

June 23, 2005

TO: John Szerlag, City Manager

FROM: Brian P. Murphy, Assistant City Manager/Services
Carol K. Anderson, Parks and Recreation Director

SUBJECT: Agenda Item: Chapter 28 - Tree Ordinance Revision

In response to an inquiry at the City Council meeting of June 6, 2005, regarding the City's Tree Ordinance, staff offers the following chronology of revisions to the ordinance and to the supporting Landscape Design and Tree Preservation Standards.

Staff has been revising the Tree Ordinance – Chapter 28 and will be sending the revised document to you and Council for review/adoption this summer. The purpose of the revision is to align the ordinance with the Landscape Design and Tree Preservation Standards, clean up document language and formatting, update the prohibited species list, establish penalties for unauthorized removal or destruction of trees and plants in public spaces, clarify existing policies, and add new provisions for landscape maintenance requirements of public spaces (lawn extensions, subdivision entry islands, cul-de-sac islands) by adjoining property owners. If it is the desire of Council to increase the requirements for tree preservation, staff will propose changes and requirements to the ordinance in the future.

BACKGROUND

Chapter 28 of the City Ordinances outlines regulations for trees and plants within the city, and charges the Parks and Recreation Director with the responsibility to seek compliance with the provisions of the Chapter. In 1973, Council approved the tree ordinance, which was intended to govern the protection, installation, and long-term maintenance of trees, plants, and vegetation within the City of Troy.

The City Council approved a separate document called the Landscape Design and Tree Preservation Standards in 1975 to assist in the enforcement of Chapter 28 specifically as it relates to private development. In the years since initial adoption, the standards have been revised four (4) times. The standards were amended in 1977 to add landscape standards and adjust the size range of preserved trees to between 4" and 10". The rationale behind the adjustment to the preservation range was that trees within this range were most likely to survive not only the construction phase, but also the environmental alterations brought about by the development. Amendments to the landscape standards and fee schedules were made in 1986 and 1987.

The most recent revisions were adopted in 1996. At the behest of Council and prior to the adopted revisions, staff met with developers to get input on the

ordinance changes and requirements. Subsequently, Council adopted revisions which included:

Elimination of the tree preservation deposit, decreased requirements from developers, and eliminated the need for a grading plan. Although the functionality of the ordinance was not significantly changed, the view of the Council at the time was to expedite development and reduce developer cost.

Staff will soon begin further revisions to more closely align the standards with Chapter 28 – Tree and Plant Ordinance.

CURRENT LANDSCAPE AND TREE PRESERVATION STANDARDS

Prior to January of 2002, developers were required to submit a Tree Preservation Plan to the City for review. Following approval of the Tree Preservation Plan and payment of review fees, the developer was issued a Tree Preservation Permit, which authorized removal of all trees on the site other than those identified for preservation. After receiving the Tree Preservation Permit the developer was not required to notify the City in advance of tree removal associated with that permit.

The project review process was such that a preservation plan was submitted and approved by the Parks and Recreation Department prior to the City's final site plan review. Often, adjustments to the development required by other City reviewing departments affected trees identified on the Tree Preservation Plan. The developer was not required to resubmit another Tree Preservation Plan reflecting those changes.

The Planning and Parks Departments instituted a procedural change in 2002 calling for submittal of a final Tree Preservation Plan at the time of final site plan review, thereby eliminating any confusion over which trees on the site are to be preserved. Additionally, changes to the Tree Preservation Permit now require the developer to notify the City forty-eight (48) hours in advance of any tree removal on the development site.

SUMMARY

The revision of Chapter 28 – Tree and Plant Ordinance, if approved by Council, will clarify the responsibilities of private property owners, as well as City staff with regards to tree and plant installation, maintenance, preservation, and/or removal. Used in tandem with the Landscape Design and Tree Preservation Standards, Chapter 28 also serves to define the process and responsibilities of developers within the City of Troy.

