

Article 8. Landscape & Site Design Standards

- 8.01 Intent & Applicability
 - 8.02 Landscape Design
 - 8.03 Buffer & Screening
 - 8.04 Plant Specifications
 - 8.05 Fences & Walls
 - 8.06 Outdoor Lighting
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8.01 Intent & Applicability

- A. **Intent.** The intent of the landscape and site design standards is to:
1. Improve the image of the City and build value with a well-designed public realm coordinating streetscapes, open spaces, and lot frontages.
 2. Strengthen the character and quality of development and emphasize distinct areas throughout the City with the location and design of landscape areas
 3. Coordinate landscape and design amenities across multiple sites with special attention to the consistent relationship of public and private frontages.
 4. Encourage site design that allows spaces to serve multiple functions, including aesthetic, screening, environmental, recreational, or social functions.
 5. Provide comfort, spatial definition and visual interest to active outdoor spaces including walkways, civic spaces, parks, trails or other similar outdoor gathering places.
 6. Enhance the environmental and ecological function of un-built portions of sites, and protect and integrate established natural amenities rather than plant or design new ones.
 7. Screen and mitigate the visual, noise, or other impacts of high-intensity areas of sites and buildings, or at transitions where the scale and pattern of development changes.
 8. Conserve water and shift to water-conscious landscape design that is regionally appropriate and specific to the arid Front Range climate.
- B. **Applicability.** The standards of this Section shall apply to all new development except:
1. Detached house or multi-unit house projects involving 3 or fewer new buildings;
 2. Additions to existing buildings or sites that do not result in an increase in building footprint or impervious surfaces by more than 10%; or
 3. Changes in use that do not result in an increase in land use intensity, considering hours of operation, types of activity, or other functional impacts of the use.

In cases where the landscape standards apply, the intent is to bring the site into full compliance with these standards. However, for infill and rehabilitation of existing sites the Director may prorate the requirements to the extent of the site work where full compliance is not possible or practical, and only apply the standards to portions of the site subject to development.

8.02 Landscape Design

- A. **Design Objectives.** Landscape plans shall meet the following design objectives:
1. Frame important streets and emphasize gateways with street trees, landscape massing, and other vertical elements.
 2. Promote storm water management and prevent erosion through natural landscape elements that intercept, infiltrate, store, or convey precipitation and runoff.
 3. Create focal points, gathering places, and pathways that enhance the comfort, interest and movement of pedestrians.

4. Improve resource and energy efficiency with landscape arrangements that consider wind blocks, heat gain, water usage, slope and drainage patterns, and other elements inherent to the site.
5. Encourage the protection and preservation of healthy plants that can meet current and future needs of the site through development.

B. **Planting Requirements.** The required landscape shall be based on different elements of the site according to Table 8-1, Plant Requirements.

Table 8-1: Plant Requirements			
Site Element	Trees	Evergreen Trees	Shrubs
Streetscape: <i>The landscape area in the ROW or along the lot line immediately abutting the right of way.</i>	1 large tree per 35' of lot frontage;	n/a	n/a
	Corner lots shall meet this requirement on street side lot lines at a rate of 50% of the requirement. Constrained right-of-way or streetscapes may substitute 1 ornamental tree per 20.'		
Frontage & Foundation. <i>The area between the building line and ROW along a street, including street sides of corner lots, where landscape is used to create transitions to the streetscape and to provide accents and soften larger expanses of buildings</i>	1 ornamental tree per 40' of lot frontage for buildings set back more than 10' from the front lot line; AND 1 large tree per 35' of lot frontage for buildings set back more than 40'.	Evergreen trees may be substituted for ornamental trees at a rate of 1 for 1, and for large trees at a rate of 2 for 1, for up to 50% of the requirement.	1 shrub per 5' of building frontage. 3 ornamental grasses may be substituted for each shrub up to 50% of the requirement. Seasonal planting beds or pots associated with the entrance may substitute for any building located closer than 10' to the front lot line.
	Corner lots shall meet this requirement on street side lot lines at a rate of 50% of the requirement		
Parking. <i>Areas on the perimeter, or interior of parking where landscape is used to soften the appearance, mitigate heat gain, and infiltrate stormwater.</i>	1 large tree per 5 parking spaces	Evergreen trees may be substituted for large trees at a rate of 2 for 1, for up to 50% of the requirement	1 shrub per 5' of perimeter. 1 shrub per 3' for any parking area within 20' of any right of way or sidewalk.
	Ornamental trees may be substituted for large trees at a rate of 2 for 1 up to 50% of the requirement		3 ornamental grasses may be substituted for each shrub up to 50% of the requirement.
Buffers. <i>Areas of a site that require additional landscape to mitigate potential impacts on streetscape or adjacent property.</i>	See Section 8.03.		
Civic and Open Spaces. <i>Areas of the site designed as part of a broader system of formal and natural open spaces.</i>	See Section 3.02		
Other.	All other unbuilt or unpaved areas of a site shall require ground cover, perennials, grasses, rock, mulch or other natural and permeable surfaces. Up to 50% of any landscape area may consist of inorganic (non-living) decorative material such as river rock, colored pea gravel, boulders, pavers or similar natural material, provided it is designed and arranged in a way that can infiltrate runoff in association with planting areas.		

