

ARTICLE 23. LANDSCAPE, STORMWATER MANAGEMENT & SCREENING

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23.1 PURPOSE

The landscape, stormwater management and screening requirements established by this Article are intended to:

- A.** Enhance the aesthetic appearance of developments throughout the City by providing standards related to the quality and functional aspects of landscape.
- B.** Increase compatibility between abutting land uses and between land uses and public rights-of-way by providing landscape screening or buffers.
- C.** Provide for the conservation of water resources through the efficient use of irrigation, appropriate mix of plant materials, recycling water elements, and regular maintenance of landscaped areas.
- D.** Protect public health, safety and welfare by preserving and enhancing the positive visual experience of the built environment, providing appropriate transition between different land uses, preserving neighborhood character, and enhancing pedestrian and vehicular traffic safety.
- E.** Reduce urban runoff by ensuring the preservation of permeable surface for the absorption of rainwater.
- F.** Reduce the urban heat island effect and enhance the local micro-climate and increase biodiversity.

23.2 ENFORCEMENT OF LANDSCAPE PROVISIONS

A. Installation Prior to Permit

No building permit or certificate of occupancy may be issued for any lot or use subject to the requirements of this Article unless all the requirements of this Article have been fulfilled. Failure to implement the landscape plan or to maintain the lot or use in conformance with the landscape plan is cause for revocation of the certificate of occupancy and/or the application of fines and penalties, as established in this Ordinance. In addition, all landscape is subject to periodic inspection.

B. Performance Guarantee

When the landscape plan is approved, the City requires a performance bond in the amount of twenty-five (25%) percent of the initial landscape costs, which must be posted prior to the issuance of the building permit to ensure that the needed replacement and continued maintenance of materials occurs during the two (2) years following installation.

23.3 LANDSCAPE PLAN

A. Landscape Plan Required

A landscape plan must be submitted as part of a planned development or site plan review application, and must be approved prior to the issuance of a building permit or certificate of occupancy. Single-family dwellings, two-family dwellings and multi-family dwellings of six (6) units or less do not require submittal of a landscape plan.

B. Content of Landscape Plan

Landscape plans must be prepared by a landscape architect or landscape contractor licensed in Louisiana. A landscape plan must contain the following information:

1. The location and dimensions of all existing and proposed structures, property lines, easements, parking lots and drives, roadways and rights-of-way, sidewalks, signs, refuse disposal and recycling areas, sidewalks, bicycle paths and parking facilities, fences, electrical equipment, recreational facilities, drainage facilities, and other freestanding structures, as determined necessary by the Executive Director of the City Planning Commission.
2. The location, quantity, size, name and condition, both botanical and common, of all existing plant materials and trees, and a description of all tree preservation measures.
3. The location, quantity, size, name and condition of all plant material and trees in the right-of-way, and indicating plant material and trees to be retained and removed.
4. The location, quantity, size and name, both botanical and common, of all proposed plant material including, but not limited to, shade and evergreen trees, shrubs, groundcover, annuals/perennials and turf.
5. The existing and proposed grading of the site indicating contours at one (1) foot intervals.
6. Elevations of all proposed fences, walls, steps and fixed retaining walls (cast concrete, unitized walls) on the site.
7. Elevations, cross-sections, and other details as determined necessary by the Executive Director of the City Planning Commission.
8. A stormwater management plan, including the pre-development runoff rate and the post-development runoff rate. The stormwater management plan must include:
 - a. All pertinent calculations and specifications used in the design and construction of the detention area and other drainage improvements. Safeguards to prevent short-circuiting of detention system must be designed into the system. If underground systems are used, a monitoring and maintenance schedule may be required.

- b. All storm drainage systems including existing and proposed drain lines, culverts, catch basins, headwalls, hydrants, manholes, and drainage swales.

9. The estimated cost of proposed landscape.

C. Minor Changes to Approved Landscape Plans

Minor changes to the landscape plan that do not result in a reduction in the net amount of plant material as specified on the approved landscape plan may be approved by the Director of the Department of Safety and Permits. Changes to the size and amount of plant materials of an approved landscape plan are not considered a minor change. Major changes must be approved by the body initially granting approval of the landscape plan.

23.4 SELECTION, INSTALLATION AND MAINTENANCE OF PLANT MATERIALS

A. Selection

All planting materials used must be of good quality and meet the “American Standard for Nursery Stock,” latest edition, as published by the American Nursery and Landscape Association (ANLA) for minimum acceptable form, quality and size for species selected, and capable to withstand the seasonal temperature variations, as well as the individual site micro-climates. The use of native species is encouraged. Size and density of plant material, both at the time of planting and at maturity, are additional criteria to be considered when selecting plant material.

B. Installation

All landscape materials must be installed in accordance with the current planting procedures established by the “Louisiana Nurseryman’s Manual for the Environmental Horticultural Industry,” latest edition, as published by the Louisiana Nursery and Landscape Association. All plant materials must be free of disease and installed so that soil is of sufficient volume, composition and nutrient balance to sustain healthy growth.

C. Drought Tolerant Plant Requirements

Plant selection should emphasize drought-tolerant species wherever possible and must be grouped by common irrigation need.

