

1976

## EC76-1742 Guide to Community Forestry Planning

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# guide to Community **FORESTRY PLANNING**



Extension work in "Agriculture, Home Economics and subjects relating thereto," The Cooperative Extension Service, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, Cooperating with the Counties and the U.S. Department of Agriculture  
Leo E. Lucas, Director

## CONTENTS

Community Forestry Concepts . . . . .	3
Technical Information and Assistance . . . . .	3
Community Tree Boards . . . . .	4
Financing . . . . .	5
Planning . . . . .	6
Comprehensive Community Forestry Plan . . . . .	6
Title Page and Purpose . . . . .	6
History . . . . .	6
Assessment of Current Situation . . . . .	7
Tree Planting . . . . .	7
Tree Maintenance . . . . .	10
Tree Removal and Disposal . . . . .	10
Inventory of Resources . . . . .	11
Landscape Plans . . . . .	12
Municipal Ordinances . . . . .	12
Annual Work Plans . . . . .	13
Appendix . . . . .	14
Title Page, Purpose and Contents . . . . .	14
History . . . . .	16
Assessment of Current Situation . . . . .	17
Tree Planting . . . . .	23
Tree Maintenance . . . . .	26
Tree Removal and Disposal . . . . .	26
Inventory of Community Resources. . . . .	27
Landscape Plans . . . . .	30
Municipal Ordinances . . . . .	32
Annual Work Plans . . . . .	38

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and educational programs to all people without regard  
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# **guide to COMMUNITY FORESTRY PLANNING**

Neal E. Jennings, Extension Forester (Community Forestry)

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## **COMMUNITY FORESTRY CONCEPTS**

About half of all trees in Nebraska communities are on public property—streets, parks, and other public areas. A community forestry program, by concentrating on public owned trees, can have a major impact.

### **Technical Information and Assistance**

Public Law 92-288 of 1972 gives State Foresters authority and responsibility to provide technical services for protection, improvement, and establishment of trees and shrubs in urban areas, communities, and open spaces.

The Department of Forestry is committed to Community Forestry in Nebraska. We will supply as much expertise and information as possible to communities willing to manage their tree resource. The Department of Forestry will:

- Help with a detailed tree inventory and present a written report to the community.
- Meet with the Tree Board in an advisory capacity as needed and requested.
- Print free-of-charge the Comprehensive Community Forestry master plan and provide copies to the community.
- Supply as much information as needed to help the city manage its trees and respond to specific requests or problems.
- Train personnel in proper tree planting and maintenance techniques.



## Community Tree Boards

The first step in a community forestry program is the creation of a legally constituted board, commission, or committee. This group, commonly called a Community Tree Board, should be charged by ordinance with the development and administration of the community forestry program. Enabling legislation should specify the number, qualifications, term of office, duties, and responsibilities of members.

Many communities have a Park Board or Park and Recreation Board. Their responsibilities may be expanded to include street and other public trees.

An active group is essential to implementation of a community forestry program. Capable individuals should be chosen to serve on the board. Knowledge of trees is desirable, but leadership and interest are more important qualifications.

The board should serve in a planning, advising, and coordinating capacity. Main functions of the Tree Board include:

—*Community Tree Inventory*—An accurate assessment of the current community tree situation is needed to determine objectives and to make rational management decisions.

A forester will help with the inventory. The Tree Board should supply one or two people to help the forester. Inventory data will be summarized and a written report prepared by the Department of Forestry. The report will contain an objective analysis of the present tree situation and general management recommendations.

—*Comprehensive Community Forestry Plan*—Based on the tree inventory and other information, the Tree Board should prepare a community forestry master plan. It should outline general program directions and procedures, not specific activities.

—*Legislative Changes*—Basic municipal ordinances regulating tree planting, maintenance, and removal are needed to carry out the program. The Tree Board should make specific recommendations to the governing body.

—*Annual Work Plans*—Annual work plans must focus on specific projects to accomplish long-range goals. Projects should be developed and coordinated by the Tree Board. Annual work plans should be presented yearly to the city governing body for approval.

## Financing

A community forestry program does not require great sums of money. It does require a realization of problems and a commitment to solve them.

The question of financing must be dealt with early and realistically. With the exception of federal funds for some park projects, the cost of tree projects must be borne by the residents of a community through taxes or by individual or group effort.

In developing the master plan and annual work plans the Tree Board is urged to look at three financing areas:

—*Individual Property Owners*—In most communities, the property owner is responsible for planting and maintaining street trees. The Tree Board should provide leadership to encourage proper tree management. This can be done by helping select the proper species, providing accurate information, and sponsoring projects which give the individual an opportunity to purchase trees.

—*Community Action*—Every community has a wealth of organizations and individuals that will support a tree program with manpower, money, equipment, or information. This is especially true of tree planting programs. Community involvement can accomplish a great deal if it is coordinated and supervised.

—*City Budget*—Individual and community action cannot be expected to support the entire program. Most communities will have to commit some public funds to the forestry program.

The top priority for public funds will probably be tree trimming and dead tree removal. These items are not easily done by individual or group effort.

## **PLANNING**

This section is designed to assist Tree Boards prepare a Comprehensive Community Forestry Plan and annual work plans.

### **The Comprehensive Community Forestry Plan**

Preparing a comprehensive plan is not difficult, but does require reading, thinking, and organizing.

After the Tree Board has completed a draft of the comprehensive plan, the Department of Forestry will type and print several copies. These copies will be returned to the Tree Board for review. This is the appropriate time to present the plan to the governing body for approval. It might be a good idea to request a letter which recognizes the plan as the official comprehensive community forestry plan. This letter could be used as the first page of the final plan. The Department of Forestry will print and bind the Community Forestry Plan and return copies to the Tree Board.

The final plan prepared by the Tree Board should reflect the needs and capabilities of the community. Nine general sections are recommended for consideration and inclusion in the plan. Sample methods of presentation are contained in the appendix.

#### **Title Page and Purpose**

This would normally be two pages in the plan:

- A title page noting the title, date, and authors (Tree Board).
- A brief statement of purpose, acknowledgments, and a table of contents.

#### **History**

This section gives a historical background of past tree planting or tree related activities.

The history can be very flexible. Information on past tree planting activities, trees of special significance, or other tree related activities could be included. It is suggested the Tree Board assign this task to someone in the community. A local historical group,



newspaper editor, County Extension Agent, or local historian are possibilities. Every community has someone who would be willing and capable of writing this section.

### **Assessment of Current Situation**

The Assessment of Current Situation is an evaluation of the present tree situation. It is essential to know the public tree situation in a community before a community forestry program is developed. This is accomplished by a formal tree inventory. The inventory should be divided into at least two classes—street trees and park trees. Additional divisions may be needed depending on the size and needs of the community.