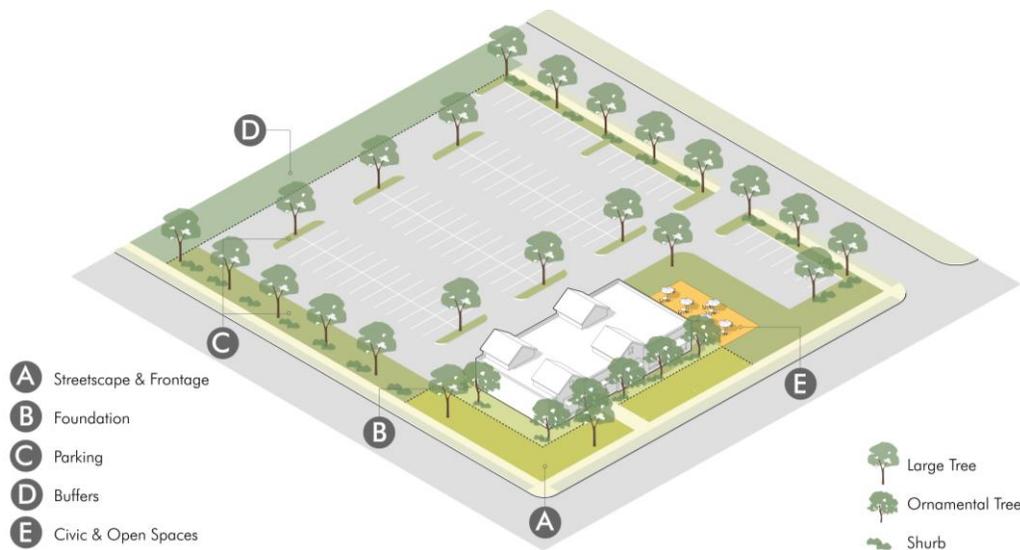


Figure 8-1 Landscape Design

The landscape requirements are allocated to different elements of the site and emphasize how different landscape standards and designs should be used to serve different functions on the site, including relating the streetscape, adding comfort and interest to active spaces, and or mitigating impacts on adjacent areas.

- C. **Credits for Existing Vegetation.** Preservation of existing landscape material that is healthy and desirable species may count for landscape requirements provided measures are taken to ensure the survival through construction and all other location and design standards are met.
1. Landscape plans shall provide an inventory of all existing trees or significant woody vegetation including size, health, species, and any proposed for removal.
 2. Existing landscape credits shall only count towards the portion of the site where it is located, according to the site elements in Table 8-1. For example, an existing tree may only count towards the required planting for parking lot perimeters if it remains in the parking perimeter in the final design.
 3. Credits shall be on a 1 for 1 basis provided it meets the minimum specifications for new plants. The Director may approve landscape material that is larger or otherwise established and valuable on a 2 for 1 basis, or may approve plants of exceptional quality due to species, location, maturity, and health on a 3 for 1 basis.
 4. Trees or other existing landscape that contributes to the standard shall be identified on a landscape plan and the critical root zone shall be protected for the entirety of construction by a construction fence. Tree protection measures shall be based on applicable industry standards and best practices to ensure survival of the landscape.
- D. **Design & Location.** The landscape required by Table 8-1 shall be arranged and designed in a way that best achieves the intent of this Article and design objectives of this Section, considering the context and agencies proposed on the site. Required plantings shall be planted in the following specific locations on the lot.
1. **Streetscape Trees.** Streetscape and frontage trees shall be located in line with other trees along the block to create a rhythm along the streetscape and promote enclosure of the tree canopy. In the absence of a clearly established line along the block, trees may be planted in the following locations in order of priority.
 - a. On center between the sidewalk and curb where at least 6 feet of landscape area exists;
 - b. In tree wells that are at least 4 feet in all directions and at least 24 square feet