Attached: Landscape Design and Tree Preservation Standards

Landscape Design and Tree Preservation Standards

Reviewing Agency:
CITY OF TROY PARKS AND RECREATION
DEPARTMENT

ADOPTED: 9-15-75

RESOLUTION NO. 75-829

REVISED: 1-31-77

RESOLUTION NO. 77-88

REVISED: 11-3-86

RESOLUTION NO. 86-1148

REVISED: 3-16-87

RESOLUTION NO. 87-301

REVISED: 2-12-96

RESOLUTION NO. 96-152

<u>TITLE</u>	<u>PAGE</u>
3.05 Landscape Plan Review Fee	8
3.06 Other Charges	8-9
3.07 Tree Preservation Permits	9-10
4.00 Inspection Schedule	10
4.01 Initial Site Inspection	10
4.02 First Landscape Implementation Inspection	10
4.03 Spot Inspections	11
4.04 Final Implementation Inspection	11
4.05 Final Inspection	11-12
5.00 Landscape Contractor Qualifications and Responsibilities	12
5.01 Qualifications of the Landscape Contractor	12
5.02 Tree Appraiser Qualification and Responsibilities	12-13
5.03 Responsibilities of the Landscape Contractor	13
5.04 Responsibilities of the Tree Appraiser	13
6.00 Plant Material Requirements	14
6.01 Broadleaf Evergreens	14
6.02 Coniferous Evergreens	14
6.03 Deciduous Shrubs	14-15
6.04 Deciduous Shade and Small Flowering Trees	15
6.05 Ground Covers	15-16
6.06 Turf Grass	16
6.07 Other Requirements Placed on Plant Materials	16-17
6.08 Prohibited Plant Materials	17-18

<u>TITLE</u>	<u>PAGE</u>
D-1 Landscaping as Required by the Troy City Code	19
D-2 The City	20
D-3 The Developer	20
D-4 The Landscape Contractor	20
D-5 The Planting Plan	20
D-6 Ball and Burlapped Materials	20
D-7 Bare Root Materials	20
D-8 Potted Materials	20
D-9 Container Grown Materials	20
D-10 Construction Drawings	20
D-11 Landscape Specifications	20

LANDSCAPE DESIGN AND TRESS PRESERVATION STANDARDS

1.00 Introduction

It is the intent of the City Code Chapter 39, Section 12.60.01; 11.50.05; 12.60.02; 13.60.00; 15.60.00; 16.60.00; 17.60.00; 39.30.01-07; 10.30.03 (C); 18.30.03 (B); 10.30.01 (E); 22.30.01 (B); 24.30.06 (B) and Chapter 41, Sections (E) and (F) to obtain an environment which is responsive to human needs, socially positive, economically viable and environmentally satisfying. The standards contained herein are forwarded as criteria toward the achievement of these objectives. The reviewing agency for standards is the City of Troy Parks and Recreation Department.

1.01 Circumstances for Variations from the Landscape Design and Tree Preservation Standards

These Standards are not intended to be arbitrary or inhibiting to creative solutions. Project conditions may justify modifications of these standards when conditions arise where full compliance is impossible, or under circumstances where achievement of the City's objectives can be better obtained through modified requirements. Therefore, in specific cases, variation of the requirements may be permitted by the Director of Parks and Recreation when this variation more fully achieves the objectives contained herein and when one or more of the following conditions justify the variance:

1. Topography, soil, or other site conditions are such that full compliance is impossible.
2. Improved environmental quality, and/or utility would result from the variance.
3. Alternate methods, materials or equipment may be used when their use would more closely fulfill the intended objectives of these standards.
4. Lack of existing native vegetation within the limits of the property.

1.02 Request for Variance

A request for variance must be submitted to the Director of Parks and Recreation in writing at the beginning of the review procedure.

Describe completely the rationale for the variance request. Example: All existing vegetation on the site is below the four (4) inch D.B.H. preservation size requirement.

1.03 Special Conditions

Because of various conditions in a specific project, the Director of Parks and Recreation may require compliance with standards other than those contained herein, in order to obtain those characteristics of viability, utility, service, public safety, and low maintenance expense, while satisfying its objectives and insure continued market acceptance of the project.

1.04 Federal and State Standards

It should be noted that where Federal and/or State standards pertain, the higher standard shall govern. An example of a possible higher standard would be the Federal Government's Endangered Species Act.

2.00 Standards for Landscape Development and Tree Preservation Plans

The intent of this section of the Standards is to insure that the proper consideration is given to the development of tree preservations and/or landscape plan, and that a logical step design process is instituted by the developer. By using a logical design process, it is expected that a great many potential problems of the plan will be resolved during this planning process, and excessive and expensive on-site changes during the implementation of the design will be eliminated.

