

Village Tree Management Plan

Peacham, Vermont

Acknowledgements

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Danielle Fitzko, Urban and Community Forestry Coordinator, helped the town launch the project. Danielle came to Peacham and provided a presentation that guided the volunteers through the inventory process and the Tree Inventory Program.

The Peacham Master Gardeners compiled the tree inventory as part of their learning experience. The group consisted of: Dierdre Detjens, Marsha Garrison, Julie Lang, Betsy McKay, and Marj Swenson. The many hours of data collection is greatly appreciated. The Peacham School fifth and sixth graders (Kathy Renfrew's class) assisted with the school inventory.

Becky Jenson provided the computer expertise on the project. Becky entered all the data into the Vermont Tree Inventory Program For Small Communities. She was instrumental in customizing the program to suite the needs of Peacham.

Neil Monteith generously assisted in training the inventory crew and single handedly inventoried the Town Forest. Neil inventoried the Village trees in 1994 and his previous work provided a good basis for comparison between then and now.

Dick Bohlen and volunteer assistants surveyed the Peacham Four Corner Village and in doing so mapped all the trees.

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Inventories and Reports separate cover

Purpose and Scope

The Town of Peacham has over the last five years identified a number of planning issues, including planning, planting and maintenance of trees. The purpose of this report is to address the problems facing the Peacham Village Forest. The scope of the project includes Peacham Corner, East Peacham, South Peacham, the school, and the main cemetery and the Town Forest.

Background

The town has made some effort to work on the village forest in the past 15 years. The Conservation Commission implemented one example of the work in 1993. The commission received a planting grant from the “Trees for Local Communities Program” and planted trees in the three villages and did a landscape project at the school.

The latest efforts were made in 2004 when the planning commission received a planning grant for this plan. A 2005 planting grant was also given to begin a replacement program in the main cemetery. Both projects are endorsed by the selectboard. These constitute a serious commitment on the part of the town to recognize and act on the problems related to the Peacham village forest.

Currently several organizations support Peacham village forestry. The Selectboard has allocated \$3000. /year for maintaining and replanting trees in the cemetery. This was in response to Town Plan recommendations by the Cemetery Committee. The Conservation Commission has historically been a player in village forestry and the Peacham Master Gardeners have joined in the efforts.

The town has a knowledgeable tree warden. Neil Monteith is a forester employed by the Vermont Department of Forest, Parks and Recreation and a long time member of the Urban and Community Forestry Council. Neil is a valuable resource for Peacham. He is current on technology related to planting and maintenance of trees, and is a valuable liaison connecting the town to educational opportunities.

There are presently no ordinances or policies for trees. There is no town-wide budget dedicated to tree planting or maintenance. The town road crew is responsible for removal of hazardous or fallen trees in the right-of-way, but have no formal training in care or maintenance of trees, nor the financial resources to do so. The road department does however have equipment that could be helpful to the town in some tree planting and maintenance operations.

Inventory

The Master Gardeners group completed an inventory of the town tree resources during 2004 and 2005. The inventory crew gathered data using the Urban and Community Forestry format and referenced locations on aerial photos of the inventoried areas. Another town resident entered and formatted the data for use. The inventory was checked in the field by the landscape architect and the data was analyzed. The five areas inventoried are Peacham Corner, South Peacham, East Peacham, Peacham School, and the Peacham Cemetery. Neil Monteith completed the inventory of the Town Forest. The inventory and reports can be found the booklet titled Peacham Tree Inventory.

Goals and Objectives

- Town government, planning commission, and the general public supports a village forestry program.
 - a. *Make street and park tree a priority in town plan.*
 - b. *Present challenges of Peacham Trees to the Selectboard, Planning Commission, Conservation Commission, and the Master Gardener group.*
 - c. *Present plan at community forum setting.*
 - d. *Do brief interview or survey of residents.*
 - e. *Present concepts to school administration, teachers and students.*
- The town government takes an active role in providing the resources to establish optimum tree

