CENTERVILLE WORK SESSION AGENDA

NOTICE IS HEREBY GIVEN THAT THE CENTERVILLE CITY COUNCIL WILL HOLD ITS WORK SESSION MEETING AT 5:30 PM ON December 3, 2019 AT THE CENTERVILLE CITY HALL COUNCIL CHAMBERS, 250 NORTH MAIN STREET, CENTERVILLE, UTAH. THE AGENDA IS SHOWN BELOW.

Meetings of the City Council of Centerville City may be conducted via electronic means pursuant to Utah Code Ann. 52-4-207, as amended. In such circumstances, contact will be established and maintained via electronic means and the meeting will be conducted pursuant to the Electronic Meetings Policy established by the City Council for electronic meetings.

Centerville City, in compliance with the Americans With Disabilities Act, provides accommodations and auxiliary communicative aids and services for all those citizens in need of assistance, including hearing devices. Persons requesting these accommodations for City-sponsored public meetings, services, programs, or events should call Jacob Smith, Centerville Management Services Director, at 801-295-3477, giving at least 24 hours notice prior to the meeting.

The full packet of backups materials can be found at http://centerville.novusagenda.com/agendapublic.

A. ROLL CALL

B. NEW BUSINESS

5:30 1. Bountiful Veterans Park Presentation

6:00 2. Work Session with the Tree Board

City Council will hold a joint work session with the Tree Board to review the recommended Tree List.

C. CLOSED SESSION (Closed Meeting, if necessary, for reasons allowed by State Law, including, but not limited to, the provisions of section 52-4-205 of the Utah Open and Public Meetings Act, and for the Attorney-Client matters that are privileged pursuant to Utah Code ann. 78B-1-137, as amended)

D. ADJOURNMENT

Leah Romero
Centerville City Recorder

CENTERVILLE

Staff Backup Report
12/3/2019

Item No. 1.

Short Title: Bountiful Veterans Park Presentation

Initiated By: Mayor Wilkinson

Scheduled Time: 5:30

SUBJECT

RECOMMENDATION

BACKGROUND

CENTERVILLE

Staff Backup Report
12/3/2019

Item No. 2.

Short Title: Work Session with the Tree Board

Initiated By: Tree Board - Presented by Gary Woodward

Scheduled Time: 6:00

SUBJECT

City Council will hold a joint work session with the Tree Board to review the recommended Tree List.

RECOMMENDATION

BACKGROUND

In 2018 the Tree Board was created as an advisory board to the City Council and other departments for the purpose of providing guidance to the City of the planting, maintaining and removing of trees on public property and within the public park strips. *CMC 3.03.080*

ATTACHMENTS:

Description

- 11.26.2019 Tree List Proposal
- Updated Tree Ordinance
- Standards and Specifications

11.02.080 Approved Tree List

(a) General

Centerville City's policy for public trees is to plant "the right tree in the right place." Only desirable, long-lived tree species of good appearance, beauty, adaptability, and generally free from injury, insect, or disease shall be acceptable for tree plantings. The City encourages species and age class diversity in managing our City's park and street trees. An Urban Forest with a variety of trees is not subject to large-scale losses from disease or natural life cycles.

Many trees may drop messy fruit onto the sidewalk. Good examples of trees with messy fruit are some varieties of crabapple and flowering plum. Property owners should consider this possible problem before planting such trees. Property owners shall be responsible for the cleanup of shed fruit per CMC 11.02.070(a).

(b) Site Factors

Tree and Site factors to be considered are:

1. The size of the planting strip;
2. Buried and above ground utilities;
3. The mature height and width of the tree;
4. The tree root's characteristics and habits;
5. The presence of overhead wires;
6. The crown and branching height and structure; not block view of traffic signs, impede flow of traffic, or limit view from driveways;
7. The characteristics of soil (pH, moisture, compaction, salinity, extreme surface temperature, etc.);
8. If there are power lines on the site, the ultimate height of the approved tree cannot exceed 25' tall.

(c) No trees may be planted in park strips smaller than 4.0' wide per CMC 11.02.060(a)

(d) Tree List

There are no 'perfect' street trees, many trees can be considered. This list is not all-inclusive, and there may be other trees that may be planted with careful consideration. Other varieties of trees shall require written approval of _____ with the recommendation of the Tree Board.

(1) Trees in Park strips between 4.0' to 4.99' wide.

Common Name - Botanical Name	Height (Feet)	Width (Feet)	**COMMENTS**
Cherry, Flowering -Prunus serrulata (non-weeping varieties only)			
Akebono	25'	25'	Pink flowers. Spreading shape. Yellow Fall color
Amanogawa	20'	6'	Pink flowers, Columnar shape. Bronze fall color.
Columnar Sargent	35'	15'	Pink flowers. Upright, columnar to narrow vase shape. Orange-red fall color.
First Blush	25'	12'	Pink flowers, Upright-narrow shape. Orange-red fall color.
Kwanzan	30'	20'	Pink flowers. Fruitless, Vase Shape. Orange-red fall color.
Okame	25'	20'	Pink flowers. Upright oval shape. Yellow to orange fall color.
Pink Flair	25'	15'	Pink flowers. Upright, narrow shape. Orange-red fall color.
Royal Burgundy	20'	15'	Pink Flowers. Vase Shape. Purple leaves turn bronze in fall.
Yoshino	30'	30'	White to pink flowers. Spreading Shape. Yellow fall color.
Chokecherry, - Prunus virginiana (single trunk only) tends to sucker at the base			

Canada Red	25'	20' White flowers followed by small, reddish-purple fruit. Leaves emerge green, then turn purple in as they age and mature.

Crabapple, Flowering -Malus (non-weeping varieties only)

Many other varieties are available that may be planted with permission from Centerville City.
Most crabapple varieties produce Fruit, and some varieties may have disease problems

Adams	20'	20' Round shape. Pink flowers. 5/8" red persistent fruit. Fire blight resistant.
Adirondack	18'	10' Upright shape. White flowers. 1/2" Red fruit. Fire blight resistant.
Centurion -	25'	20' Rounded shape. Reddish flowers. 3/8" red persistent fruit.
Coral Burst	15'	15' Compact tree, Pinkish Buds & Flowers, 1/2" small yellow/green fruit.
Dolgo -	30'	25' Large tree. White flowers. 1.5" edible fruit
Floribunda	20'	25' Rounded shape. Pinkish flowers.1/2" reddish fruit.
Indian Magic	15'	15' Small rounded tree. Pink Flowers, 1/2" persistent fruit
Ivory Spear -	18'	7' Narrow and columnar shape. White flowers. 1/2" red fruit.
Klehm's Improved Bechtel -	25'	20' Rounded shape. Large pink flowers. Sparse 1" green fruit.
Prairie Fire	20'	20' Crimson buds, pinkish flowers. Red leaves. Small 1/2" red persistent fruit.
Profusion	20'	20' Pink flowers. Purplish leaves. 1/2" persistent fruit. Fire blight resistant.
Purple Prince	20'	20' Rounded shape. Reddish flowers. Purplish leaves. 1/2" maroon fruit. Fire blight resistant.
Radiant -	25'	20' Red buds, pink blossoms. Bright red 1/2" fruit. Fire blight resistant.
Raspberry Spear	20'	8' Narrow to columnar. Pink flowers. 1/2" persistent fruit. Fire blight resistant.
Red Jewell	15'	12' Small, upright shape. White flowers. 1/2" red persistent fruit.
Royal Raindrops	20'	15' Upright to spreading. Pink flowers. 1/4" persistent fruit. Fire blight resistant.
Royalty	15'	15' Purple leaves, Crimson purple flowers. 5/8" Red fruit-
Snow Cloud -	20'	15' Pinkish flowers. 1/2" yellow fruit.
Snowdrift -	20'	20' Pink buds, white flowers. Small 1/2" orange persistent fruit.
Sparkling Sprite	12'	12' Compact tree. White flowers. 1/4" yellowish persistent fruit. Fire blight resistant.
Spring Snow -	25'	22' White blossoms. Nearly Fruitless.
Sugar Tyme	18'	15' Oval shape. White flowers. 1/2" red persistent fruit. Fire blight resistant.
Thunderchild	20'	15' Upright and spreading. Pink flowers. 1/2" red persistent fruit. Fire blight resistant.

Golden Rain Tree -Koelreuteria paniculata Produces an abundance of seed pods that germinate easily.

Golden Rain	30'	30' Rounded shape. Yellow flowers in summer. A lot of seed pods in fall. Drought tolerant.
Columnar Golden Rain	25'	10' Narrow, upright shape. Yellow flowers in summer. Seed pods in fall.

Hawthorne -Crataegus All hawthorn trees produce thorns. Size and quantity of thorns vary by variety

Lavelle	28'	20' Irregular shape. White flowers. 5/8" orange fruit.
Washington	25'	20' Oval shape. White flowers. 1/4" Red persistent fruit.
Toba	20'	20' Upright to round shape. White flowers, 3/8" red fruit.
Paul's Scarlet	22'	20' Oval shape. Scarlet flowers, Small red fruit. Susceptible to fire blight.

Honeylocust, Gleditsia triacanthos - Considered thornless and seedless. However, occasional production of seeds and/or thorns.

Imperial	35'	35' Rounded shape. Seedless variety.
Sunburst	40'	35' Irregular shape. Bright yellow tip growth. Seedless variety
Street Keeper	45'	25' Narrow, upright shape. May produce some seed pods.

Japanese Lilac Tree -Syringa reticulata Produces seed capsules that can add some interest to the late summer landscape.

Ivory Silk	25'	20' Upright tree, spreading with age. Showy ivory flowers, attractive winter seed pods.
Ivory Pillar	20'	12' Upright tree. Creamy white flowers in summer.

Signature	20'	15' Blooms later than other varieties.
Snowdance	18'	20' Round shape. Darker leaves than other varieties.
Littleleaf Linden - Tilia cordata		
Corinthian	45'	15' Narrow, pyramidal shape. Roots may need maintenance in smaller parkstrips.
Maple, Acer species -		Shallow roots may require maintenance in smaller parkstrip areas.
Armstrong	45'	15' Narrow and upright shape. Yellow to orange fall color.
Columnar Norway -	35'	15' Narrow, upright shape. Yellow fall color.
Crimson Sentry	25'	15' Compact, pyramidal and dense. Maroon leaves. Susceptible to powdery mildew.
Crimson Sunset	35'	25' Upright and oval shape. Maroon to purple leaves.
Ginnala Flame	20'	20' (single trunk only) Brilliant orange and red in Fall.
Norwegian Sunset -	35'	25' Oval shape. Yellow to orange fall color.
Pacific Sunset -	30'	25' Upright spreading shape. Yellow to orange fall color.
Paper Bark -	25'	20' Upright to rounded shape. Red fall color.
Rocky Mountain Glow -	25'	15' Oval shape. Yellow to red fall color.
Streetside -	35'	18' Upright, narrow shape. Heat resistant. Yellow fall color.
Tatarian -	25'	20' Oval shape. Yellow or orange fall color. Seeds consistently red.
Trident -	30'	30' (single trunk only) Rounded shape. Yellow, orange and red fall color.
Urban Sunset -	35'	20' Narrow to pyramidal. Red fall color.
May Day Tree - Prunus padus		
Merlot	30'	18' White flowers. Leaves emerge green, turn purple in summer. Small reddish persistent fruit.
Pear, Flowering -Prunus calleryana		*White blossoms in spring. Small persistent fruit in fall & winter*
Cleveland Select -	40'	15' Narrow pyramidal tree. Small persistent fruit. Reddish fall color. Somewhat fire blight resistant
Chanticleer -	40'	15' Narrow pyramidal tree. Small persistent fruit. Reddish fall color. Somewhat fire blight resistant
Whitehouse -	40'	15' Narrow tree. Small persistent fruit. Reddish fall color.
Jack -	16'	10' Small compact tree. Yellowish fall color.
Javelin -	35'	10' Narrow tree. Pink buds open white. Orange-red fall color. Small persistent fruit. Somewhat fire blight resistant.
Plum, Flowering -Prunus cerasifera		*Most years they produce little or no fruit because of early bloom/ poor pollination.*
Blirrieana	25'	20' Round to vase shape. Double pink flowers. Bronze leaves. Few or no fruit.
Krauter Vesuvius,	20'	15' Pink flowers, Dark purple leaves. Produces 1" fruit edible with age
Newport,	20'	20' Pink flowers. Purple-red leaves. Produces small 1" messy edible fruit
Mt. Saint Helens,	20'	20' Light pink flowers. Purple leaves. Few or no fruit.
Thundercloud	20'	20' Light pink flowers. Dark purple leaves. Produces small 1" messy edible fruit
Serviceberry - Amelanchier		(single trunk only) -
Princess Diana	20'	15' White flowers, 3/8" edible fruit. Red Fall color.
Robin Hill	20'	15' Narrow to columnar shape. White flowers, produces edible black fruit. Orange-red fall color
Spring Flurry	28'	20' Upright shape. White flowers, 3/8" edible fruit. Orange fall color.
Snowcloud	28'	18' Upright shape. Leaves emerge bronze turn green in summer. White flowers. 3/8" edible fruit. Scarlet fall color.
Zelkova, zelkova serrata		
Musashino Columnar	45'	15' Very narrow upright tree. Yellow fall color

(2) Trees in Park strips between 5.0' to 8.0' wide

Small park strip trees listed above are also approved for planting in the wider park strips.
These trees may be planted in the larger width areas, but not in the smaller areas listed above.
If power lines are above park strip, the ultimate height of the approved tree cannot exceed 25' tall.
(This list is not all-inclusive and there may be other trees than may be planted with careful consideration from the City.)

Beech, Fagus sylvatica narrow varieties only		Leaves remain on the trees into the winter or spring. Deep rooted trees make them hard to remove in smaller parkstrip areas.
Dawyck Purple	40'	12' Purple foliage
Fastigiata	45'	15' Dark Green foliage
Red Obelisk	35'	12' Purple foliage
European Mountain Ash- Sorbus aucuparia		susceptible to fire blight
Cardinal Royal	35'	20' Upright oval shape. Bright red berries.
European	35'	24' Upright becoming oval with age. Orange to red berries.
Ginkgo or Maidenhair Tree - ginkgo biloba -		Unusual leaves. Ancient tree. Female trees produce fruit with offensive odors.
Golden Colonnade	45'	25' Male variety. Narrow to oval shape. Brilliant yellow fall color.
Goldspire	45'	12' Male variety. Narrow to columnar shape. Brilliant yellow fall color.
Princeton Sentry	40'	15' Male variety. Narrow to pyramidal shape. Brilliant yellow fall color.
Hornbeam, European - Carpinus betulus		
Frans Fontaine	35'	15' Narrow and columnar. Yellow fall color.
Pyramidal	35'	25' Narrow when young, spreading with age. Yellow fall color
European	40'	30' Rounded shape. Yellow fall color
Honeylocust, - Gleditsia triacanthos inermis		- Considered thornless and seedless. However, occasional production of seeds and/or thorns.
Halka	40'	40' Widely oval shape.
Shademaster	45'	35' Vase shape. Seedless variety
Skyline Locust	45'	35' Broad and pyramidal shape. Seedless variety.
Japanese Pagoda Tree - Sophora japonica		The long seed pods may be considered a nuisance to many property owners.
Regent -	40'	30' Small green leaflets. White flower clusters late summer, 4"-8" been pods in fall. Tolerates heat.
Linden, Tilia cordata - Tilia americana		Blooms profusely in summer. Flowers attract bees. Roots may need maintenance in smaller areas. May produce an abundance of seeds each year.
Boulevard	50'	25' Narrowly pyramidal shape.
Chancellor	50'	28' Upright habit matures to pyramidal shape.
Glenleven	50'	30' Large pyramidal shape.
Greenspire	40'	30' Pyramidal and symmetrical shape.
Olympic	40'	30' Broadly pyramidal shape. Yellow fall color.
Maple species Acer Platanoides - Acer Rubrum - Acer freemanii -		Shallow roots may need maintenance in smaller areas. Leaves may burn from reflected heat from roadways.
Armstrong -	45'	15' Narrow to columnar shape. Nice fall color.
Autumn Blaze	40'	30' Large oval shape. Nice orange-red fall color. Seedless variety
Autumn Flame -	40'	40' Large rounded shape. Colorful reddish fall color.

Columnar Norway	35'	15' Narrow, upright shape.
Cleveland Norway	45'	30' Large oval shape.
Crimson King Norway	40'	35' Oval shape. Deep purplish leaves.
Deborah -	45'	40' Rounded shape. Leaves emerge reddish purple, fade to bronze-green in summer.
Emerald Queen Norway -	50'	40' Large oval tree shape.
Emerald Lustre -	45'	40' Upright rounded shape.
October Glory -	40'	35' Broadly oval shape. Excellent reddish-purple fall color.
Red Rocket	38'	15' Upright, narrow shape. Orange to red fall color. Seedless variety.
Red Sunset -	45'	35' Upright oval shape. Excellent orange-red fall color.
Royal Red -	40'	30' Rounded Shape. Deep purplish leaves.
Summershade Norway -	45'	35' Broadly upright shape. More resistant to summer leaf scorch.
Sun Valley -	40'	35' Broadly oval shape. Bright red fall color. Seedless variety.

Oak, Columnar English - Quercus robur — Columnar varieties widen with age. Trees do not drop leaves until winter or spring. Deep rooted trees make them hard to remove in smaller parkstrips.

Crimson Spire -	45'	15' Columnar shape
Kindred Spirit -	30'	6' Tightly columnar shape.
Regal Prince -	45'	15' Columnar to narrow oval shape.
Skinny Genes -	45'	10' Columnar shape.
Skyrocket -	45'	15' Narrow columnar shape.

Pear, - Pyrus calleryana — *White blossoms in spring. Small persistent fruit in fall & winter attract wildbirds.*

Aristocrat -	40'	28' Pyramidal with open, spreading branches. Not resistant to fire blight.
Redspire -	35'	25' Pyramidal to oval shape. Not resistant to fire blight.
Trinity -	30'	20' Broad and oval shape.

Sweetgum - Liquidambar — The spiky seed pods of the sweetgum tree may be considered a nuisance to many property owners.

Rotundiloba -	40'	25' Pyramidal shape. Orange to purple fall color. Fruitless variety.
Slender silhouette -	60'	8' Tightly columnar shape.

Tulip Tree - Liriodendron

Emerald City -	55'	25' Upright and oval shape. Yellow fall color. Tulip shape blossom in May.
Columnar -	50'	15' Columnar and narrow shape. Yellow fall color.

Zelkova zelkova serrata

Green Vase -	60'	50' Large vase shape. Heat and drought tolerant. Rusty red fall color.
Village Green -	50'	40' Upright and rounded shape. Drought tolerant. Rusty red fall color.

(3) Non Approved Street Trees

In addition to the trees and plants listed on the State of Utah Noxious Weed List per Utah Code 4-17, the following trees are considered to be inappropriate or unsuitable for planting in parking strips, and in street tree sites. Due to tree size, root size, insect and disease problems, or litter mess associated with the tree, they may NOT be planted within fifteen (15) feet of any public sidewalk or curb and gutter, nor in any park strip.

All varieties of fruit and nut bearing trees (including Apple, Apricot, Aprium, Cherry, Nectarine, Peach, Pear, Plum, Pluot, Almond, Filbert, Pecan, Walnut)
(This does not include the ornamental tree varieties of apples, cherries, pears and plums.)

Boxelder - Acer negundo
Catalpa - Western or Northern - Catalpa speciosa
Catalpa - Umbrella - Catalpa bungei
Dawn Redwood - Metasequoia
Horse Chestnut - Aesculus hippocastanum
Mimosa - Albizzia
Mulberry - Morus alba
Oak, Scrub - Quercus gambelii
Russian Olive - Eleagnus angustifolia
Silver Maple - Acer saccharinum
Sugar Maple - Acer saccharum
Sycamore - London Plain Tree -Platanus occidentalis
Tree of Heaven - Ailanthus altissima

All varieties and species of conifers (including Spruce, Fir, Pine, Juniper, Arborvitae and Yew)
All varieties of Poplars (populus)
All varieties of Willows (Salix)
All varieties of Birch (Betula)
All varieties of Elms (Ulmus) except those listed, or other varieties approved by Centerville City.
All varieties of Ash (Fraxinus)
All varieties of Black Locust (Robinia)
All varieties of Lindens (Tilia) except those listed, or other varieties approved by Centerville City.
All varieties of Dogwood (Cornus Florida or Cornus Kousa)
All varieties of Sumac (Rhus)
All weeping varieties of any tree species.
All clump forms of any tree species.

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Suggestion
Possible New City Position?

There is hereby created the position of City Forester. The Parks Superintendent shall be the City Forester. The City Forester shall be responsible for administering the provisions of this Ordinance, and the policies and recommendations of the City Council.

The City Forester shall have jurisdiction and supervision of all trees and plants planted, or growing in public streets or places within the City, to insure safety and to preserve the beauty of such public places.

It shall be his/her duty to have trees, and other plants in public streets, and on public property, planted, trimmed, sprayed, preserved, and removed.

Items of discussion and changes

If the city forester is not created, the 'city forester' in this document will need to be edited to the correct position.

The city council may not want to have this extensive of an ordinance, but I think we should provide as much information as possible and then let them eliminate what they do not want included.

I suggest that each of you also indicate any items that you think should be eliminated or suggest any additions.

There may be duplications of items in different sections. They may need to be eliminated from one of the sections, or they may be applicable left in both.

I have not tried to enter the correct city codes, or statues. These codes will need to be added by the city council or city attorney as needed. Other references to the city codes may also need to be added.

I think pictures and diagrams should be part of this ordinance. Some City's ordinances I have read are just plain text, other City's ordinances contain many detailed diagrams and have several pictures as examples. I like the ones with the pictures the best.

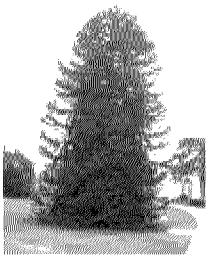
I have included several of the pictures that I have found in other City's ordinances, on the internet, and some that I have created and used over the years. I also took pictures while driving through the city. More these are in the Standards and Specifications file. The city attorney will have to give guidance on what we can legally use, or if we have to hire an artist.

We may want to give the city council members a copy of the Standards and Specification document that we have. They may like to see what we are working on for the future, or they may want to incorporate some of the ideas back into the City ordinance.

Draft

11.02 Parkstrips and Street Trees

"Think before you plant." Good planning is the key to the successful life of a tree.



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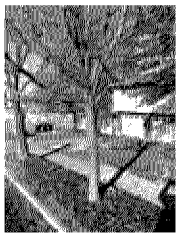
Purpose

It is the purpose of this ordinance to promote the beautification of Centerville City, and to protect public health, safety, and general welfare, by regulating the placement, maintenance, and removal of trees within Centerville City. Trees are economically beneficial in attracting new industry and residents, by enhancing the value and marketability of property, and promoting the stability of desirable neighborhoods.

This ordinance establishes regulations and standards to ensure that trees within the City Properties, and in public rights-of-ways are properly managed, planted, and maintained. It is not the purpose of this ordinance to regulate trees planted on private property, or resolve issues or disputes among property owners that do not affect the general public safety.

This ordinance prohibits the planting and growing of the type or kind of trees prone to disease and insects or injurious to sidewalks and curbs and designates such types and kinds of trees and shrubs permitted to be planted hereafter as Park Trees and Street Trees.

The City's goal is to protect trees from improper care by establishing the standard methods of tree care for park trees and street trees including guidelines for trimming, spraying, removal, planting and pruning. The City wants to prevent trees on city or private property from becoming a public nuisance.



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Trees are recognized as a valid asset that provides a more healthful, and beautiful environment, in which to live. Trees provide oxygen, shade, aesthetics, and a priceless psychological asset to the urban setting.

Centerville City Duties

The City shall:

1. Issue tree permits, including the approval of tree species and planting locations.
2. Plant trees in City owned parks, on the grounds of City buildings, and in park strips or medians that the City have designated will be maintained by the City.
3. Supervise all trees and shrubs planted or growing in street rights-of-way, or in city owned property within the city.
4. Supervise and inspect the planting, pruning, trimming, spraying, preservation and removal of trees and other plants in street rights-of-way or in city owned property to promote safety and preserve the beauty of such public places.
5. Review all applications for permits and act on the same.
6. Supervise the maintenance of trees in the street rights-of-way or city owned property, including removal of such trees, as the city determines such action to be in the best interest of the city.
7. Be responsible for the long term management, health, maintenance, inventory, planting, and design of City trees.
8. Foster and maintain partnerships between public and private parties for the benefit of trees.
9. Care for all trees in the city which have been designated as heritage trees.
10. Care for all trees in City owned and operated parks, on the grounds of City buildings, and in parkstrips that the City administration has designated will be maintained by the City.
11. Prune of City trees, as necessary, after appropriate notification to property owners.
12. Monitor pruning of City trees in the public rights-of-way and utility easements.
13. Remove diseased or dying City trees that are beyond reclamation or that the City determines to be a Nuisance; after appropriate notification to adjacent property owners.
14. Supervise or maintain the planted areas in the public rights-of-way and utility easements.
15. Determine if a tree located on private property constitutes a public nuisance, and if the tree should be pruned or removed.
16. Facilitate communication, coordination, cooperation, and education for the stewardship of City and private trees.
17. Keep abreast of new information and research in arboriculture.
18. Train and supervise City crews, or contract providers, so the best methods of tree care are practiced in the community.
19. Work with engineers, architects, and the Community Development Department during the design phase of development.

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20. Enforce specifications and guidelines contained within this ordinance.
21. **Interference with Service.** It shall be unlawful for any person to interfere with City personnel, or City contractors under the direction of the City's designee in the performance of their duties.

Citizen Responsibilities.

Citizens/property owners, occupants, and their agents shall have the following responsibilities for the protection of trees in parkstrips abutting their real property, except in those parkstrips that are maintained by the City.

1. Obtain a permit from the City before planting, removing or replacing any trees on public rights-of-ways.
2. Obtain a permit from the City before repairing damage to public rights-of-way, curb, sidewalk, or street trees adjacent to public easements.
3. Purchase street trees at their own expense, except where park strip is maintained by the City.
4. Periodic watering and fertilization of City trees as necessary to maintain good health and vigor.
5. Protect City trees in parkstrips from damage caused by lawn mowers, weed trimmers, snow blowers, and similar equipment.
6. Protect City trees in parkstrips from damage caused by the attachment of any items such as signs, nails, wires, ropes, and chains.
7. The species of trees planted in the parkstrips should comply with the City street tree guide, or otherwise be approved by the City.
8. Remove private trees or limbs that have fallen upon a City street, property, or sidewalk.
9. Maintain ground covers and plantings in the parkstrip, except in those parkstrips maintained by the City.
10. Notify the City of any Nuisance tree.
11. Raking, clean up, and properly disposing of leaves that fall from City, and from private trees, so plant litter does not impede the storm water system.
12. The City shall have no liability for the failure of any tree or landscaping installed by private parties other than on City-maintained property.

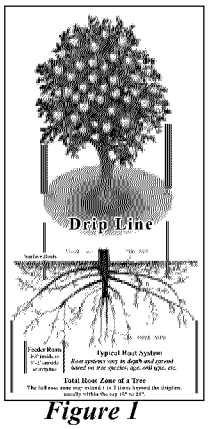

Figure 1

Contractor Responsibilities

Contractors must obtain necessary permits and comply with tree protection standards for all construction activities or occupations of public places. These standards include required use of tree protection measures when performing work related to common construction and maintenance activities including but not limited to:

1. Water, sewer, and other utility connection installation and/or repair (both above and below ground)
2. Sidewalk or Driveway installation and/or repair
3. Scaffold installation and/or material storage
4. Any use of public places that may impact street trees

General Definitions

Adjacent Property Owner: Any person owning property adjacent to public rights-of-way.

ANSI A300: The American National Standard for Tree Care Operations - Tree, Shrub and other Woody Plant Maintenance - Standard Practices. This is a document containing basic standards for tree pruning. This document is published by the American National Standards Institute (ANSI) and is amended from time to time.

ANSI Z-133.1: Tree Care Operations Standard, Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush - Safety Requirements.

Critical Root Zone: The area under a tree extending from the base of a tree in all directions to an imaginary line approximately 10 feet outside of the dripline, or as otherwise determined by the City. ***See figure 1***

Drip line: The area directly under the tree's canopy where the essential mass of roots is found. ***See figure 1***

Nuisance tree: Any tree, public or private, which has been deemed by the City as having the potential to cause physical damage to existing structures or utilities, or to be a threat to cause personal injury.

Injurious pest or disease: Any organisms that are capable of seriously damaging the form, structural integrity, or life of a tree. These may include insects, rodents, diseases, or other harmful organisms.

I.S.A.: The International Society of Arboriculture.

ISA Best Management Practices - Tree Planting: A comprehensive publication from I.S.A. for purpose of providing tips and guidelines for arborists, tree workers, and tree owners.

Heritage tree: A tree characterized by one or more of the following: having historical significance, being part of a histor-

ical site or being of a rare or unusual species/

Park trees: All trees in public parks, and in all areas owned by the City, excluding those trees in the public rights-of-way.

Permit: Written approval issued by Centerville City for required activities on public trees, or within the critical root zone of a public tree. Verbal approval is not considered to be a permit.

Private tree: A tree that is entirely on private property and not within city rights-of-way.

Proper Pruning: The practice of cutting limbs, branches and other parts of plants to standards contained in ANSI 300 and ANSI Z-133.1.

