

**1. GENERAL AGENDA**

Mayor Dean Katerndahl opened the work session at 6:05 p.m. on December 17, 2024, at City Hall, 8880 Clark Avenue, Parkville, Missouri. In attendance were aldermen Tina Welch, Philip Wassmer (via videoconference), Brian T. Whitley, Bob Bennett, Douglas Wylie, Stephen Melton, Michael Lee and Allyson R. Berberich.

The following staff was also present:

Alexa Barton, City Administrator  
Bryan Kidney, Deputy City Administrator/Finance Director  
Jeffery Rhodes, Assistant City Administrator  
Kevin Chrisman, Police Chief  
Stephen Lachky, Community Development Director  
Brittanie Propes, Parks & Recreation Director  
Chris Ashley, Parks & Recreation Project Manager (via videoconference)  
John Mautino, City Attorney

**A. Proposed Site and Landscape Design Standards to be incorporated into Parkville Municipal Code Chapter 407**

Community Development Director Stephen Lachky provided an overview of the landscape design standards projects and a history of the meetings held.

Chris Cline, Confluence, provided an overview of the changes recommended by the Planning and Zoning Commission; presentation attached as Exhibit A.

Discussion focused on how existing vegetation would be handled, if credit would be given for existing vegetation, and the recommended changes regarding the percentage of native vegetation and native cultivars.

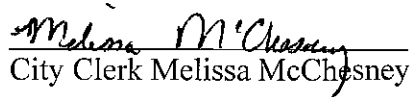
Mary Jane Kuehn and David Dods provided comments.

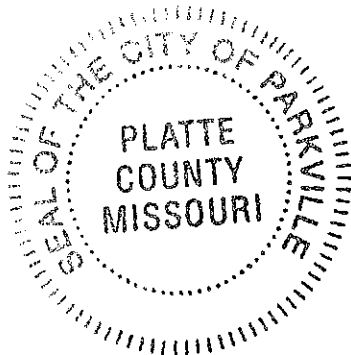
**2. ADJOURN**

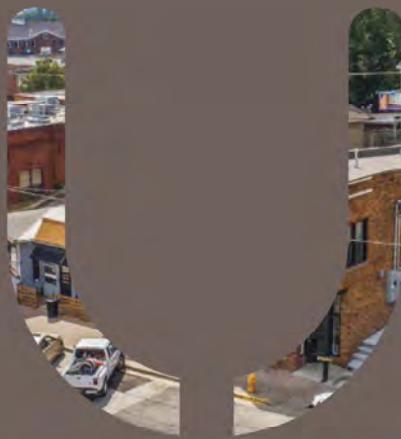
The work session ended at 7:04 p.m.

The work session minutes for December 17, 2024, having been read and considered by the Board of Aldermen, and having been found to be correct as written, were approved on this the seventh day of January 2025.

Submitted by:

  
City Clerk Melissa McChesney





CONFLUENCE

Board of Alderman Meeting

# SITE & LANDSCAPE DESIGN STANDARDS

Parkville, Missouri

December 17, 2024

CONFLUENCE



## Chapter 407. Site and Landscape Design Standards

|                 |                                     |
|-----------------|-------------------------------------|
| Section 407.010 | Intent and Applicability            |
| Section 407.020 | Site and Landscape Design Standards |
| Section 407.030 | Screens, Fencing, and Site Walls    |
| Section 407.040 | Outdoor Lighting                    |
| Section 407.050 | Stormwater Management               |
| Section 407.060 | Submittal Requirements              |

### Section 407.010. Intent and Applicability

- A. Intent.** It is the intent of this Chapter to:
1. Improve the aesthetic character of development with natural landscape materials, and in particular emphasize distinct areas throughout the community as reflected in the Master Plan or any specific plans.
  2. Improve the functional aspects of site design to provide safe and efficient circulation of vehicular, pedestrian, and bicycle users to improve connectivity between adjacent streets, sidewalks and trails with new development and redeveloped sites.
  3. Coordinate landscape and design amenities across multiple sites, with special attention to the relationship between lots and streetscapes and improving the character of districts and neighborhoods.
  4. Enhance the environmental and ecological function of unbuild portions of sites, including reduced air or water pollution and reduced heat gain from large expanses of hardscape or paved surfaces.
  5. Screen and mitigate the visual, noise or other impacts of high-intensity areas of sites, buildings and land uses.
  6. Enhance the functional and aesthetic appeal of site grading solutions to improve each development's relationship with the existing site and surrounding site context, including provisions for the use of retaining walls and site walls.
- B. Applicability.**
1. The standards of this Chapter shall apply to all new development except:
    - a. Detached houses and duplexes being built on an individual basis and on a previously platted lot, and which are not part of a larger residential neighborhood or subdivision plan; and
    - b. Improvements or repairs to existing development that do not result in an increase in building footprint by more than ten percent (10%), an increase in impervious surface, or changes in use that do not result in an increase in intensity.
  2. In cases where improvements or repairs increase the building footprint by more than ten percent (10%), increase the impervious surface or intensity of use, the intent is to bring the site into full compliance with these standards, except that the Director or Planning Commission may prorate the requirements to the extent of new development on the site where full compliance is not possible or practical.

### Section 407.020. Site and Landscape Design Standards

#### A. Definitions. The following items are defined for this Article:

1. **Deciduous Ornamental Tree.** A deciduous tree (often an ornamental tree type) that reaches a mature height of less than 30 feet.
2. **Deciduous Shade Tree.** Defined as a deciduous tree with one vertical stem or trunk which begins branching at a height of six (6) feet or more and has a distinct crown that reaches a mature height of at least 30 feet.
3. **Evergreen/Coniferous Tree.** Defined as a tree that has needle-shaped or scale like leaves that remain green throughout the year, commonly referred to as pine, fir, and spruce trees. These trees generally reach a mature height of over 15 feet.
4. **Green Muck.** Defined as a layer of plants that are closer to the ground, such as grasses, sedges, or other groundcovers, that can be used to support taller plants.
5. **Invasive Plant Species.** A plant reproducing outside its native range and outside cultivation that disrupts naturally occurring native plant communities by altering structure, composition, natural processes or habitat quality.
6. **No Mow Grass.** Defined as a type of grass that grows slowly and does not need to be mowed frequently.
7. **Open Space.** Any area not covered by a building, structure, parking lot, loading area, driveway, or other similarly paved area. Open space may include sidewalks, trails, pedestrian plazas and patios, and landscaped parking lot islands.
8. **Ornamental Grasses.** Defined as tall perennial grasses, generally over 24-inches at mature height, that are specifically grown and cultivated for their decorative properties. **Most of the commonly used ornamental grasses are non-native, introduced species such as: Feather Reed Grass, Blue Oat Grass, Silvergrass, and Fountain Grass.**
9. **Prairie Grass Plantings.** Native grasses and forbs (flowering plants) found within the native prairie environment typical for the area prior to clearance and cultivation of the land by European settlers. For the purposes of this Article, prairie plantings may contain native grasses without forbs to simplify prairie plant installation and maintenance.
10. **Turf Grass.** A continuous plant coverage consisting of a grass species that is mowed or maintained at an established height of 6 inches or less and can include native and non-native vegetation, e.g., Kentucky Blue Grass, Perennial Ryegrass, Tall Fescue, Fine Fescue, Buffalo Grass.
11. **Xeriscaping.** Defined as the practice of landscaping with slow-growing, drought tolerant plants to conserve water, **and reduce yard trimmings.**
- 11.12. **Native Plants.** Plants which have evolved in the region, ecosystem or habitat over thousands of years without human introduction. These plants include trees, shrubs (flowering perennials), sedges and sedges.

