

1. Parking Area Landscaping Requirements

- A. Intent: The process of development of land with its alteration of the natural topography, vegetation and creation of impervious cover can have a negative effect on the ecological balance of an area by causing increases in air temperatures and accelerating the processes of runoff, erosion, and sedimentation. Recognizing that the preservation or installation of vegetative cover promotes the health, safety and general welfare by aiding in the stabilization of the environment's ecological balance by contributing to the process of air purification, oxygen regeneration, ground water recharge and storm water runoff retardation while at the same time aiding in noise, glare and heat abatement the following requirements for the landscaping of parking and outdoor display areas are enacted.
- B. General Requirement: All areas used for the display, residential storage, or parking of any type of vehicles, boats, trailers or similar items, whether self-propelled or not, shall incorporate and provide curbed tree planting spaces not less than fifty (50) square feet in area for each tree planting. Tree planting areas shall be evenly dispersed throughout the parking, display, or storage area according to the following standards:
1. For parking, display, or storage areas of two thousand (2,000) square feet or less, perimeter landscaping, equal to one (1) deciduous tree and two (2) shrubs, or two (2) tree-like shrubs and four (4) shrubs for each two hundred (200) square feet of planting area shall be provided between the parking display or storage area and the front or street side property line.
 2. For parking, display, or storage areas with greater than two thousand (2,000) square feet, there shall be provided planting areas equal to not less than ten percent (10%) of the total parking display or storage area. Such plantings shall be evenly disbursed throughout the parking, display, or storage area according to a plan approved by the Planning Commission. Included in such a plan shall be a minimum of one (1) tree and two (2) shrubs, or two (2) tree-like shrubs and four (4) shrubs for each two hundred (200) square feet of planting area. As much as ten percent (10%) of the required plantings may be provided around the perimeter of the property between the parking, display, or storage and the property lines.
 3. All planting beds, lawn areas, rights-of-way, and parking lot islands shall be irrigated. All lawn areas and right-of-way areas shall be sodded.

4. All parking lot islands shall be landscaped with a mix of plant materials, such as canopy deciduous trees, shrubs, ground covers, ornamental grasses, perennials, and sod. Parking lot islands that have a mix of trees and sod, only, shall contain a mulch tree ring.
- C. Clear sight distance: When an ingress or egress drive intersects a public right of way or when the subject property abuts the intersection of two (2) or more public streets all landscaping within the triangular areas described below shall provide unobstructed cross visibility at a level between thirty (30") inches and ten (10') feet. Landscaping except grass or ground cover shall not be located closer than three (3') feet from the edge of any ingress and egress drive pavement. The triangular areas above referred to are:
1. The areas of property on both sides of an ingress or egress drive formed by the intersection of each side of the drive and any public or private street with two (2) sides of each triangle being ten (10') feet in length from the point of intersection and the third (3rd) side being a line connecting the ends of the two (2) other sides.
 2. The area of property located at a corner formed by the intersection of two (2) or more public or private street or road rights of way with two (2) sides of the triangular area being thirty (30') feet in length along the abutting public rights of way and the third (3rd) side being a line connecting the ends of the other two (2) sides.
- D. Installation and Maintenance: All landscaping is to be continuously maintained. The owner, tenant, and their agent, if any, shall be jointly and severally responsible for the maintenance of all landscaping. Landscaping shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.

SECTION 2008. LANDSCAPE PROVISIONS

The purpose of this section is to set minimum standards for the protection and enhancement of the environment through requirements for the design and use of landscaping. All landscaping shall conform to the following standards except as otherwise specified in this Ordinance.

- i. General. Wherever landscaping is required by this Ordinance, all portions of the landscaped area shall be planted with grass, trees, ground cover, shrubbery or other

suitable plant material, in accordance with the standards provided in this Section. Paved patios, terraces, sidewalks and similar site features may be incorporated with Planning Commission approval. Plastic and other nonorganic or nonliving plant material shall be prohibited from use and shall not be in compliance with the spirit and intent of this Ordinance.

