State University of New York at Oneonta Tree Care Plan 2016

I. Purpose:

The purposes of the Campus Tree Care Plan are:

- To establish selection, planting, and maintenance procedures for campus trees
- To maintain and protect the campus forest during construction or renovation
- To promote the health and diversity of the campus trees under the ANSI standards
- To obtain Tree Campus USA Status

II. Responsible Department

The State University of New York at Oneonta Grounds Department is the primary responsible department, in collaboration with the Office of Sustainability, Biology Department and Environmental Sustainability Department.

III. Campus Tree Advisory Committee

This committee is a sub-committee to the Campus Beautification Committee

Rathbone, Thomas: Associate Vice President for Facilities: Thomas.Rathbone@oneonta.edu

Adamo, Paul: Vice President College Advancement

Barton, Scott: Facilities Program Coordinator

Bidwell, Phil: IT Specialist & Town of Oneonta Historian: Phil.Bidwell@oneonta.edu

Brown, Karen: Director of Admissions

Chase, Michael: Head Grounds Supervisor: Michael.Chase@oneonta.edu

Cui, Jian: Associate Professor

Foreman, Todd: Vice President for Finance and Administration

Morgan, Hannah: Sustainability Coordinator: Hannah.Morgan@oneonta.edu

Reiss, Matthew: Maintenance Manager

Roberts, Richard: Assistant Director of Maintenance

Sheesley, Timothy: Gallery Director

Zimmer, Terry: Director of Facilities Operations

Jensen, Kevin: Associate Vice President and Chief Enrollment Management Officer

Eichler, Graig: Assistant Director of Business Services

+ Biology Professor (2016/2017): Dr. Sean Robinson: Sean.Robinson@oneonta.edu

+ Biology or Sustainability Student (2016/2017): WOOLNS87@oneonta.edu

Species selection

Acer negundo	Box Elder
Acer rubrum	Red Maple
Acer scaccharinum	Silver Maple
Acer saccharum	Sugar Maple
Acer x freemanii	Cultivar (Freeman's Maple)
Aesculus hippocastanum	Horse Chestnut
Amelanchier Arborea	Common Serviceberry
Betula nigra	River Birch
Betula populifolia	Gray Birch
Betula papyrifera	White Birch
Carpinus caroliniana	American Hornbeam
Catalpa speciosa	Northern Catalpa
Carya ovata	Shagbark Hickory
Castanea dentata	American Chestnut
Crataegus spp.	Hawthorn
Fagus grandifolia	American Beech
Fraxinus americana	White Ash
Fraxinus pennsylvanica	Green Ash
Gingko biloba	Ginkgo
Gleditsia tricanthos	Honey Locust
Juniperus virginiana	Eastern Red Cedar
Liquidambar stryaciflua	American Sweetgum
Liriodendron tulipfera	Tulip Tree
Malus spp.	Crabapple
Magnolia acuminata	Cucumber Tree
Magnolia virginiana	Sweetbay Magnolia
Platanus occidentalis	American Sycamore
Picea abies	Norway Spruce
Picea glauca	White Spruce
Picea pungens	Colorado Spruce
Populus tremuloides	Quaking Aspen
Pinus strobus	White Pine
Pinus Resinosa	Norway Pine
Pinus sylvestris	Scots Pine
Prunus americana	Red Spruce
Prunus avium	Wild Cherry
Prunus pensylvanica	Pin Cherry
Prunus serrulata	Japanese Cherry
Prunus spp.	Cherry
Prunus serotina	Black Cherry
Prunus virginiana	Chokecherry
Pseudotsuga menziesii	Douglas Fir
Quercus alba	White Oak

Quercus coccinea	Scarlet Oak
Quercus montana	Chestnut Oak
Quercus palustris	Pin Oak
Quercus rubra	Red Oak
Quercus robur fastigiata	*cultivar Skyrocket Oak
Thuja occidentalis	Eastern Arborvitae
Tilia americana	American Basswood
Tilia cordata	Littleleaf Linden
Tsuga canadensis	Eastern Hemlock
Ulmus americana	American Elm

Prohibited Species

- SUNY Oneonta prohibits the planting of invasive species, including trees and shrubs.
- Trees that are known to not survive in the region are prohibited.
- Existing species that are now prohibited are not removed unless they conflict with further stated reasons.

IV. Planting

All planting will be conducted by the campus grounds department, and if necessary, a certified outside contractor or arborist. Planting specific processes are as follows:

- The Grounds Department Supervisor or qualified Grounds Department employee will stay on site of a planting if an outside contractor is brought in.
- SUNY Oneonta recommends that an arborist selects healthy specimens directly from the nursery.
- All trees must be planted with root flare above the soil level, therefore, the planting hole will be no deeper than the root ball, but will be at least two times the diameter of the root ball.
- All twine, wire basket, and burlap** will be removed from the root ball before planting.
- The planting hole will be filled with existing soil and if necessary soil improvements will be added.
- Bare root planting is prohibited by the SUNY Oneonta Grounds Department.
- Newly planted trees will be mulched and then watered weekly until the ground freezes.
- All trees planted are required to have at least a two-year warranty.
- During excavation for planting, all underground utilities will be clearly marked to ensure healthy planting an avoid interference with utilities.

