	20	Good		$11,299
610	Picea	pungens	blue spruce	20	Semi-mature	Large (>35')	15	Good		$9,155
611	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	15	Fair		$4,185
612	Quercus	rubra	northern red oak	27	Mature	Large (>35')	20	Good		$21,451
613	Quercus	rubra	northern red oak	37	Mature	Large (>35')	20	Good		$38,178
614	Quercus	alba	white oak	32	Mature	Large (>35')	25	Good	1 Priority	$29,522
615	Quercus	rubra	northern red oak	32	Mature	Large (>35')	25	Good		$29,522
616	Prunus	serrulata	Oriental cherry	4	Young	Small (<15')	10	Good	1 Priority	$392
617	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
618	Acer	platanoides	Norway maple	14	Semi-mature	Medium (16 to 35')	15	Good		$3,845
619	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
620	Prunus	serrulata	Oriental cherry	4	Semi-mature	Small (<15')	10	Good	1 Priority	$392
621	Quercus	alba	white oak	40	Mature	Large (>35')	30	Good	1 Priority	$43,070
622	Quercus	alba	white oak	40	Mature	Large (>35')	25	Good	1 Priority	$43,070
623	Acer	platanoides	Norway maple	34	Mature	Large (>35')	20	Fair	1 Priority	$15,743

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
624	Fagus	grandifolia	American beech	36	Mature	Large (>35')	20	Poor	1 Priority	$15,642
625	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good		$262
626	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good	3 Priority	$409
627	Quercus	alba	white oak	29	Mature	Large (>35')	25	Poor	1 Priority	$10,606
628	Acer	platanoides	Norway maple	19	Semi-mature	Medium (16 to 35')	20	Good		$7,082
629	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good	2 Priority	$262
630	Acer	platanoides	Norway maple	9	Semi-mature	Medium (16 to 35')	15	Good		$1,589
631	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good		$1,962
632	Acer	platanoides	Norway maple	9	Semi-mature	Medium (16 to 35')	15	Good		$1,589
633	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Good		$2,374
634	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Good		$2,374
635	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Good		$2,374
636	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good		$1,962
637	Prunus	cerasifera	Purple Leaf Plum	5	Semi-mature	Small (<15')	10	Good	2 Priority	$490
638	Prunus	cerasifera	Purple Leaf Plum	5	Semi-mature	Small (<15')	10	Good	2 Priority	$490
639	Prunus	cerasifera	Purple Leaf	7	Semi-	Small (<15')	10	Good	2	$961

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
			Plum		mature				Priority	
640	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	10	Good	3 Priority	$327
641	Malus	floribunda	crabapple	6	Semi-mature	Small (<15')	10	Good	3 Priority	$471
642	Malus	floribunda	crabapple	6	Semi-mature	Small (<15')	10	Good	3 Priority	$471
643	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	10	Good	3 Priority	$327
644	Malus	floribunda	crabapple	7	Semi-mature	Small (<15')	10	Good	3 Priority	$641
645	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good		$1,962
646	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	10	Good	3 Priority	$327
647	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	10	Good	3 Priority	$327
648	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	10	Good	3 Priority	$327
649	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	10	Good	3 Priority	$327
650	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Good		$2,374
651	Acer	platanoides	Norway maple	11	Semi-mature	Medium (16 to 35')	15	Good		$2,374
652	Cercis	canadensis	American redbud	4	Young	Small (<15')	5	Good	2 Priority	$262
653	Cercis	canadensis	American redbud	4	Young	Small (<15')	5	Good	2 Priority	$262
654	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good		$1,962

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
655	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,962
656	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,255
657	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good		$1,962
658	Acer	platanoides	Norway maple	9	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,589
659	Pyrus	calleryana	callery pear	8	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$837
660	Pyrus	calleryana	callery pear	7	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$641
661	Pyrus	calleryana	callery pear	8	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$837
662	Pyrus	calleryana	callery pear	7	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$641
663	Pyrus	calleryana	callery pear	7	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$641
664	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$471
665	Pyrus	calleryana	callery pear	8	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$837
666	Pyrus	calleryana	callery pear	9	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$1,059
667	Pyrus	calleryana	callery pear	8	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$837
668	Pyrus	calleryana	callery pear	9	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$1,059
669	Pyrus	calleryana	callery pear	8	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$837
670	Pyrus	calleryana	callery pear	9	Semi-	Medium (16	10	Good	3	$1,059

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')			Priority	
671	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,255
672	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,255
673	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good		$1,962
674	Acer	platanoides	Norway maple	22	Semi-mature	Medium (16 to 35')	20	Good		$9,495
675	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Good		$5,669
676	Acer	platanoides	Norway maple	26	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$9,472
677	Fagus	sylvatica	European beech	32	Mature	Large (>35')	25	Good		$29,522
678	Tilia	cordata	littleleaf linden	16	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$4,185
679	Fagus	sylvatica	European beech	50	Mature	Large (>35')	30	Fair		$41,247
680	Cornus	mas	Cornelian cherry dogwood	3	Young	Small (<15')	5	Good		$206
681	Cornus	mas	Cornelian cherry dogwood	3	Young	Small (<15')	5	Good		$206
682	Prunus	serrulata	Oriental cherry	4	Semi-mature	Small (<15')	10	Good	1 Priority	$392
683	Prunus	serrulata	Oriental cherry	4	Semi-mature	Small (<15')	10	Good	2 Priority	$392
684	Prunus	serrulata	Oriental cherry	10	Semi-mature	Small (<15')	15	Good	1 Priority	$2,452

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
685	Quercus	rubra	northern red oak	4	Young	Small (<15')	5	Good	1 Priority	$471
686	Quercus	rubra	northern red oak	4	Young	Small (<15')	5	Good	1 Priority	$471
687	Quercus	rubra	northern red oak	4	Young	Small (<15')	5	Good	1 Priority	$471
688	Quercus	rubra	northern red oak	4	Young	Small (<15')	5	Good	1 Priority	$471
689	Prunus	serrulata	Oriental cherry	4	Young	Small (<15')	10	Good	1 Priority	$392
690	Acer	platanoides	Norway maple	15	Semi-mature	Medium (16 to 35')	15	Good		$4,414
691	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	15	Good		$6,356
692	Acer	platanoides	Norway maple	26	Semi-mature	Medium (16 to 35')	20	Good		$13,261
693	Quercus	alba	white oak	30	Mature	Large (>35')	25	Good		$26,483
694	Gleditsia	triacanthos	honey locust	5	Young	Medium (16 to 35')	10	Good	1 Priority	$490
695	Gleditsia	triacanthos	honey locust	5	Young	Medium (16 to 35')	10	Good	1 Priority	$490
696	Gleditsia	triacanthos	honey locust	5	Young	Medium (16 to 35')	10	Good	1 Priority	$490
697	Gleditsia	triacanthos	honey locust	5	Young	Medium (16 to 35')	10	Good	1 Priority	$490
698	Acer	rubrum	red maple	4	Young	Small (<15')	10	Good		$366
699	Fagus	sylvatica	European beech	24	Mature	Large (>35')	20	Good	1 Priority	$16,949
700	Gleditsia	triacanthos	honey locust	4	Young	Medium (16 to 35')	10	Good	1 Priority	$314
701	Gleditsia	triacanthos	honey locust	5	Young	Medium (16	10	Good	1	$490

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
						to 35')			Priority	
702	Acer	rubrum	red maple	4	Young	Medium (16 to 35')	5	Good		$366
703	Chamaecyparis	pisifera	sawara cypress	12	Semi-mature	Medium (16 to 35')	15	Good		$3,296
704	Acer	rubrum	red maple	3	Young	Small (<15')	5	Good		$206
705	Quercus	velutina	black oak	26	Mature	Large (>35')	25	Good		$19,892
706	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	15	Fair		$4,540
707	Quercus	alba	white oak	34	Mature	Large (>35')	25	Fair	1 Priority	$23,614
708	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	15	Fair		$4,185
709	Picea	pungens	blue spruce	20	Semi-mature	Large (>35')	15	Fair		$6,539
710	Acer	palmatum	Japanese maple	8	Semi-mature	Small (<15')	15	Good		$1,883
711	Quercus	rubra	northern red oak	40	Mature	Large (>35')	25	Fair	1 Priority	$30,764
712	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	15	Fair		$5,605
713	Prunus	serrulata	Oriental cherry	13	Mature	Medium (16 to 35')	15	Fair		$2,960
714	Quercus	velutina	black oak	32	Mature	Large (>35')	25	Fair	1 Priority	$21,087
715	Acer	platanoides	Norway maple	19	Semi-mature	Medium (16 to 35')	15	Fair		$5,058
716	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	15	Good		$5,669
717	Acer	platanoides	Norway maple	24	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$8,071

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
718	Acer	platanoides	Norway maple	19	Semi-mature	Medium (16 to 35')	15	Good		$7,082
719	Acer	platanoides	Norway maple	27	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$10,215
720	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Fair		$4,050
721	Quercus	rubra	northern red oak	44	Mature	Large (>35')	25	Fair		$35,173
722	Quercus	palustris	pin oak	20	Semi-mature	Large (>35')	20	Fair		$7,473
723	Quercus	palustris	pin oak	18	Semi-mature	Large (>35')	20	Good		$8,475
724	Quercus	palustris	pin oak	23	Semi-mature	Large (>35')	20	Good		$13,837
725	Quercus	rubra	northern red oak	27	Mature	Large (>35')	20	Good		$21,451
726	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1 Priority	$366
727	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1 Priority	$366
728	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1 Priority	$366
729	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1 Priority	$366
730	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1 Priority	$366
731	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1 Priority	$366
732	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1 Priority	$366
733	Acer	rubrum	red maple	4	Young	Small (<15')	5	Good	1	$366

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
									Priority	
734	Magnolia	X soulangiana	saucer magnolia	7	Semi-mature	Medium (16 to 35')	10	Good		$1,121
735	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	6	Semi-mature	Small (<15')	5	Good	1 Priority	$883
736	Quercus	palustris	pin oak	27	Mature	Large (>35')	20	Good		$19,068
737	Quercus	rubra	northern red oak	43	Mature	Large (>35')	30	Good	1 Priority	$47,737
738	Quercus	rubra	northern red oak	38	Mature	Large (>35')	25	Good		$39,834
739	Carpinus	caroliniana	american hornbeam	4	Semi-mature	Small (<15')	10	Fair		$299
740	Quercus	alba	white oak	37	Mature	Large (>35')	25	Good		$38,178
741	Quercus	rubra	northern red oak	50	Mature	Large (>35')	30	Fair	1 Priority	$41,247
742	Picea	pungens	blue spruce	9	Semi-mature	Medium (16 to 35')	10	Good		$1,854
743	Malus	floribunda	crabapple	8	Semi-mature	Small (<15')	10	Fair	1 Priority	$598
744	Malus	floribunda	crabapple	5	Semi-mature	Small (<15')	10	Good	1 Priority	$327
745	Fagus	sylvatica	European beech	16	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$7,533
746	Picea	pungens	blue spruce	16	Semi-mature	Large (>35')	10	Good		$5,859
747	Gleditsia	triacanthos	honey locust	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
748	Liriodendron	tulipifera	yellow-poplar	17	Semi-mature	Large (>35')	15	Good		$6,614
749	Quercus	rubra	northern red oak	16	Semi-mature	Large (>35')	20	Good		$7,533

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
750	Quercus	rubra	northern red oak	18	Semi-mature	Large (>35')	20	Good		$9,534
751	Liriodendron	tulipifera	yellow-poplar	16	Semi-mature	Large (>35')	20	Fair	1 Priority	$4,185
752	Quercus	rubra	northern red oak	16	Semi-mature	Large (>35')	20	Good		$7,533
753	Quercus	rubra	northern red oak	15	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$6,621
754	Betula	papyrifera	white birch	9	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,854
755	Malus	floribunda	crabapple	10	Semi-mature	Small (<15')	10	Fair	1 Priority	$934
756	Quercus	rubra	northern red oak	22	Mature	Large (>35')	30	Fair		$10,173
757	Quercus	alba	white oak	17	Semi-mature	Large (>35')	15	Good		$8,504
758	Quercus	alba	white oak	18	Semi-mature	Large (>35')	20	Good		$9,534
759	Quercus	palustris	pin oak	19	Semi-mature	Large (>35')	20	Good		$9,442
760	Quercus	palustris	pin oak	22	Semi-mature	Large (>35')	20	Good		$12,660
761	Quercus	palustris	pin oak	22	Semi-mature	Large (>35')	20	Good		$12,660
762	Quercus	palustris	pin oak	18	Semi-mature	Large (>35')	20	Good	1 Priority	$8,475
763	Quercus	palustris	pin oak	33	Mature	Large (>35')	20	Good		$27,825
764	Quercus	palustris	pin oak	29	Mature	Large (>35')	25	Good		$21,997
765	Quercus	palustris	pin oak	29	Mature	Large (>35')	20	Good		$21,997
766	Quercus	rubra	northern red oak	27	Mature	Large (>35')	20	Good		$21,451

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
767	Pyrus	calleryana	callery pear	12	Semi-mature	Medium (16 to 35')	15	Good		$1,883
768	Pyrus	calleryana	callery pear	11	Semi-mature	Medium (16 to 35')	15	Good		$1,582
769	Pyrus	calleryana	callery pear	11	Semi-mature	Medium (16 to 35')	15	Good		$1,582
770	Pyrus	calleryana	callery pear	11	Semi-mature	Medium (16 to 35')	15	Good		$1,582
771	Pyrus	calleryana	callery pear	10	Semi-mature	Medium (16 to 35')	15	Good		$1,308
772	Pyrus	calleryana	callery pear	8	Semi-mature	Medium (16 to 35')	15	Good		$837
773	Acer	platanoides	Norway maple	20	Semi-mature	Medium (16 to 35')	20	Fair		$5,605
774	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
775	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
776	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
777	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
778	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	15	Good		$5,669
779	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$4,540
780	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	15	Good		$5,669
781	Acer	platanoides	Norway maple	9	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,589
782	Acer	platanoides	Norway maple	10	Semi-	Medium (16	15	Good	1	$1,962

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')			Priority	
783	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	15	Good		$5,669
784	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$4,540
785	Acer	platanoides	Norway maple	21	Semi-mature	Medium (16 to 35')	20	Good		$8,651
786	Ailanthus	altissima	tree-of-heaven	21	Semi-mature	Medium (16 to 35')	20	Poor	1 Priority	$1,236
787	Acer	palmatum	Japanese maple	10	Semi-mature	Medium (16 to 35')	15	Good		$2,943
788	Pyrus	calleryana	callery pear	11	Semi-mature	Medium (16 to 35')	15	Good		$1,582
789	Acer	platanoides	Norway maple	16	Semi-mature	Medium (16 to 35')	15	Good		$5,022
790	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	15	Good		$6,356
791	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	15	Good		$5,669
792	Acer	pseudoplatanus	sycamore maple	18	Semi-mature	Medium (16 to 35')	15	Fair		$4,540
793	Acer	platanoides	Norway maple	23	Semi-mature	Medium (16 to 35')	20	Good		$10,377
794	Acer	platanoides	Norway maple	28	Mature	Medium (16 to 35')	20	Fair	1 Priority	$10,986
795	Acer	platanoides	Norway maple	18	Semi-mature	Medium (16 to 35')	15	Good		$6,356
796	Pinus	nigra	Austrian pine	14	Semi-mature	Medium (16 to 35')	15	Good		$3,204
797	Acer	platanoides	Norway maple	15	Semi-mature	Medium (16 to 35')	15	Fair	3 Priority	$3,153

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
799	Tsuga	canadensis	Canadian (eastern) hemlock	4	Semi-mature	Small (<15')	5	Good		$314
800	Acer	platanoides	Norway maple	28	Mature	Medium (16 to 35')	20	Fair		$10,986
801	Prunus	serrulata	Oriental cherry	4	Young	Small (<15')	10	Good		$392
802	Acer	saccharum	sugar maple	30	Mature	Large (>35')	20	Fair		$16,815
803	Acer	saccharum	sugar maple	18	Semi-mature	Medium (16 to 35')	20	Fair		$6,053
804	Platanus	occidentalis	American sycamore	4	Young	Small (<15')	10	Good	1 Priority	$314
805	Platanus	occidentalis	American sycamore	4	Young	Small (<15')	10	Good	1 Priority	$314
806	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	8	Mature	Small (<15')	10	Good	1 Priority	$1,569
807	Malus	species	apple	9	Semi-mature	Small (<15')	15	Good	1 Priority	$1,589
808	Prunus	serrulata	Oriental cherry	9	Semi-mature	Small (<15')	15	Good	1 Priority	$1,986
809	Magnolia	X soulangiana	saucer magnolia	3	Young	Small (<15')	5	Good		$206
810	Prunus	cerasifera	Purple Leaf Plum	3	Young	Small (<15')	5	Good		$177
811	Acer	palmatum	Japanese maple	4	Semi-mature	Small (<15')	5	Good	1 Priority	$471
812	Acer	palmatum	Japanese maple	4	Semi-mature	Small (<15')	5	Good	1 Priority	$471
813	Magnolia	X soulangiana	saucer magnolia	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
814	Picea	abies	Norway spruce	4	Semi-mature	Small (<15')	5	Good		$418

