

Article 14 of the City of Aurora Zoning Code
Ord. No. 2004-58, 9-13-2004; Ord. No. 2009-26, 7-13-2009
Revised: November 26, 2014

City of Aurora, Colorado

15151 E. Alameda Pkwy Aurora, CO 80012 Phone: 303-739-7250 Fax: 303-739-7268

This document is available on our web site. Go to www.auroragov.org/DoingBusiness/Building&Development/DesignStandards/PlanningDesignStandards/LandscapeOrdinance

ARTICLE 14. LANDSCAPING*

DIVISION 1. IN GENERAL

Sec. 146-1400. Purpose.

This article is intended to protect and promote the public health, safety, and welfare by:

- (1) Establishing a high standard of quality for residential, commercial, and industrial development.
- (2) Preserving, protecting, and enhancing existing neighborhoods and the image of the City of Aurora by mitigating adverse visual impacts caused by human interaction with the environment by means such as:
 - a. Preserving trees.
 - b. Conserving and protecting water resources.
 - c. Requiring adherence to water wise and xeriscape principals and practices during the design, implementation, and maintenance of landscapes.
 - d. Providing compatibility between uses.
 - e. Protecting wetlands.
 - f. Buffering transportation corridors, view corridors, public open space, and public parks.
- (3) Creating great places within the city's urban activity centers (hereinafter "UAC") and transit oriented developments (hereinafter "TOD") by creating urban landscape standards that reduce the negative impacts of an urban environment by:
 - a. Requiring canopies of tree lined streets.
 - b. Requiring integration of xeriscape plant materials.
 - c. Developing standards for public spaces.
- d. Softening negative visual impacts by requiring screening. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Ord. No. 2009-26, § 1, 7-13-2009)

Sec. 146-1401. Applicability.

- (A) Development on Vacant or Cleared Land. Landscaping site plans are required for all new development on vacant or cleared land. All plans shall be submitted to the Planning Department as part of a site plan, and unless specifically granted a waiver, shall conform to all the requirements set forth in this article. All plans shall be presented in a format established by the department.
- (B) Additions and Changes to Property with Existing Development. Depending on the extent of changes proposed, landscaping plans may be required for improvements, alterations, and building additions to properties with existing development in accordance with this article in general and Section 146-1429 in particular. All such plans shall be submitted to the Planning Department in a format established by the department.
- (C) Parks and Open Space Standards. The design of parks, and open space, and arterial medians under the jurisdiction of the department of parks and open space shall follow the design standards of the department. Such standards shall take precedence over the requirements of this article.

^{*}Editor's note—Ord. No. 2004-58, § 1(Exh. A), adopted Sept. 13, 2004, repealed the former Art. 14, §§ 146-1400—146-1428, and enacted a new Art. 14 as set out herein. The former Art. 14 pertained to similar subject matter. For complete derivation, see the Code Comparative Table at the end of Ch. 146.

- (D) Buffer and Setback Exemptions in Certain Zones. Certain zone districts in this chapter call for intensive types of development that might be associated with town centers, central business districts, or regional activity centers. Such districts emphasize pedestrian-friendly design, traditional main streets, mixing of uses, and the creation of unique places. Development in such places is often characterized, in part, by relatively short blocks, narrow lots, and by narrow or zero building setbacks on the fronts and sides of the lots. Strict adherence to the requirements for setbacks or buffers as described in this chapter could limit the achievement of the purposes of such districts. Such development can benefit from flexibility in otherwise generally applicable zoning standards. Therefore, the planning director may administratively exempt requirements for buffers and setbacks in the following zones upon a finding that the exemption contributes to achieving the above types of development and that other city policies and requirements have been met:
 - B-2 zone
 - City Center
 - Northeast Plains Subregional Activity Centers
 - Fitzsimons Boundary Area District
 - E-470 Regional Activity Centers
- (E) Overlapping or Conflicting Standards. In the case of any conflict between the various standards, the stricter shall govern. Wherever the requirements for two or more landscaping standards overlap, the same plant material may be counted toward meeting the requirements of both standards.
- (F) Applicability of New Landscape Ordinances. Unless otherwise exempted by a more specific provision of this Article or granted a waiver, all new Development Applications for Site Plans and Contextual Site Plans as well as any required lawn or other permits implementing such plans shall conform to the requirements of this Article in effect on the Development Application submittal date. Such applications shall also be subject to the following conditions:
 - Unapproved applications. Applications not approved within one year of their application date shall follow the landscape provisions in effect at the time of their approval.
 - 2. Minor amendments. For a period of five years from the date of a site plan's or contextual site plan's approval, applications for minor amendments to such plans shall follow the landscape requirements in effect at the time of the approved plan's application date. After five years, minor amendment applications shall follow the landscape requirements in effect on the minor amendment application date.
 - 3. Plan extensions. Applications for Site Plan or Contextual Site Plan Extensions for expired plans shall follow the landscape requirements in effect on the date of the extension application.
 - 4. FDP or master plan amendments. The amendment of any landscape provisions of a Framework Development Plan or other type of Master Plan shall also permit the amendment of corresponding landscape provisions for related Contextual Site Plans and Site Plans.
- (G) Urban Landscaping. The urban landscaping regulations found in Division 7, below, shall apply to urban centers, land designated transit oriented development by the comprehensive plan, and infill development where an urban form is desired. Sections 146-1422, 146-1423, 1146-1450, and 146-1451 shall not apply to these urban areas. urban street standards, as outlined in Article 126 of the Aurora City Code, shall be used in designing urban landscapes.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Ord. No. 2009-26, § 2, 7-13-2009; Ord. No. 2014-12, § 18, 5-12-2014)

Secs. 146-1402—146-1409. Reserved.

DIVISION 2. ADMINISTRATION AND ENFORCEMENT

Sec. 146-1410. Definitions.

The following words or phrases used in this article shall be defined as listed:

- (A) Landscape Street Buffer. (See fig. 14.1, 14.2, 14.3, 14.11, 14.13, 14.14, 14.15, 14.16, and 14.17.) A landscaped area measured inward from back of a sidewalk or from a public or private right-of-way when a sidewalk is not present up to a maximum of one hundred feet, or to the nearest intervening fence, edge of parking lot surface, or building wall within the 100-foot maximum depth. Where the intervening building line is a front yard or side yard of a single-family-detached, two-family, or single-family attached duplex, the area shall not be considered a street buffer, but rather a front or side yard for the residential unit. On private streets with no right-of-way line, the street buffer shall be measured inward from the back of the sidewalk or, if no sidewalk exists, from the back of the nearest curb line.
- (B) Landscape Site Perimeter Buffer. A landscaped area measured inward from a non-street-front Site Plan perimeter boundary.
- (C) Special Landscape Buffer. Alandscaped area adjacent to highways E-470, I-225 or I-70, or designated public open spaces, or drainages.
- (D) Private Common Open Space. (See Fig. 14.16 and 14.17.) A landscaped open space area held in private ownership and not meeting the definition of a buffer. Yard areas of single-family, two-family, and single-family attached duplexes shall not be considered private common open space.
- (E) Turf, Lawn, or Sod. Turf, lawn, or sod shall mean any area of grass where cool-season grasses are cultivated and required to be maintained in a uniform, consistent, and evenly cut condition. Cool-season grasses mean any species of grass that is not defined as warm-season grass pursuant to Section 138-187(B)(1).
- (F) Artificial Turf. A man-made substitute for organic turf, lawn, or sod which effectively simulates the appearance of a well-maintained lawn and meets all of the quality, material and installation standards listed in Section 146-1428 of this article.
- (G) Native Seed, Dryland Grasses, Restorative Grasses. Native seed, dryland grasses, or restorative grasses shall mean all warm- and cool-season grass species used for the re-vegetation of disturbed natural grass areas that are not maintained in a uniform, consistent, and evenly cut condition.
- (H) Xeric Plants. Xeric, xeriscape, drought tolerant, or drought resistant landscaping and/or plant species shall mean plant species that can survive on one half-inch to one inch of water per week and are listed in the reference materials found in Section 146-1426.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1411. Administration.

Administration of requirements of this article shall be through the approval of a site plan, site plan amendment, or redevelopment plan. The installation of turf areas shall also be governed by the issuance of a lawn permit as required by Chapter 138, Section 186 and 187. Where no such plans or permits are required, administration shall be through the Neighborhood Services Department.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1412. Administrative Modifications to Planting Requirements.

Any requirement to install a particular type, size, or amount of landscape materials may be modified by the Director of Planning if:

 The area where the landscaping is required to be installed contains high voltage power lines, large pipelines, or other similar utility structures; or

The Director of Planning makes a written finding during the development approval process that landscaped areas left in their natural and undisturbed state would be a greater amenity to the development than a formally landscaped area. Irrigation is not required for undisturbed natural areas; however, temporary irrigation is required to establish disturbed and restored natural areas. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1413. Declared Drought Emergency.

In General. At such times as the city council may declare a drought emergency the installation of various types of landscaping as required by this article may be postponed. In the event of a declared drought emergency, the following landscape preparation measures shall be completed in lieu of specific landscape plantings prior to the issuance of a certificate of occupancy:

- 1. Final grading.
- Installation of irrigation systems.
- 3. Installation of plant beds without plant materials including edging, weed barrier, and mulch.
- Completion of sedimentation and soil erosion best management practices including placement of soil erosion materials on areas to be sodded or seeded. Types of materials include roof leader extensions, straw wattles, hay bales, and soil erosion blankets. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Secs. 146-1414—146-1419. Reserved.

DIVISION 3. GENERAL STANDARDS

Sec. 146-1420. Tree Preservation.

- (A) All applicants are required to comply with tree preservation, relocation, and mitigation requirements found in the City's adopted "Policy on Preservation of Existing Trees", as amended.
- (B) It shall be unlawful for any person to remove an existing tree unless such removal is in accordance with the city's policy on preservation of existing trees. This prohibition shall not apply to:
 - Removal of an existing tree on a developed lot with a single-family or two-family dwelling:
- Removal of trees that are less than four inches in diameter as measured four and one-half feet above the ground. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Ord. No. 2006-13, § 1, 3-20-2006; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 19, 5-12-2014)

Sec. 146-1421. Wetland Requirements.

- (A) Federal Law. All applicants shall comply with all applicable requirements of the Federal Clean Water Act and the associated Army Corps of Engineers' 404 permitting process.
- (B) Source of Water. Existing wetlands shall be sustainable without the introduction of manually directed water, and are ideally created as a result of a high water table or flowing streams. Wetlands shall not be irrigated by manual or automatic means. The re-direction of a site's water to detention/retention areas in amounts sufficient to maintain obligate plant species is allowable. Specification of required plant materials is covered by the Federal Clean Water Act and the associated Army Corps of Engineers' 404 permitting process.

- (C) Appearance. Wetlands shall be designed and maintained to exhibit the natural wetland or riparian character required by wetland and riparian plant species. Wetlands shall not be mowed, cut or disturbed for any reason other than maintenance or repair in accordance with city regulations.
- (D) Relationship to Required Landscaping. A maximum of 50 percent of a site's required landscaping may be committed to wetlands. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1422. Landscape Street Buffers.

- (A) In General. Street frontages of all site plans and similar plans shall include landscaped buffers as required by this article. Specific requirements for buffer widths and landscaping may be found in Tables 14.4, 14.5, and 14.6, and in subsection (C).
 - 1. Tree lawns. The requirements of this section shall be in addition to tree lawn landscaping standards set forth in Section 126-36, Street Requirements.
 - 2. Fence and wall placement. Where screen walls and fences are placed within a street buffer, they shall be placed at the inward edge of the buffer. Exception: side yard fences and walls placed at corner lots of single-family, two-family, and single-family detached duplex homes may be placed at the minimum fence setback line allowed by Chapter 146, Article 17.
 - 3. Overlapping landscape standards. Areas of building perimeter landscaping and parking lot landscape screening that fall within the buffer may be counted toward meeting buffer landscape requirements.
- (B) Minimum Depth Requirements. The buffer depths shall be as defined by Section 146-1410, but in no cases to exceed 100 feet.
- (C) Minimum Plant Material Quantities. All required street buffers shall contain a minimum of one street tree and ten shrubs or the tree and shrub equivalents listed in Section 146-1426 (I) and (J) per 40 lineal feet.
- (D) Planting Design. The minimum required amounts of landscape material required in a street buffer and/or common open space may be distributed at the discretion of the designer or owner.
- (E) Exceptions and Exemptions. Street buffers shall not include single-family, two-family and single-family attached duplex front yards and corner side yards visible from public view. See Tables 14.3a and 14.3b. No landscape street buffer is required adjacent to public or private open space.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1423. Landscape Site Perimeter Buffers for Non-Street Frontages.

- (A) In General. The non-street-front site perimeter of all site plans and similar plans shall include landscaped buffer areas as required by this article. Specific requirements for buffer widths and landscaping may be found in Tables 14.2, 14.4, or 14.5 and 14.6 and Section 146-1451. Buffers adjacent to E-470, 1-225, 1-70, public open space, and public parks shall follow the landscape requirements set forth in Section 146-1424 (C).
- (B) *Encroachments into Buffers*. Where a required setback from a property line is less than the minimum required buffer width, no building drive lanes or parking stall may intrude into the minimum required buffer. A portion of the building may intrude if it is determined by the Director of Planning that the impact will not cause undesirable effects.
- (C) Reduction of Standard Buffer Widths. The width of required buffers may be reduced through the use of specific landscape upgrades as shown in Tables 14.1, 14.4, 14.5, and 14.6.
- (D) Exceptions and Exemptions. No perimeter buffers shall be required between the same land uses in multiple phases of a single approved Master Plan, General Development Plan, or Framework Development Plan.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1424. Special Landscape Buffers.

