

## **ARTICLE 10 LANDSCAPE STANDARDS**

### **SECTION 10.01 Intent**

The intent of this article is to promote the public health safety and welfare by establishing minimum standards for the design, installation and maintenance of landscaping as buffer zones between zoning districts, along roadways, between adjacent buildings and in parking lots.

The standards of this article are intended to guide and encourage the protection and enhancement of the environment through requirements for site design and the use of landscape materials. Applicants are encouraged to provide landscaping in addition to the minimum requirements of this Ordinance to improve the function, appearance and value of their property.

### **SECTION 10.02 Application**

The requirements set forth in this article shall apply to all uses for which site plan review is required under Article 8, Section 8.02 of this Ordinance. No site plan or land use shall be approved unless said site plan provides landscaping consistent with the provisions of this Article.

The Planning Commission may also determine that dimensional conditions unique to the parcel would prevent development of required buffer zones, off street parking area, landscaping or green belts. If such a determination is made, the Planning Commission may grant an exception from the landscaping provisions of this article.

The following are minimum landscape standards and nothing will preclude the developer and Township from agreeing to more stringent standards. If applicable this determination will be made during site plan review.

#### **A. Landscape plan required**

A separate detailed landscape plan shall be submitted as part of a site plan review. The landscape plan shall include, but not be limited to the following items:

1. Minimum scale of one (1) inch to twenty (20) feet.
2. Proposed plant location, spacing, size, species (common and botanical name) and necessary descriptions for use within required landscape areas.
3. Existing and proposed contours on-site and one hundred (100) feet beyond the site at intervals not to exceed two (2) feet.
4. Straight cross section including slope, height and width of berms and type of ground cover, or height and type of construction of wall or fence, including footings.

5. Significant construction details to resolve specific site conditions, such as tree wells to preserve existing trees or culverts to maintain existing natural drainage patterns.
6. Planting and staking details in either text or drawing form to ensure proper installation and establishment of proposed materials.
7. Identification of existing trees proposed to be saved including individual tree caliper size and species. Clearly reference on the plan the total number of trees proposed to be preserved, category of preserved tree caliper size and number of trees requested for credit consideration.
8. Identification of tree protection method for trees proposed to be preserved.
9. Identification of existing trees over two and one half (2-1/2) inches caliper proposed to be removed.
10. Identification of grass and other ground cover and method of planting.
11. Clearly reference on the plan the total number of proposed parking spaces and number of parking lot trees required to be placed within the interior of the parking area.
12. For the ten (10) percent site landscape requirement clearly indicate on the landscape plan the square footage calculation for the ten (10) percent required. In addition, the ten (10) percent landscape area proposed shall be described and/or denoted on the landscape plan.
13. Site plan review for pre-existing sites shall clearly identify the proposed building and/ or parking expansion and label the net percent site increase and calculated landscape requirement.

**SECTION 10.03 Minimum buffer zones**

A. Level of use

For the purposes of determining the density and type of coverage in the required buffer zone, zoning districts have been classified based on level of use, as follows:

<b>TABLE 10-1 Level of Use</b>	
	<b>Zoning District</b>
Level 1	R-1
Level 2	R-2, R-3, R-4, R-5
Level 3	R-6, R-M, R-MH, PUD, C-1, OS
Level 4	C-2, C-3
Level 5	M-1, M-2, M-3

- B. A buffer zone shall be provided within the setback between the subject site and all adjacent properties according to Table 10-2. Walls and berms with a height greater than forty (40) inches shall typically be prohibited along a public street right of way or in a front yard unless specifically approved by the Planning Commission. The height requirement of a wall or berm shall be measured from the existing grade at the principal structure (within one hundred (100) feet of the property line) nearest to that property, to the top of the proposed berm or wall on the applicant’s site (see figure 10-1). All walls shall meet the standards described in item (D) following. Buffers utilizing a combination of plant materials, berming and walls shall be encouraged. Buffers may be required by the Planning Commission for uses permitted by Special Use Permit even if not required under the terms of this section.

