

**18-307**      **POST CONSTRUCTION LANDSCAPING**

(1)    When required.

A post construction stabilization and landscape plan shall be required for;

- (a)    Proposed development requiring a land disturbance permit under the provisions of *Section 18-304, subsection (1)* with a land use designation or proposed land use of industrial, commercial, or multi-unit residential structures with a cumulative living area of five-thousand (5,000) square feet, or greater.
  
- (b)    Redevelopment and property improvements.
  - (i)     Existing industrial, commercial, or multi-unit residential structures that are expanded by fifty-percent (50%), or greater;
  - (ii)    The addition of parking spaces to serve an existing industrial, commercial, or multi-unit residential structure where the existing parking area is increased by twenty-five percent (25%), or greater.

(2)    Exemptions.

The following land disturbance activity or development is exempt from the post construction landscape plan requirement of *Section 18-307*. An exemption of the post construction landscape provisions of *Section 18-307* does not constitute an exemption from the remaining provisions of this ordinance; such remaining provisions shall apply to all land disturbance activity identified in *Section 18-304, Subsection (1)* in accordance with the State of Tennessee NPDES MS4 Phase II Stormwater Permit issued to the City of Cleveland.

The following land disturbance activities are exempt from the provisions of *Section 18-307*:

- (i)     Exempt from obtaining a land disturbance permit under the provisions of *Section 18-304, Subsection (2)*;
- (ii)    Single family residential parcels that are a part of a larger common plan of development (larger tract divided into parcels). Land disturbance permits in accordance with *Section 18-304, Subsection (1)* shall be required for parcels of a larger common plan of development in accordance with NPDES MS4 Phase II requirements;
- (iii)    Development in the Central Business District (CBD) zoning district.

(3)    Landscape plan requirements.

The applicant for a land disturbance permit shall submit a post construction landscape plan in accordance with *Section 18-307, Subsection (1)*. The landscape plan shall be developed by a professional in accordance with rules promulgated

by the State of Tennessee Board of Architectural and Engineering Examiners, the landscape plan shall be prepared by a qualified registrant.

The landscape plan shall contain the following:

**(a) *Plant Schedule. The plant schedule shall contain:***

- (i) Quantity of plant material;
- (ii) Common and botanical name of plant material;
- (iii) Size and spacing of landscape materials at time of planting;
- (iv) General plant comments;
- (v) Plant materials located in the public right-of-way;
- (vi) Location and description of landscape improvements, including perimeter landscaping, landscaping within parking lots, and buffer zones if the parking area is two (2) or more acres, (the description shall include the size of the parking area and the actual percentage of the parking area used for landscaping);
- (vii) Planting and installation details to ensure conformance with all required standards; and
- (viii) Irrigation system details.

**(4) Landscape plan review procedures.**

- (a) The landscape plan will be reviewed by the Urban Forester in accordance with the provisions of *Section 18-304, Subsection (5)* of this ordinance.
- (b) **Alternative Landscaping Plan.** Recognizing the need for diversified methods of landscaping, the applicant for a land disturbance permit may submit an alternative methods or materials to the Urban Forester to determine if the proposed alternative satisfies the provisions of this ordinance;
- (c) **Memorial Tree Fund.** If an alternative landscape plan is not feasible as determined by the Urban Forester, and the applicant for a land disturbance permit is unable to achieve the intent of the landscape plan, the applicant may achieve the necessary equivalency in off-site landscaping in conjunction with the Memorial Tree Fund. The mitigation or exchange ratio shall be 2:1 calculated at the current fair market value to purchase plant materials, planting, and maintenance. Payments received for mitigation or off-site landscaping shall be deposited in the Memorial Tree Fund and shall be expended solely to landscape public properties and right-of-ways.

**(5) Landscape plan standards.**

- (a) A landscape plan shall include at a minimum:

- (i) Plant materials approved by the Urban Forester;
- (ii) Shade trees shall be a minimum of one and one-half (1 ½) inches in caliper, ornamental trees be a minimum of one and one-half (1 ½) inches in caliper, and evergreen trees shall be a minimum of six (6) feet in height;
- (i) The owner shall ensure that planting areas, i.e.. tree pits, hedge trenches, and shrub beds are excavated appropriately. Soil within the planting areas should be reasonably free of rock, debris, inorganic compositions and chemical residues. Plants shall rest on a well compacted surface;
- (ii) Existing trees shall be preserved whenever feasible.
- (iii) Planting Areas shall be mulched to a thickness of three (3) to four (4) inch in depth and consist of bark, pine needles, or other suitable materials to cover the planting areas, remaining landscape areas shall be in grass or ground cover;
- (iv) Trees and shrubs shall not be located within a dedicated utility easement, whether private or public utilities.
- (v) Landscape plans shall not include plant materials on the undesirable plant list. The Urban Forester and/or the Department of Community Development shall provide the undesirable plant list.