Protective measures: Any steps taken to safeguard the appearance, health, condition, or continued viability of a protected tree. Typical examples are: physical structures limiting access to a protected tree, pruning to allow access to a site, supplemental watering or fertilization, washing of canopy to remove dust or other residues, berms or grading to prevent erosion or silting in a protected root zone, signage indicating protected status of trees or other methods as deemed necessary at the time of permitting.

Protected Tree: any tree located on public property with the City of Centerville.

Public property: Any park or public rights-of-way, dedicated to or deeded to the city, or other property owned by the City of Centerville.

Public rights-of-way: Improved or unimproved public property owned by, dedicated to, or deeded to, the public or for the public's use, for the purpose of providing vehicular, pedestrian and other public use. Such public property includes, but is not limited to, streets, alleys, sidewalks, easements for public utilities, cut and fill slopes, and public open space.

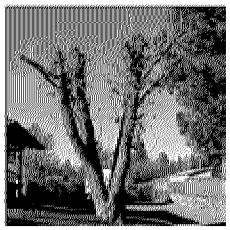

Figure 2

Public tree: A tree that is located partially or in whole, on city property, public rights-of-way, or easements within the City of Centerville.

Public Nuisance Tree: Any condition or use of public trees that are detrimental to the health or safety of persons or property as defined by the City, State, or other Federal laws.

Replacement Tree: Trees required to be planted as compensation for the removal of viable, non-Nuisance trees.

Root barrier: A device or material designed to direct root growth mechanically or chemically.

Street tree: Any tree located partially or in whole, within the public street rights-of-way.

Tree maintenance: Measures performed to promote the desirable growth and health of a tree such as, but not limited to, watering, fertilizing, mulching, weeding, pest management, pruning and physical protection.

Pollarding – is the practice of removing all new growth from a tree annually. Although pollarding is associated with topping it is not the same. Pollarding is the cutting back of a limb to a single point on an annual basis. Pruning is done every year and the limbs form a nodule at the point where all new growth is continually removed. However, pollarding even though it is an acceptable practice on some species of trees will not be allowed within Centerville City on publicly owned trees.

Tree Topping: "Rounding" or "Severe Heading Back" The improper pruning and severe cutting back of limbs within a tree's crown, to such a degree so as to remove the normal canopy, and disfigure the tree, or the removal of the top portion of the trunk of a coniferous tree. As defined in ANSI A300 and ANSI Z-133.1. ***See figure 2***

Tree ring: The area at the base of the tree that is cleared of competing turf and weeds, and maintained with a mulch material. ***See figure 3***

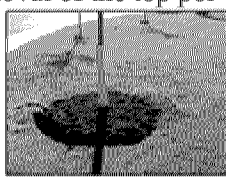

Figure 3

Tree appraisal: Quantify a dollar value for a tree by using accepted national standards.

Tree Litter or Debris: Plant materials such as branches, leaves, bark, needles, twigs, or fruit that have fallen to the ground.

General Guidelines

The specifications in this manual are the minimum standards for planting, pruning, maintenance and protection of all public trees. They apply whether the work is performed contractually, by City employees, or by private individuals. Exceptions to these standards must be by written approval of the City. All traffic and safety rules must be observed while working on public trees. The basic guidelines include, but are not limited to:

A. Prohibit the planting and growing of the type or kind of trees prone to disease and insects, or injurious to sidewalks and curbs, and designates such types and kinds of trees and shrubs permitted to be planted hereafter as Park Trees and Street Trees.

B. Provide a plan of proper planting and growth of trees for the beautification of streets in Centerville that allows implementation of any existing or future street tree plan as adopted by the Council as part of the Centerville City General Plan.

C. Protect trees from improper care by establishing the standard methods of tree care for park trees and street trees

including guidelines for trimming, spraying, removal, planting and pruning.

D. Prevent trees on city or private property from becoming a public nuisance.

E. The words "shall" and "will" are mandatory, while "should" and "may" are permissive. Words not defined in this section shall have their common and ordinary meaning.

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11.02.010 Parkstrip Definition

Many residents like to plant the park strips in front of their homes with plants, shrubs, and/or trees. These plants help to bring beauty to the neighborhood and City streets. Properly maintained park strips and streetscapes must have vegetation that is trimmed, that is not blocking or impeding pedestrians ability to clearly see the roads, sidewalks and intersections.

For purposes of this Chapter, parkstrip shall mean the area located between the top back of the curb line to the front face street side of the sidewalk or to the rights-of-way when no sidewalk is present, but not including driveways, sidewalks, or trails.

The park strip is owned by the City and is used for underground unities such as water, gas, power, and other utility lines.

Property owners are required by City Ordinance to properly landscape and maintain any park strips adjacent to their private property.

Proper maintenance of the park strips is important both for the pedestrians that use the sidewalks, and the for the vehicles that travel the streets.

Parkstrip Terms

1. "Ground covers" are defined as any perennial evergreen plant species that does not exceed 18 inches in height at maturity and will spread to form a uniform "mat".
2. "Perennial flowering plants" are flowering plants which have a life span of more than 2 years but which become dormant each fall, losing all foliage, and generate new foliage and flowering buds the following spring and summer from the dormant root system.
3. "Annual flowering plants" are flowering plants which have a life span of only one growing season outdoors.
4. "Shrubs" are generally long lived woody plants that may be either evergreen or deciduous. They differ from ground covers in that they are generally over 18 inches tall and do not generally form a uniform mat.
5. "Evergreen" is defined as a plant having foliage that remains on the plant throughout the year.

HISTORY

Adopted by Ord. 2017-03 on 4/4/2017

11.02.020 Parkstrip Groundcover and Plantings

Except as otherwise provided and approved by the City, parkstrips shall be landscaped with grass and plantings in accordance with applicable City Ordinances, including, but not limited to CZC 12 (Zoning) and the provisions of this Chapter.

Shrubs shall not be planted at a spacing that will form a mass or hedge which creates a visual barrier between the street and sidewalk. The appropriate use of shrubs in park strips is as accent or specimen plants.

Shrubs shall not be planted within street intersection, alley, or driveway sight distance areas. Shrubs may be planted outside sight distance areas but shall not exceed 24 inches in height at maturity.

Plants prohibited in parkstrips include

a. Thorn bearing plants (flowering shrubs, such as roses, may be authorized by the City). Plants with thorns, spines, or other sharp, rigid parts are Nuisance to pedestrians and bicyclists.

b. Ground cover plants which exceeds 24 inches in height at maturity and shrubs which create visual barriers, and structural encroachments.. Continuous ground cover and shrubs which exceed 24 inches in height at maturity are Nuisance because they reduce the visibility of pedestrians, pets, and children. They are difficult to walk across, create visual barriers, and limit access to the sidewalk from parked vehicles.

In all zones, hard surfacing within the parkstrip shall be prohibited, unless reviewed and approved by the Streets Department.

The use of course wood produces (such as: bark, mulch and wood chips greater than a one-inch diameter),

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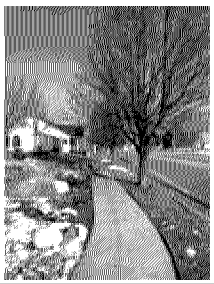
within the parkstrip is prohibited.
Decorative cobble, stepping stones, grass or other vegetation under two feet shall be acceptable.

Park Strip Ground Surface Covering



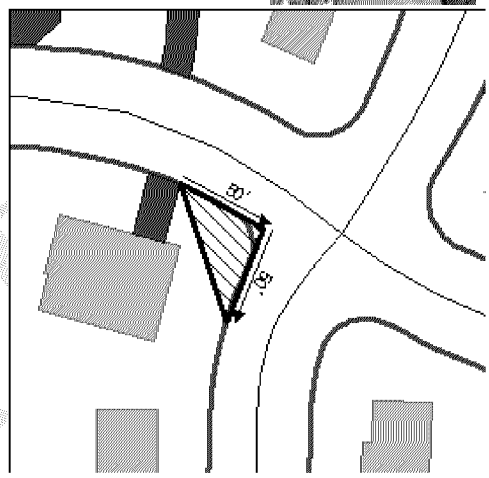
1. Plant materials should cover 33% or more of the park strip surface within 3 years of planting, or when planting has reached maturity, whichever comes first. For lots multiple street frontages, this standard shall be applied separately to each park strip. In new or replacement landscaping, it is recommended that water conserving plants constitute at least 80% of plants used.
2. If annual or perennial flowering plants are used, the property owner must ensure that erosion does not deposit soil, or other materials on sidewalks or in the street.
3. Organic mulch materials such as bark, shredded plant material, and compost, as approved by the City, may be used as water conserving mulch for plants near existing street trees, and may also be used as the only material in portions of a park strip.
4. Gravel, rocks, and boulders, may be used on portions of the park strip. Large diameter rocks and boulders shall be kept a minimum of 18 inches away from existing street trees.
5. Paving materials, limited to poured concrete, concrete pavers, brick pavers, or natural stone pavers, may be used in portions of a park strip subject to these following guidelines:

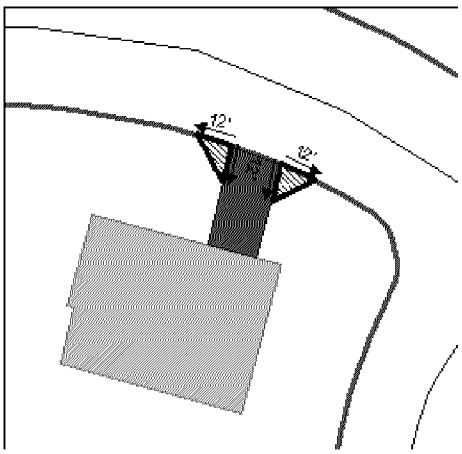
   a. Poured concrete shall not be used in park strips with existing trees. Other paving materials shall be kept a minimum of 18 inches away from existing trees. Organic mulch or gravel, as approved by the urban forester, shall be used near existing trees.

   b. Except as specified above, any paving material may be used in 100% of a park strip that is 24 inches or less in width. If poured concrete is used, it shall be stamped with a brick, stone, or other decorative pattern to distinguish it from the adjacent sidewalk.

   c. In park strips that are 36 inches or less in width, brick, concrete, or natural stone pavers may be used in 100% of the surface area. Poured concrete shall not be used except for carriageways as outlined below. The use of plants in combination with paving materials is encouraged.

   d. In park strips over 36 inches in width, paving materials, gravel, rocks, and boulders shall not exceed 67% of the total park strip surface area. Poured concrete shall not be used except for carriageways as outlined below.
6. For safe, convenient access to vehicles across park strips, carriageways (walkways through the park strip) are encouraged. The material used may be poured concrete, concrete or brick pavers, or flat, natural stone paving materials such as flagstone or a combination of these. If poured concrete is used, the carriageway shall be not more than 4 feet in width and shall be located so as to provide the most direct route through the park strip. The area of carriageways shall be included in calculating the percentage of inorganic material in the park strip.
7. Materials prohibited in park strips include asphalt and concrete. These materials are prohibited for the following reasons:
   a. Asphalt is inconsistent with the city's urban design policy and deteriorates quickly. Asphalt also reduces road definition and encourages people to drive over the curb. Concrete and asphalt may also impede access to public utilities.
8. Retaining walls, fences, steps, and other similar structural encroachments in park strips are prohibited unless they are specifically approved through the city revocable permit and review process. These are gener-





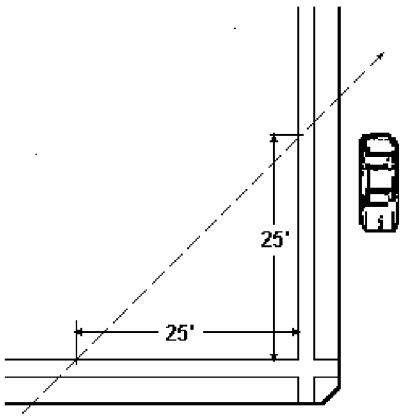


Figure 7

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ally prohibited because they limit access to sidewalks from the street and obstruct, and increase the cost of, performing public improvements and maintenance of utilities.

9. Except for trees, no plant, boulder, monument, or other object over 18 inches in height shall be located within sight distance areas.
10. Turf and gravel are not permitted in park strips with a slope greater than 3 horizontal feet to 1 vertical foot. Turf is difficult to mow on steep slopes and gravel will migrate down the slope and collect in the gutter. Larger rocks or boulders used on steep park strips shall be buried in the ground to a depth equal to at least 1/3 of the rock to anchor them to the slope.

HISTORY
Adopted by Ord. 2017-03 on 4/4/2017

Trim branches to 14 feet in height from the back of the curb. This will allow vehicles, both public and private to safely navigate the roadway.

Trim low hanging branches once they have grown out past the curb. Even seemingly small branches can cause plows and garbage trucks to not access the curb or damage vehicles and equipment. Branches that don't seem like a significant problem one year can quickly become large and unmanageable.

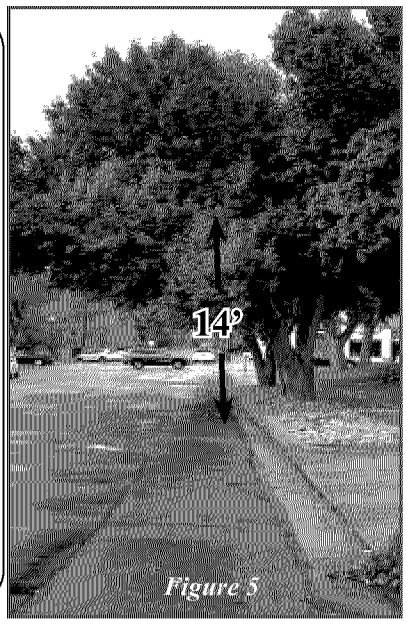


Figure 5

11.02.030 Parkstrip Maintenance

Maintenance of all parkstrip areas shall be the responsibility of the abutting property owner such maintenance shall include:

1. Maintenance of all landscaping, vegetation, hardscape, gravel, mulch or similar materials within the parkstrip;
2. Removal of all noxious weeds in the parkstrip or on adjacent sidewalks in accordance with CMC 7.04 (Weed Control and Cleaning of Real Property);
3. Removal of leaves and overhanging branches within the parkstrip, sidewalk or adjacent rights-of-way in accordance with CMC 11.02.070;
4. Maintenance and compliance with all visual obstruction and site triangle requirements set forth in this Title and CZC 12 (Zoning); and
5. Compliance with all other parkstrip maintenance obligations set forth in CZC 12 (Zoning).

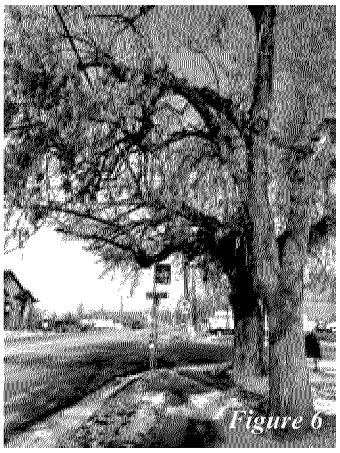
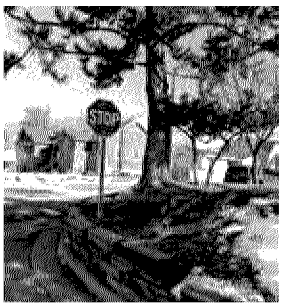


Figure 6

Adjacent property owner trees and other plantings shall not overhang or encroach upon sidewalks, streets, public rights-of-way, or other designated pedestrian ways, or obstruct the view of traffic signs or any street intersection.

Trees and other plantings shall be pruned clear of all branches between the ground and a height of eight feet (8') for that portion over the sidewalk or pedestrian-way.

Trees and other plantings that project over any street or access road that may be used for emergency purposes shall be trimmed to a height of fourteen feet (14') from the grade of the street or access road. Said owners shall remove all dead, diseased, or dangerous trees; or broken or decayed limbs which constitute a menace to public safety at the owner's expense.



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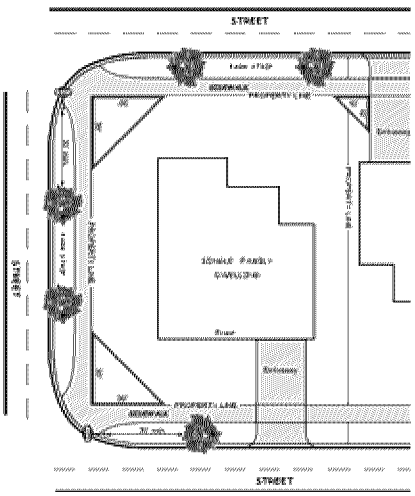


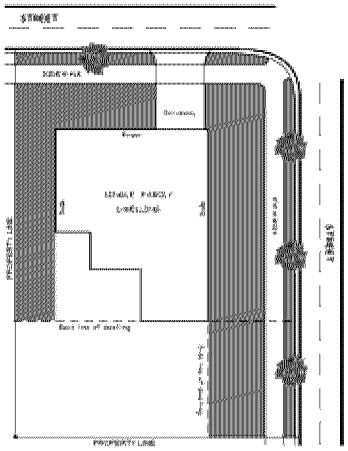
HISTORY
Adopted by Ord. 2017-03 on 4/4/2017

11.02.040 Visual Obstructions

The following regulations shall apply to all structures, improvements and landscaping within parkstrips:

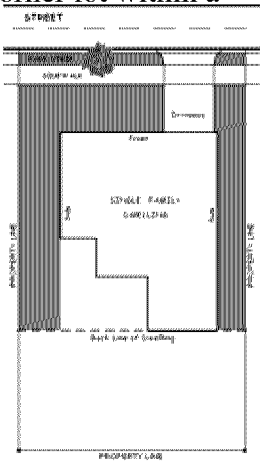
Height Restriction. In all zones, no fence, wall, sign, or similar structure, or landscaping which exceeds two feet in height shall be placed within the parkstrip, except for trees approved by permit, and standard mailboxes.

Enclosed mailboxes. Except for cluster-box structures, all enclosed mailboxes within the parkstrip, shall meet the USPS standard height of 41 inches to 45 inches and all other applicable USPS standards. Mailboxes, poles, stands and other similar devices shall not exceed 18 inches by 18 inches measured at the base. Street side mail-boxes shall be reviewed at the time of building permit review for all new residential development.



Driveway. No sight obscuring fence, wall, sign or other similar structure or landscaping, which exceeds two feet in height shall be placed within a triangular area formed by a driveway line, the street/curb line, and a line connecting them at points 12 feet along the driveway line and 12 feet along the street/curb line, measured at the joint of the asphalt and gutter line.

Clear View of Intersection Street. In all zones, no fence, wall, sign, or similar structure, or landscaping which exceeds two feet in height shall be placed on any corner lot within a triangular area formed by the street/curb lines measured at the joint of the asphalt and gutter line and a line connecting them at points 50 feet from the intersection of the street/curb lines, except for public safety signs and equipment. Deciduous trees within the 50-foot triangle shall be allowed by permit approved by the Public Works Director. Evergreen trees are not allowed within the 50-foot triangle. Trees planted without a permit shall be subject to removal by the Public Works Department. Trees existing as of the date of adoption of this Ordinance with trunks located within the clear-view area defined herein may remain at the discretion of the City based upon safety and visibility standards, but may not be replaced once removed.



Trees must be thirty feet (30') from any traffic sign.

HISTORY

Adopted by Ord. 2017-03 on 4/4/2017

11.02.050 Parkstrip Trees - Permit Required

All property owners who desire to plant a tree, or trees, within the parkstrip, or any portion of the public rights-of-way if a parkstrip is not established, shall submit a complete street tree permit application for review and approval by the Public Works Director or designee. The application shall include at least the following information:

Street Use Permits are required for the following activities:

Permit applications are available from the Centerville City Offices

1. **Planting:** It shall be unlawful for any person to plant or cause to be planted any street tree without first obtaining a permit from the city. Said permit shall specify the location, planting season, and variety of trees to be planted. Only tree species identified in Centerville City's approved tree list or trees approved by the City may be planted in public places.

Planting: Exceptions: Street trees or other plantings planted by a responsible developer, city crews, or city contractor may be planted without a permit, provided however, that such trees and plantings shall conform to such plans and specifications and shall be planted under the supervision of the City.

Bond Required: Responsible developers choosing to install their own street trees will bond with the city for street tree improvements. The bond will be sufficient to cover installation, maintenance, and warranty of the tree for one year after planting.

Conformance and Inspection: All street trees will be planted in accordance with the street tree program. Plantings will be inspected by the City.

Maintenance Responsibility: It will be the responsibility of the responsible developer to water street trees for the first year after planting. After which time, the property owner adjacent to such street tree will be responsible.

2. **Removal:** Any person desiring to remove a street tree shall make application to the city. The city shall determine whether or not such tree is required to be retained in order to preserve the intent and purpose of the street tree program. If the city finds that removal is warranted, then either the city may cause such tree to be removed, or issue a permit to the person authorizing removal. If a permit is granted for removal of a street tree, all removal work

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shall be completed within thirty (30) days from the date of issuance of the permit, and shall be under the general supervision of, and in accordance with, the street tree program. All removal permits shall be null and void after the expiration of thirty (30) days from the date of issuance, unless extended by the city.

Replacement: Street trees permitted for removal shall be replaced with a species of tree from the approved tree list or with a tree approved by the Forester.

3. **Trimming:** It shall be unlawful for any person, other than city personnel, to engage in tree trimming of a street tree without first obtaining a permit from the city. The permit shall be issued when the city finds that the trimming is necessary, and that the proposed method is satisfactory. Said permit shall specify the work to be done under such permit, and shall expire thirty (30) days after the date of its issue.

Debris Removal: Persons working on street trees shall be required to remove all debris from the rights-of-way by sunset of the same day. The acceptable standard shall be a broom clean finish or better.

Major Pruning: Major pruning means removal of branches two inches in diameter or greater; removal of roots two inches in diameter or greater; or removal of branches constituting more than 15 percent of a tree's foliage area must be approved by City Forester.

Tree Service Providers: In addition to obtaining a Street Use permit, all tree service providers must be registered with Centerville City.

Please refer to Centerville City's Standards and Specifications for more information about Tree Service Providers Responsibilities.

1. Name and address of applicant;
2. Site plan indicating the location of the desired tree(s) and distance from curb, sidewalk, street corner, drive-way, signage, fire hydrant, cross walk, utility meter and power lines;

The species and number of tree(s) to be planted; and

Evidence establishing compliance with the provisions of this Chapter.

HISTORY

Adopted by Ord. 2017-03 on 4/4/2017

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11.02.060 Parkstrip Trees - Location Restrictions

All parkstrip trees shall comply with the following location restrictions;

Public trees should not be planted where they will obstruct or interfere with buildings or public improvements, or interfere with traffic or public safety.

1. Trees shall only be allowed within parkstrips that have a minimum of four feet in width, measured between the top back of the curb line to the front face of the sidewalk line.
2. A tree planted within the parkstrip shall be planted in the center of the parkstrip at least two feet from the curb and two feet from the sidewalk.
3. Each tree within the parkstrip shall be planted no less that 20 feet from another parkstrip tree.
4. Parkstrip trees shall not be allowed within 30 feet of a public safety sign. Additional length for a specific area may be required as the City deems appropriate such as: distance from culinary and secondary water valves, distance from telecommunication fixtures, distance from power utility boxes, and distance from fire hydrants.

15 feet from a driveway or alley

15 feet from a street light or a utility pole

10 feet from a fire hydrant

10 feet from a non traffic street sign When a tree exists near the potential placement of street signs, pedestrian lights etc. the sign location shall be evaluated as to lessen conflict with the growth of the existing tree.

Within 10' of a public sanitary sewer or water line

Within 4' of a water meter or utility vault box

Within 30' in front of a stop or yield sign

Within 4' of residential driveways, or 6' of commercial driveways

Meet City's requirements for the clear view area of intersecting streets.

5. All trees planted within the park strip shall meet the visual obstructions criteria found within CZC 12.55.230.
6. Before choosing the planting location or installing any tree, the applicant shall contact Blue Stakes for location of underground utilities.
7. Trees within the rights-of-way where no parkstrip exists shall be at least 12 feet from the street/curb line, as measured from the top back of curb, and planted no less than 20 feet from another street tree.
8. The guide lines for visual obstructions shall apply to all street trees.

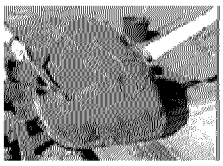
GOOD - It has a single leader, good form and good branch and trunk taper.
There are no visible indications of poor health.

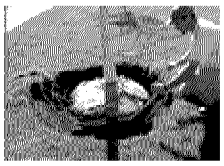
POOR - This tree is unsymmetrical, it has multiple leaders and is deformed from wind sweep.
It's overall appearance is poor.

General Planting Standards

1. Select tree species for planting from the City of Centerville Tree Selection Guide. If another species is desired, consult with the City prior to purchase and planting.
2. Trees shall be healthy, vigorous, and in good condition, both aesthetically and physically.
3. The minimum size of trees planted in public rights-of-ways shall be 2 inch caliper according to guidelines from American Association of Nurseryman Standards, ANSI Z60.1
4. Before choosing the planting location contact Blue Stakes at 1-800-662-4111 for location of underground utilities.
5. Efforts shall be made to insure that no single tree species makes up more than 15% of the total street tree population. This is to reduce susceptibility to uniform disease and eventual uniform tree decline or death.

6. Urban planting sites typically have dense, compacted subsoils with little or no top soil. Water cannot easily infiltrate compacted soils and, with heavy rains or overwatering, may remain for long periods in the loose soil in the planting hole. In excessively wet soil, oxygen is unavailable in sufficient amounts to support root growth.
7. Trees planted in compacted or wet soils must develop fine root systems near the soil surface where oxygen is most available. Root generation and tree survival can be improved by using a modified planting hole similar to those illustrated in Figure ????.
8. Enlarging the top of the hole two to three times that of the root ball diameter increases the amount of loose, backfill soil near the surface where conditions are favorable for root growth.
9. On wet sites, a tree can be planted so that one-third of the root ball is above the original grade (Figures ????). This method will keep most of the root system above the saturated soil even during very wet periods.





Planting Standards of Workmanship

All planting practices should be in accordance with the ISA Best Management Practices Tree Planting.
Plant material should be handled to allow the least amount of damage during planting.

1. Balled and burlapped and container grown plants shall always be handled by the soil ball as to minimize root and trunk damage and separation. Under no circumstances should they be dragged, pulled, or lifted by the trunk or foliage parts in a manner that would loosen the roots in the ball.
2. Tree roots should be handled and secured as to minimize damage from wind and desiccation. If a tree or trees are not to be planted the same day they are set at the site, they should be watered, covered, and

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stored in the shade to protect them from dehydration. Bare-root stock shall never be left open to air except from the point of uncovering the roots to plant the tree.

3. Any broken limbs caused in the planting operation should be pruned immediately. In cases where trees are prone to damage during planting operations, trees should be properly protected.
4. Excavated plant pits shall not be left open for any extended period of time. When work is not in progress, each hole shall be adequately barricaded with warning devices to prevent injury or public Nuisance.
5. Appropriate cleanup of soil, branches, twine, rope, wire, or other debris resulting from any tree or shrub planting shall be promptly accomplished. The work area shall be kept safe at all times until the cleanup operation is completed. Under no circumstances shall debris remain as to cause a public Nuisance.

HISTORY
Adopted by Ord. 12017-03 on 4/4/2017

11.02.070 Parkstrip Trees - Maintenance Requirements

It is the purpose of this Section to establish a means whereby the City may cause the construction, maintenance and/or repair of sidewalks, the trimming of trees, tree roots and other plant growth, and the maintenance of the area between private property lines and curb lines or edge of asphalt, which area is designated as a "parkway" within the City,

It is hereby declared that sidewalks which are cracked, buckling, missing or otherwise in disrepair, trees, or other plant growth, which are in need of trimming of roots and/or foliage and noxious weeds and vegetation in the parkways and litter, and obstructions on sidewalks are all a danger to public health and unsightly or deleterious to their surroundings and such conditions shall be prevented, repaired or removed by the abutting owner and/or occupant.

The owners and/or occupants of abutting property shall maintain the parkway by removing litter therefrom and by trimming of trees, tree roots or other plant growth and shall promptly remove from the sidewalks abutting their property all litter and obstructions as soon as practicable after its accumulation upon such sidewalks. Proper maintenance shall also include the removal of all weeds; regardless of height.

Once the required landscaping has been installed, it shall not be removed without the approval of the City ? Department.

Removed vegetation shall be replaced with equal or better quality plant materials. Trees that are necessarily removed shall be replaced with trees with comparable total caliper. Street trees that are necessarily removed shall be replaced with comparable original landscape plan caliper in compliance with the City Streetscape Plans, unless otherwise approved by the City ? Department.

When utility connections or other disturbances are made to existing landscaped areas, the existing landscaping must be replaced to its previous condition by the contractor. Any other modification of landscaped areas shall require approval by City Forester.

The following maintenance requirements shall apply to all trees located within the parkstrip or within or affecting any portion of the public rights-of-way:

All property owners shall be responsible for the cleanup of shed leaves, fruit, nuts, pods, branches and all other items produced by the vegetation found within the parkstrip, or within the public rights-of-way.

Trees shall be pruned by the property owner as to have eight feet of clearance over the sidewalk and 13 feet of clearance over the street.

All newly planted trees under power lines shall not exceed 25 feet at the tree's full mature height.

Trees that may exceed this mature height limit may require removal at the homeowner's expense.

All existing trees planted under power lines shall be pruned at the discretion of the electric utility provider.

The City shall have the right to prune, maintain, or remove trees, at the owner's expense, within the parkstrip and within the City rights-of-way, that are deemed a Nuisance by the Centerville City Street Department Supervisor. A tree may be considered Nuisance due to, but not limited to the following: size, age condition, disease or obstructing the clear view of streets, signs, signals or intersections.

