

CHAPTER 24 - LANDSCAPING

Section 24-1. Required Landscaping:

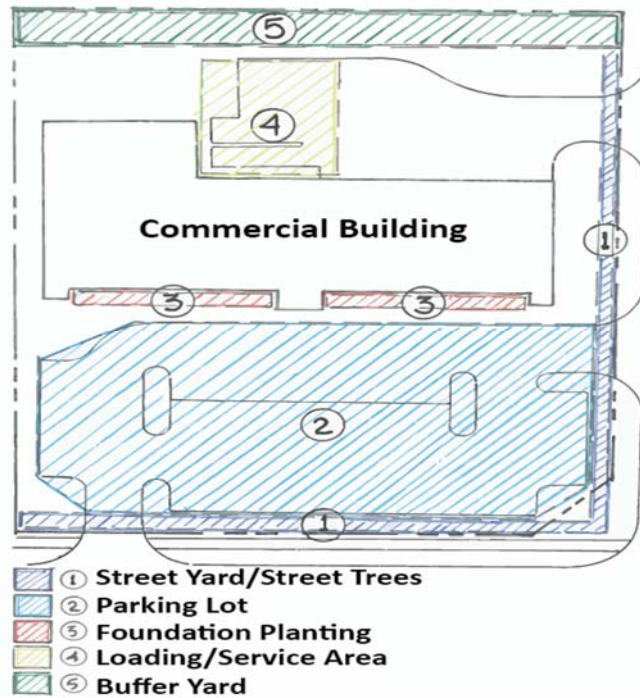
- a) **Purpose:** The purpose of this Section is to clearly express the city's intent for all properties to be landscaped and maintained with great care. Properties shall be landscaped to express sensitivity to environmental conditions and provide functional value in urban ecosystems as well as adding an emphasis on aesthetic quality for the community.
- 1) The requirements of this section are intended to guide landscaping within commercial, industrial and residential zoning districts in a consistent and equitable manner using simple formulas to calculate required plant quantities.
 - 2) All landscaping must be designed to add visual beauty to the property, provide a high level of aesthetic value, buffer potentially incompatible land uses from one another, and conserve the value of properties within the City and the extra-territorial jurisdiction. The quantity and quality of the design should be compatible with each zoning district and the intended use of the property.
 - 3) All new development, additions, and enlargements or redevelopment of a site shall comply with the landscape requirements of this chapter and incorporate sustainable landscape elements in the planting design to include, but not be limited to, use of native species, rain gardens/bioretention systems, green rooftops, and xeriscaping are encouraged for water conservation.
 - 4) Aesthetic design elements and hardscapes that complement the plant material such as public art, fountains, plazas, courtyards, and front yard/entrance statements are also encouraged to complete the transformation of outdoor spaces.
- b) **Applicability:** This chapter shall apply to new development within all zoning districts other than R1, R2 districts (except see d) below), and the C3 District, unless the new development consists of a multifamily dwelling containing three (3) dwelling units or more, in which case this section shall apply without regard to the district in which such multifamily new development occurs.
- 1) This section also applies to all new public uses regardless of the zoning district in which the property is located. New public zoned uses shall follow the same provisions as required for C2 zoned properties.
 - 2) Requirements for MH districts are contained in Chapter 17.
 - 3) Requirements for landscaping in I1 and I2 districts are contained in Chapters 15.2 & 15.3.
- c) **Additions and Enlargements:** Minor additions or enlargements that increase the floor area of the building by less than twenty-five percent (25%) shall not require additional landscaping. An addition or enlargement that increases the floor area by greater than twenty-five (25%) but less than seventy-five (75%) shall require compliance with this chapter only in the area where the addition is constructed. Additions and enlargements that increase the floor area by seventy-five percent (75%) or more shall require compliance with this chapter for the entire development site. Credit may be given to existing landscaping.

- d) **Single Family and two-family lots** shall have turf (seeding, sod) or alternative approved plant material established within the front yard within 120 days of the City issuing a Certificate of Occupancy (excluding time between October 1st and May 1st in which the turf shall be established within the next growing season). All silt fence or erosion controls must be maintained until turf is established. Any required sidewalk installation must be established for all portions of a yard within one (1) year of the issuance of a Certificate of Occupancy. The public right-of-way from the curb to the property line is required to be seeded or sodded or planted to an approved alternative plant material and maintained by the property owner.
- e) **Time of Performance.** All required trees, plants, ground cover, screening materials, landscape materials, hardscape materials, and irrigation improvements (if any) must be in place prior to issuance of final Certificate of Occupancy unless an extension is approved by the Planning Director. If weather conditions prevent the timely installation of required landscaping, a Temporary Certificate of Occupancy (TCO) may be issued by the Building Department. TCO's require the following financial security.
- 1) Landscape installation must be secured either by the posting of full cash bond, or the posting of an irrevocable letter of credit, or funds held in escrow from a licensed and accredited financial institution as a financial security. The amount of financial security shall be based on an opinion of cost prepared by the landscape architect, landscape designer, landscape contractor or civil engineer submitting the landscape plan in the amount sufficient to guarantee the installation of all the required landscaping elements and materials, including trees, shrubs, perennials, ornamental grasses, ground cover, rock mulch, wood mulch, top soil, edging material, or any other materials necessary to install the required landscape materials, as well as all labor costs to implement the landscape plan, plus ten percent (10%). If the required landscaping is not installed as agreed by the owner, or in the case of winter occupancy with a TCO, landscaping shall be installed by July 1 of the year following the occupancy or use of the property, the City may call and cash the financial security and order the installation of the landscaping according to the approved landscape plan, based on the estimate prepared by the landscape architect, landscape designer, landscape contractor or civil engineer submitting the landscape plan and agreed to by the City, plus ten percent (10%).
- f) **Plan Required.** A building permit for new development shall not be issued unless the application for such permit includes a Landscape Plan as set forth in Section 24-3, paragraph 1 of this chapter that addresses all of the applicable requirements as set forth in this chapter and said Landscape Plan is approved by the Planning Director.

