

Section 15: Landscaping

(orig. 7-23-02; am. 2-13-01; am. 4-20-10)

A. Intent and Purpose

To provide clear regulations for landscaping design, installation and maintenance consistent with landscape and nursery standards and practices, available technologies, and horticultural sciences in an effort to:

1. Buffer, separate, or screen conflicting land uses to mitigate adverse impacts from noise, odor, or lighting. (orig. 7-23-02)
2. Promote stormwater runoff reduction and absorption of small storm flows by encouraging site designs that use landscaping as a stormwater feature. (orig. 9-15-09)
3. Provide a minimum amount of Common Useable Area and Communal Amenities for the enjoyment of the residents of new residential developments. (orig. 9-24-13)
4. Promote safety and privacy of residents and businesses. (orig. 7-23-02)
5. Conserve native vegetative resources and preserve and protect native ecosystems and habitats, existing trees, and trees of historic or other significant value. (orig. 7-23-02)
6. Complement the natural landscape and retain the aesthetic and ecological integrity of a mountain or plains environment. (orig. 7-23-02)
7. Require landscaping appropriate to the land use, terrain, local climate, elevation and character of the area. (orig. 7-23-02)
8. Reduce erosion, storm water runoff, and air pollution. (orig. 7-23-02)
9. Ensure the continued maintenance of approved or existing landscaping in all residential, commercial and industrial zone districts. (orig. 7-23-02; am. 7-6-04)
10. Promote wildfire-safe environments. (orig. 7-23-02)

B. General Provisions

1. Regulation
 - a. Nothing in this section precludes compliance with the specific zone district regulations, other regulations within this Zoning Resolution or other County regulations, or with State and Federal regulations as they may exist. Where Federal, State or County requirements conflict with the provisions of this section, the more restrictive standard shall apply. Where it is difficult to discern the more restrictive standard, the standard that is more local in application shall apply. (orig. 7-23-02)
 - b. The provisions of this section are not intended to prevent the use of any design, material or method of installation not specifically proscribed by this section provided any such alternate has been approved by the Director of Planning and Zoning. An alternate may be approved if the proposed design, material or method is equal to or better than the specific requirements of this section and complies with the intent of this section. (orig. 7-23-02; am. 12-17-02; am. 12-21-10)
 - c. A Landscape Architect, licensed in the State of Colorado, must prepare the landscape and tree preservation plan. (orig. 9-15-09)
2. Procedures
 - a. Site Development Plan applications shall be accepted, reviewed and processed pursuant to the Site Development Plan process outlined in the Administrative Provisions Section of this Zoning Resolution. (orig. 7-23-02; am. 3-26-13)
 - b. Commercial, office, industrial, and institutional shall submit a landscaping plan pursuant to the provisions of the Site Development Plan process. Landscaping plans for single-family residential, multi-family and duplex developments shall be required for common areas only, both internal to and around the perimeter of the subdivision, but not for individual lots. (orig. 7-23-02; am. 12-17-02)

