#### **CHAPTER 18**

#### LANDSCAPING STANDARDS

#### **SECTION 18.01 INTENT**

The intent of this Chapter is to establish minimum standards for the design, installation, and maintenance of landscaping along public streets, as buffer areas between uses, on the interior of sites, within parking lots, and adjacent to buildings. Landscaping is viewed as a critical element contributing to the aesthetics, development quality, stability of property values, and the overall character in the Township.

The standards of this Chapter are also intended to preserve quality mature trees, screen headlights to reduce glare, integrate various elements of a site, help ensure compatibility between land uses, assist in directing safe and efficient traffic flows at driveways and within parking areas, and minimize negative impacts of stormwater runoff.

The landscape standards of this Chapter are considered the minimum necessary to achieve the intent. In several instances, the standards are intentionally flexible to encourage creative design. Applicants are encouraged to provide additional landscaping to improve the function, appearance, and value of their property.

#### **SECTION 18.02 REQUIREMENTS AND TIMING OF LANDSCAPING**

#### A. Plan Required.

Landscaping shall be included with all non-residential (commercial, office, and industrial), multiple family (three or more units) developments, and manufactured housing park developments plan applications reviewed by the Township. A separate landscaping plan shall be submitted at a minimum scale of one (1) inch equals fifty (50) feet. The landscape plan shall clearly describe the location, type, size, and spacing of all plant materials.

#### B. Installation and Inspection.

Wherever this Ordinance requires landscaping or plant materials, it shall be planted within six (6) months from the date of issuance of a certificate of occupancy and shall thereafter be reasonably maintained with permanent plant materials which may be supplemented with other plantings. The Planning Commission may require a performance guarantee in a form acceptable to the Township, to cover the costs of landscaping prior to the issuance of a certificate of occupancy.

Landscaping shall be installed in a sound manner according to generally accepted planting procedures with the quality of plant materials as hereinafter described and shall be protected from vehicular encroachment and snow removal operations.

In the event a performance guarantee is being held, the Zoning Administrator will within three (3) months of receiving written notification of installation, conduct an inspection to verify said installation and authorize release of the guarantee.

## C. <u>Plant Material Standards</u>.

It is the intent of this Chapter that a diverse mixture of plantings be provided. Therefore, all required landscaping shall comply with the following minimum plant material standards, unless otherwise specified within this Chapter. These standards may be varied by the Planning Commission where the established minimums, in the judgement of the Commission, will not serve the purpose and intent of this Chapter.

## 1. Plant Quality.

Plant materials permitted in required landscaped areas shall be hardy to the climate of Michigan, long-lived, resistant to disease and insect attack, and shall have orderly growth characteristics.

#### 2. <u>Plant Size Specifications</u>.

#### a. Trees.

Required trees shall be of adequate size as determined by the Planning Commission at the time of planting, unless otherwise stated in this Chapter.

#### i. Deciduous Trees.

Two and a half  $(2\frac{1}{2})$  inch caliper minimum trunk measurement at four (4) feet off the ground, with a minimum eight (8) feet in height above grade when planted.

#### ii. Evergreen Trees.

Six (6) 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 the grade.

#### iii. Deciduous Ornamental Trees.

One (1) inch caliper minimum at three (3) feet off the ground, with a minimum height of six (6) feet above grade when planted.

#### b. Shrubs.

Minimum twenty-four (24) inches in height above planting grade.

#### c. <u>Hedges</u>.

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

#### d. Vines.

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

#### e. <u>Ground Cover.</u>

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

#### f. Grass.

Planted in species normally grown as permanent lawns in the south-central Michigan area. Grass may be plugged, sprigged, seeded, or sodded, except that rolled sod, erosion reducing net, or other 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.

#### g. Mulch Material.

Minimum of four (4) inches deep for planted trees, shrubs, and vines, and shall be installed in a manner as to present a finished appearance.

- h. No plant materials used to satisfy these standards shall be comprised of non-living materials, such as plastic plants.
- i. Ground covers shall be planted in such a manner so as to present a finished appearance and reasonably complete coverage after one complete growing season, at a rate of at least three plants per square foot.

- j. All plant materials shall be well-formed, sound, vigorous, healthy and free from disease, sun scald, wind burn, abrasion, and harmful insects at the time of planting.
- k. The following plant materials are not permitted for planting (in a public right-of-way or as required by the minimum landscaping standards of this Ordinance) due to their tendency and susceptibility to storm damage, their roots are known to clog drains and sewers, they are known to be susceptible to disease or insect pests, or other undesirable characteristics: Silver Maple, Box Elder, Honey Locust (thorned), Ginko (female), Mulberry, Popular, Black Locust, Willow, American Elm, Siberian Elm, Slippery Elm (Red Elm), and Chinese Elm, Horse Chestnut, Poplar, Ailanthus, Catalpa, Osage orange, Cottonwood, and European Barberry.

