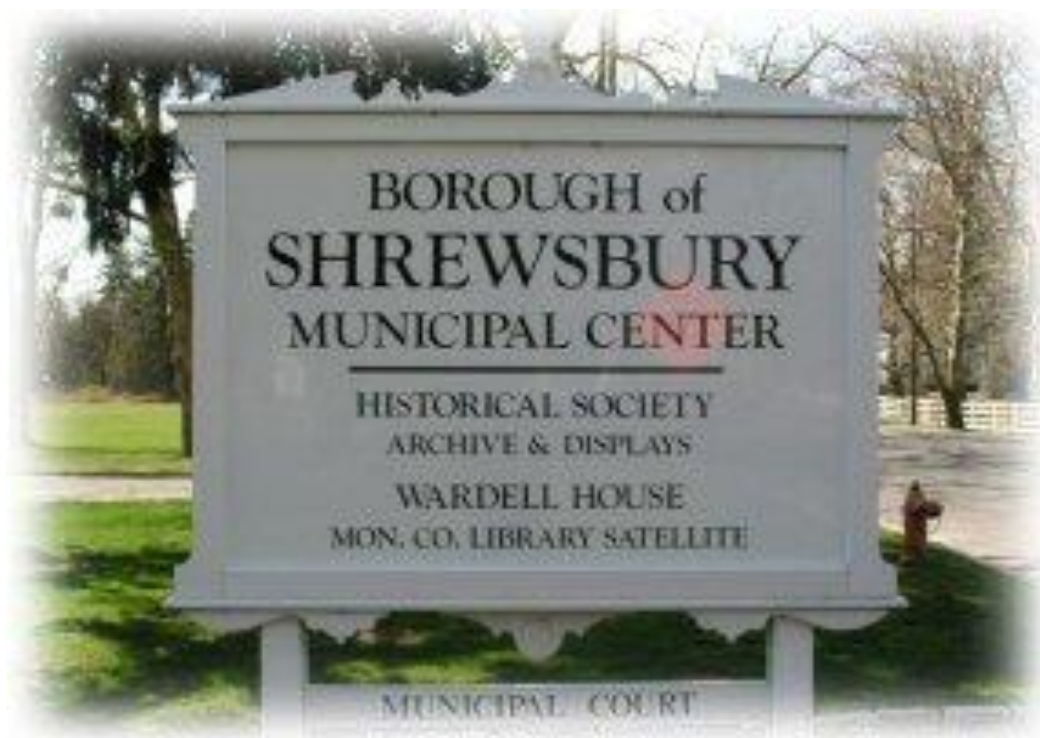




COMMUNITY FORESTRY MANAGEMENT PLAN FIVE YEAR - 2011 - 2015

Borough of Shrewsbury Crossroads of History

MUNICIPAL CENTER
419 SYCAMORE AVENUE, PO BOX 7420, SHREWSBURY, NEW JERSEY 07702
PHONE: 732-741-4200 • www.shrewsburyboro.com



The Shrewsbury Borough Shade Tree Commission prepared the Community Forestry Management Plan under the guidance of and with technical assistance from Gary Lovallo CF, Certified Tree Expert #273, CA, AF, Principal, CAFS LLC. It was developed in accordance with the New Jersey Shade Tree and Community Forestry Assistance Act (revised 2010).

Community Forestry Management Plan
Borough of Shrewsbury
2011 - 2015

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1.0 Municipal Information Form

Municipality: **Borough of Shrewsbury**
County: **Monmouth**
Address: **419 Sycamore Avenue
Shrewsbury NJ 07702**
Contact Name and Title: **Thomas X. Seaman, Business Administrator**
Phone and Facsimile #: **Phone # 732-741-4200 Facsimile # 732-741-6549**
Organization's Name: **Borough of Shrewsbury**

Mayor's Signature: _____
Donald W. Burden, Mayor

Date of Management Plan: **October 2011**

Time Period Covered by Management Plan: **2011 – 2015**

The Community Stewardship Incentive Program (CSIP) practices identified in your management plan are checked off below.

- | | |
|--|--|
| <input checked="" type="checkbox"/> CSIP #1 Training | <input type="checkbox"/> CSIP #2 Ordinance Establishment |
| <input checked="" type="checkbox"/> CSIP #3 Public Education and Awareness | <input checked="" type="checkbox"/> CSIP #4 Arbor Day Activities |
| <input checked="" type="checkbox"/> CSIP #5 Assessment/Inventory | <input checked="" type="checkbox"/> CSIP #6 Tree Hazard I.D |
| <input type="checkbox"/> CSIP #7 Storm Damage Assessment | <input checked="" type="checkbox"/> CSIP #8 Tree Maintenance |
| <input type="checkbox"/> CSIP #9 Insect, Disease Mgmt | <input type="checkbox"/> CSIP #10 Wildfire Protection |
| <input checked="" type="checkbox"/> CSIP #11 Tree Planting | <input type="checkbox"/> CSIP #12 Tree Recycling |
| <input checked="" type="checkbox"/> CSIP #13 Sidewalk Maintenance | <input type="checkbox"/> CSIP #14 Storm Water Mgmt |
| <input type="checkbox"/> CSIP #15 Other | |

Official Use Only

Certification

The above named community has made formal application to the New Jersey Forest Service. I am pleased to advise you that after our review, the NJ Forest Service has concluded that this plan meets the standards set forth by the State and NJ Community Forestry Council and is approved for the period covered.

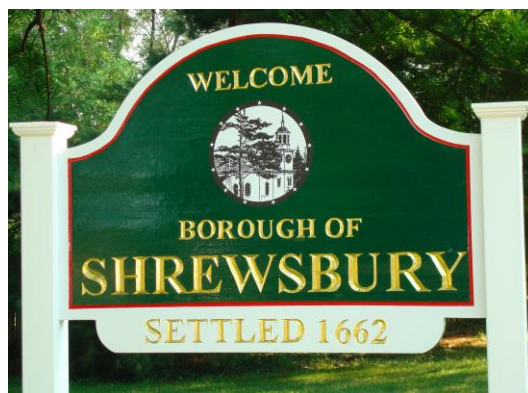
Signed

State Forester

Date Approved

2.0 Introduction

Upland deciduous forests such as oak, chestnut and mixed-oak forests covered Shrewsbury at the time of its settlement by Europeans. A few scattered small groves of mixed-oak and beech wood trees still exist in the borough on private and public property and several stately mature beech and oak trees make their individual statements throughout the borough. Century old sycamores have lined an old Lenape Indian path called the Burlington Path and lend their name to this main thoroughfare now known as Sycamore Avenue. It is likely that thirteen sycamores were planted in 1876 at the time of our country's Centennial celebration. The Seal of the Borough of Shrewsbury depicts the Council Pine, a site where the Lenape Indians met, reflecting our heritage as an important site in the history of native Indians.



**Borough Welcome Signs
Sycamore Avenue**

Understanding trees and urban forestry can provide measurable benefits to many people. Communities that are struggling to retain their current level of tree coverage and maintain a healthy community of shade trees need to appreciate the complexity and interaction of people and trees, and the economic consequences of a neglected urban forest. It is



Memorial Gazebo

up to us to educate our community that trees offer the following benefits: cleansing water and air, reducing flooding and erosion, cooling ambient air temperature, buffering noise, and providing habitat for wildlife.

Their aesthetic and scenic beauty enhances our properties as well as human sociability by decreasing stress and inspiring minds. As the population increases and natural areas are converted to many uses, trees take on a new meaning and importance. What was simply a wooded area along roads, in back yards, and next door, are now important individual features in our community. This plan will address the current status of our community forest and offer a way to protect and increase our green heritage while emphasizing the value of a healthy community forest to our residents.

The Community Forest can be defined as the woody landscape plants that exist in a given locale. For the purpose of this document, the Community Forest shall be defined as the landscape plants that occur on all public properties and the trees that line right-of-way streets within the community, typically termed shade trees or street trees. Trees exist on private property sometimes in close proximity to the streets, and since these interact and impact the community they shall be considered part of the Community Forest.

Acknowledging the contribution shade trees and forests make to a community, and the necessity to nurture, protect and manage a vigorous Community Forest resource, the State Legislature passed the New Jersey Shade Tree and Community Forestry Assistance Act on December 5, 1996. This Act enables New Jersey's communities to reduce or eliminate their exposure to liability and subsequent litigation due to the drastic decline and poor condition of the community tree resource.

The 5-year Community Forestry Management Plan is an essential guide to successfully manage and maintain a healthy and safer Community Forest. The Community Plan has established new goals and guidelines to measure the progress made with the 5-year plan for future planting



Borough Municipal Hall

and maintenance of the Community Forest. Implementation of the objectives will help to maintain the historic character and intimate scale of Shrewsbury and improve the aesthetics, civic pride, environmental quality, and climatic conditions of the community. In addition, this plan will result in a better response to citizen requests for work, a decrease in hazardous tree situations, and long-term reductions in tree maintenance and removal costs.

2.1 Mission Statement

To recognize the value of Shrewsbury's green heritage and promote a healthy, safe and sustainable landscape of shade trees and other plant material that will physically, economically and aesthetically benefit the community and the environment. By providing guidelines for the selection, planting and care of landscape materials it is possible to ensure that Shrewsbury's streets, public spaces and commercial properties offer residents, workers, shoppers and passersby with an opportunity to enjoy the benefits of shade trees and healthy landscaping.

2.2 Goals and Objectives

The goals and objectives of this plan are as follows:

Goal #1 – Develop, Adopt and Implement Community Forestry Management Plan (CFMP)

Objectives:

- 1A Develop and submit CFMP to Borough
- 1B Submit and receive approval of CFMP by the New Jersey State Forester
- 1C Distribute CFMP to stakeholders within community (i.e., DPW)
- 1D Integrate CFMP into Borough Master Plan and other related documents
- 1E Update CFMP as needed and prepare CFMP 2016-2020

Goal #2 – Inventory Community Forest Resources

Objectives:

- 2A Review existing Northeast Quadrant tree inventory conducted in 2006 and its objectives, criteria, processes, and resource needs (e.g., manpower, funding, software)
- 2B Update established objectives, criteria, processes, and resource needs (e.g., manpower, funding, software) for an updated community tree inventory
- 2C Conduct an updated, more comprehensive Street and Public Lands Tree Inventory
- 2D Create criteria for, and list of, outstanding tree specimens, tree stands, heritage and dedication trees in the borough

Goal #3 – Maximize Public Tree Safety

Objectives:

- 3A Develop guidelines for hazard tree assessment
- 3B Develop a Tree Hazard Identification and Risk Mitigation Plan
- 3C Identify tree hazard identification and mitigation training opportunities
- 3D Formalize process for Tree Service Requests
- 3E Provide and disseminate educational materials on tree hazards to the public
- 3F Strengthen working relationship with the Department of Public Works and utility companies to oversee and care for Borough trees

Goal #4 – Develop Long-term Tree Planting and Maintenance Plan

Objectives:

- 4A Develop objectives for a long-term tree planting plan
- 4B Develop objectives, criteria and processes for a tree maintenance plan
- 4C Identify high visibility, profile areas to receive priority attention
- 4D Analyze information collected from tree inventory and hazard tree assessments to identify future community tree resource needs

Goal #5 – Train Shade Tree Commission Members, Borough Employees, and Volunteers

Objectives:

- 5A Ensure that STC members and key borough employees receive CORE training
- 5B Identify expanded training opportunities for STC members and borough employees on approved programs on tree ID, safety, pruning, hazard mitigation,

- and related topics; meet continuing education requirement of 8 continuing education units (CEUs) per year; create a logbook to document completed training
- 5C Maintain membership in NJ Shade Tree Federation and attend state and Monmouth County annual meetings
- 5D Train volunteers to facilitate completion of tree inventory and maintenance

Goal #6 – Create Public Education, Awareness and Outreach Programs

Objectives:

- 6A Develop 2012-2015 educational content vision for STC web-page
- 6B Leverage STC web-page on Shrewsbury Borough web-site and the Borough's Quarterly Newsletter to provide information to the public on tree selection and care
- 6C Maintain Tree City USA designation
- 6D Sponsor in the Borough's Arbor Day celebration
- 6E Provide an Annual Accomplishment Report to NJ Forest Service and to the Mayor/Council

2.3 Liability Statement

Although the Borough of Shrewsbury recognizes all of the benefits provided to the community by its tree resource, it also recognizes the liabilities. As trees are living entities, it is inevitable that as they mature they eventually require care, maintenance, removal and replacement. The Borough must, however, work within a reasonable budget and may not be able to meet each and every demand placed on them. Therefore it is the intent of this plan to focus available resources to reduce obvious and predictable tree hazards to enhance public safety.