Section 24-2. Minimum Landscaping Required:

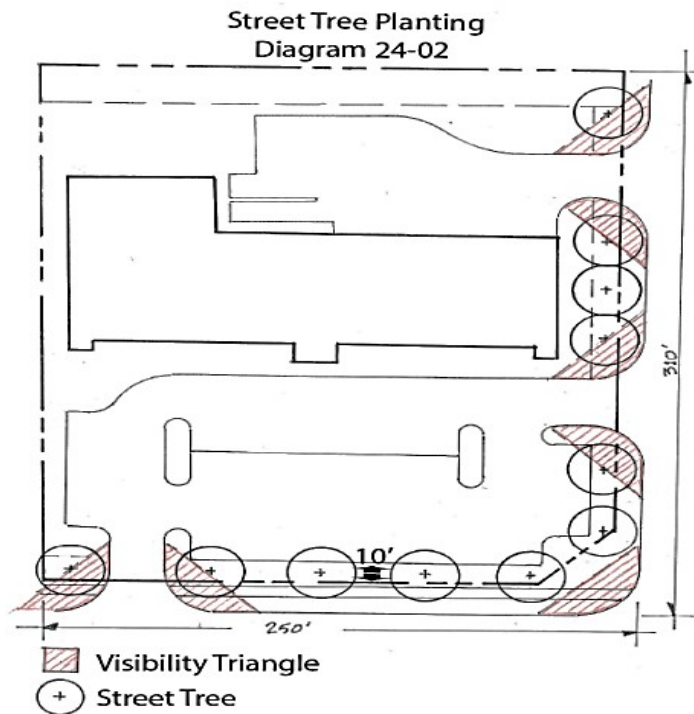
General components that must be addressed on a Landscape Plan including Street Landscaping, Parking Lot, Foundation Plantings, Loading and Service Areas, Buffer yards, Supplemental Landscaping (See Diagram 24-01 for illustration of general components on a typical commercial development site). For Supplemental Landscaping requirements see Section 24-2, paragraph g)

General Landscaping Components
Diagram 24-01

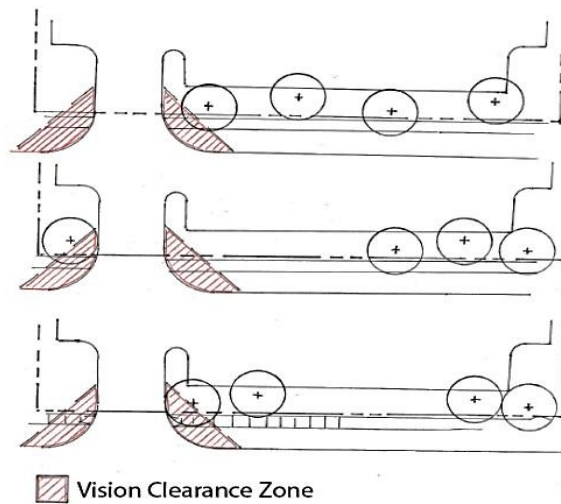


- a) **Street Landscaping.** Landscaping shall be required adjacent to all streets abutting the property.
1. **Depth of Landscaping.** A strip of land reserved for landscaping shall be provided along each street and shall extend to a minimum depth inward from the right-of-way line on private property the entire length along all street frontage(s) as follows:
 - a. RM & RH Districts – Twenty (20) feet
 - b. C1 & C2 Districts – Ten (10) feet
 - c. GMU Districts – Ten (10) feet
 - d. Public District – Ten (10) feet
 - e. M1, M2, & M3 Districts – Ten (10) feet
 - f. Planned Unit Development (PUD) – Varies (established by PUD approval)
 2. **Street Trees.** Street trees are required along all street frontages of the property as set forth below:
 - a. One (1) deciduous canopy tree, at least one and one half (1½) inch calipersize, shall be required for each fifty gross lineal feet (50') of street frontage along each street within the street yard landscaping strip. The 1 in 50 formula is used to establish the total quantity required along any particular stretch of street frontage however, the required trees can be placed in groupings, staggered, or evenly spaced across the frontage depending on the preference of the owner and/or designer (See Diagram 24-02 and 24-03).
 3. **Exemptions.**

- a. New and Used Vehicle Display Lots. Street tree quantities may be reduced to a maximum of one-half the number otherwise required for areas used for display of vehicles in conjunction with commercial vehicle sales or rental lots offering; passenger cars and trucks, boats, and recreational vehicles if approved by the Planning Director. In such cases, the ten-foot (10') wide landscape strip shall be landscaped for the entire length of the street frontage as set forth in Section 24-2, paragraph g), "Supplemental Landscaping" of this Chapter to offset the reduction in street trees. Any lesser reduction in street trees shall require a proportional adjustment of Supplemental Landscaping.
- b. Alternative design options as referenced in Section 24-2 to offset the reduction in street trees may be considered by the Planning Director.
- c. Industrial zoned sites in zoning districts M1 and M2 offering large equipment and machinery, tractor trailer trucks, track vehicles, etc. are not exempt from the street tree requirement.