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
815	Prunus	subhirtella	Higan cherry	6	Semi-mature	Medium (16 to 35')	15	Fair	2 Priority	$631
816	Prunus	subhirtella	Higan cherry	6	Semi-mature	Medium (16 to 35')	15	Fair	2 Priority	$631
817	Chamaecyparis	pisifera	sawara cypress	16	Semi-mature	Large (>35')	15	Good		$5,859
818	Chamaecyparis	pisifera	sawara cypress	18	Semi-mature	Large (>35')	15	Good		$7,415
819	Chamaecyparis	pisifera	sawara cypress	22	Semi-mature	Large (>35')	15	Good		$11,077
820	Prunus	subhirtella	Higan cherry	7	Semi-mature	Medium (16 to 35')	15	Good		$1,202
821	Prunus	subhirtella	Higan cherry	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,569
822	Prunus	subhirtella	Higan cherry	6	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$883
823	Acer	palmatum	Japanese maple	9	Semi-mature	Small (<15')	15	Good	2 Priority	$2,383
824	Acer	palmatum	Japanese maple	5	Semi-mature	Small (<15')	15	Good	1 Priority	$736
825	Cornus	kousa	kousa dogwood	8	Semi-mature	Small (<15')	10	Good	2 Priority	$1,465
826	Cedrus	atlantica	blue atlas cedar	8	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$1,883
827	Chamaecyparis	obtusa	hinoki falsecypress	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$824
828	Platanus	occidentalis	American sycamore	4	Young	Small (<15')	10	Good	1 Priority	$314
829	Platanus	occidentalis	American sycamore	4	Young	Small (<15')	10	Good	1 Priority	$314
830	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
831	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
832	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
833	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
834	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
835	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
836	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
837	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
838	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
839	Quercus	robur	English oak	4	Young	Small (<15')	5	Good		$418
840	Fagus	sylvatica	European beech	4	Young	Small (<15')	5	Good	2 Priority	$471
841	Pyrus	calleryana	callery pear	17	Semi-mature	Medium (16 to 35')	15	Fair	1 Priority	$2,700
842	Prunus	serrulata	Oriental cherry	8	Semi-mature	Medium (16 to 35')	10	Good		$1,569
843	Prunus	serrulata	Oriental cherry	7	Semi-mature	Medium (16 to 35')	10	Good		$1,202
844	Prunus	serrulata	Oriental cherry	8	Semi-mature	Medium (16 to 35')	10	Good		$1,569
845	Prunus	serrulata	Oriental cherry	8	Semi-mature	Medium (16 to 35')	10	Good		$1,569
846	Prunus	serrulata	Oriental cherry	8	Semi-mature	Medium (16 to 35')	10	Good		$1,569
847	Fagus	sylvatica	European beech	13	Semi-mature	Medium (16 to 35')	15	Good		$4,973
848	Betula	papyrifera	white birch	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
849	Acer	rubrum	red maple	17	Semi-mature	Medium (16 to 35')	15	Good		$6,614
850	Betula	papyrifera	white birch	4	Semi-mature	Small (<15')	10	Good	2 Priority	$366

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
851	Acer	palmatum	Japanese maple	5	Semi-mature	Small (<15')	10	Good	1 Priority	$736
852	Prunus	serrulata	Oriental cherry	9	Mature	Small (<15')	15	Good		$1,986
853	Picea	pungens	blue spruce	14	Semi-mature	Medium (16 to 35')	10	Good		$4,486
854	Quercus	rubra	northern red oak	29	Mature	Large (>35')	25	Good		$24,747
855	Cercis	canadensis	American redbud	12	Semi-mature	Small (<15')	10	Fair		$1,681
856	Cercis	canadensis	American redbud	8	Semi-mature	Small (<15')	10	Good		$1,046
857	Quercus	rubra	northern red oak	17	Semi-mature	Large (>35')	15	Good	1 Priority	$8,504
858	Quercus	rubra	northern red oak	18	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$9,534
859	Quercus	rubra	northern red oak	15	Semi-mature	Large (>35')	15	Good	1 Priority	$6,621
860	Quercus	rubra	northern red oak	25	Semi-mature	Large (>35')	15	Good	1 Priority	$18,391
861	Quercus	rubra	northern red oak	14	Semi-mature	Medium (16 to 35')	15	Fair	3 Priority	$4,120
862	Quercus	rubra	northern red oak	31	Mature	Large (>35')	20	Good		$27,715
863	Quercus	rubra	northern red oak	22	Semi-mature	Large (>35')	20	Fair	1 Priority	$10,173
864	Acer	platanoides	Norway maple	22	Semi-mature	Large (>35')	20	Fair	1 Priority	$6,782
865	Acer	platanoides	Norway maple	15	Semi-mature	Medium (16 to 35')	15	Good		$4,414
866	Quercus	rubra	northern red oak	26	Mature	Large (>35')	20	Fair	1 Priority	$14,208

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
867	Pinus	strobus	eastern white pine	18	Semi-mature	Large (>35')	15	Fair		$6,053
868	Pinus	strobus	eastern white pine	24	Semi-mature	Large (>35')	15	Fair	1 Priority	$10,761
869	Pinus	strobus	eastern white pine	20	Semi-mature	Large (>35')	15	Fair		$7,473
870	Acer	platanoides	Norway maple	22	Semi-mature	Medium (16 to 35')	20	Good	3 Priority	$9,495
871	Acer	saccharum	sugar maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,674
872	Pinus	nigra	Austrian pine	22	Semi-mature	Medium (16 to 35')	15	Fair		$5,652
873	Pinus	nigra	Austrian pine	25	Mature	Medium (16 to 35')	15	Good		$10,217
874	Pinus	nigra	Austrian pine	10	Semi-mature	Medium (16 to 35')	15	Good		$1,635
875	Pinus	nigra	Austrian pine	26	Mature	Large (>35')	15	Good		$11,051
876	Pinus	nigra	Austrian pine	22	Semi-mature	Large (>35')	15	Good		$7,912
877	Pinus	nigra	Austrian pine	26	Mature	Large (>35')	15	Good		$11,051
878	Pinus	strobus	eastern white pine	24	Mature	Large (>35')	15	Good		$15,066
879	Pinus	strobus	eastern white pine	28	Mature	Large (>35')	20	Good		$20,506
880	Pinus	strobus	eastern white pine	22	Semi-mature	Large (>35')	15	Good		$12,660
881	Pinus	strobus	eastern white pine	18	Semi-mature	Large (>35')	15	Good		$8,475
882	Pinus	strobus	eastern white pine	26	Mature	Large (>35')	15	Good		$17,682
883	Pinus	strobus	eastern white	22	Semi-	Large (>35')	15	Good		$12,660

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
			pine		mature					
884	Pinus	strobus	eastern white pine	20	Semi-mature	Large (>35')	15	Good		$10,462
885	Pinus	strobus	eastern white pine	25	Mature	Large (>35')	15	Good		$16,348
886	Pinus	strobus	eastern white pine	26	Mature	Large (>35')	15	Good		$17,682
887	Quercus	palustris	pin oak	15	Semi-mature	Medium (16 to 35')	15	Fair		$4,204
888	Pinus	strobus	eastern white pine	28	Mature	Large (>35')	15	Good		$20,506
889	Pinus	strobus	eastern white pine	26	Mature	Large (>35')	15	Good		$17,682
890	Pinus	strobus	eastern white pine	28	Mature	Large (>35')	15	Good		$20,506
891	Quercus	rubra	northern red oak	34	Mature	Large (>35')	25	Fair		$23,614
892	Fraxinus	pennsylvanica	green ash	8	Semi-mature	Medium (16 to 35')	10	Good		$1,465
893	Fraxinus	pennsylvanica	green ash	5	Semi-mature	Medium (16 to 35')	10	Good		$572
894	Aesculus	hippocastanum	horse chestnut	24	Semi-mature	Medium (16 to 35')	20	Good	2 Priority	$11,299
895	Picea	pungens	blue spruce	19	Semi-mature	Medium (16 to 35')	10	Fair	3 Priority	$5,901
896	Chamaecyparis	pisifera	sawara cypress	12	Semi-mature	Medium (16 to 35')	15	Good		$3,296
897	Chamaecyparis	pisifera	sawara cypress	15	Semi-mature	Medium (16 to 35')	15	Good		$5,150
898	Chamaecyparis	pisifera	sawara cypress	8	Semi-mature	Medium (16 to 35')	15	Good		$1,465

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
899	Chamaecyparis	pisifera	sawara cypress	20	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$9,155
900	Gleditsia	triacanthos	honey locust	7	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$961
901	Gleditsia	triacanthos	honey locust	7	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$961
902	Gleditsia	triacanthos	honey locust	5	Semi-mature	Small (<15')	10	Good	2 Priority	$490
903	Gleditsia	triacanthos	honey locust	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$490
904	Gleditsia	triacanthos	honey locust	7	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$961
905	Gleditsia	triacanthos	honey locust	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$706
906	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$1,255
907	Quercus	palustris	pin oak	10	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$2,616
908	Tsuga	canadensis	Canadian (eastern) hemlock	6	Semi-mature	Medium (16 to 35')	10	Good		$706
909	Tsuga	canadensis	Canadian (eastern) hemlock	6	Semi-mature	Medium (16 to 35')	10	Good		$706
910	Picea	abies	Norway spruce	24	Mature	Large (>35')	15	Good		$15,066
911	Thuja	occidentalis	eastern white cedar	4	Semi-mature	Small (<15')	10	Good	1 Priority	$418
912	Pinus	strobus	eastern white pine	8	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$1,674
913	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	10	Good		$5,127

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
914	Pinus	strobus	eastern white pine	10	Semi-mature	Medium (16 to 35')	10	Good		$2,616
915	Pinus	strobus	eastern white pine	10	Semi-mature	Medium (16 to 35')	10	Good		$2,616
916	Pinus	strobus	eastern white pine	10	Semi-mature	Medium (16 to 35')	10	Good		$2,616
917	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	10	Good		$5,127
918	Picea	pungens	blue spruce	10	Semi-mature	Medium (16 to 35')	10	Good		$2,289
919	Pyrus	calleryana	callery pear	15	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$2,943
920	Pyrus	calleryana	callery pear	15	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,943
921	Acer	palmatum	Japanese maple	4	Semi-mature	Small (<15')	5	Good	2 Priority	$471
922	Tsuga	canadensis	Canadian (eastern) hemlock	8	Semi-mature	Small (<15')	10	Good		$1,255
923	Betula	papyrifera	white birch	12	Semi-mature	Medium (16 to 35')	15	Good		$3,296
924	Acer	platanoides	Norway maple	12	Semi-mature	Medium (16 to 35')	15	Good		$2,825
925	Cornus	florida	flowering dogwood	4	Semi-mature	Small (<15')	10	Good		$262
926	Cornus	kousa	kousa dogwood	4	Semi-mature	Small (<15')	10	Good		$366
927	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$471
928	Pyrus	calleryana	callery pear	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$471

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
929	Cornus	florida	flowering dogwood	5	Semi-mature	Small (<15')	10	Good		$409
930	Prunus	cerasifera	Purple Leaf Plum	6	Semi-mature	Medium (16 to 35')	10	Good	3 Priority	$706
931	Prunus	serrulata	Oriental cherry	5	Semi-mature	Small (<15')	10	Good		$613
932	Prunus	serrulata	Oriental cherry	10	Semi-mature	Medium (16 to 35')	15	Good		$2,452
933	Prunus	serrulata	Oriental cherry	12	Semi-mature	Medium (16 to 35')	15	Good		$3,531
934	Acer	platanoides	Norway maple	22	Semi-mature	Medium (16 to 35')	20	Good	1 Priority	$9,495
935	Acer	platanoides	Norway maple	17	Semi-mature	Medium (16 to 35')	20	Good		$5,669
936	Catalpa	speciosa	northern catalpa	40	Mature	Large (>35')	20	Poor	1 Priority	$12,306
937	Prunus	serrulata	Oriental cherry	4	Semi-mature	Small (<15')	10	Good		$392
938	Prunus	serrulata	Oriental cherry	4	Semi-mature	Small (<15')	10	Good		$392
939	Cedrus	atlantica	blue atlas cedar	7	Semi-mature	Small (<15')	10	Good		$1,442
940	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Small (<15')	10	Good		$572
941	Zelkova	serrata	Japanese zelkova	7	Semi-mature	Small (<15')	10	Good	1 Priority	$1,121
942	Zelkova	serrata	Japanese zelkova	6	Semi-mature	Small (<15')	10	Good		$824
943	Prunus	cerasifera	Purple Leaf Plum	4	Young	Small (<15')	5	Good		$314
944	Prunus	cerasifera	Purple Leaf	4	Young	Small (<15')	10	Good	1	$314

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
			Plum						Priority	
945	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Medium (16 to 35')	10	Good		$572
946	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
947	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Medium (16 to 35')	10	Good		$572
948	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
949	Acer	platanoides	Norway maple	5	Semi-mature	Medium (16 to 35')	10	Good		$490
950	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Medium (16 to 35')	10	Good		$572
951	Prunus	serrulata	Oriental cherry	5	Semi-mature	Small (<15')	10	Good		$613
952	Prunus	serrulata	Oriental cherry	5	Semi-mature	Small (<15')	10	Good		$613
953	Prunus	serrulata	Oriental cherry	5	Semi-mature	Small (<15')	10	Good		$613
954	Chamaecyparis	pisifera	sawara cypress	21	Mature	Large (>35')	15	Good	1 Priority	$10,093
955	Zelkova	serrata	Japanese zelkova	6	Semi-mature	Small (<15')	10	Good		$824
956	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good		$209
957	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good	1 Priority	$209
958	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good	1 Priority	$209
959	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good		$209

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
960	Magnolia	X soulangiana	saucer magnolia	8	Semi-mature	Medium (16 to 35')	15	Good		$1,465
961	Chamaecyparis	pisifera	sawara cypress	24	Semi-mature	Large (>35')	15	Good	1 Priority	$13,183
962	Chamaecyparis	pisifera	sawara cypress	16	Semi-mature	Large (>35')	15	Good	1 Priority	$5,859
963	Chamaecyparis	pisifera	sawara cypress	19	Semi-mature	Large (>35')	15	Good	1 Priority	$8,262
964	Chamaecyparis	pisifera	sawara cypress	8	Semi-mature	Small (<15')	10	Fair		$1,046
965	Thuja	occidentalis	eastern white cedar	8	Semi-mature	Medium (16 to 35')	10	Good		$1,674
966	Pinus	strobus	eastern white pine	14	Semi-mature	Large (>35')	15	Good	2 Priority	$5,127
967	Pinus	strobus	eastern white pine	20	Semi-mature	Large (>35')	15	Good		$10,462
968	Pinus	strobus	eastern white pine	18	Semi-mature	Large (>35')	15	Good		$8,475
969	Gleditsia	triacanthos	honey locust	12	Semi-mature	Medium (16 to 35')	15	Good		$2,825
970	Gleditsia	triacanthos	honey locust	14	Semi-mature	Medium (16 to 35')	15	Good		$3,845
971	Magnolia	X soulangiana	saucer magnolia	10	Semi-mature	Medium (16 to 35')	15	Good		$2,289
972	Morus	alba	white mulberry	5	Semi-mature	Small (<15')	10	Good	1 Priority	$327
973	Pinus	sylvestris	Scotch pine	14	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$4,486
974	Picea	abies	Norway spruce	4	Semi-mature	Small (<15')	10	Good		$418
975	Quercus	alba	white oak	28	Mature	Large (>35')	25	Fair	1	$16,478

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
									Priority	
976	Picea	pungens	blue spruce	7	Semi-mature	Medium (16 to 35')	10	Good		$1,121
977	Gleditsia	triacanthos	honey locust	12	Semi-mature	Large (>35')	15	Good		$2,825
978	Gleditsia	triacanthos	honey locust	14	Semi-mature	Large (>35')	15	Good		$3,845
979	Pinus	sylvestris	Scotch pine	12	Semi-mature	Medium (16 to 35')	15	Good		$3,296
980	Pinus	sylvestris	Scotch pine	12	Semi-mature	Medium (16 to 35')	15	Good		$3,296
981	Pinus	sylvestris	Scotch pine	16	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$5,859
982	Pinus	strobus	eastern white pine	15	Semi-mature	Medium (16 to 35')	15	Good		$5,885
983	Pinus	strobus	eastern white pine	19	Semi-mature	Large (>35')	15	Good		$9,442
984	Pinus	strobus	eastern white pine	17	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$7,559
985	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$5,127
986	Pinus	strobus	eastern white pine	12	Semi-mature	Medium (16 to 35')	15	Fair	3 Priority	$2,690
987	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	15	Fair	3 Priority	$3,662
988	Pinus	strobus	eastern white pine	16	Semi-mature	Medium (16 to 35')	15	Good		$6,696
989	Pinus	strobus	eastern white pine	12	Semi-mature	Medium (16 to 35')	15	Good		$3,766
990	Pinus	strobus	eastern white pine	12	Semi-mature	Medium (16 to 35')	15	Good		$3,766

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
991	Pinus	strobus	eastern white pine	14	Semi-mature	Medium (16 to 35')	15	Good		$5,127
992	Pinus	strobus	eastern white pine	10	Semi-mature	Medium (16 to 35')	15	Good		$2,616
993	Pinus	strobus	eastern white pine	10	Semi-mature	Medium (16 to 35')	15	Good		$2,616
994	Pinus	strobus	eastern white pine	13	Semi-mature	Medium (16 to 35')	15	Good		$4,420
995	Catalpa	speciosa	northern catalpa	24	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$8,071
996	Picea	pungens	blue spruce	18	Semi-mature	Medium (16 to 35')	15	Fair	2 Priority	$5,297
997	Acer	palmatum	Japanese maple	5	Semi-mature	Small (<15')	15	Good		$736
998	Acer	palmatum	Japanese maple	4	Semi-mature	Small (<15')	15	Good		$471
999	Quercus	alba	white oak	39	Mature	Large (>35')	25	Good		$41,465
1000	Quercus	alba	white oak	34	Mature	Large (>35')	25	Good		$33,060
1001	Aesculus	hippocastanum	horse chestnut	24	Semi-mature	Medium (16 to 35')	20	Good		$11,299
1002	Catalpa	speciosa	northern catalpa	18	Semi-mature	Large (>35')	15	Good	1 Priority	$6,356
1003	Quercus	rubra	northern red oak	21	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$9,269
1004	Quercus	rubra	northern red oak	21	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$9,269
1005	Pinus	strobus	eastern white pine	28	Semi-mature	Large (>35')	20	Good		$20,506
1006	Quercus	rubra	northern red oak	14	Semi-mature	Medium (16 to 35')	20	Fair	1 Priority	$4,120
1007	Pinus	strobus	eastern white	22	Semi-	Medium (16	20	Fair		$9,043