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- 11.12. **Native Plants.** Plants which have evolved in this region, ecosystem or habitat over thousands of years without human introduction. These plants include trees, shrubs (flowering perennials), grasses and sedges.



| SITE AND LANDSCAPE DESIGN STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| B. Open Space and Landscaping Required.                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| f. <u>Site Design Standards.</u> The site layout plan shall indicate the placement of each building (ground floor plan of the building with door and window placement noted), public streets, private drives and driveways, sidewalks, site walls, mechanical units, and above grade utility infrastructure (utility poles, light poles, utility boxes, mailers, etc.). The following items shall be integrated into the design of site plan improvements: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| a.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Pedestrian Access.</b> Each project site shall include a minimum 4' width concrete sidewalk connection to provide access from the adjacent public street to private drive through the proposed site (including through parking lots) to the front door of the proposed building and any other required doors. Any sidewalk that is placed adjacent to or within 2 feet of a curb (edge of pavement) of a public street or private drive shall be a minimum of 6' width to ensure pedestrian safety and comfort.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| b.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Bicycle Access.</b> See Parkville Municipal Code, Section 408.030 D for bicycle parking requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| c.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Above-Grade Site Utilities.</b> Each project shall properly coordinate the proposed locations of above-grade utilities to consolidate their location(s) on the site to the extent practical. The intent is minimizing locations that can each be adequately buffered with landscape plantings and/or other improvements to enhance the visual appearance of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| d.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Roof/Site Drainage.</b> Each project shall properly design and coordinate the proposed locations and alignment of roof and site drainage, including any downspouts or other devices designed to convey stormwater, to avoid creating situations where water runoff flows over and/or pools on pedestrian walkways, trail connections, and high-traffic parking areas and driveways. Methods such as connecting roof drains directly to underground stormwater drainage systems or conveying stormwater abovegrade to and through integrated green infrastructure improvements should be used to create a safe environment for pedestrian and vehicle circulation.                                                                                                                                                                                                                                                                                                                                                                                                             |
| e.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Site Sections.</b> Each project shall provide at least one overall scaled site section drawing (accurately depicted – no vertical exaggeration), the selection of which shall be in consultation with the Director of Planning. The Director may require other site sections to be created to fully illustrate proposed site development conditions and site grading. The site section shall accurately depict public and private streets adjacent to the project site while illustrating the relationship of view sheds and site lines from adjacent properties and streets to the subject site, and shall include buildings, parking and retaining walls to indicate proposed site development conditions. If the site sections and submitted information do not provide adequate information to properly illustrate proposed development conditions, the Director and/or Planning Commission may require additional exhibits or perspective illustrations to accurately portray proposed development conditions and to assist in the City's evaluation of the application. |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Open Space Required.</b> All sites shall provide no less than the minimum amount of open space as required for each zoning district. (See Table 404-6.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| TITLE IV - DEVELOPMENT CODE                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| City of Parkville                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| SITE AND LANDSCAPE DESIGN STANDARDS                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                      | 407                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3. <b>Open Space/Landscaping Required.</b> All landscape plans shall be prepared and stamped by a Landscape Architect licensed to practice in the State of Missouri. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| a.                                                                                                                                                                   | <b>Ground Cover.</b> All areas unencumbered by buildings, paving or hard surfacing, shall be landscaped with turf grass, prairie grass plantings, plant beds, green mulch, xeriscaping, shrubs, and trees.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| b.                                                                                                                                                                   | <b>Use of Mulch.</b> Except for single-family and duplex dwellings, wood-based mulch shall be used around all plantings and in all plant beds. <b>If green mulch is proposed, wood-based mulch shall still be used at the time of initial planting and shall remain in place until the green mulch plantings are of sufficient size to fill and cover the planting bed.</b> Large areas of wood mulch that do not contain plantings shall not be permitted except when used around play structures. Inorganic ground cover material, including rock, chip brick, and synthetic turf (unless part of a designated sport field or play surface), is prohibited except along building foundations, around drainage structures, and in other limited applications as may be deemed acceptable by the Director of Planning.                                                                                                                                                                |
| c.                                                                                                                                                                   | <b>Minimum Open Space Landscape Requirements.</b> Each single-family and duplex dwelling constructed after the adoption of this ordinance shall be required to plant a minimum of two (2) trees (ornamental or shade) per lot or unit prior to the issuance of an occupancy permit. With the exception of single-family and duplex dwellings, the following minimum open space plantings shall be required for all sites:<br>(1) One (1) deciduous shade tree, two (2) deciduous ornamental trees, and two (2) shrubs shall be planted for every 2,000 square feet of required open space. However, the minimum required landscape for all sites shall be no less than one (1) deciduous shade tree, two (2) deciduous ornamental trees, and two (2) shrubs.<br>(2) This landscaping is in addition to landscaping required for street frontage and parking lot landscaping. Open space plant materials shall not count towards the fulfillment of any other landscaping requirement. |
| 4.                                                                                                                                                                   | <b>Building Foundation Plantings.</b> Except for single-family and duplex dwellings, low to medium height plant materials (shrubs, ornamental grasses, perennials) shall be planted and maintained along 100% of the street facing building foundation lines where not impeded by building entrances, loading areas and sidewalks. Foundation plant materials shall not count towards the fulfillment of the required open space landscaping.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.                                                                                                                                                                   | <b>Streetscape Landscaping.</b> The following street frontage landscaping shall be required for all sites except for single-family and duplex dwellings. One overstory street tree shall be required for every 40 feet of public or private street frontage. A periodic cluster of at least five (5) ornamental grasses and/or shrubs shall be required along the streetscape at an average interval of one (1) cluster or grouping for every 20 feet of frontage. The required streetscape may be arranged with varying spacing and need not be placed evenly at 40-foot and 20-foot intervals in order to address placement restrictions related to underground and overhead utilities, streetlights, driveways, and street intersections. These plantings are required to be located within 15' of the street right-of-way and may be located within the public street right-of-way, if approved by the City.                                                                      |
| C. Off-Street Parking, Driveways and Loading Areas.                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| c.                                                                                                                                                                   | <b>Minimum Open Space Landscape Requirements.</b> Each single-family and duplex dwelling constructed after the adoption of this ordinance shall be required to plant a minimum of two (2) trees (ornamental or shade) per lot or unit prior to the issuance of an occupancy permit. With the exception of single-family and duplex dwellings, the following minimum open space plantings shall be required for all sites:<br>(1) One (1) deciduous shade tree, two (2) deciduous ornamental trees, and two (2) shrubs shall be planted for every 2,000 square feet of required open space. However, the minimum required landscape for all sites shall be no less than one (1) deciduous shade tree, two (2) deciduous ornamental trees, and two (2) shrubs.<br>(2) This landscaping is in addition to landscaping required for street frontage and parking lot landscaping. Open space plant materials shall not count towards the fulfillment of any other landscaping requirement. |
| 4.                                                                                                                                                                   | <b>Building Foundation Plantings.</b> Except for single-family and duplex dwellings, low to medium height plant materials (shrubs, ornamental grasses, perennials) shall be planted and maintained along 100% of the street facing building foundation lines where not impeded by building entrances, loading areas and sidewalks. Foundation plant materials shall not count towards the fulfillment of the required open space landscaping.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| C. Off-Street Parking, Driveways and Loading Areas.                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| TITLE IV - DEVELOPMENT CODE                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| City of Parkville                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

The following standards shall apply to all off-street parking and loading areas with ten (10) or more parking stalls or with more than 2,500 square feet of paved area. Off-street and loading areas required plant materials shall not count towards the fulfillment of any other landscaping requirement.