3. Applicability

- a. All landscaping newly designed, constructed, erected, or otherwise installed on or after September 1, 2002 for commercial, office, industrial, institutional and proposals for common areas of single-family, multi-family and duplex proposals shall be in conformance with the requirements of this section. The requirements of this section do not apply to individual single-family lots. (orig. 7-23-02; am. 12-17-02; am. 9-15-09)
- b. Any alterations, rehabilitation, or renovations to existing landscaping commenced after September 1, 2002 shall be in conformance with the requirements of this section except where an existing landscaping plan has been approved on the site. Where existing landscaping has been approved through a County process, additional landscaping shall be compatible with the previously approved landscaping and is not required to comply with any regulations which may be inconsistent to the existing landscaping. (orig. 7-23-02)
- c. Buildings and structures lawfully existing as of the date of adoption of this regulation (September 1, 2002) may be modernized, altered, expanded, or repaired without providing or modifying the landscaping providing there is no cumulative increase in floor area in such building or structure beyond 25% of the size of the building as it existed on September 1, 2002. (orig. 7-23-02; am. 12-13-16)
- d. Landscaping shall not be required for additions, expansions, alterations or enlargements of an existing parking facility where the number of additional cumulative spaces required is less than 50 percent of the number of automobile parking spaces required at original construction. Where interior landscaping is proposed, it shall be consistent with the existing landscaping or, if it exists, the pre-approved landscape plan. (orig. 7-23-02)
- e. The maintenance provisions of this section shall apply to all landscaping that has been approved by the County and for which there is an approved landscape plan on record. (orig. 7-23-02; am. 7-6-04)
- f. The accumulation of weeds on property including behind alleys and the sidewalk areas in front of such properties shall not occur on residential lots, parcels and tracts. Properties zoned Agricultural-One, Agricultural-Two, Agricultural-Thirty Five, Mountain Residential-One, Mountain Residential-Two, Mountain Residential-Three, Suburban Residential-One, Suburban Residential-Two, or Suburban Residential-Five shall be excluded from this provision, if such properties are over 1 acre in size or over an elevation of 6400 feet. (orig. 7-6-04)
- g. Undeveloped vacant properties zoned for nonresidential development shall not allow for the accumulation of weeds on the property. (orig. 7-6-04)
- h. Landscaping areas that are also stormwater structures shall be inspected and maintained as required in the Permanent Stormwater Quality Structure Maintenance Section of this Zoning Resolution. (orig. 9-15-09)

C. Prohibitions

The installation and maintenance of the following shall be prohibited in Jefferson County:

1. All plants identified as noxious weeds by Jefferson County, the State of Colorado or the Federal government; female Box Elder (*Acer negundo*); White or Silver Poplar (*Populus alba*); Siberian Elm (*Ulmus pumila*); Tree of Heaven (*Ailanthus altissima*); Tamarisk (all species & cultivars); and Russian Olive (*Elaeagnus angustifolia & cultivars*). (orig. 7-23-02; am. 9-15-09)
2. For maintenance reasons, within 30 feet of any street or road: Silver Maple (*Acer saccharinum*), Narrow-leaf Cottonwood (*Populus angustifolia*), Plains Cottonwood (*Populus sargentii*), Eastern Cottonwood (*Populus deltoides*), Lombardy poplar (*Populus nigra 'Italica'*), tree-form Willow (*Salix*). (orig. 7-23-02)

D. Exemptions

The following shall be exempt from the requirements of this section and shall not count toward the calculation of landscaped area unless it meets the intent and purpose of this section and has been approved by the Director of Planning and Zoning. (orig. 7-23-02; am. 12-17-02; am. 12-21-10)

1. Areas used for farming or ranching. (orig. 7-23-02)
2. Areas governed by a conservation easement established for the purpose of preserving natural areas. (orig. 7-23-02)
3. Areas designed to remain in a natural state, including areas required to be thinned by the Colorado Forest Service. (orig. 7-23-02)

E. General Standards

1. Design
 - a. Landscape materials shall be selected, sited, and planted to produce a hardy and drought-resistant landscaped area. Selection shall include consideration of soil type and depth, the amount of maintenance required, spacing, exposure to sun and wind, elevation, the slope and contours of the site, and compatibility with existing native vegetation preserved on the site, and on adjacent sites. (orig. 7-23-02)
 - b. Landscaping shall be designed to incorporate water conserving materials and techniques through the application of xeriscape landscaping principles. Xeriscape landscaping principles do not include or allow artificial turf or plants, mulched or gravel (including crushed rock, etc) beds or areas without landscape plant material, bare ground, weed infested surfaces or any landscaping that does not comply with the standards of this section. Xeriscape landscaping principles shall include all of the following:
 - (1) Grouping plants with similar water and sunlight requirements together. (orig. 7-23-02)
 - (2) Limiting the application of turf to appropriate high-use areas with high visibility and functional needs. (orig. 7-23-02)
 - (3) Use of low-water demanding plants and turf where suitable. (orig. 7-23-02)
 - (4) Use of automatic irrigation systems, designed and operated to conserve water. (orig. 7-23-02)
 - (5) Incorporation of soil amendments, where appropriate. (orig. 7-23-02)
 - (6) Use of mulches. (orig. 7-23-02)
 - (7) Planting appropriate materials suited to the soil and climate. (orig. 7-23-02)
 - c. All planted areas shall receive mulch. (orig. 9-15-09)
 - d. Landscaped areas that are designed for stormwater management should refer to the Jefferson County Storm Drainage and Technical Criteria. (orig. 9-15-09)
 - e. The minimum horizontal distance between trees and the following items shall be as follows, unless otherwise stated in this section: (orig. 7-23-02; am. 9-15-09)