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
			pine		mature	to 35')				
1008	Pinus	nigra	Austrian pine	20	Semi-mature	Large (>35')	15	Good		$6,539
1009	Pinus	strobus	eastern white pine	28	Mature	Large (>35')	20	Good		$20,506
1010	Quercus	palustris	pin oak	5	Young	Small (<15')	10	Good	1 Priority	$654
1011	Cedrus	atlantica	blue atlas cedar	8	Semi-mature	Medium (16 to 35')	10	Good		$1,883
1012	Acer	rubrum	red maple	6	Semi-mature	Small (<15')	10	Good	1 Priority	$824
1013	Quercus	palustris	pin oak	18	Semi-mature	Large (>35')	15	Fair		$6,053
1014	Pinus	nigra	Austrian pine	22	Semi-mature	Large (>35')	15	Fair		$5,652
1015	Pinus	strobus	eastern white pine	21	Semi-mature	Large (>35')	15	Good		$11,535
1016	Pinus	strobus	eastern white pine	24	Semi-mature	Large (>35')	20	Good		$15,066
1017	Pinus	strobus	eastern white pine	21	Semi-mature	Large (>35')	20	Good		$11,535
1018	Picea	abies	Norway spruce	22	Semi-mature	Large (>35')	15	Good		$12,660
1019	Cedrus	atlantica	blue atlas cedar	10	Semi-mature	Medium (16 to 35')	15	Good		$2,943
1020	Cedrus	atlantica	blue atlas cedar	10	Semi-mature	Medium (16 to 35')	15	Good		$2,943
1021	Cedrus	atlantica	blue atlas cedar	9	Semi-mature	Medium (16 to 35')	15	Good		$2,383
1022	Pinus	strobus	eastern white pine	22	Semi-mature	Large (>35')	20	Good		$12,660

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1023	Pinus	strobus	eastern white pine	28	Mature	Large (>35')	20	Good		$20,506
1024	Pinus	strobus	eastern white pine	24	Semi-mature	Large (>35')	20	Good		$15,066
1025	Pinus	strobus	eastern white pine	26	Mature	Large (>35')	20	Good		$17,682
1026	Quercus	rubra	northern red oak	22	Semi-mature	Large (>35')	20	Good		$14,242
1027	Quercus	rubra	northern red oak	32	Mature	Large (>35')	20	Good		$29,522
1028	Zelkova	serrata	Japanese zelkova	6	Young	Small (<15')	10	Good		$824
1029	Pinus	strobus	eastern white pine	22	Semi-mature	Large (>35')	20	Good		$12,660
1030	Pinus	strobus	eastern white pine	32	Mature	Large (>35')	20	Good	1 Priority	$26,241
1031	Acer	rubrum	red maple	4	Young	Small (<15')	10	Good	2 Priority	$366
1032	Pinus	strobus	eastern white pine	16	Semi-mature	Large (>35')	15	Good		$6,696
1033	Pinus	strobus	eastern white pine	14	Semi-mature	Large (>35')	15	Good		$5,127
1034	Pinus	strobus	eastern white pine	12	Semi-mature	Medium (16 to 35')	15	Good		$3,766
1035	Pinus	strobus	eastern white pine	15	Semi-mature	Large (>35')	15	Good		$5,885
1036	Quercus	palustris	pin oak	3	Young	Small (<15')	5	Poor	3 Priority	$101
1037	Pinus	strobus	eastern white pine	18	Semi-mature	Large (>35')	15	Good		$8,475
1038	Pinus	strobus	eastern white	16	Semi-	Large (>35')	15	Good		$6,696

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
			pine		mature					
1039	Pinus	strobus	eastern white pine	24	Semi-mature	Large (>35')	20	Good		$15,066
1040	Pinus	strobus	eastern white pine	17	Semi-mature	Large (>35')	15	Good		$7,559
1041	Pinus	strobus	eastern white pine	22	Semi-mature	Large (>35')	15	Good		$12,660
1042	Liquidambar	styraciflua	sweetgum	32	Mature	Large (>35')	20	Good	1 Priority	$22,961
1043	Prunus	cerasifera	Purple Leaf Plum	4	Semi-mature	Small (<15')	10	Good	1 Priority	$314
1044	Prunus	cerasifera	Purple Leaf Plum	4	Semi-mature	Small (<15')	10	Good	1 Priority	$314
1045	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Small (<15')	10	Good		$572
1046	Prunus	cerasifera	Purple Leaf Plum	4	Semi-mature	Small (<15')	10	Good	2 Priority	$314
1047	Zelkova	serrata	Japanese zelkova	7	Semi-mature	Medium (16 to 35')	10	Good		$1,121
1048	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Small (<15')	10	Good		$572
1049	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Small (<15')	10	Good		$572
1050	Zelkova	serrata	Japanese zelkova	5	Semi-mature	Small (<15')	10	Fair		$409
1051	Zelkova	serrata	Japanese zelkova	6	Semi-mature	Small (<15')	10	Good		$824
1052	Quercus	palustris	pin oak	9	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,119
1053	Prunus	serrulata	Oriental cherry	4	Semi-mature	Small (<15')	10	Good	1 Priority	$392

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1054	Zelkova	serrata	Japanese zelkova	6	Semi-mature	Small (<15')	10	Good		$824
1055	Acer	platanoides	Norway maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$706
1056	Acer	platanoides	Norway maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$706
1057	Acer	platanoides	Norway maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$706
1058	Acer	platanoides	Norway maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$706
1059	Acer	platanoides	Norway maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$706
1060	Acer	platanoides	Norway maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$706
1061	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1062	Acer	rubrum	red maple	5	Semi-mature	Small (<15')	10	Good	1 Priority	$572
1063	Acer	rubrum	red maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$824
1064	Acer	rubrum	red maple	6	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$824
1065	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1066	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1067	Acer	rubrum	red maple	7	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$1,121
1068	Quercus	rubra	northern red oak	64	Mature	Large (>35')	35	Good		$74,072
1069	Tilia	cordata	littleleaf linden	10	Semi-	Medium (16	15	Good		$2,289

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')				
1070	Tilia	cordata	littleleaf linden	8	Semi-mature	Medium (16 to 35')	15	Good		$1,465
1071	Tilia	cordata	littleleaf linden	7	Semi-mature	Medium (16 to 35')	15	Good		$1,121
1072	Tilia	cordata	littleleaf linden	8	Semi-mature	Medium (16 to 35')	15	Good		$1,465
1073	Tilia	cordata	littleleaf linden	8	Semi-mature	Medium (16 to 35')	15	Good		$1,465
1074	Tilia	cordata	littleleaf linden	10	Semi-mature	Medium (16 to 35')	15	Good		$2,289
1075	Tilia	cordata	littleleaf linden	10	Semi-mature	Medium (16 to 35')	15	Good		$2,289
1076	Prunus	cerasifera	Purple Leaf Plum	6	Semi-mature	Small (<15')	10	Good	1 Priority	$706
1077	Prunus	cerasifera	Purple Leaf Plum	5	Semi-mature	Small (<15')	10	Good	1 Priority	$490
1078	Prunus	cerasifera	Purple Leaf Plum	5	Semi-mature	Small (<15')	10	Good	1 Priority	$490
1079	Prunus	cerasifera	Purple Leaf Plum	7	Semi-mature	Small (<15')	10	Good	1 Priority	$961
1080	Prunus	cerasifera	Purple Leaf Plum	6	Semi-mature	Small (<15')	10	Good	1 Priority	$706
1081	Prunus	cerasifera	Purple Leaf Plum	5	Semi-mature	Small (<15')	10	Good	1 Priority	$490
1082	Prunus	cerasifera	Purple Leaf Plum	6	Semi-mature	Small (<15')	10	Good	1 Priority	$706
1083	Prunus	cerasifera	Purple Leaf Plum	6	Semi-mature	Small (<15')	10	Good	1 Priority	$706
1084	Acer	rubrum	red maple	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1085	Prunus	serrulata	Oriental cherry	6	Semi-mature	Small (<15')	10	Good		$883
1086	Prunus	serrulata	Oriental cherry	6	Semi-mature	Small (<15')	10	Good		$883
1087	Prunus	serrulata	Oriental cherry	8	Semi-mature	Small (<15')	10	Good		$1,569
1088	Ulmus	americana	American elm	7	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$641
1089	Ulmus	americana	American elm	6	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$471
1090	Ulmus	americana	American elm	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$837
1091	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good	1 Priority	$209
1092	Ulmus	americana	American elm	9	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,059
1093	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good	2 Priority	$209
1094	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good		$209
1095	Ulmus	americana	American elm	9	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,059
1096	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good		$209
1097	Ulmus	americana	American elm	6	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$471
1098	Quercus	alba	white oak	42	Mature	Large (>35')	30	Good		$46,206
1099	Pinus	strobus	eastern white pine	30	Mature	Large (>35')	20	Good		$23,541
1100	Picea	glauca	white spruce	8	Semi-mature	Medium (16 to 35')	10	Good		$1,465

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1101	Picea	glauca	white spruce	6	Semi-mature	Small (<15')	10	Good		$824
1102	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1103	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1104	Picea	glauca	white spruce	9	Semi-mature	Medium (16 to 35')	10	Good		$1,854
1105	Picea	glauca	white spruce	7	Semi-mature	Small (<15')	10	Good		$1,121
1106	Picea	glauca	white spruce	8	Semi-mature	Small (<15')	10	Good		$1,465
1107	Pinus	strobus	eastern white pine	48	Mature	Large (>35')	25	Good		$48,899
1108	Picea	abies	Norway spruce	34	Mature	Large (>35')	20	Good		$29,386
1109	Quercus	rubra	northern red oak	20	Semi-mature	Large (>35')	20	Fair		$8,407
1110	Quercus	rubra	northern red oak	18	Semi-mature	Large (>35')	20	Fair		$6,810
1111	Tilia	cordata	littleleaf linden	12	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$3,296
1112	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1113	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1114	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1115	Pinus	strobus	eastern white pine	32	Mature	Large (>35')	20	Fair	3 Priority	$18,744
1116	Pinus	strobus	eastern white pine	26	Mature	Large (>35')	20	Good		$17,682

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1117	Pinus	strobus	eastern white pine	22	Semi-mature	Large (>35')	20	Good		$12,660
1118	Quercus	rubra	northern red oak	9	Semi-mature	Medium (16 to 35')	15	Fair	3 Priority	$1,702
1119	Malus	floribunda	crabapple	3	Semi-mature	Small (<15')	10	Good	1 Priority	$118
1120	Malus	floribunda	crabapple	3	Semi-mature	Small (<15')	10	Good	1 Priority	$118
1121	Tilia	cordata	littleleaf linden	11	Semi-mature	Medium (16 to 35')	15	Good		$2,769
1122	Tilia	cordata	littleleaf linden	6	Semi-mature	Medium (16 to 35')	10	Good		$824
1123	Tilia	cordata	littleleaf linden	11	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,769
1124	Tilia	cordata	littleleaf linden	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,289
1125	Tilia	cordata	littleleaf linden	10	Semi-mature	Medium (16 to 35')	15	Good		$2,289
1126	Tilia	cordata	littleleaf linden	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$2,289
1127	Tilia	cordata	littleleaf linden	8	Semi-mature	Medium (16 to 35')	15	Good		$1,465
1128	Tilia	cordata	littleleaf linden	9	Semi-mature	Medium (16 to 35')	15	Good		$1,854
1129	Quercus	velutina	black oak	56	Mature	Large (>35')	30	Fair		$46,675
1130	Fraxinus	americana	white ash	6	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$589
1131	Fraxinus	americana	white ash	7	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$801
1132	Fraxinus	americana	white ash	7	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$801

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1133	Magnolia	X soulangiana	saucer magnolia	4	Semi-mature	Small (<15')	10	Good		$366
1134	Fraxinus	americana	white ash	7	Semi-mature	Medium (16 to 35')	15	Good	3 Priority	$801
1135	Tsuga	canadensis	Canadian (eastern) hemlock	28	Mature	Medium (16 to 35')	20	Good		$15,380
1136	Tilia	cordata	littleleaf linden	12	Semi-mature	Medium (16 to 35')	15	Good		$3,296
1137	Zelkova	serrata	Japanese zelkova	11	Semi-mature	Medium (16 to 35')	15	Good		$2,769
1138	Picea	pungens	blue spruce	17	Semi-mature	Large (>35')	15	Good		$6,614
1139	Cornus	kousa	kousa dogwood	4	Semi-mature	Small (<15')	5	Good	2 Priority	$366
1140	Cornus	kousa	kousa dogwood	4	Semi-mature	Small (<15')	5	Good		$366
1141	Cornus	kousa	kousa dogwood	4	Semi-mature	Small (<15')	5	Good	2 Priority	$366
1142	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1143	Acer	rubrum	red maple	4	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$366
1144	Acer	rubrum	red maple	5	Semi-mature	Medium (16 to 35')	10	Good	1 Priority	$572
1145	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	6	Semi-mature	Small (<15')	10	Good	1 Priority	$883
1146	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	6	Semi-mature	Small (<15')	10	Good	3 Priority	$883
1147	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	7	Semi-mature	Small (<15')	10	Good	3 Priority	$1,202

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1148	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	7	Semi-mature	Small (<15')	10	Good	3 Priority	$1,202
1149	Prunus	subhirtella 'Pendula'	Weeping Higan Cherry	5	Semi-mature	Small (<15')	10	Good	3 Priority	$613
1150	Zelkova	serrata	Japanese zelkova	10	Semi-mature	Medium (16 to 35')	10	Good		$2,289
1151	Zelkova	serrata	Japanese zelkova	9	Semi-mature	Medium (16 to 35')	10	Good		$1,854
1152	Zelkova	serrata	Japanese zelkova	10	Semi-mature	Medium (16 to 35')	10	Good		$2,289
1153	Zelkova	serrata	Japanese zelkova	10	Semi-mature	Medium (16 to 35')	10	Good		$2,289
1154	Betula	papyrifera	white birch	6	Semi-mature	Medium (16 to 35')	15	Good		$824
1155	Betula	papyrifera	white birch	6	Semi-mature	Medium (16 to 35')	15	Good		$824
1156	Betula	papyrifera	white birch	6	Semi-mature	Medium (16 to 35')	15	Good		$824
1157	Gleditsia	triacanthos	honey locust	9	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,589
1158	Gleditsia	triacanthos	honey locust	8	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,255
1159	Gleditsia	triacanthos	honey locust	9	Semi-mature	Medium (16 to 35')	15	Good		$1,589
1160	Gleditsia	triacanthos	honey locust	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,255
1161	Quercus	robur	English oak	14	Semi-mature	Medium (16 to 35')	10	Good		$5,127
1162	Quercus	rubra	northern red oak	26	Mature	Large (>35')	20	Good		$19,892
1163	Fraxinus	americana	white ash	7	Semi-	Medium (16	10	Good	1	$801

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
					mature	to 35')			Priority	
1164	Acer	platanoides	Norway maple	10	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,962
1165	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,255
1166	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,255
1167	Quercus	rubra	northern red oak	12	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$4,237
1168	Gleditsia	triacanthos	honey locust	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,255
1169	Prunus	cerasifera	Purple Leaf Plum	6	Semi-mature	Medium (16 to 35')	10	Good	2 Priority	$706
1170	Gleditsia	triacanthos	honey locust	10	Semi-mature	Medium (16 to 35')	15	Good	2 Priority	$1,962
1171	Gleditsia	triacanthos	honey locust	8	Semi-mature	Medium (16 to 35')	15	Good	1 Priority	$1,255
1172	Zelkova	serrata	Japanese zelkova	15	Semi-mature	Medium (16 to 35')	15	Good		$5,150
1173	Zelkova	serrata	Japanese zelkova	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
1174	Malus	floribunda	crabapple	4	Semi-mature	Medium (16 to 35')	10	Fair		$149
1175	Zelkova	serrata	Japanese zelkova	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
1176	Zelkova	serrata	Japanese zelkova	16	Semi-mature	Medium (16 to 35')	15	Good		$5,859
1177	Zelkova	serrata	Japanese zelkova	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486
1178	Zelkova	serrata	Japanese zelkova	14	Semi-mature	Medium (16 to 35')	15	Good		$4,486

