

TREE MANUAL

City of Wildwood, Missouri
January 1996

STANDARDS AND SPECIFICATIONS
FOR TREE PRESERVATION
AND LANDSCAPING

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INTRODUCTION

The purpose of this manual is to provide a detailed but flexible guide to tree preservation and landscaping requirements in Wildwood. It is designed to assist developers in creating future development that not only preserves the City's existing trees, but includes new landscapes that will adequately offset the negative impacts of urbanization.

This manual is to be used in conjunction with the Tree Preservation Code, the Grading Code, and other development regulations by civil engineers, landscape architects, landscape contractors, urban foresters, natural resource specialists and planners during preparation of plans required to be submitted as part of the City of Wildwood's grading ordinance and tree ordinance. The process outlining plan preparation and submittal is shown as a flow chart on page 7. It can be used by developers and their contractors in estimating costs associated with proposed development as well as during the actual construction of a development. It is hoped the manual will also be used as a guide to plan thoughtful developments that seek to use the existing natural features on a site without unnecessary damage. The Director of Planning may waive or modify specific guidelines or standards where the objective and requirements of the Tree Preservation Code may otherwise be fulfilled.

Any questions relating to this manual should be forwarded to the City of Wildwood Director of Planning at (314) 458-0440.

DEFINITIONS

Access Street	A street for local traffic only, located completely within a subdivision, and generally taking subdivision traffic only.
Arterial Street	A major roadway listed as listed by the City of Wildwood.
Bufferyard	A unit of land, together with a specified type and amount of planting thereon, and any structure which may be required between land uses to eliminate or minimize conflicts between them.
Collector Street	A street not located within a single subdivision, connecting local residential areas with major streets or with commercial areas, excluding arterial streets and access streets.
DBH	See Caliper.
Director	The Director of Planning for the City of Wildwood, or the Director's designee.
Forester	A person with a degree in forestry from a university accredited by the Society of American Foresters and at least five years of experience in the field.
Limit of Disturbance	A line as shown on the site plan and Tree Preservation Plan that identifies the limit of construction activity of any kind.
Owner	The person, persons, or entity having legal title to, beneficial interest in, or a contractual right to purchase a property.
Public Tree	Any tree located on city owned or controlled property including parks, street right-of-ways, parkways, etc.
Grand Tree Stands	A contiguous grouping of grand trees which has been determined to be of exceptional value. Determination is based on the following criteria: A relatively mature even aged stand, a stand with a purity of species composition or of a rare or unusual nature, a stand of historical significance, a stand with exceptional aesthetic quality.
Street Tree	A tree that is currently located or proposed for planting along streets and highways. The tree can be located on private property or on publicly held land. Street trees are typically planted in a linear fashion and provide spatial enclosure as well as other technical and aesthetic benefits.

All other definitions shall derive from the Tree Preservation Code or other ordinances of the City of Wildwood as they may apply to the Manual.

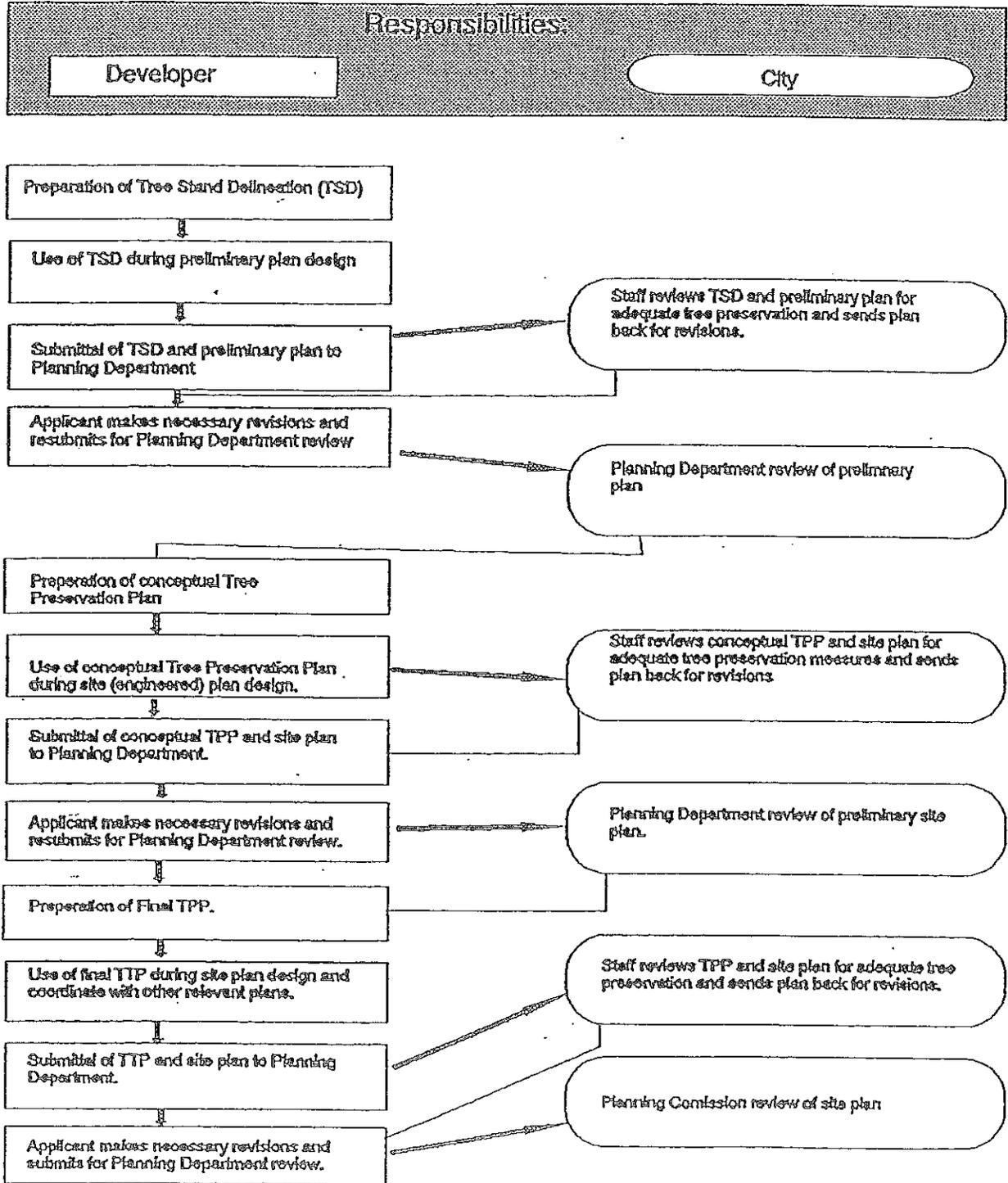
TREE CANOPY REQUIREMENTS

This section of the Tree Manual combines some of the language found in the grading and Tree Preservation Code of the City of Wildwood and refers to the amount and type of disturbance that can take place on a site.

- 1) The preservation of existing trees must be shown on a Tree Preservation Plan. (See Page 13.) Except for development of a single-family residence upon a single lot or parcel, all applications for site plan or subdivision plan or building permit approval shall also contain a Tree Stand Delineation. (See Page 7.)
- 2) The Director may, when authorized, condition a land disturbance permit upon the restoration or relocation of trees or vegetation on the site in an amount or quality sufficient to offset or ameliorate the variance. The Director may also require replanting when provisions of this ordinance are violated and trees, vegetation, and/or topsoil are removed. The restoration will be equal in value to the value of the trees and vegetation illegally removed. The value of trees removed will be determined based on the International Society of Arboriculture's tree valuation formula.
 - a) Spacing of replacement trees will be compatible with spatial limitations, and with responsible considerations toward potential species size.
 - b) When restoration or relocation of trees or vegetation is required, Landscaping Plans must be submitted to the Director in conjunction with a proposed development or redevelopment (see Landscape Applications section). Plans will document and map locations, species (common and botanical names), and sizes of all trees to be planted and retained.
 - c) Restoration plantings must contain species native to the City of Wildwood. Introduced species and exotics are not permitted. Acceptable native species can be found on the enclosed list of "Native Trees of Wildwood". Native species other than those found on the list are acceptable at the discretion of the Director of Planning.
 - d) Street trees, bufferyards, and parking lot plantings may be required and can be used to fulfill tree canopy requirements for a given development proposal. Native species are encouraged for these types of plantings, however any species found on the enclosed "General List of Acceptable Species" can be used.

TREE PRESERVATION AS PART OF THE SITE PLAN REVIEW PROCESS

THE FIRST FOUR STEPS ARE NOT PART OF PLANNED DISTRICT, CONDITIONAL USE PERMIT, OR OTHER ZONING PROCEDURE. THEY ARE NORMALLY COMPLETED AS PART OF SPECIAL PROCEDURE PROCESSES.



CONSTRUCTION STANDARDS FOR FIELD PRACTICE

The following practices may be required by the Director to insure survival of trees to be protected. All measures to be employed shall be shown on the Tree Protection Plan submitted to the Director for review.

- 1) **Pre-Construction Meeting.** An on-site meeting shall be held with the developer, City of Wildwood Director of Planning or his designee, the general contractor, and heavy equipment operators detailing the tree protection plan for the site. At this meeting, the Limits of Disturbance shall be clearly and visibly marked.
- 2) **Protective Methods (Fencing).** One or both of the following methods shall be used which will effectively protect the roots, trunk and top of the trees and other vegetation to be retained on the site. Personnel working in the vicinity of the area to be protected must be instructed to honor the protective devices.
 - A) **Active Protective Fencing** should be installed along the outer edge and completely surrounding the critical root zones of all trees to be protected. These fences should be a minimum of four feet (4') high, constructed in post and rail configuration. Four foot polyethylene laminar safety fencing is also acceptable.
 - B) **Passive Fencing** for tree protection may be utilized to delineate tree save areas which are less subject to encroachment by contractors. These can be comprised of plastic flagging supported by small posts. Regular inspections should be made to insure that flagging has not torn or collapsed. Repair of broken flagging should occur before crews work in the area.
- 3) **Signs** shall be used to designate tree protection areas. Signs are to be posted visibly on all sides of the fenced area. These signs are intended to inform contractors and subcontractors of the tree protection process. Minimum size for the signs is 11" x 15". Verbage should include, at a minimum, the following, "*TREE PROTECTION AREA - Machinery Access, Dumping, or Storage of Materials Prohibited*". Type size should be no smaller than 48 pt. Signs requesting subcontractor cooperation and compliance with tree protection standards are recommended for site entrances. No signs shall be attached to any tree.
- 4) **Root Pruning** shall occur when roots within the critical root zone of a tree to be protected will be damaged by nearby excavation or by adding fill over the root system. Root pruning allows roots to be cut cleanly and cover wounds quickly. Tearing roots with a backhoe or other mechanized equipment leads to root rot that can kill a tree or render it hazardous. Root pruning can be performed with "ditch-witch" type equipment or stump removers that cuts roots cleanly. Hand cutting of roots with pruning saws is also an appropriate method of root pruning. Backfilling of root pruning trenches must be performed as soon as possible to avoid drying out of exposed roots. Supplemental watering keeps exposed root ends healthy until backfilling occurs.

CONSTRUCTION STANDARDS FOR FIELD PRACTICE (continued)

- 5) Tunneling is required when utilities are to be run through a tree's critical root zone. No trenching is permitted for any reason within the critical root zone area.

Standards for tunneling are as follows:

-
- A) Tunneling shall be no less than 24" from the surface.
- B) For trees less than six inches (6") DBH, trenches should approach no closer than the drip line of the tree. Tunneling shall occur under the tree's dripline.
- C) For tree's over six inches (6") DBH:

<u>TREE DIAMETER (DBH)</u>	<u>TUNNEL DISTANCE FROM TREE ON BOTH SIDES</u>
6 - 9"	5'
10 - 14"	10'
15 - 19"	12'

It is recommended that reference be made to the publication "Trenching and Tunneling Near Trees" published by the National Arbor Day Foundation (100 Arbor Avenue, Nebraska City, NE 68410).