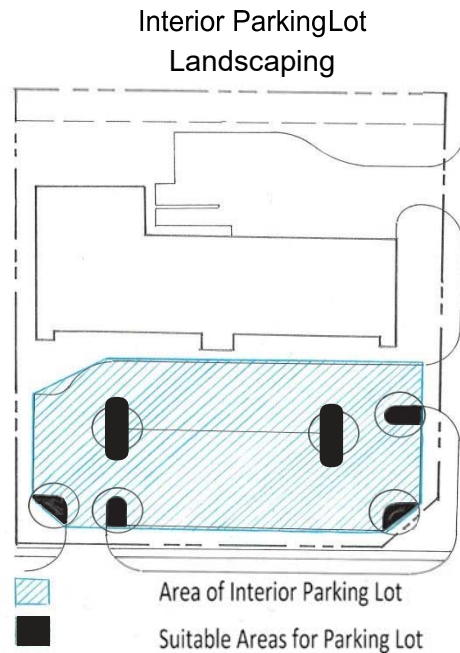


Street Tree - Design Options
Diagram 24-03



- b) **Parking Lot Landscaping.** Unless otherwise noted, each off-street parking lot shall comply with the following regulations:
- 1) Interior Landscaping. Parking lots shall provide interior landscaping in distinct islands at a minimum ratio of twenty (20) square feet of landscape area per each parking space.
 - a. Parking lot islands, medians, bump-outs, and corners shall be constructed to provide planting areas for the proposed landscaping (See Diagram 24-04).
 - b. Parking lot islands, medians, bump-outs, and corners must be surrounded by six (6) inch by eighteen (18) inch concrete curb and gutter, or by some other vehicular barrier as approved by the Planning Director, to minimize damage to plantings.
 - c. Landscaped island should be placed at the end of the parking rows where applicable, however, for smaller parking lots the total amount of landscaping required can be contained in one large island or median as opposed to several small areas to facilitate snow removal.
 - d. Minimum width of landscape islands shall be eight (8) feet and minimum size shall be one hundred (100) sq. ft.
 - e. A minimum of one (1) deciduous canopy tree at least one and one half (1½) inch caliper plus mulch or landscape rock, along with Supplemental Landscaping as set forth in Section 24-2, paragraph 6) of this Chapter is required in each such location to meet the interior landscape requirement. Islands containing light poles, flag poles, or other equipment do not count towards this requirement unless they also contain a canopy tree and landscaping as described herein.
 - f. If the interior parking lot landscaping requirement is met by consolidating all the required landscape area into one large island or median, one (1) deciduous canopy tree at least one and one-half (1 ½) inch caliper shall be planted in the island for each three hundred (300) square feet of the total required landscape area. In addition, Supplemental Landscaping as set forth in Section 24-2, paragraph 6) of this Chapter shall be required for each island.

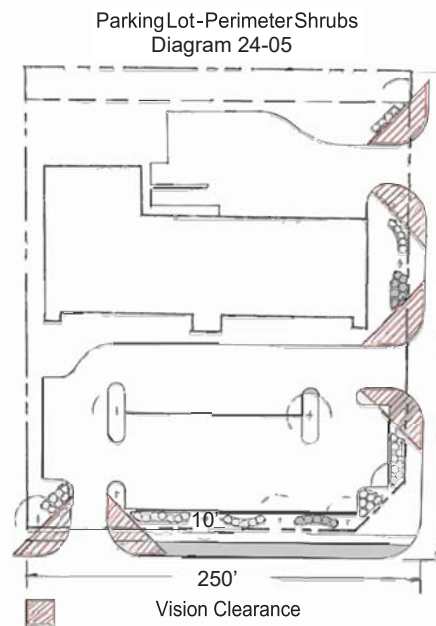
- g Exemptions. Parking facilities within M1 and M2 Districts shall be exempt from this requirement unless the use developed on the property is a commercial retail use type.



- 2) Perimeter plantings. All off-street parking areas shall be subject to the Parking Lot Perimeter Landscaping standards of this subsection as follows:
 - a. Street trees are required in the street yard landscaping strip along all parking lots with street frontage as previously set forth in the street tree requirements of this Section 24-2, a), paragraph 2).
 - b. Parking facilities containing parking for more than one hundred (100) vehicles shall provide a minimum of one (1) deciduous or evergreen shrub for each ten (10) lineal feet of the landscape strip in the street yard for the entire length of all street frontages. Said shrubs shall be planted in groupings within a defined landscaping bed between the street trees (See Diagram 24-05).
 - i. Exemptions. New and Used Vehicle Display Lots. Shrub perimeter plantings are not required for areas used for display of vehicles in conjunction with commercial vehicle sales or rental lots offering; passenger cars and trucks, boats, and recreational vehicles if approved by the Planning Director, however, Supplemental Landscaping as set forth in Section 24-2, paragraph g) of this Chapter is required.
 - c. Parking lots with a finished grade that is two feet (2') or more, higher in elevation than an abutting public street shall provide a barrier at least three feet (3') in height, but no higher than four feet (4') in height to shield headlight glare from the parking lot into the adjacent street traffic. Said barrier shall consist of a living shrub hedge pruned to meet the required height parameters, or an earthen berm,

or a solid decorative fence or wall, or any combination of these options for the entire length of the parking lot that is elevated. Chain link fencing with privacy slats does not meet this requirement and is not an allowable option to satisfy these requirements. The barrier shall meet sight visibility standards at driveway and street intersections and shall be setback from the parking lot curb at least three feet (3') to allow for vehicle bumper overhang. In no case shall the barrier encroach into the public right-of-way of adjacent streets.