Trees existing as of the date of adoption of this Section that do not meet the City standard for parkstrip or street side trees may remain at the discretion of the City

based upon safety and visibility standards, but may not be replaced once removed.

The City shall have the right to require a property owner to remove any tree, at the owner's expense, that is deemed a safety Nuisance to pedestrians or vehicular traffic, or is damaging public infrastructure, regardless of when the tree was planted.

The City shall administer the provisions of this Ordinance subject to control and review as the City Council may from time to time direct. The City Council may appoint other inspectors as needed. The powers and duties of Assistant Inspectors shall be the same as those of the Inspector.

The City so designated is authorized to inspect and examine real property situated within the City for the purpose of determining whether or not the parkways, including but not limited to, sidewalks, trees, and plant growth thereon are in need of maintenance or repair.

Such Inspector may also inspect and determine whether or not weeds and noxious vegetation should be removed from sidewalks and/or parkways and take other necessary measures and steps to insure compliance with the requirement that sidewalks in front of properties be free from litter and obstructions. Such actions of the Inspector shall be for the purpose of determining whether such conditions pose a threat to the public health, safety and welfare or are unsightly and deleterious to their surroundings.

If the Inspector concludes that such conditions exist, he shall:

1. Ascertain the names of the owners and/or occupants and descriptions of the premises where such conditions exist.
2. Serve written notice upon the owner and/or occupant of such land, either personally or by mailing a notice, postage prepaid, return receipt requested, addressed to the owner and/or occupant at their last known post office address, requiring such owner and/or occupant to reconstruct (with 50% participation by Centerville City), maintain or repair the defect and/or trim or remove trees or plant growth within such time as the Inspector may designate, which shall not be less than thirty (30) days from the date of service of each notice.
2. Inform the owner and/or occupant by means of s aid notice or attached document that in the event he or she disagrees with the determination of the Inspector and does not wish to reconstruct, maintain or repair the sidewalks, trim trees, or other plant growth, or maintain the parkway, he or she may request in writing a hearing before the City Council at a time and place to be set by the City Council. A written application for a hearing shall stay the time within which the owner and/or occupant must conform to the decision of the Inspector.

The Inspector may also inspect and examine real property situated within the City for the purpose of determining if the sidewalks have not been built and the need of construction.

Protection And Preservation Of Street Trees

Abusing or destroying any public tree is contrary to City of Centerville policy. This includes breaking stakes or supports for a public tree, burning or encouraging any burning near the trunk, defacing it, or attaching signs or notices, nails, screws, or other such devices.

Notify the City before:

Attaching or installing any metal materials, cable, wires or other foreign objects to public trees.

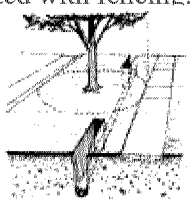
Excavating soil or trenches, or filling soil within the dripline of a public tree.

Treating the soil within the root zone of a public tree with any toxic substances.

During Construction

Site or landscape plans for any development must show all existing public trees to be saved or proposed for removal. Every effort must be made to preserve desirable trees. The City will provide information about appropriate ways of preserving the trees.

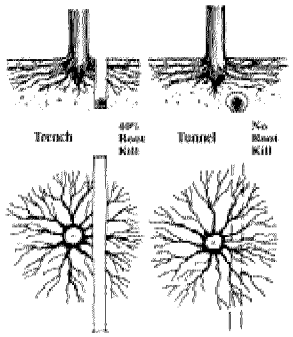
Public trees to be saved must be marked prominently during the construction, repair, alteration, or removal of any building or structure. When the trunks of save trees are likely to be damaged, they must be protected with fencing. To avoid soil compaction around the root zones, fencing should include the area under the drip line of the trees.



Any person doing construction, excavation, or demolition work in the near vicinity of a City tree shall protect the tree from injury or damage with a substantial protective barrier. Said barrier shall not be less than 4 feet high and have a 2 foot radius or to a distance in feet from the tree equal to the diameter of the tree trunk in inches measured 4 ½ feet above ground, whichever is greater. All building materials, extra dirt, or other debris shall be kept outside the barrier. The City must be consulted about any deviation to this standard.

During construction, protect public trees by;

1. Pruning limbs in the way of the construction.
2. Watering and aerating the trees to minimize stress.
3. Fencing trees and natural areas to prevent compaction.
4. Adding a temporary 6" (minimum) mulch layer to prevent compaction.



Trenching vs Tunneling

Any trenching or tunneling within the drip line of public trees must be done in a manner preserve the main support roots.

Curb cuts should not be closer than 6 feet from the trunk of the tree. Paving should be at least 2 1/2 feet from the tree trunk.

Avoid cutting surface roots wherever possible. Sidewalks and paving should be designed to avoid such damage.

Avoid disturbing the soil within the dripline of trees such as removing the top soil, compacting the soil or adding fill dirt.

Excavation or trenching requiring root cuts should be done rapidly to minimize drying out the cut root. Make smooth, flush cuts on tree roots. Back fill before the roots have a chance to dry out, and water the tree immediately. Additional irrigation may be necessary throughout the hot and dry summer season.

In the interest of preserving public trees, the Public Works Department will include the City in all stages of planning and coordinate with the Community Forest Committee by notifying its chair of any applications for new curb, gutter, walkway or driveway installations, or other improvements which might require the removal of, or cause injury to, any public tree, or interfere with the goals of the City's street tree plan.

Trenching or cutting within the dripline of a tree can reduce the roots by 40-50%. This will cause stress to the tree and can kill it. Tunneling is a better alternative if possible.

Refer to Centerville's Standards and specifications Guidelines for more specific information.

Unlawful Activities

photo by: DenverChannel7.jpg

No person shall willfully injure or destroy any tree on public streets, public parks, or other public property of the City by any means including, but not limited to, the following:

1. Attach any signs, advertisements, posters, or other objects to a public tree without approval of City.
2. Construct a concrete, asphalt, brick, or gravel sidewalk within 18 inches of a City tree that damages any part (roots, crown, trunk) of the tree so as to cause injury or death to the tree.
3. Fill up the ground area around any city tree so as to shut off air, light, or water from its roots.
4. Pile building material, equipment, or other substances on or near the dripline of a City tree so as to cause injury to the tree.
5. Pour or spray any injurious matter on or around the dripline of a City tree, or on any lawn or sidewalk.
6. Injure any City tree, tree stake, or guard with any vehicle or animal, or in any other manner causing injury to any City tree, shrub, groundcover, or lawn.
7. Attach any ropes, wires, nails, tree stakes, or guy wire, cable, to any City tree, except for supports for young or broken trees.
8. Attach decorative or seasonal lighting without approval of City. It must then meet Centerville City's standards and specifications in a manner that it will not permanently damage the tree or effect public safety.
9. Cause or encourage a fire underneath or within five feet of the dripline of a street tree or, within five feet of other vegetation in public places.
10. Prune trees for commercial exposure.
11. Prune trees to reduce shade to solar devices without city approval.
12. Excessive Pruning: Removing more than ¼ (25 percent) of the functioning leaf, stem, or root area.
13. Cause the topping, or severe crown reduction, of a street tree, except in the course of a tree pruning permit as approved by the City.
14. Use climbing spurs on a street tree.
15. Injuring Street Trees: Taking any action predictably leading to the premature death of a street tree or permanent

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damage to its health, including but not limited to: root cutting, girdling, or unauthorized pruning or work within the dripline of street trees including trenching, excavating, grade alteration, paving, or material storage.

16. No person shall use a City tree for any unauthorized purpose.

Spray Applications

1. Persons applying pesticides on street or park trees must have a current commercial or non-commercial pesticide applicator's license and shall observe all safety requirements pertaining to licensed pesticide applicators including: EPA and the State of Utah regulations for the application of pesticides.
2. Applicators applying pesticides to trees shall adhere to all state and federal regulations pertaining to pesticides and the safe and unobstructed passage of vehicles and pedestrians.
3. Applying fertilizers and pesticides for pay is considered as commercial pesticide applications and does require a current license for such from the Utah State Department of Agriculture.
4. Where applicable, standards outlined in the ISA Best Management Practices Integrated Pest Management booklet should be followed.
5. ***Refer to Centerville's Guidelines and Specifications for more details.***

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Prohibited Watering Practices

1. Waste of Water. Regardless of the age of a development (commercial, industrial, office, or residential), water shall be properly used. Waste of water is prohibited.

Waste of Water - shall include, but not be limited to:

A. The use of water for any purpose, including landscape irrigation, that consumes or for which is applied substantial amounts of excess water beyond the reasonable amount required by the use, whether such excess water remains on the site, evaporates, percolates underground, goes into the sewer system, or is allowed to run into the gutter or street. Every water consumer is deemed to have under his control at all times the water lines and facilities, other than water utility facilities, through which water is being supplied and used to his premises, and to know the manner and extent of his water use and excess runoff.

B. The excessive use, loss, or escape of water through breaks, leaks, or malfunctions in the water user's plumbing for any period of time after such escape of water should reasonably have been discovered and corrected. It shall be presumed that a period of 48 hours after the water user discovers such break, leak, or malfunction or receives notice from the City of such condition, whichever occurs first, is a reasonable time to correct such condition.

C. Washing sidewalks, driveways, parking areas, tennis courts, patios, or other paved areas except to alleviate immediate fire, health, or safety Nuisances.

2. Restricted Watering Time. Watering time is restricted as specified in ~~Title 14, Chapter 2~~ of the Revised Ordinances of Centerville City.

Tree Pruning and Trimming

Proper pruning is an important part of caring for and protecting the health of trees. In fact, many tree care professionals recommend that homeowners start early and continue proper pruning throughout the life of a tree.

1. Improper pruning, specifically 'Topping' should never be the first alternative. It is important to prune each tree according to it's individual requirements.
2. Excessive pruning can have adverse effects and unknowingly damage the tree in future years.
3. No Pruning can be just as bad as Excessive Pruning.
4. It is an 'Art' to learn just the right amount of pruning.

Proper pruning can remove excessive growth, shape a tree, and eliminate structural problems.

All trees should be trimmed in a manner acceptable to the individual property owner that also clears a path for snow plows and other City maintenance vehicles. Snow plows and garbage trucks are typically 14 feet tall, and tree branches can damage these vehicles or prevent them from getting as close enough to the curb as needed. All trees and vegetation should be trimmed back in a manner that clears a path 14 feet in height from the top of the back of the curb; or if curb is not present, from the edge of the pavement. On sidewalks, clearance shall be maintained 8

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feet vertically on either side of the sidewalk.

Although we can reduce the impact of trees upon our city's sidewalks, it is inevitable that there will be instances in which sidewalks are raised or buckled by adjoining public trees.

Because in the past people have not taken care to plant the right tree in the right space we do have many instances of trees impacting sidewalks.

Pruning Cycles. Frequency of pruning is also important to a tree's health. The frequency for a complete thinning of a tree's crown should be based upon that species' growth rate, growth pattern, propensity to breakage, and susceptibility to environmental factors. Each City tree shall be inspected and pruned as necessary, or as program funds allow. Funded pruning cycles shall not preclude any necessary maintenance that may be required on individual trees.

Utility Clearance Pruning. In general line clearance is performed by the utility companies. Line clearance tree workers must be trained to work safely around high voltage conductors.

For for information and guidelines concerning proper pruning methods, please refer to Centerville City's Standards and Specifications Guidelines.

Street Tree Topping

It shall be unlawful, as a normal practice, for any person to top any street tree, park tree, or other tree on public property. Many people mistakenly "top" trees because they grow into utility wires, interfere with views, block sunlight, or simply grow so large that they worry the landowner.

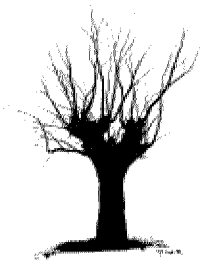

Figure 14
Photo by:canstockphoto5693921.jpg

The topping process is often self defeating. Ugly, bushy, or weakly attached limbs usually grow back, often higher than the original branches. Proper pruning removes excessive growth without creating the problems that topping creates.

Topping is defined as the severe and indiscriminate cutting back of limbs to stubs within the tree's crown, to such a degree as to remove the normal canopy, and disfigure the tree; or the cutting back of limbs or branches to lateral branches that are not sufficiently large enough to assume the terminal role, or are less than ½ of the diameter of the limb or branch that is cut. This practice is also known as stubbing, tipping, heading, hat-racking, de-horning, or excessive canopy reduction.

Figure 15
Photo by: IMG-1154.JPG

Trees severely damaged by storms or other causes or certain trees under utility wires or other obstructions, where standard pruning practices are impractical, may be exempt from this Section by determination of the City.

A reduction cut (also called drop-crotching, or crown thinning) is a method of pruning used to reduce the height of a tree. When done properly, branches are cut back to a lateral branch at least one-third the diameter of the limb being removed and large enough to outgrow lateral branches directly below.

Refer to Centerville's Guidelines and Specifications for more details.

Root Pruning

Centerville city must approve removal/pruning of roots greater than two inches in diameter within the dripline of a street tree. All root pruning within the critical root zone must be overseen or directed by City Forester.

Tree Replacement

The city may replace street trees or other plantings which have died or been removed for any reason, or plant additional street trees deemed appropriate, consistent with available resources.

Replacement: Any replacement of a street tree shall be made based on evaluation by the city of the condition of the site to determine whether replacement is warranted.

Removal Of Trees

A street tree must be protected and preserved unless Centerville City has issued a Street Use Permit authorizing the removal and replacement of the

Tree Replacement options.

Considerations: In determining whether a tree may be replaced or removed, the City shall consider, among other things, the following:

Whether the tree or trees pose a potential for safety problems despite a sound maintenance program;

Whether the roots from adjacent park strip trees are interfering with sewer lines servicing the abutting property to the extent that the property owner requires frequent repair of said sewer lines;

Whether the tree is dead, dying or incurably diseased;

Whether the tree is diseased and weakened by age, storm, fire or other injuries so as to pose a danger to persons, property, improvements or other trees;

Whether the tree is of an undesirable species;

Whether the tree poses a hardship to the applicable property owner such as, but not limited to, the cracking or raising of a driveway or, in the case of a handicapped person, special circumstances exist which cause the location of the tree to become a hindrance for vehicle, and handicapped access; and

Whether removal is necessary for construction of a street widening or other public improvement project, or necessary street or public improvement repair work.

tree. Street trees that are removed must be replaced with the same species, or another species that provides comparable canopy coverage at maturity, providing that the planting site has sufficient space to support the replacement tree. Removal of a street tree without a permit, or without replacing the tree, is a violation of City ordinance and subject to penalty.

The City shall condemn and remove, or order the removal of any tree, tree stump, shrub, or plant upon any of the public streets, or on public property within this City, where the same is dead, diseased, or for any reason whatsoever is deemed undesirable by the City Council.

The City shall have authority to condemn and remove, or order to be removed, any tree, tree stump, shrub, or plant upon private property when the City Council shall find such action necessary to the public safety, or to prevent the spread of disease or insects, and shall have the authority, after exercising due diligence to notify abutting property owners, to remove or order the removal of any tree, shrub, or plant which has been planted upon any public street or on any public property in violation of this Chapter or any other City Ordinance.

Possible definition or explanation for sidewalk replacement requirements

The Public Services Department shall inspect all hardscape damage. If the hardscape concerns include potential damage to private property, the matter shall be referred to the Public Services Manager for evaluation. A sample Tree Report, to be used for such assessments, is included in the Appendix of this Manual.

Upon initial inspection of the area, staff must determine what course of action is necessary to respond to the problem. The following are the most commonly occurring hardscape problems, and the courses of action that shall be employed to rectify them:

- Hardscape damage is within public right-of-way and will require a temporary asphalt ramp, followed by permanent repair of the area at a later date. Generally, an asphalt ramp should be installed if there exists a deviation in the concrete that is greater than three-fourths (¾") of an inch.
- Hardscape damage within public right-of-way, but is of such a minor nature that the damaged area can be "ground down" by a concrete grinding machine. Any deviation in the concrete of less than one-half (½") of an inch should be able to be rectified by grinding the raised lip down to grade. If necessary, permanent repair of the area should be scheduled for a later date.
- Hardscape damage within public right-of-way, but the nature of the damages cannot be rectified by temporary measures. Thus, permanent repair of the area will need to be scheduled based upon the potential the damages have for creating a public safety hazard.
- Hardscape damages are on private property and thereby cannot be addressed by the City. However, there are clear cut indications that at least some of the damages that have occurred are a direct result of a tree in the public right-of-way. Thus, the resident may have reason to file a claim for damages with the City. If the resident does elect to file a claim, the Public Services Director or designee shall be responsible for evaluating the damaged area and submitting a tree assessment report to the City Clerk for inclusion with the claim file.
- Hardscape damages are on private property and thereby cannot be addressed by the City, and there exists no clear cut indication that a City tree is the source of the damages. Thus, the resident will be responsible for excavation of the damaged area, for the purpose of exposing any invasive roots, should they wish to file a claim for damages with the City.

Upon excavation of the area, it is the resident's responsibility to contact the Public Services

photo by: HardscapeDamage.pdf

Tree Removal Criteria

A street tree may not be removed unless Centerville City determines that: Criteria for the removal of street and park trees:

1. The tree interferes with or creates a Nuisance to pedestrians or vehicular traffic, or is considered a public nuisance by the City.
2. The street tree is a Nuisance tree and cannot be relieved of its Nuisance condition through actions other than removal
3. If a tree is causing structural damage to a street, sidewalk or utilities and the condition cannot be corrected without removing the tree.
4. If a trees roots have blocked a sewer, or other utilities, and the city has to service the tree to maintain the integrity of the system.
5. The tree severely interferes with the growth and development of a more desirable tree.
6. The tree's aesthetic value is so low that the site would be enhanced visually by the removal or replacement of the tree.
7. The tree has been topped, producing an unsound branching structure, or may be conducive to severe storm damage, wind throw, or accelerated death.
8. The tree is not approved for planting in parking strips.
9. The street tree is in such a condition of poor health or poor vigor that removal is justified.
10. The street tree cannot be successfully retained, due to public or private construction, or development conflicts. The conflict must be confirmed, and removal must be approved by Centerville City.

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Property Owner Request for Removals.

Periodically, property owners may approach the City with requests to remove a City tree that is located within the public easement on their property. The City staff has the authority to approve these requests only if the tree is dead, diseased, Nuisance, or if an emergency condition exists; otherwise staff will deny the request.

If a property owner requests a tree removal and the request is approved by the City, the property owner will be required to pay for the replanting of a replacement City tree.

Property owners may appeal the staff denial by written request, which shall be brought before the City Council. The city cancel may grant the appeal if it finds that the staff decision would result in a burden on the property owner that substantially outweighs the benefit to the public.

Any tree removal requests brought forth to the City Council shall be evaluated by staff and a certified arborist.

The City staff or City Council will evaluate any tree removal request individually, considering any of these factors listed below to determine if tree's removal represents a greater loss to the public than the burden placed on the property owner by its continued existence:

1. Species of the tree . Does the tree's species further the City's urban forest management goals, or has it been removed from the planting list?

2. Size of the tree. Does the tree's size provide significant value in terms of shade, tree canopy, and neighborhood character?
3. Approximate age of the tree. Whether the tree is young, mature, or near the end of its life cycle should be considered.
4. Health of the tree. Is the tree in excellent health or it is showing signs of decline, or approaching the end of its life cycle?
5. Physical characteristics of the tree. Does the tree have appropriate structure and form or is it growing in a manner that will produce a strong, stable tree?
6. Environmental productivity of the tree. Is the tree believed to be environmentally productive or has productivity likely declined due to age, condition, or poor health?
7. Safety of the property owner and general public will be considered. The Council may consider health and safety impacts for the residents, adjacent property owners, and public at large when evaluating a removal requests.
8. Asset value of the tree. The value of the tree as listed in the City's inventory shall be included in the information presented to the Council.
9. Utility conflicts, both above and below ground, must be considered when evaluating a removal request. Anticipated utility conflicts may also be considered.
10. Species and age diversification may be considered to determine if the street would benefit from having a more diverse street tree population to reduce threats of deforestation.

Reasons that are NOT Valid for Tree Removal:

1. Leaves getting into gutters or a nuisance to remove.
2. Messy fruit or flowers.
3. Roots getting into the sewer lines as a result of deteriorating infrastructure.
4. Hardscape damage if a feasible, economic solution exists to save the tree.
5. The City tree is blocking solar panels. The City complies with existing solar access regulations in the State of Utah. The Solar Shade Act prohibits shading of solar collectors that result from tree growth occurring after a solar collector is installed. It states that no plant may be placed or allowed to grow such that it shades a collector more than 10% from 10 am to 2 pm. It does not apply to plants already in place, or replacement of plants that die after the installation of the solar collectors.

Guidelines for the Removal of Public Trees

Tree inspections shall be completed, including photo documentation of the condition of the tree(s).

Trees that are removed due to damage from vehicular accident or other accidental causes shall be replaced by the City using funds from any insurance settlement or fines assessed.

Trees removed without legal authorization shall be replaced by the person causing the removal of the tree.

Proper safety procedures are required if work sites place the public at risk. Signage, flagging and other public safety issues should follow Utah Code. An encroachment permit must be applied for at the Public Works Department if work will extend into the street.

Quality of Work: All debris must be removed from the sidewalk and street as soon as possible; by the end of the day it is produced.

Merchantable trees, or fire wood material, will be removed at a time that is agreeable to both the landowner and the City of Centerville.

Stump Removal Requirements and Standards

1. Persons performing stump removal duties shall have the immediate area investigated for utility lines and blue-staked as necessary and wear all required safety eye and ear protection.
2. All removal of public trees shall be done in a manner so that the remaining stump and roots will be at least 8 inches below ground level unless a special exemption is granted by the City.
3. To prevent a public safety Nuisance the stump hole must be back filled immediately after the grinding. Excavations resulting from a tree or shrub removal must be promptly filled in to normal ground level with clean soil, the fill properly settled and free of debris.
4. Proper stump removal results in nice-looking plant strips that are free of tripping Nuisances, and may have more room to plant new trees.

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Removal and Replacement of Pavement or Sidewalk

Removal of existing pavement over tree roots is often necessary within the critical root zone and the dripline. Tree protection measures submitted as part of the permit application shall describe the strategies to be employed in the work zone. In all cases, roots shall be protected from unnecessary injury. This is accomplished through careful execution of pavement break-out.

Once pavement is broken into manageable pieces, it can be carefully removed. Equipment must remain on undisturbed pavement and off exposed roots. Do not remove base rock or materials that have been exploited by established absorbing roots unless necessary to identify root pruning strategies. In dry and hot conditions, apply untreated wood chips, burlap or other approved means of moisture control over the exposed roots within one hour, and keep the area moist until overlay surface is applied.

Nuisance-tree Risk Management Policy

The City will strive to eliminate, in a timely fashion, any tree deemed Nuisance. When available fiscal and human resources limit the ability of the city to remove high-risk trees, priority shall be placed on trees deemed to carry the highest risk.

The standard for rating the Nuisances of a tree will be utilizing the latest edition of the ISA Tree Nuisance Evaluation Form in conjunction with the Photographic Guide to the Evaluation of Nuisance Trees in Urban Areas. The City will administer this program and have final judgment in all matters concerning the mitigation measures taken for any tree deemed Nuisance.

Possible
Tree Risk Rating - A method that ranks the relative degree of risk and consequence of tree failure by considering tree condition and defects, the size of the tree part prone to failure, and the vulnerability and value of any target that may be struck. Tree risk ratings are:

Improbable- Tree is not likely to fail even in severe weather.

Possible- Failure could occur, but is unlikely during normal weather conditions.

Potential- Tree failure is expected under normal weather conditions.

Imminent- Tree failure has started or will occur in near future.

Responsibility for Correcting Private Nuisance Trees.

Where a Nuisance tree exists upon private property, the property owner and all other persons having control of the property on which such Nuisance tree exists shall be responsible to mitigate, abate, remove, or correct the Nuisance. Any tree that is a Nuisance tree is a public nuisance.

1. It is unlawful for any person, firm, or corporation, either as owner, agent, or occupant, to create, aid in creating, or maintain a Nuisance tree.
2. If the City determines that a particular tree is a Nuisance tree, the City may give a written notice to the owner, occupant, or agent of any lot, building, or premises in or upon which a Nuisance tree is found, or to the person who may be the cause of such Nuisance tree to remove, mitigate, abate, or correct the Nuisance, including its recommendation as to the most effective method of doing so.
3. Notice under this Section may be served by personal service or by mailing the notice to the person, firm, or corporation by certified mail (return receipt requested), and posting a copy on the property a minimum of 28 calendar days in advance of further action.
4. If the Nuisance tree is not mitigated, abated, removed, or corrected within 28 additional calendar days after the notice is complete, the City may mitigate, abate, correct, or remove the Nuisance tree at the expense of such person, firm, or corporation or may take further action as determined.
5. The City may recover the costs and expenses incurred in mitigating, abating, correcting, or removing the Nuisance tree, serving notice, and the costs of a lawsuit, if any.
6. If the person, firm, or corporation disputes or denies the City's determination that the tree is a Nuisance tree or refuses to remove or permit removal, the City may bring an action to abate the Nuisance tree as a public nuisance. If the City is granted a judgment, the City may recover the costs of having the public nuisance abated.
7. The City, its agents, or employees, if acting in good faith, incur no liability for causing removal of a Nuisance tree.
8. Notice of appeal of the City's determination that a tree is a Nuisance tree may be filed with the City Recorder within ????? days of service of the notice to abate. Appeals of the City staff decisions shall be heard by the Mayor or his designee within ???? days of receipt of the appeal, which decision is final.

Public Nuisances.

For the purposes of this Chapter, the following are defined to be public nuisances:

1. Any dead, dying or diseased tree, or other plant, which constitutes a threat to other trees in the city, both on public or private land.
2. Any tree, or other plant, with structural defects likely to cause failure and pose a danger to public safety or property.
3. Any tree, or other plant, which obstructs the free passage of pedestrians or vehicular traffic.
4. Any tree, or other plant, which obstructs a traffic sign, or interferes with the clear sight zones at intersections. The area within the thirty (30) foot triangle of public or private property measured from the projected curb lines at the intersections of any street approved for vehicular traffic.
5. Any tree, or other plant, indicated in this ordinance as being undesirable, or not suitable for use as a street tree.
6. The roots of any tree, or other plant, which cause the surface of the public street, sidewalk, or curb to be up-heaved or otherwise disturbed.
7. Any tree, or other plant, both on public or private property apt to destroy, impair or otherwise interfere with any street improvements, sewers or other public improvements, including utility mains or services.
8. Any tree limbs, shrubs, vines or climbing plants growing on, into, or over any street tree, public hydrant, utility pole, or other street improvements.
9. Existence of any tree, or other plant, within the City limits, that is infested, infected or in danger of becoming infested or infected with objectionable insects, scales, fungus or growth injurious to other trees.
10. Hedges or dense, or thorny shrubs on any street rights-of-way.
11. Shrubs or plants more than two (2) feet in height in any street rights-of-way measured above top back of curb.
12. Trees protruding into the street below fourteen (14) feet above the pavement.

Abatement of Public Nuisances.

When any public nuisance as defined herein exists, a notice may be sent by mail to the owner or tenant involved. Such notice shall describe the conditions, state the work necessary to remedy the condition, and shall specify the time within which the work must be performed. If at the end of the time specified, such work has not been performed, the City may perform such work and the cost thereof shall constitute a charge against such owner or tenant, and such charge shall be a lien against the property, and may be assessed on the property taxes of such property.

Damage to Street Trees.

Damages to any street tree caused by any act or omission by any person, whenever such act or omission is prohibited by or not authorized pursuant to this Chapter, shall be charged to such person or persons.

Protection of City Trees

Any person doing construction, excavation, or demolition work in the near vicinity of a City tree shall protect the tree from injury or damage with a substantial protective barrier. Said barrier shall not be less than 4 feet high and have a 2 foot radius or to a distance in feet from the tree equal to the diameter of the tree trunk in inches measured 4½ feet above ground, whichever is greater.

All building materials, extra dirt, or other debris shall be kept outside critical root zone of the tree. The city parks superintendent and the City Engineer must be consulted about any deviation to this standard.

No person shall use a City tree for any unauthorized purpose.

See Centerville's Standards and Specifications manual for more information about construction standards.

Interference with Service.

It shall be unlawful for any person to interfere with City personnel or contractors under the direction of the Urban Forester in the performance of their duties.

Classification As A Heritage Tree:

A tree can only be classified as a heritage tree if:

1. The tree has proven historical significance.
2. The tree has a peculiarity that makes it significant.
3. The tree is free from infestation that may cause the demise of the tree.
4. The landowner agrees to give responsibility of the tree to the city.
5. The tree is free from past topping or other pruning that has compromised the structure of the tree in any manner.
6. The tree is in apparent good health.
7. The tree does not exist on property lines that are in dispute.

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Historic Trees

The city council with participation of the landowner may designate trees of importance as heritage trees. Trees receiving this designation should have historical or peculiar significance to the community. Trees that are designated as heritage trees will become the responsibility of the city.

Historic Tree Preservation.

The Urban Forester, in conjunction with the City's Parks & Recreation Department, the Community Development Department, and property owners may identify, mark, publicize, and preserve historic and notable trees on public or private property in conjunction with the Utah Heritage Tree Act. The Urban Forester may help locate and record healthy trees that qualify as candidates for the Utah Heritage Tree Register.

Preservation of Historic Trees During Development.