**(b) *Perimeter Landscaping.***

- (i) Planting yards are required around the perimeter or an equivalent area of a development, with the exclusion egress for vehicles or pedestrians. Traffic considerations shall be paramount in perimeter landscaping.  
 A Planting Yard shall be a minimum width of:  
 five (5) feet for a parcel with a total area of two (2) acres or less,  
 eight (8) feet for a parcel with a total area of two (2) acres, or  
 greater.  
 The width of perimeter planting yard may range from zero percent (0%) to two-hundred (200%) percent of the required minimum width along the perimeter, but the average width of the perimeter planting yard shall be at least the required minimum.
- (ii) Plantings yards shall be placed along the front, side and rear property lines, with traffic and safety considerations being paramount. A property bounded by two or more public right-of-ways has two or more front yards;
- (iii) Planting yards shall contain a number of shade trees equivalent to one (1) shade tree for each forty (40) linear feet of perimeter, excluding any vehicular access way. Ornamental trees may be substituted for up to forty percent (40%) of otherwise required shade trees. Shade trees shall not be planted under overhead utility lines. Landscaping trees shall be distributed along property lines;

however, distribution is to be in accordance with design considerations particular to the site, such as screening, traffic site distance, safety, and aesthetics. In order to achieve equity in the number of shade trees required for development occurring on sites with equivalent areas, but with different perimeter lengths, the number of shade trees required for each forty feet of perimeter shall not exceed what would have been required had the site been a perfect square.

- (iv) Planting yards shall consist of diverse species of trees satisfying spacing criteria cited in this part, and shall incorporate shrubs at equal intervals planted between perimeter trees, subject to approval of the Urban Forester. One tree species shall not comprise more than sixty percent (60%) of the total number of trees provided;
- (iii) In the case of a larger common plan of industrial, commercial, or multi-unit residential structures resulting in multiple parcel of the same zoning classification, perimeter landscaping shall be limited to the larger tract prior to dividing into parcels.

***(c) Landscaping parking areas – proposed development.***

Proposed parking areas shall be effectively landscape islands with trees and shrubs to reduce adverse impacts of peak stormwater runoff from impervious areas. Development of lots of record in existence prior to the effective date of this ordinance which are being developed so as to be required to provide twenty (20) or fewer parking spaces, and which are not otherwise part of a larger common plan of development, are exempt from the parking area landscaping requirements of this subsection.

- (i) Proposed parking areas shall incorporate landscape islands to consist of a minimum of four percent (4%) of the total impervious area, exclusive of the building footprint area.***
- (ii) Proposed parking areas with a single access aisle shall be designed and constructed with landscape islands dividing rows of parking spaces at increments of twenty (20) spaces. Off-street parking areas with multiple access aisles shall be designed and constructed with landscape islands dividing at least every twelve (12) parking spaces in a row. Landscape islands shall have a minimum width of eight (8) feet and shall have a minimum depth equal to the depth of the adjacent parking stall(s). Landscape island spacing criteria notwithstanding, the greater of five (5) or 20% of the required landscape islands may be combined with other islands or otherwise located around the parking lot or on its perimeter when necessary to accommodate other design considerations including, but not limited to, the location of handicapped parking, fire lanes, loading zones, and other site features. Each landscape island shall have at least one shade tree, except that an ornamental tree is to be substituted for the shade tree underneath an overhead power line, and three shrubs.

- (iii) Landscape islands shall be constructed to include a continuous curbing perimeter, and shall be back-filled with topsoil to a depth of eighteen (18) inches and shall be free of rock, debris, inorganic compositions, and chemical residues detrimental to plant life.
- (iv) The landscape requirements for parking lots are in addition to the requirements for buffer zones and perimeter landscaping.

**(d) *Landscape requirements for existing parking areas:***

- (i) In parking areas subject to *Section 18-307 Subsection (1)(b)* trees shall be planted at the rate of one (1) shade tree per twelve (12) parking spaces;
- (ii) Trees shall be located within or adjacent to parking areas as tree islands, medians, at the end of parking bays, traffic delineators, or between rows or parking spaces in a manner;
- (iii) The landscape requirements for parking lots are in addition to the requirements for buffer zones and perimeter landscaping.

**(6) Irrigation Requirement.**

The post construction landscape plan shall identify measures to provide irrigation as a measure to satisfy survival rate requirements.

- (a) Landscaping materials installed in accordance with an approved landscape plan shall be watered by one of the following methods:
  - (i) An above ground or under ground irrigation system; or
  - (ii) A hose attachment, within one-hundred (100) feet of all landscaping.
- (b) Landscape irrigation water shall supplement rainfall at a rate of one (1) inch per week during the growing seasons. Slow release (i.e. “treegators”) bags are recommended for supplemental watering.

**(7) Landscape Installation.**

Landscaping materials shall be installed in accordance with widely accepted professional planting procedures. Landscape materials, which fail to satisfy the minimum requirements or standards of this ordinance at the time of installation, shall be removed and replaced with acceptable materials.

**(8) Maintenance Requirements-Warranty.**

The applicant shall warranty plant material survival of ninety-percent (90%) for a two (2) year period consistent with an approved landscape plan.