- d. For Multi-Family development containing 3 or more dwelling units, regardless of the zoning district in which it is located, when the design of the site is such that parking occurs in the front yard, a minimum of ten (10) feet landscaped area shall be provided between parking and building, in addition to the required setbacks.



- 3) Abutting residential properties. Any commercial or industrial parking facility which directly abuts property in a residential zoning district or property in residential use, shall provide a landscaped buffer yard as set forth in Section 24-2, paragraph e), "Buffer Yards." Parking facilities separated from a residential zone or use by a street or alley may qualify for a reduction in width as set forth in Section 24-2, paragraph f), "Reduced width allowance", but must also provide a fence, wall, landscape hedge, or earthen berm, or a combination of these elements to achieve a screening of headlights not less than four feet (4') in height for the length of the common boundary. Chain link fencing with privacy slats does not meet this requirement and is not allowable.

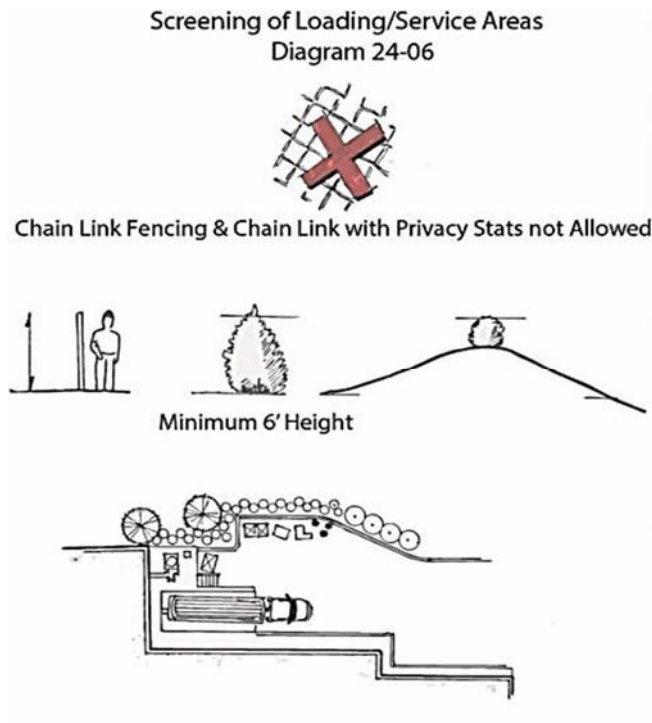
- c) **Foundation Plantings.** Any street-facing façade of the building shall require a linear landscape strip at least four feet (4') in depth across the frontage of the façade. Said

landscape strip shall be landscaped as set forth in Section 24-2, paragraph g), “Supplemental Landscaping”.

- 1) Exemptions. Industrial zoned sites in zoning districts M1 and M2 are exempt from foundation perimeter landscaping unless the use developed on the property is a commercial retail use type.

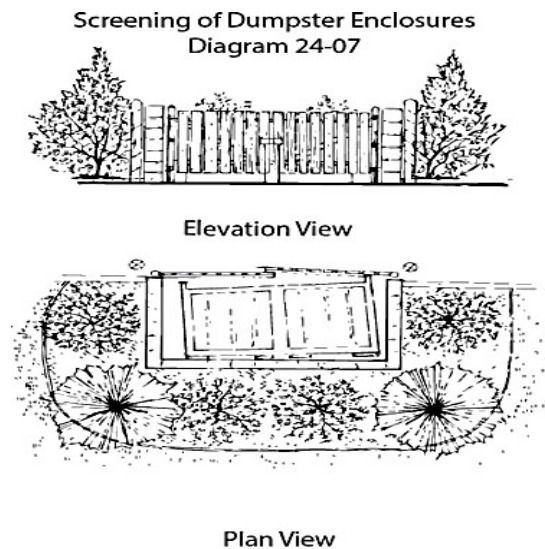
d) Loading and Service Areas.

- 1) Screening is required for the following commercial and industrial use areas when visible from a public street and/or from adjacent residential properties. Outdoor storage of inventory, loading docks, cargo containers, storage tanks, cardboard bailers, stockpiles of cardboard, wooden pallets or other shipping and packing materials, and similar service and storage areas shall be screened from view with an opaque barrier not less than six (6) feet in height which consists of a solid wood, PVC, or masonry fence that complements the colors of the primary building, a landscape hedge, evergreen conifer trees, an earthen berm, or a combination thereof. Screening may be interrupted to provide access drives to service areas or for loading purposes, however, such interruptions shall not exceed twenty percent (20%) of the length of the required screened area. Chain link fencing and chain link fencing with privacy slats is not allowable (See Diagram 24-06).