Tree surveys may be required as part of the development review and approval process. Said surveys shall be reviewed by the Community Development Department and the Urban Forester. Tree surveys must identify both City and private trees, or groves of trees, of at least 3 inch caliper and shall indicate which, if any, may be preserved or relocated. Where practically possible, site designs should be modified to accommodate significant tree cover. Proper care should be taken during the construction phase to protect tree root zones from compaction and excessive excavation. Clear cutting an area of trees on a site will not be allowed unless determined appropriate by the Community Development Department and the Urban Forester.

Historic Tree Maintenance:

Heritage trees may not be pruned, sprayed, altered in any way, or removed without written consent of the city. Heritage trees shall be protected from construction, excavation, or any other kind of development that would negatively affect the tree, its trunk, its branches, or its root system at any time. It will be unlawful for anyone to disfigure, damage, compromise or destroy a heritage tree.

HISTORY

Adopted by Ord. 2017-03 on 4/4/2017

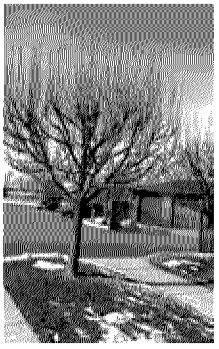
11.02.090 Enforcement

Trees existing as of the date of adoption of this Chapter that do not meet the City standard for parkstrip or street side trees may remain at the discretion of the City based upon safety and visibility standards, but may not be replaced once removed. Owners of existing parkstrip/street side trees shall still be required to follow all maintenance standards required herein.

Those who do not comply with the parkstrip standards found herein shall be subject to enforcement action, which may include the removal of any such non-approved item planted, constructed or placed within the parkstrip and/or City rights-of-way.

City Authority:

The city may condemn and remove, or order the removal of any tree, tree stump, shrub, or plant upon any of the public streets or on city owned property within this city where the same is dead, diseased or for any reason whatsoever is deemed undesirable or unsafe by the city. The city shall have the authority to condemn and remove, or order to be removed, any tree, tree stump, shrub, or plant upon private property when the city shall find such action necessary for public safety or to prevent the spread of disease or insects to public trees and places. Where no apparent emergency exists, the city shall give at least fifteen (15) days' notice of intent to remove any street tree to adjacent property owners of the decision to remove the street tree.



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The City shall have power to enforce all regulations within the city's tree ordinance as they apply to trees on public property within the City. Any person found in violation of any provision of this chapter shall be guilty of a Class C misdemeanor and shall be required to pay for or replace any damaged tree with a similar age and species of tree. Each tree on which a violation occurs shall constitute a separate offense.

If the Council so directs, the Inspector shall:

Ascertain the names of the owners and/or occupants and descriptions of the premises where such conditions exist.

Serve written notice upon the owner and/or occupant of such land, either personally or by m

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ailing a notice, postage prepaid, return receipt requested, addressed to the owner and/or occupant at their last known post office address, requiring such owner and/or occupant to construct the sidewalk within such time as the Inspector may designate, which shall not be less than thirty (30) days from the date of service of each notice.

Inform the owner and/or occupant by means of said notice or attached document that in the event he or she disagrees with the determination of the City Council and does not wish to construct the sidewalk, he or she may request in writing a hearing before the City Council at a time and place to be set by the City Council. A written application for a hearing shall stay the time within which the owner and/or occupant must conform to the decision of the City Council.

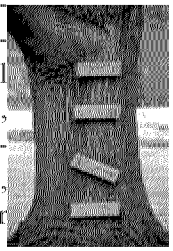
In the event the owner and/or occupant makes such request for a hearing, the City Council shall set the time and place for hearing such objections. The City Inspector shall notify the owner and/or occupant in writing of the time and place at which he or she may appear and be heard. Said hearing shall not be heard within less than five (5) days from the date of service or mailing of said notice. At the written request of an owner and/or occupant, the governing body shall conduct an informal hearing (which need not be reported) wherein said owner and/or occupant may present such evidence and argument as is pertinent to the question of whether or not the construction, maintenance and/or repair of sidewalk, trimming of trees or other plant growth or maintenance of parkway abutting his or her property is within the purview of this Section. The governing body shall also permit the presentation of evidence and argument by the Inspector and other interested parties. Thereafter within not more than ten (10) days the governing body shall, over the signature of the Mayor or such member of the City Council as it may designate by resolution, render its written decision, a copy of which shall be mailed to or served upon the owner or occupant by the Inspector. In the event the decision of the City Council upholds the determination of the Inspector, the notice originally given by the Inspector as above provided shall be deemed to be sufficient to require the owner or occupant to construct, maintain or repair sidewalks or trim trees or other plant growth abutting his or her property and he shall have up to ten (10) days from the date of notice of the decision within which to conform thereto. In the event that the decision of the City Council either overrules or modifies the determination of the Inspector, the written decision of the City Council shall apprise him of that fact and set forth the details and extent to which the owner and/or occupant must make construction, repairs and/or maintenance of said sidewalks, trim trees or other plant growth, and/or maintenance of parkways, if any. The Inspector shall file an amended notice and proof of service of said notice upon the property owner and/or occupant and file the same in the office of the County Treasurer.

If any owner and/or occupant of lands described in such notice or decision shall fail or neglect to conform to the requirements thereof relating to the construction, maintenance, and/or repair of sidewalks abutting his or her property and/or trimming trees or other plant growth, and/or maintenance of parkway, the Inspector shall employ all necessary assistance to cause such construction, maintenance and/or repair, and/or maintenance of parkway to occur at the expense of the municipality.

The Inspector shall prepare an itemized statement of all expenses incurred in the construction, maintenance and/or repair of said sidewalks and/or trimming of trees or other plant growth, and shall mail a copy thereof to the owner or occupant, or both, demanding payment within thirty (30) days of the date of mailing. Said notice shall be deemed delivered when mailed by registered mail addressed to the property owner's or occupant's last known address. In the event the owner or occupant fails to make payment of the amount set forth in said statement to the City Treasurer within said thirty (30) days, the Inspector either may cause suit to be brought in an appropriate court of law or may refer the matter to the County Treasurer as provided herein.

In the event collection of expenses is pursued through the courts, the City shall sue for and receive judgment for all of said expenses of construction, parkway maintenance, maintenance and/or repair of said sidewalks and/or trimming of trees or other plant growth, together with reasonable attorneys' fees, interest and court costs and shall execute upon such judgment in the manner provided by law.

In the event that the Inspector elects to refer the expenses of construction, parkway maintenance, maintenance and/or repair of said sidewalks and/or trimming of said trees or other plant growth for inclusion in the tax notice of the property owner, he shall make in triplicate an itemized statement of all expenses incurred in the construction, parkway maintenance, maintenance and/or repair of the same, and/or trimming of said trees or other plant growth, and shall deliver the three copies of said statement to the County Treasurer within ten (10) days after the completion of the work of construction, parkway maintenance, maintenance and/or repair of said sidewalks and/or trimming of said trees or other plant growth. Thereupon the costs of said work shall be pursued by the County Treasurer.



Violation and Restitution Charges

Any person who violates any provision of this Chapter shall be guilty of a Class C Misdemeanor.

In addition to other remedies provided for herein or otherwise provided by law, if the violation of any provision of this Chapter causes the injury, mutilation, or death of a tree, shrub, or other plant located on City owned or maintained property, the violating party shall pay the cost of repair, or replacement value of such tree, shrub, or other plant.

The replacement value of trees and/or shrubs shall be determined in accordance with the latest edition of the "Guide For Plant Appraisal" as published by the International Society of Arboriculture.

If the replacement trees is of lesser value of damaged, or removed tree, the person causing the tree to be removed shall make a compensatory payment to Centerville City equal to the difference in value between the tree removed or damaged, and the replacement tree.

Any public tree that is damaged, but not sufficiently to justify removal, the tree shall considered to be devalued. The amount of devaluation shall be paid to the City by the person causing the damage.

Compensatory payments shall be paid into a fund established for that purpose and restricted in use for tree planting and tree replacement by the City.

In addition to civil penalties and restitution for actual damages that may be imposed, the City may pursue criminal or civil actions against any person or entity who violates this Chapter as is deemed appropriate, including abatement or injunctive relief.

Subject to penalties

The following list of terms describes actions that are subject to penalties or fines. In addition to performing any of these actions, failure to obtain a permit or failure to follow the conditions of a permit, this manual or the Centerville City Ordinance may also lead to penalties.

1. Causing or encouraging a fire underneath or within five feet of the dripline of a street tree or, within five feet of other vegetation in public places
2. Applying toxic chemicals to a street tree or to the ground within the dripline of the street tree.
3. Attaching any rope, wire, nails, advertisements, posters or other objects to any street tree, except for supports for young or broken trees, official City placard affixed in a manner that is not injurious to the trees, or attaching decorative or seasonal lighting attached in a manner consistent with DOT specifications and does not permanently damage the street tree or impact mobility.
4. Using climbing spurs on a street tree.
5. Causing the topping or severe crown reduction of a street tree, except in the course of tree removal pursuant to a Street Use permit as approved by the Director.
6. Placing or storing materials, including but not limited to, stones, bricks, concrete, asphalt, fill soil, plastic sheeting, or construction materials, within the dripline of a street tree or other vegetation in public places.
7. Injuring Street Trees: Taking any action predictably leading to the premature death of a street tree or permanent damage to its health, including but not limited to: root cutting, girdling, or unauthorized pruning or work within the dripline of street trees including trenching, excavating, grade alteration, paving, or material storage.
8. Excessive Pruning: Removing more than ¼ (25 percent) of the functioning leaf, stem, or root area. Pruning in excess of 25 percent may be injurious to the tree and is a prohibited act

The above list is not to be considered a complete list of prohibited acts. The overall prohibition includes destroying, killing, mutilating, or defacing a street tree in any manner or by other means not listed above.

Penalties and Fines

********Citations ~~(SMC 15.91):~~ Centerville City may issue a citation when work is performed on a street tree without first obtaining a Street Use permit. The penalty for failure to obtain a permit is $500 for the first offense and $1,000 for each subsequent offense. The penalty for noncompliance with permit conditions is $250 for the first offense and $500 for each subsequent violation.

Notices of Violation ~~(SMC 15.90.018.B):~~ Centerville City may issue Notices of Violation for violation of any provisions of ~~SMC 15.43.~~ Violations are subject to a cumulative penalty of up to $500 per day until compliance has been achieved. In addition to the daily fine for noncompliance, any person who destroys, kills, injures or mutilates a street tree may be fined the appraised value of each affected tree as determined by the most current edition of the Council of Tree and Landscape Appraisers "Guide for Plant Appraisal. If the violation is found to be willful or malicious, the amount of the penalty may be trebled.

HISTORY

Appeal

Any person may appeal the decision rendered by the city pursuant to this chapter to the city council. The appeal must be in writing, signed by the appellant, with a statement of reasons supporting the appeal. The appeal shall be filed with the city council within ten (10) days of the date of the decision being appealed. .

Tree Donations

Centerville City encourages interested property owners, residents and others to donate funds, or trees, to enhance the community forest. All donations of trees to the City must meet certain qualifications and restrictions.

Trees may be donated to the City for planting in City parks or within City rights-of-ways. The City shall make every effort to have the tree planted where the donor wishes but may not always be able to plant a certain tree in a certain place.

Standard tree donations may be in the form of monetary gifts funded specifically for the purchase and planting of a tree, or the donation may be a tree itself; pending approval by the City.

All donated trees shall be approved by the city only after the proposed tree and location have been reviewed in light of the Approved Street Tree List, Approved Trees Listed in the Standards and Specifications manual, and by Nursery Stock Standards.

Tree donations valued at less than $500 shall be approved by ?. Tree donations valued at more than $500 are subject to review by the City.

It is the responsibility of City Forester to complete a proposed "Gift to the City" form for all tree donations, including acquiring necessary donor information and signatures. The completed original form shall be forwarded to the City's Finance Department. One copy of the completed form shall be returned to the donor, and one copy shall be retained by the city.

Acceptance of donations implies no reciprocal agreement or obligation to the donor by the City other than designation of donated funds for specific tree gifts. Any tree accepted by the City becomes the property of the City and shall be subject to all the policies described in this manual.

Recognition may be made to the donor through media coverage or other appropriate activities only with the consent of the donor.

Plaques: The City does not allow the permanent installation of plaques for donated trees. However, the City Council may approve permanent plaques in situations where it is determined that the plaque would be of benefit to the community.

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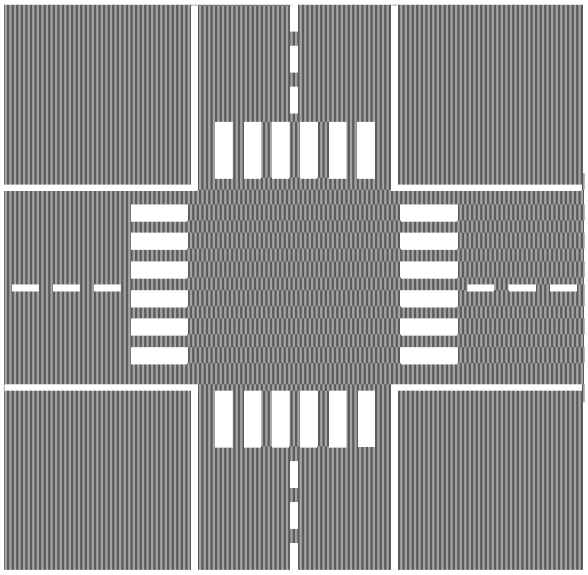

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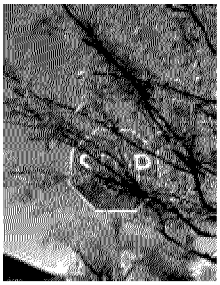
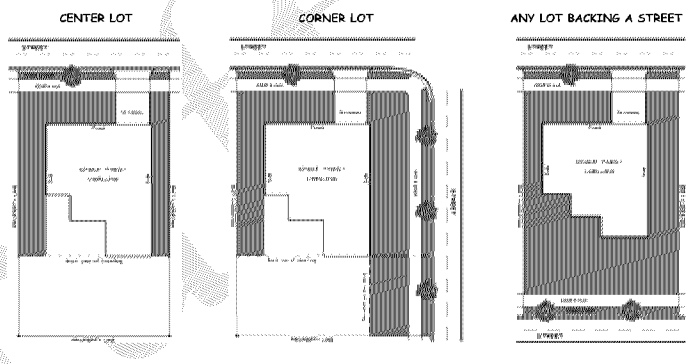


LANDSCAPE ORDINANCE REQUIREMENTS DIAGRAM

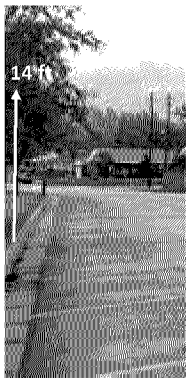


** * * or install a privacy fence so yard can't be seen from side or rear street * * **

Keep in mind clear view requirements when planning for trees or fences (see next page).

photo by: HerrimanCityPictures.pdf

Kaysville trees are beautiful and need your attention from time to time...



Trim low hanging branches once they have grown out past the curb. Even seemingly small branches can cause plows and garbage trucks to not access the curb or damage vehicles and equipment. Branches that don't seem like a significant problem one year can quickly become large and unmanageable.

CLEAR VIEW ORDINANCES

A. **Intersecting Streets and Clear Visibility:** No obstruction to view in excess of three feet (3') in height, shall be placed on any corner lot within a triangular area formed by the street property lines and a line connecting them at points thirty feet (30') from the intersection of the street lines. (HC Code 10-5-185). Front yard solid fencing shall not exceed three feet (3') in height and open type fencing shall not exceed four feet (4') in height.

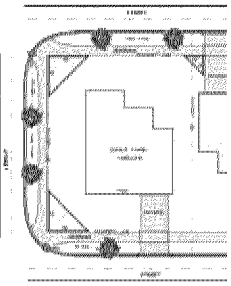
B. **Driveways:** No obstruction to view in excess of three feet (3') in height shall be placed in any reasonable access way within the triangular area formed by points twelve feet (12') along the property line and twelve feet (12') along the driveway line. (HC Code 10-5-28).

C. Trees, shrubs, signs, vehicles, fences or other obstacles shall not block the view of traffic or street signs, street lights or sight distance of vehicles at intersections or roadways. HC Code 6-2-14.

D. Trees that are located within the park strip must be 20' from any traffic or street sign and must be pruned above the sidewalk 7' for pedestrian safety and above 14'6" for emergency fire maintenance vehicles. HC Code 6-3-6.

APPROVED TREE LIST FOR PARK STRIPS

a. *Acer platanoides* 'Columnare' (Columnar Maple)
b. *Carpinus caroliniana* (Musclewood, American Hornbeam, Ironwood)
c. *Cercis canadensis* (Eastern Redbud)
d. *Crataegus monogyna* (Hawthorn)
e. *Ginkgo biloba* (Maidenhair tree, any fruitless variety)
f. *Pyrus calleryana* 'Aristocrat' (Aristocrat Bradford Pear)
g. *Pyrus calleryana* 'Capital' (Capital Flowering Pear)
h. *Quercus bicolor* (Swamp White Oak)
i. *Tilia cordata* (Littleleaf Linden)



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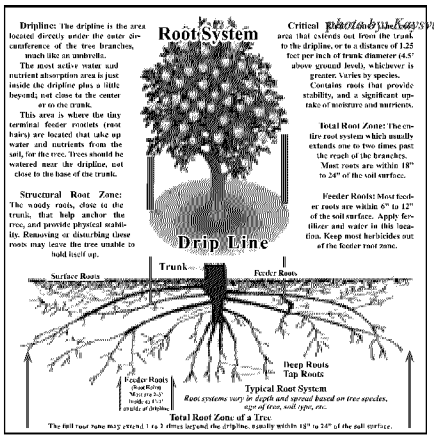


Dripline: The dripline is the area located directly under the outer circumference of the tree branches, much like an umbrella.

The most active water and nutrient absorption area is just inside the dripline plus a little beyond; not close to the center or to the trunk.

This area is where the tiny terminal feeder rootlets (root hairs) are located that take up water and nutrients from the soil, for the tree. Trees should be watered near the dripline, not close to the base of the trunk.

Structural Root Zone: The woody roots, close to the trunk, that help anchor the tree, and provide physical stability. Removing or disturbing these roots may leave the tree unable to hold itself up.

Critical Root Zone: The area that extends out from the trunk to the dripline, or to a distance of 1.25 feet per inch of trunk diameter (4.5' above ground level), whichever is greater. Varies by species. Contains roots that provide stability, and a significant uptake of moisture and nutrients.

Total Root Zone: The entire root system which usually extends one to two times past the reach of the branches. Most roots are within 18" to 24" of the soil surface.

Feeder Roots: Most feeder roots are within 6" to 12" of the soil surface. Apply fertilizer and water in this location. Keep most herbicides out of the feeder root zone.

photo by: KaysvilleTreePictures.pdf

Kaysville trees are beautiful and need your attention from time to time...

Trim branches to 14 feet in height from the back of the curb. This will allow vehicles, both public and private to safely navigate the roadway.

photo by: KaysvilleTreePictures.pdf:2

Intersection Sight Distance

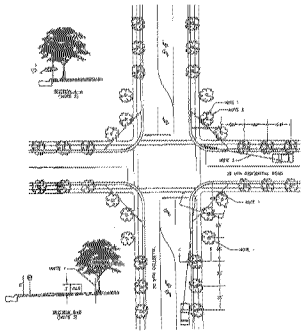


photo by: IntersectionDiagram.pdf

APPENDIX D

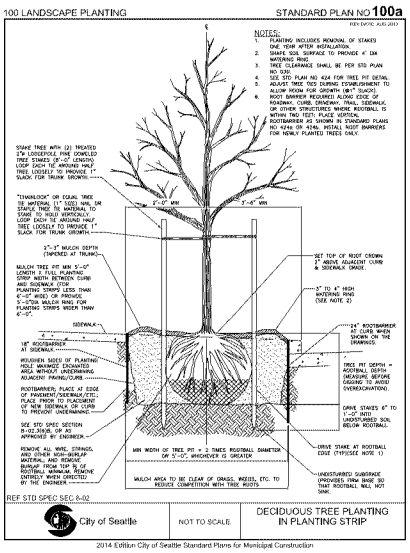
Intersection Sight Distance

Notes:

1. Intersection sight triangles typically are 30 feet by 30 feet measured from the right-of-way. Intersection geometry will change sight distance requirements. No improvements allowed over 2 feet high measured from the top back of curb (unless otherwise approved by the city transportation engineer).
2. Trees must be planted outside of the sight triangle. Branches need to be trimmed to 8 feet above the top back of curb on the sidewalk side.
3. Required sight distance to stop signs on roads with a speed limit of 25 mph is 100 feet. Speed limits of 30 mph or more requires 150 feet of clear sight distance to stop signs.
4. On roads with a speed limit of 30 mph or more requires that street trees within the first 100 feet of the intersection be planted 10 feet behind the back of sidewalk.
5. Street trees planted within the parkstrip shall be trimmed to 13 feet above the top back of the curb when the canopy crosses into the roadway area (beyond the top back of curb).
6. For T-intersections use a 60 feet by 20 feet sight triangle measured from the top back of curb (60 feet being on the through street).

photo by: IntersectionSight.pdf

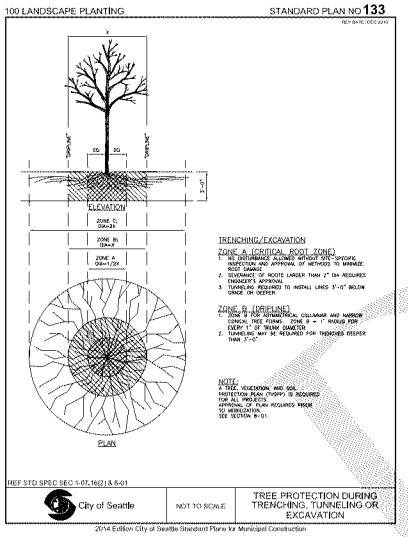
100 LANDSCAPE PLANTING STANDARD PLAN NO **100a**



2014 Edition City of Seattle Standard Plans for Municipal Construction

photo by: TreeDiagramSample.pdf

100 LANDSCAPE PLANTING STANDARD PLAN NO **133**

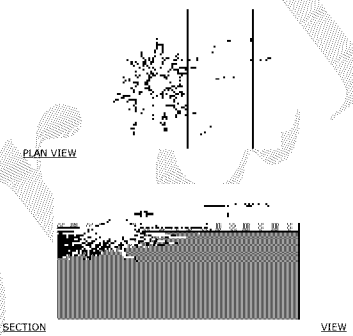


2014 Edition City of Seattle Standard Plans for Municipal Construction

photo by: TreeDriplineDiagram.pdf

Exhibit 7

City of Fontana
Selective Root Pruning Standards

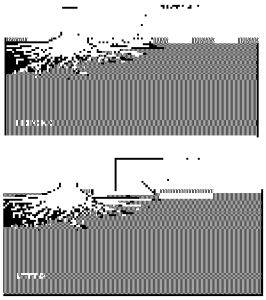


NOTES:
1. Roots shall be cut at the nearest node to encourage roots that grow away from the sidewalk.
2. Roots must be cleanly cut 4" away from the new sidewalk edge.
3. Backfill excavated areas with soil.

photo by: RootPruningDiagram.pdf

Exhibit 8

City of Fontana
Root Shaving Standards



NOTES:
1. Roots are to be shaved down to enable at least 2" clearance between sidewalk and root. Backfill with soil.
2. Root barrier shall not be installed on shaved roots.

photo by: RootShavingDiagram.pdf

Draft

Creation and Establishment of the City Tree Advisory Board

The City shall create and establish a Tree Advisory Board which shall consist of at least five (5) members, who shall be appointed by the Mayor with the advice and consent of the City Council. The members shall come from different interest groups including homeowners, tree professionals, and City government.

1. Term of Office

a. The terms of the appointed members of the Tree Advisory Board shall be four (4) years, or until their respective successors shall have been appointed, except that the terms of appointment shall be such that the terms of one to three (1 to 3) members shall expire each year.

b. The Tree Advisory Board existing at the time of passage of the ordinance codified in this chapter shall continue to serve, and the terms of its members shall be fixed by the governing body in such a manner as to comply with the above provisions for staggering terms of service.

c. Members of the committee shall serve without compensation.

2. Duties and Responsibilities

The Tree Advisory Board shall hold quarterly meetings on the third Thursday of January, April, July and October and at other times as needed. A quorum, representing a majority of committee members, is necessary to conduct any official business of the committee. Under the direction of the City Council, the Tree Advisory Board shall, at a minimum, be responsible for the following activities:

a. Recommend the types and species for specific areas of the City, such as along State Street, 700 North or in parks and other public places.

b. Recommend ideas to increase public awareness and public support for tree preservation.

c. Encourage the preservation of trees by developers and landowners.

d. Create an inventory of Heritage trees within City limits and promote protection of those trees.

e. Recommend specific guidelines for tree maintenance, placement and general pruning standards, for both public & private areas.

f. Plan and coordinate an annual Arbor Day observance.

g. Seek funds for the purpose of increasing tree inventory and other tree related projects.

3. Meetings

a. The Tree Advisory Board shall elect one of its members to be the chairperson. The chairperson shall conduct all meetings and shall serve for one year. Elections for chairperson shall be held annually at the first January meeting of the year. A chairperson may serve consecutive terms.

b. Board business and discussion shall be conducted in open public meetings.

c. The board may adopt by-laws, rules, or procedures for the transaction of its business.

d. When voting on an item, each member of the board shall have one vote. At least three votes for an item are required for an item to be approved by the Board.

Draft

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I have not spent much time revising this from the original draft. After working on the ordinance, we can spend time adding and modifying this document.

We may want to give a copy of this to the city council just to show them our future plans.

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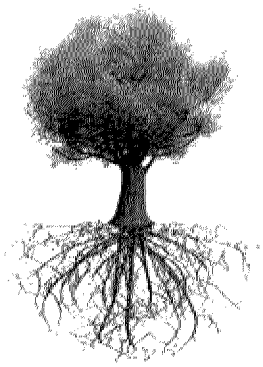
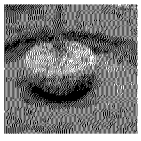




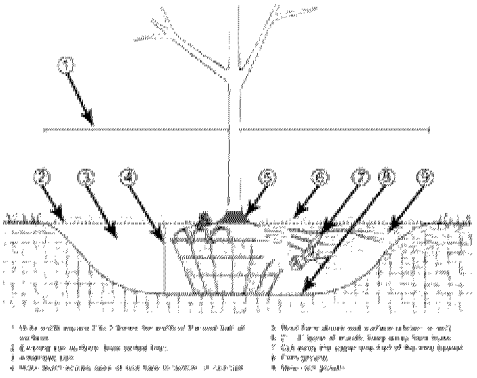


photo by: Possible_Picture.jpg

Centerville City
Standards and Specifications

example websites
http://www.bgky.org/preview/tree/planting

Purpose

It is the purpose of these guidelines is to promote the beautification of Centerville City, and to protect public health, safety, and general welfare, by regulating the placement, maintenance, and removal of trees within Centerville City. Trees are recognized as a valid asset that provides a more healthful, and beautiful environment, in which to live. Trees provide oxygen, shade, aesthetics, and a priceless psychological asset to the urban setting. Trees are also economically beneficial in attracting new industry and residents, by enhancing the value and marketability of property, and promoting the stability of desirable neighborhoods.

General Guidelines

The specifications in this manual are the minimum standards for planting, pruning, maintenance and protection of all public trees. They apply whether the work is performed contractually, by City employees, or by private individuals. Exceptions to these standards must be by written approval of the City. All traffic and safety rules must be observed while working on public trees. The basic guidelines include, but are not limited to:

A. Prohibit the planting and growing of the type or kind of trees prone to disease and insects, or injurious to sidewalks and curbs, and designates such types and kinds of trees and shrubs permitted to be planted hereafter as Park Trees and Street Trees.

B. Provide a plan of proper planting and growth of trees for the beautification of streets in Centerville that allows implementation of any existing or future street tree plan as adopted by the Council as part of the Centerville City General Plan.

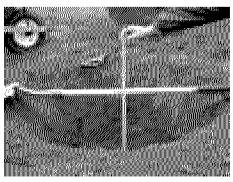
C. Protect trees from improper care by establishing the standard methods of tree care for park trees and street trees including guidelines for trimming, spraying, removal, planting and pruning.

D. Prevent trees on city or private property from becoming a public nuisance.

E. The words "shall" and "will" are mandatory, while "should" and "may" are permissive. Words not defined in this section shall have their common and ordinary meaning.

Planting Directions

1. **Check Layout Locations.** Check for underground utilities prior to any excavation. Buried utility lines are everywhere. Sometimes there may be a small project that you may not think requires a marker, but even for small planting work, calling Blue Stakes (811) is a must. Where below ground obstructions are encountered, the tree planting locations shall be modified accordingly.
2. **Planting Holes.** Dig a "planting hole" at least one and one-half times the width of the root ball, in severely compacted soil dig the hole even wider. Avoid digging too deep. The depth of the hole should be no deeper than the depth of the root ball.



3. **Soil Amendments.** Mix a maximum of 20% organic materials with the Native Soil removed from the planting hole. Too much organic matter is more detrimental to the new tree than by not using any soil amendments. All soil amendments must be well composted; no fresh organic materials of any kind should be added to the soil planting mix. Mix the recommended amount of a slow-release starter fertilizer with the native soil and soil amendments as directed.

Root Stimulants - Use of root stimulant aides the plants natural abilities to develop root biomass, and they are very effective in reducing prolonged stress due to root pruning effects on new transplants. Most of these chemicals have a vitamin B-1 compound in them. Vitamin B-1 also aides in reducing stress in new transplants. The best compounds contain vitamin B-1, Chelated micronutrients (zinc, manganese, etc.) and two root- promoting growth hormones.