Item	Distance from Tree
Streetlight	30 feet
Water Mains	9 feet
Gas Lines	No trees permitted within easement
Ditch Flowline	3 feet

- f. All areas disturbed by construction but intended for development as part of a later phase shall be revegetated with a mix of perennial grasses and native wildflowers to emulate a natural appearance appropriate for site conditions. (orig. 7-23-02)
- g. All landscaping areas shall comply with the vision clearance triangle requirements as specified in Transportation Design and Construction Manual. (orig. 7-23-02; am. 7-1-03; am. 5-26-09)

Trees and any other landscape materials in accordance with approved landscaped plans within 5 feet of back of curb shall not cause sight distance problems with vehicles entering the adjoining street from driveways or nearby intersections. In case of future disputes regarding sight distance, the County's sight distance table in the Transportation Design and Construction Manual shall be used to determine the outcome.

- h. Trees may be formally massed to produce a steady, discernible rhythm or row or may be clustered to provide groups of trees. (orig. 7-23-02)
- i. Ground cover, turf, or native grass shall be used to cover the landscaped area between trees and/or shrubs. (orig. 7-23-02)
- j. All irrigated landscaping adjacent to streets in the Dipping Bedrock Overlay District shall contain perimeter drains. (orig. 7-23-02)
- k. All medians greater than 4 feet in width shall be landscaped and landscaping material shall be limited to the following: (orig. 7-23-02)

Width of Median	Landscaping Material Permitted
10 feet or less	Hardscapes (no more than 25 percent of the median area) Shrubs under 36 inches in height Turf Native Grass Ground Cover
More than 10 feet	Trees (one tree per 30 linear feet is required) Shrubs Hardscapes (no more than 25 percent of the median area) Turf Native Grass Ground Cover

2. Installation

Plant materials shall be installed to current nursery standards and sound horticultural practices, including any support devices required, in a manner designed to encourage quick establishment and healthy growth. (orig. 7-23-02)

3. Plant Selection

- a. In mountain landscapes, a minimum of 60% of the total number of required trees shall be evergreen. (orig. 9-15-09)
- b. In plains landscapes, a minimum of 20% of the total number of required trees shall be evergreen. (orig. 9-15-09)
- c. In all landscapes, a minimum of the 20% of the total number of required shrubs shall be coniferous evergreen. (orig. 9-15-09)

4. Plant Sizes

- a. The following minimum sizes shall be required at the time of installation: (orig. 7-23-02; am. 12-14-04; am. 5-26-09)

Type	Size (measured 4'6" above finished grade)
Deciduous Trees (balled & burlapped)	2" caliper (shade trees) 1½" caliper (ornamental trees) 2¼" caliper (where adjacent to designated arterial or higher street classification)
Coniferous Trees (balled & burlapped)	6'0" high

Ground Cover, Perennials, Ornamental Grasses	1 gallon
Shrubs	5 gallon

- b. Species diversity for trees shall be required as specified below: (orig. 7-23-02)

No. of Trees	Maximum % of any One Species	
	Mountains	Plains
Less than 10	none	None
10 or more	50%	33%