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
1179	Liriodendron	tulipifera	yellow-poplar	17	Semi-mature	Large (>35')	15	Good		$6,614
1180	Acer	saccharinum	silver maple	32	Mature	Large (>35')	25	Fair	1 Priority	$11,715
1181	Acer	platanoides	Norway maple	16	Semi-mature	Large (>35')	20	Good		$5,022
1182	Acer	platanoides	Norway maple	20	Semi-mature	Large (>35')	15	Fair		$5,605
1183	Prunus	serrulata	Oriental cherry	12	Semi-mature	Small (<15')	15	Good	2 Priority	$3,531
1184	Acer	platanoides	Norway maple	19	Semi-mature	Large (>35')	15	Fair		$5,058
1185	Prunus	serrulata	Oriental cherry	10	Semi-mature	Large (>35')	15	Good	2 Priority	$2,452
1186	Acer	saccharinum	silver maple	32	Mature	Large (>35')	20	Fair	1 Priority	$11,715
1187	Prunus	serrulata	Oriental cherry	10	Semi-mature	Small (<15')	15	Good	2 Priority	$2,452
1188	Prunus	serrulata	Oriental cherry	10	Semi-mature	Medium (16 to 35')	10	Fair	1 Priority	$1,752
1189	Malus	floribunda	crabapple	4	Semi-mature	Small (<15')	10	Good	1 Priority	$209
1190	Quercus	rubra	northern red oak	25	Semi-mature	Large (>35')	20	Good	2 Priority	$18,391
1191	Acer	platanoides	Norway maple	8	Semi-mature	Medium (16 to 35')	15	Good		$1,255
1192	Acer	platanoides	Norway maple	7	Semi-mature	Medium (16 to 35')	15	Good		$961
1193	Quercus	rubra	northern red oak	22	Semi-mature	Large (>35')	20	Good		$14,242
1194	Acer	saccharinum	silver maple	29	Mature	Large (>35')	25	Good	3	$13,748

Tag #	Genus	Species	Common	DBH	Age Class	Height	Canopy Radius	Condition	GTW Priority	Estimated Value
									Priority	
1195	Quercus	rubra	northern red oak	40	Mature	Large (>35')	25	Good	2 Priority	$43,070
1196	Quercus	rubra	northern red oak	22	Semi-mature	Large (>35')	20	Good		$14,242
1197	Quercus	rubra	northern red oak	22	Semi-mature	Large (>35')	20	Good		$14,242
1198	Catalpa	speciosa	northern catalpa	30	Mature	Large (>35')	20	Fair	1 Priority	$12,611
1199	Tsuga	canadensis	Canadian (eastern) hemlock	24	Mature	Large (>35')	15	Good		$11,299
1200	Pinus	nigra	Austrian pine	20	Semi-mature	Large (>35')	15	Fair		$4,671
1201	Quercus	alba	white oak	30	Mature	Large (>35')	20	Fair		$18,917
1202	Quercus	alba	white oak	42	Mature	Large (>35')	20	Fair	3 Priority	$33,004
1203	Quercus	alba	white oak	34	Mature	Large (>35')	20	Fair	1 Priority	$23,614
1204	Quercus	rubra	northern red oak	20	Semi-mature	Large (>35')	20	Fair	1 Priority	$8,407
1205	Quercus	rubra	northern red oak	20	Semi-mature	Large (>35')	20	Fair	1 Priority	$8,407

List of Appended Items Follows

LIST OF APPENDED ITEMS

Technical Reports

ANSI A300 (Part 1) – *2008* Pruning
Bacterial Leaf Scorch
Girdling Roots
Maintenance Pruning Program
Monitor IPM Program
Mulch Application Guidelines
Root Collar Disorders
Tree Structure Evaluation

Glossary

American National Standard

for Tree Care Operations —
Tree, Shrub, and Other Woody Plant Management — Standard Practices (Pruning)

ANSI A300 (Part 1)-2008 Pruning
Revision of ANSI A300 (Part 1)-2001

TCIA®
VOICE OF TREE CARE

Approved American National Standard
ANSI

ANSI®
A300 (Part 1)-2008

for Tree Care Operations —

Tree, Shrub, and Other Woody Plant Management — Standard Practices *(Pruning)*

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Contents

* The term pruning type is replaced with the term pruning method. The purpose of this is to label the processes detailed in section 6 with greater accuracy.

Foreword This foreword is not part of American National Standard A300 (Part 1)-2008 *Pruning*

ANSI A300 Standards are divided into multiple parts, each focusing on a specific aspect of woody plant management (e.g. Pruning, Fertilization, etc).

These standards are used to develop written specifications for work assignments. They are not intended to be used as specifications in and of themselves. Management objectives may differ considerably and therefore must be specifically defined by the user. Specifications are then written to meet the established objectives and must include measurable criteria.

ANSI A300 standards apply to professionals who provide for or supervise the management of trees, shrubs, and other woody landscape plants. Intended users include businesses, government agencies, property owners, property managers, and utilities. The standard does not apply to agriculture, horticultural production, or silviculture, except where explicitly noted otherwise.

This standard has been developed by the Tree Care Industry Association (TCIA), an ANSI-accredited Standards Developing Organization (SDO). TCIA is secretariat of the ANSI A300 standards, and develops standards using procedures accredited by the American National Standards Institute (ANSI).

Consensus for standards writing was developed by the Accredited Standards Committee on Tree, Shrub, and Other Woody Plant Management Operations – Standard Practices, A300 (ASC A300).

Prior to 1991, various industry associations and practitioners developed their own standards and recommendations for tree care practices. Recognizing the need for a standardized, scientific approach, green industry associations, government agencies and tree care companies agreed to develop consensus for an official American National Standard.

The result – ANSI A300 standards – unify and take authoritative precedence over all previously existing tree care industry standards. ANSI requires that approved standards be developed according to accepted principles, and that they be reviewed and, if necessary, revised every five years.

TCIA was accredited as a standards developing organization with ASC A300 as the consensus body on June 28, 1991. ASC A300 meets regularly to write new, and review and revise existing ANSI A300 standards. The committee includes industry representatives with broad knowledge and technical expertise from residential and commercial tree care, utility, municipal and federal sectors, landscape and nursery industries, and other interested organizations.

Suggestions for improvement of this standard should be forwarded to: A300 Secretary, c/o Tree Care Industry Association, Inc., 136 Harvey Road - Suite B101-B110, Londonderry, NH, 03053.

ANSI A300 (Part 1)-2008 Pruning was approved as an American National Standard by ANSI on May 1, 2008. ANSI approval does not require unanimous approval by ASC A300. The ASC A300 committee contained the following members at the time of ANSI approval:

Tim Johnson, Chair
(Artistic Arborist, Inc.)

Bob Rouse, Secretary
(Tree Care Industry Association, Inc.)

(Continued)

Organizations Represented	*Name of Representative*
American Nursery and Landscape Association	Warren Quinn
	Craig J. Regelbrugge (Alt.)
American Society of Consulting Arborists	Donald Zimar
American Society of Landscape Architects	Ron Leighton
Asplundh Tree Expert Company	Geoff Kempter
	Peter Fengler (Alt.)
Bartlett Tree Expert Company	Peter Becker
	Dr. Thomas Smiley (Alt.)
Davey Tree Expert Company	Joseph Tommasi
	R.J. Laverne (Alt.)
International Society of Arboriculture	Bruce Hagen
	Sharon Lilly (Alt.)
National Park Service	Robert DeFeo
	Dr. James Sherald (Alt.)
Professional Grounds Management Society	Thomas Shaner
Professional Land Care Network	Preston Leyshon
Society of Municipal Arborists	Gordon Mann
	Andy Hillman (Alt.)
Tree Care Industry Association	Dane Buell
	James McGuire (Alt.)
USDA Forest Service	Ed Macie
	Keith Cline (Alt.)
Utility Arborist Association	Matthew Simons
	Jeffrey Smith (Alt.)

Additional organizations and individuals:

American Forests (Observer)
Mike Galvin (Observer)
Peter Gerstenberger (Observer)
Dick Jones (Observer)
Myron Laible (Observer)
Beth Palys (Observer)
Richard Rathjens (Observer)
Richard Roux (NFPA-780 Liaison)

ASC A300 mission statement:

Mission: To develop consensus performance standards based on current research and sound practice for writing specifications to manage trees, shrubs, and other woody plants.

American National Standard
for Tree Care Operations –

Tree, Shrub, and Other Woody Plant Management – Standard Practices *(Pruning)*

1 ANSI A300 standards

1.1 Scope

ANSI A300 standards present performance standards for the care and management of trees, shrubs, and other woody plants.

1.2 Purpose

ANSI A300 performance standards are intended for use by federal, state, municipal and private entities including arborists, property owners, property managers, and utilities for developing written specifications.

1.3 Application

ANSI A300 performance standards shall apply to any person or entity engaged in the management of trees, shrubs, or other woody plants.

2 Part 1 – Pruning standards

2.1 Purpose

The purpose of Part 1 – *Pruning* is to provide performance standards for developing written specifications for pruning.

2.2 Reasons for pruning

The reasons for tree pruning may include, but are not limited to, reducing risk, managing tree health and structure, improving aesthetics, or achieving other specific objectives. Pruning practices for agricultural, horticultural production, or silvicultural purposes are exempt from this standard unless this standard, or a portion thereof, is expressly referenced in standards for these other related areas.

2.3 Implementation

2.3.1 Specifications for pruning should be written and administered by an arborist.

2.3.1.1 Specifications should include location of tree(s), objectives, methods (types), and extent of pruning (location, percentage, part size, etc).

2.3.2 Pruning specifications shall be adhered to.

2.4 Safety

2.4.1 Pruning shall be implemented by an arborist, familiar with the practices and hazards of pruning and the equipment used in such operations.

2.4.2 This performance standard shall not take precedence over applicable industry safe work practices.

2.4.3 Performance shall comply with applicable Federal and State Occupational Safety and Health standards, ANSI Z133.1, Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and other Federal Environmental Protection Agency (EPA) regulations, as well as state and local regulations.

3 Normative references

The following standards contain provisions, which, through reference in the text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard shall apply the most recent edition of the standards indicated below.

ANSI Z60.1, Nursery stock
ANSI Z133.1, Arboriculture – Safety requirements
29 CFR 1910, General industry [1)]
29 CFR 1910.268, Telecommunications [1)]
29 CFR 1910.269, Electric power generation, transmission, and distribution [1)]
29 CFR 1910.331 - 335, Electrical safety-related work practices [1)]

4 Definitions

4.1 arboriculture: The art, science, technology, and business of commercial, public, and utility tree care.

1) Available from U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210

4.2 arborist: An individual engaged in the profession of arboriculture who, through experience, education, and related training, possesses the competence to provide for or supervise the management of trees and other woody plants.

4.3 arborist trainee: An individual undergoing on-the-job training to obtain the experience and the competence required to provide for or supervise the management of trees and other woody plants. Such trainees shall be under the direct supervision of an arborist.

4.4 branch: A shoot or stem growing from a parent branch or stem (See Fig. 4.4).

4.4.1 codominant branches/codominant leaders: Branches or stems arising from a common junction, having nearly the same size diameter (See Fig. 4.4).

4.4.2 lateral branch: A shoot or stem growing from another branch (See Fig. 4.4).

4.4.3 parent branch or stem: A tree trunk or branch from which other branches or shoots grow (See Fig. 4.4).

4.4.4 scaffold branch: A primary branch that forms part of the main structure of the crown (See Fig. 4.4).

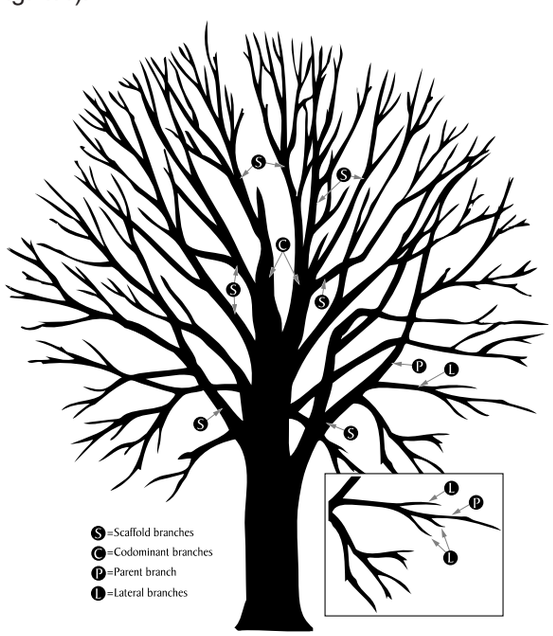


Figure 4.4 Standard branch definitions.

4.5 branch bark ridge: The raised area of bark in the branch crotch that marks where the branch and parent stem meet. (See Figs. 5.3.2 and 5.3.3).

4.6 branch collar: The swollen area at the base of a branch.

4.7 callus: Undifferentiated tissue formed by the cambium around a wound.

4.8 cambium: The dividing layer of cells that forms sapwood (xylem) to the inside and inner bark (phloem) to the outside.

4.9 clean: Selective pruning to remove one or more of the following non-beneficial parts: dead, diseased, and/or broken branches (7.2).

4.10 climbing spurs: Sharp, pointed devices strapped to a climber's lower legs used to assist in climbing trees. (syn.: gaffs, hooks, spurs, spikes, climbers)

4.11 closure: The process in a woody plant by which woundwood grows over a pruning cut or injury.

4.12 crown: Upper part of a tree, measured from the lowest branch, including all the branches and foliage**.**

4.13 decay: The degradation of woody tissue caused by microorganisms.

4.14 espalier: The combination of pruning, supporting, and training branches to orient a plant in one plane (6.5).

4.15 establishment: The point after planting when a tree's root system has grown sufficiently into the surrounding soil to support growth and anchor the tree.

4.16 facility: A structure or equipment used to deliver or provide protection for the delivery of an essential service, such as electricity or communications.

4.17 frond: A leaf structure of a palm.

4.18 heading: The reduction of a shoot, stem, or branch back to a bud or to a lateral branch not large enough to assume the terminal role.

4.19 interfering branches: Crossing, rubbing, or upright branches that have the potential to damage tree structure and/or health.

4.20 internode: The area between lateral branches or buds.

4.21 job briefing: The communication of at least the following subjects for arboricultural operations: work specifications, hazards associated with the job, work procedures involved, special precautions, electrical hazards, job assignments, and personal protective equipment.

4.22 leader: A dominant, typically upright, stem – usually the main trunk. There can be several leaders in one tree.

4.23 lion's tailing: The removal of an excessive number of inner and/or lower lateral branches from parent branches. Lion's tailing is not an acceptable pruning practice (6.1.7).

4.24 live crown ratio: Crown height relative to overall plant height.

4.25 mechanical pruning: A pruning technique where large-scale power equipment is used to cut back branches (9.3.2).

4.26 method: A procedure or process for achieving an objective.

4.27 peeling: The removal of dead frond bases without damaging living trunk tissue at the point they make contact with the trunk. (syn.: shaving)

4.28 petiole: A stalk of a leaf or frond.

4.29 pollarding: Pruning method in which tree branches are initially headed and then reduced on a regular basis without disturbing the callus knob (6.6).

4.30 pruning: The selective removal of plant parts to meet specific goals and objectives.

4.31 qualified line-clearance arborist: An individual who, through related training and on-the-job experience, is familiar with the equipment and hazards in line clearance and has demonstrated the ability to perform the special techniques involved. This individual may or may not be currently employed by a line-clearance contractor.

4.32 qualified line-clearance arborist trainee: An individual undergoing line-clearance training under the direct supervision of a qualified line-clearance arborist. In the course of such training, the trainee becomes familiar with the equipment and hazards in line clearance and demonstrates ability in the performance of the special techniques involved.

4.33 raise: Pruning to provide vertical clearance (7.3).

4.34 reduce: Pruning to decrease height and/or spread (7.4).

4.35 remote area: As used in the utility pruning section of this standard, an unpopulated area.

4.36 restoration: Pruning to redevelop structure, form, and appearance of topped or damaged trees (6.3).

4.37 rural area: As used in the utility pruning section of this standard, a sparsely populated place away from large cities, suburbs, or towns but distinct from remote areas.

4.38 shall: As used in this standard, denotes a mandatory requirement.

4.39 shoot: Stem or branch and its leaves, especially when young.

4.40 should: As used in this standard, denotes an advisory recommendation.

4.41 specifications: A document stating a detailed, measurable plan or proposal for provision of a product or service.

4.42 sprouts: New shoots originating from epicormic or adventitious buds, not to be confused with suckers. (syn.: watersprouts, epicormic shoots)

4.43 standard, ANSI A300: The performance parameters established by industry consensus as a rule for the measure of extent, quality, quantity, value or weight used to write specifications.

4.44 stem: A woody structure bearing buds, foliage, and giving rise to other stems.

4.45 structural pruning: Pruning to improve branch architecture (6.2).

4.46 stub: Portion of a branch or stem remaining after an internodal cut or branch breakage.

4.47 subordination: Pruning to reduce the size and ensuing growth rate of a branch or leader in relation to other branches or leaders.

4.48 sucker: Shoot arising from the roots.

4.49 thin: pruning to reduce density of live branches (7.5).

4.50 throw line: A small, lightweight line with a weighted end used to position a climber's rope in a tree.

4.51 topping: Reduction of tree size using internodal cuts without regard to tree health or structural integrity. Topping is not an acceptable pruning practice (6.1.7).

4.52 tracing: The removal of loose, damaged tissue from in and around the wound.

4.53 trunk: The main woody part of a tree beginning at and including the trunk flare and extending up into the crown from which scaffold branches grow.

4.54 trunk flare: 1. The area at the base of the plant's trunk where it broadens to form roots. 2. The area of transition between the root system and trunk (syn.: root flare).

4.55 urban/residential areas: Populated areas including public and private property that are normally associated with human activity.

4.56 utility: A public or private entity that delivers a public service, such as electricity or communications.

4.57 utility space: The physical area occupied by a utility's facilities and the additional space required to ensure its operation.

4.58 vista/view prune: Pruning to enhance a specific view without jeopardizing the health of the tree (6.4).

4.59 wound: An opening that is created when the bark of a live branch or stem is cut, penetrated, damaged, or removed.