- located within the sidewalk (applicable on wider attached sidewalks or pedestrian-oriented commercial or mixed-use streets);
 - c. 5 to 10 feet from the back of curb where no sidewalk exists or from the sidewalk in other situations where the sidewalk is attached;
 - d. Within the first 5 feet of the front lot line where any constraints on the lot or in the right-of-way would prevent other preferred locations;
 - e. Ornamental trees may be substituted for large street trees only in situations where no other alternative is available due to constraints of the site or right-of-way conditions. Ornamental trees should be used where trees are to be located within 10 feet of any overhead wires.
 - f. Shrubs or perennials planted in the streetscape (parkway, medians) shall not exceed 36 inches high, or 30 inches high in any area impacted by the sight distance limits of Section 3.01.D.2.

- 2. **Frontage & Foundation Trees & Shrubs.** Foundation plantings shall be located in open spaces near the building or in planting beds associated with the design of any hardscape along the building frontage.
 - a. Ornamental and evergreen trees shall be located within 25 feet from the building.
 - b. Shrubs and other plantings shall be located within 6 feet of the foundation.
 - c. Where planting beds are used within hardscape around a foundation, they should be at least 4 feet deep, at least 60 square feet, and concentrated along at least 50% of the building frontage.
 - d. Use larger and vertical landscape elements to frame entries, anchor the corners of buildings, or break up and soften larger building expanses.

- 3. **Parking Lot Landscape.** Parking lot landscape requirements shall be planted in perimeter buffers and landscape islands planned and designed according to Section 7.04, Parking Lot Design.
 - a. There shall be at least one large tree per 35 feet of parking lot perimeter, or one ornamental or evergreen tree per 20 feet of perimeter.
 - b. There shall be at least one tree per parking lot island, or one large tree or two evergreen or ornamental trees per 300 feet of other internal landscape area.
 - c. Shrubs shall be located to define parking lot edges, screen parking from adjacent sites, or create low barriers along sidewalks and streetscapes.
 - d. Any parking within 20' of the right-of-way shall have a Type I buffer per Section 8.03.

- 4. **Visibility at Intersections.** Screens, buffers and landscape shall be located and designed to maintain proper lines of sight at all intersections of streets, alleys, driveways, and internal access streets as provided in Section 3.01.D.2., Sight Distances.

- 5. **Specific Applicability.** Where landscape standards for different conditions or elements of a site overlap, effective site and landscape design may enable the space and plants to count toward more than one requirement, based on the greater plant requirement applicable to that area. For example, a buffer area required by section 8.03 may also be along a parking area perimeter, or a parking area perimeter may also be along a streetscape, and the greater planting requirement between these areas can satisfy both requirements. Approval shall be subject to the Director determining that the intent and design objectives of this section are achieved.

- E. **Alternative Compliance.** Alternative compliance to the landscape design standards established in Section 8.02, may be authorized according to the process and criteria in Section 2.07, Alternative Compliance, and any of the following additional applicable criteria:
 - 1. The alternative results in better design of common or civic space on the site;

2. The alternative results in a better allocation of plants in relation to adjacent streetscapes or other public spaces; or
3. The alternative is necessary to improve the longevity or survival of plant materials.
4. In all cases the deviation is the minimum necessary to address the circumstance, the alternative equally or better meets the design objectives of this Section, and there are no negative impacts on other design standards applicable to the building or site.

8.03 Buffer & Screening

- A. **Design Objectives.** Intense land uses or site elements shall be buffered and screened from streetscapes and adjacent property according to the following design objectives. These objectives shall be used in applying the buffer requirements in Table 8-2, Buffer Planting Requirements and Table 8-3, Buffer Application.
1. Mitigate impacts of parking lots or vehicle circulation near streets or property lines with landscape barriers and low-level headlight screening.
 2. Buffer and screen commercial uses, parking lots, and service areas abutting residential property with a combination of dense vegetation or fences and walls.
 3. Soften transitions where changes in development patterns, intensity of land uses, or building scale occur.
 4. Screen service and utility areas of buildings and sites from adjacent property or streetscapes with architectural features, fences, or landscape that limit visibility or noise.
 5. Create landscape clusters that soften long expanses of building walls, fences, surface parking, or other similar areas.
 6. Utilize berms, vertical landscape elements, dense plantings, or other grade or spatial changes to alter views, subdue sound, and change the sense of proximity of incompatible elements.
 7. Address three layers of landscape, including: large trees (high-level – 30'+); evergreen or ornamental trees (mid-level – 6' to 30'); and shrubs, annuals and perennials, and ground cover (low-level – under 6'), in a way that most directly mitigates the potential impacts and adjacencies.

