CHAPTER 8. LANDSCAPING REGULATIONS

8.1. PURPOSE

Trees are recognized as a valid asset to the community, providing a more healthful and beautiful environment in which to live. Trees and other vegetation provide oxygen, shade, protection from the wind, glare, noise, blight, view barriers, aesthetics and a positive psychological counterpoint to a man-made setting. Landscaping is economically beneficial in attracting new residents, visitors and industry. When grown in the right place and of proper varieties, landscaping enhances the value and marketability of property and promotes the stability of desirable neighborhoods and commercial and industrial areas. With this recognition of the value, importance and benefits that trees, landscaping and buffering provide, this chapter is established for the following purposes:

- **8.1.1.** To promote the preservation and replacement of trees and significant vegetation removed in the course of land development;
- **8.1.2.** To promote the proper utilization of landscaping as an ease between certain land uses to minimize the opportunities for nuisances;
- 8.1.3. To improve the appearance of vehicular use areas and property abutting public right-of-way;
- **8.1.4.** To provide visual buffering between non-compatible land uses and enhance the beautification of the township;
- **8.1.5.** To protect, preserve and promote the identity, environment, aesthetic appeal, character and value of the township and it's neighborhoods;
- **8.1.6.** To promote public health, safety and welfare through the reduction of noise pollution, air pollution, visual pollution, air temperature and artificial light glare.
- **8.1.7.** To aid in stabilizing the environment's ecological balance by contributing to the process of air purification, oxygen regeneration, ground water recharge and stormwater runoff retardation, while at the same time aiding in noise, glare, blight and heat abatement;
- 8.1.8. To ensure that the local stock of native trees and vegetation is protected and replenished;
- **8.1.9.** To safeguard and enhance property values, protect public and private investment, and preserve the economic base attracted to the township; and
- **8.1.10.** To conserve energy.

8.2. **APPLICABILITY**

- **8.2.1.** For the purposes of this chapter, the zoning inspector shall be authorized to review and make decisions on landscaping plans as provided for in ORC Section 519.171.
- **8.2.2.** This chapter shall apply to new property development and any collective substantial expansion of existing structures, except as exempted by Section 8.2.3 Exemptions below. Substantial expansion of existing structures shall be defined based on the criteria established below in Table 8-1: Substantial Expansion:

| WHEN EXISTING STRUCTURE IS | A SUBSTANTIAL EXPANSION IS |
|------------------------------|----------------------------|
| 0 - 1,000 Square Feet | 50% or Greater |
| 1,001 – 10,000 Square Feet | 40% or Greater |
| 10,001 – 25,000 Square Feet | 30% or Greater |
| 25,001 – 50,000 Square Feet | 20% or Greater |
| 50,001 Square Feet or larger | 10% or Greater |

TABLE 8-1: SUBSTANTIAL EXPANSION

8.2.3. Exemptions

The following shall be exempted from compliance with this chapter:

- **A.** Lots in residential districts which are used for single-family or two family dwellings, except that when such lots are part of a new subdivision, perimeter landscaping is required.
- **B.** Any lot used for a single-family or two family dwelling which is a valid nonconforming use in a nonresidential district.
- **C.** Golf courses, parks, playgrounds and similar types of uses, except that any new golf course, park, playground or similar type of use shall provide the required perimeter landscaping.
- **D.** Parking lots with five or fewer spaces.
- **8.2.4.** For expansion of structures or parking areas, the landscaping, buffering, and screening requirements shall apply to any new or expanded parking or vehicular use areas.
- **8.2.5.** For the expansion of structures that will decrease the setback between the structure and a residential zoning district, the buffering and screening standards of this chapter shall apply.
- **8.2.6.** Where there is a change in use that is more intense than the pre-existing use, the buffering and screening standards of this chapter shall apply.
- **8.2.7.** In the event there is a conflict between the requirements of this chapter and any other Hamilton Township resolution or with any state or federal law or regulation, the more restrictive regulation shall apply.

8.3. LANDSCAPE PLAN REQUIRED

8.3.1. Landscaping Plan Requirements

- **A.** Any property to which this chapter applies shall illustrate all proposed landscaping and buffer, including the proposed landscaping material, on a site plan or on a separate landscape plan as part of the application for a zoning certificate.
- **B.** Landscaping plans shall be prepared by and/or certified by a landscape architect certified within the State of Ohio.
- **C.** Landscape plans must contain the information as specified in the application material provided by the zoning inspector.
- **D.** All plans shall include a table listing the existing plant material that will be retained and all proposed plant materials within the landscaping and buffer areas. This shall include the common and botanical names, sizes and other remarks as appropriate to describe the landscaping material selection.

- **E.** Details shall be provided showing the proper planting of trees, shrubs, and ground cover within the landscaping and buffer areas.
- **F.** The plans shall indicate the location of one of the following:
 - (I) Outside hose attachment; or
 - (2) An irrigation plan which shall include the following:
 - (a) Location and type of sprinkler heads;
 - (b) Size and mainline of irrigation piping;
 - (c) Location of size of water meter;
 - (d) Location of backflow prevention device;
 - (e) Location and size of all valves; and
 - (f) Location of irrigation controller.

8.3.2. Approval of Landscape Plan

Criteria for the approval of a landscape plan shall be as follows:

- A. No zoning certificate shall be issued without approval of a landscaping plan.
- **B.** No zoning certificate shall be issued unless the following criteria are fully satisfied with regard to the approved landscape plan:
 - (1) Such plan has been fully implemented on the site; or
 - (2) Such plan, because of seasonal conditions, cannot be implemented immediately, but has been guaranteed by a postponed improvement agreement between the developer and the township in a form acceptable to the Hamilton Township law director and secured by a letter of credit, cash escrow or other instrument acceptable to the Hamilton Township in an amount equal to the cost of such installation plus a 10 percent allowance for administrative costs, inflation and potential damage to existing vegetation or improvements.
- **C.** No site plan within a PUD shall receive final approval unless a landscaping plan has been submitted and approved as part of the Stage 3 final site plan hearings.
- **D.** Failure to implement the landscape plan within 12 months of the issuance of a zoning certificate shall be deemed a violation of this code.
- **E.** The township may seek professional advice from a landscape architect or other qualified professional in the review of the submitted plans. The cost of such consultation may be passed on to the applicant.

