

ARTICLE XIII. LANDSCAPE REQUIREMENTS

SECTION 1300. PURPOSE

The purpose of this section is to promote the public health, safety and welfare by establishing minimum standards for the design installation and maintenance of landscaping. Landscaping enhances the visual image of the City, preserving natural features, improving property values, and alleviating the impact of noise, traffic, and visual distraction associated with certain uses. Screening is important to protect less intensive uses from the noise, light, traffic, litter and other negative impacts of more intensive, nonresidential uses. Accordingly, these provisions are intended to set minimum standards for design and use of landscaping, greenbelts, and screening, and the protection and enhancement of the City's environment. More specifically, the intent of these provision is to:

1. Improve the appearance of off-street parking area, vehicular use areas, and property abutting public rights-of-way;
2. Protect and preserve the appearance, character, and value of the neighborhoods which abut non-residential areas, parking areas, and other intensive use areas, thereby protecting the public, health, safety and general welfare;
3. Integrate the various elements of a site;
4. Integrate and link a development with the surrounding environment;
5. Reduce soil erosion and depletion;
6. Increase soil water retention, thereby helping to prevent flooding;
7. Remove air pollutants, and control glare and reflection;
8. Assist in directing safe and efficient traffic flow and prevent vehicular and pedestrian circulation conflicts; and,
9. Create a more desirable microclimate.

SECTION 1301. SCOPE OF APPLICATION.

1. No site plan, condominium, or subdivision plat shall be approved unless it shows landscaping consistent with the requirements of this section. A land use permit shall not be issued for any use that requires site plan approval or any division of land that requires condominium, or subdivision plat approval until the required landscape plan is submitted and approved.
2. No land use permit for construction of a new single family or two (2) family dwelling shall be issued unless the required greenbelt along the street frontage is provided consistent with the requirements of Section 1306. Lots

with an existing principle single family or two (2) family residential structure shall be specifically exempted, provided said structure is retained.

SECTION 1302. GENERAL LANDSCAPE PROVISIONS. Whenever a landscape buffer strip, greenbelt, or planting screen is required by this Ordinance, the provisions of this Section shall be met.

1. Minimum Requirements. The requirements in this Section are minimum requirements. Applicants are encouraged to provide additional landscaping to improve the function, appearance, and value of property.
2. Design Creativity. Creativity in landscape design is encouraged. In several instances, the standards are intentionally flexible to encourage flexibility and creative design. Required trees and shrubs may be planted at uniform intervals, at random, or in groupings, depending on the designer's desired visual effect and the intent of the City to coordinate landscaping on adjacent properties.
3. Plant Quality. Plant materials used in compliance with the provisions of this Ordinance shall be nursery grown, free of pests and diseases, hardy in Huron County, in conformance with the standards of the American Association of Nurserymen, and shall have passed inspections required under state regulations.

Plastic and other non-living materials shall not be considered acceptable to meet the landscaping requirements of this Ordinance.

4. Installation.
 - a. The required landscaping shall be planted with permanent living plant materials prior to the date of occupancy and shall be continuously maintained in a sound, healthy, and vigorous growing condition.
 - b. If the development is completed, at such time that the requirements of this article, can not be complied with, the owner shall provide a performance guarantee, satisfactory to the City, to ensure installation of required landscaping in the next planting season, in accordance with this article.
5. Maintenance. Landscaping required by this Ordinance, shall be maintained in a healthy, neat, and orderly appearance, free from refuse and debris. All unhealthy and dead plant material shall be replaced immediately upon notice from the Zoning Administrator, unless the season is not appropriate for planting, in which case such plant material shall be replaced at the beginning for the next planting season.

All constructed or manufactured landscape elements, such as, but not limited to benches, retaining walls, edging, and so forth, shall be maintained in good condition and neat appearance. Rotted, deteriorated, or damaged landscape elements shall be repaired, replaced, or removed.

SECTION 1303. DEFINITIONS. For the purpose of this Section, the following definitions shall apply:

1. **BERM.** A continuous, raised earthen mound with a flattened top and sloped sides, capable of supporting live landscaping materials, and with a height, width, and slope that complies with the requirements of this Ordinance.
2. **BUFFER ZONE.** A strip of land often required between certain zoning districts reserved for plant material, berms, walls or fencing to serve as a visual barrier.
3. **BUSH.** A woody plant of one (1) to thirteen (13) feet in height with several erect, spreading or prostrate stems and a general bushy appearance.
4. **COMMON OPEN SPACE.** Designated areas unoccupied and unobstructed from the ground upward except for living plant material, recreational or grounds maintenance facilities, sidewalks, bikepaths, necessary drives and other improvements shown on the approved site plan within a PUD, Open Space Community, subdivision or condominium projects designed and intended for the use and enjoyment of the public or residents of the development and/or for the protection of natural features.
5. **CRITICAL ROOT ZONE.** A circular region measured outward from a tree trunk representing the essential area of the roots that must be maintained or protected for the tree's survival. Critical root zone is one foot of radial distance for every inch of tree caliper, with a minimum of eight (8) feet.
6. **GRASS, TURF.** Any family of plants with narrow leaves normally grown as permanent lawns in southern Michigan.
7. **GRASS, Ornamental.** Members of Gramineae, six inches (6") to fifteen (15') in height, with individual spreads of nine inches (9") to seven feet (7') which are used for enhancement and screening purposes in commercial strips to provide summer to fall interest and winter effects.
8. **GREENBELT.** A strip of land of definite width and location reserved for the planting of a combination of shrubs, trees and ground cover to serve as an obscuring screen or buffer for noise or visual enhancement, in accordance with the requirements of this Ordinance. In some cases a wall or fence may be permitted as part of the greenbelt.
9. **GROUND COVER.** Low-growing plants (including turf and ornamental grass, perennials and annuals) that form a dense, extensive growth, and tend to prevent weeds and soil erosion.
10. **SHRUB.** A woody plant with one, erect spreading stem and less than fifteen (15) feet in mature height with flowers conspicuous or not.
11. **TREE.** A woody plant with an erect perennial trunk, which at maturity is fifteen (15) feet or more in height, which has a more or less definite crown of foliage. For purposes of this Ordinance the following definitions of types of trees shall apply:
 - a. **Deciduous Tree.** A tree which has foliage that is shed at the end of the growing season.
 - b. **Evergreen Tree.** A tree which has foliage that is lost throughout the year and may or may not show winter color effects.

- c. Ornamental Tree. A deciduous tree which is typically grown because of its shape, flowering characteristics, or other attractive features, and which grows to a mature height of twenty five (25) feet or less.
- d. Canopy Tree. A deciduous tree which has a mature crown spread of greater than fifteen (15) feet and a mature height of forty (40) or more feet in southern Michigan, and which has a trunk with at least five (5) feet of clear stem at maturity.

SECTION 1304. EXISTING PLANT MATERIAL.

- 1. Consideration of Existing Elements in the Landscape Design. In instances where healthy plant material exists on a site prior to its development, the Planning Commission may permit substitution of such plant material in place of the requirements set forth in this Section.
- 2. Preservation of Existing Plant Material. Site plans shall show all existing trees which are located in the portions of the site that will be built upon or otherwise altered, and are six (6) inches or greater in caliper, measured twelve (12) inches above grade.

Trees shall be labeled "To Be Removed" or "To Be Saved" on the site plan. If existing plant material is labeled "To Be Saved" on the site plan, protective measures should be implemented, such as the placement of a tree guard at the dripline around each tree. No vehicle or other construction equipment shall be parked or stored within the dripline of any tree or other plant material intended to be saved.

In the event that healthy plant materials which are intended to meet the requirements of the Ordinance are cut down, damaged or destroyed during construction, said plant material shall be replaced with the same species as the damaged or removed tree or approved substitute, in accordance with the following schedule, unless otherwise approved by the Zoning Administrator based on consideration of the site and building configuration, available planting space, and similar considerations:

Damaged Tree*	Replacement Tree	Replacement Ratio
Less than 6 inches	2 ½ to 3 inches	1 for 1
More than 6 inches	2 ½ to 3 inches	1 replacement tree for each 6 inches in caliper or fraction thereof of damaged tree
*CALIPER MEASURED 12 INCHES ABOVE GRADE		

SECTION 1305. GREENBELTS AND BUFFER ZONES.

- 1. General Site Requirements. All developed portions of the site shall conform to the following general landscaping standards, except where specific landscape elements, such as a greenbelt, berms, or screening are required:

- a. All unpaved portions of the site shall be planted with grass, ground cover, shrubbery, or other suitable live plant material, which shall extend to any abutting street pavement edge.
 - b. Open or natural areas should be maintained in their natural condition.
2. Required Greenbelt along Street Frontage.
- a. Within all multiple family residential, mobile home park, commercial and industrial districts, a twenty (20) foot wide greenbelt shall be planted along the public right-of-way including the equivalent of one (1) canopy tree and four (4) shrubs, rounded upward, for every forty (40) linear feet of frontage, planted within the greenbelt. The width of this greenbelt may be reduced by the Planning Commission in the Central Business District zoning district.
 - b. The Planning Commission may require the provision of a planting berm at least three (3) feet in height in addition to the plant materials required along the public right-of-way parallel to a major arterial.
 - c. The Planning Commission may approve substitution of evergreen trees for up to fifty percent (50%) of the required trees.
 - d. The Planning Commission may require the preservation of existing trees and vegetation within the twenty (20) foot wide greenbelt along any arterial street right-of-way.

