



PLANNING & ZONING COMMISSION

Regular Meeting Agenda

CITY OF PARKVILLE, MISSOURI

Tuesday, December 10, 2024 5:30 PM

City Hall Board Room

- 1. Call to Order**
- 2. Roll Call**
- 3. General Business**
 - A. Approval of the December 10, 2024, regular meeting agenda.
 - B. Approve the minutes for the November 12, 2024, regular meeting
- 4. Unfinished Business**
- 5. Public Hearing**
 - A. Application for Text Amendment to amend the Parkville Municipal Code, Title IV: Development Code, Chapter 407. Site and Landscape Design Standards as part of a comprehensive update to the chapter. (Case No. PZ24-32); *City of Parkville, Applicant.*
- 6. Regular Business**
- 7. Other Business**
 - A. Upcoming meetings & dates of importance:
 - Board of Aldermen Meetings: Tuesday, December 17, 2024 at 7:00 p.m. and Tuesday, January 7, 2025 at 6:00 p.m.
 - Board of Zoning Adjustments Meeting: TBA
 - Planning & Zoning Commission Regular Meeting: Tuesday, January 14, 2025 at 5:30 p.m.
- 8. Adjournment**

**Minutes of the
Planning & Zoning Commission Regular Meeting
City of Parkville, Missouri**

Tuesday, November 12, 2024 5:30 PM

City Hall Board Room

City Hall Board Room

1. Call to Order

Chair Wright called the meeting to order at 05:31 PM.

2. Roll Call

Commissioners Present:

Michael Wright

Barbara Wassmer

R. Douglas Krtek

Walt Lane

Spencer Keesee

Andrew Barchers

Gareld Butler

Timothy Cahill

Absent:

Jackson Kutey

A quorum of the Commission was present.

Staff Present:

Stephen Lachky, Community Development Director

Brad Stanton, Planner

3. General Business

A. Approval of the November 12, 2024, regular meeting agenda.

ACTION: Andrew Barchers moved to approve, Gareld Butler seconded. Motion Passed: 8-0.

AYES: Michael Wright, Barbara Wassmer, R. Douglas Krtek, Walt Lane, Spencer Keesee, Andrew Barchers, Gareld Butler, Timothy Cahill

NOES: None

ABSTAIN: None

B. Approve the minutes for the October 8, 2024, regular meeting

ACTION: R. Douglas Krtek moved to approve, Spencer Keesee seconded. Motion Passed: 8-0.

AYES: Michael Wright, Barbara Wassmer, R. Douglas Krtek, Walt Lane, Spencer Keesee, Andrew Barchers, Gareld Butler, Timothy Cahill

NOES: None

ABSTAIN: None

4. Unfinished Business

5. Public Hearing

- A. Application for Zoning Map Amendment for one (1) parcel of land from Platte County "RE" Rural Estate to City of Parkville "I-2-P" Planned Light Industrial District for Creekside Industrial Complex. (Case No. PZ24-27); *Parkville Industrial, LLC, Applicant*.
STAFF ANALYSIS & SUMMARY

Brad Stanton, Planner, presented an overview of Items 5A and 5B together. Mr. Stanton outlined a zoning map amendment and preliminary development plan for the Creekside Industrial Complex, covering approximately 17.36 acres between Creekside Ballfields and Interstate 435. It involves rezoning the property from "RE" Rural Estate to "I-2-P" Planned Light Industrial District to align with the Parkville 2040 Master Plan's "Regional Commercial" future land use designation. The proposal includes five light industrial lots, private open spaces, and a new public road. Staff finds the plan compliant with municipal code requirements and recommends approval of the zoning change and preliminary development plan.

DEVELOPER'S PRESENTATION

Brian Mertz, Applicant, stated that there is a need for industrial space within Parkville. The Creekside Industrial (Capital Electric) was supposed to be 20+ lots and then Capital Electric bought the entire properties. 13,400 square foot buildings similar to Bell Road Industrial Park. Mr. Mertz stated there was substantial grade fall off from west to east, necessitating retaining walls. Commissioner Keese expressed concern about the narrow gap between the proposed drive and the I-435 exit ramp.

PUBLIC HEARING

Bill Quitmeier, 10150 NW Ambassador Dr, stated he was the attorney for Sarah and Dan Myer, 15852 NW 45 Highway. He stated that he felt the planning was not adequate for the proposal, specifically mentioning transportation planning. He stated it was equivalent to "spot zoning". Mr. Quitmeier stated that an industrial park was not a good fit for the area. He stated that the proposed rezoning does not help the health and safety of the community. Ms. Myer stated that there has been evidence of traffic from the exit ramp crossing to their existing private drive. Mr. Quitmeier stated that the ballfields, hotel, and single-family residences were not compatible with the proposed light industrial use. Ms. Myer had concerns on health.

Mr. Mertz stated that the existing condition of the drive is an old farm road. The proposal is for a 30' wide public street. He stated that the lot cannot sustain commercial traffic, and the proposed development plan represents about the most intense use that is feasible.

BOARD DISCUSSION & ANALYSIS

Commissioner Cahill has concerns about the quality of development that has been approved recently.

MOTION

Commissioner Cahill moved to recommend denial of the application, Wassmer second.

ACTION: Timothy Cahill moved to deny, Barbara Wassmer seconded. Motion : 4-4.

AYES: Barbara Wassmer, Andrew Barchers, Gareld Butler, Timothy Cahill

NOES: Michael Wright, R. Douglas Krtek, Walt Lane, Spencer Keesee

ABSTAIN: None

A split recommendation will be forwarded to the Board of Aldermen.

- B. Application for Preliminary Development Plan for Creekside Industrial Complex, a planned industrial development consisting of five lots and three tracts on 17.36 acres, more or less, generally located to the east of the Creekside Ballfields and to the west of Interstate 435 in Parkville, MO 64152. (Case No. PZ24-28); *Parkville Industrial LLC, Applicant.*

PUBLIC HEARING

Brian Mertz, Applicant, stated that he was unclear what the Commission was looking for at this location. Commissioner Lane stated that another use would have more traffic.

Sarah and Dan Myer, 15852 NW 45 Hwy, has concerns about the development depreciating their residential property value. Commissioner Butler asked about the preferred use close their property. Ms. Myer stated they purchased their property as a bit of country within the city. She stated that she felt commercial may bring "more attractive businesses". Mr. Myer stated his concern was the safety of his children, including with noise barriers from large trucks. He stated that he would prefer a use that creates the least amount of traffic and has a minimal visual impact. Mr. Quitmeier felt that the proposed contractor garages were not attractive.

ACTION: Spencer Keesee moved to approve, Doug Krtek seconded. Motion : 4-4.

AYES: Michael Wright, R. Douglas Krtek, Walt Lane, Spencer Keesee

NOES: Barbara Wassmer, Andrew Barchers, Gareld Butler, Timothy Cahill

ABSTAIN: None

A split recommendation will be forwarded to the Board of Aldermen.