- 2) Refuse collection containers shall be kept inside a gated enclosure in the rear or side service area, constructed to City size standards at a location on the site approved by the Planning Director or Public Works Department. Said enclosure shall be constructed to be either; 1) harmonious with the building materials and style of the principal structure (with no additional landscaping required), or 2) regardless of construction materials, the enclosure shall be screened by plant material, with a

minimum standard of shrubs that will attain at least six (6) feet in height at maturity planted in a defined landscape bed on all sides of the refuse enclosure available for planting. The area around the enclosure shall be designed to accommodate required planting beds. Chain link fencing with privacy slats is not an allowable construction material for refuse enclosures (See Diagram 24-07).

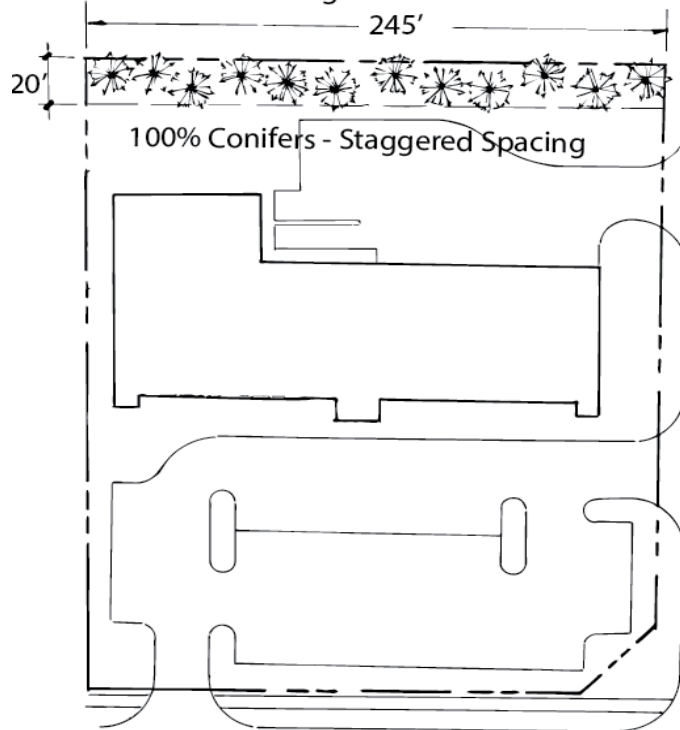


- e) **Buffer yards.** These provisions apply when a proposed use is developing in a more intensive zoning district which is adjacent to a less intensive zoning district or use, even if the less intensive property is undeveloped.
- 1) The owner/developer of a commercial or industrial use adjacent to a residential zone or use shall install and maintain a twenty-foot (20') wide landscaped buffer yard on his/her site abutting the entire length of the boundary along the residential site.
 - 2) All buffer yards must be reasonably free of paved areas, access ways, sidewalks, storage, or other disturbances, excluding intermittent drives. Each required buffer yard must be entirely landscaped with grass or other suitable plant material with a minimum of one (1) tree for each twenty (20) lineal feet of buffer yard. At least fifty percent (50%) of the required trees shall be evergreen conifers, five (5) to six (6) feet minimum in height. The remaining fifty percent (50%) of trees can be ornamental trees, deciduous canopy trees, shrubs (five {5} shrubs equal one {1} tree), or a combination thereof (See Diagrams 24-08 and 24-09).

Note: The five to one substitution for trees to shrubs is only valid in satisfying the bufferyard requirement and is not a permitted option for other site landscaping requirements contained in this Chapter.