1. Parking Lot Design:

- No dead-end parking lots or private drives will be permitted, as these create safety hazards for vehicular and pedestrian circulation. All site plans shall be designed to provide internal driveways and drive connections allowing vehicles to circulate through the site and all parking areas safely and efficiently.
- Parking islands with landscape plantings shall be located at the ends of each parking row to properly demarcate and buffer the parking stalls from adjacent driveways and drive aisles. These parking islands need to be configured with concrete curbs at a minimum of 9 feet wide (measured from back of curb to back of curb) and a length that matches the length of the adjacent parking stalls.
- Parking islands matching the above criteria shall be required to be integrated into each parking lot layout such that no more than a maximum of 10 contiguous parking stalls is provided in any given row of parking.
- No off-street parking or loading area shall be more than 100 feet from the center of an existing or proposed deciduous shade tree located within a landscaped open space area.
- Sidewalks that abut the front edge of any parking stall shall be no less than seven (7) feet wide to accommodate a two (2) foot vehicle overhang.

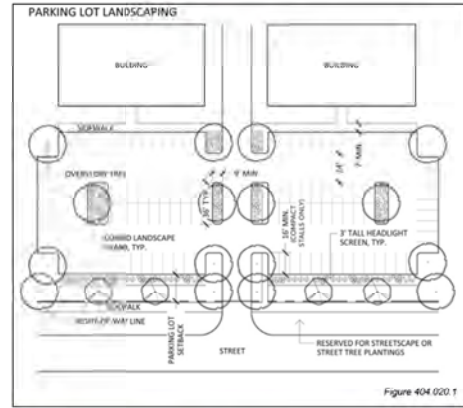
2. Landscaping Required:

- All parking lot islands shall be landscaped with a combination of turf grass, no mow grass, prairie grass, shrubs, perennials, and trees with no less than three (3) different landscape materials being utilized.
- Turf grass, no mow grass, prairie grass, shrubs or perennials within parking lot islands shall not exceed 24 inches in height as to maintain visibility within parking lot.
- Crushed rock, chip brick, pavers, pavement, and similar hard surfacing shall not be permitted unless utilized as a necessary curb apron. Larger rock (2" or greater) shall not be permitted.
- Sidewalks in parking lot islands and medians may be permitted as necessary (in addition to the landscape requirements) to accommodate pedestrian circulation.
- One (1) deciduous shade tree shall be planted within each landscaped island.
- Quality soil shall be placed within each landscape island to a depth of 30-48 inches. Soil within islands shall be tested and amended accordingly, prior to tree planting, to ensure long term growth success for the tree. If parking lot island minimums cannot be achieved, structural soils and/or Silva cells will need to be considered as adequate alternatives for tree growth.

- Shade trees shall be evenly distributed throughout the parking lot to maximize shade.

3. Parking Lot Screening:

- Whenever an off-street parking area is placed along a public street or a private drive, a ratio of one (1) deciduous shade tree and two (2) deciduous ornamental trees shall be planted every 50 feet within the parking lot setback area (the area between the parking lot and adjacent street/drive).
- Additionally, a minimum three (3) foot tall vehicle headlight screen shall be installed between the parking lot and the adjoining street or private drive. These plantings shall be a minimum of 24" height at time of planting, and are in addition to the streetscape landscape requirements outlined herein. This screen can be constructed with any combination of prairie plantings, shrubs, ornamental grasses, earth berms, and low masonry walls.



The following standards shall apply to all off-street parking and loading areas with ten (10) or more parking stalls or with more than 2,500 square feet of paved area. Off-street and loading areas required plant materials shall not count towards the fulfillment of any other landscaping requirement.

1. Parking Lot Design:

- No dead-end parking lots or private drives will be permitted, as these create safety hazards for vehicular and pedestrian circulation. All site plans shall be designed to provide internal driveways and drive connections allowing vehicles to circulate through the site and all parking areas safely and efficiently.
- Parking islands with landscape plantings shall be located at the ends of each parking row to properly demarcate and buffer the parking stalls from adjacent driveways and drive aisles. These parking islands need to be configured with concrete curbs at a minimum of 9 feet wide (measured from back of curb to back of curb) and a length that matches the length of the adjacent parking stalls.
- Parking islands matching the above criteria shall be required to be integrated into each parking lot layout such that no more than a maximum of 10 contiguous parking stalls is provided in any given row of parking.
- No off-street parking or loading area shall be more than 100 feet from the center of an existing or proposed deciduous shade tree located within a landscaped open space area.
- Sidewalks that abut the front edge of any parking stall shall be no less than seven (7) feet wide to accommodate a two (2) foot vehicle overhang.

2. Landscaping Required:

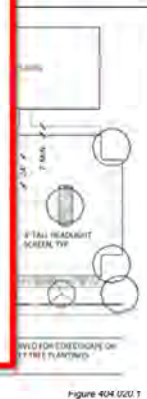
- All parking lot islands shall be landscaped with a combination of turf grass, no mow grass, prairie grass, shrubs, perennials, and trees with no less than three (3) different landscape materials being utilized.
- Turf grass, no mow grass, prairie grass, shrubs or perennials within parking lot islands shall not exceed 24 inches in height as to maintain visibility within parking lot.
- Crushed rock, chip brick, pavers, pavement, and similar hard surfacing shall not be permitted unless utilized as a necessary curb apron. Larger rock (2" or greater) shall not be permitted.
- Sidewalks in parking lot islands and medians may be permitted as necessary (in addition to the landscape requirements) to accommodate pedestrian circulation.
- One (1) deciduous shade tree shall be planted within each landscaped island.
- Quality soil shall be placed within each landscape island to a depth of 30-48 inches. Soil within islands shall be tested and amended accordingly, prior to tree planting, to ensure long term growth success for the tree. If parking lot island minimums cannot be achieved, structural soils and/or Silva cells will need to be considered as adequate alternatives for tree growth.

minimums cannot be achieved, structural soils and/or Silva cells will need to be considered as adequate alternatives for tree growth.

- Shade trees shall be evenly distributed throughout the parking lot to maximize shade.

Whenever an off-street parking area is placed along a public street or a private drive, a ratio of one (1) deciduous shade tree and two (2) deciduous ornamental trees shall be planted every 50 feet within the parking lot setback area (the area between the parking lot and adjacent street/drive).

Additionally, a minimum three (3) foot tall vehicle headlight screen shall be installed between the parking lot and the adjoining street or private drive. These plantings shall be a minimum of 24" height at time of planting, and are in addition to the streetscape landscape requirements outlined herein. This screen can be constructed with any combination of prairie plantings, shrubs, ornamental grasses, earth berms, and low masonry walls.







5. Designs shall best integrate sites and projects into their surroundings or promote any distinct characteristics of the area identified in the Master Plan or any specific plans.
6. Designs should emphasize any focal points of an area or project and pay particular attention to the relationship with the streetscapes.
- J. **Maintenance and Replacement.**
1. **Maintenance.** All property owners shall maintain all landscaping including regular mowing, trimming, and pruning and removal of dead, dying, or diseased plant material and keep the property clear from weeds, debris, and litter. Plant material shall be regularly trimmed and pruned to keep from encroaching sidewalks, walkways, driveway, and parking areas.
  2. **Replacement.** The owner of any lot or parcel for which a landscape plan has been approved under this Article shall further be responsible for the replacement of any dead, dying, or diseased plant material to remain in compliance with the approved landscape plan. Should a tree for which a landscape credit was given, die, become diseased, or is otherwise removed, the owner of the property on which the tree is located shall replace the tree at the same ratio at which the credit was originally given. Failure to maintain the landscaping in accordance with this provision shall constitute a violation of the site's site plan and/or building permit approval and certificate of occupancy.