6. Regular Business

7. Other Business

- A. Upcoming meetings & dates of importance:

- Board of Aldermen Meetings: Tuesday, November 19 and December 3 at 7:00 p.m.
- Board of Zoning Adjustments Meeting: TBD Pending Application
- Planning & Zoning Commission Regular Meeting: Tuesday, December 10 at 5:30 p.m.

8. Adjournment

Chairman Wright called further discussion. Seeing none, he called for a motion to adjourn.

Submitted by:

Stephen Lachky, AICP
Community Development Director

Date

Brad Stanton
Planner

Date



Staff Analysis

<u>Agenda Item:</u>	5.A
<u>Proposal:</u>	Request for text amendment to Parkville Municipal Code, Title IV: Development Code, Chapter 407. Site and Landscape Design Standards as part of a comprehensive update of the City's landscape design standards.
<u>Staff Recommendation:</u>	Approval or Postponement
<u>Case No:</u>	PZ 2024-32
<u>Applicant:</u>	City of Parkville
<u>Pre-Application Conference Mtg:</u>	N/A; Special workshop with the Steering Committee (i.e., Planning and Zoning Commission) held on June 11, 2024; and a joint work session with the Planning and Zoning Commission and Board of Aldermen held on August 20, 2024.
<u>Exhibits:</u>	A. This Staff Analysis Report B. Application for Text Amendment C. Proposed Text Amendment – Chapter 407. Site and Landscape Design Standards D. Additional exhibits as may be presented during the meeting
<u>By Reference:</u>	A. Title IV – Development Code (https://ecode360.com/40852611) B. Ordinance No. 334 (approved November 17, 1953) – Zoning the City, under the provisions of the zoning act of the State of Missouri provided for by RSMo, 1949; finding and declaring that the proceedings preliminary to the passage of the zoning ordinance under said act have been followed as in said act required; defining terms as they are used and applied in this ordinance; dividing the city into zone districts and fixing the boundary lines thereof; restricting the uses to which the land and buildings in each of said districts may be put; regulating the height and size of buildings and other structures; regulating and restricting the area to be occupied by buildings and other structures under a comprehensive plan; creating and defining the powers and duties of a building inspector and a board of adjustment; providing for a zoning commission and rules for amending this ordinance; repealing or modifying all ordinances and parts of ordinances in conflict with this ordinance and providing for penalties for violating the provisions of this ordinance.

- C. Ordinance No. 2884 (approved February 7, 2017) – Repealing and replacing Municipal Code Title IV, repealing Chapter 505 and adding Chapter 152 via the Zoning Code and Subdivision Regulations Update project.
- D. Professional Services Agreement with Confluence for Architectural Design Standards (approved July 18, 2023)
 - a. Exhibit A – City of Parkville, Missouri, Architectural Design Standards, Scope of Services
- E. Ordinance No. 3229 (approved August 20, 2024) – Amending Municipal Code creating Chapter 411 to establish a cohesive set of architectural design standards for the city
- F. Notification of Public Hearing (published in The Landmark Newspaper on November 13, 2024)

Comments

Received: No written comments have been received by the Community Development Department as of the completion of this staff analysis on October 31, 2024.

Background

Title IV – Development Code of the Parkville Municipal Code is a comprehensive set of development standards intended to promote the public safety, health and general welfare by implementing the City’s Master Plan through urban design & subdivision standards, building standards, and land use standards via zoning districts. Provisions of the Development Code were first adopted on November 17, 1953 via Ordinance No. 334, and have been updated over the years, most recently at a comprehensive level on February 7, 2017 via Ordinance No. 2884 (see Exhibits B and C by Reference).

On July 18, 2023, the Board of Aldermen approved a professional services agreement with Confluence in the amount of \$45,500 (see Exhibit D by Reference) to develop a cohesive set of architectural design standards for the City. The project commenced in October 2023 followed by several steering committee meetings and work sessions; and on August 20, 2024, the Board of Aldermen adopted Ordinance No. 3229 creating Chapter 411, establishing a cohesive set of architectural design standards for the City.

Project

Throughout the Architectural Design Standards project, members of the Steering Committee (i.e., Planning and Zoning Commission) expressed interest in reviewing the City’s site and landscape design standards contained within Chapter 407 as a separate project. Members of the Community Land and Recreation Board (CLARB) also expressed interest in overhauling the City’s landscape design standards.

The City’s current landscape requirements were adopted on February 7, 2017 via Ordinance No. 2884 (see Exhibit C by Reference), and dictate plant type (e.g., large tree, small or ornamental tree, evergreen, shrub, ground cover, turf), specification (i.e., caliper size and height), plant species (i.e., trees and shrubs according to the Great Trees for the Kansas City Region* tree list [December 2013 revision]) and tree diversity (i.e., number of genus and species per a specific number of trees). For the most part, staff requires a registered landscape architect in the State of Missouri to produce landscaping site plans detailing these elements and defers to their [landscape architects’] professional opinions & decisions for species type, performance, and adaptability to site-specific conditions and survival/adaptability to the climate of the metropolitan region.

Project Commencement

The Planning and Zoning Commission has been serving as the Steering Committee for this project. A special workshop was held with the Steering Committee on June 11, 2024 to go over the current regulations of Chapter 407 and view proposed amendments from Confluence. Following this meeting, feedback from Commissioners and public comments, the Planning and Zoning Commission and Board of Aldermen held a joint work session on August 20, 2024. Since this meeting, Confluence has held one-on-one meetings with members of CLARB and received additional feedback from City staff and officials; and has prepared a comprehensive update of Chapter 407 via a formal text amendment to the Parkville Municipal Code.

Proposed Text Amendment

Through months of public engagement and feedback from City staff, the Streeting Committee and Board of Aldermen, Confluence has drafted a revised Chapter 407. Site and Landscape Design Standards (see Exhibit C). **Red text** denotes changes made to the original standards of Chapter 407, **yellow highlights** represent edits made based on input from the Steering Committee, and **green highlights** represent additional edits made based on feedback from and following the joint work session on August 20, 2024.

As stated by the chapter's "Statement of Interest", the intent of the chapter is to improve the aesthetic character of development with natural landscape materials... improve the functional aspects of site design ... coordinate landscape and design amenities across multiple sites... enhance the environmental and ecological function of unbuilt portions of sites... screen and mitigate the visual, noise or other impacts of high-intensity areas of sites, buildings and land uses... and enhance the functional aesthetic appeal of site grading solutions...

The proposed text amendment includes the following sections within Chapter 407:

- **Intent and Applicability** – States the goals of the chapter and purpose of having adopted site and landscape design standards.
- **Site and Landscape Design Standards** – Establishes definitions/terminology, open space requirements for new development, parking lot design + landscaping standards, planting & species requirements, and performance criteria.
- **Screens, Fencing, and Site Walls** – Establishes buffer size and planting requirements, fence screening specifications, and standards for site walls and retaining walls.
- **Outdoor Lighting** – Contains performance standards for exterior lighting.
- **Stormwater Management** – Contains best management practices and strategies for stormwater mitigation.
- **Submittal Requirements** – Establishes contents required for submittal of site landscape plans.