2.01 Request for Waiver of Tree Preservation Standards

Developer may request relief from conforming to the tree preservation requirement by requesting a waiver and should be requested in writing to the Parks and Recreation Department, explaining the reasons for the request. The waiver request will be evaluated in the field and the developer will be advised of the department's finding in writing.

2.02 General Requirements for Tree Preservation Plan Submittals

Both preliminary and final tree preservation plans shall conform to this format. Three (3) copies shall be provided at the time of submittal.

A. Title Sheet

1. Project Name
2. Project Location Map with a scale of 1" = 200'
3. Name of Developer, address, phone and fax number
4. Name of Project Engineering Firm, address, phone and fax number
5. Name, address, phone and fax of Landscape Architect, Designer or Tree Appraiser
6. Zoning Classification of the project

- B. All Other Sheets
 - 1. Number
 - 2. Scale
 - a. 100'
 - 3. North Arrow (except on detail sheet)
 - 4. Title
 - 5. Legend
 - 6. Property Lines
 - 7. All Structures existing on the site
 - 8. Proposed and existing easements, utilities, rights-of-way and building envelopes
 - 9. Adjacent Land Use
 - 10. Label existing topographic contours on preliminary plans
 - 11. Label existing and proposed topographic contour lines on final plan submittal

2.03 General Requirement for Landscape Plan Submittals

- A. Title Sheet
 - 1. Project Name
 - 2. Project Location Map 200 Scale
 - 3. Name of Developer
 - 4. Name of Landscape Architect or Designer
 - 5. Zoning Classification
- B. All Other Sheets
 - 1. Number
 - 2. Scale
 - a. Minimum 1" - 30' 0"
 - b. Maximum 1" - 5' 0"
 - 3. North Arrow (except on detail sheet)
 - 4. Title
 - 5. Legend
 - 6. Property Lines
 - 7. All Structures (except on detail sheet)
 - 8. Easement, utilities and otherwise

2.04 Trees To Be Preserved

The City desires to preserve trees within the size range four (4) to ten (10) inches in diameter at breast height (D.B.H.).

- A. It is not necessary to locate any tree outside this size range on a tree preservation plan unless the developer shows there is a valid reason for its inclusion.

1. Trees smaller than four (4) inches D.B.H. are very difficult to work around during the construction phase of most projects.
2. Trees over ten (10) inches D.B.H. are mature and often do not recover after construction has occurred around them.
3. The City maintains a prohibited species list. Trees may exist on the development site that appear on the prohibited species list. Prohibited tree species within the preservation size range will be included on tree preservation submittals, however it is left to the developer's discretion whether to preserve these trees or remove them as part of the construction operation.
 - a) Trees on this list that occur in any zoning classification other than residential will not be considered as an acceptable element of any required landscape.

2.05 Preliminary Tree Preservation Plans

- A. Preliminary tree preservation plans shall be submitted to the Director of Parks and Recreation when making the submittal to the Planning Department for tentative site plan review for a building project or when the tentative preliminary plat for a subdivision is submitted for review.
 1. On a project plan all tree masses shall be delineated.
 - a. The tree masses will be surveyed. The Appraiser shall indicate on the plan the number of trees in the preservation size range. This quantity shall be divided up by tree species and indicated on the plan. Example: 4 Silver Maple, 16 Norway Maple, 2 Red Oak, 19 Box Elder.
 - b. Any single trees outside a tree mass within the preservation range shall be identified and its approximate location delineated on the plan.
- B. The preliminary plan will be reviewed by the Parks and Recreation Department.
 1. An on site visit will be made to validate the survey. The owner or his agent is encouraged to join staff in this process.
 2. After the on site inspection is complete, staff will, if necessary, make suggestions for design alternatives that will enhance the possibilities of preserving trees without negatively impacting the project. This information will be forwarded to the owner or his agent.

3. During the preliminary review, it will be determined what area can be exempted from further tree preservation considerations (i.e., street rights-of-way, detention ponds, building envelopes, utility easement areas, extensive cut or fill, etc.)

