

SECTION 12-1400 LANDSCAPING REGULATIONS

12-1401 INTENT

To provide landscape standards which visually enhance developments and provide a more compatible and aesthetic atmosphere. Landscaping will improve the livability of residential neighborhoods, enhance the appearance and customer draw of commercial areas, buffer land uses, improve compatibility of adjacent land uses, increase property value, screen undesirable views and contribute to the image and appeal of the overall community. Sensitive site design ensures that a reasonable balance is struck between the rights of the individual to develop and maintain their property and the rights of the community to live, work, shop and recreate in a pleasant and attractive surrounding.

12-1402 APPLICABILITY

These landscape standards apply to all development included in a Final Development Plans, Administrative Site Plans, Use By Special Review applications, or Subdivision Development Plan. However, general landscape criteria are established with the PDP. All open space shall be landscaped. Individual lots within a single family detached (SFD) development are excluded from these landscaping requirements as well as any development in the A-2, A-1, R-A, A-E and R-1 zone districts. Landscaping requirements shall apply within residential developments for landscape tracts, parks, perimeter buffers or other areas as determine by these regulations.

12-1403 GENERAL INFORMATION

12-1403.01

Landscaping is the treatment of pervious surfaces with organic/inorganic plant materials such as grass, ground cover, trees, shrubs, ornamental clump grasses and other horticultural materials. The plan may include other decorative surfacing such as wood chips, crushed stone or other mulch materials.

12-1403.02

Where there is significant existing vegetation on site, staff may require an inventory of plant material. Existing trees shall be saved on the property unless otherwise approved through the review process.

12-1403.03

Xeriscape plant materials are strongly encouraged. All landscape material shall be in compliance with the standards of the American Association of Nurserymen. All plant material shall have a habit of growth that is normal for the species and shall be of sound health, vigorous growth, and free from insect pests, diseases and injuries. All plants shall equal or exceed the measurements specified on the plan.

12-1403.04

- A. All planting materials and methods must be approved by the Arapahoe County Weed Control Inspector. Weed control methods may need to be employed prior to construction and/or the installation of the landscape plan.
- B. The following list of drought-tolerant plant material are suggestive of the range of choices available. Listings are taken from the complete Denver Water Board's drought-tolerant plant listings, which are supported by Arapahoe County. For an extensive list of such plant materials, refer to the Denver Water Board's current list:

Turf Grasses:

Blue Grama
Buffalo Grass
Crested Wheatgrass

Deciduous Trees:

Ash, Marshall's Seedless
Ash, Summit
Chokecherry, Canada Red

Smooth Brome
Turf Type Tall Fescue
Any approved native seed mix *

Deciduous Shrubs > 6'

Canada Red
Cranberry, High-bush American
Lilac, common

Evergreen Trees

Pine, Austrian
Pine, Scotch pine
Pine, Ponderosa
Pine, Pinion
Juniper, Rocky Mountain

Ground Cover

Hen and Chicks
Periwinkle
Creeping Phlox
Snow-in-summer
Goldmoss Sedum-Stonecrop
'Dragon's Blood' Sedum

Vines

Western Clematis
Hall's Honeysuckle
Virginia Creeper
Greenleaf Wintercreeper
Purpleleaf Wintercreeper

Honey Locust, Skyline
Maple, Amur
Plum, Newport

Deciduous Shrubs <6' Chokecherry,

Burning Bush
Currant, alpine
Dogwood, variegated
Potentilla, brush cinquefoil
Sage, silver
Spirea, Anthony Waterer

Evergreen Shrubs

Juniper, buffalo
Juniper, tam
Juniper creeping

Sub-Shrub Ground Cover

Creeping Mahonia
Blue Chip Juniper
Hughes Juniper

Ornamental Grasses

Big Bluestem
Japanese Blood Grass
Plume Grass

* An approved native seed mix is an appropriate seed mix that is supported by the Soil Conservation Districts or any other landscaping authority.