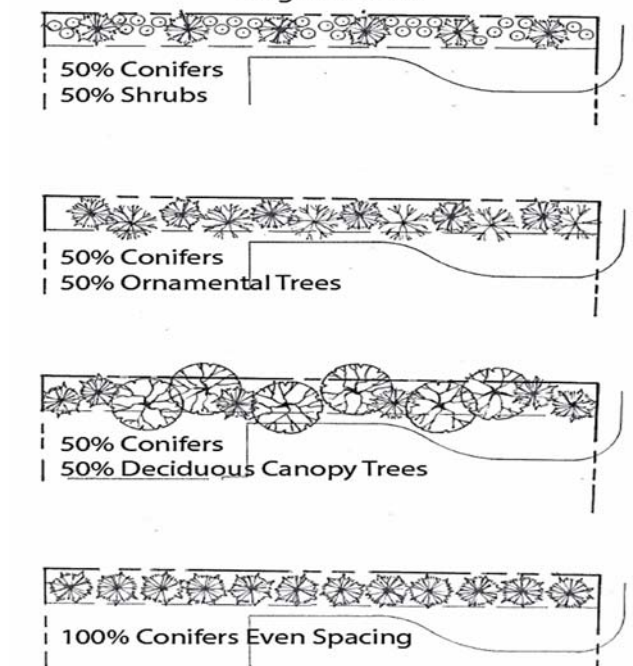
Landscaped Buffer Yard

Diagram 24-08



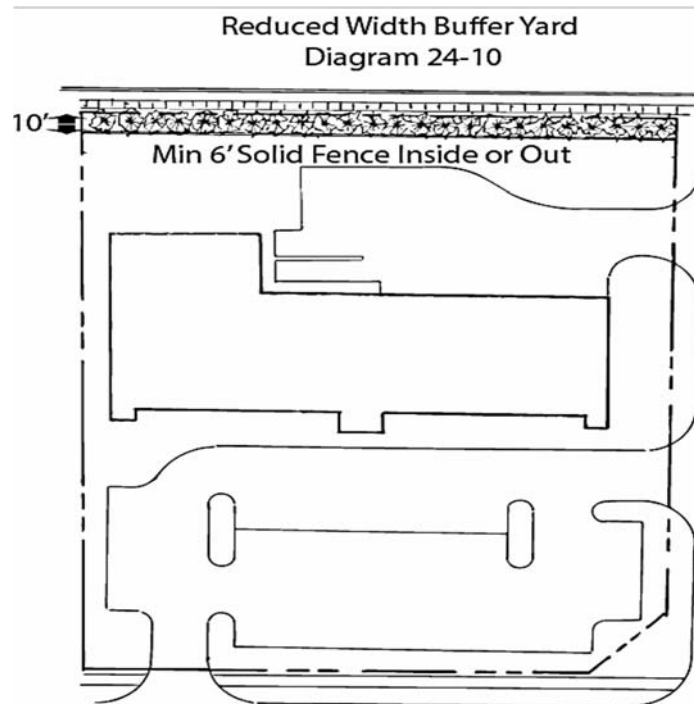
Landscape Buffer Design Options

Diagram 24-09



f) Reduced width allowance.

- 1) When a street or alley separates adjacent zoning districts requiring a buffer yard, the width of the buffer yard may be reduced to ten (10) feet. When an industrial use is adjacent to a less intensive commercial use, the owner/developer of the more intensive use shall install and maintain a 10' wide landscaped buffer yard on his/her site abutting the entire length of the less intensive common boundary.
- 2) In either case, given the reduced area, the developer must erect a solid fence or wall on the inside or outside line of the buffer yard, at least six feet (6') in height for the entire length of the required buffer yard (unless waived by the Planning Director), and plant one hundred percent (100%) evergreen trees of a compact, upright growth habit. The specific species and/or cultivar shall be called out on the Landscape Plan for approval by the Planning Department in meeting these special requirements. Required spacing shall be one (1) tree per each ten (10) lineal feet of buffer yard for the entire length of the buffer yard (See Diagram 24-10). Chain link fencing with privacy slats shall not be used to meet the fencing requirement.



g) Supplemental Landscaping. In addition to the landscaping requirements set forth in other Sections of this Chapter, Supplemental Landscaping is required as follows:

- 1) Applicability. Supplemental Landscaping is required for the following landscape areas:
 - a. Foundation perimeter plantings
 - b. Interior parking lot landscape islands
 - c. Street yard landscaping strip adjacent to the street(s) for premises with areas used for display of vehicles in conjunction with commercial vehicle sales or rental lots offering; passenger cars and trucks, boats, and recreational

vehicles if up to the fifty percent (50%) maximum reduction in required street trees has been granted. (50% reduction is only available to vehicle display. No other uses are viable. Supplemental landscaping is required here to offset the 50% reduction. Supplemental landscaping in the other two instances, a and b is required with no reduction in tree quantities.

- 2) Plant Unit Quantities. For the purposes of this Section, the minimum amount of Supplemental Landscaping expressed as total plants required is calculated by multiplying the total area of the landscape bed or island in question by the number five (5) and dividing this total by the number one hundred (100).

$$\frac{\text{Total s.f. of island, median, or other feature to be landscaped} \times 5}{100} = \text{Total Plants Required}$$

- 3) Plant Categories. To ensure diversity and promote design flexibility in the final landscape plants are divided into the following five (5) categories:
 - a) Large Shrubs. Exceeding six feet in height at maturity. Can be deciduous or evergreen.
 - b) Shrubs (small to medium) Achieving four (4) to six (6) feet in height. Can be deciduous or evergreen.
 - c) Ornamental grasses.
 - d) Perennial plants.
 - e) Groundcover plants.
- 4) Plant Percentages. To insure diversity in plant material a minimum percentage of the total requirement shall apply to each plant category. The percentages are assigned to each plant type in Table 24-2. Once the minimum number of plants required by plant type are determined, the remaining required plants can be of any of the five types (designer’s choice).

Table 24-2. Percentage Multipliers.

Plant Type	Percentage Multiplier
Shrub (large) – 5 gallon minimum	5 % required
Shrub – 2 gallon minimum	10% required
Ornamental Grasses – 2 gallon min.	10% required
Perennial plants – 1 gallon minimum	25% required
Groundcover – 1 gallon minimum	10% required

Example: A landscape strip two hundred (200) lineal feet by ten (10) lineal feet.

Step One. The amount of landscape area in square feet is $200 \times 10 = 2,000$ S.F.

Step Two. The total amount of plants required is $\frac{2,000 \times 5}{100} = 100$ total plants

Step Three. Adjust the plant quantities by plant type using the Table 24-2 above.

Large shrubs 100 plants x 5 percent = 5 required
 Shrubs 100 plants x 10 percent = 10 required

Ornamental grasses 100 plants x 10 percent = 10 required
 Perennial plants 100 plants x 25 percent = 25 required
 Groundcover plants 100 plants x 10 percent = 10 required
 Total required by type 60

Step Four. Determine remaining plants required. 100 minus 60 = 40 plants that can be any of the five categories.