5. Preservation:

- a. The following shall be preserved and protected where practicable, unless preservation or protection conflicts with floodplain, dipping bedrock, wildfire regulations or other County, State or Federal requirements. All tree preservation plans are to show all existing trees as described in (1) through (5) below: (orig. 7-23-02; am. 12-17-02; am. 9-15-09)
- (1) Healthy trees over 6" in caliper in the Plains and 8" in caliper in the Mountains, measured 4.5 feet above finished grade. (orig. 7-23-02)
 - (2) Trees associated with a historic event, place, person or which are unusual, rare or significant as determined by the County or Forest Service. (orig. 7-23-02)
 - (3) Vegetation, not including trees, over 8 feet in height. (orig. 7-23-02)
 - (4) Mature clusters or stands of healthy trees or shrubs. (orig. 7-23-02)
 - (5) Riparian, wetland and critical wildlife areas. (orig. 7-23-02)
- b. Each existing preserved tree meeting the above criteria shall count triple towards meeting the tree quantity requirements of this section, except for any tree requirements related to parking lot or perimeter landscape vegetation. (orig. 7-23-02; am. 9-15-09)
- c. Any tree meeting the preservation and protection criteria above which cannot be protected or preserved shall be replaced with 3 trees meeting the size and quality standards in this section. (orig. 7-23-02)
- d. Prior to commencement of and during any construction activity (except for utility line installation), a temporary barrier shall be erected at the dripline around existing trees that are slated for protection. Fences around the trunk are not acceptable. This barrier shall consist of bright plastic fencing a minimum of 4 feet in height, secured with metal t-posts. A tree protection detail and applicable protection notes must be included on the landscape plan for all trees qualifying for preservation. (orig. 7-23-02; am. 9-15-09)

6. Inspection

- a. The landowner shall request an inspection by Planning and Zoning upon installation of all landscape improvements (final inspection). The inspection shall occur in conditions with little to no accumulated snow on the subject property. (orig. 7-23-02; am. 7-6-04; am. 5-20-08; am. 9-15-09)
- b. The landscaping and all site work shall be completed in accordance with the approved landscape plan for the project. (orig. 7-23-02)
- c. In the event that native seed has not germinated, a second inspection will be required, and will be scheduled at the discretion of Planning and Zoning. (orig. 9-15-09)
- d. All re-inspections shall be subject to the applicable re-inspection fee. (orig. 9-15-09)

7. Security

- a. Prior to approval of the Site Development Plan, the landowner shall submit an improvement security in an amount necessary to ensure compliance with the standards in this section and the approved landscape plan. (orig. 7-23-02)
- b. The amount of the security shall be 100 percent of the cost of the landscaping material plus a contingency amount equivalent to 10 percent of the total cost. The cost of all landscaping material shall be based on the County's price list. All items shown on the approved landscape plan shall be secured to ensure installation, including but not limited to all proposed soft and hardscape items, and barriers for existing trees slated for protection. (orig. 7-23-02; am. 12-17-02)
- c. The security shall be in the form of cash escrow or an irrevocable letter of credit payable to the Board of County Commissioners of Jefferson County. (orig. 7-23-02)
- d. The security shall be released only after final inspections have been made and all landscaping has been accepted by the County, either for the entire site or for a phase of construction. (orig. 7-23-02)

8. Landscape Plan requirements:

- a. The landscape plan shall be prepared by a landscape architect and shall include all of the following: (orig. 7-23-02; reloc. 12-13-16)
 - (1) Scale (scale shall be at least 1:20 or larger for sites of 2 acres or less and at least 1:50 for sites greater than 2 acres in size); (orig. 7-23-02; reloc. 12-13-16)
 - (2) The proposed site grading topographic contours at a minimum of 2-foot intervals (in steep terrain, larger intervals may be required) or other appropriate interval as approved by Planning and Zoning and necessary spot elevations; (orig. 7-23-02; am. 12-17-02; am. 4-27-04; am. 5-20-08; reloc. 12-13-16)
 - (3) Plant legend, shown on each sheet, including botanical and common plant names, plant sizes and quantities of all trees, shrubs, and ground covers proposed and slated for preservation; (orig. 7-23-02; reloc. 12-13-16)
 - (4) Seed mixes, application rates, and quantities; (orig. 7-23-02; reloc. 12-13-16)
 - (5) The location and size of all landscaped areas within the site, sight distance triangles, lot boundaries, trees and vegetation (proposed and to be preserved), significant existing physical site features (e.g. watercourses, rock outcroppings), property lines and easement locations, utilities (e.g. water, sewer, telephone, power, cable), location of new pole lights, existing and proposed buildings and structures, existing and proposed driveways, roads, walkways (including grades), plazas, buildings, playground equipment, parking areas, landscape amenities (e.g. fences, walls, planters, benches, signs), areas to be paved, graveled or covered by decks, retaining walls, detention ponds, drainageways or swales, areas to be revegetated, proposed plants to a scale at maturity, soil amendments, existing vegetation and its condition, 100-year floodplain, all areas on and off-site, including within the adjacent rights-of-way, that will be disturbed by construction activity. (orig. 7-23-02; reloc. 12-13-16)
 - (6) Planting and construction details (where applicable) as well as plan notes to assist in clarifying design intent; (orig. 7-23-02; reloc. 12-13-16)
 - (7) Easement(s) for any off-site landscaping proposed; and (orig. 7-23-02; reloc. 12-13-16)
 - (8) A phasing plan for multi-phased projects identifying the separate phases, revegetation, stabilization and erosion control between phases, and the landscaping associated with each phase. (orig. 7-23-02; reloc. 12-13-16)