4.60 woundwood: Partially differentiated tissue responsible for closing wounds. Woundwood develops from callus associated with wounds.

5 Pruning practices

5.1 Tree inspection

5.1.1 An arborist or arborist trainee shall visually inspect each tree before beginning work.

5.1.2 If a condition is observed requiring attention beyond the original scope of the work, the condition should be reported to an immediate supervisor, the owner, or the person responsible for authorizing the work.

5.1.3 Job briefings shall be performed as outlined in ANSI Z133.1, subclause 3.1.4.

5.2 Tools and equipment

5.2.1 Equipment, tools, and work practices that damage living tissue and bark beyond the scope of normal work practices shall be avoided.

5.2.2 Climbing spurs shall not be used when entering and climbing trees for the purpose of pruning.

Exceptions:
- when branches are more than throw-line distance apart and there is no other means of climbing the tree;
- when the outer bark is thick enough to prevent damage to the inner bark and cambium;
- in remote or rural utility rights-of-way.

5.3 Pruning cuts

5.3.1 Pruning tools used in making pruning cuts shall be sharp.

5.3.2 A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent branch without cutting into the branch bark ridge or branch collar or leaving a stub (see Figure 5.3.2).

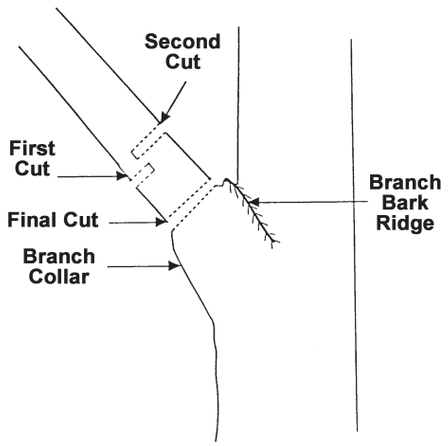


Figure 5.3.2. A cut that removes a branch at its point of origin. (See Annex A – Pruning cut guideline).

5.3.3 A pruning cut that reduces the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and not damage the remaining stem. Smaller cuts shall be preferred (see Fig. 5.3.3).

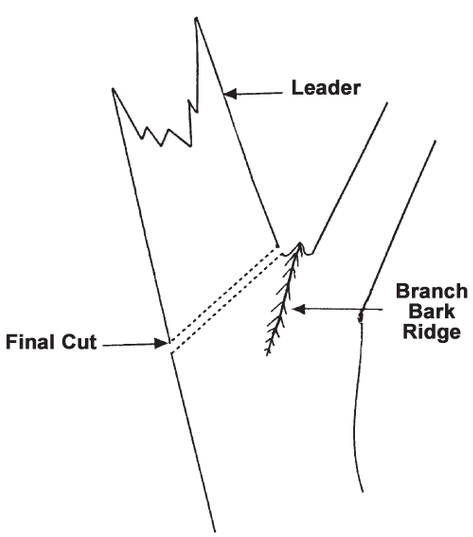


Figure 5.3.3. A cut that reduces the length of a branch or parent stem.

5.3.4 When pruning to a lateral, the remaining lateral branch should be large enough to assume the terminal role.

5.3.5 The final cut should result in a flat surface with adjacent bark firmly attached.

5.3.6 When removing a dead branch, the final cut shall be made just outside the collar of living tissue.

5.3.7 Tree branches shall be removed in such a manner so as to avoid damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be precut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.

5.3.8 A cut that removes a branch with a narrow angle of attachment should be made from the outside of the branch to prevent damage to the parent branch (see Figure 5.3.8).

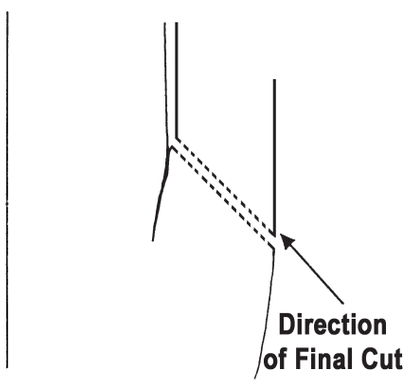


Figure 5.3.8. A cut that removes a branch with a narrow angle of attachment.

5.3.9 Severed branches shall be removed from the crown upon completion of the pruning, at times when the tree would be left unattended, or at the end of the workday.

5.4 Wound treatment

5.4.1 Wound treatments shall not be used to cover wounds or pruning cuts, except when necessary for disease, insect, mistletoe, or sprout control, or for cosmetic reasons.

5.4.2 Wound treatments that are damaging to tree tissues shall not be used.

5.4.3 When tracing wounds, only loose, damaged tissue shall be removed.

6 Pruning objectives

6.1 Pruning objectives shall be established prior to beginning any pruning operation.

6.1.1 Objectives should include, but are not limited to, one or more of the following:

- Risk reduction
- Manage health
- Clearance
- Structural improvement/correction
- View improvement/creation
- Aesthetic improvement
- Restoration

6.1.2 Established objectives should be specified in writing (See Annex B – *Specification writing guideline*).

6.1.3 To obtain the defined objective, the growth cycles, structure, species, and the extent of pruning to be performed shall be considered.

6.1.4 Not more than 25 percent of the foliage should be removed within an annual growing season. The percentage and distribution of foliage to be removed shall be adjusted according to the plant's species, age, health, and site.

6.1.5 When frequent excessive pruning is necessary for a tree to avoid conflicts with elements such as infrastructure, view, traffic, or utilities, removal or relocation of the tree shall be considered.

6.1.6 Pruning cuts should be made in accordance with section 5.3 *Pruning cuts*.

6.1.7 Topping and lion's tailing shall be considered unacceptable pruning practices for trees.

6.2 Structural: Structural pruning shall consist of selective pruning to improve tree and branch architecture primarily on young- and medium-aged trees.

6.2.1 Size and location of leaders or branches to be subordinated or removed should be specified.

6.2.2 Dominant leader(s) should be selected for development as appropriate.

6.2.3 Strong, properly spaced scaffold branch structure should be selected and maintained by reducing or removing others.

6.2.4 Temporary branches should be retained or reduced as appropriate.

6.2.5 Interfering, overextended, defective, weak, and poorly attached branches should be removed or reduced.

6.2.6 At planting, pruning should be limited to cleaning (7.2).

6.3 Restoration: Restoration shall consist of selective pruning to redevelop structure, form, and appearance of severely pruned, vandalized, or damaged trees.

6.3.1 Location in tree, size range of parts, and percentage of sprouts to be removed should be specified.

6.4 Vista/view: Vista/view pruning shall consist of the use of one or more pruning methods (types) to enhance a specific line of sight.

6.4.1 Pruning methods (types) shall be specified.

6.4.2 Size range of parts, location in tree, and percentage of foliage to be removed should be specified.

6.5 Espalier

6.5.1 Branches that extend outside the desired plane of growth shall be pruned or tied back.

6.5.2 Ties should be replaced as needed to prevent girdling the branches at the attachment site.

6.6 Pollarding

6.6.1 Consideration shall be given to the ability of the individual tree to respond to pollarding.

6.6.2 Management plans shall be made prior to the start of the pollarding process for routine removal of sprouts.

6.6.3 Heading cuts shall be made at specific locations to start the pollarding process. After the initial cuts are made, no additional heading cuts shall be made.

6.6.4 Sprouts growing from the cut ends of branches (knuckles) should be removed annually during the dormant season.

7 Pruning methods (types)

7.1 One or more of the following methods (types) shall be specified to achieve the objective.

7.2 Clean: Cleaning shall consist of pruning to remove one or more of the following non-beneficial parts: dead, diseased, and/or broken branches.

7.2.1 Location of parts to be removed shall be specified.

7.2.2 Size range of parts to be removed shall be specified.

7.3 Raise: Raising shall consist of pruning to provide vertical clearance.

7.3.1 Clearance distance shall be specified.

7.3.2 Location and size range of parts to be removed should be specified.

7.3.3 Live crown ratio should not be reduced to less than 50 percent.

7.4 Reduce: Reducing shall consist of pruning to decrease height and/or spread.

7.4.1 Consideration shall be given to the ability of a species to tolerate this type of pruning.

7.4.2 Location of parts to be removed or clearance requirements shall be specified.

7.4.3 Size of parts should be specified.

7.5 Thin: Thinning shall consist of selective pruning to reduce density of live branches.

7.5.1 Thinning should result in an even distribution of branches on individual branches and throughout the crown.

7.5.2 Not more than 25 percent of the crown should be removed within an annual growing season.

7.5.3 Location of parts to be removed shall be specified.

7.5.4 Percentage of foliage and size range of parts to be removed shall be specified.

8 Palm pruning

8.1 Palm pruning should be performed when fronds, fruit, or loose petioles may create a dangerous condition.

8.2 Live healthy fronds should not be removed.

8.3 Live, healthy fronds above horizontal shall not be removed. Exception: Palms encroaching on electric supply lines (see Fig. 8.3a and 8.3b).

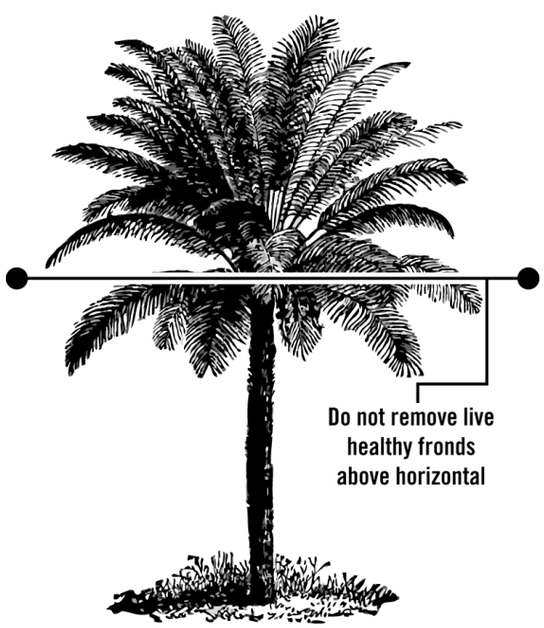


Figure 8.3a Frond removal location.

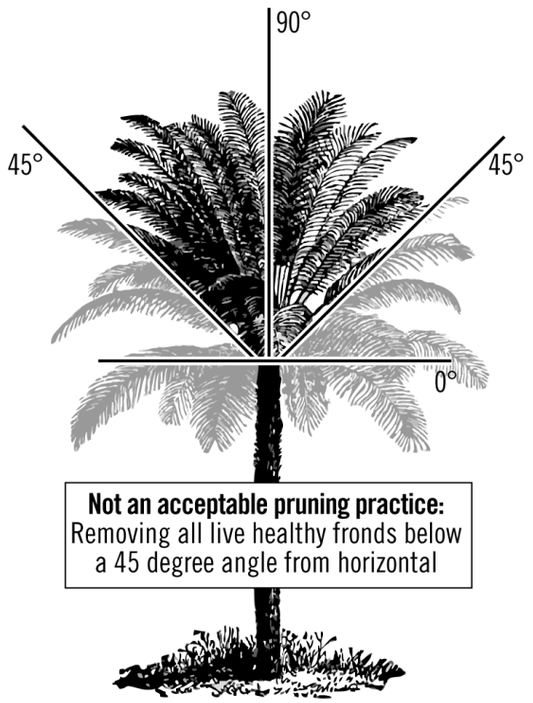


Figure 8.3b An overpruned palm (not an acceptable pruning practice).

8.4 Fronds removed should be severed close to the petiole base without damaging living trunk tissue.

8.5 Palm peeling (shaving) should consist of the removal of only the dead frond bases at the point they make contact with the trunk without damaging living trunk tissue.

9 Utility pruning

9.1 Purpose

The purpose of utility pruning is to prevent the loss of service, comply with mandated clearance laws, prevent damage to equipment, maintain access, and uphold the intended usage of the facility/utility space while adhering to accepted tree care performance standards.

9.2 General

9.2.1 Only a qualified line-clearance arborist or line-clearance arborist trainee shall be assigned to line clearance work in accordance with ANSI Z133.1, 29 CFR 1910.331 – 335, 29 CFR 1910.268 or 29 CFR 1910.269.

9.2.2 Utility pruning operations are exempt from requirements in subclause 5.1, *Tree Inspection*, for conditions outside the utility pruning scope of work.

9.2.3 Job briefings shall be performed as outlined in ANSI Z133.1, subclause 3.1.4.

9.3 Utility crown reduction pruning

9.3.1 Urban/residential areas

9.3.1.1 Pruning cuts should be made in accordance with subclause 5.3, *Pruning cuts*. The following requirements and recommendations of 9.3.1.1 are repeated from subclause 5.3 *Pruning cuts*.

9.3.1.1.1 A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent branch, without cutting into the branch bark ridge or collar, or leaving a stub (see Figure 5.3.2).

9.3.1.1.2 A pruning cut that reduces the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and not damage the remaining stem. Smaller cuts shall be preferred (see Fig. 5.3.3).

9.3.1.1.3 The final cut shall result in a flat surface with adjacent bark firmly attached.

9.3.1.1.4 When removing a dead branch, the final cut shall be made just outside the collar of living tissue.

9.3.1.1.5 Tree branches shall be removed in such a manner so as not to cause damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be precut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.

9.3.1.1.6 A cut that removes a branch with a narrow angle of attachment should be made from the outside of the branch to prevent damage to the parent branch (see Figure 5.3.8).

9.3.1.2 A minimum number of pruning cuts should be made to accomplish the purpose of facility/utility pruning. The structure and growth habit of the tree should be considered.

9.3.1.3 Trees directly under and growing into facility/utility spaces should be removed or pruned. Such pruning should be done by removing entire branches or leaders or by removing branches that have laterals growing into (or once pruned, will grow into) the facility/utility space.

9.3.1.4 Trees growing next to, and into or toward, facility/utility spaces should be pruned by reducing branches to laterals (5.3.3) to direct growth away from the utility space or by removing entire branches. Branches that, when cut, will produce sprouts that would grow into facilities and/or utility space should be removed.

9.3.1.5 Branches should be cut to laterals or the parent branch and not at a pre-established clearing limit. If clearance limits are established, pruning cuts should be made at laterals or parent branches outside the specified clearance zone.

9.3.2 Rural/remote locations – mechanical pruning

Cuts should be made close to the main stem, outside of th branch bark ridge and branch collar. Precautions should be taken to avoid stripping or tearing of bark or excessive wounding.

9.4 Emergency service restoration

During a utility-declared emergency, service must be restored as quickly as possible in accordance with ANSI Z133.1, 29 CFR 1910.331 – 335, 29 CFR 1910.268, or 29 CFR 1910.269. At such times, it may be necessary, because of safety and the urgency of service restoration, to deviate from the use of proper pruning techniques as defined in this standard. Following the emergency, corrective pruning should be done as necessary.

Annex A
Pruning cut guideline

A-1 Three-cut method

Multiple cutting techniques exist for application of a three-cut method. A number of them may be used to implement an acceptable three-cut method.

A-1.1 The technique depicted in *Figure 5.3.2* demonstrates one example of a three-cut method that is common to hand-saw usage. It is not intended to depict all acceptable three-cut method techniques.

Annex B
Specification writing guideline

A300 (Part 1)-2008 *Pruning* standards are performance standards, and shall not be used as job specifications. Job specifications should be clearly detailed and contain measurable criteria.

The words “should” and “shall” are both used when writing standards. The word “shall” is used when writing specifications.

Writing specifications can be simple or complex and can be written in a format that suits your company/the job. The specifications consist of two sections.

I. General:

This section contains all aspects of the work to be performed that needs to be documented, yet does not need to be detailed.

Saying under the General section that “all work shall be completed in compliance with A300 Standards” means the clauses covering safety, inspections, cuts, etc. will be adhered to. There is no need to write each and every clause into every job specification.

Other items that may be covered in the General section could be: work hours and dates, traffic issues, disposal criteria, etc.

The second section under Job Specifications would be:

II. Details:

This section provides the clear and measurable criteria; the deliverables to the client.

This section, to be written in compliance with A300 standards, shall contain the following information:

1. **Objective – Clause 6**
   These objectives originate from/with the tree owner or manager. The arborist shall clearly state what is going to be done to achieve the objective(s).

   Objectives can be written for the entire job or individual trees. Rarely can one or two words clearly convey an objective so that all parties involved (client, sales, crew, etc.) can visualize the outcome.
2. **Method – Clause 7**
   Here the method(s) to be used to achieve the objective are stated. Again, depending on the type of job, this can be stated for the individual tree or a group of trees.
3. **Location – Clause 7.2.1, 7.3.2, 7.4.2, 7.5.3**
   This is the location in the tree(s) that the work methods are to take place.
4. **Density – Clause 7.3.1, 7.3.3, 7.5.1, 7.5.2, 7.5.4**
   This is the amount or volume of parts that are to be removed and can be stated exactly or in ranges.
5. **Size – Clause 7.2.2, 7.3.2, 7.4.3, 7.5.4**
   This is the size or range of sizes of cut(s) utilized to remove the volume specified.

   NOTE: Items # 4 & 5 are directly related to resource allocation, staffing and dollars.

SAMPLE PRUNING SPECIFICATIONS

#1. **Scope:** Large live oak on west side of pool

Objectives: Increase light penetration through east side of tree. Reduce risk potential of 1-inch-diameter branches falling.

Specifications: All broken branches and 1-inch-plus diameter dead branches shall be removed from the crown.

The three lowest 8-inch-plus diameter branches on the east side shall be thinned 25 percent with 1-inch- to 3-inch-diameter cuts.