- (A) In General. Where property boundaries are adjacent to E-470, I-225, I-70, public open spaces, and public parks, the landscape buffers set forth in Table 14.1. shall apply.
 - 1. Exception. Buffer width reductions are not permitted for buffers next to public open spaces and public parks. All turf grasses and plant materials for buffers adjacent to public open spaces and public parks shall be approved by the director of parks, recreation and open space.
- (B) Minimum Depth Requirements. All development shall incorporate one of those buffers described in Table 14.1, landscaped pursuant to subsections (C) through (F) below, except as modified to accommodate incentive features or xeriscaping.
- (C) Minimum Plant Material Quantities. Landscaping shall include a total number of trees and shrubs equal to one tree and ten shrubs per 25 linear feet of frontage when the site contains industrial development, and one tree and ten shrubs per 30 feet when the site contains any other type of development.
- (D) Buffer Encroachments. The encroachment of buildings and paving into a special buffer is prohibited.
- (E) Special Provisions for Areas Adjacent to the E-470 Multi-Use Easement. The following shall apply in the E-470 corridor-zoning district:
 - Outside the E-470 multi-use easement. Required trees shall consist of large deciduous shade tree species and large evergreen tree species as defined in Article 20, Definitions. At least 50 percent of required trees shall be evergreen species, and shrubs may consist of tall deciduous species and evergreen species planted a minimum of five feet on center.
 - 2. Within the E-470 multi-use easement. Landscaping shall include a combination of dryland grasses, trees, and shrubs, and at least 50 percent of the required trees shall be evergreen species.
 - 3. Spacing of plantings. Like tree species may be grouped with spacing not less than 25 feet on center for small deciduous trees; 35 feet on center for large deciduous tree species; and 15 feet on center for evergreen trees. The maximum distance between groups may not exceed 45 feet on center. Planting a single row of trees the full length of the buffer is discouraged. Shrubs should be massed and planted between tree groups.
- (F) Exceptions and Exemptions. The Director of Planning may exempt landscape requirements in a special buffer in accordance with requirements found in Section 146-1412. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 20, 5-12-2014)

Sec. 146-1425. Private Common Open Space.

- (A) In General. In all development, areas of land that have been disturbed during construction and will be preserved and protected from future development for non-public active and passive recreation areas and facilities, trails, wildlife habitat, and for the preservation of view corridors, and natural land features shall be landscaped in accordance with Subsections B and C.
- (B) Minimum Plant Material Densities. All private common open space not defined as street buffers shall contain a minimum of one tree and ten shrubs (or the approved tree and shrub equivalents as listed in Section 146-1426 per 4,000 square feet.)
 - (C) Exceptions and Exemptions.
 - The Director of Planning may exempt landscape requirements for all or a portion of a private common open space in accordance with requirements found in Section 146-1412.

- 2. For the purposes of calculating the amount of required plant material in such open spaces, the following may be omitted: areas of 100-year flood plain, floodways, lakes and ponds, undisturbed marshes, wetlands, and detention and water quality ponds.
- (D) Re-vegetation. All areas disturbed during construction shall be re-vegetated. Whenever temporary re-vegetation is permitted, as found in Section 146-1435, those requirements as found therein shall apply. Permanent re-vegetation shall comply with requirements outlined in Section 146-1429.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 21, 5-12-2014)

Sec. 146-1426. Plant Material Requirements.

- (A) Landscaping for all development shall include a wide variety of plant materials that will provide visual interest during all seasons. Landscaping should consist of a variety of trees, shrubs, groundcovers, annual and perennial flowering species, turf grasses, mulches, and automatic irrigation. Landscape materials such as stone, masonry, wood, and steel may also be used to define space and create visual interest. All plant materials shall meet or exceed minimum standards as outlined by the Colorado Nursery Act Regulations. Plants will be installed according to specifications of the Associated Landscape Contractors of Colorado. Plant materials shall also conform to Uniform Nursery Standards, current edition. The Planning Department's section of the city web site contains a recommended list of both xeric and non-xeric plant materials.
- (B) Requirement for Drought Tolerant or Drought Resistant Landscaping and Plant Species. At least 75 percent of all annuals and trees, and 100 percent shrubs, perennials, groundcovers, and ornamental grasses used to landscape each site regulated by this article shall be selected from the City of Aurora Recommended Xeriscape Plant List; the Colorado State University Cooperative Extension Facts Sheet on Xeriscaping; or other approved water wise, resource wise, or Xeriscape plant material references.
- (C) Basic Minimum Plant Sizes. Except as required by Section 146-1426(D) listed below, plant material shall be installed in the following minimum sizes:
 - 1. Shade trees 2½ inch caliper minimum, except: In single-family detached developments an average of 2½ inch caliper shade trees shall be provided with no shade trees less than two inches in caliper. The average shall be determined by dividing the sum of all caliper inches of all two-inch caliper and greater shade trees by the total number of all shade trees.
 - 2. Ornamental trees two-inch caliper minimum (for single stem varieties). Clump forms, i.e., multi-stemmed, are acceptable and shall be six to eight feet in height at time of installation.
 - 3. Evergreen trees six feet high minimum.
 - 4. All shrubs five-gallon container minimum.
 - 5. Groundcover and annuals as approved.
 - 6. Ornamental grasses and perennials one-gallon container minimum or as approved.
 - 7. Tree caliper shall be measured six inches above ground level for all trees up to four inches in caliper and 12 inches above ground level for larger sizes.
- (D) Upgraded Plant Sizes for Special Locations. The following plant material size upgrades shall be provided by non-residential development along property lines adjacent to residential uses, and by multi-family and single family attached townhome development adjacent to single-family detached, two-family, and single-family attached duplex residential lots.
 - 1. Large deciduous trees 3-inch caliper.
 - 2. Ornamental deciduous trees 2½-inch caliper.
 - 3. Evergreen trees 10 feet high.
 - 4. Shrubs five-gallon container.

- Groundcover and annuals as approved.
- 6. Ornamental grasses and perennials one-gallon container or as approved.
- (E) *Plant Beds*. Plant beds shall be separated from turf and other areas by edging as approved. Mulch and weed barrier fabric may be used to protect the bare soil from weeds and conserve moisture. All shrubs and groundcovers shall be located within plant beds. The installation of individual shrub species in turf areas is prohibited.
- (F) Thorny Plants and Shrubs. Trees with thorns shall not be located within 20 feet of public walks and other thorny plant material shall not be located within four feet of public walks.
 - (G) Clear Space Above Walks. Clear space above public walks shall be eight feet or greater.
- (H) Substitutions. Whenever natural or manmade site constraints prohibit the installation of trees, the Director of Planning may allow the substitution of ten shrubs for one tree.
- (I) *Tree Equivalents*. The following tree equivalents are provided to allow design flexibility in applicable situations as provided in this article. One tree equivalent shall be equal to:
 - 1. One 2½-inch caliper deciduous shade tree.
 - 2. One two-inch caliper ornamental tree.
 - 3. One six-foot tall evergreen tree.
 - 4. Twelve five-gallon deciduous and/or evergreen shrubs per one 2½-inch caliper tree.
 - 5. 10 five-gallon deciduous and/or evergreen shrubs per one two-inch caliper tree.
- (J) *Shrub Equivalents*. The following shrub equivalents are provided to allow design flexibility in applicable situations as provided in this article. Shrub equivalents apply to either deciduous or evergreen species. One five-gallon shrub equivalent shall be equal to:
 - 1. Three one-gallon perennials.
 - 2. Three one-gallon ornamental grasses.
 - 3. Ten five-gallon shrubs are equal to one two-inch caliper tree equivalent.
- 4. 12 five-gallon shrubs are equal to one $2\frac{1}{2}$ -inch caliper tree equivalent. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Ord. No. 2004-77, § 26, 12-6-2004; Adm. Corr. of 6-8-2006; Ord. No. 2009-16, § 1, 4-13-2009)

Sec. 146-1427. Turf Regulations.

The design and installation of all new turf and artificial turf areas shall comply with the following requirements:

- (A) Turf Area Limitations for Each Lot Containing Single-family Detached, Two-family, and Single-family Attached Duplex Homes. Turf requirements for such areas shall be subject to all of the requirements listed in tables 14.3A and 14.3B of this article.
- (B) Turf Area Limitations for All Other Development Areas except Playfields and Golf Courses. In all other development sites except playfields and golf courses, the use of cool-season grass sod, seed, and seed mixtures that contain cool-season grass species shall be limited to not more than 33 percent site's total landscaped area. The area consisting of high water using species of cool season grasses, such as Kentucky Blue Grass, shall be contiguous and patches located throughout the site shall be avoided. For the purposes of these standards "contiguous" shall mean all abutting areas and areas that may be separated by a pedestrian walk or trail. Areas separated by pavement used for vehicular circulation are not considered contiguous.
 - High water usage cool season grasses. A cool season grass species shall be considered a high water user if it requires one and one-half inches of water or more per week to survive.

- 2. Exceptions and exemptions. TOT lots and recreational areas that will benefit from the durability of cool season grasses are exempt from contiguity requirements of this section. All other requirements shall apply.
- (C) Declared Drought Emergency Measures. At such times as the city council may declare a drought emergency, the installation of turf may be delayed, subject to preparation measures contained in Section 146-1413. Such measures shall be completed prior to the issuance of a certificate of occupancy.
- (D) Artificial Turf. Artificial turf as defined and described in Section 146-1410(F) and Section 146-1428 may be used to meet the natural turf requirements of this article when installed in accordance with all city requirements and regulations. The use and installation of artificial turf is also subject to the following limitations:
 - 1. In single family detached, two-family, and single-family attached duplex homes. Artificial turf may replace natural turf in front, side, and rear yards, but must meet minimum and maximum percentage requirements found in Table 14.3A.
 - 2. In all other uses. Artificial turf shall be considered a non-living material and its use as such shall be limited as specified in Section 146-1431 Living Material Requirements. More specifically, the quantity of artificial turf that may be installed shall be determined in combination with all other natural non-living materials so that the combination of these materials may not exceed 50% of said site's landscape area as measured within property lines.
 - 3. Prohibited use. The use of indoor or outdoor plastic or nylon carpeting or other materials or combinations of materials as a replacement for artificial turf or natural turf shall be prohibited.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2009-16, § 2, 4-13-2009)

Sec. 146-1428. Artificial Turf Standards.

The use of artificial turf shall be governed by the following standards:

- (A) Materials. Artificial turf shall be of a type known as cut pile infill and shall be manufactured from polypropylene, polyethelene, or a blend of polypropylene and polyethleyene fibers stitched onto a polypropylene or polyurethane meshed or holepunched backing. Hole-punched backings shall have holes spaced in a uniform grid pattern with spacing not to exceeding four inches by six inches on center.
- (B) Installation. Artificial turf shall be installed over a compacted and porous road base material and shall be anchored at all edges and seams. Seams shall be glued and not sewn. An infill medium consisting of ground rubber, ground coal slag, clean washed sand and ground rubber, or other approved mixture shall be brushed into the fibers to insure that the fibers remain in an upright position and to provide ballast that will help hold the turf in place and provide a cushioning effect.
- (C) Slope Restrictions. The installation of artificial turf on slopes greater that 6.6% shall require the approval of the city engineer and shall meet requirements of the Public Works Department.
- (D) General Appearance. Artificial turf shall be installed and maintained to effectively simulate the appearance of a well-maintained lawn. The Planning Department shall maintain and make available for public inspection a sample of various artificial turf products that meet this standard of appearance.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1429. Areas of Non-Irrigated Native, Dryland, and Restorative Grasses.

All new development and changes to existing development proposing the seeding or re-seeding of non-irrigated areas with native grasses, dryland grasses, restorative grasses, and/or forbs where they are intended to remain as the permanent condition on lands that will not be conveyed to the city shall submit a re-vegetation plan and comply with all requirements

as provided in the Rules and Regulations Regarding Stormwater Discharges Associated with Construction Activities. Within these areas, native grasses and forbs will be allowed to grow to the height indicated on the approved site plan.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 22,

5-12-2014)

Editor's note—Ord. No. 2014-12, § 22, adopted May 12, 2014, amended § 146-1429 in its entirety to read as herein set out. The former § 146-1429 pertained to re-establishment of non-irrigated native, dryland, and restorative grasses.

Sec. 146-1430. Irrigation.

All applicants shall provide automatic irrigation systems for landscaped areas. Within areas of native, dryland, and restorative grasses, applicants shall provide an automatic irrigation system for only the trees and shrubs. Developers of commercial, retail, multi-family, single-family attached, single-family detached, and industrial developments shall install automatic rain shutoff sensors to all controllers in all irrigation systems. The primary function of these sensors is to monitor rainfall levels and to override the controller(s) to prevent unnecessary irrigation. Permanent irrigation shall be provided for trees, shrubs, annuals, and perennials within these areas. Automatic irrigation is required in all plant beds, raised planters, and containers. To assess irrigation tap fees, the Aurora Water Department has divided landscape tracts into water conserving landscaped areas (non-turf) and non-water conserving landscaped areas (turf), and non-irrigated areas (e.g., pavement). A table summarizing these areas shall be provided on the landscape plan and will be utilized for assessing fees under Sections 138-151 and 138-221.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 23, 5-12-2014)

Sec. 146-1431. Living Material Requirements.

General Requirements. In general, each area within a site shall be landscaped with not less than 50 percent living landscape material unless otherwise required in this article. Living landscape material shall include irrigated and non-irrigated grasses, trees, shrubs, annual and perennial plants, and ornamental grasses. zeroscaping shall be prohibited.

(A) Definitions.

- 1. Landscape area means all areas that are not covered by buildings, structures, and impervious pavement and will require landscaping that will prevent dust, and wind and water erosion.
- 2. Non-living landscape material means non-landscaped organic and inorganic materials such as rock, cobbles, wood chips and shredded bark, artificial turf, natural and man-made pavers, crusher fines, and crushed granite.
- 3. Zeroscaping means the practice of removing or avoiding the use of living landscape material such as lawn or plants and replacing them with non-living landscape materials. Zeroscaping is prohibited.
- (B) Coverage Requirements for Landscaped Areas. An area's coverage may be determined by totaling the value of each plant as found in Table 14.8. An area is said to provide 50 percent coverage when the total of all coverage values equals or exceeds 50 percent of the area. E.g. a 1,000 square foot area is said to have 50 percent coverage when the total of all coverage values of plants within the area is equal to or exceeds 500 square feet.