2. Required Landscaped Areas: In addition to any other provisions of this Ordinance requiring landscaping, the following shall be provided:

A. Entranceways.

1. Each road access point or entrance to any type of residential development, mobile home park, industrial park, office complex or commercial development, or similar planned development, containing more than two (2) buildings that are related in purpose, from a major or collector thoroughfare, shall have erected an identifying sign, shall have installed an irrigation system approved by the Building and Zoning Administrator, and shall be landscaped with berms and well positioned plant groupings. These plant groupings shall be composed of a mixture of sizes and species in accordance with the specifications provided in this Section, so as to provide partial screening of the development as viewed from the road. The use of berms and plantings should be arranged as a support system for the identifying or feature sign. Any sign erected for this purpose shall not exceed six feet (6') in height and thirty-two (32) square feet in area, shall be constructed of permanent, durable materials, and shall be designed so as to be compatible with the architecture of the surrounding development.

2. The Planning Commission may waive these requirements when it determines that the parcel size and configuration are such as to make the provisions of the landscaped area inappropriate due to such factors as size of the development, location off long private road or where all lots face a major thoroughfare.

B. Street Tree Planting (Streetscape). To enhance the environment any standard subdivision street or any street located within a residential, industrial or commercial development, or condominium project, mobile home park, or office complex or industrial park, shall contain one (1) deciduous tree for each forty (40') feet of street frontage.

A residential street shall contain two (2) deciduous trees per lot. One tree planting may be located at each lot front with the balance located in random

natural groupings along street right of ways. At interior street intersections, plant groupings should be positioned so as to create added interest.

- C. Right of Ways Along Major or Collector Thoroughfares (Roadscape). Any lot or parcel of land which is contiguous to a major or collector thoroughfare (as listed in 1900) shall provide a landscaped area consisting of grass, trees, berms, plantings and suitable ground cover within the right of way, located no closer than twenty (20') feet from the traveled portion of the roadway subject to the provisions of Section 2008 (5), and an irrigation system approved by the Building and Zoning Administrator. This requirement is designed to reduce traffic noise and provide a continuing green driving environment which would screen objectionable views, beautify the road corridor and improve traffic safety.

Where these requirements are in conflict with the requirements of Oakland County Road Commission for planting and/or construction, the Planning Commission reserves the right to vary these requirements so as to eliminate conflicts between the sections while achieving and preserving the intent and purpose of this Section.

- D. Building Fronts and Interior Grounds. Interior landscaping areas, constituting at least fifteen (15%) percent of the total lot area, exclusive of the rights of way, required bufferyards, greenbelts and required parking lot landscaping, shall be provided in every non residential or residential development excluding single family detached residential uses.

Interior Landscaping should be grouped near building entrances, along building foundations, along pedestrian walkways and along service areas in accordance with the following standards:

1. One deciduous or evergreen tree or, upon approval of the Planning Commission, two tree like shrubs shall be required for every four hundred (400) square feet of required interior landscaping area.
 2. One shrub shall be required every two hundred fifty (250) square feet of required interior landscaping area.
 3. The interior landscaping area shall be curbed or edged and shall contain grass, ground cover, six inch (6") deep wood chips or six inch (6") deep crushed stone.
3. Plant Material Standards. It is the intention of the Planning Commission that an interesting and thoughtful mixture of plantings shall be provided, although these

standards may be varied by the Commission when these established minimums will not serve the purpose of this Section.

A. Plant Quality. Plant materials permitted in required landscape areas shall be nursery grown, hardy in this climate zone, long/lived, resistant to disease and insect attack, and shall have orderly growth characteristics.

B. Plant Specifications (Size).

1. Trees. Required trees shall be of the following sizes at the time of planting, unless otherwise stated in this Ordinance.

a. Full Size Trees

Deciduous Tree: Two (2") inch caliper, minimum trunk measurement at four (4') feet off the ground, with a minimum of eight (8') feet in height above grade when planted.