LANDSCAPE AREAS

3. All single or two family residential lots shall provide the following street tree plantings within two feet of the street:
 - a. Along any collector or local street: three (3) canopy trees per lot.
 - b. Along any collector or local street: two (2) canopy trees per lot.
 - c. Substitution for preserving existing trees within the required front yard setback may be allowed in accordance with Section 1305.
4. Landscaping in Cul-De-Sacs, at Entrances and Within Medians. Cul-de-sacs, site entrances and boulevard medians shall be landscaped with species tolerant of roadside conditions. The landscape plan shall be approved by the Planning Commission in consideration of sight distance, size of planting area, location of sidewalks, maintenance of adequate overhead clearance, accessibility to fire hydrants, visibility to approved signs and compatibility with the visual character of the surrounding area.
5. Berms. Where required, berms shall conform to the following standards:
 - a. Dimensions. Unless otherwise indicated or appropriate, required berms shall be measured from the grade of the parking lot or flat ground adjacent to the berm, and shall be constructed with slopes no steeper than one (1) foot vertical for each three (3) feet horizontal (33 percent slope), with at least a two (2) foot flat area on top. Berms may undulate in height, subject to review and approval of berm

design as shown on the site plan. Unless otherwise indicated, the minimum height of required berms shall be three (3) feet.

- b. Protection for Erosion. Any required berm shall be planted with sod, ground cover, adequately mulched plant bed areas or other suitable live plant material to protect it from erosion so that it retains its height and shape. The use of railroad ties, cement blocks, and other types of construction materials to retain the shape and height of a berm shall be reviewed and approved by the Planning Commission.
 - c. Required Plantings.
 - (1) Berms located in the front yard of non-residential parcels shall be landscaped in accordance with the requirements for Required Greenbelt along Street Frontage Section 1305, sub-section 2.
 - (2) Berms used for screening other than in the front yard shall be landscaped in accordance with the requirements for Required Buffer Zones Section 1305, sub-section 6, below.
6. Required Buffer Zones. In order to provide protective screening and buffers between land uses, the Planning Commission shall require a greenbelt, and wall or berm to be provided by the applicant in accordance with the following:

REQUIRED BUFFER ZONES				
Proposed Use:	Adjacent to Single Family District	Adjacent to Multiple Family or Mobile Home Park	Adjacent to Commercial District	Adjacent to Industrial District
Single Family Residential	None	None	None	C ¹
Multiple Family Residential	B	B	C	C
Mobile Home Park	B	B	C	C
Commercial	B	B	C	None
Industrial	A	A	B	None

Footnote:

- 1. Buffer zone may be included in lot area. Buffer zone requirement applies to applications for subdivision plat or condominium site plan approval. Single family residential lots of record existing prior to the effective date of this ordinance are exempt from this requirement.

DESCRIPTION OF REQUIRED BUFFER ZONES

Buffer Zone	Minimum Width	Minimum Wall/Berm	Minimum Plant Materials
A	50 feet	6 foot high continuous wall ¹ or required berm	1 canopy tree, 2 evergreen trees and 4 shrubs per each twenty (20) linear feet along the property line, rounded upward.
B	20 feet	6 foot high continuous wall ¹ or required berm	1 canopy tree, 1 evergreen tree and 4 shrubs per each thirty (30) linear feet along the property line, rounded upward.
C	10 feet	None required	1 canopy or evergreen tree or 4 shrubs per each twenty (20) linear feet along the property line, rounded upward.
<p>Note: The Planning Commission may waive or reduce the above requirement if equivalent screening is provided by existing or planned parks, parkways, recreation areas, or by existing woodlands on the lot, and topographic or other natural conditions. Existing quality trees (hickory, oak, maple, ash) with a caliper at least eight (8) inches shall count as two (2) trees toward the above requirements.</p>			

Footnote: 1. Where a six (6) foot high continuous wall is required, such wall shall be a masonry wall, except that the Planning Commission may allow the substitution of a six (6) foot high pressure-treated wood fence.