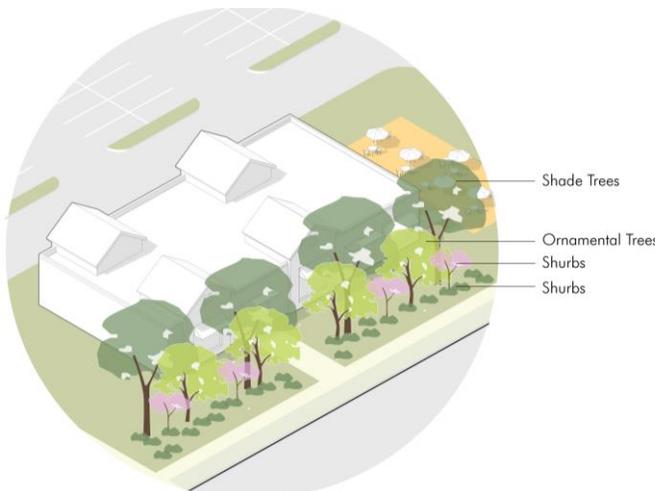
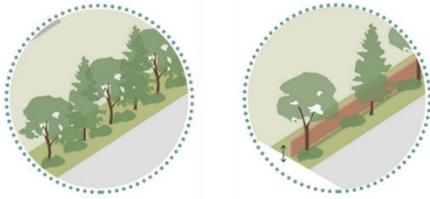
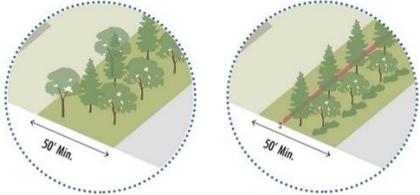


Figure 8-2 Buffer Layers

Effective buffer design should be based on the specific context, and the intent and degree of mitigation desired. Shade trees provide separation and mitigation at upper levels, evergreen and ornamental trees provide separation and mitigation at mid-levels, and shrubs or other smaller plants provide separation and mitigation at ground levels. Different levels may receive different priorities based on the specific context, potential impacts, and adjacencies.

- B. **Buffer Planting.** The planting requirements in Table 8-2: Buffer Planting Requirements shall be used to buffer and screen more intense uses or elements of a site according to the design objectives of this section. The buffer width exists independent of and may include any setback, parking perimeter buffer, or other open space requirement such that the larger requirement will control.

Table 8-2: Buffer Planting Requirements

Type and Applicability	Buffer Planting Requirement	
<p>Type I – A low-level screen and physical separation used for aesthetic purposes, particularly around site utility elements, walkways, or parking areas along pedestrian oriented streetscapes.</p>	<p>Width: 6' min.</p> <p>Planting: 1 large tree per 35' or 1 ornamental per 20'; and 1 shrub per 3'</p> <p>Variation: the shrub rate may be reduced by 50% in combination with the following:</p> <ul style="list-style-type: none"> ▪ A 2.5' to 4' decorative wall or fence in constrained areas or along the streetscape; or ▪ 3' berm in wider landscape areas or in association with buffers. 	 <p>Dense shrubs Decorative fence or wall Berm</p>
<p>Type II – A moderately planted area used to separate and soften transitions between more intense portions of sites between generally compatible land uses, or where buffers are necessary along collector or arterial streets.</p>	<p>Width: 15' min.</p> <p>Planting: 1 large tree per 35' or 1 ornamental per 20'; and 1 shrub per 5'; and 1 evergreen tree per 25'</p> <p>Variation: A 6' fence or ornamental wall compatible with the materials of the building may be used with a lessor combination of plants (up to 50% less), or with a smaller space (6' min.).</p>	 <p>Shrubs and evergreens 6' fence or wall</p>
<p>Type III – A densely planted area intended to mitigate noise and create a visual screen for potentially incompatible land use adjacencies, or for large scale or intense uses along major streets.</p>	<p>Width: 30' min.</p> <p>Planting: 1 large tree per 50'; and 1 ornamental per 25'; and 1 evergreen tree per 25'</p> <p>Variation: Other combinations of shrubs, evergreens, understory plantings, with a 3' – 4' berms or with fences or walls that provide a visual 6' – 7' screen.</p>	 <p>Separation + Planting 6'-7' fence or wall Berm</p>
<p>Type IV - A densely planted area intended to separate incompatible situations or high-intensity uses.</p>	<p>Width: 50' min.</p> <p>Planting: 1 large tree per 30'; and 1 ornamental tree per 25'; and 1 evergreen per 15'</p> <p>Variation: Other combinations of shrubs, evergreens, understory plantings, with a 3' – 4' berms or with fences or walls that provide solid barrier and separation.</p>	 <p>50' Min. 50' Min.</p>