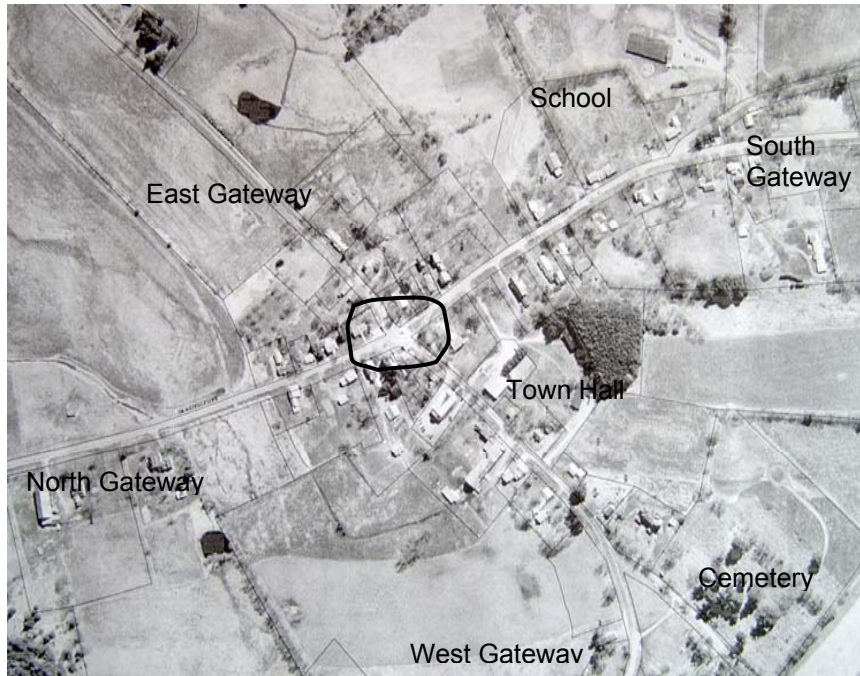
cover in the villages, cemetery and school through planting and maintenance programs.

- a. *Include trees in capital improvement plan.*
 - b. *Make road staff and equipment budget and time available.*
 - c. *Make school maintenance staff budget and time available.*
 - d. *Appoint volunteer coordinator within town organization.*
 - e. *Continue support for cemetery maintenance.*
 - f. *Hand out announcements at Town Meeting.*
- Educate town employees in tree related tasks.
 - a. *Seek training workshops and have key personnel attend.*
 - b. *Provide written resources about trees.*
- Identify funding resources including town budget line items for maintenance and planting trees.
 - a. *Have Town Clerk office to seek out available grants.*
 - b. *Vote on annual budget item with resident support.*
 - c. *Identify residents with passion for trees.*
 - d. *Solicit donations, bequeaths.*
 - e. *Set up Village Improvement organization (non profit).*
 - f. *Set up endowment fund for tree care.*
- Form an active well trained tree board that will take on management of urban forest in a cost-efficient manner.
 - a. *Tree warden be contact person and organizer.*
 - b. *Identify possible candidates.*
 - c. *Hand out announcements at Town Meeting.*
 - d. *Send mailing to residents.*
 - e. *Seek out written resources.*

- Create a tree ordinance to protect against unnecessary loss of trees within the town right-of-ways.
 - a. *Educate town officials to benefits of protection law.*
 - b. *Educate public, form consensus.*
 - c. *Provide resources.*
- Residents take part in planting, maintaining and preserving trees on their properties according to an overall plan.
 - a. *Provide educational materials to residents.*
 - b. *Outreach through library, town meeting, and school.*
 - c. *Utilize community forum.*
 - d. *Distribute materials at town meeting.*
- Utilize tree inventory
 - a. *Set up inventory on one town computer, one home computer and have two back up copies.*
 - b. *Train tree warden, conservation commission member and tree board member in the use of the database.*
 - c. *Update database annually to reflect new plantings and maintenance performed.*
 - d. *Consider GIS Mapping of trees.*
- Existing town trees are maintained at optimal levels.
 - a. *Based on inventory and public consensus, prioritize tree maintenance by greatest need and area.*
 - b. *Hire an arborist to estimate tree maintenance.*
 - c. *Create a tree maintenance capital improvement plan that outlines specific tasks over a ten-year period.*

- New tree plantings are continued for optimum tree coverage in the five areas.
 - a. *Prioritize new plantings by area based on inventory, consensus, and design suggestions.*
 - b. *Estimate cost of new plantings.*
 - c. *Create a tree planting capital improvement plan that outlines planting over a ten-year period.*





Peacham Corner

Peacham Corner, settled in 1776, is a compact village set within a traditional open agricultural landscape. Historically, amidst the buildings that make up the village proper, there have been mature trees. When viewed from a distance, and as one passes through, the trees and dense arrangement of buildings create clear boundaries and a distinct identity for the village.

