

Stafford Township, New Jersey Landscaping and Tree Protection Ordinance

§ 130-50. Buffers. [Amended 1-31-1989 by Ord. No. 89-10]

A. Buffer areas, as defined in this chapter, shall be developed in an aesthetic manner for the primary purpose of screening views, providing physical separation and reducing noise and glare beyond the buffer area. Buffer area widths shall be measured horizontally and perpendicularly to lot and street lines. No structure, activity, storage of materials or parking of vehicles shall be permitted in a buffer area. The preservation of all desirable existing vegetation in a buffer area shall be assured through sensitive grading and development practices. The standards for the location and design of buffer areas are intended to provide flexibility in order to provide effective buffers. The location and design of buffers shall consider the use of the portion of property being screened; the distance between the use and the adjoining property or street; differences in elevation; the type of buffer such as planting, berming, preservation of existing vegetation, a wall, hedge or fence; buffer height; buffer width; and other combinations of man-made and natural features. The buffer shall be designed, planted, graded or developed with the general guideline that the closer a use or activity is to a property line or the more intense the use, the more effective the buffer must be in obscuring light, vision and reducing noise beyond the lot.

B. In the Highway Commercial Zone, there shall be a thirty-five foot buffer area from the front property line and a fifteen-foot buffer area from the side property line. The only improvements to be constructed in this buffer area, other than landscaping, are to be those improvements necessary to provide ingress and egress to the subject site.

[Amended 4-18-1989 by Ord. No. 89-31]

C. In the Neighborhood Commercial and Local Business Zones, there shall be a fifteen-foot buffer area from the front property line and side property line; provided, however, that in regard to those lots which front on a state highway, there shall be a twenty-five-foot buffer area from the front property line. The only improvements to be constructed in this buffer area, other than landscaping, are to be those improvements necessary to provide ingress and egress to the subject site. [Amended 4-18-1989 by Ord. No. 89-31]

D. In the Industrial Zone, lots having a depth of 300 feet or less shall have a forty-foot buffer area from the front property line. This buffer area shall be increased to 50 feet when the lot depth is greater than 300 feet. In addition, all lots shall have ten-foot buffer areas from the side and rear property lines. The only improvements to be constructed in these buffer areas, other than landscaping, are to be those improvements necessary to provide ingress and egress to the subject site. [Added 2-19-1991 by Ord. No. 91-11EN]

E. In all other zones except residential, the minimum front buffer area shall be thirty-five (35) feet, the minimum side buffer area shall be fifteen (15) feet and the minimum rear buffer area shall be twenty (20) feet unless otherwise provided herein. [Amended 4-18-1989 by Ord. No. 89-31]

F. In order to provide adequate buffering between uses of differing classifications, a buffer area shall be provided in conjunction with any nonresidential or higher density residential use abutting a lot zoned or used for residential purposes. The minimum width of such a buffer area shall be not less than thirty (30) feet for a building or group of

buildings up to twenty thousand (20,000) square feet in area, except in the HC Zone where it shall be no less than fifty (50) feet. The width of the buffer area shall be increased one (1) foot for each one thousand (1,000) square feet or fraction thereof if the building or group of buildings exceeds twenty thousand (20,000) square feet, up to a maximum buffer area width of one hundred (100) feet; except that, for light industrial uses, the minimum buffer width abutting a residential district shall not be less than one hundred (100) feet.

G. In residential subdivisions or site plans on any lot which abuts an expressway or arterial road, a buffer area and additional lot depth or width of fifty (50) feet shall be provided along the property line common with the expressway or arterial road.

§ 130-51. Landscaping. [Amended 1-31-1989 by Ord. No. 89-10]

A. General. All land subdivision and development shall comply with the minimum landscape architectural standards set forth herein or provide a more appropriate scheme relative to the specific aspects of a particular site or development proposal with the approval of the board of jurisdiction. The board of jurisdiction may require additional landscape development beyond the standards set forth if necessary to provide appropriate landscape development relative to the nature of the site and the development thereof. All landscape development should be designed to enhance the visual quality of the site and adjacent properties; provide safe vehicular and pedestrian circulation; protect against potential natural and man-made hazard; enhance the microclimate of areas for human activity; and promote the protection of health, safety and welfare.

B. Streetscape. Landscape architectural development of the streetscape shall be provided in conjunction with all development, on all existing and proposed roads upon which the site of development has or creates frontage. Improvements consistent with one (1) of the following streetscape concepts, or an alternative concept of more appropriate design, shall be provided:

(1) Formal tree-lined avenue. This type of streetscape development is appropriate for the majority of streets within the township with the exception of those areas which are addressed by one (1) of the other two (2) concepts provided herein. The following standards shall apply:

(a) Shade trees shall be provided along both sides of a street in the planting area provided between the street curb and the sidewalk as per § 130-66 and at a distance between trees of thirty (30) feet to fifty (50) feet, with trees which exhibit a narrow habit at a thirty- to forty-foot spacing and trees which exhibit a spreading habit at a forty- to fifty-foot spacing. (See Sketch No. 1.EN) The trees shall be planted so as not to interfere with utilities, roadways, sidewalks, street lights, sight distances and driveway aprons and shall not be planted closer than eight (8) feet to fire hydrants. [Amended 2-21-1989 by Ord. No. 89-15; 11-21-1989 by Ord. No. 89-66]

(b) All trees shall have a minimum size of three (3) inches to three and five-tenths (3.5) inches caliper. [Amended 11-21-1989 by Ord. No. 89-66]

(c) Subsequent or replacement plants shall conform to the type of existing tree in a given area, provided that, if any deviation is anticipated, it must be done only with the permission of the Township Landscape Architect and/or Environmental Commission. In a newly planted area, only one (1) type of tree may be used on a given street, unless otherwise specified by the Township Landscape Architect and/or Environmental Commission.