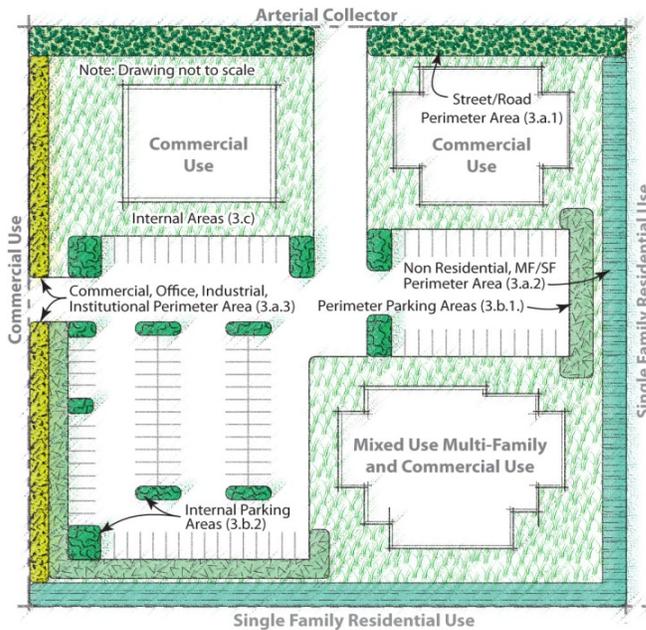
F. Specific Standards

1. Landscaping shall be required for all common areas internal to and around the perimeter of any single-family or duplex development, for any multi-family development, and for commercial, industrial, and institutional uses as follows: (orig. 7-23-02; am. 12-17-02; am. 12-14-04; am. 9-15-09)

2. The total required minimum landscaped area (includes perimeter, parking, and internal landscaped areas) is as follows, unless already specified in an approved Official Development Plan. (orig. 7-23-02; am. 9-24-13)

Use	Percent (%) of Total Site Area
Multi-Family	35%
Mixed Use (Neighborhood Commercial Level)	15%
Mixed Use (Large Scale Commercial Level)	25%
Heavy Industrial	10%
Commercial, Office, Light Industrial, Institutional	15%