Trees are inventoried by species, size, and condition. This information will help the Tree Board determine:

- Number of trees to be planted.
- Tree species that should be planted.
- Number of dead trees to be removed.
- Pruning and maintenance needs.
- Value of the tree resource.

The Department of Forestry will help with the inventory and prepare a written report.

### **Tree Planting**

This section outlines tree planting procedures and goals. Annual tree planting is necessary for maintaining successive generations of trees. This minimizes excessive planting or removal needs in any one particular year.

Three major tree planting areas should be discussed in the comprehensive plan.

**Private Property**—City government does not have regulatory control over trees on private property other than cases of nuisance or public safety.

Most people want to plant the right tree in the right place. The



Tree Board will be considered the local tree expert. People will naturally expect advice and guidance from the Tree Board.

A list of recommended trees for planting on private property should be developed and included as a part of the comprehensive plan. This list will usually be slightly different from recommended street trees.

Along Streets—Planting along streets is normally the area of greatest need. A simple, workable procedure should be developed to get the right tree species planted in the right place on an annual basis. The greatest impact is made by planting trees every year, not by having a BIG push every 10 years.

The first step is to develop a planting schedule including number and species of trees to be ordered each year for a 10-year planning period. This list should reflect results of the inventory and local conditions. This ensures species diversity and age class distribution. Both small and large trees (size at maturity) should be planted each year. It is easiest to limit choices to two to four species per year. Species selections should be changed yearly to insure diversity.

A planting project requiring coordination between the Tree Board and the public involves six activities. Each activity has numerous alternatives. The actual procedure may include various combinations of alternatives. The planting project should be designed with a realistic appraisal of the community's needs and resources. Alternatives include:

#### *Order Taking*

- Mail tree order blanks to property owners.
- Print cut-out order form in newspaper.
- Publicize project in news media and take telephone, personal, or written orders.

#### *Purchase*

- Purchase trees direct from local nursery.
- Purchase direct from wholesale nursery.

- Solicit bids from two or more nurseries.
- Establish a city-owned nursery or tree bank.

### *Payment*

- Take advance payment from property owners and order trees accordingly.
- Purchase trees from city fund and bill property owners later.
- Purchase trees from city fund and provide free to property owners.
- Establish a tree planting revolving fund through donations, bank loans, or city appropriations.

### *Distribution*

- Specify that nursery deliver trees to a central location where individuals can pick up.
- Arrange for trees to be picked up at the nursery collectively or by individuals.
- Deliver individual tree orders to the individual.

### *Location of Planting Sites*

- Locate and stake individual planting spots in advance of tree distribution.
- Enact a city ordinance regulating street tree planting and provide a copy to each cooperation when trees are distributed.

### *Planting*

- Responsibility of property owner.
- Coordinate a tree planting program involving civic groups, businesses or individuals.
- Arrange for city crews to plant trees.

*Parks and Special Public Areas*—Parks and other special public areas are critical tree planting sites. The Tree Board should control

the number, species, and placement of trees planted on these sites.

Landscaping plans should be developed for each park or other special public area. The comprehensive plan should outline tree planting needs relative to the landscape plans. Implementation methods and procedures should also be detailed in the comprehensive plan. A tentative schedule might be included for planning purposes.

## **Tree Maintenance**

Tree care should be a vital part of any Community Forestry Program. Trees often receive little care between planting and removal.

Tree maintenance does not lend itself well to individual or community action. City crews or private contractors are better equipped to handle tree maintenance projects. Specific projects can best be handled in annual plans of work. The comprehensive forestry plan should contain a brief summary of problems and general solutions.

Main items in an effective tree maintenance program are:

- Tree establishment—Newly planted trees need to be staked, and watered for at least one year to insure survival and growth.
- Insect and disease identification, prevention, and control.
- Pruning—Young trees should be pruned to control and direct growth. This reduces the need for drastic pruning in the future. Older trees should be properly pruned to maintain a desirable form and remove damaged branches that pose a health or safety hazard.

## **Tree Removal and Disposal**

All trees eventually die and must be removed. Removal and disposal is expensive and is another reason to emphasize proper tree selection, placement, and maintenance. Like tree maintenance, tree removal and disposal does not normally lend itself to individual or group effort.

*Removal*—Most communities by necessity have developed workable methods for dead tree removal. Present procedures should be



continued unless it is apparent changes are needed. Alternatives are not further discussed.

*Disposal*—Disposal of bulky wood waste is always a problem. Each tree removed roughly contains 50 cubic feet of solid wood material. This adds up to a considerable volume over a period of years.

Present methods of hauling, dumping, burying, and/or burning are expensive and will become either unacceptable or undesirable in the future. Utilization of wood waste is a logical solution. Potential uses of wood waste include:

- Chips for mulch or livestock bedding.
- Pulpwood.
- Sawlogs.
- Firewood.
- Fuel additive for generating or heating plants.

The market for pulpwood, sawlogs, or fuel additive does not presently exist and is not a feasible alternative for communities.

The potential of chips and firewood does exist and should be explored. They may not be profit making, but may be cheaper or more desirable than current disposal methods. The decision will have to be based on the local situation. In this section a brief outline of current or recommended tree removal and disposal procedures and an estimate of future removal needs and costs should be included.

## **Inventory of Community Resources**

Every community has many sources of support for community improvement projects. Civic or business organizations, government agencies, and concerned individuals are available and should be encouraged to actively participate in community forestry projects. They are a tremendous source of manpower, equipment, information, or money. An important function of the Tree Board is to coordinate and direct these resources to accomplish community forestry projects.



This section is designed to list all possible resources. All organizations or individuals that may be potential sources of support should be listed. A list of city owned tree care equipment (sprayers, stump cutters, saws, etc.) should be included. A yearly review of this section is recommended to keep it up-to-date.

The Tree Board should contact and list all organizations or individuals that indicate support for the program. A definite commitment from each group or individual is probably not necessary.

A public notice or newspaper article is recommended to allow response by groups or individuals initially omitted.

### **Landscape Plans**

Landscape plans for all parks and other special public areas should be developed and included in the comprehensive plan. These plans can be simple or elaborate. Plant materials and design recommendations should be specified.

Possible types of landscape plans include:

- A narrative description of plant materials, planting locations, and estimated cost.
- A site plan drafted to scale on which tree species and planting locations can be superimposed. A local draftsman or high school drafting class might be asked to draft the plan.
- A professional plan designed by a competent landscape architect or landscape designer.

### **Municipal Ordinances**

Basic municipal ordinances are needed to regulate tree planting, maintenance, and removal.

Three sample ordinances are presented in the Appendix. Two deal with creating a responsible local group and one deals with regulating and managing the tree resource. Samples from other communities are available upon request. It is suggested that all existing, revised, or new ordinances pertaining to trees be published as a section of the master plan.