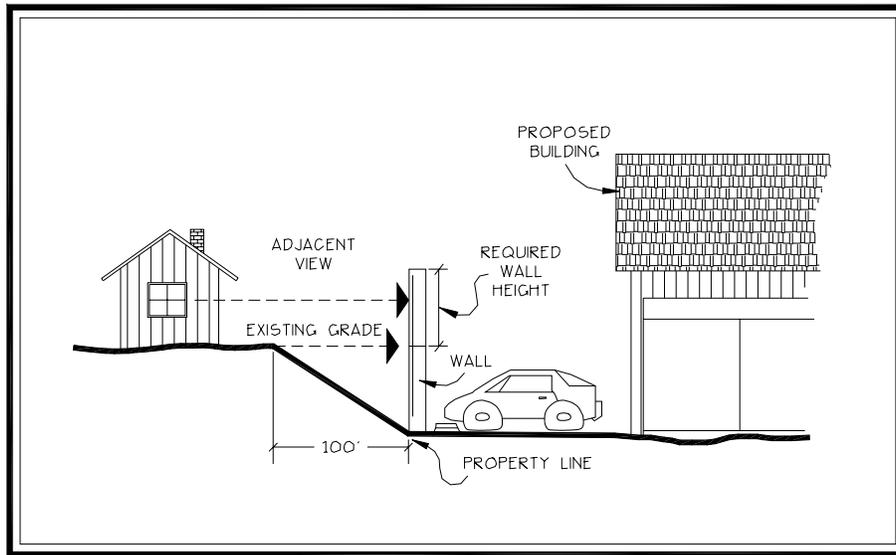
<b>TABLE 10-2 Required Buffer Zone</b>					
<b>Level of Use of Subject Site</b>	<b>Level of Use of Adjacent Site</b>				
	<b>Level 1</b>	<b>Level 2*</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
Level 1	None	None	A or a 5 foot high wall/berm	A or 5 foot high wall/berm	A or 8 foot high wall/berm
Level 2	None	None	A or a 5 foot high wall/berm	A or 5 foot high wall/berm	A or 8 foot high wall/berm
Level 3	A or 5 foot high wall/berm	A or a 5 foot high wall/berm	None	B	B
Level 4	A or 5 foot high wall/berm	A or a 5 foot high wall/berm	B	None	None
Level 5	A or 8 foot high wall/berm	A or 8 foot high wall/berm	B	A or 5 foot high wall/berm	None

A = Two (2) deciduous canopy trees and four (4) large shrubs, or (1) canopy tree, one (1) evergreen tree and four (4) large shrubs per each twenty (25) linear feet along the property line. All property line distances shall be rounded upward to the nearest foot.

B = One (1) deciduous canopy tree and four (4) large shrubs, or one (1) evergreen tree and four (4) large shrubs per each twenty five (25) linear feet along the property line. All property line distances shall be rounded upward to the nearest foot.

\*Where the adjacent property, including property across a public street or private road, is zoned or used as single family residential, the Planning Commission may require additional landscaping (trees, shrubs, wall or berm) along the property line or within the site to sufficiently screen the parking lot, vehicle headlights, loading zones, outdoor display areas, storage yards, accessory structures, or use.

Figure 10-1



C. Parking and storage

Parking lot screens will be designed with a hedge, wall, berm or combination thereof forming a continuous screen at least forty (40) inches in height above parking lot grade. The parking lot screen shall be located in the buffer zone to provide maximum screening of the parking lot.

All loading and unloading areas which are visible from residential zoning districts or public thoroughfares, shall be screened by a vertical screen consisting of structural or plant materials no less than six (6) feet in height. Screening shall be sufficient to contain blowing debris and screen the loading and unloading areas from adjacent property owners.

All storage areas (including areas for storage of refuse) which are visible from residential zoning districts or public thoroughfares, shall be screened on three sides by a fence or wall no less than six (6) feet in height. The fence or wall shall not allow light to penetrate through it. The three sides screened shall be those sides where the potential visual impact of the storage areas is greatest for adjacent property owners.

D. Wall standards

Required walls shall comply with the standards listed below.