Staff Conclusion and Recommendation

Staff recommends approval of the proposed text amendment to the Parkville Municipal Code, Title IV – Development Code, Chapter 407. Site and Landscape Design Standards as part of a comprehensive update of the City's landscape design standards. Consideration of a text amendment requires a public hearing. Required public hearing notices were published and no comments have been received as of the date of this staff analysis report. It should be noted that the recommendation contained in this report is made without knowledge of any facts and testimony which may be presented during the public hearing, and that the conclusions herein are subject to change as a result of any additional information that may be presented.

Necessary Action

Following consideration of the Application for Text Amendment, supporting information, associated exhibits, factors discussed above and any testimony presented during the public hearing, the Planning and Zoning Commission should recommend approval (with or without conditions), denial, or postpone the application for further consideration. If approved subject to conditions, the conditions should be noted for the record. Unless postponed, the Planning and Zoning Commission's action will be forwarded to the Board of Aldermen on December 17, 2024 for final action.

End of Memorandum



Stephen Lachky, AICP, CPM, CFM
Community Development Director

10-31-2024

Date



Application #: PZ 2024-32
Date Submitted: 10/30/2024
Public Hearing: 12/10/2024
Date Approved: _____

CITY OF PARKVILLE • 8880 Clark Avenue • Parkville, MO 64152 • (816) 741-7676 • FAX (816) 741-0013

Application for Text Amendment

Applicable to Chapters, Sections and Subsections within Parkville Municipal Code Title IV: *Development Code*

1. Applicant / Contact Information

Applicant(s)

Name: Alexa Barton
Address: 8880 Clark Ave
City, State: Parkville, MO
Phone: (816) 741-7676 Fax: (816) 741-1300
E-mail: abarton@parkvillemo.gov

Primary Contact(s), if different

Name: Stephen Lachky
Address: 8880 Clark Ave
City, State: Parkville, MO
Phone: (816) 741-7676 Fax: (816) 741-1300
E-mail: slachky@parkvillemo.gov

We, the undersigned, do hereby authorize the submittal of this application and associated documents and certify that all information contained therein is true and correct. We acknowledge that all text amendments are subject to statutory requirements and the Municipal Code of the City of Parkville. We do hereby agree to abide by and comply with the above-mentioned codes, and further understand that any violations from the provisions of such shall constitute cause for fines, punishments and revocation of approvals as applicable.

Applicant's Signature (Required)  Date: 12/30/2024

2. Proposed Text Amendment

The following information may be submitted on a separate sheet if necessary.

Amendment proposed to (Chapter, Section and Subsection number): Title IV - Development Code

Section / Subsection Title: Chapter 407. Site and Landscape Design Standards

Existing text:

See Chapter 407. Site and Landscape Design Standards

Proposed text:

See attached

Reason for amendment:

Request from members of the Steering Committee during the Architectural Design Standards project (2023-2024), who expressed interest in reviewing the City's existing standards and updating them as a separate Capital Improvement Program (CIP) project.

3. Potential benefits / effects

Generally, amendments are evaluated based on whether their benefit will likely outweigh any potential pitfalls, and their ability to implement community goals and objectives and improve the existing code. Describe below or on a separate sheet potential benefits and effects of the proposed amendment.

General benefits to property and residents in the City of Parkville (i.e., does the amendment make the code conform more closely with the City's Master Plan; improve public health, safety or general welfare; clarify or better implement the intent of the Code; or other):

The proposed amendment addresses the City's strategic goal of "Quality Development".

General effects to property and residents in the City of Parkville:

Improves the aesthetic character of development with natural landscape materials; improves the functional aspects of site design; improves relationship between lots and streetscapes; enhances the environmental and ecological function of sites (including reduced air or water pollution and reduced heat gain from paved surfaces); screens and mitigates visual impacts of high-intensity areas of sites; enhances the functional and aesthetic appeal of site grading solutions.

4. Checklist of required submittals

- ☒ Completed application, including all required details and supporting data.
- ☐ Nonrefundable application fee of \$300.00. Separately, the applicant will be billed to recover costs for required publication notice per Parkville Municipal Code Title IV, Section 403.010, Subsection E.

For City Use Only

Application accepted as complete by: Stephen Lachky, Community Development Director 10/30/2024
Name/Title Date

Application Fee (25.0000): \$ _____

By: ☐ Check # _____ ☐ MO# _____

Date Paid: _____

☐ Credit Card _____ ☐ Cash _____

Payment by: _____

Received by: _____

Final reimbursable costs paid (if applicable): _____

Date of Action: _____

☐ Hearing notice published in: _____

Date of publication: _____

Planning Commission Action: ☐ Approved ☐ Approved with Conditions ☐ Denied Date of Action: _____

Conditions if any: _____

Board of Aldermen Action: ☐ Approved ☐ Approved with Conditions ☐ Denied Date of Action: _____

Conditions if any: _____

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 unbuilt portions of sites, including reduced air or water pollution and reduced heat gain from large expanses of blank walls 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 type tree) 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 Mulch. 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

B. **Open Space and Landscaping Required.**

1. Site Design Standards. 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, meters, etc.). The following items shall be integrated into the design of site plan improvements:

- a. **Pedestrian Access.** Each project site shall include a minimum 4' width concrete sidewalk connection to provide access from the adjacent public street or 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 address pedestrian safety and comfort.
 - b. **Bicycle Access.** See Parkville Municipal Code, Section 408.030.D for bicycle parking requirements.
 - c. **Above-Grade Site Utilities.** 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. **Roof/Site Drainage.** 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 at-grade to and through integrated green infrastructure improvements should be used to create a safe environment for pedestrian and vehicle circulation.
 - e. **Site Sections.** 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. Open Space Required. All sites shall provide no less than the minimum amount of open space as required for each zoning district. (See Table 404-6.)
 3. Open Space Landscaping Required. All landscape plans shall be prepared and stamped by a Landscape Architect licensed to practice in the State of Missouri.
 - a. **Ground Cover.** 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.

- a. 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.
- b. 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.
- c. 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.
- d. 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.
- e. Sidewalks that abut the front edge of any parking stall shall be no less than seven (7) feet wide to accommodate a two (2) feet vehicle overhang.