8.4. LANDSCAPING MATERIALS AND STANDARDS

8.4.1. Responsibility for Installation of Landscaping Materials

A. Required landscaping shall be provided by the person in charge of or in control of developing the property, whether as owner, lessee, tenant, occupant or otherwise.

- **B.** The landscape area and material required adjacent to any street under this chapter shall be provided by the property owner adjoining the street, unless the authority building the street has fully met all requirements on the street right-of-way.
- **C.** Landscape material required by this chapter shall be located within any required buffer area, perimeter area, or landscape area unless otherwise specified.
- **D.** When adjacent to other common boundaries, the required perimeter landscape areas and materials:
 - (1) May be placed on either adjoining parcel or astride the boundary, if both are owned and being processed by the same owner; or
 - (2) Generally shall be placed on the activity listed under "Proposed Use" in Table 8-4: Type and Width of Perimeter Buffer Required when adjoining parcels have different owners; or
 - (3) May be placed astride the boundary of adjoining parcels having different owners if a written agreement, signed by both owners, if filed with the Planning and Zoning Department, as a public record; or
 - (4) Shall be placed on the activity or parcel being processed when adjoining property is already developed, with the exception of "Railroad" and "Utility Substation, Junk Yard, Landfill, Sewage Plant, or Similar Use" in Table 8-4: Type and Width of Perimeter Buffer Required; or
 - (5) Shall not be required along the common boundary if the requirements of this chapter have been fully complied with on the adjoining property, in fulfillment of the requirements of this chapter; or
 - (6) In the case of a zone map amendment or use change, the property of the newly created zone map amendment or use change will provide the required landscaping or buffer.

8.4.2. Existing Landscape Material

- A. Unless otherwise noted, existing landscape material in healthy condition can be used to satisfy the requirements of this chapter in whole or in part provided they meet all requirements of this chapter.
- **B.** The zoning inspector shall determine satisfaction of this requirement.

C. Preservation of Wooded Areas

It is encouraged that efforts be made to preserve natural vegetation areas. Consideration shall be given to laying out streets, lots, structures and parking areas to avoid unnecessary destruction of heavily wooded areas or outstanding tree specimens. It is further encouraged that whenever possible, heavily wooded areas shall be maintained as a neutral area.

8.4.3. Easements and Clear Vision

A. Landscaping in Easements

Required landscape areas may be combined with a utility or other easement as long as all of the landscape requirements can be provided in addition to, and separate from, any other easement.

B. Landscaping and Clear Visibility Triangles

To ensure that landscape materials do not constitute a driving hazard, a clear visibility triangle area shall be observed at all street intersections or intersections of driveways with streets as defined in Section 6.7 Clear Visibility Triangle.

- (1) Within this clear visibility triangle area, no landscaping material or parked vehicles, except for required grass or ground cover, shall be permitted.
- (2) Within the clear visibility triangle area, trees shall be permitted as long as only the tree trunk is visible between grade and eight feet above grade or otherwise does not present a traffic visibility hazard in the opinion of the zoning inspector, except during early tree growth stages.

8.4.4. Landscaping Materials

Existing vegetation shall be preserved as much as possible in accordance with acceptable nursery industry standards. The following items are suitable for landscaping materials used individually or in combination with each other, subject to review and approval by the zoning inspector. Nursery stock identification tags shall not be removed from any planting prior to inspection and approval of final installation by the township.

A. Walls and Fences

- (1) When walls or fences are used to fulfill screening requirements, they shall be detailed on the plan. They are to be constructed of weather-proof materials. This includes pressure treating or painting of lumber if it is not redwood or cedar, and using aluminum or galvanized hardware. Chain link fences with or without wooden or synthetic slat material shall not be allowed when used to satisfy the buffer and landscape requirements of this chapter.
- (2) Walls and fences shall be designed to orient the finished side away from the subject lot so the finished side faces the adjacent lots.

B. Plants

- (I) All plants are to be living and part of the acceptable plant list identified in this chapter.
- (2) Plant materials used in conformance with these provisions shall conform to the American Nursery and Landscape Association and shall have passed any inspection required under state regulations. Trees shall be balled and burlapped or in containers. Shrubs, vines, and ground covers can be planted as bare root, balled and burlapped, or from containers.
- (3) The following are specific standards for landscaping materials.

(a) Deciduous Trees

Deciduous trees shall have a minimum caliper of at least two inches diameter at breast height (DBH) conforming to acceptable nursery industry procedures at the time of planting. If deciduous trees are to be used for screening purposes, additional materials listed in this chapter shall be used to create a dense buffer.

(b) Evergreen Trees

Evergreen trees shall be a minimum of six feet in height at the time of planting. Evergreen plantings shall be planted at a maximum distance of 15 feet on center to provide an effective, dense screen within four years of planting.

(c) Shrubs and Hedges

Shrubs and hedges shall be at least 36 inches in height at the time of planting. Unless otherwise specified in this chapter, all shrubs and hedges shall be designed to provide an effective, dense screen and mature height of at least six feet within four years after the date of the final approval of each planting. The height at installation of the planting shall be measured from the level of the surface of the plant base at the edge closest to the screening.