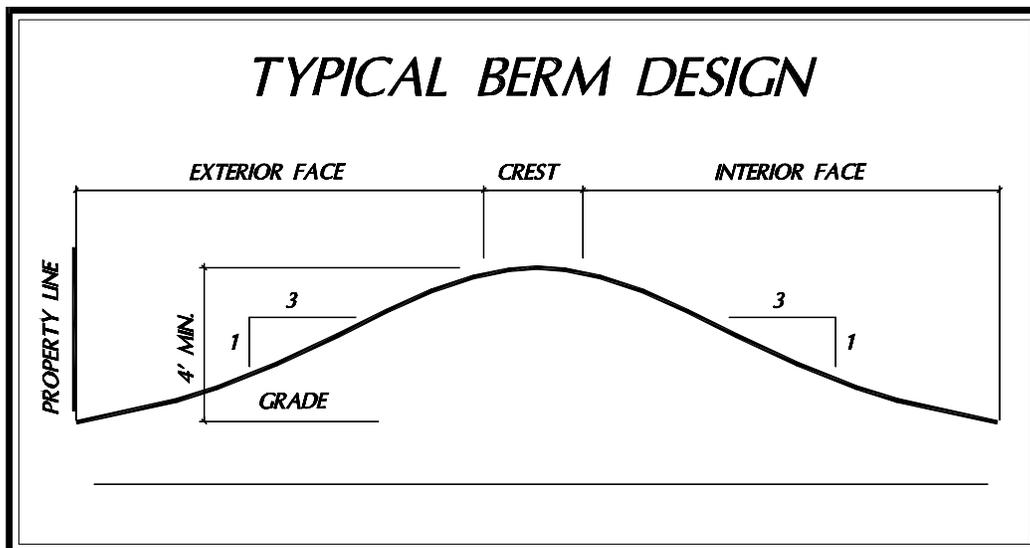
1. Walls shall be located on the lot line except where underground utilities interfere and or where this Ordinance requires conformance with yard setback lines.
2. Walls shall have no openings for vehicular traffic or other purposes, except as otherwise provided in this Ordinance, unless specifically approved by the Planning Commission.

3. Walls shall be constructed of face brick, pressure treated wood, or comparable nonporous facing materials on the exterior sides facing an affected zoning district.
4. Walls shall be durable, weather resistant, rustproof and easily maintainable. Wood or wood products shall be high quality durable materials. Wood fences shall be sight obscuring sufficient to shield light and block blowing debris. Masonry walls may be constructed with openings which do not in any square section (height and width) exceed twenty (20) percent of the surface. Where walls are so pierced, the openings shall be so spaced as to maintain the obscuring character required and shall not reduce minimum height requirement.
5. Walls must be maintained in good condition by the property owner.
6. Curbing, bollards, or plant material shall be required where parking is adjacent to walls. Bumper blocks shall not be permitted.
7. The finished side or most visibly attractive side of a wall or decorative wood fencing shall face the exterior of the property line (adjacent view). Posts shall be on the side of the wall or fence facing the interior of the lot or parcel of land upon which the wall or fence is constructed.

E. Berm standards

Required berms shall be constructed as landscaped earth mounds with a crest area at least three (3) feet width. The exterior face of the berm shall be constructed as an earthen slope. The interior face of the berm may be constructed as a earthen slope or retained by means of a wall, terrace or other means acceptable to the Building Department. Whenever an earthen slope is provided, it shall be constructed with a slope not to exceed one (1) foot of vertical rise to three (3) feet of horizontal distance (1:3). (See Figure 10-2). Free form naturalistic contouring and berm shaping is encouraged.