(d) Tree varieties which exhibit desirable characteristics, such as full symmetrical form, deep nonevasive root system and tolerance of potential drought and road salt, should be utilized.

(e) Trees within a sight triangle or distance area shall be of sufficient size to be pruned to a seven-foot branching height with one (1) main stem upon planting. Planting within a sight triangle or distance area must be approved by the Township Engineer.

(2) Informal street trees. This type of streetscape development is appropriate along streets within areas of development with an informal character. This type of treatment should occur in areas of development with meandering curvilinear roads. The following standards shall apply:

(a) Vary street tree varieties, spacing from the cartway [four (4) feet to fifteen (15) feet] and sizes [two (2) inches to six (6) inches caliper, averaging three (3) inches to three and five-tenths (3.5) inches]. Trees should be placed in an informal pattern with varied spacing. Some areas will have clustered trees, others may have an individual tree along a road. Planting design shall accentuate views and integrate contrasting landscape elements. (See Sketch No. 2.EN) [Amended 2-21-1989 by Ord. No. 89-15; 11-21-1989 by Ord. No. 89-66]

(b) The total number of trees shall average one (1) tree for every fifty (50) linear feet of roadway on each side of the roadway.

(c) If existing trees are preserved within ten (10) feet of the curb, the requirements for additional street tree plantings may be reduced.

(d) Trees within a sight triangle or distance area shall be of sufficient size to be pruned to a seven-foot branching height with one (1) main stem upon planting. Planting within a sight triangle or distance area must be approved by the Township Engineer.

(3) Village streetscape. This type of streetscape development is appropriate along streets within areas designated as villages by the Stafford Township Historic Preservation Commission, i.e., Manahawkin, or as required by the board of jurisdiction. The objective shall be to provide street trees, paving, benches, lighting and other improvements to provide an ample, well-defined, unified and distinct pedestrian corridor along the streetscape. The following standards shall apply:

(a) Provide street trees within the right-of-way in planting areas of at least ninety (90) square feet in surface area. An acceptable ground cover or mass shrub planting shall be provided in all planting areas.

(b) The quantity of trees shall be equivalent to one (1) tree of three (3) inches to three and five-tenths (3.5) inches caliper for every forty (40) feet of frontage. [Amended 11-21-1989 by Ord. No. 89-66]

(c) If existing trees are preserved within ten (10) feet of the curb, the requirements for additional street tree plantings may be reduced.

(d) Trees within a sight triangle or distance area shall be of sufficient size to be pruned to a seven-foot branching height with one (1) main stem upon planting. Planting within a sight triangle or distance area must be approved by the Township Engineer.

(e) A walkway within the right-of-way of a minimum clear width of five (5) feet shall be provided. In areas where site furnishings are provided, the walk width shall be

widened to accommodate these amenities. (See Sketch No. 3.EN) The walkway shall be constructed of a decorative pavement, i.e., brick pavers, as approved by the board of jurisdiction. All walks shall include ramps for handicap access at all street corners or road crossings. The decorative paving shall be continued across all ingress and egress drives as a crosswalk, providing a well-defined continuous pedestrian walkway. [Amended 2-21-1989 by Ord. No. 89-15]

(f) Site furnishings such as benches, period lighting, kiosks, bus shelters, trash receptacles and flagpoles shall be provided as appropriate or required by the board of jurisdiction. All site furnishings within an individual village area shall be of a consistent or compatible design style, color, material and location, subject to the approval of the board of jurisdiction.

(g) Signage within the village streetscape area shall be of a consistent or compatible design style, color, material and location, subject to the approval of the board of jurisdiction.

(h) All overhead utilities should be relocated underground whenever possible.

C. Cul-de-sac and traffic islands. Cul-de-sac and traffic planting islands provide the opportunity to soften the harshness of large paved areas, create visual interest, increase groundwater recharge, screen headlight glare into residences and preserve valuable existing vegetation. Planted traffic control islands should be provided as necessary and appropriate to define vehicular or pedestrian circulation. The following standards address the planting of islands in the turnaround portion of cul-de-sac roads; provided, however, that there remains sufficient turning radius for fire-fighting equipment and other emergency equipment. For other islands, a landscape design consistent with the concepts presented herewith should be provided. Planting of islands within parking areas shall conform to the standards set forth in Subsection G of this section.