Since it is impossible to predict or prevent all hazardous conditions that may arise, Shrewsbury is developing this plan to become more proactive in its tree maintenance. Proactive tree management should reduce the occurrence of unexpected events. Following this plan will demonstrate Shrewsbury's continued commitment to proper tree management within the Borough's rights-of-way and public holdings with the aim of reducing the potential for future tree related accidents and thereby reducing its exposure to liabilities and increasing public safety.

3.0 Overview of Shrewsbury Borough

3.1 Overview

Shrewsbury was settled in 1662 and became known as one of the “Two Towns of the Navesink” watershed. The Navesink watershed comprises 95 square miles in the northeastern portion of Monmouth County. In 1665, under the authority of King Charles II, three villages were “purchased” from the local Lenni Lenape Indians, a branch of the Algonquins. The three villages consisted of Portland Point, located near Atlantic Highlands, Shrewsbury, south of the Navesink River, and



Shrewsbury Historical Society

Middletown, which was roughly, in the middle of the watershed. Portland Point ultimately faltered, and thus Shrewsbury and Middletown became known as the Two Towns of the Navesink.

Shrewsbury has a history of commitment to its green heritage. The Historic Four Corners, the intersection of Broad Street (formerly Kings Highway) and Sycamore Avenue (the former Indian Burlington Path to the shore), is listed in both State and National registries as a historic district. Photographs of mature sycamore trees, which to this day decorate Sycamore Avenue and Broad Street, date to 1884. Originally there were thirteen Sycamores planted along Sycamore Avenue by early colonists of New Jersey to commemorate the thirteen colonies. They marked the trail used by the Indians and later Washington’s troops on the Burlington Path. The Shade Tree Commission has planted additional Sycamore trees adjacent to the existing trees should something happen to the older trees.

Shrewsbury was incorporated as a Borough by an act of the New Jersey Legislature on March 22, 1926. The Borough seal depicts “the Council Pine” and Christ Church and

claims a settlement date of 1662. The Council Pine was planted at the center of Sycamore Avenue, east of Broad Street. It is believed to have been planted c. 1835 on what was considered a historic site and was once a general meeting place for political discourse.

The Borough of Shrewsbury consists of approximately 2.3 square miles and is primarily a residential community but has seen significant commercial growth since the 1970s. As of the U.S. 2009 census, the Borough population was 3,772. The Borough maintains an active Shade Tree Commission whose duty is “to advise and consult with the Mayor and Council on all matters relating to the planting, control and care” of all shade and ornamental trees situated on public property.

A number of Borough ordinances exist that describe the duties of the Shade Tree Commission and its powers (chapters 9, 246, and 183, see appendix). The Shade Tree Commission has the mandate to identify and remove hazardous trees in the community but neither a systematic plan, nor funding in the budget exists for a proactive tree maintenance program. With the implementation of the Community Forestry Management Plan, the Commission hopes to qualify for CSIP training and funding to develop such a program.

The following section lists State-funded Green Acre Properties dedicated to recreation and open space existing in the Borough. At this time, no further applications for Green Acre Property are anticipated.

3.2 Parks and Recreation

The Shrewsbury Shade Tree Commission has long worked with the Borough in the development of the beautiful, multi-purpose parks in our town, while emphasizing the importance of preserving the remaining open space.

The Borough of Shrewsbury provides three (3) active recreation parks for our residents, that are well maintained and provide a wide variety of activities in a small amount of acreage. The borough school has expanded their recreational facilities for the school teams (and recreational activities) since the last school addition was completed in 2003.

Dorothy Blair Manson Park (Manson Park) (Green Acres)

Manson Park is located at the Borough Municipal Complex at the intersection of Broad Street (Route 35) and Sycamore Avenue. It has a playground, jogging/walking track, Little League size baseball/softball field, and a full size soccer/lacrosse field.

Robert Graham Athletic Fields (Sickles Park) (Green Acres)

Sickles Park is located at the end of the Cul-de-sac on Sickles Place. It has three tennis courts, full size basketball court, playground, Little League and full size baseball field, full size soccer field and a batting cage.

Parker Park (Patterson Park)

Patterson Park is located on Patterson Avenue. It has a full size basketball court, playground, two Little League size baseball/softball fields with a batting cage, and four micro soccer fields.

Shrewsbury Borough School Recreational Facilities

The Borough School recreational facilities are located behind the school on Obre Place. It has three full size basketball courts, playground, little league and full size baseball/softball fields with a batting cage, and a full size soccer field.

The Borough provides three passive recreation parks for our residents. These are underdeveloped and provide an opportunity for preserving flora and fauna. These parks are:

- **Buttonwood Park**

- **Ester W. Hymer Nature Preserve (Esther Hymer Walking Trail)**
- **Beech Tree Lane (Sycamore) Park**

In addition to the above-mentioned parks and open space, the Borough has the following five (5) well-defined conservation easements adjacent to residential lots, and when combined, total more than 83 acres:

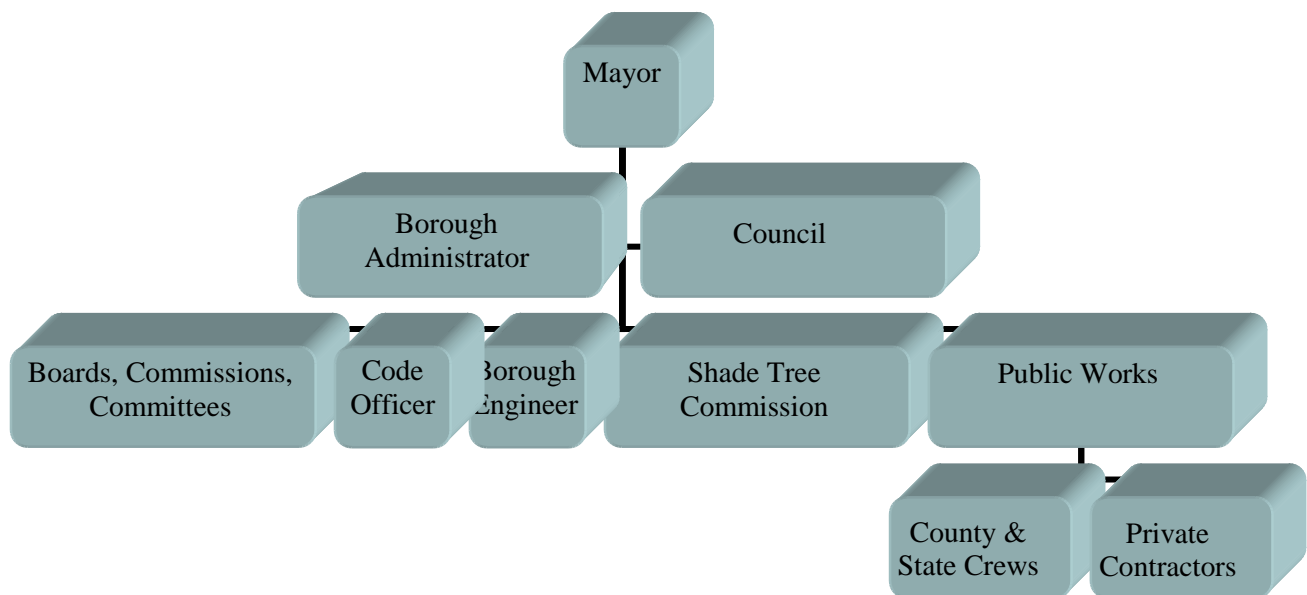
- NE quadrant of town, south of Heritage Drive and Constitution Drive (Heritage Green subdivision), abutting to the western edge of the Robert Graham Athletic Fields (next to Farrell Tract)
- NW quadrant of town, north of Beech Tree Lane subdivision
- SE quadrant of town, adjacent to Parkers Creek, south of Dorchester Way, continuing behind Strauss Drive, and connecting to Esther W. Hymer Nature Preserve
- Paddington Farms, between Regent Drive and Penbrook Court
- Located along the stream and pond south of Thornebrook Drive.

The borough is in the process of acquiring Narrowgate Farm (Bonanno Property) directly across the Municipal Complex. STC will explore opportunities to provide input into the site plans for this location.

4.0 Community Forestry Program Administration

The Borough of Shrewsbury Department of Public Works is the entity charged with overseeing the care of the Borough's tree resource. In reality, oversight is a cooperative effort of the Board of **Shade Tree Commissioners**, Department of Public Works and many other boards and agencies working to achieve this goal. The following chart depicts those involved in the Shade Tree Management process as they pertain to borough or county roadways.

4.1 Organization Chart



4.2 Roles and Responsibilities

The roles and responsibilities of the stakeholders in the Borough related to planning and implementation of the Community Forestry Management Plan include:

4.2.1 Shade Tree Commission

The Borough of Shrewsbury Shade Tree Commission was established in 1973. It is a seven member volunteer board. The Mayor appoints members for five-year terms. The Commission is an advisory agency for all community trees on municipal streets, rights-of-way, parks, or other properties. Their duties include:

- Advise regarding the planting, removal, placement and general maintenance of borough trees.
- Develop and recommend the policies and goals that will preserve and develop Borough of Shrewsbury 's tree resource.
- Perform public outreach to foster better understanding and care for Borough of Shrewsbury's trees on both public and private properties.
- Assist in the handling of any complaints from Shrewsbury homeowners regarding trees in public right of way or requests received for a new street tree.
- Develop and review annual budgets with the Borough Administrator and submit them to Council.
- Review landscape plans submitted to Planning & Zoning Board for development projects

	<u>Name</u>	<u>Original Appointment</u>	<u>Term Expiration</u>
Chairperson:	Nancy Schmaltz	01/01/1996	12/31/2014
Members:	Ellen Preissler	02/24/2000	12/31/2013
	Katherine Wilson	04/03/2000	12/31/2012
	Dianne Crilly	09/20/2004	12/31/2013
	Steven Skop	06/15/2009	12/31/2011
	Dawn Walsh	08/02/2010	12/31/2012
	Bill Gerth	01/03/2011	12/31/2015
	Betsy Wattley (Alt. #1)	01/03/2011	12/31/2015
Council Liaison:	Tom Menapace		
Secretary:	Susan Milnes		

4.2.2 Mayor – Borough Council

Our current mayor, Don Burden, was appointed to the Commission when it was established in 1973. He spent more than 20 years as Chairman until his election as mayor in 2010. He led the Commission through the years, creating a vision to protect

and preserve Shrewsbury's historic trees and to continue the tradition of keeping a green canopy throughout our verdant neighborhoods. There is significant support from all elected borough officials in support of STC endeavors, mainly the planting of new street trees and shade trees throughout our public properties. Our annual tree-planting budget reflects this ongoing commitment and the encouragement of STC members to attend the annual NJ Shade Tree Federation meeting and the dissemination of tree seedlings for each year's Arbor Day event. STC members' efforts are recognized at council meetings and the annual Tree City USA announcements are always received with great pride. Council President, Tom Menapace, is also the liaison to STC and has shown his dedication to understanding the STC mission and representing this to his colleagues.