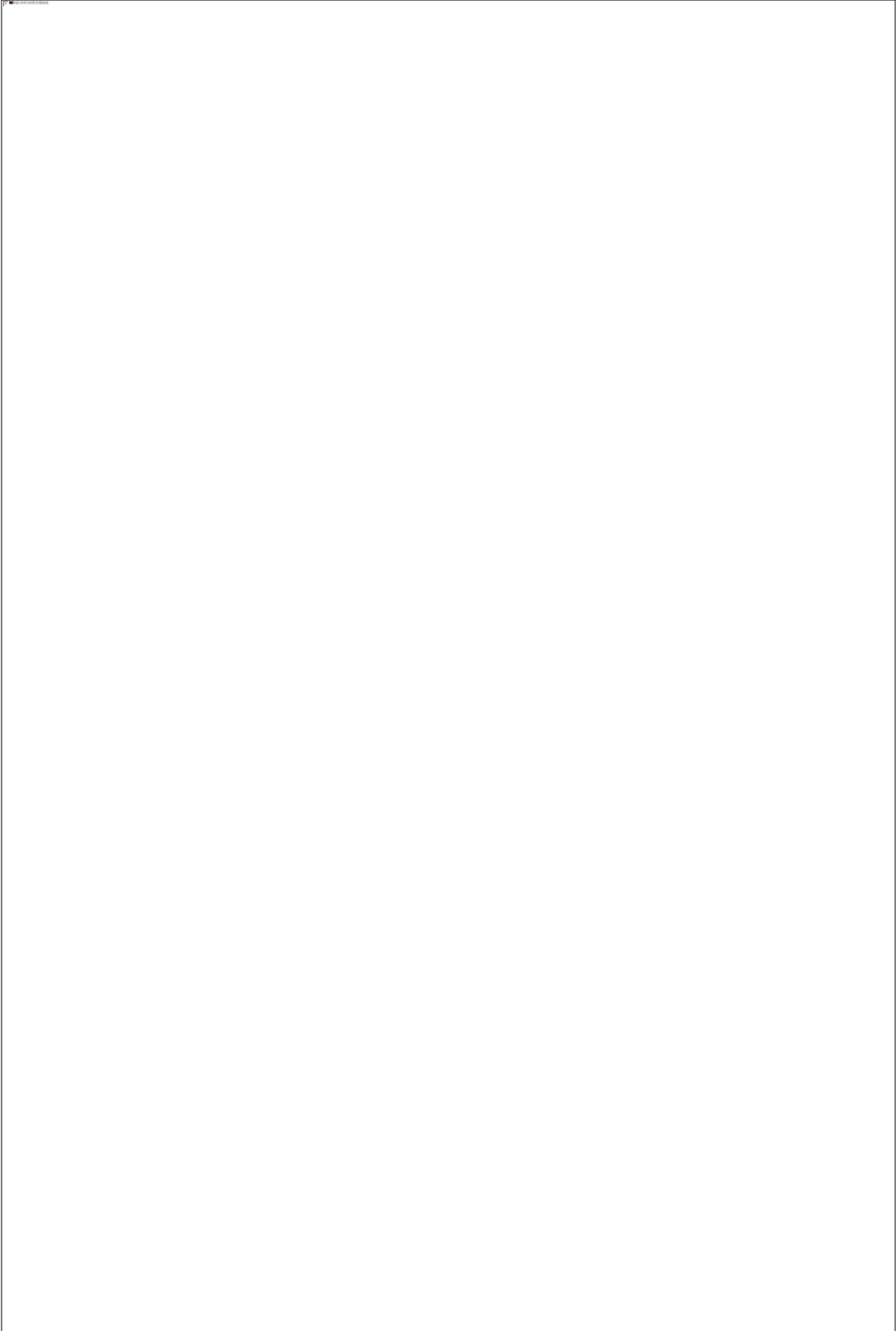
7. **Waivers and Modifications.** The Planning Commission may waive or modify the fencing or landscape buffering requirements upon a determination that a solid fence or landscaping buffer will not be necessary or effective for screening. In making such a determination, the following shall be considered.
 - a. Need for security;
 - b. Abutting district or existing use;
 - c. Extent that existing natural vegetation provides the desired screening;
 - d. Topography which would eliminate the benefits of required landscaping;
 - e. Building heights and views in relation to existing topography and vegetation as well as views from adjacent uses;
 - f. Similar conditions existing such that no good purpose would be served by providing the required landscaping plan.

SECTION 1306. NATURAL OPEN SPACE.