(d) Grass and Ground Cover

Grass of the Fescus (Gramineak) or Bluegrass (Poaceae) family shall be planted in species normally grown as permanent lawns in Warren County. In swales or other areas subject to erosion, solid sod, erosion reducing net, or suitable mulch shall be used and nursegrass seed shall be sown for immediate protection until complete coverage otherwise is achieved and shall be reviewed by the Warren County Soil and Water Conservation District. Grass sod shall be clean and free of weeds and noxious pests or diseases. Ground cover shall be planted at a maximum spacing of one foot on center to provide 75 percent complete coverage after two growing seasons.

(4) Once the minimum landscape requirements have been met, any size plant may be installed on a lot to supplement the minimum requirements.

(5) Species Diversity

(a) To curtail the spread of disease or insect infestation in a plant species, new plantings shall comply with the standards of Table 8-2: Species Variety Requirements:

| NUMBER OF TREES REQUIRED ON SITE | MAXIMUM PERCENTAGE OF TREES THAT MAY BE A SINGLE SPECIES |
|-------------------------------------|---|
| 1-19 | 50% |
| 20-39 | 33% |
| 40 or more | 25% |

TABLE 8-2: SPECIES VARIETY REQUIREMENTS

- (b) Required shrubs shall utilize the same species diversity requirements.
- (c) Nothing in this subsection shall be construed so as to prevent the utilization of a larger number of different species than specified above.

C. Earth Mounds

Earth mounds may be used as physical barriers which block or screen a view. Differences in elevation between areas requiring screening do not constitute an earth mound. Earth mounds shall be constructed of earthen materials and shall conform to the following standards:

- (1) The maximum side slope shall be 3:1 and the design shall be reviewed by the zoning inspector to ensure that proper erosion prevention and control practices have been utilized. Adequate ground cover shall be used and maintained to prevent erosion of the earth mound.
- (2) Mounds and earth forms shall be designed with physical variations in height and alignment throughout their length.

- (3) Landscape plant material installed on mounds and earth forms shall be arranged in an irregular pattern to accentuate the physical variation and achieve a natural appearance.
- (4) The landscape plan shall show sufficient detail, including a plan and profile of the mound or earth form, soil types and construction techniques to demonstrate compliance with the above provisions.
- (5) Mounds and earth forms shall be located and designed to minimize the disturbance to existing trees located on the site or adjacent thereto.
- (6) No part of any mound or earth form which is elevated more than 18 inches above natural grade shall be located within 20 feet of any right-of-way or property line.

D. Grade Changes

In cases where grading is necessary that results in a parking lot lower in elevation than the surrounding area or adjacent right-of-way, the resulting embankment shall be planted with low shrubs and shade or ornamental trees. The type and variety of plantings shall be based on the steepness of the slope. A maximum slope of 1:2.5 shall be provided for landscaping between the lot line and the parking lot.

8.5. LANDSCAPE REQUIREMENTS

Several types of landscape standards and requirements are needed to achieve the various purposes of this chapter as set forth in Section 8.1 Purpose. Five types of landscape standards are established – interior site landscaping, perimeter landscaping and buffering, vehicular use area perimeter landscaping, vehicular use area interior landscaping, and service structure and area screening. The standards for each of these are set forth below. Each may apply cumulatively to a site or development, unless noted otherwise.

8.5.1. Interior Site Landscaping Requirements

All development subject to the requirements of this chapter, as set forth in Section 8.2 Applicability, shall provide the landscaping requirements as established in Table 8-3: Minimum Interior Site Landscaping Requirements.

| PROPOSED USE | MINIMUM LANDSCAPING REQUIREMENT |
|---|---|
| All uses in residential districts, excluding lots used for single family and two family dwellings | One tree per 500 square feet, or fraction thereof, of building ground floor area for all structures; each tree shall have a minimum of 2" caliper. |
| All uses in business districts | One tree per 500 square feet, or fraction thereof, of building ground floor area for all structures, and each tree shall have a minimum of 2" caliper; plus there shall be landscaped areas equal to 20 square feet for every 1,000 square feet of building coverage areas, or fraction thereof. Such landscape areas shall contain trees, planting beds, hedges, fences, walls, earth mounds, benches or other materials designed and located in a manner complimentary to the overall architecture of the surrounding buildings. |
| All uses in industrial districts | Three trees per 1,000 square feet, or fraction thereof, of building ground floor area for all structures, and each tree shall have a minimum of 2" caliper; plus there shall be landscaped areas equal to 20 square feet for every 1,000 square feet of building coverage areas, or fraction thereof. Such landscape areas shall contain trees, planting beds, hedges, fences, walls, earth mounds, benches or other materials designed and located in a manner complimentary to the overall architecture of the surrounding buildings. |

TABLE 8-3: MINIMUM INTERIOR SITE LANDSCAPING REQUIREMENTS

NOTES:

Trees planted to satisfy perimeter, vehicular use area perimeter, and interior vehicular use area landscaping requirements may be counted towards the requirements of this section.

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8.5.2. Site Perimeter Landscape Buffer Requirements

A. Applicability

Site perimeter landscape buffer shall be provided to buffer certain districts or uses from adjacent or proximate incompatible uses, districts, or vehicular use areas.