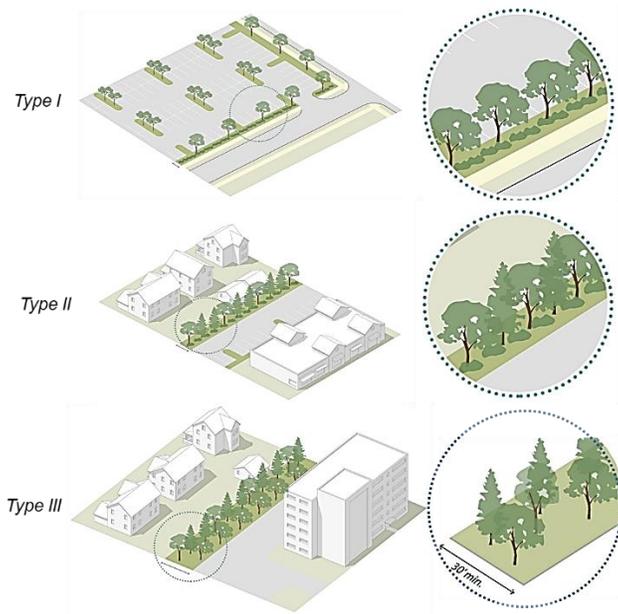


Figure 8-3 Buffer Types & Context
Application of the specific buffer type should be based on context and the adjacent site or projects.

C. **Buffer Locations.** Buffer types shall be required and applied as indicated in Table 8-3, Buffer Application.

Intensity of Adjacent Site		Intensity of Proposed Development			
		Low	Medium	High	Very High
Low		--	Type II	Type III	Type IV
Medium		Type II	--	Type II	Type III
High		Type III	Type II	--	Type II
Very High		Type IV	Type III	--	--
Use Intensity	Low	<ul style="list-style-type: none"> Residential: detached house, multi-unit house, row house, and small-lot apartment types Nonresidential: churches, schools, public and recreation, and similar community facilities 			
	Medium	<ul style="list-style-type: none"> Residential: medium- and large-lot apartment or apartment complexes Nonresidential: neighborhood retail (under 3K s.f.), or office uses (under 2 stories), artisan or small manufacturing (under 10K), or similar uses that do not operate between 10PM and 7AM 			
	High	<ul style="list-style-type: none"> Nonresidential: general commercial uses that may be larger scale (over 3K), light manufacturing or other higher intensity uses that operate beyond 10PM 			
	Very High	<ul style="list-style-type: none"> Nonresidential: heavy commercial uses (over 100K s.f.) or uses with significant outside activity or storage, or heavy industrial and manufacturing uses 			
Other Applications		Parking areas within 20 feet of any public street or through access drive shall have a Type I buffer Any lots that back to a collector or arterial street shall require a Type III buffer, which may be incorporated into the right-of-way landscape. (See Sections 3.01 and 3.02 for more effective and efficient ways to design blocks and lots in association with street networks and open spaces.) Any lots adjacent to a highway or expressway shall require a Type IV buffer for residential and Type III buffer for nonresidential			

- D. **General Screening.** All of the following shall be screened from streets or adjacent property by placement of buildings, open space, dense evergreen vegetation, a decorative opaque fence or wall complementing the architectural details and materials of the building, or a combination of these screening strategies. Where design of the building, frontages, open space, buffers and other site requirements do not adequately screen these elements, the Director may require additional planting to achieve the design objectives of this Section.
 - 1. Electrical and mechanical equipment such as transformers, air conditioners, or communication equipment and antennas whether ground-, wall- or roof-mounted.
 - 2. Permanent or temporary outdoor storage areas.
 - 3. Trash enclosures.
 - 4. Utility stations or fixtures.
 - 5. Delivery and vehicle service bays, except that bays do not need to be screened from adjacent property with the same or more intense zoning.
 - 6. Large blank walls visible from public streets, public or common areas or other sensitive boundaries in association with the buffer standards.
 - 7. Nonresidential or multi-family parking lots over 10 spaces adjacent to residential lots.

- E. **Alternative Compliance.** Alternative compliance to the buffer and screening standards established in Section 8.03, may be authorized according to the process and criteria in Section 2.07, Alternative Compliance.