- 6) Aeration systems are required if moderate amounts of fill are placed over a tree's critical root zone. An aeration system provides critical oxygen to tree roots that will have non-porous materials placed over the roots. Perforated pipes can be either four inch (4") diameter drain pipe or 1 1/2" Schedule 40 PVC. Rock fill placed over the perforated pipe must be non-limestone based material larger than pea gravel size. "Meremac gravel" is appropriate. The pipe layout should be a bicycle spoke pattern or grid pattern with pipes placed no further than four feet (4') apart. Surface outlets can be perforated caps. Aeration systems are sometimes used in conjunction with retaining walls when fill is placed near protected trees.
- 7) Sediment and Erosion Control Structures must be used to keep eroded soil from covering roots of protected trees. Siltation screens, etc. are appropriate.

TREE STAND DELINEATION

The purpose of a Tree Stand Delineation (TSD) is to provide a general accounting of existing vegetation so that conceptual design of proposed development can be done using the delineation as one of the determining factors in how the development is planned. The delineation should be used as a base plan for the conceptual site development plan.

There are various methods for preparing tree stand delineations. Alternate methods from those outlined in this manual may be acceptable to the Director following a review of the methodology, which must be prepared in detail and submitted by the applicant.

Preparing a Tree Stand Delineation

Two processes for preparing a tree stand delineation will be outlined in this manual. The type of process depends upon the total acreage of wooded area on the subject site.

For sites with greater than 5 acres of wooded area, PROCESS 1 (Aerial Photography/BAF Study), as outlined in this manual, must be used.

For sites with less than 5 acres of wooded area, PROCESS 2 (Ocular Estimate), as outlined in this manual, must be used.

Process 1: Aerial Photography - BAF-10 Study

The purpose of this process is to delineate tree stands on the wooded areas of a subject site based on species, composition, density, size, condition and age, including acreage of each stand type. The information is to be used to isolate stands of high quality, groves and individual grand trees to be considered for preservation when developing a conceptual site development plan.

STEPS

- 1) Study Aerial Photographs to determine general forest conditions and to make a preliminary determination of vegetation types which are to be verified in the field during step 2.
- 2) Site Visit/Determining Tree Structure - Point sampling is to be used in order to determine the distribution of tree diameter classes in each vegetation type. The BAF-10 (or Basal Area Factor 10) method is a standard among foresters and applied easily to develop a profile of the tree stands found on a site. One sample plot for each five acres of forest type shall be established. In addition to establishing sample plots for an overall profile of the tree stands found on a site, individual grand trees are to be field located and mapped as accurately as possible without the use of surveying equipment.
- 3) Map tree stands and grand trees at a scale equal to that of the conceptual site development plan, which must not be greater than 1"=100' for sites up to 100 acres. 1"=200' is permitted for sites over 100 acres.

Preparing a Tree Stand Delineation

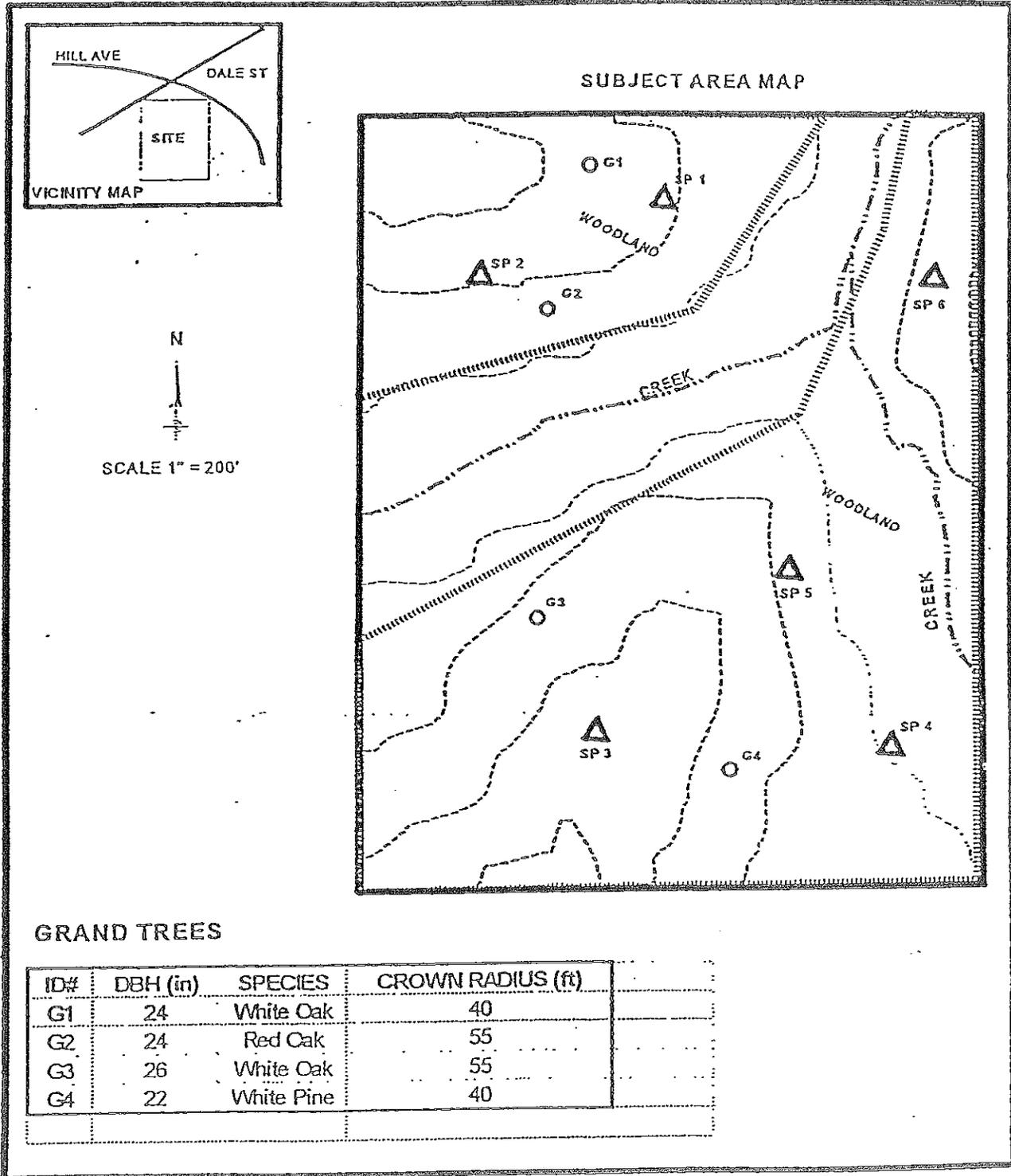
Process 1: Aerial Photography - BAF-10 Study (continued)

- 3)(continued) Maps shall meet the following checklist:
 - a) vicinity map locating the subject site;
 - b) north arrow and scale;
 - c) existing contours at no greater than 5 foot intervals;
 - d) limits of all wetlands and the location of the 100 year floodplain and required setbacks (estimated from FEMA, national inventory maps and field observations);
 - e) locations of existing structures;
 - f) locations of BAF-10 sampling points, 1 for each 5 acres of forest type;
 - g) locations of grand trees along with identification numbers (locations of grand trees within areas to be protected is optional);
 - h) limits of all existing tree stands;
 - i) locations of all existing roads;
 - j) locations of any significant, state-listed champion or rare trees or plants.

- 4) Prepare a written report describing each tree stand shown on the map. The following items must be shown in tabular form and attached to the narrative description:
 - a) acreage of stand;
 - b) forest type;
 - c) dominant and co-dominant species;
 - d) density expressed in trees per acre;
 - e) average diameter;
 - f) average overstory DBH;
 - g) frequency of occurrence for dominant species reflected as a percentage of the total number of trees in the stand);
 - h) list of understory species including groundcovers and herbaceous plants (by order of dominance at the time of the field investigation);
 - I) apparent health problems of any tree stand or grand tree;
 - j) aerial photographs (will be returned to applicant following review).

SAMPLE TREE STAND DELINEATION MAP

AERIAL PHOTOGRAPH BAF-10 METHOD



Process 2: Ocular Estimate (for sites with less than 5 acres of woodland)

The purpose of this method of preparing a tree stand delineation is to delineate specific trees in a wooded area of a site, and list the size, species, condition, age as well as the structure of the roots and canopy for each tree. The information is to be used to isolate individual trees of high quality for protection when developing a conceptual site development plan.

STEPS

1) **Site Visit/Mapping** - Every tree over 12" DBH is field located, as accurately as possible, on a map of existing topography along with identification numbers for each tree. Aerial photographs can be used to help locate individual trees. Trees that are not worthy of consideration for preservation, because of poor overall rating, need not be shown individually, but should be generally located and identified as a stand or as a note on the map. The map must meet the following checklist:

- a) vicinity map locating the subject site;
- b) north arrow and scale;
- c) existing contours at no greater than 5 foot intervals;
- d) limits of all wetlands and the location of the 100 year floodplain and required setbacks (estimated from FEMA, national inventory maps and field observations);
- e) locations of existing structures;
- f) locations of all existing roads;
- g) locations of any significant, state-listed champion or rare trees or plants.

2) **Rating Chart** - Each tree identified above is rated for each factor listed below in order to determine which trees should or should not be saved. The International Society of Arboriculture's landscape evaluation methodology can be used. A copy of this manual can be obtained from ISA (PO Box GG, Savoy, IL 61874-9902; Phone (217) 355-9411.)

- a) *Species* - Based on ability to survive normal construction impacts and its ability to live in a changed environment (silvicultural aspects of the species.)

POOR, FAIR, EXCELLENT

- b) *DBH* - based on the assumption that generally, the larger the tree, the more valuable.

12 - 18"	FAIR
19 - 26"	GOOD
>26"	EXCELLENT

Process 2: Ocular Estimate

2) Rating Chart (continued)

- c) *Health* - Based on the overall health of the tree at the time of the survey (disease, infestation, and decay)

POOR, FAIR, EXCELLENT

- d) *Structure of the Canopy* - Based on the wholeness of the shape, the ability to selectively prune and ability to regenerate growth (response to release).

POOR, FAIR, EXCELLENT

- e) *Structure of the Root System* - Based on any previous damage to the root system or the type of root system as it relates to normal construction impact.

POOR, FAIR, EXCELLENT

- f) *Other aspects* that may have a positive or negative impact on the preservation of a tree i.e. wind firmness, degree of lean, degree of potential hazard, secondary symptoms, etc.