Mycorrhizae inoculants are very effective when applied as either a root-ball drench at the time of planting, or when adding the dry version with the soil planting mix. Contact with the actual roots is most important to ensure proper inoculation. Topical applications, after the plant has been established, are not as effective. A soil injection procedure, one reaching the root system, is recommended since mycorrhizae must come into physical contact with the plant roots. Poke holes 10" to 12" deep around the drip line of the plant. Put the mycorrhisae down each hole and water

it in.

4. **Always Remove the Container.** To remove a tree from a container gently lay it down. Push on the sides and bottom of the container to break contact between the root ball and container. Hold the trunk near the surface of the soil and push/pull the container away from the root ball. Slide the container off the root ball. Do not pull on the trunk. If the root ball is too large for this process, it may be necessary to cut the container off after the tree is placed in the planting hole.

5. **Plant at the Proper Depth.** The tree should be centered in the hole, and set at a depth that, when planted, soil will not be above the root crown (root flare) of the tree. Tree roots require water, oxygen and warmth to grow properly. When root systems are buried too deep, less soil oxygen and water is available, and the soil is cooler. The tree must either force its roots to grow upward, or must create totally new roots from dormant buds on its buried trunk. This causes the tree roots to decline in health and condition. Some plants may survive being buried too deeply, and live normal lives after developing a new functional root system. Others may begin a long, slow decline of health resulting in either premature death or sudden failure during wind or ice storms.

6. **Balled and Burlaped Plants (B&B).** Removal of Binding Material is essential. After placing the tree in the hole, remove the wire and burlap - if stability of the root ball allows. Make sure no binding material is left around the trunk; to prevent girdling as the tree grows. If the materials cannot be removed, remove only the top one or two rows of wire and an equal amount of burlap. No twine or burlap should remain on or near the surface of the root ball or around the trunk. Cut vertical slits in the burlap that remains. Do not fold burlap into the hole; remove as much as possible.

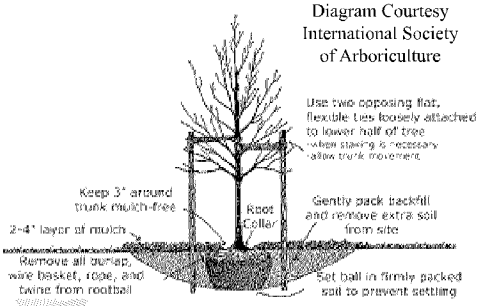


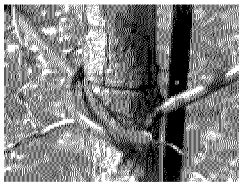
photo by: ISA_planting.png

7. **Back-fill and Water in.** Use the soil (mixed with any amendments) that was removed from the hole to backfill; do not backfill with new soil brought in from another site. Minimize air pockets by removing soil clumps, rocks, sod, and folded burlap. Backfill the hole to half full, then saturate with 5+ gallons of water, to fill all holes and cavities around the roots. Finish filling the hole with your soil mix. Tamp gently and water again with 5+ gallons, to completely saturate the planting hole. More soil may be need to be added after the water has drained and the soil has settled. Water again thoroughly a third time, allowing water to soak deeply into the site. Finally, make a basin around your plant to hold water. The basin should be able to hold at least one to three gallons of water for future watering times.

photoby:shutterstock_wiresupport.jpg

8. **Stake new trees only if it is necessary for added stability, or for protection from wind or other physical damage.** A newly planted tree needs to have its root ball held motionless in the sold until new roots grow; so if the root ball moves when you move the trunk, staking is needed. Staking is also needed if the unsupported trunk flops (the sign of a weak tree), or if the crown is so dense that wind will catch it, and create excessive movement. However, Staking a tree that doesn't need it can do more harm than good.

Ties should be tight enough to support the tree, but not tight enough to prevent swaying. The trunk's natural movement helps strengthen it, and also stimulates root growth. The tie material should be flexible, and at least 1" wide where it touches the tree, to prevent abrasion. All ties, stakes and tree wrap should be removed after the first year, or as soon as the tree does not require the additional support or protection.



photoby:UMAS.edu_stake_damage.jpg

A single stake, on the side of the prevailing wind, may suffice for a small tree. However most trees should be staked by placing two 2" x 2" stakes at least one foot away from the tree, to prevent damaging any roots while inserting the stakes (preferably in the prevailing wind patterns). Tie the tree firmly to both stakes using either a wire inside a garden hose (to protect the bark from rubbing against the wire) or by using a stretching plastic tape.

Large trees may need to be held in place with three guy wires. Attach the guy wire (inside a garden hose) approximately two thirds up the tree trunk. Stake the guy wire on a 45 degree angle at least two feet away from the trunk. Guy wires can be a hazard; they may trip you as you walk by. Be sure all guy wires are visible, and do not create an unsafe condition, or public safety hazard.

photoby:northwoodlands.org_girdling.jpg

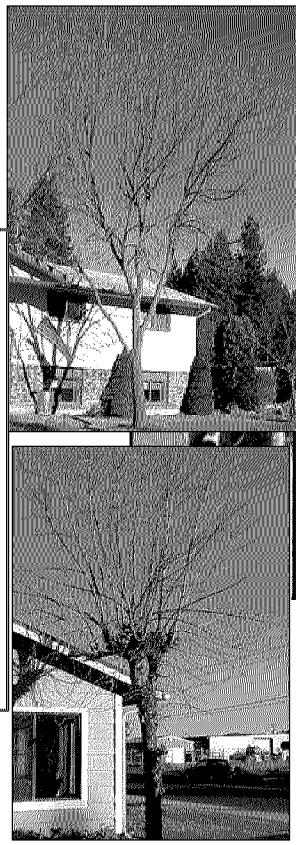
Remove all the stakes and wire as soon as the tree has grown enough roots to support itself; maximum one year. If it is determined the stake needs to remain another 6 months to a year; 1. remove all tie materials, 2. evaluate the stake's condition, and 3. re attach the tie materials to the tree. This allows for any increase in growth, and prevents possible girdling or abrasion to the same location. The sooner the

Mulch Guidelines

stakes are removed, the sooner the plant can develop a strong trunk and root system. A major hazard of staking is forgetting about it. Ties left in place might eventually girdle the trunk or delay its development.

9. **Mulching.** Place 2 to 4 inches of mulch over the planting site. Avoid direct contact between the mulch and the trunk of the tree. This will prevent root rot, diseases, and insect and rodent problems. No flowers or other vegetation should be planted around newly planted trees. Mulch should be re-applied as necessary to maintain a 2 to 4-inch thick layer.
10. **Check for Moisture.** Check moisture content of the root ball weekly (until frost) to determine how much and how often to water. Soil type, drainage, exposure, weather, tree species and size, ground cover, adjoining shelter, and season are a few of the factors that will influence the frequency and amount of water needed.

    Water the new trees every day - with a hose - for the first week. ***Do not rely on sprinklers to water newly planted trees.*** After the first week, new trees need to be watered to a depth of 12 to 18 inches at least once a week, for the first two growing seasons, or until they have a well established root system. Apply at least five gallons of water per application, usually even more. Proper mulching helps conserve soil moisture, reducing the amount on water needed.



This tree has been properly pruned. Dead and dying limbs and larger limbs that were crowding other limbs have been pruned from the tree.

This tree has been improperly pruned by "topping". All the major limbs have been removed over many years. Poorly attached limbs, "suckers", grow back and create hazards.

Keep the soil around your plants consistently moist, not constantly soggy wet. During periods of drought, new trees will need more frequent monitoring to ensure they receive the proper amount of water.

11. **Maintain tree basins** and tree rings, or install adequate edging material, to keep turf and weeds out of the ring. By keeping turf and weeds away from the trunk, there is less chance of girdling or damaging the tree trunk from lawn mowing and edging.

Notes and Definitions:

Dripline: The dripline is the area located directly under the outer circumference of the tree branches. When the tree canopy gets wet, any excess water is shed to the ground along this dripline, much like an umbrella.

The most active water and nutrient absorption area is just inside the dripline plus a little beyond; not close to the center or trunk. This is where the tiny terminal feeder rootlets are located that take up water and nutrients from the soil for the tree. Trees should be watered under the dripline, not by the base of the trunk.

Total root zone area: Area within the soil profile where all the roots exist; typically the root zone of trees extends beyond the drip line. Total tree root zone radius = diameter of tree measured at 4.5' above the ground x 1.5 feet. 12" tree = 12" X 1.5' or 18' root zone radius (36' diameter) around the tree. This full root zone may extend 2 to 3 times beyond the canopy dripline.

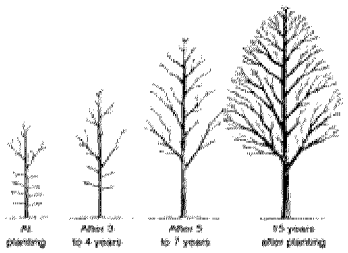


Figure 1b. A tree that is pruned when young grows into a strong, attractive tree.

photo by: OSU.edu_pruning2.png

Critical root zone: Soil area around a tree containing the roots, which provide stability and a significant uptake of moisture. In clay soils most of these roots lie in the top 12-14" of the soil. Root systems vary in depth and spread based on tree species, age, soil type, etc. The root systems of some oaks, for example, can extend well beyond the dripline. Critical root zone radius = diameter of tree measured at 4.5' above the ground x 1.3 feet. 12" tree = 12" X 1.3' or 15.6' zone radius (31' diameter) around the tree.

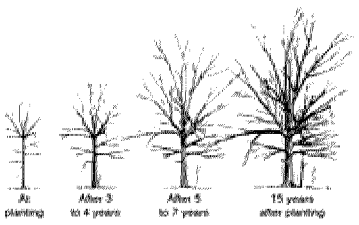


photo by: OSU.edu_pruning.png

'Mycorrhizae' are microscopic fungi that establish a symbiotic relationship with the roots of plants. Using mycorrhizae (or mycorrhizal fungi) is very effective to promote the long-term survival of a tree. Adding mycorrhizae to the soil when plant-

Draft

ing a tree will play a crucial role in the conservation of water and the health of the plant. Mycorrhizae make plants more resistant to various stresses (planting, drought, heat) and enable the tree to maintain a good growing rate.

Herbicides should not be applied in the critical root zone area of the trees. Care should be given not to disturb the roots within the dripline or critical root zone. Damaging roots in this area can cause significant tree dieback or death. Understand where tree roots actually grow because roots need oxygen, they don't normally grow in the compacted oxygen-poor soil under paved streets. The framework of major roots usually lies less than 8" - 12" below the surface. Roots often grow outward to a diameter 1 - 2 times the height of the trees.

Girdling results when a piece of bark around the circumference of a tree is removed. Because the tissue just under the bark is necessary to move water and nutrients through the tree, it has an almost immediate effect on transpiration. Plants often wilt quickly, and tissues can die within days; a tree may die within a week or two, depending on the type of tree, severity of the damage, and the climatic conditions.

A large, or wide vertical wound is less damaging to a tree, than even a very small. horizontal wound; especially one that extends around most, or all, of the entire diameter of the tree.

Recovery becomes less likely as the amount of horizontal bark damage increases. A tree may show little or no damage when 25% of its diameter is girdled, it may show significant damage when 50% is girdled, it may live but have a slow death when 75% of the trunk is girdled, and it has little or no chance of recovering when girdled 100%.

Most girdling can happen when a weed trimmer, or lawn mower, accidentally strikes the trunk, or when tying materials becomes too tight; both above ground on the trunk, and below ground on the root flair or crown. Tree girdling also occurs when deer or small rodents chew on the tree bark.

Although it is possible to repair the damage, it is usually not feasible. Repairs must be done immediately, and only those with experience in grafting techniques know how to do it. Tree management techniques such as bridge, approach, or patch grafting may help the tree recover, if they are done in timely manner. Most often, the tree just slowly dies.

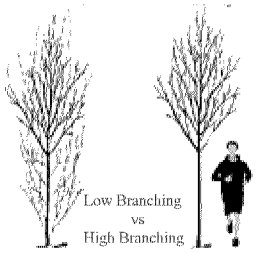
To avoid mechanical damage, it is a good idea to mulch around trees to keep grass and weeds away from the trunk. .

General Standards for Tree Pruning

Pruning is the most common tree maintenance procedure. Although forest trees grow quite well with only nature's pruning, landscape trees require a higher level of care to maintain their safety and aesthetics. Pruning should be done with an understanding of how the tree responds to each cut.

Improper pruning can cause damage that will last for the life of the tree, or worse, shorten the tree's life.

1. Trees must not be pruned in a way that will endanger their health.
2. All tree maintenance work on public trees shall be performed in accordance with the latest revisions of ANSI A300 and ANSI Z133.1 Standards and as further detailed in the ISA Best Management Practices Tree Pruning.
3. Homeowners or other persons unfamiliar with the standards of tree pruning should review the United States Department of Agriculture's pamphlet How to Prune Trees.
4. It is recommended that all public deciduous trees on improved properties should be pruned on a rotational basis of not more than 7 years.
5. Any public tree which because of habit of growth, age, condition or disease becomes a public nuisance or hazard to public safety or obstructs a clear view of streets, signs, signals or intersection, creates a hazard, shall be maintained in a manner that corrects the problem or should be removed as determined by the City.
6. When dead or broken limbs over two inches in diameter endanger the public or property, they must be promptly and properly removed. It is not necessary to get authorization prior to the work when the pruning is needed immediately for safety.
7. Remove sprouts and suckers growing on the trunk to at least 8 feet above the ground.
8. Hanging limb and branch growth shall be maintained 14 feet above streets and 8 feet abo sidewalks.
9. Property owners are responsible for pruning their private trees from obstructing public rig of-way and all signage to the minimum height clearance required by city ordinance and t document. Line clearance around power lines shall be performed only by crews emplo



by or contracted with Centerville's Electric Utility Company.

10. Authority to prune street trees does not include the cutting back of sound, healthy tree branches in excess of 6 inches outside diameter, unless specifically described by the City, or if required by accepted arboricultural standards in the course of utility line clearance work and is coordinated with the City.
11. Tree branches shall be removed and controlled in such a manner as not to cause damage to other parts of the tree, other plants, and property.
12. Clean-up of branches, logs or any other debris resulting from a tree pruning or removing shall be promptly and properly accomplished. The work area shall be kept safe at all times until the clean-up operation is completed. Under no condition shall the accumulation of brush, branches, logs, or other debris be allowed upon a public property in such a manner as to cause a public hazard.
13. The use of climbing spurs or gaffs shall be permitted only in the case of tree removals or in aerial rescue emergencies.
14. Under no conditions shall it be considered proper to leave severed, or partially cut limbs, in a tree after the workers leave the scene of operations.
15. To protect the future welfare of the tree, any severing of the roots of a street tree must have prior approval from the City.
16. Topping is an unacceptable arboriculture practice and is prohibited on public trees.
17. Make all final pruning cuts in a way that encourages natural callus growth to cover the wound. Do not use "wound paint."
18. Make all final pruning cuts in a way that prevents the bark and wood from tearing back.
19. Use sharp and clean tools. Disinfect tools according to known pruning standards when working with trees that have infectious disease. Do not start working on a similar tree with a know infectious disease before completely sterilizing all pruning tools and equipment.

Follow the 1/3 and 1/4 Rules of Pruning. Never remove more than 1/4 of a tree's crown in a season. Where possible, encourage side branches that form angles that are 1/3 off vertical (10:00 or 2:00 positions).

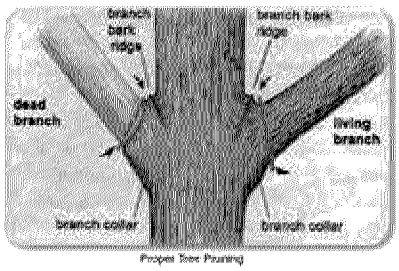
For most species, the tree should have a single trunk. The main side branches should be at least 1/3 smaller than the diameter of the trunk.

Ten Pruning Myths

1. All pruning should only be done during the dormant season.
2. A tree can bleed to death if you prune it at the wrong time of the year.
3. A large shade tree, and an overhead utility line, can usually coexist peacefully without much trimming.
4. All large cuts should be treated with a pruning seal.
5. Pruning, by itself, will keep a tree or shrub in bounds.
6. Pruning slows growth.
7. A good pruning job should be obvious.
8. Pine trees can be cut back hard, just like deciduous plants and shade trees.
9. Large limbs should be cut so that they are flush with the trunk.
10. Plant diseases cannot be spread through pruning tools.

How To Prune Trees

Excessive pruning can have adverse effects.
No Pruning can be just as bad as Excessive Pruning.
It is an 'Art' to learn just the right amount of pruning.



Proper Tree Pruning

Proper pruning is an important part of caring for and protecting the health of trees. In fact, many tree care professionals recommend that homeowners start early and continue proper pruning practices throughout the life of a tree.

Pruning is an art, not an exact science. Even though there are principles, guidelines, and steps to prune correctly, there is not just one *'best way'* to prune a tree or shrub. There can be many different *'good ways'* to prune. Unfortunately, trial and error is usually the best teacher. Be comforted, plants are forgiving. If you make a mistake, you can usually correct the error by pruning correctly in the future.

There are three main reasons to prune a tree.

First, trees should be pruned to increase the safety of people and property. Remove dead and broken branches, and

eliminate structural problems.

Second, trees should be pruned to increase the health of the tree. Stimulate new growth. Thin fruit crops. Remove potential insect and disease problems.

Third, trees may be pruned to help the aesthetic look of the tree. Remove unsightly branches and excessive growth. Control the overall shape of the tree. Unfortunately, the overall size of the tree will be determined by genetics, not usually by pruning methods.

It is important to always prune a tree for the right reason.

When pruning a tree, it is critical to make the pruning cuts properly. Cutting too close to the trunk can cause long term problems that can affect the structural strength of the tree. However, pruning too far from the trunk, leaving a stub, prevents the tree from sealing off the wound. This provides an area for decay, insects, disease, and etc. to enter the tree. See the diagrams on this page showing how to properly make a pruning cut on an ornamental tree.

Wound Dressings

Wound dressings were once thought to accelerate wound closure, protect against insects and diseases, and reduce decay. However, research has shown that dressings do not reduce decay or speed closure and rarely prevent insect or disease infestations.

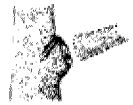
Most experts recommend that wound dressings not be used. If a dressing must be used for cosmetic purposes, then only a thin coating of a nontoxic material should be applied.

Be safe when pruning trees. When trimming or pruning trees, make sure to check for power lines in or near the tree's branches. Never try to remove branches that are tangled in a power line. This is very dangerous and should only be done by a certified professional. If one of your trees has branches tangled in power lines, call ??????. They will be happy to take care of them for you.

Remember the 10 Foot Rule: keep yourself and anything you are handling at least 10 feet away from overhead power lines.

Do's and Don'ts of Pruning

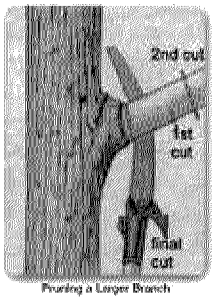
1. Cut branches on a 45 degree angle with the top towards the bud or branch you want to become the leader. Do not cut on too steep of an angle. Stay 1/8" away from the bud. Pruning on an angle allows water to drain off the surface, and helps the cut heal.
2. Cut close to a bud, cross branch, or crotch. **Don't ever leave a stub.**
3. Don't cut too close to the bud or trunk, or you may damage the tissue. Stay 1/16" away from the top of the branch and 1/8" away from the bottom.
4. Hold pruners right-side up while cutting close to the trunk, to avoid leaving a stub.
5. Make clean cuts. Don't leave ragged edges on a branch, or strip bark from the plant. If needed, use a knife to make a smooth edge out of a ragged cut. Ragged cuts take longer to heal than clean cuts.



Pruning cuts should be made just outside the branch collar.

On a dead branch that has a collar of live wood, the final cut should be made just beyond the outer edge of the collar

6. Use the three cut method to remove large limbs. *1.* Make the first cut three to six inches from the trunk. Saw up through the branch 1/3 of the way or until the weight of the branch begins to bind the saw blade. *2.* Make the second cut one or two inches further away from the trunk than the first cut. Saw from the top until the branch falls off the tree. *3.* Make the third cut next to the tree, following all the correct pruning procedures.



Pruning a Longer Branch

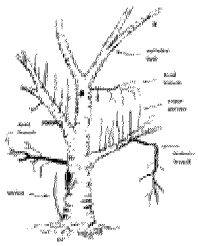
7. Wound dressings were once thought to accelerate wound closure, protect against insects and diseases, and reduce decay. However, research has shown that dressings do not reduce decay or speed closure, and rarely prevent insect or disease infestations. Trees and shrubs have natural ways of healing and sealing cuts by themselves.

However, if the tree has major damage, the pruning paint can help prevent insects or diseases from entering the wound, then the tree can heal itself as best it can.

If a dressing must be used for cosmetic purposes, then only apply a thin coat of a nontoxic material.

8. **Do not ever "Top" a tree.** Prune and shape the tree regularly to prevent the need for drastic pruning. (Learn about 'Drop-Crotch Pruning' as an alternative to 'Topping')
9. Prune to control the direction of new growth. The top bud is always the dominant leader. Pruning determines which bud will become the leader.
10. Try to thin the branches and to open up the tree rather than to create a dense canopy.
11. Sterilize pruning equipment before moving from one tree to another. If your tree has a disease, make sure to sterilize your equipment between every cut, so you don't spread the disease. Diseases can be easily transmitted by pruning equipment.
12. Fertilize trees, but reduce the amount of fertilizer if you are trying to reduce the tree's size, or if you want to slow down its growth. Reducing the amount of water also slows growth.

13. Prune trees twice a year if needed. 'Summer Pruning' can be very effective.



Steps of Pruning

1. Remove all Dead, Broken, or Diseased branches. (no choice, they have to go)

2. Remove crossing or parallel branches (leave the best one).

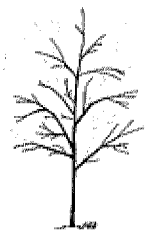
3. Remove branches or twigs growing too close together. (try to space them equally)

4. Remove branches that grow back toward the center of the tree. These limit the light that reaches the fruit. Fruit that receives sunlight is more flavorful than fruit that is shaded. (Cherries at the top of your tree, the ones that the birds eat, are bigger and sweeter than the cherries in the middle of the tree.)

5. Remove branches with weak crotches (smaller than 45 degrees or larger than 90 degrees). If a branch with a weak crotch must remain, either brace it, or train the branch to form a stronger crotch angle.

6. Remove all suckers (water sprouts) as soon as you see them; anytime of the year. If you are trying to correct, or restore a tree's shape, you may need to leave a sucker, but make sure to head it back so it is only about 12" to 18" long. Do not ever leave a sucker it's full length.

7. Remove a few of the main branches of the tree each year if you need to thin the tree, or if you want to lower the height of the tree. Do not remove more than one-third of the total tree in one year. Take two or three y the tree size rather than trying to do it all in one year. ***'Drop Crotch' your tree: don't ever 'Top' your tree!***



8. Thin and shape the tree as required to maintain its proper appearance. The way you prune may vary according to the type of tree, and location of the tree.

Stand back and look at your tree. Ask yourself, "What should the tree look like?" and, "What do I want the tree to look like?" Hopefully the answer to both of these questions is the same.

If the plant is too dense, remove a few of the branches to 'open it up', but make sure the plant is uniform. If the plant is too tall or too wide, thin some of the branches part way back, but keep the plant uniform.

Stand back and look again. What has changed? Does it look better or worse? Repeat this step until you are satisfied with the results.

When do YOU prune?

The best time of year to prune is 'RIGHT NOW', whatever time of year it is; if the plant has a problem.

Try to avoid pruning during the flush of spring shoot growth and during the fall, just prior to dormancy, but trees can be pruned any time throughout the year for safety-related issues.

Preventative pruning, and major pruning, should be done early in the spring, while the plant is dormant. Minor pruning, shaping, and trimming can be done all summer as needed. Don't prune plants too heavily in the fall, when plants are getting ready for winter. Wait until the plants actually go dormant before pruning them. 'When to prune' depends, to a large extent, on why you are pruning.

Dormant season pruning stimulates new vigorous growth. It is a great time to visually see the tree's structure and make the necessary changes. It is the best time to prune young trees, and to correct major problems in older trees. It helps the tree produce new branches, and healthy new growth in the spring.

Summer Pruning has several advantages.

1. Pruning during the growing season does not stimulate as much new growth. Some plants benefit more from summer pruning than from dormant pruning, especially if a lot of new growth is not wanted. Espaliered and bonsai trees are some types of trees that should be pruned during the summer. Other trees (apple trees for example) benefit from being trimmed twice a year; dormant pruning to control the shape, and summer pruning to control the size, and to remove the suckers.

2. Reducing the canopy size, by pruning in the summer, reduces photosynthesis, thereby reducing the capacity for new growth the following spring.

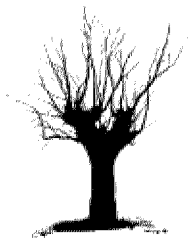
3. Pruning is easier in nice, warm weather than in cold, winter weather, which means it is more likely to be done.

Basic 'summer-only' pruning is: Cut the new growth by half in mid-spring and then half again in mid-summer. Do not prune heavily in late-summer or early-fall, because this may stimulate an unwanted spurt of growth that will be tender, and may suffer from winter injury.

Late-Fall Pruning helps to prevent damage from heavy snowfalls. Fall pruning also helps eliminate unwanted insect and disease problems. Major fall pruning should be done after the tree is completely dormant, so you do not stimulate any new growth that could be prone to winter injury.

Some trees will bleed sap if they are pruned in the spring. This sap loss is not usually harmful, but it may invite insect or disease problems. Prune trees that bleed either in the late-fall, or during the winter. Maple trees, birch trees, beech trees, dogwood trees, willow trees, grapevines, and some flowering trees will bleed if you prune them in the spring.

Don't Top Trees!



Tree topping is exactly what it sounds like. It's when you indiscriminately cut the top of a tree off, which reduces the tree's remaining top branches to stumps. As a result, your tree is left with weak, unstable limbs and a bare, unnatural appearance. Also, your tree is much more likely to produce new upright, 'sucker' branches that are prone to breaking and may become a hazard.

Many people mistakenly "top" trees because they grow into utility wires, interfere with views or sunlight, or simply grow so large that they worry the landowner.

The topping process is often self defeating. Ugly, bushy, weakly attached limbs usually grow back higher than the original branches, but the tree will lack its original form. Proper pruning removes excessive growth without the problems topping creates. Many arborists say topping is the worst thing you can do for the health of a tree. It starves the tree by drastically reducing its food-making ability, and makes the tree more susceptible to insects and diseases.

If removal of main branches is necessary, cut them back to where they are attached to another large branch, or completely back to the trunk. Do not leave a stub.

The Bottom Line?

Tree Topping reduces the real estate value of the tree by 20 - 100 percent. A correctly trimmed tree increases in value as it matures. Tree topping is never a justifiable pruning practice; it increases tree health problems and is aesthetically unappealing. A topped tree will require constant maintenance, and will have an increased potential to become hazardous. Hazardous trees are a liability, and ultimately the property owner is responsible for any damage a hazardous tree causes. If problems caused by a tree cannot be solved with acceptable pruning practices, the tree should be removed, and replaced with plant material more appropriate for the site.

Can topping be corrected?

A professional arborist can improve the condition of a tree, even after it's been severely topped, and shows heavy sucker regrowth. As the sucker growth begins to gain caliper, they can be selectively "thinned out" and shortened. New growth can also be directed outward to reshape the crown. This process will need repeating for several years. However, the scars, both physical and visual, will never completely disappear.

Alternatives to Topping

photo by: IMG-1154.JPG

Side-Pruning This pruning technique is useful when a tree is planted too close to a house or too close to power lines. Careful pruning can direct the tree away from one side to the other side, without creating a lopsided or unsightly tree. By thinning the tree rather than just heading back the branches you can avoid a hedge-like canopy.

Under-Pruning This pruning technique can be used for trees planted too close to sidewalks, to allow pedestrians to walk under the tree. Additional crown thinning can help keep the tree looking natural. Be sure to maintain the tree's symmetry by removing the lower branches on all sides of the tree.

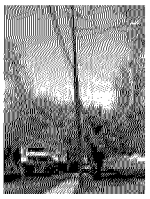
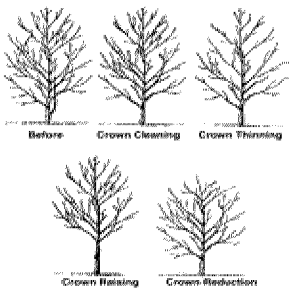


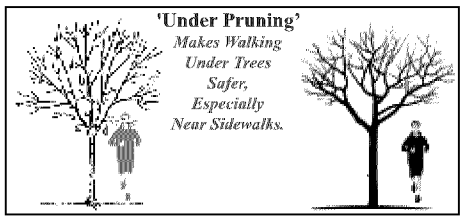
photo by: IMG-1764.JPG

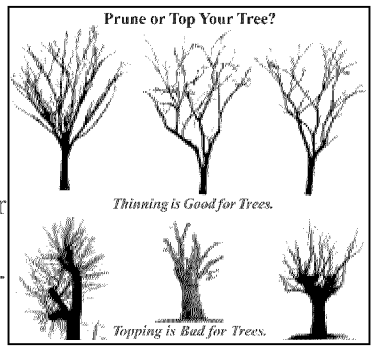
Through-Pruning This pruning technique sometimes creates a "dough-nut hole". This type of pruning allows large trees, that have been planted under telephone lines, to maintain some of their natural appearance. With proper limb selection, the tree can be opened without creating an unsightly tunnel appearance.