#### Section 407.030. Screens, Fencing, and Site Walls

- **Buffer Types:** In addition to the general site and landscape requirements, certain projects, land uses, or elements of site design have potential impacts that require them to be buffered or screened from adjacent property. The following buffer types are established to be incorporated into site designs in specific contexts.

Table 407-4: Buffer Planting Requirements

| Buffer Type                                                                                                                                                                                                                             | Buffer Size and Planting Requirement                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type 1</b><br>A compact, more densely landscaped area used to screen and mitigate potential impacts on adjacent property. Type 1 buffers may be necessary in combination with other buffers on particular portions of the site plan. | At least 8' wide.<br>1 evergreen per 5 linear feet or 1 shrub per 5 linear feet.<br>OR a hedge or ornamental wall that provides a solid screen between 6' and 8' with a ratio combination of plant material to soften the wall or fence.                    |
| <b>Type 2</b><br>A landscape strip used to screen and provide aesthetic improvements within the setback area and improve the compatibility of certain land use transitions.                                                             | At least 10' wide.<br>1 shade tree or 2 ornamental trees per 50 linear feet.<br>1 shrub per 10 linear feet.                                                                                                                                                 |
| <b>Type 3</b><br>A landscape strip used to separate and screen potentially incompatible sites or land use transitions.                                                                                                                  | At least 20' wide.<br>1 shade tree or 2 ornamental trees per 40 linear feet.<br>1 evergreen per 20 linear feet.<br>1 shrub per every 10 linear feet.<br>OR a 6' high or solid fence combination with a ratio combination of plant materials to the outside. |
| <b>Type 4</b>                                                                                                                                                                                                                           | At least 30' wide along footage                                                                                                                                                                                                                             |

Table 407-4: Buffer Planting Requirements

|                                                                                                                                                                                                                               |                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| A landscape area along the footage of thoroughfares and corridors designed to preserve or strengthen the natural features and characteristics of the area through more dense vegetation in a compact area.                    | 1 shade, ornamental or evergreen tree per 4 linear feet.<br>1 shrub or evergreen per 2 linear feet or footage.                |
| <b>Type 5</b><br>A landscape area along the footage of thoroughfares and corridors designed to preserve or strengthen the natural features and characteristics of the area through more moderate vegetation in a larger area. | At least 50' wide along footage.<br>1 shade, ornamental or evergreen tree per 10 linear feet.<br>1 shrub per 4 linear feet.   |
| <b>Type 6</b><br>A landscape area along the footage of thoroughfares and corridors designed to preserve or strengthen the natural features and characteristics of the area through dispersed vegetation in a wide area.       | At least 100' wide along footage.<br>1 shade, ornamental or evergreen tree per 20 linear feet.<br>1 shrub per 20 linear feet. |

- B. **Buffer Requirements.** In general, each buffer type is required in the following specific circumstances. In instances where the specifics of any particular project or context would allow a different buffer type to equally or better meet the intent of this Chapter and the Design and Performance Criteria of this Section, the Director or Planning Commission may approve an alternative buffer through the site plan application. In addition to these specific circumstances, any combination of these buffers may be required as a condition of any Special Use permit review for particular uses.

Table 407-5: Buffer Planting Requirements

| Buffer Type             | When Required                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type 1</b>           | For screening high-intensity portions of site from streetscape or adjacent property according to design and performance criteria in Section 407.030. Specifically applicable to those situations: customer storage, drive-through, loading, or service areas (loading residential areas) or vehicle parking (within 10 feet of residential use) or behind property. Type 1 buffers may be required in addition to or in combination with other buffer types. |
| <b>Type 2</b>           | Along non-commercial thoroughfares or collector roads within urban areas, except those with existing street lighting.<br>Any outbuilding or apartment project greater than 1/2 acre but less than 2 acres abutting R-4 or lesser intense zoning.<br>Any non-residential project under 1 acre abutting residentially used or zoned property.<br>Any 1/4 project abutting lesser intense districts.                                                            |
| <b>Type 3</b>           | Any 1/2 or 1/4 abutting lesser intense districts.<br>Any outbuilding or apartment project of 2 acres or more abutting R-4 or lesser intense zoning.<br>Any non-residential property not 1/2 acre or more abutting R-4 or lesser intense zoning.                                                                                                                                                                                                              |
| <b>Types 4, 5 and 6</b> | Along thoroughfares of major thoroughfares that have a natural street design.<br>Landscape should be designed to provide a mix of deciduous and evergreen trees and shrubs dispersed throughout the buffer area.<br>May incorporate civic and open space requirements, if any, into this area.                                                                                                                                                               |

- Fence Specifications. All fencing for screening, security, or privacy shall meet the following standards.
1. **Front and Street-Side Fencing.** All fencing in front of the front building line, or on the street-side on corner lots shall:
    - a. Be limited to no higher than forty-two (42) inches, and have a transparency of at least thirty-three (33%) up to four (4) feet (i.e., a three-and-one-half-foot-high picket fence shall have a picket to void ratio of two to one (2:1) or greater transparency; or ornamental walls should similarly have voids comprising at least thirty-three percent (33%) of the area below three and one-half (3 1/2) feet).
    - b. Any fence or wall constructed within fifteen (15) feet of the street right-of-way shall be limited to decorative or ornamental fencing and screening, with materials complementing the architectural style and materials of the principal building.
    - c. On corner lots, street-side fencing behind the front building line may meet the standards for rear and side fencing in Subsection (C)(2) below, provided that it is no closer than five (5) feet from any sidewalk located in the right-of-way.
  2. **Rear and Side Fencing.** All rear and interior side fencing located behind the front building line shall:
    - a. Shall be limited to no higher than six (6) feet, or up to seven (7) feet in all non-residential districts.
    - b. May have a solid screen.
  3. **Other Fencing Design Standards.**
    - a. Any fencing that could potentially create a sight obstruction for vehicles crossing pedestrian areas or entering the street may require greater transparency or additional location restrictions to allow for safe sight distances for the vehicle.
    - b. All fencing located along adjacent lot lines shall be constructed so that either:
      - (1) The fence is on the property line; or
      - (2) The fence is at least three (3) feet from the property line. Any areas set back three (3) feet or more from the property line, which could become enclosed by other similarly located fences, shall provide at least one (1) gate for access and maintenance equipment.
    - c. All fences shall be constructed so that the finished side faces adjacent property or any public right-of-way.
    - d. Fences shall be constructed out of any of the following materials:
      - (1) Wood or vinyl simulating wood;
      - (2) Wrought iron or aluminum simulating wrought iron;
      - (3) Chain-link or vinyl clad chain-link;
        - a. In all residential districts, in the rear or side yard only with a maximum height of four (4) feet;
        - b. In the I-1, I-2, and I-3 Districts, in the rear and side only, but no closer than thirty (30) feet from any public street;
        - c. In commercial districts, in the rear or side only, except prohibited in the OTD District.
  - D. **Freestanding Site Walls.** All freestanding site walls for screening, security, or privacy shall meet the following standards:
    1. **Front and Street-Side Site Walls.** All freestanding site walls in front of the front building line, or on both street sides of corner lots shall:
      - a. Be limited to no higher than forty-two (42) inches; and