Evergreen Tree: Eight (8') feet in height, with a minimum spread of three (3') feet and the size of the burlapped root ball shall be at least ten (10) times the caliper of the tree measured six (6") inches above grade.

b. Tree Like Shrubs

Deciduous Ornamental Tree: One (1") inch caliper minimum trunk measurement at three (3') feet off the ground, with a minimum height of six (6') feet above grade when planted.

2. Shrubs. Minimum three (3') feet in height above planting grade.

3. Hedges. Planted in such a manner as to form a continuous unbroken visual screen within two (2) years after planting.

4. Vines. Minimum of thirty (30") inches in length after one (1) growing season.

5. Ground Cover. Planted in such a manner as to present a finished appearance and reasonably complete coverage after one (1) complete growing season.

6. Grass. Planted in species normally grown as permanent lawns in Oakland County. Rolled or solid sod shall be used for all installations, except that on single family residential lots, grass may be plugged,

sprigged, seeded or sodded. Rolled or solid sod, erosion reducing net or suitable mulch shall be used in swales or other areas subject to erosion. Grass, sod and seed shall be clean and free of weeds, noxious pests and disease.

7. Mulching Material. Minimum of six (6") inches deep for planted trees, shrubs and vines and shall be installed in a manner as to present a finished appearance.

C. Approved Plant Species. Unless otherwise provided herein, or specifically permitted by the Planning Commission, all required plant materials shall be of the following species:

1. Deciduous Trees: Hard Maple, Oak, Birch, Beech, Ash, Ginko.
2. Evergreen Trees: Fir, Spruce, Pine, Hemlock, Douglas Fir.
3. Shrublike Trees: Russian Olive, Dogwood, Redbud, Flowering Crabapple, Hawthorn, Magnolia, Hicks Yew, Pfitzer Juniper, Ornamental Cherry.
4. Shrubs: Honeysuckle, Lilac, Cottoneaster, forsythia, Euonymus, Hydrangea, Privet, Barberry, Flowering Quince, Spreading Yews, Juniper, Burning Bush.
5. Ground Cover: Pachysandra, Spreading Juniper, Wintercreeper, Periwinkle, English Ivy.

D. Prohibited Plant Materials. The following plant materials shall not be used for landscaping purposes under any circumstances because of susceptibility to storm damage, disease or other undesirable characteristics: Box Elder, Soft Maples (Red or Silver), American Elm, Horse Chestnut, Poplar, Aspen, Ailanthus, Catalpa, European Barberry, Eastern Red Cedar.

4. Berm Standards. Where required, berms shall be a minimum of three (3') feet in height measured from the average grade at the base to the top of the berm with a slope not greater than three (3') feet of run for each one (1') foot of rise (3:1). The berm area shall be planted with grass or other suitable ground cover to insure that it withstands the erosinary forces of wind and weather and retains its height and shape.
5. Installation and Maintenance. The following standards shall be observed where installation and maintenance of landscape materials is required:

- A. Installation. Landscaping shall be installed in a sound workmanlike manner and according to accepted good planning procedures with the quality of plant materials as hereinafter described. Landscaped areas shall be protected from vehicular encroachment by use of curbing, wheel stops or some other means. Landscape areas shall be elevated above the pavement to a minimum height of eight (8") inches to protect plant materials from snow removal operations, salt, and other hazards. If building or paving construction is completed in an off-planting season, a temporary Certificate of Occupancy may be issued only after the owner provides a performance bond to ensure installation of required landscaping in the next planting season.
- B. Maintenance. All landscaping is to be continuously maintained. The owner of landscaping required by this Ordinance shall maintain the landscaping in a healthy, neat, and orderly appearance, free from refuse and debris. All unhealthy and dead plant material shall be replaced in the next appropriate planting period. Maintenance of landscaped areas in public rights-of-way adjacent to required landscape areas shall be the responsibility of the owner of the adjacent private property.
- C. Bond. A bond or cash in an amount equal to one hundred twenty-five (125%) percent of the estimated landscape costs shall be deposited with the Township, in accordance with Section 2034 of this Ordinance, until such time as the landscaping is planted and completed. In the event that weather or seasonal conditions prevent transplanting, a petitioner shall be granted six (6) months from the date of issuance of a Certificate of Occupancy to install the required landscaping and the Township shall be authorized to use said funds for such purpose.