1. Plant Materials

- a. For all projects that include total landscape areas between one-thousand (1,000) and two-thousand five-hundred (2,500) square feet of area, at least fifty percent (50%) of the landscaped area must be drought tolerant plants.
- b. For all projects that include total landscape areas over two-thousand five hundred (2,500) square feet of area, the landscape plan must contain water use calculations and must not exceed the maximum applied water allowance of twenty-five (25) gallons per square foot of landscape area. The applicant must indicate the square footage and the water use calculation for each landscape area.

2. Groupings

Landscape areas having plants with similar water needs must be grouped together and irrigated by a dedicated irrigation controller station. All plants listed in the landscape plan must be classified and grouped by category of water use calculations. Water use calculations must be grouped as low, medium and high.

D. Protection of Existing Vegetation

All construction projects are subject to the “Landscape Protection During Construction” requirements of the City Code.

E. Required Element

Landscape materials depicted on landscape plans approved by the City are required site plan elements in the same manner as structures, parking and other improvements. As such, the owner of record is responsible for the maintenance, repair and replacement of all landscape materials, and fences, steps, retaining walls and similar landscape elements over the entire life of the development.

F. Maintenance

All landscape materials must be maintained in good condition, present a healthy, neat and orderly appearance, and kept free of weeds, refuse and debris. Any dead, unhealthy or missing plants must be replaced within six (6) months of notification by the City. Fences, steps, retaining walls and similar landscape elements must be maintained in good repair. The owner of the premises is responsible for the maintenance, repair and replacement of all landscape materials, fences, steps, retaining walls and similar landscape elements, and refuse disposal areas. Irrigation systems, when provided, must be maintained in good operating condition to promote the health of the plant material and the conservation of water.

23.5 GENERAL LANDSCAPE DESIGN STANDARDS

Landscape plans, as described above, must be prepared by a landscape architect or landscape contractor licensed in Louisiana, and evaluated and approved based on the following design criteria.

A. Scale and Nature of Landscape Material

The scale and nature of landscape materials must be appropriate to the size of the site and related structures.

B. Selection of Plant Material

[NOTE: We are continuing to refine a plant list to be included in the Appendix of the Ordinance. By including the list in the appendix, the City is able to modify such list without a text amendment. This provision may be adjusted to include only a prohibited plant list (as opposed to recommended) as a prohibited list would be shorter and easier to administer.]

Plant material must be selected for its form, texture, color, pattern of growth and suitability to local conditions. Plant material must be selected from the recommended plant list contained in Appendix _____. All landscape plans must incorporate at least thirty percent (30%) of native trees and shrubs into required plant materials to provide habitat for wildlife and reduce irrigation requirements.

C. Shade Trees

All deciduous shade trees at the time of installation must have a minimum caliper of two and one-half (2.5) inches and a clear trunk height of at least six (6) feet, unless otherwise specified. Caliper of the trunk is taken at diameter at breast height (dbh).

D. Evergreen Trees

Evergreen trees must have a minimum height of eight (8) feet at planting.

E. Ornamental Trees

Single stem ornamental trees must have a minimum caliper of three (3) inches taken at diameter-at-breast-height, unless otherwise specified. Multiple stem ornamental trees must have a minimum height of eight (8) feet at planting and a minimum of three (3) trunks, unless otherwise specified.

F. Shrubs

1. Unless otherwise specified, all large deciduous and evergreen shrubs must have minimum height of three (3) feet at installation, and all small deciduous and evergreen shrubs must have a minimum height of eighteen (18) inches at installation.
2. Large shrubs are those species that reach five (5) or more feet in height at maturity. Small shrubs are those species that can grow up to five (5) feet in height if left unmaintained, but should be kept at heights of eighteen (18) to thirty-six (36) inches.

G. Perennials and Groundcover

Unless otherwise specified, perennials and groundcover must be a minimum of four (4) inch container stock.

H. Mulch

Unless otherwise specified, mulch must be a minimum two (2) inch dressing consisting of shredded pine bark or needles and must be applied on all exposed soil surfaces of planting areas except in turf, creeping or rooting groundcovers, or direct seeding applications where mulch is contra-indicated. Mulch must be kept from direct contact with tree trunks and organic material.

I. Softening of Walls and Fences

Plant material should be planted against long expanses of building walls, fences and other barriers to create a softening effect and to help break up long expanses of blank walls with little architectural detail.

J. Irrigation

Sprinkler irrigation systems may be required for certain landscaped areas, as determined by a landscape architect and during landscape plan approval. The need for sprinkler irrigation systems is determined by the type of plant material and the condition and growing medium where they are installed. All irrigation systems must be designed to minimize the use of water and are approved as part of the landscape plan. When irrigation is installed, it must comply with the following standards.

1. Automatic controllers must be set to water between 7:00 p.m. and 10:00 a.m. to reduce evaporation.
2. Irrigation systems must be designed to avoid runoff, low-head drainage, overspray or other similar conditions where water flows or drifts onto adjacent property, non-irrigated areas, walks, roadways or structures.
3. Irrigation equipment must comply with the following standards.
 - a. Low-volume irrigation systems with automatic controllers are required. Low-volume irrigation systems include low-volume sprinkler heads, dry emitters, and bubbler emitters.
 - b. Drip, trickle or other low-volume irrigation must be provided on at least ninety percent (90%) of the landscape areas except for those areas devoted to turf and flat groundcover plants. If a licensed landscape architect or landscape contractor verifies that a drip or trickle system is not feasible due to location, the required percentage of drip or trickle irrigation may be reduced by body approving the landscape plan.
 - c. Integral, under-the-head or in-line anti-drain valves must be installed as needed to prevent low-head drainage.
 - d. Automatic control systems must be able to accommodate all aspects of the design. Automatic controllers must be digital, have multiple programs, multiple cycles and sensor input capabilities.
 - e. Soil moisture sensors and rain or moisture-sensing override devices are mandatory.
 - f. Sprinkler heads must be selected and spaced for proper area coverage, application rate, operating pressure and adjustment capability. Sprinklers must have matched precipitation and application rates within each control valve circuit.
 - g. Drip irrigation systems are permitted if commercial or agricultural grade materials are used. Components must be installed below the soil except for emitters.
 - h. Backflow prevention devices are required.
 - i. Dedicated landscape water meters are highly recommended on landscape areas smaller than five thousand (5,000) square feet to facilitate water management.