## Annual Work Plans

Annual work plans are the action mechanism for implementing projects. The plan should describe on an annual basis definite planned activities in three general categories—tree planting, tree maintenance, and tree removal and disposal.

A line item type of format will probably work best. Main items should include:

- What is to be done.
- How it is to be done.
- Cost to the community.

The Annual Work Plan should be presented to the city governing body. If approved, it becomes official.

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## APPENDIX

### Title Page, Purpose and Contents

#### Community Forestry Plan

(Name of town), Nebraska

197

This document was prepared by the  
(Name of town) Community Tree Board

#### Community Tree Board Members

_____	_____
_____	_____
_____	_____

This Community Forestry Plan presents basic guidelines for development of programs to properly manage the tree environment of (Name of town). It should be regarded as a beginning and will be effective only if future actions are promoted.

Grateful acknowledgment is given to:

—The Department of Forestry for technical advice, assessment of our tree situation, and the printing of the final plan. Special thanks to the following foresters \_\_\_\_\_

\_\_\_\_\_ and \_\_\_\_\_

—Joe Doe for preparing the history of past tree and tree related activities.

—(List by name and relate what they did for all who made a major contribution to the plan).

History . . . . .	
Assessment of Current Situation . . . . .	
Tree Planting . . . . .	
Tree Maintenance . . . . .	
Tree Removal and Disposal . . . . .	
Inventory of Resources . . . . .	
Landscape Plans . . . . .	
Municipal Ordinances . . . . .	

which grew from a seed given to Philip Oakes by G. W. B. Smith, probably in 1850. It only grew a few feet high in the vicinity of First Ward, and was mostly in Phillipsburg from 1800-1817, the border area of the city block around the light tower. On State Street was planted an American elm. Mr. Winslip probably planted the tree when the school was built in 1817. The block planted to these trees was a tree beauty spot for many years. Unfortunately, most of these magnificent trees have succumbed to Dutch elm disease.

In about 1825 the city, with George Boyd, Sr. as its Mayor, planted many hackberry and American elm trees in the city park. While most of the American elms have died from Dutch elm disease the many large remaining hackberry trees bear witness to the longevity of those first planted them.

During the drought in 1891 Chinese, German and Chinese elm as they are locally known, were planted by the hundreds. These trees comprise over half of the population of the city.

The Phillipsburg Rotary Club in the late 1880's as a civic gesture, distributed to the public 100 Chinese locust trees. A year or two later the same club distributed 100 green ash trees. Many of these trees are alive and growing.

In 1970 the Phillipsburg Shade Tree Commission was established by the governing body of the city of Phillipsburg. The ordinance which authorizes the Commission and its method of operation closely patterns the Salt Lake City, Utah, ordinance which has been in force for many years and has contributed much to the reputation of the City of the Mormons as a beautiful city. The main business of Phillipsburg has been planted from city limit to city limit



**History**  
**by**  
**D. T. Broun**

Knowledge of the history of tree planting in Phillipsburg is rather sparse although actual tree planting has been rather dense due to what the planters considered the need for lots of trees for quick shade.

Probably the most beautiful tree in the city is a native bur oak, which grew from an acorn taken from Plotner Creek, planted by Guy Bissell, in probably the 1880's. If only Guy had planted more! Under the direction of Fred Winship, who was mayor of Phillipsburg from 1909-1911, the border area of the city block around the high school on State Street was planted to American elms. Mr. Winship probably planted the trees when the school was built in 1917. The block planted to these trees was a tree beauty spot for many years. Unfortunately, most of these magnificent trees have succumbed to Dutch elm disease.

In about 1925 the city, with Frank Boyd, Sr., as its Mayor, planted many hackberry and American elm trees in the city park. While most of the American elms have died from Dutch elm disease the many large remaining hackberry trees bear witness to the foresight of those that planted them.

During the drought-ridden thirties Siberian elm, or Chinese elm as they are locally known, were planted by the hundreds. These trees comprise over half of the tree population of the city.

The Phillipsburg Rotary Club in the late 1950's, as a civic gesture, distributed to the public 100 Moraine locust trees. A year or two later the same club distributed 100 green ash trees. Many of these trees are alive and growing.

In 1970 the Phillipsburg Shade Tree Commission was established by the governing body of the city of Phillipsburg. The ordinance which authorizes the Commission and its method of operation closely patterns the Salt Lake City, Utah, ordinance which has been in force for many years and has contributed much to the reputation of the City of the Mormons as a beautiful city. The main business street of Phillipsburg has been planted from city limit to city limit

with a variety of flowering trees which already show beauty promise. The citizens of the community are becoming aware of the trees and take pride in the plantings. The park, cemetery, community building and random spots in the community have received some plantings of trees. This effort has been with the counsel and planning of Extension Forestry Division of Kansas State University.

It is notable that this year of 1972 is the 100th anniversary of the birth of the city of Phillipsburg. It is also the centennial of Arbor Day. Perhaps it is significant that the Shade Tree program of the city of Phillipsburg is well underway with two years of tree plantings at the beginning of the second hundred years. We can hope that this second century will be known as the "Century of the Trees" for the city of Phillipsburg.

**Assessment of Current Situation**  
**By Neal E. Jennings**  
**Extension Forester (Community Forestry)**  
**and Ass't State Forester**

In August 1973, an inventory was conducted of all street and park trees in Auburn, Nebraska. Street trees were considered as trees on the parkway and those substantially influencing the street. Trees were recorded by species, size, and condition class. From this data, individual species and condition class percentages were computed. Tree values are computed according to the International Society of Arboriculture valuation formula.

There were 2,657 individual trees inventoried in Auburn representing 59 different species. Fifty broadleaf tree species and nine conifer tree species were noted. A listing of these trees follows:

Species	No. of trees	Percent of total	Species	No. of trees	Percent of total
1. Silver maple	301	11	15. Redbud	40	2
2. American elm	295	11	16. Cottonwood	39	1
3. Green ash	290	11	17. Northern red oak	29	1

4. Siberian elm	277	10	18. European birch	23	1
5. Hackberry	272	10	19. Colorado blue spruce	17	1
6. Pin oak	237	9	20. Bur oak	17	1
7. Norway maple	180	7	21. Juniper	17	1
8. Austrian pine	89	3	22. Little leaf linden	15	1
9. Honeylocust	74	3	23. White pine	15	1
10. American linden	73	3	24. Boxelder	14	1
11. Black walnut	60	2	25. Red cedar	14	1
12. Catalpa	55	2	26. Apple	13	1
13. Lombardy poplar	53	2	27. Miscellaneous*	99	4
14. Sycamore	49	2	TOTALS = 2,657 100%		

\*Mulberry, white oak, sweet gum, willow, flowering crab, purple leaf plum, red maple, Scotch pine, Tree-of-heaven, bitternut hickory, Douglas fir, saucer magnolia, sugar maple, concolor fir, ponderosa pine, black locust, amur maple, Kentucky coffeetree, Norway spruce, plum, tulip tree, arborvitae, black cherry, Bradford pear, English walnut, goldenrain tree, horsechestnut, European mountain ash, Ohio buckeye, river birch, white ash, weeping willow.