2. Landscaping Required.

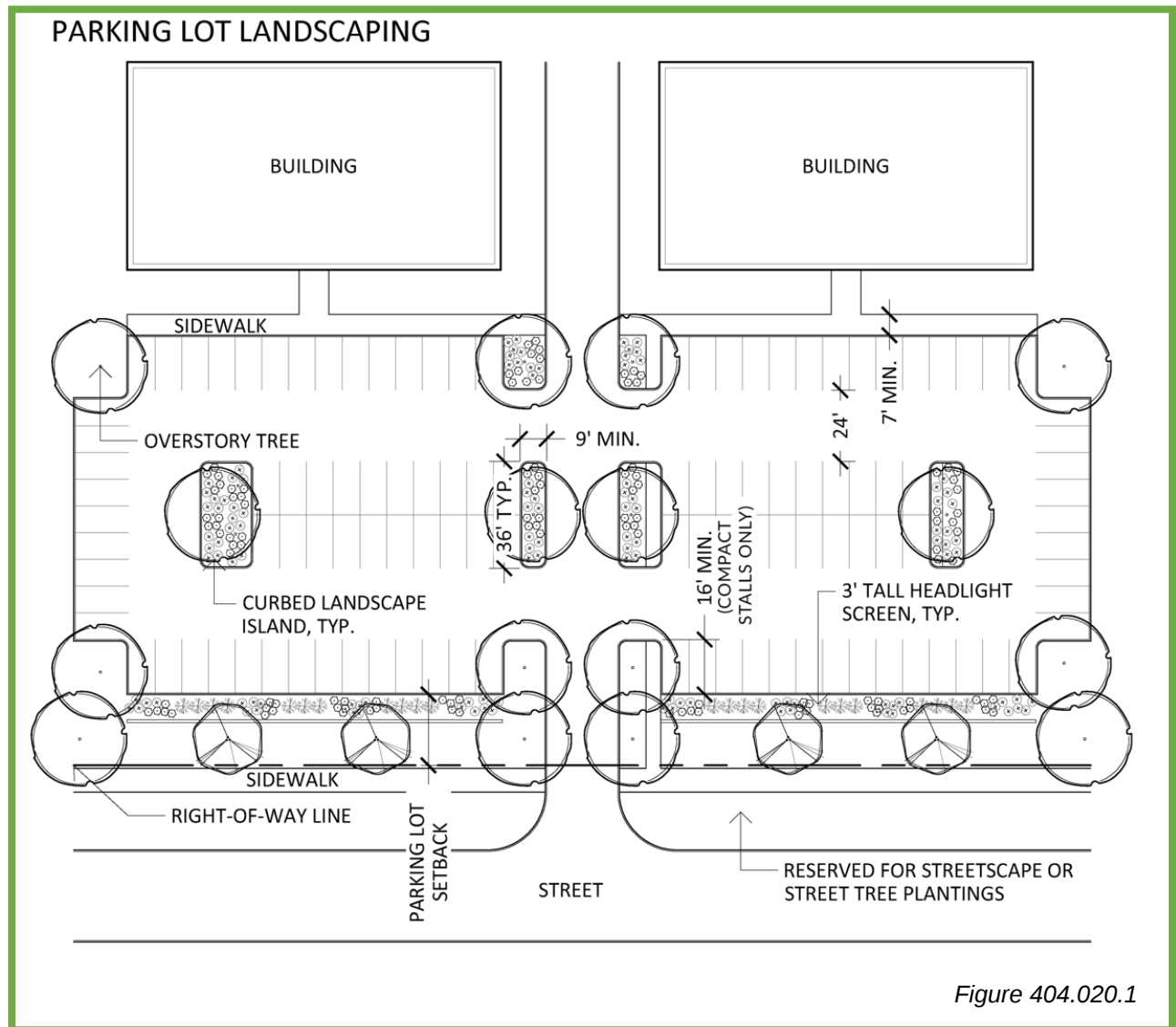
- a. All parking lot islands shall be landscaped with a combination of turf grass, no mow grass, prairie grass, shrubs, perennials, and trees with no less than three (3) different landscape materials being utilized.
- b. Turf grass, no mow grass, prairie grass, shrubs or perennials within parking lot islands shall not exceed 24 inches in height as to maintain visibility within parking lot.
- c. 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.
- d. Sidewalks in parking lot islands and medians may be permitted as necessary (in addition to the landscape requirements) to accommodate pedestrian circulation.
- e. One (1) deciduous shade tree shall be planted within each landscaped island.
- f. Quality soil shall be placed within each landscape island to a depth of 18 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.
- g. Shade trees shall be evenly distributed throughout the parking lot to maximize shade.

3. Parking Lot Screening.

- a. 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).

- b. 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 berming, and low masonry walls.



D. Plant Locations. All plantings shall comply with the following:

1. In general, all plants shall be sited and spaced in a manner to allow for appropriate growth to mature size.

2. Trees shall be located no closer than six (6) feet to the back of curb along any street or driveway and no closer than four (4) feet to the edge of any parking lot, sidewalk or walkway.
 3. Ornamental and prairie grasses with a mature height of over four (4) feet shall not be permitted within the front yard area of any residential property.
 4. Landscaping must meet minimum clearances from all fire hydrants and building sprinkler systems as required by the fire department.
 5. Deciduous shade trees should not be placed within any public sanitary sewer, storm sewer or watermain utility easement.
 6. No landscaping shall be planted or allowed to grow in violation of the City's sight distance triangle for corner lots
 7. A permit must be obtained prior to planting any street tree or landscape material in the public right-of-way and shall comply with all City clearance and setback requirements.
- E. **Minimum Plant Sizes.** All plant sizes shall meet the following size and design requirements:
1. Deciduous Shade Trees. Minimum 2.0-inch caliper measured six (6) inches above the immediate ground level.
 2. Deciduous Ornament Trees. Minimum 1.5-inch caliper measured six (6) inches above the immediate ground level.
 3. Evergreen / Coniferous Tree. Minimum 6-feet in height.
 4. Shrubs. Minimum three (3) gallon container.
 5. Ornamental Grasses. Minimum one (1) gallon container.
- F. **Plant Species.** All trees, shrubs and groundcover plants shall be non-invasive species, with a minimum of 60% of the selected plant material selected from the listing of *Native and Native Cultivar Plant Materials*. Other trees selected for use will be selected from the listing of *Great Trees for the Kansas City Region*. Both of these lists are incorporated in Appendix B.^[1] The Director of Community Development is authorized to supplement and amend the list of required, preferred, and prohibited plant species. In addition to any species on these lists, alternative plant material may be proposed and considered by the Director of Community Development as part of the site plan submittal and review process, such as an updated list provided by CLARB, provided that they:
1. Are documented by a landscape architect or other credible information comparable in type and performance to any species on this list
 2. Are adaptable to the climate of the metropolitan region and the specific conditions in which they are proposed; and
 3. Are not invasive or otherwise problematic to the overall health of the landscape.
- G. **Plant Substitutions.** Substitution of required plant materials may be considered by the City as follows, so long as the parking screening requirements are still met as a result of any substitution:
1. One (1) deciduous shade tree may be substituted in place of 10 required shrubs.
 2. One (1) deciduous ornamental tree may be substituted in place of five (5) required shrubs.
 3. One (1) evergreen/coniferous tree may be substituted in place of one (1) required deciduous shade tree.
 4. One (1) deciduous shade tree may be substituted in place of two (2) required deciduous ornamental trees. Deciduous ornamental trees may not be substituted for required deciduous shade trees.