Guidelines for Using a Tree Stand Delineation

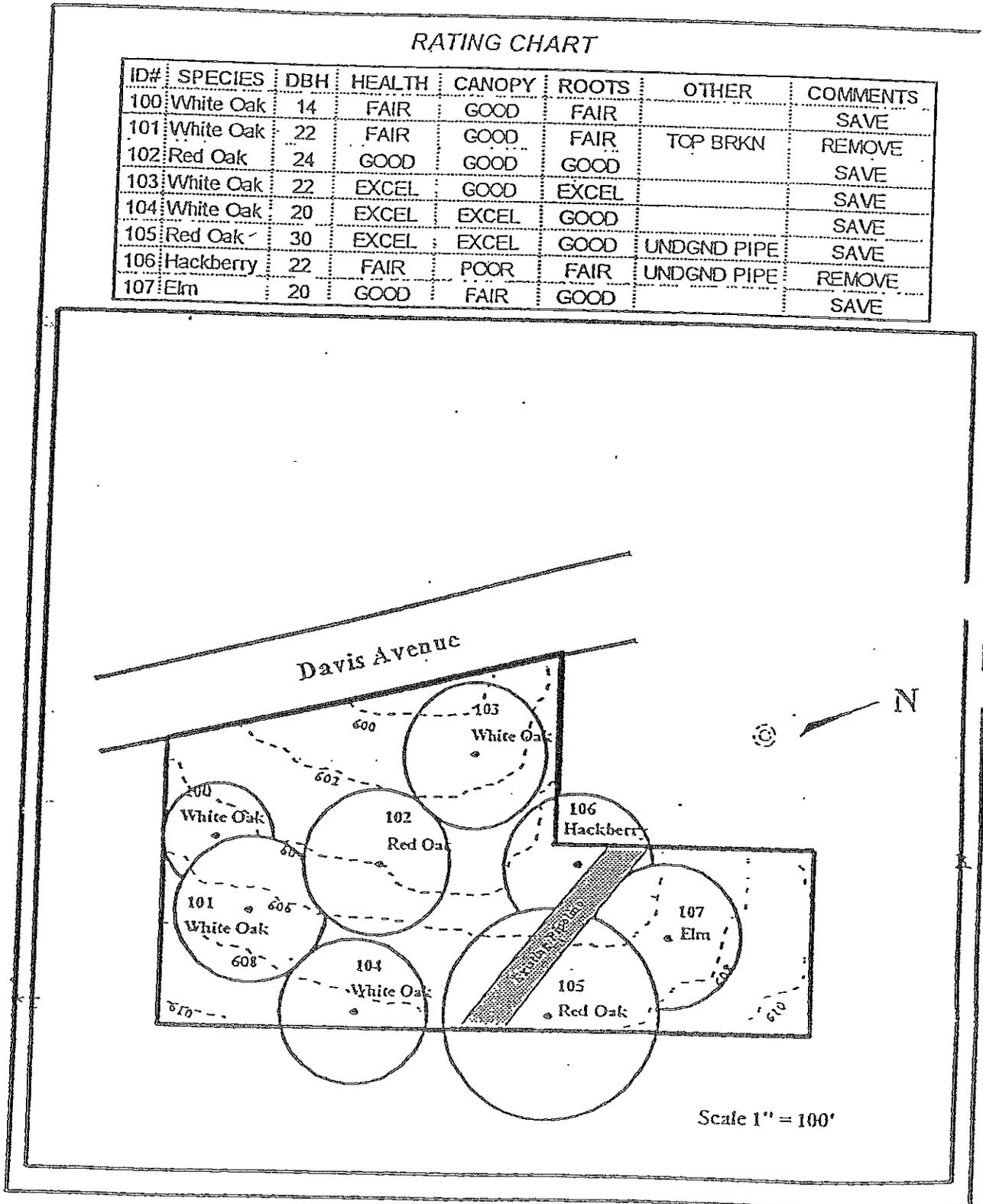
As mentioned in the previous section, the Tree Stand Delineation is to be used DURING the early conceptual design process for a proposed development. The process for using a TSD when developing a concept plan will be more complicated with larger sites that have large amounts of wooded area than with smaller sites that may have only a few trees.

- 1) Identify tree stands or grand trees that are most worthy for preservation.
- 2) Identify areas on the site that have the most potential for disturbance.
- 3) Identify and apply all zoning requirements such as setbacks, parking spaces, tree canopy coverage, roads, etc. and seek optional waivers and/or variances in order to save valuable trees.
- 4) Locate roads, building footprints, parking lots, stormwater structures and utilities so as to minimize their impact on trees worthy of preservation.

SAMPLE TREE STAND DELINEATION MAP
 OCULAR ESTIMATE METHOD

RATING CHART

ID#	SPECIES	DBH	HEALTH	CANOPY	ROOTS	OTHER	COMMENTS
100	White Oak	14	FAIR	GOOD	FAIR		SAVE
101	White Oak	22	FAIR	GOOD	FAIR	TOP BRKN	REMOVE
102	Red Oak	24	GOOD	GOOD	GOOD		SAVE
103	White Oak	22	EXCEL	GOOD	EXCEL		SAVE
104	White Oak	20	EXCEL	EXCEL	GOOD		SAVE
105	Red Oak	30	EXCEL	EXCEL	GOOD	UNDGND PIPE	SAVE
106	Hackberry	22	FAIR	POOR	FAIR	UNDGND PIPE	REMOVE
107	Elm	20	GOOD	FAIR	GOOD		SAVE



TREE PRESERVATION PLANS

A Tree Preservation Plan (TPP) is "a site plan prepared by an approved professional that delineates tree save areas and details measures to be taken to ensure protection and survivability of trees to be saved, prior to and during construction, and also complies with guidelines which are listed in the Wildwood Tree Manual". The purpose of such a plan is stated simply as "to ensure survivability of trees to be saved." Without successful implementation of such a plan, trees that are proposed for preservation will undoubtedly be damaged along with increased mortality during construction activity.

Conceptual Tree Preservation Plan Checklist:

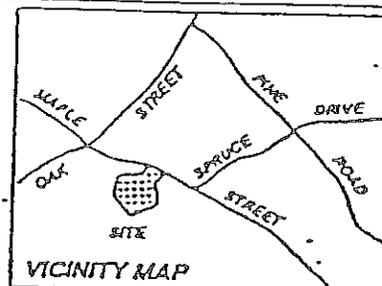
- 1) The limit of disturbance line;
- 2) Plan must be at the same scale as the site development plan or grading plan;
- 3) Table stating the zoning, total site area, square footage and percentage of canopy coverage required and provided;
- 4) Standard general notes and application specific notes;
- 5) Existing contours and proposed contours;
- 6) Locations of all improvements as shown on the site development plan;
- 7) General or conceptual locations of all sediment control devices and structures;
- 8) Locations of proposed utility corridors;
- 9) Clear graphic indication of the tree preservation areas on the plan including the location, type and size of any grand trees as shown on the Tree Stand Delineation and the critical root zone for those trees within fifty feet (50') of the limit of disturbance line.

NOTE: *The site plan can be used as a base plan, and the TPP can be combined with the site plan and/or landscape plan for sites with less than five (5) acres of woodland area.*

SAMPLE CONCEPTUAL TRP

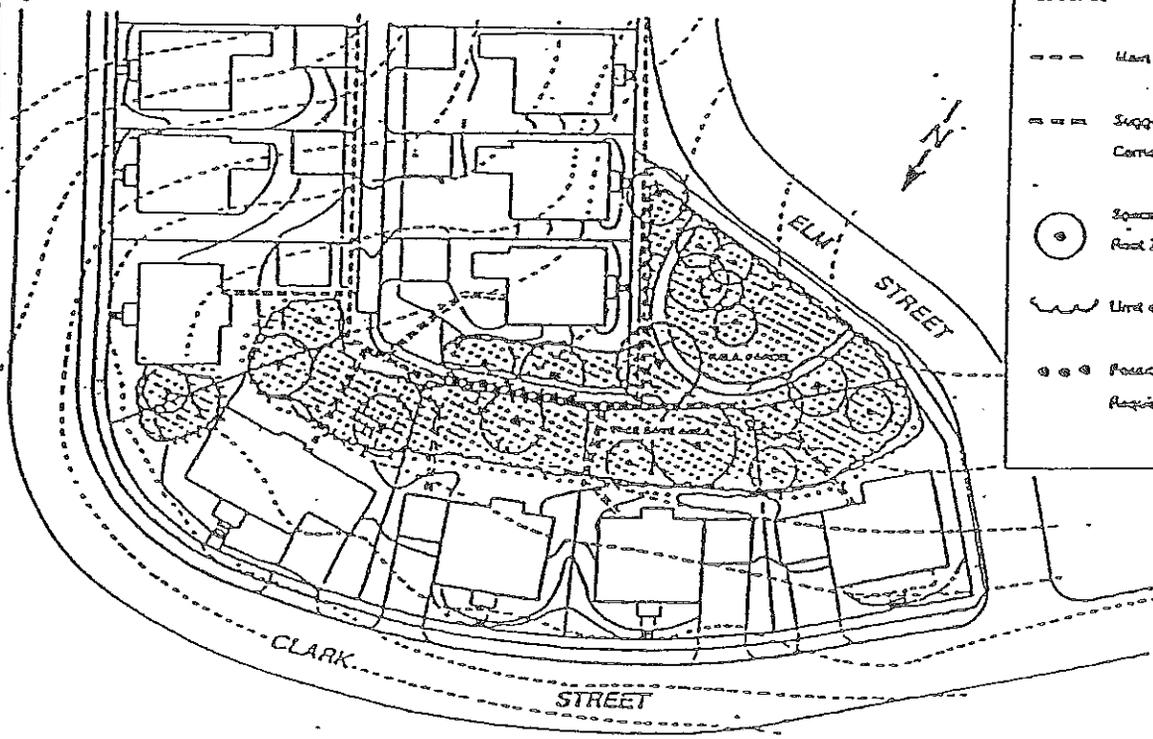
GENERAL NOTES:

Zone:	MXD
Site Area:	1.7849 acres/77,754 sq. ft.
Wooded Area:	same as above
Tree Canopy Required:	30%
Tree Canopy Saved:	17.8% or 13,875 sq. ft.
Tree Canopy Planted:	27.9% or 21,764 sq. ft.
Tree Canopy Provided:	45.8% or 35,639 sq. ft.
Proposed Units:	16 Single Family Detached Units



LEGEND:

- Main Utility Lines
- == Suggested Utility Corridors
- Squatter/Critical Root Zone
- ~ Limit of Disturbance
- ⊙ Potentially Root Pruning Required



Scale: 1" = 30'

Final Tree Preservation Plan Checklist:

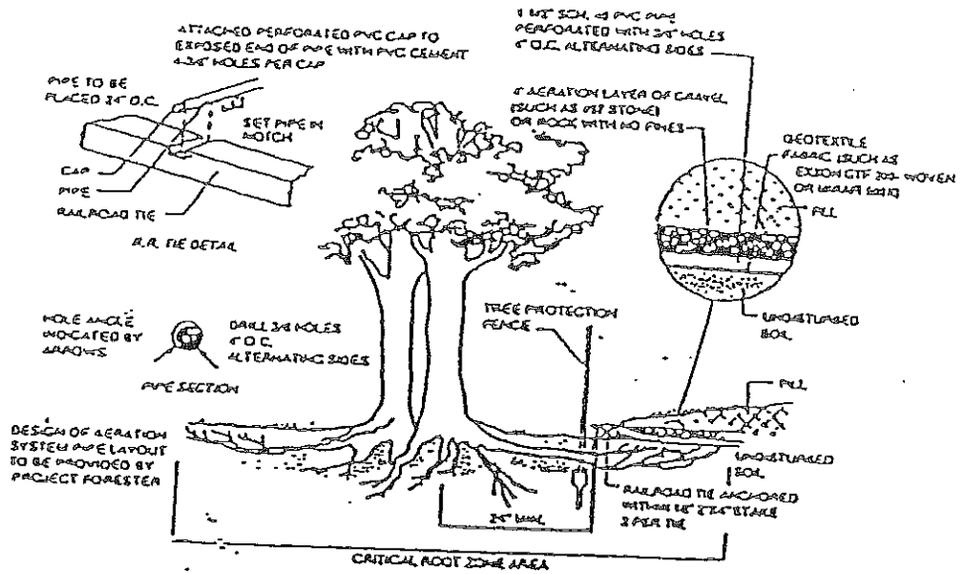
- 1) Include items 1 through 7 required for the conceptual TPP listed above;
- 2) Clear graphic indication of the tree preservation areas on the plan, including the location type and size of any grand trees.
- 3) All of the grand trees must be located using surveying equipment to verify the locations shown on the TSD;
- 4) Critical root zones for all trees to be saved greater than twelve inches (12") DBH and within fifty feet (50') of the limit of disturbance line;
- 5) Root pruning lines for all critical root zones that are encroached upon by the limit of disturbance line;
- 6) Protective devices with details (aeration systems, retaining walls, etc.);
- 7) Reforestation area as required;
- 8) Early maintenance schedule (ie pruning, injection fertilizing, etc.);
- 9) Locations of all utilities and special utility installation procedures;
- 10) Locations of tree preservation signage, construction parking areas, concrete washout areas, and material storage areas;
- 11) Special paving areas with details;
- 12) The following tree protection notes:
 - a) Pre-construction meeting, held on-site to include a presentation of tree protection measures to operators, construction supervisors, developer's representative, and city zoning inspectors;
 - b) Clearing limits shall be rough staked by developer in order to facilitate location for trenching and fencing installation;
 - c) No clearing or grading shall begin in areas where tree treatment and preservation measures have not been completed;
 - d) The sequence of tree treatment and preservation measures shall be:
 - 1) Root pruning trenching;
 - 2) tree protection fencing;
 - 3) Tree pruning and chemical treatment;
 - 4) Aeration systems installed;
 - 5) Sign installation.