1. Notwithstanding required open space preservation/design as part of the site plan review process, the Planning Commission may additionally require that portions of a site not included within a proposed development area be protected from damage during construction and maintained in a natural condition until such time as required for use. Said preservation measures may be required by the Planning Commission in areas which are important for one or more of the following:
 - a. Preservation of the City's rural character
 - b. Maintenance of wildlife habitat or migration routes.
 - c. Protection of fragile ecosystems such as wetlands, streams and wildlife habitats.
 - d. Maintenance of air quality by filtering out airborne particulate matter.
 - e. Minimization of stormwater runoff and preservation of areas for ground water recharge.
 - f. Buffering between potentially incompatible land uses.
2. For areas of a site not proposed for immediate use, the Planning Commission may require that any combination of the following methods of natural area preservation be employed by an applicant as a condition of site plan approval.
 - a. Provide a silt fence to prevent any construction related debris from impacting natural areas not included within the development area during construction;
 - b. Provide adequate protective barricading outside the critical root zone for individual trees and woodland areas not included within the development area during construction;
 - c. Avoid storage of any equipment, debris, refuse or materials within natural areas not included within the development area during construction and operation of the site;
 - d. Avoid alteration, blockage or removal of any on-site natural watercourse passing through any natural area not included within the development area during construction and operation of the site; and
 - e. Avoid alteration, blockage or removal of any on-site wildlife habitat area within natural areas not included within the development area during construction and operation of the site.

SECTION 1307. PARKING LOT LANDSCAPING.

1. All of the required parking lot trees shall be placed within the parking lot envelope, described as the area including the parking lot surface and extending eighteen (18) feet from the edge of the parking lot, as illustrated. Where a parking lot contains fifty (50) or more parking spaces, a minimum of one-third (1/3) of the trees shall be placed in landscape islands within the interior of the parking area.
 - a. In an Industrial District one canopy tree shall be required for each three thousand (3,000) square feet of the total of the paved driveway and parking lot surface. In all commercial and multiple family districts, one canopy tree shall be required for each two thousand (2,000) square feet of paved driveway and parking lot surface, provided that in no case less than two (2) trees provided.
 - b. Each tree shall be surrounded by an open land area a minimum of one hundred fifty (150) square feet to provide for adequate infiltration of water and air, and surrounded by a minimum unobstructed area of six (6) feet around the diameter of the trunk for protection. If irrigation is provided, the open land area can be reduced to a minimum of seventy five (75) square feet. Tree plantings shall also be protected from automobiles with curbing or other suitable device.
2. In no case shall the required parking area landscaping be credited toward required greenbelts, or buffers.
3. Landscaping shall be installed such that, when mature, it does not obscure traffic signs or lighting, obstruct access to fire hydrants, interfere with adequate sign distance for motorists, nor disrupt drainage patterns on the site or adjacent properties



4. Landscaping shall be dispersed throughout the parking lot in order to break up large expanses of pavement and help direct smooth traffic flow within the lot.
5. Landscaped areas shall be covered by grass or other living ground cover. Woodchips or similar material is permitted for planting beds immediately surrounding plant material. Such material should be identified on the landscape plan. Mulches shall be three (3) inches depth around woody plants and one half (½) inch depth around herbaceous plants, and in both cases shall not be placed within two and one half (2½) inches of mainstem or clump crown.

SECTION 1308. LANDSCAPE STANDARDS.

