



Memorandum

TO: Knoxville-Knox County Planning Commission
FROM: Amy Brooks, AICP, Planning Services Manager
DATE: April 1, 2020
SUBJECT: 4-C-20-OA

STAFF RECOMMENDATION:

Approve the requested minor amendments to Article 12.8.E and adding F to the City of Knoxville Zoning Ordinance clarifying buffer yard requirements.

ATTACHMENTS

Attachment A: City of Knoxville Plans Review & Building Inspections memo
Attachment B: Proposed language for Article 12.8

**MEMORANDUM**

DATE: April 2, 2020
TO: Planning Staff
FROM: Peter Ahrens
Director of Plans Review & Building Inspections
RE: Minor Zoning Code Amendments
Article 12

Background The Plans Review and Inspections Department requests an amendment to the newly-adopted Zoning Code of the City of Knoxville. The following are minor amendments to Article 12 Landscape.

- Article 12.8.E is under *Buffer Yards*. This amendment takes language found in Article 12.5.D on *Parking Lot Perimeter Landscape Yard* that ‘parking lots located on properties developed under a common or unified development plan and/or which have a shared access agreement are not required to provide a screening area along common property lines where parking areas abut’. This language is applicable to Buffer Yard requirements too.
- Article 12.8.F; Table 12-2 is under *Buffer Yards*. This amendment changes the buffer yard requirements for the parking lot of a multi-family dwelling within a residential district, to those that specifically abut single-family residential districts RN-3, RN-2, RN-1, and EN residential districts. Buffer yards separate higher intense uses from lesser intense uses. Multi-family dwellings are permitted in the remaining RN-4, RN-5, RN-6, and RN-7 residential districts.

The Department of Plans Review and Building Inspections recommends the adoption of these minor amendments to Article 12 of new Zoning Code, as indicated in the attachments.

Attachments

- 1) Proposed Language for Articles 12

Sincerely,

Peter Ahrens
Director of Plans Review & Building Inspections
865-215-3938

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PROPOSED LANGUAGE

ARTICLE 12. LANDSCAPE

Section 12.1 – Purpose

Section 12.2 – Landscape Plan

Section 12.3 – Selection, Installation, and Maintenance

Section 12.4 – Landscape Design Standards

Section 12.5 – Parking Lot Perimeter Landscape Yard

Section 12.8 – Buffer Yards

12.1 PURPOSE

The landscape standards of this Article are intended to:

- A. Create a desirable and functional open space environment for all site users, including pedestrians, bicyclists, and motorists.
- B. Preserve unique natural resources, including measures to preserve and protect existing healthy plantings.
- C. Design drainage facilities to promote the use and preservation of natural watercourses and patterns of drainage.
- D. Establish a natural environment within the City that provides a variety of benefits, including absorbing carbon dioxide and producing oxygen; intercepting stormwater, reducing surface runoff, curtailing erosion, and improving water quality; providing critical wildlife habitat to promote urban biodiversity; and providing shade to aid in passive cooling and the reduction of urban heat island effect.
- E. Utilize plant materials suitable to withstand the climatic conditions of the City and microclimate of the site. The use of ~~non~~-invasive species ~~native to Tennessee~~ is ~~encouraged~~ prohibited.
- F. Use of screening to minimize the impact of the development on adjacent uses and impact of incompatible uses and certain site elements, and creating a logical transition to adjoining lots and developments.
- G. This Article does not apply to routine landscaping or routine maintenance of existing landscaping.

12.2 LANDSCAPE PLAN

A. Landscape Plan Required

A landscape plan is required as part of a site plan review application for multi-family and townhouse development, nonresidential (including mixed-use) development, parking lots, and planned developments. The landscape plan must be approved prior to the issuance of a building permit.