- e) A tree protection action key listing each tree to be preserved and the protective measures it will receive.

Requirements During Grading and Construction

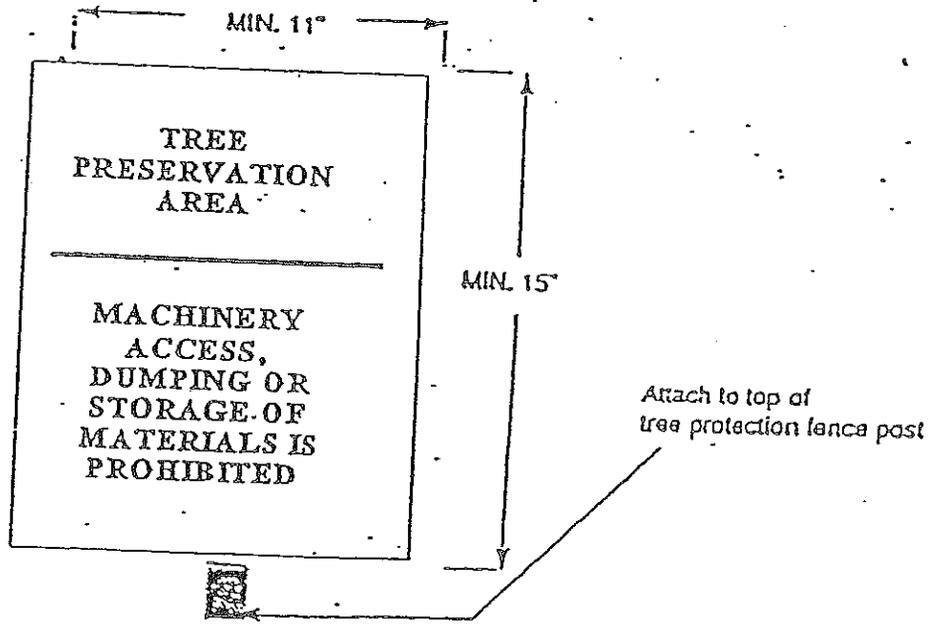
- 1) Above measures shall be directed in the field by the project forester;
- 2) Tree protection fencing shall be maintained and repaired by the developer or contractor for the duration construction and once approved by the city zoning inspector must not be altered without prior approval by the city zoning inspector;
- 3) Access to fenced areas by equipment, materials, or individuals that may cause harm to protected trees will only be permitted with the prior approval of the city zoning inspector;
- 4) Designated aeration zones shall be protected with temporary fencing until final grading;
- 5) Trees, shrubs, or undergrowth shall be removed from protected areas only when necessary and shall be performed with hand tools only;
- 6) Attachment of signage, fencing, etc. to any tree to be saved is prohibited;
- 7) After construction, all temporary barriers, fencing, debris, etc. shall be removed from the site by the contractor.

SAMPLE TREE PRESERVATION PLAN DETAILS



Source: Steve Clark & Associates

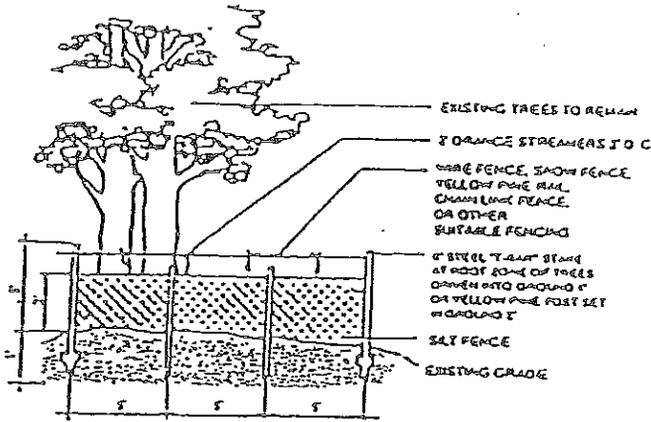
TIMBER AERATION SYSTEM



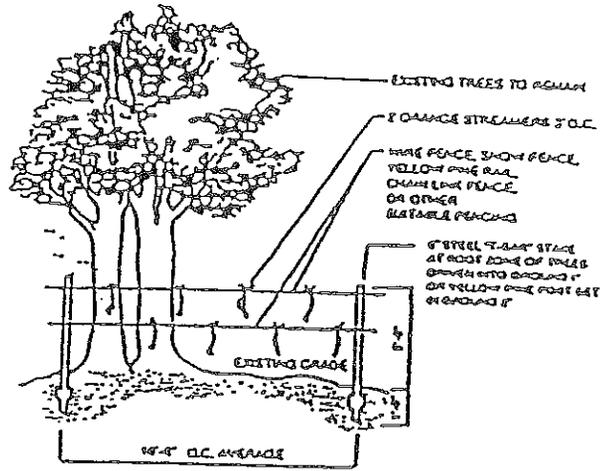
TREE PRESERVATION SIGN

SAMPLE

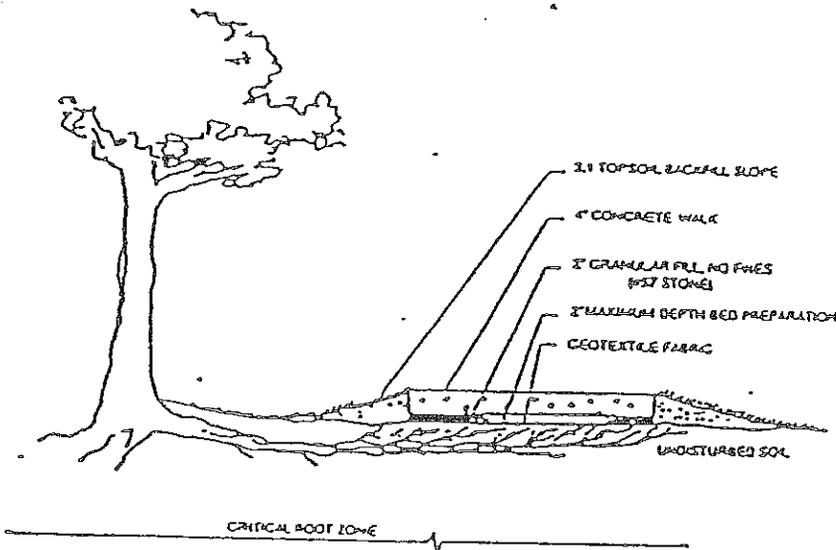
TREE PRESERVATION PLAN
DETAILS



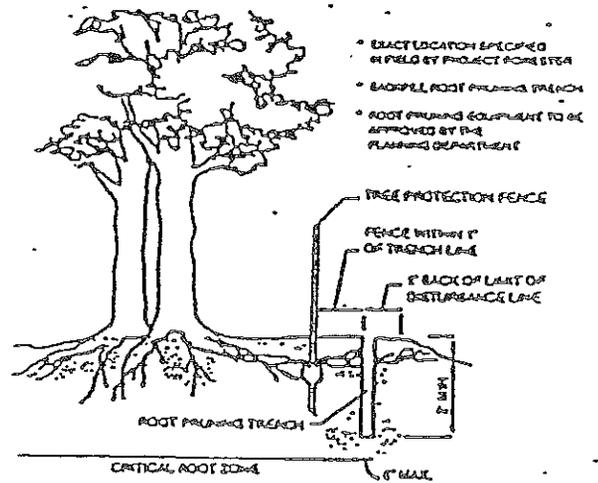
COMBINED SILT AND TREE PROTECTION FENCE



CONSTRUCTION FENCE FOR TREE PROTECTION



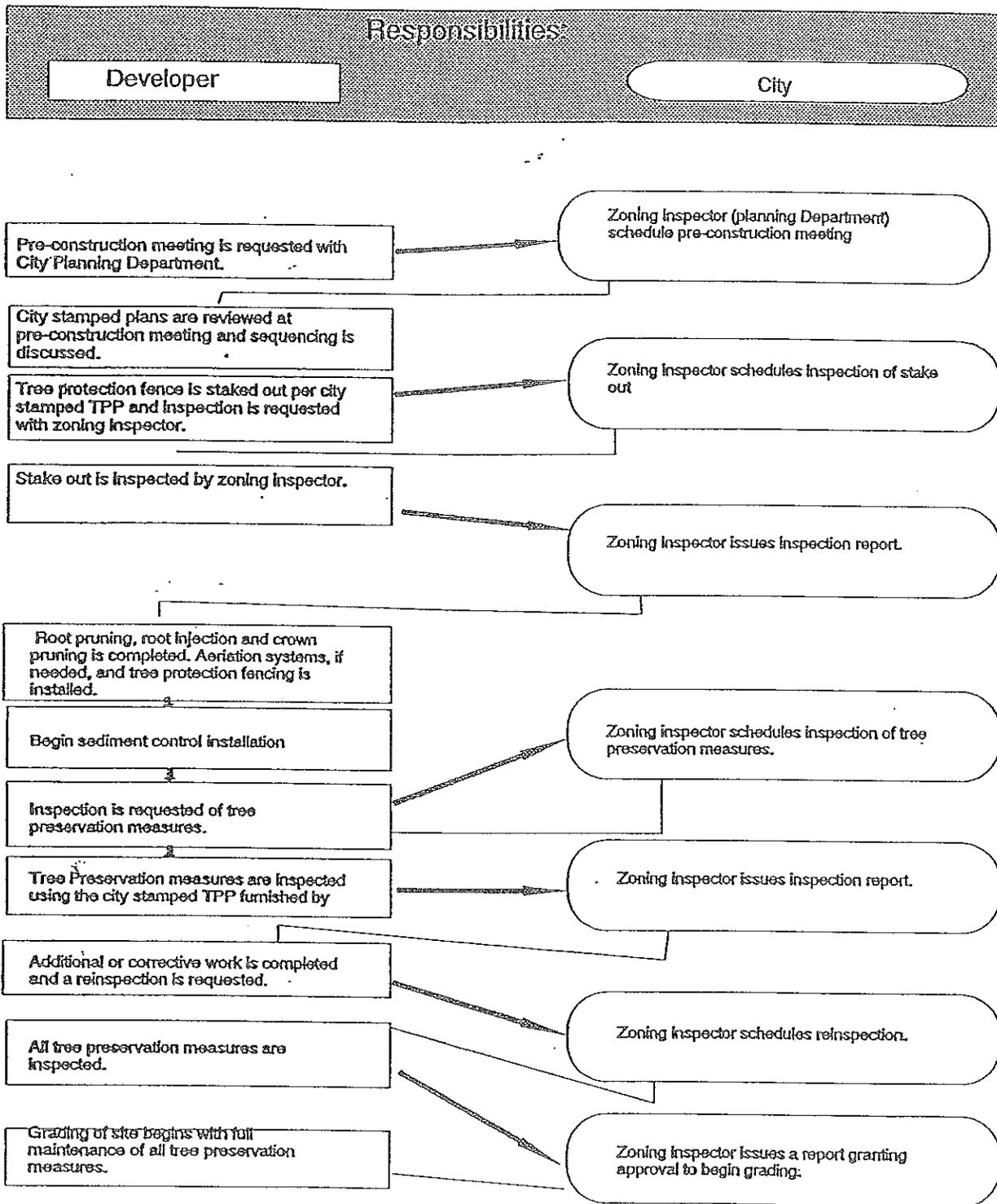
CONCRETE WALK OVER CRITICAL ROOT ZONE



ROOT PRUNING

Source: Steve Clark & Associates

TREE PRESERVATION INSPECTION PROCESS



LANDSCAPE PLANS

It is the purpose of this portion of the manual to provide guidelines for the development of landscape plans that are required to be submitted to the City for approval. A Conceptual Landscape Plan is required with the preliminary site plan review. A Final Landscape Plan is required with the final site plan review.