2.06 Final Tree Preservation Plan

- A. It is the intent of the final tree preservation plan to locate trees within the preservation size range that are of significant value and warrant preservation, during the construction phase of any commercial building project or subdivision.
- B. The final tree preservation plan will be based on the data collected for the preliminary plan. Prior to this phase the Parks and Recreation Department will have provided a written review of the preliminary plan and will graphically delineate all areas that should be included in the final plan.
- C. The final tree preservation plan shall include the following:
 1. Base sheet information which is the same as was described for the preliminary plan, updated to reflect any design changes made during the review process.
 2. The tree plan shall graphically delineate the following:
 - a) All existing wood lots on the property.
 - b) Differentiate all wooded areas that have been excluded from tree preservation consideration.
 - c) Graphically delineate areas where selective clearing of trees in the preservation size range will occur.
 - d) Graphically delineate areas where it is expected no trees in the preservable range will be removed.
 3. Survey all trees within the preservation size range for those areas not previously excluded from consideration. The survey shall include the following:
 - a) Key number which relates back to the tree location on the plan
 - b) Botanical name of the tree
 - c) Describe the condition of the tree as good, fair or poor.

2.07 Planting Plan

- A. All planting plans shall have a plant list. The plant list can be printed on the plan or can be typed and attached to each of three (3) sets of plans submitted for review.
- B. A plant list shall contain the following information:
 - 1. Botanical name
 - 2. Common name
 - 3. Plant size
 - 4. Number of each plant variety used
 - 5. Condition
 - a. Balled and Burlapped (B & B)
 - b. Bare Root (BR)
 - c. Potted (Pot)
 - d. Container grown (Can)
- C. All planting areas will be indicated and all plant material in these areas shall be to scale delineating their size at the time of installation. This scale requirement does not cover the delineation of ground covers such as the vine varieties which may be shown as mass plantings.
- D. Section drawing shall be included delineating the anticipated appearance of the required landscaping after ten (10) years of growth.
- E. All plants shall be identified with the proper botanical name.
 - 1. This requirement does not preclude the use of a key system method of identifying plant materials on the plan.
- F. Planting details will be provided for each plant group to be installed on the site (shade trees, shrubs, evergreens, ground covers, etc.)

2.08 Construction Drawings

All construction (engineering) drawings and specifications shall conform to the City of Troy Development Design Standards.

2.09 Landscape Planting Specifications

Along with the landscape planting plan, the developer is required to provide a copy of the landscape planting specifications that will be employed during the implementation of the project. If these specifications are found to be insufficient, the proper changes are required to be made before the landscape plans will be approved.

2.10 Cost Estimate

- A. An estimate covering the costs of all landscaping scheduled for the project needs to be submitted with all landscape plans. Cost estimates for irrigation systems should not be included in the landscape cost estimate.

3.00 Submittal Requirements

It is the intent of this section of the Landscape Design Standards to inform the developer of submittal requirements, review procedures, fees and inspections and guarantees. It should be noted that strict adherence to the procedures outlined herein will insure expeditious processing of plans and thereby minimize the need for project modifications.

3.01 The Reviewing Body

All landscape plans and specifications will be reviewed by the Director of Parks and Recreation or his designated agent.

3.02 Submission for Review

- A. It is required that all landscape data be submitted, reviewed and approved before any building permit can be issued or before final plat approval is granted.
- B. Three (3) copies of the landscape plan, planting specifications and cost estimates will be submitted to the Parks and Recreation Department.

3.03 Changes in a Landscape Plan Resulting from the City of Troy's Plan Review Process

Any changes required by the reviewing body must be included in three (3) complete sets of revised plans to be submitted to the Parks and Recreation, along with the revised specifications and cost estimates.

3.04 Tree Preservation Plan Review Fee

The Tree Preservation Plan Review Fee is based on the size of the project area. The fee will be charged at the rate of \$25.00 per acre with a minimum charge of \$175.00. A fee of \$85.00 will be charged on all approved tree preservation plan waivers. Neither of these fees are refundable.

3.05 Landscape Plan Review Fee

The landscape review fee will be based on the land area of the entire project. The fee will be charged at the rate of \$115.00 per acre with a minimum charge of \$85.00. This fee is not refundable.

3.06 Other Charges

- A. After the landscape plans, planting specifications and cost estimate have been approved, and prior to the issuance of any landscape permit, the developer shall post with the City an irrevocable bank letter of credit and/or cash in the amount of twenty-five (25) percent of the project's total landscaping cost estimate.
1. The purpose of this requirement is to insure implementation of the landscape plan as approved by the City and will be refunded in a two-step process upon completion of landscape (see 3.06 B.).
 - a. The irrevocable bank letter of credit, and/or cash deposit will be returned after the completion of the entire project.
 2. On-site changes of an approved landscape plan may be made using the following procedure:
 - a. All changes must be approved by the City.
 - b. Prior to any deviation from the accepted plan, the developer shall contact the City and ask for an evaluation of the proposed change. Should the proposed change be acceptable, a signed approval form will be forwarded to the developer.
 - c. In projects where deviation from the accepted landscape plan has been approved, the developer shall forward as-built drawings to the City prior to inspection of the site.
 - d. It should be noted that these requirements apply only to the landscaping required by the City Code.