This list is derived from the extensive list of drought-tolerant plants provided by the Denver Water Board. All plants on the extensive list are recognized by Arapahoe County. In addition, with the assistance of the Soils Conservation District, the County will also consider any other drought tolerant native/adaptive species on a case-by-case basis. Should a plant/tree be designated a noxious weed, it will automatically be removed from the recommended drought-tolerant plant listings.

12-1403.05

The use of weed free seed, gravel or fill dirt is required as approved by the Arapahoe County Weed Control Inspector. The use of competitive grasses, shrubs or trees that provide sufficient ground cover may be required where weed problems already occur or may occur in the future. Plant species that appear on the Colorado State Noxious Weed lists are unacceptable for use in proposed landscaping.

12-1403.06

The open space and landscape requirements stated herein are in addition to any public land dedication requirements, unless otherwise determined by the Board of County Commissioners.

12-1404 AREAS TO BE LANDSCAPED

Landscaping for private and public parks shall comply with Section 12-1400 herein.

- A. All portions of a site not occupied by structures, water bodies, streets, roads, driveways, sidewalks, plazas, patios, parking areas and other vehicle use areas are required to be landscaped in accordance with these standards unless excluded in Section 12-1400 above.
- B. For undeveloped areas with natural vegetation, up to 50 percent of the natural area may be allowed to count toward the minimum requirement, as determined by the Planning Division Manager. The percentage of these areas eligible to partially satisfy the minimum requirement will be determined based upon its effectiveness to function as a buffer and enhance the visual and natural attributes of the site.
- C. All development sites, excluding single family detached development, shall feature consistently landscaped areas along the front, sides and rear property lines. At the discretion of the Planning Division Manager, exceptions may be made for situations such as attached structures that cross property lines, property lines that lie within the extents of paved roadways, and other unanticipated situations as long as the resulting plan meets the intent of these regulations by providing a complete landscape design which will visually enhance developments and provide a more compatible and aesthetic atmosphere as required in Section 12-1401 of these requirements.
- D. A 20-foot landscape buffer is required where non-residential development abuts residential development.
- E. Drainage easements and detention ponds may be included as landscaped or other open space areas upon approval by the PWD Department. Detention ponds with earthen walls and maximum 4:1 slope are the preferred design. However, when required by site constraints, other design solutions may be submitted to the PWD Department for approval.

12-1405 AREAS THAT DO NOT QUALIFY AS LANDSCAPING

- A. Paved portions of parking lots, open air showrooms, outdoor display areas, roads or service areas at, above or below ground level.
- B. The portion of pedestrian and/or bike paths as well as sidewalks that are crossed by motor vehicle circulation routes.
- C. Paved medians including concrete, asphalt, brick, decorative pavers, etc. (See Streetscape Guidelines in Section 12-1400 herein).
- D. Public rights-of-way shall be excluded only when planned for future widening per PWD Department standards.

12-1406 LANDSCAPING REQUIREMENTS

- A. Within a required landscaped area for residential development, the following ratios apply for single family detached, single family attached and multifamily development:

1. Lots 3,999 square feet (R-PSF) to 5,000 square feet as an average lot size require one (1) tree and ten (10) shrubs or an acceptable combination of trees and shrubs per 2,000 square feet of landscaped area.
 2. Lots less than 3,999 square feet as an average require one (1) tree and ten (10) shrubs per 1,000 square feet of landscaped area.
 3. These ratios of trees and shrubs may include an acceptable combination of trees and shrubs for the area required to be landscaped. A determination for landscape ratios will be made on a case-by-case basis for landscape tracts (including rights-of-way) within filings that include residential development with mixed densities based upon the location and use of the tract.
- B. Within a required landscaped area for commercial, industrial and business development, the following ratios apply:
1. One (1) tree and ten (10) shrubs, or an acceptable combination of trees and shrubs, for every 1,000 square feet of landscaped area.
 2. Ornamental clump grasses may be exchanged for up to fifty percent of the required shrubs at a ratio of three ornamental clump grasses for one shrub if one gallon clump grasses are selected.
 3. Ornamental clump grasses may be exchanged for up to fifty percent of the required shrubs at a ratio of one ornamental clump grass for one shrub if five gallon clump grasses are selected.
- C. Proposed open space quantities above the minimum requirements (per Section 13-100 Land Development Code) shall be excluded from the requirements of Sections 12-1406.01 and 12-1406.02 listed above. Landscaping may be required based upon the intent of these regulations and will be reviewed on a case-by-case basis by the PWD Department.
- D. All required landscaped areas shall be served by a functioning automatic irrigation system unless otherwise approved by the PWD Department.
- E. Minimum requirements stated herein may be modified based upon the proposed use, design of adjacent uses, and overall impact and scale of the project.
- F. The landscaping materials shall be distributed throughout the landscaped areas in order to avoid over massing of plant materials or obstructing views determined important through the development review process. Trees and shrubs shall be configured in appropriate groupings.
- G. Any landscaping around a fire hydrant shall be placed such that a three foot clear space is maintained at all times.
- H. Landscaping shall be protected from vehicles by the placement of wheel stops, curbs or other acceptable means.
- I. Temporary irrigation methods shall be required when native seed mixes or other low water plantings are utilized requiring temporary irrigation.

12-1407 PLANT SPECIFICATIONS

The following minimum sizes apply wherever landscaping is required:

| PLANT SPECIFICATIONS | |
|-----------------------------|--|
| Trees | Minimum Size |
| Deciduous Trees* | 2.0 Inch Caliper |
| Ornamental Trees | 1.5 Inch Caliper |
| Coniferous Trees | 8' Height adjacent to public R-O-W 6' Height in other locations |
| Shrubs | 5 Gallon container |
| Ornamental Clump Grass | 5 gallon container grasses will be counted as 1 shrub. 1 gallon container grasses may be counted as 1/3 shrub. |
| Groundcover | No minimum size; spacing shall provide 80% groundplane coverage within 2 years. |

**Russian Olive trees are prohibited on landscaping plan.*

12-1408 LANDSCAPE PLAN

The landscape plan shall be prepared at a scale that allows for maximum clarity of the proposal and must be approved by the staff planner. The landscape plan is one or more sheets included in the FDP, ASP, SDP or UR document.

- A. Dimension all easements, pedestrian walkways and pedestrian- oriented areas (existing and proposed), and types of surface materials.
- B. Delineate the total gross square footage of the total planting area, including areas to be maintained in a natural state (undeveloped) and/or established with native seed.
- C. Draw plant materials at three-fourths of mature size.
- D. Identify common and botanical names, size and quantities of materials to be used. Identify trees, shrubs, lawn areas and groundcover areas (organic and inorganic). Provide explanations of any substitutions requested to meet required amount of landscaping materials.
- E. Identify and show dimensions of all landscape elements including fences, walls, border edge treatments, berms, water features, bike racks, trash enclosures, street furniture and recreational facilities, as applicable. Details of landscape features or structures may be required on the landscape plan as determined by the PWD Department.
- F. In order to preserve significant natural vegetative areas, trees, wildlife habitat and landscape features, the landscape plan shall locate and identify and when necessary dimension these natural features in accordance with PWD Department requirements. A tree preservation plan with specific construction limits and protective fencing and mulching may be required.
- G. Show planting details, including typical methods of planting.
- H. Delineate existing and proposed grades with 1-foot contours.

- I. Indicate sources of irrigation water and types of irrigation used. This may be provided on a separate 8.5” x 11” sheet included with the site plan narrative. If source is a private well, provide evidence of landscape irrigation rights. Information regarding specific design techniques used to prevent water infiltration or damage at the street section may be requested by the PWD Department.
- J. In the event the site is served by a well which prohibits landscape usage, a waiver of the landscape requirements noted herein will not be granted. The applicant will be required to obtain an off-site water source with acceptable documentation. Landscaping shall comply with Section 12-1400 herein.
- K. Landscaping shall comply with the requirements for sight distance triangles in accordance with Arapahoe County Streetscape Guidelines, Section 18-100 herein.
- L. All landscaping within the County rights-of-way, or landscaping close enough to affect the horizontal or vertical clearance of the right-of-way, shall comply with the Arapahoe County Roadway Design and Construction Standards and the Arapahoe County Storm Drainage Design and Technical Criteria Manual.