Checklist for Conceptual Landscape Plans

- 1) Conceptual site plan is to be used as a base plan;
- 2) Clear graphic representation of the location of each proposed plant as well as existing trees that are shown to be saved on the Tree Preservation Plan;
- 3) Plant Key - establishes a symbol for each general category of proposed plant, ie Large Shade Tree, Medium Shade Tree, Small Flowering Tree, Small Evergreen Tree, Large Evergreen Tree, Shrub Mass, Annual Bed, Ground Cover;
- 4) Ultimate Canopy Sizes - for proposed trees shall be: 1,000 square feet for large shade trees, 700 square feet for medium shade trees and large evergreen trees, and 300 square feet for for small flowering trees and small evergreen trees;
- 5) Data Table - that lists the required and provided canopy coverage and green space that is provided by existing and proposed trees.

Checklist for Final Landscape Plans

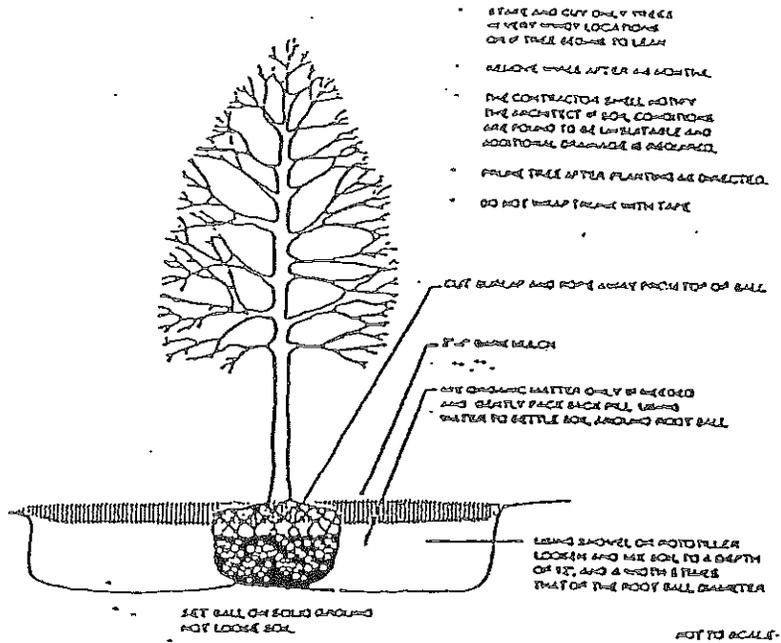
- 1) Numbers 1, 2 and 5 from above checklist;
- 2) Plant List - for each plant, list the quantity, botanical name, common name, size (in accordance with the minimum sizes listed in this manual), container type and any specific comments;
- 3) General Notes - the following general notes must be placed on all landscape plans where relevant:
 - a) Individual homeowners must be notified at least one week prior installation of plants on lots that have an occupied dwelling;
 - b) Unless otherwise stipulated by specific requirements of the City of Wildwood Tree Manual, the landscaping shown on this plan must be planted in accordance with the latest edition of the Tree and Shrub Transplanting Manual published by the International Society of Arboriculture (PO Box GG, Savoy, IL 61874-9902);
 - c) All tree are to be located a minimum distance of 5' from all utility boxes, 5' from a storm drain inlet or manhole, 10' from a fire hydrant, 15' from public street lights, 5' from driveway aprons, 20' from any traffic control sign, and at least 30' from any intersection;

- d) Locations of street trees may be subject to change in order to avoid conflict with street lighting;
 - e) Any planting within a tree preservation area, as designated on the Tree Preservation Plan and shown on this plan, must be done to avoid any adverse impact to the roots of existing trees;
 - f) Plant type substitutions are permitted with verbal or written approval from the City of Wildwood Planning Department;
 - g) All plant material will be reinspected for survival by the City of Wildwood Planning Department one year following installation and again two full growing seasons after planting;
 - h) All plants must meet standards of the latest edition of the American Standards for Nursery Stock sponsored by the Association of American Nurserymen;
 - i) No plant shall be located in areas of obvious poor drainage. If such conditions exist, contact the landscape architect immediately to relocate affected plant material.
 - j) Soil conditions must be tested, verified and adjusted by the landscape contractor to insure that appropriate soil composition and pH levels are suitable for plant material specified for that specific location.
- 4) Conceptual locations of proposed street lights as well as any parking lot lights along with details of any light.
- 5) Planting details and details of any landscape structures that are proposed.

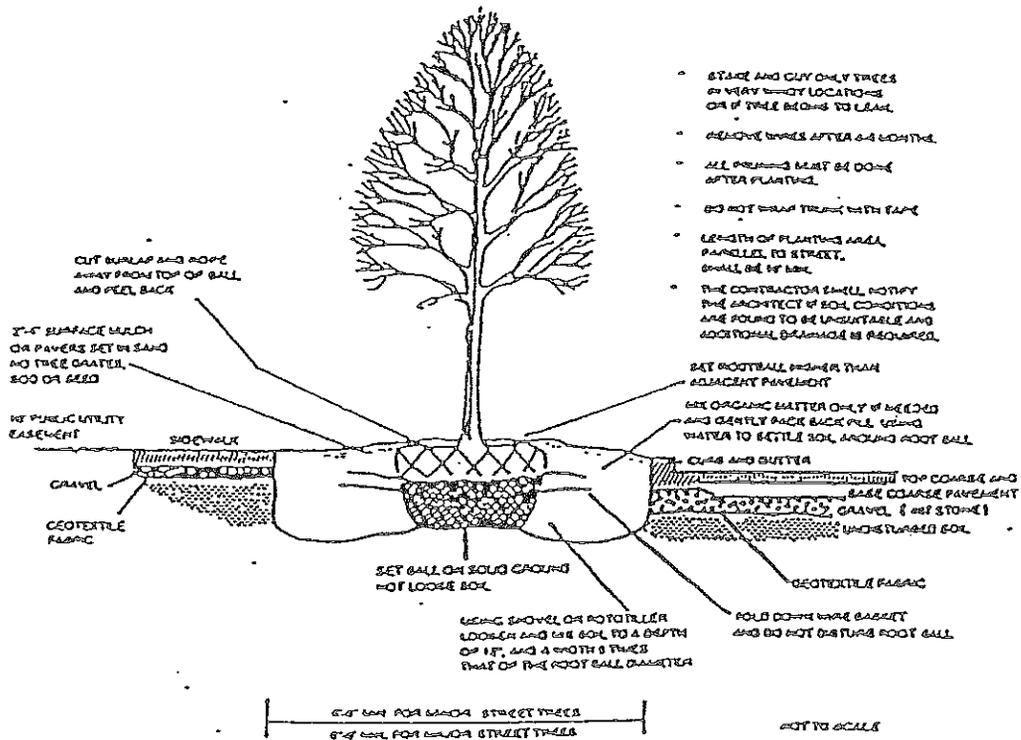
Required Tree Sizes

<u>TREE TYPE</u>	<u>MINIMUM SIZE</u>	<u>MAXIMUM SIZE</u>	<u>USE</u>
Street Trees or Shade Trees	2" - 2 1/2" caliper	4" caliper	Streets, Parking Lots Restoration
Other Deciduous Trees beds, near bldgs, in open areas	1 1/2" - 2" caliper	3" caliper	Planting
Evergreen Buffer Trees	8' in height	12' in height buffering	Screening,
Other Evergreen Trees groupings	5' in height	7' in height	Accents,

LANDSCAPE PLAN DETAILS



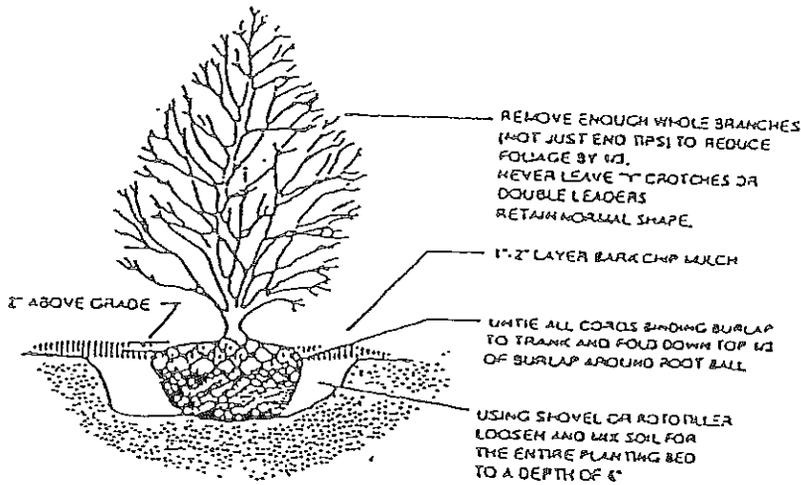
DECIDUOUS TREE PLANTING



STREET TREE AND PARKING LOT ISLAND PLANTING

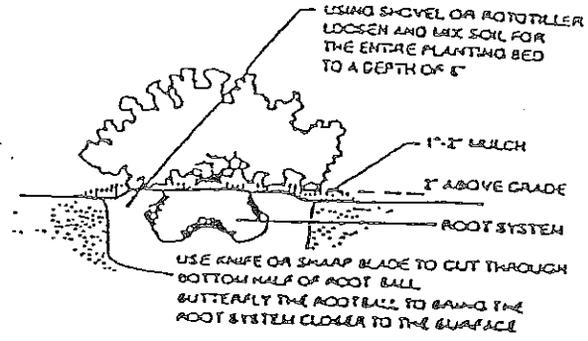
Source: American Forestry Association

LANDSCAPE PLAN DETAILS



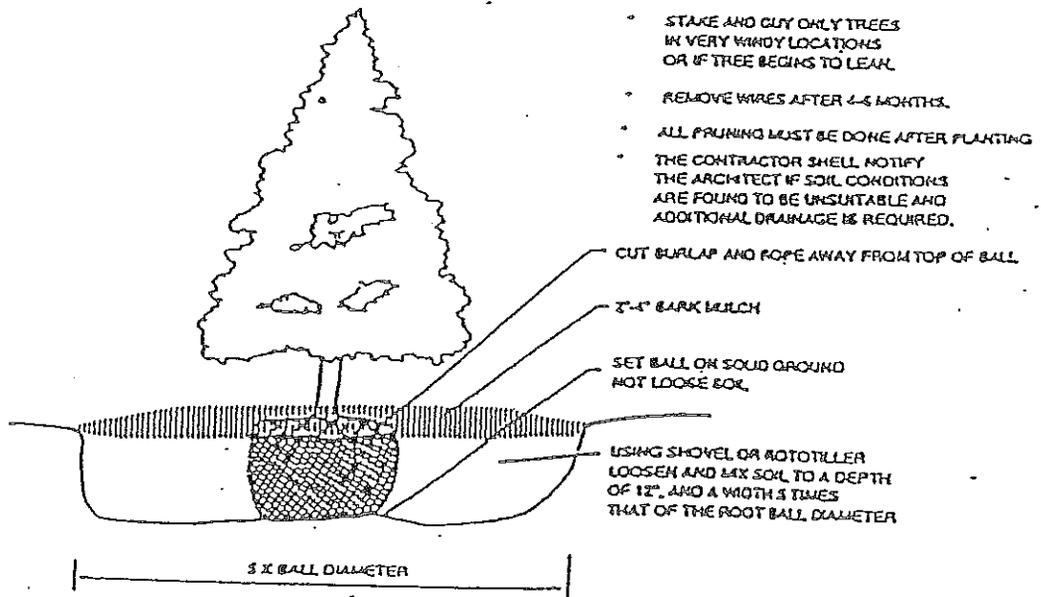
NOT TO SCALE

SHRUB PLANTING (B & B)