3. The total required minimum plant counts shall be indicated below as trees and shrubs per linear feet or square feet. These requirements are used to determine the exact number of trees and shrubs required, not the exact location of the planting. Trees and shrubs may be planted in a linear, clustered, or in other appropriate patterns. It shall be the discretion of the landscape architect and staff to determine the most appropriate layout for the landscaping. (orig. 9-15-09)
4. In order to provide a minimum amount of Common Useable Area and Communal Amenities for the shared use of all residents, all residential developments of greater than 25 lots/units shall provide the following: (orig. 9-24-13)
- a. A minimum of 250 square feet of Common Useable Area per each residential unit. Within the Mixed Use Neighborhood Commercial (MU-N) and Large Scale Commercial (MU-LS) zone districts, this requirement shall be 75% of the total minimum landscaped area. Common Useable Area will be credited toward the minimum landscaped area requirement. (orig. 9-24-13)
 - b. A minimum of 35 square feet per residential unit of the Common Useable Area shall consist of a Communal Amenity. Within the Mixed Use Neighborhood Commercial (MU-N) and Large Scale Commercial (MU-LS) zone districts, 35% of the Common Useable Area shall consist of Communal Amenities. (orig. 9-24-13)
 - (1) When clubhouses, indoor recreational facilities or similar structural amenities are proposed, each square foot shall be credited 2 times the required square footage. (orig. 9-24-13)
 - (2) Within the Mixed Use Neighborhood Commercial (MU-N) or Mixed Use Large Scale Commercial (MU-LS) Zone Districts, public plazas shall be credited two times the minimum requirements of this section when the plaza contains at least 3 of the following: (orig. 9-24-13)
 - (a) Within at least one permanent sitting space per every 250 feet of plaza or public space area. (orig. 9-24-13)
 - (b) A mixture of areas that provide shade through canopies, canopy trees, awnings, arcades, etc. (orig. 9-24-13)
 - (c) A water feature or piece of public art. (orig. 9-24-13)
 - (d) Permanent outdoor dining areas. (orig. 9-24-13)
 - (e) Use of decorative pavers and pervious pavement treatment for hardscape areas. (orig. 9-24-13)
 - (f) Similar amenities as approved by Planning and Zoning. (orig. 9-24-13)
5. Landscape Areas contain perimeter areas, parking areas, and internal areas. The following graphic depicts each type of landscaped area outlined in this section, the graphic is not inclusive of all possible landscaping situations and is not to scale. (orig. 9-15-09)



a. Perimeter Areas

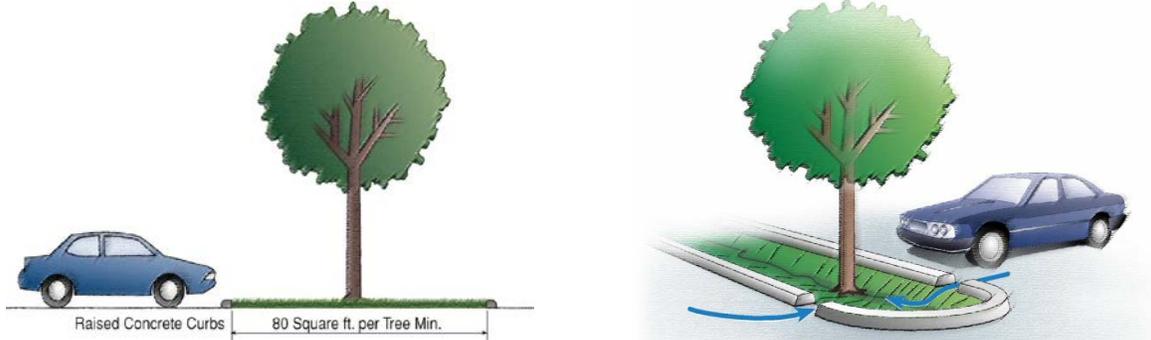
- (1) Street/Road Perimeter Areas: The landscaped areas within 10 to 30 feet from the property line, adjacent to right of way as shown below. These landscaped strips shall be wholly contained within the site unless otherwise approved by Planning and Zoning. (orig. 7-23-02; am. 7-1-03; am. 7-6-04; am. 5-20-08; am 9-15-09; am. 11-24-15)

Right of Way Type	Landscape Strip Width
Freeway	30 feet
Major Collector/Arterial/Parkway	20 feet
Collector	10 feet