Table 14.8 Plant Material Coverage Values						
Deciduous Tree Coverage According to						
2 inch caliper ornamental tree 2½ caliper shade tree 3 inch caliper shade tree						
144 sf	$144 ext{ sf}$ $625 ext{ sf}$ $625 ext{ sf}$					
Evergreen Tree Coverage According to	Height					
6 ft. tall evergreen tree	8 ft. tall evergreen tree	10 ft. tall evergreen tree				
200 sf 200 sf 200 sf						
Deciduous and Evergreen Shrubs, and	Perennials Plant Coverage According to	Average Maximum Height and Spread				

Low Spreading Plants: Medium Plants: Height: 6" to 35" Height: 36" to 59"			Tall Plants: Height: 60" a	nd greater	
Spread	Cover	Spread	Cover	Spread	Cover
< 4'	16 sf	< 4'	16 sf	< 4'	16 sf
4' - 6'	32 sf	4' - 6'	32 sf	4' - 6'	32 sf
> - 6'	64 sf	> - 6'	64 sf	> - 6'	64 sf

Notes:

- [1]. \langle = Less than; 2. \rangle = Greater than.
 - (C) Exceptions and Exemptions.
 - Parking lot islands and medians shall be landscaped as found in Section 146-1439.
 - 2. Tree lawns shall be landscaped as found in Section 146-1450 and 146-1451.
 - Areas within and immediately adjacent to public rights-of-way constructed prior to April 28, 2001 having no reasonable means of providing an underground automatic irrigation system may at the discretion of the Homeowners Association or property owner be landscaped with a minimum of two materials as listed below:
 - A. River rock or crushed rock
 - В. Cobbles not less than four-inch diameter
 - C. Crusher fines, breeze, or road base
 - D. Natural or manmade pavers over a compacted base
 - E. Integrally colored stamped decorative concrete
- (D) Decorative Pavement. Decorative pavements, not including sidewalks and patios, shall be constructed of integrally dyed concrete, colored paving units such as brick or interlocking units, sandstone, or other native stone. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2009-16, § 3,

4-13-2009; Ord. No. 2014-12, § 24, 5-12-2014)

Sec. 146-1432. Retaining Walls.

- (A) General Requirements. Retaining walls shall comply with the requirements in Roadway Design and Construction Specifications.
- (B) Applicability. The requirements of this section shall not apply to site plans or, if applicable, design standards that were approved prior to the effective date of this section. Where no site plans or design standards were required, the standards shall be used that were in effect at the time of application for building permit. The requirements of this section shall not apply to the rebuilding of a structure not in conformance with this section that has been damaged or destroyed by fire or natural disaster.
- (C) In Residential Development. Retaining walls in residential development shall comply with the height requirements described in Roadway Design and Construction Specifications.
- (D) Other Retaining Walls. All other retaining wall heights shall comply with Roadway Design and Construction Specifications. The area between each wall shall be landscaped with one or more of the following: shrubs, turf, or groundcover in accordance with Section 146-1431. Each wall shall be separated by not less than 36 inches when the area between walls is landscaped with shrubs and groundcover. Turf shall not be planted in areas between walls that are separated by less than 48 inches. Retaining walls visible to the public view shall not be constructed from wood, plain concrete, or painted masonry units. The location of retaining walls shall also comply with requirements set forth in Article 17.

(E) *Maintenance*. All retaining walls shall be maintained in good structural condition and good repair at all times. Repaired or replacement retaining walls shall be constructed with materials of equal or better quality than those being replaced. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Ord. No. 2004-77, § 27, 12-6-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 25, 5-12-2014)

Sec. 146-1433. Service Areas and Trash Enclosures.

Service and loading areas visible from residences or streets shall be screened by fences, walls, landscaping, berms, or any combination of those items. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1434. Detention, Retention, and Water Quality Ponds.

- (A) General Requirements. Detention, retention, and water quality ponds shall be integrated physically, functionally, and aesthetically into the total landscape design. Standing water, except in vegetated wetland areas, or as in approved in stormwater treatment facilities, is discouraged other than in recirculating water features. Water quality enhancement areas within the bottom of the pond shall be planted in conformance with Storm Drainage Design and Technical Criteria.
- (B) Slopes. Slopes shall be in conformance with Storm Drainage Design and Technical Criteria.
- (C) Pond Depth. Pond depth shall be in conformance with Storm Drainage Design and Technical Criteria.
- (D) Pond Retaining Walls. Retaining wall height shall be in conformance with Roadway Design and Construction Specifications.
- (E) Pond Grading. Pond grading shall be encouraged in conformance with Storm Drainage Design and Technical Criteria.
- (F) Landscape Requirements for Areas Surrounding Detention, Retention, and Water Quality Ponds.
 - 1. Planting around pond. The area within the tract surrounding a pond shall contain a minimum of one tree and ten shrubs or the approved tree and shrub equivalents as listed in Section 146-1426 per 4,000 square feet, and shall comply with requirements found in Sections 146-1429 and 146-1435. Landscape requirements for ponds may be counted toward private open space requirements. The following areas may be deducted from tract square footage before calculating landscape requirements:
 - a. Area within 100-year flood plain.
 - b. Area within floodways.
 - c. Surface area of lakes and ponds.
 - d. Area within undisturbed marshes and wetlands.
 - 2. Irrigation system. All xeriscape trees, shrubs, perennials, ornamental grasses, and annual flowers shall be watered by an automatic underground drip irrigation system. The establishment of native, dryland, restorative grasses shall be in accordance with Section 146-1429.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 26, 5-12-2014)

Sec. 146-1435. Seeding of Disturbed Land for Future Construction Phases.

All future development areas in phased development projects that have been disturbed by grading shall be seeded and stabilized in accordance with requirements found in the City of Aurora Rules and Regulations Regarding Stormwater Discharges Associated with Construc-

tion Activities to prevent wind and water erosion for the time the site remains without development. All such areas shall be shown on the landscape plan and information concerning tilling, seeding methods, seed mixtures, watering, and mulching shall also be shown. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 27, 5-12-2014)

Sec. 146-1436. Prohibited Plant Species.

The director of planning may prohibit the use of the following plants if it is determined that the species' use may be detrimental to the public health, safety, or welfare:

- 1. Russian Olive All *Elaeagnus angustifolia* species and cultivars.
- 2. Aspen All *Populus tremuloides* species and cultivars.
- 3. Cottonwood All species.
- 4. Tamarisk All species and cultivars.
- 5. Invasive species All plants listed as invasive by the CSU extension service.
- 6. Noxious weeds All plants listed on the State of Colorado Noxious Weed List.
- 7. Ash All *Fraxinus* species and cultivars. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 28, 5-12-2014)

Sec. 146-1437. Xeriscape Design.

Projects that incorporate approved xeriscaping techniques may deduct one additional foot from the width of those landscaped buffers otherwise required. To qualify for buffer reductions, the landscape designs shall comply with the following criteria:

- (A) Seven Principles. Xeriscape landscapes shall comply with the following seven principles of xeriscape design (as further described in the pamphlet, "At Home with Xeriscape" published by Xeriscape Colorado, Inc.):
 - 1. Planning and design
 - 2. Turf alternatives
 - 3. Mulches
 - 4. Zoning of plants
 - 5. Soil improvements
 - 6. Efficient irrigation
 - 7. Appropriate maintenance
- (B) Low Water Turf Varieties. Large areas approved for turf shall require the use of low water-using turf varieties. Seeding and reseeding shall comply with requirements found in Section 146-1429, Establishment of Non-irrigated Native, Dryland, and Restorative Grasses.
- (C) Mulches. All plant beds, raised planters, and plant containers shall be mulched with wood or rock mulches at a minimum depth of three inches for shrubs and two inches for annuals and perennials. All deciduous and evergreen trees or large shrub species not located in a plant bed shall be mulched. The mulch shall be applied to a circular area equal to the diameter of the excavated tree pit with the trunk of the tree as the center of the circle. The depth of the mulch within the circle shall be three inches minimum.
- (D) Maintenance. All xeriscape landscaping shall be maintained as stated in Section 146-1438.
- (E) Xeriscape Method of Irrigation. Xeriscape areas shall include a method of irrigation for establishment of all plant materials. Hand watering is not permitted without prior approval by the city. Acceptable methods of irrigation include automatic irrigation

systems designed for low gallon use, such as low precipitation heads, drip systems, or other types of low gallon heads with the appropriate clock, pipes, and filtration devices.

(F) *Plan Notes*. A note or notes shall be added to the landscape plan describing the type of irrigation for each area.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1438. Landscaping Maintenance.

All landscaping shall be maintained in a neat, clean, and healthy condition. Maintenance shall include proper pruning, mowing of lawns, weeding, removal of litter, fertilizing, replacement of dead plants, and irrigation of all live landscaping. All replacement plants shall conform to the city's current landscaping standards. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1439. Parking Lot Landscaping.

All development shall be required to meet the following standards in addition to the requirements of Article 15, Parking:

- (A) *Islands*. Landscaping in each landscape island shall consist of one shade or ornamental tree, and one or more understory treatments, which may include mulched shrub beds, decorative concrete, or decorative pavement.
- (B) Medians. Landscaping shall consist of one shade or ornamental tree for each 30 linear feet of median length, and one or more understory treatments providing 100 percent surface coverage which may include decorative concrete, mulched shrub beds, and decorative paving.
- (C) *Irrigation.* Landscaping in islands and medians that are less than 12 feet wide shall be watered by an underground drip irrigation system.
- (D) Pedestrian Crossings. Whenever pedestrians must cross internal landscaped medians, the medians shall be landscaped with a combination of hardscape materials and living plant material. Hardscape shall consist of concrete, modular pavers, or decorative stamped and colored concrete. Landscaping shall consist of a combination of trees, shrubs, and groundcovers.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1440. Parking Lot Screening.

All parking lots shall be screened pursuant to the following standards:

- (A) Requirement. All parking lots shall be screened from public rights-of-way, public open space, and adjacent property. Parking lot screening shall be integrated into adjacent buffers and street frontages, but shall not block sight triangles at street intersections and parking lot entrances off of streets.
- (B) Type. Screening shall consist of a berm between 2½ and 3 feet high with a maximum slope of 4:1 in combination with evergreen and deciduous trees and shrubs. Screening shall be integrated with incentive features and streetscape plantings whenever possible. If berms are not practical, one of the following options shall provide equivalent screening:
 - 1. A low continuous landscaped hedge between 2½ and 3 feet high consisting of a double row of shrubs planted 3 feet on center in a triangular pattern.
 - 2. A decorative masonry wall between 242 and 3 feet high in combination with landscaping.
- (C) Plant Materials. Shrub species shall be chosen that will reach a minimum height of three feet at maturity. At least 50 percent of the shrubs shall be deciduous flowering species. Whenever parking lots abut public open space plant materials shall be selected that are compatible with the natural character of the area.

(D) Accent Plantings. Large shade and evergreen tree species and/or small tree or large shrub species shall be used as accents throughout the screen planting in conjunction with buffer and street frontage plantings to offset the horizontal lines of a typical shrub bed.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2014-12, § 29, 5-12-2014)

Secs. 146-1441—146-1449. Reserved.

DIVISION 4. DISTRICT STANDARDS

Sec. 146-1450. Additional Requirements for esidential Development.

- (A) In General.
- 1. Design integration. Landscape plans shall be integrated with building design, perimeter tracts, open spaces including connections to off-site amenities, community design elements, and lot design.
- 2. Special considerations. Consideration shall be given to plant material types, growth rates, canopy size, and required maintenance in relationship to building location, sight lines, and site utilities.
- 3. *Multiple purposes*. Wherever possible, plant materials, berming, and land contouring shall be used for privacy screening, screening of perimeter walls and/or fences, and sound mitigation.

- 4. Plant material variety. A variety of plant materials shall be incorporated into each project, including native drought-tolerant vegetation, and perennial and annual flowerbeds. Tree plantings shall include an equal distribution of deciduous and evergreen species.
- (B) Street Frontages. Standard street-frontage landscaping shall comply with the Aurora Street Standards, including without limitation provisions addressing detached walks, tree lawns, street trees, landscaping, fence locations, and the avoidance of fence canyons. Street trees shall be centered within the tree lawn and spaced 40 feet on center. When a detached walk and tree lawn are absent, street trees shall be located from four to five feet from the back of curb or edge of pavement. Tree lawns and areas within the right-of-way, except as found in Section 146-1431(D) shall be landscaped as provided in (B)(1-4) and irrigated in accordance with the city's irrigation ordinance. Street trees shall be in addition to tree lawn and street perimeter buffer landscape requirements and shall consist of large deciduous tree species approved by the city forester. Landscape street buffers shall comply with Section 146-1422.
 - 1. Tree lawns next to arterials, collectors, or local streets. Tree lawns shall be landscaped with one or more landscape treatments consisting of irrigated sod, non-living landscape materials, and living plant materials.
 - 2. Non-living landscape material usage. Non-living landscape materials when installed within a tree lawn may consist of stamped, stained, or integrally colored concrete, natural stone pavers, and manmade pavers.
 - 3. Living plant material usage. Living plant materials within a tree lawn may consist of groundcovers, perennials, ornamental grasses, and deciduous and evergreen shrubs. When located within a site distance triangle plant materials shall not exceed 26 inches in height at maturity.
 - 4. All living landscape materials shall be irrigated in accordance with the city's irrigation ordinance.
 - 5. Exemptions for organic and inorganic mulches. Living plant materials within a tree lawn may be mulched with organic or in-organic mulches.
- (C) Special Landscape Requirements at Entryways and Intersections. Distinctive landscaped areas shall be provided at project entries and at intersections of public streets adjacent to the project. Landscaping in these areas shall consist of plant specimens having a high degree of visual interest during all seasons. A mixture of shrubs, ornamental trees, flowers, and/or ground cover shall be planted around sign bases and at curb returns near site entrances. Such plantings shall be planted in plant beds that are edged and mulched over a weed barrier.
 - (D) Erosion Control.
 - 1. *Purpose*. The purpose of this section is to promote and require measures to prevent soil erosion in the city's residential areas.
 - 2. General requirements.
 - a. Owners of residential properties shall, within 12 months of the first occupancy, install landscaping to control erosion in the form of a lawn, artificial turf, or other natural vegetation not otherwise prohibited by this Code. Such landscaping shall comply with Table 14.3A or 14.3B and the lawn permit and soil preparation procedures established by the water department, as well as any lawn establishment requirements contained in this Code. Any second or later owner of a residential property that does not feature completed landscaping in its front and side yards shall be granted a minimum of six months, but no more than 12 months, to complete such landscaping as described in this subsection. The period of compliance shall commence upon the date that the City Manager or designee first notifies a property owner, in writing, that the property has not been landscaped in compliance with the provisions of this Code.