In all cases, however, the Township is authorized to withhold ten (10%) percent of a bond or cash for a period of two (2) years from the date of issuance to insure that dead or dying nursery stock shall be replaced. Excess funds, if any, shall be returned to the depositor upon completion of the two (2) year period.

6. Existing Plant Material. In instances where healthy plant material exists on a site prior to its development, the Planning Commission, pursuant to site plan approval, may adjust the application of the above standards to allow credit for such existing plant material if such existing plant material if such an adjustment is in keeping with and will preserve the intent of this Ordinance.

Existing hedges, berms, wall or other landscape elements may be used to satisfy the requirements of this Section, provided that such existing landscaping is in conformance with all of the requirements of this Section. Maintenance of the existing landscaping elements shall be the responsibility of the individual petitioning for

approval, unless an agreement between the affected property owners relative to maintenance is presented. Any such agreement shall be approved by the Township Board.

7. The requirements of this Section are the minimum requirements and nothing herein shall preclude a developer and the township from agreeing to more extensive landscaping.

SECTION 2009. BUFFERYARDS AND SCREENING

1. Purpose: Bufferyards or greenbelts and obscuring walls or fencing are intended to mitigate potentially negative impacts land uses may have on less intensive neighboring land uses or to obscure unsightly items or areas from view off the site. The bufferyard or greenbelt is a designated unit of yard or open space together with any plant materials, barriers and screening designed to minimize negative impacts of adjacent land uses. Both the amount of land and the type and amount of landscaping specified are intended to minimize potential nuisances such as noise, glare, dirt, unsightly areas and similar impacts.

The bufferyard requirements are designated to be flexible. A single standard applied to all circumstances may not function as well and might impose unnecessary difficulties on development and lead to monotony. It is the intent of the following provisions to provide flexibility to the developer or property owner through the manipulation of four (4) basic elements: distance, plant material type, plant material density and structural or land forms.

2. Land Use Definitions: For the purpose of this Section the following land use definitions shall apply:
 - A. Recreation & Open Space: Public or private park, open space and recreation areas.
 - B. Institutional: Land uses for religious, educational health and social institutions, public buildings and cemeteries. Included in this category are churches, schools, hospital and permitted accessory uses.
 - C. Agricultural: Lands used for continued agricultural production.
 - D. Low Density Residential: Residential land uses featuring single family detached or attached dwelling units at gross densities less

than 5 dwelling units per acre as permitted in the R-1 and R-2A zone districts.

- E. High Density Residential: Residential land uses featuring multiple family dwelling units, such as apartments, at gross densities exceeding 5 units per acre as permitted in the R-2B and RM zone districts.
 - F. Commercial: Commercial and office land uses as defined in Section 200, Definitions, of this Ordinance and as permitted in the B,O and P zone districts.
 - G. Industrial: Land uses primarily involving wholesaling, shipping, manufacturing, warehouses, processing, assembling, packaging or treatment of products from previously prepared materials together with associated research facilities and contractor yards or facilities as permitted in the I zone districts.
2. Bufferyards Required: The type of bufferyard required shall be determined based upon the proposed and existing adjacent land use as follows:
- A. Commercial Land Use: When any commercial land use is proposed adjacent to any recreation and open space, residential, agricultural or institutional land use, a type B bufferyard, as defined herein, shall be required.
 - B. Industrial Land Use: When any industrial land use is proposed adjacent to any recreation and open space, residential, agricultural, or institutional land use, a type C bufferyard, as defined herein, shall be required when an industrial land use is proposed adjacent to any commercial land use a type A bufferyard, as defined herein, shall be required.
 - C. High Density Residential Land Use: When any high density residential land use is proposed adjacent to any recreation and open space, low density residential, agricultural or institutional land use a type A bufferyard as define herein, shall be required.
 - D. Institutional Land Use: When any institutional land is proposed adjacent to any low density residential land use a type A bufferyard, as defined herein, shall be required.
 - E. When a parcel to be developed is located adjacent to a vacant parcel of land, the bufferyard requirement shall be determined by