- (a) Landscape planting requirements shall be calculated at 1 tree per every 30 linear feet of perimeter landscaped area and 5 shrubs per 1,000 square feet of the total perimeter landscaped area and may be installed in a linear, cluster, or other appropriate pattern. (orig. 7-23-02; am. 9-15-09)
- (b) Along the south side of east-west streets, evergreens shall be a minimum of 15 feet from the back of the curb or edge of the road. (orig. 7-23-02)
- (2) Non-residential and Multi-family Residential Adjacent to Single Family Residential Perimeter Areas: Commercial, office, institutional and industrial uses (including parking facilities) proposed adjacent to existing or proposed single and multi family residential uses shall require the installation of a 10 foot wide landscaped screen which visually obscures or obstructs the commercial, office, institutional or industrial use from the residential use. Additionally, multi-family uses adjacent to single family uses shall require the installation of a 10 foot wide landscaped screen which visually obscures or obstructs the multi-family residential use from the single family residential use. The landscaped screen shall meet the following requirements: (orig. 7-23-02; am. 12-17-02; am. 9-15-09)
 - (a) No less than 75% of the total required plant materials shall be evergreen. (orig. 9-15-09)
 - (b) There shall be at least one tree per 30 linear feet and installed in a manner that best screens the proposed use from the adjacent residential uses. (orig. 9-15-09)

- (c) There shall be at least 5 shrubs per 500 square feet of landscape screen area that will grow to at least 4 feet in height, planted to in a manner that best screens the proposed use from the adjacent residential uses. The intent of the shrubs is to mitigate headlight glare from drives and parking areas. (orig. 9-15-09)
 - (d) Ground cover plants, native grass or turf must fully cover the remainder of the landscaped area except under trees where mulch may be used. (orig. 9-15-09)
 - (e) A 6 foot high closed masonry or wood wall, fence, or berm may be substituted for the shrub vegetation, but the trees and ground cover are still required. (orig. 9-15-09)
- (3) Commercial, Office, Industrial, and Institutional Perimeter Areas: There is no buffer requirement between commercial, office, industrial and institutional uses adjacent to similar uses. Adjacent landscape areas shall follow the internal landscaping requirements. (orig. 5-26-09; am. 9-15-09)
 - (4) Turf areas shall comprise no more than 75 percent of the total perimeter landscaped area in the plains and 20 percent in the mountains. (orig. 7-23-02; am. 12-17-02)
- b. Parking Lot Areas
- (1) Perimeter Parking Areas: The landscaped area within six (6) feet of the back of curb to the parking area. Landscaping shall be provided within and around the perimeter of all parking lots except adjacent to buildings on the site.
 - (a) Planting requirements shall be calculated at 1 tree and 5 shrubs per 1,000 square feet of the total perimeter parking area. Plantings may be installed in a linear, cluster, or other appropriate pattern. (orig. 7-23-02; am. 9-15-09)
 - (b) If overlaps exist between the Parking Lot Perimeter Area and the Non-residential and Multi-family Residential Adjacent to Single Family Residential Perimeter Area, the parking perimeter vegetation is required in addition to any required perimeter vegetation. (orig. 7-23-02; am. 9-15-09)
 - (c) If overlaps exist between the Parking Lot perimeter area and another perimeter area, the Perimeter Parking Lot Area landscaping requirement shall be used for the portion of the perimeter area that overlaps. (orig. 9-15-09)
 - (2) Internal Parking Areas: For the purposes of this section, internal landscaped areas of a parking lot shall be defined as landscape islands or landscape strips. (orig. 9-15-09)
 - (a) The minimum landscaped area, internal to the parking lot, shall be no less than 5 percent (5%) of the total impervious parking lot area. (orig. 7-23-02; am. 12-17-02; am. 9-15-09)
 - (b) Planting requirements shall be calculated at a minimum of 1 tree and 5 shrubs per 500 square feet of landscaped area internal to the parking lot. The plantings may be installed in a linear or clustered fashion that maximizes shade and parking lot screening. Ornamental trees and grasses do not count toward the minimum tree and shrub requirements for parking lot internal planted islands or perimeter areas. (orig. 7-23-02; am. 9-15-09)
 - (c) For parking areas with 50 impervious designated parking spaces or more that are over parked by 110% or higher by the minimum parking standards, the minimum landscape area internal to the parking lot shall be no less than ten percent (10%) of the total impervious parking lot area. (orig. 9-15-09)
 - (d) A planted landscape island is required at the end of all parking rows and for every fifteen (15) parking spaces in a row. The landscaped island must be a minimum of 80 square feet and at least 4 feet in width. All islands shall include at least 1 shade tree. (orig. 9-15-09)
 - (e) Landscaped islands may be two (2) feet shorter than the parking space. (orig. 9-15-09)
 - (f) Each landscaped island proposed may be sumped to allow stormwater to flow into the landscaped island area and shall include at least one shade tree, include