B. Content of Landscape Plan

- 1. North arrow and graphic scale, the location and dimensions of all existing and proposed structures, property lines, easements, parking lots and drives, rights-of-way, refuse disposal and recycling areas, pedestrian and bicycle paths, fences, mechanical equipment, overhead utility wires, underground utilities, retention/detention facilities, and other drainage facilities, such as drainage swales. Identify lines of sight at all access points and at locations adjacent to intersections.
- 2. The location, quantity, size, name, and condition, both botanical and common, of all existing trees equal to or greater than ~~24~~/~~2~~ 2.5 inches in caliper, indicating trees to be retained and to be removed.
- 3. The location, quantity, size, and name, both botanical and common, of all proposed plant material. This includes lawn and turf applications.
- 4. The existing and proposed grading of the site indicating contours at two foot intervals. Any proposed berming, earthwork, or stormwater management basins must also be indicated using two foot contour intervals.
- 5. Elevations of all existing and proposed fences, stairs, and retaining walls.
- 6. Existing and proposed plantings in the right-of-way.

- 7. Any proposed irrigation plan, if irrigation is provided.
- 8. Any other details as determined necessary by the review body.

[...]

12.3 SELECTION, INSTALLATION AND MAINTENANCE

[...]

B. Installation

- 1. All landscape materials must be installed in accordance with current nursery industry standards, and must be properly supported to ensure survival. Support devices such as guy wires or stakes must not interfere with pedestrian or vehicular movement.
- 2. All plant materials must be free of disease and installed so that soil of sufficient volume, composition, and nutrient balance are available to sustain healthy growth. Installation of plant materials during the appropriate growing season is encouraged.
- 3. Landscape materials should not conflict with existing overhead and underground utility infrastructure and maintenance zones. Landscape plans should reference the City of Knoxville’s Tree List for appropriate species and their respective planting distances from adjacent utility infrastructure. Landscaping should not be selected that at maturity would grow into conflict with the utility maintenance zone. Alternative landscape plans (Section 12.1.D) may be considered when an applicant demonstrates that requirements may conflict with the utility maintenance zones.
 - a. Overhead utilities: At maturity, landscaping should not grow within ten feet of primary distribution lines and 25 feet within 69kv sub-transmission lines.
 - b. Utility poles: Trees should not be planted within ten feet of primary distribution poles and 25 feet within 69kV sub-transmission poles.
 - c. Support wires: Trees should not be planted within five feet of supporting guywires.
 - d. Underground utility lines: The minimum distance of tree planting from the utility center line should be a minimum of ten feet. Shrubs and other landscaping vegetation are permitted in this area.
 - e. Pad mount transformers: Landscaping should be planted a minimum of six feet away from the side with doors and three feet away from the other sides.
- 4. ~~No landscape should be located within any utility easement, with the exception of lawn grass or other resilient groundcover.~~ If landscape material is located within a utility easement and repair or replacement of the utility is needed, the City or utility is not responsible for the replacement of any landscape that may be damaged.

[...]

12.4 LANDSCAPE DESIGN STANDARDS

A. Minimum Planting Sizes

Minimum planting sizes are as follows. For the purposes of determining trunk size, the caliper is measured at six inches above ground level, unless otherwise specified in current American Standard for Nursery Stock (ANSI Z60.1).

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1. Evergreen trees must have a minimum height of eight feet.
2. Shade trees must have a minimum two inch caliper.
3. Single stem ornamental trees must have a minimum trunk size of 2.5 inches in caliper. Multiple stem ornamental trees must have a minimum height of eight feet.
4. Evergreen or deciduous shrubs must have a minimum height of 18 inches in height.

B. Species Diversity

Diversity among required plant material is required for visual interest and to reduce the risk of losing a large population of plants due to disease. Table 12-1: Plant Diversity Requirements indicates the percentage of diversity required based on the total quantity of species being used. (For example, if a development requires 45 shade trees, no more than 18 trees (40%) can be of one species, and there must be a minimum of five different species within the 45 trees.) When the calculation of plant diversity requirements results in a fraction, the fraction is rounded up.