(1) If possible, preserve the existing trees in the area of the proposed island. Assure that the grading of the surrounding roadway is consistent with the existing grade at the dripline of the trees and provide adequate protection during construction. Limb all branches to a height of seven (7) feet and remove all vegetation which exhibits a canopy between thirty (30) inches and seven (7) feet. Provide an adequate ground cover planting as necessary to completely cover all soil and discourage weed growth. All planting must be designed to consider the level of expected maintenance and provide a neat and clean appearance.

(2) In areas void of existing stands of trees, planting similar to the following concept should be provided: provide one (1) specimen tree of four and one-half (4½) inches to five (5) inches caliper or three (3) specimen trees of two and one-half (2¼) inches to three (3) caliper for every one thousand (1,000) square feet of planting area with an adequate ground cover planting as necessary to completely cover all soil and discourage weed growth at the time of planting. (See Sketch No. 4.EN) All plant material must exhibit a mature canopy height under thirty (30) inches or above seven (7) feet with no more than three (3) trunks in order to allow adequate visibility. All plants shall be tolerant of harsh, dry roadside conditions. All planting must be designed to consider the level of expected maintenance and provide a neat and clean appearance. Planting of islands within parking areas shall conform to the standards set forth in Subsection G of this section. [Amended 2-21-1989 by Ord. No. 89-15]

(3) All planting within a site triangle or distance area must be approved by the Township Engineer.

(4) Extensive unplanted stone or mulch beds shall not be provided.

D. Stormwater areas. Stormwater management areas include retention and detention basins, drainage ditches and swales. This subsection does not apply to underground stormwater recharge areas, which may only be planted if approved by the Township Engineer. Sensitively designed basins and swales can be a visually pleasing benefit to the health, welfare and safety of Stafford Township residents. The general design concept of these areas should be to de-emphasize their function creating aesthetic landscape features. Improvements consistent with one (1) of the following concepts, or an alternate concept of more appropriate design, shall be provided:

(1) Open space/recreation feature. This landscape concept is appropriate in situations where a basin is the largest or only portion of green or open space in an area or is adjacent to existing open space and additional open space is desired. It is also appropriate for smaller, highly visible basins where a visually pleasing open area is desired.

(a) The area shall be graded creatively to blend into the surrounding landscape and the design of the site, i.e., provide an informal meandering edge with varying slopes, and gentle berming in locations emulating a natural depression.

(b) Provide planting along the perimeter of the area to reinforce the design concept. As a general guideline, ten (10) trees for every one hundred (100) linear feet of perimeter length should be provided. These trees shall have a minimum size of two and one-half (2½) inches to three (3) inches caliper for shade trees, eight (8) feet to ten (10) feet in height for evergreen trees, and six (6) feet to eight (8) feet in height and one (1) inch to one and one-half (1½) inches caliper for ornamental trees. The majority of trees should be shade trees unless otherwise required by the board of jurisdiction. (See Sketch No. 5.EN) [Amended 2-21-1989 by Ord. No. 89-15; 2-21-1989 by Ord. No. 89-21]

(c) To provide recreational open space, concentrate frequently flooded detention in a basin area (five to ten-year storm volume) and provide a gently sloping, less often flooded, area ten- to one-hundred-year storm volume) as a recreational open field space. Provide ball field and/or open play areas integrated with plantings in a parklike manner. (See Sketch No. 6.EN) [Amended 2-21-1989 by Ord. No. 89-15]

(d) The design of all drainage structures should reflect the overall design concept for the area and shall make these structures visually pleasing or less obtrusive. Consider the type and color of materials and grading or planting around structures at the approval of the Township Engineer.

(2) Reforestation. This landscape treatment is appropriate for detention basins and drainage areas that are not highly visible or are adjacent to areas of mature woodlands, conservation areas or wetlands. It reverts the disturbed area to a revegetated, stable, low maintenance, natural landscape asset over time.

(a) The area shall be graded creatively to blend into the surrounding landscape and the design of the site, i.e., provide an informal meandering edge with varying slopes and gentle berming in locations emulating a natural depression.

(b) The area shall be planted with shade trees on the perimeter, banks and interior of the basin at the rate of one (1) tree for every four hundred (400) square feet of area. Of this quantity, ten percent (10%) shall be two and five-tenths (2.5) inches to three (3) inches caliper, twenty percent (20%) shall be one and five-tenths (1.5) inches to two (2)

inches caliper and seventy percent (70%) shall be eight (8) feet to ten (10) feet height whips. [Amended 11-21-1989 by Ord. No. 89-66]

(c) The trees shall be planted in groves and spaced five (5) feet to twenty (20) feet on center. The ground plane shall be seeded with a naturalization, wildflower and/or meadow seed mix. The specific blend shall be approved by the Township Landscape Architect or Environmental Commission. All woody and herbaceous plants shall be species indigenous to the area and/or tolerant of typical wet/dry floodplain conditions. (See Sketch No. 7.EN) [Amended 2-21-1989 by Ord. No. 89-15]

(d) All engineered basin structures shall be designed to blend into the landscape in terms of construction materials, color, grading and planting.

(e) Plantings shall not be located within twenty (20) feet of a low flow channel or outlet or inlet structure to allow for maintenance.