5. Three (3) ornamental grasses may be substituted for one (1) required shrub.

H. **Credits for Existing Vegetation.** Successful incorporation of existing and healthy vegetation that meets these performance criteria may be credited towards any landscape requirement. Credits shall be on a one-for-one basis for any vegetation that meets the minimum specifications, except that landscape material more than three (3) times the minimum specified size or otherwise of exceptional quality (as determined by the Director of Community Development) may be credited on a two-for-one basis.

I. **Design and Performance Criteria.** Design and Performance Criteria. In addition to the above planting requirements, all landscape plans shall be designed according to the following performance criteria, and in individual cases additional plantings may be warranted in order to meet these criteria:

[Ord. No. 3187, 5-2-2023]

1. Existing natural features of the site, such as groves of trees, extreme slopes, areas intended to serve as buffers and areas not intended for development, shall be retained and incorporated into the design to the maximum extent practical.
 - a. Extreme or steep slopes are defined as having a grade of twenty-five percent (25%) or greater, meaning that the elevation increases by twenty-five (25) feet over a horizontal distance of one hundred (100) feet.
 - b. Extreme or steep slopes shall be identified on all development plans.
 - c. For instances where extreme or steep slope areas are disturbed or graded, the Director of Public Works may require adequate slope stabilization measures and protection be installed integrating trees, sod or other vegetative materials be placed or planted in these areas to protect the hillside.
 - d. The Director of Public Works may request an engineering, soil conditions or other related studies - prepared by an engineer certified in the State of Missouri - for development within extreme or steep slope areas.
2. Landscape areas shall be utilized to the maximum extent possible for natural stormwater mitigation practices and to satisfy stormwater management criteria. Examples of natural stormwater mitigation and green infrastructure practices include filter strips, vegetative swales, rain gardens, pervious pavement systems and sand filters.
3. Native plants and vegetation shall be utilized to the maximum extent reasonable, i.e., drought tolerant plants should be planted in landscape islands and water-resistant plants should be planted near stormwater retention facilities.
4. All required landscape and open space areas shall remain free of debris and refuse and be appropriately maintained.
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

- A. **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
Type 1 <i>A compact, and more densely landscaped area used to screen and mitigate potential impacts on abutting property. Type 1 buffers may be necessary in combination with other buffers on particular portions of the site plan.</i>	At least 5' wide. 1 evergreen per 8 linear feet or 1 shrub per 5 linear feet. OR a fence or ornamental wall that provides a solid screen between 6' and 8' with a lesser combination of plant material to soften the wall or fence.
Type 2 <i>A landscape strip used to soften and provide aesthetic improvements within the setback area and improve the compatibility of certain land use transitions.</i>	At least 10' wide. 1 shade tree or 2 ornamental trees per 50 linear feet. 1 shrub per 10 linear feet.
Type 3 <i>A landscape strip used to separate and screen potentially incompatible sites or land use transitions.</i>	At least 20' wide. 1 shade tree or 2 ornamental trees per 40 linear feet. 1 evergreen per 20 linear feet. 1 shrub for every 10 linear feet. OR a 6' berm or solid fence combination with a lesser combination of plant materials to the outside.
Type 4 <i>A landscape area along the frontage 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.</i>	At least 35' wide along frontage. 1 shade, ornamental or evergreen tree per 4 linear feet. 1 shrub or evergreen per 2 linear feet of frontage.
Type 5 <i>A landscape area along the frontage 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.</i>	At least 50' wide along frontage. 1 shade, ornamental or evergreen tree per 10 linear feet. 1 shrub 4 linear feet.
Type 6 <i>A landscape area along the frontage of thoroughfares and corridors designed to preserve or strengthen the natural</i>	At least 100' wide along frontage. 1 shade, ornamental or evergreen tree per 20 linear feet.

Table 407-4: Buffer Planting Requirements

<i>features and characteristics of the area through dispersed vegetation in a wide area.</i>	1 shrub per 20 linear feet.
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- 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
Type 1	For screening high-intensity portions of site from streetscape or abutting property according to design and performance standards in Section 407.030(F) . Specifically applicable for trash enclosures; outdoor storage; drive-through, loading, or service areas abutting residential areas; or surface parking located within 10 feet of residentially used or zoned property. Type 1 buffers may be required in addition to or in combination with other buffer types.
Type 2	Along non-commercial frontages of collector and arterial streets, except those with activity street designs. Any multibuilding or apartment project greater than 1/2 acre but less than 2 acres abutting R-4 or lesser intense zoning. Any non-residential project under 1 acre abutting residentially used or zoned property. Any 1-1 project abutting lesser intense districts.
Type 3	Any 1-2 or 1-3 abutting lesser intense districts. Any multi-unit building or apartment project of 2 acres or more abutting R-4 or lesser intense zoning. Any non-residential property of 1 acre or more abutting R-4 or lesser intense zoning.
Types 4, 5 and 6	Along frontages of major thoroughfares that have a natural street design. Landscape should be designed to provide a mix of deciduous and evergreen trees and shrubs dispersed throughout the buffer area. May incorporate civic and open space requirements, if any, into this area.

- C. **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
 - b. 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].

- c. 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.
 - d. 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
 - b. Any site wall constructed shall be constructed with materials complementing the architectural style and materials of the principal building; and
 - c. 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. *Rear And Side Site Walls.* All rear and interior side 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/drives 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 retaining wall over four (4) feet in height shall be designed by a licensed professional with competency in the design of retaining walls.
- F. **Design and Performance Standards.** Buffers, screens, fences, and **site/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 berming of land, or inclusion of fences walls or other screens may be necessary to meet these design and performance standards.
- 1. Eliminate glare from traffic internal to the site, outdoor lighting or other operations on the site.
 - 2. Mitigate noise to comparable ambient noise levels found by other compatible uses throughout the area or district.
 - 3. All buffers, screens, fences, and **site/retaining walls** shall meet the proper lines of site at all intersections of streets, all driveway entrances and the intersection of internal access

- streets. The proper lines of site shall be based upon the control if the intersection or access, the stopping point, and the expected speeds of oncoming traffic as provided in section 404.010(E)(2).
4. All high-impact site elements such as trash enclosures, service and loading areas, utility and mechanical equipment, or outdoor storage, shall be located on remote portions of sites away from streetscapes, public view and from adjacent residential property. In cases where these facilities are near interior boundaries which may impact abutting 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 **proposed buildings**. Enclosures 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

- A. **Visual Character.** The physical appearance of all exterior lighting, poles, and related appurtenances for sites located within a larger, multi-tenant 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.

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

TABLE 407-6: MOUNTING HEIGHT

<i>Location</i>	<i>Height Limit (ft.)</i>
<i>Driveways and Parking Areas</i>	37.5' in B-2, B-4, I-1, I-2, I-2 districts 25' in all other districts
<i>Pedestrian Walkways, Plazas or Courtyards</i>	16'
<i>Facade Lights</i>	Below the eave or cornice line, provided the light is directed downward
<i>Other Site Lighting</i>	12'

- B. **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 ^a	Cutoff ^b	Semi-cutoff ^c
All lights mounted above 25'; or All lights above 450 Watts	required	prohibited	prohibited
All lights Between 100 Watts and 450 Watts	permitted	required	prohibited
All Lights Between 55 Watts and 99 Watts; or Any Light Mounted Between 12' and 25'	permitted	permitted	required
All Lights Mounted below 12' AND Less than 55 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 per- cent (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, designed and located to minimize uplighting 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, providing that measures are taken to limit the spill of this lighting off-site to avoid creating a negative impact for adjoining uses.