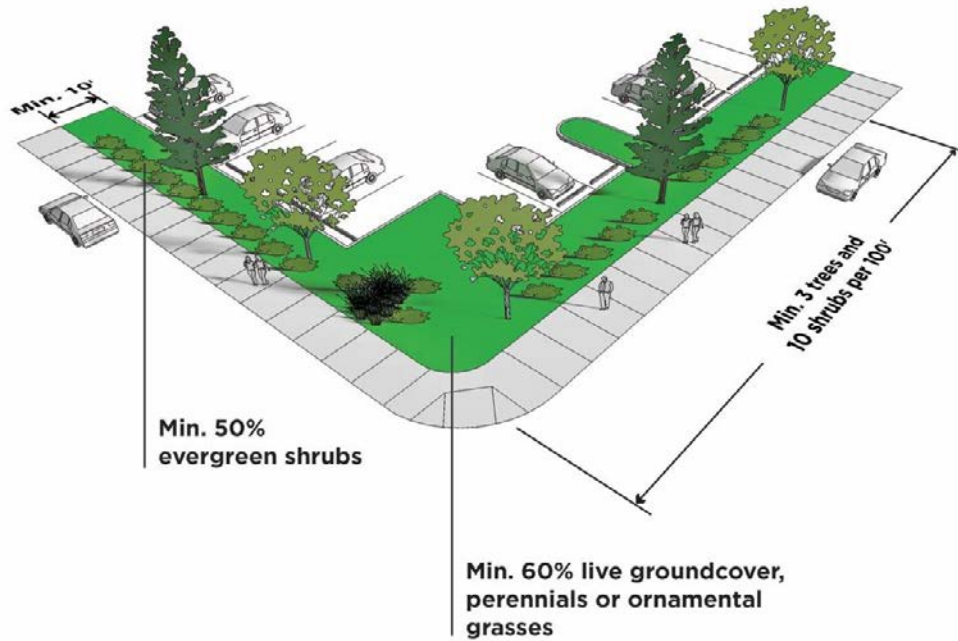
Total Number of Plants per Plant Type	Maximum Number of One Species	Minimum Number of Species
1-4	100%	1
5-10	60%	2
12-15	45%	3
16-75	40%	5
76-500	25%	8
<u>501-1,000</u>	30%	10
1,000+	15%	15

12.5 PARKING LOT PERIMETER LANDSCAPE YARD

A perimeter landscape yard, which is established where the parking lot abuts a street right-of-way, is required for all new parking lots of 10,000 square feet or more in area and for any expansions or improvements of existing parking lots when required by Section 11.1.C of 10,000 square feet or more in area. The perimeter landscape yard must be established along the edge of the parking lot to screen vehicle parking from the right-of-way. When an existing parking area is expanded, only the area of expansion shall be required to comply with these landscaping standards. The landscaped area must be improved as follows:

- A. ~~For parking lots of 10,000 square feet or more in area, a perimeter yard must be at least ten feet wide, as measured from the edge of the parking lot to the right-of-way or, if utilities exist, to the utility maintenance zone. The parking lot perimeter landscape yard is established between the parking area and the right-of-way of adjoining streets.~~ Parking lots 20,000 square feet or greater in area require a perimeter yard at least ten feet wide. The width of the perimeter yard may be reduced to six feet for parking lots, including vehicular use areas, of less than 20,000 square feet. Parking lots of less than 10,000 square feet in area are exempt from parking lot perimeter landscape yard.
- B. The perimeter yard must be planted with a minimum of three shade and/or evergreen trees and ten shrubs for every 100 linear feet. A minimum of 50% of the shrubs must be evergreen. For parking lots, including vehicular use areas, of less than 20,000 square feet in area, the width of the perimeter screening area may be reduced to six feet.
- C. 60% of the landscape area outside of shrub and tree masses must be planted in live groundcover, perennials, or ornamental grasses. Stone, mulch, or other permeable landscape materials may be used for any remaining area.
- D. Parking lots located on properties developed under a common or unified development plan and/or which have a shared access agreement are not required to provide the perimeter screening area along common property lines where parking areas abut.
- E. Areas of off-street parking areas that abut an alley are not required to install a perimeter landscape yard along the alley frontage.

PARKING LOT PERIMETER LANDSCAPE YARD



[...]

12.8 BUFFER YARDS

This section establishes standards for the dimension and required landscape for buffer yards between land uses and/or zoning districts within the rear and/or side yards. Nothing in this section prevents the applicant's voluntary installation of buffer yards where they are not required. Buffer yard requirements apply to new construction and to any additions to a structure existing as of the effective date of this Code of 30% or more in square footage.

A. Buffer yards may be located within required setbacks but must be reserved for the planting of material and installation of screening as required by this section. No parking, driveways, sidewalks, accessory structures, or any impervious surfaces are permitted within the buffer yard area.