Of the above totals 458 were located in parks or at the courthouse and 2,199 were located along streets.

The following tables give an idea of tree desirability, condition, and value. Each tree species was put in a desirability class according to specifications by the International Society of Arboriculture. Class I is the most desirable and desirability drops to Class VI which includes the least desirable species of trees.

#### STREET TREES

Classification	Total No. of trees	Percent of total trees	Avg. dia.	Percent of class totals				Value \$
				Good <sup>a/</sup>	Fair <sup>b/</sup>	Poor <sup>c/</sup>	D&D <sup>d/</sup>	
Class I	206	9.4	8.2	84.0	9.7	6.3	-	\$ 122,550
Class II	832	37.8	14.7	64.9	26.1	8.0	1.0	863,217
Class III	152	6.9	8.4	82.9	12.5	3.3	1.3	49,535
Class IV	16	0.1	6.2	88.0	6.0	6.0	-	1,847
Class V	673	30.6	14.8	51.6	25.9	13.8	8.7	166,617
Class VI	320	14.6	15.2	33.4	41.9	19.1	5.6	35,360
TOTALS	2,199	100.0	13.7	59.4	25.7	10.9	4.0	\$1,239,126



# PARKS AND COURTHOUSE TREES

Classification	Total No. of trees	Percent of total trees	Avg. dia.	Percent of class totals				Value \$
				Good <sup>a/</sup>	Fair <sup>b/</sup>	Poor <sup>c/</sup>	D&D <sup>d/</sup>	
Class I	34	7.4	9.4	94.1	5.9	-	-	\$ 30,130
Class II	255	55.7	10.6	83.0	12.0	5.0	-	162,077
Class III	53	11.6	4.7	62.3	30.2	7.5	-	8,253
Class IV	33	7.2	4.2	84.8	9.1	6.1	-	1,366
Class V	62	13.5	4.9	87.1	8.1	3.2	1.6	2,715
Class VI	21	4.6	12.8	47.6	-	33.3	19.1	2,510
TOTALS	458	100.0	8.7	80.3	12.4	6.1	1.1	\$207,051

<sup>a/</sup> Good—Healthy, vigorous tree. No apparent signs of insect, disease, or mechanical injury. Little or no corrective work required. Form representative of species.

<sup>b/</sup> Fair—Average condition and vigor for area. May be in need of some corrective pruning or repair. May lack desirable form characteristic of species.

<sup>c/</sup> Poor—General state of decline. May show severe mechanical, insect or disease damage, but death not imminent. May require major repair in renovation.

<sup>d/</sup> Dead or Dying—Dead, or death imminent.

**Tree Selection**—The two main goals to strive for in selection of tree species are diversification and desirability.

As a general rule, no single tree species should represent more than 10 percent of the total tree population (diversity). It is somewhat amazing that Auburn has a balanced tree population with no species having over 11 percent of the total.

A word of caution is in order. Of the seven most common tree species (American elm, silver maple, Siberian elm, green ash, pin oak, hackberry, and Norway maple) three represent newly planted trees (silver maple, pin oak, and Norway maple) and four represent old trees (American elm, Siberian elm, hackberry, and green ash). This indicates a heavy reliance on a few species and may change the diversity picture in the future. Of trees less than four inches in diameter almost one third are silver maple, and two thirds are silver maple, pin oak, and/or Norway maple. Additional emphasis is needed on other tree species along the streets. If this does not occur the potential for disastrous effects of losing one species (like American elm) in the future to insects or disease is possible.

Emphasis on the more desirable tree species minimizes city expenses. Trees that die at an early age, break easily in wind, snow,



ice storms, need constant maintenance, or have a drooping habit should be discouraged along streets. At present 50 percent of the tree population would be considered in the lower half of desirability. A goal would be to get 80 percent of the trees in a desirability class of I or II (the most desirable trees). Trees should be selected to work for you, not against you.

**Tree Planting**—A rule of thumb for tree stocking is 200 trees per maintained street mile. Auburn has about 25 miles of maintained streets. Based on this criteria 5,000 trees would be desirable. This is compared to a present stocking of 2,199 trees. This shortage is actually more acute than indicated due to the number of American and Siberian elms and the very close spacing in some areas. Some of the problem is probably due to the large number of American elms removed in recent years. No matter how one evaluates these figures it points out a present and future need for tree planting.

**Tree Maintenance**—Tree maintenance noted during the survey:

1. Watering by individuals.
2. Sporadic staking and wrapping of young trees.
3. A low level of corrective pruning on young and old trees.
4. A low level of insect and disease control by individuals.

It seemed the biggest needs in the tree maintenance area is corrective pruning of young trees (less than four inches in diameter) and proper pruning of old trees (restrict the method of tree topping). Pruning at an early age helps prevent tree breakage, low branches, and attack by insects and diseases. The practice of topping trees is not recommended.

**Tree Removal**—Trees on city property appear to be removed on a timely basis. Very few dead or dying trees (essentially no trees dead over one year) were present. Whatever procedure presently being used must be working. Trees on private property seem to be a problem. Trees dead several years are still present. Some trees had actually decayed and were falling over. This presents problems with aesthetics, safety, and disease/insect control.

It is hard to estimate accurately the number of trees to be removed in the future. Due to Dutch elm disease the removal will be

fairly large for the next 5 to 10 years. Trees do not live forever and eventually all trees must be removed.

Based on the number of elms, total number of trees, and tree species profile an estimate by years follows.

<i>Year</i>	<i>Number to be removed<sup>a/</sup></i>	<i>Approximate cubic feet of wood waste<sup>b/</sup></i>
1974	70 - 90	3,500 - 4,500
1975	70 - 90	3,500 - 4,500
1976	60 - 80	3,000 - 4,000
1977	50 - 60	2,500 - 3,000
1978	40 - 50	2,000 - 2,500
1979	20 - 30	1,000 - 1,500
Future years	20 - 30	1,000 - 1,500

<sup>a/</sup>The numbers for the next five years will greatly depend upon how rapid the American elms die.

<sup>b/</sup>On the average, trees removed contain about 50 cubic feet of solid material.

**Tree Disposal**—What to do with the tree after it is cut down is always a problem that has no good solution. The most common methods of disposal are burning or the city dump. Neither is desirable but few alternatives exist. The city should possibly consider chipping small material or hauling to a local firewood dealer.