- B. Once the landscape plan has been fully implemented, the developer shall post with the Parks and Recreation office an irrevocable bank letter of credit and/or cash in the amount of ten (10%) percent of the approved cost estimate of the landscaping required by the City Code. This letter shall be posted with the Parks and Recreation Department prior to the issuance of the final certification of occupancy.
1. The intent of this requirement is to insure that all dead, dying, diseased and/or weakened plant materials found to be existing on the landscape project site shall be replaced with viable plant materials during the next acceptable installation season.
 2. The irrevocable bank letter of credit and/or cash will be held for a minimum of one year. At the end of this one year holding and after the final inspection, the developer will receive in writing from the City a notice listing any and all replacements which must be installed.
 3. When the replacement plant materials have been installed to the satisfaction of the City, the bank letter of credit and/or cash will be released, and a final project approval letter will be forwarded to the developer.
 4. It should be noted that these requirements apply only to the landscaping required by the City Code.
 5. Failure on the part of the developer to comply with these standards may result in the forfeiture of either or both of the irrevocable letters of credit and/or cash.

3.07 Tree Preservation Permits

- A. Once the tree preservation is approved and the review fees have been remitted to the City, a Tree Preservation Permit will be issued.
1. No tree removals shall occur without a permit.
- B. Performing any tree removals without having a valid Tree Preservation Permit will result in the doubling of the review fee.

Landscape Permit

- A. Once the landscape plan is approved and all fees and deposits have been remitted to the City in an acceptable manner a landscape permit will be issued.
1. No landscape work shall take place without a permit.

- B. Performing any landscaping construction without having a valid landscape permit shall result in the doubling of the landscape review fee and no temporary or final certificate of occupancy will be granted until these standards are complied with fully.

4.00 Inspection Schedule

- A. The intent of this section of the Standards is to inform the developer of the inspection schedule which will be employed by the City during the landscape construction period. By this section the developer is also informed of what procedures must be employed in order to receive an inspection at the requested time, and the scope of each inspection.

4.01 Initial Site Inspection

- A. When a landscape plan is received by the City, a site inspection may be made to help the reviewing body to determine if any problem areas can be found that may not be fully delineated on the plans. This will also help the reviewing body realize the full impact of the proposed landscape development on the local environment. This inspection will be carried out by the City.

4.02 First Landscape Implementation Inspection

- A. After the landscape plan has been approved, review fee paid, and the irrevocable bank letter of credit and/or cash deposit has been posted with the Parks and Recreation office, the implementation of the landscape plan can begin. It is also a requirement that the City be informed of the proposed starting date at least twenty-four (24) hours before work on the project begins.
- B. Upon receiving notification of date of implementation of the project, an inspection will be scheduled.
- C. During the inspection, all plant materials will be inspected to see that they meet the approved specifications, and are viable, and free from disease.
 - 1. Developer shall be advised of any substandard plant materials.
- D. Failure to follow this procedure on the part of the developer, will result in a stop work order until all requirements are met.

4.03 Spot Inspections

- A. During the course of the implementation of the plan, spot inspections of the project may be made to insure that the approved specifications are being followed.

4.04 Final Implementation Inspection

- A. The developer will request a final implementation inspection by the City at least twenty-four (24) hours prior to the proposed inspection date.
- B. When the project has been approved by the City, he shall sign and forward to the developer an approval certificate and shall request release of the irrevocable bank letter of credit and/or cash deposit.
- C. In cases where the project has not been approved, the objections shall be outlined in writing by the City and shall then forward this notice to the developer. This notice will also stipulate the date and/or dates by which the required alterations will be completed.
- D. When a project has not been approved at the time of the final implementation inspection, an additional inspection will be made as soon as the required alterations have been completed. The date for this inspection can be set by contacting the City at least twenty-four (24) hours prior to the proposed inspection date.
- E. The irrevocable bank letter of credit and/or cash deposit will not be returned until the required alterations are completed.