Drop-Crotch Pruning Through the use of drop-crotch pruning, tree size and shape can be reduced without weakening the tree or creating an eyesore. When done correctly, drop-crotch pruning is virtually unnoticeable.

Drop-crotching is a pruning method that combines thinning out the crown of the tree and reducing its height and spread at the same time. Remove several inside branches right at the tree trunk. Do not just lop off large perimeter branches. Prune the large perimeter branches at their junction with the shorter, but still large diameter, side branches. Do not remove the large branches next to small branches or suckers may begin to take over. If a strong leader remains dominant, the tendency for the tree to produce suckers is greatly reduced. Try not to remove more than twenty to thirty percent of the total tree in one year.







Summary

Prune fruit trees when the leaves are off. It is easier to see what you are doing, and it invigorates the tree. Summer pruning is beneficial to slow down overly vigorous plants, or large trees that you are trying to restore.

Prune spring blooming trees and shrubs after they finish blooming. Prune summer blooming trees and shrubs during the winter, or early spring, while they are dormant.

Prune trees that bleed in the late-Fall or early-Winter: Maple, Birch, Elm, Dogwood.

Prune trees regularly the first few years, so you don't have to prune them every year when they get older.

Make clean cuts, don't leave stubs.

Learn when to use thinning cuts versus heading cuts.

Remove all dead and diseased branches. Remove, or cut back and support, broken branches.

Remove suckers and competing branches that make the tree overly dense. Try to get the sunlight to the center of all fruit trees; it sweetens the fruit naturally.

Choose strong branches, those which have a 45° to 60° degree angle. Remove, prop up, or train branches with a bad angle, or growing in the wrong direction.

Do not remove more than 25% of the plant in one year. Take 3 to 5 years to reduce the size of the plant.

Never 'Top' a Tree. Always, always use the 'Drop Crotching Method' to reduce a tree's size.

Deadhead roses, and trim grapevines during the summer.

Regular maintenance trimming, or preventative pruning, should be done whenever it is needed; all summer.

Use the right tool for the job.

No pruning can be just as bad as improper pruning; take a few minutes and learn how to prune the plants in your yard. Not all trees and shrubs should be pruned at the same time, or in the same way.

Breaking The Rules:

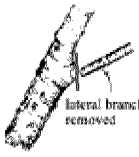
Sometimes you just have to prune your tree to fit it's situation, even if it breaks all the guidelines and rules of pruning.

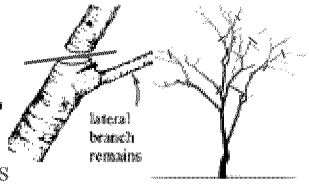
Occasionally, the best solution for a tree planted in the wrong location, or one that is out of control, is to completely remove the tree, rather than trying to prune it back to your desired shape and size.

If you do have to 'break-the-rules', make sure you at least follow the basics; make clean cuts, don't leave stubs, and monitor the tree carefully for the next several years.

Draft

Pruning Definitions:





Thinning Cuts Completely removes entire stems, limbs or branches. Thinning allows sunlight to reach the center of the plant. Thinning also redirects energy to the remaining branches, instead of stimulating new growth, side shoots, or suckers; it maintains the natural apical dominance in the branch.

Heading Cuts Partially removes stems and branches. Pruning cuts are in the middle of branches, next to side branches, or next to buds that will direct the new growth the way you want it. Heading cuts promote thicker branching, which produces a fuller canopy. They can have a tendency to stimulate suckering, unless a dominant leader is left; it removes any natural apical dominance the branch previously had.

Shearing Cuts Removes as much of the branches and stems as desired. You make indiscriminate pruning cuts on all branches and stems, not taking into consideration any side branches or buds. Shearing should only be used for hedges, and shrubs, where dense, thick branching and foliage is desired.

Pinching One of the easiest "cuts" to make, you simply pinch off a bud with your thumb and forefinger. Pinching stops the stem from elongating and encourages bushy growth. It's effective for directing growth on small shrubs and pine trees, to give the plant an even-looking shape.

Crown cleaning. Crown Cleaning shall consist of the removal of dead, dying, diseased, crowded, weakly attached and low-vigor branches from the crown of a tree.

Crown thinning. Crown thinning shall consist of the selective removal of branches to increase light penetra-

tion and air movement through the crown. Thinning opens the foliage of a tree and reduces weight on heavy limbs. Thinning enhances and protects a tree form typical of the species of tree being pruned.

Crown raising. Crown raising properly removes the lower branches from a tree to provide clearance for buildings, vehicles, pedestrians and vistas.

Crown reduction. Crown reduction reduces the size of a tree for the reduction of tree risk and clearance for utility lines. Reducing the height or spread of a tree is accomplished by using reduction and thinning cuts, as well as directional pruning.

Crown restoration. Crown restoration attempts to repair damage to a tree canopy caused by storm injury or improper pruning such as topping. It requires multiple entries and treatments to a tree canopy over multiple years.

Root Pruning

The root system of a tree is one of its most important physiological components. Roots are the main source of water and mineral absorption for the tree, they provide anchorage and stability, and they act as one of the principal storage areas for food. The proper pruning of a tree's roots is as important as the proper pruning of a tree's crown.

Whenever possible, the City shall avoid removing any of a tree's root system. In instances where there exists a need to install subsurface structures or utilities, such as irrigation lines or block wall footings, every effort shall be made to avoid encroachment within the drip line of a tree. If it becomes necessary to excavate within a tree's drip line, every effort shall be made to tunnel under or through the tree's root system with a minimal amount of pruning, rather than to trench across the tree's roots.

Selective Root Pruning is the removal of specific offending roots which are directly interfering with a work area. When pruning out selective roots, great care shall be given to retain as much root surface as possible, including sufficient buttress root dispersal around the radius of the tree. No more than one third (1/3) of a tree's root system shall be removed. Roots shall be cut back at least four (4) inches away from new hardscape to the nearest node. Pruning cuts shall be made clean and smooth with no crushing or tearing of the remaining root.

Root Shaving is the removal of a small portion of a nonessential buttress root or general root with a diameter of four (4) inches or greater. Roots will be shaved down to allow for at least two (2) inches of clearance between the root and the new hardscape. No more than one third (1/3) of a root's diameter shall be shaved off. Shaving cuts shall be made clean and smooth with no crushing or tearing of the remaining root.

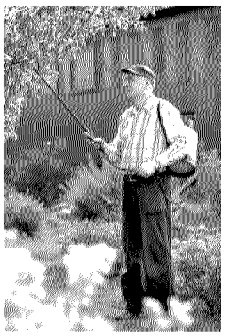
Soil shall be backfilled immediately following pruning or shaving activity to minimize drying of the roots. Any root pruning or shaving on roots greater than two inches (2") in diameter shall be approved by ???.

Centerville City must approve removal/pruning of roots greater than two inches in diameter within the dripline of a street tree. All root pruning within the critical root zone must be overseen or directed by ?

Spray Applications

The following specifications pertain to the spray application, soil application or injection of fertilizers, pesticides or growth inhibitors to the above ground portions of trees or roots, or within the Tree Protection Zone (TPZ).

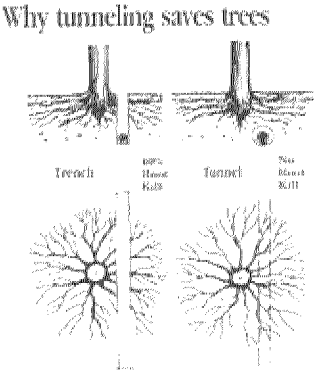
1. Applicators applying chemical pesticides to public trees shall adhere to all federal and state laws and regulations pertaining to pesticides and their application.
2. Persons applying pesticides on street or park trees must have a current commercial or non-commercial pesticide applicator's license and shall observe all safety requirements pertaining to licensed pesticide applicators including: EPA and the State of Utah regulations for the application of pesticides.
3. The pesticide applicator shall know and understand the capacities and safety precautions of those materials used by either himself or his employees and be aware of those recommendations stipulated by the manufacturer.
4. Ineffectual control, damage, injury, or death of plants, animals, or persons resulting from the use of materials beyond the limitations of the manufacturer's guarantee shall be considered the responsibility of the applicator.
5. If a spray machine is not capable of giving proper spray coverage to all portions of the infested or partially infested tree being treated, it shall be considered inadequate to perform such operation.



6. Spray equipment shall be kept clean and in good working order. It shall not be permitted to perform chemical application with dirty or contaminated tanks or equipment.
7. Operators shall properly dispose of excess chemicals, including rinse water, in accordance with federal and state laws and regulations. Unsanitary or unsafe methods of washing out or draining tanks and equipment into public

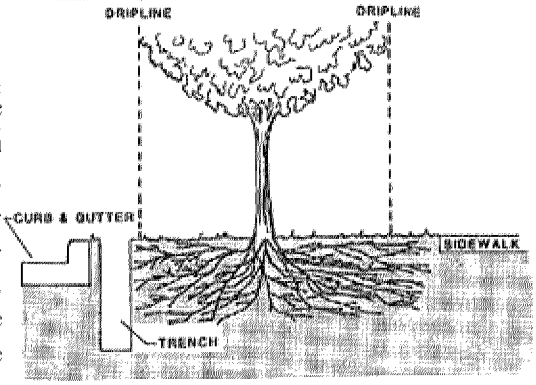
sewers and gutters is prohibited.

8. No spray application shall be carried out when the temperature is outside the range of 40-88 degrees F. or when the wind velocity is sufficient to make pesticide control ineffectual, or create an overspray hazard to persons, plants or property.
9. All spray machines other than hand-pump sprayers must have agitators capable of maintaining a uniform spray suspension at all times when spray application is in progress.
10. Adequate precautions shall be taken in all phases of spray application concerning factors of toxicity, phytotoxicity, chemical reaction, or residual action pertaining to spray material used. in order to minimize the chances of toxicity or phytotoxicity to non-target species.



11. Pesticide applicator shall post a sign visible from the right-of-way no less than 24 hours before the pesticide application. The sign shall be dark lettering on a yellow background, at least one foot square in area and indicate the pesticide(s) applied.
12. Applicators applying pesticides to trees shall adhere to all state and federal regulations pertaining to pesticides and the safe and unobstructed passage of vehicles and pedestrians.
13. Applying fertilizers and pesticides for pay is considered as commercial pesticide applications and does require a current license for such from the Utah State Department of Agriculture.
14. Where applicable, standards outlined in the ISA Best Management Practices Integrated Pest Management booklet should be followed.

Trenching and Tunneling



- Medium to Large Trees: When the dripline of trees becomes extensive or overlapping, the only reasonable means of utility installation on the public right-of-way is a combination of trenching and tunneling. This applies particularly to trees in excess of five (5) inches in diameter. All trees in excess of five (5) inches in diameter where there is insufficient space to bypass the dripline by trenching must be tunneled. In no case shall the tunnel be less than two feet in depth. When the tunneling procedure is required, the Distance of the tunnel from the face of the tree is determined by the diameter of the tree 4 feet from the ground line. Unless specified otherwise by the City Arborist, all dimensions apply as illustrated in Figure 4 with the accompanying table.

Since the cutting of larger roots is unavoidable in a trenching operation, all roots over two (2) inches in diameter must be· cut cleanly and painted with an appropriate tree wound dressing. All trenches should not stay open longer than necessary and must be properly barricaded.

Trenching Small Trees: Open trenching in the root zone area of a public tree is prohibited except in cases where the trenching falls outside the dripline of the tree involved (Figure 3). In some in-stances, exceptions may be allowed if in the opinion of the City Arborist the impact of trenching upon the tree will be negligible.

Construction Management

Construction damage associated with new development taking place around existing trees can be detrimental to those trees in a number of ways. The following construction specifications shall be observed to preserve and protect existing or native trees located on a site that is planned for development.

General Site Evaluation. As part of the environmental review for a location planned for development, the Community Development Department shall consult the Community Services Division on the appropriate measures to take regarding trees existing on the project site. Community Services and Community Development staff are to identify which trees to remove and develop an appropriate mitigation plan. In addition, staff shall develop a plan to protect all trees that are to remain. Division staff shall also examine site access and traffic route considerations, excavation limitations, appropriate locations for the piling of soil and debris, and the storage of equipment and vehicles as each of these activities pertain to trees on the project site.

Protective Fencing. Temporary, protective fencing shall be installed around any existing tree that is to be preserved

on a project site. This fencing must be made of a material that has high visibility, such as fluorescent-colored, and must be posted at regular intervals around the tree. This fencing shall be placed at a minimum distance of fifteen (15) feet from the trunk of the tree or five (5) feet outside the drip line of the tree, whichever distance is greater. No activity shall take place within this fenced in area.

Construction Mulching. If division staff determines that traffic encroachment within the drip line of a preserved tree is unavoidable, then a six (6) to twelve (12) inch layer of temporary mulch shall be placed over the affected area to disperse the weight of traffic and equipment. Additional weight dispersal and mobility may require the placement of large plywood sheets over the mulched area. Construction mulching and plywood must be removed carefully, so as not to damage the tree, as soon as the required activity within the drip line of the tree has been completed.

Excavation Requirements. Whenever possible, services such as water lines and utilities shall be routed around the drip line of trees that are being preserved on a site. If division staff determines that excavation within the drip line of a preserved tree is unavoidable, then every effort shall be made to tunnel under or through the tree's root system with a minimal amount of pruning, rather than to trench across the tree's roots.

All root pruning shall be in accordance with the Maintenance Guidelines established for such activity in this manual.

Grade Changes. A change of grade around a tree, even well outside of a tree's root zone, can have serious impact on the tree due to reduced aeration or poor drainage. Division staff shall recommend that development specifications include requirements for mitigating such impacts to trees that are to be preserved on a project site based upon the type of grade changes that are to be implemented, tree species, drainage patterns, soil conditions and future irrigation and maintenance plans. Division staff shall employ the following mitigation measures whenever feasible:

Raised Grades. If a grade around an existing tree is to be raised with a backfill less than six (6) inches in depth, then division staff should consider vertical mulching as a mitigation measure. If a grade around an existing tree is to be raised more than six (6) inches, then division staff should consider specifying the construction of a tree well as a mitigation measure.

Lowered Grades. If a grade around an existing tree is to be lowered along the side of its root zone, then division staff should consider specifying the construction of a terraced dry wall as a mitigation measure. If a grade around an existing tree is to be lowered along all sides of its root zone, then division staff should consider specifying the construction of a tree island as a mitigation measure.

Diagrams and specifications for each of these mitigation measures are included in the Appendix of this manual.

Hazardous Trees

Responsibility for Correcting Private Hazard Trees. Where a hazard tree (see definition) exists upon private property, the property owner and all other persons having control of the property on which such hazard tree exists shall be responsible to mitigate, abate, remove, or correct the hazard. Any tree that is a hazard tree is a public nuisance.

1. It is unlawful for any person, firm, or corporation, either as owner, agent, or occupant, to create, aid in creating, or maintain a hazard tree.
2. If the City determines that a particular tree is a hazard tree, the City may give a written notice to the owner, occupant, or agent of any lot, building, or premises in or upon which a hazard tree is found, or to the person who may be the cause of such hazard tree to remove, mitigate, abate, or correct the hazard, including its recommendation as to the most effective method of doing so.
3. Notice under this Section may be served by personal service or by mailing the notice to the person, firm, or corporation by certified mail (return receipt requested), and posting a copy on the property a minimum of 28 calendar days in advance of further action.
4. If the hazard tree is not mitigated, abated, removed, or corrected within 28 additional calendar days after the notice is complete, the City may mitigate, abate, correct, or remove the hazard tree at the expense of such person, firm, or corporation or may take further action as determined.
5. The City may recover the costs and expenses incurred in mitigating, abating, correcting, or removing the hazard tree, serving notice, and the costs of a lawsuit, if any.
6. If the person, firm, or corporation disputes or denies the City's determination that the tree is a hazard tree or refuses to remove or permit removal, the City may bring an action to abate the hazard tree as a public nuisance. If the City is granted a judgment, the City may recover the costs of having the public nuisance abated.
7. The City, its agents, or employees, if acting in good faith, incur no liability for causing removal of a hazard tree.
8. Notice of appeal of the City's determination that a tree is a hazard tree may be filed with the ??? within 10 working days of service of the notice to abate.

Appeals from the ?? decision shall be heard by the City's Parks & Recreation Director or Public Works Director within 15 calendar days of receipt of the appeal, which decision is final.

Tree Service Requirements

If you are a tree service provider, it is your responsibility to read and understand this manual.

Registration Requirements for Tree Service Providers

Tree Service Providers (SMC 15.43.050): Code requires that any contractor who performs pruning on street trees register as a tree service provider. SDOT Urban Forestry maintains an online registry of tree service providers who meet the requirements described below. Contractors who are able to meet the following criteria are eligible to register:

Have a State of Utah General Contractor's License

Have a City of Centerville Business License

Provide proof of commercial general liability (CGL) insurance that names the City of Centerville as an additional insured for primary limits of liability, with a minimum of $1,000,000 in coverage

Identify at least one employee who is a credentialed ISA certified arborist or ISA Certified Tree Worker who is responsible for supervision of street tree pruning

Affirm that the Tree Service Provider has read and understands the following documents:

- Centerville Street Tree Ordinance
- Centerville Standards and Specifications Manual
- ANSI – A-300, Pruning Standards, and

Every contractor hired by the City to do tree work shall

Agree to perform all tree work according to the City Arborist's specifications and to follow the guidelines established in this Tree Policy Manual.

Provide the City Arborist with the name and on-site phone number of each of its designated Crew Leaders for each day of work.

Ensure that its Crew Leaders remain on site to supervise all work while it is being performed.

Recycle green waste as directed in their contract.

Have a valid State Contractor's license for tree work.

Provide Worker's Compensation to their employees

Provide equal opportunity employment.

Have appropriate liability insurance.

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APPENDIX

Preventing the Spread of Disease. Any pruning of diseased trees shall follow the best horticultural practices, including sterilizing pruning tools after each cut. Green waste infected with disease shall not be comingled with clean green waste and shall be heated to kill pathogens.

Site Cleanup. Work areas shall be left in a condition equal to or better than that which existed prior to the commencement of forestry operations. All debris shall be cleaned up each day before the work crew leaves the site, unless permission is given by the City to do otherwise. All lawn areas shall be raked, all street and sidewalks shall be swept, and all brush, branches, rocks or other debris shall be removed from the site.

Street Tree Watering Recommendations

Newly planted trees, including drought tolerant species, are dependent upon supplemental irrigation until established, typically for two to three years. Periods of extreme heat, wind or drought may require more or less water than recommended here.

The method and amount that is applied may vary depending upon soil composition, heat, wind, planted in turf or ground cover, periods of abnormal rainfall or in poorly drained soils. The watering of street trees should follow these guidelines:

Frequency:

New trees

During the establishment period (1-3 years) trees should be watered thoroughly to their root depth as frequently as

needed. With
each watering, the recommended amounts are 5 gallons per caliper inch.
The minimum standards should be as follows:

- 1-3 months in the ground: 4 times per month or as necessary
- 4-6 months in the ground: 3 times per month or as necessary
- 7-12 months in the ground: 2 times per month or as necessary

Mature, well-established trees • Once per month during irrigation/dry season (usually July through September)

Watering Methods

The following options shall fulfill the watering requirements. One or more of the following may be utilized dependent upon unique circumstances subject to SDOT Urban Forestry's determination. The options are as follows:

Automated Watering System. These systems should be designed and installed by qualified, trained irrigation technicians. A water audit should be performed to set watering patterns and timing to minimize waste.

Drip Loop system. A continuous loop of drip tubing circling around the trunk at a point two-thirds out from the trunk to the edge of the root ball (for new trees 36-inch box size and greater, a second loop of drip tubing is required at a point just beyond the rootball on native soil).

Hand watering systems. Recommended for trees that are part of a development project that must be watered to insure tree survival during the course of construction until automatic irrigation is installed.

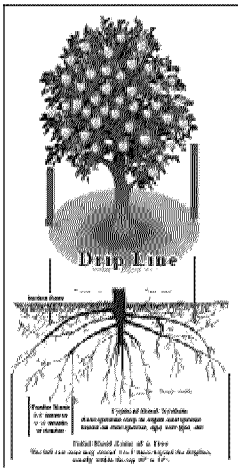
Flood watering. Newly installed trees must be 'flood or basin-watered' on top of the root ball to allow the water to infiltrate through the root zone. Subsurface injections using a hydraulic spray pump may be used (practical for use in hard, compacted soils or steep hillsides).

Soaker hose. Slow, deep watering using a garden-type soaker hose.

Watering Amount

Unless otherwise specified, the volume of water applied at each irrigation site should be in the range of 5-gallons per inch of trunk diameter when measured at 54-inches above natural grade. The final decision of whether to water or not should be based on accurate soil probe samples that are taken from the root ball.

Definitions



Drip line: The area directly under the tree's canopy where the essential mass of roots is found (refer to figure 1).

Hazard tree: A tree which has been deemed by the City as having the potential to cause physical damage to existing structures or utilities, or to be a threat to cause personal injury.

Injurious pest or disease: Organisms that are capable of seriously damaging the form, structural integrity, or life of a tree.

I.S.A.: The International Society of Arboriculture.

Heritage tree: A tree characterized by one or more of the following: having historical significance, being part of a historical site or being of a rare or unusual species/

Protective measures: Any steps taken to safeguard the appearance, health, condition, or continued viability of a protected tree. Typical examples are: physical structures limiting access to a protected tree, pruning to allow access to a site, supplemental watering or fertilization, washing of canopy to remove dust or other residues, berms or grading to prevent erosion or silting in a protected root zone, signage indicating protected status of trees or other methods as deemed necessary at the time of permitting.

Protected Tree: any tree located on public property with the City of Centerville.

Public Property: Any right-of-way, park, or other ground owned by the City of Centerville.

Replacement Tree(s): Trees required to be planted as compensation for the removal of viable, non-hazard trees..

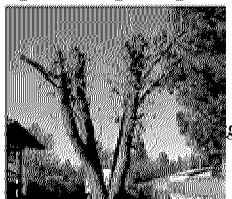
Park trees: All trees in public parks, and in all areas owned by the City, excluding those trees in the public right-of-way.

Private tree: A tree that is entirely on private property and not within city right-of-way.

Public right-of-way: Improved or unimproved public property owned by, dedicated to, or deeded to, the public or for the public's use, for the purpose of providing vehicular, pedestrian and other public use. Such public property includes, but is not limited to, streets, alleys, sidewalks, easements for public utilities, cut and fill slopes, and public open space.

Public tree: A tree that is located on city property, public right-of-way or easements within the City of Centerville.

Root barrier: A device or material designed to direct root growth mechanically or chemically.



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Street tree: Any tree with 51% of its trunk within the public right-of-way.

Tree maintenance: Measures performed to promote the desirable growth and health of a tree such as, but not limited to, watering, fertilizing, mulching, weeding, pest management, pruning and physical protection.

Tree Topping: The improper pruning and severe cutting back of limbs within a tree's crown, to such a degree so as to remove the normal canopy, and disfigure the tree, or the removal of the top portion of the trunk of a coniferous tree. (See figure 2)

Tree ring: The area at the base of the tree that is cleared of competing turf and weeds, and maintained with a mulch material (refer to figure 3).

Tree appraisal: Quantify a dollar value for a tree by using accepted national standards.

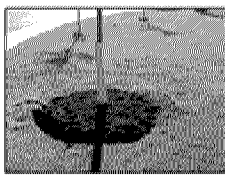

Figure 3

1. "Ground covers" are defined as any perennial evergreen plant species that does not exceed 18 inches in height at maturity and will spread to form a uniform "mat".
   "Perennial" is defined as a plant having a life span of more than 2 years.
   "Evergreen" is defined as a plant having foliage that remains on the plant throughout the year.
2. "Perennial flowering plants" are flowering plants which have a life span of more than 2 years but which become dormant each fall, losing all foliage, and generate new foliage and flowering buds the following spring and summer from the dormant root system.
3. "Annual flowering plants" are flowering plants which have a life span of only one growing season outdoors.
4. "Shrubs" are generally long lived woody plants that may be either evergreen or deciduous. They differ from ground covers in that they are generally over 18 inches tall and do not generally form a uniform mat. Shrubs shall not be planted at a spacing that will form a mass or hedge which creates a visual barrier between the street and sidewalk. The appropriate use of shrubs in park strips is as accent or specimen plants. Shrubs shall not be planted within street intersection, alley, or driveway sight distance areas. Shrubs may be planted outside sight distance areas but shall not exceed 36 inches in height at maturity

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Example of non compliance

Anyone thinking of taking down a shade tree might want to put down the chainsaw.

The city council directed city staff to step up efforts to preserve trees located along city rights-of-way, hoping to put more teeth into the city's shade tree ordinance, and to protect the greenery that they touted as a major contributor to quality of life.

Staff members raised the issue during a work meeting, pointing out that 20 to 30 trees have been downed in the past few months by developers looking to rework a newly-bought property, by business owners hoping to make their signage more visible and sometimes by residents who didn't know that some of the trees in front of their homes technically belonged to the city.

"Clearly we have people who are not aware,"

Under the shade tree ordinance, offenders can face fines and must pay to replace the tree, but the issue has often been difficult to enforce.

City Manager said the most common explanation is a lack of awareness, and businesses especially have often fought the idea they should be legally obliged to plant replacements.

In some cases, replacement costs can reach into the tens of thousands.

It has also been difficult to track every tree, making it hard to enforce the rules equally.

In some places the right-of-way stretches as much as 20 feet onto private property, making it difficult to expect residents to know, He said.

"Inventory is one of the big tools we have now to say, yes we had a tree there, this is how big it was, this was how old it was, and this was what it's worth," he said.

In addition to enforcement, awareness is key, Councilman said, advocating for a major campaign, including letters sent to businesses, landscaping companies and developers, as well as presentations to business organizations.

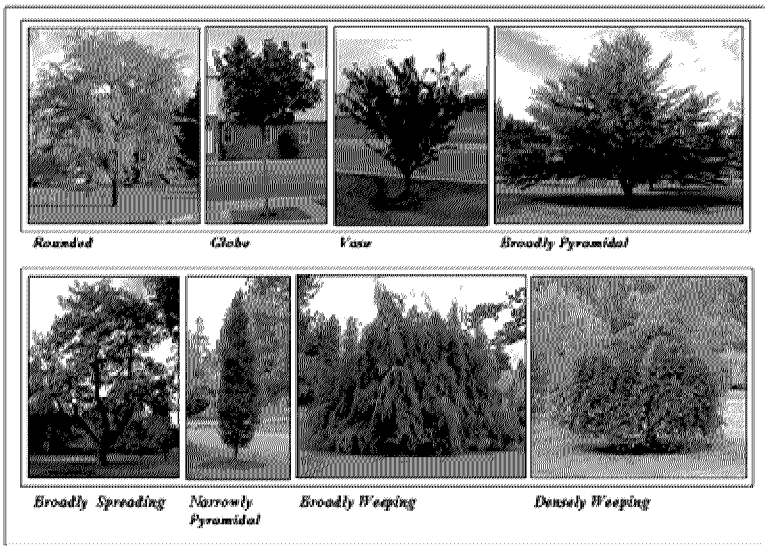
"I think our first obligation is to put the knowledge out there for the people," he said.

The council also discussed the possibility of attaching small placards or other signs to some of the older, larger shade

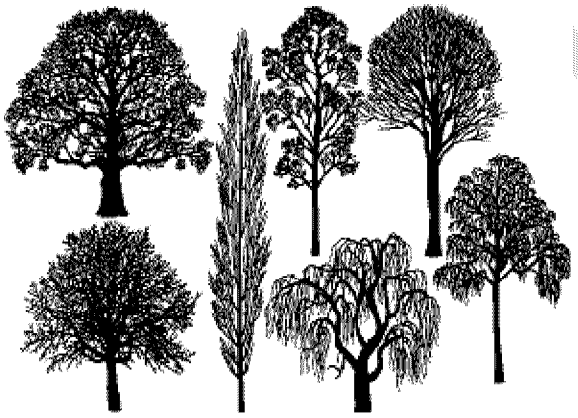
trees, as well as other potential awareness efforts, such as attaching tree information to property disclosures.

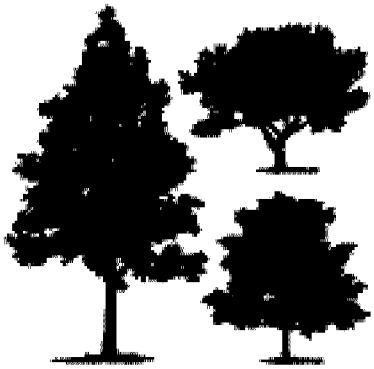
Councilman, who owns a landscaping company, said the city should also review the landscaping requirements that were imposed on developments, saying those requirements shouldn't be temporary any more than other requirements, such as emergency accesses and access for people with disabilities.

"If it's required to begin with, it should be required forever," he said.