K. Water Waste Prevention

Water waste resulting from inefficient landscape irrigation is prohibited. Water waste from irrigation is defined as runoff that leaves the target landscape due to low head drainage, overspray or other similar conditions where water flows onto adjacent properties, non-irrigated areas, walks or roadways. Overspray and runoff are not considered water waste from irrigation if either one of the following conditions are met:

1. The landscape area is adjacent to semi-pervious or pervious surfacing.
2. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscape.

L. Energy Conservation

Plant material placement must be designed to reduce the energy consumption needs of the development. Shade trees must be included on the exposed west and south elevations when landscape is required.

M. Species Diversity

Diversity among required plant material for on-site landscape is required not only for visual interest, but to reduce the risk of losing a large population of plants due to disease. Table 23-1: Diversity Requirements indicates the percentage of diversity required based on the total quantity of species being used. For example, if a development requires forty-five (45) shade trees, no more than eighteen (18) trees nor less than five (5) trees can be of one (1) species, and there must be a minimum of five (5) different species within the forty-five (45) trees.

TABLE 23-1: DIVERSITY REQUIREMENTS			
TOTAL NUMBER OF PLANTS PER PLANT TYPE	DIVERSITY REQUIREMENTS		MINIMUM NUMBER OF SPECIES
	MAXIMUM OF ANY SPECIES	MINIMUM OF ANY SPECIES	
1-4	100%	Not Applicable	1
5-10	60%	40%	2
11-15	45%	20%	3
16-75	40%	10%	5
76-500	25%	5%	8
500-1,000	30%	5%	10
1,000+	15%	4%	15

N. Planting

In order to meet the landscape requirements of this Article and Ordinance, plant material must be planted in the ground. Landscape planted within planters and raised planter boxes is not considered to meet the landscape requirements.

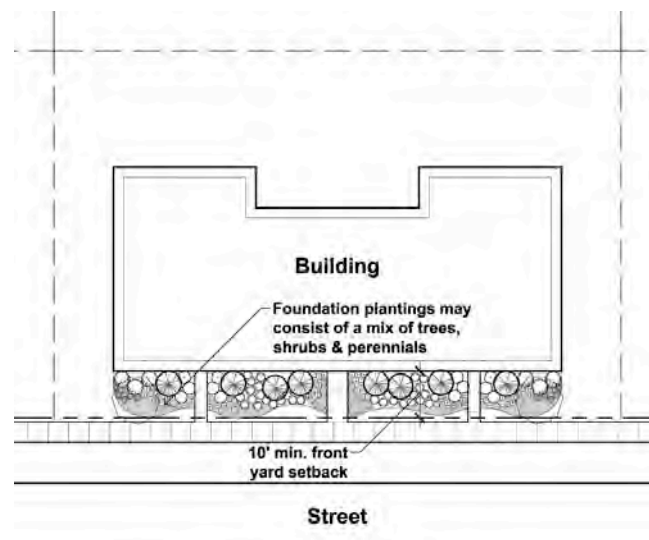
23.6 BUILDING FOUNDATION LANDSCAPE AND LANDSCAPE YARDS

A. Building Foundation Landscape

For all multi-family dwellings of seven (7) or more dwelling units, mixed-use developments and non-residential uses that maintain a front or corner side yard of ten (10) or more feet, and where no parking is located within the front yard, the following building foundation plantings are required (see Figure 23-1: Building Foundation Landscape).

1. A single hedge row is required planted with one (1) shrub every thirty-six (36) inches on center, spaced linearly. The shrubs must measure a minimum of twenty-four (24) inches at planting, and a minimum of thirty-six (36) inches to a maximum of forty-eight (48) inches in height at maturity.
2. Where the setback is four (4) feet or more in width, the remainder of the area must be planted with live groundcover.
3. These plantings may be supplemented with trees and perennials.
4. Plantings are not required where walkways and driveways are located.