B. Landscape Buffer Requirements

Perimeter landscape buffers shall be required as established in Table 8-4: Type and Width of Perimeter Buffer Required.

| | (Aver/ | ADJACENT TO AGE WIDTH – BUFFER TYPE)[1] | | | | | |
|---|-------------------------|--|------------------------|---|--|--|--|
| Proposed Use | RESIDENTIAL DISTRICT | BUSINESS DISTRICT | INDUSTRIAL DISTRICT | FREEWAY, ARTERIAL OR COLLECTOR STREET RIGHT- OF-WAY [2] | | | |
| Single Family Residence [3] | None | None | None | None | | | |
| Recorded Residential Subdivision | None | 10 feet – Buffer "A" | 20 feet – Buffer "C" | 50 feet – Buffer "D" | | | |
| Mobile Home Park | 10 feet – Buffer "A" | None | None | 10 feet – Buffer "E" | | | |
| Institutional Use | 10 feet – Buffer "B" | None | None | 10 feet – Buffer "E" | | | |
| Business District | 10 feet – Buffer "B" | None | I5 feet – Buffer "B" | 10 feet – Buffer "E" | | | |
| Industrial District | 20 feet – Buffer "C" | I 5 feet – Buffer "B" | None | 10 feet – Buffer "E" | | | |
| Railroad | 20 feet – Buffer "E" | 20 feet – Buffer "E" | 20 feet – Buffer "E" | None | | | |
| Utility Substation, Junk Yard, Landfill, Sewage Plant, or Similar Use | 50 feet – Buffer "D" | 50 feet – Buffer "D" | 50 feet – Buffer "D" | 50 feet – Buffer "D" | | | |

TABLE 8-4: TYPE AND WIDTH OF PERIMETER BUFFER REQUIRED

NOTES:

[1] The first number listed is the minimum average width of the buffer area, with no width being less than 3 feet.
 The second is the type of buffer required. Materials required for each buffer type are established in Table 8-5.
 [2] In business and industrial districts, the right-of-way buffer requirement shall only apply when adjacent to

freeway or arterial street rights-of-way that prohibit driveways.

[3] This use is individual single family residences that are not part of a subdivision.

C. Perimeter landscape buffer shall contain the minimum plant and screening materials as established in Table 8-5: Minimum Requirements for Buffer Types.

| BUFFER TYPE | MINIMUM PLANT MATERIALS [1] |
|----------------------|---|
| "A" | I tree per 40 feet of linear boundary or street frontage, or fraction thereof; trees shall be from Group A, B, C or D. And a continuous combination 6' high planting, hedge, fence, wall or earth mound with no single material being used exclusively for more than 150 linear feet. Alternate materials used for breaks must run for a minimum of 15 linear feet. [2] |
| "В" | I tree per 40 feet of linear boundary or street frontage, or fraction thereof; trees shall be from Group A or B. And a continuous combination 6' high planting, hedge, fence, wall or earth mound with no single material being used exclusively for more than 150 linear feet. Alternate materials used for breaks must run for a minimum of 15 linear feet. [2] |
| "C" | I tree per10 feet of linear boundary, or fraction thereof; trees shall be from Group A, B, C or D, with a minimum of 30% from Group D. And a continuous combination 6' high planting, hedge, fence, wall or earth mound with no single material being used exclusively for more than 150 linear feet. Alternate materials used for breaks must run for a minimum of 15 linear feet. [2] |
| "D" | I tree per 20 feet of linear boundary, or fraction thereof; trees shall be from Group A, B, C or D, with a minimum of 30% from Group D. And a continuous combination 6' high planting, hedge or earth mound with no single material being used exclusively for more than 150 linear feet. Alternate materials used for breaks must run for a minimum of 15 linear feet. [2] |
| "E" | I tree per 30 feet of boundary, or fraction thereof; trees shall be from Group A. And a continuous 6' high planting, hedge, wall, fence or earth mound. |
| [2] Depending on the | cover shall be planted on all portions of the buffer area not occupied by other landscape material. site topography, buffer areas may have to be relocated to obtain the desired screening effects. This made at the discretion of the zoning inspector. |

TABLE 8-5: MINIMUM REQUIREMENTS FOR BUFFER TYPES

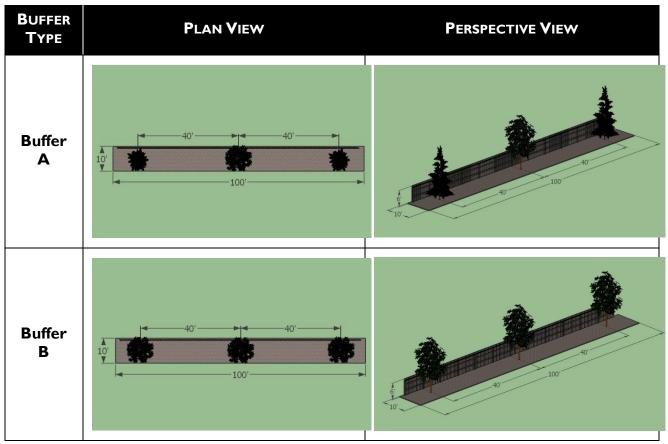


TABLE 8-6: ILLUSTRATION OF LANDSCAPE BUFFER TYPES

8.9

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| BUFFER Type | Plan View | PERSPECTIVE VIEW |
|----------------|-----------|------------------|
| Buffer C | | |
| Buffer D | | |
| Buffer E | | |

- **D.** Unless otherwise provided, it is the intent that landscaping materials shall be installed to provide a minimum approximately 50 percent winter opacity and approximately 70 summer opacity, between one foot above finished grade level to the top of the required planting, hedge or earth mound within four years of installation.
- E. In some cases, a fence or wall may be approved as appropriate.
- **F.** A plant list shall be maintained at the Township Building to provide more detailed information on acceptable plant material.

8.5.3. Vehicular Use Area Perimeter Buffer Requirements

A. Applicability

The provisions of this section shall apply to vehicular use areas containing five or more parking spaces.

B. Perimeter Buffer Requirements

- (1) Landscape planting shall be provided along the perimeter of vehicular use areas as established in Table 8-5: Minimum Requirements for Buffer Types.
- (2) These requirements may be counted towards the property perimeter requirements as set forth in Table 8-4: Type and Width of Perimeter Buffer Required, where perimeter buffer areas are also applicable.

