

ARTICLE 10 LANDSCAPE STANDARDS

§10.01 INTENT

The intent of this article is to promote the public health, safety and welfare by establishing minimum standards for the design, installation and maintenance of landscaping as buffer zones between zoning districts, along roadways, between adjacent buildings and in parking lots.

The standards of this article are intended to guide and encourage the protection and enhancement of the environment through requirements for site design and the use of landscape materials. Applicants are encouraged to provide landscaping in addition to the minimum requirements of this ordinance to improve the function, appearance and value of their property.

§10.02 APPLICATION

The requirements set forth in this article shall apply to all uses for which site plan review is required under Section 8.02. No site plan or land use shall be approved unless said site plan shall show landscaping consistent with the provisions of this Article.

The Planning Commission may also determine that dimensional conditions unique to the parcel would prevent development of required buffer zones, off street parking area, landscaping or green belts. In addition, when space limitations or prevailing development patterns in the surrounding neighborhoods, justify exceptions to these requirements the Planning Commission may make a determination that an exception be granted.

The following are minimum landscape standards and nothing will preclude the developer and City from agreeing to more stringent standards. If applicable this determination will be made during site plan review.

A. Landscape Plan Required

A separate detailed landscape plan shall be required to be submitted as part of a site plan review. The landscape plan shall include, but not be limited to the following items:

1. Minimum scale of one (1) inch to fifty (50) feet.
2. Proposed plant location, spacing, size, species (common and botanical name) and necessary descriptions for use within required landscape areas.
3. Existing and proposed contours on-site and 100 feet beyond the site at intervals not to exceed two (2) feet.
4. Straight cross section including slope, height and width of berms and type of ground cover, or height and type of construction of wall or fence, including footings.

5. Significant construction details to resolve specific site conditions, such as tree wells to preserve existing trees or culverts to maintain existing natural drainage patterns.
6. Planting and staking details in either text or drawing form to ensure proper installation and establishment of proposed materials.
7. Identification of existing trees proposed to be saved including individual tree caliper size and species. Clearly reference on the plan the total number of trees proposed to be preserved, category of preserved tree caliper size and number of trees requested for credit consideration.
8. Identification of tree protection method for trees proposed to be preserved.
9. Identification of existing healthy trees over 8" caliper proposed to be removed.
10. Identification of grass and other ground cover and method of planting.
11. Clearly reference on plan total number of proposed parking spaces and number of parking lot trees.
12. Site plan review for pre-existing sites shall clearly identify the proposed building and/ or parking expansion and label the net percent site increase and calculated landscape requirement. Clearly identify proposed building entrances and curb cuts.
13. Identify areas established for storage of plowed snow during winter months to ensure that plants are not damaged by storage of snow on them.

§10.03 MINIMUM BUFFER ZONES

It is the intent of this section to provide a landscape buffer between conflicting land uses. The buffer zone is defined as the landscape area located within the required side and rear yard setbacks. Landscape requirements along the public street right of way, or front yard are addressed in Section 10.04: Greenbelts.

A. A buffer zone shall be provided within the setback between the subject site and all adjacent properties according to the table below. Walls shall typically be prohibited along a public street right of way or in a front yard unless specifically approved by the Planning Commission. The height of the wall or berm shall be measured from the surface of the parking area or land on the nonresidential side of the wall. All walls shall meet the standards described in item 10.03:B following. Buffers utilizing a combination of plant materials, berming and walls will be encouraged.

ZONING DISTRICT OF SUBJECT SITE	ZONING DISTRICT OF ADJACENT SITE			
	R-1*	R-3, R-4, RC	C-1, C-2	I
R-3, R-4, RC	B or a 4 foot high wall/fence	B or a 4 foot high wall/fence	A or a 5 foot high wall/fence**	A or 8 foot high wall/fence**
C-1, C-2	A or 6 foot high wall/fence**	A or a 5 foot high wall/fence**	None	B
I	A or 8 foot high wall/fence**	A or 8 foot high wall/fence**	B	None

A = One (1) deciduous canopy tree and, continuous visually solid hedge (during leaf period) at least 4' ht. at maturity, or one (1) evergreen tree and continuous visually solid hedge (during leaf period) at least 4' ht. at maturity, per thirty (30) linear feet along the property line. All property line distances shall be rounded upward to the nearest foot. A combination of evergreen and deciduous plant materials in the hedge will be encouraged.

B = One (1) Deciduous canopy tree and visually solid hedge (during leaf period) at least 4' ht. at maturity, or one (1) evergreen tree and visually solid hedge (during leaf period) at least 4 ft. at maturity, per forty (40) linear feet along the property line. All property line distances shall be rounded upward to the nearest foot. A combination of evergreen and deciduous plant materials in the hedge will be encouraged.