- a. Any site wall constructed shall be constructed with materials complementing the architectural style and materials of the principal building; and
  - b. Be placed on the site to visually buffer views to parking lots, service areas, and above-grade utility infrastructure to inhibit direct views from adjacent public streets and private drives within the development.
2. **Front and Street-Side Site Walls.** All rear and interior site walls located behind the front building line:
    - a. Shall be limited to no higher than six (6) feet, or up to seven (7) feet in all non-residential districts.
  3. **Other Site Wall Design Standards.**
    - a. Any site wall that could potentially create a sight obstruction for vehicles crossing pedestrian areas or entering the street may require the integration of fencing or other visually permeable design treatments to afford greater transparency or additional location restrictions to allow for safe sight distances for vehicles, pedestrians and bicyclists.
    - b. All site walls located along adjacent lot lines shall be constructed so that either:
      - (1) The site wall is on the property line; or
      - (2) The site wall is at least three (3) feet from the property line. Any areas set back three (3) feet or more from the property line, which could become enclosed by other similarly located site walls or fences, shall provide at least one (1) architecturally appropriate gate for access and maintenance equipment.
    - c. All site walls shall be constructed so that all readily visible sides of the wall are finished and match the adjacent architecture style and materials of the principal building.
    - d. Site walls shall be constructed out of any of the following materials:
      - (1) Natural stone or brick to match building architecture.
      - (2) Concrete or CMU core wall with stone or brick veneer to match building architecture.
      - (3) Precast concrete panels to match building architecture.
  - E. **Site Retaining Walls.** All site walls used as retaining walls shall meet the following standards:
    1. Be limited in height to six (6) feet; and
    2. Be limited in placement to a minimum distance of four (4) feet of another retaining wall (existing or proposed); and
    3. If a site proposes the use of more than one retaining wall to address grading conditions, the area between these retaining walls shall be fully landscaped and shall have a maximum slope of 4:1 (25%); and
    4. Any retaining wall that could potentially impede the visibility of vehicles crossing pedestrian areas or connections with streets/allevies may require additional location restrictions to allow for safe sight distances for vehicles, pedestrians and bicyclist; and
    5. Any retaining wall shall be constructed with durable materials complementing the architectural style and materials of the principal building such as:
      - a. Natural stone or brick to match building architecture.
      - b. Concrete or CMU core wall with stone or brick veneer to match building architecture.
      - c. Precast concrete panels to match building architecture.
      - d. Modular concrete unit walls with wall caps and a decorative finish.



6. Any metal wall over four (4) feet in height shall be designed by a licensed professional with competency in the design of retaining walls.
- Design and Performance Standards.** Buffers, screens, fences, and retaining walls shall be designed to meet the following performance standards: in addition to the requirements specified for each buffer type, the arrangement of plants: grading or setting of land; or inclusion of fences walls or other screens may be necessary to meet these design and performance standards.
1. Minimize glare from traffic ambient to the site, outdoor lighting (or other operations) on the site.
  2. Migrate noise to comparable ambient noise levels found by other compatible uses throughout the area or district.
  3. Buffers, screens, fences, and retaining walls shall meet the proper lines of site at all intersections of streets, all driveway entrances and the intersection of informal access streets. The proper lines of site shall be based upon the control if the intersection or streets, the stopping point, and the expected speeds of occurring traffic as provided on section 404.010(E)(2).
  4. All high-impact site elements such as trash enclosures, service and loading areas, utility and mechanical equipment or fuel storage, shall be located in remote portions of sites away from streets, public view from adjacent residential property, in cases where these facilities are near interior boundaries which may impact surrounding property, a combination of Level 1 and Level 2 buffers shall be designed to limit potential impacts.
  5. Trash receptacles, in addition to perimeter buffers for the site, shall be located on a remote area and stored inside a structure or enclosure compatible with the architectural design and materials of the building. The building shall be constructed of a durable material designed to withstand regular use by heavy equipment, including masonry, steel, and architectural metal panels.

## Section 407.040, Outdoor Lighting

- Visual Character.** The physical appearance of all exterior lighting poles, and related surfaces for signs located within a larger, *full-scale* project area, shall match the visual character and performance standards of lighting used on adjacent sites throughout the larger project area. The intent is to create aesthetic consistency in the use and appearance of these lighting improvements throughout the entire development – even if this development occurs through phased implementation. If light fixtures matching those of adjacent development sites is no longer available, or if there is a functional need to modify the lighting equipment used, the applicant will notify the City and make every effort to select fixtures and equipment that match or substantially replicate the aesthetic appearance of adjacent site lighting.
- Light fixtures should be LED type and generate a soft white or near white light.

Light fixtures should be LED type and generate a soft white or near white light

- 5) **Mounting Height.** All exterior lighting shall be limited to the mounting heights specified in the following table.

TABLE 407-E. MOUNTING HEIGHT

| Location                                  | Height Limit (ft.)                                                   |
|-------------------------------------------|----------------------------------------------------------------------|
| Overlays and Parking Areas                | 37' 6" in S-2, S-4, I-1, I-2 districts<br>32' in all other districts |
| Pedestrian Walkways, Plazas or Courtyards | 16'                                                                  |

|                     |                                                                           |
|---------------------|---------------------------------------------------------------------------|
| Facade Lights       | Sketch the eave or cornice line, provided the light is directed downwards |
| Other Sign Lighting | 12"                                                                       |

3. **Shielding.** All exterior lighting shall be shielded as specified in the following table.

TABLE 407-7: REQUIRED SHIELDING

| Watts (or equivalent Lumens) or Mounting Height                                    | Shield Type                                             |           |              |
|------------------------------------------------------------------------------------|---------------------------------------------------------|-----------|--------------|
|                                                                                    | Full Cutoff*                                            | Cutoff*   | Semi-cutoff* |
| All lights incorporating 10" or All lights above 450 Watts                         | required                                                | permitted | permitted    |
| All lights between 100 Watts and 450 Watts                                         | permitted                                               | required  | prohibited   |
| All Lights between 50 Watts and 99 Watts, or Any Light Mounted between 12' and 20' | permitted                                               | permitted | required     |
| All Lights Mounted below 12' AND Less than 50 Watts                                | no shielding is required, all shielding types permitted |           |              |

## NOTES

- 1 Full cutoff fixtures emit zero percent (0%) of its light above ninety degrees (90°) and ten percent (10%) above eighty percent (80%) from horizontal.
- 2 Cutoff fixtures emit no more than two and five-tenths percent (2.5%) of its light above ninety degrees (90°) and ten percent (10%) of its light above eighty percent (80%) from horizontal.
- 3 Semi-cutoff fixtures emit no more than five percent (5%) of its light above ninety percent (90°) and twenty percent (20%) of its light above eighty degrees (80°).

- C. Design and Performance Criteria.** In addition to the mounting height and shielding standards, exterior site lighting shall meet the following design and performance standards:
1. All lighting shall be designed and located to not provide direct light or glare onto any adjacent property.
  2. All lighting shall be reduced to levels necessary only for security purposes within one hour after closing of the business.
  3. All facade lighting and/or other externally illuminating lights shall use shielded, directional fixtures, design and location to minimize lighting and glare.
  4. All site and area lighting should be directed downward (not upward) to avoid creating light pollution and the potential for conflicts with adjacent properties. Buildings and landscaping may use accent lighting that aim certain lights upward to highlight various features, provided that such lighting shall not limit the spill of this lighting off-site to create a negative impact for adjoining uses.