Section 24-3. General Requirements:

General landscape requirements that shall apply in all multiple-family residential, business, mixed use, public and industrial districts include the following:

- a) Landscape Plan and Plant List required. All developments subject to the landscaping requirements of this chapter shall submit a landscape plan depicting the following information:
 - 1) An accurate plan view of the entire site, drawn to scale, depicting all boundaries and improvements on the site or proposed for the site, with a north arrow and critical dimensions.
 - 2) Any areas of special concern such as easements, overhead utility lines, steep slopes, wetlands, detention ponds, etc.
 - 3) Other associated site improvements such as retaining walls, fences, berms, patios, courtyards, planting bed perimeters, dumpster locations, truck docks, accessory buildings, etc.
 - 4) Any existing plant material on the site to be saved or removed
 - 5) Exact location on the site where each proposed plant will be installed with a label as to what kind of plant (species/cultivar) each one is.
 - 6) A plant list or table that quantifies the total number of each plant by species, the common name of each plant, the botanical name of each plant and cultivar (if possible), the size of each plant at the time of planting, condition of the plants (container size, balled and burlapped, bare root), and any special notes concerning a particular plant variety.
 - 7) General notes that pertain to the landscaping of the property.
 - 8) Planting details for plant installation, staking and guying, soil amendments, top dressing, etc.
 - 9) Irrigation Note. Where applicable, the plans shall include the following note; “An automatic, underground sprinkler system will be installed to provide adequate water to the landscaping.”
- b) Plant Diversity: The landscape plan design shall include a variety of trees, shrubs, perennials, and groundcovers including deciduous canopy, ornamental, and evergreen trees to provide year round interest and variety and to avoid total loss from disease or pests associated with a monoculture. No single variety of plants shall be allowed to constitute more than twenty-five percent (25%) of the required plant material.
- c) Restricted Species / Cultivars: Some plants may be deemed undesirable to meet City requirements. The Planning Department will review all Landscape Plans and alternative species or cultivars may be required to be substituted for undesirable plants. A list of Recommended and Prohibited Plant Species is available. See Section 24-4 of this Chapter.
- d) Sizes. All plant material must meet the minimum size requirements per functional category as follows:

- | | |
|-------------------------------------|--|
| 1) Deciduous canopy trees | Minimum one and one-half (1½) inch caliper |
| 2) Ornamental trees | Minimum one and one-half (1½) inch caliper |
| 3) Evergreen (conifer) trees | Minimum height, five (5) feet as measured from the top of the root ball to the top of the central leader |
| 4) Shrubs (deciduous and evergreen) | Minimum two/three (2 to 3) gallon container or eighteen (18) to twenty-four (24) height, balled and burlapped, not including ball. No one (1) gallon shrubs. |
| 5) Ornamental grasses | Minimum two/three (2 to 3) gallon container. No one (1) gallon. |
| 6) Perennials and groundcovers | Minimum one (1) gallon container. |

Note¹: measurements in caliper inches shall mean the diameter of the trunk measured six (6) inches above the root flare.

Note²: Plant material that does not meet the above listed minimum size requirements must be removed and replaced with suitable sizes before a Final Certificate of Occupancy will be issued.

- e) Substitutions. All plant species and cultivars of the quantities and sizes set forth on the approved Landscape Plan shall be installed in the appropriate location as depicted on the approved Landscape Plan. Substitutions may be allowed if the substitute plant is of the same size and function as the original plant. Substitutions must be submitted to the Planning Department prior to planting and approved in writing by the Planning Director.
- f) Inorganic landscaping materials.
 - 1) No artificial trees, shrubs or plants shall be used to fulfill the minimum requirements for landscaping.
 - 2) Inorganic materials, such as stone, boulders, loose rock, and decorative pavers, may be used as follows:
 - a. Loose landscape rock is not allowed in the public right-of-way between the sidewalk and the street curb along any collector or arterial streets. Loose rock may be used in the right-of-way of local streets.
 - b. Loose landscape rock may be used in parking lot medians and islands intending to meet the interior parking lot landscape requirements on private property as long as one (1) deciduous canopy tree at least one and one-half inches (1 ½”) in caliper is provided in each such island with Supplemental Landscaping as set forth in Section 24-2, paragraph 6) of this Chapter.
 - c. Loose landscape rock may be used in the four-foot (4’) wide (or wider) landscape strip required along the perimeter of the building on all street facing facades, however additional plant material shall be planted in addition to the rock. Supplemental Landscaping shall be required as set forth in Section 24-2, paragraph 6) of this Chapter.
 - d. Automatic underground sprinkler systems or drip irrigation systems are not required, but recommended for plantings surrounded by loose landscape rock.
 - 3) Artificial Turf Standards. The use of artificial turf in the City of Minot and its jurisdiction is subject to the following regulations:

a) Artificial Turf is allowed as follows per zoning district:

<u>ZONING DISTRICT</u>	Allowed, provided that provisions of the Landscape Chapter are met and minimum required pervious cover is maintained.
R1	
R1S	
RA	
R2	
RM	
R3C	
RH	
MH	
P	Allowed, except as groundcover in the side or rear within any required twenty-foot (20') wide bufferyard screening a more intensive use from adjacent property used or zoned for residential purposes.
C1	
C2	
C3	Allowed.
M1	Allowed to the maximum extent of impervious coverage in that district
M2	
M3	
I-1	
I-2	
GMU	Allowed.
AG	