Section 407.050. Stormwater Management

- A. **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 manner that poses no significant impact on other sites compared to pre-development conditions.
- B. **Best Management Practices.** In general, storwater 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.
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 habitat, improve water quality and prevent water quality degradation from development. [Ord. No. 3186, 5-2-2023]

1. All stream channels shall be identified on development plans. This includes identifying the ordinary high-water mark — often referred to as the “Active Stream Zone” — and identifying the stream bank 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.

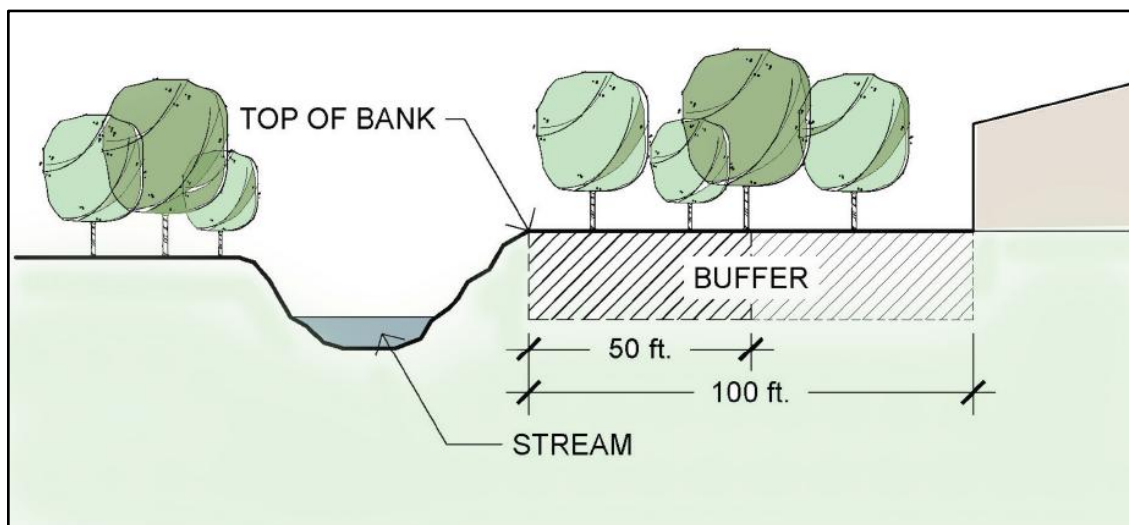


Figure 407-1: Stream Buffer Diagram

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

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 pavement, sidewalks, site and retaining wall locations, buildings, driveways, parking stalls, site lighting, site grading including topography, anticipated development sign locations, 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. This 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% 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.
- 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.



Comments for the Public Record -Application for Text Amendment -Chapter 407-Site and Landscape Design Standards update

From Mary Jane Kuehn <maryjanekuehn@gmail.com>

Date Mon 12/9/2024 12:58 PM

To Stephen Lachky <SLachky@parkvillemo.gov>; Brad Stanton <BStanton@parkvillemo.gov>

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2 attachments (1 MB)

08.20.24 M Kuehn Comments to DRAFT Landscape Design Standards Text Amendment.ParkvilleMO.pdf; M Kuehn -Ecological Landscaping-What's in it for me.pdf;

I am submitting the following comments pursuant to the above referenced amendment to the Parkville Municipal Code. As a member of the Parkville Community Land and Recreation Board and someone who was invited by Confluence to participate and provide input to the Landscape Standards document, I am disappointed to see that none of the recommendations provided to Confluence and the City by either myself or Jes Holtz (our designated CLARB representative to the steering committee) have been incorporated into the final draft version of the document. The draft currently before the Planning and Zoning Commission is substantially the same document as that which was presented to the Commission in the summer of 2024, with the minor exception that section 407.060-Submittal Requirements, has been added.

We feel that the comments we submitted in August 2024 are reasonable and in the best interests of the City and its citizens. I have attached a pdf copy of our comments and recommendations below for review. The intent of the recommendations is to provide clarity and accuracy for the implementation of these updated landscaping requirements and to ensure that the development guidelines in Parkville contribute to our sustainability goals as a community. I have also attached another document which I compiled with the intent of providing a high level summary of the key relationships at work in the system of ecological landscape design. This is a complicated topic, so I have provided this information which may clear up some misconceptions and provide definitions and information that would be of interest.

Here are our most important recommendations, which believe are logical and and in the best interests of the City and its citizens:

1. Specify a required percentage of native plant material. 70% was the requested percentage as this is what the scientific studies show provides the most ecological benefit.
2. Include accurate definitions for terms utilized in the document. We requested that several definitions be corrected as they are not consistent with those used by recognized third party sources, such as USDA, EPA, or MDC, and we need to add the definition of Native plants to the document for clarity.

3. Incorporate third party references/websites rather than printed attachments for the lists of Invasive species, Native species etc., such as MDC-Grow Native.org for native species and MOIP (Missouri Invasive Plant Council) for invasive species lists. Attaching a static list to our ordinance will lead to inaccuracy in implementation as this information changes frequently and City Staff has neither time nor expertise to update these lists. This is our concerns with the use of the list titled 'Great Trees for the Kansas City Region'. The list was not updated for over 10 years. We are not aware of the origin of the document referenced for Natives and Native Cultivars. This has not previously been shared with the CLARB members but again it is not recommended to work from a fixed list.
4. Assuming we make the change to reference third party reference websites for our plant species information, then we recommend DELETING the sentence in the document that permits the Director of Development to supplement and amend the list of required, preferred and prohibited species as this gives whomever is in that role a unilateral right to change any and all of what has taken months of negotiation to agree upon. The Director of Development retains the right to make adjustments or exceptions on a case by case basis, which we feel is appropriate and all that is required. This is not intended to demean our development team in any way. Rather, it is not good practice to allow unilateral substantial changes to an ordinance without public comment and approval by the current governing authorities.
5. Add green mulch, which is one of the defined terms, to the list of options to be used in lieu of wood mulch. Only wood mulch is specified for use in the ordinance. This is directly in conflict with good stormwater and ecological practice. Also to note, the definition of green mulch is inaccurate and one that we flagged to be corrected.

COMMENTS TO CITY OF PARKVILLE-LANDSCAPE DESIGN STANDARDS UPDATE

08.19.2024

Compiled by Mary Jane Kuehn, 9751 NW Promenade Dr, Parkville MO 64152

Comments by Jes Holz and Mary Jane Kuehn

All proposed revisions noted in red

ATTACHMENTS and LINKS:

Parkville Public Works new APWA Stormwater Manual

Missouri Prairie Foundation/GrowNative – Link to the *NATIVE LANDSCAPING PLANNING TOOLKIT FOR MUNICIPAL PROFESSIONALS-*

<https://grownative.org/learn/natives-for-communities/municipalities-toolkit/>

Section 407. Site and Landscape Design Standards

407.10 Intent and Applicability

- A. 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, site walls, **rain gardens and constructed wetlands**.