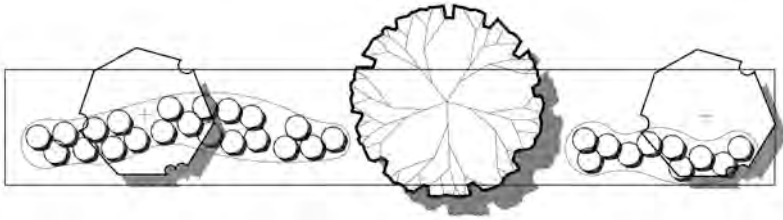
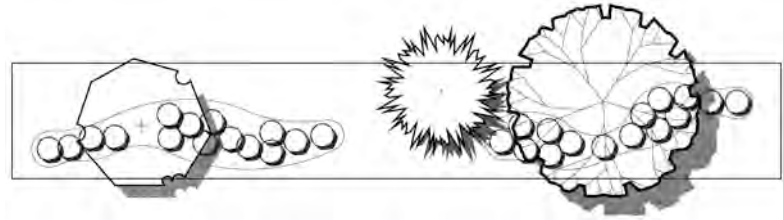
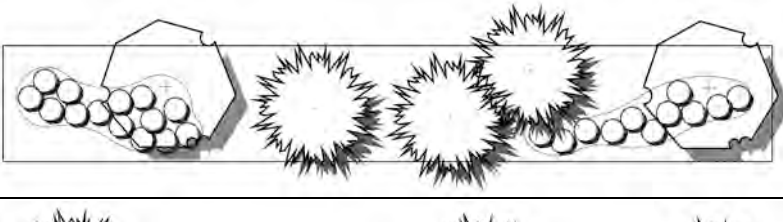
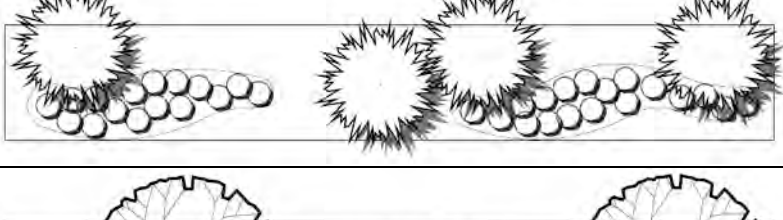

FIGURE 23-1: BUILDING FOUNDATION LANDSCAPE



B. Front Landscape Yard

Where a multi-family dwelling of seven (7) or more dwelling units, mixed-use development and non-residential use maintains parking in front of the building, a front landscape yard a minimum of ten (10) feet in width must be installed along the front lot line. In this case, the front landscape yard requirements control rather than the perimeter parking lot landscape requirements.

1. Five (5) plant unit options are presented in [Table 23-2: Plant Unit Options](#). Any alternative or a combination of alternatives may be used. Plantings may be spaced at various intervals and/or clustered based on specific site requirements or design scheme to be approved as part of the landscape plan.
2. One (1) plant unit per one-hundred (100) linear feet must be provided.
4. When figuring the number of plant units or quantity of plant material required, the number must be rounded up. For example, three and one-tenths (3.1) shade trees is rounded up to four (4) shade trees.
5. All plant materials, excluding trees, must be in the bedline. All plant materials in raised planters do not meet the requirements of this section.
6. Use of rocks or bare earth in lieu of groundcover plantings may not exceed twenty percent (20%) of the total front yard landscape area, excluding driveways, walkways or other access points.

TABLE 23-2: PLANT UNIT OPTIONS		
PLANT UNIT OPTIONS	QUANTITY & TYPE OF PLANTS	ILLUSTRATION
STANDARD PLANT UNIT	1 Shade Tree 2 Ornamental Trees 20 Shrubs	
ALTERNATIVE UNIT A	1 Shade Tree 1 Ornamental Tree 1 Evergreen Tree 30 Shrubs	
ALTERNATIVE UNIT B	2 Ornamental Trees 3 Evergreen Trees 25 Shrubs	
ALTERNATIVE UNIT C	4 Evergreen Trees 34 Shrubs	
ALTERNATIVE UNIT D	Native Landscape Alternative	

23.7 PARKING LOT LANDSCAPE

A. Required Parking Lot Landscape

[NOTE: We understand that Council is currently assessing provisions that require parking lots within the CBD to come into compliance with all parking lot standards within two years. If such a provision is adopted, it will be added to this section.]

1. All parking lots of ten (10) or more spaces are subject to site plan review and a landscape plan as a condition of obtaining a building permit.
2. Perimeter parking lot landscape is required for all parking lots, whether an accessory or principal use, and must be established along the edge of the parking lot.

3. Interior parking lot landscape, whether an accessory or principal use, is required for those lots of ten (10) or more spaces.
4. For existing parking lots that currently do not comply with the required parking lot landscape, such landscape must be provided when any one (1) of the following occurs:
 - a. A new principal building or building addition is constructed, or exterior remodeling of the principal building occurs.
 - b. Over fifty percent (50%) of the total area of an existing parking lot is reconstructed.
 - c. When an existing parking lot under ten thousand (10,000) square feet in area is expanded by fifty percent (50%) or more in total surface area.
 - d. When an existing parking lot over ten thousand (10,000) square feet in area is expanded by twenty-five percent (25%) or more in total surface area.
5. When an existing parking lot is required by this section to provide landscape, which would result in creating a parking area that no longer conforms to the parking regulations of the Article and this Ordinance, the existing parking lot is not required to install all or a portion of the required landscape. The applicant is required to show that landscape cannot be accommodated on the site. If only certain requirements can be accommodated on the site, only elements are required. The Director of Department of Safety and Permits will make the determination that all or a portion of required landscape does not have to be installed.
6. Nothing in this section prevents the applicant's voluntary installation of additional parking lot landscape, so long as parking space requirements and parking lot design requirements are complied with.