- b. No artificial trees, shrubs, turf or plants or other materials not derived from natural vegetation or artificial turf meeting requirements found in this code shall be used to fulfill the requirements as set forth in this section; however, such items may be used for decorative purposes supplemental to the natural vegetation.
- c. Failure to provide adequate maintenance of landscaped property resulting in the deterioration of trees, shrubs or other living plant material which is likely to cause erosion problems which damage the property of the owner or adjacent owners shall be a violation of this section. The city manager or designee, upon the request of the affected owner, shall have the discretion to extend the period of compliance to the next planting season, should a letter of explanation from the owner describe a violation which can not be practically corrected within a reasonable time.
- 3. *Penalties.* It shall be unlawful to fail to maintain property in a manner consistent with the requirements of subsection 2 above. All violations shall be subject to the general penalties for zoning and building violations contained in this Code.
- (E) Requirements for Single-Family Detached, Two-Family and Single-Family Attached Duplex Residences.
 - 1. Before issuance of a permanent certificate of occupancy, unless provisions as found in subsection (E)(6.) apply, all new single-family detached, two-family, and single-family attached duplex residential dwellings shall be provided with front, side, and rear yard landscaping as found in Tables 14.3A or 14.3B. Temporary certificates of occupancy may be issued when landscaping as required herein is not completed due to weather or seasonal conditions. Residents of all single-family detached, two-family, and single-family attached duplex residences that were landscaped prior to the effective date of this revision may convert, change, modify, or revise said landscaping, in accordance with front, rear, and side yard landscape requirements found in Table 14.3A and 14.3B of Section 146-1450, and more specifically the landscape requirements in Article 14, Landscaping.
 - 2. *Irrigation*. Front, side, and rear yard landscaping shall include automatic irrigation. Side yard landscaping and irrigation shall also be installed where the side yard faces a public right-of-way or other public space.
 - 3. Side yards. Within a single family detached, two-family, or single-family attached duplex development, side yards in a corner lot visible from the adjacent street shall be landscaped by the builder as shown in Table 14.3A and 14.3B.
 - 4. *Maintenance*. Landscaping shall be maintained in a neat, clean, and healthy condition, including pruning, mowing, weeding, and replacement of dead plants.
 - 5. Responsibility for ownership and maintenance. All single-family detached, two-family, and single-family attached duplex residential developments containing private common open space tracts are required to establish a homeowners association, special assessment district, or other mechanisms that shall be responsible for the ownership and maintenance of the improvements and landscaping.
 - Waivers for custom front yard landscaping. The Director of Planning is authorized to vary or waive the front yard landscaping requirements of this subsection for a subdivision where alternative landscape design is provided that meets the spirit and intent of this subsection. Such custom landscaping can be builder-installed or homeowner-installed and shall exceed either minimum city landscaping standards or minimum standards approved through site plan review. The waiver shall be requested at time of site plan application. All custom front yard landscaping shall be complete as stated in Section 146-1450(E). For previously approved site plans, a builder seeking a waiver for custom landscaping may apply for an administrative amendment. The minimum criteria for a waiver include:
 - a. Minimum quantities and sizes of plant materials shall be specified.
 - b. The builder shall establish a design review committee to review each custom landscape package proposed by an owner.

- The builder-approved package shall be submitted to the Planning Department for approval.
- d. The landscaping must be completed within 180 days after a closing on the property if the closing occurs during a growing season (April 1 through October 1 in the same year) or during the next growing season if the property closes outside of this cycle. If the homeowner fails to install the landscaping, the builder shall install code-compliant landscaping during the current growing season or the next season if the violation occurs outside of this cycle.
- e. Notes indicating these responsibilities shall be added to the site plan.
- (F) Requirements for all Residential Development Except Single-Family Detached, Two Family, and Single Attached Duplex Residences.
 - 1. Buffers. Table 14.4 sets forth general landscaping requirements for all residential development except single-family detached, two-family, and single-family attached duplex residences.
 - 2. Private common open space. All common private open space shall be landscaped according to requirements found in Section 146-1425. In addition to the provisions of Section 146-1425(C) not more than 25 percent of the required private open space area may be paved or may be covered with other non-living material such as organic and inorganic mulches. Paving and landscape walls should be constructed from integrally dyed concrete, brick, interlocking pavers, or native stone.
 - 3. Building perimeter landscaping. The perimeter surrounding each unit shall be landscaped with a variety of plant materials that will ensure seasonal interest. Plant beds shall be an average of eight feet wide and shall consist of landscaping, mulch over weed barrier, edging when adjacent to turf, and automatic irrigation.
 - a. Amount. Perimeter plantings shall consist of a total number of plants equal to 1.25 plants per five linear feet of unit perimeter footage, of which:
 - Five percent are trees A mixture of evergreen and deciduous trees shall be provided;
 - ii. Fifteen percent are tall shrubs Species growing to a mature height of at least six feet; and
 - iii. 80 percent are shrubs Including a mixture of evergreen and deciduous species for seasonal interest.
 - b. Location. Plantings shall be arranged to screen utility hardware and mechanical equipment, define entrances, screen headlights, and soften featureless walls. Trees and/or tall growing shrub species shall be located within shrub beds at building corners, primary entrances, and along expanses of featureless walls.
 - c. Garages. For projects with detached garages or carports, landscaped islands a minimum of five feet in width shall be provided along the full width of both ends of the garages and/or carports.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Ord. No. 2005-74, § 1, 10-10-2005; Adm. Corr. of 6-8-2006; Ord. No. 2009-16, § 4, 4-13-2009)

Sec. 146-1451. Additional Requirements for Non-Residential Development.

(A) In General.

- 1. Integration with building design. Landscaping shall be integrated with building design in internal areas of the site.
- 2. Relationship to site features. Consideration shall be given to plant material types, growth rates, canopy size, and required maintenance in relationship to building location, sight lines, and site utilities.
- 3. Variety of plant materials. A variety of plant materials shall be incorporated into each project, including native drought-tolerant vegetation, and perennial and annual flowerbeds. Tree plantings shall include an equal distribution of deciduous and evergreen species.

- 4. Screening. Truck or rail loading docks facing a view corridor, drainage, public open space, or public right-of-way shall be screened from view. In addition, accessory features, parking lots, and outdoor storage shall be screened from view.
- (B) Standard Landscape Buffers. These standards shall apply to all development unless the provisions of Section 146-1424, Special Buffers apply.
 - 1. General Requirement. All development shall incorporate those buffers described in Tables 14.5 and 14.6, and shall be landscaped pursuant to subsections 2. and 3. Below, except as modified to accommodate incentive features or xeriscaping.
 - 2. Standard right-of-way Landscaping. Standard right-of-way edge landscaping shall comply with the Aurora street standards, including without limitation provisions addressing detached walks, tree lawns, street trees, landscaping, and fence locations. Street trees shall be centered within the tree lawn and spaced 40 feet on center. Tree lawns and areas within the right-of-way except as found in Secton 146-1431(D) shall be landscaped in accordance with requirements found in (B)(2)(A-D) and irrigated in accordance with the city's irrigation ordinance. When a detached walk and tree lawn is absent, street trees shall be located between four and five feet from the back of curb or edge of pavement. Street trees shall be in addition to tree lawn landscape and street perimeter buffer landscape requirements and shall consist of large deciduous tree species approved by the city forester. Landscape street buffers shall comply with the requirements of Section 146-1422 of this City Code.
 - a. Tree lawns next to arterials, collectors, or local streets. Tree lawns shall be landscaped with one or more landscape treatments consisting of irrigated sod, non-living landscape materials, and living plant materials.
 - b. Non-living landscape material usage. Non-living landscape materials when permitted within a tree lawn may consist of stamped, stained, or integrally colored concrete, natural stone pavers, and manmade pavers.
 - c. Living plant material usage. Living plant materials within a tree lawn may consist of groundcovers, perennials, ornamental grasses, and deciduous and evergreen shrubs. When located within a site distance triangle plant materials shall not exceed 26 inches in height at maturity.
 - d. All living landscape materials shall be irrigated in accordance with the city's irrigation ordinance.
 - e. Exemptions for organic and inorganic mulches. Living plant materials within a tree lawn may be mulched with organic or in-organic mulches.
 - 3. Landscape buffers at non-right-of-way locations. All such buffers shall comply with Section 146-1423.
 - a. Residential buffers. Adjacent to residential development, buffers shall include one tree and five shrubs for each 25 linear feet of buffer, and 50 percent of the trees shall be evergreen species.
 - Commercial/industrial buffers. Adjacent to commercial or industrial development, buffers shall include one tree and five shrubs for each 40 linear feet of buffer.
- (C) Special Landscape Requirements at Entryways and Intersections. All development shall be required to incorporate the following landscaping at entryways and intersections.
 - 1. Project entries and intersections. Distinctive landscaped areas shall be provided at project entries and at intersections of public streets adjacent to the project and shall be counted toward street buffer requirements as provided in Section 146-1422. Landscaping in these areas shall consist of plant specimens having a high degree of visual interest during all seasons.
 - 2. Plant beds. Plant a mixture of shrubs, ornamental trees, flowers, and/or ground cover around sign bases and at curb returns near site entrances. Such plantings shall be planted in plant beds edged and mulched over weed barrier.

(D) Building Perimeter Landscaping.

- Requirement. Perimeter building landscaping is required when building elevations
 face public streets, transportation corridors, public open space, or residential neighborhoods or whenever an entrance door is present. Provide one tree equivalent for each
 40 linear feet of elevation length as provided in Section 146-1426 (I) and (J). Building
 landscaping shall be located within 20 feet of the building unless prevented by loading
 docks.
- 2. Soils. Landscaped areas next to buildings shall be developed utilizing sound soils engineering practices under the direction of a competent soils and/or structural engineer. Sites having expansive soils may require specialized landscaping and irrigation techniques and concepts in order to comply with these standards and are not exempt from building perimeter landscape requirements found in this section.
- 3. Types and locations. Building perimeter landscaping shall be installed in plant beds, raised planters, or plant vaults covered by tree grates. Plant beds shall be a minimum of ten feet wide; planters a minimum of six feet wide and 18 inches tall; and tree grates a minimum of four feet by four feet. Perimeter landscaping shall be located in conjunction with site furniture in order to enhance entrances, soften the impacts of large expanses of featureless walls, and screen utility hardware and mechanical equipment. Parking lot islands located within 20 feet of the building elevation may be counted towards building perimeter landscaping. Landscaped containers constructed from materials that are compatible with the building may also be used as building perimeter landscaping. Containers shall be a minimum of 18 inches high and a minimum of three feet square or in diameter. The number of required containers shall be based on tree equivalents as found in this section.
- 4. *Plant materials*. The following plant materials and materials should be included as perimeter landscaping:
 - a. A variety of deciduous flowering and evergreen shrubs.
 - b. Groundcovers.
 - c. Annuals, and perennial flowering species.
 - d. Multi-stemmed and single-trunk ornament trees and shrub species.
 - e. Organic and inorganic mulches.

(E) *Irrigation*. All building perimeter landscaping shall be watered by an automatic low-volume irrigation system. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006; Ord. No. 2009-16, § 5, 4-13-2009)

Sec. 146-1452. Private Covenants Contrary to Public Policy are Disallowed.

City council hereby declares that the health and general welfare of the citizens of this city are necessarily dependant on the reliable and uninterrupted future delivery of water and that the same requires conservation of this vital resource. Given this, any private covenant(s) that purports to invalidate or disallow the xeriscaping provisions contained in this Article 14 are invalid and a nullity, as to those provisions, as being against the expressed public policy of this council and of the state legislature as expressed in Section 37-60-126 (11) of the Colorado Revised Statutes.

(Ord. No. 2009-16, § 6, 4-13-2009)

Secs. 146-1453—146-1459. Reserved.

DIVISION 5. SPECIAL STANDARDS

Sec. 146-1460. Requirements for Sites with Existing Development.

- (A) Generally. On properties with existing development, minimum landscaping requirements contained in this article shall be met whenever any changes or additions are made to landscaping or parking areas. Where proposed site changes involve a net increase in gross building area of 2,000 square feet or more, current landscape standards shall also be met wherever feasible unless prevented by physical obstacles. The principal objectives of redevelopment landscaping are to:
 - 1. Ensure cohesiveness and compatibility with the surrounding area.
 - 2. Improve the visual quality of the neighborhood.
 - 3. Mitigate external effects on residential development.
- (B) Landscape Requirements of All Sites. The following requirements shall be met when developing the landscape plan:
 - 1. Required minimum landscaping. All sites are required to provide a minimum of 15 percent of the total area of the site as landscaped area. The total area of the site shall be measured within property lines.
 - 2. Plan requirements. Landscape plans shall include all required information, symbology, and plan formatting as set forth on application forms established by the Planning Department.
 - 3. Plant materials. Required minimum plant sizes at time of installation shall comply with requirements found in this article.
 - 4. Tree preservation. Existing trees that meet the requirements found in the city's adopted "Policy on Preservation of Existing Trees" shall be preserved, relocated, and/or mitigated according to the criteria found in the policy. All existing trees four-inch caliper or greater, i.e., diameter of the tree trunk or trunks at breast height (DBH), shall be labeled on the plan and their preservation, removal, and/or mitigation shall be noted. To mitigate for tree loss, one caliper inch shall be replaced for each caliper inch removed. The city may require submittal of a mitigation table. The table shall show the number of caliper inches removed and replaced. City staff may inspect trees to determine if preservation is desirable and if relocation is feasible. Each tree species, size, condition, and value will be determined at that time.
 - 5. Irrigation requirements. All landscaped areas with the exception of non-irrigated native, dryland, and restorative grasses as provided in Section 146-1429 shall be watered by an underground automatic irrigation system. A statement briefly describing the irrigation system shall be shown on the landscape plan.
 - 6. Right-of-way frontages. All redevelopment sites shall comply with requirements for right-of-way frontage buffer widths and landscaping requirements found in Table 14.7.
 - 7. Non-right-of-way frontage buffers and screening. Landscape buffers shall be provided along all right-of-way frontages and non-right-of-way frontages in accordance with requirements found in Table 14.7. Buffers and screening shall be required to mitigate external effects caused by trash enclosures, loading docks, parking lots, and other operations and activities related to business operations.
 - 8. Building perimeter landscaping. The perimeters of all buildings and structures shall be landscaped in accordance with the standards found in Table 14.7.
 - 9. Parking lot landscaping and screening. All parking lots and parking areas that are located within a redevelopment site shall comply with requirements for landscaping and screening found in Table 14.7.
- (C) Waivers. The Director of Planning is authorized to waive all or a portion of the landscape standards and options found in this section if it is found that the site is restricted by existing easements, structures, fire lanes, parking requirements, utilities, and circulation requirements.