4.2.3 Borough Administrator

The Borough Administrator is the chief financial agent of the Governing Body in the administration of the municipal affairs and in the integration and coordination of activities of the various offices of the Borough. The following aspects pertain to STC functions:

- Assist in the preparation of the annual municipal budget
- Facilitate STC purchases
- Serve as a link in Tree Service Requests

4.2.4 Department of Public Works

Communication between STC and Department of Public Works is essential for the smooth operation of tree planting and maintenance duties. An active team is busy throughout the year with regular street and parks maintenance work and the occasional emergency clean up. Routine calls from homeowners regarding street tree issues are shared between the STC and DPW. All advance preparations with finalizing the list, measuring and marking out for new street tree planting is done in conjunction with DPW. The following tree-related functions are served by the DPW:

- Responsible for tree removal, pruning and brush clean-up along municipal roadways and on borough properties.
- Responsible for some planting and upkeep of young trees along municipal roadways and on borough properties.
- Reporting of any tree hazards or other problems to the superintendent of public works.
- Determine if a street tree is in the borough right of way.
- Serve as a link in Tree Service Requests.
- Serve as a link with utility companies for tree pruning needs.
- Arrange equipment (e.g., stump remover) shared services with neighboring towns.

4.2.5 Borough Engineer

The borough engineer, Cranmer & Associates routinely advises STC on the status of applications before the Planning and Zoning Boards. Punch lists are reviewed for anything applicable to STC landscape requirements and if follow up is needed or any action taken. STC and the engineer's office are to collaborate when sidewalks issues are raised.

4.2.6 Borough Code Enforcer

The Code Enforcement Officer is contacted by STC when a dangerous situation exists on private property that is a hazard to the general public or when any violation of the STC ordinance has occurred, for example, if a homeowner has removed a tree in the borough right of way.

4.2.7 Private Tree Contractors

A private contractor plants all new street and shade trees. Private contractors may be deemed necessary when difficult or large climbing jobs arise on a case-by-case basis; most tree care and maintenance activities are done in-house or by Monmouth County Shade Tree crews (on county roads).

4.2.8 Utility Contractors

A permit is required to conduct any non-emergency tree work in Shrewsbury. According to borough ordinance the following procedure must be followed when any utility company is requesting a permit to conduct any non-emergency tree work (see form in appendix):

- File an application at the borough clerk's office for a permit with STC at least 30 days prior to scheduled work and shall pay a permit fee of \$25.00 before any work can begin.
- Notify residents in writing of planned dates of work at least 30 days prior to start.
- Must follow all current arboricultural practices and recommendations.
- May be called to assist Public Works Department tree crews in clearing trees to a safe distance from utility lines when necessary and beneficial.

4.2.9 General Public

The diligence of the general public in recognizing any tree health concerns and reporting them to the borough is necessary in protecting the overall community forest in Shrewsbury. STC relies on them to continue to report all requests for maintenance, removal or new planting to the Department of Public Works or the Shade Tree Commission. Follow-up care to newly planted trees is required when planted in the right-of-way in front of a residence.

4.3 Tree Service Request Process

Pruning, removal and planting requests can be made by any department or individual residing in the Borough of Shrewsbury as long as the property in question is owned and maintained by Borough of Shrewsbury. This includes parks, playgrounds and ball fields or along the street right of way. Tree service requests must adhere to the following procedures:

- Requests must be directed to the Borough of Shrewsbury Department of Public Works either directly to DPW or through contacting the borough clerk's office, administrator or any member of the STC.

- The Superintendent of Public Works and a member of STC will review non-emergency work requests. These requests will then be prioritized and placed on the work schedule or referred to the appropriate county or state agency.
- When possible, work requests will be completed in the order in which they were received (excluding emergency or priority work) and will be completed in a reasonable time period.
- Property owners adjacent to the requested work and/or those making the request can contact the Borough to inquire if any action will be taken



Trees at Commercial Property (The Grove)

5.0 Maps of Shrewsbury Borough

The Borough of Shrewsbury is a 2.3 square mile suburban community located in Monmouth County. It is located contiguous to the following communities:

- To the North by the Borough of Red Bank
- To the East by the Borough of Little Silver
- To the South by the Borough of Eatontown, the Borough of Oceanport
- To the West by the Borough of Tinton Falls and the Township of Shrewsbury

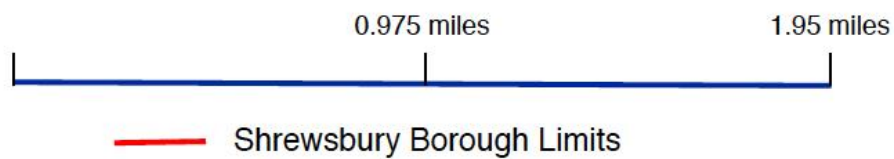
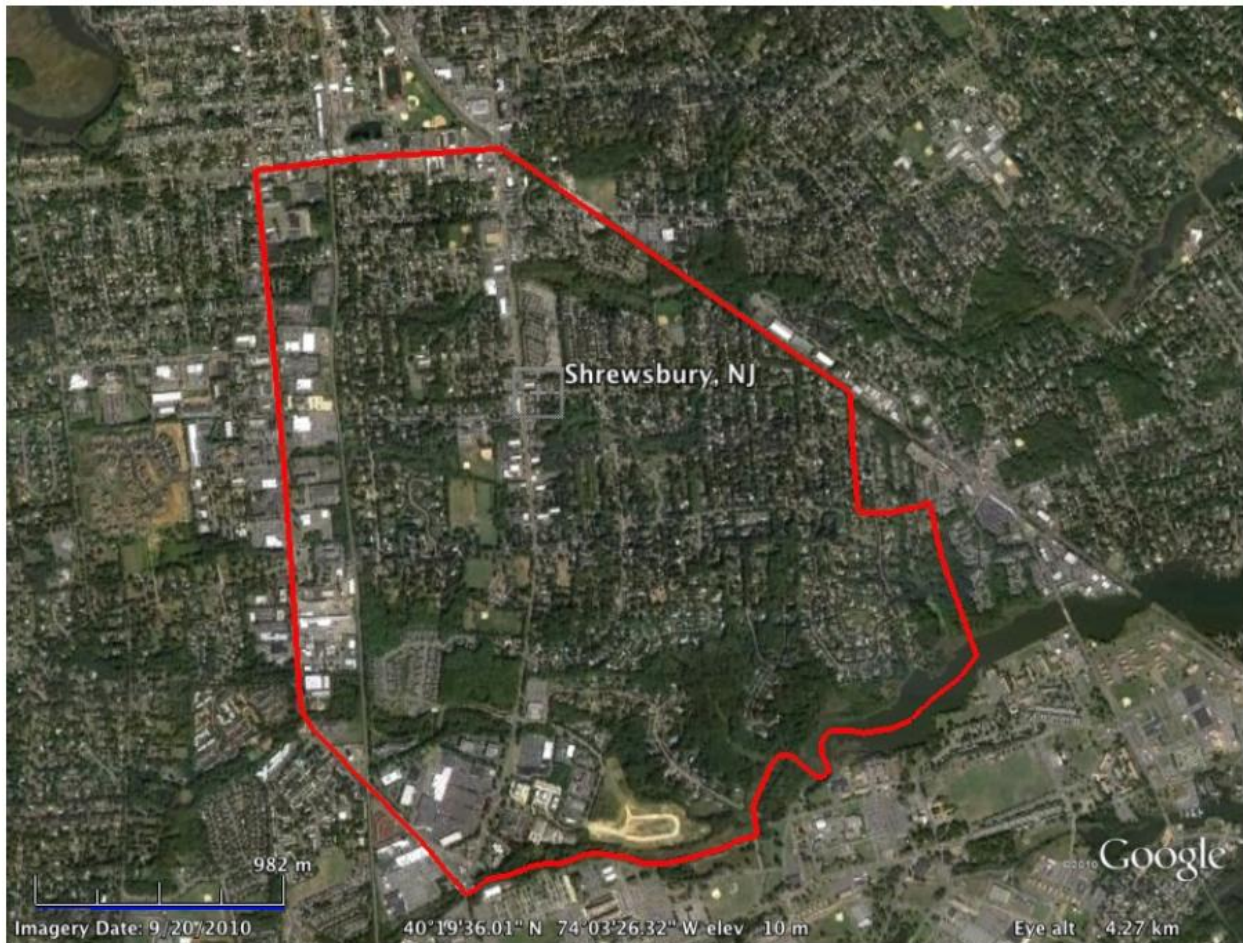
The following major roadways dissect the Borough of Shrewsbury:

- State Hwy 35 (Broad St), north/south road, gateway to Red Bank and Eatontown
- County Rt. 13 (Shrewsbury Ave), north/south road, gateway to Red Bank and Rt. 35
- County Rt. 13A (Sycamore Ave), east/west road, gateway to Little Silver and Tinton Falls
- Country Rt. 520 (Newman Springs Rd), east/west road, gateway to coastal area via Red Bank and Tinton Falls.

Two rail lines impact the Borough of Shrewsbury.

The following are maps of the Borough of Shrewsbury:

5.1 Aerial View Google Earth 9/20/2010



5.2 Engineer's Map



6.0 Training Plan

The following members of the Shade Tree Commission and Borough employees have completed the NJ Community Forestry CORE Training:

Shade Tree Commission: Nancy Schmaltz
Steven Skop
Dawn Walsh
Bill Gerth
Betsy Wattley
Miles Swikhart (past member)

Borough Officials: Don Burden (Mayor)

Several STC members have attended the Annual Shade Tree Federation Meeting since 2005. Nancy Schmaltz and Steven Skop attended the meeting in 2010. The Borough provides funds for this meeting in the STC budget as well as for membership dues. Several STC member have also attended the Monmouth County Shade Tree Commission Spring Forum. Kathy Wilson, Betsy Wattley, Bill Gerth and Nancy Schmaltz attended the meeting in 2011.

The focus of future training will be geared to classes, workshops or seminars appropriate to assist with the implementation of the Community Forestry Management Plan and maintain compliance with the objectives of the plan in accordance with the New Jersey Community Forestry Council's training requirements. Additional Shade Tree Commission members or staff will participate in CORE training to retain two or more CORE trained individuals including one employee of the Borough. Borough funding and grants will be sought for the continuing education of the selected persons.