Figure 10-2



**SECTION 10.04 Required parking lot trees and parking lot islands**

A. Table of parking lot requirements

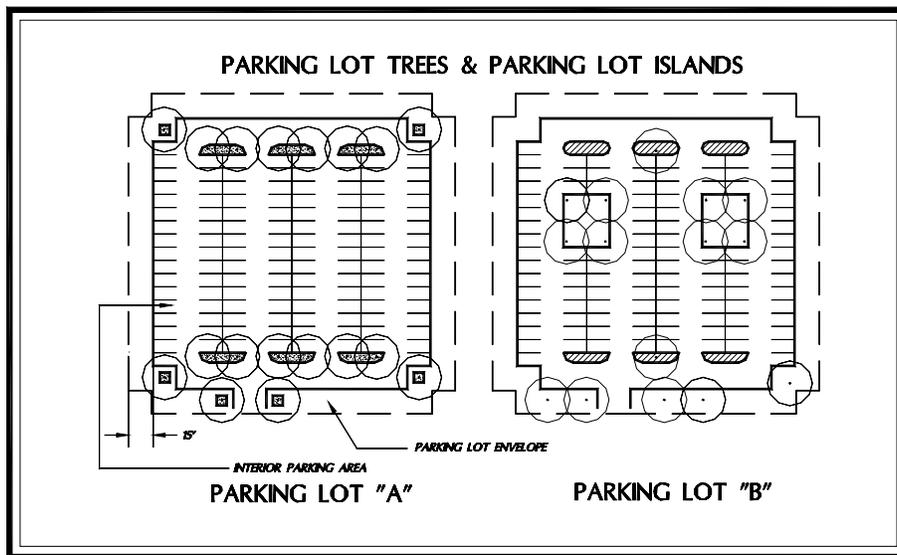
<b>TABLE 10-3 Parking Lot Requirements</b>	
<b>Zoning District</b>	<b>Number of parking spaces</b>
Multiple Family	1 canopy tree per 8 spaces
Commercial	1 canopy tree per 7 spaces
Industrial	1 canopy tree per 15 spaces

B. Tree location

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 fifteen (15) feet from the edge of the parking lot. A minimum of two thirds (2/3) of the required trees shall be placed within the interior of the parking area. Landscaping and canopy tree placement shall be dispersed throughout the parking lot in order to balance and soften large areas of pavement and help direct traffic flow within lot.

All parking lot tree calculations and interior parking lot tree requirements shall be rounded up.

**Figure 10-3**



C. Tree base

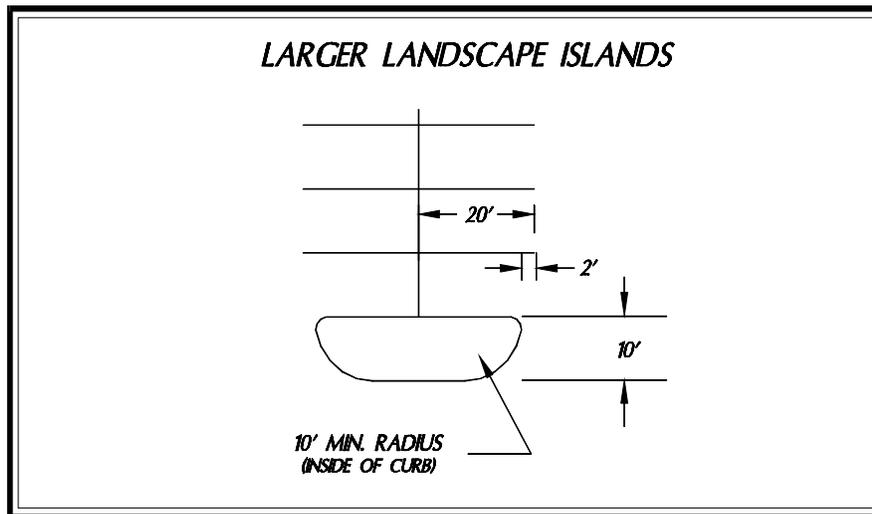
Each tree shall be surrounded by an area of grass or living ground cover at least one hundred fifty (150) square feet in size to provide for adequate resources of air and water. Tree plantings shall also be protected from automobiles with curbing or other suitable device.

D Required parking lot trees shall not be credited towards required green belt or buffer trees

E Design of parking lot islands

All parking lot islands shall be curbed. Islands shall be at least one hundred fifty (150) square feet in area. Each island shall be at least ten (10) feet wide, with a depth two (2) feet shorter than the depth of the adjacent parking space. Islands shall have a minimum of ten (10) feet at the ends facing main aisles. A minimum radius shall be one (1) foot where island is not adjacent to main traffic aisle.

Figure 10-4



**SECTION 10.05 Green belts required along the public right of way**

A green belt shall be planted adjacent to the right of way of any public street. The green belt plantings shall be planted within the required setback. The Planning Commission may allow such planting to be placed anywhere within the front yard if there is no front yard parking. The green belt shall meet the following standards:

A. The green belt shall include only living materials and planting beds, except for approved sidewalks, signs, driveways and essential services.

B. The green belt shall include one (1) deciduous canopy tree per thirty (30) linear feet of the frontage including any openings for driveways, sidewalks, or easements.