TABLE 8-7: VEHICULAR USE AREA PERIMETER LANDSCAPING REQUIREMENTS

| VEHICULAR USE AREA LOCATION [1] | Average Buffer Width [2] | MINIMUM PLANT MATERIALS [3] |
|--|---|---|
| A vehicular use area adjacent to any property in any district. | 10' adjacent to portion of vehicular use area that faces adjacent property; 4' minimum distance to all trees from the edge of the paving where vehicles overhang. | I tree per 40' of linear boundary, or fraction thereof. Trees shall be from Group A, B, or C; and a continuous planting, hedge, fence, wall or earth mound with an average height of 3'. |
| A vehicular use area in any district is adjacent to any public right-of-way or private street. [2] | 10' adjacent to portion of vehicular use area that faces public right-of-way or private street; 4' minimum distance to all trees from the edge of the paving where vehicles overhang. | I tree per 40' of frontage, or fraction thereof; trees shall be from Group A or B. And a continuous planting, hedge, fence, wall or earth mound with an average height of 3'. |
| Any vehicular use area in an automotive sales or rental use, or truck, trailer, or farm implement sales or service use. | 10' adjacent to portion of vehicular use area that faces public right-of-way or private street; 4' minimum distance to all trees from the edge of the paving where vehicles overhang. | I tree per 30' of frontage, or fraction thereof; trees shall be from Group A or B and shall be a minimum 3" caliper along the entire street frontage. And a continuous planting, hedge, fence, wall or earth mound with an average height of 3' along at least 75% of the street frontage. The remaining street frontage, not to exceed 25%, shall include plantings a minimum of 1' high. [4] |

NOTES:

[1] See Section 12.2 Definitions for Vehicular Use Area. Driveways are considered to be vehicular use areas whenever they are adjacent to public streets or other vehicular use elements defined and where intervening curbs, sidewalks, landscape strips, etc., do not eliminate adjacency.

[2] The minimum average width of the buffer area, with no width being less than 3 feet.

[3] Grass or ground cover shall be planted on all portions of the buffer area not occupied by other plant material.

[4] The intent of these requirements is to improve the appearance of automotive sales or rental uses, and truck, trailer, or farm implement sales or service uses, and their appearance from abutting streets. The vehicular use area perimeter requirements for these uses allows the creation of "picture frame(s)" along streets for vehicular sales display. The following formula shall be used to determine the display area allowed per street frontage:

- Linear Distance of Street Frontage (from lot line to lot line, or from lot line to corner in feet) x 0.25 = Display area (in feet).
- Vehicles in the display area shall be parked at grade.

• Screening requirements for the remaining vehicular use areas at installation are increased and the spacing between trees is reduced. These requirements will help mitigate the glare from artificial lights.

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C. In addition to the requirements shown in Table 8-7: Vehicular Use Area Perimeter Landscaping Requirements, parking lots shall have a perimeter buffer zone with a minimum width of 6.5 feet containing evergreen plant material that will achieve an effective, dense screen of a height of at least three feet at the time of installation. Perimeter buffer zone shall also contain deciduous trees.

8.5.4. Interior Vehicular Use Area Landscape Requirements

A. Applicability

Vehicular use areas on a parcel of two acres or more in any business or industrial district, and for a nonresidential use or multi-family dwelling use in residential district, shall provide interior landscaping as required by this section. No interior landscaping shall be required within a service or storage area.

B. Landscape Requirements

- (1) For each 100 square feet or fraction thereof of vehicular use area, at least five square feet of landscaping area shall be provided.
- (2) The required amount of landscaping area shall be provided in peninsular or island type areas within the vehicular use area.
- (3) Peninsular or island type areas shall contain well drained un-compacted soils.
- (4) The minimum permitted landscape area shall be 64 square feet.
- (5) A minimum of four feet shall be provided from the edge of pavement where vehicles overhang to all trees.

(6) Maximum Contiguous Area

In order to encourage the required landscape areas to be properly dispersed:

- (a) No individual landscape area shall be larger than 350 square feet in size in parking areas less than 30,000 square feet; and
- (b) No individual area shall be larger than 1,500 square feet in parking areas over 30,000 square feet.
- (c) In both cases, a minimum of four feet shall be provided from the edge of pavement where vehicles overhang to all trees.
- (d) Individual landscape areas larger than the sizes specified above are permitted as long as such area is in excess of the required minimum total interior vehicular landscape area required by Section 8.5.4.B(1).

(7) Minimum Tree Planting Requirement

- (a) One large tree from Group A or B shall be planted for each 5,000 square feet, or fraction thereof, of vehicular use area. These trees shall be located within the required interior landscape areas.
 - (i) Two small trees may be substituted for one large tree.
 - (ii) One and one-half medium trees may be substituted for one large tree.

(b) The area not covered by the canopy of the tree, but within an interior landscape area, shall be covered by shrubs, grass, ground cover, landscape gravel, or mulch.

(8) Additional Landscaping for Parking Over Maximum Allowed

If an alternative parking plan is approved to exceed the maximum number of off-street parking spaces in accordance with Section 7.4.2.C Maximum Number of Parking Spaces, additional landscape areas shall be provided within the vehicular use area.

- (a) 10 square feet of landscape area (instead of five square feet) shall be provided for each 100 square feet or fraction thereof of vehicular use area needed for the parking spaces that exceed the maximum amount of parking allowed.
- (b) The additional landscaping area shall be distributed within the vehicular use area.

8.5.5. Service Area and Structure Screening Requirements

A. Intent and Applicability

In addition to the site, perimeter, and interior landscaping requirements, screening shall be required to conceal specific areas of high visual or auditory impact from both on-site and off-site views. Such areas shall be screened at all times, unless otherwise specified, regardless of adjacent uses, districts, or other proximate landscaping material.

B. Items to be Screened

The following areas shall be screened in accordance with this section:

- Large waste receptacles (dumpsters) and refuse collection points (including cardboard recycling containers), but not including drop-off boxes for use by the public (see Section 4.9.5.G Drop-Off Box);
- (2) Loading and service areas, including any areas where commercial vehicles or trailers are stored;
- (3) Outdoor storage areas not subject to the outdoor storage requirements of Section 6.5 Outdoor Sales, Display and Storage; and
- (4) Mechanical equipment, propane tanks, and utility meters not located on, and screened by, the building or structure.