Where the adjacent property, including property across a public street or private road, is zoned or used as single family residential, the Planning Commission may require additional landscaping (trees, shrubs, wall or berm) along the property line or within the site to sufficiently screen the parking lot, vehicle headlights, loading zones, outdoor display areas, storage yards, accessory structures, or use.

** A berm will be considered when a minimum 22 ft. wide buffer strip is available for a 3 foot high berm. A berm at least three (3) feet high is permitted as part of a buffering requirements (Example: a three (3) foot fence on top of a three (3) foot berm is equivalent to a six (6) foot fence or wall). A four (4) foot high berm may be substituted for a four (4) foot high fence or wall. See Section 10.3.D for Berm Standards. No fence, berm or combination thereof shall exceed six (6) feet in height except in the industrial zone.

Home occupations approved by special use permit within the residential districts may require additional buffering, screening or landscape requirements. Requirements may be directed along the property line or within the site to ensure a harmonious effect with adjacent properties, within the residential area and to minimize the impact of a more intense use or activity

B. Parking and Storage

1. All storage areas (including areas for storage of refuse) which are visible from residential districts or public thoroughfares, shall be screened on all sides by a fence or wall no less than 6 feet in height. The fence or wall shall not allow light to penetrate through it.
2. Side yard and rear yard buffer screen: The Planning Commission may require the parking lots in the side and rear yards of parcels that are adjacent to residential uses to be screened with a hedge, wall, berm, fence or combination thereof forming a continuous screen at least fifty-two (52) inches in height above parking lot grade.

C. Wall and Fence Standards - When Buffering is Required:

For purposes of buffering, walls and fences are the same. Required walls shall comply with the standards listed below.

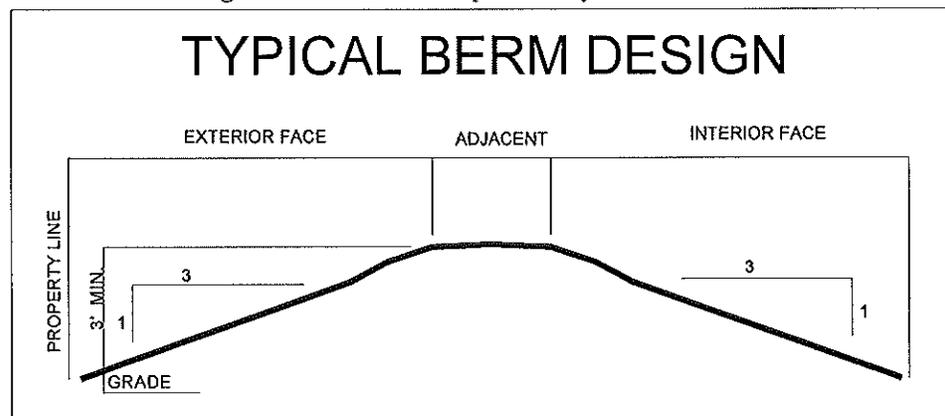
1. Walls shall be located one (1) foot within the lot line except where underground utilities interfere and or where this Ordinance requires conformance with yard setback lines. The Planning Commission, at their discretion, may approve an alternative wall location.
2. Walls shall have no openings for vehicular traffic or other purposes, except as otherwise provided in this Ordinance, unless specifically approved by the Planning Commission.
3. Walls shall be constructed of face brick, pressure treated wood, or comparable nonporous facing materials on the exterior sides facing an affected district.
4. Walls shall be durable, weather resistant, rustproof and easily maintainable. Wood or wood products shall be high quality durable materials. Wood fences shall be sight obscuring sufficient to shield light and block blowing debris. Masonry walls may be constructed with openings which do not in any square section (height and width) exceed twenty (20) percent of the surface. Where walls are so pierced, the openings shall be spaced so as to maintain the obscuring character required and shall not reduce minimum height requirement.

5. Walls must be maintained in good condition by the property owner.
6. Curbing, bollards (posts), or plant material shall be required where parking is adjacent to walls.

D. Berm Standards

1. Required berms shall be constructed as landscaped earth mounds with a crest area at least four (4) feet in width. The exterior face of the berm shall be constructed as an earthen slope. The interior face of the berm may be constructed as a earthen slope or retained by means of a wall, terrace or other means acceptable to the Planning Commission. Whenever an earthen slope is provided, it shall be constructed with a slope not to exceed one (1) foot of vertical rise to three (3) feet of horizontal distance (1:3). (See Illustration). Free form naturalistic contouring and berm shaping is encouraged.
2. Berm slopes shall be protected from erosion by sodding or seeding. Seeded slopes shall be protected with a straw mulch held in netting until the seed germinates and a permanent lawn is established. The straw mulch is not required if the seeded slope is protected by a net that is specifically designed to control erosion. The berm area shall be kept free from refuse and debris and shall be planted with living shrubs, trees or lawn, and shall be maintained in a healthy, growing condition.
3. As part of an overall site plan, a planting and grading plan shall be prepared for the berm. Plant materials within the berm area shall be installed in accordance with the requirements for Greenbelts or Buffer Zones, depending on berm location, and plant materials contained in this section.