NOT TO SCALE

SHRUB PLANTING (CONTAINER)



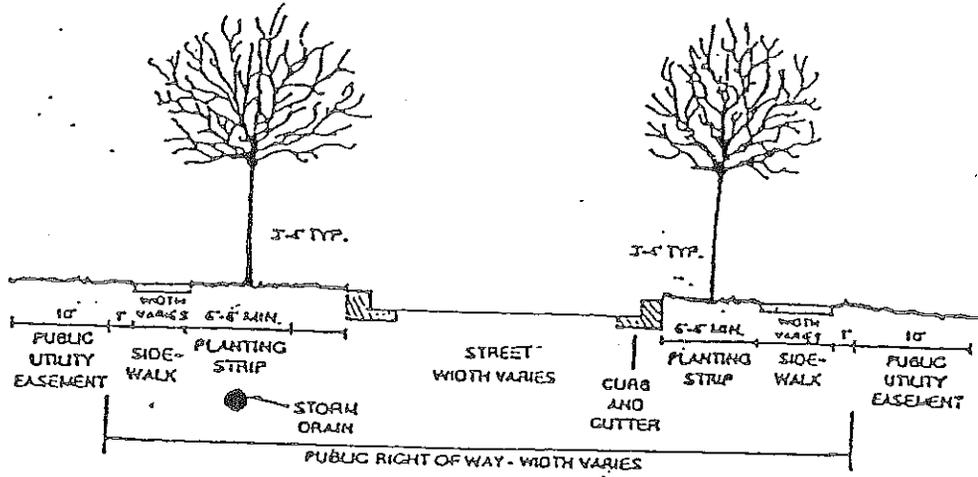
NOT TO SCALE

EVERGREEN TREE PLANTING

Source: American Forestry Association

PUBLIC STREET TREE LOCATION REQUIREMENTS

RELATIVE TO STREET, SIDEWALK AND PUBLIC UTILITIES



PRIVATE STREET TREE LOCATION REQUIREMENTS

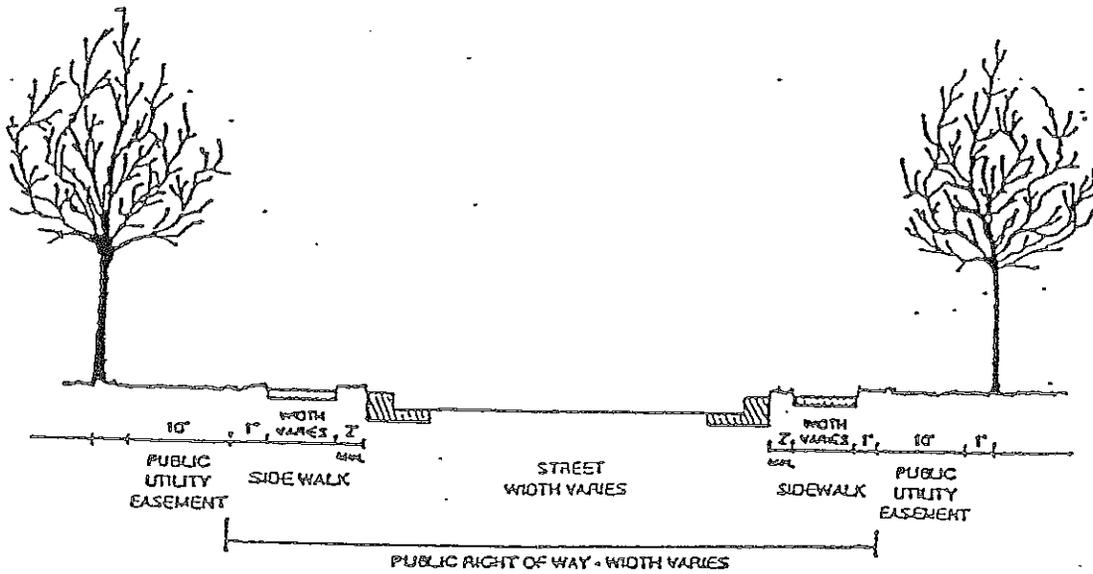
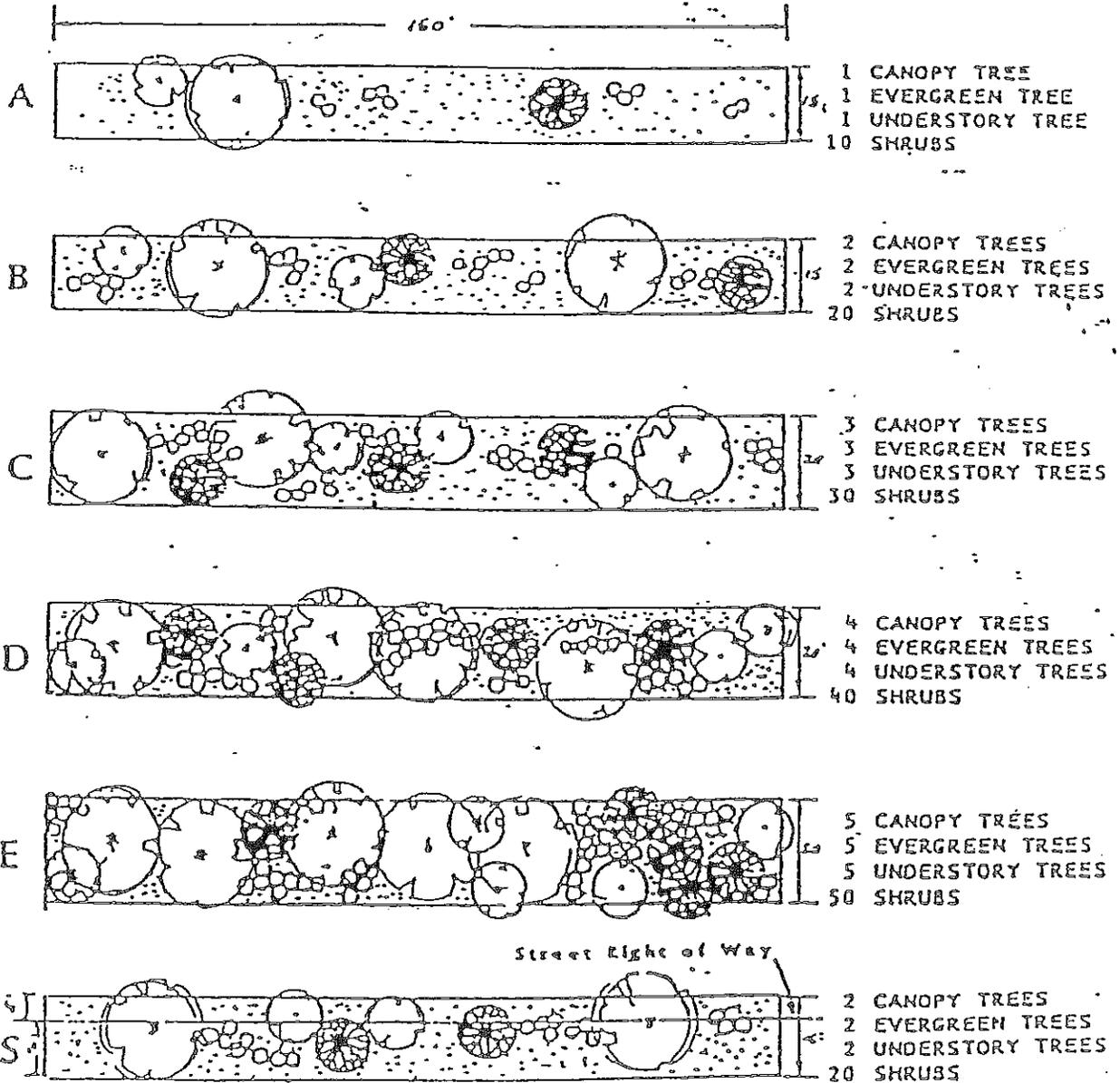


TABLE OF BUFFERYARD STANDARDS

<u>BUFFERYARD</u>	<u>NUMBER OF PLANT UNITS</u>	<u>BUFFERYARD WIDTH</u>
A	1	15 feet
B	2	15 feet
C	3	20 feet
D	4	20 feet
E	5	20 feet
S	2	10 feet

BUFFERYARDS



Each illustration depicts a typical 150 foot Bufferyard.

LANDSCAPE APPLICATIONS

The following design principles shall guide landscaping in special locations:

STREET TREES. Street trees are to be provided for all public streets within and adjacent to any proposed development where insufficient street trees presently exist. Street tree plantings will be no less than 30 feet apart and no greater than 45 feet apart. Species selection must take in to consideration ultimate height of the tree so as not to interfere with overhead utility lines. Street trees will be no less than 2.5 inches in caliper. Planting will conform to industry guidelines described in "Tree and Shrub Transplanting Manual" published by the International Society of Arboriculture (PO Box GG, Savoy, IL 61874-9902; Phone (217) 355-9411.) and the details shown in this manual. Species selection must be made from the list of approved street trees for Wildwood. Street tree requirements can be waived by the Director.

ROADWAY INTERSECTIONS. Landscape treatment shall not interfere with site line requirements as specified in parking, drives, loading and outdoor storage at street or driveway intersections.

PARKING LOTS. A single "Plant Unit" for non-residential Parking Lot landscaping shall consist of the total plantings designated in one of the columns below:

<u>Type of Plant and Size</u>	<u>Standard Plant Unit</u>	<u>Alternative Unit # 1</u>	<u>Alternative Unit # 2</u>
Canopy Tree 3" caliper	2	2	1
Understory Tree 2" caliper	0	1	1
Shrubs (50% to be evergreen) 2' high	10	5	10

For every eight parking spaces, a parking lot will contain landscape areas with one plant unit as described above. Planting will occur in areas no smaller than 72 square feet with good quality topsoil capable of sustaining landscape plants.

Adjoining entrance drives and circulation drives shall also contain three plant units, as described above, in adjacent landscaped areas aggregating 972 square feet for every 8,000 square feet of drive or road area.

LANDSCAPE APPLICATIONS (continued)

NON-RESIDENTIAL BUILDING SITES. A single "Plant Unit" for non-residential building site landscaping shall consist of the total plantings designated in one of the columns below:

<u>Type of Plant and Size</u>	<u>Standard Plant Unit</u>	<u>Alternative Unit</u>
Canopy Tree 3" Caliper	1	1
Understory Tree 2" Caliper	1	0
Shrubs 2' High	10	9
Evergreen Tree 8' High	1	3

Each acre of non-wooded landscaped surface that exists on a development in those areas not designated as parking lots, roadways or bufferyards shall contain fifteen plant units as defined above. An additional requirement is that one plant unit be planted per each 75 feet of building perimeter.