at least 80 square feet of ground area per tree, and have raised curbs, with curb cuts for stormwater flow or wheel stops. (orig. 7-23-02; am. 9-15-09)



c. Internal Areas

- (1) Internal landscaping is the remaining landscape area after the perimeter landscape areas and parking landscape areas have been subtracted from the percent of the total site area that is required to be landscaped. (orig. 9-15-09)
- (2) Planting requirements shall be calculated at 1 tree and 5 shrubs per 1,000 square feet of the total internal area. Plantings may be installed in a linear, cluster, or other appropriate pattern (orig. 7-23-02, am. 9-15-09)
- (3) Except for sports fields and other similar uses, turf areas shall comprise no more than 75 percent of the total internal landscaped area in the Plains and 10 percent in the Mountains (except for multi-family in the mountains, which shall be 75 percent). Gravel or rock shall not comprise more than 25 percent of the landscaped area. (orig. 7-23-02; am. 12-17-02)

5. Detention Ponds

- a. No trees shall be planted below the water surface elevation. (orig. 7-23-02)
- b. The applicant shall demonstrate that any vegetation proposed within the detention pond does not impede access for maintenance purposes. (orig. 7-23-02)

6. Stormwater Features

- a. Refer to the Jefferson County Drainage and Technical Criteria for guidelines on designing landscaped stormwater features that are designed to absorb small storm flows of the Water Quality Capture Volume. These structures include, but are not limited to: grass buffers, grass swales, block and porous pavers, porous landscape detention. (orig. 9-15-09)

G. Measurements

1. Spacing for plant placement shall be measured from the centerline of the tree or shrub. (orig. 7-23-02)
2. Unless otherwise specified in this section, trunk caliper (the diameter of the tree trunk) shall be measured 12 inches above grade for trees 4 inches or less in diameter and 4.5 inches above grade for trees greater than 4 inches in diameter. (orig. 7-23-02)

H. Maintenance

1. Maintenance of required landscaping, including irrigation systems, fences, walls, sidewalks and other landscape structures where they exist, is the ongoing responsibility of the landowner. Where irrigation systems, landscaping or sidewalks exist or are proposed to be installed within County rights-of-way, maintenance shall be the responsibility of the applicable Homeowner Association (or equivalent) or adjoining landowner unless otherwise agreed to by the County. The County shall have the right to remove any irrigation systems, landscaping, or sidewalks within rights-of-way. (orig. 8-17-99; am. 7-23-02)

2. Plant materials in required landscaped areas shall be continuously maintained in a healthy, growing and orderly condition. This shall include proper pruning, mowing of turf areas, fertilization, the regular application of appropriate quantities of water, and the regular treatment and repair of all diseased or insect ridden materials. All unhealthy, damaged, destroyed, irreparable, removed, or dead plant materials shall be replaced within one (1) growing season (where a growing season is defined as the period between April 15 and October 15) with plant materials of similar variety. In all cases, the replacement plant material shall preserve the intent and purpose of the original plant material and shall comply with the requirements of this Zoning Resolution. (orig. 8-17-99; am. 7-23-02)
3. Structures in required landscaped areas, such as irrigation systems, fences, walls, sidewalks and other landscape elements, shall be continuously maintained in a structurally sound and orderly condition. All damaged, destroyed, irreparable, or removed landscape structures shall be replaced within one (1) year with similar structures. In all cases, the replacement structure shall preserve the intent and purpose of the original structure and shall comply with the requirements of this Zoning Resolution. (orig. 8-17-99; am. 7-23-02)
4. Required landscaped areas shall be kept free of trash, litter, weeds, pests, and other such elements not part of the approved landscaping plan. (orig. 8-17-99; am. 7-23-02)
5. Existing landscaping within residentially zoned lots, parcels and tracts shall be kept in an orderly condition and free of trash, litter, weeds and pests. (orig. 7-6-04)