#### SECTION 18.03 SPECIAL PROVISIONS FOR EXISTING SITES

Special provision is made for applying these standards to developed sites which existed prior to the effective date of this Ordinance. Therefore, when an existing site is undergoing improvement, a change in use, or expansion that requires the submittal of a development plan, the objective of these standards is to gradually bring the existing site into compliance with the minimum standards of this Chapter in relation to the extent or change on a site.

When reviewing plans for a change in use or expansion which requires development plan review, the Zoning Administrator or body reviewing the plan shall require an upgrade in landscaping, using the following as guidelines:

#### A. <u>General Requirements</u>.

Each building expansion requiring development plan review shall provide at least 10% of the landscaping requirements for a new development for every 10% of expansion.

#### B. <u>Street and Parking Lot Requirements</u>.

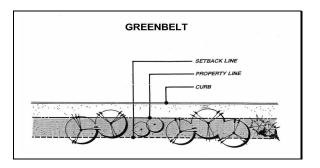
Each building expansion requiring development plan review should provide landscaping along public streets and within parking areas, with landscaping along public streets as the priority. Where parking lot landscaping cannot be reasonably provided, additional landscaping along the street or in any required buffer areas should be considered.

## SECTION 18.04 REQUIRED LANDSCAPING ALONG PUBLIC RIGHT-OF-WAYS

One (1) of the following street landscaping options is required on land abutting public streets or where otherwise referenced.

#### A. Greenbelt.

- 1. Minimum width of ten (10) feet. The Planning Commission may permit the width of the greenbelt to be reduced in cases where existing conditions do not permit a ten (10) foot width. In such cases, the greenbelt requirement may be met through the provision of street trees or the provision of landscaping as required below.
- 2. At least one (1) deciduous tree and four (4) shrubs per each thirty (30) lineal feet of street frontage. Location of the trees and shrubbery is discretionary.
- 3. The greenbelt area shall contain grass, vegetation ground cover, mulch, or crushed stone on a weed barrier, and be curbed or edged.



4. Where headlights from parked vehicles will shine into the roadway, the Planning Commission may require the use of a totally obscuring hedge with a minimum height of twenty-four (24) inches and a maximum height of thirty-six (36) inches.

#### B. Berm.

- 1. Minimum height of two (2) feet with a crest at least three (3) feet in width. The height of the berm may meander if the intent of this Chapter is met and an appropriate screen is provided.
- 2. The exterior face of the berm shall be constructed as an earthen slope, with a slope not to exceed one (1) foot of vertical rise to three (3) feet of horizontal distance (1:3). The interior face of the berm may be constructed as an earthen slope or retained by means of a wall, terrace, or other means acceptable to the Planning Commission.
- 3. At least one (1) deciduous tree shall be provided for each thirty (30) feet of lineal berm length.
- 4. At least one (1) minimum shrub shall be provided for each one-hundred (100) square feet of berm surface area, as calculated from a plan view.
- 5. Berm slopes shall be protected from erosion by sodding or seeding. If the slopes are seeded, they shall be protected until the seed germinates and a permanent lawn is established by a straw mulch, hydro-mulching, or netting specifically designed to

control erosion.

## C. <u>Buffer Strip</u>.

- 1. Minimum width of ten (10) feet.
- 2. All trees shall be evergreens and the planting shall be staggered or off-set.
- 3. The buffer planting area shall contain grass, vegetation ground cover, mulch, or crushed stone on a seed barrier, and be curbed or edged as necessary.

#### SECTION 18.05 PARKING LOT LANDSCAPING

Within every parking area containing ten (10) or more proposed spaces, at least one (1) deciduous tree and ornamental tree with at least one-hundred (100) square feet of planting area shall be used for every ten (10) parking spaces, in addition to any other landscaping requirements. This landscaping shall meet the following standards:

- A. Landscaping shall be dispersed throughout the parking area in order to break up large expanses of pavement and help direct smooth traffic flow within the lot.
- B. Landscaping shall be planned and installed such that, when mature, it does not obscure traffic signs or lighting, obstruct access to fire hydrants, nor interfere with adequate motorist sight distance.
- C. Dimensions of separate landscaped areas within the interior of or adjacent to parking areas shall be shown on the development plan. Minimum width of such areas shall be ten (10) feet.