The Director may, at his discretion, approve any amenities, including but not limited to fountains, waterfalls, lakes, rock features, sculptures, etc. as a replacement for any plantings required herein so long as the amenities generally conform to property standards.

BUFFERYARDS. The bufferyard is a combination of setback and visual buffer or barrier between distinctly different zonings. A bufferyard consists of a unit of land together with the planting required thereon. Both the amount of land and the type and amount of planting specified for each bufferyard requirement of this ordinance are designed to eliminate or minimize conflicts between land uses and to insure a desired character along public and private streets and roads. The planting units required of bufferyards have been calculated to insure that they do, in fact, function as buffers.

- A) Bufferyards shall be required to separate different zonings from each other in order to eliminate or minimize potential nuisances such as dirt, noise, glare of lights, signs, building bulk, parking areas, or to provide spacing to reduce adverse impacts of the above, or danger from fires or explosions.
- B) Bufferyards shall be located on the outer perimeter of the lot or site, extending to the lot or site property line. Bufferyards shall not be located on any portion of an existing public or private street or right-of-way.

LANDSCAPE APPLICATIONS (continued)

- a. All bufferyard areas shall be seeded with lawn, ground cover or prairie grass unless a natural ground cover is already established.
- b. Required plant materials for bufferyards shall be planted in the following sizes and percentages:

<u>Canopy Trees</u>	<u>Evergreen Trees</u>	<u>Understory Trees</u>	<u>Shrubs</u>
10% 4" Caliper	10% 10' High	10% 2.5" Caliper	100% 2' High
20% 3" Caliper	20% 8' High	20% 2.0" Caliper	
70% 2" Caliper	70% 6' High	70% 1.5" Caliper	

- c. Where the amount of frontage will require a fractional number of plants, the requirements will be as follows: When the fraction is less than .5, the number required shall be the amount of the next lowest whole number. When the fraction is .5 or greater, the required amount will be the next largest whole number.

- F) A bufferyard may be used for passive recreation. It may contain pedestrian, bike, or jogging trails provided that: (1) no plant material is eliminated, (2) the total width of the bufferyard is maintained, and (3) all other regulations of controlling ordinances are met.
- G) The property owner shall maintain the minimum bufferyard planting requirements of this ordinance and replace as necessary to maintain the required plant units.
- H) The following "bufferyard matrix" identifies the type of bufferyard required to separate different zoning types:

Low Density Residential (LDR)	= NU, R1
Medium Density Residential (MDR)	= R1A, R2
High Density Residential (HDR)	= R3, R4, R6A
Commercial (C)	= C1, C2, C8*, M1, M3*, MXD*

* NOTE: Bufferyard requirements for these Planned Districts shall be established per the site-specific ordinance. However, these requirements shall not be less than those stipulated under Bufferyard E.

LANDSCAPE APPLICATIONS (continued)

- C) To determine the type of bufferyard required on a site or between a site and a street, the following procedure shall be followed:
1. Identify whether any portion of the lot line of the site constitutes a zoning district boundary. If it does, determine the zoning on both sides of the lot or site.
 2. Determine whether the land on the adjoining site is vacant or developed or whether a subdivision plat of the adjoining site has been approved.
 3. Classify any street adjacent to the proposed use as a Arterial, Collector or Access street.
 4. Determine the bufferyard required on each boundary (or segment thereof) of the subject site by referring to the "Table of Bufferyard Standards" and the "Required Bufferyard Matrix" in this manual.
- D) If a bufferyard screen, consisting of different plants than required below, is already in place, the Director may substitute the existing bufferyard screen for the Standard Plant Units required below.
- E) The Table of Bufferyard Standards indicates the specifications of each bufferyard. Bufferyard requirements are stated in terms of the width of the bufferyard and number of Plant Units required per one hundred fifty (150) linear feet of bufferyard.

A single "plant unit" for bufferyards shall consist of the total plantings designated in one the columns below:

TABLE OF STANDARD PLANT UNITS

<u>Type of Plant and Size</u>	<u>Standard Plant Unit</u>	<u>Alternative Unit</u>
Canopy Tree	1	1
Understory Tree	1	0
Shrubs	10	9
Evergreen Tree	1	3

The exact placement of required plants and structures shall be the decision of each user except that the following requirements shall be satisfied:

REQUIRED BUFFERYARD MATRIX

	<u>LDR</u>	<u>MDR</u>	<u>HDR</u>	<u>C</u>
<u>LDR</u>	--	B	C	E
<u>MDR</u>	B	--	B	D
<u>HDR</u>	C	B	--	C
<u>C</u>	E	D	C	--

D) The following "bufferyard matrix" identifies the type of bufferyards required along streets:

Low Density Residential (LDR)	= NU, R1
Medium Density Residential (MDR)	= R1A, R2
High Density Residential (HDR)	= R3, R4, R6A
Commercial (C)	= C1, C2, C8*, M1, M3*, MXD*

BUFFERYARDS REQUIRED ALONG STREETS

	<u>ARTERIAL</u>	<u>COLLECTOR</u>	<u>ACCESS</u>
<u>LDR</u>	D	C	S
<u>MDR</u>	D	C	S
<u>HDR</u>	D	C	S
<u>C</u>	D	C	E

OTHER LANDSCAPE SPECIFICATIONS

Turf and Ornamental - All non-wooded, undeveloped and unmulched portions of building sites, parking lots, and road right-of-ways will be sodded or seeded with turfgrass or native grasses that are hardy in USDA Zones 5 and 6 within 10 days of the completion of grading.

Sodding and seeding will be performed according to accepted industry standards.

Irrigation - All landscape areas shall be irrigated.

Grading - All grading for landscaped areas will not exceed a slope greater than 3:1. All exposed slopes will be protected from erosion as needed.

Maintenance - The landscape of all undeveloped and developed property will be properly maintained in a sightly and well-kept manner.

Replacement - Replanting and replacement of existing plant materials will be executed on an annual basis as needed by the property owner.

TIMBER SALE PERMITS

A timber sale permit will be required of anyone wanting to conduct a timber sale that will remove greater than five thousand square feet (5000 ft²) of canopy coverage. Permit applications shall be submitted with a timber management plan from a forester indicating that the cutting of trees will be a thinning or harvest that insures the continued health and existence of the woodland. The timber management plan shall specify an acceptable method of regeneration for the area to be harvested. Unless waived by the Director, any parcel of land may qualify for a timber sale permit only once every ten years.

REQUIRED BONDS

Tree Bond - In determining the amount of bond to be submitted to secure a grading permit, the Director of Planning shall include such amount as to ensure the restoration of trees and compensate for such other losses as may occur from trees destroyed, removed, or lost in violation of this ordinance or an approved Tree Preservation Plan or six thousand dollars (\$6000.00) per acre of trees to be retained, whichever is greater. The value of trees lost shall be determined by use of the International Society of Arboriculture's tree valuation methodology. The bond will be used to complete restoration plantings required by the City of Wildwood but not completed by the developer.

Landscape Bond - A bond equal to two hundred dollars (\$200.00) per woody plant shown on the landscape plan shall be required. The bond will be used to complete plantings required by the City of Wildwood but not completed by the developer.

APPENDIX A.

SOURCES OF DETAILED INFORMATION

Tree City USA Bulletins

Available from: National Arbor Day Foundation
100 Arbor Avenue
Nebraska City, NE 68410

Living With Urban Soils (Bulletin #5)
How to Save Trees During Construction (Bulletin #7)
Trees for Wildlife (Bulletin #13)
How to Kill A Tree (Bulletin #14)
A Systematic Approach to Building With Trees (Bulletin #20)
Trees and Parking Lots (Bulletin #24)
Placing a Value on Trees (Bulletin #28)
The Way Trees Work (Bulletin #38)

Trenching and Tunneling Near Trees -

A booklet developed by Dr. James R. Fazio that addresses standards for excavation near trees. Available from the National Arbor Day Foundation.

Arboriculture -

an excellent technical reference by Richard W. Harris and published by Prentice Hall. Available at the Missouri Botanical Garden bookstore and most college bookstores including Meramec Community College. 674pp.

Tree Maintenance -

another technical reference. Written by P.P. Pirone and published by Oxford University Press. Available at the Missouri Botanical Garden bookstore. 514pp.

Protecting Trees from

Construction Damage -

A booklet developed by the University of Minnesota Extension Service.

(#NR-FO-6135-S) Available from: Minnesota Extension Service
Distribution Center
20 Coffey Hall
1420 Eckles Avenue
St. Paul, MN 55108-6064
FAX # (612) 625-2207

Tree and Shrub

Transplanting Manual -

A booklet containing standards practiced by the nursery industry in the planting of trees and shrubs. Available from International Society of Arboriculture, PO Box GG, Savoy, IL 61874-9902. (Phone 217-355-9411.)

Construction Damage to Trees -

A 13 minute video available from International Society of Arboriculture at the address provided above.

Avoidance of Construction

Damage to Trees -

A 22 minute video available from International Society of Arboriculture at the address provided above.

APPENDIX B.

NATIVE SPECIES SELECTION LIST

<u>Scientific Name</u>	<u>Common Name</u>
<i>Acer rubrum</i>	Red Maple (L)
<i>Acer saccharinum</i>	Silver Maple (L)
<i>Acer saccharum</i>	Sugar Maple (L)
<i>Aesculus glabra</i>	Ohio Buckeye (M)
<i>Betula nigra</i>	River Birch (L)
<i>Carya</i> spp.	Hickories (L)
<i>Catalpa speciosa</i>	Catalpa (L)
<i>Celtis laevigata</i>	Sugarberry (L)
<i>Celtis occidentalis</i>	Hackberry (L)
<i>Cercis canadensis</i>	Redbud (S)
<i>Cornus florida</i>	Flowering Dogwood (S)
<i>Fraxinus americana</i>	White Ash (L)
<i>Fraxinus pennsylvanica</i>	Green Ash (L)
<i>Gleditsia triacanthos</i>	Honeylocust (M)
<i>Gymnocladus dioica</i>	Kentucky Coffeetree (L)
<i>Juglans cinerea</i>	Butternut (L)
<i>Juglans nigra</i>	Black Walnut (L)
<i>Juniperus virginiana</i>	Eastern Redcedar (M)
<i>Liquidambar styraciflua</i>	Sweetgum (L)
<i>Maclura pomifera</i>	Osage Orange (M)
<i>Morus rubra</i>	Red Mulberry (M)
<i>Nyssa sylvatica</i>	Black Gum (M)
<i>Pinus echinata</i>	Shortleaf Pine (M)

<u>Scientific Name</u>	<u>Common Name</u>
<i>Platanus occidentalis</i>	Sycamore (L)
<i>Prunus serotina</i>	Black Cherry (M)
<i>Quercus alba</i>	White Oak (L)
<i>Quercus macrocarpa</i>	Bur Oak (L)
<i>Quercus stellata</i>	Post Oak (L)
<i>Quercus lyrata</i>	Overcup Oak (L)
<i>Quercus bicolor</i>	Swamp White Oak (L)
<i>Quercus imbricaria</i>	Shingle Oak (L)
<i>Quercus meuhlenbergii</i>	Chinkapin Oak (L)
<i>Quercus palustris</i>	Pin Oak (L)
<i>Quercus phellos</i>	Willow Oak (L)
<i>Quercus rubra</i>	Red Oak (L)
<i>Quercus shumardii</i>	Shumard Oak (L)
<i>Quercus velutina</i>	Black Oak (L)
<i>Robinia pseudoacacia</i>	Black Locust (M)
<i>Salix nigra</i>	Black Willow (M)
<i>Sassafras albidum</i>	Sassafras (M)
<i>Tilia americana</i>	Basswood (L)
<i>Ulmus rubra</i>	Slippery Elm (L)

This list is a partial list. Other native trees may be approved on a case by case basis.