## Section 407.050. Stormwater Management

- General Requirement.** All sites shall provide improvement necessary to adequately handle stormwater. In areas already subject to a stormwater management plan at the block- or area-scale as provided in Chapter 404, compliance with that plan shall satisfy the site design requirements. In all other cases, site specific best management practices shall be used to manage the peak flow, quantity and quality of stormwater run-off expected from development.

- activity in marine that poses no significant impact on other data compared to pre-development activities.
- Best Management Practices.** In general, stormwater management should prioritize strategies that manage stormwater at the largest scale possible, strategies that mitigate stormwater inputs are ground within or as close to the site as possible, and strategies that integrate stormwater treatment into the site plan and landscape design elements. The stormwater strategy will be highly dependent on the surrounding natural resources, the presence of broader stormwater facilities, and the hydrotopography and soil conditions of the site. The following strategies should be used in descending order of preference to meet site-specific stormwater standards:
1. Integration into a district area, or block storm water management plan;
  2. Collected water storage and treatment, infiltration, and infiltration of natural systems;
  3. Infiltration systems and porous materials that infiltrate runoff into the ground;
  4. Filtration systems that use natural materials to slow, filter and convey ~~stormwater~~ to other systems;
  5. Retention areas that capture and store runoff in permanent ponds, provided they are designed as an amenity to the site or vicinity;
  6. Detention ponds or detention vaults that capture and store runoff temporarily, but serve little other purpose on the site.
- C. **Stream Buffer Protection.** The following standards have been established to help prevent property damage, reduce the severity of floods, prevent stream bank erosion, protect natural resources, protect water quality and prevent water quality degradation from development.
- [Part No. 318A, 6-2-2003]

1. All stream channels shall be identified on development plans. This includes identifying the ordinary high-water mark stream, often referred to as the "Active Stream Zone" — and identifying the stream channel on both sides of the stream channel.
  - a. For Type 1 (perennial) streams, a 100 ft. stream corridor setback shall be identified on development plans, measured horizontally outward from both sides of the top of the stream channel bank.
  - b. For Type 2 (intermittent) streams, a 50 ft. stream corridor setback shall be identified on development plans, measured horizontally outward from both sides of the top of the stream channel bank.

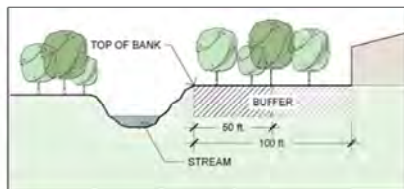


Figure 457-1: Stream Buffer Diagram

2. The stream corridor setback shall establish a conservation buffer area consisting of the contiguous, undisturbed natural vegetation (drainage existing, mature riparian forest), but may encroachment crossings, recreational trails and uses, utility right-of-way, and other limited-impact uses:
  - a. Any encroachment within the stream corridor setback shall be reviewed and approved by the Director.
  - b. Limited tree clearing and removal of vegetation is allowed if reviewed and approved by the Director.
3. The Director of Public Works may require an engineering, stream profile or other related studies for development or potential impacts near a stream corridor.

## Section 407.060, Submittal Requirements

As part of the review and approval process for any new building, building addition, or site improvement, the following information shall be submitted. The Zoning Administrator may request additional information as necessary to show compliance with this chapter and may further waive any informational item determined not to be necessary for the review of the proposed building for compliance with this chapter.

- A. An existing conditions site plan (at a measurable scale) depicting a base map of the subject property including a minimum of 200' of area surrounding all sides of the subject property. The site plan shall include existing grading and topography, existing tree locations, adjacent streets, drives and pavement areas, existing buildings, existing streams, ponds or other water bodies, and other unique features of the existing site. Areas where existing slopes exceed 25% should also be noted on the plan.
- B. A proposed site development plan (at a similar measurable scale) depicting the proposed improvements to the site including all parking, sidewalks, site and retaining wall locations, buildings, driveways, parking stalls, site lighting, site grading including topography, anticipated development site conditions, and utility infrastructure proposed to serve the site.
- C. A proposed site landscape plan (at a similar measurable scale) depicting all existing site vegetation to remain and all proposed landscape planting improvements. The plan shall include a detailed table outlining the amount, type and size of landscape plantings required for each identified area of the site, as well as the amount, type, and size of landscape plantings provided for each identified area of the site. This plan shall also detail the minimum requirement of 60% native and/or native-like plants and trees for all plantings or plantations. Recommendations are required to be clearly noted on the plan along with the rationale supporting the request.
- D. All site section illustrations prepared for the development application shall include proposed landscape planting types and locations depicting the mature height of plantings.
- E. All landscape plans shall be prepared and stamped by a Landscape Architect licensed to practice in the State of Missouri.



activity in manner that poses no significant impact on other sites compared to pre-development conditions.

**Best Management Practices.** In general, stormwater management should prioritize strategies that manage stormwater at the largest scale possible, strategies that infiltrate stormwater into the ground within or as close to the site as possible, and strategies that integrate stormwater functions into other site and landscape design elements. The appropriate strategy will be highly dependent on the surrounding natural systems, the presence of broader stormwater facilities, and the specific topography and soil conditions of the site. The following strategies should be used in descending order of preference to meet site-specific stormwater standards:

1. Integration into a district, area, or block storm water management plan.
2. Constructed wetlands that mimic retention, filtration and infiltration of natural systems.
3. Infiltration systems and porous materials that infiltrate runoff into the ground.

**B. Best Management Practices.** In general, stormwater management should prioritize strategies that manage stormwater at the largest scale possible, strategies that infiltrate stormwater into the ground within or as close to the site as possible, and strategies that integrate stormwater functions into other site and landscape design elements. The appropriate strategy will be highly dependent on the surrounding natural systems, the presence of broader stormwater facilities, and the specific topography and soil conditions of the site. The following strategies should be used in descending order of preference to meet site-specific stormwater standards:

1. Integration into a district, area, or block storm water management plan.
2. Constructed wetlands that mimic retention, filtration and infiltration of natural systems.
3. Infiltration systems and porous materials that infiltrate runoff into the ground.

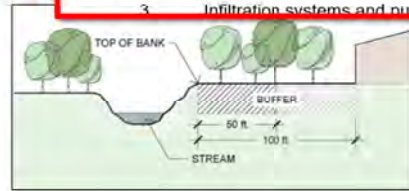


Figure 407-1: Stream Buffer Diagram

TITLE IV - DEVELOPMENT CODE

City of Parkville  
February 2017

407-15

2. The stream corridor setback shall establish a conservation buffer area consisting of the contiguous, undisturbed natural vegetation (ideally existing, mature riparian forest), but may allow roadway crossings, recreational trails and uses, utility right-of-way, and other limited-impact uses.
  - a. Any variances within the stream corridor setback shall be reviewed and approved by the Director.
  - b. Limited tree clearing and removal of vegetation is allowed if reviewed and approved by the Director.

3. The Director of Public Works may require an engineering, stream profile or other related studies for development or potential impacts near a stream corridor.

**Section 407.060. Submittal Requirements**

- D. All site plan submissions shall include a detailed table outlining the amount, type and size of landscape plantings required for each identified area of the site, as well as the amount, type, and size of landscape plantings provided for each identified area of the site. This plan shall also detail the minimum requirement of 90% use of native and native-cultivar plants. Any requested deviations or substitutions are required to be clearly noted on the plan along with the rationale supporting the request.
- E. All site section illustrations prepared for the development application shall include proposed landscape planting types and locations depicting the mature height of plantings.
- F. All landscape plans shall be prepared and stamped by a Landscape Architect licensed to practice in the State of Missouri.