The Borough of Shrewsbury has identified the following areas where training is needed:

- Continuing CORE training
- Tree identification and risk tree assessment
- Proper tree pruning for young and mature trees
- Species selection and site criteria

- Proper planting techniques
- Sidewalk tree root conflicts

All individuals involved in the Shade Tree Commission will be CORE trained by sending at least one member to CORE training each year until all individuals involved in the program meet those requirements.

Members of the Department of Public Works receive professional development training in forestry management related fields. The professional training received by current members of DPW within the past 5 years includes: chain saw safety, pruning, tree removal, and rigging and safety instruction.



Sycamore Trees on Shady Lane

7.0 Public Education, Awareness and Outreach

Public education, awareness and outreach are seen as an important part of the success of the Community Forestry Management Plan in Borough of Shrewsbury.

- **Education** - will result in better placement and maintenance of trees on public and private land in the Borough.
- **Awareness** - will result in strong community support for future community Forestry fiscal budgets and grants.
- **Outreach** - will forge strong relationships with volunteers and community organizations that will result in the implementation of new planting, programs and activities.



Patriot Isle on Memorial Day

Shrewsbury is a small community. Many of the members of STC are involved in other community organizations and activities overlap. Because we are small we tend to have 'big' events periodically. For example, History Day is held every few years instead of annually. STC actively participates in these events to promote its education, awareness and outreach mission.

STC takes the lead in several programs to educate and create awareness in the community about tree-related topics and to reach out to volunteers and other organizations. Some of these programs include:

- **Arbor Day** - Arbor Day is a significant, nationally recognized day and is honored each year with a Tree Seedling give away program with kindergarten students.

Shrewsbury has achieved Tree City USA status for 13 consecutive years and the Growth Award on 3 occasions.

- **Earth Day** - STC joins the Environmental Commission at an annual Recycling Day/Earth Day celebration at the end of April. This date coincides with Arbor Day in NJ and so it is a perfect opportunity to set up a display with fact sheets on tree care issues and conduct a drawing for a student to win a tree.
- **Dedicated Tree Program** – STC maintains a memorial tree-planting program. There are currently 11 commemorative trees on municipal property.
- **Sustainable NJ** – STC is represented on the Environmental Commission's Green Team to pursue community objectives related to Sustainable NJ
- **Borough Newsletter** - STC routinely places articles in the Shrewsbury Community Newsletter that is published on a quarterly basis. Recent articles have been published on tree pruning, tree stake removal, deer rubs on tree trunks, and NJ invasive non-native plant species.
- **Shade Tree Commission Web site** – STC maintains we web site as a part of the Boroughs web site. The STC site currently includes a mission statement for STC, current membership, and meeting agendas and minutes. STC will explore ways to expand and take advantage of the Borough web site to provide tree-related information to the public.

The STC can serve as a catalyst for future programs at local community festivals and collaborations with community service organizations like the Shrewsbury Garden Club, the Boy Scouts and the Girl Scouts, and Monmouth County Master Gardeners as well as with local businesses and the Shrewsbury Borough School. STC will develop, maintain, and extend liaisons to other organization in Shrewsbury like the Environmental Commission as part of its outreach initiatives. The formation of possible subcommittees for public relations and education that could organize programs, identify costs for formulation of a budget, and document the processes and programs sufficiently that new members can easily follow what was done the previous year will be considered.

8.0 STATEMENT OF TREE BUDGET

8.1 Annual Budget:

The Borough of Shrewsbury maintains a yearly operating budget for the purchase of new trees and for tree management. In 2010, the amount allocated to planting new trees was \$3,543.53. The Borough budget is similar to that of other surrounding communities in that the majority of the budget is spent on tree removal, maintenance, and leaf pickup and debris removal.

The Shade Tree Commissioner, along with the Secretary of the STC handles the daily business of the STC, including organizing the monthly meetings, fielding inquiries from the community, local businesses, utilities and the purchase of trees. They work closely with the Department of Public Works (DPW), and the Mayor and Borough Council to deal with shade tree issues as necessary.

Tree service workers are skilled positions, whose duties include difficult pruning, tree climbing and cabling. The Borough employs several employees who are trained to work on the trees, but will hire outside contractors when necessary. DPW provides equipment and manpower.

In addition, the seven members of the STC and the borough council liaison donate their time for the monthly meetings and site visits at the rate of \$21.36 / hour. In 2010, this amounted to over 200 hours, for a total of \$4,272.00 of in-kind value to our budget.

STATEMENT OF TREE BUDGET - 2010

Salaries and Wages:

Public Works Superintendent (5% of time)	\$ 4,001.95
Foreman (10% of time)	\$ 7,251.70
Tree Crew (100 hours/yr)	\$ 2,878.00
Employee Benefits (15% of salary/wages)	\$ 7,200.00
Employee Tree-Related Training	\$ 2,000.00

Operating Expenses:

Horticultural Materials (i.e., trees)	\$ 3,460.00
Dues (NJ Shade Tree Federation)	\$ 245.00
STC Secretary	\$ 500.00
CORE Training (STC)	\$ 445.00
Equipment and Machinery	\$ 13,000.00
Equipment Repair and Maintenance	\$ 2,500.00
Contracted Tree Services	\$ 1,500.00

Other Programs and Expenses:

Leaf Collection (labor and fuel)	\$ 33,594.90
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Shade Tree Commission:

Monthly Meetings, Site Visits, Training	\$ 4,272.00
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8.2 Volunteer Resources:

Volunteer service provides an enormous benefit toward achievement of the Community Forest goals and objectives. The Commission recognizes the power that the process of fostering and working with volunteers can provide.

The Environmental Commission and the Shrewsbury Garden Club could provide significant volunteer hours toward supporting the Community Forest.

Students can be reached through the Environmental Club at the borough school and, through Shrewsbury Homesteaders, senior citizens can be targeted for more involvement in community forest activities.

The Recreation Commission has a vested interest in providing the best possible outdoor venue for sports and playground activities as well as areas for quiet passive recreation.

Business owners, Boy Scouts, Girl Scouts, and Master Gardeners, given the right project, have the potential to provide a tremendous degree of assistance and provide a valuable conduit to foster education and respect for the Community Forest.



Sycamore Trees on Broad Street

9.0 PLAN IMPLEMENTATION

The following describes the process by which the Borough intends to implement the Community Forestry Management Plan. Timelines are listed over a five-year period and will be adjusted as needed annually. Assessment reports are to be done by STC or consultant as required to test the effectiveness of the program as well as meeting timeline objectives. The Borough has begun an inventory of its public tree resources in order to gather accurate information regarding the number of trees, their species composition, age and condition, and subsequent planting needs.



**Flag Where Council Pine
Once Stood**

The Borough of Shrewsbury is committed to improving safety and reducing liability and the cost of managing it through proactive shade tree management. Public safety shall be the primary consideration in all shade tree planning, decision-making and activities at all levels of the shade tree management program. The Borough recognizes that it can not efficiently or effectively manage its shade tree resource toward specific goals without first having an accurate assessment of its current status through a thorough street tree inventory. The CFMP plan prepares for that eventuality by recognizing that funding is not available at this time, and regardless of funding limitations, will try to bring the borough up to speed in the Community Forestry program with a limited survey. The following goals are designed and chronicled deliberately to allow for a support system to be in place without putting strain on municipal services.

There are many trees of significant size in the borough on both public and private property along with street trees that are aging or have matured since residential development started in the 1950s. The largest notable tree problem is the large number of trees that have been damaged by improper pruning by both homeowners and the

utility companies. Since this is such a large problem in the borough, public education about proper tree care and pruning will be a high priority of this plan. Continuing the open lines of communication with the local utility companies and establishing an ongoing maintenance program should help considerably. Tree/sidewalk conflicts, narrow planting strips, vehicle damage to low branches and trunks, deer damage, girdling roots, drought stress and tree-related issues on commercial properties are common problems that need to be addressed in the future. There are most certainly other insect, disease and cultural problems present, but none of these are currently at an intolerable level or worthy of note at this time. Awareness and identification of serious potential threats to our community forest such as the Asian Longhorned Beetle, Emerald Ash Borer and Bacterial Leaf Scorch will be emphasized. Each year we are advised of the current potential threat at the annual Monmouth County Shade Tree meeting.

Ideally, the Community Forestry Management Plan will be linked to the Borough's Master Plan. It is the intent of this plan to establish goals and initiate objectives that will protect and enhance the tree resource of Borough of Shrewsbury through a program of planting and preservation that will benefit present and future generations of the community. Once this Community Forestry Management Plan is accepted by the state, it will be presented to the Planning Board for incorporation into the revised Master Plan.

9.1 Schedule of Plan Implementation

The schedule provided below specifies the year in which an activity is expected to be initiated. The year extends for a full 12 months from the month this plan is approved. Thus if the plan is approved by October of 2011 the Year 1 plan of activities is expected to be completed by the end of September 2012 and Year 2 to begin in October of 2012.

<u>Year</u>	<u>Description of Activity (Goal #)</u>
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Year 1

- | | |
|-------------|--|
| 2011 | <p>Complete CFMP and submit to Borough leadership and NJ Community Forestry for feedback and approval (G#1)</p> <p>Review existing tree inventory and establish objectives and criteria for community tree inventory (G#2)</p> <p>Create criteria for outstanding, heritage/dedicated tree specimens/stands (G#2)</p> <p>Develop guidelines for hazard assessment (G#3)</p> <p>Identify tree hazard identification and mitigation and other tree-related training opportunities (G#3, G#5s)</p> <p>Identify high visibility/profile areas within Borough for priority attention (G#4)</p> <p>Develop 2012-2015 educational vision for STC web-page (G#6)</p> |
|-------------|--|

Year 2

- | | |
|-------------|--|
| 2012 | <p>Integrate CFMP into Borough Master Plan (G#1)</p> <p>Establish process, select software for, and initiate Street and Public Lands Tree Inventory (G#2)</p> <p>Create list of outstanding, heritage/dedicated tree specimens/stands (G#2)</p> <p>Develop a Tree Hazard Identification and Risk Mitigation Plan (G#3)</p> <p>Develop objectives, criteria and processes for long-term tree planting and maintenance plan (G#4)</p> <p>Analyze information collected from tree inventory and hazard tree assessments to identify future community needs (G#4)</p> <p>Attend training programs (G#5)</p> <p>Revise education component of STC web-page (G#6)</p> <p>Update CFMP as Needed (G#1)</p> |
|-------------|--|

Year 3

- | | |
|-------------|---|
| 2013 | <p>Integrate CFMP into Environmental Resource Inventory (ERI) (G#1)</p> <p>Conduct hazard tree visual assessment and recommend response (G#3)</p> <p>Analyze information collected from tree inventory and hazard tree assessments to identify future community needs (G#4)</p> <p>Attend training programs (G#5)</p> <p>Revise education component of STC web-page (G#6)</p> |
|-------------|---|

Update CFMP as Needed (G#1)

Year 4

- 2014** Conduct hazard tree visual assessment and recommend response (G#3)
Analyze information collected from tree inventory and hazard tree assessments to identify future community needs (G#4)
Attend training programs (G#5)
Revise education component of STC web-page (G#6)
Update CFMP as Needed (G#1)

Year 5

- 2015** Conduct hazard tree visual assessment and recommend response (G#3)
Analyze information collected from tree inventory and hazard tree assessments to identify future community needs (G#4)
Attend training programs (G#5)
Revise education component of STC web-page (G#6)
Update CFMP as Needed and Prepare CFMP 2016-2020 (G#1)

9.2 Tree Inventory and Assessment

A limited street tree inventory for the Borough was conducted in 2006. The Shrewsbury STC partnered with Matthew Eddy, from Boy Scout Troop 50 to work on the inventory as part of an Eagle Scout project. The purpose of this inventory was to learn about the variety and condition of our street trees. The inventory focused on the northeast quadrant of town from White Road to Sycamore Avenue (excluding Heritage Green and Country View Estates), and from Buttonwood Drive to East End Avenue. The project took 165 hours to complete over a period of four (4) months on 24 streets.