Trees are an integral contributing element to the character of the village. It is important to the town to maintain the rural landscape of the village and thus the health of the village forest.

Design Considerations

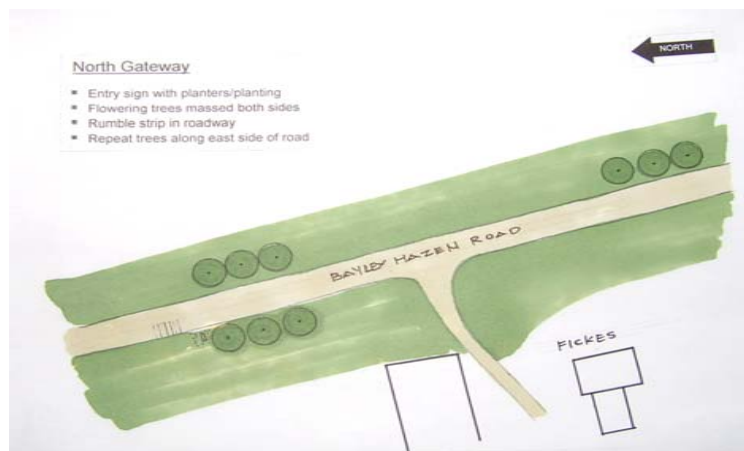
The composition of the Peacham Corner forest is approximately 60 percent Sugar Maple. Based on the Size Class Summary there is a wide range of tree age. After careful analysis of the streets, specific sites for trees can be determined. The recommended strategy is to plant near where declining trees will be removed, replace trees that have been removed and plant new locations that are absent of trees.



In the Peacham Corner Village Concept Plan, the gateways to the village are identified as potential new planting sites. The residents of the village have expressed concern about the speed at which vehicles enter the village.

Each of the gateways will be planted with a mass of flowering crabapples that will announce the entry to the village. The trees will be grouped near a simple sign and planters.

The approach to the village will be planted in a random way, with trees on both sides. The planting will help reduce the perceived width of the road. Studies have shown that planting along roadways tend to calm, or slow traffic. Views will also be considered when finalizing planting sites along the approach.



The north gateway plan showing gateway and approach planting.

The west gateway and approach offer multi-purpose planting sites. The planting along the approach will not only create a tunnel effect along the roadway, calming (slowing) traffic, but also define a clear separation between the park and the roadway.



Upper Green Memorial Park and West Gateway Concept Plan.



Plant trees along roadway to create tunnel canopy effect.

The village forest is composed of primarily Sugar Maple and Butternut. The trees are arranged in mixed patterns of roadside and lawn trees. The random arrangement of trees throughout the village adds to the softness of the landscape character that Peacham is known for. New plantings introduced in the village should reflect the desired character by massing, occasional break up of

lines, and random placements where possible. Replacement of older, declining trees should be top priority.



Bayley-Hazen Road

The limited species diversity and age of the trees along the Bayley-Hazen road suggest the need for diversity and appropriateness when selecting trees. Given the Sugar Maple's intolerance to salt and soil compaction, and the health problems of Butternut, new canopy tree varieties such as Red Oak and Hackberry should be introduced along the roadway. These trees are more resistant to salt and to soil compaction and will produce similar canopy effects as maple. Sugar Maple and disease-resistant Elm are still options for lawn trees that are away from the effects of salt and excessive compaction.

The trees along Church St. and Old Cemetery Road are primarily Sugar Maple. The recommended new plantings along these dirt roads include Red Oak, disease resistant Elm and Hackberry. Sugar Maple may be planted in

lesser percentages along the roadway, and perhaps more in private lawn areas where soil compaction will not be a factor. Planting a diverse forest will prevent loss of the entire forest in the event of destruction of one species.



Looking west up Church Street

Suggested planting priority list for Peacham Corner:

1. North Gateway
2. South Gateway
3. North Approach
4. Replacement and infill at Town Center
5. Replacement and infill along Bayley-Hazen
6. West Gateway and Upper Green Park
7. Replacement and infill Church Street and Old Cemetery Roads

Summary of Design Concepts

1. Announcement of Village gateways
2. Traffic calming (slowing)
3. Preservation of soft and random landscape character through random placement
4. Definition of park edges
5. View preservation
6. Biological diverse species selection

Maintenance Considerations

High priority trees are potential safety hazard trees, oldest trees to be preserved, trees that may need structural work and very young trees that would take very little effort to train. Medium priority trees are middle-aged trees or older trees that need only moderate amounts of pruning to correct minor problems. Low priority trees include trees that do not need any work at this time.