C. General Provisions

- (1) Where vegetative and/or topographic conditions that provide a natural screening and buffer exist prior to development of the properties in question, every effort shall be made to retain such conditions. In such cases, additional screening may not be required, provided that provision is made for maintenance of such condition to the satisfaction of the township.
- (2) Required screening areas shall be provided by the owner and/or developer as a condition of development. All required screening (including the planting of trees and other vegetation) shall be maintained by the property owner. Failure to maintain the required screening areas to accomplish their intended purpose shall constitute a violation of this code under CHAPTER 11 Enforcement and Penalties.

- (3) Areas to be set aside as screening areas shall be identified on the plans required for zoning certificate review. It shall be unlawful to occupy any premises unless the required screening has been installed in accordance with the requirements as provided herein.
- (4) Structures may be grouped together, however, screening height shall be based upon the tallest of the structures.

D. Screening Requirements

- (1) All screening shall be approved during the zoning certificate review.
- (2) All items to be screened shall be shielded from view from public roads and adjoining property.
- (3) All items to be screened shall be provided with a visual screen consisting of fences, walls, mounds or plant materials or a combination thereof.
- (4) The screening shall be at least one foot higher than the item to be screened, but shall not exceed 10 feet in height.
- (5) The screening shall extend along three sides of the service area.
 - (a) For areas that require frequent access, such as waste receptacles, a gate shall be required on the fourth side where access is provided.
 - (b) The gates shall be opaque enough to shield from view the interior of the service area.
- (6) Whenever screening material is placed around any waste receptacle unit which is emptied or removed mechanically on a regular basis, a curb to contain the placement of the container shall be provided within the screening material on those sides where there is such material or other protective measures. The curbing shall be at least one foot from the material and shall be designed to prevent possible damage to the screening when the container is moved or emptied.
- (7) All plant materials used for required screens around service areas shall be of an evergreen variety.
- (8) If an adjacent building provides screening on one side of the service area, only two sides need to be screened, mounded, or walled, with a gate required in front of the service area. The gate shall be opaque enough to shield from view the interior of the service area.
- (9) Roof mounted mechanical equipment shall be screened by parapet walls or other screening device. (Also see Section 6.4.5.F(3) Roof Mounted Equipment.)
- (10) No interior landscaping shall be required within an area screened for service structures.

(11) Screening of Loading and Unloading Areas

All areas used for service storage and loading/unloading activities shall be screened from adjacent properties and the public right-of-way.

- (a) Screening shall consist of continuous walls, fences, natural vegetation, earth mound or acceptable combination of these elements.
 - (i) Natural vegetation shall have a minimum opaqueness of 75 percent during full foliage when viewed from between two and five feet from the ground.
 - (ii) Full opaqueness shall be achieved not more than three years from planting.

- (iii) The use of evergreen or nondeciduous vegetation is encouraged.
- (b) The screening must be at least six feet high and located not less than three feet from the property line, except that fences or walls shall be located not less than 12 inches from the property line.
- (c) No interior landscaping shall be required within a service or storage area.

(12) Screening of Accessory Uses

- (a) In all districts, except lots used for single family and two family dwellings in residential districts, the following accessory uses shall be screened to shield them from direct view from adjacent properties and/or enhance their appearance:
 - (i) Prefabricated metal or wood storage sheds.
 - (ii) Satellite dish-type antennas or receivers.
- (b) Screening shall consist of plantings of not less than six feet in height. The use of evergreen or nondeciduous vegetation is encouraged.

8.6. MAINTENANCE

- **8.6.1.** All landscaping materials shall be installed in a sound, workmanship-like manner and according to accepted, good construction and planting procedures. The owner of the property shall be responsible for the continued proper maintenance of all landscaping materials and shall keep them in proper, neat and orderly appearance, free from refuse and debris at all times.
- **8.6.2.** Landscaping materials used to fulfill code requirements or conditions or approval, as authorized by the board of township trustees, BZA, zoning commission, or zoning inspector may not be pruned or otherwise treated so as to reduce the overall height or level of opacity required. Landscape materials are intended to grow, spread and mature over time; and pruning and other inhibiting measures including removal may only be practiced to ensure the public safety, to maintain a neat and attractive appearance and to preserve the relative health of the material involved. The use of growth inhibitors is not permitted to be used on any plant material used to fulfill code requirements or conditions of approval.
- **8.6.3.** All unhealthy or dead plant material shall be replaced within one year or by the next planting period, whichever comes first; while other defective landscaping material shall be replaced or repaired within three months.
- **8.6.4.** Violation of these installation and maintenance provisions shall be grounds for the zoning inspector to refuse to issue zoning compliance inspection approval or institute legal proceedings.

8.7. MODIFICATIONS

- **8.7.1.** The zoning inspector may approve modifications to the landscaping, buffer or screening requirements of this chapter. The zoning inspector shall base its decision on all of the following criteria:
 - A. The specific conditions which are unique to the applicant's land;
 - **B.** The manner in which the strict application of the provision of this chapter would deprive the applicant of a reasonable use of the land in a manner equivalent to the use permitted other landowners in the same district;

- **C.** The unique conditions and circumstances are not the result of actions of the applicant subsequent to the adoption of this chapter;
- **D.** Reasons that the modification shall preserve, not harm, the public safety and welfare, and shall not alter the essential character of the neighborhood; and
- **E.** A demonstration that the applicant has provided for landscape areas, buffers, or screening that achieves the spirit of this chapter.

8.7.2. Appeals

Decisions of the zoning inspector may be appealed to the BZA in accordance with the provisions of Section 3.8 Appeals, Variances, and Conditional Uses.