NOTE: All work shall be completed in compliance with ANSI A300 and Z133.1 Standards.

Annex B
Specification writing guideline

#2. **Scope:** 1 Arizona ash

Objective: Enhance structure/structural development.

Specifications: General:

All pruning shall be completed in compliance with A300 Standards.

Detail:

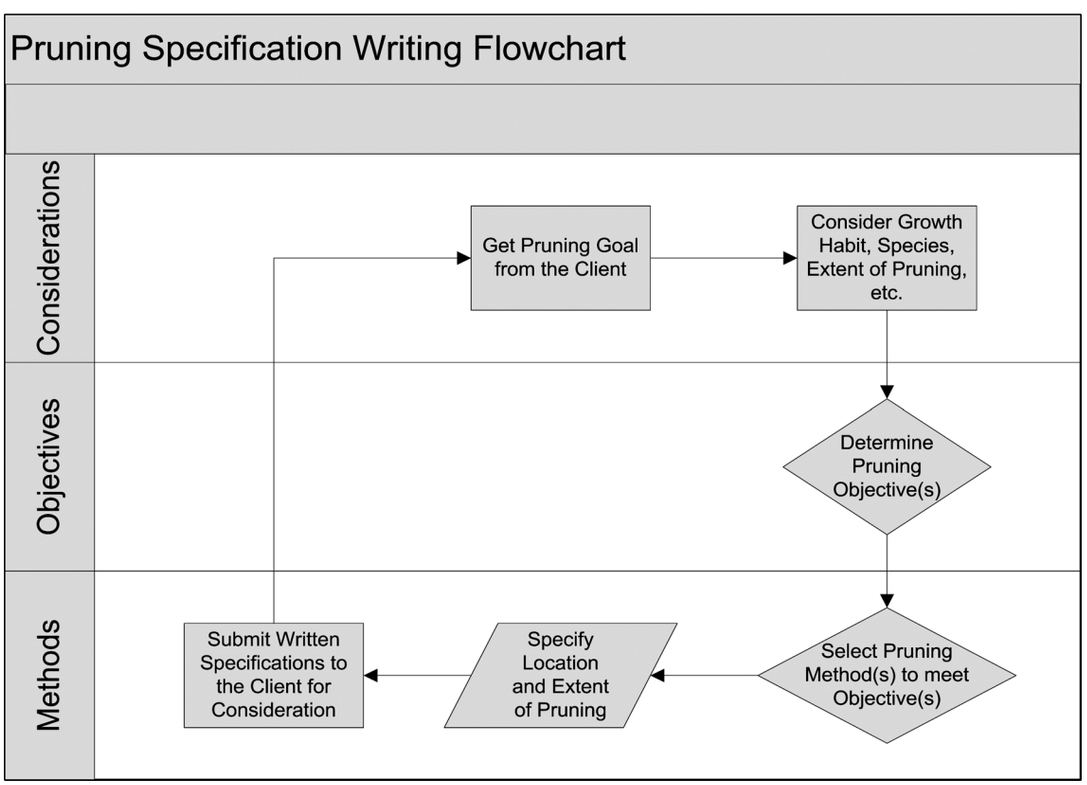
Thin crown 20-25 percent with 1-inch- to 4-inch-diameter cuts. Reduce west codominant leader by approximately 12 feet.

#3. **Scope:** Twenty-three newly installed evergreen elms

Objective: Maximize establishment – reduce nuisance while enhancing natural growth habit.

All work shall be completed in compliance with A300 Standards and the following specifications.

Specifications:
- Retain as much size as possible and 80-90 percent density of foliage.
- Lowest permanent branch will be 6 feet above grade in four to five years.
- Retain all sprout growth originating 18 inches above grade on trunk and 4 inches out from branch attachments throughout crown.
- Remove weakest rubbing branches.
- Remove dead branches.
- Reduce broken branches or branches with dead ends back to live laterals or buds. Heading cuts can be used.
- Maintain 6 inches behind adjacent edge of walks all growth that originates between 1.5 feet (18 inches) and 6 feet (72 inches) above grade. Heading cuts are acceptable.



Annex C
Applicable ANSI A300 interpretations

The following interpretations apply to Part 1 – *Pruning:*

C-1 Interpretation of "should" in ANSI A300 standards

"An advisory recommendation" is the common definition of "should" used in the standards development community and the common definition of "should" used in ANSI standards. An advisory notice is not a mandatory requirement. Advisory recommendations may not be followed when defensible reasons for non-compliance exist.

C-2 Interpretation of "shall" in ANSI A300 standards

"A mandatory requirement" is the common definition of "shall" used in the standards development community and the common definition of "shall" used in ANSI standards. A mandatory requirement is not optional and must be followed for ANSI A300 compliance.

BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC
Technical Report

Bacterial Leaf Scorch

Bacterial Leaf Scorch (BLS) is caused by a xylem-limited bacterium *Xylella fastidiosa*. This gram-negative bacterium causes decline and death of many herbaceous and woody plant hosts due to restriction of water flow from the roots to the crown of the plant. Frequently reported hosts are listed in Table 1, but there are many more species that are infrequently found with this disease. This pathogen was first discovered in grapes and causes Pierce's Disease. BLS is vectored mainly by insects in the leafhopper (Cicadellidae) and the spittlebug (Cercopidae) families. BLS is established in almost all warm areas of the country as far north as New Jersey, through the south, west to Texas, and in California.

Bacterial Leaf Scorch on Sycamore

BLS symptoms are very irregular. Symptom expression generally does not occur until the onset of hot, dry weather during July and August. Trees with chronic disease may leaf out late and have light green foliage. The general symptoms of most trees include a characteristic leaf scorch that progresses inward from the margin and results in premature defoliation across all tree species. In the earliest stages, there may only be a few limbs that display foliar symptoms within the crown, but as a result of scorching and premature defoliation over the years, limb dieback and water sprouts develop. Stresses caused by drought and other environmental factors that affect water absorption can mimic BLS symptoms.

Management: Maintaining the health of the tree through proper mulching and irrigation practices may delay and suppress the symptoms of the disease by assuring adequate moisture availability for the tree. Fertilization should be based on soil analysis results. Secondary pests, including canker diseases, borers and bark beetles, should be monitored and controlled as needed. There is no data to suggest that pruning diseased limbs or immediate removal of diseased trees reduces the incidence of new infections.

Table 1.

Commonly Infected Species		Susceptible, but Infrequently Infected Species	
American Sycamore	Native Elm	Red Maple	Sweetgum
London Plane Tree	Pin Oak	Sugar Maple	Boxelder
Mulberry	Southern Red Oak	Bur Oak	Dogwood
Almond	Northern Red Oak	Willow Oak	Live Oak
Oleander	Scarlet Oak	Water Oak	
Grape	Shingle Oak		

BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC
Technical Report

Girdling Roots

Bruce R. Fraedrich, Ph. D., Plant Pathologist

Girdling roots are usually lateral roots at or slightly below the soil line that cut into at least one side of the main trunk. These roots restrict water and nutrients, which may be translocated to the leaves. Branches will eventually become weakened and the tree may die in five to fifteen years from the girdling roots alone, or in conjunction with environmental stresses or attacks by insects or diseases. Cultural practices like fertilization, irrigation and pruning will not offset the slow growth caused by girdled roots. Once diagnosed, they should be treated promptly.

CAUSES AND PREVENTION

Girdling roots are caused by nursery and transplanting practices, soil obstructions and unknown factors.

When plants are held in containers for too long a period of time, many roots begin to circle around the pot (Figure 1). These eventually can girdle the tree. When planting trees and shrubs with this condition, be sure to loosen these roots from the container root ball and spread them out in the planting hole before back filling. Circling roots two or more years old will be woody and may have to be cut and removed from the root system, because they will have taken the permanent shape of the container and cannot bend enough without breaking. Although this reduces the size of the root system, it will prevent the development of girdling roots in the future.

Figure 1. Roots growing in containers frequently begin circling if held in the container for too long.

When a planting hole is not dug wide enough or deep enough, bare-rooted stock can be twisted into the hole in order to make it fit. This undesirable practice can cause root growth encircle the trunk and produce girdling.

Be certain to make planting holes wider than the root area in order to prevent encircling roots from forming.

The third major cause of girdling roots is planting in very compacted soil, where the new roots have difficulty growing out of the planting hole and into the surrounding hard soil. Roots can circle the bottom of the planting hole, not unlike those growing in an undersized container. Eventually, several of these roots can begin girdling the trunk. Other soil obstructions like foundations, curbs or large rocks can deflect roots and may contribute in some cases to the development of girdling roots.

SYMPTOMS AND DETECTION

Trees which leaf out late, have small chlorotic leaves or needles, drop their leaves early, and are dying back should be checked for a girdling root, particularly if the normal flare or buttress swell is absent. This condition is associated with placing too much fill over the roots, a procedure not uncommon in new housing developments.

Probably the most reliable aboveground characteristic of a girdling root is a trunk indentation of flattening or the base of the bole. Non-girdled trees rarely show this abnormal development. Note that not all girdled trees show crown symptoms commonly attributed to girdling roots.

Most girdled trees are not severely girdled, with few roots ever circling more than 50% around the bole. Since most girdled trees are girdled by more than one root, careful examination around the entire circumference may be necessary. Species like sugar, Norway maple, and white pine particularly are prone to forming girdling roots. Soil excavation is often needed to find girdling roots.

A large majority of girdling roots is found in the top several inches of soil, although they can develop at a somewhat greater depth. Frequently they can be seen on the surface where erosion has removed one or two inches of soil from around the base of the trunk. Some girdling roots are present at the soil line.

TREATMENT AND REMOVAL

A girdling root must be removed in a manner that will minimize injury to the trunk cambium beneath the root. First excavate soil from around the root uncovering the entire length to be removed. Using a chisel or saw, cut the root at a point 6 – 12” out from the trunk. The final cut is made where the root attaches to the trunk (figure 2). This prevents the root from being pulled violently away from the embedded area causing extensive cambium injury if the root happens to be under tension. This is important since occasionally it is best to leave the girdled root in the tree after cutting because the trunk and cambium would be damaged severely by gouging out the deeply embedded root so that it does not grow back together. Detach the root if it is not embedded very deeply.

Prune deadwood, and if large roots were removed, thin the crown to compensate for the loss of roots. Very large girdling roots should not be cut or removed.

BARTLETT TREE RESEARCH LABORATORIES
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Technical Report

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Be certain to make planting holes wider than the root area in order to prevent encircling roots from forming.

The third major cause of girdling roots is planting in very compacted soil, where the new roots have difficulty growing out of the planting hole and into the surrounding hard soil. Roots can circle the bottom of the planting hole, not unlike those growing in an undersized container. Eventually, several of these roots can begin girdling the trunk. Other soil obstructions like foundations, curbs or large rocks can deflect roots and may contribute in some cases to the development of girdling roots.

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Prune deadwood, and if large roots were removed, thin the crown to compensate for the loss of roots. Very large girdling roots should not be cut or removed.

BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC
Technical Report

Maintenance Pruning Standard: A Simplified View

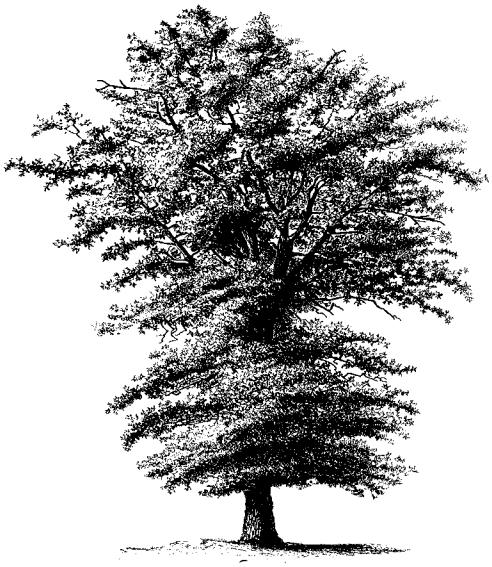
E. Thomas Smiley, Ph. D., Plant Pathologist
Bruce R. Fraedrich, Ph. D., Plant Pathologist

"Correct pruning cuts should be made close to the branch collar. Do not leave stubs and do not injure the collar". For many years, correct removal of branches has been synonymous with proper tree pruning. The new American National Standards Institute (ANSI) A-300 Pruning Standard brings the *tree* back into focus. It places emphasis on developing pruning goals based on specific needs of the plant. The Standard also provides clear, concise and descriptive terminology that arborists, tree workers and consumers can readily understand.

When pruning, arborists must decide which branches to remove. Will only defective limbs be removed or is there a benefit to thinning out live branches? Should the tree remain the same height and spread or are reductions necessary? Are low limbs interfering with traffic and require raising? What is the size limit on branches to be removed?

Before removing any branches, several factors must be considered. What is the condition of the tree? What are the landscape functions provided by the tree? Will pruning maintain or enhance those functions? Are structural defects or storm damage present that should be removed? Are branches interfering with powerlines, houses, and walkways? Is the tree too dense or does it need shaping? Will the tree tolerate removal of live branches? What are the customer's expectations and budget? The answers to these questions will govern how and to what extent the tree is pruned.

Four basic pruning techniques are used to maintain trees. Depending on tree requirements, client expectations and budget, one or more of the techniques will be used to maintain the plant.



Before pruning

Crown thinning is the removal of live, healthy branches on trees with dense crowns. This improves light penetration and air movement, and decreases wind resistance, thus reducing pest infestations and decreasing the risk of storm damage.

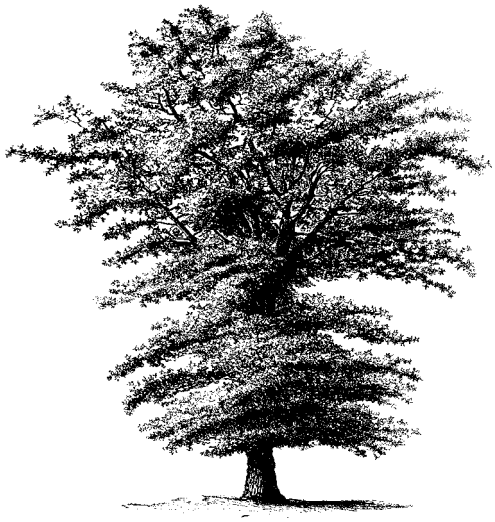
Crown thinning

Thinning can also be used to reduce weight of individual limbs and to slow the growth rate on overly vigorous limbs. This pruning technique is most commonly needed on young, rapidly growing trees.

On slower growing mature trees, thinning is mainly used when weight reduction is needed on individual limbs to compensate for structural defects. Usually, thinning is performed in conjunction with crown cleaning**.**

Virtually all-urban trees benefit from periodic **crown cleaning.** This is the removal of defective limbs including those that are dead, dying, diseased, rubbing, and structurally unsound. Cleaning reduces the risk of branch failures, improves plant health and enhances tree appearance by removing limbs that are unsightly, unhealthy and unsound.

Although removal of healthy branches is technically “thinning”, selective removal of watersprouts is included in the cleaning specification. Before selecting this option, arborists must judge whether sprout removal will benefit the tree. Stripping sprouts is rarely beneficial and may eventually create many more problems for the tree. The Standard also states that **one-half of the foliage should be evenly distributed in the lower two-thirds of the crown and *individual limbs*.**



Crown cleaning

Unnecessary sprout removal and removal of all lower branches would certainly violate this rule. The concept of not removing sprouts must be clearly conveyed to consumers since many homeowners equate proper pruning with removal of interior limbs. There are a few exceptions where removal of watersprouts is beneficial. Removing sprouts on dogwoods in areas where *Discula* anthracnose is present is recommended to reduce risk of cankers in larger branches, for example.

Leaving interior and lower branches on a tree is equally important when thinning the crown. In order not to violate the one-*half the foliage on the lower two-thirds* rule, the majority of thinning cuts are on the outer portion of the crown, not the inside. This means working with pole tools or from an aerial lift. After large deadwood and structural problems have been corrected using a chainsaw, hand or pneumatic tools are used for thinning.

Crown reduction is needed on trees or individual limbs that are growing close to

buildings, other trees, or utility wires. Reduction may also be necessary to prevent or correct storm damage and to shorten errant branches to provide a more desirable shape. This type of pruning involves reducing the height or spread of the crown or individual limbs. Certain species such as beech and sugar maple respond poorly to reductions so consideration must be given to the ability of the species to tolerate this procedure.

When reducing a leader or branch cut back to a lateral branch that is large enough to assume dominance. The size of the remaining lateral is not specified in the Standard since it varies with tree species and tree condition. Typically, a lateral one-third the diameter of the parent limb is selected. If the lateral is smaller, the limb will either dieback or sprout profusely. If the lateral is considerably larger than the one-third guideline, then thinning the remaining lateral should be considered due to the risk of storm damage. The remaining lateral should be growing in a direction that will maintain a desirable shape and not interfere with objects within the pruning cycle.

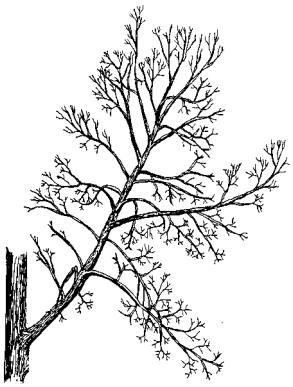
When lower limbs interfere with mowing, traffic, people or utilities, pruning is needed to provide clearance. While removal of lower limbs goes under many names, the one that has been selected is **crown raising**. Limbs can either be removed at the trunk or downward growing branches can be removed at the parent limb. Thinning the ends of a heavy limb may accomplish the same goal if the limb raises when weight is removed. When raising is performed, limb levels generally are left at a uniform height around the tree to provide symmetry.