Tree Maintenance Report

High Priority

- 18 with diameter of 30-60"
- 10 with diameter of 10-18"
- 9 with diameter of 3-10"
- 2 selective cut areas
- 1 dead tree

Medium Priority

- 28 with diameter of 24-48"
- 22 with diameter of 10-18"
- 5 with diameter of 4-8"

There are several areas noted on the inventory as "woods" that require selective cutting to reduce competition and encourage existing trees to grow into healthy street/yard trees. Performing thinning operations will reduce the need for planting more trees in the areas noted. The trees to be saved in the thin areas should be tagged by a professional. The road crew can then perform the thinning and remove the brush.



Looking south on Bayley-Hazen Road



The Peacham Cemetery

The Peacham Cemetery is the only actively used cemetery in town. It is located on a ridge above Peacham Corner offering views to the south. The cemetery is divided into three distinct sections: the oldest, the newest and the recently acquired undeveloped area.



The old section of the cemetery was planted with White Pine and Sugar Maple in the 1920s and earlier. Little

new planting was done until 2005 when ten new trees were planted. Many trees have been taken down over the years.

The character of the old section is park-like with a stately high canopy over the paths. The original intent was to have tree-lined lanes between blocks of plots. This design is still apparent in the westerly half of the old section. The easterly half will have 16 new trees planted by spring 2006, laid out to reestablish the former park-like, canopied setting.

The cemetery is composed of primarily mature Sugar Maple and White Pine. There is only a small percentage of Ash, Birch, and Balsam Fir most of which are volunteer seedlings that have been allowed to grow out of stumps. The condition of the old cemetery forest varies from healthy trees, to those in need of pruning or structural work, to those beyond help. A greater percentage is in need of work.

The planning, planting and maintenance for the cemetery will be done in three phases, phase one being the old section.

The outcome of phase one of the project will be two fold: new planting, and a capital improvement plan that will address specific tree maintenance priorities in order for the existing forest to be brought into a healthy state over time. An arborist will be brought in to estimate the cost of the work on a per tree basis. The maintenance plan will then be outlined and implemented based on available funds.



Tree lined pathway

Design Considerations

The park-like character of the old section has been compromised. Trees have been lost to lightning, wind storms and old age, leaving obvious holes in the stately canopy. The priority of the town fathers is two fold: a replacement program to restore the character of the old cemetery landscape, and providing for present and future maintenance of the new and existing trees. Given the composition of the existing cemetery forest (Maple, Pine), the new plantings will be designed to introduce species diversity. Species selection will include Red Oak, and disease-resistant Elm. In addition to stately canopy trees, there is a desire to introduce more color in the cemetery landscape. Flowering Crabapple trees will be used to satisfy this requirement.

The planting design of the easterly part of the old section was done on site by a landscape architect. The new tree locations were based on site conditions, maintenance requirements and design intent. The town fathers and cemetery sextons approved the locations: 10 of 16 trees were planted in 2005, 6 will be planted in 2006. The intent of these plantings was to restore the canopy where it was completely gone. Future planting layout in the old section will be done in a similar manner, but based more on the inventory results: specifically, replacement of hazard trees, and of trees that are beyond their productive life to fulfill the design intent.

The new section of the cemetery has an access road in place, but few trees planted. Decisions about plot layout and maintenance access must be made before a specific planting plan can be done.

The old and new sections of the cemetery are not unified in look or feel. The absence of trees in the new section gives it a totally separate feeling, as does the difference in elevation. Planting trees would lessen the separation.

Summary of Design Concepts

1. Establish policy
2. Preserve park like character
3. Diversify plantings
4. Encourage and maintain viewpoints
5. Add color
6. Combine old with new
7. Replacement program
8. Create nursery



The line between the new to the left and the old to the right

Maintenance Considerations

The tree population in the cemetery is quite old. There are 86 trees inventoried in the cemetery, 61 of which have a trunk diameter greater than 25". Most of the larger diameter trees are in need of pruning or structural work.