**Parks**—The Courthouse, Legion Park, Rotary Park, and mini-park are in good shape. No major problems or needs were noted. It is apparent care and some planning has occurred. Legion Park could actually use a few less trees as more open space would be desirable.

A master plan for each area noting existing and future trees would be desirable.

**Highway Entrances**—Two major highways enter Auburn - Highway 73/75 and 136. Signs welcoming visitors are located at the four major entrances. The potential use of landscape plants to accent these signs exists. This type of planting would draw attention to the sign and give people a good first impression.

**Business District**—Two business areas exist—north (the largest) and south (the Courthouse area). The Courthouse area is in good shape as it is small and gets good effect from the trees on side streets

and the Courthouse grounds. The main business district (for several square blocks) is essentially all concrete and has a rather harsh appearance. Trees and shrubs would be a welcome sight, but would be very costly and would require a great deal of maintenance. Due to the nature of this area, time and money at present could be better invested in other areas/projects.

This concludes the assessment of the current tree situation for Auburn. It is recommended an updated and/or refined inventory be performed in 5 to 10 years or as needed.



## Tree Planting

The Community Tree Board of (Name of community) recognizes three areas needing tree planting.

**Private Property**—Tree planting on private property is the responsibility of the property owner. To assist with proper selection and placement a list of recommended trees is presented. The Tree Board will prepare handout materials listing recommended trees, with basic information about the trees and tips on placement.

### Recommended trees for private property

<i>Small</i>	<i>Medium to large</i>	
<b>Broadleaf</b>		
Ohio buckeye	Green ash	Silver maple
Flowering crabs	Paper birch	Norway maple
Goldenrain tree	Ginkgo	Bur oak
Hawthorne	Hackberry	Pin oak
Saucer magnolia	Honeylocust	Red oak
Amur maple	American linden	
European Mt. ash	Redmond linden	
Bradford pear	Little-leaf linden	
Purple leaf plum		
Eastern redbud		
<b>Conifers</b>		
	Ponderosa pine	Norway spruce
	Austrian pine	Colorado blue spruce
	Scotch pine	Black Hills spruce
	Eastern white pine	Concolor fir
	Southwestern white pine	Douglas fir
	Limber pine	Balsam fir
	Jack pine	Junipers (varieties)
	Red pine	

**Along Streets**—(Name of town) needs to have an annual tree planting program.

It is estimated (100) trees need to be planted yearly along streets.

To help individuals in selection, placement, planting, and maintenance the following procedures are recommended:



No outlay of public funds is required. A small budget for printing, paper, and/or advertisement may be required. Two different tree species will be offered for sale each year—one small tree species and one medium to large tree species.

A ten year plan for trees to be offered follows:

<i>Year</i>	<i>Tree species</i>	<i>Size</i>	<i>Estimated number to be ordered</i>
1978	Bradford pear	Small	40
	Norway maple	Large	60
1979	Flowering crab	Small	40
	Green ash	Large	60
1980	Eastern redbud	Small	40
	Honeylocust	Large	60
1981	Washington hawthorn	Small	40
	American linden	Large	60
1982	Purple leaf plum	Small	40
	Ginkgo	Large	60
1983	Goldenrain tree	Small	40
	Littleleaf linden	Large	60
1984	Flowering crab	Small	40
	Red oak	Large	60
1985	Amur maple	Small	40
	Hackberry	Large	60
1986	European Mt. ash	Small	40
	Green ash	Large	60
1987	Japanese tree lilac	Small	40
	Honeylocust	Large	60

This rotation plan insures tree species diversity, adaptability, and desirability. It will be reviewed yearly and revised as needed.

The tree planting program will be under the direction of the Tree Board. Various civic groups will help with the project. The Nebraska Community Improvement Program (N.C.I.P.) Committee has consented to play a major role in the tree planting program. Details and procedures will undoubtedly change as experience is gained.

In general, procedures for the proposed tree planting program are:

### *Order Taking*

- Print cut-out order form in newspaper and send to N.C.I.P. Chairman.
- Call, write, or personally give orders to N.C.I.P. Committee members.

### *Purchase*

- Trees will be purchased in bulk from (local) nursery.

### *Payment*

- Payment will be in advance from property owners at time of order receipt.

### *Distribution*

- Trees will be held and picked up by individuals at (Local) nursery.

### *Planting Site Location*

- At time of distribution a printed sheet will be presented for the particular tree purchased. This sheet would detail city statutes regulating placement and provide recommendations for planting and maintenance.

### *Planting*

- Planting will be the responsibility of the individual.
- Tree planting services will be provided by cooperating civic organizations for property owners unable to plant their trees.

**Parks and Special Public Areas**—Landscape plans have been developed for the three park areas and the courthouse. These plans note existing trees and needed or proposed trees.

Tree quantity and diversity is lacking in all city parks and on the courthouse grounds. A total of 75 trees and shrubs are needed in the next five years. The cost of the plant materials will be estimated annually and indicated in annual work plans.

It is recommended these trees be planted in conjunction with an annual Arbor Day observance. The trees will be planted by city crews in cooperation with youth or civic groups under the direction of Tree Board Members. Tree planting needs by area:

- Courthouse: 2 Norway maple, 3 flowering crabs, 5 Japanese yew, 5 Pfitzers, 2 pin oak, 3 redbud.

- \_\_\_\_\_ Park: 5 pines, 2 spruce, 1 ginkgo, 4 flowering shrubs, 2 red oak.

- \_\_\_\_\_ Park: 3 pines, 4 spruce, 10 pfitzer, 10 flowering shrubs, 2 Norway maple, 2 honeylocust.

- \_\_\_\_\_ Park: 5 pine trees, 3 Japanese yews, 2 red oak.

### **Tree Maintenance**

The maintenance of trees between time of planting and removal is often neglected. Disease, insect control, and proper corrective pruning of young and old trees can do much to enhance our tree resource.

Specific maintenance projects or procedures are not outlined. They can best be handled individually or programmed annually.

Positive actions the Tree Board will take in the tree maintenance area are:

- Jointly sponsor with the County Extension Agent a yearly workshop for people on tree maintenance using an appropriate specialist in the field.

- Conduct an annual inspection of street and park trees. Trees needing attention for health or hazard reasons will be noted. Specific projects will be developed.

- Explore the possibility of finding a knowledgeable individual to correctively prune young trees in town for hire or as a civic service.

- Maintain a reference file on tree maintenance.

### **Tree Removal and Disposal**

Removal and disposal of trees is expensive. The community's



money could be better invested in tree planting and maintenance.

The current method of tree removal and disposal is working satisfactorily. City maintenance personnel note dead trees and record location. Bids for removal and disposal are let to private contractors. The waste material is hauled to the city landfill south of town.