ULTIMATE TREE CANOPY COVERAGE

- L = Large (1000 ft²)
- M = Medium (700 ft²)
- S = Small (300 ft²).

APPENDIX C.

GENERAL LIST OF ACCEPTABLE SPECIES FOR
LANDSCAPE PLANTINGS

<u>Scientific Name</u>	<u>Common Name</u>	<u>Scientific Name</u>	<u>Common Name</u>
<i>Abies concolor</i>	White Fir (M)	<i>Gleditsia triacanthos</i> var. <i>Inermis</i>	Honeylocust, Thornless (M)
<i>Acer ginnala</i>	Amur Maple (S)	<i>Gymnocladus dioica</i>	Kentucky Coffeetree (L)
<i>Acer rubrum</i> cv. 'Red Sunset'	Red Maple (L)	<i>Juglans nigra</i>	Black Walnut (L)
<i>Acer saccharum</i>	Sugar Maple (L)	<i>Juniperus virginiana</i>	Eastern Redcedar (M)
<i>Alnus glutinosa</i>	Black Alder (S)	<i>Liriodendron tulipifera</i>	Tuliptree (L)
<i>Amelanchier arborea</i>	Serviceberry (S)	<i>Magnolia acuminata</i>	Cucumbertree (L)
<i>Betula nigra</i>	River Birch (L)	<i>Magnolia x soulangiana</i>	Saucer Magnolia (M)
<i>Carpinus betula</i>	European Hornbeam (M)	<i>Magnolia virginiana</i>	Sweetbay Magnolia (M)
<i>Celtis laevigata</i>	Sugarberry (L)	<i>Nyssa sylvatica</i>	Black Gum (M)
<i>Celtis occidentalis</i>	Hackberry (L)	<i>Picea abies</i>	Norway Spruce (L)
<i>Cercidiphyllum japonicum</i>	Katsuratree (M)	<i>Picea pungens</i>	Blue Spruce (M)
<i>Cercis canadensis</i>	Redbud (S)	<i>Pinus strobus</i>	White Pine (L)
<i>Cladrastus lutea</i>	Yellowwood (M)	<i>Pyrus calleryana</i> cv 'Aristocrat' cv 'Cleveland Select' (No 'Bradford')	Callery Pear (M)
<i>Cornus florida</i>	Flowering Dogwood (S)	<i>Phellodendron amurense</i>	Corktree (M)
<i>Cornus kousa</i>	Kousa Dogwood (S)	<i>Platanus occidentalis</i>	Sycamore (L)
<i>Crataegus crus-galli</i>	Cockspur Hawthorn (S)	<i>Pseudotsuga menziesii</i>	Douglasfir (M)
<i>Crataegus phaenopyrum</i>	Wash'ton Hawthorn (S)	<i>Quercus alba</i>	White Oak (L)
<i>Crataegus viridis</i> 'Winter King'	Winter King H'thorn (S)	<i>Quercus macrocarpa</i>	Bur Oak (L)
<i>Fraxinus americana</i>	White Ash (L)	<i>Quercus stellata</i>	Post Oak (L)
<i>Fraxinus pennsylvanica</i>	Green Ash (L)	<i>Quercus lyrata</i>	Overcup Oak (L)
<i>Ginkgo biloba</i> (male cultivars only)	Ginkgo (M)		

APPENDIX C. GENERAL LIST OF ACCEPTABLE SPECIES FOR LANDSCAPE PLANTINGS (CONTINUED)

<u>Scientific Name</u>	<u>Common Name</u>
<i>Quercus bicolor</i>	Swamp White Oak (L)
<i>Quercus imbricaria</i>	Shingle Oak (L)
<i>Quercus muehlenbergii</i>	Chinkapin Oak (L)
<i>Quercus palustris</i>	Pin Oak (L)
<i>Quercus phellos</i>	Willow Oak (L)
<i>Quercus rubra</i>	Red Oak (L)
<i>Quercus shumardii</i>	Shumard Oak (L)
<i>Sophora japonica</i>	Japanese Pagoda (M)
<i>Sassafras albidum</i>	Sassafras (M)
<i>Taxodium distichum</i>	Baldcypress (M)
<i>Tilia cordata</i>	Littleleaf Linden (M)
<i>Tsuga canadensis</i>	Hemlock (M)
<i>Ulmus parvifolia</i>	Lacebark Elm (L)
<i>Zelkova serrata</i>	Zelkova (M)

Trees in Bold Print are acceptable for use in street tree plantings. All others are not to be used as street trees. Species not on the list may be used with approval from the Director of Planning.

ULTIMATE TREE CANOPY COVERAGE

- L = Large (1000 ft²)
- M = Medium (700 ft²)
- S = Small (300 ft²).

UNDESIRABLE TREES FOR STREET USE

Box-Elder	Acer negundo (Breakage and insect pests)
Silver Maple	Acer saccharinum (Breakage; too large when mature; root system clogs sewers and drains)
Horsechestnut	Aesculus hippocastanum (Leaf blight and burn; messy)
Catalpa	Catalpa speciosa (Coarse; insect pests)
Tulip Tree	Liriodendron tulipifera (Difficult to transplant; insect pests; leaves turn yellow and drop during dry periods; wood is brittle and breaks easily)
Apple	Malus pumila (Fruit objectionable on street; numerous insect pests and diseases; requires too much spraying)
Mulberry	Morus alba (Fruit objectionable)
Poplars (all kinds)	Populus (Very subject to breakage; disease and insects; roots clog sewers and drains)
Black Locust	Robinia pseudoacacia (Insects, borers and leaf miners)
Willows (all kinds)	Salix (Breakage; disease and insects; roots clog sewers and drains)
Moline Elm	Ulmus americana moline (Subject to breakage)
Siberian Elm	Ulmus pumila (Commonly known as Chinese elm; subject to bad breakage)
Tree-of-Heaven	Ailanthus altissima (Coarse; breakage)

Subdivisions which do NOT need a Tree Preservation Plan

Ashford Oaks
Babler Parks Estates
Brentmoor Place
Candletree
Carriage Crossing Estates
Caulks Creek Estates
Chatham Place
Cherry Hill Farm
Chesterfield Shores
Chesterfield Valley (Valley View)
Clayton Woods
Clay-Val
Copper Lakes
Courtyards at West Park
Cove at Lake Chesterfield
Crown Pointe
Dartmouth
Estates of Lake Chesterfield
Evergreen
Harbors at Lake Chesterfield
Herbert Valley Estates
Hickory Manor
Highlands at Chesterfield
Highland Summit
Hunters Run
Kingstowne Estates
Lafayette Trails
Lake Chesterfield
Lakeshore Meadows (Fairhaven)
Landings at Lake Chesterfield
Meadows at Cherry Hills
Nantucket
Oak Ridge Trails
Old Grover Estates
Pine Creek
Pleasant Valley Addition
Pleasant Valley Meadows
Pointe Clayton
Powders Mill
Prestwick Place
Rockwood Pointe
Sandalwood Creek
Seven Hills Estates
Seven Hills South
Seven Hills South Addition
Shepherd Estates
Strecker Farms
Strecker Ridge
Strecker Woods
Tall Oaks at Winding Trails
Tartan Green
Timber Ridge Estates
Turnberry Place
Valley Estates
Valley Oak Estates
Valley View
Villages of Cherry Hills
 Arlington Terrace
 Carriage Crossing
 Hunters Crossing
 Lancaster Woods Estates
 Oak Park
 Victoria Crossing
 Willow Green
Villages of Lake Chesterfield
Village of Winding Trails
Westglen Farms
Westglen Meadows
Westhampton Woods
Westridge Oaks
West Park Estates
Wildhorse
Wilderness Trails
Winding Trails

STREET TREES

Drought Tolerant Species

Trident Maple	Acer buergeranum
Hedge Maple	A. campestre
Tree of Heaven (also wet)	Ailanthus altissima
Shagbark Hickory	Carya ovata
Kousa Dogwood	Cornus kousa
Turkish Filbert	Corylus colurna
Ginkgo (male only)	Ginkgo biloba
Kentucky Coffeetree (male only)	Gymnocladus dioicus
Goldenraintree	Koelreutaria paniculata
Black Gum	Nyssa sylvatica
White Oak	Quercus alba
Bur Oak	Q. macrocarpa
Black Locust	Robinia pseudoacacia
Japanese Pagodatree	Sophora japonica

High Clay/Low Oxygen Soils

Hedge Maple	Acer campestre
Paperbark Maple	A. griseum
Norway Maple	A. platanoides
Red Maple	A. rubrum
Common Horsechestnut	Aesculus hippocastanum
Tree of Heaven	Ailanthus altissima
European Alder	Alnus glutinosa
River Birch	B. nigra
American Hornbeam	Carpinus caroliniana
Common Hackberry	Celtis occidentalis
Katsuratree	Cercidiphyllum japonicum
hawthorn	Crataegus spp.
White Ash	Fraxinus americana
Green Ash	F. pennsylvanica
Thornless Common Honeylocust	Gleditsia triacanthos inermis
Kentucky Coffeetree	Gymnocladus dioicus
Carolina Silverbell	Halesia carolina
Black gum	Nyssa sylvatica
American Hophornbeam	Ostrya virginiana
London Planetree	Platanus acerifolia
American Planetree	P. occidentalis
Swamp White Oak	Quercus bicolor
Scarlet Oak	Q. coccinea
Shingle Oak	Q. imbricaria
Pin Oak	Q. palustris
English Oak	Q. robur
Red Oak	Q. rubra
Basswood	Tilia americana

Right of Way

*has been Revised

GENERAL LIST OF ACCEPTABLE SPECIES FOR STREET TREE PLANTINGS

Baldcypress	Pin Oak
Callery Pear (No Bradford)	Red Maple
Corktree	Red Oak
Flowering Dogwood	Redbud
Green Ash	Sugar Maple
Ginko	Sugarberry
Hackberry	Swamp White Oak
Honeylocust, Thornis	Yellowwood
Japanese Pagoda	Washington Hawthorn
Katsuratree	White Ash
Kentucky Coffeetree	Willow Oak
Kousa Dogwood	Winter King Hawthorn
Littleleaf Linden	Zelkova

Species not on the list may be used with approval from the Director of Planning

Must be 10' off. pavement in rural area $\frac{1}{2}$ between sidewalk & street in suburban area



WILDWOOD

STREET TREE SELECTION LIST

The following list identifies City-approved street trees in the order of their preference. A mixture of these trees is also preferred over planting a monoculture within an entire subdivision in order to reduce the possibility of disease and loss. Please contact the Department of Planning at (636) 458-0440 regarding any questions or requests for species substitutions.

- | | |
|-----------------------------------|------------------------------------|
| 1. Winter King Hawthorn | <i>Crataegus viridis</i> |
| 2. Autumn Brilliance Serviceberry | <i>Amelanchier grandiflora</i> |
| 3. Spring Snow Crabapple | <i>Malus</i> (fruitless cultivars) |
| 4. Eastern Redbud | <i>Cercis canadensis</i> |
| 5. Paperbark Maple | <i>Acer griseum</i> |
| 6. Trident Maple | <i>Acer buergeranum</i> |
| 7. Kwanzan Oriental Cherry | <i>Prunus serrulata sekigania</i> |
| 8. Hedge Maple | <i>Acer campestre</i> |

Drought-tolerant species: 1, 3, 4, 6, 8

Species tolerant of high clay/low oxygen soils: 1, 2, 3, 4, 5, 7, 8