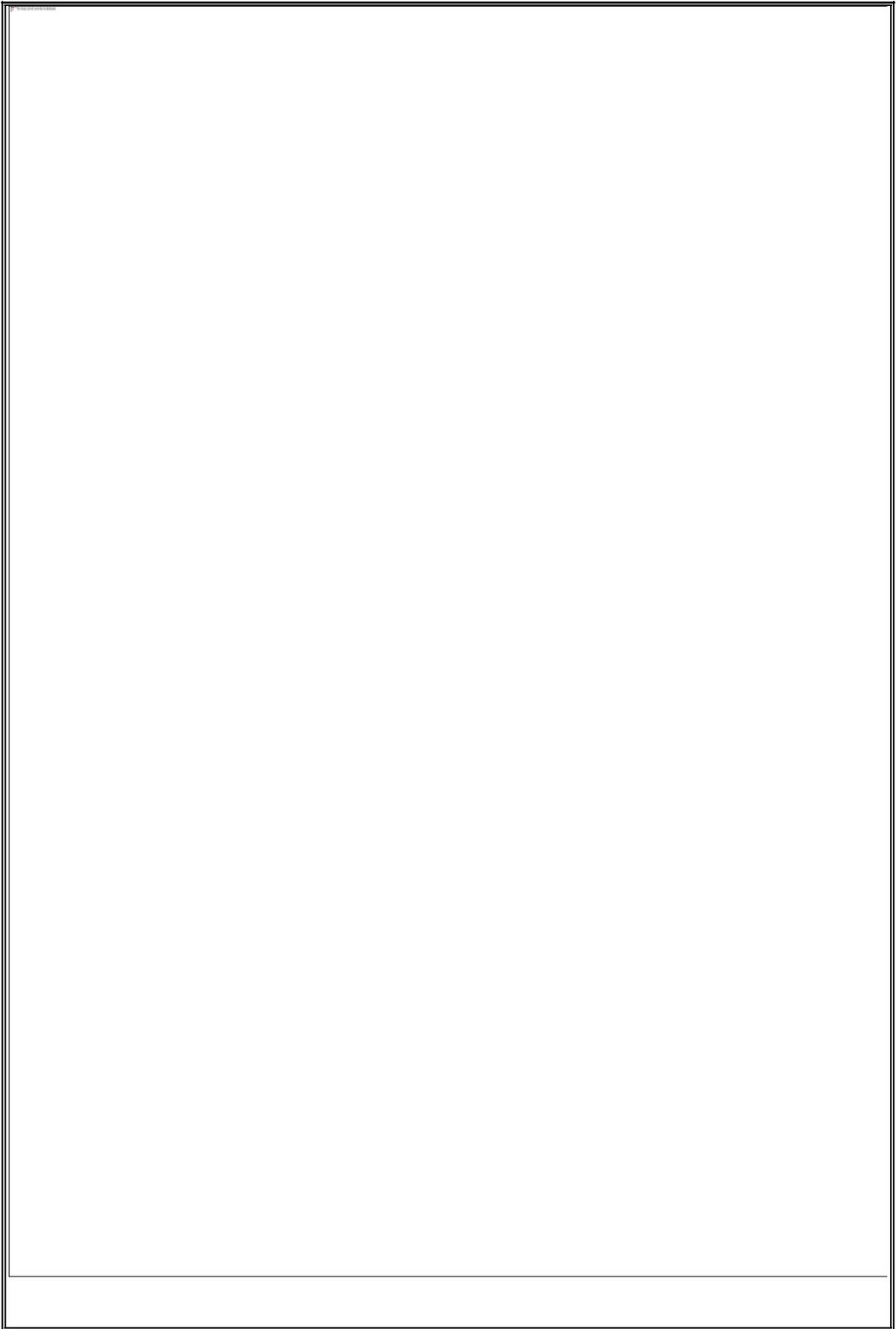
The following specifications shall apply to all plant material proposed in accordance with the landscaping requirements of this Ordinance.

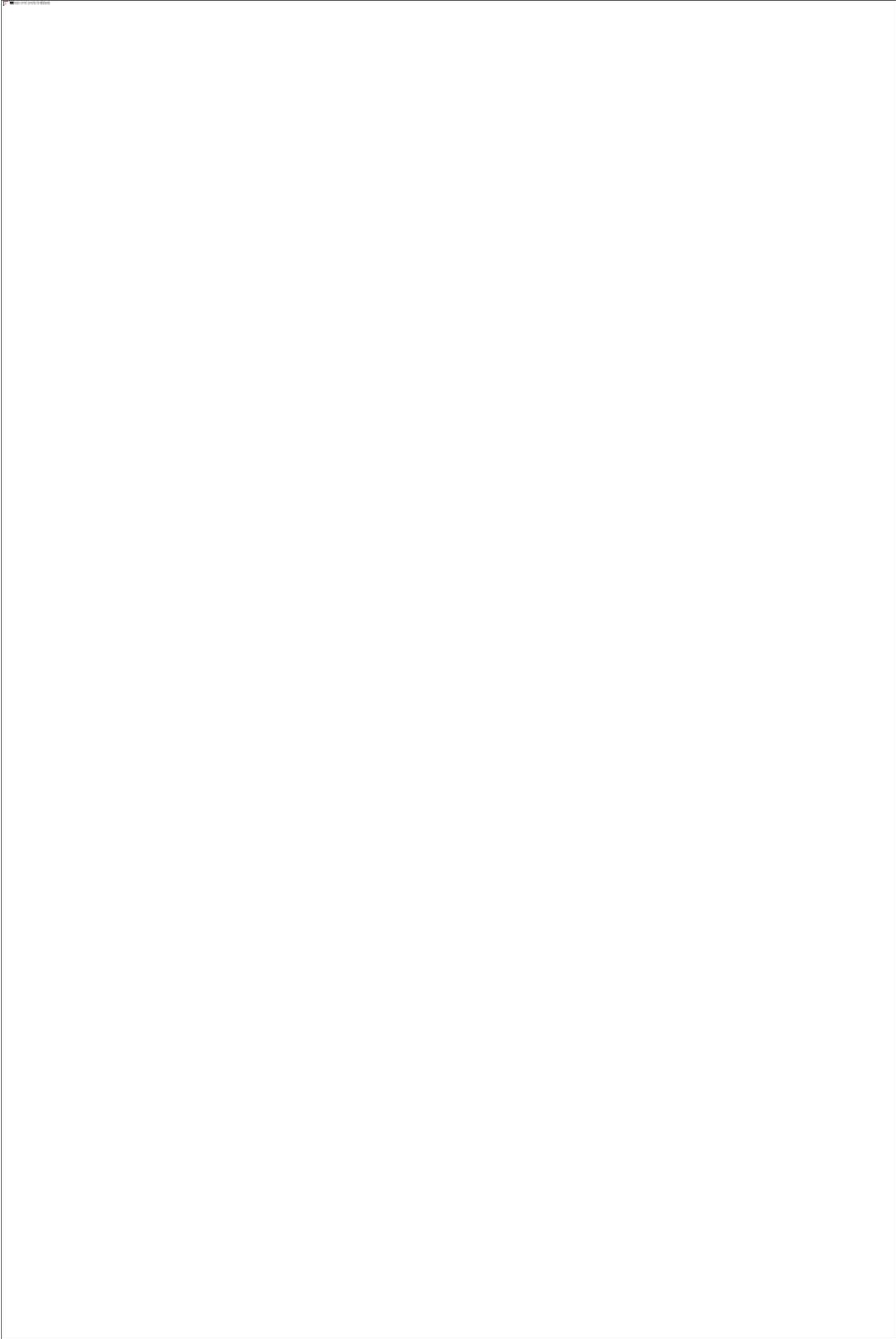
1. Size. The following table specifies the minimum required plant sizes at planting.