The tree board recommends this procedure be continued, but reviewed yearly to determine if more efficient methods or procedures can be employed.

Based on current average tree removal cost figures the following estimates were derived:

<i>Year</i>	<i>Approx. no. of trees/year</i>	<i>Cubic feet of volume</i>	<i>Estimated removal cost</i>
1977	80	4,000	\$4,000
1978-80	60	3,000	\$3,500
1980 +	30	9,500	\$2,100 +

### **Inventory of Community Resources**

The Community Tree Board of (name of town) recognizes that many tree projects require community support from groups, organizations, businesses, agencies, and individuals. This support in the form of money, manpower, equipment, or information is essential to a progressive Community Forestry Program.

The following list represents those supporting the Community Forestry Program. The Tree Board will use this as a reference for assistance when specific projects are developed. The Tree Board will update this listing as required.

#### **1. City Owned Tree Care Equipment**

- Chain saws
- Pruning saws
- Stump cutter
- Sprayers
- Other



## 2. Organizations

- Lions
- Rotary
- Jaycees
- NCIP Committee
- Chamber of Commerce
- Downtown Improvement Committee
- Extension Clubs
- Girl and Boy Scouts
- American Legion/VFW
- Garden Clubs
- BPWC
- Volunteer Firemen
- 4-H Clubs
- FHA Chapter
- Church groups
- Other

## 3. Businesses and Companies

- Newspaper
- Banks
- Implement Companies
- Utility Companies
- Nursery
- Other

## 4. Local, State, and Federal Agencies

- Natural Resource District
- Schools
- Dept of Forestry, UofN
- Coop Extension Service
- Dept of Community and Regional Planning, UofN
- Game and Parks Commission
- Other

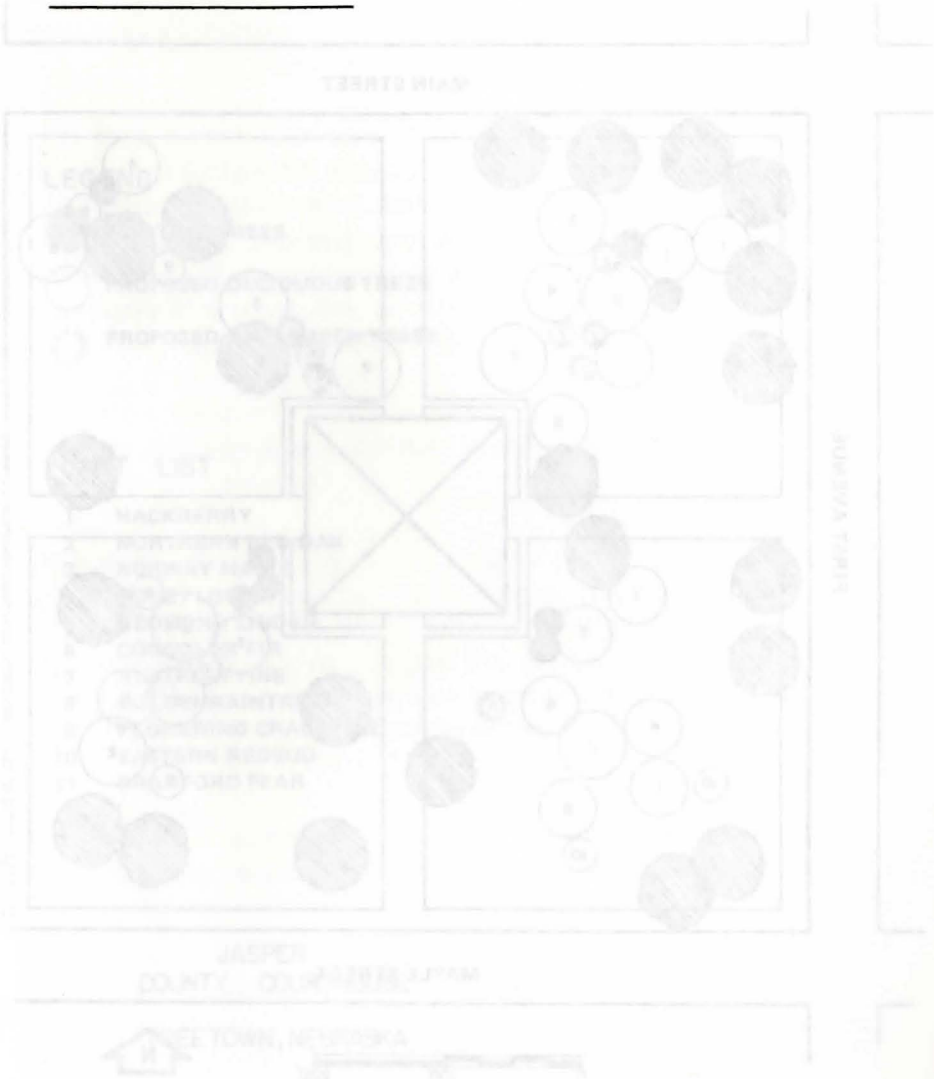
## 5. Individuals

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Language Patterns is not in use.

Approximate 1970-71 or later. Approximate date of use.

On July 12, 1977, the Tax Board and John Doe of our local  
and other officials of the local government of the  
taxes determined the following grounds, not with, but  
-Two men just north of southeast corner and east of  
backyard.