The volunteers determined the species, circumference, condition and GPS coordinates of the trees, as well as determining if the trees were in the borough right of way (ROW). Trees were assigned a Tree ID number. Properties without a ROW tree were included for future reference. Information was gathered on paper forms that were easy to use in the field. A Database provided by the University of Massachusetts for use by Shade

Tree Commissions was used to upload, organize and store the information collected in this inventory.

The inventory located 714 street trees in this section of town; 109 trees had some deadwood (90 trees had <25%). There were 305 trees not in the ROW and therefore not identified by species. Overall, 40 different species were found by the volunteers.

The results showed that the most (identified) planted trees were:

- Pin Oak (*Quercus palustris*) – 13%
- Sugar Maple (*Acer saccharum*) – 10%
- London Plane (*Platanus acerifolia*) – 8%
- Norway Maple (*Acer platanoides*) – 7%
- Red Maple (*Acer rubrum*) – 3%
- Honey Locust (*Gleditsia triacanthos*) – 3%
- American Elm (*Ulmus Americana*) – 2%

The least (identified) planted trees in this NE corner of town were:

- Black Oak (*Quercus velutina*)
- Colorado Blue Spruce (*Picea pungens*)
- Flowering Dogwood (*Cornus florida*)
- Canadian Hemlock (*Tsuga Canadensis*)
- Douglas Fir (*Pseudotsuga menziesii*)
- Japanese Maple (*Acer palmatum*)
- Littleleaf Linden (*Tilia cordata*)

A summary of the processes and findings are provided in the appendices of this CFMP.

With the approval of the Community Forestry Management Plan, the Shade Tree Commission hopes ultimately to expand our tree inventory and document the entirety of heritage trees in the community. The Borough will undertake an expanded Borough-

wide tree inventory that will include elements of a hazard tree assessment inspection detailed in Section 9.3. Doing so will allow the Borough to proceed with a more proactive and more efficient systematic maintenance program. It will reduce future tree failures and resident requests.

9.3 Hazard Tree Identification & Mitigation

The Tree Inventory and Assessment will identify and classify dangerous trees and dangerous conditions such as amount of deadwood. This information will help the Borough of Shrewsbury to develop priorities in its efforts to reduce potentially hazardous tree conditions. The following are components of what is envisioned for the plan related to hazard tree identification and mitigation:

- Training for volunteers and employees to recognize and report potential risk trees.
- Completing periodically a limited hazard tree survey in areas of greatest need. Procedures and schedules will be developed for routinely inspecting all Borough trees once per year to promptly identify potential hazards. The inspection may be completed all at once, or over the course of each year. The Hazard Tree Inventory will serve as the initial annual inspection. Subsequent annual and periodic inspections can be simpler and faster “windshield surveys” with more detailed look at trees that were previously identified with potential problems or are declining in health.
- Urging all people within STC, borough employees, and the community to report all potential problems; most tree hazards are currently identified through requests from homeowners & DPW.
- Inspecting reported problems to determine the course of action.
- Prioritizing all identified work needs and completing them when time and available resources permit, or at the appropriate time in the future, based upon the degree of hazard potential. An effort will be made to complete all high priority hazard reduction work identified during the hazard Tree Inventory within two years. It is very likely that this will be beyond the time and manpower resources of the Borough so alternate sources of funding may be necessary for a contractor to complete all or a portion of the work.
- Attending future Tree Hazard Assessment and Evaluations Training at the annual New Jersey Shade Tree Federation meeting.

The hazard abatement work conducted during the term of this 5-year CFMP will be analyzed for patterns and trends in species, age, location, prior work history, and other relevant parameters and will be considered in the development of the CFMP for the 2016 to 2021 timeframe. For example, the results may lead STC to adjust management techniques to reduce future hazards (e.g. avoid planting certain species, adjust pruning techniques, avoid monoculture etc.).

9.4 Tree Planting and Maintenance

The maintenance program outlined in this Plan will help extend the aesthetics and useful life of the trees and subsequently, the tree population overall. However, the decline and death of trees is inevitable. This trend must be stabilized, and then reversed so that the Borough's tree resource can be perpetuated at a level sufficient to benefit the community. Local street tree sidewalk conflicts are the responsibility of each property owner to maintain.

An intermediate goal of this planting program is to reverse this trend so as to achieve zero net loss each year. Over the long-term, the goal is to be in a position to immediately replace trees that must be removed, where appropriate, plus plant enough additional new trees each year to achieve maximum practical stocking levels.

Concurrently, manipulating and optimizing its species composition and diameter distribution to insulate it from catastrophic losses will improve the stability of the tree population. This will be accomplished through careful species selection, avoidance of monoculture and consistent planting from year to year. This program, through careful planning and implementation, will be the only program in the Borough to plant trees en-mass with a plan, a purpose, and a budget.

The Goals of the tree maintenance program are to:

- Identify needs through inventory of existing resource

- Improve and maintain the long-term health and condition of the tree population.
- Maximize the useful life of existing trees.
- Maintain public safety.
- Maximize the cost-efficiency of tree maintenance activities.
- Communicate the benefits trees provide to the community relative to the cost of maintaining them.
- Establish an information baseline of trees.

As of this writing, there are no available funds in the budget to address this program, nor does there appear to be any in the immediate future. The STC budget is used primarily for tree planting. The Commission will utilize all available grant applications to help with this problem. Maintenance is limited to residents and developers that have tree issues related to applications or construction.

The Borough recognizes that proactive tree maintenance is far more cost-efficient than haphazard crisis management. It has been well documented that systematic tree maintenance reduces future maintenance needs, reduces future hazard potential, improves the trees' condition, and maximizes the trees' useful life.

This Community Forestry Management Plan outlines procedures for gradually implementing a systematic, routine maintenance program for all public shade trees. By carefully selecting species that are suited to the community, future maintenance needs will be reduced. Developmental pruning early in a tree's life will reduce hazardous defects in the future. Continued maintenance as the trees mature will extend their service life, increase their benefit relative to costs, and reduce their hazard potential.

10. Community Stewardship Incentive Program (CSIP)

Upon approval of this plan, the Borough of Shrewsbury will be qualified to apply for Community Stewardship Incentive Program (CSIP) grants to help offset the cost of implementing this plan. The CSIP grant provides municipalities with up to \$25,000 to assist them in the implementation of forestry goals and objectives as stated in their five year community forestry management plant. The grant is a cost-sharing grant that is evaluated by the NJ Community Forestry Council. The cost-share ratio is typically seventy-five percent grant to twenty-five percent match of cash or in-kind services by the municipality. In some instances there is a 50/50 split in the grant and matching cash or in-kind services. The following is a list of possible CSIP grants that may be sought by the Borough of Shrewsbury. Additional or revised needs for grants under SCIP may become apparent as plan implementation progresses.

The following 15 items listed is a brief summary of Community Stewardship Incentive Program (CSIP) practices addressed in this management plan.

CSIP #1 - Training

Training needs are addressed in Section 6. STC has and will continue to take advantage of tree-related training programs offered by the State or other recognized institutions or organizations. Grants shall be sought from the NJ Community Forestry Grant Program for the continuing education of the selected persons on STC and Borough employees.

CSIP #2 – Community Forestry Ordinance Establishment

The ordinances establishing the Shade Tree Commission and related sections on Trees, Shrubbery and Landscaping and on Property Maintenance are provided in the Appendices of this CFMP. No additional funding needs are currently anticipated.

CSIP #3 - Public Education and Awareness

Public Education, Awareness and Outreach are addressed in Section 7. As STC develops and puts into place the programs and activities to promote public awareness

and involvement, it may request financial assistance to prepare and produce supporting materials such as an illustrated guide to the Borough's virtual arboretum of outstanding and dedicated trees.

CSIP #4 - Arbor Day Activities

Arbor Day Activities are addressed in Section 7. The Borough of Shrewsbury has celebrated Arbor Day for many years and will continue to do so. The STC had met the requirement of the Tree City, USA for many years and will continue to do so and will strive for 'Growth Awards'.

CSIP #5 – Tree Inventory and Assessment

The Tree Inventory and Assessment is addressed in Section 9. This is the top priority need for funding. Funding needs are anticipated for computer software and hardware, digitization of data, training for data collectors, and consultant fees. Finally, funds are needed to create and publish an assessment report.

CSIP #6 - Tree Hazard Identification

Tree Hazard Identification is addressed in Section 9. Funds may be needed to hire a consultant to identify or remove specific tree hazards. Funds requested in the Assessment and Inventory grant will include funds needed to identify hazard trees as part of the overall inventory.

CSIP #7 - Storm Damage Assessment

A comprehensive storm management plan is not needed. The amount of Borough owned trees is small in proportion to the size of the Borough. The DPW handles fallen debris on Right-of-Ways, and contracts out more dangerous and complicated removals.

CSIP #8 - Tree Maintenance & Removal

Tree Maintenance & Removal is addressed in Section 9. Upon completion of the Tree Inventory and Assessment and Hazard Tree Identification, funds will likely be sought to facilitate tree maintenance (especially pruning) and removal.

CSIP #9 - Insect and Disease Management

Insect and Disease Management is not addressed in the CFMP. Serious defoliating insects such as the Gypsy moth are monitored and controlled by the Bureau of Plant Pest and Disease Control with the appointed Gypsy moth coordinator. Smaller outbreaks are likely to be handled by residents. The parks have few wooded sections and historically there have been no outbreaks. The Tree Inventory and Assessment report will provide information to track and monitor future needs for action and funding.

CSIP #10 – Wildfire Protection

No program is needed since there is a limited amount of contiguous wooded areas in the Borough.

CSIP #11 - Tree Planting

Tree Planting is addressed in Section 9.

CSIP #12 - Tree Recycling

All tree related products are collected on site and transported by recycling to the yard for disposal via contract pickup. Brush is included and the mulch is used at various sites through the Borough. Large wood is placed in dumpsters and taken by contractor. The amount of woody material collected is small and insignificant and as such, no management is recommended. No additional funding needs are currently anticipated.

CSIP # 13 – Sidewalk Maintenance Program

The Sidewalk Maintenance Program is addressed in Section 9. The Hazard Tree Identification will identify tree-related sidewalk conflicts. No additional funding needs are currently anticipated.

CSIP # 14 – Storm Water Management

Storm Water Management is not addressed in this CFMP.

CSIP #15 – Other

There are no needs for the Borough of Shrewsbury, which would fall into this category.