MINIMUM PLANT MATERIAL SIZE			
Plant Type	Minimum Caliper¹	Minimum Height	Minimum Spread
Deciduous Canopy Trees	2 ½ inches	4 feet ² first branch	--
Deciduous Ornamental Trees	2 inches	4 feet ³	--
Evergreen Trees	--	6 feet	2 ½ feet
Shrubs	--	2 feet	2 feet

Footnotes:

1. Measured twelve (12) inches above grade.
2. Trees planted along pedestrian routes (i.e. sidewalks, plazas, etc.) shall not have branches lower than six (6) feet. Trees planted within streetline and sidewalk or along bikeways shall maintain a vertical clearance to obstructions of a minimum of ten (10) feet.
3. Clumped trees (i.e. birch) shall have a minimum height of six (6) feet above grade.





2. Spacing. Planting in informal groupings to create a naturalistic appearance is desirable. Wherever possible, plant materials shall not be placed closer than four (4) feet from the fence line or property line. The following guidelines are for on-center spacing of plant materials used together in informal groupings:

Plant Material Types	Evergreen	Narrow Evergreen Trees	Large Deciduous Trees	Deciduous Ornamental Trees	Large Shrubs	Small Shrubs
Evergreen Trees	Min. 10' Max. 20'	Min. 12'	Min. 20'	Min. 12'	Min. 12'	Min. 5'
Narrow Evergreen Trees	Min. 12'	Min. 5' Max. 10'	Min. 15'	Min. 10'	Min. 5'	Min. 4'
Deciduous Canopy Trees	Min. 20'	Min. 15'	Min. 20' Max. 30'	Min. 15'	Min. 5'	Min. 3'
Deciduous Ornamental Trees	Min. 12'	Min. 10'	Min. 15'	Min. 8' Max. 15'	Min. 6'	Min. 3'
Large Shrubs	Min. 12'	Min. 5'	Min. 5'	Min. 6'	Min. 4' Max. 6'	Min. 5'
Small Shrubs	Min. 5'	Min. 4'	Min. 3'	Min. 3'	Min. 5'	Min. 3' Max. 4'

3. Mixing of Species. The overall landscape plan shall not contain more than thirty three (33%) percent of any one plant species. The use of trees native to the area and Southeast Michigan, and mixture of trees from the same species associates, is encouraged. Botanical genera containing trees native to southeast Michigan are identified with an asterisk (*) in the table of recommended Plant Materials.
4. Suggested Plant Materials. The following table lists recommended plant materials for required landscaping. Plant materials of equal or better quality may be substituted for suggested plant materials.