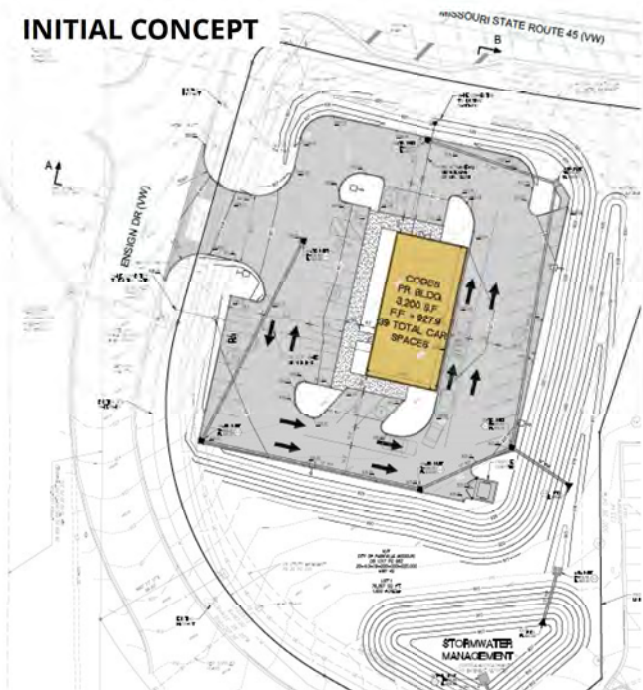
TITLE IV - DEVELOPMENT CODE

City of Parkville  
February 2017

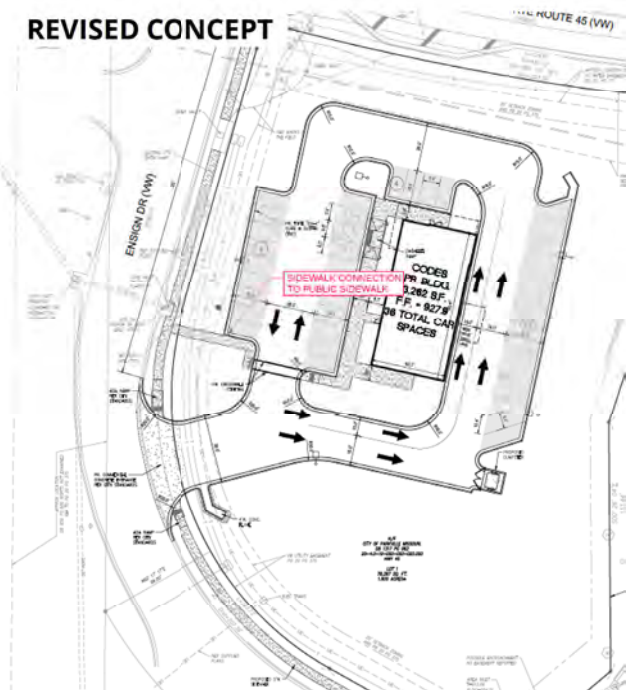
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## Draft Guidelines – Results to Date

### INITIAL CONCEPT



### REVISED CONCEPT



Board of Alderman Meeting

# SITE & LANDSCAPE DESIGN STANDARDS

Parkville, Missouri

December 17, 2024

CONFLUENCE



## City of Parkville Plant Material List

December 17/August 18, 2024

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### Large Native Shade Trees

|                           |                         |
|---------------------------|-------------------------|
| American Basswood/ Linden | Tilia americana         |
| American Beech            | Fagus grandifolia       |
| American Hornbeam         | Cornus alternifolia     |
| American Sycamore         | Platanus occidentalis   |
| Bittered hickory          | Carya cordiformis       |
| Black Cherry              | Prunus serotina         |
| Black Gum (Tupelo)        | Nyssa sylvatica         |
| Black Oak                 | Quercus grisea          |
| Black Walnut              | Juglans nigra           |
| Bur Oak                   | Quercus macrocarpa      |
| Chinkapin Oak             | Quercus muehlenbergii   |
| Hickberry                 | Celtis occidentalis     |
| Hop Hornbeam              | Ostrya virginiana       |
| Kentucky Coffeetree       | Gymnocladus dioica      |
| Mockernut Hickory         | Carya tomentosa         |
| Nutall Oak                | Quercus texana          |
| Overcup Oak               | Quercus laevis          |
| Pecan                     | Carya illinoensis       |
| Permethon                 | Diapentia virginiana    |
| Pin Oak                   | Quercus palustris       |
| Post Oak                  | Quercus stellata        |
| Red hickory               | Carya ovalis            |
| Red Maple                 | Acer rubrum             |
| River Birch               | Betula nigra            |
| Sassafras                 | Sassafras albidum       |
| Shagbark Hickory          | Carya ovata             |
| Shoebark Hickory          | Carya leucocarpa        |
| Shingle Oak               | Quercus prinus          |
| Shumard Oak               | Quercus shumardii       |
| Sugar Maple               | Acer saccharum          |
| Swamp Chestnut Oak        | Quercus michauxii       |
| Thornless Honey Locust    | Gleditsia pabula        |
| Tulip Poplar              | Liriodendron tulipifera |
| White Oak                 | Quercus alba            |



## Smaller Native Flowering Trees

|                        |                                       |
|------------------------|---------------------------------------|
| Allegheny Serviceberry | Amelanchier laevis                    |
| American Smoke Tree    | Cotinus <del>sp.</del>                |
| Baldemut               | <del>Spachia</del> <del>Spachia</del> |
| Buttonbush             | <del>Spachia</del> <del>Spachia</del> |
| Cockspur Hawthorn      | Cotinus crugifolia                    |
| Downy Hawthorn         | Cotinus <del>sp.</del>                |
| Downy Serviceberry     | Amelanchier arborea                   |
| Eastern Redbud         | Cercis canadensis                     |
| Flowering Dogwood      | <del>Cornus</del> <del>Florida</del>  |
| Green Hawthorn         | Cotinus <del>sp.</del>                |
| Mo. Prairie Lobelia    | Morus <del>sp.</del>                  |
| Ohio Buckeye           | Aesculus glabra                       |
| Pawpaw Tree            | Asimina triloba                       |
| Red Buckeye            | Aesculus <del>sp.</del>               |
| Shadbush/Serviceberry  | Amelanchier canadensis                |
| Washington Hawthorn    | Crataegus <del>sp.</del>              |
| Wild Plum              | Prunus americana                      |