4.05 Final Inspection

- A. This inspection will take place within the twelfth month after the date of the final implementation inspection.
- B. It is the responsibility of the developer to contact the City requesting a final inspection, and to establish a date and time for this inspection.
- C. At the established date and time, the developer may meet with the City on the site. At that time all landscape materials will be inspected.
- D. All materials that do not pass this inspection will be listed in written form and forwarded to the developer by the City. This notice will also stipulate the date by which all replacements will be completed.

- E. When a project has not been approved at the time of the final inspection, an additional inspection will be made when the required alterations have been completed. The date for this inspection can be established by contacting the City at least twenty-four (24) hours prior to the proposed inspection date.
- F. When the project has been approved by the City, the irrevocable bank letter of credit and/or cash deposit shall be released.
- G. Failure on the part of the developer to follow this procedure will result in the forfeiture of the irrevocable bank letter of credit and/or cash deposit.

5.00 Landscape Contractor Qualifications and Responsibilities

The intent of this section of the Standards is to inform the developer of what minimum qualifications a Tree Appraiser and/or landscape contractor must have prior to any landscape project coming under the control of these standards. Information as to the responsibilities of the landscape contractor other than the simple implementation of the landscape plans can be found in this section of these standards.

5.01 Qualifications of the Landscape Contractor

- A. The landscape contractor shall be licensed by the State of Michigan, Department of Agriculture Plant Industries Division to handle plant materials.
- B. The landscape contractor will be covered by a public liability and property damage insurance policy.
- C. The landscape contractor shall conform to all Federal and State Labor Laws.

5.02 Tree Appraiser Qualifications and Responsibilities

The intent of this section of the Standards is to inform the developer of what minimum qualifications a Tree Appraiser must have prior to tree preservation project coming under the control of these standards. Information as to the responsibilities of the Appraiser other than the simple implementation of the landscape plans can be found in this section of these standards.

Qualifications of Tree Appraiser

- A. A qualified Tree Appraiser shall have a minimum of two (2) years of college in the areas of Horticulture, Forestry, Urban Forestry, Landscape Architecture or related field or two (2) years experience at a supervisory level in one of these disciplines or related field. The Department will review credentials upon request of the developer.

5.03 Responsibilities of the Landscape Contractor

- A. The landscape contractor shall guarantee that all plants are true to botanical name, and that the quality and size meet the approved specifications.
- B. The landscape contractor shall fully guarantee that all plants are in a vigorous growing condition during and at the end of the guarantee period. This guarantee period shall be minimum of one (1) year from the completion date of the project.
- C. Replacement plants and/or landscape materials other than plants shall be in accordance with the approved original specifications.
- D. The contractor shall at all times keep the premises and public streets free from any excessive accumulation of soil and waste material or rubbish caused by his employees or work, and at the completion of the work, he shall remove all his waste, excessive material, rubbish and equipment so as to leave the premises neat and clean and ready for the purpose for which it was intended.
- E. The contractor shall properly protect all existing structures and property. This is to include, but not to be limited to: sidewalks, curbs, fences, buildings, lawns, trees and shrubbery. Repair of all parts shall be done in strict accordance with the requirements of the proper City authorities.

5.04 Responsibilities of the Tree Appraiser

- A. Be able to provide the necessary graphic and written reports as outlined in this Standard.
- B. Shall be held accountable for the accuracy of all graphic and written submittals.

6.00 Plant Material Requirements

The intent of this section of the Landscape Design and Tree Preservation Standard is to inform the developer of the minimum requirements placed on all plant materials used to implement those landscape requirements as called for by the City Code.

- A. The following information includes the definitions of the six (6) major plant groups that come under the control of these standards and the specific requirements placed on each plant group.

6.01 Broadleaf Evergreens

As the name implies, this group of plant materials have broad leaves, rather than needles, and retain their foliage throughout the winter months. This plant group is a woody perennial having both low spreading varieties and shrub forms.

- A. Minimum required size for low spreading varieties of broadleaf evergreens is fifteen (15) to eighteen (18) inches.
- B. Minimum required size for shrub form broadleaf evergreens is eighteen (18) to twenty-four (24) inches.

6.02 Coniferous Evergreens

This group of plant materials maintains its foliage throughout the entire year in a green condition. These plants are woody perennials and for the most part, have very narrow leaves, often referred to as needles. It should be noted that coniferous evergreens have both spreading and upright varieties.