V. Maintenance

Maintenance of each tree is an ongoing process, from when it is planted until it needs to be removed if it is too sick, not viable, or interfering with utilities. All maintenance of SUNY Oneonta trees will be conducted by the grounds department or by a contracted certified arborist.

VI. Pruning

Trees will be pruned according to the ANSI standards. Trees will be pruned as needed for reasons of safety, interference with utilities, and if branches are dead, dying, or severely damaged. Height reduction and top pruning are prohibited practices. Trees are inspected annually and are to be left as natural as possible.

VII. Cabling and Bracing

Cabling and bracing of trees will follow current ANSI Standards.

VIII. Mulching

Trees bases will be covered with 2-4 inches of wood mulch chips. SUNY Oneonta does not practice volcano mulching and requires mulch to not touch trunk and root flare. Additional mulch will be needed according to canopy size and condition of existing mulch.

IX. Fertilization

Tree fertilization will follow annual inspections and will be preceded by soil tests to determine appropriate fertilizer. Most trees will be fertilized with granular fertilizer spread around the drip line. Some individuals receive deep-root fertilization which are conducted by a certified arborist and supervised by the Grounds Supervisor. No trees will be fertilized within the first year after planting.

X. Pest and Disease Control

Pest and disease control is practiced only as conditions warrant. Trees are inspected by the Grounds Departments and species at risk are monitored by a certified arborist. SUNY Oneonta treats for some pests including vaccinations to prevent the Emerald Ash Borer. This work and monitoring efforts are conducted by outside contractors such as TruGreen and Town and Country.

XI. Tree Removal

Tree removal is practiced only as needed, and is based off interference with existing utilities or necessary new utilities, safety, and rarely aesthetic. A tree that is to be removed will be marked with spray paint so that other trees will not be damaged. If the tree is too large to be removed by the Grounds Department, the removal will be contracted by outside contractors. For every tree that is removed, two more are planted in its place. SUNY Oneonta does not remove existing invasive trees except for the aforementioned reasons.

XII. Protection and Preservation

The biggest threats to campus trees are construction projects. All construction or renovations to buildings or utilities are monitored by the Grounds Department Supervisor. Contracted construction supervisors must provide a survey map noting the locations of trees and the estimated extent of the root systems. Projects in Critical Root Zone Areas must be designed to account for interference by dig and fill areas, walks, roadways, and utilities, and must avoid damage to trees when possible. After designs are made to avoid the disruption of trees, plans to prune, remove, or relocate trees but be overseen by a certified arborist or Grounds Department Head. Trees within construction sites must be protected by fencing at least one foot away from the trunk for each inch of diameter at breast height. The base of the tree must be mulched to 4 inches to prevent drying. No substances are to be poured within the fenced area and project crews must water trees within construction areas. Root pruning is avoided unless necessary and conducted by a certified arborist.

XIII. Tree Damage Assessment

Damage to trees will be reported to the Grounds Department Head. The damage will be assessed and remediation actions will be taken if necessary. If there is a police report filed, then judicial actions can be placed. The cost of the damage to the tree will be recorded and used if necessary for judicial matters.

XIV. Prohibited Practices

- No work shall be done on campus trees without approval of the Grounds Department Supervisor.
- No trees or other plants will be planted without consent of the Grounds Department Supervisor.
- No signs can be attached to trees.
- Bicycles cannot be locked to campus trees.
- Memorial Planting of trees is a strongly discouraged practice due to:
    - Potential future removal
    - Uncertainty of survival
    - Increasing lack of plots for college sanctioned plantings

XV. Goals and Targets

- Complete campus forest inventory
- Creation of a GIS-based map
- Maximum tree species diversity
- Continued practice of planting two trees for each removed
- Creation of campus arboretum

XVI. Definitions of terminology

ANSI Standards: The American National Standards Institute's standards for tree care and maintenance.

Bare Root Planting: Planting a tree or shrub that was recently removed from the ground.

Certified Arborist: Professional arborist with at least three years of full-time experience and passed certification examinations.

Critical Root Zone: Also known at the root protection zone, where the dripline of the tree lies.

Deep Root Fertilization: When nutrients and fertilizers prescribed to the specific tree or species are injected into the root zone.

Diameter at Breast Height (DBH): The diameter of the trunk between 1.3 and 1.5 meters above the ground.

GIS Based Map: Map created with GIS software, involving spatial data joined with other attributes.

Integrated Vegetation Management: A subset of integrated pest management.

Integrated Pest Management (IPM): Using a combination of planting strategies, habitat manipulation, and use of resistant species to prevent against pests.

Memorial Planting: The planting of trees in memory of a person or class or organization.

Root Ball: The mass of the roots and soil held within the roots.

Root Flare: The region at the base of the trunk that forms buttresses outwards into the ground to the root system.

Supplemental Support Systems: Ways to support young or damaged trees such as cabling, guying, or bracing.

Top Pruning: Pruning the tops of trees, usually for aesthetic purposes.

Volcano Mulching: Piling mulch into a cone around the base of a tree above the root flare.

XVII. Communication Strategy

The campus tree care plan will be communicated to the campus and necessary parties through direct emails and available on the school website.