- (D) Landscaping Priorities for All Sites. Landscape priorities are shown in Figs. 14.1, 14.11, 14.12 and 14.13, and Table 14.7.
- (E) Sites to Be Partially or Completely Demolished for New Development. Projects shall meet all the same design requirements in these design standards required for sites on vacant or cleared land.

(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Secs. 146-1461—146-1469. Reserved.

DIVISION 6. BLACK FOREST

Sec. 146-1470. Purpose.

- (A) Importance of the Black Forest. The Black Forest ecosystem is locally unique because it represents one of the few non-mountainous extensions of Ponderosa Pine onto the high plains. Its trees contribute to the beauty and attractiveness of planned neighborhoods. The high quality Gambel Oak and Ponderosa Pines found in the Black Forest zone provide a unique tree resource in terms of wildlife habitat, visual beauty, and soil erosion protection capabilities, all of which are important attributes in this primarily hilly region.
- (B) Purpose of the Black Forest Ordinance. The City of Aurora intends to maintain a healthy, vigorous, and well-managed Black Forest as a valuable asset to the community. These actions are intended to contribute to the health, safety, and welfare of Aurora residents by acknowledging the functions that tree stands provide, including:

Conserving energy through shade and evaporative cooling;

Reducing localized air pollution through absorption of carbon dioxide and ozone and adsorbing particulate matter;

Providing wildlife habitat for birds, small mammals, and other species;

Alleviating soil erosion, siltation, excess stormwater runoff, and other harmful effects of land disturbance practices;

Increasing real property values; and,

Enhancing natural visual and aesthetic qualities that complement land development.

Therefore, Sections [146]-1471 through [146]-1476 establish the policies, regulations, and standards necessary to ensure that the city will continue to realize the benefits provided by the Black Forest. The provisions of this division are enacted to:

- 1. Maintain a sustainable tree cover within the Black Forest by locating new development in a manner that preserves existing trees to the greatest extent feasible.
- 2. Protect existing trees during development from the impacts of nearby construction.
- 3. Provide standards governing the removal, relocation, and monitoring of trees which cannot be preserved in their original location.
- 4. Establish penalties for unauthorized tree loss. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1471. Relationship to Existing Regulations.

The city's adopted "Policy on Preservation of Existing Trees" is part of the review and approval process of preliminary landscape plans, which is required for all site plans. In the event of a conflict with this policy, Sections 146-1431 through 146-1436 shall control tree preservation policy within the Black Forest area. Policies described in Sections 146-1471 through 146-1476 are also not intended to supplant guidelines contained in the policy with the exception of Policy Statement Item Number 1, which allows tree mitigation through replacement of equal size trees on either an adjacent site or on the nearest public land or payment of cash value. Sections 146-1471 through 146-1476 specifically require replacement of Ponderosa Pine and Gambel Oak vegetation within the proposed development. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1472. Applicability and Exemptions.

This division applies to that portion of the Black Forest contained within the City of Aurora as defined in Article 20, Definitions. Trees that are diseased or constitute a threat to the public health and safety shall be exempted from these regulations per Aurora City Code Chapter 142, Article II, Section 142-35, removal or treatment when infected or infested. Routine forestry management and fire safety practices in accordance with the Colorado State Forest's Forest Management Plan guidelines and developed by a professional forester are exempted. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1473. Requirements.

- (A) Development Review. Any development activities and/or submittal of development applications to the city within the Black Forest shall include a tree protection plan in order to preserve existing Ponderosa Pine trees and associated Gambel Oak shrub vegetation to the greatest extent feasible. Development activities shall not result in the removal of any Black Forest trees and shrubs, except in accordance with this section.
 - (B) Tree Protection Plan.
 - 1. Plan requirements. Any development activities or proposed development applications that involve disturbing the natural surface of the land or making any material change to any structure shall require the submittal of a tree protection plan that conforms with this section and requirements set by the City Forester's office. In order for the

plan to be approved, Black Forest trees shall be protected according to the procedures described herein. Following tree protection plan approval, any subsequent development activity requiring approvals or the issuance of any permits shall conform to the plan. A minimum, all such plans shall include:

- a. An inventory of trees and existing shrub vegetation, including a description of which trees are candidates for preservation, removal, and replanting. The inventory shall include Ponderosa Pine greater than four inches in diameter and all Gambel Oak plants greater than three inches in diameter.
- b. A construction limit line, which shall include all building, parking, underground utilities, vehicular use areas, and all areas of required cut and fill.
- c. Details and locations of permanent and/or temporary construction protection devices and measures to assure tree protection and normal growth after construction.
- d. A description of the size and location of all new trees to be planted as part of the landscape design of the proposed project.
- e. A conservation escrow account to collect funds from the owner or representatives in order to insure compliance with the tree preservation measures described herein. The amount to be collected will be based upon *The Guide to Plant Appraisal*, published by the International Society of Arboriculture. This figure will be assessed as an average diameter calculated from the total inventoried number of only those trees remaining in place and potentially impacted by construction activities. It does not include those trees outside of the construction limit line and, therefore, not impacted by construction activities as well as those which are to be removed or replanted according to plan specifications. The amount will be returned to the owner upon completion of construction activities and implementation of tree protection plan requirements. If these measures are not complied with, the city shall use these funds to mitigate tree loss.
- 2. Plan approval. Review and approval of the tree protection plan according to requirements set by the planning department and forestry division shall be completed by the city forester's office before the commencement of any development or planned development activity. Plans will be approved, approved with condition, or denied based upon conformity with the requirements of this division. It shall be unlawful to violate the provisions of an approved tree protection plan.
- 3. Plan amendment. The city forester may amend any approved tree protection plan after receipt of an application for amendment from a property owner. The amendment shall be approved if the city forester determines that the proposed amendment complies with the requirements of this section.
- 4. *Plan recordation.* After approval of a tree protection plan, it shall be recorded in the office of the county clerk and recorder and shall be binding on the property owner and the owner's heirs, successors, and assigns.
- (C) Tree Removal and Mitigation.
- 1. Tree removal. Black Forest trees and associated vegetation shall not be removed from their existing location due to any development or construction activity unless avoidance through modifications of proposed development plans and design is not feasible. Tree removal is unlawful unless it is pursuant to an approved tree protection plan.
- 2. Mitigation. Trees to be relocated shall be replanted at a suitable location on the site. Candidate trees for replanting will be greater than four inches for Ponderosa Pine and three inches for Gambel Oak, but less than ten inches in diameter measured at a point one foot above natural grade. When such replanting is not feasible, removed trees shall be replaced. Such replacement shall occur at a ratio of one-to-one with an approved single tree of similar size or combination of trees (not to exceed six in number) measured at a point one foot above the natural grade with a cumulative total diameter equal to the diameter of the tree to be mitigated. Mitigated trees shall be measured per the "Guide to Plant Appraisal." Appropriate measures shall be undertaken to protect trees from construction activities. If any of the trees required to be retained or

SUPPLEMENTAL REGULATIONS, ARTICLE 14

replanted as part of the tree protection plan should die within a period of three years after completion of construction, the property owner shall replace the trees within six months of the issuance to the owner of a notice to replace.

- (D) *Monitoring*. In addition to protection during new construction, provisions for monitoring are required to ensure that trees will be retained after construction is completed. Monitoring programs shall include:
 - 1. On-site supervision by the property owner or representative to ensure tree protection actions;
 - 2. Pre-construction conferences between the property owner or representative and the city forester or designee;
 - 3. Monthly meetings between construction management and the city forester to review progress of the monitoring program; and,
 - 4. Final site inspection to verify that protection provisions have been followed.
- (E) Waiver. The city manager is authorized to grant a waiver of the provisions of this section if it is determined that a waiver is necessary to permit an economically viable use of private property, to preserve vested property rights, or to avoid unique, unnecessary, and unreasonable hardship.

 (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1474. Notice to Prospective Purchasers.

Vendors of real property located within the Black Forest shall provide the following notice to prospective purchasers and cause such notice to be recorded with the Clerk and Recorder of Arapahoe County:

NOTICE

The property described as (legal description and address) is located within an area governed by the Black Forest tree preservation ordinance, 146-1430, et seq. And a tree protection plan and is subject to the requirements therein, as applicable. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1475. Appeals.

Denial of the tree protection plan may be appealed to and heard by the City Manager. To be effective, an appeal must be filed in writing within ten days after the decision of the City Forester's office. The appeal shall specify the reasons for which a hearing is requested. After a hearing, the City Manager shall render a decision, which shall be final unless appealed to the City Council. An appeal must be filed in writing within ten days after the decision of the City Manager's office. The appeal shall specify the reasons for which a hearing is requested. (Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

Sec. 146-1476. Penalty.

Any person convicted of violating this division resulting in unauthorized tree loss, may be imprisoned for a period not to exceed one year or fined an amount not to exceed one thousand dollars, or both, per C.R.S. § 13-10-113. The Department of Neighborhood Services is authorized to serve notice to any person in violation of this ordinance or to institute legal proceedings as may be required.

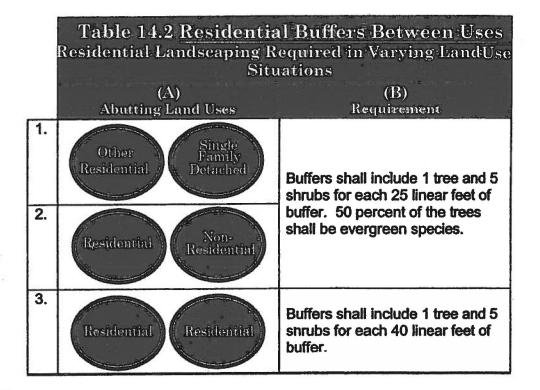
(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

AURORA ZONING CODE

TABLES AND FIGURES

Table 14.1 Special Buffers Standard Buffer Widths and Allowed I on Property Boundaries Adjacent to E-470, and Public Open Spaces	Reductions I-225 and I-70,
Buffer Treatment Alternatives	(A) Residential Commercial and industrial Land Uses
	Width of Site Perimeter (feet)
Standard Design	
 Standard Design — Site perimeters buffered with standard landscape strips with no incentive features. Sec. 146-1424 	
2. Standard Design Plus Xeriscape — Standard design mee	ts 20
Xeriscape requirements of Sec. 146-1437.	(See note 1.)
Special Design (Incentive Features)	
3. Landscape Berms	20
•	(See note 1.)
4. Fence — Standard plus a 6 foot high decorative fence	e. 15
Provide landscaping on exterior side of the fence.	(See note 1.)
5. Masonry Walls — Standard design plus a 6-foot high stuc	co 10
or decorative masonry wall. Provide landscaping on the	ne (See note 1.)
exterior side of the wall and provide maintenance acce	SS
and easements.	
6. Incentive Features Plus Xeriscape — Incentive Feature meets requirements of Sec. 146-1437.	re Deduct an additional 1 foot from applicable incentive feature buffer width above (See note 1.)

1. Buffer reductions are not permitted for buffers that are required next to public open space and public parks.



AURORA ZONING CODE

	Table 14.3A Home Yard Landscaping — Turf option Front, Side and Rear Yard Landscaping Requirements for Single-Family Detached Two-Family and Single-Family Attached Duplex Homes						
	(A)	(B)					
	Plant Quality and Type	Requirements					
\overline{FR}	ONT YARD						
1.	Turf. (At corner lots with a side yard visible to public view, turf areas shall include both front and side yard areas.)	Minimum and Maximum Turf per Lot Size: (See Note 2) Small — 40% Min. and 50% Max. Standard — 30% Min and 40% Max. Large — 25% Min. and 40% Max. Estate — 25% Min. and 40% Max.					
2.	1 Shade Tree, and either	2 ½ inch caliper					
'	1 Ornamental Tree	2 inch caliper					
	Or 1 Evergreen Tree	6 foot height					
3.	Front yard shrubs per lot size: Small — 8 Standard — 16	Shrubs — 5 gallon container Min. — Plant material shall conform with American Standard for Nursery Stock, Ansi Z60.1, current addition.					
	Large — 26 Estate — 36	Fabric may be omitted under annuals, perennials and groundcovers.					
		Use a variety of shrubs and plant materials that will provide visual interest during all seasons.					
SII	DE YARDS						
	Internal side yard, not exposed to public view — No plant material is required but mulches are required for soil stability. External side yards on corner lots exposed to public view — Shall be landscaped with turf, and shrubs and trees at the rate of one tree and 10 shrubs per 40 linear feet of side yard.						
RE	AR YARDS						
	Turf or xeric landscaping is not required. In rear yards the use of natural turf shall be limited to not more than 45% of the area to be landscaped. No maximum restriction shall apply to the use of artificial turf. Rear yards at corner lots exposed to public view shall be landscaped with turf or xeric landscaping.						
NC	OTE 1. Parannials and amana	ntal grasses may be substituted for shrubs at 3 one gallon					
INC	one in recentions and orname	necies per one five gallon shrub.					
NC	TE 2. Lot sizes. Small 3 700s	f — 5,999sf; Standard 6,000sf — 8,999sf; Large 9,000sf —					
		14,999sf Estate 15,000sf and greater.					

	Table 14.3B Home Yard Landscaping—Xeric Option Front Side and Rear Yard Landscaping Requirements for Single-Family Detached Two-Family and Single-Family Attached Duplex Homes				
	(A)	(B)			
	Plant Quality and Type	Requirements			
FR	ONT YARD				
1.	Applicability	Requirements apply to all lot sizes.			
2.	Turf	No turf is required.			
	Request and landscape plan	Submit request in writing to Director of planning accompanied with landscape plan at a minimum scale of one inchequals 10 feet.			
4.	Rock and inorganic mulches. (See note 1)	Rock mulch is limited to not more than 50% of the area to be landscaped.			
	50% of all rock and other mulch areas shall be covered with living plant material.				
5.	Plant materials (See note 1)	in Sec. 146-1426 Plant Material Requirements.			
6.	Pavers (See note 1)	Brick pavers, asphalt pavers, and natural stone limited to not more than 40% of the landscaped area.			