- C. The Planning Commission may approve substitution of evergreen trees for up to fifty (50) percent of the required green belt trees upon determining evergreens would be consistent with the existing character of the area.
- D. Greenbelt trees should be arranged consistently with the existing character of the Township.
- E. Landscaping materials arrangement shall insure adequate site visibility for motorists, adequate clearance for pedestrians and vehicles and accessibility to fire hydrants. Plant materials within the twenty five (25) feet site distance triangle shall not be more than thirty (30) inches in height. (See Figure 4-2 in Section 4.06).

**SECTION 10.06 Existing tree preservation incentives**

The standards outlined below are intended to encourage the preservation of quality and mature trees on the subject parcel by providing credits, at Planning Commission approval, toward the required trees for green belts, buffer zones, within parking lots and ten (10) percent site landscape.

- A. All trees over eight (8) inches caliper shall be identified on the site plan with notations of trees to be preserved and trees to be removed.
- B. Trees intended to be preserved shall be noted with a unique symbol on the site plan and be protected during construction through the use of construction fencing at or beyond the dripline of the tree or trees to be preserved.
- C. Trees to be preserved shall be considered for credit only if they are located on the developed portion of the site as determined by the Planning Commission. The Planning Commission pursuant to site plan approval may allow credit for such plant material preservation if it will maintain and encourage the intent of the ordinance. To obtain credit consideration the preserved trees shall be of a high quality and at least two (2) inches caliper.
- D. Credit consideration for preserved trees shall be:

Preserved Tree Caliper*(inches)	Number of Trees to be Credited
12 inches and over	3
8 inches to 11.99 inches	2
2 ½ inches to 7.99	1

\*Caliper is the diameter of a tree trunk and shall be measured at a height six (6) inches above the existing grade up to and including four (4) inch caliper size and twelve (12) inches above the existing grade for larger sizes.

- E. To protect and encourage the continued health and vitality of the preserved trees, the ground within the dripline of the trees shall be maintained in the existing natural state. Storage of soils, construction equipment or other materials during or after construction within the tree dripline is prohibited.
- F. If preserved trees die within three (3) years after construction the property owner shall replace with the number of trees that would have been required had the tree preservation credit not been provided. Said trees shall be replaced within thirty (30) days of written notice from the Township or within an extended time period as specified in said notice.
- G. The minimum number of required trees shall not be reduced by less than fifty (50) percent through the use of approved tree credits, unless the Planning Commission during site plan review determines that existing vegetation intended to be preserved would provide landscaping, buffering or screening comparable to that required under this article.
- H. For a period of three (3) years following a site plan approval, special permission by the Planning Commission will be required for the removal of trees proposed to be preserved on the site plan. The Planning Commission may condition their removal on their being replaced with the number of trees that would have been required had the tree preservation credit not been provided prior to site plan approval.

**SECTION 10.07 Ten (10) percent site landscape requirement**

In addition to any buffer zone, parking lot trees, or green belts required by this article, in all developments other than single family detached and attached residences, ten (10) percent of the total site area excluding existing thoroughfare right of way shall be landscaped with plant materials. For the purpose of this section “total site area” will include land covered with buildings, parking, retention ponds and similar features as well as the land bordering these features needed to maintain these features. Preservation of quality and mature trees on the subject parcel is encouraged through the “existing tree preservation incentives” Section 10.06 of this Ordinance through credits towards the ten (10) percent site landscape requirement.

Required landscaping shall be provided adjacent to or within close proximity to the perimeter of the principal structure. Landscape design is encouraged to face or be visible from public thoroughfares and principal structures on public access ways. A minimum of two-thirds (2/3) of the required Landscaping must be located within the front or side yard set back to be counted.

- A. Plant material and planting design is encouraged to be ornamental in character and based on minimum standards for plant material type and spacing.
- B. Deciduous canopy trees and large evergreens will not be credited for ten (10) percent landscape requirements.

- C. Shredded hardwood, bark mulch, stone mulch, or vegetative ground covers shall be utilized within required landscape areas. Grass, lawn or sod will not be credited for principal structure landscape requirements.