- b) Artificial turf is allowed to be installed on an athletic field located in any zoning district to the maximum extent allowed by an approved landscaping and storm water management plan.
- c) Artificial turf shall be considered an impervious ground cover unless the applicant demonstrates an acceptable level of permeability in the method and design of installation, subgrade and drainage ability as approved by the City Engineer.
- d) Artificial turf may be used on areas of impervious coverage of a property in any zoning district so long as it is included in and is approved as part of an overall site Plan, Landscaping Plan, and Storm Water Management Plan, and meets the other requirements listed in this section.
- e) Artificial turf shall not be installed in the public right-of-way or across recorded city and private utility easements unless the property owner first obtains and encroachment permit as provided for in Chapter 28, Article I, Section 28-3 of the City of Minot Code of Ordinances and permission is granted in writing by the Community and Economic Development Director or City Engineer.
- f) Minimum Quality Standards for Artificial Turf. Artificial turf installed on property in Permitted Zones must meet the following minimum quality standards:

- i. Subject to approval by the Community and Economic Development Director, artificial turf containing synthetic infill materials must show that the infill product was produced expressly for that purpose and approved with an ASTM certification.
 - ii. Artificial turf containing organic infill materials is permitted.
 - iii. Artificial turf must imitate a natural turf-like appearance and must include the following:
 - 01. A minimum blend of at least three (3) colors, predominately green.
 - 02. A minimum blade length of one and one half (1-1/2) inches, with spines and uneven tops.
 - 03. The artificial turf must meet the minimum industry weight standard of sixty (60) ounces pile weight, or greater.
 - iv. Exceptions.

Alternative blade length and color variations may be approved by the Community and Economic Development Director.
- g) Minimum Installation Standards for Artificial Turf. Artificial turf can be installed on property in Permitted Zones as follows:
- i. Artificial turf shall be clearly marked and described on all plans required by this Ordinance.
 - ii. Except for single-family residential lots, property owners shall conduct an adequate storm water system analysis as set forth in Chapter 28.1 of this Code before installing any artificial turf on their property. Any installation and maintenance of artificial turf must comply with the storm water management program set forth in Chapter 28.1 of this Code and the property owner must comply with any required and approved storm water management plans or permits when installing and maintaining artificial turf on their property.
 - iii. The subgrade beneath artificial turf shall be formed and compacted to meet the design requirements of the approved grading and/or drainage plan.
 - iv. Artificial turf beneath a tree canopy shall include a minimum area measuring six (6) feet in diameter around the tree trunk that is free from artificial turf and covered with hardwood mulch or decorative rock. In some cases, the Community and Economic Development Director may require a larger area left open around the tree trunk based on the subject tree species.
 - v. Artificial turf shall be installed to meet all manufacturers installation requirements.
 - vi. All required base and sub-base material shall be graded to achieve a uniform appearance.
 - vii. In areas where the artificial turf is installed adjacent to back of curb, sidewalks or other concrete/asphalt surfaces, the height of the turf backing shall be at least one (1) inch below the height of the adjacent concrete/asphalt.
- h) Minimum Maintenance Standards for Artificial Turf.
- 01. Artificial turf shall be maintained in a clean and orderly condition and

shall not contain holes, tears, stains, discoloration, seam separations, uplifted surfaces, heat degradation or excessive wear. Artificial turf shall be installed and maintained to effectively simulate the appearance of a well-maintained lawn.

02. In the event that artificial turf is located in an area where public or private agencies perform utility installation, maintenance or repair, or street maintenance or repair, the property owner shall be responsible for any and all costs attributed to damage of the turf as a result of aforementioned utility or street work as set forth in the encroachment agreement.
- 4) Other concrete and/or asphalt pavement surfaces may not be used within the minimum required landscape area, except for driveway crossings and sidewalks.
- 5) Organic mulch is allowed and encouraged around the base of trees and plants to conserve moisture and control weeds. A mulch ring three feet (3') in diameter composed of hardwood mulch at least three inches (3") in depth is recommended.
- g) Installation Conflicts. Landscape contractor shall notify the Planning Department prior to planting of any conflicts that arise in the field that prohibit plant material from being installed in accordance with the approved plan. Planning staff will meet with the contractor in the field to resolve such conflicts prior to planting. Any changes to the approved plan will be noted and kept on file.
- h) Visibility clearance at intersections. The landscaping requirements in this section shall be modified in their application as necessary so as to leave visibility clearance triangles unobstructed, as defined in Section 28-13 of the municipal code of ordinances.
- i) Maintenance. Upon installation of required landscape materials, each owner shall take appropriate actions to insure their continued health and maintenance. Required landscaping that does not remain healthy shall be replaced consistent with this section and the approved Landscape Plan for the project.
- j) Maintenance of plant materials and planting areas may consist of, but is not limited to, the following seasonal tasks; mulching and re-mulching, pruning, weed control, fertilizing, pest control, litter control, and watering.
- k) Watering. Automatic, underground sprinkler systems with water saving heads and drip style irrigation are encouraged to promote plant survivability and growth. Other watering methods may be used, however any plants that perish as a result of inadequate watering shall be replaced.
- l) On-going Timing and Enforcement. Landscaping that is not installed, maintained, or replaced as needed to comply with this chapter shall be considered a violation of this section and shall be subject to the penalty as described in Section 29-5.

Section 24-4. List of Recommended and Prohibited Plant Material:

A list of trees may be available through the Planning Department of the City of Minot and through the Minot Park District, Forestry Department. Contact these agencies for availability. The list contains species, varieties, and cultivars that have proven to be tolerant of the climatic conditions in a northern urban environment. Trees that are prohibited from being planted in certain locations, or totally banned, are also listed. Substitution of trees not included on the recommended list is possible. The Planning Department will review the plan and provide written notice if any of the proposed plant material is not acceptable along with recommended substitutions.