SUPPLEMENTAL REGULATIONS, ARTICLE 14

	Front Side and Rear Yard L	Home Yard Landscaping—Xeric Option andscaping Requirements for Single-Family Detached d Single-Family Attached Duplex Homes				
	(A)	(B)				
_	Plant Quality and Type	Requirements				
7.	Features	One of the following features shall be incorporated: a. Wall — 1 ft. to 2 ½ ft. high decorative natural stone, stucco, or approved CMU wall.				
		b. Fence — in accordance with art. 17 Fence.				
	c. Berms — low earth berm 2 ½ ft. tall max. Slopes no					
		to exceed one foot rise for each 4 feet of run.				
		d. Natural boulders — 3 - two feet by three feet min.				
8.	1 Shade tree, and either	2½ inch caliper				
	1 Ornamental tree	2 inch caliper				
	Or 1 Evergreen tree	6 foot height				
9.	Shrubs: (See note 2)	Shrubs — 5 gallon container Min. — Plant material shall conform with American Standard for Nursery Stock, Ansi Z60.1, current addition.				
		Fabric may be omitted under annuals, perennials and groundcovers.				
		Use a variety of shrubs and plant materials that will provide visual interest during all seasons.				
SII	DE YARDS					

Internal side yards, not exposed to public view — No plant material is required but mulches are required for soil stability.

External side yards on corner lots exposed to public view — Shall be landscaped by combining visible side and front yard areas and applying front yard standards.

REAR YARDS

Turf or xeric landscaping is not required. In rear yards the use of turf shall be limited to no more than 45% of the area to be landscaped. Rear yards at corner lots exposed to public view shall be landscaped with turf or xeric landscaping.

NOTE 1: At corner lots with a side yard visible to public view, front and side yard areas shall be combined for calculation of xeric requirements.

NOTE 2: Perennials and ornamental grasses may be substituted for shrubs at 3 one gallon perennial or ornamental grass species per one five gallon shrub.

	Standard Buffer Wid Multi-Family and Sin	Table 14.4 lths and Allo gle-Family A	wed Reduction	ons for nhomes	i it e	
At Street Frontages At C					At Other Property Lines	
	Alternative Buffer Treatments	(A) At Public R-o-W ¹ Lines (feet)	(B) At Private R-o-W Lines (feet)	(C) At Adjacent Multi- family Lines (feet)	(D) At Adjacent Lines With Other Üses (feet)	
	Sta	indard Desig	n		921000000000000000000000000000000000000	
1.	Standard Design — Site perimeters buffered with standard landscape strips with no incentive features. See Section 146-1422 & Table 14.2	20	12	10	25	
2.	Standard Design Plus Xeriscape — Standard design meets Xeriscape requirements of Sec. 146-1437.	15	6	6	20	
	Incentive (Supplement Star	Landscape I dard Design	eatures Requiremen	nts)		

AURORA ZONING CODE

	Standard Buffer Wid Multi-Family and Sin	Table 14.4 ths and Allo gle-Family A	wed Reduction	ons for nhomes	
			Frontages	At Other Pr	operty Lines
	Alternative Buffer Treatments	(A) At Public R-o-W ¹ Lines (feet)	(B) At Private R-o-W Lines (feet)	(C) At Adjacent Multi- family Lines (feet)	(D) At Adjacent Lines With Other Uses (feet)
3.	Bermed — Standard design plus a berm or grade change. (Slope no steeper than 1 foot rise to 3 feet run.)	18	10	8	20
4.	Low Hedge — Standard design plus a low hedge, 2 to 3 feet high planted in a triangular pattern in a double row; shrubs spaced at 3 feet on center.	15	6	6	20 (Hedge on residential side of fence)
5.	Hedge on berm — Standard tree placement plus a low, 2 to 3 foot high hedge.	10	N/A	N/A	N/A
6.	Low Wall — Standard design plus a 2.5 to 3.0 foot high stucco or decorative masonry wall. Provide landscaping on the exterior side of wall.	10	6	N/A	N/A
7.	Tall Landscape Screen — Standard design includes a tall landscape screen as defined in these guidelines.	N/A	N/A	5	15
8.	High Masonry Wall — Standard design plus a 6-foot high stucco, or decorative masonry wall. Provide landscaping on the exterior side of the wall.	N/A	N/A	5	15
9.	Incentive Features Plus Xeriscape — Incentive Feature meets requirements of Sec. 146-1437.	Deduct a incen	n additional tive feature	1 foot from a buffer width a	pplicable above ²

Table 14.5 dths and Al ercial Devel	lowed Reduc	tions	
Street F	rontages	Non-Stree	t Frontage
(A) At Public R-o-W Lines (feet)	(B) At Private R-o-W Lines (feet)	(C) At Adjacent Non- Residential Lines (feet)	(D) At Adjacent Residential Lines (feet)
20	12	10	25
15	6	6	20
	dths and Alercial Development (A) At Public R-o-W Lines (feet)	dths and Allowed Reductions of the Reduction of the Reduc	dths and Allowed Reductions ercial Development Street Frontages (C) At (A) (B) At Public R-o-W Lines (feet) (feet) At Plant Residential Lines (feet) 10

SUPPLEMENTAL REGULATIONS, ARTICLE 14

	Standard Buffer W for Com	Table 14.5 idths and Al nercial Devel		tions	
		Street F	rontages	Non-Street	t Frontage
	Buffer Treatment	(A) At Public R-o-W Lines (feet)	(B) At Private R-o-W Lines (feet)	(C) At Adjacent Non- Residential Lines (feet)	(D) At Adjacent Residential Lines (feet)
	Bermed — Standard design plus a berm or grade change. (Slope no steeper than 1 foot rise to 3 feet run.)	18	10	8	20
4.	Low Hedge — Standard design plus a low hedge, 2 to 3 feet high planted in a triangular pattern in a double row; shrubs spaced at 3 feet on center.	15	6	6	20 (Hedge on residential side of fence)
5.	Hedge on berm — Standard tree placement plus a low, 2 to 3 foot high hedge.	10	N/A	N/A	18
6.	Low Wall — Standard design plus a 2.5 to 3.0 foot high stucco or decorative masonry wall. Provide landscaping on the exterior side of wall.	10	6	N/A	N/A
7.	Tall Landscape Screen — Standard design includes a tall landscape screen as defined in these guidelines.	N/A	N/A	5	15
8.	High Masonry Wall — Standard design plus a 6-foot high stucco, or decorative masonry wall. Provide landscaping on the exterior side of the wall.		N/A	5	15 (Wall in place of wooden fence)
9.	Incentive Features Plus Xeriscape — Incentive Feature meets requirements of Sec. 146-1437.	Deduct an a tiv	dditional 1 fe e feature but	oot from appl ffer width abo	icable incen- ove

ntages		
	Non-Street Frontage	
(B) At Private R-o-W Lines (feet)	(C) At Adjacent Residential Lines (feet)	(D) At Adjacent Non- Residential Lines (feet)
8	25	10
6	20	6

AURORA ZONING CODE

		Table Suffer Widths of for Industrial I	and Allowed Re	ductions	
		Street Frontages		Non-Street Frontage	
Buffer Treatment Alternatives		(A) At Public R-o-W Lines (feet)	(B) At Private R-o-W Lines (feet)	(C) At Adjacent Residential Lines (feet)	(D) At Adjacent Non- Residential Lines (feet)
3.	Bermed — Standard design plus a berm or grade change. (Slope no steeper than 1 foot rise to 3 feet run.)	25 for Arterial, 8 for other	6	20	8
4.	Low Hedge — Standard design plus a low hedge 2 to 3 feet high planted in a triangular pattern in a double row; shrubs spaced at 3 feet on center.	25 for Arterial, 8 for other	6	20 (Hedge on residential side of fence)	6
5.	Hedge on berm — Standard tree placement plus a low, 2 to 3 foot high hedge.	25 for Arterial, 8 for other	N/A	N/A	N/A
6.	Low Wall — Standard design plus a 2.5 to 3.0 foot high stucco or decorative masonry wall. Provide landscaping on the exterior side of wall.	25 for Arterial, 5 for other	6	N/A	N/A
7.	Tall Landscape Screen — Standard design includes a tall landscape screen as defined in these guidelines.	N/A	N/A	15	5
8.	High Masonry Wall — Standard design plus a 6-foot high stucco, or decorative masonry wall. Provide landscaping on the exterior side of the wall.	N/A	N/A	15	5
9.	Incentive Features Plus Xeriscape — Incentive Feature meets requirements of Sec. 146-1437.	Deduct an additional 1 foot from applicable incentive feature buffer width above			

SUPPLEMENTAL REGULATIONS, ARTICLE 14

	Table 14.7 Redevelopment Site Landscaping Options						
		(A)	(B)				
		Site Option	Site Options				
	eet Frontages						
1.	Required buffer	10 ft. wide landscaped area measured from back of walk (if no walk, measured from back of curb)	Not applicable				
2.	Turf	Sod	Not applicable				
	Deciduous trees, and shrubs and flowers	linear feet of frontage. Locate shrubs and flowers at site entrances and around base of signs.	1 tree (in tree grate) per 30 linear feet of frontage				
4.	Transit stop	If present, integrate into stre	et frontage design.				
5.	Corner feature	Landscape feature	Not applicable				
		All S	Sites				
Pa	rking lot landscaping						
6.	Parking row separation	Separate ends of parking rows from vehicle travel routes with landscaped islands.					
7.	Row length	Continuous rows shall be limited to 12 spaces.					
8.	Island size	9 ft. × 19 ft.					
9.	Island plantings	1 approved deciduous shade or ornamental tree located in tree grate or landscape area consisting of shrubs and mulch. Shrubs shall provide 100% coverage.					
Pa	rking lot screening options:						
	Landscape hedge	Continuous landscape hedge consisting of approved deciduous or evergreen shrubs spaced not less than 36 inches on center.					
11.	Masonry wall	Continuous decorative masonry wall not less than 36 inches tall. Wall shall be constructed of approved stucco or masonry material.					
Bu	uilding perimeter landscaping:						
12.	Plant beds, raised planters	Plant beds or raised planters or equal in length to 20% of building frontage facing a public street, 18 inches in height, 3 ft. wide, and constructed from approved materials compatible with the building. Plant beds may be at grade.					
13.	Plant containers	1 container for each 10 linear feet of building frontage. Containers shall be made from materials that are compatible with the building. In size, containers shall be no less than 3 ft. × 3 ft. or 3 ft. in diameter.					

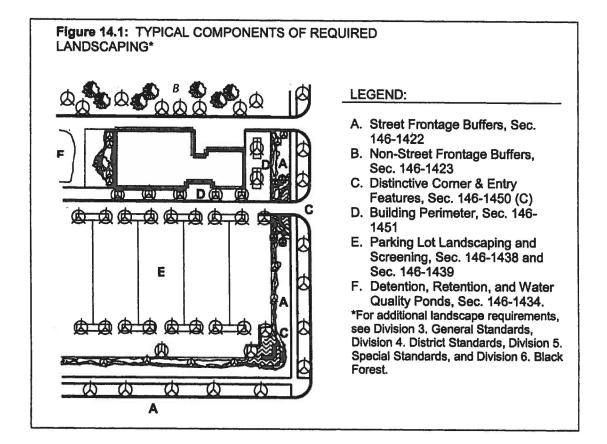
Table 14.7 Redevelopment Site Landscaping Options		
		(A) (B) Site Option Site Options
14.	Landscaped parking islands	20 feet of a building elevation. See sketch. Minimum size: 9 ft. × 19 ft. Planting: 1 approved shade or ornamental tree in tree grate or land-scaped area consisting of shrubs and mulch. Shrubs shall provide 100% coverage.
		Sketch for Table 14.7.14
Non-Street Frontage Buffer at Residential Property Line		
15.	Buffer width	8 ft.
	Landscaping	6 ft. decorative fence, 1 tree/10 shrubs per 25 linear feet of buffer, 50% evergreen trees
Non-Street Frontage Buffer at Non-Residential Property Line ^c		
	Buffer width	5 ft.
18.	Landscaping	1 tree/5 shrubs per 30 linear feet of buffer

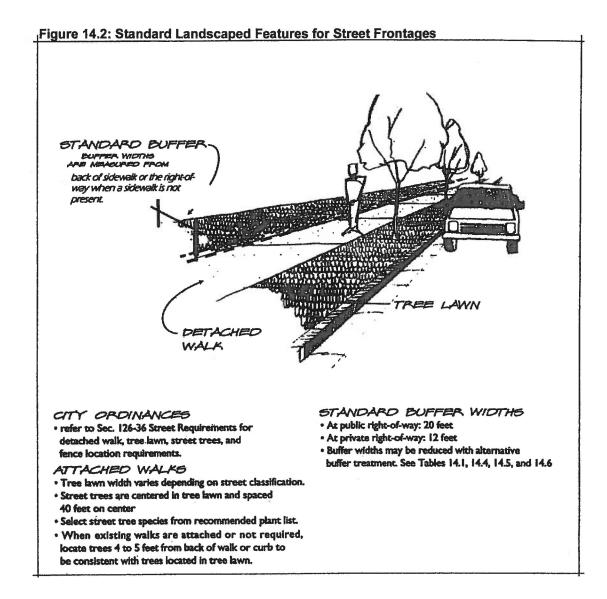
^a Building setbacks greater than 25 feet from public rights-of-way

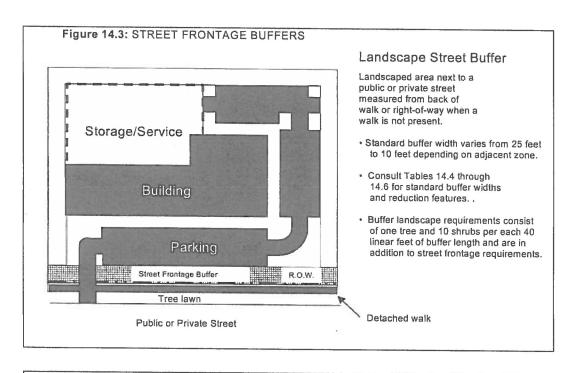
Note: all dimensions are minimums.