11. Appendices

11.1 Shade Tree Ordinances

Codes of the Borough of Shrewsbury, New Jersey related to the Shade Tree Commission follows:

Chapter 9: BOARDS, COMMITTEES AND COMMISSIONS

ARTICLE II Shade Tree Commission [Adopted 9-27-1973 by Ord. No. 346 as §§ 3-121 to 3-124 of the 1973 Code]

9-9. Creation of Commission; membership; terms of office; vacancies.

[Amended 3-11-1975 by Ord. No. 367]

- A. There is hereby created a commission to be called the "Shade Tree Commission of the Borough of Shrewsbury," which shall consist of such members as provided in Subsection B below. [Amended 5-15-2006 by Ord. No. 871]
- B. From and after January 1, 2004, the Shade Tree Commission shall consist of seven residents of the Borough of Shrewsbury who shall be appointed by the Mayor. The present five members now in office, or their successors in the event of a vacancy, shall serve out their present terms, which expire on December 31, 2004, December 31, 2005, December 31, 2006, December 31, 2007, and December 31, 2008. Upon the expiration of said terms residents appointed to fill these respective positions shall be appointed by the Mayor for full five-year terms, to take effect January 1. One of the additional two members shall be appointed by the Mayor for a term ending December 31, 2007, and the other additional member shall be appointed by the Mayor for a term ending December 31, 2008. Thereafter, appointments to these two additional positions shall be made by the Mayor for full five-year terms, to take effect on January 1. It is the intention that as each term expires future appointments shall be for five-year terms, each to take effect January 1, and to expire in a different year except for the two new terms. Any vacancy caused by death, resignation, removal or otherwise shall be filled by the Mayor for the unexpired term. [Added 11-14-1977 by Ord. No. 406; amended 2-17-2004 by Ord. No. 824]

9-10. Organization of Commission; appointment of Chairman and Secretary.

The Shade Tree Commission shall organize within 30 days after appointment and then, and annually thereafter in January of each year, elect a Chairman and Secretary.

9-11. Duties of Commission.

It shall be the duty of the Commission to:

- A. Advise and consult with the Mayor and Council on all matters relating to the planting, control, care, protection, improvement and removal of shade and ornamental trees or shrubbery now or hereafter situated on and along any public street, highway, park, parkway or public place of the Borough.
- B. Propose amendments and repeal of ordinances in the manner prescribed by the governing body of the Borough of Shrewsbury; and any and all ordinances necessary or proper for carrying out the provisions in Part II, General Legislation, Chapter 246, Trees, Shrubberty and Landscaping, of this Code. [Added 5-15-2006 by Ord. No. 871]
- C. Make and enforce any and all reasonable rules, regulations and orders pertaining to or covering any matter authorized by this article and Chapter 246, Trees, Shrubberty and Landscaping, and by N.J.S.A. 40:64-1 to 40:64-14, inclusive, as at any time amended or supplemented, or as otherwise permitted by law. [Added 5-15-2006 by Ord. No. 871]

9-12. General powers and authority of Commission.

[Amended 5-15-2006 by Ord. No. 871]

In addition to the powers specifically enumerated in Part II, General Legislation, Chapter 246, and in Chapter 94, Zoning and Land Development, of the Code of the Borough of Shrewsbury, the Shade Tree Commission shall have such powers as are authorized by N.J.S.A. 40:64-1 to 40:64-14, inclusive, and as amended and supplemented.

Chapter 246: TREES, SHRUBBERY AND LANDSCAPING

HISTORY: Adopted by the Mayor and Council of the Borough of Shrewsbury 9-27-1973 by Ord. No. 346 as §§ 3-125 to 3-129 of the 1973 Code; amended in its entirety at time of adoption of Code (see Ch. 1, General Provisions, Art. III). Subsequent amendments noted where applicable.]

246-1. Powers and authority of Commission generally

In addition to the powers specifically enumerated in this chapter and in Chapter 94, Zoning and Land Development, of the Code of the Borough of Shrewsbury, the Shade Tree Commission shall have such powers as are authorized by N.J.S.A. 40:64-1 to 40:64-14, inclusive, and as amended and supplemented.

246-2. Powers of Commission regarding care for shade and ornamental trees, shrubbery and other plantings.

The Shade Tree Commission shall have the following powers:

- A. Exercise full and exclusive control over the regulation, removal, planting, placement, trimming, spraying and care of shade and ornamental trees, shrubbery and other plantings now located or which may hereafter be planted in a utility right-of-way, on construction

- sites, and in any public highway, right-of-way, park or parkway, except such as are excluded pursuant to N.J.S.A. 40:64-1.
- B. Regulate and control the use of the ground surrounding the same, so far as may be necessary for their proper growth, care and protection.
 - C. Remove or require the removal of any tree or part thereof that is diseased or dangerous to public safety, at the expense of the owner of such tree following appropriate notice of its intention to remove or cause the removal of a tree or part of a tree dangerous to public safety.
 - D. Administer treatment to or remove any tree situated upon private property which is believed to harbor a disease or insects readily communicable to neighboring healthy trees in the care of the municipality, and enter upon private property for that purpose, with the consent of the owner thereof, provided that the suspected condition is first confirmed by certificate issued by or on behalf of the Department of Agriculture, Monmouth County Shade Tree Commission or a certified arborist.
 - E. Notices; costs to be lien; exceptions.
 - 1. Notices. The Commission shall give reasonable notice of its intention to remove or cause the removal of a tree or part of a tree dangerous to public safety, unless public safety requires immediate removal, in which case no notice shall be necessary.
 - 2. Costs to be lien. The cost of removal of any tree dangerous to public safety shall be a charge upon the owner of the property from which the diseased or dangerous tree is removed. Such cost, unless paid directly to the Commission, shall be certified by it to the Collector of Taxes of the Borough of Shrewsbury, shall thereupon become a lien upon said real estate, and shall be included in the next tax bill rendered to the owner or owners thereof and be collected in the same manner as other taxes against that property.
 - 3. Exceptions. The provisions of this subsection shall not apply to:
 - a) A planting in connection with Arbor Day exercises or other educational demonstration.
 - b) A planting of a shade or ornamental tree by the Shade Tree Commission on the street side of residential property for aesthetic purposes.
 - F. In every case where the property of an abutting owner shall be chargeable with the cost of the planting of any shade tree or trees, the Commission shall give notice of the meeting at which it is proposed to consider said planting, by publishing the notice at least once, not less than 20 days before the meeting in a newspaper circulating in the municipality, or by personal service of a copy of the notice upon the abutting owner at least 10 days before the meeting. The notice shall specify the street, streets or portions thereof on which such planting is proposed, and require all persons who may object thereto to present their objections in writing at the office of the Commission at or before the meeting.
 - G. No statute giving any person or state or municipal board, body or official power or authority to lay any sidewalk along, or to open, construct, curb or pave, any street, or to do any similar act, shall be construed to permit or authorize any interference with or injury to a highway shade tree without the consent of the Shade Tree Commission within whose jurisdiction such tree shall be located. In all cases, such Commission shall reasonably cooperate with such person, board, body or official for the general public good

246-3. Prohibited acts to trees, shrubbery and other plantings controlled by Commission

It shall be unlawful for any person, firm, partnership, association, joint venture, corporation, public utility or other entity to commit any of the following acts to shade or ornamental trees, shrubbery and other plantings under the jurisdiction of the Shade Tree Commission:

- A. To remove, cut, break or injure any shade tree or part thereof approved by the Shade Tree Commission.
- B. To place any rope, wire, sign, poster or other fixture on a shade tree or tree guard unless approved by the Shade Tree Commission.
- C. To close or obstruct any open space provided about the base of a tree or shrub to permit the access of air, water or fertilizer to the roots of such tree or shrub, including mulching material that shall not be placed against the tree bark.
- D. To damage, misuse or remove any device placed to protect any shade tree.
- E. To permit any animal to injure or destroy any shade tree.
- F. To pour any saltwater or other chemical or other substance near or upon any shade tree in such a manner as might cause damage to such tree or come into contact with or otherwise cause damage or injury to the stem or roots of any tree or shrub upon any street, highway, park or parkway in the Borough, or to permit any fire, tar kettle, road roller or other engine to stand in such manner as to injure a shade tree.
- G. To pile any building material or make any mortar or cement within six feet of a tree or shrub.
- H. To interfere or cause to authorize any interference with the Shade Tree Commission or any of its employees or agents engaged in or about the planting, cultivating, mulching, pruning, spraying or removing of any shade tree.
- I. To plant, set out, take down or remove any shade tree without first having obtained from the Shade Tree Commission a written permit to do so, or without complying in all respects with the conditions set forth in such written permit.
- J. To plant material on the New Jersey Invasive Species List.
- K. To excavate land or remove trees, shrubbery and other plantings, including ground cover, from developed and undeveloped commercial land without the approval of the Shade Tree Commission, except as specified hereinafter. Excluded from this requirement are:
 - 1. The clearing, mowing or plowing of weeds, ground cover and small tree growth (less than two inches in diameter as measured one foot from ground level) in areas of property that have been previously maintained as open areas or under cultivation.
 - 2. The removal of dead or diseased trees and ornamental shrubbery and the planting or new trees and shrubbery.
- M. To allow trees and shrubbery to obstruct public sidewalks, paths, walkways or streets and to obstruct vision and/or passage of persons or vehicles using same. Owners of properties shall prune trees in such a manner that branches will hang not less than eight feet over sidewalks and walkways and 13 feet over roadways. Shrubby bordering sidewalks, paths or walkways shall be pruned a minimum of three inches from sidewalks, paths or walkways and in such a manner to prevent branches from obstructing, hindering or harming pedestrians using the walkways.
- N. To park motor vehicles on landscaped sections, on grass, or against trees and shrubbery in residential, business, professional , commercial and industrial zoning districts.

- O. For every person, firm or corporation owning or having control over any wire, cable and appurtenances for the transmission of electric current along or over any street, highway, park or parkway within the Borough, to fail at any time to guard and protect all trees, through, over or near which such wire, cable or appurtenance may pass, from and against any injury or damage therefrom or from the electric current carried by the same. The device or means used for the transmission of any electric current and the methods used to guard and protect any such tree or trees shall be subject to the approval of the Shade Tree Commission.
- P. For any public utility or similar entity, except during periods of emergency, to prune trees for line clearance or interfere with or endanger street trees during the installation or repair of any utility related apparatus, without the prior written approval of the Shade Tree Commission.

246-4. Permits; inspections.