High Priority

- 20 with diameter of 25-50"
- 6 with diameter of 10-24"
- 6 with diameter of 3-10"
- 3 selective cut areas

Medium Priority

- 30 with diameter of 25-60"
- 2 with diameter of 10-24"
- 5 with diameter of 2-10"

General Maintenance Suggestions

1. Clean weeds around new plantings.
2. Avoid mechanical damage from mowers and weed whackers.
3. Use leaves and grass clippings for mulch and compost.
4. Create soil-building area.
5. Create topsoil-compost stock-pile.
6. Selective thinning on tree lines.

A portion of the undeveloped cemetery land may be used to grow trees for future planting in both the cemetery and the villages. There would be an initial investment to consider, but the cost of future planting could be substantially reduced.



East Peacham Village

East Peacham, once known as Peacham Hollow, lies to the east of Four Corners. The village is approximately 100 feet in elevation below Four Corners. Five roads and two brooks intersect in the center.

Most of the approaches to East Peacham center reflect the needs and values of individual property owners, not a collective theme or planting design concept. For example, one property owner uses evergreens for screening from the road, while the neighbor uses Sugar Maples along the roadside, creating a completely different effect. The village center lacks any coherent tree-planting theme again due to eclectic placement and selection. Planning has been minimal over the years.



The composition of the tree population is diverse. Many of the trees along the paved road are not tolerant to salt or soil compaction. Recommended plantings along the paved road are Red Oak and Common Hackberry as canopy trees. Smaller tree species for paved road sites include Crabapple varieties, Hawthorns, and Japanese Tree Lilac. All roadside plantings should be set back at least ten feet and given ample soil volume for proper growth.

Tree selection for gravel roads near the center of East Peacham include Dutch Elm disease-resistant Elm, Sugar Maple, Red Oak and Common Hackberry for canopy trees.





The center of East Peacham looking from the north

Design Considerations

There are planting opportunities in the village center and along the approaches. Planting trees in the center would lend to the sense of Village and set it apart from the open surroundings. Planting along the northerly approach would aid in calming (slowing) traffic entering the more populated part of the village. Planting should also include replacement of older and declining trees with new additions in order to tie existing plantings into a coherent whole.

Summary of Design Concepts

1. Create village identity with tree planting
2. Maintain diversity
3. Traffic calming

Maintenance Considerations

The existing trees include some very old and declining maples. There are also fairly healthy, young to middle age mixed varieties, maples being the predominant choice.

High Priority

- 5 trees in need of removal
- 3 with diameter 38-48"
- 2 with diameter of 15-24"
- 5 with diameter of 1-7"
- 5 trees requiring hazard assessment
- Selective cut on Old Cemetery along brook

Medium Priority

- 3 with diameter of 27-34"
- 3 with diameter of 12-20"
- 8 with a diameter of 3-9"



South Peacham Village

The village forest near the main intersection is minimal, due to the steep sloping land beside the road and the presence of bridges, streams and power lines in the right of way. The trees on the west side of the approach from the north are primarily volunteer elms that have grown in untended masses along the road. The Village center consists of a large graveled area that served the former store, and a small green space that is occupied by mailboxes, power lines and one marginal spruce tree. The current configuration of the graveled area and road offer little in the way of soil volumes for tree planting at the main intersection.



The village center at main intersection



Entering South Peacham from the south

The southerly approach is most densely developed and has a substantial village forest on both sides of the roadway. The west side consists primarily of declining Sugar Maple and a mix of White Ash and smaller ornamentals. The east side consists of a much healthier Sugar Maple population, many of which are set back from the roadway with adequate soil volume to do well. New plantings of ornamentals, and evergreens are often based on individual needs and values, and are not consistent with a collective concept of design. Volunteer White Ash, Cherry and evergreen trees are found between properties on both sides of the roadway.

Design Considerations

The southerly approach has a Village character in place. Design considerations for this approach include a replacement program on the west side, and new trees in several locations on the east side, to complement the existing plantings and maintain the qualities of place that currently exist.

There is an opportunity at the main intersection to create a green space that is a bit larger than the existing space, one where some small trees could be planted. The existing island could be extended along the roads in both directions, thus controlling vehicular access to the former store, and opening an area for a mass of ornamental flowering trees.

The north and south approaches to the village are open. Canopy trees planted in groups would act as a gateway, setting apart the approach to the village from the open surroundings.

The trees in South Peacham are 70 percent Sugar Maple. The recommendation for new canopy plantings along the paved road would be Red Oak and Common Hackberry. Sugar Maple and resistant Elm may be planted in locations at least 15' from the road.