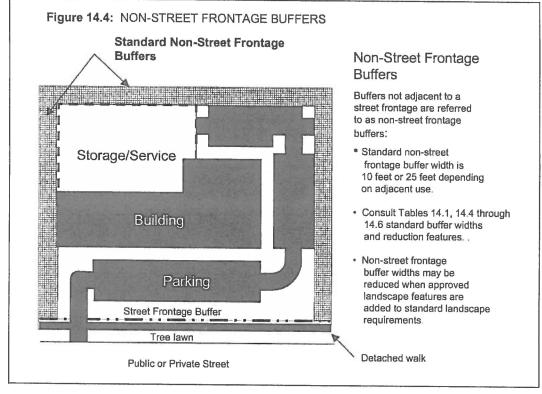
^b Building setbacks equal to or less than 25 feet from public rights-of-way.

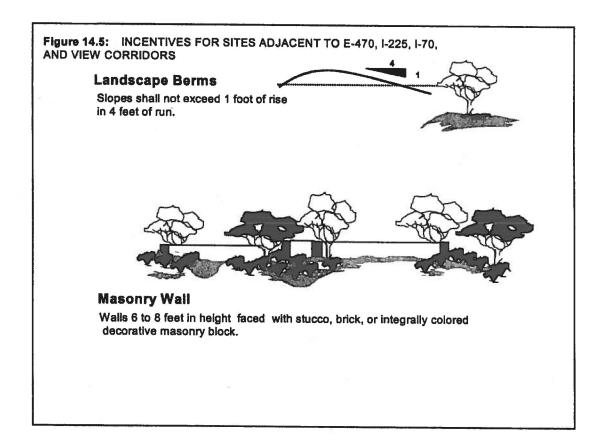
 $^{^{\}rm c}$ Non-street frontage buffers at non-residential property lines may be waived by the director of planning when it is determined that there are no adverse impacts.

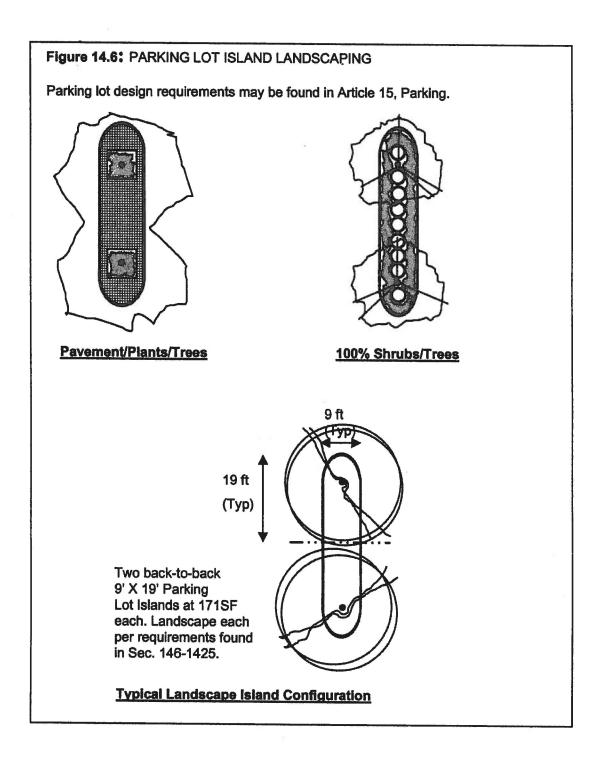












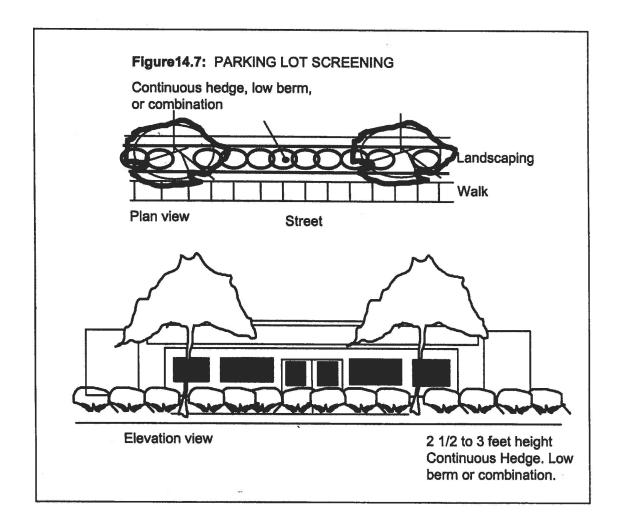
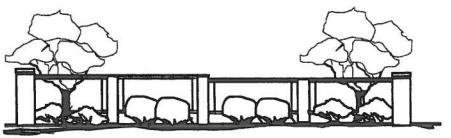


Figure 14.8: LANDSCAPING ADJACENT TO FENCES AND WALLS WITHIN A STREET FRONTAGE BUFFER.



<u>Fence/wall Placement.</u> At the inward edge of the buffer except in single-family detached developments as stated in Chapter 146, Article 17.

<u>Landscape buffer requirements</u>. Landscaping shall consist of a variety of trees, shrubs, perennials, ornamental grasses, and groundcovers, or annuals that will provide visual interest during all seasons.

Quantity of plant materials. The amount of landscaping shall be one tree and ten shrubs or an equal amount of tree and shrub equivalents per each 40 linear feet of buffer length.

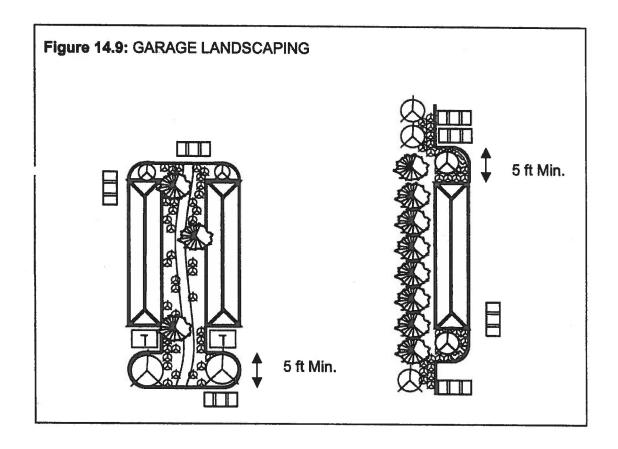


Figure 14.10: INCENTIVES FOR NON-STREET FRONTAGE BUFFER REDUCTIONS

Landscape Berms

Slopes shall not exceed 1 foot of rise in 4 feet of run.

Low Landscape Hedge

Deciduous or evergreen shrubs with mature heights of not less than 3 feet.



Tall Landscape Screens

Deciduous Screen

Trees 25 feet on center with shrubs at not less than 36 inches on center.



Evergreen screen

A row of evergreen trees at 15 feet on center with shrubs at not less than 36 inches on center.

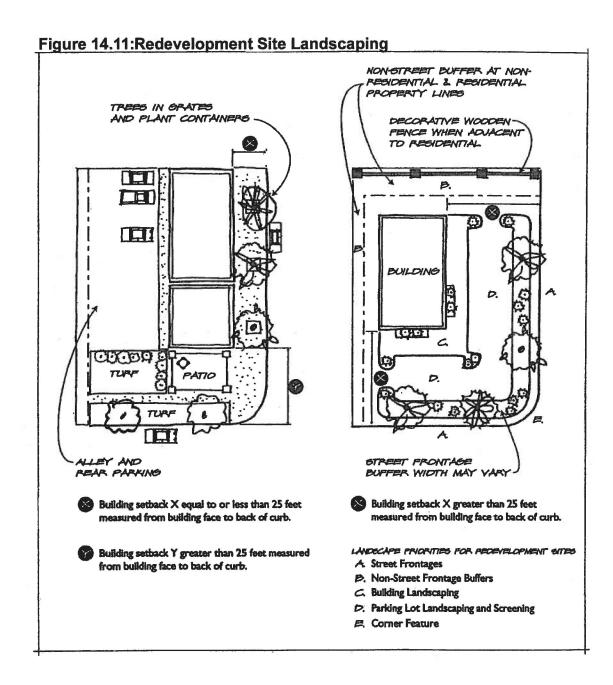


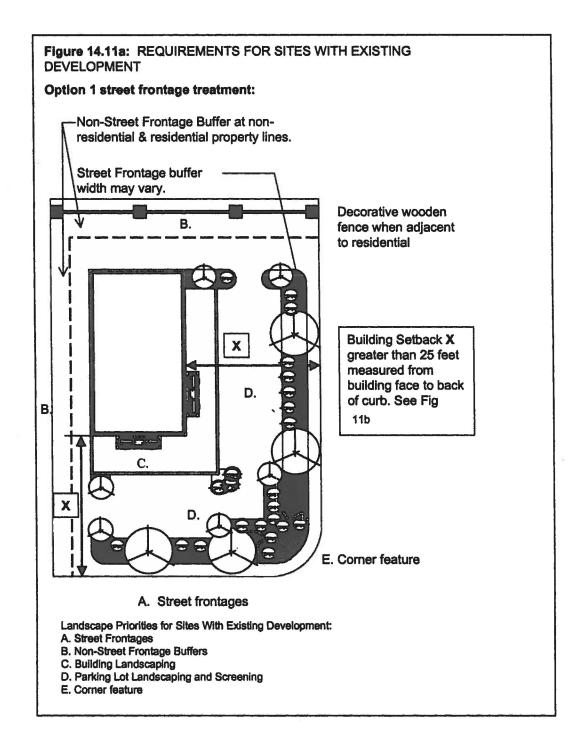
High and Low Masonry Wall

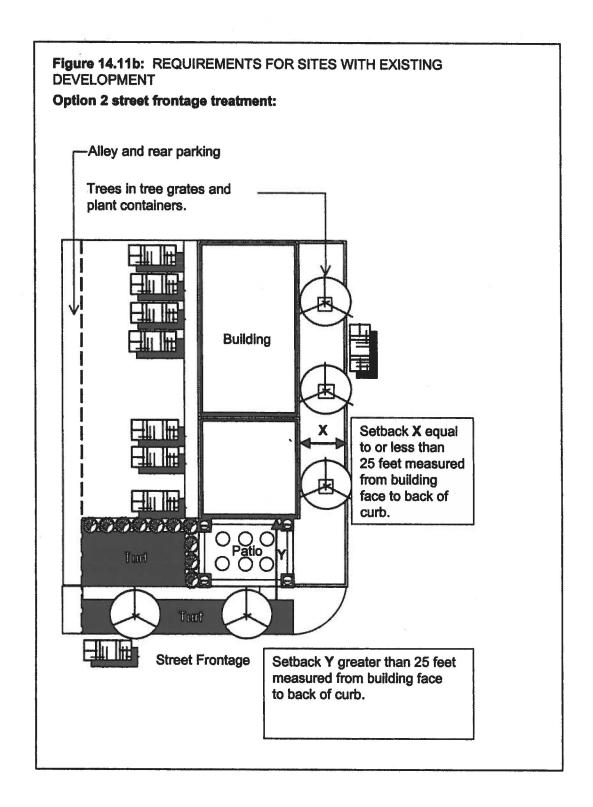
Low wall - Walls 2 1/2 to 3 feet in height of stucco, brick, or integrally colored decorative masonry block.

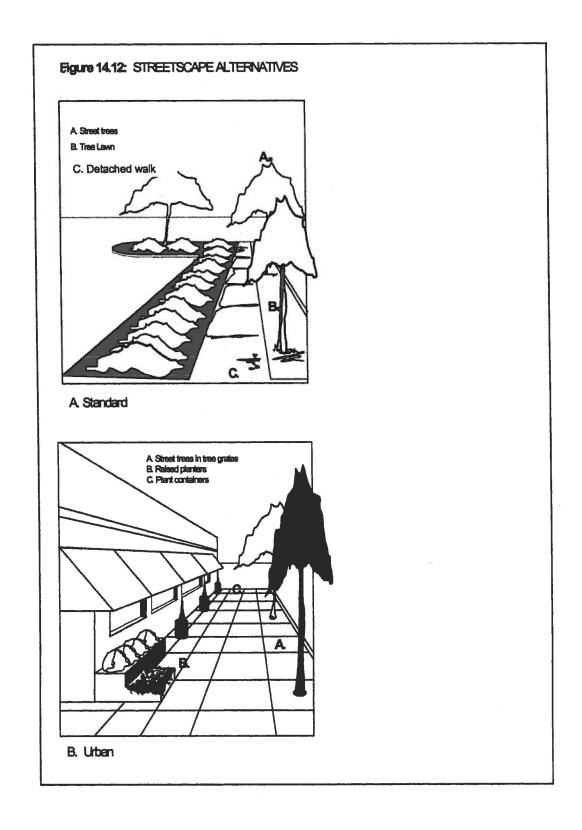
High wall - 6 feet in height of similar materials for low wall.