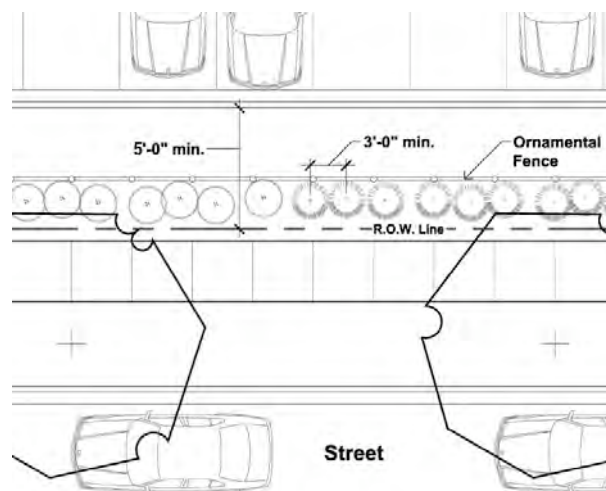
B. Perimeter Parking Lot Landscape

Perimeter parking lot landscape provides for the enhancement and screening of parking lots by requiring a scheme of landscape along public streets. A perimeter landscape yard is required for all parking lots and the landscape treatment must run the full length of the parking lot where it abuts a street. In the case of parking located at the front of the building, the front landscape yard requirements control. The perimeter parking lot landscape yard must be improved as follows. (See [Figure 23-2: Parking Lot Perimeter Landscape Yard](#))

1. The perimeter landscape yard must be a minimum of five (5) feet in width.
2. A single hedge row is required planted with one (1) shrub every thirty-six (36) inches on center, spaced linearly. The shrubs must measure a minimum of twenty-four (24) inches at planting, and a minimum of thirty-six (36) inches to a maximum of forty-eight (48) inches in height at maturity.
3. A minimum one (1) foot of width of groundcover or mulch.
4. One (1) shade tree every twenty-five (25) feet on center, spaced linearly. Trees may be spaced at various intervals and/or clustered based on specific site requirements or design scheme to be approved as part of the landscape plan.
5. All parking areas must be screened from the public right-of-way, excluding alleys, by an ornamental fence a minimum of four (4) feet in height along the perimeter landscape yard.

6. Alternatively, a low pedestrian wall the height of which provides effective screening to a maximum height of three (3) feet may be used instead of shrubs and an ornamental fence. Where possible, plant materials must be installed between the sidewalk and the wall to provide a softening effect on the wall.
7. All perimeter parking lot landscape areas must be protected with raised concrete curbs.

FIGURE 23-2: PARKING LOT PERIMETER LANDSCAPE YARD



C. Interior Parking Lot Landscape

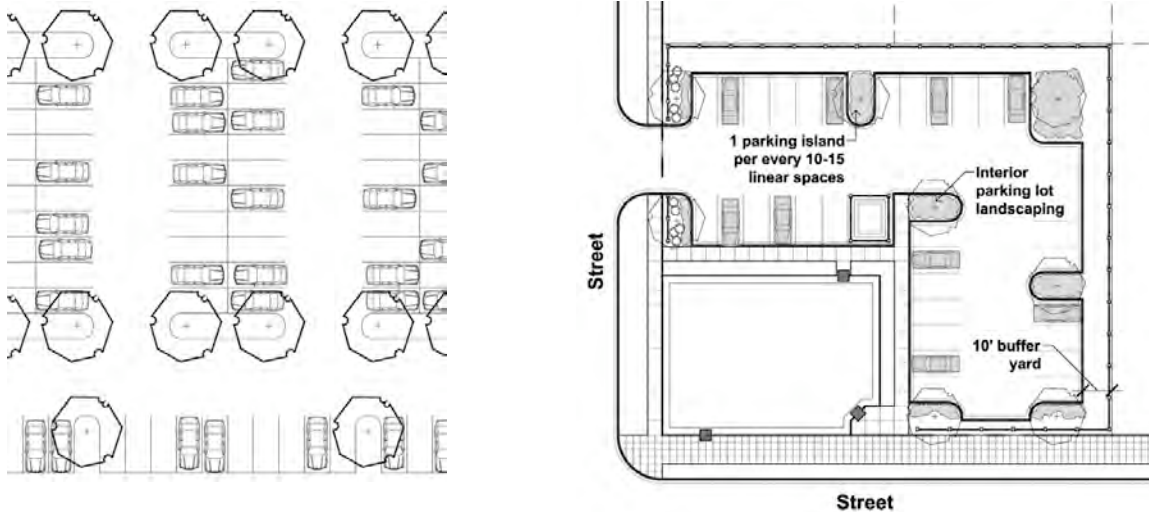
For parking lots consisting of ten (10) or more spaces, interior parking lot landscape is required. (See [Figure 23-3: Interior Parking Lot Landscape](#))

1. One (1) parking lot island must be provided between every ten (10) contiguous parking spaces. As part of the landscape plan approval, parking lot island locations may be varied based on specific site requirements or design scheme, to be approved as part of the landscape plan, but the total number of islands must be no less than the amount required one (1) island for every ten (10) spaces.
2. In addition to parking lot islands, additional landscaped areas must be provided within the interior of parking lots. All rows of parking spaces must terminate in a parking lot island or landscaped area. The minimum landscaped area, including parking lot islands, is ten percent (10%) of the parking lot area.
3. Parking lot islands or landscaped areas must be at least one-hundred twenty-five (125) square feet in area. However, parking lot islands must be the same dimension as the parking stall. Double rows of parking must provide parking lot islands that are the same dimension as the double row.
4. Parking lot islands or landscaped areas must be at least six (6) inches above the surface of the parking lot and protected with concrete curbing, except where designed to apply sustainable techniques allowing the flow and access of stormwater. Such islands and landscaped areas must be properly drained and irrigated as appropriate to the site conditions to ensure survivability.