Crown raising

These are the four primary types of maintenance pruning - **thinning, cleaning, reduction and raising.** Other pruning techniques and systems are discussed in the Standard, including **crown restoration, vista pruning, young tree pruning, espalier, pollarding** and **palm pruning**. These techniques are generally performed to achieve specific goals that are separate from maintenance considerations or are oriented to a specific type of tree. Consult the Standard for descriptions of these pruning types.

The majority of established trees can benefit from **one or more** maintenance pruning types. How can you prune a tree in more than one way? Easy! If a tree is

Before pruning



growing next to a house and has deadwood and limbs rubbing against the roof, it needs crown cleaning throughout and reduction or raising of the limbs over the residence. You may use any of the techniques, or combination of techniques, to provide exactly what the tree needs and the customer wants. Choosing the correct pruning technique(s) is relatively easy, even for an inexperienced arborist,

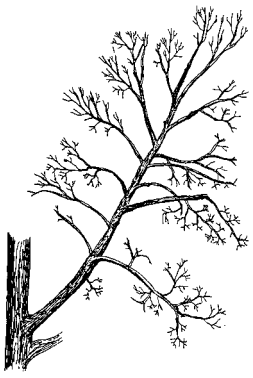
because the tree guides the decision making process. If the tree has deadwood - clean it; if overly thick - thin it; if to tall - reduce it; if too low - raise it. Once the technique(s) have been decided, and then the **size of the smallest limb** to prune is the next consideration. Typically, the sizes that have been used are 1/2", 1", 2" or 4". However, no numbers are specified in the Standard so you can select any size that meets the needs of the specific tree and customer objectives. If 1" minimum is selected, then limbs 1" in diameter at the point of attachment and larger would be removed when the branches meet the requirements of the technique.

The size of the smallest limb to be pruned should be adjusted for the tree and the client's budget. When crown cleaning a small tree such as a Japanese maple, the smallest branch to remove might be specified at 1/2 inch in diameter. This means that dead, dying, diseased or weak branches greater than 1/2 inch are removed. If 1/4" diameter is chosen instead, the time required to complete the task is easily doubled or tripled.

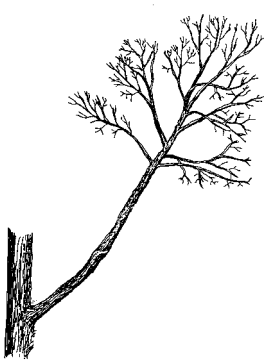
Arborists and consumers must realize that more is **not** always better when it comes to pruning. The amount of foliage that should be pruned from mature trees is now less than before. The Standard specifies that **not more than one quarter of the leaf surface** be removed during a single pruning operation. This will benefit the tree by maintaining a greater leaf surface area for producing photosynthates (energy).

When work is sold, whether to a municipality, commercial account or residential client, the pruning technique and minimum branch size must be specified, explained and discussed. This will foster fair competition and help ensure that both client and arborist understand what is to be accomplished by pruning. There should be no surprises for the client when purchasing tree work. To ensure this, tree workers as well as the arborist must understand the Standard. If a client selects crown cleaning but budget constraints require pruning 2" and larger limbs, then the crew cannot take the time to remove 1/2-inch limbs.

In summary, the new Standard encourages arborists to prune trees based on the tree's need. This is a significant improvement from the days when we tried to "fit" the tree to a predetermined, artificial classification. Basing pruning on the tree's needs make the principles described hold true for hardwoods and conifers, small ornamentals and large shade trees, young trees and mature trees. The terminology in the Standard is a change for most arborists, but it is user friendly and descriptive. Industry professionals as well as consumers should readily adopt the terminology and techniques.



Correct pruning



Improper pruning

BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC

Technical Report

MoniTor IPM program

Bartlett offers a progressive, effective alternative to conventional landscape pest control that I recommend for your property. This would be the most efficient way to manage the insect and disease pest of the plants throughout the property. Bartlett's Integrated Pest Management (IPM) program is called MoniTor, this program requires a greater investment of time, but dramatically reduces the amount of pesticides used by as much as 90 percent. With MoniTor we optimize suppression while minimizing the use of pesticides through preventive maintenance and early detection of problems.

The MoniTor program consists of scheduled visits to inspect the plants around the property for insects, mites, diseases or cultural problems. Nonchemical interference is given first priority. For example, mulching and the release of beneficial insects can be very effective in some instances. When stronger control is needed, we use horticultural oil, insecticidal soap and several of the synthetic pyrethrums. Chemical control is always the last alternative.

Most MoniTor program are designed as follows:

- Schedule a series of inspections for all the woody plants by a trained IPM monitor.
- During each inspection, the monitor will identify and treat insect and disease problems. Low level, non-harmful insect populations will not be treated unless damage to the plant exceeds a tolerable level. Health and aesthetic appearance will determine this level.
- Identification of beneficial insects also would be performed. When present in sufficient numbers, these predatory insects may help control harmful insects, avoiding the use of chemicals.
- If a spray application is warranted, the most benign product available will be used. These products will usually be naturally occurring materials such as oil, soap, pyrethrums or a synthetic material of similar properties. Such products minimally impact both beneficial insects and the environment.
- Cultural treatments such as soil pH adjustment, root collar inspections and mulch adjustments will be included.
- This program will be limited to trees less than 40 feet in height.
- You will receive a written report from the monitor following each inspection. This report will include: description of problems, treatments applied, observations of plant conditions and recommendations.
- As needed, we will perform soil tests in problem areas to identify pH, nutrient or other soil concerns as well as conduct insect and disease analysis from Bartlett's Research Laboratories when problems cannot be identified on site.

An investment in the MoniTor IPM program is an environmentally sound means to maintain your plants in top condition.

BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC
Technical Report

Mulch Application Guidelines

E. Thomas Smiley, Ph. D., Plant Pathologist

Mulches provide many benefits for trees and shrubs. They moderate soil temperatures, reduce soil moisture loss, reduce soil compaction, provide nutrients, improve soil structure, keep mowers and string trimmers away from the trunk. These benefits result in more root growth and healthier plants. When applying mulch the following guidelines should be observed:

1. The best mulch materials are wood chips, bark nuggets, composted leaves or pine needles. Plastic, stone, sawdust, finely shredded bark, and grass clippings should be avoided. Do not use redwood or walnut mulch due to allelopathic effects.

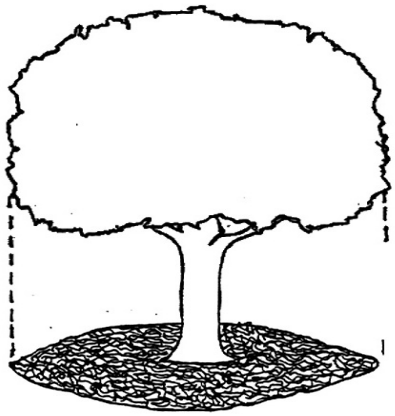


Figure 1. Mulch should be applied from the trunk to the dripline.

2. Mulch should be applied from the dripline to the trunk (Figure 1). If this is not practical, minimum mulch circle radii should be 3 feet for small trees, 8 feet for medium trees and 12 feet for large trees.

3. When applying mulch it is not necessary to kill or remove existing ground cover. However, turf should be mowed very short and clippings removed prior to application. Mulch should be applied directly to the soil surface, do not use landscape fabric to separate the mulch from the soil.

Figure 2. Mulch layer should be 2-4 inches thick and not be against the trunk.

4. Mulch layer should be 2-4 inches thick depending on tree species and mulch (Figure 2).

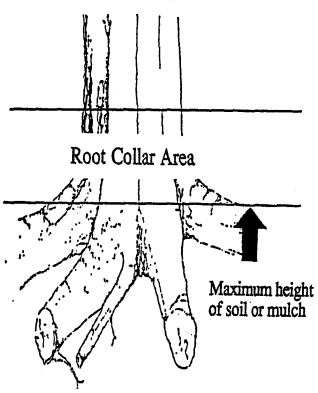
5. Additional mulch should be added to maintain a 2-4 inch depth.

6. Mulch should not be placed against the trunk (Figure 2). Mulch will retain too much moisture against the trunk, potentially resulting in disease problems.

BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC
Technical Report

ROOT COLLAR DISORDERS

A tree's root collar is the area where the roots join the trunk. Root collars flare out from the trunk before leading down to the major roots.



Although root collars may look like roots, this area of a tree is actually part of the trunk. The trunk, unlike roots, is not specialized to resist constant soil moisture. Root collars are meant to be exposed to air, not covered with soil--as we see when trees are excessively mulched or buried too deeply.

When soil covers the root collar, movement of oxygen and carbon dioxide in and out of the inner bark is inhibited. Over a period of years, lack of gas exchange will kill cells and interfere with the downward movement of food to the roots. Eventually you will see root dieback and reduced water uptake, leaving the tree more susceptible to infection and disease.

Problems with buried root collars occur in a number of different situations. Most commonly you will see root collars buried during landscaping projects when fill soil is distributed around the tree. In addition, transplanted trees may settle or be set too deeply in the planting hole. Some trees may even arrive from the nursery with excess soil against the root collar.

Excessive mulch also can lead to death of the root collar. A good rule is that mulch layers should not exceed four inches in thickness and should not be placed against the root collar.

Early symptoms of root collar disorders are yellowing foliage, early leaf coloration and drop, and dieback in the upper crown. Some trees, though, will show no symptoms at all prior to their death during a hot dry period of the summer.

Secondary invaders such as canker disease fungi and insect borers often invade trees stressed by root collar problems. These cankers may cause sunken areas near the soil line. Winter injury is common as well, though usually not apparent until spring. Disruption of the transportation of food and other necessary materials in the tree inhibits growth regulators responsible for hardening off in preparation for winter. The tree is then prone to cold weather damage.

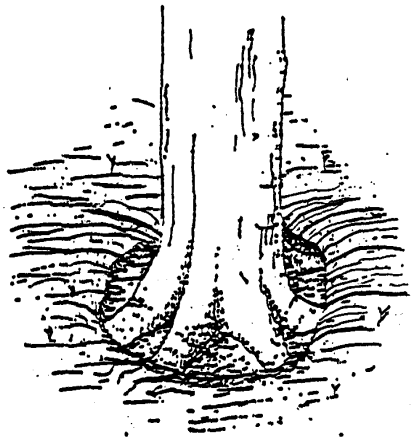
ROOT COLLAR DISORDERS

Most tree and shrub species are susceptible to problems from buried root collars. Very sensitive plants include sugar maple, California live oak, dogwood, Japanese black pine and Eastern white pine.

The easiest way to check a tree for a root collar disorder is to look for natural root flare. If no flare is present, an excavation should be made to locate the buttress roots. From this, we can determine whether or not the soil or mulch against the collar has started to cause problems.

If a tree is severely declining from a root collar disorder, removal is recommended before the tree becomes hazardous. If symptoms are detected early, remedial actions can be taken that may save the tree. All soil or mulch in contact with the root collar should be removed.

Root collar excavations can be done by carefully using small digging tools and a brush or with a new tool called an air spade. The Air Spade will excavate the soil around the tree by directing a high pressure, high velocity stream of air at the soil. This separates the soil particles and lifts them up and away with the air stream. This method of performing root collar excavations is the least intrusive to the tree's root system.



Excavated root collar

Figure 2. Excavated root collar.

The second priority to save a tree from root collar injury is fertilization. The third action is to provide appropriate irrigation during dry periods. Most tree species require one inch of water per week during the growing season. Care should be taken not to overwater. Irrigation water should never be applied directly to the trunk or root collar area.

In summary, trees and shrubs with buried root collars may decline and are more susceptible to attack by secondary pests. It is best to treat the situation as soon as it is discovered by means of a root collar excavation. Other corrective treatments such as fertilizing and mulching will promote tree health and improve chances for recovery.

BARTLETT TREE RESEARCH LABORATORIES
CHARLOTTE, NC
Technical Report

Tree Structure Evaluation

Bruce R. Fraedrich, Ph. D., Plant Pathologist

The urban forest is aging and declining at an increasing rate. At the same time, society is becoming more litigious. As a result, detection, evaluation and management of defective trees now are a major concern for arborists, urban foresters and park managers.

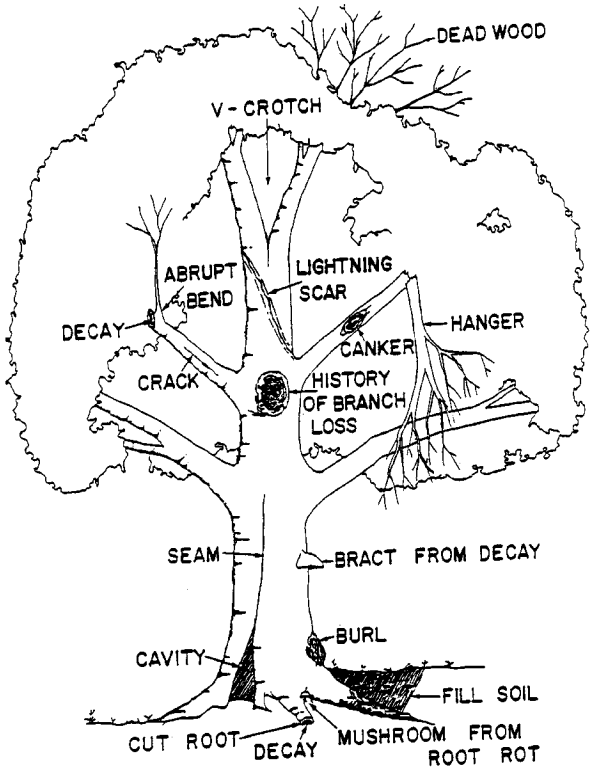
HAZARDOUS TREES DEFINED

A tree is considered hazardous when it has a structural defect that predisposes it to failure and the tree is located near a target (an area where property damage or personal injury could occur if the tree failed). Targets include areas around structures, walkways, roadways, campsites and other areas where there are property and people.

Structurally sound trees also may be hazardous if plant parts interfere with routine activities of people such as obstructing motorists' vision, raising sidewalk, interfering with utilities, roadways or walkways.

LIABILITIES

Property owners/managers have a legal obligation to (1) periodically inspect trees for defects and unsafe conditions and (2) correct defects and unsafe conditions immediately upon detection. If a property owner/manager employs an arborist to perform work on site, the arborist may assume at least some of the responsibility for detecting defective tree conditions and recommending remedial treatments. Arborists are considered "experts" and may be held accountable for uncorrected or unreported tree defects, which are not obvious to the average property owner.



HAZARD TREES DUE TO STRUCTURAL DEFECTS

A thorough inspection of the branches, stem, root crown and area around the root system is essential in detecting hazardous conditions. Binoculars are helpful in detecting defects in the upper crown. In some instances an aerial lift or climber may be needed to provide a detailed evaluation.

Common structural defects include dead trees, dead branches, stubs from topping cuts, broken branches (hangers), abrupt bends in branches, "V" crotches and multiple stems from the root collar (coppice growth). Failure also is more common in trees with an unbalanced crown or leaning stem if there is a defect.

WOOD DECAY DETECTION AND EVALUATION

Many failures in branches and stems result from loss in structural integrity due to wood decay. When evaluating decayed stems and branches, arborists have generally relied on qualitative parameters for formulating recommendations. These parameters include the location and relative size of the defect, tree species characteristics, site exposure, crown size, leaning stems, owner's "attitude" toward the tree and target considerations.

A method is now available that allows the arborist to quantitatively estimate a strength loss value from wood decay which then can be used with the qualitative parameters listed above to determine more precisely if a tree is prone to failure due to wood decay.

Evaluating decay is a four-step process involving:

1. Decay Detection - Symptoms and signs
2. Measuring the size of the decay column
3. Calculating strength loss value due to decay.
4. Selecting a strength loss value "threshold" for wood decay (taking into consideration the strength loss from decay and qualitative factors previously listed).

DETECTION

Symptoms of wood decay can be quite obvious such as open cavities, loose bark/exposed punky wood and fungal fruiting structures growing from the bark or exposed wood. Other symptoms of wood decay can be subtler such as seams, cracks, abnormal flare, burls, stubs and cankers. Decay is often associated with multiple stems from the root collar (coppice growth) and in limbs with abrupt bends. When inspecting trees for decay, make sure the crown and stem is thoroughly examined. Binoculars are helpful for inspecting the crown. In some instances, a climber or aerial lift may be necessary for a satisfactory inspection of the upper crown.

MEASURING THE DECAY COLUMN

The diameter of the decay column is determined by measuring the thickness of sound wood at the weakest point on the stem or branch. The average sound wood thickness is multiplied by 2 and subtracted from the total wood diameter to arrive at the diameter of the decay column. Note wood diameter equals the stem/branch diameter minus twice the bark thickness.

The thickness of the "shell" of sound wood can be rapidly determined with minimum damage using a drill with a 1/8" drill bit. The drill bit is inserted until resistance decreases when decayed tissues are encountered. The inserted portion of the drill is then extracted and measured to determine the thickness of sound wood.

An increment borer also can be used to extract a core of sound wood, which can be measured. This is useful on trees with soft wood where it may be difficult to detect the resistance change between healthy and decayed wood. The increment core is more damaging and slower than the drilling technique.

A Shigometer also can be used to assess healthy, decayed and discolored wood.

A minimum of three sampling sites is used and the values are averaged to calculate the decay column diameter. More sampling is necessary in trees over 30 inches in diameter or when measurements vary greatly.

DETERMINING STRENGTH LOSS VALUES FROM WOOD DECAY IN STANDING TREES

Principally the outer rings of wood provide strength in woody stems and branches. Trees can withstand considerable loss of the inner cylinder without a significant loss in structural integrity. Strength loss resulting from decay in wood tissues can be estimated by comparing the diameter of the decay column to the total diameter of the stem.