RECOMMENDED PLANT MATERIALS	
COMMON NAME	GENUS
Deciduous Canopy Trees	
1. Oaks*	Quercus
2. Hard Maples (Except Japanese)*	Acer
3. Hackberry*	Celtis

4.	Planetree (Sycamore)*	Platanus
5.	Birch*	Betula
6.	Beech*	Fagus
7.	Ginkgo (male)	Ginkgo
8.	Honeylocust (Thornless Cultivars only)*	Gleditsia
9.	Sweetgum	Liquidambar
10.	Hophornbeam (Ironwood)*	Ostrya
11.	Linden	Tilia
12.	Ashes*	Faxinus
13.	Hickory*	Carya
14.	Hornbeam (Blue Beech)*	Carpinus

Please note: Although the use of ashes is suggested, due to recent disease and pest problems associated with ashes in the area, it is recommended that more disease resistant ash cultivars be used and that no one cultivar be planted as the dominant tree type.

Deciduous Ornamental Trees

1.	Amelanchier*	Amelanchier
2.	Redbud*	Cercis
3.	Dogwood (Tree Form)*	Cornus
4.	Hawthorn*	Crataegus
5.	Flowering Crabapple (Disease Resistant Cultivars)	Malus
6.	Flowering Plum (Tree Form)	Prunus
7.	Flowering Pear	Pyrus
8.	Magnolia	Magnolia
9.	Hornbeam*	Carpinus
10.	Rose of Sharon	Hibiscus

Evergreen Trees	
1. Fir	Abies
2. Hemlock	Tsuga
3. Spruce	Picea
4. Pine*	Pinus
5. Douglas Fir	Pseudotsuga
Please note: Dwarf, Globe, Pendulous species/Cultivars are not permitted.	
Narrow Evergreens	
1. Juniper*	Juniperus
2. Arborvitae	Thuja
Please note: Dwarf, Globe, Spreading Species/Cultivars are not permitted.	
Large Shrubs	
1. Deciduous	
a. Dogwood (Shrub Form)*	Cornus
b. Cotoneaster	Cotoneaster
c. Forsythia	Forsythia
d. Mock-Orange	Philadelphus
e. Sumac*	Rhus
f. Lilac	Syringa
g. Viburnum*	Viburnum
h. Witchhazel*	Hamamelis
I. Euonymus	Euonymus
j. Privet	Ligustrum
k. Ninebark*	Physocarpus
2. Evergreens	
a. Juniper (Hetz, Pfitzer, Savin)	Juniperus
b. Yew (Pyramidal Japanese)	Taxus
Small Shrubs	
1. Deciduous	
a. Barberry	Berberis
b. Boxwood	Buxus
c. Quince	Chaenomeles
d. Cotoneaster	Cotoneaster
e. Euonymus*	Euonymus
f. Forsythia	Forsythia

g.	Hydrangea	Hydrangea
h.	Holly*	Ilex
I.	Privet	Ligustrum
j.	Potentilla*	Potentilla
k.	Currant*	Ribes
l.	Lilac	Syringa
m.	Viburnum*	Viburnum
n.	Weigela	Weigela
2.	Evergreens	
a.	Fir	Abies
b.	False Cypress	Chamaecyparis
c.	Juniper (Low Spreading)*	Juniperus
d.	Spruce	Picea
e.	Pine	Pinus
f.	Yew (Globe, Spreading, Upright)*	Taxus
g.	Arborvitae (Globe/Dwarf)	Thuja

5. Undesirable Plant Material. Use of the following plant materials (or their clones or cultivars) is not encouraged because of susceptibility to storm damage, drainage conflicts, disease, and other undesirable characteristics.

1. Box Elder
2. Soft Maples (Silver)
3. Elms (American, Siberian, Slippery, Red, and Chinese)
4. Poplars
5. Willows
6. Horse Chestnut (nut bearing)
7. Tree of Heaven
8. Catalpa
9. Ginkgo (female)
10. Cottonwood
11. Black Locust
12. Mulberry
13. Honey Locust (with thorns)

The Planning Commission, however, may allow trees from this list when associated with an appropriate ecosystem, such as a wetland area.

6. Ground Cover/Grass.

- a. Ground Cover. Ground cover used in lieu of turf grasses in whole or in part shall be planted in such a manner as to present a finished appearance and reasonably complete coverage after three (3) complete growing seasons.
- b. Grass. Grass area shall be planted using species normally grown as permanent lawns in Huron County. Grass, sod, and seed shall be clean and free of weeds, pests, and diseases. Grass may be sodded, plugged, sprigged or seeded. When grass is to be established by a method other than complete sodding or seeding, nurse grass seed shall be sown for immediate effect and protection until complete coverage is otherwise achieved. Straw or other mulch shall be used to protect newly seeded areas.
- c. Mulch: Mulch used around trees, shrubs, and vines shall be three (3) inches depth around woody plants and not be placed within two and one half (2½) inches of mainstem or clump crown, and installed in a manner as to present a finished appearance.