8.8. PLANT LISTS

Plants from the following lists are representative of those to be utilized in the landscape areas, buffers and screening as indicated in this chapter.

8.8.1. Shade Trees – Plant List A

- A. The trees in Plant List A are shade trees and are deciduous. They reach a mature height as indicated by the following:
 - (I) Large trees 60 feet,
 - (2) Medium trees 40 feet,
 - (3) Small trees 20 feet.
- **B.** Other shade trees which are native and hardy to zone 5-6 of the United States Department of Agriculture Plant Hardiness Zone Map may also be used within the landscape area, buffer or screening.

| | LARGE TREES | | | | |
|---|--|--|---|--|--|
| Common Plant Name Plant Botanical Name Specie Cultivars | European Beech Fagus sylvatica | | Common Plant Name Plant Botanical Name Specie Cultivars | Norway Maple Acer platanoides Columnare Crimson King Summershade | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Ginkgo Ginkgo biloba (male only) Autumn Gold Fastigiata Sentry | | Common Plant Name Plant Botanical Name Specie Cultivars | Pin Oak Quercus palustris Sovereign Crown Rite | |
| | | | Common Plant Name Plant Botanical Name Specie Cultivars | Red Maple Acer rubrum Autumn Flame October Glory Red Sunset | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Scarlet Oak Quercus coccinea | | Common Plant Name Plant Botanical Name Specie Cultivars | Red Oak Quercus rubra | |

TABLE 8-8: PLANT LIST A - SHADE TREES

| Common Plant Name | London Plane Tree | | Common Plant Name | Tulip Poplar |
|---------------------------------------|--------------------------|-----|----------------------|-----------------------------------|
| Plant Botanical Name | Plantanus x acerifolia | | Plant Botanical Name | Liriodendron tulipifera |
| Specie Cultivars | Tiantanas x acerijona | | Specie Cultivars | |
| Common Plant Name | Sugar Maple | | Common Plant Name | Sweetgum |
| Plant Botanical Name | Acer saccharum | | Plant Botanical Name | Liquidambar styraciflua |
| Specie Cultivars | Acer succidium | | Specie Cultivars | |
| Common Plant Name | Willow Oak | | Common Plant Name | Elm |
| Plant Botanical Name | | | Plant Botanical Name | |
| | Quercus phellos | | Specie Cultivars | Ulmus parvifolia Lace Bark Elm |
| Specie Cultivars Common Plant Name | Shumardi Oak | | Common Plant Name | Shingle Oak |
| | | | | 9 |
| Plant Botanical Name | Quercus shumardii | | Plant Botanical Name | Quercus imbricaria |
| Specie Cultivars | | | Specie Cultivars | |
| | MED | NUM | TREES | |
| Common Plant Name | Callary Pear | | Common Plant Name | Littleleaf Linden |
| Plant Botanical Name | Pyrus calleryana | | Plant Botanical Name | Tilia cordata |
| Specie Cultivars | Aristocrat | | Specie Cultivars | Chancellor |
| | Chancellor | | | Greenspire |
| | | | | June Bride |
| Common Plant Name | Japanese Pagoda Tree | | Common Plant Name | Japanese Zelkova |
| Plant Botanical Name | Sophora japonica | | Plant Botanical Name | Zelkova serrata |
| Specie Cultivars | Regent | | Specie Cultivars | |
| Common Plant Name | Thornless Honey Locust | | Common Plant Name | Yellowwood |
| Plant Botanical Name | Gelditsia triacanthos | | Plant Botanical Name | Cladrastis lutae |
| Specie Cultivars | Moraine | | Specie Cultivars | |
| | Shademaster | | | |
| | Skyline | | | |
| | Imperial | | | |
| Common Plant Name | Amur Cork | | Common Plant Name | River Birch |
| Plant Botanical Name | Phellondendron amurense | | Plant Botanical Name | Betula nigra |
| Specie Cultivars | | | Specie Cultivars | |
| Common Plant Name | Katsura Tree | | | |
| Plant Botanical Name | Cercidiphyllum japonicum | | | |
| Specie Cultivars | | | | |
| | SM | ALL | TREES | |
| Common Plant Name | Sourwood | | Common Plant Name | Hedge Maple |
| Plant Botanical Name | Oxydendron arboreum | | Plant Botanical Name | Acer campestre |
| Specie Cultivars | | | Specie Cultivars | Queen Elizabeth |
| Common Plant Name | Amur Maple | | Common Plant Name | Paperbark Maple |
| Plant Botanical Name | Acer ginnala | | Plant Botanical Name | Acer griseum |
| Specie Cultivars | Flame | | Specie Cultivars | neer Subcum |
| Common Plant Name | European Hornbeam | | Common Plant Name | Hornbeam |
| Plant Botanical Name | Carpinus betulus | | Plant Botanical Name | Ostrya virginiana |
| Specie Cultivars | | | Specie Cultivars | |
| Specie Cultival S | | | Specie Cultival s | |

8.8.2. Flowering Trees – Plant List B

The trees in Plant List B are flowering, deciduous trees and reach a mature height not exceeding 30 feet.