- A. Minimum required size for spreading coniferous evergreens is fifteen (15) to eighteen (18) inches in width.
- B. Minimum required size for upright coniferous evergreens is five (5) to six (6) feet tall.

6.03 Deciduous Shrubs

This group is made up of those perennial woody plants with several self-supporting canes, which lose their foliage each autumn.

- A. Each plant will have a minimum of at least five (5) canes, at least eighteen (18) to twenty-four (24) inches long.

- B. This requirement does not preclude the possibility of using espaliered shrubs.

6.04 Deciduous Shade and Small Flowering Trees

Are those woody perennial plant materials with one or more self-supporting stems or trunks with a usually well defined branching network located near the distal end of the trunk. The foliage of this plant group is dropped each autumn, and is renewed in the spring of the year.

- A. The minimum heights and caliper requirements for shade trees are as follows:
 - 1. The minimum caliper requirement is two (2") inches to two and one half (2½) inches.
 - 2. The minimum height requirement is twelve (12) to fourteen (14) feet.
- B. The minimum height and caliper requirements for small flowering trees are as follows:
 - 1. Minimum caliper requirement one and one-half (1½) to one and three-quarters (1-3/4) inches.
 - 2. Minimum height requirement is six (6) to eight (8) feet.
- C. It should be noted that all caliper measurements will be taken at least six (6) inches above the graft (on grafted materials) and six (6) inches above root, shoot junction on all non-grafted materials.
- D. All height measurements will be taken from the soil line at the base of the tree to the end of the central leader.

6.05 Ground Covers

- A. As a general requirement placed on all ground covers, no rooted cutting will be deemed as acceptable plant materials. The reason behind the prohibition against the use of rooted cuttings is because of the very limited root systems causing, in many cases, a very high mortality rate. All ground cover materials shall be at least one (1) year bedded stock.
- B. The following requirements shall govern those ground covers that spread over the desired area by the use of above ground runners.

1. The minimum number of runners required per plant is three (3).
 2. The minimum required length of each is ten (10) inches.
- C. The following requirements shall govern those ground covers that spread over the desired area by the use of underground runners.
1. All plants shall be potted in peat or clay pot containers with the minimum dimensions of two and one-quarter (2 1/4) inches by two and three-quarter (2 3/4) inches.
 2. All plants shall be well balanced and have a well established root system.
 3. Maximum spacing between plants at installation shall not exceed eight (8) inches on center.

6.06 Turf Grass

Those herbaceous plant materials which have a low spreading growth habit covering the soil surface often used in lieu of an ornamental ground cover, or an organic/inorganic material such as woodchips or stone.

- A. Standards governing turf grass installations shall conform to the City's Development Design Standards.

6.07 Other Requirements Placed on Plant Materials

The following information is a list of all other requirements placed on all plant materials used in the implementation of those landscape projects called for by City Code.

- A. All plant material shall conform in botanical name, dimensions, and quality of the "Horticultural Standards" adopted by the American Association of Nurserymen.
- B. All bare root (BR) plant material shall have a well branched root system, characteristic of the species. The root system will meet the minimum standards for bare root nursery stock as set down by the American Association of Nurserymen.
- C. Balled and Burlapped (B & B) plant material shall be balled with original soil, intact with the fibrous roots to insure maximum recovery after transplanting.

- D. Plants shall conform to the above standards when materials are balled and burlapped (B & B).
- E. Potted plants shall have sufficient root structures to insure full recovery and development.
- F. Any plants existing on the site requiring relocation must be dug in accordance with the above stated standards.
- G. Nursery stock shall be vigorous, free from disease, insects, insect eggs, or larvae.
- H. Substitution of materials included in an approved plan shall be made with the consent of the City. The owner may request an amendment verbally or in writing. Approval can be given verbally and followed up in writing. The developer shall provide an as-built drawing indicating the changes prior to the release of the landscape deposit.

6.08 Prohibited Plant Materials

The following list of plant materials shall not be planted in the City:

- A. *Acer saccharinum*/*Acer dasycarpum* (Silver Maple) and/or clones and cultivars: This species is very susceptible to storm and wind damage, which could prove hazardous to life and property.
- B. *Acer negundo* (Box Elder) and/or clones and cultivars: The prohibition of this species is because of the Box Elder's susceptibility to storm and wind damage.
- C. *Ailanthus* (Tree of Heaven) and/or species, clones and cultivars: This group is prohibited because it is very susceptible to storm damage.
- D. *Berberis vulgaris* (European Barberry) and/or clones and cultivars: This plant is the alternate host for wheat rust disease and is on the United States Department of Agriculture's "Prohibited Species List".
- E. *Catalpa speciosa* (Northern Catalpa) and/or clones and cultivars: This species suffers a great deal of storm and wind damage and could be hazardous.
- F. *Juniperus virginiana* (Eastern Red Cedar) and/or clones and cultivars: This plant is the alternate host for the Hawthorn-Apple-Cedar Rust.