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§10.04 GREEN BELTS REQUIRED ALONG THE PUBLIC RIGHT OF WAY

A green belt shall be planted adjacent to the right of way, within private property, of any public street or approved private street. The green belt plantings shall be planted within the required front yard or side yard setback of the principal structure. The Planning Commission may allow such planting to be placed anywhere within the front yard if there is no front yard parking. Greenbelt requirements may overlap with Buffer Zone requirements. The green belt shall meet the following standards:

- A. The green belt shall include only living materials and planting beds, except for approved sidewalks, signs, driveways and essential services.
- B. The green belt shall include one (1) deciduous canopy tree per thirty (30) linear feet of the frontage including any openings for driveways, sidewalks, or easements.
- C. The Planning Commission may approve substitution of evergreen trees for up to fifty percent (50%) of the required green belt trees upon determining evergreens would be consistent with the existing character of the area.
- D. Greenbelt trees should be spaced consistent with the existing character of the City.
- E. Landscaping materials arrangement shall insure adequate site visibility for motorists, adequate clearance for pedestrians and vehicles and accessibility to fire hydrants. Plant materials within the twenty (20) foot site distance triangle shall not be more than thirty (30) inches in height.

§10.05 LANDSCAPING OF PROPERTY

- A. Areas between buildings and property lines and adjoining street rights-of-way, excluding improvements such as parking lots, driveways, loading areas on approved site plan shall be used exclusively for the planting and growing of trees, shrubs, lawns and other ground covering or material as approved by the Planning Commission, and shall be installed within 60 days of completion or occupancy of building, season permitting, whichever is first.
- B. Unused land area must be kept free of weeds or other unsightly plant growth, rubbish or debris and must be seeded if area is vacant for more than 1 year.

§10.06 PLANT MATERIAL SPECIFICATIONS

All plant material shall be free of disease and insects at time of planting, and conform to the American Standard for Nursery Stock of the American Association of Nurserymen ANZI Z60.1.

A. Plant material and design variety:

The overall landscape plan shall demonstrate a variety of plant material with not more than 50 % of any one species utilized throughout the design.

B. Suggested (not required) Plant Materials

TREES	minimum size at planting					
	height			caliper		
	3'	4'	6'	10'	1.75"	2.5"
EVERGREEN						
Hemlock (<i>Tsuga</i> sp.)			X			
Fir (<i>Abies</i> sp.)			X			
Pine* (<i>Pinus</i> sp.)			X			
Spruce (<i>Picea</i> sp.)			X			
Douglas-Fir (<i>Pseudotsuga menziesii</i>)			X			
NARROW EVERGREEN						
False Cypress (<i>Chamaecyparis nootkatensis</i>)		X				
Wichita Blue Juniper (<i>Juniperus scopulorum</i> 'Witchita Blue')		X				
Eastern Redcedar (<i>Juniperus virginiana</i> cvs.)		X				
Swiss Stone Pine (<i>Pinus cembra</i>)		X				
Pyramidal White Pine		X				
Pyramidal Japanese Yew (<i>Taxus cuspidata</i> "Capitata")		X				
Hick's Yew (<i>Taxus x Media</i> 'Hicksii')		X				
Arborvitae varieties (<i>Thuja occidentalis</i> cvs.)		X				
ORNAMENTAL TREES						
Flowering crabs (<i>malus</i> sp.) (disease resistant varieties only)					X	
Serviceberry (<i>Amelanchier</i> sp.)			X			