## SECTION 18.06 WASTE RECEPTACLE AND MECHANICAL EQUIPMENT SCREENING

Waste receptacles shall be located and screened in accordance with the standards of this Ordinance including those standards identified in Chapter 18 Landscaping, or other Township ordinances. Ground mounted mechanical equipment shall be screened with plant materials or a wall, when visible from a public-right-of-way or parking area.

#### SECTION 18.07 GENERAL LAYOUT AND DESIGN STANDARDS

#### A. Plant Health and Maintenance.

Landscaped areas and plant materials required by this Ordinance shall be kept free from refuse and debris. Plant materials, including lawn areas, shall be maintained in a healthy and growing condition, neat and orderly in appearance. If any plant material required by this Ordinance dies or becomes diseased, they shall be replaced within thirty (30) days of written notice from the Zoning Administrator, or within an extended time period as specified in said notice.

## B. <u>Removal of Support Material.</u>

Tree stakes, guy wires, and tree wrap are to be removed after one (1) year.

## C. <u>Irrigation</u>.

All landscaped areas shall be provided with a readily available and acceptable water supply to facilitate continued maintenance.

#### D. <u>Visibility</u>.

Landscaping materials and arrangement shall ensure adequate sight visibility for motorists, adequate clearance for pedestrians and vehicles, and accessibility to fire hydrants, and shall not interfere with or obstruct the view of public viewsheds and sight lines from rights of way and public property to streams, lakes, and other waterways.

#### E. Species Tolerance.

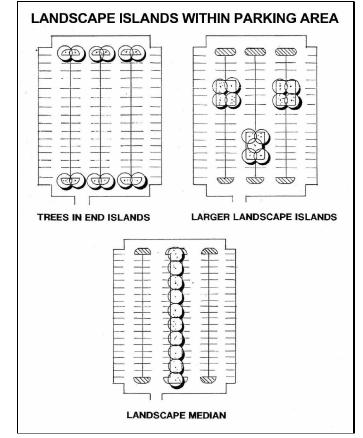
Public and private roads, cul-desacs, site entrances, and boulevard medians shall be landscaped with species tolerant of roadside conditions common to the area.

# SECTION 18.08 WALLS AND BUFFER STRIPS BETWEEN USES

In those instances where the following conditions occur, the need for a wall, a

berm, or similar type of landscaped buffer strip shall be determined by the Planning Commission.

## A. Zoning Districts and Land Uses.



For developments within the C-1 and I-1 districts, there shall be provided and maintained on those sides abutting or adjacent to a residential zoning district and/or a current residential use, a masonry wall, wooden privacy fence six (6) feet in height, or greenbelt, berm, or a buffer strip, (except as otherwise required) shall be required as deemed appropriate by the Planning Commission.

For non-residential land uses within residential zoning districts, there shall be provided and maintained on those sides abutting or adjacent to a residential zoning district and/or a current residential use, an obscuring wall six (6) feet in height, decorative wooden privacy fencing, a greenbelt, a berm, or a buffer strip (except as otherwise required).

#### B. Location.

Required walls, fences, greenbelts, berms, or buffers strips shall begin on or at the property line, except where underground utilities interfere.

## C. Materials.

Such walls and screening barriers shall have no openings for vehicular traffic or other purposes, except as otherwise provided for in this Ordinance and except such openings as may be approved by the Planning Commission. All walls herein required shall be constructed of materials approved by the Planning Commission to be durable, weather resistant, rustproof, and easily maintained. Materials for walls shall be compatible with surrounding building materials. Materials for the greenbelts, berms, or buffer strips shall be in accordance with the standards identified in this Chapter unless specified elsewhere.

#### D. Alternatives.

The Planning Commission may approve a landscaped berm as an alternative to a wall upon finding the landscaped berm will provide a similar screening effect.

# SECTION 18.09 WAIVER OR MODIFICATION OF STANDARDS FOR SPECIAL SITUATIONS

The Planning Commission may determine existing landscaping or screening intended to be preserved, or a different landscape design, would provide all or part of the required landscaping and screening. In making such a determination to waive or reduce the landscape and screening requirements of this Chapter, the following may be considered:

A. Extent that existing natural vegetation provides desired screening.

- B. There is a steep change in topography which would limit the benefits of required landscaping.
- C. The presence of existing wetlands.
- D. Existing and proposed building placement.
- E. The abutting or adjacent land is developed or planned by the Township for a use other than residential.
- F. Building heights and views.
- G. Similar conditions to the above exist such that no good purpose would be served by providing the landscaping or screening required.