Tree Shapes and Examples





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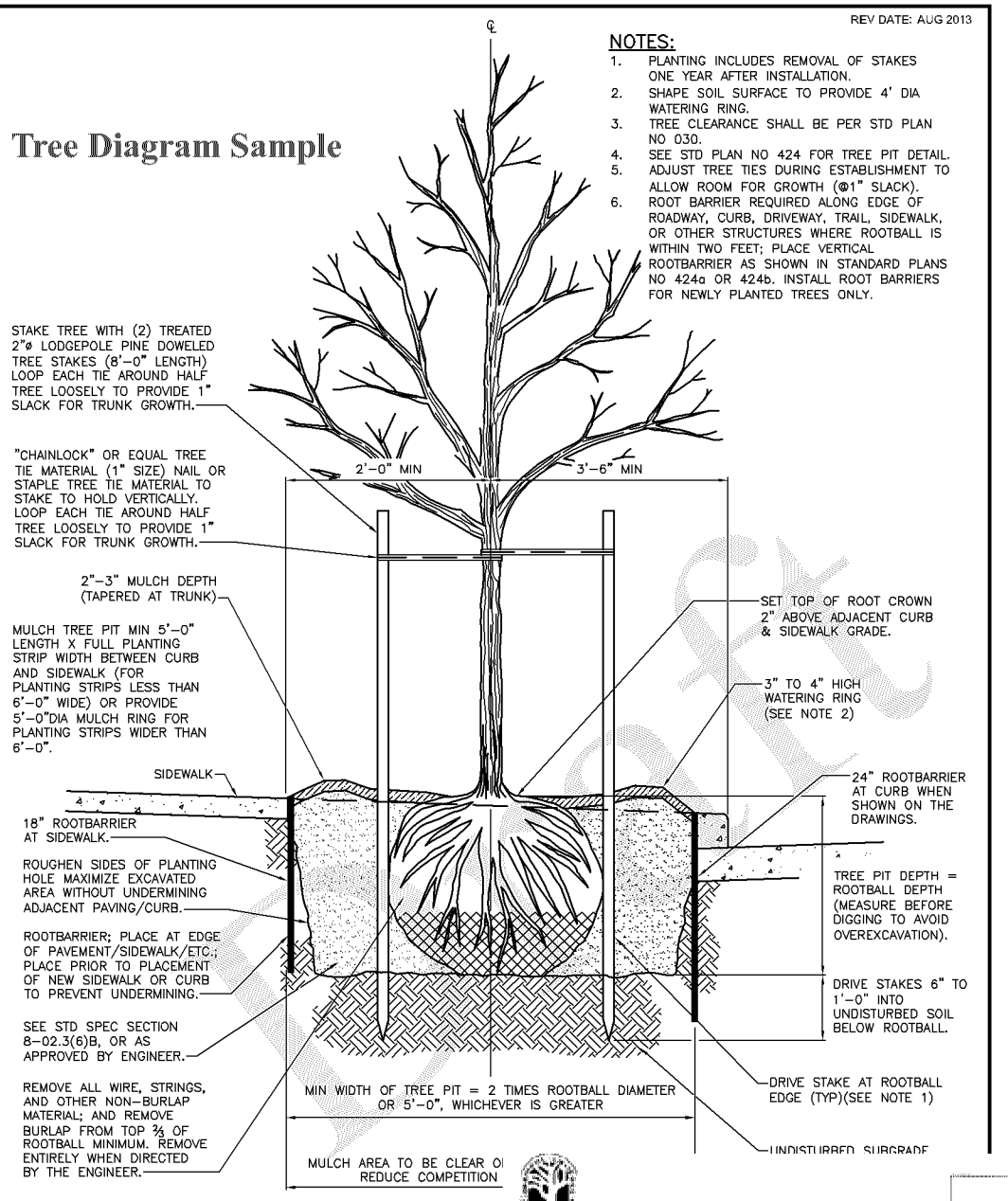
REV DATE: AUG 2013

Tree Diagram Sample



NOTES:

1. PLANTING INCLUDES REMOVAL OF STAKES ONE YEAR AFTER INSTALLATION.
2. SHAPE SOIL SURFACE TO PROVIDE 4' DIA WATERING RING.
3. TREE CLEARANCE SHALL BE PER STD PLAN NO 030.
4. SEE STD PLAN NO 424 FOR TREE PIT DETAIL.
5. ADJUST TREE TIES DURING ESTABLISHMENT TO ALLOW ROOM FOR GROWTH (@1" SLACK).
6. ROOT BARRIER REQUIRED ALONG EDGE OF ROADWAY, CURB, DRIVEWAY, TRAIL, SIDEWALK, OR OTHER STRUCTURES WHERE ROOTBALL IS WITHIN TWO FEET; PLACE VERTICAL ROOTBARRIER AS SHOWN IN STANDARD PLANS NO 424a OR 424b. INSTALL ROOT BARRIERS FOR NEWLY PLANTED TREES ONLY.

REF STD SPEC SEC 8-02

City of Seattle

NOT TO S

2014 Edition City of Seattle Standard

photo by: TreeDiagramSample.pdf

GRADE CHANGE MITIGATION STANDARD

Vertical Mulching for grades raised/lower than 6 inches

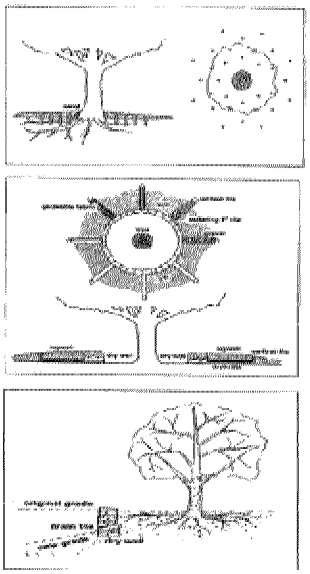
1. Clear soil surface of plants and debris.
2. Ensure the surface does not slope towards the tree trunk.
3. Place medium grade sand around the tree trunk to just above the intended grade.
4. Backfill to new grade. Use a fill soil that is the same texture or coarser than the original subsoil.
5. Auger 3 to 4 inch wide holes 3 to 4 feet deep through the fill material and below the original grade.
6. Fill auger holes with peat moss, sand, vermiculite, pea gravel or other coarse material.
7. Create the fill so that it slopes away from the tree trunk.
8. Do not cover the sand at the trunk of the tree.

Tree well for grades raised greater than 6 inches

1. The well must be a minimum of 36 inches out from the trunk. The deeper the well, or longer the spokes of the tree, the larger the well's diameter should be.
2. Lay out concrete tree (perforated) tiles, 4-6 inches in diameter, in a wagon wheel pattern radiating from the tree well.
3. Space the tiles every 30 to 45 degrees. The open ends of the tiles should extend through the wall of the well.
4. Cover the ends of the tiles with geotextile fabric and cap with gravel to keep out eroding soil.
5. Cover the tiles with coarse, uniform sand or small, uniform gravel and a soil filter such as geotextile fabric/cedar fabric or fiberglass matting.

Grades lowered for terracing or tree islands

1. Maintain the original grade as far out from the trunk as possible.
2. Terraces are formed to lower the grade in steps. At each level, the roots should be severed cleanly and kept moist.
3. Install drainage tiles through the wall slightly out of the level of the new grade.
4. Use sand as backfill behind the walls to encourage new root growth.
5. If the grade must be lowered completely around a tree, a tree island can be constructed. The techniques used for creating a tree island are similar to those used in terracing.



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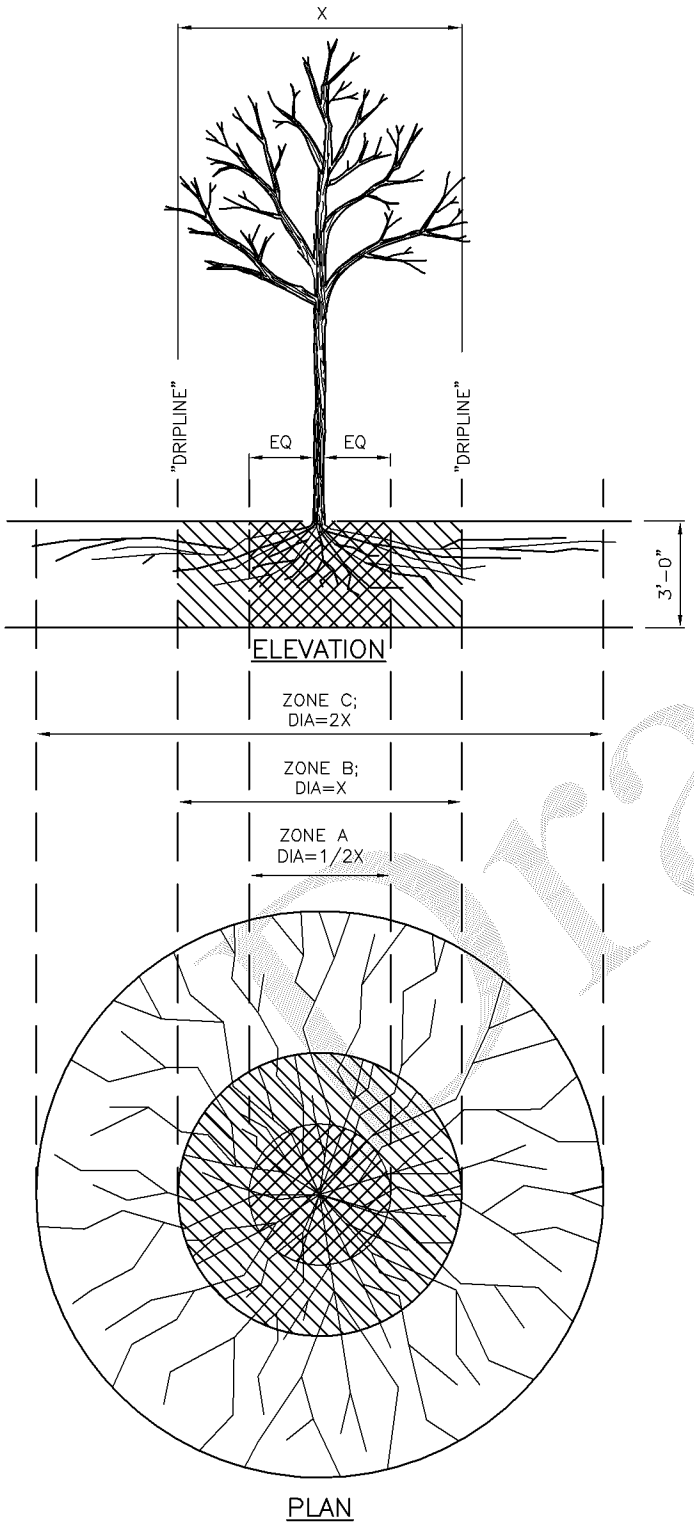

Planting Diagram

TRENCHING/EXCAVATION

ZONE A (CRITICAL ROOT ZONE)

1. NO DISTURBANCE ALLOWED WITHOUT SITE-SPECIFIC INSPECTION AND APPROVAL OF METHODS TO MINIMIZE ROOT DAMAGE
2. SEVERANCE OF ROOTS LARGER THAN 2" DIA REQUIRES ENGINEER'S APPROVAL
3. TUNNELING REQUIRED TO INSTALL LINES 3'-0" BELOW GRADE OR DEEPER

ZONE B (DRIPLINE)

1. ZONE B FOR ASYMMETRICAL COLUMNAR AND NARROW CONICAL TREE FORMS. ZONE B = 1' RADIUS FOR EVERY 1" OF TRUNK DIAMETER.
2. TUNNELING MAY BE REQUIRED FOR TRENCHES DEEPER THAN 3'-0".

NOTE:

A TREE, VEGETATION, AND SOIL PROTECTION PLAN (TVSPP) IS REQUIRED FOR ALL PROJECTS.
APPROVAL OF PLAN REQUIRED PRIOR TO MOBILIZATION.
SEE SECTION 8-01.

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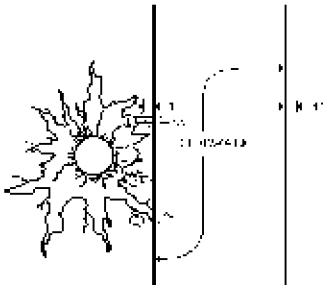
REF STD SPEC SEC 1-07.16(2) & 8-01

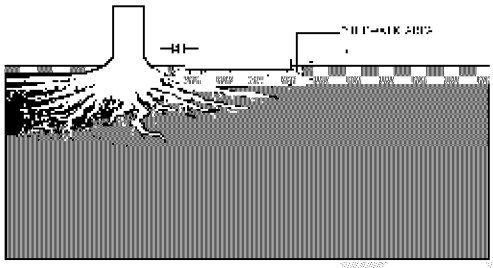
City of Seattle	NOT TO SCALE	TREE PROTECTION DURING TRENCHING, TUNNELING OR EXCAVATION

City of Fontana
Selective Root Pruning Standards

Root Pruning Diagram



PLAN VIEW



SECTION VIEW

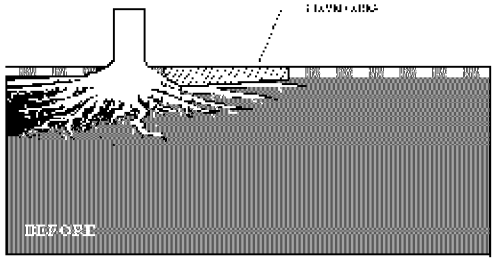
NOTES:

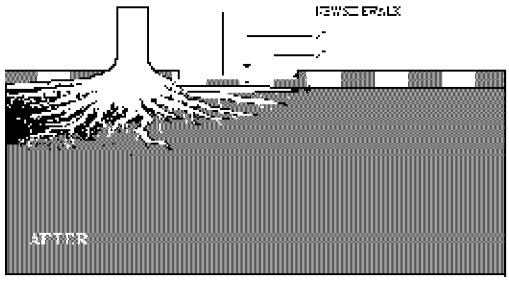
1. Roots shall be cut at the nearest node to encourage roots that grow away from the sidewalk.
2. Roots must be cleanly cut 4" away from the new sidewalk edge.
3. Backfill excavated areas with soil.

photo by: RootPruningDiagram.pdf

Exhibit 8

City of Fontana
Root Shaving Standards





NOTES:

1. Roots are to be shaved down to enable at least 2" clearance between sidewalk and root. Backfill with soil.
2. Root barrier shall not be installed on shaved roots.

photo by: RootShavingDiagram.pdf

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Intersection Diagram

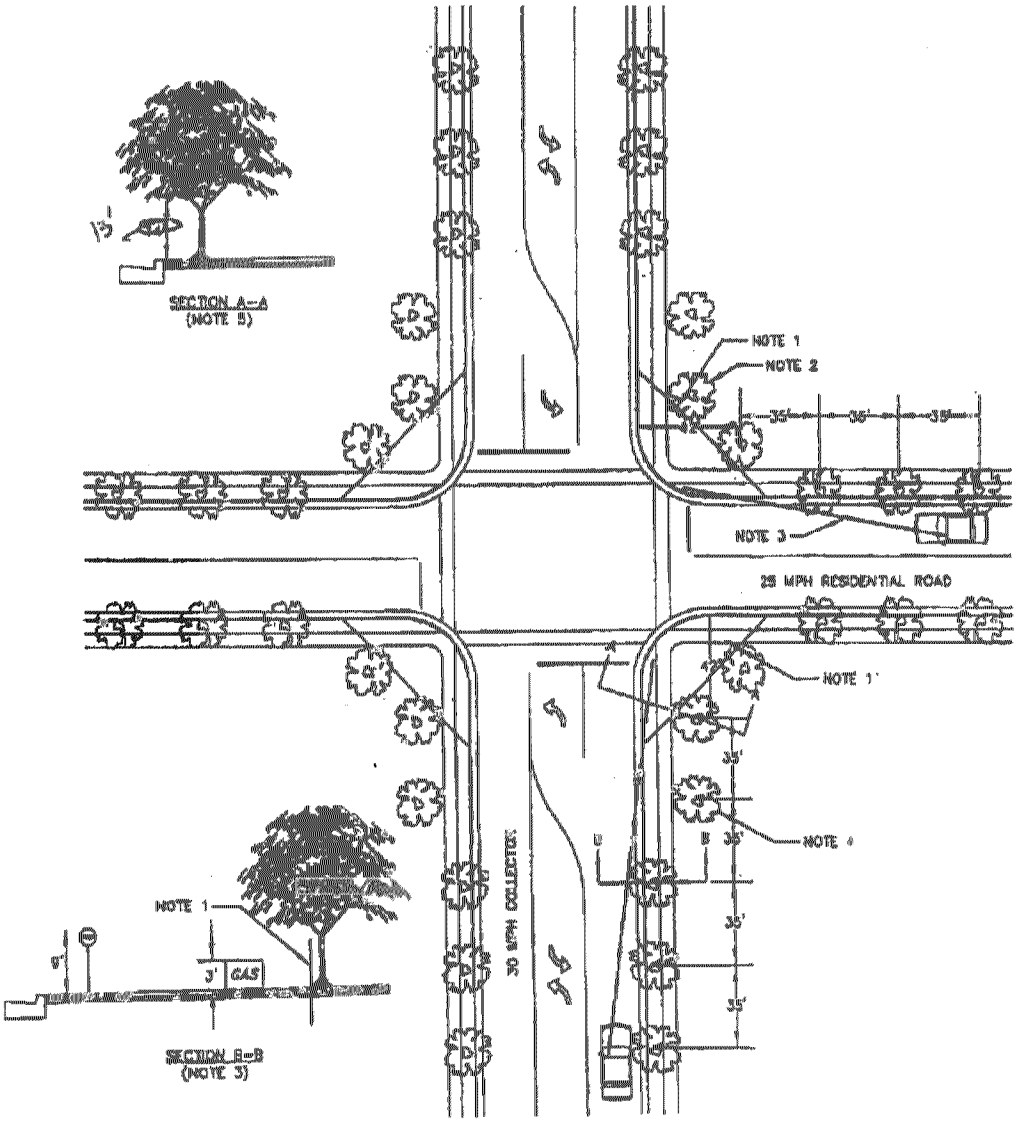
APPENDIX D

Intersection Sight Distance

Notes:

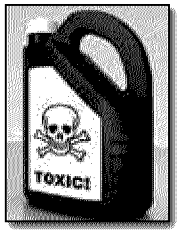
1. Intersection sight triangles typically are 30 feet by 30 feet measured from the right-of-way. Intersection geometry will change sight distance requirements. No improvements allowed over 2 feet high measured from the top back of curb (unless otherwise approved by the city transportation engineer).
2. Trees must be planted outside of the sight triangle. Branches need to be trimmed to 8 feet above the top back of curb on the sidewalk side.
3. Required sight distance to stop signs on roads with a speed limit of 25 mph is 100 feet. Speed limits of 30 mph or more requires 150 feet of clear sight distance to stop signs.
4. On roads with a speed limit of 30 mph or more requires that street trees within the first 100 feet of the intersection be planted 10 feet behind the back of sidewalk.
5. Street trees planted within the parkstrip shall be trimmed to 13 feet above the top back of the curb when the canopy crosses into the roadway area (beyond the top back of curb).
6. For T-intersections use a 60 feet by 20 feet sight triangle measured from the top back of curb (60 feet being on the through street).

Intersection Sight Distance



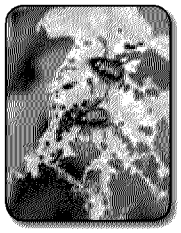
Insecticides

when and how to use them



When do you need an insecticide

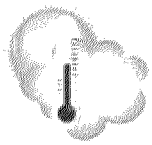
When you see insect pests on your plants. Be aware that not all insects are bad.
When you see signs of major insect damage. Some insect damage may be acceptable.



Which insecticide to use:

Choose an insecticide that is safe for you and for your environment.
Pick an insecticide that works well for the problem you have.
Select one that controls the insects you are targeting.
Make sure it is registered for the type of use you intend.

What to do first



Read the label carefully and follow all directions. Make sure you understand any label precautions. These might include wearing protective clothing, or may have possible restrictions about the presence of children and pets in the treated areas.
If there is anything on the label you don't understand, find out before you use the product.

When to apply it:

Apply insecticides early in morning or evening; when it is cooler, and when there is less wind. Allow insecticides time to dry before turning on sprinklers.
If rain is expected within several hours, wait.
Apply dusts after a rain, or early in the morning, when plants are damp with dew. Otherwise lightly moisten plants before apply dusts.
Avoid applying any insecticide during the hottest time of the day.

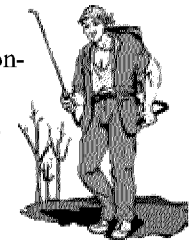
How to mix and apply it:

Some insecticides are ready to spray from the bottles. Others need to be mixed with water. The label will tell you exactly what proportions of insecticide and water to use, an how to mix them.
Don't use more insecticide than the labels recommends.
Mix only what you intend to use each day. Do not store mixed chemicals.
There are many types of sprayers: including pump-type sprayers, and hose-end applicators. Choose the most efficient one for the type of product you intend to apply.
Set your sprayer nozzle for a fine mist. Cover the area thoroughly.
Dusts come ready to use in shaker-top containers. If treating large areas, you might want to use special dusting equipment.
Cover plants with a light, uniform coating, Be sure to treat the underside of leaves also.

After applications

Clean your sprayer to prevent clogging or malfunctioning in the future.
Check the label again for any post-application precautions and disposal directions.
Change clothing. Properly wash Personal Protective Equipment and clothing.
Make sure to shower and wash throughly with soap and water.

Storage



Keep insecticide containers tightly closed. Store insecticides in their original, labeled containers. Never use empty insecticide containers for any other purpose.
Alway store insecticides out of the reach of children and pets; preferably in a locked cabinet.
Keep your insecticides in a cool, dry place in summer. Don't let them freeze during the winter.
Store them away from food beverages, eating utensils, and other non-pesticide items.

Draft

List Of Approved Tree Species

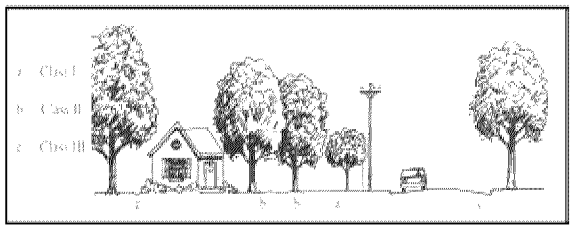
This list is not all-inclusive, and there may be other trees than can be planted with careful consideration.

Tree height classes

Class I: Small trees which do not attain a mature height of more than 30 feet. Typical spacing is 15-25 feet.

Class II: Medium sized trees, 30-60 feet in mature height. Typical spacing is 30-40 feet.

Class III: Large trees, more than 60 feet in mature height. Typical spacing is 40-50 feet.



Refer to City ordinance for a list of street trees that are also acceptable to be planted in other areas of the yard.

Trees with attributes that should be considered before planting.

All Willow Species
All Poplar Species
Silver Maple

Trees Not Recommended (update with the trees lited in the ordinance.

Russian Olive
Tree Of Heaven
Boxelder
Chinese Elm
Pin Oak
Sugar Maple
All Species of Ash (invasion of the Emerald Ash Borer in coming years.

Draft

Possible addition to the pruning section

Ogden City Ordinance

Pruning Objectives other than specific pruning classes may be done when there is a specific need for a tree and a full class pruning is unnecessary. In cases where there are specific needs, those needs will be satisfied in the following categories:

1) Structural – Pruning that influences the orientation, spacing, growth rate, strength of attachment, and ultimate size of branches and stems, resulting in a stronger tree. A solid structure of primary scaffold branches should be established while the tree is young. The scaffold branches provide the framework of the mature tree. Properly trained young trees will develop a strong structure that requires less corrective pruning as they mature. Good pruning techniques remove structurally weak branches while maintaining the natural form of the tree.

2) Cleaning – Cleaning is the selective removal of dead, diseased, detached, and broken branches. This type of pruning is done to reduce the risk of branches falling from the tree and to reduce the movement of decay, insects, and diseases from dead or dying branches into the reset of the tree. It can be performed on trees of any age but is most common on medium-aged and mature trees. Cleaning is the preferred pruning type for mature trees because it does not remove live branches unnecessarily.

Cleaning removes branches with cracks that may fail when the interior wood dries.

a. The location of branches to remove should be specified if the entire crown is not going to be cleaned. The diameter of the branches to be removed also should be specified. This usually is done by specifying the smallest branch to remove (for example, "clean branches 1 inch in diameter and larger").

3) Thinning – Thinning is the selective removal of small, live branches to reduce crown density. Because the majority of small branches are at the outside edge of the crown, thinning is focused in that area. Proper thinning retains crown shape and should provide an even distribution of foliage throughout the crown.

a. Thinning increases sunlight penetration and air movement through the crown. Increased light and air stimulate and maintain interior foliage, which can encourage taper on scaffold branches. Thinning a limb should be considered if cabling is to be performed. Thinning also can remove suckers from the base of the tree and some watersprouts on the interior. Excessive removal of watersprouts often produces more watersprouts, so it is not recommended. Vigorous production of watersprouts on interior limbs often is a sign of overthinning or lion tailing.

b. Excessive branch removal on the lower two-thirds of a branch or stem (lion tailing) can have adverse effects on the tree and therefore is not an acceptable pruning practice. Lion tailing transfers weight to the ends of branches and may result in sunburned bark tissue, waterspouts, cracks in branches, reduced branch taper, increased load on branch unions, and weakened branch structure. Lion tailing also changes the dynamics of the limb and often results in excessive branch breakage.

c. If the entire crown will not be thinned, the areas to be thinned must be specified. The size range and percentage of foliage to be removed also must be specified. Usually in the 10 to 15 percent range – but should not exceed 25 percent of the crown, especially on mature trees. Most thinning removes branches ¼ to 1 inch in diameter. If larger branches are removed, large gaps may be created in the crown or watersprouts can result.

4) Raising – Raising is the selective removal of branches to provide vertical clearance. Crown raising shortens or removes lower branches of a tree to provide clearance for buildings, signs, vehicles, pedestrians, and vistas. Excessive removal of lower limbs can slow development of trunk taper, can cause cracks or decay in the trunk, and transfers too much weight to the top of the tree. Mature trees could become stressed if large-diameter lower branches are removed. Clearance sometimes can be achieved by shortening some of the low branches rather than removing them to prevent these problems. Live crown ratio should be no less than 66 percent when raising is completed. Structural pruning should be considered along with raising.

a. When raising, the desired clearance should be specified. To differentiate between complete branch removal and shortening, specify the size range of the limbs to remove and their location (for example, "raise 12 feet about the road by removing downward-growing branches 2 inches in diameter and smaller").

5) Reducing – Reduction is the selective removal of branches and stems to decrease the height and/or spread of a tree or shrub. This type of pruning is done to minimize risk of failure, to reduce height or spread, for utility line clearance, to clear vegetation from buildings or other structures, or to improve the appearance of the plant. Portions of the crown, such as individual limbs, can be reduced to balance the canopy, provide clearance, or reduce likelihood of breakage on limbs with defects. Occasionally, the entire crown is reduced. Reducing or thinning should be considered if cabling is to be performed. Crown reduction should be accomplished with reduction or removal cuts, not heading cuts.

a. Biologically, reduction cuts are considered less desirable than cuts that remove branches at their points or origin because there is no branch collar or branch protection zone in place when the cut is made to a lateral. Although this concern appears to be minor on small cuts, large cuts on more mature trees may not compartmentalize. Nevertheless, there are

circumstances in which reduction is necessary or the best option.

b. Not all tree and shrub species can be reduced. Therefore, the species and plant health should be considered before starting work. Old, stressed, or mature trees could decline or become more stressed as a result of this treatment. When a limb on a mature tree is cut back to a lateral, no more than one-fourth of its foliage should be removed. More can be removed on a young tree to accomplish particular objectives. More decay can enter the tree following reduction than following other pruning types.

c. The clearance distance or percentage size reduction should be specified. Because making many small cuts or just a few large-diameter cuts can reduce a tree, it is important also to specify the size range of cuts. Reduction usually should be done on smaller-diameter branches (for example, 1 to inches for trees and ½ to 1 inch for shrubs).

6) Restoring –Restoration is the selective removal of branches, sprouts, and stubs from trees and shrubs that have been topped. Severely headed, vandalized, lion tailed, broken in a storm, or otherwise damaged. The goal of restoration is to improve a tree or shrub's structure, form, or appearance.

a. On trees with many sprouts originating at the tips of branches, one of three sprouts on main branch stubs are selected to become permanent branches and to re-form a more natural-appearing crown. To accomplish this objective, consider shortening some sprouts, removing others, and leaving some untouched. Some vigorous sprouts that will remain as branches may need to be shortened to control growth and ensure adequate attachment for the size of the sprout. Li-on-tailed trees can be restored by allowing sprouts to develop along the interior portion of limbs for one to three years depending on size, age, and condition of the tree. Then remove and shorten some of the sprouts along the entire length of the limbs so that they are evenly distributed and spaced apart. Restoration usually requires several years of pruning.

b. Specify the location in the tree (for example, top or interior) and the percentage of sprouts to be removed or reduced. Typically, one-third of the sprouts are removed and one-third are reduced each pruning until adequate branches have developed.