5. The following plantings are required in parking lot islands and landscaped areas:
 - a. Shade trees must be the primary plant materials used in parking lot islands and landscaped areas. Ornamental trees, shrubs, hedges and other plant materials may be used to supplement the shade tree plantings but must not create visibility concerns for automobiles and pedestrians.
 - b. One (1) shade tree is required every parking lot island or landscaped area. If the island extends the width of a double row, then two (2) shade trees are required.
 - c. Shrubs must be planted within the parking island to provide a third layer of planting for visual interest.
 - d. A minimum of seventy-five percent (75%) of every parking lot island must be planted in live groundcover, perennials or ornamental grasses. Mulch is required to fill in planting areas for early growth protection until the groundcover is established and covers the planting area. It is encouraged to mulch bare areas for three (3) to five (5) years, or until the plant material is fully established in the parking islands.

6. The above specific planting provisions may be waived during site plan review if the applicant presents an alternate landscape plan that provides a combination of tree canopy and non-reflective auto canopies that shades at least fifty percent (50%) of the parking lot paved surface. This may include areas designated for solar powered electric auto recharging stations.

FIGURE 23-3: INTERIOR PARKING LOT LANDSCAPE



23.8 BUFFER YARDS

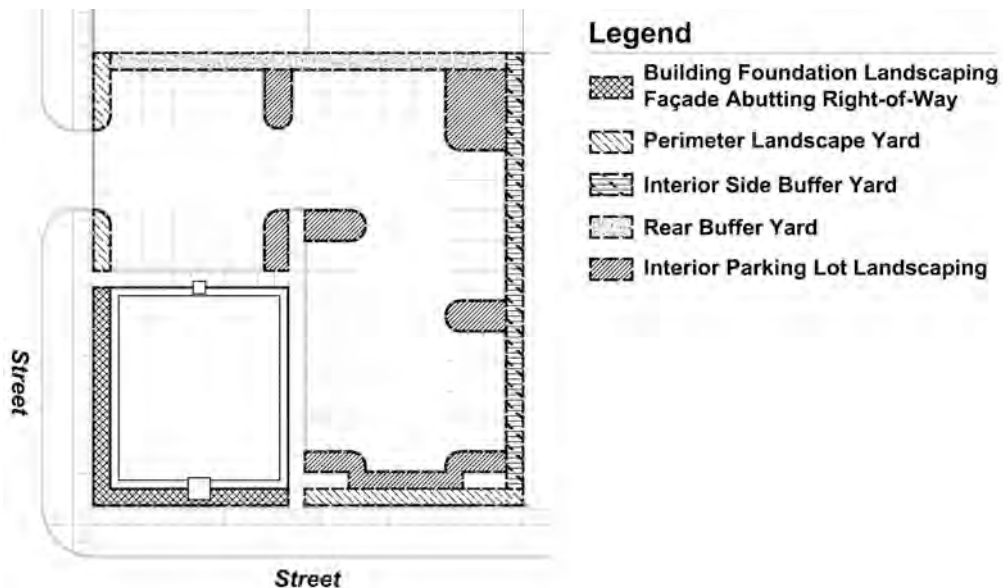
- A. The buffer yards maintain an appropriate relationship between adjacent developments by clarifying the delineation between properties and creating attractive and effective buffers between uses.