407.20 Definitions

- A. 1 and 2. **Insert the word Native before deciduous in each case.**
 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, **spruce and cedar** trees. These trees generally reach a mature height of over 15 feet.
 4. Green Mulch. Defined as a layer of plants that are closer to the ground, such as grasses, sedges, or other groundcovers **which are used in lieu of wood mulch**.
 5. Invasive Plant Species. **Substitute the USDA definition of Invasive Plant Species as follows: A species that is non-native / alien to the ecosystem and whose introduction causes or may cause economic or environmental harm or harm to human health.**
 6. No Mow Grass. Defined as a type of **plant** that grows slowly and does not need to be mowed frequently.
 8. Ornamental Grasses. **Delete the last sentence which reads: ~~Most of the commonly used ornamental grasses are non-native, introduced species such as: feather reed grass, blue oat grass, silvergrass and fountain grass.~~**
 11. Xeriscaping. Defined as the practice of landscaping with slow-growing drought tolerant **native** plants **utilizing water conserving practices**.
 12. Native Plants. **Plants which have evolved in a region, ecosystem or habitat over thousands of years without human introduction. These plants include trees, shrubs, forbs (flowering perennials), grasses and sedges. (definition provided by the USDA)**
- B. 3. **Open Space Landscaping Required.** All landscape plans shall be prepared and stamped by a Landscape Architect licensed to practice in the State of Missouri **and will utilize a minimum of 70% native plants in accordance with Exh. B, attached.**
 - b. Use of Mulch. Except for single-family and duplex dwellings, wood-based **or green** mulch shall be used around all planting and in all plant beds. (the rest of this section is acceptable)

C. 1. B. Parking islands

QUESTION: Is the requirement for concrete curbs around all islands consistent with the new storm water management practices that will be going into effect in 2025? For example, isn't it preferred to manage storm water ON SITE, therefore a bioswale curb strip without a concrete curb would be required in this case to allow runoff to drain into the vegetative strip and filter naturally.

2.e. Insert the word **native** before deciduous

3. Parking Lot Screening

a. Insert the word **native** before deciduous

G. Plant Substitutions

1. One **native** deciduous shade tree may be substituted in place of 10 required shrubs.
2. One **native** deciduous ornamental tree may be substituted in place of 5 required shrubs.
3. -no changes-
4. One **native** deciduous shade tree may be substituted in place of two required **native** deciduous ornamental trees. **Native** deciduous ornamental trees may not be substituted for required **native** deciduous shade trees.
5. Three **native or** ornamental grasses may be substituted for one required shrub.

F. Plant Species. All trees, shrubs and ground cover plants shall be non-invasive species **as defined by MoIP (Missouri Invasive Plant Council) AND Exh. B-The Master Plant Materials List** with a minimum of **70% native plant material, as defined by The Master Plant Materials List and GrowNative.org.** 30% of the landscape design may utilize cultivars or other non-native/non-invasive plants. If desired as part of 30% of the landscape design, other trees may be selected from the listing of *Great Trees for the Kansas City Region*. Both of these lists are incorporated in Appendix B. ~~The Director of Community Development is authorized to supplement and amend the list of required, preferred and prohibited plant species.~~ In addition to any species on these lists, alternative plant material may be proposed and considered by the Director of Community Development as part of the site plan submittal and review process, such as an updated list provided by CLARB, provided that they:

1. Are documented by a landscape architect or other credible information **as** comparable in type and performance to any species on this list; and
2. Are adaptable to the climate of the metropolitan region and the specific conditions in which they are proposed; and
3. Are not **listed as invasive according to MoIP or Exh. B at the time of the request,** or otherwise problematic to the overall health of the **landscape environment.**

NOTE: The reasoning behind the 70% requirement vs. 60% is that multiple scientific research studies have been conducted which prove that a landscape comprised of 70% native plant material is what is required in order to support the native birds and pollinators that are the foundation of our food web. 60% does not achieve the same results. 70% native is the standard recommended by the following (just a sampling) of organizations/agencies: USDA, Xerces Society, National Wildlife Federation, Smithsonian, National Audubon Society, The Bureau of Land Management and every Department of Cooperative Extension service chapter that I surveyed.

- I. 5. Native plants ~~and vegetation~~ shall be utilized to **meet the 70% requirement for landscaping.**
6. **Make this statement its own line item or delete it. Drought tolerant plants should be planted in landscape islands and water-resistant plants should be planted near stormwater retention facilities.**

407.50 Stormwater Management

B. 2. Constructed wetlands ~~utilizing native plants that mimic~~ for natural retention, filtration and infiltration of ~~natural systems~~ stormwater.

5. Retention areas that capture and store runoff in permanent ponds, provided that they are designed as an amenity to the site or vicinity ~~and utilize native plants in the design for filtration of pollutants.~~

THE FOLLOWING IS AN EXCERPT FROM THE MISSOURI PRAIRIE FOUNDATION'S NATIVE LANDSCAPING PLANNING TOOLKIT FOR MUNICIPAL PROFESSIONALS

I. Making the Case: Winning Over Communities to the Benefits of Native Plants

- When integrated into the fabric of a city, native plants play an important role in protecting the health, safety, and welfare of residents.
- Native landscapes increase a community's resilience to natural disasters. They reduce pollutant-loading and flash flooding of urban streams following rain events.
- Native trees and other plants reduce the heat island effect.
- Native plants help replenish groundwater and protect soil health.
- Native plants lock carbon in their roots, removing it from the atmosphere.
- Economic development enterprises—from commercial districts to tourism—attract more visitors when landscaped, and landscaping with native plants, as opposed to non-native ones, provides multiple benefits.
- People also benefit from native landscaping through opportunities for recreational activities such as bird watching, nature play, spiritual renewal, and cultural connections to the community at large.
- Native landscaping does not have to look “wild” or “messy.” Just like conventional landscaping, native landscaping can be formal and neat.

- There are other benefits to your community as well: your city, town, or neighborhood association can receive recognition for its commitment to native landscaping, such as [SITES Certification](#), inclusion in the national [Homegrown National Park](#), or recognition as a certified [National Wildlife Federation Community Wildlife Habitat](#). The mayor of your town or city can also take the [National Wildlife Federation's Mayors' Monarch Pledge](#). If your community has a plan in place to control invasive plants, it can take the "[Stop the Spread](#)" pledge, and signal its commitment to native biodiversity.

Ecological Landscaping-What's In It For Me?