- A. The Chairman of the Shade Tree Commission shall have the authority to issue permits for work involving planting, trimming, removal and/or spraying of trees and shrubbery within the Borough right-of-way, on Borough-owned property, within a utility right-of-way, and on construction sites that do not require subdivision and/or site plan approval by the Borough Planning Board or Zoning Board of Adjustment.
- B. Utility right-of-way; construction sites
 - 1. Utility. The utility shall file an application for a permit with the Shade Tree Commission at least 30 days prior to the scheduled occurrence activity and shall pay a permit fee of \$25 - \$50. The utility shall provide the following information: the geographic location of the utility right-of-way; the trees and shrubs proposed to be removed, pruned and/or cut down; and shall identify any herbicide to be used. Following receipt of a permit, the utility shall notify the property owner and occupants of the residence or structure on the property on which the trees are to be pruned, cut down or removed and of any herbicide to be used to remove tree stumps or used to control undesirable plant species.
 - 2. Construction site. Immediately following the issuance of a zoning permit for construction of a new building, or reconstruction/addition to a residence or structure that does not require subdivision or site plan approval or a variance, the property owner or building contractor of the site on which construction is planned shall file an application for a permit and a landscape plan with the Shade Tree Commission and shall pay a permit fee of \$25. The landscape plan shall identify trees and shrubs to be removed, pruned and/or cut down, and identify any herbicide to be used and shall also specify the location of planting material to be retained and/or new planting material as required in § 246-5, Landscaping requirements.
- C. Trees; shrubbery. All work performed pursuant to permits issued by the Shade Tree Commission shall be performed in accordance with current recommendations and approved standards of the National Arborist Association, American National Standards Institute (ANSI), ANSI-Z133 & 300A, and New Jersey Certified Tree Experts Board.
- D. Herbicides
 - 1. All herbicide applications shall be performed in accordance with the pesticide product Federal Registered Label and the New Jersey Department of Environmental

Protection Pesticide Control Program and Pesticide Control Regulations. If herbicides are to be used, the utility and/or building contractor shall provide a safety data sheet upon request of the Commission.

2. Notification required. Prior to spraying any herbicide, the utility or building contractor shall notify property owners, occupants of residences or structures on the property and adjacent property owners and/or occupants of residences or structures on adjacent properties of the type of herbicide and the date(s) when the herbicide is to be used. This includes, but is not limited to, the area-wide notification requirements and regulations regarding pesticide applications adjacent to schools.
- E. Inspections; enforcement. Borough supervisory inspections shall be provided by the Borough Department of Public Works, utilizing employees trained in tree trimming. Enforcement of the above requirements shall be the responsibility of the Borough Code Enforcement Officer.

246-5. Landscaping requirements.

- A. Landscaping of new construction, reconstruction and additions.
1. Applicants who have filed for a zoning permit for new construction or to reconstruct and/or add to existing structures and have received a zoning permit that does not require review by the Borough Planning Board or Zoning Board of Adjustment shall submit seven copies of a landscaping plan to the Shade Tree Commission showing the location of existing trees of three-inch caliper or more and existing plantings and the trees and plantings that shall be removed due to construction.
 2. The landscaping plan shall provide a minimum of 10% of the plan site to be reserved for landscaping, which shall be reasonably distributed within the area and shall include suitable shrubbery in a planting strip not less than four feet wide on the front, rear and two sides of the structure. The landscape plan shall specify the location of planting material, their minimum sizes, quantity, variety and species (common and/or botanical names).
 3. Concrete curbing or Belgian block shall be installed so that motor vehicles are restricted from driving onto established landscaped sections.
 4. Bases of trees and other landscaped sections shall include ground cover or mulching material to discourage the growth of weeds. Gravel, stone or decorative stone shall not be permitted to be used as ground cover unless specifically approved by the Shade Tree Commission.
 5. Bases of trees and landscaped areas shall be mulched to a depth not to exceed four inches, placing mulch six inches from the tree trunk at ground level and outward to the edge of the drip line of the tree to a maximum depth of four inches.
 6. Shade trees. Shade trees shall be planted along all undedicated roads, drives and parking areas in accordance with the specifications thereof. One tree is required for each 40 feet of curbing, edge of pavement or designated area.
- B. An applicant granted a permit for construction and/or reconstruction shall not excavate land or remove trees, shrubs and other plant material from a proposed building site until a landscaping plan has been approved by the Shade Tree Commission. Existing trees and shrubs to be retained shall be protected by the erection of storm fencing at the outermost drip line of the trees and shrubs during construction.

- C. Following the issuance of a temporary certificate of occupancy by the Construction Official to the applicant or developer of any tract of land or site wherein the landscaping requirements approved by the Shade Tree Commission have not been met, the applicant or developer shall be required to post a performance bond to cover the cost of landscaping which has not been completed. The amount of the performance bond shall be set by the Shade Tree Commission and posted with the Mayor and Council of the Borough of Shrewsbury as an escrow deposit and shall not be released until completion of the landscaping plan.
- D. Landscaped areas and sections, including trees, shrubbery, fences and the grounds in and surrounding these sections, shall be properly maintained in accordance with the landscaping plan approved by the Shade Tree Commission. Shrubs or trees shown on the original landscaping plan shall be replaced when they are dead or have become unsightly, in the opinion of the Shade Tree Commission.

246-6. Tree planting requirements.

- A. Regulations.
 - 1. Any owner, person, firm or corporation erecting and constructing any new building or buildings in any zoning district within the Borough of Shrewsbury and any person building any residence, dwelling or multiple-family house within the Borough shall plant shade trees in front yard areas at least five feet from the right-of-way, defined as a strip of land occupied or intended to be occupied by a sidewalk, utility transmission lines, gas pipeline, water main, and/or sanitary or storm sewer. One tree shall be planted every 40 feet of frontage of said property, unless a waiver is granted by the Shade Tree Commission.
 - 2. The Shade Tree Commission may grant a waiver if there are trees growing along such right-of-way or on the abutting property near the street line which are in compliance with the specifications of the Shade Tree Commission.
 - 3. Such new trees to be provided shall be of a kind and size approved by the Shade Tree Commission and shall be planted in accordance with its specifications for planting trees in such locations approved by the Shade Tree Commission.
- B. Specifications for shade trees.
 - 1. Shade tree size. Trees shall be not less than 1 3/4 to two inches caliper, measured six inches above the ground, nor less than 12 feet high. Trees must be well branched, the branches to start not less than six feet from the crown of the root system.
 - 2. Flowering trees size. Where authorized for placement, flowering decorative trees may be of smaller size than shade varieties. Those trees shall not be less than 1 1/2 inches caliper, measured six inches above the ground, nor less than eight feet high. They must be well branched, the branches to start not less than five feet from the crown of the root system.
 - 3. Placement. All trees must be planted in the location approved by the Shade Tree Commission. Large growing (timber type) trees shall be located not closer than five feet from the edge of the existing or future sidewalks on the property owner's side adjacent thereto, in a place which shall not interfere with utilities. Ornamentals can be planted in the planting strip between the curb and sidewalk if approved by the Shade Tree Commission. The planting strip shall be not smaller than 30 inches wide. Trees

are to be no less than 25 feet from intercepting curbs at street corners and not more than 40 feet apart.

4. Time for planting. Deciduous trees under the jurisdiction of the Commission shall not be planted between May 15 and November 1 without specific authorization.
 5. Soil excavations. Soil excavation must not be less than 18 inches deep and not less than 30 inches in diameter. A seepage area shall be provided by loosening the soil to a depth of one foot below the excavation. Planting soil shall be composed of one part peat, one part humus and one part of parent soil (all mixed thoroughly), to which shall be added and mixed in two pounds of bonemeal or its equivalent.
 6. Planting; watering. At time of planting, burlap and wire surrounding the root ball shall be loosened from around the tree trunk. Each tree shall be given an adequate amount of water at the time of planting.
 7. Staking and guying. Stakes shall be white or red cedar, oak or locust treated with an approved wood preservative and must be eight feet long and not less than two inches in minimum diameter. Stakes must be driven securely into the ground and preferably on the northwest side of the tree trunk. Trees shall be guyed with rubber hose or plastic straps and must be watered adequately for a minimum of one year after planting.
 8. Removal of all planting debris. Removal of debris is required. The property shall be left in a neat and orderly condition in accordance with good and accepted planting and nursery practice. Stakes shall be removed after a period of one year.
 9. Planting notice. Notice must be given to a member of the Shade Tree Commission three days prior to start of planting in order that the Commission may inspect the stock for variety, condition, size and quantity. All work shall be subject to the general supervision and approval of the Commission.
 10. Survival. All plantings which fail to survive for a period of one calendar year following planting shall be replaced by the property owner or responsible building/landscape contractor at no cost or expense to the Borough or Commission. Said replacement shall be made within 60 days following written notice from the Commission for such replacement or within such more extended period as may be specified by planting conditions. After one year, said plantings which fail to survive shall be replaced at the expense of the property owner.
- C. Specifications for landscaping and screening.
1. Approved varieties. The varieties or species selected for landscaping and screening shall be subject to the approval of the Shade Tree Commission. Evergreen plantings may be interspersed with or placed with appropriate deciduous flowering shrubs. No plant material on the New Jersey Invasive Species List shall be used. The use of native plants is encouraged.
 2. Placement. All plantings must be at least the maximum mature plant distance from the foundation, wall or fence, but not less than two feet therefrom. One evergreen is required for each five feet of the foundation, wall or fence, including side surfaces of projecting porches or steps. Rear exposures may be exempted under circumstances as determined by the Shade Tree Commission. Varieties will be selected and specified as appropriate to sun and wind exposures and will be suitable in mature size for the location to be planted.

3. Soil. Excavations for each plant must be not less than 12 inches deep and not less than 20 inches in diameter. A seepage area shall be provided by loosening the soil to a depth of six inches at the bottom of the excavation. Planting soil in the excavation shall be composed of one part peat or humus and four parts of good soil free of debris (all mixed thoroughly), to which shall be added and mixed one pound of bonemeal or its equivalent. There shall be no pieces or chunks of plaster, mortar or other lime-containing material or loose lime around foundation plantings and other planting areas.
4. Mulching. Each evergreen and shrub planted shall be mulched with wood chips, peat, buckwheat hulls, cocoa hulls or other approved material out to the branch tips, not to exceed four inches in depth.
5. Removal of planting debris. Removal of all planting debris is required. The property must be left in a neat and orderly condition in accordance with good and accepted planting practice.
6. All plantings which fail to survive for a period of one calendar year following planting shall be replaced by the contractor at no cost or expense to the Borough or Commission. Said replacement shall be made within 30 days following written demand for such replacement from the Commission or within such more extended period as may be specified. After one year, plantings which fail to survive shall be replaced at the expense of the property owner.

246-7. Violations and penalties.

The owner, contractor or other persons interested as lessee, tenant or otherwise of a building or premises where a violation of any provision of these regulations shall have been committed or shall exist shall, upon conviction, be subject to a fine of not less than \$50 nor more than \$1,250, a term of imprisonment not exceeding 90 days or a period of community service not exceeding 90 days, or any combination thereof. Each day that a violation is permitted to exist following a ten-day written notice by the Shade Tree Commission shall constitute a separate offense.

Chapter 183: PROPERTY MAINTENANCE

183-9. Maintenance standards.

The exterior of all premises shall be kept free from hazards and nuisances which include, but are not limited to, the following:

Lawn and landscaping: overgrowth or neglect of reasonable maintenance of landscape plantings and ground covers, including failure to remove in a timely manner dead or diseased trees and shrubbery, or parts thereof. Trees, hedges and shrubbery shall not obstruct walkways or streets and obscure vision of persons using same. [Amended 7-7-2003 by Ord. No. 809]

- (a) Trees shall be pruned in such a manner that branches will hang not less than eight feet over sidewalks and walkways and 13 feet over roadways. Hedges and/or shrubbery bordering walkways shall be pruned a minimum of three inches from walkways and in such a manner to prevent branches from obstructing or hindering pedestrians using walkways.
- (b) Hedges and/or shrubbery planted, altered or replanted in any zone in the Borough shall not

exceed six feet above ground level, except as follows: hedges and/or shrubbery located in the front yard shall not exceed 30 inches in height. All hedges and/or shrubbery must be planted within the property lines; and no hedge or shrubbery shall be planted so as to encroach upon a public right-of-way.