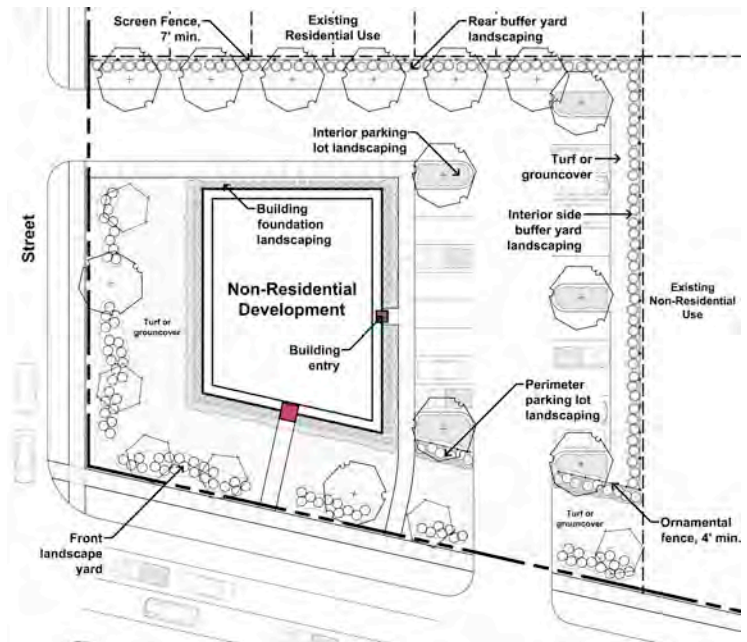
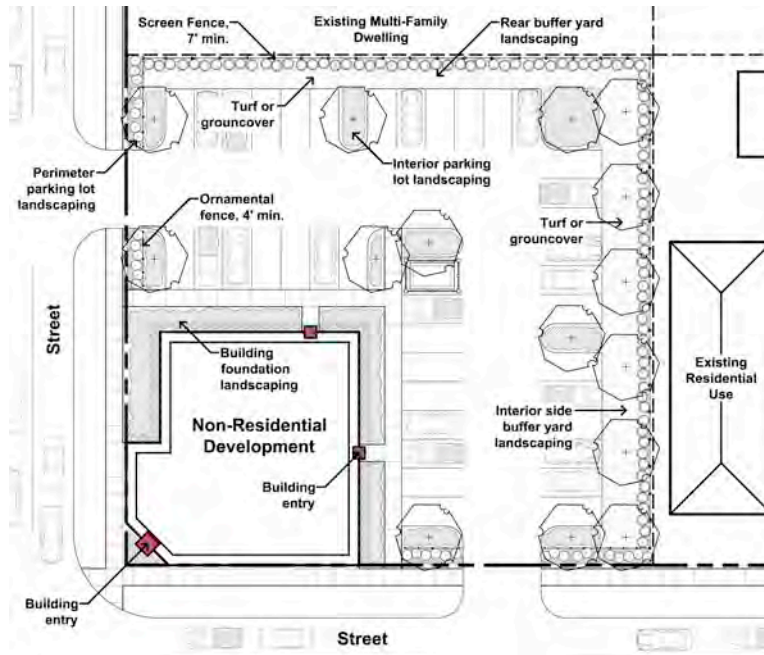
- B. Where the parking lot of a non-residential use or district abuts a residential district, a buffer yard of ten (10) feet must be provided along the interior side lot line and/or rear lot line.
- C. The buffer yard must be landscaped as follows:
 1. A screen fence or wall a minimum of seven (7) feet in height is required. Screen fences must be solid wood or simulated wood, or masonry. Chain-link fences are prohibited.
 2. A single hedge row planted with one (1) shrub every thirty-six (36) inches on center, spaced linearly. The shrubs must measure a minimum of twenty-four (24) inches at planting, and a minimum of thirty-six (36) inches to a maximum of forty-eight (48) inches in height at maturity.
 3. One (1) shade tree for every twenty-five (25) linear feet of the adjacent property line.
 4. The remainder of the area must be planted with turf or groundcover.

23.9 REQUIRED LANDSCAPE ILLUSTRATION

Figure 23-4: Landscape Requirements illustrates the location of the landscape requirements in this Article.

FIGURE 23-4: LANDSCAPE REQUIREMENTS





23.10 TREE PRESERVATION

- A. Approval of a landscape plan requires preservation of all trees with a diameter at breast height of over six (6) inches. Such may not be removed from a site, and must be maintained and protected during construction in accordance with the requirements of the City Code.
- B. Trees may only be removed if qualify for one (1) of the following situations. The Executive Director of the City Planning Commission, as part of landscape plan approval, may approve tree removal. The Director may consult the Department of Parks and Parkways to verify that

tree removal is necessary. However, the removal of any Live Oak is subject to the provisions of Paragraph B below.

1. The tree poses a hazard. In order to verify that a hazard exists, the City may require a tree hazard assessment to be performed by a qualified arborist.
 2. The tree is planted too close to an existing structure, such that it is either damaging or has the clear potential to damage the structure.
 3. The roots of the tree are causing damage to paved areas or sewer and plumbing lines.
 4. The tree has an incurable disease or pest infestation that cannot be eliminated. The City may require this condition to be verified by a qualified arborist.
 5. The tree is out of keeping in character or form with a proposed comprehensive landscape plan or with an otherwise cohesive existing landscape.
 6. The tree has been damaged to the point that it cannot recover and grow properly or that it will grow in a misshapen or unsightly manner.
 7. The Executive Director of the City Planning Commission determines that the removal of the tree is necessary to carry out construction in compliance with approved plans.
- B.** A tree that is removed must be replaced with a tree of a species and in a location that will grow to replace the removed tree without posing the hazards for which the tree was removed.
- C.** The Director of the Department of Safety and Permits may allow trees to be replaced with other types of landscape if one (1) of the following conditions are met:
1. The property includes other trees that provide sufficient shade so that additional trees are not necessary.
 2. If a replacement tree would be out of character or form in conjunction with an approved landscape plan.
 3. If in the opinion of the Director of the Department of Safety and Permits there is no suitable location on the property for a replacement tree.
- D.** Clear-cutting of forests is prohibited.

23.11 PARKWAY TREES

The following requirements apply to parkways (i.e., those areas within the public right-of-way located between the curb and the sidewalk) within the Central Business District and Destination Districts. All parkways must be landscaped in conformance with this Ordinance and other provisions within the City Code, and with the approval of the Department of Parks and Parkways.

- A.** Parkway trees must be planted at the equivalent of one (1) tree for every thirty (30) linear feet. Where appropriate, parkway trees may be clustered or spaced differently as determined appropriate or necessary by the Department of Parks and Parkways.
- B.** A variety of compatible species should be included in the planting plan for a specific site or development. The selecting of tree species must be reviewed and approved by the Department of Parks and Parkways with particular regard for site-appropriate species.