(f) Provision for emergency access as well as general maintenance of the basins shall be subject to the review and approval of the Township Engineer. Plantings shall be designed to disguise yet not hinder vehicular access.

(g) Plantings are not permitted upon any dikes associated with a detention basin unless approved by the Township Engineer.

(3) Stormwater retention ponds. This landscape treatment can take on a variety of landscape forms, from formal reflecting pools and canals or entry fountain features to natural parklike lakes and ravines.

(a) Water fountains/features are encouraged in the design of all development as an open space/recreational feature.

(b) The water's edge shall be easily maintained and stable. Possible treatments might include riprap, stone walls, natural plantings, decking and bulkheads.

(c) The planting of the perimeter of the feature shall accentuate views and interest and integrate pedestrian paths, sitting areas and other uses.

(d) Plantings shall include formal or informally massed deciduous and evergreen trees and shrubs to screen and frame views with ornamental trees, shrubs and grasses used for visual interest or special effects. A continuous landscape area shall be provided.

(e) If used as a recreational feature, the connection to the water must be addressed and controlled. The types of uses shall be specified and the plantings and pedestrian spaces shall be integrated with these uses.

(f) Plants with pervasive root systems shall not be located where they may cause damage to drainage pipes or other underground utilities.

(g) All engineered basin structures shall be designed to blend into the landscape in terms of construction materials, color, grading and planting.

E. Open space. As a landscape feature and asset, open space is encouraged in all developments, even when not required. The objectives of the landscape treatment of open space is to provide the opportunity and space for active and passive recreation in all areas of human activity and residence, to protect and enhance the township's natural amenities such as wooded areas, water bodies and streams and to retain or create a visually pleasing image of Stafford Township. The following standards shall apply:

(1) Preservation open space. This type of open space is appropriate in areas adjacent to and inclusive of natural amenities to be preserved, such as wooded areas, water bodies, streams, wetlands, etc. This type of open space shall be either deed restricted from future

development by conservation easements or dedicated to the township or another public or quasi-public agency or organization. The following standards shall apply:

- (a) During the site planning process it is appropriate to preserve valuable any unique natural amenities and designate them as preservation open space.
- (b) It is appropriate to remove all undesirable debris and materials from this area.
- (c) The provision of improvements such as pedestrian paths, picnic areas and planting may be required by the board of jurisdiction when appropriate to create a visually pleasing and beneficial environment. These areas shall be reforested to comply with the requirements of § 130-51H(3). [Amended 2-21-1989 by Ord. No. 89-15; 11-21-1989 by Ord. No. 89-66]

(2) Recreational open space. Recreational open space includes lands provided for active and passive recreation and as additions to existing recreational open space. It can take on many forms, from a tot-lot or tennis and swimming complex in a residential development, to an English landscape garden in an office park development or an outdoor promenade or eating pavilion in a commercial or industrial center. The landscape architectural design of these areas shall address safety, visual interest, microclimate and use. The following standards shall apply:

(a) Site amenities and walkways shall be provided as required by the board of jurisdiction. Suggested minimum improvements for residential open space include a tot-lot (play structure with slide and a separate swing set), seating and open lawn for field play. (See Sketch No. 8.EN) Outdoor sitting and eating areas/plazas are appropriate for commercial, office and manufacturing developments. [Amended 2-21-1989 by Ord. No. 89-15]

(b) These areas shall be reforested to comply with the requirements of § 130-51H(3). [Amended 2-21-1989 by Ord. No. 89-15; 11-21-1989 by Ord. No. 89-66]

(c) If a recreation area fronts onto a roadway, a post and rail fence or other protective measures shall be integrated to provide protection and separation.

F. Buffers. Landscape buffers are planting, berms or grading and fences or walls provided within the landscape buffer area as designated in § 130-50, or as necessary, to visually soften or screen and enhance views and minimize or separate any adverse impacts or nuisances on a site from adjacent properties or roads. The designer and the board of jurisdiction should consider the dimension of a landscape buffer area, existing vegetation, structures and topography along with the intensity and type of land use involved relative to these standards to determine the appropriate landscape buffer. The board of jurisdiction may require a more or less significant landscape buffer if appropriate. The following standards are provided for particular types of buffer areas:

(1) Nuisance landscape buffer. This type of landscape buffer is appropriate in buffer areas provided between commercial or residential uses and adjacent commercial or different residential uses or zones where a continuous visual screen is appropriate. The following standards shall apply:

(a) All existing trees and valuable understory vegetation should be preserved, and the plans must specify appropriate grading and tree protection details to assure the preservation of the vegetation. The plans must clearly indicate all vegetation to be preserved and removed. If the board of jurisdiction deems it appropriate, supplemental planting should be provided to provide a complete visual screen. Quantities and types of

supplemental plantings must respond to the deficiencies of existing vegetation and complement the existing vegetation and the overall design and must be indicated on the landscape plan. A minimum height of eight (8) feet to ten (10) feet for evergreen trees, two (2) feet to two and five-tenths (2.5) feet for shrubs and a minimum caliper of two and five-tenths (2.5) inches to three (3) inches for shade trees shall be specified for all supplemental plantings. (See Sketch No. 9.EN)