Prepared by Mary Jane Kuehn

December 7, 2024

Are you a:

- Homeowner
- Business Owner
- Developer/Commercial Property Owner
- Municipality Manager
- Planning and Development Professional
- Landscape Designer
- Parks Director/Manager
- Public Works Manager

Here are some benefits to you:

- Lower cost of maintenance of the landscape
- Eliminate fertilizer requirements
- Improve water quality by avoiding chemical runoff and allowing plant material to filter stormwater
- Mitigate stormwater runoff/soil erosion on your property
- Reduce or eliminate supplemental watering requirements
- Beautification that lasts 4 seasons
- Longer lived/drought tolerant plant material
- Increased wildlife support (birds, pollinators etc.)
- Improves soil quality

How and why does this work:

- The earth is an ecosystem; we live in a bubble surrounded by the atmosphere
- Originally, before humans, there was a perfect balance between all living things; from the smallest fungi and bacterium to insects, fish, birds and mammals and of course, plant life
- Scientists have determined that insects are the beginning of the food web for all living organisms on Earth. They use the energy in sunlight (which allows plants to grow) and through their life cycle, they convert that energy into protein (in the form of their caterpillars). Most animals do not eat plants; they eat protein in some other form.
- Without insects, the food web collapses for all living organisms, including humankind.
- In a balanced ecosystem, we have oxygen produced by plant material, our food web is robust, our water is clean because it is naturally filtered by the native plant material that supports our insects and converts sunlight into a protein source. Insects and fungi and bacteria also assist with decomposition of our waste products in an eco-friendly manner.
- Here is the catch; through the process of evolution, the majority of insects (and this includes butterflies, bees, moths, beetles, etc.) have become host plant specialists. This means that a particular insect can only complete its lifecycle if they have access to the one or two plants that they have become adapted to. Monarch butterflies are an easy example of this concept. Without milkweed plants, there are no monarchs.
- Host plants are ALWAYS plants that are NATIVE to the region of the country in which they naturally occur. Plants that are native to California are NOT native to Missouri, as an example.
- The plant material (including trees, shrubs, grasses and sedges and forbs/flowering plants) that has evolved naturally over thousands of years in our region with our local soil, climate, and living creatures are our NATIVE PLANTS.

- Human explorers have collected plants from various areas of the world and brought them home, thinking they were beautiful and exotic. Some of these are well behaved in their new environment and these are referred to as INTRODUCED/NON-NATIVE PLANTS. These may also be cultivars of a native species.
- Some Introduced Plants grow aggressively and are uncontrollable, such as the Callery Pear and Bush Honeysuckle. These plants are classified as INVASIVE SPECIES. The official definition of these is a species which causes harm to the environment, the economy or human health. Invasive species will vary depending upon what part of the country you live in. It is important to use a reputable resource to identify which plants are invasive in your region. We recommend the Missouri Invasive Plant Council (MOIP.org) which is administered by the Missouri Prairie Foundation (GrowNative.org).

What isn't working today:

- Humans have chosen to dominate our Earth and we have created an imbalance in the ecosystem
 - We have cleared land that was forested, stripping away the topsoil and allowing carbon to be released from the ground where it was sequestered and reducing habitat for our animal and bird populations
 - We have polluted waterways with chemical runoff,
 - We have intentionally introduced plants from their native habitat to another location in the world thinking we were doing something positive,
 - We utilize insecticidal sprays to control mosquitos and other insects on our residential and commercial properties
 - We prefer to landscape with plants that have been introduced from other countries, typically Asia or Europe, or hybridized from another plant
 - We have pushed nature aside and prefer it to be 'somewhere we go to visit' rather than part of our daily world
 - We use fossil fuels to heat our homes and fuel our cars, etc.
 - We plant disposable landscapes using short lived non-native or invasive species, and when we they die after a couple of years, we rip them out and do the same thing again.
 - And so on.....
- NON-NATIVE plants, whether they are an invasive species such as Callery Pear, or whether they are a hydrangea cultivar, provide ZERO pollinator/insect support.
- NON-NATIVE plants, including traditional turf grasses, although not aggressive in our landscapes, are not deep rooted and are ineffective for stormwater and erosion control.
- NON-NATIVE plants are not as hardy in our environment and they generally require supplemental watering and fertilization on a regular basis.
- Another indicator of ecosystem degradation is the reduction in our north American bird population by 2.9 million birds according to Cornell Lab of Ornithology. Birds rely on the insect/caterpillar population to support their young. They can not feed them seeds, they must have caterpillars, so this population loss is directly related to the loss of native plant habitat that supports the insect population, which in turn supports birds.

How can we make change for the better:

- Select NATIVE plants whenever possible. Availability is increasing exponentially as other communities in our region have already adopted requirements for use of native plants in their commercial development and landscape guidelines.
- NATIVE plants have exceptionally deep roots which make them excellent for erosion control, retention and filtering of pollutants out of stormwater, and the ability to withstand droughts and flooding. These are the plants that WILL BE REQUIRED AS PART OF OUR UPDATED STORMWATER PROGRAM.
- There are NATIVE plants for all soil, light and moisture conditions.
- NATIVE plants are excellent for sequestering carbon in the soil through their deep roots.

- There are NATIVE plants for every style of landscape design, be it a commercial property, a formal residential landscape or a community park. Natives come in all forms and all shapes and sizes. A wildflower meadow is not the solution for every landscape.
- Consider changing out a flowering rotation area to NATIVE plants, thereby eliminating the need to replant every year.
- Consider changing to a Grass Alternative, which might be a low growing NATIVE plant such as a sedge or native grass which require infrequent mowing, no supplemental water or fertilizer and will also be successful at reducing erosion and controlling stormwater on your site.
- Select Native trees, focusing on the Oaks which support more species of pollinators than any other plant. Over 557 species of pollinators are supported by our native oak trees.
- Refer to reputable sources for lists of NATIVE and INVASIVE plants. We recommend MOBOT.org (The Missouri Botanical Gardens plant finder database), DeepRoots.org (Deep Roots KC), GrowNative.org (the Missouri Prairie Foundation), MDC.gov (the Missouri Department of Conservation), or NWF.org/nativeplants (the National Wildlife Federation).
- Seek additional information to further your knowledge and support this evolving movement to restore balance to our ecosystem. The following is a short list of resources to learn more:
 - Websites
 - Dr. Douglas Tallamy-search for his many presentations on YouTube or the web
 - Missouri Department of Conservation has great resources on their website MDC.gov
 - Deep Roots KC at deeproots.org
 - Missouri Invasive Plant Council at MOIP.org
 - Missouri Prairie Foundation at GrowNative.org
 - Read
 - *Planting in a Post Wild World* by Claudia West and Thomas Rainer
 - *Bringing Nature Home* by Douglas W Tallamy
 - *Natures Best Hope* by Douglas W Tallamy
 - *The Nature of Oaks or How Can I Help?* by Douglas W Tallamy
 - *Half Earth* by E.O. Wilson
 - *The Living Landscape* by Douglas Tallamy and Rick Darke
 - *Planting: A New Perspective* by Piet Oudolf and Noel Kingsbury
 - *Planting the Natural Garden* by Piet Oudolf (landscape designer of High Line Park in NYC)