23.12 SCREENING REQUIREMENTS

A. Refuse Disposal Dumpsters, Recycling Containers and Refuse Storage Areas

All refuse and recycling containers must be fully enclosed on three (3) sides by a solid wood or simulated wood screen fence, an opaque masonry wall (stone, stucco or brick) or principal structure wall seven (7) feet in height. The enclosure must be gated. The materials used for screening, including the enclosure, must complement the architecture of the principal building. An extension of an exterior principal building wall may be used as one of the screening walls for a refuse container, provided that the wall meets the minimum seven (7) foot height requirement and is of the same building materials as the principal building. The wall may not serve as the required gated enclosure.

B. Loading Berths

Where feasible, loading berths must be located and oriented so as not be visible from the street and adjacent properties, while still allowing access to the use served. In addition, loading berths must be screened as much as possible, unless such screening is determined unnecessary by the body approving the landscape plan. Such screening must consist of an opaque masonry wall (stone, stucco or brick) or a solid wood or simulated wood screen fence at least seven (7) feet in height.

C. Outdoor Storage and Display Areas

1. Outdoor Storage Areas

- a. All outdoor storage areas must be completely screened by an opaque masonry wall (stone, stucco or brick) or a solid wood or simulated wood screen fence no less than seven (7) feet in height. Where feasible, plant materials must be installed along the fence or wall located along the public right-of-way to provide a softening effect. No materials stored outdoors may exceed the height of the required fence or wall with the exception of construction material.
- b. Outdoor storage areas must provide landscape and shading of the interior with a combination of tree canopy and non-reflective canopies covering twenty-five percent (25%) of the site.

2. Outdoor Sales and Display Areas

- a. When the rear or interior side yard of an outdoor display area abuts a residential district, the outdoor display area must be effectively screened from view by an opaque masonry wall (stone, stucco or brick), a solid wood or simulated wood screen fence or dense evergreen hedge at least seven (7) feet in height.
- b. All outdoor display areas must be designed with a landscape yard along the public right-of-way, excluding alleys, a minimum of ten (10) feet in width and planted with shade or evergreen trees at a rate of one (1) tree per twenty-five (25) feet, and supplemented with shrubs and perennials to enhance the view from the public right-of-way. These screening requirements are not intended to prohibit openings necessary for access drives and walkways.
- c. Motor vehicle dealerships or rental establishments with outdoor sales and display lots must be designed with permanent screening along the right-of-way, excluding alleys. The screening must consist of small shrubs and/or a low pedestrian wall no less than three (3) feet in height.

- d. Growing areas for nursery stock located in the front or corner side yard are considered to meet these screening requirements.

23.13 STORMWATER MANAGEMENT REQUIREMENTS

Any new development that consists of fifteen-thousand (15,000) square feet or more of paved surface, including the building footprint and paved parking area must be designed to filter or store the first inch of rainwater during each rain event. A stormwater management plan must be submitted and approved as part of the landscape plan showing compliance with this standard and the standards of this section.

A. Stormwater Management Measures

1. Stormwater management measures must be implemented in the following order of preference:
 - a. Infiltration, flow attenuation and pollutant removal of runoff on-site to existing areas with grass, trees and similar vegetation and through the use of open vegetated swales and natural depressions.
 - b. Use of stormwater on-site to replace water used for industrial processes or irrigation. Stormwater detention structures for the temporary storage of runoff for these purposes must be designed so as not to create a permanent pool of water.
 - c. Stormwater retention structures for the permanent storage of runoff by means of a permanent pool of water.
 - d. Retention and evaporation of stormwater on rooftops or in parking lots.
2. Infiltration practices must be utilized to reduce runoff volume increases. A combination of successive practices may be used to achieve the stormwater management standard of this section.
3. Best Management Practices (BMP) must be employed to minimize pollutants in stormwater runoff prior to discharge into a separate storm drainage system or water body.
4. All stormwater management facilities must be designed to provide an emergency overflow system, and incorporate measures to provide a non-erosive velocity of flow along its length and at any outfall.
5. The designed release rate of any stormwater structure must be modified if any increase in flooding or stream channel erosion would result at a downstream dam, highway, structure or normal point of restricted stream flow.

B. Stormwater Best Management Practices

Stormwater best management practices (BMP) minimize runoff, increase infiltration, recharge groundwater and improve water quality. In order to accomplish the performance standard required by this section, stormwater BMPs must be used. Stormwater BMPs must be designed as described in Louisiana's "Technical Design Standards: Landscape Design Components and Storm Water BMPs for the Model Storm Water Based Landscape Code." The model code provides engineers, developers, property owners, and citizens with information on stormwater management requirements, technical guidance on the methodology to be used to meet the requirements, and guidelines for designing, implementing, and maintaining the BMPs in the City of New Orleans. Additional BMPs not

included in the model code may be considered but must be approved as part of the landscape plan. Stormwater BMPs within the model code include, but are not limited to:

1. Rain gardens
2. Rain groves
3. Circular depressions
4. Flow diffusers
5. Vegetative filters
6. Sand filters
7. Bioswales
8. Louisiana ditch gardens
9. Grassed swales
10. Detention and retention basins
11. French drains, infiltration trenches and dry wells
12. Underground stormwater chambers that capture parking lot water
13. Planted stormwater buffers
14. Stream bank or riparian buffers
15. Preserved wetlands
16. Preserved forest floors
17. Constructed wetlands
18. Habitat preservation and protection areas
19. Tree protection areas
20. Disconnected roof tops, recycling and irrigation
21. Permeable pavers, porous surfaces and structural soils
22. Grass paving
23. Rooftop runoff management (captured storm water), including green roofs, cisterns and rain barrels