8.04 Plant Specifications

- A. **Design Objectives.** The plant specifications have the following design objectives:
 - 1. Ensure the longevity and survival of landscape investments with proper species, location, installation and maintenance of plants.
 - 2. Promote regionally appropriate strategies, including limiting risk of disease or infestation through diversity of urban forest on an area- or city-wide basis.
 - 3. Establish minimum standards that balance immediate conditions with reasonable long-term growth and performance of landscape plans.
 - 4. Require water efficient strategies in terms of the water needs of landscape plans, and the continued operations and maintenance of sites.

- B. **Species.** All trees and shrubs shall be selected and planted according to the Fort Lupton Recommended Plant Materials List in Appendix C. In addition to any species on these lists, alternatives may be proposed and approved as part of the site plan provided they:
 - 1. Are documented by a landscape architect or other credible information comparable in type and performance to any species on this list;
 - 2. Are adaptable to the climate of the Front Range region and the specific conditions in which they are proposed; and
 - 3. Are not invasive or otherwise problematic to the overall health of the landscape.

- C. **Plant Specifications.** All landscape materials shall meet the American Standards for Nursery Stock standards, and be selected for its native characteristics or survival in the climate for the Front Range region. Plants shall meet the following specifications at planting:

Table 8-4: Plant Specifications	
Type	Specification
Large Tree	2" DBH; Mature height of at least 30'

Type	Specification
Ornamental Tree	2" DBH ; 8' to 10' minimum planting height for multi-stemmed; Mature height of 15' – 30'
Evergreen Tree	6' minimum planting height; Mature height of at least 10'. Evergreens with mature heights of 30' or more may be classified as large trees.
Shrub	24" or 5-gallon minimum container
Perennials	1-gallon container
Ground Cover	Areas designed for vegetative cover shall have 50% ground cover at the time of planting and full coverage within 2 growing seasons
General	Plants used for screening and buffers shall achieve the required opacity and function in its winter seasonal conditions within 2 years following planting.

DBH – Diameter at breast height

- D. **Tree Diversity.** The required trees planted shall promote diversity with the following species selection criteria.

Required Trees	Diversity
1 - 9	No specific requirement, but trees should be diversified from those existing trees in the vicinity.
10 - 39	At least 2 genus; AND At least 3 species No more than 50% of any one species
40+	At least 3 genus; AND At least 4 species No more than 33% of any one species

* Any streetscape master plan or public realm plan may achieve street tree diversity on a broader or block-scale basis while planting the same species on individual segments for the urban design effect.

- E. **Xeric Guidelines.** All landscape plans shall conserve water with landscape materials and design techniques using the following xeric principles.
1. Incorporate a “zoned planting scheme” to reduce water demand by grouping plants with similar water requirements together in the same hydrozone.
 2. Limit high-irrigation turf and plantings to appropriate high-use areas with high visibility and functional needs, and use water-conserving grasses such as fescue sods.
 3. Use drought tolerant plants, suitable to the region, with low watering and pruning requirements.
 4. Incorporate soil amendments and use of organic mulches that reduce water loss and limit erosion. All plant areas should receive soil amendments of at least 3 cubic yards per 1,000 square feet.
 5. Install efficient automatic irrigation systems that incorporate water conservation measures, including spray heads for ground cover and drip irrigation for shrubs and trees, and high-efficiency or precision nozzles. Provide regular and attentive maintenance to ensure irrigation systems are functioning properly.
 6. Alternative sources of irrigation for all landscape areas is encouraged.

- F. **Stormwater Treatment.** Landscape amenities that incorporate stormwater treatment are recommended, provided they can meet both the landscape design standards and the stormwater management performance standards. Techniques such as bioswales, water quality ponds, and rain gardens should be used to infiltrate runoff from parking lots, streets, civic spaces, and other impervious surfaces.

- G. **Planting & Maintenance.** All landscape plans shall include installation specifications, method of maintenance including a watering system and statement of maintenance methods. At a minimum landscape plans shall demonstrate the following:
 - 1. No plants shall be planted over any area that has been compacted. All planting areas shall be excavated and filled with amended soils to a depth of at least 24 inches, or additional sufficient depth to reach existing soils and remove any pervious material, compacted soils, stones 1 inch or larger, or any other material harmful to plant growth.
 - 2. All plant materials and planting areas shall be prepared and planted according to American Standard for Nursery Stock (ANSI) details and ensure proper soil quality and conditions.
 - 3. All plantings shall be properly maintained. Plant materials which fail to grow within a 2-year period or which exhibits evidence of insect pests, disease, and/or damage shall be appropriately treated, and any plant in danger of dying may be ordered by the Director to be removed and replaced.
 - 4. All elements of an approved landscape plan including plant materials shall be considered elements of the project in the same manner as parking, buildings or other details. Deficiencies of any approved landscape plan at any point may be enforced as a violation of the provisions of this ordinance.