(b) Areas void of significant vegetation shall receive landscape architectural treatment including planting, berming, fences or walls as appropriate. Berms, fences or walls shall be provided at a height of four (4) feet to eight (8) feet, or as necessary to provide a visual screen, with the approval of the board of jurisdiction. The general design, form and materials of fences, walls and berms should relate to the overall design and the materials utilized for other structures on the site and be aesthetically pleasing from all sides. Planting should be provided in conjunction with berming, fencing or walls or may be provided solely to provide a complete visual screen and visually interesting and pleasing area. The following quantities and minimum size guidelines are provided. If berms, fencing or walls are provided, a decreased quantity of planting may be provided at the discretion of the board of jurisdiction. For every one hundred (100) linear feet of buffer area, measured at the longest line, the following must be provided:

Type	Quantity	Size
Evergreen trees	12	8 feet to 10 feet in height
Shade trees	3	2.5 inches to 3 inches caliper
[Amended 11-21-1989 by Ord. No. 89-66]		
Ornamental trees	As required	6 to 7 feet in height 1 to 1½ inches caliper

Shrubs As required 2 to 2½ feet in height

(2) Filtered buffer. This type of landscape buffer is appropriate in buffer areas or green space which is provided to soften the impact of a land use yet still allow views beyond the buffer area. In particular, this type of buffer shall be provided around the perimeter of all parking areas, internal site access roads or lanes and the perimeter of a site which abuts a lane, street, road, highway or an adjacent site and a complete visual screen is not appropriate. A buffer shall be provided to screen unsafe distractions such as glare from cars and light standards; to provide a visually pleasing environment; and to provide spatial definition to avoid confusion. The following standards shall apply:

(a) All existing trees and valuable understory vegetation should be preserved, and the plans must specify appropriate grading and tree protection details to assure the preservation of the vegetation. The plans must clearly indicate all vegetation to be preserved and removed. If the board of jurisdiction deems it appropriate, supplemental planting should be provided to provide a filtered visual screen. Quantities and types of supplemental plantings must respond to the deficiencies of existing vegetation and complement the existing vegetation and the overall design and must be indicated on the landscape plan. A minimum height of eight (8) to ten (10) feet for evergreen trees, two

(2) to two and five-tenths (2.5) feet for shrubs, six (6) to seven (7) feet and one (1) to one and five-tenths (1.5) inches caliper for ornamental trees and a minimum caliper of two and five-tenths (2.5) to three and zero-tenths (3.0) inches for shade trees shall be specified for all supplemental plantings. [Amended 2-21-1989 by Ord. No. 89-15; 11-21-1989 by Ord. No. 89-66; 11-1-1990 by Ord. No. 90-62]

(b) Areas void of significant vegetation shall receive landscape architectural treatment, including planting, berming, fences or walls as appropriate. Berms, fences or walls should be provided at a height of two (2) to four (4) feet as necessary to provide an appropriate buffer. The general design, form and materials of fences, walls and berms should relate to the overall design and the materials utilized for other structures on the site and be aesthetically pleasing from all sides. Planting should be provided in conjunction with berming, fencing or walls or may be provided solely to provide an appropriate screen and a visually interesting and pleasing area emphasizing appropriate views. Parked vehicles shall be buffered as viewed from all areas outside of the parking area. The following quantities and minimum size guidelines are provided. If berms, fencing or walls are provided a decreased quantity of planting may be provided at the discretion of the board of jurisdiction. For every one hundred (100) linear feet of buffer area, measured at the longest line, the following must be provided:

Type	Quantity	Size
Evergreen trees	As required	8 to 10 feet in height

Shade trees	4	2.5 to 3.0 inches caliper
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[Amended 11-21-1989 by Ord. No. 89-66; 11-1-1990 by Ord. No. 90-62]

Ornamental trees	As required	6 to 7 feet in height 1 to 1½ inches caliper
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Shrubs 55 2 to 2½ feet in height

(3) Windbreak/heavy screening. This type of buffer is appropriate in buffer areas where the additional need of a windbreak to stop windborne debris from leaving a site is necessary or around objectionable facilities or utility structures where a dense complete visual screen is appropriate. This would include buffer areas around outdoor storage facilities, loading areas or solid waste disposal facilities (dumpsters) or when an undersized buffer area is provided and the standards specified in § 130-51F(1), Nuisance landscape buffer, are not sufficient at the discretion of the board of jurisdiction. The following standards shall apply:

(a) Provide a fence, wall or planting which will create a dense complete visual screen. The height of the fence, wall or planting should be designed relative to the facility being screened and shall be subject to the approval of the board of jurisdiction. The general design, form and materials of fences or walls should relate to the overall design and the materials utilized for other structures on the site or the neighborhood and be aesthetically pleasing from all sides. Planting should be included in conjunction with any fence or wall.

(b) If planting alone is provided, then a double staggered row of dense evergreen plants shall be specified. The spacing between individual plants shall be as necessary to provide a continuous hedge with plants touching at the time of installation. The installed and mature height of the plants must respond to the height of the area or facility being screened and the views from adjacent areas and shall be subject to the approval of the board of jurisdiction.