- (c) Hedges and/or shrubbery shall not be located in any required sight triangle or in a public right-of-way. No hedge and/or shrubbery higher than 30 inches above curb level shall be permitted on any lot within the sight triangular area.

11.2 Notices and Permit Forms

Property owners are notified in advance when tree planting or maintenance is to be conducted on their property. The following is an example of the type of letter sent by STC to the property owner:



BOROUGH OF SHREWSBURY

**PO BOX 7420
SHREWSBURY, NJ 07702
TELEPHONE 732-741-4201
FAX 732-741-6549**

SHADE TREE COMMISSION

November 2, 2010

Dear Shrewsbury Homeowner,

Recently a spot was marked out in front of your house indicating where a new street tree will be planted. This new shade tree will be provided to you at no cost from the borough of Shrewsbury through the Shade Tree Commission.

It is the goal of all Shade Tree members to keep Shrewsbury's streets, lanes and even highways lined with shade trees, not only to enhance visual appeal and slow the pace as we travel through town, but to offer the comfort provided by shade and the cost benefits from lower utility bills, erosion control, wind reduction and more.

You can expect to see markouts being done for the utilities before any planting begins. The work will be done by a local nursery and can be done anytime before the ground freezes.

Please direct any questions or comments to the Shade Tree Commission. We hope you will enjoy your new shade tree for many years to come.

Sincerely,

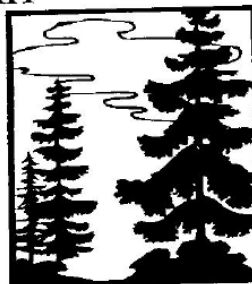
Nancy Schmaltz, Chairman STC

Utility contractors are required to obtain a permit before work can be conducted on trees in the Borough. The following is the current permit form:

**BOROUGH OF SHREWSBURY
TREE/SHRUB TRIMMING PERMIT**

**BOROUGH OF SHREWSBURY
PO BOX 7420 419 SYCAMORE AVE.
SHREWSBURY, NJ 07702**

TEL: 732-741-4200 FAX: 732-741-6549



FEE OF \$25.00 PAID _____
(Cash or Check)

DATE CLERK RECEIVED THIS REQUEST _____

NAME OF PERSON MAKING THIS REQUEST _____

ADDRESS _____ PHONE# _____

NAME OF COMPANY RESPONSIBLE FOR THIS REQUEST _____

ADDRESS _____ PHONE# _____

WORK WILL BEGIN ON _____ WORK WILL END ON _____
(Date) (Date)

AREA WHERE TRIMMING/CUTTING IS TO TAKE PLACE - FILL IN ALL INFORMATION REQUESTED

BLOCK _____ LOT _____ ADDRESS _____

GIVE BRIEF DESCRIPTION OF THE WORK TO BE DONE:

In accordance with Ordinance # 782, adopted on June 4, 2001, the Shade Tree Commission shall have jurisdiction over the above activities and shall be given 30 days prior notice of said activities. The Department of Public Works shall inspect the ongoing work. The Shade Tree Commission shall give final approval for this permit.

Signature of Clerk _____ Date _____

APPROVAL IS ONLY GRANTED IF THE FEE IS PAID, THE ABOVE INFORMATION IS PROVIDED, AN ACTIVITY REPORT IS ATTACHED (Utilities) AND APPROVAL IS GIVEN BY THE SHADE TREE COMMISSION BELOW.

Approval of Shade Tree Commission _____ Date _____

11.3 North East Quadrant Tree Inventory Project 2006

A limited tree inventory was undertaken in 2006 under the direction of Matthew Eddy as an Eagle Scout Project. The inventory was conducted in the North East Quadrant of the Borough. The results were presented to the Shade Tree Commission on August 12, 2006. The following customized reports were developed:

- Detailed Inventory by Address
- Detailed Inventory by Street, Tree, Address
- Detailed Inventory by Tree Condition, Tree, Street, Address
- Detailed Inventory by Tree, Street, Address
- Summary by Condition and Tree
- Summary by Tree and Condition

The Summary of Tree and Condition follows:

Inventory Summary by Condition

<u>% Deadwood</u>	<u>Tree Name</u>	<u>No. of Deadwood</u>	<u>No. of Trees</u>
NO DEADWOOD			
	American Beech		2
	American Elm		8
	American Linden or		5
	Austrian Pine		1
	Black Cherry		2
	Black Locust		2
	Black Oak		1
	Callery Pear		8
	Canadian Hemlock		1
	Chinese Elm		1
	Colorado Blue Spruce		2
	Douglas-fir		1
	Eastern White Pine		2
	Flowering Cherry		4
	Flowering Dogwood		2
	Grey Birch		1
	Honeylocust		8
	No Trees		21
	Norway Maple		15
	Norway Spruce		3
	Not ROW Tree	0	305
	Pin Oak		44
	Red (Swamp) Maple		11
	Red Oak		1

Scarlet Oak		1
Silver Maple		6
Sugar Maple		30
Sweetgum		1
Sycamore		7
Unknown Cedar		9
Unknown Maple		44
Unknown Oak		17
UNKNOWN SPECIES		36
Weeping Cherry		1
White Oak		1
Yellow Birch		1
Tree Total for NO DEADWOOD	0	605
<25% DEADWOOD		
American Elm	2	2
Black Locust	3	3
Black Oak	1	1
Chinese Elm	4	4
Flowering Cherry	1	1
Honeylocust	5	5
Littleleaf Linden/Basswood	1	1
Norway Maple	11	11
Pin Oak	6	6
Red (Swamp) Maple	3	3
Silver Maple	2	2
Sugar Maple	9	9
Sycamore	27	27
Tulip Tree	1	1
Unknown Maple	4	4
Unknown Oak	2	2
UNKNOWN SPECIES	7	7
White Oak	1	1
Tree Total for <25% DEADWOOD	90	90
25-50% DEADWOOD		
Austrian Pine	1	1
Black Locust	1	1
Chinese Elm	1	1
Norway Maple	1	1
Pin Oak	5	5
Sugar Maple	2	2
Tree Total for 25-50% DEADWOOD	11	11
50-75% DEADWOOD		
Chinese Elm	1	1

Eastern White Pine	1	1
Norway Maple	1	1
Unknown Maple	1	1
Unknown Oak	1	1
UNKNOWN SPECIES	1	1
Tree Total for 50-75% DEADWOOD	6	6
>75% DEADWOOD		
Japanese Maple	1	1
UNKNOWN SPECIES	1	1
Tree Total for >75% DEADWOOD	2	2
Grand Total	109	714

11.4 New Jersey Invasive Species List

The following list of invasive species specific to New Jersey is based on Snyder, David and Sylvan R. Kaufman. 2004. An overview of nonindigenous plant species in New Jersey. New Jersey Department of Environmental Protection, Division of Parks and Forestry, Office of Natural Lands Management, Natural Heritage Program, Trenton, NJ:

- *Acer platanoides* L. (Norway maple)
- *Ailanthus altissima* (P. Mill.) Swingle (tree-of-heaven)
- *Alliaria petiolata* (Bieb.) Cavara & Grande (garlic mustard)
- *Ampelopsis brevipedunculata* (Maxim.) Trautv. (porcelain berry)
- *Berberis thunbergii* BC. (Japanese barberry)
- *Carex kobomugi* Ohwi (Japanese sedge)
- *Celastrus orbiculatus* Thunb. (Asian bittersweet)
- *Centaurea biebersteinii* DC. [*Centaurea maculosa* auct. non Lam.] (spotted knapweed)
- *Cirsium arvense* (L.) Scop. (Canadian thistle)
- *Dipsacus fullonum* L. ssp. *sylvestris* (Huds.) Clapham (wild teasel)
- *Dipsacus laciniatus* L. (cut-leaf teasel)
- *Elaeagnus umbellata* Thun. var. *parvifolia* (Royle) Schneid. (autumn olive)
- *Euonymus alata* (Thunb.) Sieb. (winged spindletree)
- *Lespedeza cuneata* (Dum.-Cours.) G. Don (Chinese bush-clover)
- *Lonicera japonica* Thunb. (Japanese honeysuckle)
- *Lonicera morrowii* Gray (Morrow's bush honeysuckle)
- *Lonicera tatarica* L. (twinsisters, Tartarian honeysuckle)
- *Lythrum salicaria* L. (purple loosestrife)
- *Melilotus officinalis* (L.) Pallas (yellow sweetclover)
- *Microstegium vimineum* (Trin.) A. Camus (Japanese stiltgrass)
- *Myriophyllum spicatum* L. (Eurasian water-milfoil)
- *Polygonum cuspidatum* Sieb. & Zucc. (Japanese knotweed)
- *Polygonum perfoliatum* L. (mile-a-minute)

- Potamogeton crispus L. (curly leaf pondweed)
- Ranunculus ficaria L. (lesser celandine)
- Rhamnus cathartica L. (common buckthorn)
- Robinia pseudoacacia L. (black locust)
- Rosa multiflora Thunberg (multiflora rose)
- Rubus phoenicolasius Maxim (wineberry)

11.4 Census Data – Borough of Shrewsbury

General Characteristics	Number	Percent US Average	
Total population (2009 data)	3,772		
<u>2000 Data</u>			
Male	1,781	49.6	49.1%
Female	1,809	50.4	50.9%
<u>Median age</u> (years)	38.4	(X)	35.3
Under 5 years	310	8.6	6.8%
18 years and over	2,485	69.2	74.3%
65 years and over	431	12.0	12.4%
Average <u>household</u> size	2.96	(X)	2.59
Average family size	3.27	(X)	3.14
Total housing units	1,223		
Occupied housing units	1,207	98.7	91.0%
Owner-occupied housing units	1,150	95.3	66.2%
Renter-occupied housing units	57	4.7	33.8%
Vacant housing units	16	1.3	9.0%

Social Characteristics	Number	Percent	U.S.
Population 25 years and over	2,367		
High school graduate or higher	2,153	91.0	80.4%
Bachelor's degree or higher	1,153	48.7	24.4%
<u>Civilian veterans</u> (civilian population 18 years and over)	281	11.2	12.7%
Disability status (population 5 years and over)	323	9.9	19.3%
Foreign born	265	7.4	11.1%
Male, Now married, except separated (population 15 years and over)	901	69.1	56.7%
Female, Now married, except separated (population 15 years and over)	882	65.3	52.1%
Speak a language other than English at home (population 5 years and over)	256	7.8	17.9%

Economic	Number	Percent	U.S.
In labor force (population 16 years and over)	1,686	65.4	63.9%
Mean travel time to work in minutes (workers 16 years and over)	31.9	(X)	25.5
Median household <u>income</u> in 1999 (dollars)	86,911	(X)	41,994
Median family income in 1999 (dollars)	92,719	(X)	50,046
Per capita income in 1999 (dollars)	38,218	(X)	21,587
Families below poverty level	0	0.0	9.2%
Individuals below poverty level	37	1.0	12.4%
Housing Characteristics	Number	Percent	U.S.
Single-family owner-occupied homes	1,101		
Median value (dollars)	258,300	(X)	119,600

Source: US Census Bureau