- G. *Populus* (Poplar) species and/or clones and cultivars: This generic plant group can prove to be hazardous due to its susceptibility to storm and wind damage.
- H. *Salix* (Willow) species and/or clones and cultivars: Problems will develop with this generic plant group because of the large root system which quite often finds its way into sanitary and storm sewers. In order to prevent unnecessary sewer maintenance, *Salix* (Willow) is prohibited.
- I. *Ulmus americana* (American Elm) and/or clones and cultivars which are not resistant to the fungus disease *Cerotostomella* Elmi (Dutch Elm Disease): Due to the disease problems affecting this plant group, and since the dead and dying trees could be hazardous to life and property, the planting of *Ulmus americana* (American Elm) is prohibited.
- J. *Ulmus parvifolia* (Chinese Elm) and/or clones and cultivars: This species is very susceptible to storm and wind damage and could be very hazardous during these conditions.

D-1 LANDSCAPING AS REQUIRED BY TROY CITY CODE

DISTRICT

PRESENT LANDSCAPE REQUIREMENTS

C-F, B-1, B-2, B-3, H-S,
O-1, O-M, O-S-C, R-C, M-1

1. 10' greenbelt along any public street, with 1 tree for every 30 lineal feet of frontage.

2. 10% of site area landscaped - front and side yards only.

General Note: Not more than 20% of required landscape area will be covered with non-living material, i.e. woodchips, stone, etc.

R-1 and R-2

Subdivision Control Ordinance requirements only

CR-1

1. 10' greenbelt along any public street, with 1 tree planted for every 20' of frontage.

2. 5' berm along any property line abutting a major thoroughfare with 1 tree planted for every 20' of frontage.

3. 15% of site shall be landscaped open space.

4. One tree shall be planted for every 2 dwelling units.

R-1T and R-M

1. 10' greenbelt along any public street with 1 tree planted for every 20' of frontage.

2. 4' berm along any property line abutting a major thoroughfare, with 1 tree planted for every 20' of frontage.

3. 5' berm along any property line abutting freeway, landscaped with double row 6' apart, evergreen species, 4' O.C. staggered 2' O.C.

4. 70% of required yards shall be landscaped, and 1 tree shall be planted for every 2 dwelling units.

RM-1

1. Same as R-1T and R-M, with the exception that a 5' rather than a 4' minimum height berm is required along any property line abutting a major thoroughfare.

RM-2 and RM-3

1. Same as RM-1, with the following exceptions:

a. 75% (vs 70%) of required yards shall be landscaped.

b. Overall requirement of 450 square feet of landscaped open space per dwelling unit. 60% of this open space area shall be located in direct proximity to the buildings.

- D-2 The City: The City of Troy, Parks and Recreation Department.
- D-3 The Developer: The person and/or firm responsible for owning the project.
- D-4 The Landscape Contractor: The person and/or firm responsible for the implementation of the approved landscape development plan.
- D-5 The Planting Plan: This drawing will delineate all plant materials that will be installed on the site, and all existing plant materials that will remain on the site as an element of the total landscape.
- D-6 Balled and Burlapped Materials: Those plants which are transplanted with the soil in which they were grown in, left intact around the plant's root system. This mass of soil is then wrapped tightly with burlap material to hold the earth in place.
- D-7 Bare Root Materials: Those small deciduous trees (under two [2] inches in caliper) and small deciduous shrubs (under three [3] feet tall) which have all the soil from around the plant's root system removed in the transplanting process. All plants which are moved in this fashion shall be in a dormant state at the time of transplanting. Evergreens shall not be transplanted in this fashion.
- D-8 Potted Materials: These plants have been dug in the bare root fashion and then replanted in a container until the time they are installed as an element of a landscape project.
- D-9 Container Grown Materials: These plants are grown in containers usually in a non-soil growing medium.
- D-10 Landscape Specifications: Those statements that outline the procedures that will be used to install all plant materials and other landscape elements.