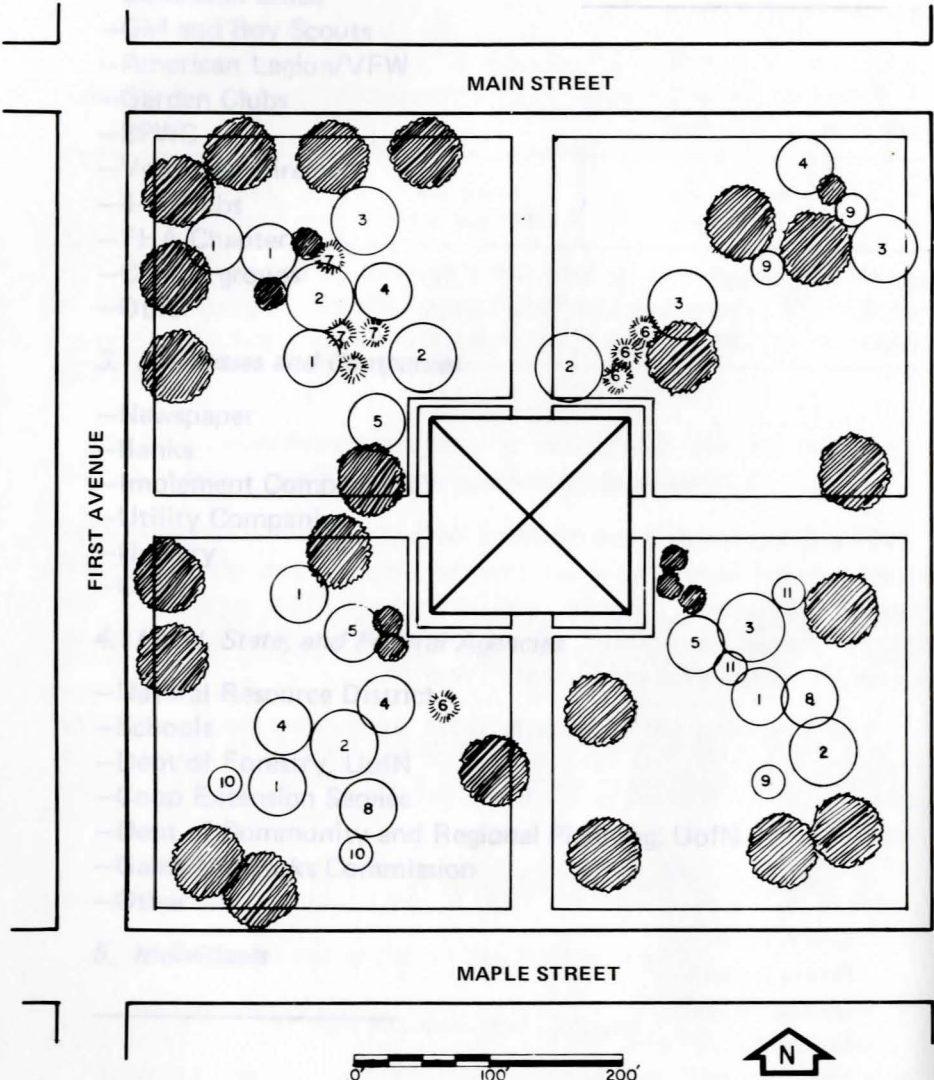
## Landscape Plans

North Park:

North Park:

On July 15, 1977 the Tree Board and John Doe of our local \_\_\_\_\_ Nursery visited North Park. Based upon this inspection we determined the following tree needs:

—Two trees just south of southeast picnic area: red oak or hackberry.





—Three pfitzers at entrance.

—Ten large shade trees in open area to the north, spaced about 40 feet apart.

—Two flowering trees at northeast corner of the park along the road: redbud, hawthorn, or flowering crab.

## LEGEND



EXISTING TREES



PROPOSED DECIDUOUS TREES



PROPOSED EVERGREEN TREES

## PLANT LIST

- 1 HACKBERRY
- 2 NORTHERN RED OAK
- 3 NORWAY MAPLE
- 4 HONEYLOCUST
- 5 REDMOND LINDEN
- 6 CONCOLOR FIR
- 7 AUSTRIAN PINE
- 8 GOLDENRAINTREE
- 9 FLOWERING CRABAPPLE
- 10 EASTERN REDBUD
- 11 BRADFORD PEAR

JASPER  
COUNTY COURTHOUSE

TREETOWN, NEBRASKA

## **Municipal Ordinances**

### **Sample City Ordinance Providing For Creation of City Tree Board**

Be it Ordained by the City Commission of the City of \_\_\_\_\_, Nebraska:

#### *Section 1. Creation and Establishment*

There is hereby created and established a Community Tree Board for the City of \_\_\_\_\_, Nebraska, which shall consist of six members, citizens and residents of this city, who shall be appointed by the mayor with the approval of this commission.

#### *Section 2. Term of Office*

The term of the six persons to be appointed by the mayor shall be three years except that the term of two of the members appointed to the first board shall be for only one year and the term of two members of the first board shall be for two years. In the event that a vacancy shall occur during the term of any member, his successor shall be appointed for the unexpired portion of the term.

#### *Section 3. Compensation*

Members of the Board shall serve without compensation.

#### *Section 4. Duties and Responsibilities*

It shall be the responsibility of the Board to study, investigate, council, and develop a written plan for the care, preservation, trimming, planting, replanting, removal, or disposition of trees and shrubs in public ways, streets, and alleys. Such plan will be presented to the City Commission and upon their acceptance and approval shall constitute the official comprehensive community tree plan for the City of \_\_\_\_\_, Nebraska.

The Board shall review annually and update if needed the comprehensive city tree plan. The Board shall prepare and present an annual work plan to the City Commission for their acceptance and approval.

The Board, when requested by the City Commission, shall consider, investigate, make findings, report, and recommend upon any special matter of question coming within the scope of its work.

### *Section 5. Operation*

The board shall choose its own officers, make its own rules and regulations, and keep a journal of its proceedings. A majority of the members shall be a quorum for the transaction of business.

### **Sample City Ordinance Providing for Tree Responsibility to Park Board**

Be it ordained by the City Commission of the City of \_\_\_\_\_, Nebraska:

#### *Section 1.*

It shall be the additional responsibility of the Park Board (Park and Recreation Board) to study, investigate, counsel, and develop a written plan for the care, preservation, trimming, planting, replanting, removal, or disposition of trees and shrubs in public ways, streets, and alleys. Such plan will be presented to the City Commission and upon their acceptance and approval shall constitute the official comprehensive Community tree plan for the City of \_\_\_\_\_, Nebraska. The Board shall review annually and update if needed the comprehensive city tree plan. The Board shall prepare and present an annual work plan to the City Commission for their acceptance and approval.

The Board, when requested by the City Commission, shall consider, investigate, make finding, report, and recommend upon any special matter of question coming within the scope of its work.

### **Sample Municipal Tree Ordinance**

Be it ordained by the Governing Body, of the Municipality of \_\_\_\_\_, State of Nebraska.

#### *Section 1. Title*

This ordinance shall be known and may be cited as the Municipal Tree Ordinance of the Municipality of \_\_\_\_\_, County of \_\_\_\_\_, State of Nebraska.

#### *Section 2. Definitions*

Street trees: "Street trees" are herein defined as trees, shrubs,



bushes, and all other woody vegetation on land lying between property lines on either side of all streets, avenues, or ways within the city.

Park Trees: "Park trees" are herein defined as trees, shrubs, bushes, and all other woody vegetation in public parks having individual names, and all areas owned by the City, or to which the public has free access as a park.

*Section 3. Tree Species to be Planted*

The following species of trees, listed by common name, constitutes the official Street Tree and Park Tree species for the municipality of \_\_\_\_\_, County of \_\_\_\_\_, State of Nebraska. No species other than those included in this list may be planted as Street or Park Trees without written permission of the Municipal Tree Board.