This technique is based on engineering formulas used in estimating strength loss in pipes due to corrosion. In pipes, strength loss estimates are as follows:

$$\% \text{ Strength Loss} = \frac{(\text{Inside Diameter (hollow)})^4}{(\text{Total Diameter})^4} \times 100$$

Wagener (1) modified this formula for trees as follows:

$$\text{Strength Loss (SL)} = \frac{(\text{Diameter of Decay Column})^3}{(\text{Diameter of Stem})^3} \times 100$$

$$\text{or } SL = \frac{d^3}{D^3} \times 100$$

Due to the modification, values derived from use of this formula should be viewed as a relative measure of strength loss rather than an actual measure. Values measured against a scale where 0 (zero) equals no strength loss and 100 equals total loss in strength.

When trees have open cavities, the reduction in strength from loss of the outer rings of wood must be entered into the strength loss formula. Loss in strength from open cavities is significant because the outer rings of wood provide most of the structural strength.

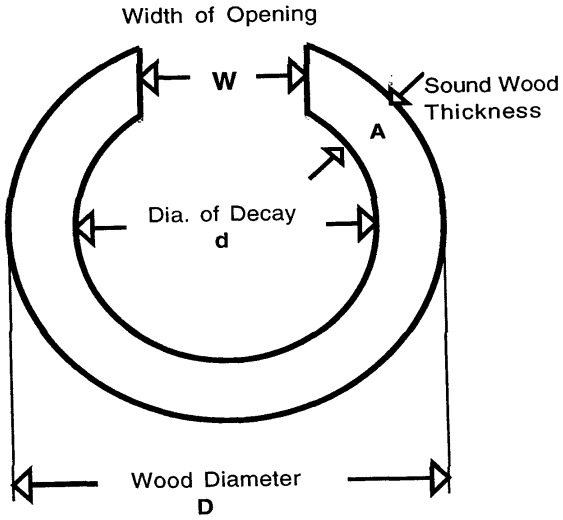
The F.A. Bartlett Tree Expert Co. uses a variation of the formula proposed by Wagener to determine strength loss in stems from open cavities. This formula is as follows:

$$\text{Strength Loss (SL)} = \frac{(\text{Diameter of Decay Column})^3 + \text{Area of Cavity}}{(\text{Diameter of Stem})^3}$$

$$\text{or } SL = \frac{d^3 + R(D^3 - d^3)}{D^3} \times 100$$

SL = Strength Loss
d = Diameter of Decay Column
D = Stem Diameter (inside bark)
R = Ratio of Cavity Opening to Stem Circumference
(R = width of cavity opening)

Values derived from this formula should also be viewed as a relative measure of strength loss as described above.



STRENGTH LOSS VALUE THRESHOLDS

Wagener (1) stated that West Coast conifers could tolerate up to a one-third loss in strength without predisposing the stem to unreasonable risk of failure if the weakening effect is heart rot uncomplicated by other defects. Wagener emphasizes that the one-third-strength loss value is not absolute and is only a general guideline.

Smiley and Fraedrich (2) surveyed hardwood trees that were broken during 1989's Hurricane Hugo in Charlotte, NC. Sustained winds were 69 miles per hour (mph) with gusts to 90 mph during the storm. They found that 52 of the 54 broken trees had internal decay. Using formulas proposed by Wagener and modified by the Bartlett Tree Lab, strength loss values of broken trees with decay varied from one to

90 with an average of 33. This evidence supports the establishment of a threshold value between 30 and 40 depending on local conditions.

The F. A. Bartlett Tree Expert Co. uses a value of 33 as the maximum strength loss to be tolerated. The threshold is reduced in:

- Leaning Trees
- Trees with inherently weak or brittle wood
- Trees in exposed locations
- Trees with large/full crowns
- Declining trees
- Trees with multiple defects
- Trees in high use areas (sensitive target areas)

STRENGTH LOSS VALUE SIMPLIFIED

The minimum thickness of sound wood surrounding heart rot must be at least 15% of the total wood diameter or the tree is considered an unreasonable risk.

The thickness of sound wood must be greater in trees with cavity openings, species with weak wood, trees with multiple defects, relatively large crowns, leaning stems and trees on exposed sites.

Minimum thickness sound wood = Wood diameter x .015

Wood Diameter (inches)	**Minimum Thickness of Sound Wood** (inches)
10”	1.5”
15”	2.3”
20”	3.0”
25”	3.8”
30”	4.5”
35”	5.3”
40”	6.0”
50”	7.5”

ROOT DEFECT EVALUATION

Up to seventy-five percent of all tree failures are due to root problems. The majority of tree failures occur when winds exceed 50 mph (e.g. hurricane, tornado), however, failures may occur under any wind conditions if the roots are sufficiently weakened. Two types of failure have been classified for this occurrence: Root failure and Ground failure.

Ground failure is extremely difficult to predict. Failure occurs when the soil does not have enough strength to keep the roots intact. Soil and roots are exposed when the tree falls over. This type of failure can occur in any soil texture if the soil is wet. Failure is more common on sandy textured and very shallow (<2’ deep) soils. Soil failure also occurs when trees are surrounded by pavement, which does not allow the root system to develop sufficiently to support the tree.

Root failure occurs when roots break, thus do not provide the necessary support. Root failure occurs more readily on trees, which have root decay or other root problems.

Trees growing in stands, recently thinned stands and recently created edge trees are more susceptible to windthrow due to lack of root spread and increased susceptibility to root disease. Root disease can be detected, however, this is a relatively difficult procedure.

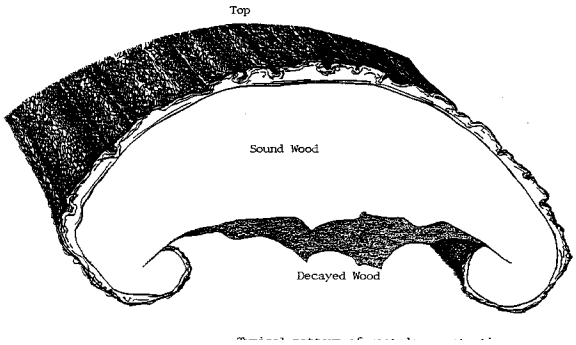
SYMPTOMS OF ROOT FAILURE

Trees with extensive root decay often show little or no symptoms of decline. External indicators of root decay include:

- Dead (loose bark) on the roots, root flare or lower trunk.
- Fungus fruiting structures around the root flare. These include mushrooms, conks and bracts on or immediately adjacent to the tree.
- Oozing from the root flare, lower trunk or wounds on the lower trunk.
- Cuts or fill soil moved beneath the tree.
- Cracks in the soil above or beside major roots.

ASSESSING ROOT DECAY

Root decay is difficult to assess since it starts on the lower section of the root and works its way upward. The most visible section of the root shows the least amount of symptoms. When root decay is present in the buttress or flare roots it is usually much more extensive than anticipated. Where root decay is suspected, the first step is to excavate soil from the root collar. Using a penknife, nick the bark on major root flares and valleys between flares to determine whether the bark is healthy.



Typical pattern of root decay, starting from the lower side working upward

High-risk trees may tolerate a lower percentage of root decay.

High-risk trees include the following:

1. Leaning trees
2. Trees with limited root space
3. Trees at the edge of recently cleared areas where severe windstorms frequently occur
4. Trees with large and/or dense crowns
5. Trees, which have, soil fractures associated with one or more major roots where trees are high risk and any root decay is encountered, always notify the property owner of the increased risk window. Removal may be appropriate.

The next step is to determine if decay is present in the roots or base of the trunk. Using a drill with 1/8" x 8" bit or increment borer, drill downward into each major root issuing from the root collar. Consider the entire root decayed if any defect is encountered. Repeat the same procedures drilling toward the center of the tree in the valleys of the root collar to determine if basal decay is present. Often lower trunk heart rot is associated with root decay. Record the number of healthy and decayed roots.

ROOT DECAY THRESHOLD

Assessing root decay is complicated by the fact that root and basal decay is frequently more severe than detection procedures will indicate. Subsequently, whenever any root/basal decay is encountered the property owner should be advised that root disease might be more severe than anticipated. There is always a risk of failure (windthrow) when root decay is encountered.

The F. A. Bartlett Tree Expert Co. considers that whenever 33% or more of the major roots contain decay, the bark/cambium is dead on more than 33% of the root flare, or when 33% or more of the support root system has been severed, there is high risk of failure. Removal is recommended in the following instances.

INSPECTION AND DOCUMENTATION

Landscape trees should be periodically inspected for defects and other potentially hazardous conditions. Inspections should be performed at least annually and after major storms. Trees growing in high use sites and those with known defects should be inspected more often.

Inspections should be documented in writing whether the trees are considered defective or not. Documentation of inspections (including date), the presence of defects and recommended treatments should be sent to the property owner in writing.

When assessing wood decay and root defects, arborists should not base treatments or removal recommendations

solely on strength loss value or percentage of roots with decay. Document all qualitative parameters that may contribute to the hazard as well as the quantitative measurements. Qualitative parameters include species characteristics, crown size, defect location, multiple defects, tree vitality, site exposure, and intensity of site use (target considerations).

Literature Cited

1. Wagener, W.W. 1963. *Judging Hazards From Native Trees in California Recreation Areas: A Guide for Professional Foresters.* US Forest Service Research Paper PSW-P1. 29 pages.

2. Smiley, E.T. and B.R. Fraedrich. 1992. Determining Strength Loss From Wood Decay. Journal of Arboriculture 18:201-204.

Glossary of Terms

arborist: 1. An individual engaged in the profession of arboriculture who, through experience, education and related training, possesses the competence to provide for, or supervise the management of, trees and other woody ornamentals. [ANSI A300 (Part 1, 2, 4, 5, 6)] 2. An individual engaged in the profession of arboriculture. [ANSI Z133.1-2000 Safety Requirements for Arboricultural Operations]

bracing: The installation of lag-thread screw or threaded-steel rods in limbs, leaders, or trunks to provide supplemental support. [ANSI A300 (Part 3)-2000 Support Systems]

branch: An outgrowing shoot, stem or twig that grows from the main stem or trunk. [ANSI Z60.1–2004 Nursery Stock]

buttress roots: Lateral surface roots that aid in stabilizing the tree.

cable: 1) Zinc coated strand per ASTM A-475 for dead-end grip applications. 2) Wire rope or strand for general applications. 3) Synthetic-fiber rope or synthetic-fiber webbing for general applications. [ANSI A300 (Part 3)-2000 Support Systems]

cabling: The installation of a steel wire rope, steel strand, or synthetic-fiber system within a tree between limbs or leaders to limit movement and provide supplemental support. [ANSI A300 (Part 3)-2000 Support Systems]

canopy: collective branches and foliage of a tree or group of trees' crowns

cation exchange capacity(CEC): The ability of soil to absorb nutrients.

cavity: An open wound characterized by the presence of decay and resulting in a hollow.

cleaning: Selective pruning to remove one or more of the following parts: dead, diseased, and/ or broken branches (5.6.1). [ANSI A300 (Part 1)-2001 Pruning]

co-dominate branches: Equal in size and importance, usually associated with either the trunks, stems, or scaffold limbs.

conk: fruiting body or nonfruiting body of a fungus. Often associated with decay.

crown: 1. The leaves and branches of a tree measured from the lowest branch on the trunk to the top of the tree. [ANSI A300 (Part 1)-2001 Pruning] [ANSI A300 (Part 6)-2005 Transplanting] 2. The portion of a tree comprising the branches. [ANSI Z60.1-2004 Nursery Stock]

D.B.H. [diameter at breast height]: Measurement of trunk diameter taken at 4.5 feet (1.4 m) off the ground. [ANSI A300 (Part 6)-2005 Transplanting]

decay: The degradation of woody tissue caused by microorganisms. [ANSI A300 (Part 1)-2001 Pruning]

geographic information system(GIS): is any system for capturing, storing, analyzing and managing data and associated attributes which are spatially referenced to earth.

girdling root: A root that may impede proper development of other roots, trunk flare, and/or trunk. [ANSI A300 (Part 6)-2005 Transplanting]

Global Positioning System(GPS): A constellation of at least 24 Medium Earth Orbit satellites that transmit precise microwave signals, the system enables a GPS receiver to determine its location, speed, direction, and time.

Global Positioning System reciever(GPSr): A receiver that receives its input from GPS satellites to determine location, speed, direction, and time.

heading: cutting a shoot back to a bud o cutting branches back to buds, stubs, or lateral branches not large enough to assume apical dominance. Cutting an older branch or stem back to meet a structural objective

integrated pest management(IPM): A pest control strategy that uses an array of complementary methods: mechanical devices, physical devices, genetic, biological, legal, cultural management, and chemical management. These methods are done in three stages of prevention, Observation, and finally Intervention. It is an ecological approach that has its main goal is to significantly reduce or eliminate the use of pesticides.

lateral branch: A shoot or stem growing from a parent branch or stem. [ANSI A300 (Part 1)-2001 Pruning]

Glossary of Terms

leader: A dominant or co-dominant, upright stem. [ANSI A300 (Part 1)-2001 Pruning]

lean: Departure from vertical of the stem, beginning at or near the base of the trunk.

limb: A large, prominent branch. [ANSI A300 (Part 1)-2001 Pruning]

lion's tailing: The removal of an excessive number of inner, lateral branches from parent branches. Lion's tailing is not an acceptable pruning practice (5.5.7). [ANSI A300 (Part 1)-2001 Pruning]

macronutrient: Nutrient required in relatively large amounts by plants, such as nitrogen (N), phosphorus (P), potassium (K), and sulfur (S). [ANSI A300 (Part 2)-2004 Fertilization]

micronutrient: Nutrient required in relatively small amounts by plants, such as iron (Fe), manganese (Mn), zinc (Zn), copper (Cu), and boron (B). [ANSI A300 (Part 2)-2004 Fertilization]

nutrient: Element or compound required for growth, reproduction or development of a plant. [ANSI A300 (Part 2)-2004 Fertilization]

organic matter: material derived from the growth (and death) of living organisms. The organic components of soil.

parent branch or stem: A tree trunk, limb, or prominent branch from which shoots or stems grow. [ANSI A300 (Part 1)-2001 Pruning]

pH: unit of measurement that describes the alkalinity or acidity of a solution. Measured on a scale of 0 to 14. Greater than 7 Is alkaline, less than 7 is acid, and 7 is neutral (pure water).

pruning: The selective removal of plant parts to meet specific goals and objectives. [ANSI A300 (Part 1)-2001 Pruning]

qualified arborist: An individual who, by possession of a recognized degree, certification, or professional standing, or through related training and on-the-job experience, is familiar with the equipment and hazards involved in arboricultural operations and who has demonstrated ability in the performance of the special techniques involved. [ANSI Z133.1-2000 Safety Requirements for Arboricultural Operations]

raising: Selective pruning to provide vertical clearance (5.6.3). [ANSI A300 (Part 1)-2001 Pruning]

reduction: Selective pruning to decrease height and/or spread (5.6.4). [ANSI A300 (Part 1)-2001 Pruning]

risk assessment: process of evaluating what unexpected things could happen, how likely it is, and what the likely outcomes are. In tree management, the systematic process to determine the level of risk posed by a tree, tree part, or group of trees.

root collar: 1. The transition zone between the trunk and the root system. [ANSI A300 (Part 6)-2005 Transplanting] 2. See COLLAR. [ANSI Z60.1-2004 Nursery Stock]

root flare or trunk flare: The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk. [ANSI Z60.1-2004 Nursery Stock] [ANSI A300 (Part 6)-2005 Transplanting]

root zone: The volume of soil containing the roots of a plant. [ANSI A300 (Part 5)-2005

secondary nutrient: Nutrient required in moderate amounts by plants, such as calcium (Ca) and magnesium (Mg). [ANSI A300 (Part 2)-2004 Fertilization]

seam: Vertical line that appears where two edges of wound wood or callus ridge meet.

soil amendment: Any material added to soil to alter its composition and structure, such as sand, fertilizer, or organic matter. [ANSI A300 (Part 6)-2005 Transplanting]

soil pH: A measure of the acidity or alkalinity of the soil.

structural support system: hardware installed in tree, may be; cables, braces, or guys, to provide supplemental support.

sweep: Departure from vertical of the stem, beginning above the base of the trunk.

Glossary of Terms

thinning: Selective pruning to reduce density of live branches (5.6.2). [ANSI A300 (Part 1)-2001 Pruning]

tree risk assessment: Closer inspection of visibly damaged, dead, defected diseased, leaning or dying tree to determine management needs.

topping: The reduction of a tree's size using heading cuts that shorten limbs or branches back to a predetermined crown limit. Topping is not an acceptable pruning practice (5.5.7). [ANSI A300 (Part 1)-2001 Pruning]

tree inventory: A comprehensive list of individual trees providing descriptive information on all or a portion of the project area. [ANSI A300 (Part 5)-2005 Management during site planning, site development, and construction]

tree protection zone: A space above and belowground within which trees are to be retained and protected. [ANSI A300 (Part 5)-2005Management during site planning, site development, and construction]

structural support system: A support system used to provide supplemental support to leaders, individual limbs, and/or the whole plant. [ANSI A300 (Part 4)-2002 Lightning Protection Systems]

trunk: That portion of a stem or stems of a tree before branching occurs. [ANSI Z60.1-2004 Nursery Stock]

wound: An opening that is created when the bark of a live branch or stem is penetrated, cut, or removed. [ANSI A300 (Part 1)-2001 Pruning]