B. The two types of buffer yards are as follows:

1. Class A Buffer

- a. Minimum Width: Ten feet.
- b. Minimum Required Shrubs: One shrub every five feet. A minimum of 50% of the shrubs must be evergreen.
- c. Minimum Required Trees: One evergreen tree for every 25 feet and one shade tree for every 50 feet.
- d. Planting locations may be varied, but the total number of trees must be no less than as required in this section.
- e. 60% of the landscape area outside of shrub and tree masses must be planted in live groundcover, perennials, or ornamental grasses. Stone, mulch, or other permeable landscape materials may be used for the remaining area.

2. Class B Buffer

- a. Minimum Width: Twenty feet.

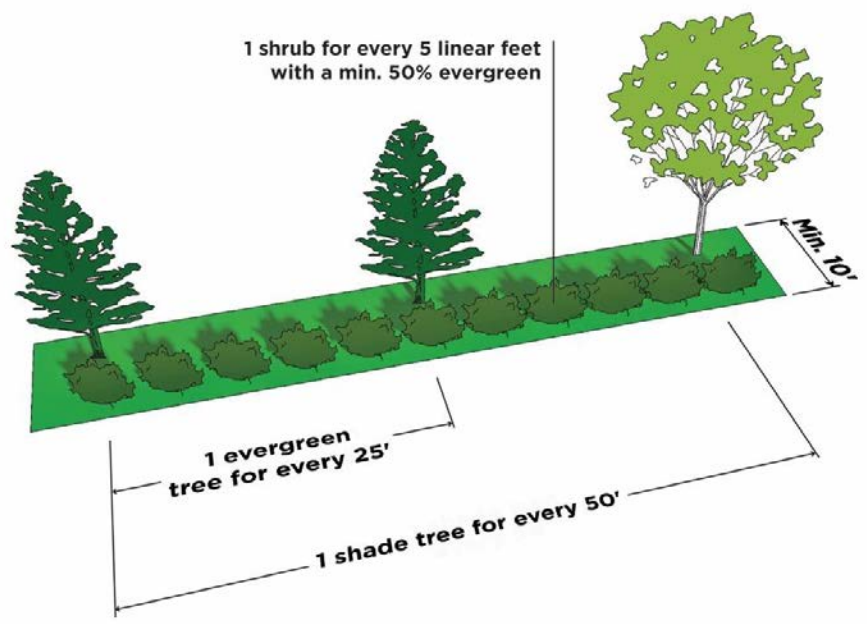
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- b. Minimum Required Shrubs: One shrub every three feet. A minimum of 50% of the shrubs must be evergreen.
 - c. Minimum Required Trees: One evergreen tree for every 20 feet and one shade tree for every 30 feet.
 - d. Planting locations may be varied, but the total number of trees must be no less than as required in this section.
 - e. 60% of the landscape area outside of shrub and tree masses must be planted in live groundcover, perennials, or ornamental grasses. Stone, mulch, or other permeable landscape materials may be used for the remaining area.
- C. Where the buffer yard incorporates a wall or solid fence, or a combination of such, the buffer yard width may be reduced by 30%.
- D. When a wall or solid fence is incorporated into a buffer yard, it must be a minimum of six feet up to a maximum of eight feet. When a wall or solid fence is combined with a berm, the combined height of the wall or solid fence and any berm cannot be less than six feet or exceed eight feet.
- E. Parking lots located on properties developed under a common or unified development plan and/or which have a shared access agreement are not required to provide the buffer yard screening area along common property lines where parking areas abut.
- F. Buffer yards are required as described in the 12-2: Buffer Yard Requirements:

Table 12-2: Buffer Yard Requirements	
Development	Buffer Yard Class
Nonresidential use located within residential district	Class A Buffer
Nonresidential district abuts a residential district	Class B Buffer
Parking lot of a multi-family dwelling <u>abutting a RN-3, RN-2, RN-1 or EN residential district</u> within a residential district	Class A Buffer
Per use standards (Article 9)	As determined in the standards of Article 9

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CLASS A BUFFER YARD



CLASS B BUFFER YARD