12-1409 REQUIREMENTS WITHIN COUNTY RIGHTS-OF-WAY AND MEDIANS

All landscaping within the County rights-of-way and medians shall comply with the Arapahoe County Streetscape Guidelines stated in Section 18-100 of this document. The types, sizes and locations of landscape materials and features will be established during development review by the PWD Department. Medians and rights-of-way must comply with the following:

- A. The landscaping of any County rights-of-way or median associated with a residential development project based upon an approved landscape plan shall begin prior to the issuance of building permits for 20% of the dwelling units approved in the project.
- B. Plant materials are required based upon Section 18-100 listed above.

12-1410 REQUIREMENTS WITHIN DETENTION AREAS

All development within a detention area shall be approved by the PWD Department in order to ensure compliance with approved drainage plans. Regional detention facilities are exempt from these requirements unless otherwise determined by the Board of County Commissioners. Within detention areas, the following types and quantities of plant materials and other improvements shall be required in accordance with the PWD Department review:

- A. A functioning, automatic irrigation or a temporary irrigation method when native seed mixes or other low water plantings are utilized requiring temporary irrigation.
- B. Natural and/or man made landscaping features including grass seed mix or other ground cover approved during the development process for type, size, quantity and location.
- C. The installation of trees, shrubs and drought tolerant grasses of a species and quantity approved by the County.
- D. Development projects abutting residential lots may require fencing as determined by the PWD Department.

- E. In instances where on-line detention areas are located in the 100-year flood plain, landscaping requirements may be adjusted to the specific requirements of the Urban Drainage and Flood Control District.
- F. Access to the detention pond shall be secured for maintenance purposes.

12-1411 MAJOR DRAINAGEWAYS

Major drainageways (basin tributary area of 130 acres or more per Urban Drainage and Flood Control District requirements) shall be maintained in the natural topography of the channel and piping or channels with side slopes exceeding 4:1 will not be allowed to convey the drainage.

12-1412 REQUIREMENTS WITHIN PUBLIC AND PRIVATE PARKS

Public park requirements for landscaping improvements will be established during the development review process, which includes the agency/district receiving the park. Private parks shall be located and configured to serve as useable park area with the following improvements:

- A. A minimum of one (1) tree and ten (10) shrubs, or five (5) trees and no shrubs, for every 5,000 square feet of area.
- B. A functioning automatic irrigation system.
- C. Natural and/or man made landscaping features including turf grass sod, grass seed mix or other ground cover, of types, sizes, quantities and in locations approved by the development process.
- D. The County may additionally require trails, lights, parking lots, playgrounds, play courts, benches, signs and other amenities suitable for the developed open space.
- E. The landscaping of all parks within a residential development project shall be completed prior to the issuance of building permits for more than 50% of the dwelling units approved in the project unless otherwise approved by the Board of County Commissioners. Any failure to complete the required landscaping by the deadlines specified herein shall result in withholding of Certificates of Occupancy until compliance with the requirement occurs.
- F. In instances where parks are located in the 100-year flood plain, landscaping requirements may be adjusted to the specific requirements of the Urban Drainage and Flood Control District and the Arapahoe County Engineering Division.
- G. All parks shall be designed to blend with adjacent areas. Slopes shall not exceed 4:1 unless specifically allowed by the PWD Department.

12-1413 ENFORCEMENT OF LANDSCAPING REQUIREMENTS

No certificate of occupancy for any structure located on property where landscaping is required shall be issued unless all landscaping has been satisfactorily installed. Prior to the issuance of certificate of occupancy, all landscaping shall be inspected by the County for compliance with the approved landscape plan.