- H. **Alternative Compliance.** Alternative compliance to the plant specification standards established in Section 8.04, may be authorized according to the process and criteria in Section 2.07, Alternative Compliance, and any of the following additional applicable criteria:
 - 1. The alternative is necessary to improve the longevity or survival of plant materials.
 - 2. The alternative improves the health or general species mix specific to the context and vicinity of the site.
 - 3. In all cases the deviation is the minimum necessary to address the circumstance, the alternative equally or better meets the design objectives of this Section, and there are no negative impacts on other design standards applicable to the building or site.

8.05 Fences & Walls

- A. **Design Objectives.** Fences and walls provide safety and security, screening, and architectural enhancements to sites and buildings and shall meet the following design objectives:
 - 1. Fence and wall designs shall consider the context of the area, the location on the site, and the desired functions.
 - 2. Fences and walls with prominent publicly visible locations require higher design standards, accompaniment of landscape to soften the expanse, or a combination of both.
 - 3. Fences and walls in walkable contexts or nearest pedestrian facilities require a lower profile, more open design, or both.
 - 4. Fences and walls in prominent public places should complement the design of the site and the architecture of the associated building.
 - 5. Fences and walls shall be designed and located sensitive to the massing and design relationship, and other impacts to adjacent property.

- B. **Fence & Wall Design.** All fences and walls shall meet the following standards.

1. **Permit.** A permit requiring conformance with these standards shall be required for:
 - a. All new fences or walls; and
 - b. All repairs or replacement of existing fences more than 50% of the fence or 50 feet, whichever is less.
 - c. A fence may only be permitted in the right-of-way or public easement, subject to a revocable permit issued by the city. Fences in private easements may be permitted subject to the conditions of the easement, at the property owners risk, and any other conditions on the permit requiring the applicant to assume liability for the fence.

2. **Height & Location.** Fences for individual property shall be located according to Table 8-6: Fence Height and Location.

Table 8-6: Fence Height and Location		
	Residential	Commercial & Industrial
Front	<ul style="list-style-type: none"> ▪ 3' high if solid ▪ 4' high if at least 50% open 	<ul style="list-style-type: none"> ▪ 3' high if solid ▪ 4' high if at least 50% open
Side & Rear	<ul style="list-style-type: none"> ▪ 6' if behind the front building line 	<ul style="list-style-type: none"> ▪ 8' if behind the front building line
Setbacks	<ul style="list-style-type: none"> ▪ All fences shall be at least 18 inches from any public sidewalk, except front fences meeting the front fence design standards may be built on the property line even if abutting a sidewalk. 	
Generally	<ul style="list-style-type: none"> ▪ Ornamental enhancements associated with an entry or gateway may be up to 8' high. ▪ All fences or walls located along adjacent lot lines shall be constructed so that either: <ul style="list-style-type: none"> ○ The face of the fence is on the property line, with the finished side facing outward; or ○ The face of the fence is at least 3 feet from the property line. Any areas set back 3 feet or more from the property line, which could become enclosed by other similarly located fences or walls, shall provide at least one gate for access and maintenance equipment. ▪ Fences or walls outside of required setbacks (i.e. in the buildable envelope), and behind front building line can exceed height limits, but may be limited by building codes or other public health and safety standards. ▪ Height includes any retaining wall or berm the fence is built on; however, the Director may grant exceptions where for fences in conjunction with a berm or wall where they equally or better serve the intent and design objectives of this Article. 	

3. **Perimeter Fences.** Any fence designed as part of a perimeter fence for multiple properties, as part of a landscape buffer, or any expanse longer than 100 feet and within 30' of a collector or arterial, shall meet the following standards:
 - a. All fencing shall be softened with landscape materials on the street side of fences meeting the buffer standards of Section 8.03.
 - b. Expanses of over 300' shall be broken up by either:
 - (1) Offsets of at least 3 feet on 1/3 of the length for every 300 foot span; or
 - (2) Ornamental designs on at least 1/2 of every 300 foot span space that is at least 75% open (i.e. wrought iron) and includes architectural pillars or posts (i.e. stone, or masonry) at least every 50 feet.

4. **Sports and Recreation Fences.** Fences for sports and recreation facilities, or for any other similar public facility, may be up to 10 feet generally; or up to 14 feet for tennis courts if at least 50% open above 7 feet high; and taller to serve the functional need for backstops or golf course protection.