TABLE 8-9: PLANT LIST B - FLOWERING TREES

| | FLOWERING TREES | | | | |
|---|---|--|---|--|--|
| Common Plant Name Plant Botanical Name Specie Cultivars | Callery Pear Pyrus calleryana Aristocrat Chancellor | | Common Plant Name Plant Botanical Name Specie Cultivars | Downy Serviceberry Amelanchier canadensis | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Crabapple <i>Malus varieties</i> Bob White Sargent Snowdrift White Angel | | Common Plant Name Plant Botanical Name Specie Cultivars | Allegheny Serviceberry Amelanchier laevis Robin Hill | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Eastern Redbud Cerscis canadensis Flame Forest Pansy Royal | | Common Plant Name Plant Botanical Name Specie Cultivars | Sweetbay Magnolia Magnolia virginiana | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Dogwood Cornus florida Cornus kousa Cornus mas | | Common Plant Name Plant Botanical Name Specie Cultivars | Lilac Syringa reticulata Japanese Silk Lilac Ivory Silk Lilac | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Golden Raintree Koelreutraria paniculata | | Common Plant Name Plant Botanical Name Specie Cultivars | Witch Hazel Hamamelis virginiana | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Green Hawthorne <i>Crataegus virdis</i> Winter King | | Common Plant Name Plant Botanical Name Specie Cultivars | Star Magnolia Magnolis stellata | |
| Common Plant Name Plant Botanical Name Specie Cultivars | Sargent Cherry Prunis sargentil Columnaris Kwanzan | | Common Plant Name Plant Botanical Name Specie Cultivars | Saucer Magnolia Magnolia soulangiana | |

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8.8.3. Evergreen Trees – Plant List C

The trees in Plant List C are evergreen, can reach a mature height over 30 feet, and if not limbed-up, can create a screen from the ground level up.

| Evergreen Trees | | | | | |
|----------------------|----------------------|--|----------------------|----------------------|--|
| Common Plant Name | American Holly | | Common Plant Name | Austrian Pine | |
| Plant Botanical Name | Llex opaca | | Plant Botanical Name | Pinus nigra | |
| Specie Cultivars | Xanthocarpa | | Specie Cultivars | | |
| Common Plant Name | Canadian Hemlock | | Common Plant Name | Carolina Hemlock | |
| Plant Botanical Name | Tsuga canadensis | | Plant Botanical Name | Tsuga caroliniana | |
| Specie Cultivars | | | Specie Cultivars | | |
| Common Plant Name | Eastern Red Cedar | | Common Plant Name | Colorado Blue Spruce | |
| Plant Botanical Name | Juniperus virginiana | | Plant Botanical Name | Picea pungens | |
| Specie Cultivars | | | Specie Cultivars | Glanca | |
| Common Plant Name | Norway Spruce | | Common Plant Name | Scotch Pine | |
| Plant Botanical Name | Picea abies | | Plant Botanical Name | Pinus sylvestris | |
| Specie Cultivars | | | Specie Cultivars | | |
| Common Plant Name | Southern Magnolia | | Common Plant Name | White Fir | |
| Plant Botanical Name | Magnolia grandiflora | | Plant Botanical Name | Abies concolor | |
| Specie Cultivars | | | Specie Cultivars | | |
| Common Plant Name | White Pine | | | | |
| Plant Botanical Name | Pinus strobus | | | | |
| Specie Cultivars | | | | | |

TABLE 8-10: PLANT LIST C - EVERGREEN TREES

8.8.4. Deciduous Shrubs – Plant List D

The shrubs in Plant List D are perennial, woody, deciduous plants that grow to at least three feet in height.

| Deciduous Shrubs | | | | | |
|----------------------|----------------------|--|----------------------|------------------------|--|
| Common Plant Name | Burning Bush | | Common Plant Name | Doublefile Viburnum | |
| Plant Botanical Name | Euonymus alatus | | Plant Botanical Name | Viburnum plicaturn | |
| Specie Cultivars | Compactus | | | tomentosum | |
| | | | Specie Cultivars | | |
| Common Plant Name | Forsythia Species | | Common Plant Name | Glossy Abelia | |
| Plant Botanical Name | | | Plant Botanical Name | Abelia grandiflora | |
| Specie Cultivars | | | Specie Cultivars | | |
| Common Plant Name | Quince | | Common Plant Name | Shrub Cinquefoil | |
| Plant Botanical Name | Chaenomeles speciosa | | Plant Botanical Name | Potentilla fruticosa | |
| Specie Cultivars | | | Specie Cultivars | | |
| Common Plant Name | Spirea Species | | Common Plant Name | Spreading Cotoeaster | |
| Plant Botanical Name | | | Plant Botanical Name | Cotoneaster divaricata | |
| Specie Cultivars | | | Specie Cultivars | | |
| Common Plant Name | Winterberry Barberry | | | | |
| Plant Botanical Name | Berberis julianne | | | | |
| Specie Cultivars | | | | | |

TABLE 8-11: PLANT LIST D - DECIDUOUS SHRUBS

8.8.5. Evergreen Shrubs – Plant List E

The shrubs in Plant List E are perennial, woody, evergreen plants that grow to at least three feet in height.

TABLE 8-12: PLANT LIST E - EVERGREEN SHRUBS

| Evergreen Shrubs | | | | |
|---|--|--|---|--|
| Common Plant Name Plant Botanical Name Specie Cultivars | Anglojap Yew <i>Taxus x media</i> Brownii Densiformis Hicksii Wardii | | Common Plant Name Plant Botanical Name Specie Cultivars | Blue Holly Llex x meserveae Blue Angel Blue Prince Blue Princess |
| Common Plant Name Plant Botanical Name Specie Cultivars | Chinese Juniper Juniperis chinensis Hetzil Keteleeri Mint Julip Robusia Green | | Common Plant Name Plant Botanical Name Specie Cultivars | Japanese Holly <i>Llex creata</i> Microphylla Rotundifolia |
| Common Plant Name Plant Botanical Name Specie Cultivars | Japanese Yew Taxus cuspidata Capitata Intermedia Nana | | Common Plant Name Plant Botanical Name Specie Cultivars | Korean Boxwood Buxus microphylla koreana |
| Common Plant Name Plant Botanical Name Specie Cultivars | Leatherleaf Viburnum Viburnum rhytidophyllum | | Common Plant Name Plant Botanical Name Specie Cultivars | Mugho Pine Pinus mugho |
| Common Plant Name Plant Botanical Name Specie Cultivars | Spreading Yew Taxus x media | | | |