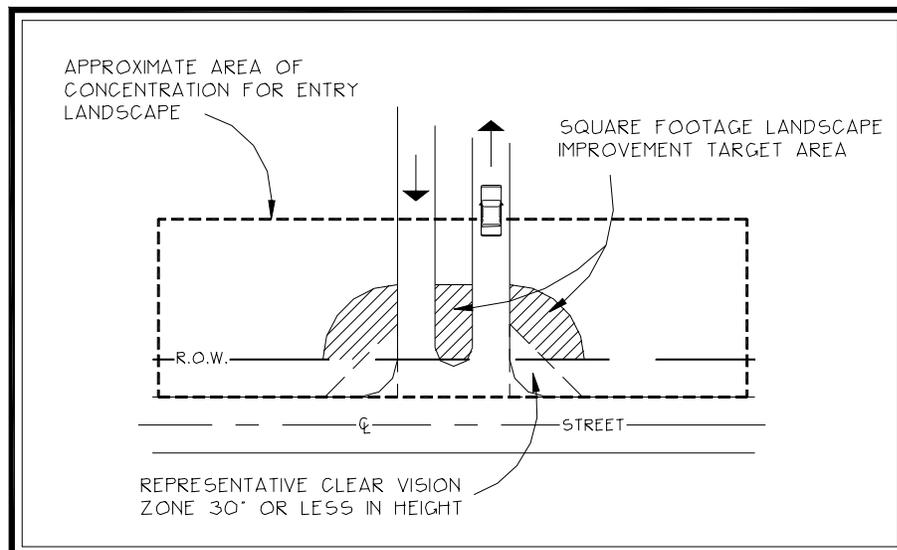
**SECTION 10.08 Residential Development Entry Landscaping**

Landscaping shall be required at vehicular entry points for residential developments including subdivisions, condominium developments, multi-family developments, retirement communities and other developments.

- A. For residential developments which do not otherwise require landscaping as defined in Section 10.07 of this Ordinance, vehicular entry points shall require landscaping. This shall consist of a minimum of three hundred (300) square feet of landscaping which meets the standards in Section 10.07 A, B and C of this Ordinance. Landscaping shall be generally provided in the area delineated in the following illustration.
- B. For residential developments which require landscaping, landscaping for residential development entries shall be counted toward the ten (10) percent landscaping requirement in Section 10.07 of this Ordinance. Residential development entry landscaping shall meet the requirements contained in this article. Landscaping shall be generally provided in the area delineated in Figure 10-5.

Plant material and planting design is encouraged to be ornamental in character and based on minimum standards for plant material type and spacing listed in the ten (10) percent landscaping requirement in Section 10.07 of this Ordinance. Deciduous canopy trees and large evergreens will not be credited for ten (10) percent entry landscape requirements. Shredded hardwood, bark mulch, stone mulch, or vegetative ground covers shall be utilized within required landscape areas. Grass, lawn or sod will not be credited for entry landscape requirements.

**Figure 10-5**



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**SECTION 10.09 Minimum standards for installation and maintenance**

A. Installation

Landscaping shall be installed in a sound workman-like manner and conform to the American Standard for Nursery Stock ANSI Z60.1. If building or paving construction is completed during a planting season, then no certificate of occupancy will be issued unless the landscaping meets the requirements herein provided. If building or paving construction is completed in an off planting season, the certificate of occupancy will be issued only after the owner provides a performance bond to ensure installation of required landscaping in the next planting season.

B. Material removal

Tree stakes, guy wires and tree wrap are to be removed by the applicant after one year.

C. Maintenance

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

**SECTION 10.10 Compliance for pre-existing sites**

In any case where site plan review is required and the existing building and/or parking area is being increased by at least twenty five (25) percent over the originally approved site plan or the use is being changed to a more intense use, as determined by the Planning Commission, the site shall be brought into full compliance with the landscape standards herein. In situations where the increase in the existing building and/or parking area is less than twenty five (25) percent over the original site plan, the requirement of new landscaping shall be equal to four (4) percent of compliance for every one (1) percent of increase in building or parking footprint. (example: a building or parking area increase of ten (10) percent requires a forty (40) percent compliance with the landscape standards). If any development or principal use requiring a certificate of occupancy is destroyed by any means beyond fifty (50) percent of the appraised replacement value, the site shall be brought into full compliance with the landscape standards herein.