Draft

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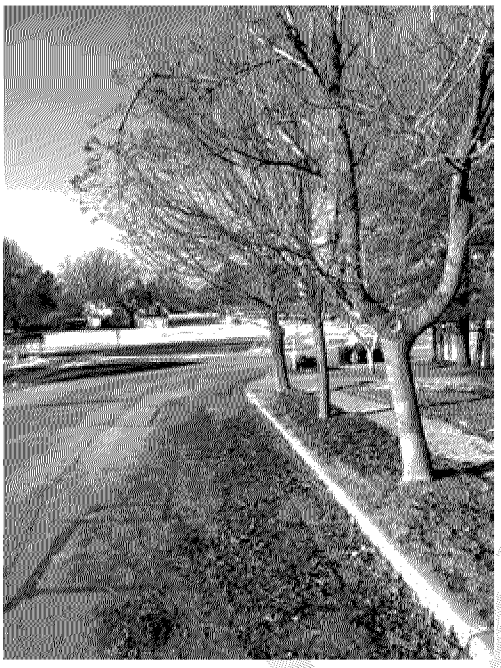

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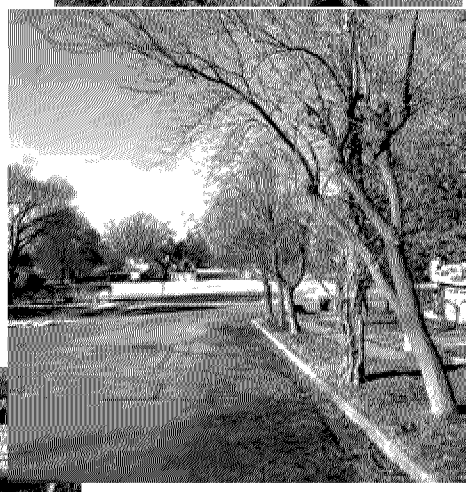

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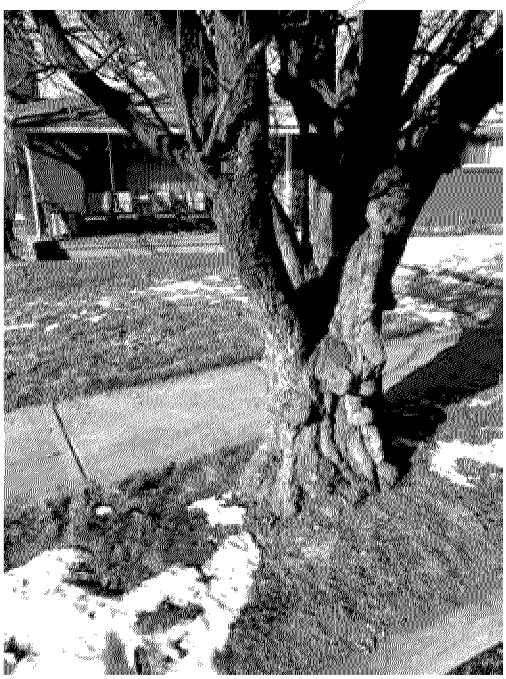

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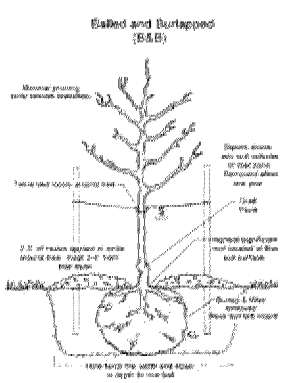

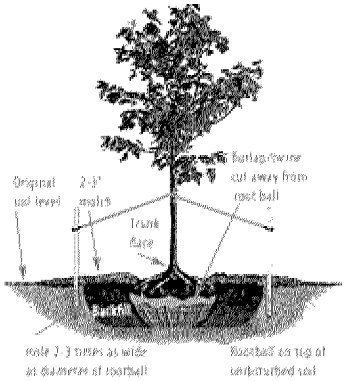

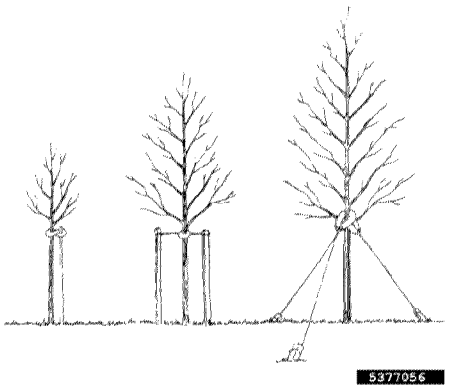

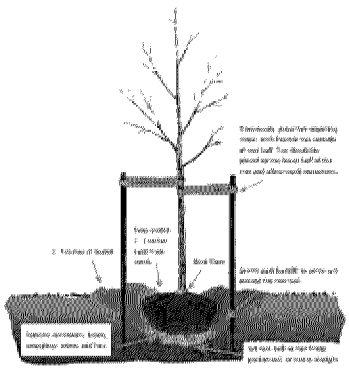

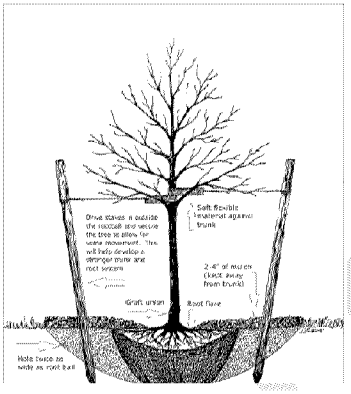

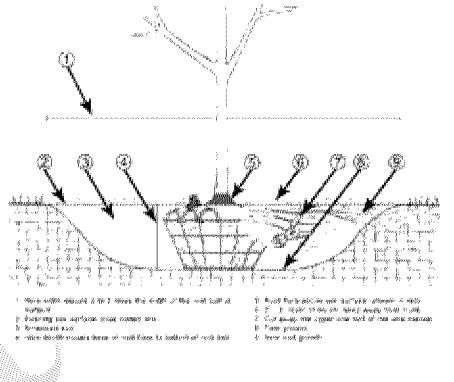

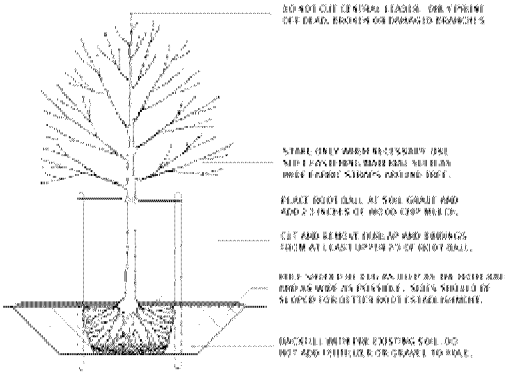

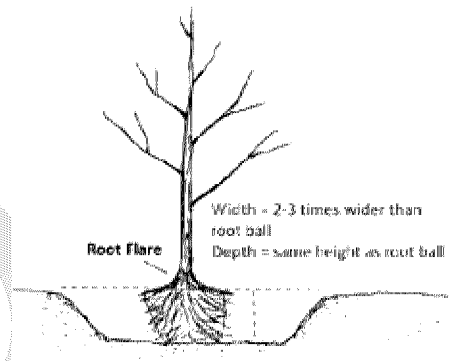

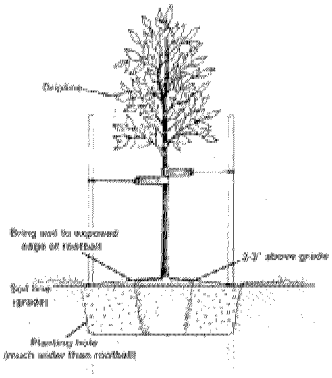

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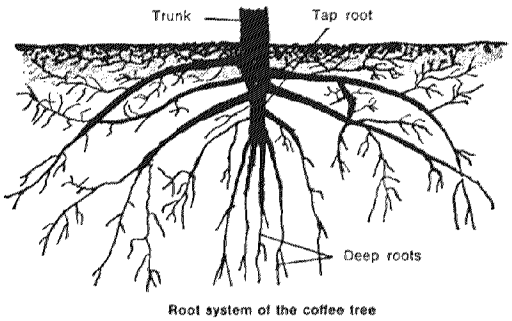

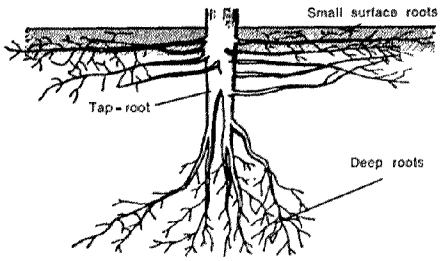

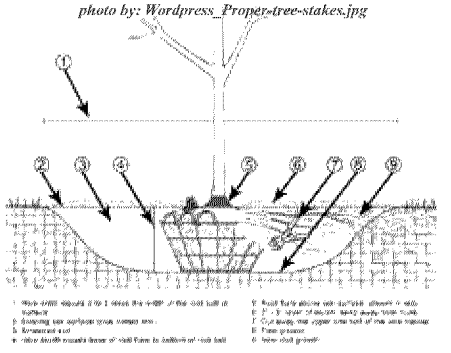

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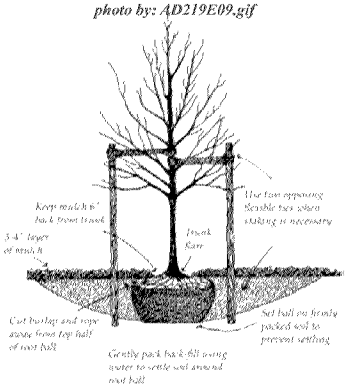

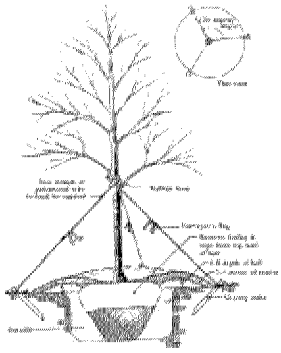

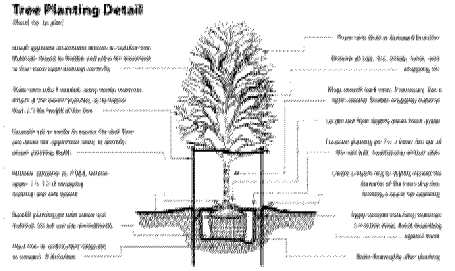

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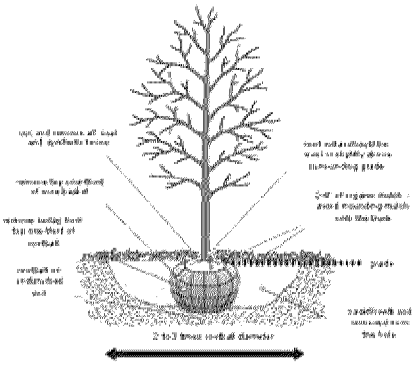

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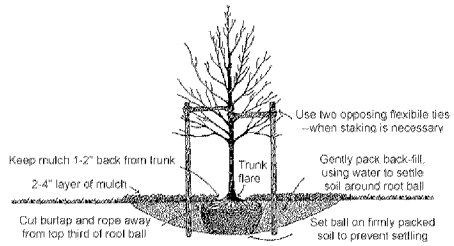

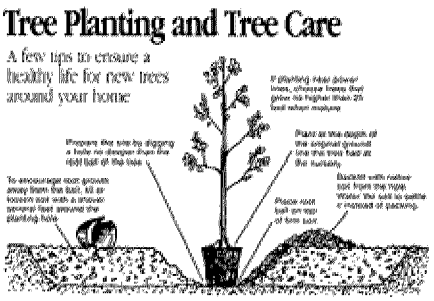

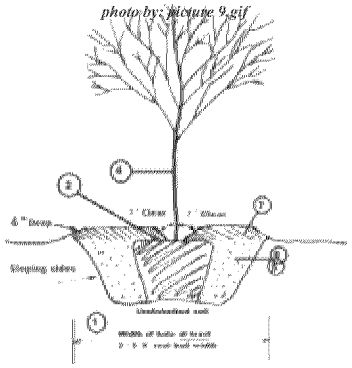

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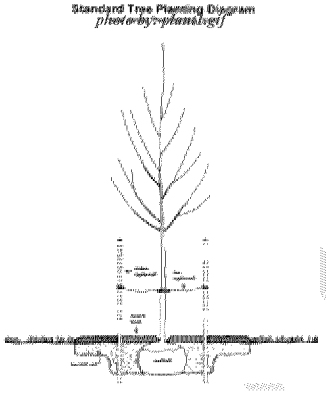

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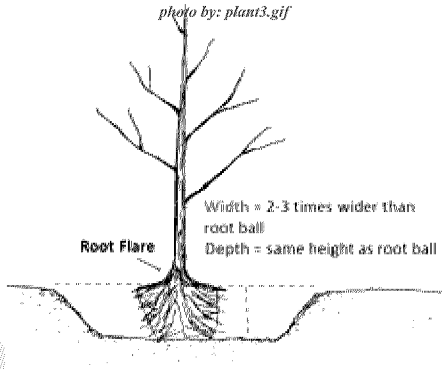

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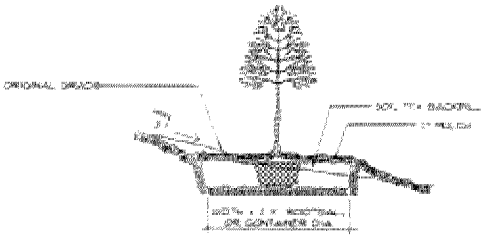

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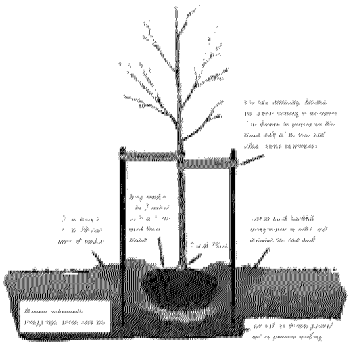

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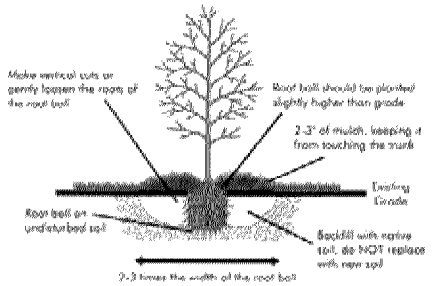

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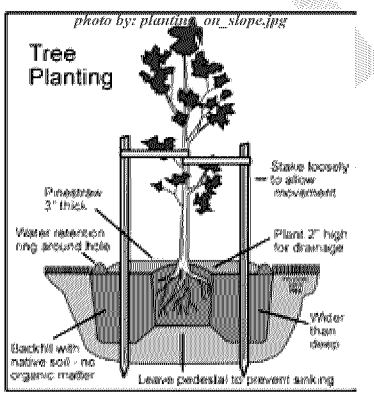

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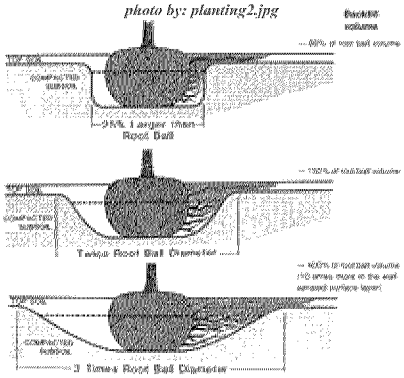

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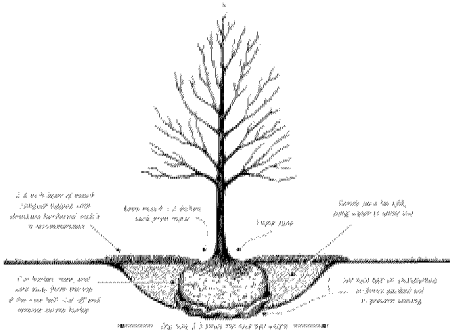

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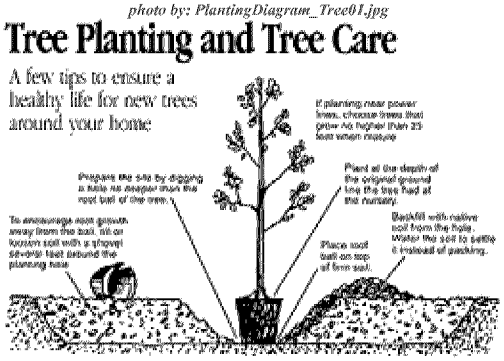

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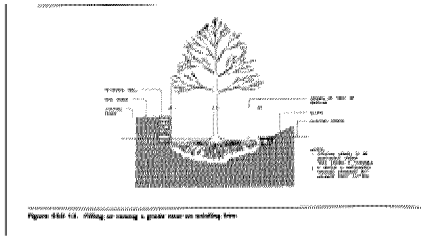

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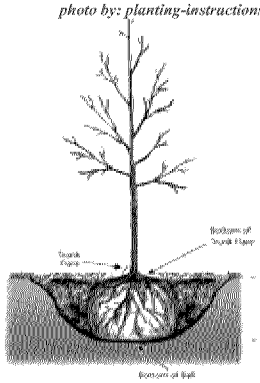

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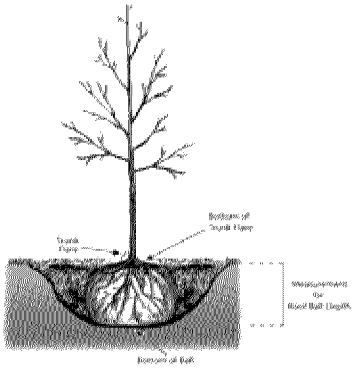

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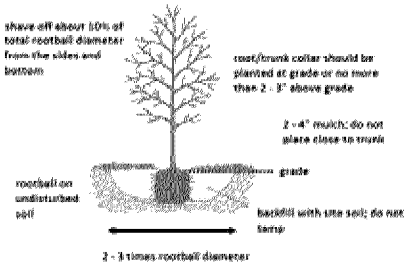

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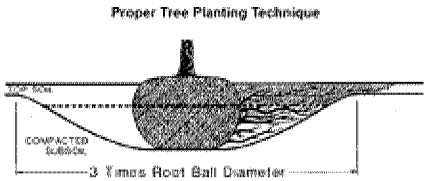

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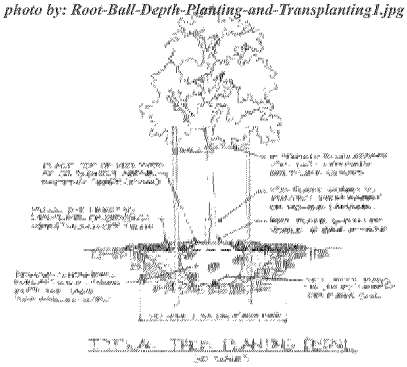

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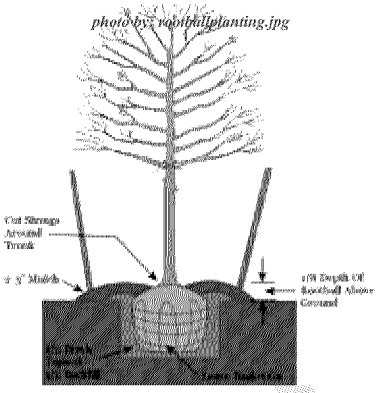

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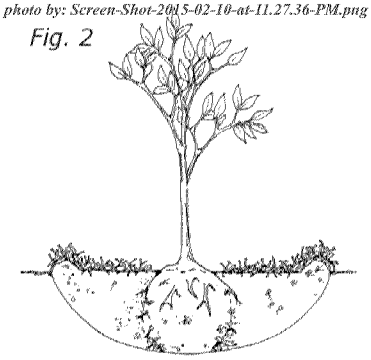

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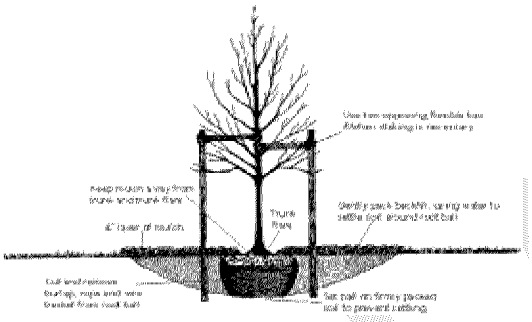

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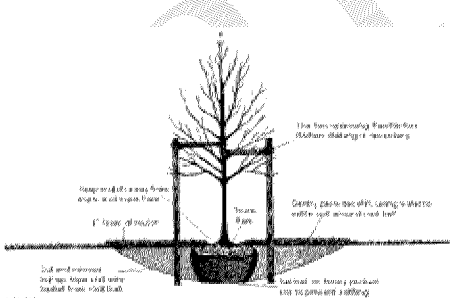

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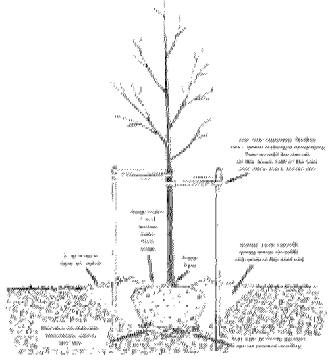

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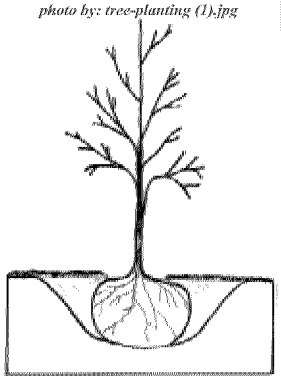

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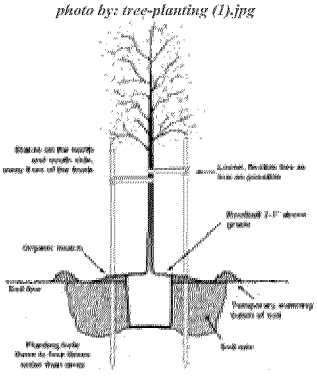

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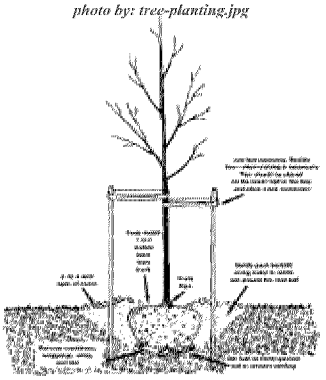

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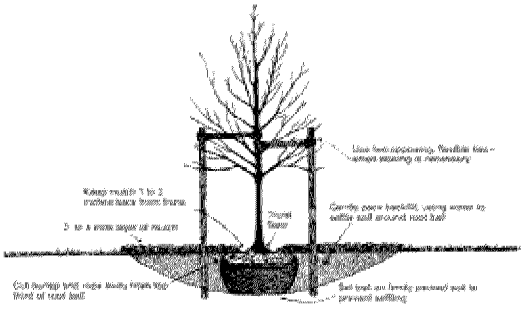

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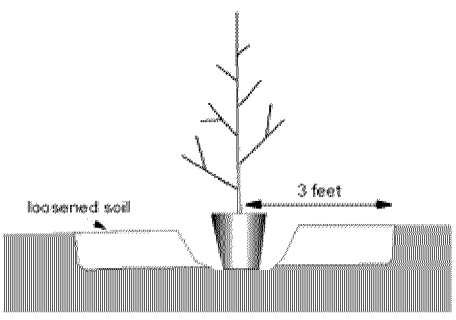

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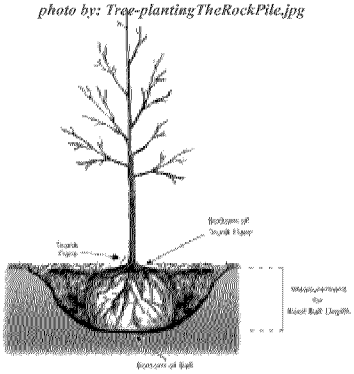

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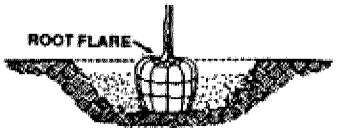

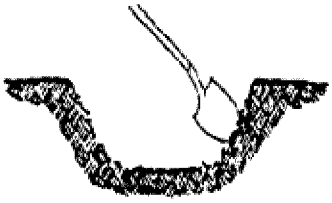

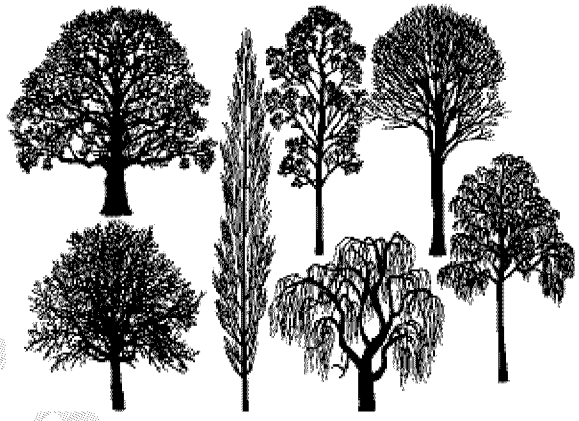

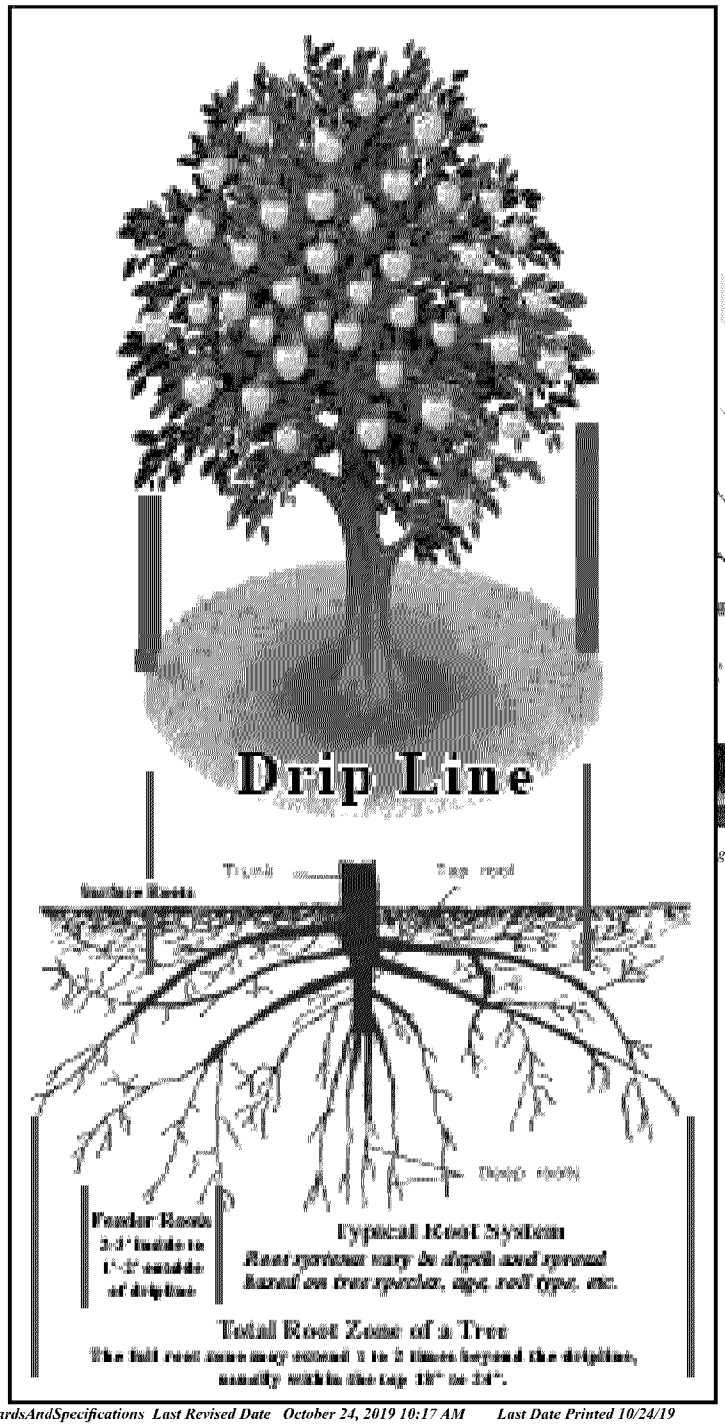

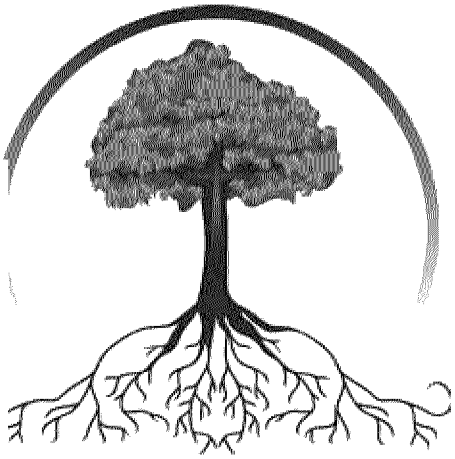

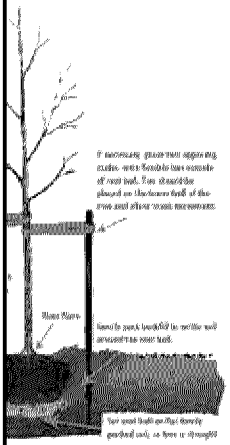
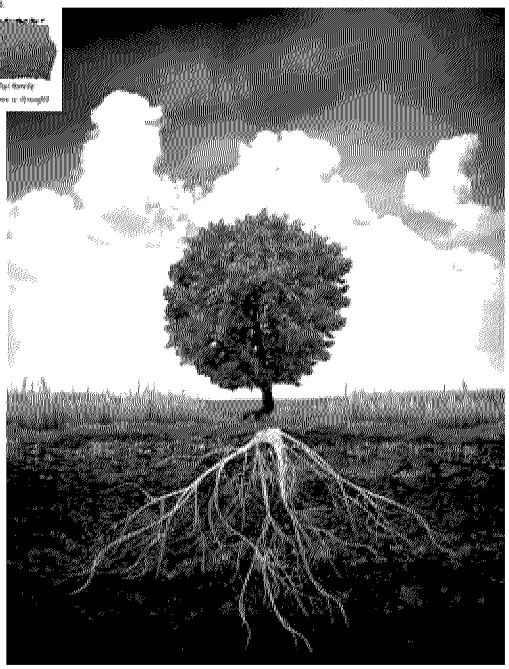
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