(c) The plan submission should include an illustrative section drawing demonstrating the effectiveness of the buffer.

(4) Reverse frontage buffer. This type of buffer shall be required where the rear yards of residential units and/or lots face or front on a roadway and when any yard of a residential unit or lot faces or fronts on an expressway or arterial roadway. The following landscape architectural treatment shall be provided to screen and separate private residential spaces from the roadway.

(a) All existing trees and valuable understory vegetation should be preserved, and the plans must specify appropriate grading and tree protection details to assure the preservation of the vegetation. The plans must clearly indicate all vegetation to be preserved and removed. If the board of jurisdiction deems it appropriate, supplemental planting, berms or walls should be specified to provide a complete visual screen.

Quantities and types of supplemental plantings must respond to the deficiencies of existing vegetation and complement the existing vegetation and the overall design and must be indicated on the landscape plan. A minimum height of eight (8) feet to ten (10) feet for evergreen trees, two (2) feet to two and five-tenths (2.5) feet for shrubs, six (6) feet to seven (7) feet, one (1) inch to one and five-tenths (1.5) inches caliper for ornamental trees, and a minimum caliper of two and five-tenths (2.5) inches to three (3) inches for shade trees shall be specified for all supplemental plantings. The need for and the height and design of supplemental berms or walls must respond to the deficiencies of existing vegetation and the proximity of the residential unit to the road. If the board of jurisdiction deems it appropriate berms or walls may be required. [Amended 11-21-1989 by Ord. No. 89-66]

(b) [Amended 2-21-1989 by Ord. No. 89-15] Areas void of significant vegetation shall receive landscape architectural treatment, including planting, berming, fencing or walls as appropriate. Berms, fences or walls shall be provided at a height of three (3) feet to eight (8) feet averaging five (5) feet or as necessary to provide a visual screen at the discretion of the board of jurisdiction. The general design, form and materials of fences, walls and berms should relate to the overall design and the materials utilized for other structures on the site and be aesthetically pleasing from all sides. The sidewalk layout shall be integrated with the buffer and the overall design and adjacent development when appropriate. Planting should be provided in conjunction with berming, fencing or walls or may be provided solely to provide a complete visual screen and visually interesting and pleasing area. (See Sketch No. 10.EN) The following quantities and minimum size guidelines are provided. If berms, fencing or walls are provided, a decreased quantity of planting may be provided at the discretion of the board of jurisdiction. For every one hundred (100) linear feet of buffer area, measured at the longest line, the following must be provided:

Type	Quantity	Size
Evergreen trees	7	8 to 10 feet in height

Shade trees 5 2.5 to 3 inches caliper
[Amended 11-21-1989 by Ord. No. 89-66]

Ornamental trees 1 6 to 7 feet in height 1 to 1½ inches caliper

Shrubs 15 2 to 2½ feet in height

G. Parking areas. The landscape architectural treatment of all parking areas shall be designed to promote safe and convenient circulation; to limit vehicular/pedestrian conflicts; to limit paved areas; to provide shade and reduce heat island effects; and to soften the overall visual impact of parking areas. The design of all parking areas shall comply with the requirements of § 130-81. Off-street parking and loading areas, with landscape architectural treatment shall be provided as follows:

- (1) Shade trees within the parking area shall be provided at a minimum rate of two (2) trees for every ten (10) parking spaces. Preservation or relocation of existing trees greater than four (4) inches diameter at breast height (dbh) is encouraged to meet this requirement. Landscape buffer area plantings are not to be considered to satisfy this requirement. (See Sketch No. 11.EN) [Amended 2-21-1989 by Ord. No. 89-15; 11-21-1989 by Ord. No. 89-66]
- (2) In the islands provided at the end of individual rows of parking spaces between access roads or aisles, planting shall be provided to buffer the view of parked cars, provide shade and cover the ground plane. The use of excessive quantities of unplanted bark or stone mulch shall be avoided.
- (3) Plant sizes shall be a minimum of two and five-tenths (2.5) to three and zero-tenths (3.0) inches caliper and thirteen (13) to fifteen (15) feet in height for shade trees and two (2) to two and five-tenths (2.5) feet in height for shrubs. The spacing of shrubs provided as a buffer shall be as necessary to provide a continuous hedge or mass with plants touching at the time of installation, and species shall include, but not be limited to: *euonymus alatus compactus*; *myrica pensylvanica*; *ilex glabra compacta*; or any other species approved by the Township Landscape Architect. [Amended 11-21-1989 by Ord. No. 89-66; 11-1-1990 by Ord. No. 90-62]
- (4) Large parking areas shall be subdivided into modules as per § 130-81A(16). Separation of modules should be achieved by a landscape island of a minimum width of ten (10) feet. Integration of pedestrian walkways within this island, aligned with building entrances or focal points, is encouraged and should be considered. (See Sketch No. 12.EN) [Amended 2-21-1989 by Ord. No. 89-15]
- (5) Pedestrian/vehicular conflicts shall be minimized through design, yet, when necessary, clearly indicated by a change of vehicular and pedestrian paving and plant materials. Integrated landscape islands with walks in lieu of parking spaces shall be provided in front of building entrances.
- (6) Parking lot lighting should be sited within landscape islands. Trees shall not hinder safe lighting coverage. Tree varieties and light photometrics and locations must be

considered. Shade trees should be used to reduce glare to adjacent properties, buildings and roadways.