**SECTION 10.11 Enforcement**

A violation of any provision of this Section or non compliance with written notifications pertaining to this Section shall constitute a violation of this Ordinance under Article 7, Section 7.05.

**SECTION 10.12 Plant material specifications**

All plant material shall be free of disease and insects at time of planting, and conform to the American Standard for Nursery Stock of the American Association of Nurserymen ANZI Z60.1.

**SECTION 10.13 Size and Spacing Requirements**

☐ = Requirement

Size and Space Requirements																				
	Minimum Size Allowable									Minimum On-Center Spacing (In feet)										
	Height				Caliper		18"-2' spread	2" Peat Pot	2 gallon Container	30	25	15	10	6	5-6	5	4	3	2	1
	5'-6'	3'-4'	2'-3'	18"-2'	2"	2.5"														
<b>Evergreens:</b>																				
Fir	☐										☐									
Spruce	☐										☐									
Hemlock																				
Douglas Fir																				
<b>Narrow Evergreen Trees:</b>																				
Red Cedar	☐														☐					
Arbovitae																				
Juniper																				
<b>Large Deciduous Trees:</b>																				
Oak						☐				☐										
Maple						☐				☐										
Beech						☐				☐										
Linden											☐									
Ginko (male only)											☐									
Honeylocust (seedless, thornless)											☐									
Birch										☐										
Sycamore																				

Size and Space Requirements																		
	Minimum Size Allowable									Minimum On-Center Spacing (In feet)								
	Height				Caliper		18"-2' spread	2" Peat Pot	2 gallon Container									
	5'-6'	3'-4'	2'-3'	18"-2'	2"	2.5"				30	25	15	10	6	5-6	5	4	3
<b>Small Deciduous Trees (ornamental):</b>																		
Flowering Dogwood (disease resistant)																		
Flowering Cherry, Plum, Pear																		
Hawthorn (thornless)																		
Redbud																		
Magnolia																		
Flowering Crabapple																		
Mountain Ash																		
Hornbeam																		
Russian Olive																		
<b>Large Evergreen Shrubs:</b>																		
Irish Yew																		
Hicks Yew																		
Upright Yew																		
Spreading Yew																		
Pfitzer Juniper																		
Savin Juniper																		
Mugho Pine																		
<b>Small Evergreen Shrubs:</b>																		
Brown's Ward's Seibion Yews																		
Dwarf Spreading Juniper																		
Dwarf Mugho Pine																		
Euonymous varieties																		

Size and Space Requirements																		
	Minimum Size Allowable									Minimum On-Center Spacing (In feet)								
	Height				Caliper		18"-2' spread	2" Peat Pot	2 gallon Container									
	5'-6'	3'-4'	2'-3'	18"-2'	2"	2.5"				30	25	15	10	6	5-6	5	4	3
<b>Large Deciduous Shrubs:</b>																		
Honeysuckle																		
Lilac																		
Border Privet (hedge planting)																		
Sumac (non-poisonous)																		
Buckthorn																		
Pyracantha																		
Weigela																		
Flowering Quince																		
Barberry																		
Cotoneaster (Peking & spreading)																		
Sargent Crabapple																		
Dogwood (Red Osier * Gray)																		
Euonymous varieties																		
Viburnum varieties																		
Tall Hedge (hedge planting)																		
<b>Small Deciduous Shrubs:</b>																		
Dwarf Winged																		
Regal Privet																		
Fragrant Sumac																		
Japanese Quince																		
Cotoneaster (Rockspray, Cranberry)																		
Potentilla																		

Size and Space Requirements																			
	Minimum Size Allowable									Minimum On-Center Spacing (In feet)									
	Height				Caliper		18"-2' spread	2" Peat Pot	2 gallon Container										
	5'-6'	3'-4'	2'-3'	18"-2'	2"	2.5"				30	25	15	10	6	5-6	5	4	3	2
<b>Ground Cover:</b>																			
Periwinkle																			
Baltic Ivy																			
Euonymous varieties																			
Hall Honeysuckle																			
Pachysandra																			
<b>Vines:</b>																			
Euonymous varieties																			
Virginia Creeper																			
Baltic Ivy																			
Wisteria																			

*This article amended by Township Ordinance 606 adopted June 16, 2003.*