TREES	minimum size at planting					
	height			caliper		
	3'	4'	6'	10'	1.75"	2.5"
Dogwood (<i>Cornus alternifolia</i>)					X	
Hornbeam (<i>Carpinus betulus</i>)					X	
Hawthorn (thornless varieties)					X	
Magnolia (<i>Magnolia</i> sp.)			X or		X	
Flowering pears (<i>Pyrus</i> sp.)					X	
Paperbark Maple (<i>Acer griseum</i>)					X	
LARGE DECIDUOUS SHRUBS						
Honeysuckle (<i>Lonicera fragrantissima</i> only)		X				
Viburnum (<i>Viburnum</i> sp.)	X					
Mock-Orange (<i>Philadelphus virginialis</i>)	X					
Lilac (<i>Syringa</i> sp.)		X				
Privet (<i>Ligustrum</i> sp.)		X				
Amur maple (<i>Acer ginnala</i>)			X			
Dogwood (<i>Cornus alba elegantissima</i>)			X			
Cornelian Cherry (<i>Cornus mas</i>)			X			
Smoke tree (<i>Cotinus coggyria</i> and cvs.)			X			
Bayberry (<i>Myrica pensylvanica</i>)		X				
DECIDUOUS CANOPY TREES						
Oaks (<i>Quercus</i> sp.)						X
Hard Maples (<i>Acer rubru</i> , <i>A. saccharum</i> , <i>A. platanoides</i> - not within 20' of sidewalks located in public ROW)						X
Hackberry (<i>Celtis occidentalis</i>)					X	
River Birch (<i>Betula nigra</i>)				X		
Beech (<i>Fagus</i> sp.)						X

TREES	minimum size at planting					
	height			caliper		
	3'	4'	6'	10'	1.75"	2.5"
Ginkgo (male plant only) (Ginkgo sp.)					X	
Honeylocust (thornless and seedless cultivars only) (Gleditsia sp.)						X
Littleleaf Linden (Tilia cordata)						X
Ash (seedless varieties)						X

Trees Not Permitted

1. Box Elder (Acer negundo)
2. Soft Maples (Silver) (Acer saccharinum)
3. Norway Maples (Acer platanoides) (to prevent sidewalk heaving, cannot be located within 20 ft. of sidewalks in public R.O.W.)
4. American Elms (Ulmus americana)
5. Poplars, including Cottonwoods (Populus species)
6. Willows (Salix species)
7. Horse Chestnut (Nut Bearing) (Aesculus hippocastanum)
8. Tree of Heaven (Ailanthus altissima)
9. Catalpa (Catalpa species)
10. Paper Birch (Betula papyrifera)
11. Siberian Elm (Ulmus pumila)
12. Sycamore (Platanus occidentalis)

§10.07 EXISTING TREE PRESERVATION INCENTIVES

The standards outlined below are intended to encourage the preservation of quality and mature trees by providing credits, at Planning Commission approval, toward the required trees for green belts, buffer zones and within parking lots.

- A. All trees over eight (8) inches caliper shall be identified on the site plan with notations of trees to be preserved and trees to be removed.
- B. Trees intended to be preserved shall be noted with a unique symbol on the site plan and be protected during construction through the use of construction fencing at or beyond the drip line of the tree or trees to be preserved.

C. Trees to be preserved shall be considered for credit only if they are located on the developed portion of the site as determined by the Planning Commission. The Planning Commission pursuant to site plan approval may allow credit for such plant material preservation if it will maintain and encourage the intent of the ordinance. To obtain credit consideration the preserved trees shall be of a high quality and at least two (2") inches caliper.

D. Credit Consideration for preserved trees shall be:

Preserved Tree Caliper*(inches)	Number of Trees to be Credited
12 inches and over	3
8 inches to 11.99 inches	2
2 ½ inches to 7.99	1

*Caliper is the diameter of a tree trunk and shall be measured at a height six (6) inches above the existing grade up to and including four (4) inch caliper size and twelve (12) inches above the existing grade for larger sizes.

E. To protect and encourage the continued health and vitality of the preserved trees, the ground within the drip line of the trees shall be maintained in the existing natural state. Storage of soils or other materials during or after construction within the tree drip line is prohibited.

F. The minimum number of required trees shall not be reduced by less than fifty (50) percent through the use of approved tree credits. However, the Planning Commission during site plan review, may determine that existing landscaping or screening intended to be preserved would provide comparable required landscaping, buffering or screening.

§10.08 MINIMUM STANDARDS FOR INSTALLATION AND MAINTENANCE

A. Installation

Landscaping shall be installed in a sound workman like manner and conform to the American Standard for Nursery Stock ANSI Z60.1.

B. Material removal

Tree stakes, guy wires and tree wrap are to be removed by the applicant after one (1) year, unless an extension is requested by the property owner and approved by the zoning administrator.

C. Maintenance

Greenbelt areas and plant materials required by this ordinance shall be kept free from refuse and debris. Plant materials shall be maintained in a healthy growing condition, neat and orderly in appearance within three (3) years from the time of planting. Plant material that is part of a buffering element required in Section 10.3 must be permanently maintained.

§ 10.09 ENFORCEMENT

A violation of any provision of this Section or non-compliance with written notifications pertaining to this Section shall constitute a violation of this Ordinance under Section 15.02.