## Native Shrubs

|                           |                                               |
|---------------------------|-----------------------------------------------|
| American Beautyberry      | Callicarpa americana                          |
| American Filbert/Hazelnut | Corylus americana                             |
| Arrowwood                 | Viburnum <del>sp.</del>                       |
| Black Chokeberry          | Aronia <del>sp.</del>                         |
| Black Haw Viburnum        | Viburnum <del>sp.</del>                       |
| Chokeberry                | Prunus virginiana                             |
| Deciduous Holly           | Ilex decidua                                  |
| Elderberry                | Sambucus canadensis                           |
| Fragrant Sumac            | Rhus <del>sp.</del>                           |
| Golden Currant            | Ribes coccineum                               |
| Indigo Bush               | Amorpha <del>sp.</del>                        |
| Lead Plant                | Amorpha <del>sp.</del>                        |
| Leatherwood               | Dicella palustris                             |
| Nannyberry Viburnum       | Viburnum <del>sp.</del>                       |
| New Jersey Tea            | Ceanothus americanus                          |
| Ninebark                  | <del>Physocarpus</del> <del>opulifolius</del> |
| Prairie Willow            | Salix humilis                                 |
| Red Chokeberry            | Aronia <del>sp.</del>                         |
| Rusty Blackhaw            | Viburnum <del>sp.</del>                       |
| Shrubby B. John's Wort    | Hypericum <del>sp.</del>                      |
| Spicebush                 | Lindera benzoin                               |
| Summersweet               | Eurostaphylos americana                       |
| Vermont Witch Hazel       | Hamamelis virginica                           |
| Virginia                  | <del>sp.</del> <del>virginica</del>           |
| Wahoo                     | Eurostaphylos atropurpurea                    |
| Wild Hydrangea            | Hydrangea arborescens                         |
| Winged Sumac              | Rhus <del>sp.</del>                           |
| Winterberry Holly         | Ilex <del>sp.</del>                           |
| Witch Hazel               | Hamamelis virginica                           |

## Native Trees to Missouri but not KC

|                  |                    |
|------------------|--------------------|
| Bald Cypress     | Taxodium distichum |
| Cucumber Tree    | Magnolia acuminata |
| Mexican Plum     | Prunus mexicana    |
| Southern Red Oak | Quercus falcata    |

## Native Evergreen Trees

|                     |                      |
|---------------------|----------------------|
| American Holly      | Ilex opaca           |
| Eastern Red Cedar   | Juniperus virginiana |
| Shoreland Pine      | Pinus echinata       |
| Thru <del>sp.</del> | Thuja occidentalis   |
| White Pine          | Pinus strobus        |

## Native Cultivars – Trees and Shrubs

| Common Name         | Scientific Name         | Cultivar                                      |
|---------------------|-------------------------|-----------------------------------------------|
| <b>Shade Trees</b>  |                         |                                               |
| American Sycamore   | Platanus occidentalis   | 'Bloodgood' 'Columbian' 'Liberty' 'Sagittata' |
| Shumard Oak         | Quercus shumardii       |                                               |
| White Oak           | Quercus alba            | 'Sargol'                                      |
| Single Oak          | Quercus prinus          |                                               |
| Double Oak          | Quercus bicolor         |                                               |
| Franklin Oak        | Quercus prinus          |                                               |
| Swamp White Oak     | Quercus alba            | 'American Dream'                              |
| Bar Oak             | Quercus macrocarpa      | 'Bloomer' 'Uppert'                            |
| White Oak           | Quercus alba            |                                               |
| Black Oak           | Quercus velutina        |                                               |
| Pine Oak            | Quercus palustris       | 'Green Pearl'                                 |
| Post Oak            | Quercus stellata        |                                               |
| Tulip Poplar        | Liriodendron tulipifera | 'Ardi' 'Ardor' 'Euphorbia' 'Euphorbia'        |
| American Basswood   | Tilia americana         |                                               |
| American Beech      | Fagus grandifolia       |                                               |
| Black Cherry        | Prunus serotina         |                                               |
| Kentucky Coffeetree | Gymnocladus dioica      | 'Eclipse' 'Prairie Tree' 'Stately Ranger'     |
| Plum                | Corylus americana       |                                               |

|                         |                                       |                                                                                                                                                                                                   |
|-------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Persimmon               | Diospyros virginiana                  |                                                                                                                                                                                                   |
| River Birch             | Betula nigra                          | 'Cully'                                                                                                                                                                                           |
| Sassafras               | Sassafras albidum                     |                                                                                                                                                                                                   |
| Hackberry               | Celtis occidentalis                   |                                                                                                                                                                                                   |
| Sugar Maple             | Acer saccharum                        | 'Monroe' 'Baldwin' 'Barnett' 'Cory' 'F5 4000' 'Saratoga' 'Green Mountain' 'Legacy'                                                                                                                |
| Red Maple               | Acer rubrum                           | 'Autumn Flame' 'Autumn Radiance' 'Autumn Spice' 'Bowhall' 'Hartwick' 'Northwood' 'October Glory' 'Red Sunset' 'Scotch'                                                                            |
| Black Gum (Tupelo)      | Nyssa sylvatica                       | 'David Odor' 'Autumn Cascade' 'F5 Red' 'Green Gable' 'Max Scarlet' 'Red Racer' 'Red Spire' 'Star's Glow' 'Stark's Green' 'Sparkler' 'Swamp Tupelo' 'Wilder' 'Zylora' 'Zylora' var. <del>sp.</del> |
| Hop Hornbeam            | Ostrya virginiana                     |                                                                                                                                                                                                   |
| American Hornbeam       | Carpinus <del>sp.</del>               | 'Native Flame' 'Pinnacle' 'Bird's Eye' 'Rising Fire'                                                                                                                                              |
| Thornless Honey Locust  | Gleditsia triacanthos                 | 'Gleditsia triacanthos' 'Vigilant'                                                                                                                                                                |
| Shagbark Hickory        | Carya ovata                           |                                                                                                                                                                                                   |
| Bitternut Hickory       | Carya amara                           |                                                                                                                                                                                                   |
| Mucklenut Hickory       | Carya tomentosa                       |                                                                                                                                                                                                   |
| Shed Bark Hickory       | Carya alba                            | 'Fayette' 'Henry' 'Keystone' 'Pinnacle' 'Maneville'                                                                                                                                               |
| Red Hickory             | Carya ovata                           |                                                                                                                                                                                                   |
| Black Walnut            | Juglans nigra                         | 'Black Gem' 'Oak King'                                                                                                                                                                            |
| <b>Ornamental Trees</b> |                                       |                                                                                                                                                                                                   |
| Swamp White Oak         | Quercus alba                          | 'Columbian' 'Liberty'                                                                                                                                                                             |
| Prairie Crabapple       | Malus <del>sp.</del>                  | 'Prince George' 'Pina'                                                                                                                                                                            |
| Flowering Dogwood       | <del>Cornus</del> <del>Florida</del>  | 'Appalachian Spring' 'Appalachian Jay' 'Cloud Nine'                                                                                                                                               |
| Wild Plum               | Prunus americana                      |                                                                                                                                                                                                   |
| American Smoke tree     | Cotinus <del>sp.</del>                | 'Northway' 'Grace' 'Royal Purple'                                                                                                                                                                 |
| Washington Hawthorn     | Crataegus <del>sp.</del>              | 'Clark' 'Fastidiosa' 'Hartwick Select' 'Princeton Sentry' 'Winn King'                                                                                                                             |
| Cockspur Hawthorn       | Crataegus crus-galli                  |                                                                                                                                                                                                   |
| Downy Hawthorn          | Crataegus <del>sp.</del>              |                                                                                                                                                                                                   |
| Green Hawthorn          | Crataegus <del>sp.</del>              | 'Winter King'                                                                                                                                                                                     |
| Red Buckeye             | Aesculus <del>sp.</del>               |                                                                                                                                                                                                   |
| Ohio Buckeye            | Aesculus glabra                       | 'Autumn Splendor'                                                                                                                                                                                 |
| Buttonbush              | <del>Spachia</del> <del>Spachia</del> | 'Sugar Stick' 'Redbud'                                                                                                                                                                            |



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Native – But Not Recommended

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Board of Alderman Meeting

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Parkville, Missouri

December 17, 2024

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