- A. In cases where the property owner desires to occupy a building prior to completion of all landscaping, the County may issue a certificate of occupancy for the building. However, no outdoor storage shall be permitted until all landscaping has been completed. In order to obtain a certificate of occupancy prior to completion of all landscaping, the property owner shall enter into an agreement with the County, providing for the completion of all landscaping by the property

owner within a specified period of time, not to exceed six months from the date of issuance of the certificate of occupancy. Said agreement shall also require the property owner to provide acceptable collateral to the County in form of a letter of credit, cash or certified funds guaranteeing satisfactory completion of all landscaping. If a letter of credit is used, it shall be in the same format as required for a subdivision improvement agreement. The amount of collateral shall be in an amount equal to 115% of the estimated cost of landscaping and shall be based on a cost estimate of labor and materials prepared by a qualified professional. Upon written request of the property owner, the Planning Division Manager may grant one extension to the term of the agreement, not to exceed 6 months, for good cause shown, provided that the collateral is also extended for that period of time.

- B. The collateral held by the County shall be released when it has been determined by the County that all landscaping has been satisfactorily completed. If the property owner has failed to install the required landscaping within the period of time specified in the landscaping agreement, the County shall use the collateral to complete the required landscaping.
- C. The property owner shall be responsible for the maintenance of all required landscaping, on private property, including but not limited to, weeding, watering, fertilizing, pruning, mowing and removal of litter. The property owner shall be responsible for the replacement of all dead, diseased or substantially damaged plant materials with the same or similar type as set forth in the approved landscape plan. Replacement shall occur within the next planting season and shall not, in any event, exceed one year.
- D. The County and Developer may enter the following Agreement to guarantee completion of landscaping requirements by providing collateral to obtain a Certificate of Occupancy prior to completion of all landscaping.

LANDSCAPING AGREEMENT

THIS AGREEMENT is entered into this _____ day of _____, 20____, by and between _____ (hereinafter referred to as "Developer") and Arapahoe County.

WHEREAS, Section 12-1413 of the Arapahoe County Land Development Code requires that all landscaping be completed prior to the issuance of a certificate of occupancy; and

WHEREAS, the above section allows a developer to obtain a certificate of occupancy and to occupy a building prior to the installation of all required landscaping by providing collateral guaranteeing such installation; and

WHEREAS, the Developer is the owner of property subject to the County's landscaping requirements and located at _____ (street address) and more particularly described as _____ (legal description); and

WHEREAS, the Developer has not completed all landscaping and wishes to provide collateral to obtain a certificate of occupancy prior to completion of all landscaping; and

NOW, THEREFORE, the parties hereto agree as follows:

1. The Developer shall construct and install, at its own expense, all of the required landscaping as set forth in the approved Landscape Plan and more particularly described in Exhibit A, attached hereto and incorporated by reference herein.

2. To secure and guarantee performance of the Developer's landscaping obligations as set forth herein, the Developer agrees to provide the County with collateral in the form of _____ in the amount of \$ _____, 115% of the estimated cost of labor and materials for the required landscaping. The estimated cost is attached hereto and incorporated by reference herein as Exhibit B. The term of the above collateral shall be a period of at least one year from the date of this Agreement.

3. The Developer agrees to complete the installation of all required landscaping as set forth herein by no later than _____.

4. Upon installation of the landscaping required by the approved Landscape Plan and inspection by the County to confirm compliance with said Plan, the County shall release the collateral provided by the Developer.

5. In the event the Developer fails to install all of the landscaping within the above specified period of time, the Developer authorizes the County to use the collateral deposited with the County to install all required landscaping and further grants the County, and its authorized agents, permission to enter onto the subject property to install such landscaping.

Developer: _____

By: _____

_____(Title)

STATE OF COLORADO)
) ss.
COUNTY OF _____)

Subscribed, sworn to and acknowledged before me this ____ day of _____, 20____,
by _____ of _____.

Witness my hand and official.

My commission expires: _____

Notary Public

ARAPAHOE COUNTY

By: _____
Dave Schmit, P.E.
Director of PWD