<i>Small trees</i>	<i>Medium trees</i>	<i>Large trees</i>
Lilac, Japanese Tree	Sweetgum	Ashes
Hawthorns	Buckeye, Ohio	Coffeetree, Kentucky
Goldenrain tree	Birches	Hackberry
Corktree, Amur	Pagoda Tree, Japanese	Maple, Sugar
Magnolia, Saucer	Ginkgo	Maple, Silver
Maple, Amur	Linden, Littleleaf	Maple, Norway
Mountain ash, European	Linden, Redmond	Oak, Bur
Pear, Bradford		Oak, Northern Red
Plum, Purpleleaf		Honeylocust
Redbud, Eastern		Sycamore, American
Crabapples, Flowering		

*NOTE: The tree species listed above are offered as examples only. Each community must develop its own official tree list. Selection criteria should include hardiness, maintenance requirements and community needs.*

*Section 4. Location and Spacing*

The spacing of Street Trees and Park Trees will be in accordance with the tree species size classes listed in Section 3 of this ordinance, and no trees may be planted closer together than the following: Small Trees, 30 feet; Medium Trees, 40 feet; and Large Trees, 50 feet; except in special plantings.

The distance Street Trees may be planted from curbs or curblines and sidewalks will be in accordance with the three species size classes listed in Section 3 of this ordinance, and no trees may be planted closer to any curb or sidewalk than the following: Small Trees 2 feet; Medium Trees, 3 feet; and Large Trees, 4 feet.

No Street Tree or Park Tree shall be planted within 35 feet of any street intersection, measured from the point of nearest intersecting curbs or curblines, or within 15 feet of any driveway or alley.

No Street Tree or Park Tree other than those species listed as Small Trees in Section 3 of this ordinance may be planted under or within 10 lateral feet of any overhead utility wire, or over or within 5 lateral feet of any underground water line, sewer line, transmission line, or other utility line, wire, or main. No Street Tree shall be planted within 10 feet of any fireplug.

#### *Section 5. Public Tree Care*

The Municipality shall have the right to plant, prune, maintain, and remove trees, plants, and shrubs within the lines of all streets, alleys, avenues, lanes, squares, and public grounds, as may be necessary to insure public safety or to preserve or enhance the symmetry and beauty of such public grounds.

The Community Tree Board may remove or cause or order to be removed, any tree or part thereof which is in an unsafe condition or which by reason of its nature is injurious to sewers, electric power lines, gas lines, water lines, or other public improvements, or is affected with any injurious fungus, insect, or other pest. This Section does not prohibit the planting of Street Trees by adjacent property owners providing that the selection and location of said trees is in accordance with Section 3 and 4 of this ordinance.

#### *Section 6. Tree Topping*

It shall be unlawful as a normal practice for any person, firm, or Municipal department to top any Street Tree, Park Tree, or other tree on public property. Topping is defined as the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other



pruning practices are impractical may be exempted from this ordinance at the determination of the Community Tree Board.

### *Section 7. Pruning, Corner Clearance*

Every owner of any tree overhanging any street or right-of-way within the Municipality shall prune the branches so that such branches shall not obstruct the light from any street lamp or obstruct the view of any street intersection and so that there shall be a clear space of eight feet (8') above the surface of the street or sidewalk. Said owners shall remove all dead, diseased, or dangerous trees, or broken or decayed limbs which constitute a menace to the safety of the public. The Municipality shall have the right to prune any tree or shrub on private property when it interferes with the proper spread of light along the street from a street light, or interferes with visibility of any traffic control device or sign.

### *Section 8. Dead or Diseased Tree Removal on Private Property*

The Municipality shall have the right to cause the removal of any dead or diseased trees on private property within the Municipality when such trees constitute a hazard to life and property, or harbor insects or disease which constitute a potential threat to other trees within the city. The Community Tree Board will notify in writing the owners of such trees. Removal shall be done by said owners at their own expense within 60 days after the date of service of notice. In the event of failure of owners to comply with such provisions, the Municipality shall have the authority to remove such trees and charge the cost of removal on the owners property tax notice.

### *Section 9. Removal of Stumps*

All stumps of Street and Park Trees shall be removed below the surface of the ground so that the top of the stump shall not project above the surface of the ground.

### *Section 10. Interference with City Tree Board*

It shall be unlawful for any person to prevent, delay, or interfere with the Community Tree Board, or any of its agents, while engaging in and about the planting, cultivating, mulching, pruning, spraying, or removing of any Street Trees, Park Trees, or trees on private grounds, as authorized in this ordinance.

### *Section 11. Arborists License and Bond*

It shall be unlawful for any person or firm to engage in the business or occupation of pruning, treating, or removing Street or Park trees within the Municipality without first applying for and procuring a license. The license fee shall be \$25 annually in advance, provided, however, that no license shall be required to any public service company or Municipal employee doing such work in the pursuit of their public service endeavors. Before any license shall be issued, each applicant shall first file evidence of possession of liability insurance in the minimum amounts of \$50,000 for bodily injury and \$100,000 property damage indemnifying the Municipality or any person injured or damaged resulting from the pursuit of such endeavors as herein described.

### *Section 12. Review by Governing Body*

The Governing Body of the Municipality of \_\_\_\_\_, shall have the right to review the conduct, acts, and decisions of the Community Tree Board. Any person may appeal from any ruling or order of the Community Tree Board to the Governing Body who may hear the matter and make final decision.

### *Section 13. Penalty*

Any person violating any provision of this ordinance shall be, upon conviction or a plea of guilty, subject to a fine not to exceed \$ \_\_\_\_\_.

NOTE: This simple ordinance was designed for use by communities of average population. The ordinance that your community ultimately develops should be designed to fit specific community needs.



## Annual Work Plans

### *Tree Planting*

1. The mayor issue an Arbor Day Proclamation on April 22, 197 . \$ 0.00
2. Have a commemorative Arbor Day tree planting on April 22, 197 at North Park in conjunction with Arbor Day Proclamation . . . . . \$ 0.00
3. Plant 25 trees and shrubs in parks. The \_\_\_\_\_ Garden club has donated \$100 for this project . . . . . \$150.00
4. Plant 100 street trees . . . . . \$ 0.00

### *Tree Maintenance*

1. Inspect park and street trees for any needed cultural treatment \$ 0.00
2. Spray 10 Austrian pine in East Park for needle blight in April and May . . . . . \$300.00
3. Prune dead limbs out of trees in North and East Parks . . . . . \$100.00
4. Purchase a chain saw and two hand pruning shears . . . . . \$175.00

### *Tree Removal and Disposal*

1. Inspect park and street trees during the summer. Mark and note location of any dead or dying trees . . . . . \$ 0.00
2. Remove 25 trees - 5 in parks and 20 along streets.  
Work to be accomplished by City Parks crew . . . . . \$1,000.00

TOTAL = \$1,725