(7) Parking decks or structures shall receive landscape treatment which softens the bulk and scale of the structures and screens the ground level cars from the public roads and buildings. Deck level planting shall be treated similarly to a parking lot on grade.

H. Green space. The landscape plan or site plan for all site plan and subdivision plan submissions shall address the planting of all green space in accordance with the standards set forth herein or another appropriate manner. In the site planning process, the provision and landscaping of green space or planting areas should be considered to enhance the visual quantity of a site and provide spatial or directional definition as follows:

(1) A planting area and planting around all buildings as appropriate relative to the architecture, anticipated use and to limit pavement to that necessary for access and appropriate use shall be provided.

(2) [Amended 11-21-1989 by Ord. No. 89-66] To provide immediate buffering, visual relief, and scale for large office, commercial, and industrial buildings [buildings of ten thousand (10,000) square feet or larger] larger-size trees shall be provided near the building perimeter [within seventy-five (75) feet]. The quantity of trees shall be equal to one (1) tree for every forty (40) feet of general building perimeter.

(a) [Amended 11-1-1990 by Ord. No. 90-62] The tree size shall be based upon the height of the building as follows:

Tree Size	
Building Stories	(caliper in inches)
1 to 2	2.5 to 3.0
3	3.0 to 3.5
4 to 6	3.5 to 4.0

(b) These trees shall be located in a manner consistent with architectural and site design and shall provide maximum visual impact. Preserved or relocated existing vegetation may be utilized to meet this requirement.

(3) In residential developments, trees shall be planted throughout a site at a rate of one (1) tree per two thousand five hundred (2,500) square feet of upland lot area or fraction thereof. In nonresidential developments, trees shall be planted throughout a site at a rate of one (1) tree per two thousand five hundred (2,500) square feet of upland green space or fraction thereof. Of this quantity, sixty percent (60%) shall be shade trees at a minimum size of two and five-tenths (2.5) to three and zero-tenths (3.0) inches caliper and/or evergreen trees at ten (10) to twelve (12) feet in height, and forty percent (40%) shall be shade trees a minimum size of two (2) to two and five-tenths (2.5) inches caliper and/or evergreen trees at six (6) to eight (8) feet in height. Existing, mature upland forest [containing a predominance of four (4) inches in diameter at breast height (dbh) at the approval of the Township Landscape Architect] which are preserved and adequately protected and not injured during and subsequent to construction may be deducted from the quantity of trees required at the rate of one (1) tree for every two thousand (2,000) square feet of mature upland forest. Only upland areas and existing trees which are located on the property being developed shall be considered for this requirement; plantings provided in conjunction with other ordinance requirements shall not be considered; trees within the right-of-way also are not to be considered. An accurate limit of existing woodland to be cleared, and planting sites for new plantings shall be indicated

on the landscape plan, individual plot plan or site plan and must be submitted to the Township Landscape Architect for review and approval prior to preliminary approval. [Amended 2-15-1989 by Ord. No. 89-15; 11-21-1989 by Ord. No. 89-66; 2-6-1990 by Ord. No. 90-9; 11-1-1990 by Ord. No. 90-62]

(4) In residential developments, besides the screening and street trees required, additional plantings or landscaping elements shall be required throughout the subdivision or site development for climate control, privacy or for aesthetic reasons in accordance with a planting plan approved by the board of jurisdiction. Planting sizes shall be in accordance with the provisions of § 130-51F(1)(b). [Amended 11-1-1990 by Ord. No. 90-62]

(5) In nonresidential developments, all areas of the site not occupied by buildings and required improvements shall be appropriately landscaped with grading and planting of grass or other ground cover, shrubs and trees as part of the landscape plan approved by the board of jurisdiction. Planting of trees along streets and in front yard areas shall be provided as required by ordinance and as necessary to create a harmonious, pleasant view from all roads. The use of extensive unplanted stone or bark mulch beds shall be avoided. Planting sizes shall be in accordance with the provisions of § 130-51F(1)(b). [Amended 11-1-1990 by Ord. No. 90-62]

I. Pedestrian spaces. All site plan and subdivision plans shall address pedestrian spaces and circulation. The objectives shall be to promote free and safe movement of pedestrians and bicycles into, in between and through the proposed and existing facilities and to provide pleasant pedestrian spaces at building entrances and nodes. The following standards shall apply:

(1) Pedestrian and bicycle access shall be provided from public roadways, parking lots and adjacent land uses where appropriate.

(2) The layout of pedestrian walkways shall be consistent with the overall design. In natural landscapes, walkways shall meander through plantings and berms. Formal landscapes may require long straight walkways. The views of pedestrians shall be visually interesting.