5. **Materials.** All fences and walls shall be made of the following:
 - a. Decorative iron;
 - b. Masonry;
 - c. Wood;
 - d. Chain-link/woven wire, except prohibited for any front fence;
 - e. Vinyl;
 - f. Pipe, limited to industrial districts and only if painted and maintained;
 - g. Barbed wire, limited to the side or rear of commercial and industrial fences and only if all portions of barbed wire are above 6 feet high; or
 - h. Electrical fences are only permitted for agriculture uses in the A district.

 6. **Construction Fences.** Temporary fences for construction may be up to 10 feet or as otherwise specified in construction permits.

 7. **Drainage Easements.** No fence shall be constructed which could impede the flow of drainage waters. All fences must be installed in a manner that will not constrict the water flow planned for proper drainage of the lots in a subdivision.

 8. **Sight Distances.** All fences, walls or screening shall be located out of the sight distances in Section 3.01.D.2, Sight Distances, or otherwise limited to no more than 3 feet high in these areas.
- C. **Alternative Compliance.** Alternative compliance to the fence and wall standards established in Section 8.05, may be authorized according to the process and criteria in Section 2.07, Alternative Compliance.

8.06 Outdoor Lighting

- A. **Design Objectives.** Exterior lighting of sites and buildings shall meet the following design objectives:
1. Provide safety and security in publicly accessible areas.
 2. Create comfort and ambiance with softer and warmer lighting in gathering spaces, social places, and pedestrian-oriented streetscapes.
 3. Accent the architectural features buildings, gateways or other portions of sites visible from the streetscape or other public spaces.
 4. Design the appropriate scale of light considering pedestrian-oriented or vehicle-oriented portions of sites.
 5. Limit glare or other impacts that site lighting could have on adjacent sites with the appropriate design, location and type of fixture, and based on the context of the area.
 6. Reinforce the unique character of particular areas with the types and style of lighting fixtures.
 7. Develop energy efficient lighting strategies in balance with other site lighting objectives.
- B. **Mounting Height.** All exterior lighting shall be limited to the mounting heights specified in the following table:

Table 8-9: Maximum Light Mounting Height	
Driveways and Parking Areas	<ul style="list-style-type: none"> ▪ 24' in residential districts; or within 30' of any street; or within 100' of a residential use or residentially zoned property. ▪ 35' in all other districts or situations.
Pedestrian Walkways, Plazas or Courtyards, and Pedestrian-oriented Streetscapes	<ul style="list-style-type: none"> ▪ 16'
Facade Lights	<ul style="list-style-type: none"> ▪ Below the eave or cornice line, provided the light is directed downward or otherwise designed and located to limit up lighting beyond the facade.
Other Site Lighting	<ul style="list-style-type: none"> ▪ 12' nonresidential; ▪ 7' residential
Building Mounted Security Lights	<ul style="list-style-type: none"> ▪ May be mounted at heights required to provide adequate security provided all efforts be made to mitigate off-site impacts including dimmers, timers, sensors, shields or other technology.
General	<ul style="list-style-type: none"> ▪ All light poles shall be setback from the property at least 3', or at least 1/3 of the height, whichever is greater.

- C. **Performance Standards.** In addition to the height and location standards, exterior site lighting shall meet the following performance standards:
1. All exterior fixtures shall be fully shielded and installed so that the direct illumination shall be confined to the property boundaries of the source, except for ornamental lights below 2,400 lumens.
 2. The location, height, and fixture shield shall prevent light spread or glare onto any adjacent property or any public right-of-way, other than building mounted lighting on street-front buildings.
 3. Lighting shall be designed to meet the functional and security needs of the site, without adversely affecting adjacent properties. Performance and operational characteristics such as dimming interfaces or timers that reduce lights to minimal security levels for off hours should be used.
 4. All facade lighting and other externally illuminating lights shall use shielded, directional fixtures, designed and located to minimize uplighting and glare. Decorative lighting, such as lanterns and wall sconces, which may be allowed as long as the fixtures, do not exceed 2,400 lumens and do not emit light directly upward.
 5. The style of light standards and fixtures shall be consistent with the style and character of architecture proposed on the site and building.
 6. Lighting plans shall demonstrate compliance with industry standards and guidelines for environmental and energy performance, including the fixture types, light source, and energy source.
 7. A photometric plan prepared by a qualified professional may be required by the Director for large-scale uses or where certain compatibility and adjacency issues exist as a result of anticipated lighting.
- D. **Alternative Compliance.** Alternative compliance to the lighting standards established in Section 8.06, may be authorized according to the process and criteria in Section 2.07, Alternative Compliance.