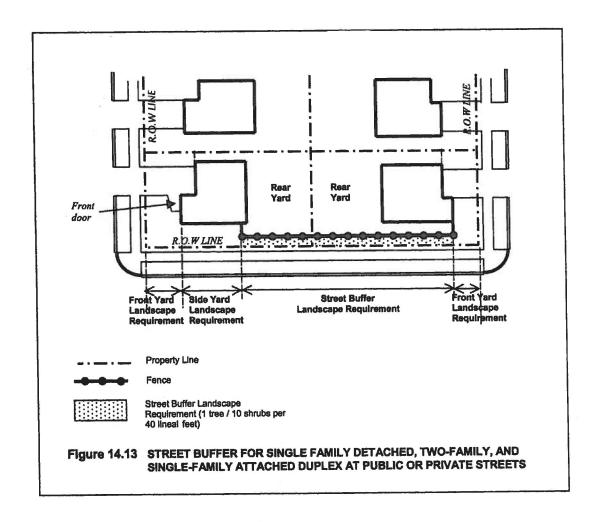


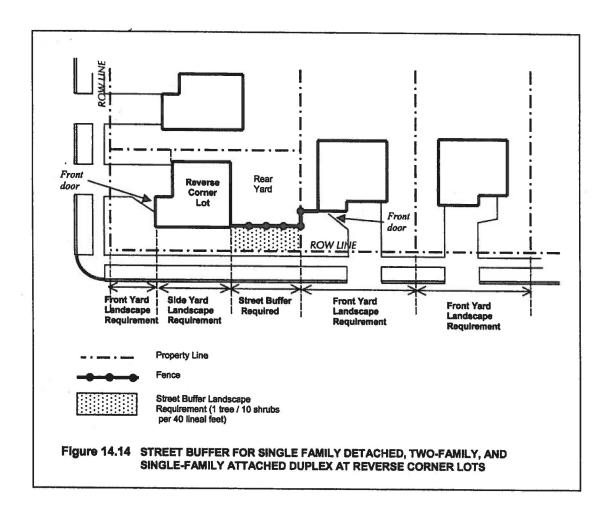


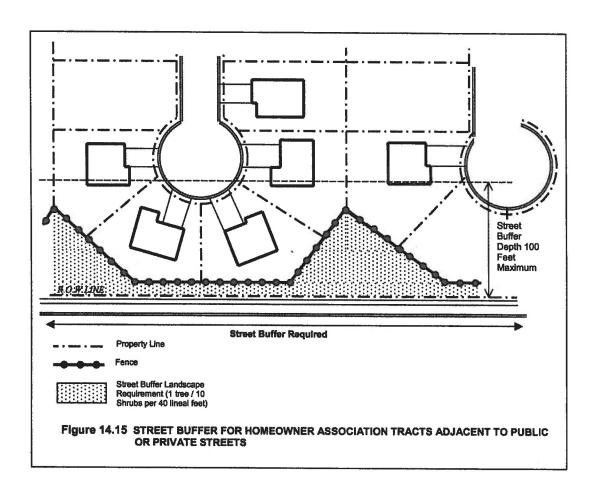


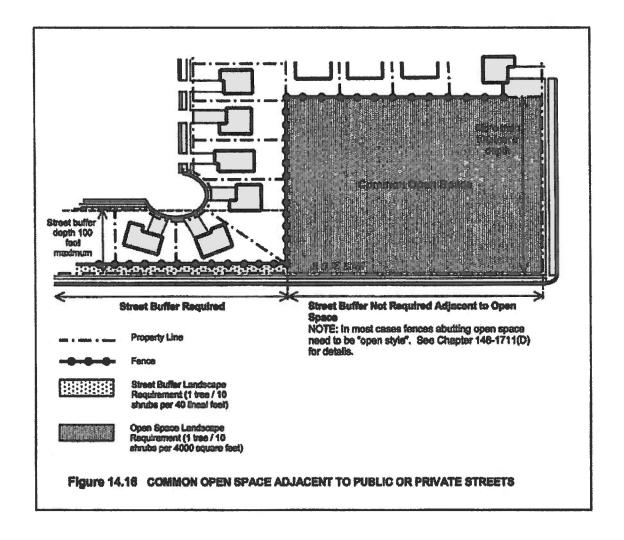


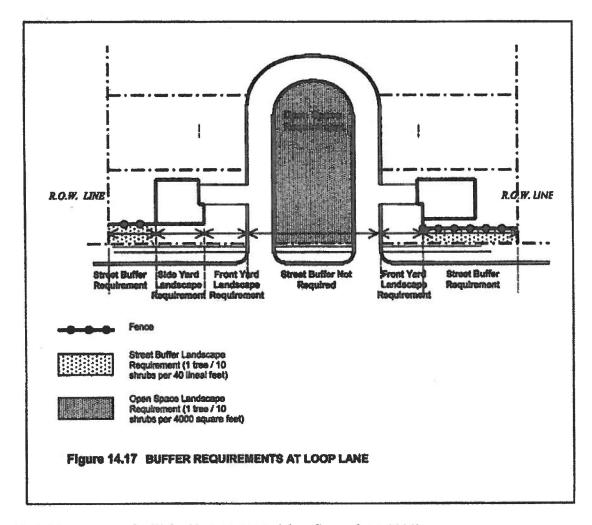












(Ord. No. 2004-58, § 1(Exh. A), 9-13-2004; Adm. Corr. of 6-8-2006)

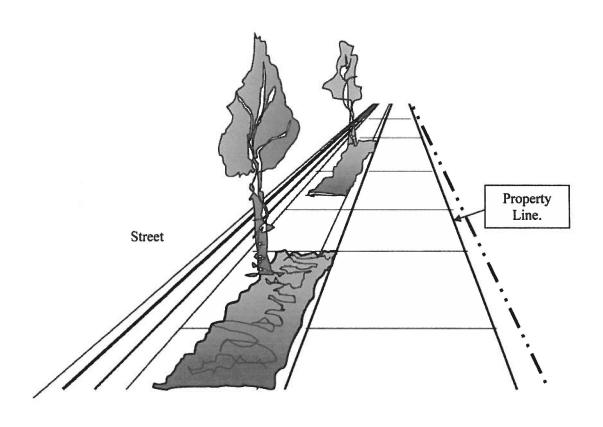
Sec. 146-1477. Urban public spaces.

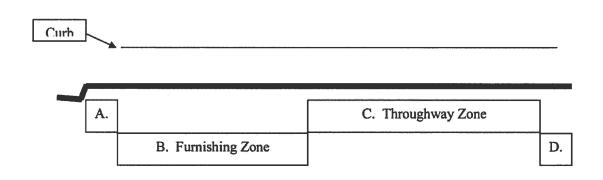
When provided, public spaces shall conform to requirements as found in Division 6, Transit-Oriented Development (TOD) District, section 146-728(F), public spaces. (Ord. No. 2009-26, \S 3, 7-13-2009)

Sec. 146-1478. Urban street landscaping.

(A) Zones. Landscaping elements within the urban street cross section are divided in functional areas, or zones. These zones are called the Edge Zone, the Furnishing Zone, Pedestrian Zone, and Frontage Zone. Street cross-sections shall be provided in accordance with requirements found in section 126-36.5 and landscaped as found herein. See Figure 14.18 below:

FIGURE 14.18 URBAN LANDSCAPE ZONES WITHIN STREET CROSS SECTION





Roadside Cross Section Elements – Section 126-36.5

- A. Edge Zone $-1 \frac{1}{2}$ feet wide.
 - Signs, parking meters, etc.
- B. Furnishing Zone -7 feet wide.
 - Street trees, landscape, site furniture, etc.
- C. Throughway Zone 6 feet wide.
 - Pedestrians
- D. Frontage Zone $-1\frac{1}{2}$ wide minimum.
 - Building landscaping, Outdoor Café, etc.
- (B) Edge Zones. The Edge Zone is located within approximately 1.5 feet from the curb. It generally has no landscaping within this area, as it will be heavily influenced by nearby traffic, snow plowing and sanding. Plant containers, raised planters, or other items that will interfere with traffic and/or snow plowing may not encroach into the Edge Zone. Tree grates when flush with the surrounding grade may encroach into the Edge Zone.
- (C) *Furnishing Zone*. The Furnishing Zone abuts the Edge Zone and is seven feet wide. Its purpose is to accommodate street trees within tree grates or plant beds, decorative pavement, and site furnishings. Landscape requirements for the furnishing zone are as follows:
 - 1. Street trees shall be required and shall be placed in the Furnishings Zone within tree grates, raised planters, or at grade planters.
 - 2. Provide a number of street trees equal to or not less than one tree per each 35 linear feet of street frontage as measured from curb return to curb return or from curb return to property line.
 - All street trees shall be either large deciduous street tree species of a minimum of caliper of 2½ inches, or ornamental deciduous species of a minimum caliper of 2½ inches.
 - 4. All street tree species shall be approved by the city forester and shall meet the requirements of section 146-1478(F)(2) below.
 - 5. All shrubs, perennial plants, and ornamental grass plants located within plant beds shall be provided at not less than ten five-gallon container shrubs, or 30 one-gallon container perennials, or 30 one-gallon container ornamental grasses per each 40 linear feet of plant bed length. All plant material within plant beds shall conform to criteria found in section 146-1426 plant material requirements.
- (D) Throughway Zone. The intent of the Throughway Zone is to allow efficient, direct and unobstructed access along sidewalks. Branches of maturing street trees encroaching into this zone shall be pruned to a height of not less than eight feet. Pruning shall conform to forestry division standards. All plantings shall be maintained according to Best Landscape Management Practices to prevent encroachment into this zone, to insure that plantings will continue to thrive in a healthy condition, to allow safe use by pedestrians, and to provide seasonal visual interest. The Throughway Zone shall be clear of all plant containers, raised planters, plant beds, and other site amenities.
- (E) Frontage Zone. Whenever landscaping is provided within the Frontage Zone adjacent to a building façade, landscaping area, fence, or screened parking lot, the amount of landscaping shall equal or exceed one tree equivalent per each 40 linear feet of landscape able frontage. Plantings shall be located within plant containers or raised plant beds or plant beds. A sufficient number of plants within plant containers, raised planters, or at grade plant beds

shall be provided to meet tree equivalent requirements. Plant containers and site furnishings shall be selected for durability and compatibility with surrounding architecture and design elements.

- Additional options for parking lot screening in frontage zones. The edges of all parking lots shall be screened from view. The minimum landscape area width shall be not less than five feet wide. Landscaping shall be in accordance with requirements set forth in section 146-1440. Low open style fences and low combination fence/walls in combination with landscaping may also be used for screening. Low for the purposes of these standards shall mean less than three feet and six inches tall.
- Screen parking structures. A Frontage Zone shall be established adjacent to a parking structure for the purpose of screening the structure. The minimum depth of the zone shall be five feet wide and landscaped with not less than one tree equivalent per each 40 linear feet of elevation length. Frontage zone landscaping shall be in addition to street tree requirements.
- (F) Urban Landscaping Specifications the Standards are as Follows:
- Tree grates. Tree grates may be any shape with a minimum diameter of five feet and or at least one side a minimum of five feet long. They shall be made from cast iron or other approved materials and shall be designed to accommodate tree growth. Tree grates capable of supporting pavers may also be used. all grates shall be placed on anchored steel frames.
- 2. Street trees.

Street trees permitted within UAC and TOD development.

- Tilia Species, Lindens*
- Fraxinus Species, Ash
- Gleditsia Species, Thornless Honeylocust
- Celtis Species, Hackberry

- Pyrus Species, Pear Acer Species, Maple* Malus Species, Non Fruit Bearing Species
- Craetegus Thornless and Fruitless Cultivars
- Prunus Cerasifera 'Newport', Newport Plum
- Ulmus Species, Valley Forge Elm
- Quercus Species, Oak Tree Species
- Koelreuteria Species, Goldenrain Tree
- Ostrya Species, Hop Hornbeam
- Carpinus Species, European Hornbeam* Corylus Species, Turkish Filbert*
- Ginko Species (male only)
- Syringa Reticulata Tree Lilac Cultivars
- other tree species as approved
- * Quantities will be controlled due to water conservation restrictions as found in section 146-1426(B)
 - 3. Prohibited street trees. Street trees prohibited within UAC and TOD development include all species listed in section 146-1436, Evergreen Trees, and ornamental tree species that produce fruit.
 - Plant beds. Trees planted in paved areas may be planted in plant beds consisting of shrubs, and perennials as found in section 146-1478(C). Plant beds surrounding trees 4. must be a minimum of five feet by 15 feet.
 - Mulch rings. A mulch ring four feet in diameter minimum shall be placed around each tree planted within a turf area. The mulch ring shall consist of organic materials placed at a depth of not less than three inches or an approved recycled rubber tree mat.
 - Xeriscape requirements. A minimum of 75 percent of all annuals and street trees and 100 percent of all other plant material provided within the streetscape shall be from the city's recommended xeriscape plant list or other approved and accepted xeriscape plant material source.
 - Groundcovers. The use of all groundcovers shall be subject to requirements found herein.
 - At least 100 percent of all living groundcovers except for annuals shall be selected from the city's recommended xeriscape plant list or other approved and accepted xeriscape plant material source.

- b. Groundcovers may not encroach into the traveled way or throughway zone.
- c. All living ground covers must be irrigated by an automatic underground irrigation system in accordance with the city's irrigation ordinance.
- d. Living ground covers shall be mulched with organic and/or inorganic mulches.
- e. Permitted living groundcovers include:
 - Deciduous and evergreen shrubs, and annual and perennial plants; also
 - ii. The combined height of groundcovers and their containers shall be not more than 26 inches when within a sight triangle.
- f. Permitted non-living groundcovers include:
 - Poured in place finished, integrally colored, stamped, or textured concrete; and
 - ii. Natural stone pavers such as flagstone, granite, or slate; brick pavers; and
 - iii. Manmade simulated stone products made from concrete, asphalt, or approved recycled materials; and
 - iv. Non living organic and inorganic groundcovers when used as mulches when planted in conformance with the applicable zone's requirements or according to section 146-1431. The stricter of the two shall apply; and
 - v. Artificial turf in conformance with requirements found in this article.
- g. Prohibited non-living organic and inorganic groundcovers that are not used in conformance with requirements found in section 146-1478(F) include:
 - Inorganic groundcover such as river rock, crushed rock, gravel, cobbles, stones or any other materials acquired from geological or manmade sources; and
 - ii. Organic ground covers such as wood chips, shredded bark, pole peelings, or other organic materials acquired from living plants; also
 - iii. Crusher fines and crushed granite except as approved.
- 8. Detention ponds in urban landscapes. Detention, retention, and water quality ponds shall not be located adjacent to the street or back of walk unless it is determined by the city engineer that alternative on site or off-site locations are not available or are impracticable. All detention, retention, and water quality ponds shall be integrated physically, functionally, and aesthetically into the total landscape design and shall be in accordance with all requirements found in section 146-1434.
- 9. Temporary surface parking lot landscape requirements. A surface parking lot shall be considered temporary whenever the surface material/s and its infrastructure will be demolished for the purpose of clearing the site for other construction within a time frame commencing and ending as agreed upon by the city. Each perimeter of the temporary parking lot abutting public or private rights-of-way, public or private open space, or a pedestrian walk shall be provided with a five-foot wide minimum landscape area to be landscaped in accordance with requirements found in section 146-1440 and irrigated according to section 146-1430.

(Ord. No. 2009-26, § 3, 7-13-2009)

Secs. 146-1479-146-1499. Reserved.