Summary Design Concepts

1. Create central green space at main intersection
2. Diversify species along roadway
3. Unite north and south approaches to village setting.



Maintenance Considerations

High Priority

- 12 trees in need of removal
- 6 with diameter of 35-38"
- 5 with diameter of 14-20"
- 3 with diameter of 3-8"

Medium Priority

- 8 with diameter 24-38"
- 6 with diameter of 6-12"



Peacham School

The Peacham School is a pre-school through sixth grade facility. The school population is approximately 60 students. The school building sits on a twelve acre site and is adjacent to town owned recreation lands.

School programs have historically included plant related projects: raised beds for flowers and vegetable plants, fruit tree planting, nature trail/native plantings and shade and ornamental tree planting. The 5-6 grade classes participated in the inventory of the trees and shrubs that have been planted on the school grounds.

The school grounds consist of several different areas: entry road/parking, orchard, gardens, playgrounds, court, ball field and the rear of the building. Two of these areas could be the sites of future planting projects, the entry road/parking lot and the ball field.

Design Considerations

The entry road/parking area could be made to look aesthetically pleasing by planting of a mix of flowering tree masses and shade trees along the access road and around the parking area. Planting would also help separate the basketball court from the parking area.

The ball field area is in need of shade trees placed in such a way that spectators would benefit during excessively hot days. The trees should be placed to protect people from the afternoon sun in particular.

Another possible planting area would be additions to the existing young orchard.



The 5/6 class working on the inventory

Summary of Design Concepts

1. Enhance the visual quality of the parking area.
2. Separate uses.
3. Offer educational opportunities.
4. Edible landscapes.



Maintenance Considerations

All of the 21 trees inventoried at the school need corrective pruning. Fortunately, most of the trees are young and trainable and will take only a small amount of work to bring them into shape. The school site would be an ideal location for a pruning training workshop.

Several of the trees show signs of mechanical damage to the trunk; weed-whackers and rodents caused some of the damage. Other scars seen may have taken place at the nursery, during shipment or during planting.

Maintenance Suggestions

1. Rodent protection around fruit trees.
2. Mowing in orchard area.
3. Removal of grasses around trees.
4. Small mulch rings.
5. Alert maintenance crew of mechanical damage by equipment.
6. Pruning.
7. Selective thinning.
8. Move crowded trees.
9. Trail maintenance.





Summary

This report is the first step toward healthy and vigorous trees in the villages. The work, however, has only just begun. The Selectboard, Planning Commission, and Conservation Commission must take ownership of the goals set forth in the report. Responsible groups must act on the stated objectives.

The report not only can be used as a guide to future work to be done, but also as an educational tool to bring better community understanding and awareness of the village trees. The plight of the village trees must be shared with the community at large through public presentations, town meeting, and making this report available.

One of the first things that the town needs is a Tree Board, a group of dedicated people who will work together with the town government and the community. Concurrently, the Town Government could be working on draft implementation plans and including trees in the town wide capital improvement plan.

Trees are a necessary and integral element of any community. It is up to the citizens to help preserve and maintain the trees for past, present and future generations of the villages: For the very integrity of life.

The following is a short list of reference materials that would be valuable to any Tree Board. It is recommended that these become part of a collection of reference books at the town library.

Recommended Resources

Gabriel D. Chapin 2001, **Recommended Trees for Vermont Communities**, Vermont Dept. Forests, Parks and Recreation, Urban and Community Forestry Program.

Mary K. Reynolds, Raymond Boivin, 1994, **Selecting Trees for Urban Landscape Ecosystems: Hardy Species for Northern New England Communities**, State of New Hampshire, Division of Forests and Lands.

Henry D. Gerhold, Willet N. Wandell, Norman L. Lacasse, 1993, **Street Tree Fact Sheets**, Municipal Tree Restoration Program, USDA Forest Service, Penn State.

American Association of Nurserymen, 1990, **American Standard for Nursery Stock**, American Association of Nurserymen, Washington, DC.

Gary W. Watson, E. B. Himelick, 1990, **Principles and Practice of Planting Trees**, International Society of Arboriculture. Savoy, IL

Gene W. Grey, 1993, **A Handbook for Tree Board Members**, National Arbor Day Foundation.

Websites

www.vtcommunityforestry.org Vermont Urban and Community Forestry

www.hort.cornell.edu/departments/faculty/bassuk/uhf Urban Horticulture Institute

www2.champaign.ias-arbor.com International Society of Arborists