the Zoning Administrator based upon the zoning classification of said parcel, that is for example if an industrial use is proposed adjacent to a residentially zoned parcel of land a type C bufferyard shall be required on the industrial parcel.

- F. Existing plant materials or fences otherwise complying with the requirements of this Ordinance may be counted as contributing to the total bufferyard requirement.
- G. Should a developed use increase in intensity, it shall be determined by the appropriate authority during the site plan review process whether additional bufferyard is necessary and, if so, to what extent and type.

3. Bufferyard Types and Development Standards: Bufferyard requirements are stated in terms of the width of the bufferyard and the number of plant units required for each fifty (50') lineal feet of bufferyard. The requirements may be satisfied by any of the options indicated for any given bufferyard type.

A. The following illustrations graphically depict the acceptable bufferyard widths, plant material types, plant material densities and structural or land forms for each bufferyard type: **SEE BELOW FOR ILLUSTRATIONS**

A. Bufferyards shall be located on the side and rear lot lines of a parcel extending to the lot or parcel boundary line. Bufferyards shall not extend into or be located within any portion of an existing road right of way or closer to a major thoroughfare setback line as provided in Section 1901.q of this Ordinance.

B. Landscape and plant materials and berms and land forms used for fulfilling the bufferyard requirement shall comply with the standards of Section 2008 of this Ordinance.

C. Where a bufferyard is required, plant material used to satisfy the bufferyard requirement shall set apart the following distances:

1. Deciduous trees shall be planted not more than thirty (30') feet nor less than fifteen (15') feet on centers.
2. Evergreen trees shall be planted not more than thirty (30') feet nor less than ten (10') feet on centers.

3. Shrubs shall be planted not more than four (4') feet on centers.
4. Where plant materials are planted in two or more rows, planting shall be staggered in the rows.
5. Obscuring Fences and Walls: Where required in this Ordinance, fences, walls or other structural obscuring devices or barriers, as approved by the Planning Commission, shall be subject to the following standards:
 - A. Required obscuring walls shall be constructed of the same material as, or of materials which are architecturally compatible with, the materials used on the façade of the principle structure on the lot. Masonry walls shall be erected on a concrete foundation which shall have a minimum depth of forty-two (42") inches and shall not be less than four (4") inches wider than the wall to be erected.
 - B. Fences shall be constructed of redwood, cedar or No. 1 pressure treated wood, with posts sunk into the ground at least three (3') feet.
 - C. All obscuring walls or fences shall be constructed so as to be totally opaque.
 - D. Barbed wire, spikes, nails or any other sharp pointed obtrusions shall be prohibited on top of an or on the sides of any obscuring fence or wall except that barbed wire cradles consisting of not more than three (3) strands of wire may be placed on top of fences enclosing public utility structures or facilities.

- E. Required obscuring walls and fences shall be continuous with no interruption or openings except for permitted vehicular access and in such cases said access opening shall be gated in a manner similar to the construction of the fence or wall.
 - F. Obscuring walls and fences shall be installed in a workmanlike manner and in accordance with the Building Code and shall be maintained in a sound and safe condition.
6. Installation and Maintenance: All landscaping and plant materials required by this Section shall be installed and maintained in accordance with the provisions of Section 2008.5 of this Ordinance. In addition the bond provisions of Section 2008.5 shall be complied with.