(3) Benches and sitting areas along pathways shall be provided where appropriate and particularly where they can incorporate or provide views of a significant landscape feature, recreational facility or interesting site design of the project.

(4) Connections to open space areas and facilities on adjacent properties shall be provided. Pedestrian easements between lots with a paved walkway may be required.

(5) Pedestrian bridges over streams, ravines or drainage swales shall be required when necessary to make connections in pedestrian system(s). They are subject to all regulatory agency permit requirements.

(6) Pedestrian amenities such as kiosks, water fountains, pedestrian scale lighting and gazebos shall be provided where appropriate.

(7) Bicycle parking for each building and adequate space for bicycle movements shall be provided.

(8) Building entrances, plazas, exterior malls, promenades and nodes shall receive detailed pedestrian scale landscape architectural treatments. Pedestrian/vehicular conflicts shall be avoided through design. Building entrances shall be delineated by planting islands within the parking area. Plantings shall include shade trees, evergreen and ornamental trees and shrubs, as appropriate. The planting design shall provide visual

variety and interest, spatial enclosure and separation from parking areas and protection from sun and wind. Sitting areas with benches or seat walls shall be provided as appropriate. (See Sketch No. 13.EN) [Amended 2-21-1989 by Ord. No. 89-15]

J. Amenities/resources. All land development plans shall identify and locate potential historical resources and natural amenities such as specimen trees (as defined in § 130-53), bodies of water, streams, wetlands, windbreaks, groves of trees, hedgerows, orchards, unique vistas, old or unique structures, farmsteads, villages and historic structures, and landmarks. During the site planning process the designer shall attempt to preserve and enhance these features for present and future residents as follows:

(1) The architectural, site plan and landscape architectural design shall utilize these amenities for design themes, preserving their heritage and enhancing their significance.

(2) Utilize the uniqueness of the existing specimen trees, bodies of water, groves of trees, hedgerows, historic structures and landmarks and farmsteads within the site plan as features and focal points.

K. Maintenance. Maintenance of landscape areas is a crucial part of any land development and must be addressed for all non-fee-simple residential development and all commercial development. Specifications for the perpetual maintenance of all outdoor areas on a site to assure a safe and attractive environment and to promote healthy growth of all plant materials shall be provided. This may take the form of a monthly schedule or a categorized guideline on the plans or in a separate document. The following areas shall be addressed: inspection, debris and weed control, irrigation, mulching, seasonal plantings, mowing of turf and wildflowers, pruning, fertilizer and amendments, insect and disease control, planting renovation, landscape structures, lighting and paved surfaces.

§ 130-52. Selective clearing.

A. An owner or developer shall remove only such trees, vegetation and underbrush as is necessary to construct and install the structure and improvements authorized by the Planning Board or Board of Adjustment. All sites should be developed, to the extent possible, in a manner which will result in the least amount of disturbance to the natural site.

B. A developer may be permitted to perform selective clearing to remove dead or damaged trees, underbrush and undesirable vegetation. The areas and extent of selective clearing must be clearly indicated on the plan of the development and/or the grading and landscape plan. All selective clearing must be approved by the Township Landscape Architect or Zoning Officer prior to the commencement of any clearing. The site boundaries and limits of proposed improvements must be accurately staked out on the site for this review and approval. [Amended 1-31-1989 by Ord. No. 89-10]

C. Where selective clearing is to occur in a required buffer area of a site or major subdivision, the developer shall be required to maintain a screening buffer in accordance with the buffer and landscape requirements as set forth in the Development Ordinance and shall be required to replace any planting removed in the course of selective clearing operations which is required as part of the buffer.

D. All selective clearing operations shall be performed in strict accordance with all applicable state, federal and local regulations. All cleared material,

including but not limited to trees, branches, stumps, brush, refuse and other deleterious matter, shall be removed from the site and disposal of in a sanitary landfill licensed by the State of New Jersey to accept such waste.

§ 130-53. Preservation of specimen trees.

A. Definitions. As used in this section, the following terms shall have the meanings indicated:

SPECIMEN TREES -- The largest known individual trees of each species in the State of New Jersey. The New Jersey Department of Environmental Protection, Bureau of Forestry, maintains a list of such trees, which is incorporated herein by reference, or any trees which are equal to or larger than said listed trees; also, any trees so designated by the Stafford Environmental Commission.

B. Statement of legislative policy. Specimen trees are an irreplaceable scientific and scenic resource. Often these trees have also been associated with historical events. As such, it is the declared legislative policy of Stafford Township to preserve and protect specimen trees.

C. Development interfering with specimen trees prohibited. All development is prohibited that would significantly reduce the amount of light reaching the crown of a specimen tree, alter the drainage patterns within the site where the specimen tree is located, adversely affect the quality of water reaching the site where the specimen tree is located, cause erosion or the depositing of material in or directly adjacent to the specimen tree or otherwise injure the specimen tree. The site of the specimen tree extends to the outer limit of the buffer area to avoid adverse impact or fifty (50) feet from the tree, whichever is greater.

D. Enforcement. The Zoning Officer of the Township of Stafford or his designee shall be the enforcement officer charged with the administration and enforcement of this section.